PISA 2012 Results: Ready to Learn

STUDENTS' ENGAGEMENT, DRIVE AND SELF-BELIEFS

VOLUME III

Programme for International Student Assessment

OECD

PISA 2012 Results: Ready to Learn

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(VOLUME III)

OECD
BETTER POLICIES FOR BETTER LIVES

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The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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Foreword

Equipping citizens with the skills necessary to achieve their full potential, participate in an increasingly interconnected global economy, and ultimately convert better jobs into better lives is a central preoccupation of policy makers around the world. Results from the OECD's recent Survey of Adult Skills show that highly skilled adults are twice as likely to be employed and almost three times more likely to earn an above-median salary than poorly skilled adults. In other words, poor skills severely limit people's access to better-paying and more rewarding jobs. Highly skilled people are also more likely to volunteer, see themselves as actors rather than as objects of political processes, and are more likely to trust others. Fairness, integrity and inclusiveness in public policy thus all hinge on the skills of citizens.

The ongoing economic crisis has only increased the urgency of investing in the acquisition and development of citizens' skills – both through the education system and in the workplace. At a time when public budgets are tight and there is little room for further monetary and fiscal stimulus, investing in structural reforms to boost productivity, such as education and skills development, is key to future growth. Indeed, investment in these areas is essential to support the recovery, as well as to address long-standing issues such as youth unemployment and gender inequality.

In this context, more and more countries are looking beyond their own borders for evidence of the most successful and efficient policies and practices. Indeed, in a global economy, success is no longer measured against national standards alone, but against the best-performing and most rapidly improving education systems. Over the past decade, the OECD Programme for International Student Assessment, PISA, has become the world's premier yardstick for evaluating the quality, equity and efficiency of school systems. But the evidence base that PISA has produced goes well beyond statistical benchmarking. By identifying the characteristics of high-performing education systems PISA allows governments and educators to identify effective policies that they can then adapt to their local contexts.

The results from the PISA 2012 assessment, which was conducted at a time when many of the 65 participating countries and economies were grappling with the effects of the crisis, reveal wide differences in education outcomes, both within and across countries. Using the data collected in previous PISA rounds, we have been able to track the evolution of student performance over time and across subjects. Of the 64 countries and economies with comparable data, 40 improved their average performance in at least one subject. Top performers such as Shanghai in China or Singapore were able to further extend their lead, while countries like Brazil, Mexico, Tunisia and Turkey achieved major improvements from previously low levels of performance.

Some education systems have demonstrated that it is possible to secure strong and equitable learning outcomes at the same time as achieving rapid improvements. Of the 13 countries and economies that significantly improved their mathematics performance between 2003 and 2012, three also show improvements in equity in education during the same period, and another nine improved their performance while maintaining an already high level of equity – proving that countries do not have to sacrifice high performance to achieve equity in education opportunities.

Nonetheless, PISA 2012 results show wide differences between countries in mathematics performance. The equivalent of almost six years of schooling, 245 score points, separates the highest and lowest average performances

of the countries that took part in the PISA 2012 mathematics assessment. The difference in mathematics performances within countries is even greater, with over 300 points – the equivalent of more than seven years of schooling – often separating the highest- and the lowest-achieving students in a country. Clearly, all countries and economies have excellent students, but few have enabled all students to excel.

The report also reveals worrying gender differences in students' attitudes towards mathematics: even when girls perform as well as boys in mathematics, they report less perseverance, less motivation to learn mathematics, less belief in their own mathematics skills, and higher levels of anxiety about mathematics. While the average girl underperforms in mathematics compared with the average boy, the gender gap in favour of boys is even wider among the highest-achieving students. These findings have serious implications not only for higher education, where young women are already under-represented in the science, technology, engineering and mathematics fields of study, but also later on, when these young women enter the labour market. This confirms the findings of the OECD Gender Strategy, which identifies some of the factors that create – and widen – the gender gap in education, labour and entrepreneurship. Supporting girls' positive attitudes towards and investment in learning mathematics will go a long way towards narrowing this gap.

PISA 2012 also finds that the highest-performing school systems are those that allocate educational resources more equitably among advantaged and disadvantaged schools and that grant more autonomy over curricula and assessments to individual schools. A belief that all students can achieve at a high level and a willingness to engage all stakeholders in education – including students, through such channels as seeking student feedback on teaching practices – are hallmarks of successful school systems.

PISA is not only an accurate indicator of students' abilities to participate fully in society after compulsory school, but also a powerful tool that countries and economies can use to fine-tune their education policies. There is no single combination of policies and practices that will work for everyone, everywhere. Every country has room for improvement, even the top performers. That's why the OECD produces this triennial report on the state of education across the globe: to share evidence of the best policies and practices and to offer our timely and targeted support to help countries provide the best education possible for all of their students. With high levels of youth unemployment, rising inequality, a significant gender gap, and an urgent need to boost growth in many countries, we have no time to lose. The OECD stands ready to support policy makers in this challenging and crucial endeavour.

Angel Gurría
OECD Secretary-General

Acknowledgements

This report is the product of a collaborative effort between the countries participating in PISA, the experts and institutions working within the framework of the PISA Consortium, and the OECD Secretariat. The report was drafted by Andreas Schleicher, Francesco Avvisati, Francesca Borgonovi, Miyako Ikeda, Hiromichi Katayama, Flore-Anne Messy, Chiara Monticone, Guillermo Montt, Sophie Vayssettes and Pablo Zoido of the OECD Directorate for Education and Skills and the Directorate for Financial Affairs, with statistical support from Simone Bloem and Giannina Rech and editorial oversight by Marilyn Achiron. Additional analytical and editorial support was provided by Adele Atkinson, Jonas Bertling, Marika Boiron, Célia Braga-Schich, Tracey Burns, Michael Davidson, Cassandra Davis, Elizabeth Del Bourgo, John A. Dossey, Joachim Funke, Samuel Greiff, Tue Halgreen, Ben Jensen, Eckhard Klieme, André Laboul, Henry Levin, Juliette Mendelovits, Tadakazu Miki, Christian Monseur, Simon Normandeau, Mathilde Overduin, Elodie Pools, Dara Ramalingam, William H. Schmidt (whose work was supported by the Thomas J. Alexander fellowship programme), Kaye Stacey, Lazar Stankov, Ross Turner, Elisabeth Villoutreix and Allan Wigfield. The system-level data collection was conducted by the OECD NESLI (INES Network for the Collection and Adjudication of System-Level Descriptive Information on Educational Structures, Policies and Practices) team: Bonifacio Agapin, Estelle Herbaut and Jean Yip. Volume II also draws on the analytic work undertaken by Jaap Scheerens and Douglas Willms in the context of PISA 2000. Administrative support was provided by Claire Chetcuti, Juliet Evans, Jennah Huxley and Diana Tramontano.

The OECD contracted the Australian Council for Educational Research (ACER) to manage the development of the mathematics, problem solving and financial literacy frameworks for PISA 2012. Achieve was also contracted by the OECD to develop the mathematics framework with ACER. The expert group that guided the preparation of the mathematics assessment framework and instruments was chaired by Kaye Stacey; Joachim Funke chaired the expert group that guided the preparation of the problem-solving assessment framework and instruments; and Annamaria Lusardi led the expert group that guided the preparation of the financial literacy assessment framework and instruments. The PISA assessment instruments and the data underlying the report were prepared by the PISA Consortium, under the direction of Raymond Adams at ACER.

The development of the report was steered by the PISA Governing Board, which is chaired by Lorna Bertrand (United Kingdom), with Benő Csapó (Hungary), Daniel McGrath (United States) and Ryo Watanabe (Japan) as vice chairs. Annex C of the volumes lists the members of the various PISA bodies, as well as the individual experts and consultants who have contributed to this report and to PISA in general.

Table of Contents

BOXES

FIGURES

TABLES

Executive Summary

Students' engagement with school, the belief that they can achieve at high levels, and their ability and willingness to do what it takes to reach their goals not only play a central role in shaping students' ability to master academic subjects, they are also valuable attributes that will enable students to lead full lives, meeting challenges and making the most of available opportunities along the way. In other words, much more is required of students – and adults – than just cognitive proficiency.

Four out of five students in OECD countries agree or strongly agree that they feel happy at school or that they feel like they belong at school.

Not all students are equally likely to report a strong sense of belonging: on average across OECD countries, for example, 78% of disadvantaged but 85% of advantaged students agree or strongly agree with the statement "I feel like I belong at school".

Although the vast majority of students reported a strong sense of belonging, more than one in three students in OECD countries reported that they had arrived late for school in the two weeks prior to the PISA test; and more than one in four students reported that they had skipped classes or days of school during the same period.

Lack of punctuality and truancy are negatively associated with student performance. On average across OECD countries, arriving late for school is associated with a 27-point lower score in mathematics, while skipping classes or days of school is associated with a 37-point lower score in mathematics – the equivalent of almost one full year of formal schooling.

Students who are more perseverant and more open to problem solving perform at higher levels in mathematics.

For example, students who feel they can handle a lot of information, are quick to understand things, seek explanations for things, can easily link facts together, and like to solve complex problems score 31 points higher in mathematics, on average, than those who are less open to problem solving. Among high achievers, the difference between the two groups of students is even greater – an average of 39 score points.

Across most countries and economies, socio-economically disadvantaged students not only score lower in mathematics, they also have lower levels of engagement, drive, motivation and self-beliefs. Resilient students, disadvantaged students who achieve at high levels, break this link.

Resilient students report much higher levels of perseverance, intrinsic and instrumental motivation to learn mathematics, mathematics self-efficacy, mathematics self-concept and lower levels of mathematics anxiety than disadvantaged students who perform at lower levels; in fact, they share many of the characteristics of advantaged high-achievers.

One way that a student's negative self-belief can manifest itself is in anxiety towards mathematics. Some 30% of students reported that they feel helpless when doing mathematics problems: 25% of boys, 35% of girls, 35% of disadvantaged students, and 24% of advantaged students reported feeling that way.

Mathematics anxiety is strongly associated with performance. On average across OECD countries, greater mathematics anxiety is associated with a 34-point lower score in mathematics – the equivalent of almost one year of school. Between 2003 and 2012, mathematics self-efficacy tended to increase in those countries that also showed reductions in the level of mathematics anxiety. This was true in Iceland and Portugal, for example, where steep drops in mathematics anxiety coincided with increases in students' mathematics self-efficacy.

PISA results show that even when girls perform as well as boys in mathematics, they report less perseverance, less openness to problem solving, less intrinsic and instrumental motivation to learn mathematics, lower mathematics self-concept and higher levels of anxiety towards mathematics than boys, on average; they are also more likely than boys to attribute failure in mathematics to themselves rather than to external factors.

In most countries and economies, the average girl underperforms in mathematics compared with the average boy; and among the highest-achieving students, the gender gap in favour of boys is even wider. However, PISA reveals that the gender gap, even among the highest-achieving students, is considerably narrower when comparing boys and girls with similar levels of drive, motivation and mathematics self-beliefs.

In many countries, students' motivation, self-belief and dispositions towards learning mathematics are positively associated not only with how well they perform in mathematics, but also with how much better these students perform compared to other students in their school.

In all countries except Belgium, Croatia, Finland, Korea and Romania, students' intrinsic motivation to learn mathematics is positively associated with how much better students perform compared to other students in their schools; in Argentina, Austria, Chile, France, Germany, Liechtenstein, Peru and Slovenia, a student's standing relative to others in the school is strongly associated with his or her self-beliefs in learning mathematics; and in Austria, Canada, the Czech Republic, France, Germany, Japan, Liechtenstein, the Netherlands and Slovenia, students who perform better compared to others in their school report significantly less mathematics anxiety.

Teacher-student relations are strongly associated with students' engagement with and at school.

In all countries and economies except Hong Kong-China, Indonesia, Liechtenstein, Malaysia and Turkey, among students with equal mathematics performance and similar socio-economic status, students who attend schools with better teacher-student relations are less likely to report that they had arrived late during the two weeks prior to the PISA test. In addition, in all countries and economies, among students with equal performance and similar socio-economic status, those who attend schools with better teacher-student relations reported a stronger sense of belonging and greater intrinsic motivation to learn mathematics.

Parents' expectations are strongly and positively associated not only with students' mathematics performance but also with positive dispositions towards learning.

Across the 11 countries and economies that distributed a questionnaire to parents, students whose parents have high expectations for them – who expect them to earn a university degree and work in a professional or managerial capacity later on – tend to have more perseverance, greater intrinsic motivation to learn mathematics, and more confidence in their own ability to solve mathematics problems than students of similar socio-economic status and academic performance, but whose parents hold less ambitious expectations for them.

■ Table III.A ■
SNAPSHOT OF STUDENTS' ENGAGEMENT, DRIVE AND SELF-BELIEFS

🟦 Countries/economies with values above the OECD average
⬜ Countries/economies with values not statistically significantly different from the OECD average
▒ Countries/economies with values below the OECD average

		Engagement with and at school			Drive				Mathematics self-beliefs		
	Mean mathematics score	Percentage of students who reported having skipped classes or days of school	Score-point difference that is associated with students skipping classes or days of school	Socio-economic disparities in sense of belonging among students of equal performance in mathematics	Openness to problem solving	Score-point difference per unit of the index of openness to problem solving	Gender gap in openness to problem solving among students of equal performance in mathematics	Socio-economic disparities in openness to problem solving among students of equal mathematics performance	Index of mathematics self-efficacy	Score-point difference per unit of the index of mathematics self-efficacy	Gender gap in mathematics self-efficacy among students of equal performance in mathematics
	Mean score	%	Change in score	Dif. in mean index	Mean index	Change in score	Dif. in mean index	Dif. in mean index	Mean index	Change in score	Dif. in mean index
OECD average	494	25	**-37**	**0.08**	0.00	**31**	**0.19**	**0.10**	0.00	**49**	**0.26**
Shanghai-China	613	4	**-33**	**0.07**	0.07	**30**	**0.27**	**0.19**	0.94	**53**	**0.14**
Singapore	573	23	**-27**	**0.02**	0.01	**25**	**0.26**	**0.14**	0.47	**58**	**0.22**
Hong Kong-China	561	6	**-67**	**0.07**	-0.25	**29**	**0.32**	**0.12**	0.22	**50**	**0.33**
Chinese Taipei	560	11	**-93**	**0.12**	-0.33	**34**	**0.27**	**0.17**	0.18	**64**	**0.20**
Korea	554	4	**-118**	**0.11**	-0.37	**48**	**0.17**	**0.16**	-0.36	**58**	**0.17**
Macao-China	538	9	**-47**	**0.09**	-0.34	**30**	**0.16**	**0.16**	0.14	**50**	**0.18**
Japan	536	4	**-88**	**0.11**	-0.73	**28**	**0.34**	**0.12**	-0.41	**53**	**0.23**
Liechtenstein	535	5	**-57**	0.13	0.05	**30**	**0.25**	**0.23**	0.49	**60**	**0.38**
Switzerland	531	13	**-24**	0.00	0.00	**29**	**0.34**	**0.06**	0.25	**55**	**0.37**
Netherlands	523	12	-9	**0.09**	-0.08	**21**	**0.30**	**0.05**	-0.17	**44**	**0.35**
Estonia	521	36	**-38**	**0.08**	0.04	**32**	0.03	**0.15**	-0.03	**49**	**0.26**
Finland	519	20	**-36**	**0.11**	-0.11	**41**	**0.19**	**0.15**	-0.27	**49**	**0.40**
Canada	518	35	**-29**	**0.11**	0.14	**37**	**0.17**	**0.08**	0.11	**47**	**0.25**
Poland	518	27	**-31**	0.02	0.36	**26**	-0.02	**0.12**	0.10	**56**	**0.09**
Belgium	515	11	**-73**	**0.05**	-0.29	**31**	**0.31**	**0.04**	-0.12	**46**	**0.34**
Germany	514	12	**-23**	**0.06**	0.17	**27**	**0.33**	**0.07**	0.33	**53**	**0.41**
Viet Nam	511	13	**-48**	**0.03**	-0.60	**25**	**0.18**	**0.11**	-0.26	**66**	**0.10**
Austria	506	17	**-14**	**0.09**	0.04	**32**	**0.25**	**0.09**	0.06	**48**	**0.34**
Australia	504	38	**-40**	**0.13**	-0.07	**42**	**0.18**	**0.11**	0.06	**55**	**0.35**
Ireland	501	14	**-14**	**0.05**	-0.02	**35**	**0.07**	**0.06**	0.01	**48**	**0.21**
Slovenia	501	30	**-42**	**0.05**	0.08	**29**	**0.25**	0.04	0.32	**43**	**0.18**
Denmark	500	21	**-35**	**0.14**	0.01	**34**	**0.24**	**0.17**	-0.12	**50**	**0.32**
New Zealand	500	26	**-77**	0.05	-0.18	**42**	**0.17**	**0.08**	-0.15	**56**	**0.34**
Czech Republic	499	11	**-35**	**0.08**	-0.20	**35**	**0.11**	**0.17**	0.04	**54**	**0.31**
France	495	21	**-32**	**0.12**	-0.19	**33**	**0.32**	0.05	-0.01	**51**	**0.37**
United Kingdom	494	25	**-35**	**0.10**	-0.02	**41**	**0.17**	**0.08**	0.03	**54**	**0.34**
Iceland	493	12	**-47**	**0.21**	0.06	**29**	**0.44**	**0.17**	0.05	**41**	**0.43**
Latvia	491	67	**-12**	**0.06**	-0.09	**30**	0.05	**0.16**	-0.12	**49**	**0.27**
Luxembourg	490	11	**-49**	**0.07**	0.06	**27**	**0.35**	**0.07**	0.14	**44**	**0.30**
Norway	489	15	**-55**	**0.16**	0.18	**33**	**0.28**	**0.17**	-0.01	**47**	**0.31**
Portugal	487	36	**-32**	**0.09**	0.16	**31**	0.06	**0.10**	0.27	**60**	**0.09**
Italy	485	61	**-31**	**0.04**	-0.08	**23**	**0.10**	**0.09**	-0.10	**53**	**0.19**
Spain	484	44	**-35**	**0.04**	0.02	**32**	**0.19**	**0.06**	0.10	**47**	**0.14**
Russian Federation	482	38	**-27**	**0.11**	0.05	**24**	**0.11**	**0.23**	-0.10	**47**	**0.21**
Slovak Republic	482	16	**-45**	0.02	-0.32	**25**	**0.16**	**0.08**	0.08	**59**	**0.12**
United States	481	28	**-24**	**0.14**	0.18	**30**	**0.17**	**0.08**	0.13	**50**	**0.21**
Lithuania	479	39	**-42**	**0.11**	-0.16	**35**	0.06	**0.09**	0.04	**48**	**0.25**
Sweden	478	23	**-46**	**0.14**	0.12	**35**	**0.27**	**0.13**	0.03	**49**	**0.29**
Hungary	477	12	**-65**	0.03	0.18	**28**	0.05	**0.09**	0.14	**54**	**0.19**
Croatia	471	29	**-47**	0.02	-0.03	**20**	**0.14**	**0.07**	0.09	**50**	**0.24**
Israel	466	47	-4	0.06	0.34	**17**	**0.14**	0.03	0.13	**45**	**0.26**
Greece	453	48	**-14**	0.03	0.24	**29**	**0.09**	**0.11**	-0.16	**40**	**0.21**
Serbia	449	30	**-23**	**0.05**	0.46	**15**	**0.15**	**0.11**	-0.20	**38**	**0.18**
Turkey	448	65	**10**	**0.07**	0.21	**18**	0.04	**0.07**	-0.02	**45**	**0.12**
Romania	445	58	**-20**	**0.10**	0.22	**14**	-0.03	**0.13**	-0.13	**33**	**0.07**
Cyprus*	440	41	**-30**	**0.08**	0.30	**29**	0.07	**0.14**	-0.04	**41**	**0.13**
Bulgaria	439	39	**-46**	**0.06**	0.37	**12**	**0.08**	**0.20**	-0.10	**26**	**0.15**
United Arab Emirates	434	50	**-28**	0.01	0.39	**15**	**0.18**	**0.08**	0.01	**33**	**0.23**
Kazakhstan	432	27	**-24**	**0.17**	0.47	**9**	-0.01	**0.25**	0.13	**22**	0.04
Thailand	427	33	**-21**	**0.05**	-0.31	**9**	**0.18**	**0.06**	-0.30	**27**	**0.12**
Chile	423	20	**-30**	**0.06**	0.18	**26**	**0.07**	**0.05**	-0.20	**33**	**0.19**
Malaysia	421	43	**-23**	-0.02	-0.20	**12**	0.05	**0.08**	-0.25	**40**	0.02
Mexico	413	33	**-10**	**0.07**	-0.11	**22**	**0.14**	**0.11**	-0.18	**28**	**0.14**
Montenegro	410	39	**-14**	0.00	0.62	**5**	0.04	**0.12**	-0.28	**25**	**0.14**
Uruguay	409	34	**-22**	**0.05**	0.04	**20**	**0.27**	**0.04**	-0.27	**33**	**0.22**
Costa Rica	407	57	**-7**	**0.06**	0.21	**20**	0.09	**0.09**	-0.33	**19**	**0.23**
Albania	394	25	**10**	m	0.51	0	0.04	m	0.03	1	0.03
Brazil	391	30	-4	**0.05**	0.21	**11**	**0.08**	**0.04**	-0.45	**27**	**0.20**
Argentina	388	66	**-24**	**0.04**	-0.15	**13**	**0.14**	**0.12**	-0.36	**19**	**0.17**
Tunisia	388	34	**-13**	0.01	0.26	**15**	**0.10**	**0.11**	-0.31	**27**	**0.15**
Jordan	386	57	**-10**	-0.01	0.62	**14**	**0.19**	**0.14**	-0.01	**20**	**0.24**
Colombia	376	18	-5	**0.05**	0.18	**6**	**0.12**	**0.06**	-0.44	**14**	**0.13**
Qatar	376	29	**-15**	0.00	0.38	**10**	**0.17**	**0.12**	-0.15	**23**	**0.32**
Indonesia	375	30	**-17**	**0.06**	0.06	**7**	-0.02	**0.15**	-0.26	**17**	0.04
Peru	368	20	**-41**	**0.06**	0.18	**17**	**0.07**	**0.05**	-0.21	**23**	**0.09**

Note: Values that are statistically significant are indicated in bold (see Annex A3).
*See notes in the Reader's Guide.
Source: OECD, PISA 2012 Database, Tables I.2.3a, III.2.2c, III.3.2d, III.4.1d, III.5.2a, III.7.1b, III.7.2a, III.7.2b and III.7.3a.

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Reader's Guide

Data underlying the figures

The data referred to in this volume are presented in Annex B and, in greater detail, including some additional tables, on the PISA website (*www.pisa.oecd.org*).

Four symbols are used to denote missing data:

a The category does not apply in the country concerned. Data are therefore missing.

c There are too few observations or no observation to provide reliable estimates (i.e. there are fewer than 30 students or fewer than 5 schools with valid data).

m Data are not available. These data were not submitted by the country or were collected but subsequently removed from the publication for technical reasons.

w Data have been withdrawn or have not been collected at the request of the country concerned.

Country coverage

This publication features data on 65 countries and economies, including all 34 OECD countries and 31 partner countries and economies (see map in the section *What is PISA?*).

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Two notes were added to the statistical data related to Cyprus:

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2. Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Calculating international averages

An OECD average corresponding to the arithmetic mean of the respective country estimates was calculated for most indicators presented in this report. The OECD average is used to compare performance across school systems. In the case of some countries, data may not be available for specific indicators, or specific categories may not apply. Readers should, therefore, keep in mind that the term "OECD average" refers to the OECD countries included in the respective comparisons.

Rounding figures

Because of rounding, some figures in tables may not exactly add up to the totals. Totals, differences and averages are always calculated on the basis of exact numbers and are rounded only after calculation.

All standard errors in this publication have been rounded to one or two decimal places. Where the value 0.0 or 0.00 is shown, this does not imply that the standard error is zero, but that it is smaller than 0.05 or 0.005, respectively.

Reporting student data

The report uses "15-year-olds" as shorthand for the PISA target population. PISA covers students who are aged between 15 years 3 months and 16 years 2 months at the time of assessment and who are enrolled in school and have completed at least 6 years of formal schooling, regardless of the type of institution in which they are enrolled and of whether they are in full-time or part-time education, of whether they attend academic or vocational programmes, and of whether they attend public or private schools or foreign schools within the country.

Reporting school data

The principals of the schools in which students were assessed provided information on their schools' characteristics by completing a school questionnaire. Where responses from school principals are presented in this publication, they are weighted so that they are proportionate to the number of 15-year-olds enrolled in the school.

Focusing on statistically significant differences

This volume discusses only statistically significant differences or changes. These are denoted in darker colours in figures and in bold font in tables. See Annex A3 for further information.

Abbreviations used in this report

ESCS	PISA index of economic, social and cultural status	PPP	Purchasing power parity
GDP	Gross domestic product	S.D.	Standard deviation
ISCED	International Standard Classification of Education	S.E.	Standard error
ISCO	International Standard Classification of Occupations	STEM	Science, Technology, Engineering and Mathematics

Further documentation

For further information on the PISA assessment instruments and the methods used in PISA, see the *PISA 2012 Technical Report* (OECD, forthcoming). The reader should note that there are gaps in the numbering of tables because some tables appear on line only and are not included in this publication. To consult the set of web-only data tables, visit the PISA website (*www.pisa.oecd.org*).

This report uses the OECD StatLinks service. Below each table and chart is a url leading to a corresponding Excel^{TM} workbook containing the underlying data. These urls are stable and will remain unchanged over time. In addition, readers of the e-books will be able to click directly on these links and the workbook will open in a separate window, if their internet browser is open and running.

What is PISA?

"What is important for citizens to know and be able to do?" That is the question that underlies the triennial survey of 15-year-old students around the world known as the Programme for International Student Assessment (PISA). PISA assesses the extent to which students near the end of compulsory education have acquired key knowledge and skills that are essential for full participation in modern societies. The assessment, which focuses on reading, mathematics, science and problem solving, does not just ascertain whether students can reproduce knowledge; it also examines how well students can extrapolate from what they have learned and apply that knowledge in unfamiliar settings, both in and outside of school. This approach reflects the fact that modern economies reward individuals not for what they know, but for what they can do with what they know.

PISA is an ongoing programme that offers insights for education policy and practice, and that helps monitor trends in students' acquisition of knowledge and skills across countries and economies and in different demographic subgroups within each country. PISA results reveal what is possible in education by showing what students in the highest-performing and most rapidly improving school systems can do. The findings allow policy makers around the world to gauge the knowledge and skills of students in their own countries in comparison with those in other countries, set policy targets against measurable goals achieved by other school systems, and learn from policies and practices applied elsewhere. While PISA cannot identify cause-and-effect relationships between policies/practices and student outcomes, it can show educators, policy makers and the interested public how education systems are similar and different – and what that means for students.

A test the whole world can take

PISA is now used as an assessment tool in many regions around the world. It was implemented in 43 countries and economies in the first assessment (32 in 2000 and 11 in 2002), 41 in the second assessment (2003), 57 in the third assessment (2006) and 75 in the fourth assessment (65 in 2009 and 10 in 2010). So far, 65 countries and economies have participated in PISA 2012.

In addition to OECD member countries, the survey has been or is being conducted in:

East, South and Southeast Asia: Himachal Pradesh-India, Hong Kong-China, Indonesia, Macao-China, Malaysia, Shanghai-China, Singapore, Chinese Taipei, Tamil Nadu-India, Thailand and Viet Nam.

Central, Mediterranean and Eastern Europe, and Central Asia: Albania, Azerbaijan, Bulgaria, Croatia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Liechtenstein, Lithuania, the former Yugoslav Republic of Macedonia, Malta, Moldova, Montenegro, Romania, the Russian Federation and Serbia.

The Middle East: Jordan, Qatar and the United Arab Emirates.

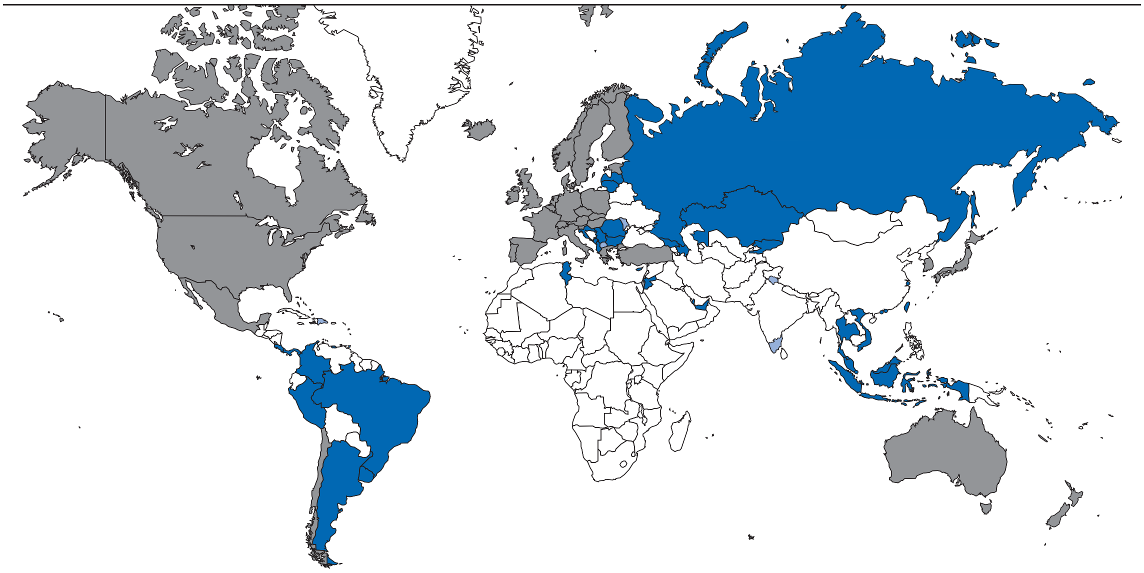
Central and South America: Argentina, Brazil, Colombia, Costa Rica, Netherlands-Antilles, Panama, Peru, Trinidad and Tobago, Uruguay and Miranda-Venezuela.

Africa: Mauritius and Tunisia.

Decisions about the scope and nature of the PISA assessments and the background information to be collected are made by participating countries based on recommendations from leading experts. Considerable efforts and resources are devoted to achieving cultural and linguistic breadth and balance in assessment materials. Since the design and translation of the test, as well as sampling and data collection, are subject to strict quality controls, PISA findings are considered to be highly valid and reliable.

…

Map of PISA countries and economies



■ **OECD countries**

Australia
Austria
Belgium
Canada
Chile
Czech Republic
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Japan
Korea
Luxembourg
Mexico
Netherlands
New Zealand
Norway
Poland
Portugal
Slovak Republic
Slovenia
Spain
Sweden
Switzerland
Turkey
United Kingdom
United States

🟦 **Partner countries and economies in PISA 2012**

Albania
Argentina
Brazil
Bulgaria
Colombia
Costa Rica
Croatia
Cyprus[1, 2]
Hong Kong-China
Indonesia
Jordan
Kazakhstan
Latvia
Liechtenstein
Lithuania
Macao-China
Malaysia
Montenegro
Peru
Qatar
Romania
Russian Federation
Serbia
Shanghai-China
Singapore
Chinese Taipei
Thailand
Tunisia
United Arab Emirates
Uruguay
Viet Nam

◻ **Partner countries and economies in previous cycles**

Azerbaijan
Georgia
Himachal Pradesh-India
Kyrgyzstan
Former Yugoslav Republic of Macedonia
Malta
Mauritius
Miranda-Venezuela
Moldova
Panama
Tamil Nadu-India
Trinidad and Tobago

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1. Note by Turkey: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

2. Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

PISA's unique features include its:

- policy orientation, which links data on student learning outcomes with data on students' backgrounds and attitudes towards learning and on key factors that shape their learning, in and outside of school, in order to highlight differences in performance and identify the characteristics of students, schools and school systems that perform well;
- innovative concept of "literacy", which refers to students' capacity to apply knowledge and skills in key subjects, and to analyse, reason and communicate effectively as they identify, interpret and solve problems in a variety of situations;
- relevance to lifelong learning, as PISA asks students to report on their motivation to learn, their beliefs about themselves, and their learning strategies;
- regularity, which enables countries and economies to monitor their progress in meeting key learning objectives; and
- breadth of coverage, which, in PISA 2012, encompasses the 34 OECD member countries and 31 partner countries and economies.

Key features of PISA 2012

The content

- The PISA 2012 survey focused on mathematics, with reading, science and problem solving as minor areas of assessment. For the first time, PISA 2012 also included an assessment of the financial literacy of young people, which was optional for countries and economies.
- PISA assesses not only whether students can reproduce knowledge, but also whether they can extrapolate from what they have learned and apply their knowledge in new situations. It emphasises the mastery of processes, the understanding of concepts, and the ability to function in various types of situations.

The students

- Around 510 000 students completed the assessment in 2012, representing about 28 million 15-year-olds in the schools of the 65 participating countries and economies.

The assessment

- Paper-based tests were used, with assessments lasting a total of two hours for each student. In a range of countries and economies, an additional 40 minutes were devoted to the computer-based assessment of mathematics, reading and problem solving.
- Test items were a mixture of multiple-choice items and questions requiring students to construct their own responses. The items were organised in groups based on a passage setting out a real-life situation. A total of about 390 minutes of test items were covered, with different students taking different combinations of test items.
- Students answered a background questionnaire, which took 30 minutes to complete, that sought information about themselves, their homes and their school and learning experiences. School principals were given a questionnaire, to complete in 30 minutes, that covered the school system and the learning environment. In some countries and economies, optional questionnaires were distributed to parents, who were asked to provide information on their perceptions of and involvement in their child's school, their support for learning in the home, and their child's career expectations, particularly in mathematics. Countries and economies could choose two other optional questionnaires for students: one asked students about their familiarity with and use of information and communication technologies, and the second sought information about their education to date, including any interruptions in their schooling and whether and how they are preparing for a future career.

WHO ARE THE PISA STUDENTS?

Differences between countries in the nature and extent of pre-primary education and care, in the age of entry into formal schooling, in the structure of the school system, and in the prevalence of grade repetition mean that school grade levels are often not good indicators of where students are in their cognitive development. To better compare student performance internationally, PISA targets a specific age of students. PISA students are aged between 15 years 3 months and 16 years 2 months at the time of the assessment, and have completed at least 6 years of formal schooling. They can be enrolled in any type of institution, participate in full-time or part-time education, in academic or vocational programmes, and attend public or private schools or foreign schools within the country or economy. (For an operational definition of this target population, see Annex A2.) Using this age across countries and over time allows PISA to compare consistently the knowledge and skills of individuals born in the same year who are still in school at age 15, despite the diversity of their education histories in and outside of school.

The population of participating students is defined by strict technical standards, as are the students who are excluded from participating (see Annex A2). The overall exclusion rate within a country was required to be below 5% to ensure that, under reasonable assumptions, any distortions in national mean scores would remain within plus or minus 5 score points, i.e. typically within the order of magnitude of 2 standard errors of sampling. Exclusion could take place either through the schools that participated or the students who participated within schools (see Annex A2, Tables A2.1 and A2.2).

There are several reasons why a school or a student could be excluded from PISA. Schools might be excluded because they are situated in remote regions and are inaccessible, because they are very small, or because of organisational or operational factors that precluded participation. Students might be excluded because of intellectual disability or limited proficiency in the language of the assessment.

In 28 out of the 65 countries and economies participating in PISA 2012, the percentage of school-level exclusions amounted to less than 1%; it was less than 4% in all countries and economies. When the exclusion of students who met the internationally established exclusion criteria is also taken into account, the exclusion rates increase slightly. However, the overall exclusion rate remains below 2% in 30 participating countries and economies, below 5% in 57 participating countries and economies, and below 7% in all countries except Luxembourg (8.4%). In 11 out of the 34 OECD countries, the percentage of school-level exclusions amounted to less than 1% and was less than 3% in 31 OECD countries. When student exclusions within schools were also taken into account, there were 11 OECD countries below 2% and 26 OECD countries below 5%.

(For more detailed information about the restrictions on the level of exclusions in PISA 2012, see Annex A2.)

WHAT KINDS OF RESULTS DOES THE TEST PROVIDE?

The PISA assessment provides three main types of outcomes:

- basic indicators that provide a baseline profile of students' knowledge and skills;
- indicators that show how skills relate to important demographic, social, economic and educational variables; and
- indicators on trends that show changes in student performance and in the relationships between student-level and school-level variables and outcomes.

Although indicators can highlight important issues, they do not provide direct answers to policy questions. To respond to this, PISA also developed a policy-oriented analysis plan that uses the indicators as a basis for policy discussion.

WHERE CAN YOU FIND THE RESULTS?

This is the third of six volumes that present the results from PISA 2012. It begins by introducing the concepts of student engagement, drive and self-belief. Chapter 2 examines several indicators of student engagement, such as truancy and holding positive attitudes towards school; Chapter 3 explores students' drive and motivation, including perseverance, and intrinsic and instrumental motivation to learn mathematics; Chapter 4 examines several ways in which students' beliefs in their own skills in mathematics manifest themselves; Chapter 5 discusses how students' engagement with and at school, their drive and their self-beliefs are influenced by policies and practices at school; Chapter 6 explores the different ways in which home environment can contribute to students' engagement with and at school, their levels of drive and motivation and their beliefs about themselves as mathematics learners; and Chapter 7 examines the link between students' dispositions towards learning mathematics and gender and socio-economic disparities in mathematics performance. The relationship between student engagement, drive and self-belief and mathematics performance, gender and socio-economic status is highlighted throughout, as are trends between 2003 and 2012, whenever comparable data are available. Case studies, examining the policy reforms adopted by countries that have improved in PISA, are presented throughout the volume. The concluding chapter discusses the policy implications of the PISA results.

The other five volumes cover the following issues:

Volume I, ***What Students Know and Can Do: Student Performance in Mathematics, Reading and Science,*** summarises the performance of students in PISA 2012. It describes how performance is defined, measured and reported, and then provides results from the assessment, showing what students are able to do in mathematics. After a summary of mathematics performance, it examines the ways in which this performance varies on subscales representing different aspects of mathematics literacy. Given that any comparison of the outcomes of education systems needs to take into consideration countries' social and economic circumstances, and the resources they devote to education, the volume also presents the results within countries' economic and social contexts. In addition, the volume examines the relationship between the frequency and intensity of students' exposure to subject content in school, what is known as "opportunity to learn", and student performance. The volume concludes with a description of student results in reading and science. Trends in student performance in mathematics between 2003 and 2012, in reading between 2000 and 2012, and in science between 2006 and 2012 are examined when comparable data are available. Throughout the volume, case studies examine in greater detail the policy reforms adopted by countries that have improved in PISA.

Volume II, ***Excellence through Equity: Giving Every Student the Chance to Succeed,*** defines and measures equity in education and analyses how equity in education has evolved across countries and economies between PISA 2003 and 2012. The volume examines the relationship between student performance and socio-economic status, and describes how other individual student characteristics, such as immigrant background and family structure, and school

characteristics, such as school location, are associated with socio-economic status and performance. The volume also reveals differences in how equitably countries allocate resources and opportunities to learn to schools with different socio-economic profiles. Case studies, examining the policy reforms adopted by countries that have improved in PISA, are highlighted throughout the volume.

Volume IV, *What Makes Schools Successful? Resources, Policies and Practices*, examines how student performance is associated with various characteristics of individual schools and of concerned school systems. It discusses how 15-year-old students are selected and grouped into different schools, programmes, and education levels, and how human, financial, educational and time resources are allocated to different schools. The volume also examines how school systems balance autonomy with collaboration, and how the learning environment in school shapes student performance. Trends in these variables between 2003 and 2012 are examined when comparable data are available, and case studies, examining the policy reforms adopted by countries that have improved in PISA, are presented throughout the volume.

Volume V, *Creative Problem Solving: Students' Skills in Tackling Real-Life Problems,* presents student performance in the PISA 2012 assessment of problem solving, which measures students' capacity to respond to non-routine situations in order to achieve their potential as constructive and reflective citizens. It provides the rationale for assessing problem-solving skills and describes performance within and across countries and economies. In addition, the volume highlights the relative strengths and weaknesses of each school system and examines how they are related to individual student characteristics, such as gender, immigrant background and socio-economic status. The volume also explores the role of education in fostering problem-solving skills.

Volume VI, *Students and Money: Financial Literacy Skills for the 21st Century,* examines 15-year-old students' performance in financial literacy in the 18 countries and economies that participated in this optional assessment. It also discusses the relationship of financial literacy to students' and their families' background and to students' mathematics and reading skills. The volume also explores students' access to money and their experience with financial matters. In addition, it provides an overview of the current status of financial education in schools and highlights relevant case studies.

The frameworks for assessing mathematics, reading and science in 2012 are described in *PISA 2012 Assessment and Analytical Framework: Mathematics, Reading, Science, Problem Solving and Financial Literacy* (OECD, 2013). They are also summarised in this volume.

Technical annexes at the end of this report describe how questionnaire indices were constructed and discuss sampling issues, quality-assurance procedures, the reliability of coding, and the process followed for developing the assessment instruments. Many of the issues covered in the technical annexes are elaborated in greater detail in the *PISA 2012 Technical Report* (OECD, forthcoming).

All data tables referred to in the analysis are included at the end of the respective volume in Annex B1, and a set of additional data tables is available on line (*www.pisa.oecd.org*). A Reader's Guide is also provided in each volume to aid in interpreting the tables and figures that accompany the report. Data from regions within the participating countries are included in Annex B2.

References

OECD (forthcoming), *PISA 2012 Technical Report*, PISA, OECD Publishing.

OECD (2013), *PISA 2012 Assessment and Analytical Framework: Mathematics, Reading, Science, Problem Solving and Financial Literacy*, PISA, OECD Publishing.
http://dx.doi.org/10.1787/9789264190511-en

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What it Takes to Learn

This chapter introduces the concepts of student engagement, drive and self-belief, without which students are unable to make the most of learning opportunities in school and will not be ready to translate their potential into high-level skills. The chapter discusses the economic and social dynamics shaping the need to prepare students for lifelong learning and describes the structure of the volume.

"Eighty percent of success is showing up." (Woody Allen)

PISA has traditionally measured success in terms of students' performance in mathematics, reading and science, with the objective of examining whether students are able to take on an active role in society and be productive citizens in the future. But it is only when students are physically present, and are mentally ready to learn, that they can make the most of the opportunities schools provide. Students need to be engaged, motivated, willing to learn new things and feel they can succeed (Christenson, Reschly and Wylie, 2012); without those dispositions, they will be unable to translate their raw potential into high-level skills, no matter how intelligent and gifted they are, no matter how much effort and professionalism teachers put into their jobs, and no matter how many resources countries devote to education. Unless you show up to play, you cannot win; unless you try, you cannot succeed.

Students' engagement with school, the belief that they can achieve at high levels, and their ability and willingness to do what it takes to reach their goals not only play a central role shaping students' ability to master academic subjects, they are also valuable attributes that will enable students to lead full lives, meeting challenges and making the most of available opportunities along the way (Schunk and Mullen, 2013). In order to effectively meet the economic, political and social demands for competencies, much more is required of students and adults than just cognitive proficiency (Levin, 2012). Consequently, education systems should be evaluated in terms of their capacity to develop all aspects of human potential, ranging from subject-specific achievement to socio-emotional, psychological, ethical and behavioural aspects. This volume conceptualises and examines the multifaceted nature of success in education, which includes overall subject-specific student achievement, equity in the distribution of education opportunities, and students' engagement with school, their drive and self-beliefs.

A COMPREHENSIVE APPROACH TO MEASURING EDUCATIONAL SUCCESS AMONG 15-YEAR-OLDS

The international financial crisis of 2008 pushed policy makers in the most affected countries to make an economic case for investing in education and other public policies aimed at developing human capital. Initiatives like PISA that enable countries and economies to measure the results of the schooling they provide are useful in this context. PISA can help countries understand what works in education and to promote evidence based policy making, but can do so most effectively only if attention, on the part of policy makers, teachers, educators, parents and the students themselves, is devoted to the broad set of outcomes that are measured in PISA and only if the multifaceted nature of education success is fully appreciated and considered. Educational achievement is in fact only one of the factors that can help countries maximise the economic value of investments in education.

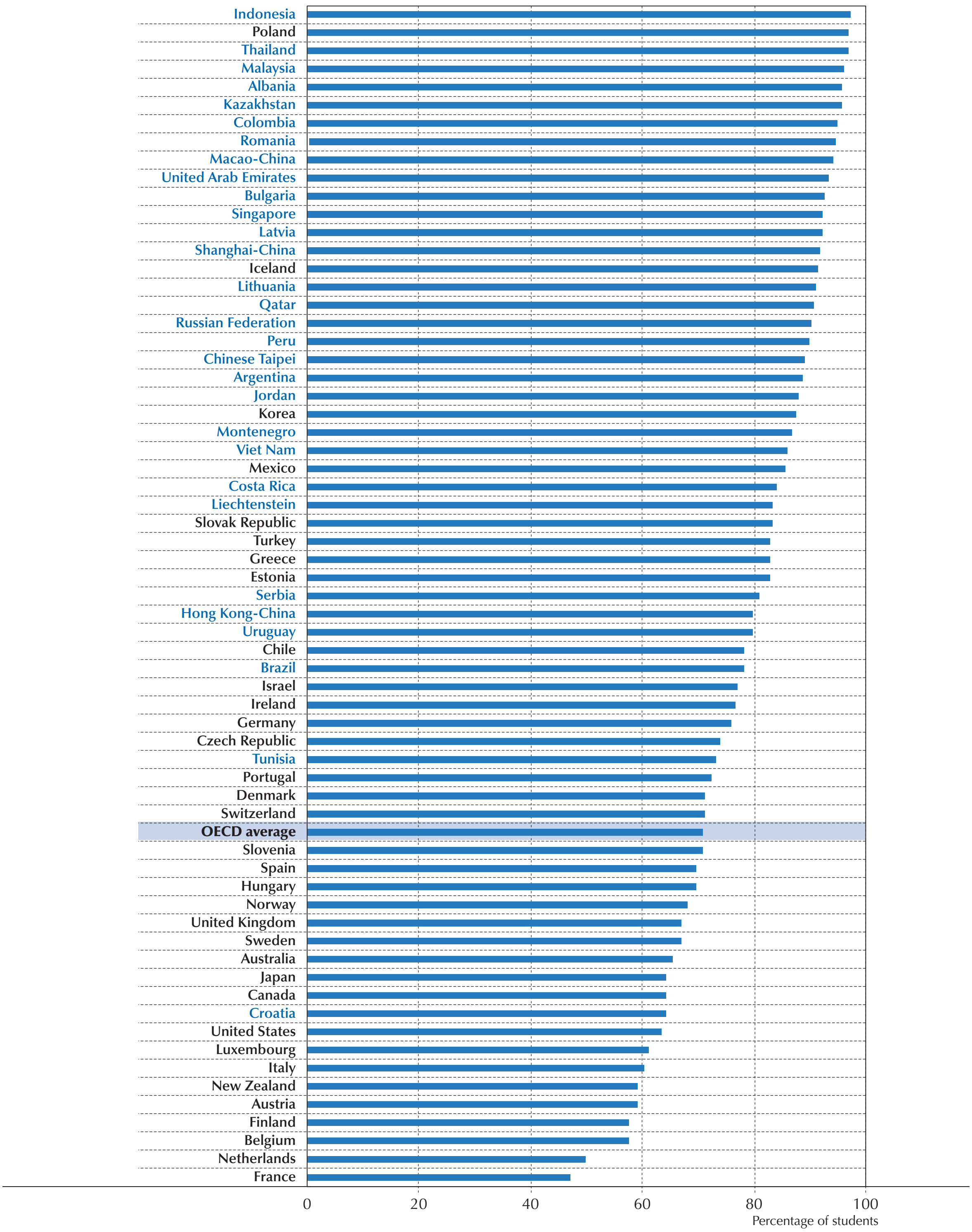
Longitudinal studies suggest that students' results on the PISA test, and tests like PISA, are highly correlated with how well students will do later on in life (OECD, 2010; OECD, 2012). Nevertheless, strong performance in standardised assessments explains only so much of how well students will do later in life (Stankov, 1999; Sternberg, 1995). Success and well-being in life also depend on a set of personal attributes that are only partially captured by test scores. Motivation, perseverance, community spirit and belief in oneself, for example, are also essential ingredients, though far more difficult to measure, particularly in an international context.

Most mathematics teachers in countries that participated in PISA 2012 believe that the social and emotional development of their students is as important as the acquisition of mathematics skills. School principals who responded to the PISA 2012 school background questionnaire were asked whether they agreed that mathematics teachers in their school consider the social and emotional development of students to be as important as students' mastery of mathematics skills and knowledge.[1] Figure III.1.1 illustrates the large variations across countries and economies in the proportion of students who are in schools whose principal agrees or strongly agrees that there is a consensus that the social and emotional development of the students is as important as students' acquisition of mathematics skills and knowledge in mathematics classes.

On average across OECD countries, 71% of students attend schools whose principals reported that teachers value the social and emotional development of their students as much as their students' academic proficiency. This percentage is especially high in Indonesia, Poland, Thailand, Malaysia, Albania and Kazakhstan, where 95% or more of students attend such schools. How can education systems best support teachers and school principals, but also families, in their efforts to promote the social and emotional development of students? This volume answers this question by examining the social and emotional factors that are associated with the broader outcomes of education.

▪ Figure III.1.1 ▪

Percentage of students who are in schools where there is a consensus on the importance of the social and emotional development of students



Note: The figure reflects the percentage of students who are in schools where the school principal agrees or strongly agrees that there is a consensus among mathematics teachers that the social and emotional development of students is as important as their acquisition of mathematical skills and knowledge in mathematics classes.

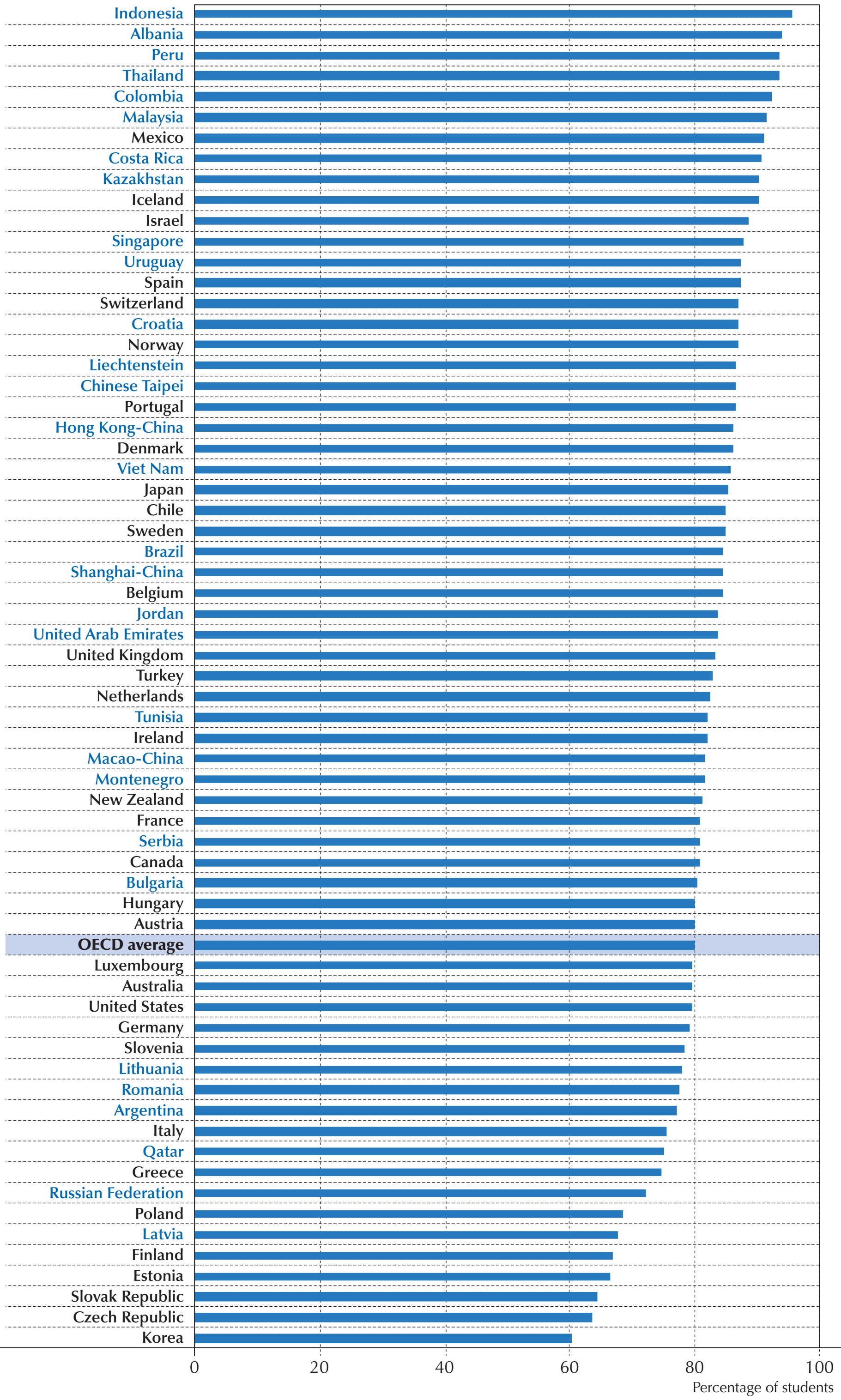
Countries and economies are ranked in descending order of the percentage of students who are in schools where there is a consensus on the importance of the social and emotional development of students.

Source: OECD, PISA 2012 Database, Table III.5.29.

StatLink http://dx.doi.org/10.1787/888932963787

▪ Figure III.1.2 ▪

Percentage of students who report being happy at school



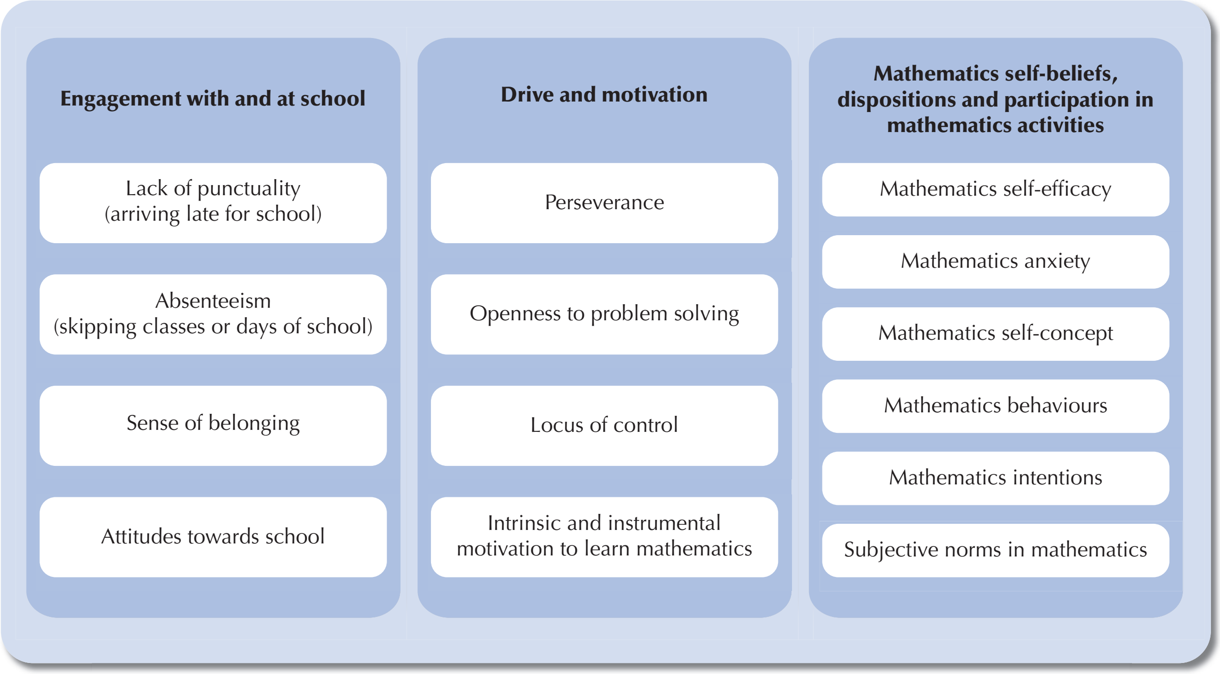
Note: The figure reflects the percentage of students who "agree" or "strongly agree" to the statement "I feel happy at school".
Countries and economies are ranked in descending order of the percentage of students who report being happy at school.
Source: OECD, PISA 2012 Database, Table III.2.3a.
StatLink http://dx.doi.org/10.1787/888932963787

For the first time, PISA 2012 asked students to evaluate their happiness at school. As schools are a, if not *the*, primary social environment for 15-year-olds, these subjective evaluations provide a good indication of whether education systems are able to foster or hinder overall student well-being. On average, students report feeling happy at school: across OECD countries 80% of students agree or strongly agree with the statement "I feel happy at school". The proportion of students who report being happy at school is highest in Indonesia, Albania and Peru and is lowest in Korea, the Czech Republic and the Slovak Republic (Figure III.1.2).

Students who participated in the 2012 PISA study were asked to report their level of engagement with and at school, their drive, and the beliefs they hold about themselves as mathematics learners, such as how capable they are in mathematics. Figure III.1.3 maps the range of outcomes that are analysed in this volume.

▪ Figure III.1.3 ▪

Students' engagement, drive and self-beliefs in PISA 2012



Engagement with and at school	Drive and motivation	Mathematics self-beliefs, dispositions and participation in mathematics activities
Lack of punctuality (arriving late for school)	Perseverance	Mathematics self-efficacy
Absenteeism (skipping classes or days of school)	Openness to problem solving	Mathematics anxiety
Sense of belonging	Locus of control	Mathematics self-concept
Attitudes towards school	Intrinsic and instrumental motivation to learn mathematics	Mathematics behaviours
		Mathematics intentions
		Subjective norms in mathematics

The outcomes analysed in this volume refer to the life and circumstances of those students who were enrolled in school in countries that participated in PISA in 2012. However, they can be considered proxies for these 15-year-olds' attitudes towards learning. They represent the foundation upon which students will be able to build their future and ground their ability to progress in their studies, in the labour market and in life. Although people can and do change over their lifetimes, by their teenage years they are likely to have formed a set of relatively stable dispositions and self-beliefs that will lead them to behave in consistent and predictable ways across a wide range of situations (Midgley, Feldlaufer and Eccles, 1989; Mischel, 1968; Thaler and Sustein, 2008; Bouchard and Loehlin, 2001; Canli, 2006; DeYoung et al., 2010).

Some may take the view that students' engagement with and at school, their drive and self-beliefs are highly influenced by inherent personality traits that cannot be influenced externally (see Plomin and Caspi, 1999). The evidence shows, however, that engagement with and at school, drive and self-beliefs are malleable and can be influenced by the circumstances individuals encounter and the opportunities that they are given (Guthrie, Wigfield and You, 2012; Skinner and Pitzer, 2012) and PISA suggests that they vary considerably across countries. Terms such as perceived self-efficacy and learned helplessness stem from real psychological phenomena through which individuals gradually modify their perceptions of the world, of themselves, and of how they relate to others based on what they experience (Schunk and Pajares, 2009; Dweck and Master, 2009). Perhaps even more important, a growing body of evidence is emerging that suggests that educational interventions, particularly in early childhood, can change children's dispositions and self-beliefs in lasting ways (Heckman, Stixrud and Urzua, 2006; Heckman et al., 2010).

Most of the results presented in this volume are based on self-reported answers gathered from background questionnaires that students, school principals from the schools the students attended and, in some countries and economies, the students' parents were asked to complete.[2] Therefore, although the aim is to capture behavioural differences and differences in how students approach learning in general, and mathematics in particular, the information that is available in PISA means that the volume captures a mixture of differences in students' behaviours, beliefs and attitudes, in students' understanding of what are considered desirable responses in this context, and in the willingness of students to act on such understanding by responding in ways that are deemed desirable. Moreover, a set of behaviours, beliefs and attitudes can be more or less appropriate depending on cultural contexts. In some countries, arriving late is a relatively common practice that is considered acceptable; in others, it is a sign of disrespect. In some countries, teenagers that express a high degree of interest in school subjects and spend considerable time studying are socially sanctioned by their peers; in others, such students command respect and are viewed as positive examples by other students (Ladd et al., 2012).

There are a number of conceptual and methodological challenges in mapping student engagement with and at school, their drive and the beliefs they hold about themselves as mathematics learners, particularly in an international context, and in assessing the role that education systems, individual schools and families play in shaping students' social and emotional growth. There is, for example, no clear definition of, or consensus on, what education systems should strive to develop beyond subject-specific skills. In many instances, outcomes that are linked to students' social and emotional development are defined in terms of what they are not, rather than what they are. Terms such as "non-achievement outcomes", "other outcomes", and "non-cognitive skills" are used, often interchangeably, to identify some of the other results of education, more broadly defined (Forster, 2004). This volume measures a well-defined set of outcomes in three key areas: engagement with and at school, drive and motivation, and students' beliefs about themselves as mathematics learners. By focusing on specific and well-defined constructs, the volume advances the agenda of mapping the broader outcomes of education respecting the technical rigour that is at the core of the PISA initiative.

THE ECONOMIC AND SOCIAL DYNAMICS SHAPING THE NEED TO PREPARE STUDENTS FOR LIFELONG LEARNING

Rapid globalisation and modernisation are posing new challenges to individuals and societies alike. Increasingly diverse and interconnected populations, rapid technological change in the workplace and in everyday life, and the instantaneous availability of vast amounts of information are just a few of the factors contributing to these new demands. In this globalised world, people compete for jobs not just locally but internationally. With the integration of labour markets, workers in wealthier countries are competing directly with people with much the same skills in lower-wage countries. The competition among countries now revolves around the quality of their human capital and their ability to create the institutional structures and opportunities to effectively use the skills and talents of their populations.

The result of technological progress has been a reduction in the demand for people who are only capable of doing routine work, and an increase in the demand for people who are capable of doing knowledge-based work or manual work that cannot be automated. This leads to a greater polarisation of labour market opportunities, both within and across countries, with a greater proportion of people who will need to be educated as professionals.

This transformation of labour markets is profoundly reshaping the nature of workplaces. Individuals are no longer expected to passively consume information coming from well-defined sources and to use the knowledge they accumulated in the same way and context as when they developed it. Information is now produced by a multitude of conflicting sources, and knowledge needs to be integrated, critiqued, transformed and applied to novel situations. The knowledge workers of today are required to have *deep knowledge*, but the knowledge workers of tomorrow will need *deep and wide knowledge*: knowledge that can be moulded and shaped to fit a constantly changing world. The need for deep and wide knowledge means that education systems will have to give students a *forma mentis*, or mindset, that is open to absorbing and filtering new information and is able combine that information with acquired knowledge in innovative ways. More than ever, education systems need to help students learn how to learn: only if students have the capacity, motivation and enthusiasm to be lifelong learners will they be able to remain active and productive citizens throughout their lives (Christenson, Reschly and Wylie, 2012).

In order to meet the growing needs for deep knowledge, a key objective of education policies in most OECD and partner countries and economies has been to promote and sustain increases in the educational attainment of successive generations. Education policy, together with major social, demographic and institutional shifts have all contributed to large increases in educational attainment over the past century in many countries around the world (OECD, 2013). However, a country's competitive advantage in the world economy of tomorrow will be based on its population's

deep and wide knowledge, and its ability to continue learning. Only education systems that will be able to develop the flexibility of thinking that this entails will be able to create and sustain a flexible workforce, one that will be highly adaptable to change, rather than be forced to match the demand with the supply of skills in times of crisis.

The importance of equipping students with the ability to be lifelong learners is compounded by demographic trends. Declining fertility and increasing life-expectancy worldwide mean that populations are ageing. Economic growth and stability will depend on the ability of workers to remain in the labour force and be productive for a longer period of time. Since the base of young, active workers will shrink in the coming years, it will be increasingly important for education systems to dismantle the barriers that prevent some of today's students from achieving their full potential tomorrow. For example, socio-economically disadvantaged boys too often drop out of formal education with few skills and, even more worryingly, little willingness or desire to develop them in the future (Finn and Zimmer, 2012). Education systems have also so far been unable to make sure that the large number of girls who have the ability to excel in mathematics are willing and given the opportunity to fully develop their potential to go on and pursue occupations in rapidly developing science, technology, engineering and mathematics (STEM) industries (Wang, Eccles and Kenny, 2013). Unless education systems develop and capitalise on the talent of each and every student, demographic changes mean that countries as a whole will likely suffer skills shortages in the future. Never before have equity of education opportunities and economic efficiency been so closely intertwined.

In this context, governments need to create education systems that are accessible to everyone, not just a favoured few; that are globally competitive in quality; that provide people from all classes a fair chance to get the right kind of education to succeed; and that achieve all this at a price that the country can afford. The aim is no longer just to provide a basic education for all, but to provide an education that will make it possible for everyone to become "knowledge workers". Even more ambitious, an education that will make it possible for everyone to develop a wide range of skills, including the curiosity, ability, perseverance and endurance to learn throughout their lives, the willingness to seek challenges and to rise to the occasion, to thrive and find pleasure in solving complex problems, the ability to see patterns in information that computers cannot see, to work with others productively, and to be able to both lead and be a good team member when necessary.

STRUCTURE OF THE VOLUME

Chapter two examines students' engagement with and at school. It examines whether students arrive late for school and whether they skip classes or days of school. The chapter then examines students' level of social connectedness and sense of belonging by exploring whether students feel happy and that they belong at school, whether they have friends or feel lonely and isolated. Finally, the chapter maps students' beliefs about the value of schooling and learning: whether, for example, students believe that school has given them the confidence to make decisions, has been a waste of time, or that trying hard at school will get them a good job later on. The chapter suggests that, in some countries and economies, sizable proportions of students are at risk of not participating in and benefiting from school; for example socio-economically disadvantaged students are particularly likely to have low levels of engagement. The chapter also examines the relationship between engagement with and at school and student performance. Unless students have a basic level of engagement, such as being physically present in class, they cannot learn.

Chapter three examines students' drive and motivation. It explores students' self-reports about their stamina, capacity for hard work, and perception that success or failure depends on their behaviour. The chapter advances the understanding of an inclination towards hard work and the difference it makes to individual outcomes by identifying which students are more likely to be motivated and to persevere, and how those attributes are related to mathematics performance. Analyses discussed in the chapter indicate that, within countries and economies, students who have drive and motivation and who display a constructive approach to educational experiences perform better in mathematics, and that this relationship is more pronounced among the highest-achieving students. Drive and motivation are strongly associated with performance among both high- and low-achieving students; but stamina and hard work seem to make more of a difference in performance among the highest-achieving students than among the lowest-achieving students.

Chapter four examines students' beliefs of themselves as mathematics learners and their engagement with mathematics-related activities. The data suggest that, in some countries and economies, sizable proportions of students are at risk of holding particularly negative beliefs about mathematics and of themselves as mathematics learners, putting them at a disadvantage in a global economy where mathematics-related knowledge and, in particular, the capacity to apply such knowledge to solve practical problems, is highly valued and sought after. The chapter illustrates how the relationship between mathematics-related self-beliefs and mathematics performance is particularly strong at the top of the performance distribution: students who achieve at the highest levels are those who feel capable of doing so. In order to become truly proficient, students need to believe in their own abilities and identify with the material they are learning.

Chapter five examines the school practices and education policies that are associated with students' engagement with and at school, their drive, and the beliefs they hold as mathematics learners. For example, it explores whether students whose teachers use different strategies to engage them are more likely to arrive late, skip classes or days of school, show perseverance and drive, value learning mathematics, and/or have a positive image of themselves as mathematics learners. The chapter also builds on the observation that, for most students, school is a primary social environment, where comparisons with peers help students to define themselves and recognise their own strengths and weaknesses. The chapter discusses the associations among students' relative performance, the performance of a student's peers, and the level of engagement, drive and the types of beliefs that different groups of students develop.

Chapter six recognises the family as the first learning environment and examines family characteristics and parental behaviours that are strongly associated with the development of student engagement with and at school, students' drive and motivation and the beliefs they hold as mathematics learners. It considers that schools can and often do collaborate with families to aid students' social and emotional growth as well as their subject-specific learning. Parents can influence their children's dispositions, self-beliefs and behaviours by acting as role models, providing intellectual stimulation, and demonstrating positive attitudes, themselves, towards mathematics.

Chapter seven builds on analyses illustrating socio-economic and gender disparities in mathematics performance developed in Volumes I and II and tries to establish what role, if any, students' engagement with and at school, their drive and self-beliefs play in shaping such disparities. On average, girls and socio-economically disadvantaged students tend to score lower in mathematics than boys and socio-economically advantaged students. Levels of engagement, drive and self-beliefs differ significantly between boys and girls, and between socio-economically advantaged and disadvantaged students. The chapter illustrates how mathematics-related self-beliefs are implicated in the gender gaps in performance in mathematics, particularly among the highest-achieving students, while lack of punctuality and truancy reinforce socio-economic-related disparities in achievement, particularly among the lowest-achieving students.

Chapter eight presents a plan of action. It develops an analysis of how education policies and practices can help all students to achieve their full potential – as learners and as human beings – and aid students' emotional and social growth and well-being.

Notes

1. School principals were asked to what extent they strongly agreed, agreed, disagreed or strongly disagreed to a series of statements about teachers in their school. Among the statements presented school principals were asked whether "There is consensus among mathematics teachers that the social and emotional development of the students is as important as their acquisition of mathematical skills and knowledge in mathematics classes."

2. The following countries and economies administered the parental questionnaire: Belgium, Chile, Croatia, Germany, Hong Kong-China, Hungary, Italy, Korea, Macao-China, Mexico and Portugal.

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2

Engagement with and at School

This chapter examines several indicators of student engagement: arriving late for school, skipping days of school or classes, feeling a sense of belonging at school, and holding positive attitudes towards school. The chapter explores how these dispositions are associated with performance in mathematics, whether and how they are related to gender and socio-economic status, and how they have evolved among students since 2003.

It takes engagement and motivation to learn (Christenson, Reschly and Wylie, 2012; Wigfield et al., 2006). Students lose out on learning opportunities by skipping classes, arriving late or by being inattentive during lessons. Most of the students who participated in PISA 2012 hold positive views about education (see Figure III.2.1 for a comprehensive summary of the measures examined in this Volume). For example, 93% of students believe that trying hard at school is important and only 12% believe that school has been a waste of time. However many students are not engaged with school; they report being dissatisfied with school, not feeling in control of their ability to acquire knowledge, and not feeling capable of performing at high levels (see Skinner and Pitzer [2012] for a discussion of disengagement). Even more worryingly, specific subgroups of the student population are consistently at a high risk of suffering from low levels of engagement and motivation and of holding negative beliefs about their own capacities. This chapter, together with Chapters 3 and 4, examines variations in students' drive to learn, their behaviours and dispositions towards school and their self-beliefs with regard to learning mathematics. These chapters identify the students who lack drive and motivation to succeed, who do not engage with school and learning, and who do not have confidence in their own abilities as learners. These students are at particular risk of not fulfilling their potential later on, either in the labour market or in their personal lives, because they are not engaged with learning when they are young.

What the data tell us

- More than one in three students in OECD countries reported that they arrived late for school in the two weeks prior to the PISA test; and more than one in four students reported that they had skipped at least a class or a day of school during the same period.
- On average across OECD countries, arriving late for school is associated with a 27-point lower score in mathematics, while skipping classes or days of school is associated with a 37-point lower score in mathematics – the equivalent of almost one full year of formal schooling.
- Four out of five students in OECD countries agree or strongly agree that they feel happy at school.
- Some 78% of disadvantaged students and 85% of advantaged students agree or strongly agree with the statement "I feel like I belong at school".

Adolescence is a time when social acceptance, particularly by peers, can have a powerful influence on behaviour (Baumeister and Leary, 1995; Rubin, Bukowski and Parker, 2006). Peers can encourage and support students in their drive to achieve; they can also undermine students' motivation and determination (Ladd et al., 2012). Because teenagers are particularly sensitive to peer pressures, students who are disengaged from school may be particularly at risk of developing conduct problems and associated negative outcomes (Barber, Stone and Eccles, 2010; Fredricks and Eccles, 2006; Griffiths et al., 2012; Juvonen, Espinoza and Knifsend, 2012). For many students, school is essential to their long-term well-being; this is reflected in their participation in academic and non-academic activities organised by their school. While a large majority of students tends to have good relations with school staff and other students and feel that they belong at school, others do not share this sense of belonging. This latter group may, in the long run, become disaffected with school and, as a result, have poorer outcomes (Finn, 1989; Jenkins, 1995; Due et al., 2003; Bonell, Fletcher and McCambridge, 2007).

The social aspects of engagement at school are manifested in students' willingness to work with others, and their ability to function in and contribute to social institutions. When students feel a sense of belonging at school, their engagement is often enhanced (Juvonen, Espinoza and Knifsend, 2012); when they don't, behavioural problems often follow. When families and education systems fail to address these problems when children are still in school, these problems – and their repercussions – are likely to follow students into adulthood (Offord and Bennett, 1994; Bennett and Offord, 2001). Disruptive behaviour, poor attendance at and negative dispositions towards school are associated with low academic performance and are related to such negative outcomes as low levels of emotional well-being, school dropout, delinquency and drug abuse (e.g. Valeski and Stipek, 2001; Baker, Sigmon and Nugent, 2001; Lee and Burkam, 2003; McCluskey, Bynum and Patchin, 2004).

▪ Figure III.2.1 ▪

How PISA 2012 measures students' engagement with and at school

Lack of punctuality

Students' reports on whether they had arrived late for school in the two weeks before the test

Absenteeism

Students' reports on whether they had skipped classes or days of school in the two weeks before the test

Sense of belonging

Derived index based on students' reports about their feelings of social connectedness, happiness and satisfaction at school

Attitudes towards school (learning outcomes and learning activities)

Derived indices based on students' reports about the importance of school for their future and about the importance of and pleasure they derive from working hard at school

LACK OF PUNCTUALITY: ARRIVING LATE FOR SCHOOL

PISA reveals that, in 2012, significant proportions of students had arrived late for school, without authorisation, at least once in the two weeks prior to the PISA test. On average across OECD countries, more than one in three students (35%) reported having arrived late at least once during that two-week period. Figure III.2.2 shows that 25% of students arrived late once or twice, 6% arrived late three or four times, and 4% arrived late five times or more.

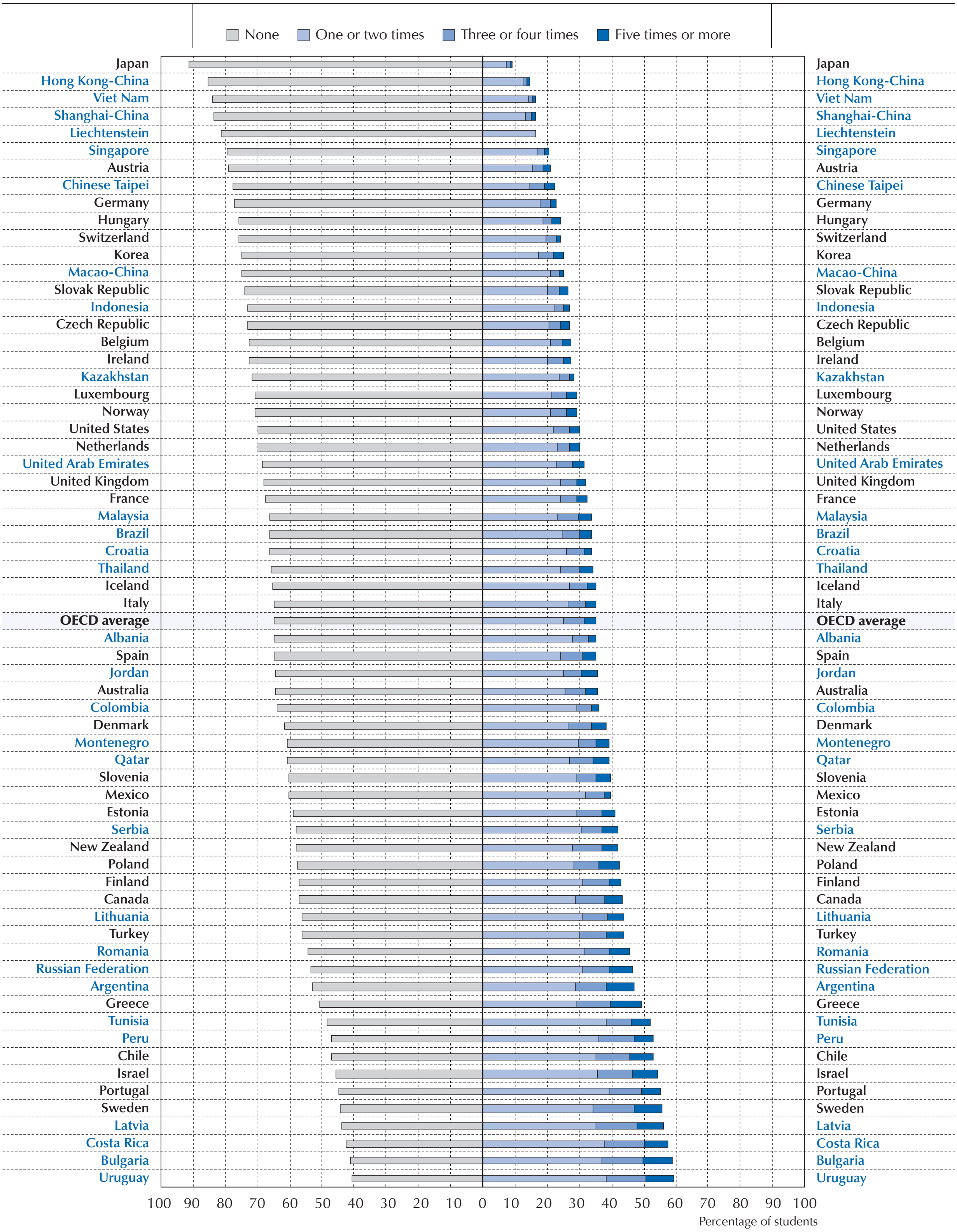
Figure III.2.2 also reveals how lack of punctuality is particularly acute in Uruguay, Bulgaria, Costa Rica, Latvia, Sweden, Portugal, Israel, Chile, Peru and Tunisia. In these countries, more than half of students reported having arrived late at least once in the two weeks prior to the PISA test. By contrast, in Japan and Hong Kong-China less than 15% of students reported having arrived late for school. Between-country variations in the proportion of students who arrive late for school mask large within-country differences across different subgroups of the population. In 28 countries and economies socio-economically disadvantaged students were more likely to report having arrived late for school than socio-economically advantaged students. Lack of punctuality is a widespread phenomenon that is particularly acute among socio-economically disadvantaged students in many countries and economies. In Bulgaria, Sweden, Israel, Chile and New Zealand more than one in two socio-economically disadvantaged students reported having arrived late for school at least once in the two weeks before the PISA test, and they were significantly more likely to report having arrived late than their advantaged peers (Table III.2.1a).

Lack of punctuality is strongly associated with students' socio-economic status for a variety of reasons. In some countries and geographical locations, disadvantaged students – who are students in the bottom quarter of the *PISA index of economic, social and cultural status* – may be more likely to rely on public transportation. In others, they may live in neighbourhoods that are not well-served by efficient public transportation systems and their families may not have access to private means of transportation. They may also live in neighbourhoods that are comparatively less safe. The parents of disadvantaged students may also struggle to meet multiple demands on their time and so may not be able to keep track of their child's punctuality. These students may also have to help around the house or work for pay to help support their families.

▪ Figure III.2.2 ▪

Percentage of students who arrive late for school

Percentage of students who reported to arrive late for school in the two weeks prior to the PISA test



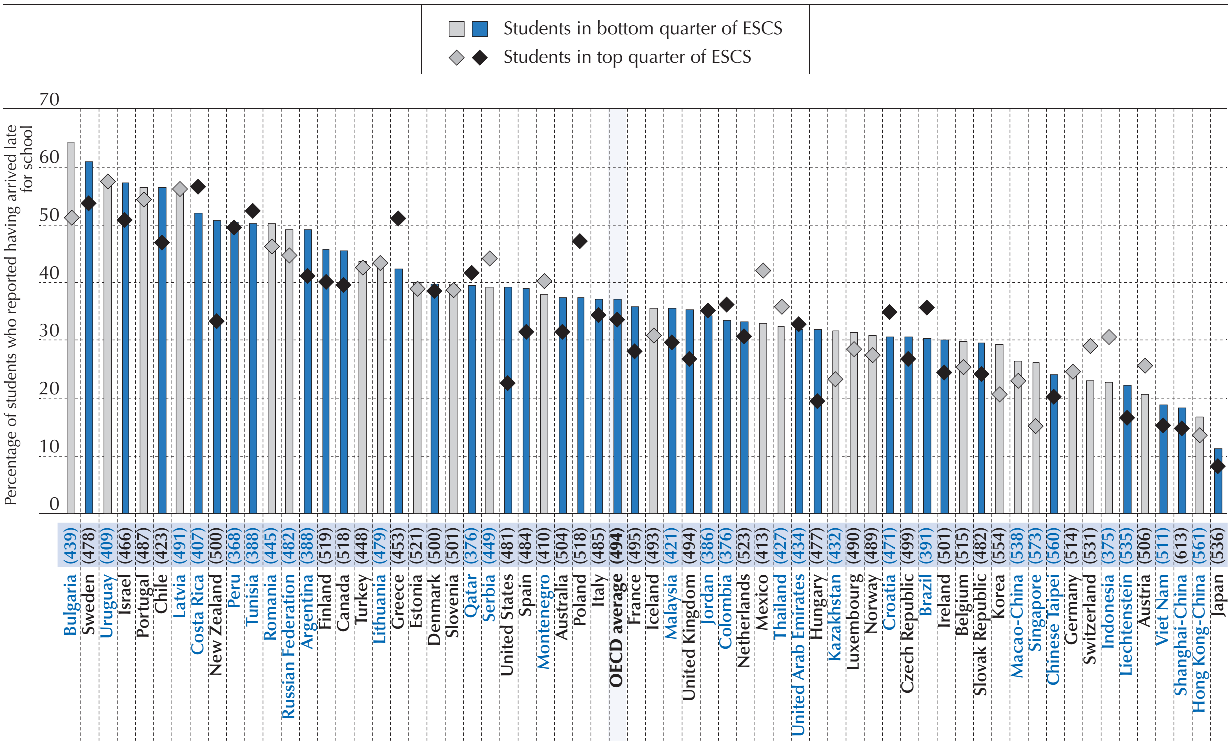
Countries and economies are ranked in descending order of the percentage of students who had never arrived late for school in the two weeks prior to the PISA test.
Source: OECD, PISA 2012 Database, Table III.2.1a.

StatLink http://dx.doi.org/10.1787/888932963806

In 33 countries and economies, girls were less likely than boys to report having arrived late for school in the two weeks before the PISA test. Although the difference in the proportion of boys and girls who reported having arrived late is small – 2%, on average across OECD countries – it is larger than ten percentage points in Lithuania, Thailand and Poland (Table III.2.1a).

■ Figure III.2.3 ■

Socio-economic disparities in arriving late for school



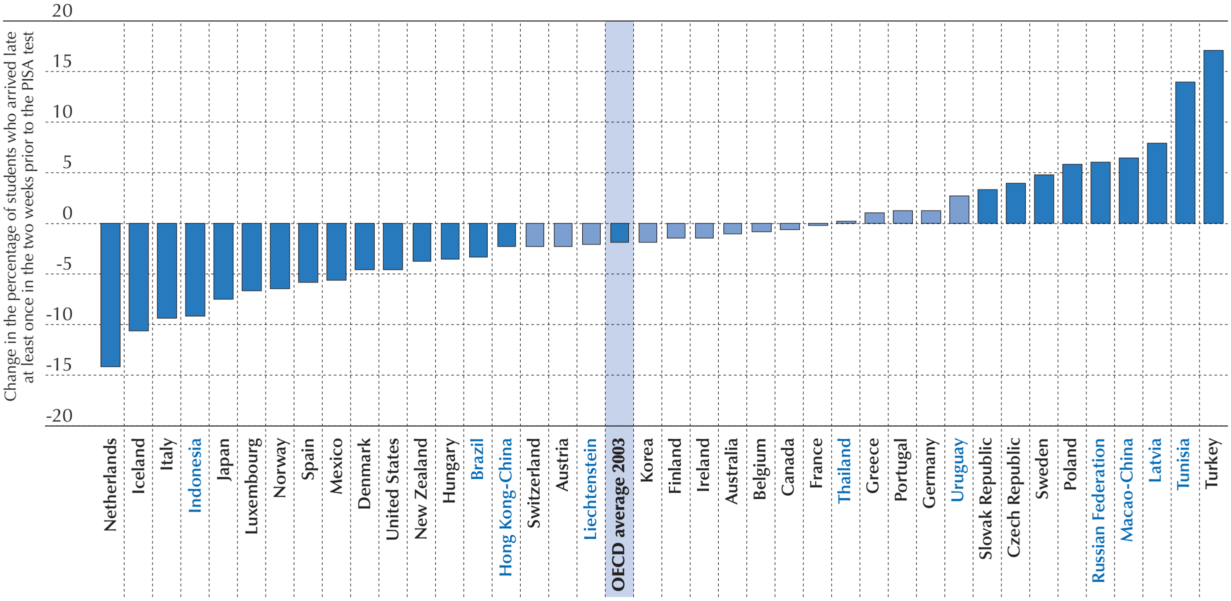
Notes: ESCS refers to the *PISA index of economic, social and cultural status*.
Differences that are statistically significant at the 5% level ($p < 0.05$) are marked in a darker tone.
Mean mathematics performance is shown above the country/economy name in parenthesis.
Countries and economies are ranked in descending order of the percentage of socio-economically disadvantaged students who reported having arrived late for school in the two weeks prior to the PISA test.
Source: OECD, PISA 2012 Database, Tables I.2.3a and III.2.1a.
StatLink http://dx.doi.org/10.1787/888932963806

Overall students' punctuality has improved over the past nine years. In 2003, an average of 36% of students in OECD countries with comparable data between 2003 and 2012 reported having arrived late at least once during the two weeks prior to the PISA test; in 2012, and among these same countries, this percentage decreased to 34%. Fifteen countries and economies saw significant improvements in punctuality, and the share of students arriving late shrank by more than five percentage points in Mexico, Spain, Norway, Luxembourg, Japan, Indonesia, Italy, Iceland and the Netherlands. By contrast, nine countries and economies saw an increase in the percentage of students arriving late. This increase was greater than five percentage points in Poland, the Russian Federation, Macao-China and Latvia and greater than ten percentage points in Tunisia and Turkey (Figure III.2.4 and Table III.2.1b).

On average across OECD countries, boys and girls, as well as advantaged and disadvantaged students, were less likely in 2012 than in 2003 to report having arrived late. Still, the improvement was greater among girls than among boys, and among socio-economically advantaged students than among disadvantaged students. Trends between 2003 and 2012 show better punctuality among girls than boys in Turkey, Korea and Denmark, where the gender gap in punctuality widened by around five percentage points or more, in favour of girls. In Korea in 2003, girls were more likely than boys to arrive late; by 2012, girls and boys were similarly punctual. In Turkey, boys and girls in 2003 reported having arrived late at a similar rate; but by 2012, boys were eight percentage points more likely than girls to report having arrived late. Trends also show increasingly better punctuality among advantaged students than disadvantaged students in five countries and economies. In Luxembourg,

▪ Figure III.2.4 ▪

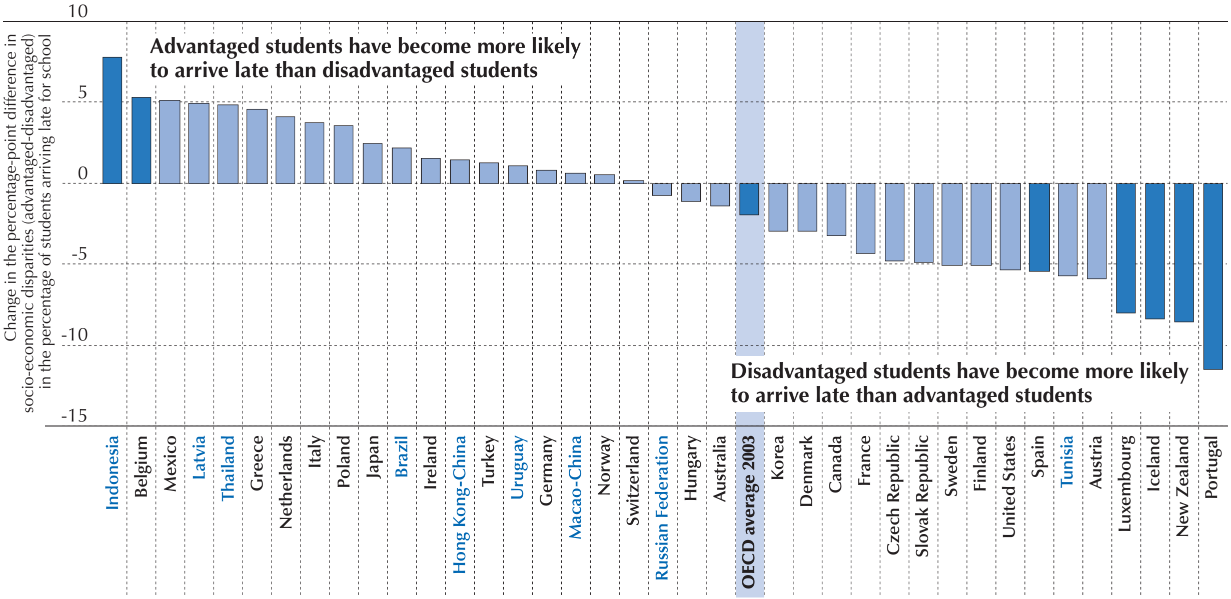
Change between 2003 and 2012 in students arriving late for school



Notes: Statistically significant changes at the 5% level ($p < 0.05$) between PISA 2003 and PISA 2012 are marked in a darker tone.
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
OECD average 2003 compares only OECD countries with comparable results for students arriving late since 2003.
Countries and economies are ranked in ascending order of the change in the percentage of students who reported having arrived late at least once in the two weeks prior to the PISA test between PISA 2003 and PISA 2012.
Source: OECD, PISA 2012 Database, Table III.2.1b.
StatLink http://dx.doi.org/10.1787/888932963806

▪ Figure III.2.5 ▪

Change between 2003 and 2012 in socio-economic disparities in arriving late for school



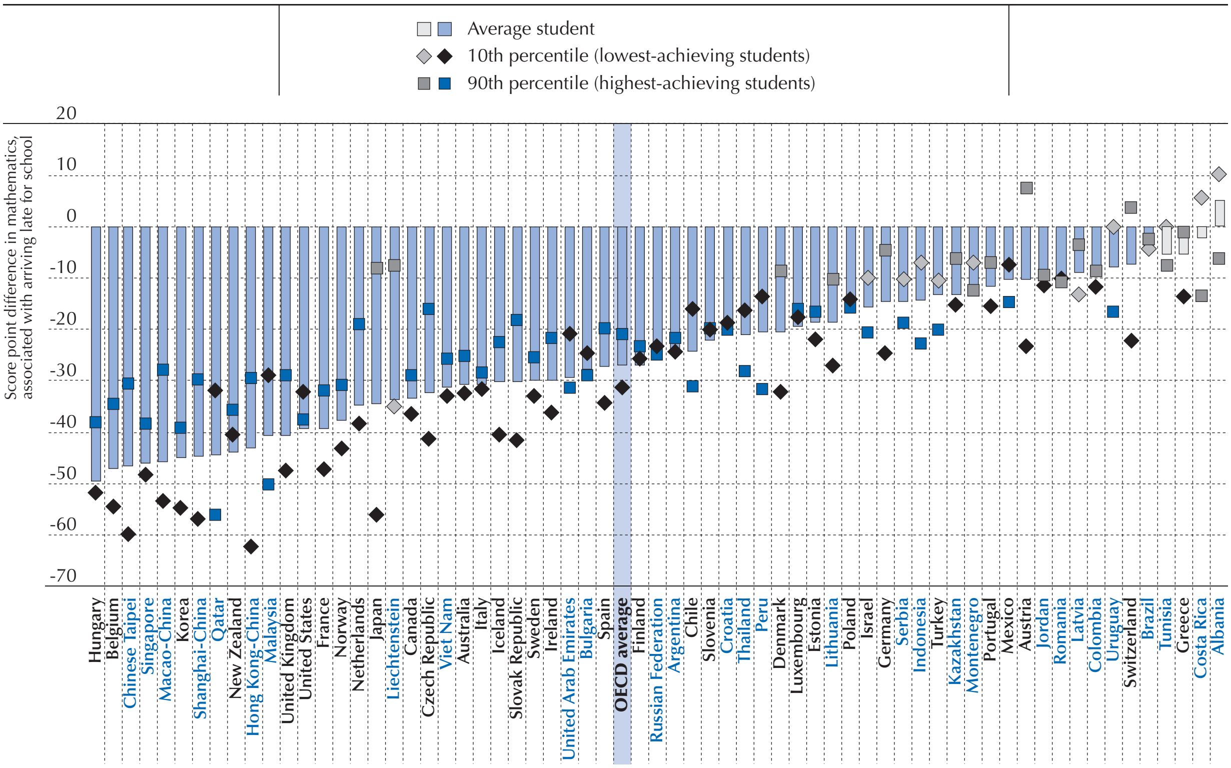
Notes: Statistically significant percentage-point changes at the 5% level ($p < 0.05$) are marked in a darker tone.
Advantaged/disadvantaged students are students in the top/bottom quarter of the *PISA index of economic, social and cultural status*.
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
OECD average 2003 compares only OECD countries with comparable results for students arriving late since 2003.
Countries and economies are ranked in descending order of the change in socio-economic disparities in the percentage of students who reported having arrived late at least once in the two weeks prior to the PISA test between 2003 and 2012.
Source: OECD, PISA 2012 Database, Table III.2.1b.
StatLink http://dx.doi.org/10.1787/888932963806

for example, advantaged students were eleven percentage points less likely to report having arrived late in 2012 than they were in 2003, the trend among students in the bottom quarter of that index signals no improvement in punctuality during the period (Figure III.2.5 and Table III.2.1b).

Figure III.2.6 shows that students who reported having arrived late for school at least once in the two weeks before the PISA test have lower scores than students who reported that they had not arrived late for school during that period. Across OECD countries, the difference in mathematics performance that is associated with arriving late for school is 27 score points. On average, students who reported that they did not arrive late for school score 504 points while those who reported arriving late for school score 477 points. All countries and economies except for Greece, Albania, Costa Rica and Tunisia show a performance gap associated with arriving late for school. In Hungary, Chinese Taipei, Singapore and Macao-China, the difference in performance between students who reported having arrived late for school and those who did not is 45 score points or more (Table III.2.1c). The last section of this chapter and Chapter 7 illustrate in detail the extent to which differences in socio-economic status explain part of the relationship between students' lack of punctuality and mathematics performance. Chapter 5 of Volume IV of this series examines students' lack of punctuality and truancy as two of the factors that determine school climate.

▪ Figure III.2.6 ▪

Relationship between arriving late for school and mathematics performance



Note: Differences that are statistically significant at the 5% level ($p < 0.05$) are marked in a darker tone.

Countries and economies are ranked in ascending order of the average score-point difference in mathematics that is associated with students arriving late for school.

Source: OECD, PISA 2012 Database, Table III.2.1c.

StatLink http://dx.doi.org/10.1787/888932963806

The findings presented in Figure III.2.6 suggest that performance differences associated with a lack of punctuality are particularly strong at the bottom of the performance distribution. On average across OECD countries, the gap in scores associated with arriving late for school is 31 points among the lowest-achieving students and 20 points among the highest-achieving students (Table III.2.1c).[1] This average masks large differences across countries, however. In 24 countries and economies, the difference in performance associated with arriving late for school is larger than 10 score points at the bottom than at the top tail of the performance distribution. In Japan, Hong Kong-China and Austria the performance gap between the most and least able students is at least 30 score points. In 12 countries and economies, the lowest-achieving students who reported having arrived late for school show poorer performance in mathematics than the lowest-achieving students who did not report having arrived late for school, but no such difference can be observed among the highest-achieving students.

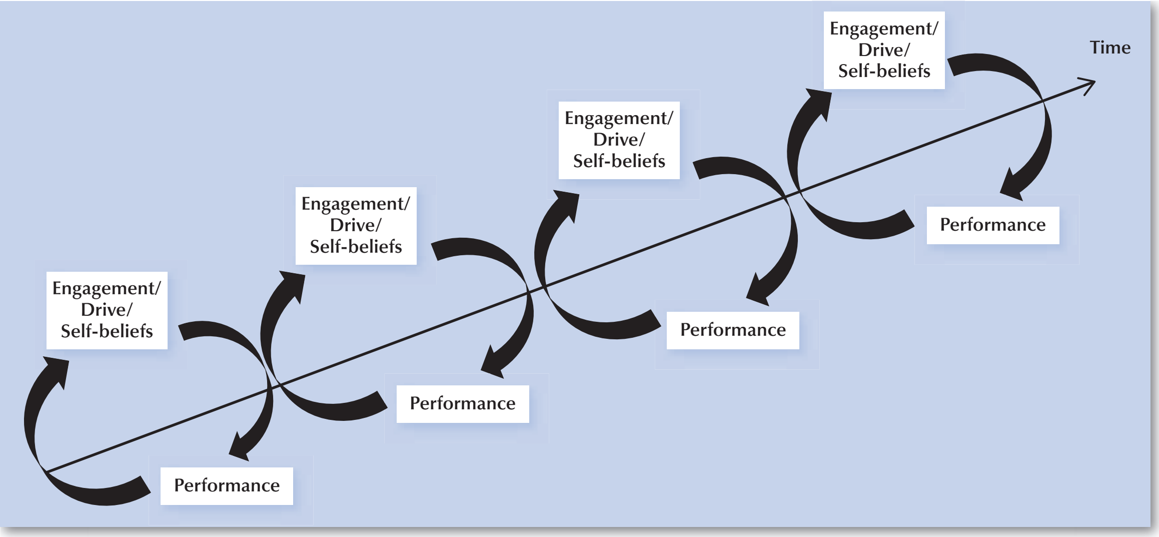
Box III.2.1. **The cyclical nature of the relationship between students' dispositions, behaviours and self-beliefs and mathematics performance**

Students who hold positive dispositions towards school, who are motivated to learn mathematics and who have a positive image of themselves as mathematics learners perform better in the PISA mathematics assessment. However, this finding cannot be interpreted as direct evidence of a causal relationship between students' dispositions, behaviours and self-beliefs and achieving high levels of mathematics proficiency. Rather, evidence presented in this chapter reflects the cumulative observed association between students' dispositions, behaviours and self-beliefs and how good they are in mathematics.

What does cumulative association mean? Studies in education and applied psychology suggest that mathematics proficiency is the result of multiple developmental cycles. Students' dispositions towards mathematics and learning, motivation, engagement in mathematics activities and mathematics proficiency are mutually reinforcing. Positive reinforcement operates at two levels. The first reflects the fact that the future depends on the past. Past behaviours matter for current and future behaviours and past mathematics performance is also a very good predictor of future mathematics performance (Fredericks, Blumenfeld and Paris, 2004; Baumert, Nagy and Lehmann, 2012). This suggests that a student's past dispositions, behaviours and self-beliefs will influence his or her future dispositions, behaviours and self-beliefs.

The second level indicates that associations among dispositions, behaviours and self-beliefs and performance are circular. Students' dispositions, behaviours and self-beliefs and mathematics performance are mutually dependent. For example, students who believe they can solve mathematics problems become better at solving them; and when they see that they are good at mathematics and expect good performance in mathematics, they tend to have higher levels of self-efficacy, to enjoy mathematics and to engage with school and mathematics (Nurmi et al., 2003). The graph below illustrates how results on associations between students' dispositions, behaviours and self-beliefs and how well they do in mathematics should be interpreted in the context of the two levels of reinforcement.

The cumulative relationship between mathematics performance and student engagement, drive, motivation and self-beliefs



The evidence that emerges from PISA on the positive interplay between students' dispositions, behaviours, self-beliefs and performance in mathematics suggests that promoting proficiency in mathematics and promoting a passion for mathematics, school and learning does not necessarily involve trade-offs. Students who are highly

...

engaged and are effective learners are most likely to be proficient in mathematics and students who are proficient in mathematics are also those students who hold positive dispositions towards schools and learning, who attend school regularly and who have positive self-beliefs about mathematics.

Sources:

Baumert, J., J. Nagy and R. Lehmann (2012), "Cumulative advantages and the emergence of social and ethnic inequality: Matthew effects in reading and mathematics development within elementary schools?", *Child Development*, Vol. 83, No. 4, pp. 1347-1367.

Fredricks, J.A., P.C. Blumenfeld and A.H. Paris (2004), "School engagement: Potential of the Concept, State of the evidence", *Review of Educational Research*, Vol. 74, pp. 59-109.

Nurmi, J.E. et al. (2003), "The role of success expectation and task-avoidance in academic performance and satisfaction: Three studies on antecedents, consequences and correlates", *Contemporary Education Psychology*, Vol. 28, pp. 59-90.

ABSENTEEISM: SKIPPING CLASSES OR DAYS OF SCHOOL

Regular absenteeism represents a missed learning opportunity, signifies lack of interest, and also has negative consequences on students' classmates because it contributes to a disruptive learning environment. Students who took part in PISA 2012 were asked to report how many times they skipped classes or days of school without authorisation in the two weeks prior to the PISA assessment. Results presented in Figures III.2.7 and III.2.8 reveal that absenteeism is a problem in many countries. Across OECD countries, 18% of students reported that they had skipped at least one class and 15% reported that they had skipped at least an entire day of school without authorisation in the two weeks before the PISA test. In Argentina, Turkey, Italy and Jordan, 40% of students or more reported that they had skipped at least one day of school, and in Latvia, Turkey, Argentina, Romania, Costa Rica and Greece, 40% of students or more reported that they had skipped at least one class. In Latvia, Turkey, Argentina, Greece and Romania, 4% of students or more reported having skipped a class five times or more in the two weeks prior to the PISA test, and in Turkey and Argentina, more than 7% of students reported having skipped five or more days of school during that period (Tables III.2.2a and III.2.2b)

Figures III.2.9 and III.2.10 illustrate differences in the proportion of socio-economically advantaged and disadvantaged students who reported having skipped classes or days of school. In many countries skipping classes or days of school is a particularly acute problem among disadvantaged students: across OECD countries, the difference between advantaged and disadvantaged students who reported having skipped classes is two percentage points while in having skipped days of school it is six percentage points. Across OECD countries, 19% of disadvantaged students (compared with 17% of advantaged students) reported having skipped classes, while 18% of disadvantaged students (compared with 12% of advantaged students) reported having skipped days of school (Tables III.2.2a and III.2.2b).

Figure III.2.11 shows that students who reported having skipped classes or days of school at least once in the two weeks prior to the PISA test have lower scores than students who reported not skipping classes or days of school (Table III.2.2c). Across OECD countries, the difference in mathematics performance that is associated with skipping classes or days of school is 37 score points; in Korea, Japan and Chinese Taipei that difference is 80 score points or more. In every country except Brazil, Colombia and Israel, skipping classes or days of school is associated with a performance disadvantage.

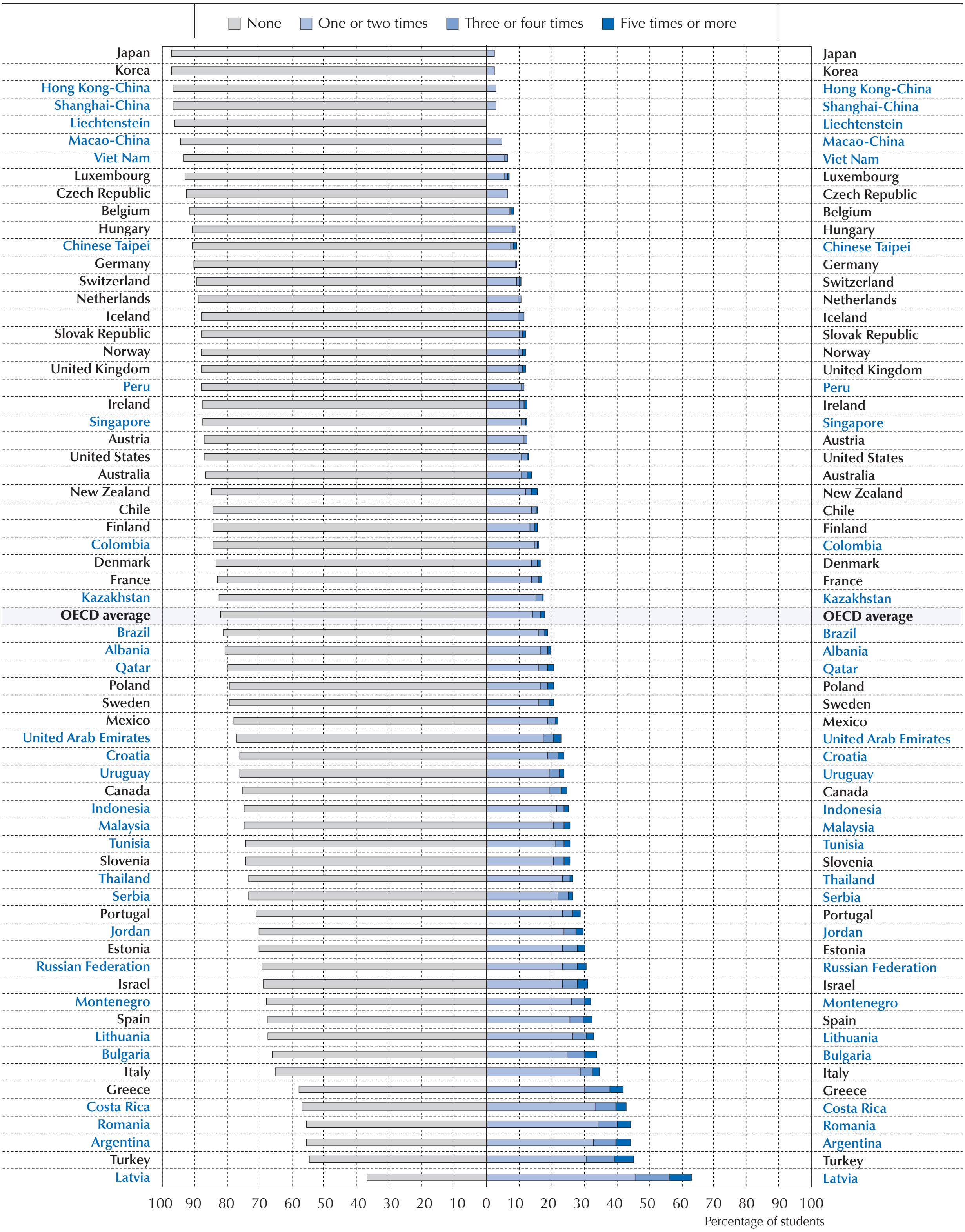
On average, the difference in performance associated with skipping classes or days of school tends to be similar between the most and the least able students. The OECD average masks large differences across countries, however. For example, in 20 countries and economies, this difference is at least 10 score points larger among the least able students than among the most able students. In Peru, New Zealand, Serbia, Croatia and Bulgaria, skipping classes is more negatively associated with performance among the most able students than among the least able students and this difference is at least 10 score points. Students' absenteeism and lack of punctuality can have a disruptive effect on classes and schools more broadly. Chapter 5 of this volume identifies the extent to which students who reported having arrived late or having skipped classes or days of school are concentrated in particular schools.

That the lowest-achieving students tend to suffer the most from arriving late for school and, in many countries and economies, from skipping classes or days of school may reflect the fact that these are the students who need – and should take advantage of – learning opportunities the most.

▪ Figure III.2.7 ▪

Percentage of students who skip classes

Percentage of students who reported that they skipped classes in the two weeks prior to the PISA test



Countries and economies are ranked in descending order of the percentage of students who reported not having skipped classes in the two weeks prior to the PISA test.

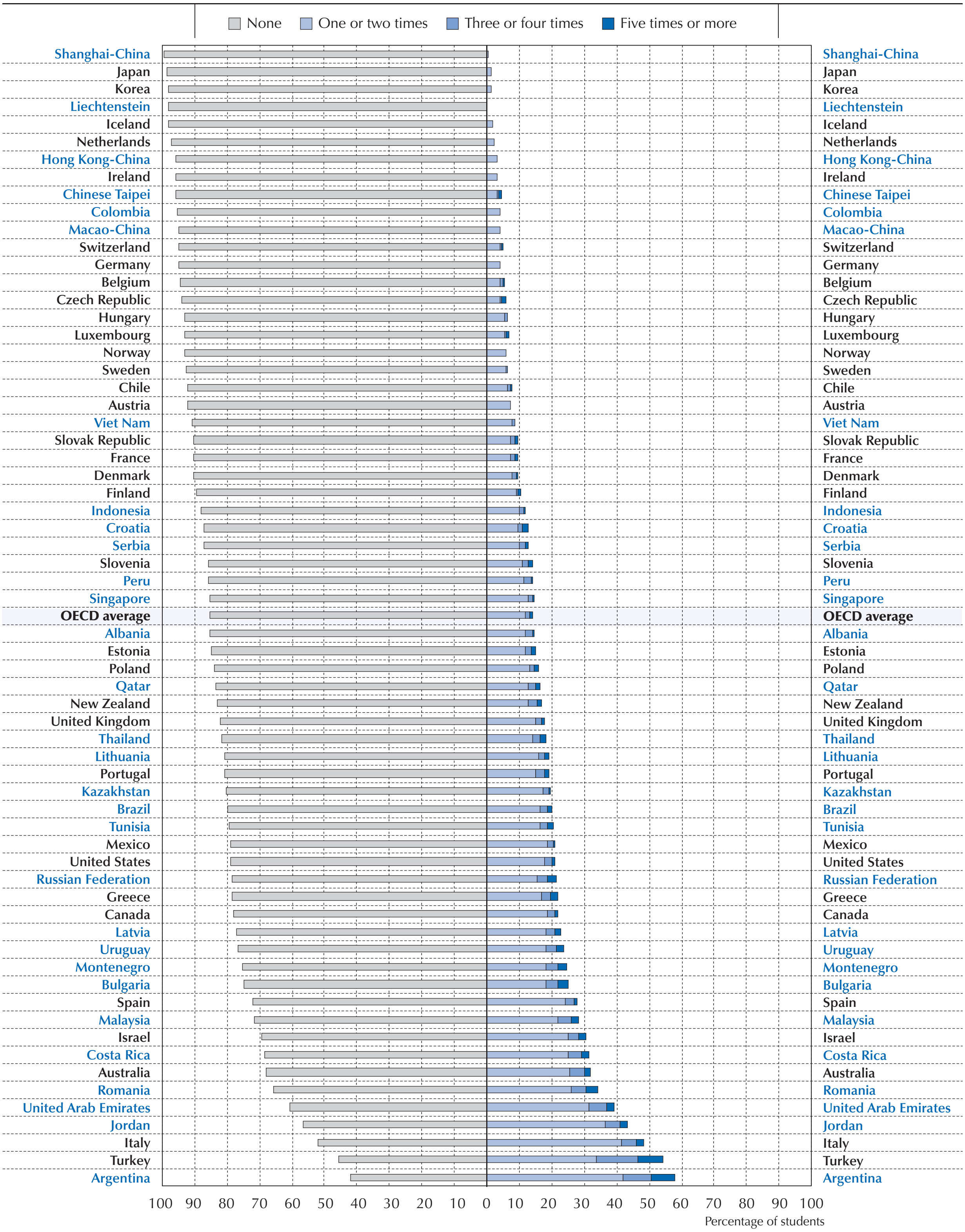
Source: OECD, PISA 2012 Database, Table III.2.2a.

StatLink http://dx.doi.org/10.1787/888932963806

▪ Figure III.2.8 ▪

Percentage of students who skip days of school

Percentage of students who reported that they skipped days of school in the two weeks prior to the PISA test



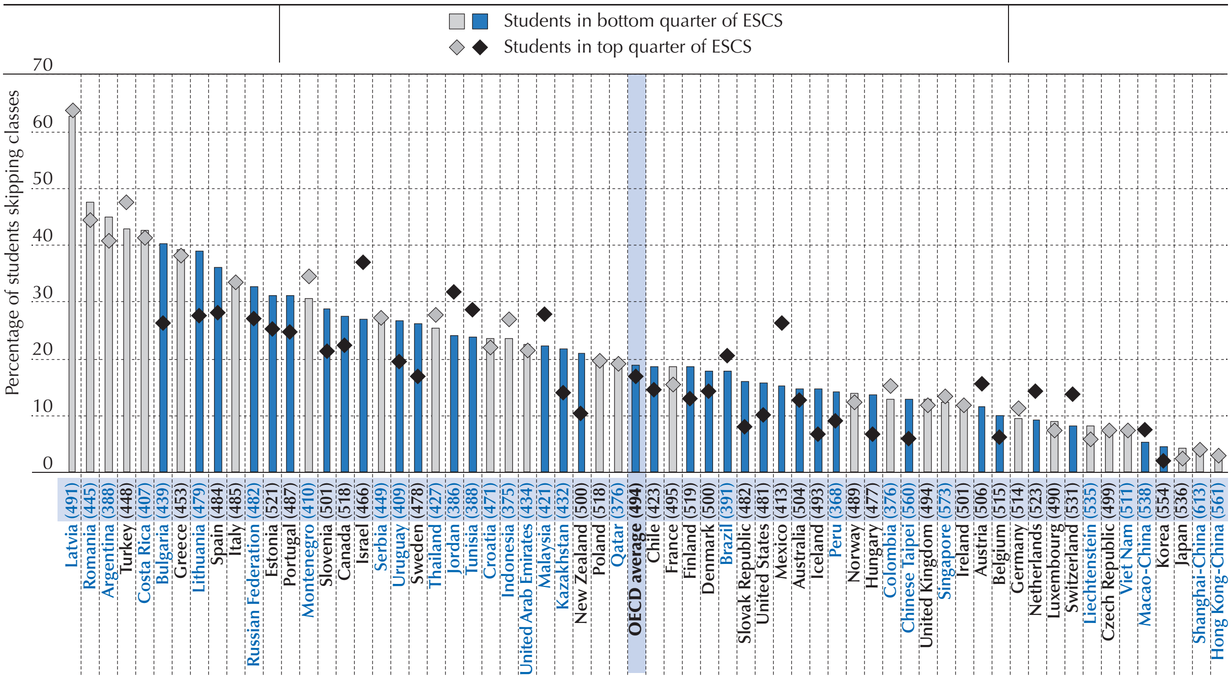
Countries and economies are ranked in descending order of the percentage of students who reported not having skipped days of school in the two weeks prior to the PISA test.

Source: OECD, PISA 2012 Database, Table III.2.2b.

StatLink http://dx.doi.org/10.1787/888932963806

▪ Figure III.2.9 ▪

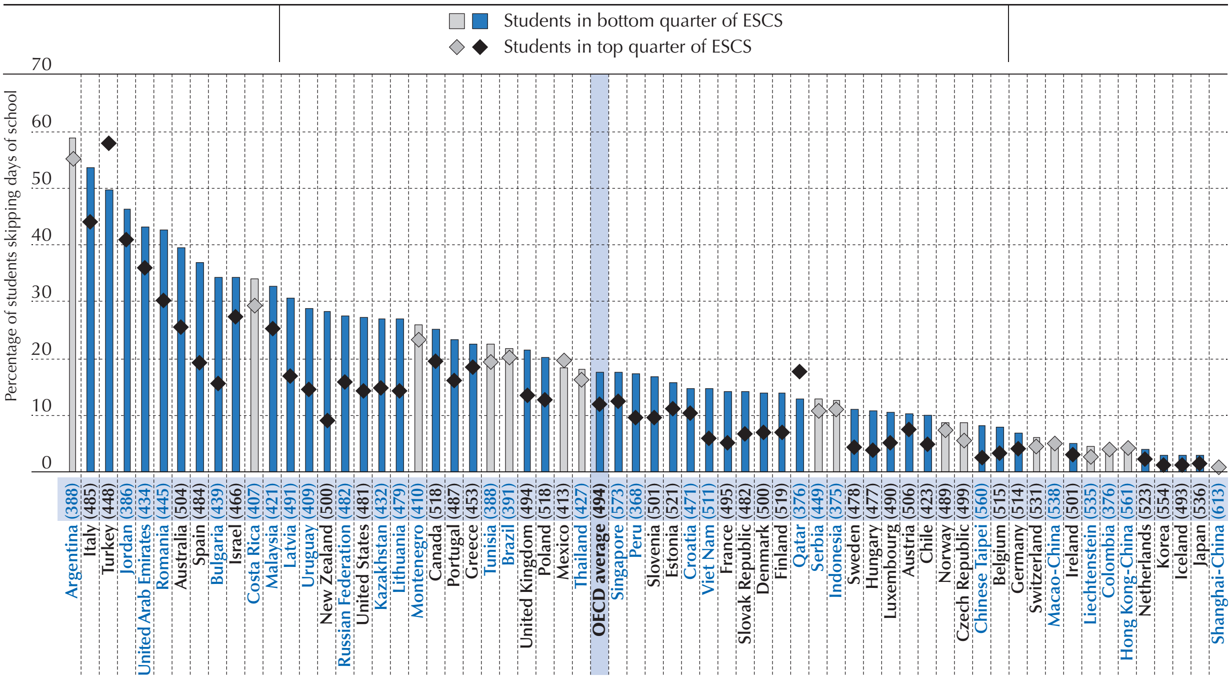
Socio-economic disparities in skipping classes



Notes: ESCS refers to the *PISA index of economic, social and cultural status*.
Differences that are statistically significant at the 5% level ($p < 0.05$) are marked in a darker tone.
Mean mathematics performance is shown above the country/economy name in parenthesis.
Countries and economies are ranked in descending order of the percentage of students skipping classes who are in the bottom quarter of ESCS.
Source: OECD, PISA 2012 Database, Tables I.2.3a and III.2.2a.
`StatLink` http://dx.doi.org/10.1787/888932963806

▪ Figure III.2.10 ▪

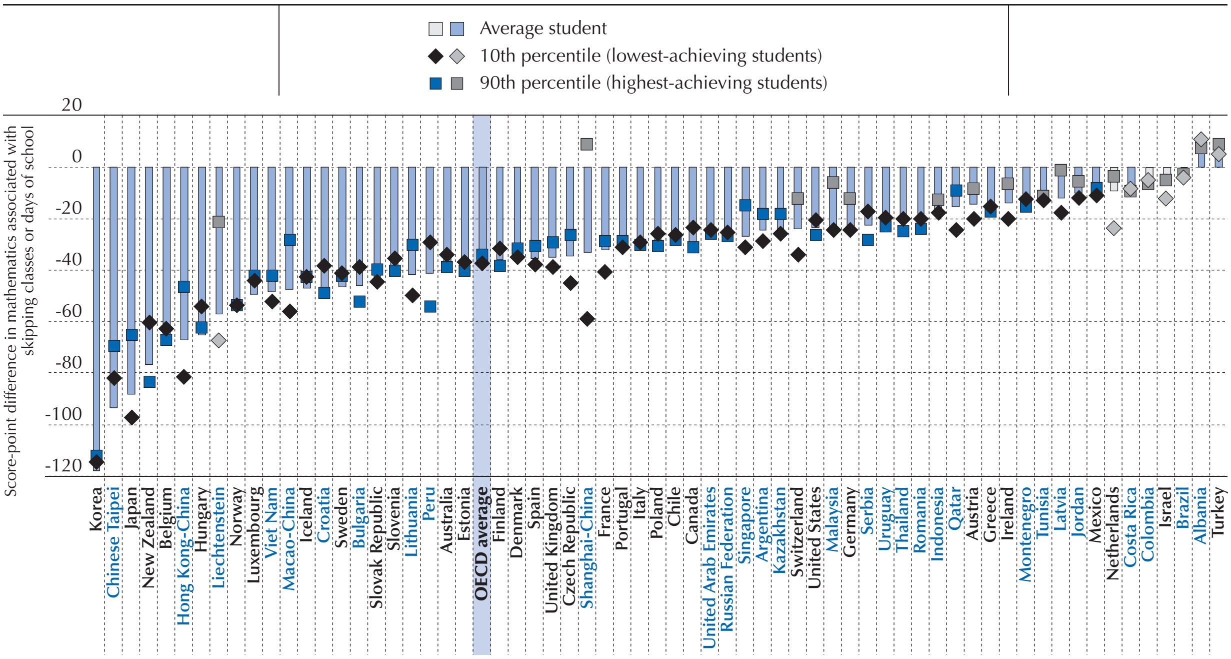
Socio-economic disparities in skipping days of school



Notes: ESCS refers to the *PISA index of economic, social and cultural status*.
Differences that are statistically significant at the 5% level ($p < 0.05$) are marked in a darker tone.
Mean mathematics performance is shown above the country/economy name in parenthesis.
Countries and economies are ranked in descending order of the percentage of students skipping days of school who are in the bottom quarter of ESCS.
Source: OECD, PISA 2012 Database, Tables I.2.3a and III.2.2b.
`StatLink` http://dx.doi.org/10.1787/888932963806

▪ Figure III.2.11 ▪

The relationship between skipping classes and days of school and mathematics performance



Note: Differences that are statistically significant at the 5% level ($p < 0.05$) are marked in a darker tone.
Countries and economies are ranked in ascending order of the average score-point difference in mathematics that is associated with students skipping classes or days of school.
Source: OECD, PISA 2012 Database, Table III.2.2c.
StatLink http://dx.doi.org/10.1787/888932963806

SENSE OF BELONGING

For young children, the family is the centre of their social and emotional world. That changes during adolescence. Teenagers begin to look farther afield for support and acceptance (Baumeister and Leary, 1995); and often that acceptance (or lack of it) has a strong impact on adolescents' sense of self-worth (Harter, 1999). Rejection by one's peers can be a hurtful – indeed sometimes physically painful – experience (Eisenberger, Lieberman and Williams, 2003; Eisenberger and Lieberman, 2006; Kross et al., 2011). Indicators of social connectedness can show the extent to which families, schools and education systems foster overall student well-being. A sense of belonging reflects how connected students feel with their school and peers. Students tend to thrive when they form positive relationships with peers, feel part of a social group, and feel at ease at school. A lack of connectedness can adversely affect students' perceptions of themselves, their satisfaction with life, and their willingness to learn and to put effort into their studies.

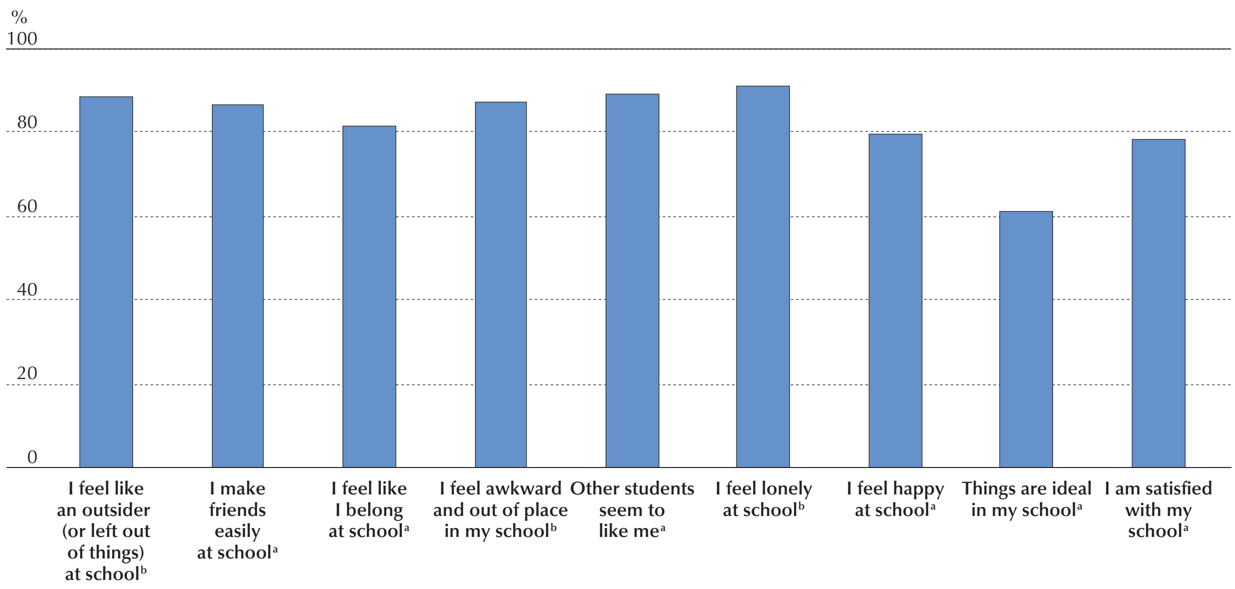
In 2012, as in 2003, PISA asked students to report whether they "strongly agree", "agree", "disagree" or "strongly disagree" that they feel like an outsider or left out of things, that they make friends easily, that they feel like they belong, that they feel awkward and out of place, that other students seem to like them, or that they feel lonely. For the first time, PISA 2012 asked students to evaluate their happiness at, and satisfaction with, school and to reflect on whether their school environment approaches their idea of an ideal situation. As schools are a, if not *the*, primary social environment for 15-year-olds, these subjective evaluations provide a good indication of whether education systems are able to foster or hinder overall student well-being. Student responses to these nine questions were used to construct the *index of sense of belonging*, which was standardised to have a mean of 0 and a standard deviation of 1 across OECD countries.

As Figure III.2.12 and Table III.2.3a show, across OECD countries, 81% of students feel that they belong, 87% of students agree or strongly agree that they can make friends easily, and 89% of students disagree that they feel like an outsider or feel left out of things. Some 80% of students feel happy at school, 78% are satisfied with school, and 61% believe that conditions are ideal in their school (Table III.2.3a). However, in some countries sizable minorities of students do not have positive relationships with their peers at school, do not feel connected with their school, and are not happy or satisfied with school. Worryingly, in many countries, students' sense of belonging deteriorated somewhat between 2003 and 2012.

▪ Figure III.2.12 ▪

Students' sense of belonging

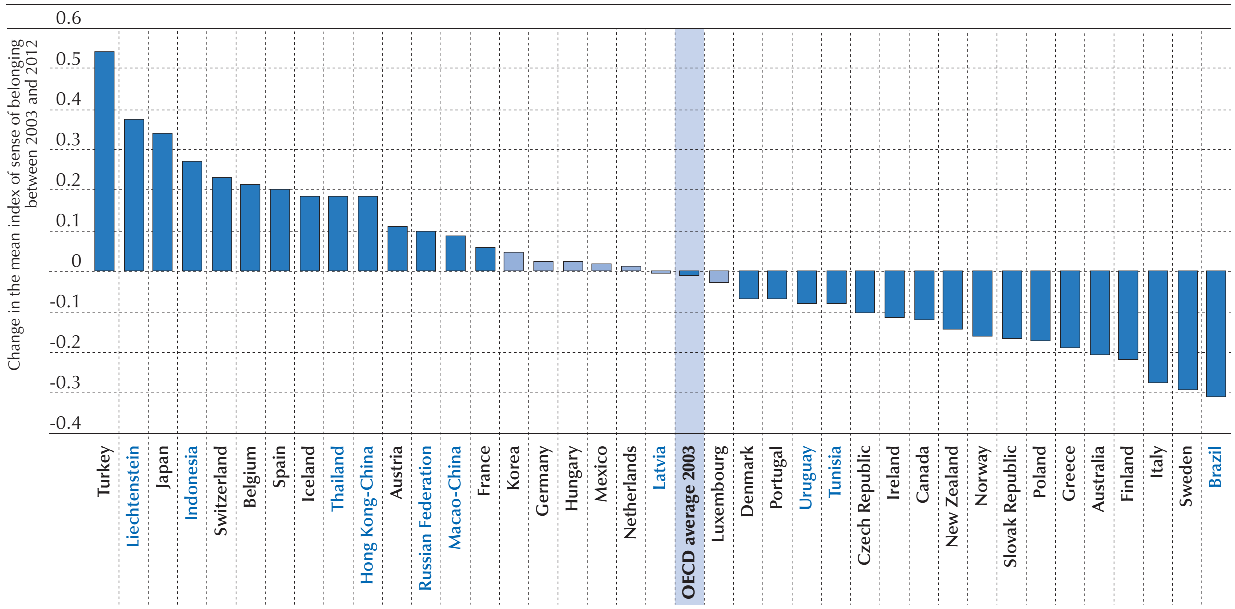
Percentage of students who reported "agree" or "strongly agree" (a) or who reported "disagree" or "strongly disagree" (b)



Source: OECD, PISA 2012 Database, Table III.2.3a.
StatLink http://dx.doi.org/10.1787/888932963806

▪ Figure III.2.13 ▪

Change between 2003 and 2012 in students' sense of belonging



Notes: Statistically significant changes at the 5% level ($p < 0.05$) between PISA 2003 and PISA 2012 are marked in a darker tone.
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
OECD average 2003 compares only OECD countries with comparable *indices of sense of belonging* since 2003.
Countries and economies are ranked in descending order of the change in the mean index of sense of belonging *between PISA 2003 and PISA 2012.*
Source: OECD, PISA 2012 Database, Table III.2.3f.
StatLink http://dx.doi.org/10.1787/888932963806

Although students' sense of belonging is generally strong across participating countries and economies, it weakened slightly, on average across OECD countries. In 2003, 93% of students did not feel like outsiders or left out of things at school, but by 2012, that proportion shrank somewhat to 89%. In 31 of the 38 countries and economies with comparable data between 2003 and 2012, the share of students who reported feeling like an outsider increased significantly. Most notably, in Tunisia, Thailand and France the share of students who agreed that they feel like an outsider at school grew by more than ten percentage points between 2003 and 2012. The share of students who reported feeling awkward and out place at school increased significantly in 26 countries and economies with comparable data between 2003 and 2012, and grew by more than five percentage points in ten countries and economies during the period. A weakening of students' sense of belonging between 2003 and 2012 is particularly notable in Brazil, Sweden, Italy, Finland and Australia. In Sweden, for example, there were consistently more students in 2012 than in 2003 who reported feeling like an outsider, awkward and out of place in school. In Australia, the share of students who reported that they feel like they belong at school shrank by around ten percentage points and, in Brazil, the share of students who reported feeling lonely at school increased by more than ten percentage points (Figure III.2.13).

Box III.2.2. **Interpreting PISA indices**

Indices used to characterise students' dispositions, behaviours and self-beliefs were constructed so that the average OECD student would have an index value of zero and about two-thirds of the OECD student population would be between the values of -1 and 1 (i.e. the index has a standard deviation of 1). Negative values on the index, therefore, do not imply that students responded negatively to the underlying question. Rather, students with negative scores are students who responded less positively than the average response across OECD countries. Likewise, students with positive scores are students who responded more positively than the average student in the OECD area (see Annex A3 for a detailed description of how indices were constructed).

Most of the indicators of engagement, drive and self-beliefs are based on students' self-reports. Such measures can thus suffer from a degree of measurement error because students are asked to assess their engagement, drive and self-beliefs retrospectively. Apart from potential measurement error, cultural differences in attitudes towards self-enhancement can influence country-level results in students' self-reported engagement, drive and self-beliefs (Bempechat, Jimenez and Boulay, 2002). The literature consistently shows that response biases, such as social desirability, acquiescence and extreme response choice, are more common in countries with low GDP than in more affluent countries, as they are, within countries, among individuals with lower socio-economic background and less education (Buckley, 2009).

As in the 2003 PISA cycle, in 2012 many of the self-reported indicators of engagement, drive and self-beliefs are strongly and positively associated with mathematics performance within countries, but show a weak or negative association with performance between countries. This may be due to different response biases across countries or the fact that country-level differences in mathematics performance are due to many factors that go beyond levels of engagement, drive and self-beliefs, and that are negatively associated with mathematics performance and positively associated with engagement, drive and self-beliefs. In PISA 2012 new survey methods were introduced to enhance the validity of questionnaire indexes, especially for cross-country comparisons. One of the new methods introduced is an alternative scoring of Likert-type items based on so-called anchoring vignettes (King and Wand, 2007). Annex A6 contains a full description of the anchoring vignettes methodology.

Caution is advised when comparing levels of engagement, drive and self-beliefs across countries because different students, particularly students in different countries, may not always mean the same thing when answering questions. The *PISA 2012 Technical Report* (OECD, forthcoming) contains a detailed description of all the steps that were taken in PISA 2012 to ensure the highest possible level of cross-country comparability and to assess the validity of cross-country comparisons based on the indices featured in the report.*

PISA scale indices, like the *PISA index of economic, social and cultural status*, *index of sense of belonging*, *index of attitudes towards school*, *index of intrinsic motivation to learn mathematics*, *index of instrumental motivation to learn mathematics*, *index of mathematics self-concept*, *index of mathematics self-efficacy* and *index of mathematics anxiety*, are based on information gathered from the student questionnaire. In PISA 2012, each index is scaled so that a value of 0 indicates the OECD average and a value of 1 indicates the average standard deviation across OECD countries (see Annex A1 for details on how each index is constructed). Similarly, in PISA 2003, each index was scaled so that a value

…

of 0 indicated the OECD average and a value of 1 indicated the average standard deviation across OECD countries. To compare the evolution of these indices over time, the PISA 2012 scale was used and all index values for PISA 2003 were rescaled accordingly. As a result, the values of the indices for 2003 presented in this report differ from those produced in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004). Also, in PISA 2003, the *index of intrinsic motivation to learn mathematics* was named *index of interest and enjoyment in mathematics*. Both the *index of intrinsic motivation to learn mathematics* of 2012 and the *index of interest and enjoyment in mathematics* of 2003 are based on the same questionnaire items and can be compared across assessments.

* In PISA 2012, several tests were conducted to determine whether the use of country-specific item parameters improved cross-country comparability of indices. For example, simulation studies indicated that using country-specific item parameters in regression models did not lead to improvements in the comparability of indices across countries. During the estimation procedure, an index of differential item functioning (DIF) across countries is produced that can be used to gauge the amount of DIF for each item across countries. If necessary, the impact of DIF on items can then be tackled using country-specific item parameters. However, simulation studies have shown that introducing country-specific item parameters for DIF items has a negligible impact on the regression coefficients in a two-level regression (students within countries) of background variables (with and without country-specific items) on cognitive scores in mathematics, reading and science.

Sources:

Bempechat, J., N.V. Jimenez and **B.A. Boulay** (2002), "Cultural-cognitive issues in academic achievement: New directions for cross-national research", in A.C. Porter and A. Gamoran (eds.), *Methodological Advances in Cross-National Surveys of Educational Achievement*, National Academic Press, Washington, D.C.

Buckley, J. (2009), "Cross-national response styles in international educational assessments: Evidence from PISA 2006", Department of Humanities and Social Sciences in the Professions, Steinhardt School of Culture, Education, and Human Development, New York University, New York.

King, G. and **J. Wand** (2007), "Comparing incomparable survey responses: New tools for anching vignettes", *Political Analysis*, Vol. 15, pp. 46-66.

OECD (forthcoming), *PISA 2012 Technical Report*, PISA, OECD Publishing.

OECD (2004), *Learning for Tomorrow's World: First Results from PISA 2003,* PISA, OECD Publishing. *http://dx.doi.org/10.1787/9789264006416-en*.

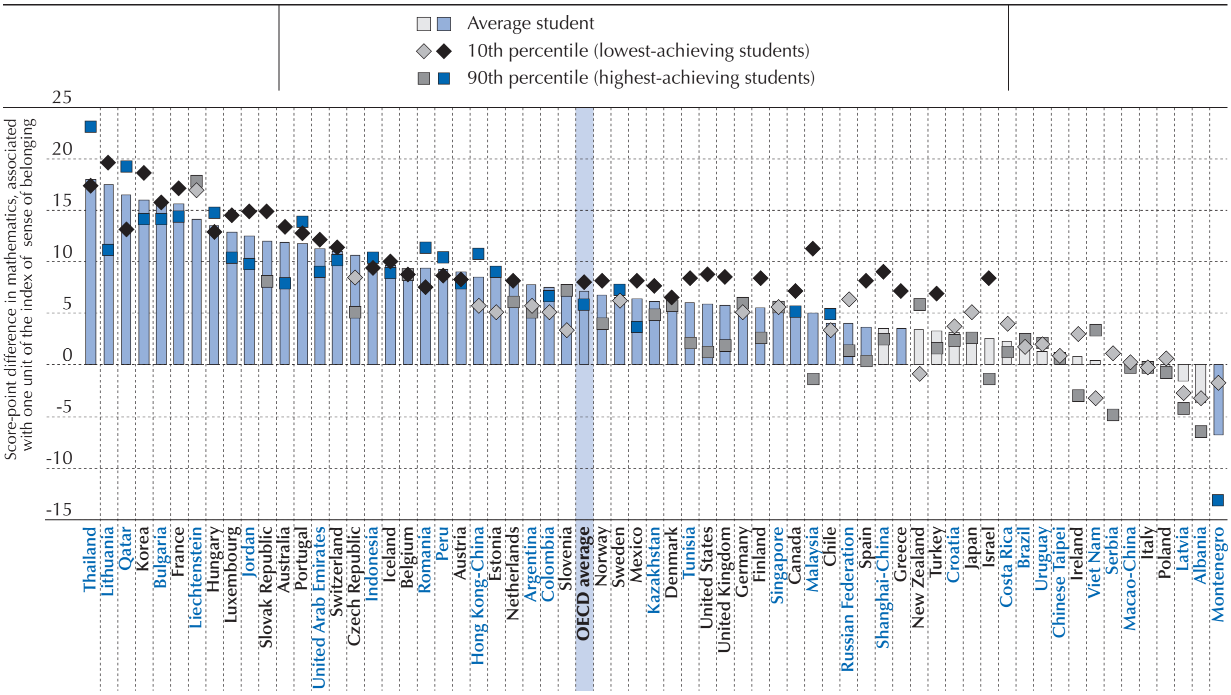
A sense of belonging is not particularly associated with one gender or another: in 20 of the 65 countries and economies that took part in PISA 2012, girls tend to have a stronger sense of belonging than boys while in 13 countries and economies, boys have the stronger sense of belonging (Table III.2.3d). In general socio-economically advantaged students have a stronger sense of belonging than socio-economically disadvantaged students: in 54 countries and economies socio-economically advantaged students reported a stronger sense of belonging, and the difference is particularly large in Liechtenstein, Iceland, France and Lithuania (Table III.2.7b). Socio-economically disadvantaged students are less likely than advantaged students to feel like they belong at school, are more likely to feel like outsiders, and are less likely to feel happy and satisfied with their school. On average, across OECD countries, students in the bottom quarter of the *PISA index of economic, social and cultural status* have values on the *index of sense of belonging* that are one quarter of a standard deviation lower than students in the top quarter of the *PISA index of economic, social and cultural status* (Table III.2.3c).

Do 15-year-old students who perform at high levels enjoy greater social acceptance and find it easier to integrate with their peers at school than students who perform less well, or do they suffer a "social penalty" because of their high achievement? The association between academic success and social acceptance may differ for boys and girls, and across socio-economic and ethnic groups (Horner, 1972; Ogbu and Simons, 1998; Spencer and Harpalani, 2008; Fuller-Rowell and Doan, 2010). For example, if doing well at school is not valued among boys, then a boy who is successful academically may be rejected by his male peers and his sense of belonging at school will then weaken (Fuller-Rowell and Doan, 2010; Steele, 1997; Steele, 1998; Davies, Spencer and Steele, 2005).

As Figure III.2.14 indicates, students who reported, for example, feeling happy at school, finding it easy to make friends at school and not feeling lonely at school perform better in mathematics than students who reported having less of a sense of belonging (Table III.2.3e). The blue bars in Figure III.2.14 represent the estimated difference in mathematics performance that is associated with a difference of one unit in the *index of sense of belonging*. This difference corresponds roughly to the variation in the sense of belonging that can be expected between the average student in OECD countries and a student whose sense of belonging places him or her among a group of students with a strong sense of belonging. Only 16.5% of students, on average across OECD countries, reported a stronger sense of belonging than this student (Box III.2.3).

■ Figure III.2.14 ■

Relationship between sense of belonging and mathematics performance



Note: Differences that are statistically significant at the 5% level ($p < 0.05$) are marked in a darker tone.
Countries and economies are ranked in descending order of the average score-point difference in mathematics that is associated with one unit of the index of sense of belonging.
Source: OECD, PISA 2012 Database, Table III.2.3e.
StatLink http://dx.doi.org/10.1787/888932963806

A sense of belonging is not highly associated with mathematics performance. On average across OECD countries, a difference of one unit in the *index of sense of belonging* corresponds to a difference of 7 score points in mathematics (Table III.2.3d). In 16 countries and economies, the difference in mathematics performance that is associated with students' sense of belonging is 10 points or more; in Thailand, Lithuania, Qatar, Korea, Bulgaria and France the gap is somewhat wider, at 15 score points or more. In 18 countries and economies a sense of belonging is not associated with mathematics performance; in all countries and economies the variation in performance associated with a difference of one unit in the *index of sense of belonging* is smaller than 20 points. Across OECD countries, less than 1% of the variation in students' mathematics performance can be explained by differences in students' sense of belonging, and the explained variation in mathematics performance is lower than 5% in all countries and economies.

Research examining the association between academic achievement and social acceptance generally confirms a positive circular relationship: social acceptance leads to higher levels of academic achievement, and high levels of academic achievement lead to greater social acceptance (Chen, Rubin and Li, 1997; Wentzel, 1991; Wentzel, 2005; Wentzel, Donlan and Morrison, 2012). However, the link between social acceptance and achievement is likely to differ significantly across countries, depending on whether teenagers value high academic achievement. In some countries, academic achievement is considered socially desirable among teenagers; in others, academic achievement is not a factor in social acceptance among peers, and sometimes it is even sanctioned, particularly in groups of students who do not do well in school or feel marginalised from participation in school (Fordham and Ogbu, 1986; Ogbu, 2003).

Results presented in Figure III.2.14 indicate that the relationship between a sense of belonging and mathematics performance is similar regardless of how well students perform. In 22 countries and economies, a sense of belonging is not associated with performance either at the top or at the bottom of the performance distribution. In 15 countries and economies there are differences in performance associated with a sense of belonging among the lowest-achieving students but not among the highest-achieving students; while in Estonia, Sweden, Chile, Hong Kong-China, Montenegro and Colombia, there are differences in performance associated with a sense of belonging among the highest-achieving students but not among the lowest-achieving students. However, in no country is that performance difference large (Table III.2.3e). Overall, the relationship between students' sense of belonging and their mathematics performance was weak in 2003 in all countries and economies, and remained weak in 2012 (Table III.2.9).

Box III.2.3. The association between students' dispositions, behaviours and self-beliefs and mathematics performance

Results presented in the chapter on the relationship between students' engagement with and at school, drive and motivation and self-beliefs and mathematics performance can be used to answer two main policy issues:

How strong is the association between mathematics performance and students' engagement, drive and self-beliefs?

Two indicators can be used to answer this question: the slope and the inter-quartile range.

The slope represents the score-point difference that is associated with a change of one unit in students' engagement, drive and self-beliefs.

- If this number is low, on average, little or no differences are observed in the mathematics performance of students with different levels of engagement, drive and self-beliefs. Students whose engagement, drive and self-beliefs are similar to those of the average student in an OECD country (index value of 0) show similar performance in mathematics as students who are one standard deviation above the average OECD student in their engagement, drive and self-beliefs (index value of 1).
- If this number is high and positive, large differences are observed in the mathematics performance of students with different engagement, drive and self-beliefs. Students whose engagement, drive and self-beliefs are similar to those of the average OECD student (index value of 0) score lower in mathematics score than students who are one standard deviation above the average OECD student in their engagement, drive and self-beliefs (index value of 1).

The inter-quartile range represents the difference between the students with the highest and those with the lowest engagement, drive and self-beliefs (i.e. those in the top and bottom quartiles of these indicators within each country). This indicator shows the magnitude of the inequalities in mathematics performance between "enthusiastic" and "unenthusiastic" learners in different countries.

Are engagement, drive and self-beliefs good predictors of performance?

Identifying the proportion of the variation in student performance that is accounted for by engagement, drive and self-beliefs, the "explained variance", helps to answer this question.

- If this number is low, knowing how engaged students are, their drive and self-beliefs tells very little about their mathematics performance.
- If this number is high, by knowing student engagement, drive and self-beliefs one can predict students' mathematics performance relatively well.

ATTITUDES TOWARDS SCHOOL

Students' attitudes towards school can be influenced by their parents, their teachers, their peers and the atmosphere at school. PISA 2012 sought to find out whether 15-year-olds feel that what they have learned in school is useful for them, both in the immediate and for their future. Students who took part in PISA 2012 were asked to report whether they strongly disagreed, disagreed, agreed or strongly agreed that school has done little to prepare them for adult life when they leave school; that school has been a waste of time; that school has helped to give them confidence to make decisions; and that school has taught them things that could be useful in a job. In addition to these questions, which had also been asked in the PISA 2003 assessment, students participating in the 2012 assessment were also asked to report whether they agree that trying hard at school will help them get a good job, will help them get into a good <college>,[2] whether they enjoy receiving good grades,[3] and whether trying hard at school is important.

As Figures III.2.15 and III.2.16 and Table III.2.4a illustrate, most students believe that school is useful. Across OECD countries, around nine out of ten students reported that they do not think school has been a waste of time (88%) and that they think that school has taught them things that could be useful in a job (87%). Some 71% of students think that school has prepared them for adult life, and 77% believe that school has helped to give them confidence to make decisions. Similarly, Table III.2.5a indicates that 94% believe that trying hard at school will help them get into a good college, and 91% believe that trying hard at school will help them get a good job. However, while students generally reported positive attitudes towards school, their perceptions vary considerably across countries. For example, over 90% of students in Kazakhstan, Albania, Thailand, Peru, Viet Nam, Mexico, Colombia, Indonesia, the Russian Federation and

Malaysia think that school has helped to give them confidence to make decisions, while fewer than 70% of students in Japan, Luxembourg, Norway, Korea, Germany, the Netherlands and Israel think so. In 47 of 65 participating countries and economies, girls tended to report more positive attitudes towards school than boys, and in no country or economy did boys report more positive attitudes towards school than girls (Table III.2.4d).

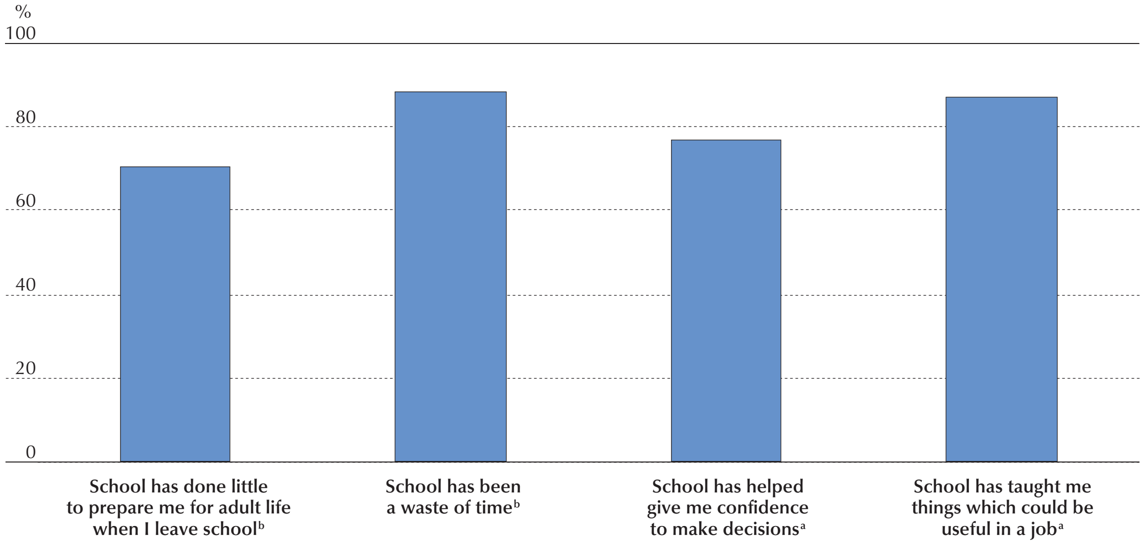
Student responses to questions about whether they believe that school has done little to prepare them for adult life, that school has been a waste of time, that it has given them confidence to make decisions, or that it has taught them things that could be useful in a job were used to create the *index of attitudes towards school (learning outcomes)*. The index was standardised to have a mean of 0 and a standard deviation of 1 across OECD countries. Similarly, student responses to questions about whether they believe that trying hard at school will help them get a good job, that trying hard at school will help them get into a good <college>, that they enjoy getting good <grades>, and that trying hard at school is important were used to create the *index of attitudes towards school (learning activities)*. The index was standardised to have a mean of 0 and a standard deviation of 1 across OECD countries. The standardisation procedure applied to the indices means that positive values on the index indicate students who have more positive attitudes than the average student in OECD countries, while negative values indicate students who reported less positive attitudes towards school than the average student in OECD countries.

Students' attitudes towards school are not highly associated with mathematics performance. On average across OECD countries, a difference of one unit in the *index of attitudes towards school (learning outcomes)* as well as a difference of one unit in the *index of attitudes towards school (learning activities)* correspond to a difference of 9 score points in mathematics (Tables III.2.4d and III.2.5d). In 29 countries and economies, the difference in mathematics performance that is associated with students' attitudes towards school (learning outcomes) is 10 points or more; in Qatar, Iceland and Australia the gap is 20 score points or more. In 13 countries and economies students' attitudes towards school (learning outcomes) are not associated with mathematics performance, while in Viet Nam and Turkey the relationship is negative. Across OECD countries, around 2% of the variation in students' mathematics performance can be explained by differences in students' attitudes towards school (learning outcomes), and the explained variation in mathematics performance is less than 5% in all countries and economies except Qatar, Iceland and Australia, where the explained variation is between 5% and 10%.

▪ Figure III.2.15 ▪

Students' attitudes towards school: Learning outcomes

Percentage of students who reported "agree" or "strongly agree" (a) or who reported "disagree" or "strongly disagree" (b) with the following statements:



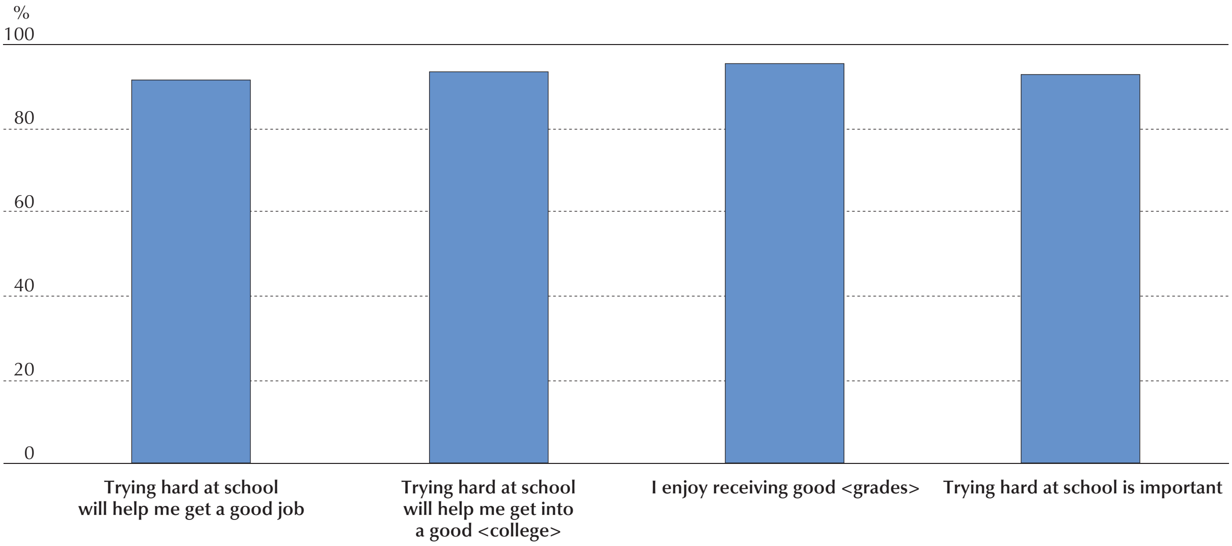
Source: OECD, PISA 2012 Database, Table III.2.4a.

StatLink http://dx.doi.org/10.1787/888932963806

▪ Figure III.2.16 ▪

Students' attitudes towards school: Learning activities

Percentage of students across OECD countries who reported that they "agree" or "strongly agree" with the following statements:



Source: OECD, PISA 2012 Database, Table III.2.5a.
StatLink `http://dx.doi.org/10.1787/888932963806`

Not all changes in students' attitudes towards school between 2003 and 2012 were positive. While more students reported that school has helped to give them the confidence to make decisions, on average across OECD countries, more students also reported that school is a waste of time. Indeed, in 2012 in the Slovak Republic, Thailand, Tunisia and Poland the share of students who reported that school has been a waste of time increased by more than ten percentage points since 2003, and in Thailand and Tunisia the share of students who reported that school has done little to prepare them for adult life increased by around 20 percentage points during the period. By contrast, attitudes towards school improved in Luxembourg, Austria, Spain, Liechtenstein, Hungary and Japan. In all these countries and economies, the *index of attitudes towards school* improved by more than 0.1 units between 2003 and 2012. Most notably, students in Japan hold significantly more positive attitudes towards school, across all PISA measures of attitudes towards school, than they did in 2003. Students in Japan in 2012 were over ten percentage points more likely than their counterparts in 2003 to report that school has taught them things that could be useful in a job or that school has given them confidence to make decisions, and they were ten percentage points less likely than their 2003 counterparts to report that school has done little to prepare them for adult life (Figure III.2.17).

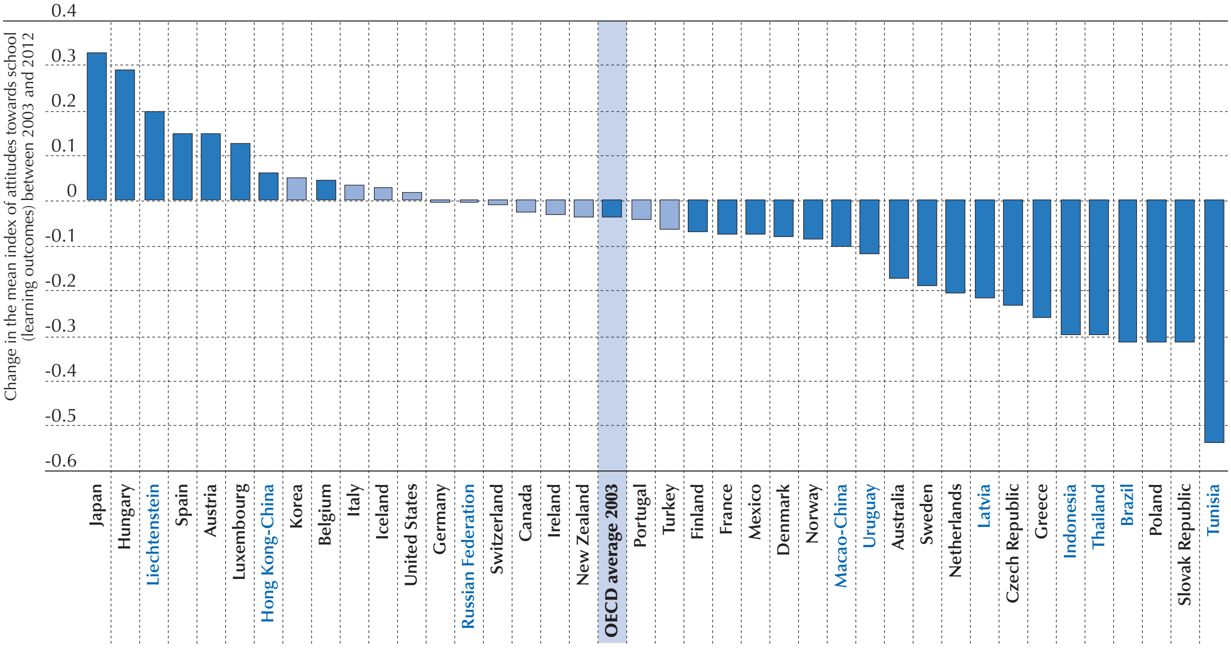
Students' attitudes towards school tended to improve the most in countries and economies that also saw improvements in students' intrinsic and instrumental motivation to learn mathematics (correlations at the country level of 0.4 and 0.5, respectively, Table III.4.10). The relationship between students' attitudes towards school and their mathematics performance was weak in 2003 and remained weak in 2012 in all countries and economies (Table III.2.9).

Do differences in the relationship between dispositions, behaviours and self-beliefs and performance among the highest-achieving and lowest-achieving students reflect the influence of other factors?

Previous sections in the chapter describe the relationship between engagement with and at school and mathematics performance. The findings indicate that the relationships between a sense of belonging and mathematics performance estimated for the average student adequately represent what happens for students at all levels of proficiency. However, associations estimated for the average student do not fully represent the associations between lack of punctuality and truancy, on the one hand, and mathematics performance, on the other, among highest- and lowest-achieving students. For example, the relationship between arriving late for school and mathematics performance is strongest among the lowest-achieving students. But among these students, there are also differences in performance associated with gender and in socio-economic status. Do these factors affect the relationship between students' lack of punctuality and mathematics performance?

▪ Figure III.2.17 ▪

Change between 2003 and 2012 in students' attitudes towards school (learning outcomes)



Notes: Statistically significant changes between PISA 2003 and PISA 2012 are marked in a darker tone.
The figure shows only countries/economies with comparable data in PISA 2003 and PISA 2012.
OECD average 2003 compares only OECD countries with comparable *indices of attitudes towards school* since 2003.
Countries and economies are ranked in descending order of the change in the mean index of attitudes towards school *between PISA 2003 and PISA 2012.*
Source: OECD, PISA 2012 Database, Table III.2.4e.
StatLink `http://dx.doi.org/10.1787/888932963806`

In order to examine whether the results presented in previous sections of the chapter reflect the different composition of highest-achieving and lowest-achieving students, Tables III.2.1c, III.2.2c and III.2.3e illustrate two sets of models. The first set, which is used in the previous sections, reports results for arriving late, skipping classes and days of school and for sense of belonging as the only independent variable. The second set reports results from models that further control for students' socio-economic status and gender. Therefore, results presented in Tables III.2.1c, III.2.2c and III.2.3e represent the performance gap that is associated with students' engagement with and at school at different points of the performance distribution between students of similar socio-economic status and of the same gender.

Table III.2.1c shows results of an analysis of the association between arriving late for school and mathematics performance among the highest-achieving and lowest-achieving students, and how this relationship changes when controlling for students' socio-economic status and gender. Among the lowest-achieving students, when socio-economic status and gender are taken into account, the strength of the association is reduced; but in most countries this reduction is small: on average across OECD countries, arriving late for school is associated with a 31-point lower score in mathematics. When comparing performance differences among students with similar socio-economic status and of the same gender, the performance difference is 28 points. In Chinese Taipei, France, Singapore and Hungary accounting for socio-economic status and gender reduces by 10 points or more the association between arriving late at school and mathematics performance observed at the bottom of the performance distribution. Table III.2.1c also reveals that, in the majority of countries, controlling for socio-economic differences and for gender has little impact on the association between arriving late for school and mathematics performance among the highest-achieving students.

On average across OECD countries, the change in mathematics performance associated with arriving late for school among the highest-achieving students is 20 score points, when not controlling for socio-economic status and gender, and 21 points when controlling for these factors. However, in some countries there are notable differences. For example, in Poland, when not controlling for gender and socio-economic status, the performance difference associated with arriving late for school appears to be similar among the lowest- and highest-achieving students (14 points and 16 points, respectively). But when gender and socio-economic status are taken into account, the relationship becomes much

stronger among the highest-achieving students: arriving late for school is associated with a drop of 27 score points in mathematics among the highest-achieving students, but a drop of only 16 points among the lowest-achieving students. In Germany, arriving late for school is associated with poorer performance among the lowest-achieving but not among the highest-achieving students before students' gender and socio-economic status are taken into account. However, when comparing students of the same gender and the same socio-economic status, no performance difference is observed among the lowest-achieving students, but arriving late for school is associated with a 13 score-point drop among the highest-achieving students.

Differences in the association between students' engagement with school across the performance distribution and differences in how estimated associations can vary when controlling for socio-economic status and gender suggest that policy interventions need to be sensitive to the individual student; a one-size-fits-all approach is not appropriate. The relationships that exist among gender, socio-economic status, mathematics performance and students' engagement with and at school mean that outliers pull average estimates in different directions. Chapter 7 in this volume attempts to disentangle some of the great variety of circumstances in which 15-year-olds are engaged with school, learning and mathematics in order to inform the development of more targeted approaches to education policy. One issue to address is the over-representation of socio-economically disadvantaged students among the lowest-achieving students; a second is the under-performance of girls among the highest-achieving students in mathematics.

Notes

1. Results presented in Chapters 2, 3, 4 and 7 on the association between different indicators of engagement with and at school, drive, motivation and self-beliefs at the top and the bottom of the conditional performance distribution were estimated using quantile regression methods (Koenker and Bassett, 1978; Koenker and Hallock, 2001).

2. The term "college" was adapted in the questionnaires so that it reflected country-specific denominations.

3. The term "grades" was adapted in the questionnaires so that it reflected country-specific denominations.

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3

Students' Drive and Motivation

This chapter explores several indicators related to students' drive and motivation: perseverance, openness to problem solving, perceived control over success in mathematics and in school, perceived self-responsibility for failing in mathematics and intrinsic and instrumental motivation to learn mathematics. The chapter discusses how these dispositions are associated with performance in mathematics, whether and how they are related to gender and socio-economic status, and how they have evolved among students since 2003.

Raw potential and talent are only a small part of what it takes to become proficient in a skill. Students' success depends on the material and intangible resources that are invested by families, schools and education systems to develop each and every student's potential. Crucially, students' ability to perform at high levels depends on their belief that while aptitude and talent for particular school subjects can help, mastery can be achieved if students put in the hard work and perseverance that are needed. The belief that intelligence is a fixed trait and that only those who have it can succeed in school is both a myth and an obstacle to success. Students who consider themselves intelligent do not think that they need to cultivate their intelligence to make it flourish, and those who believe that they lack intelligence are not inclined to work hard to overcome initial difficulties (Rattan et al., 2012*;* Carr and Dweck, 2012; Dweck, 2006).

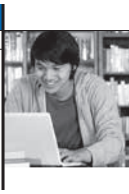
What the data tell us

- Some 44% of students reported that they tend to "continue working on a task until everything is perfect" while 63% of students reported that they tend to "put off difficult problems".
- Across OECD countries, more than three out of four students agree or strongly agree that learning mathematics will improve their career prospects.
- Some 53% of students in OECD countries, including 58% of boys but 49% of girls, agree or strongly agree that they are "interested in the things [they] learn in mathematics".
- Students who are more open to problem solving – those who feel they can handle a lot of information, are quick to understand things, seek explanations for things, can easily link facts together, and like to solve complex problems – score 30 points higher in mathematics, on average, than those who are less open to problem solving; and among high achievers, the difference between the two groups of students is even greater – an average of 38 score points.

Our actions and experiences throughout life have the potential to reshape how our brains work because brains are "plastic" and can change during a lifetime.[1] In particular, extensive practice and expertise are associated with profound changes in the connections between the neurons of those regions of the brain that are stimulated. Through practice, the brain forms new connections and the internal structure of existing synapses change, so much so that some regions of the brain grow in size and complexity.[2] Stamina, hard work and persistence are just as necessary, if not more necessary, than talent and aptitude to become proficient in any endeavour. As with all individuals, students, too, differ greatly in their capacity to persevere towards a goal despite adversity, lack of progress and failure (Duckworth et al., 2007). For example, some students persist and even work harder after failure, whereas others give up quickly (Diener and Dweck, 1978). Duckworth and Quinn's (2009) notion of "grit" captures the importance of working hard and persevering to complete tasks even when they are difficult and, sometimes, not interesting.

Psychologists and educators are increasingly interested in measuring students' capacity to work towards long-term goals, including their aptitude for self-discipline and perseverance in the face of difficulties and their ability to focus on clearly aligned goals and objectives (Greene et al., 2004; Husman and Shell, 2008; Miller and Brickman, 2004; Zimmerman and Schunk, 2011). If students never encounter failure and are never challenged they will be unable to develop the stamina, perseverance and motivation that are needed to thrive in difficult conditions (Dweck, 1975; Dweck and Master, 2009). They will never discover the sense of *flow* that comes from being fully immersed in purposeful effort and the pleasure that comes from being completely and utterly focused on the task at hand (Csíkszentmihályi, 1990).

Students who have drive, stamina, perseverance and capacity for hard work do not necessarily have aptitude and talent too: talent and drive are personal attributes that are not necessarily correlated. In many cases, individuals with less raw potential, but greater stamina, perseverance and capacity for hard work are more likely to succeed than those who are talented but have little capacity to set ambitious goals for themselves and to keep focused on achieving them (Duckworth et al., 2007; Duckworth and Seligman, 2006; Duckworth et al., 2010; Zimmerman and Schunk, 2011). In fact, individuals who have talent and aptitude can, at times be less likely to develop a strong drive because they are initially at ease and are less likely to be confronted with failure, so that when they inevitably encounter difficulties, they might find themselves at a loss. This is particularly true for students who believe their abilities are fixed; such students do not believe that greater effort will improve their ability and performance.



PISA 2012 examines students' self-reports about their stamina, capacity for hard work and perception that success or failure depends on their behaviour (perceived self-responsibility for failing in mathematics and perceived control of success in school and mathematics). Advances in the understanding of what constitutes a mindset for hard work and what difference it makes for individual outcomes typically rely on a combination of both approaches – the examination of self-reports and of behaviours in controlled laboratory environments. Each approach suffers from limitations and sheds light on a different aspect of the development and deployment of an inclination towards hard work (Dweck, 2006). Self-reports can suffer from bias, particularly when comparing the responses of students from different countries (see Box III.2.2). At the same time, it is debatable whether students' behaviour when facing relatively controlled and well-defined tasks in a laboratory setting can provide valid insights into how they behave in real-world situations (Duckworth, 2013). In PISA 2012, the focus chosen was on students' self-reports.

▪ Figure III.3.1 ▪

How PISA 2012 measures students' drive and motivation

Perseverance

Constructed index based on students' responses about their willingness to work on problems that are difficult, even when they encounter problems

Openness to problem solving

Constructed index based on students' responses about their willingness to engage with problems

Locus of control

Constructed index based on students' responses about whether they attribute failure in mathematics tests to themselves or to others; and

Student responses about whether they strongly agree that success in mathematics and school depends on whether they put in enough effort

Motivation to learn mathematics, intrinsic and instrumental

Constructed indices based on students' responses about whether they enjoy mathematics and work hard in mathematics because they enjoy the subject, and whether they believe mathematics is important for their future studies and careers

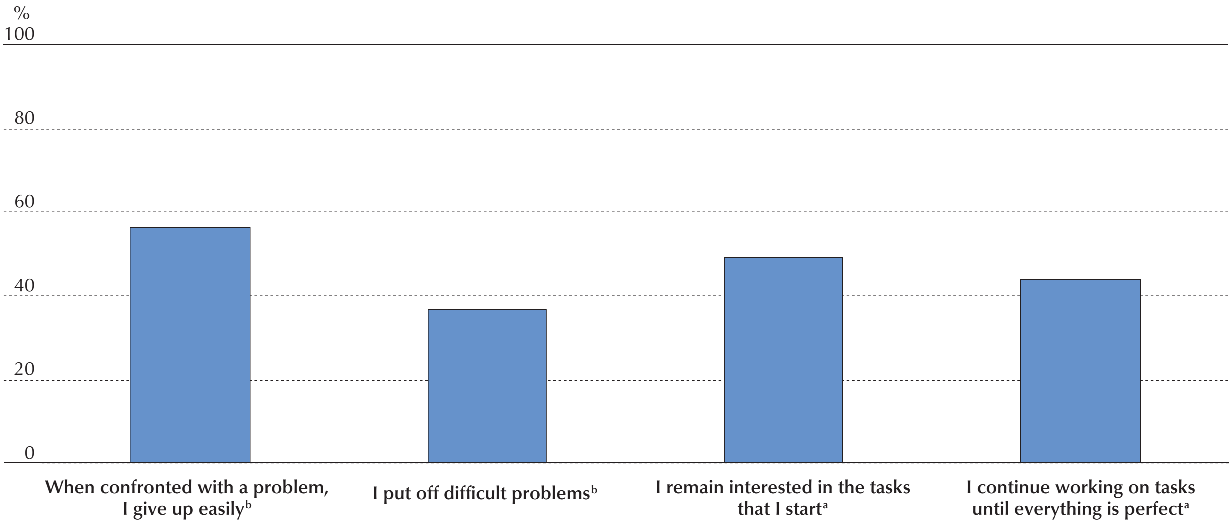
PERSEVERANCE

PISA measures students' perseverance through their responses to questions asking about the extent to which they feel they resemble someone who gives up easily when confronted with a problem, who puts off difficult problems, who remains interested in the tasks that he or she starts, who continues to work on a task until everything is perfect, and who does more than is expected of him or her when confronted with a problem. Student responses could range from: this person is "very much like me", "mostly like me", "somewhat like me", "not much like me" or "not at all like me" and were used to create the *index of perseverance*, standardised to have a mean of 0 and a standard deviation of 1 across OECD countries. Figure III.3.2 and Table III.3.1a show that across OECD countries, 56% of students indicated that they do not give up easily when confronted with a problem, 49% indicated that they remain interested in the tasks that they start, and 44% indicated that they continue working on tasks until everything is perfect. However the OECD average masks significant differences across countries and economies. For example, at least 70% of students in the Russian Federation, Kazakhstan and Poland reported that they do not give up easily when confronting problems; and in Jordan, the United Arab Emirates, Kazakhstan and Albania the same proportion of students reported that they continue to work on tasks until everything is perfect. In Japan, the Czech Republic, France, Chinese Taipei and Belgium however, fewer than one in three students reported that they continue to work on tasks until everything is perfect.

▪ Figure III.3.2 ▪

Students' perseverance

Percentage of students across OECD countries who reported that the following statements describe someone "very much like me" or "mostly like me" (a) or "not much like me" or "not at all like me" (b)

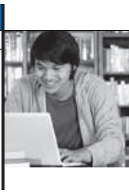


Note: Results for each participating country and economy can be found in Table III.3.1a.
Source: OECD, PISA 2012 Database, Table III.3.1a.
StatLink `http://dx.doi.org/10.1787/888932963825`

Students' self-reported levels of perseverance vary across countries: in 26 countries and economies boys reported higher levels of perseverance than girls, while in 17 countries and economies girls reported higher levels of perseverance than boys. Gender differences in favour of girls are particularly wide in Montenegro, Bulgaria and Peru while gender differences in favour of boys are particularly wide in the United Kingdom, Germany, Austria, France, Sweden, Denmark, Switzerland, Norway and Korea (Tables III.3.1b, III.3.1d and III.3.7a). In general, countries with large gender gaps in self-reported levels of perseverance are countries with above average gender gaps in mathematics performance (see Chapter 7 of this volume). Differences in students' self-reported levels of perseverance based on socio-economic status reveal that, in 25 countries and economies that participated in PISA 2012, socio-economically advantaged students reported higher levels of perseverance than less-advantaged students (Figure III.3.2) and disparities related to socio-economic status tend to be particularly wide in Finland, Kazakhstan and Liechtenstein (Table III.3.7b).

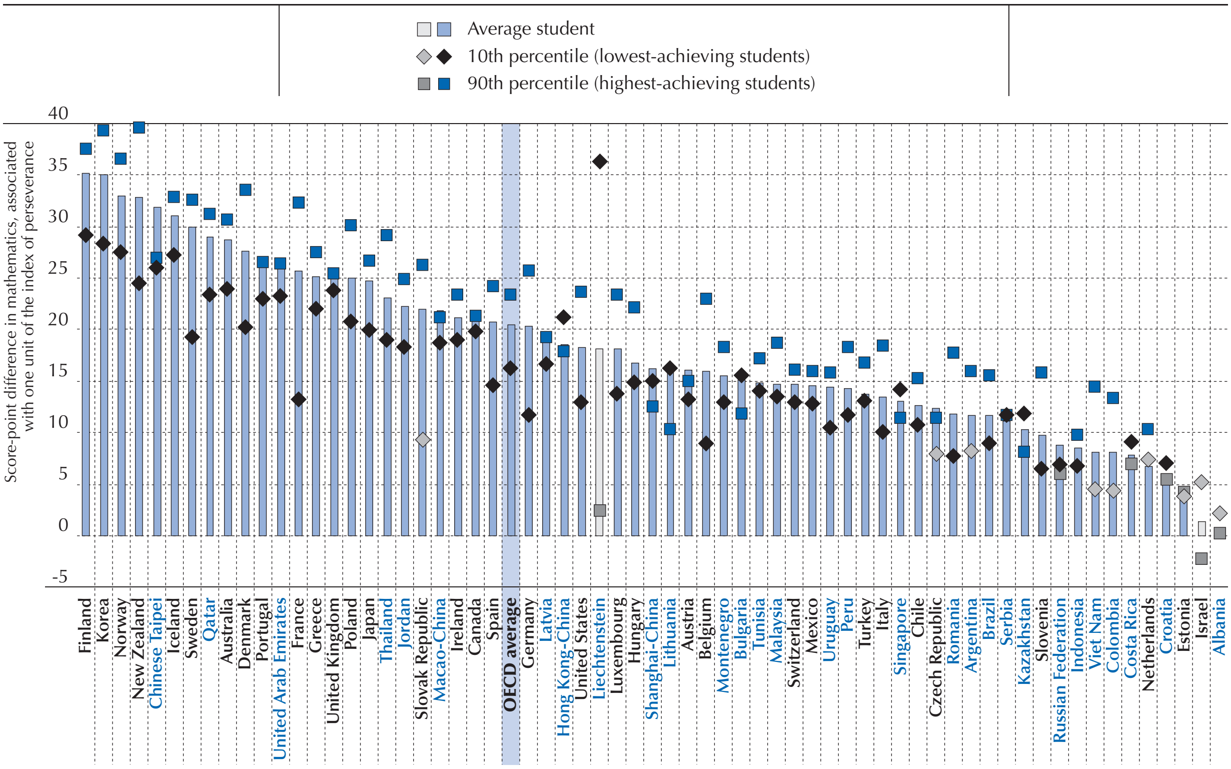
As Figure III.3.3 shows, students who reported that they continue to work on tasks until everything is perfect, remain interested in the tasks they start, do not give up easily when confronted with a problem and, in fact, when confronted with a problem, do more than is expected of them, have higher scores in mathematics than students who reported lower levels of perseverance (Table III.3.1c). The blue bars in Figure III.3.3 illustrate the estimated difference in mathematics performance that is associated with a difference of one unit in the *index of perseverance*. This difference corresponds roughly to the difference in self-reported levels of perseverance that can be expected between the average student in OECD countries and a student who reported levels of perseverance that place him or her among a group of students with comparatively high levels of perseverance (levels of perseverance that are lower than those reported by only 16.5% of students across OECD countries (see Box III.2.3).

Across OECD countries, 6% of the variation in student performance in mathematics can be explained by differences in whether students perceive themselves as someone who gives up easily when confronted with a problem, who puts off difficult problems, who remains interested in the tasks that he or she starts, who continues to work on a task until everything is perfect, and who does more than is expected of him or her when confronted with a problem (Table III.3.1d). In Norway, Finland, Iceland, Sweden and Denmark more than 10% of the variation in mathematics performance is explained by students' self-reported perseverance, while in 43 other countries and economies, less than 5% is. In most countries and economies the association between students' perseverance and mathematics performance is relatively strong: in 25 countries and economies, a difference of one unit in the *index of perseverance* is associated with a difference in performance of at least 20 score points; and in Finland, Korea, Norway, New Zealand, Chinese Taipei and Iceland, this difference is larger than 30 score points (Table III.3.1d).



▪ Figure III.3.3 ▪

Relationship between perseverance and mathematics performance



Note: Differences that are statistically significant at the 5% level ($p < 0.05$) are marked in a darker tone.
Countries and economies are ranked in descending order of the average score-point difference in mathematics associated with one unit of the index of perseverance.
Source: OECD, PISA 2012 Database, Table III.3.1e.
StatLink http://dx.doi.org/10.1787/888932963825

Results presented in Figure III.3.3 indicate that the relationship between perseverance and mathematics performance is stronger among the highest-achieving students than among the lowest-achieving students. In 10 countries and economies, the magnitude of the performance gap that is associated with a one-unit change in the *index of perseverance* among the highest- and the lowest-achieving students is 10 score points or more. For example, in France, the difference in scores that is associated with a one-unit change in the *index of perseverance* is 32 points among the highest-achieving students, but only 13 points among the lowest-achieving students. Among the highest-achieving students in Germany, Viet Nam and Slovenia, that difference is at least 14 points, but among the lowest-achieving students there is no association between self-reported perseverance and performance in mathematics. Liechtenstein is an important exception to this trend, as in Liechtenstein perseverance is not associated with mathematics performance among the highest-achieving students but it is strongly associated with performance among the lowest-achieving students.

OPENNESS TO PROBLEM SOLVING

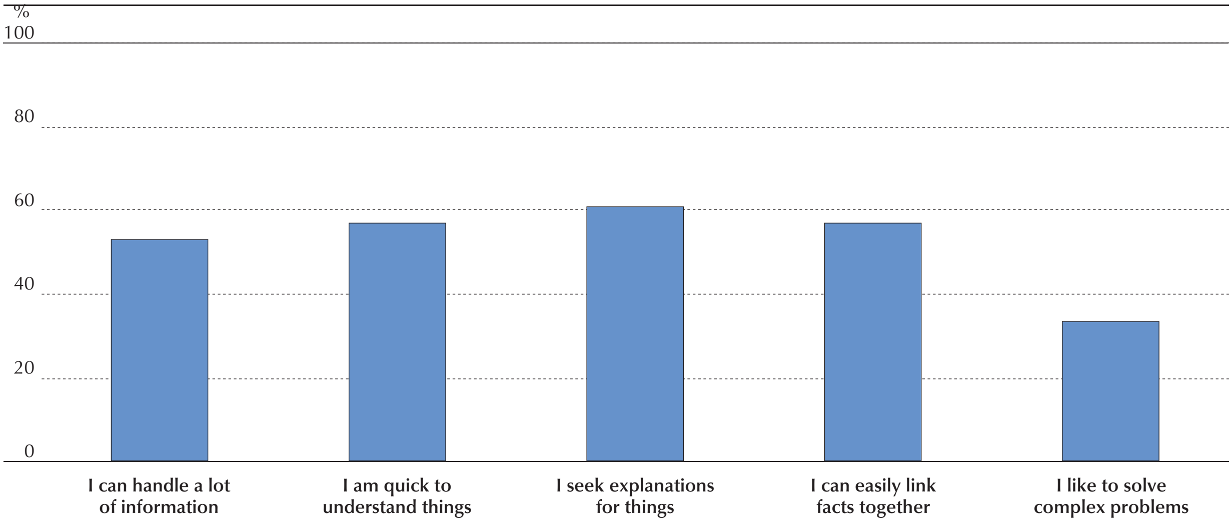
Students need to be willing to engage with problems and to be open to new challenges in order to be able to solve complex problems and situations. Proficiency in mathematics, but also other subjects, requires a mix of content knowledge and willingness to engage with new material. PISA measures students' openness to problem solving through their responses to questions asking about the extent to which they feel they resemble someone who can handle a lot of information, is quick to understand things, seeks explanations for things, can easily link facts together and likes to solve complex problems. Student responses could range from: this person is "very much like me", "mostly like me", "somewhat like me", "not much like me" or "not at all like me". Figure III.3.4 and Table III.3.2a show that across OECD countries, 53% of students indicated that they can handle a lot of information, 57% reported that they are quick to understand things, 61% reported that they seek explanation for things, 57% reported that they can easily link facts together, and only 33% that they like to solve complex problems. However, the OECD average masks significant differences across countries and economies. For example at least 70% of students in Montenegro, Jordan, Albania, Serbia, the United Arab Emirates and Qatar reported that they can handle a lot of information. Fewer than one in four students in Viet Nam, Belgium, Korea, the Slovak Republic and Japan reported that they like to solve complex problems, while more than one in two students in Montenegro, Jordan, Kazakhstan, Albania and Qatar reported the same (Table III.3.2a).

In general, boys more than girls tended to report that they resemble a student who handles a lot of information, who is quick to understand things and seeks explanations for things. In 52 countries and economies, boys have higher values on the *index of openness to problem solving* than girls; in no country do girls have higher values on this index than boys (Table III.3.2d). Socio-economic differences in students' openness to problem solving are particularly wide – in favour of advantaged students – in 34 countries and economies, and are widest in Denmark, Latvia, Liechtenstein, Portugal and Shanghai-China (Table III.3.7b).

▪ Figure III.3.4 ▪

Openness to problem solving

Percentage of students across OECD countries who reported that they "agree" or "strongly agree" with the following statements:



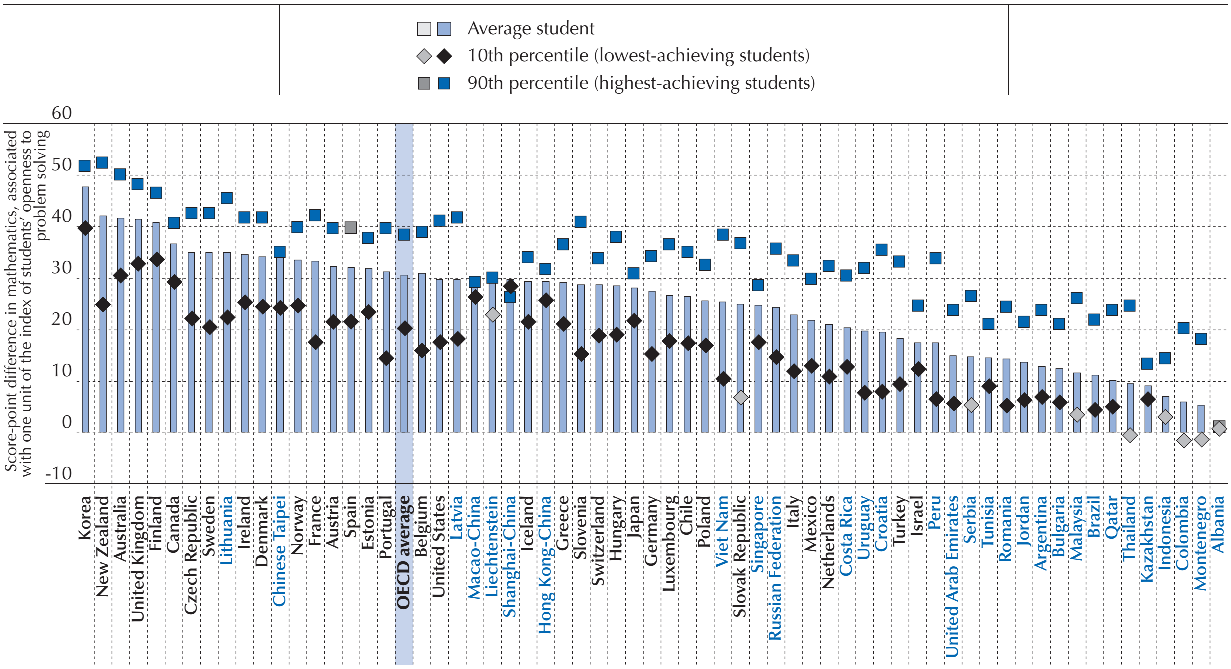
Note: Results for each participating country and economy can be found in Table III.3.2a.
Source: OECD, PISA 2012 Database, Table III.3.2a.
StatLink http://dx.doi.org/10.1787/888932963825

Across OECD countries, 12% of the variation in student performance in mathematics can be explained by differences in whether students perceive themselves as someone who can handle a lot of information, who is quick to understand things, who seeks explanations for things, who can easily link facts together or who likes to solve complex problems (Table III.3.2d). In Finland, Norway, Australia, Canada, Korea, the United Kingdom, Sweden, New Zealand, Denmark and Ireland more than 15% of the variation in mathematics performance is explained by students' self-reported openness to problem solving while in 45 other countries and economies, less than 10% is. In most countries and economies the association between students' openness to problem solving and mathematics performance is strong: in 44 countries and economies, a difference of one unit in the *index of openness to problem solving* is associated with a difference in performance of at least 20 score points; and in Korea, New Zealand, Australia, the United Kingdom and Finland, this difference is larger than 40 score points.

Results presented in Figure III.3.5 indicate that the relationship between openness to problem solving and mathematics performance is stronger among the highest-achieving students than among the lowest-achieving students (Table III.3.2e). In all countries and economies but Shanghai-China, Albania, Macao-China, Hong Kong-China, Kazakhstan, Liechtenstein and Japan, the difference in the magnitude of the performance gap that is associated with a one-unit change in the *index of openness to problem solving* among the highest- and the lowest-achieving students is larger than 10 score points. For example, in the Slovak Republic and Viet Nam the performance gap among the highest-achieving students is 30 and 28 score points, respectively, while no association is estimated among the lowest-achieving students. In as many as 10 countries and economies openness to problem solving is not associated with performance at the bottom of the performance distribution while it is strongly associated with performance differences at the top of the distribution (Table III.3.2c).

■ Figure III.3.5 ■

Relationship between openness to problem solving and mathematics performance



Note: Differences that are statistically significant at the 5% level ($p < 0.05$) are marked in a darker tone.
Countries and economies are ranked in descending order of the average score-point difference in mathematics associated with one unit of the index of students' openness to problem solving.
Source: OECD, PISA 2012 Database, Table III.3.2e.
StatLink `http://dx.doi.org/10.1787/888932963825`

LOCUS OF CONTROL

Perceived self-responsibility for failing in mathematics

Although students differ in innate intelligence and abilities, these qualities are also influenced, to a large extent, by environmental factors. The "Flynn effect" documents large improvements in IQ scores over time (Flynn, 1987). While other explanations have been proposed and critics question the validity of the Flynn effect, the basic principle that environmental factors play a major role in how genetically determined traits are expressed is in line with a growing body of evidence (see, for example, Rutter and Silberg, 2002; Rutter, 2010). While the Flynn effect documents changes in IQ scores among populations, recent research indicates that individual IQ scores can change in the teenage years, and maps such changes to alterations in brain structures (Ramsden et al., 2011; Price et al., 2013).

Students who took part in the PISA 2012 assessment were asked to imagine the following scenario: "Each week your mathematics teacher gives a short quiz. Recently you have done badly on these quizzes. Today you are trying to figure out why." Students were asked to report whether they were very likely, likely, slightly likely or not at all likely to think or feel that they are not very good at solving mathematics problems; that their teacher did not explain the concepts well this week; that this week they made bad guesses on the quiz; that sometimes the course material is too hard; that the teacher did not get the students' interested in the material; and that sometimes they are just unlucky. Students' responses to this hypothetical scenario were used to construct the *index of self-responsibility for failing in mathematics*, which reflects students' perceptions of their personal responsibility for failure in mathematics. Students with high values on this index tend to attribute the responsibility for failure in solving mathematics problems to themselves, while students with low values on the index are more likely to see other individuals or factors as responsible.

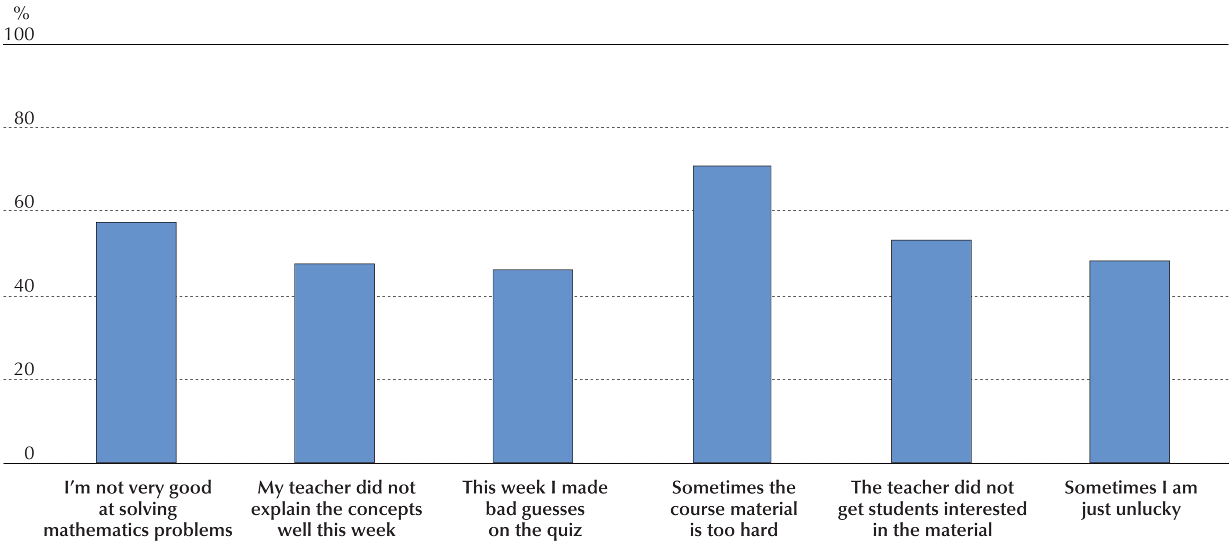
Across OECD countries, 58% of students reported that when doing badly on a teacher-administered quiz, they would think that they are not very good at solving mathematics problems; 48% would think that the teacher did not explain the concepts well; 46% would feel that they made bad guesses on the quiz; 71% would think that the course material was too hard; 53% that the teacher did not get students interested in the material; and 49% would feel that sometimes they are just unlucky (Table III.3.3a). Students in Bulgaria, Indonesia, Albania, Thailand, Spain, Viet Nam, Italy and Chile

are particularly likely to feel responsible for their failure in mathematics: in all these countries and economies more than 70% of students reported that they are just not very good at solving mathematics problems, while in Kazakhstan, the United States, Korea, Liechtenstein, Iceland, Austria, and Germany one in two students or fewer reported the same. Overall, the groups of students who tend to perform more poorly in mathematics – girls and socio-economically disadvantaged students – feel more responsible for failing mathematics tests than students who generally perform at higher levels (Tables III.3.3b and 3.3c).

▪ Figure III.3.6 ▪

Perceived self-responsibility for failing in mathematics

Percentage of students across OECD countries who reported that they "agree" or "strongly agree" with the following statements:



Note: Results for each participating country and economy can be found in Table III.3.3a.
Source: OECD, PISA 2012 Database, Table III.3.3a.
StatLink http://dx.doi.org/10.1787/888932963825

Perceived control of success in mathematics and at school

PISA measures students' perceived control of success in mathematics and also their perceived control of success at school through their responses as to whether they "strongly agree", "agree", "disagree" or "strongly disagree" that if they put enough effort they can succeed in mathematics (at school), that it is completely their choice whether or not they do well in mathematics (at school), that family demands or other problems prevent them from putting a lot of time into their mathematics work (school work), that if they had different teachers, they would try harder in mathematics (at school), that they could perform well in mathematics (at school) if they wanted, and that they perform poorly in mathematics (at school) whether or not they study for their exams.

Table III.3.3d shows that, across OECD countries, 92% of students reported that they agree or strongly agree that they can succeed in mathematics if they put enough effort, 83% reported that whether they do well in mathematics or not is completely up to them, 73% disagreed or strongly disagreed that family demands or other problems prevent them from putting a lot of time into their mathematics work, 83% reported that they agree or strongly agree that they could do well in mathematics if they wanted to. However, perceived control of success in mathematics differs greatly across countries and between boys and girls. For example, fewer than 85% of students agreed or strongly agreed that they can succeed in mathematics if they put enough effort in Macao-China, the Netherlands and Japan, while more than 98% of students reported the same in Singapore, Colombia and Indonesia (Table III.3.3e). Similarly, in the Netherlands, Liechtenstein, Germany, Macao-China, Switzerland and Luxembourg the difference in the proportion of boys and the proportion of girls who reported that they agree or strongly agree that they can succeed in mathematics if they put enough effort is larger than five percentage points.

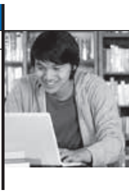
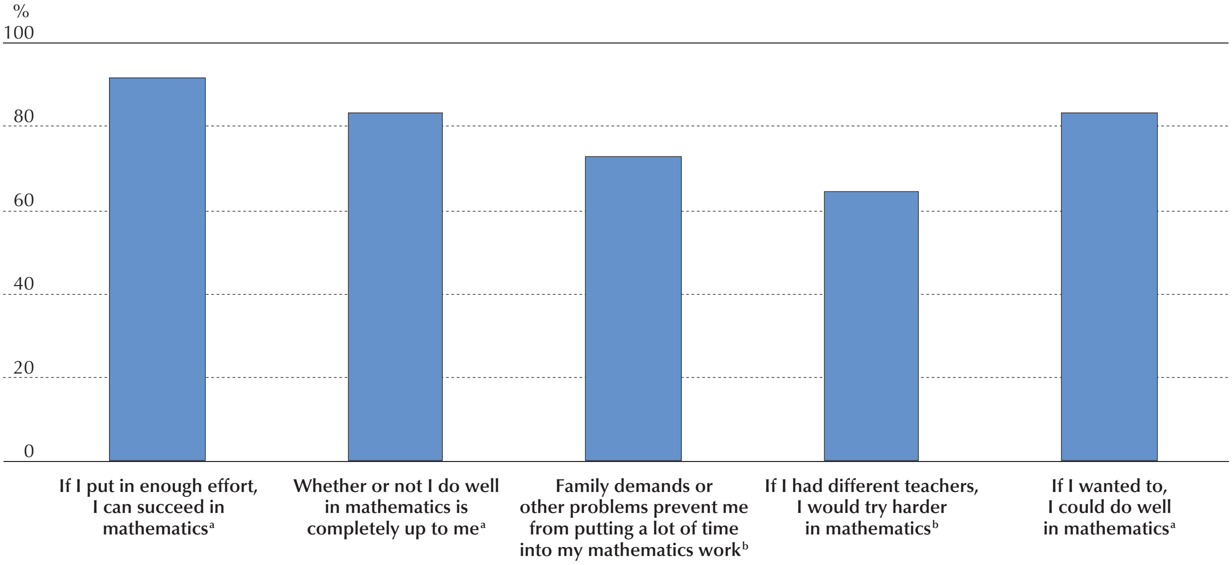


Table III.3.3h shows even more widespread agreement with statements that reflect students' perceived control of their success at school compared with their responses concerning success in mathematics. Across OECD countries, 96% of students reported that they agree or strongly agree that they can succeed in school if they put enough effort, 86% reported that whether they do well in school or not is completely up to them, 65% disagreed or strongly disagreed that family demands or other problems prevent them from putting a lot of time into their school work, 59% disagreed or strongly disagreed that they would try harder at school if they had different teachers, and 80% disagreed or strongly disagreed that they perform poorly at school whether or not they study for their exams. Large variations exist between countries in the extent to which students report feelings of control over their performance in school. For example, fewer than 70% of students in Thailand, Qatar, Argentina, Japan, the Slovak Republic, Uruguay, Lithuania disagreed or strongly disagreed that they perform poorly at school whether they study hard for their exams or not, but over 85% of students in Viet Nam, Denmark, Estonia, the United Kingdom and Liechtenstein reported the same. Differences in the extent to which boys and girls reported low levels of perceived control of success in school are smaller than those observed concerning perceived control of success in mathematics; and in many countries and for several indicators, girls reported greater feelings of control than boys (Table III.3.3i). For example, on average across OECD countries, the same percentage of boys and girls (96% and 97%) agreed or strongly agreed that they can succeed in school if they put in enough effort. Similarly, 86% of boys and girls reported that it is completely their choice whether or not they do well in school, and 65% of boys and girls disagreed or strongly disagreed that family demands or other problems prevent them from putting a lot of time into their school work.

▪ Figure III.3.7 ▪

Perceived control of success in mathematics

Percentage of students across OECD countries who reported that they "agree" or "strongly agree" (a) "disagree" or "strongly disagree" (b) with the following statements:



Note: Results for each participating country and economy can be found in Table III.3.3d.
Source: OECD, PISA 2012 Database, Table III.3.3d.
StatLink http://dx.doi.org/10.1787/888932963825

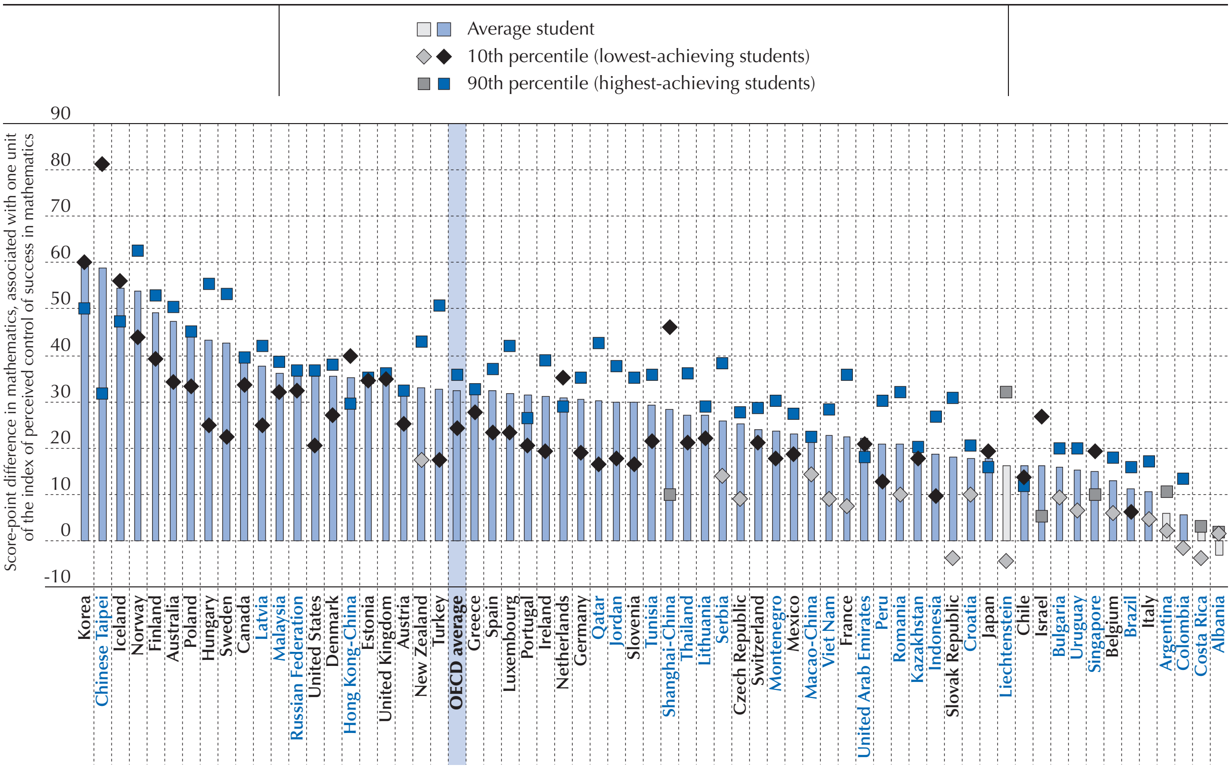
On average across OECD countries, students who reported that they strongly agree that they can succeed in mathematics and in school if they put in enough effort perform at higher levels than other students (Tables III.3.3g and III.3.3k). The difference in mathematics performance that is associated with students strongly agreeing that they can succeed in mathematics if they put in enough effort is 33 score points, while the difference in mathematics performance that is associated with students strongly agreeing that they can succeed in school if they put enough effort is 13 score points. Albania, Argentina, Costa Rica and Liechtenstein are the only countries where perceived control of success in mathematics is not associated with mathematics performance, and the score-point change in mathematics performance that is associated with students strongly agreeing that they can succeed in mathematics if they put in enough effort is 50 points or larger in Korea, Chinese Taipei, Iceland and Norway. The relationship between perceived control of success

in school and mathematics performance is weaker only in Iceland, Korea, Australia, Norway, Chinese Taipei and Thailand where the score-point difference is 25 points or larger (Table III.3.3k).

The relationship between perceived control of success in mathematics and mathematics performance is stronger at the top of the performance distribution than at the bottom of the distribution. Across OECD countries, students at the 90th percentile of performance who strongly agree that they can succeed in mathematics if they put in enough effort have a performance advantage of 36 score points over students who did not report that they strongly agree with the same statement. This difference is only 24 score points at the 10th percentile of performance. In 24 countries and economies the difference is 15 score points or more, and it is particularly large, at 30 score points or more, in the Slovak Republic, Turkey, Hungary and Sweden. Singapore, Israel and Shanghai-China are notable exceptions: in all these countries and economies, perceived control of success in mathematics is associated with mathematics performance at the bottom of the distribution but not at the top; and in Chinese Taipei perceived control of success in mathematics is more strongly associated with mathematics performance at the bottom than at the top of the performance distribution (Table III.3.3g).

▪ Figure III.3.8 ▪

Relationship between perceived control of success in mathematics and mathematics performance



Note: Differences that are statistically significant at the 5% level ($p < 0.05$) are marked in a darker tone.
Countries and economies are ranked in descending order of the average score-point difference in mathematics that is associated with students strongly agreeing that they can succeed in mathematics if they put enough effort.
Source: OECD, PISA 2012 Database, Table III.3.3g.
StatLink `http://dx.doi.org/10.1787/888932963825`

MOTIVATION TO LEARN MATHEMATICS

Intrinsic motivation to learn mathematics

Motivation and engagement can be regarded as the driving forces behind learning. Given the importance of mathematics for students' future lives, school systems need to ensure that students have not only the knowledge that is necessary to continue learning mathematics beyond formal schooling, but also the interest and motivation that will make them want to do so. PISA distinguishes two forms of motivation to learn mathematics: students may learn mathematics because they enjoy it and find it interesting and/or because they perceive learning mathematics as useful. These two constructs are central in self-determination theory (Ryan and Deci, 2009) and expectancy-value theory (Wigfield, Tonks and Klauda, 2009).

Intrinsic motivation refers to the drive to perform an activity purely for the joy gained from the activity itself. Students are intrinsically motivated to learn mathematics when they want to do so because they find learning mathematics interesting and enjoyable and because it gives them pleasure, not because of what they will be able to achieve upon mastering mathematical concepts and solving mathematics problems (Gottried, 1990; Ryan and Deci, 2009). Interest and enjoyment affects both the degree and continuity of engagement in learning and the depth of understanding reached (Schiefele, 2009). Intrinsic motivation affects the degree of student engagement, the learning activities in which students enrol, student performance, and the types of careers students aspire to and choose to pursue (Reeve, 2012). Generally, intrinsic motivation dissipates from elementary school to higher education (Gottfried, Fleming and Gottfried, 2001; Gottfried et al., 2013; Jacobs et al., 2002) because as students grow older their interests become increasingly differentiated (OECD, 2004). Students' intrinsic motivation for mathematics also declines because of the increasing difficulty of mathematics, and because of teaching practices that undermine, rather than foster, motivation for learning mathematics (Midgley, Feldlaufer and Eccles, 1989). However, students' enjoyment of, and interest in, mathematics can be shaped by what teachers do, by students' peers, by classroom instruction and dynamics, and by parents' attitudes and behaviour (see Wigfield et al., 2006 and Chapters 5 and 6 of this volume).

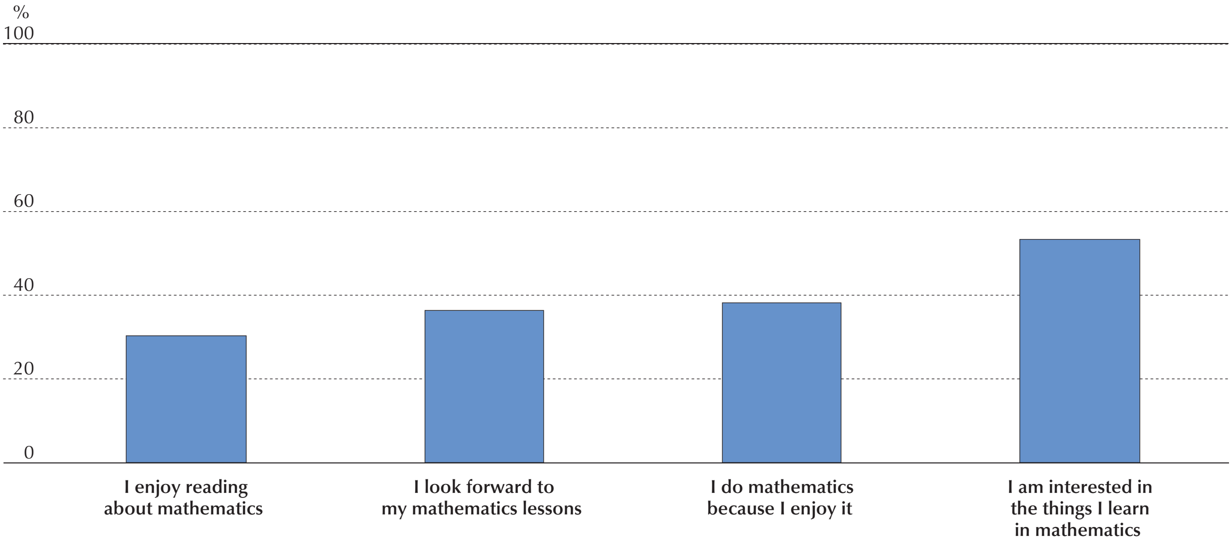
PISA measures students' intrinsic motivation to learn mathematics through students' responses as to whether they "strongly agree", "agree", "disagree" or "strongly disagree" that they enjoy reading about mathematics; that they look forward to mathematics lessons; and that they do mathematics because they enjoy it and that they are interested in the things they learn in mathematics. As Figure III.3.9 and Table III.3.4a show, across OECD countries 38% of students reported that they agree or strongly agree that they do mathematics because they enjoy it and 53% reported that they are interested in the things they learn in mathematics. However, the OECD average masks significant differences across countries and economies. For example, at least 70% of students in Indonesia, Malaysia, Kazakhstan, Thailand and Albania reported enjoying mathematics; and at least 80% of students in Albania, Thailand, Colombia, Peru, Mexico, Kazakhstan, Jordan and Malaysia reported being interested in the things they learn in mathematics. In Croatia, Austria, Serbia, Slovenia, Hungary, the Slovak Republic, Finland and Belgium, however, only 30% of students, at most, enjoy mathematics, while in the Slovak Republic, Croatia, Slovenia and Japan, fewer than 40% of students reported being interested in the things they learn in mathematics.

Between 2003 and 2012, students' intrinsic motivation to learn mathematics improved in 17 countries and economies.[3] In Iceland, for example, the *index of intrinsic motivation to learn mathematics* increased by around 0.3 units. Specifically, this means that the share of students reporting that they look forward to their mathematics lessons increased by

▪ Figure III.3.9 ▪

Students' intrinsic motivation to learn mathematics

Percentage of students across OECD countries who reported that they "agree" or "strongly agree" with the following statements:

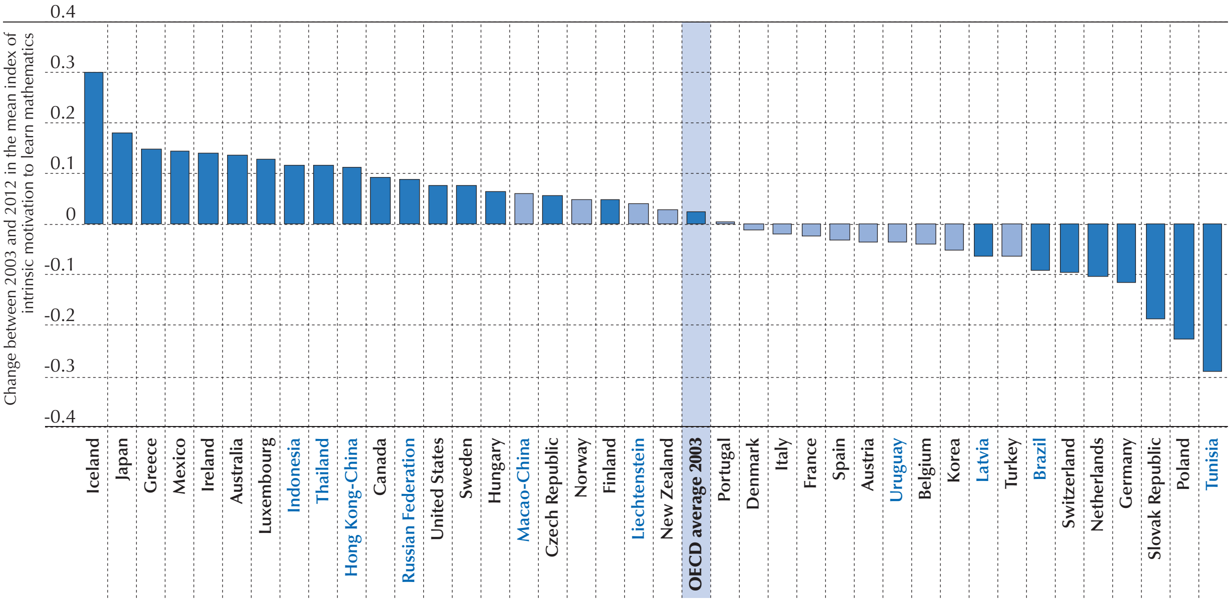


Note: Results for each participating country and economy can be found in Table III.3.4a.
Source: OECD, PISA 2012 Database, Table III.3.4a.
StatLink http://dx.doi.org/10.1787/888932963825

16 percentage points, the share of students doing mathematics because they enjoy it grew by 10 percentage points, the share of students interested in the things they learn in mathematics increased by 9 percentage points, and the share of students who enjoy reading about mathematics grew by 5 percentage points during the period. Similarly, in Japan, Greece, Mexico, Ireland, Australia, Luxembourg, Indonesia, Thailand and Hong Kong-China, more students showed greater intrinsic motivation to learn mathematics as the *index of intrinsic motivation to learn mathematics* increased by more than 0.1 units (Japan's improvement in PISA and recent education policies and programmes is outlined in Box III.3.1).[4] More concretely, in Mexico, while half of students in 2003 reported looking forward to their mathematics classes, 70% of students in 2012 reported so. Similarly, in Greece, the percentage of students who reported being interested in the things that they learn in mathematics increased by 14 percentage points during the period. By contrast, the *index of intrinsic motivation to learn mathematics* fell by more than 0.1 units in Tunisia, Poland, the Slovak Republic, Germany and the Netherlands. In Poland, for example, a smaller share of students in 2012 than in 2003 reported that they enjoy learning mathematics (15 percentage-point decline), look forward to mathematics lessons (9 percentage-point decline), study mathematics because they enjoy it (9 percentage-point decline), and are interested in the things learned in mathematics (6 percentage-point decline) (Figure III.3.10 and Table III.3.4f).

▪ Figure III.3.10 ▪

Change between 2003 and 2012 in students' intrinsic motivation to learn mathematics



Notes: Statistically significant changes at the 5% level ($p < 0.05$) between PISA 2003 and PISA 2012 are marked in a darker tone.
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
OECD average 2003 compares only OECD countries with comparable *indices of intrinsic motivation to learn mathematics* since 2003.
Countries and economies are ranked in descending order of the index of intrinsic motivation to learn mathematics *in PISA 2012.*
Source: OECD, PISA 2012 Database, Table III.3.4f.
StatLink http://dx.doi.org/10.1787/888932963825

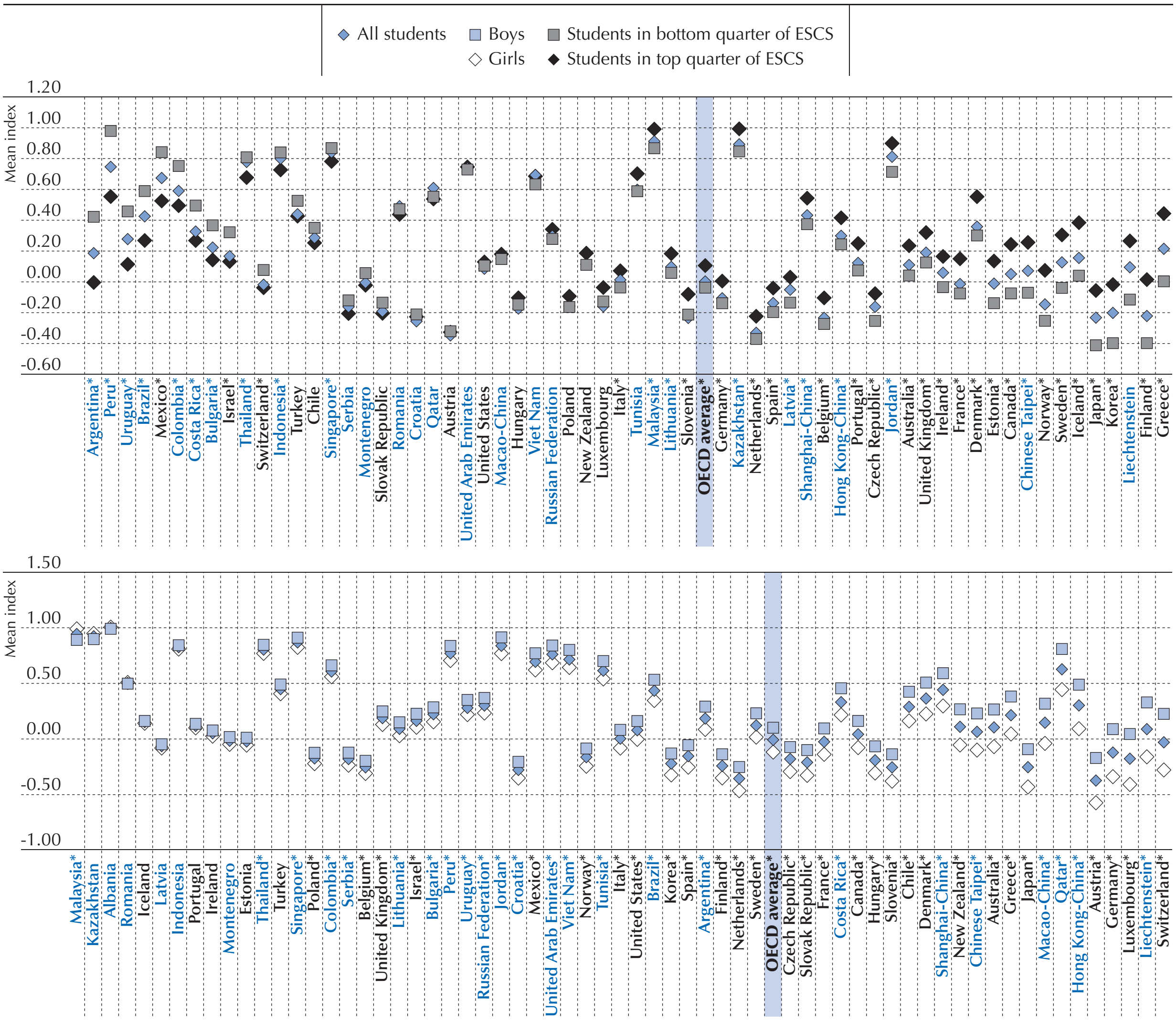
Improvements in students' intrinsic motivation to learn mathematics between 2003 and 2012 were observed in countries and economies where improvements in students' instrumental motivation to learn mathematics, mathematics self-concept and sense of belonging were also observed (correlations of the changes in these indices over the period, at the country/economy level, of 0.5, 0.4 and 0.4, respectively, see Table III.4.10). Mathematics self-concept is, as described in more detail in Chapter 4, students' beliefs in their own mathematics abilities while instrumental motivation to learn mathematics is the drive to learn mathematics because students perceive it as useful to them and to their future studies and careers.

In general, as noted above, students who participated in PISA 2012 have relatively low levels of enjoyment of mathematics and intrinsic motivation to learn mathematics, but this is particularly true among girls and socio-economically disadvantaged students (Tables III.3.4b, III.3.4c, III.3.7a and III.3.7b). Across OECD countries, the difference in the proportion of boys and girls who are interested in the things they learn in mathematics is nine percentage points: 58% of boys, but only 49% of girls, reported being interested in the things they learn in mathematics (Table III.3.4a). Similarly, 42% of boys, but only 35% of girls across OECD countries reported doing mathematics because they enjoy it. Gender differences in intrinsic motivation to learn mathematics are especially wide in Switzerland, Liechtenstein, Luxembourg and Germany; and in as many as 52 countries and economies boys have higher levels of intrinsic motivation to learn mathematics than girls (Table III.3.4d).

In general, and on average across OECD countries with comparable data from PISA 2003 and PISA 2012, intrinsic motivation has remained stable for boys and girls, but socio-economic disparities in intrinsic motivation – favouring advantaged students – widened slightly in the period. In the Russian Federation, Hong Kong-China, Hungary and Australia, the *index of intrinsic motivation to learn mathematics* improved to a greater extent for boys than for girls; only in Finland and Norway was the improvement in intrinsic motivation among girls greater than that among boys. On average across OECD countries, advantaged students' motivation improved while that of disadvantaged students remained stable. This difference is particularly marked in Iceland, Australia, Ireland, Canada, Hong Kong-China, Mexico, the Russian Federation and Greece. In Uruguay, Thailand and Norway, intrinsic motivation to learn mathematics improved for disadvantaged students while there was no concurrent change among advantaged students; therefore the gap narrowed (Figures III.3.12a and b).

▪ Figure III.3.11 ▪

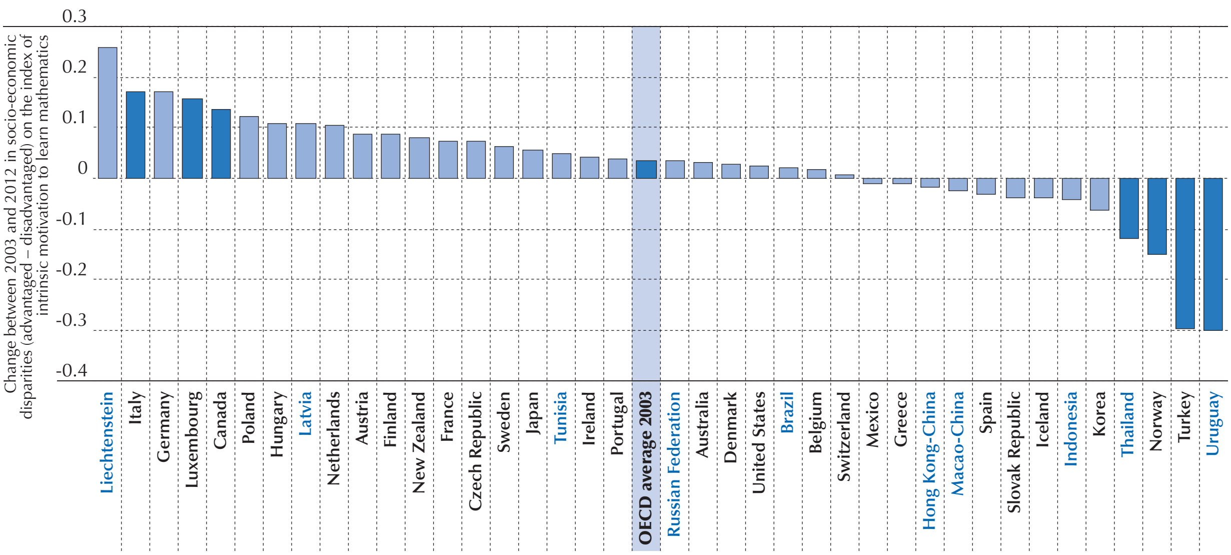
Gender and socio-economic differences in students' intrinsic motivation to learn mathematics



Notes: ESCS refers to the *PISA index of economic, social and cultural status*.
Countries/economies where the gender/socio-economic gap is statistically significant at the 5% level ($p < 0.05$) are indicated with an asterisk.
Countries and economies are ranked in ascending order of gender differences (bottom panel) and socio-economic differences (top panel) on the index of intrinsic motivation to learn mathematics.
Source: OECD, PISA 2012 Database, Tables III.3.4c and III.3.4d.
StatLink http://dx.doi.org/10.1787/888932963825

■ Figure III.3.12a ■

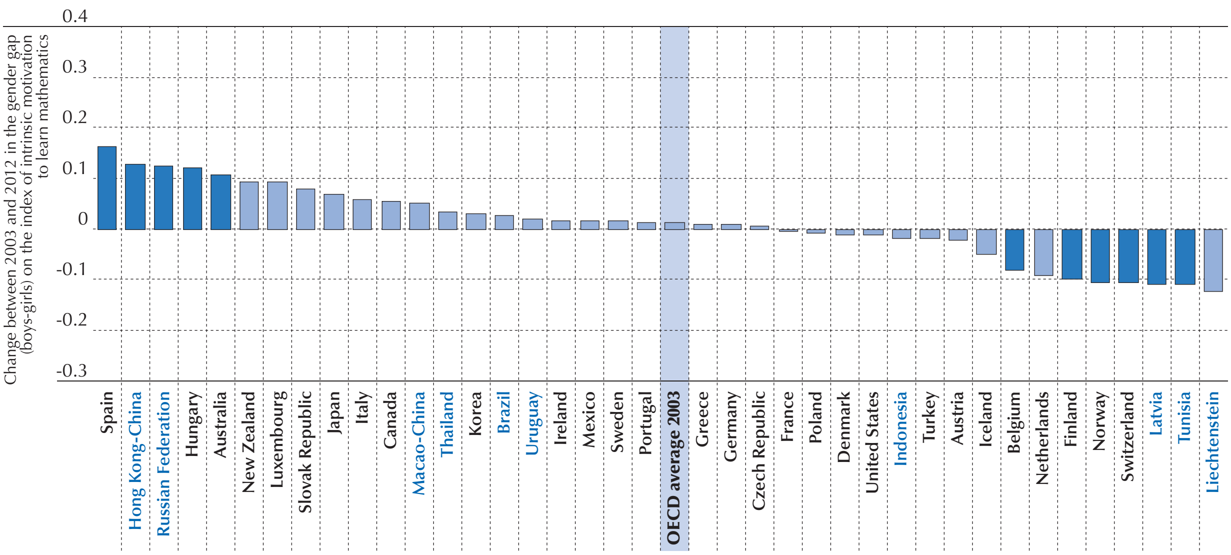
Change between 2003 and 2012 in socio-economic disparities in students' intrinsic motivation to learn mathematics



Notes: Statistically significant changes at the 5% level ($p < 0.05$) between PISA 2003 and PISA 2012 are marked in a darker tone.
Advantaged/disadvantaged students are students in the top/bottom quarter of the *PISA index of economic, social and cultural status*.
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
OECD average 2003 compares only OECD countries with comparable *indices of intrinsic motivation to learn mathematics* since 2003.
Countries and economies are ranked in descending order of the change in the socio-economic disparities on the index of intrinsic motivation to learn mathematics *between PISA 2003 and PISA 2012.*
Source: OECD, PISA 2012 Database, Table III.3.4g.
StatLink http://dx.doi.org/10.1787/888932963825

■ Figure III.3.12b ■

Change between 2003 and 2012 in the gender gap in students' intrinsic motivation to learn mathematics



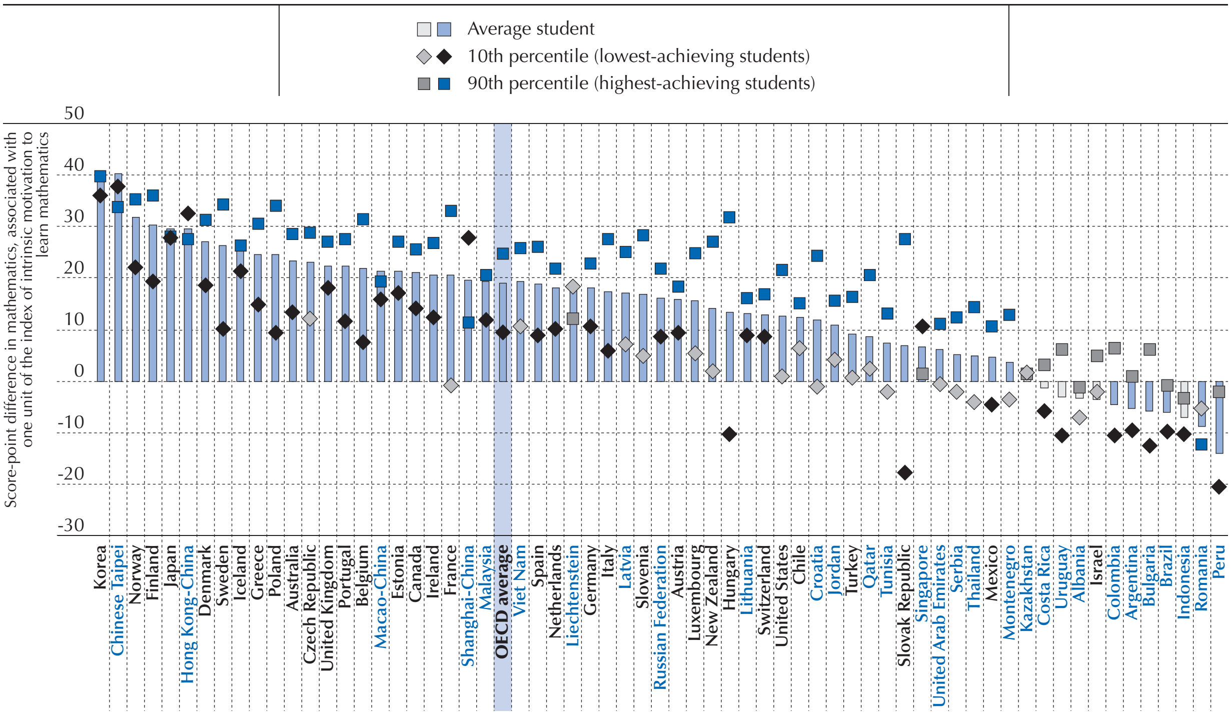
Notes: Statistically significant changes at the 5% level ($p < 0.05$) between PISA 2003 and PISA 2012 are marked in a darker tone.
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
OECD average 2003 compares only OECD countries with comparable *indices of intrinsic motivation to learn mathematics* since 2003.
Countries and economies are ranked in descending order of the change in the gender gap on the index of intrinsic motivation to learn mathematics *between PISA 2003 and PISA 2012.*
Source: OECD, PISA 2012 Database, Table III.3.4g.
StatLink http://dx.doi.org/10.1787/888932963825

As Figure III.3.13 indicates, students who reported low levels of interest in and enjoyment of mathematics, who do not look forward to mathematics lessons, and who reported not being interested in the things they learn in mathematics generally do not score as high in mathematics as those who reported that they enjoy mathematics and that they are interested in mathematics lessons. On average across OECD countries, a change of one unit in the *index of intrinsic motivation to learn mathematics* translates into a 19 score-point difference in mathematics performance. However, the strength of this association varies greatly across countries. In Korea and Chinese Taipei, the difference is greater than 40 score points, and in 21 countries and economies it is larger than 20 score points, while in Peru, Romania, Brazil, Bulgaria, Argentina and Colombia, students with higher levels of intrinsic motivation to learn mathematics perform less well in mathematics than students with lower levels (Table III.3.4d). Across OECD countries, 5% of the variation in students' mathematics performance can be explained by differences in students' intrinsic motivation to learn mathematics; in six countries and economies, more than 10% of the variation is so explained. The strength of the relationship between students' levels of intrinsic motivation to learn mathematics and their mathematics performance observed in PISA 2012 is similar to that observed in PISA 2003 across OECD countries with comparable data, and for all countries and economies (Table III.3.9).

The relationship between students' motivation and mathematics performance is significantly stronger among the highest-achieving students than among the lowest-achieving students. While greater motivation can give the highest-achieving students an edge in performance, among the lowest-achieving, motivation seems to have little relationship with performance. On average across OECD countries, the performance difference that is associated with a change of one unit in the *index of intrinsic motivation to learn mathematics* is 26 score points among the highest-achieving students but only 10 points among the lowest-achieving students. As Figure III.3.13 shows, the difference in the strength of the association between intrinsic motivation to learn mathematics and mathematics performance among the highest- and lowest-achieving students is more than 10 score points in 40 countries and is larger than 20 points in the Slovak Republic, Hungary, France, Croatia and New Zealand. Shanghai-China is an important exception: in Shanghai-China, a change of one unit in the *index of intrinsic motivation to learn mathematics* is associated with a performance difference of 28 points among the lowest-achieving students but a difference of only 11 score points among the highest-achieving students. However, in Shanghai-China, the lowest-achieving students are high achievers in comparison with students in other countries (Table I.2.3a)

▪ Figure III.3.13 ▪

Relationship between intrinsic motivation to learn mathematics and mathematics performance



Note: Differences that are statistically significant at the 5% level ($p < 0.05$) are marked in a darker tone.
Countries and economies are ranked in descending order of the average score-point difference in mathematics that is associated with one unit of the index of intrinsic motivation to learn mathematics.
Source: OECD, PISA 2012 Database, Table III.3.4e.
StatLink http://dx.doi.org/10.1787/888932963825

Instrumental motivation to learn mathematics

Instrumental motivation to learn mathematics refers to the drive to learn mathematics because students perceive it as useful to them and to their future studies and careers (see Eccles and Wigfield, 2002; Miller and Brickman, 2004). PISA measures the extent to which students feel that mathematics is relevant to their own lives through students' responses as to whether they "strongly agree", "agree", "disagree" or "strongly disagree" that making an effort in mathematics is worth it because it will help them in the work that they want to do later on; because learning mathematics can improve their career prospects and chances; because they need mathematics for what they want to study later on; and because learning many things in mathematics will help them get a job.

As shown in Figure III.3.14 and Table III.3.5a, students who participated in PISA 2012 recognise the value of mathematics in the labour market and as a way to improve their career prospects. Students' appreciation of the instrumental value of mathematics is reflected in the very high percentage of students who agree or strongly agree that learning mathematics will improve their career prospects: across OECD countries, 78% of students responded this way. Similarly, on average across OECD countries, 70% of students believe that learning many things in mathematics will help them get a job, and 75% of students reported that making an effort in mathematics is worth it because it will help them in the work that they want to do later on in life.

Between 2003 and 2012, instrumental motivation to learn mathematics has remained relatively stable among students, on average across OECD countries with comparable data on the period. The share of students who reported that learning mathematics is worthwhile because it will help them in the work that they want to do later on, it will improve their career prospects, because it is needed for what they want to study later on, or because it will help them get a job decreased by less than one percentage point. Reductions in instrumental motivation to learn are significant in eight countries and economies, particularly in the Slovak Republic, Macao-China, Poland and the Czech Republic, where students' value on the index slipped by at least 0.1 points. In the Slovak Republic, for example, the percentage of students who reported that they will learn things that will be useful to get a job decreased by 14 percentage points; in Poland, the share of students who reported that they will learn many things in mathematics that will help them get a job shrank by 13 percentage points. By contrast, the *index of instrumental motivation to learn mathematics* increased in 17 countries and economies, particularly in Sweden, Liechtenstein, Japan, Luxembourg, Greece, Latvia, Austria and Hungary. In these countries, it increased by at least 0.1 point (Figure III.3.15 and Table III.3.5f).

Instrumental motivation to learn mathematics tended to increase among those countries that also observed improvements in intrinsic motivation to learn mathematics and improved attitudes toward school (correlations at the country level of 0.5 in both cases, see Table III.4.10).

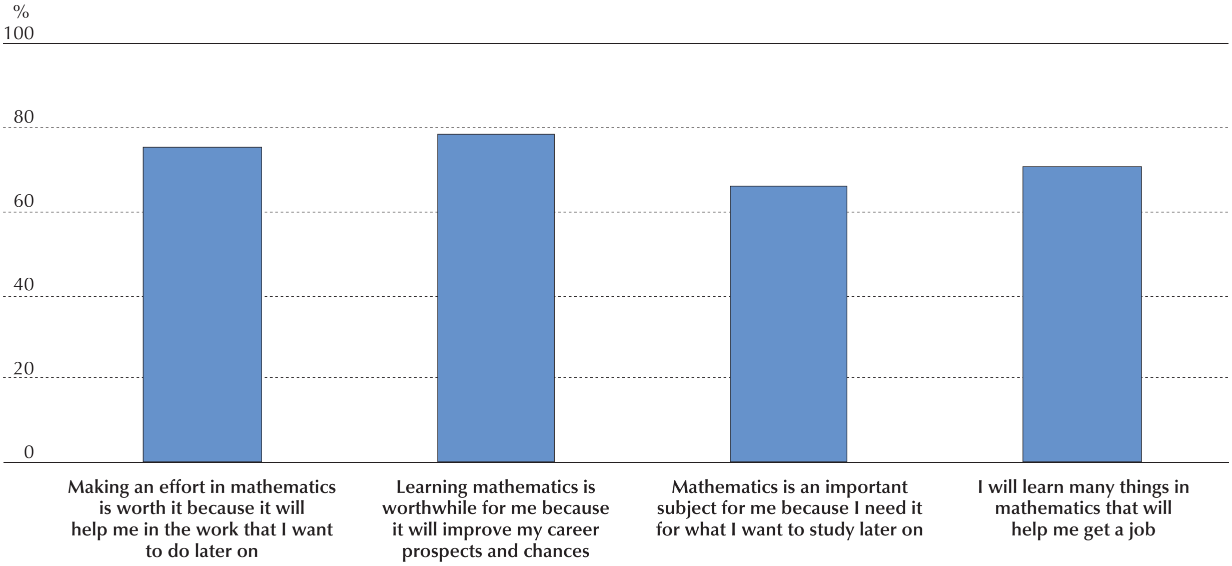
Boys tend to be more conscious than girls of the value mathematics in the labour market and as a way to improve career prospects (Figure III.3.16). Table III.3.5b indicates that, on average across OECD countries, 78% of boys, but only 72% of girls, believe that making an effort in mathematics is worth it because it will help them in the work they want to do later on in life. Similarly, across OECD countries, 71% of boys, but only 61% of girls, agree that mathematics is an important subject because they will need it for what they want to study later on. These gender differences partly reflect differences in mathematics performance; but, in 45 countries and economies, boys and girls with similar performance in mathematics still do not have similar views about mathematics as instrumental to their education and career plans (see Table III.7.2a in Chapter 7 of this volume). In 45 countries and economies, boys were more likely than girls to report higher levels of instrumental motivation to learn mathematics; only in Malaysia, Thailand and Jordan did girls report higher levels than boys. Gender differences in favour of boys are largest in Switzerland, Austria, Luxembourg and Liechtenstein (Table III.3.5d). Gender differences in instrumental motivation to learn mathematics reflect differences in the expectations students have to enter fields of study and have careers in occupations that require strong mathematical skills (Sikora and Pokropek, 2011).

As Figure III.3.17 indicates, students who reported low levels of instrumental motivation to learn mathematics generally do not score as high in mathematics as those who reported that learning many things in mathematics will help them get a job or that learning mathematics is worthwhile because it will improve their career prospects and chances. On average across OECD countries, a change of one unit in the *index of instrumental motivation to learn mathematics* translates into an 18 score-point difference (Table III.3.5d). However, the strength of this association varies greatly across countries. In Korea, Chinese Taipei and Norway, the difference is greater than 30 score points, and in 16 countries and economies it is larger than 20 score points, while in Romania, Brazil, Colombia and Uruguay students with higher levels of instrumental motivation to learn mathematics perform less well in mathematics than students with lower levels (Table III.3.5d). Across

▪ Figure III.3.14 ▪

Students' instrumental motivation to learn mathematics

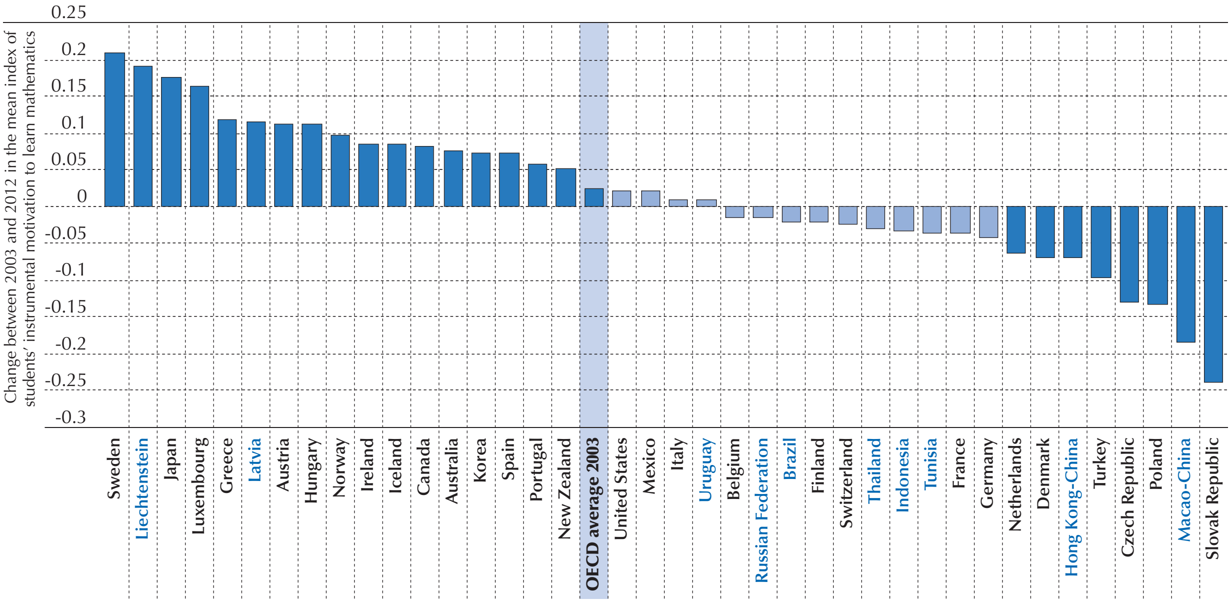
Percentage of students across OECD countries who reported that they "agree" or "strongly agree" with the following statements:



Note: Results for each participating country and economy can be found in Table III.3.5a.
Source: OECD, PISA 2012 Database, Table III.3.5a.
StatLink http://dx.doi.org/10.1787/888932963825

▪ Figure III.3.15 ▪

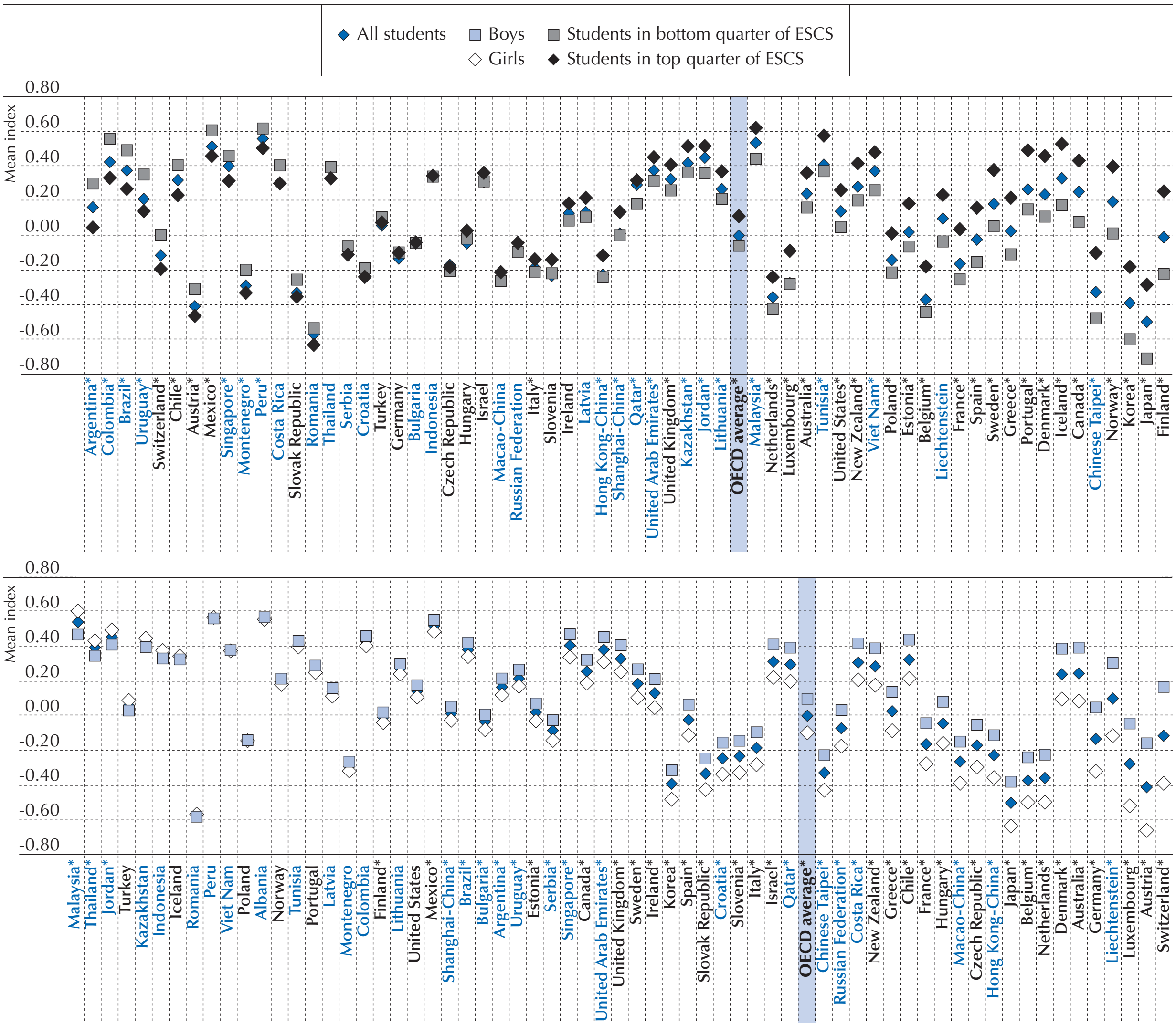
Change between 2003 and 2012 in students' instrumental motivation to learn mathematics



Notes: Statistically significant changes at the 5% level ($p < 0.05$) between PISA 2003 and PISA 2012 are marked in a darker tone.
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
OECD average 2003 compares only OECD countries with comparable *indices of instrumental motivation to learn mathematics* since 2003.
Countries and economies are ranked in descending order of the change in the index of instrumental motivation to learn mathematics *between PISA 2003 and PISA 2012.*
Source: OECD, PISA 2012 Database, Table III.3.5f.
StatLink http://dx.doi.org/10.1787/888932963825

▪ Figure III.3.16 ▪

Gender and socio-economic differences in students' instrumental motivation to learn mathematics



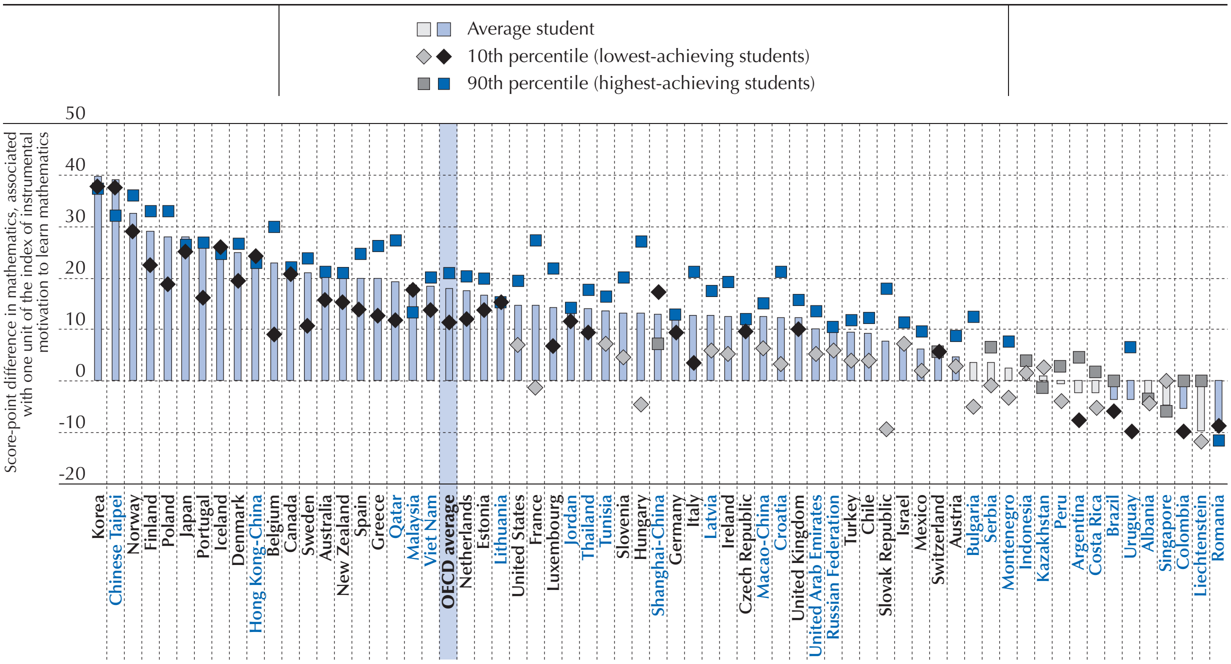
Notes: ESCS refers to the *PISA index of economic, social and cultural status.*
Countries/Economies where the gender/socio-economic gap is statistically significant at the 5% level ($p < 0.05$) are indicated with an asterisk.
Countries and economies are ranked in ascending order of gender differences (bottom panel) and socio-economic differences (top panel) on the index of instrumental motivation to learn mathematics.
Source: OECD, PISA 2012 Database, Tables III.3.5c and III.3.5d.
StatLink `http://dx.doi.org/10.1787/888932963825`

OECD countries, 4% of the variation in students' mathematics performance can be explained by differences in students' instrumental motivation to learn mathematics. As with intrinsic motivation to learn mathematics, the relationship between instrumental motivation to learn mathematics and students' mathematics performance was moderately strong in 2003 and remained so in 2012, both on average across OECD countries with comparable data and among individual countries and economies (Table III.3.8).

The relationship between students' instrumental motivation and mathematics performance is significantly stronger among the highest-achieving students than among the lowest-achieving students. Figure III.3.17 indicates that while greater motivation can give the highest-achieving students an edge in performance, among the lowest-achieving, motivation seems to be less related to performance. On average across OECD countries, the performance difference that is associated with a change of one unit in the *index of instrumental motivation to learn mathematics* is 21 score points among the highest-achieving students but only 11 points among the lowest-achieving students (Table III.3.5e).

▪ Figure III.3.17 ▪

Relationship between instrumental motivation to learn mathematics and mathematics performance



Note: Differences that are statistically significant at the 5% level ($p < 0.05$) are marked in a darker tone.
Countries and economies are ranked in descending order of the average score-point difference in mathematics that is associated with one unit of the index of instrumental motivation to learn mathematics.
Source: OECD, PISA 2012 Database, Table III.3.5e.
StatLink http://dx.doi.org/10.1787/888932963825

Box III.3.1. **Improving in PISA: Japan**

Japanese students are consistently among the top performers in PISA. Japan's mean score in reading in both 2000 (520 points) and 2009 (522 points) placed the country among the top ten performers in the world. Between PISA 2009 and PISA 2012, average reading scores improved to 538 points, showing that improvements are possible even among top-performing countries. In science, similar improvement was observed between PISA 2006 and PISA 2012 as average scores improved from 531 to 547 points, at an average rate of 2.6 points per year.[5]

Despite these high levels of performance, PISA results prompted wide discussion of policy reforms to offer equal opportunities to all children and a curriculum appropriate for the 21st century. In 2006, Japan amended the Basic Act on Education, which had regulated education services for the previous 60 years. The amendment modified the legal framework, the stated objectives of education, introduced a system for renewing educational personnel certificates and revised the administration of local education authorities to improve the role of the local boards of education. These changes implied moving towards an education model that emphasised a good balance between cognitive and non-cognitive knowledge and skills. The implementation of these policies shed light on possible sources of Japan's improvement in PISA; further study is required to assess the extent of the contribution of each policy to explain Japan's positive PISA trends.

The Course of Study is Japan's national standard that guides schools' curricula and classroom times, ensuring the common content is taught and the common education level is assured across the country. It is revised almost every ten years; the latest revisions were made in 2008 and implemented universally in 2011 and 2012. These revisions reoriented the basic objectives of Japanese education to ensure not only that children learn basic fundamental knowledge and skills, but that child learn how to think, make decisions, and express themselves. The new course of study balances specific knowledge and skills with their practical use. As a result of these changes, course content is now in line with the PISA concepts of competencies, literacy and proficiency.

...

The new course of study adds learning time in Japanese language, social studies, arithmetic, science, and physical education by two classes per week in the lower grades, and one class per week in the middle and upper grades. This can be seen as a rebalancing effort, following a significant reduction in curricular content early in the 2000s. In lower secondary schools, it adds one class per week in each grade in Japanese language, social studies, arithmetic, science, foreign language, and health/physical education. In line with these changes, PISA results show that students in 2012 spent an average of 18 more minutes per week in mathematics classes per week compare to students in PISA 2003 (see Table IV.3.46 in Volume IV). More important than the increase in learning time in absolute terms, the reform reshaped how that time is used to give students more time to think, judge and discuss the subject content. Many schools also allotted a short time each day for students to read, which seems to have fostered greater enjoyment of reading and led to improvements in reading skills.

Previous PISA results highlighted comparatively low levels of engagement, motivation and mathematics self-beliefs among Japanese students. When compared to students in 2003, however, Japanese students in 2012 reported a stronger sense of belonging, lower rates of tardiness, better attitudes towards school, and higher levels of intrinsic and instrumental motivation to learn mathematics. In the past decade, the student experience and the relationship between schools and the community also changed. School-community co-operation has become indispensable. For example, parents and community members now take some responsibilities for managing schools and help in teachers' lessons to encourage the connection between school and the outside world. Coincidentally, students in 2009 were more likely to enjoy reading and perform better in open-ended constructed tasks than their counterparts in 2000 (OECD, 2010).

With the introduction of the system for renewing educational personnel certificates, teachers have to attend 30 hours of training every ten years and pass an examination in the certificate renewal course at a university for the acquisition of the latest knowledge and skills. Assessment and accountability measures were also introduced in 2007 in the form of the National Assessment of Academic Ability in mathematics and Japanese. Results of this assessment of students in the sixth year of elementary school and the third year of lower secondary school give local policy makers and administrators information about student achievement and are used by teachers to improve learning.

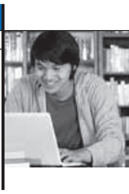
Source:

OECD (2010), *PISA 2009 Results: Learning Trends (Volume V),* PISA, OECD Publishing. *http://dx.doi.org/10.1787/9789264091580-en.*

THE ROLE OF GENDER AND SOCIO-ECONOMIC DIFFERENCES IN THE RELATIONSHIP BETWEEN STUDENTS' DRIVE AND MOTIVATION AND PERFORMANCE

In order to examine whether the results presented above reflect differences in the composition of the highest-achieving and lowest-achieving students, results presented in Tables III.3.1c, III.3.2c, III.3.3c, III.3.3e, III.3.3g, III.3.4e and III.3.5e illustrate two sets of models. The first set, which is used in previous sections of this chapter, reports results with the key factor of interest as the only independent variable. The second set reports results that control for students' socio-economic status and gender in addition to the key factor of interest. Therefore, they represent the difference in performance that is associated with students' drive and motivation among the highest- and lowest-achieving students of the same gender and with similar socio-economic status.

Tables III.3.1e and III.3.4e show results for self-reported intrinsic motivation to learn mathematics among the highest-achieving and lowest-achieving students and how these change when controlling for students' socio-economic status and gender. Results indicate that, in the majority of countries, relationships are relatively unaffected both at the top and at the bottom of the performance distribution. Among the lowest-achieving students, results indicate that, on average across OECD countries, relationships remain relatively stable. However, among this group of students in the United States, Poland, New Zealand, Finland, Luxembourg, France, Turkey, Sweden, Portugal, Mexico, Latvia, Thailand, Bulgaria, Jordan, the United Arab Emirates, Argentina, Peru, Costa Rica, Montenegro, Tunisia, Qatar, Colombia, Liechtenstein and Serbia, the relationship between intrinsic motivation and mathematics performance is stronger when comparing students with similar socio-economic and demographic characteristics (Table III.3.4e). At the top of the performance distribution, the relationship between perseverance and mathematics performance is relatively stable, but it is grows weaker in all countries and economies except Costa Rica when comparing students with the same socio-economic status and of the same gender. In New Zealand, Korea and Portugal, controlling for gender and socio-economic status reduces the score-point difference among high-performing students by more than seven points (Table III.3.1e).



Notes

1. Brain plasticity refers to the brain's ability to change during an individual's life. Changes occur because human babies are born with an immature brain, but also because the brain is able to reorganise itself following traumatic events, such as brain injury, and to adapt to the environment individuals experience. Human babies have a particularly underdeveloped brain compared to infants of other species: human newborn brains on average are only 30% of the average adult size brain (altriciality), but, thanks to neuroplasticity continue to mature after birth. Two hypotheses have been proposed to explain this unique human characteristic. The anthropological hypothesis suggests that the main constraint to gestation length and fetal growth is the pelvic morphology that allows for upright locomotion. The metabolic hypothesis suggests that the main constraint to gestation length and fetal growth is maternal metabolism (see Lovejoy, 1981; Dunsworth et al., 2012).

2. For example, Gaser and Schlaug (2003) found that the volume of the cerebral cortex in the motor regions, anterior superior parietal areas and inferior temporal (areas that are known to be involved in playing music) is largest in professional musicians, medium-sized in amateur musicians, and smallest in non-musicians. Draganski et al. (2006) showed that extensive learning of abstract information can also trigger changes in specific regions of the brain. Medical students' brains underwent profound changes in the parietal cortex and in the posterior hippocampus regions (areas that are known to be involved in memory retrieval and learning) when studying for their medical exams. Similarly, Mechelli et al. (2004) document brain plasticity in the brains of bilingual individuals: compared to people who speak only one language, bilingual individuals have larger left inferior parietal cortex than monolingual individuals. Finally Maguire, Woollett, and Spiers (2006) document that the posterior region of the hippocampus is larger among London taxi drivers than it is among London bus drivers. This region of the hippocampus is specialised in acquiring and using complex spatial information and while bus drivers follow a limited set of routes when travelling in the city traffic, taxi drivers do not follow specific navigation patterns. The study was conducted before the advent of cheap and reliable Global Positioning System (GPS) devices which are aiding the work of taxi drivers in large cities, but also reducing the stimulation their brains undergo with practice.

3. The *index of intrinsic motivation to learn mathematics* was called the *index of interest and enjoyment in mathematics* in PISA 2003 (see OECD, 2004). Only the name changes, while the construct and measurement in the context of the PISA student background questionnaire remains the same.

4. Chapter 4 of this volume and other volumes of this series highlight other country's improvements in PISA and outline their recent policy trajectories (e.g. Portugal in Chapter 4 of this volume, Brazil, Turkey, Korea and Estonia in Volume I, Mexico and Germany in Volume II, and Colombia, Israel, Poland and Tunisia in Volume IV).

5. Between PISA 2000 and PISA 2003 Japan's reading scores declined from 522 to 498 points. In PISA 2000, reading was a major domain, while in PISA 2003 reading was a minor domain. As a result, only a subset of the reading items used in PISA 2000 were included in the PISA 2003 reading assessment. These items (known as "link items" because they allow for a link between PISA 2000 scores and future assessments) were particularly difficult in Japan. The observed decline influenced by the choice of reading items included in the PISA 2003 and PISA 2006. In PISA 2009 reading was again a major domain and Japan's reading performance can be more confidently compared to PISA 2000 results.

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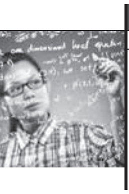
4

Mathematics Self-Beliefs and Participation in Mathematics-Related Activities

This chapter examines several ways in which students' beliefs in their own mathematics skills manifest themselves: self-efficacy (the extent to which students believe in their own ability to solve specific mathematics tasks), self-concept (students' beliefs in their own mathematics abilities), anxiety (feelings of helplessness and stress when dealing with mathematics), students' engagement in mathematics activities at and outside school, and students' intentions to pursue mathematics-related studies or careers in the future. These are analysed in relation to mathematics performance, gender and socio-economic status. Trends in students' mathematics self-beliefs since 2003 are also examined.



How students think and feel about themselves shapes their behaviour, especially when facing challenging circumstances (Bandura, 1977). Education systems are successful when they equip students with the ability to influence their own lives (Bandura, 2002). Mathematics self-beliefs have an impact on learning and performance on several levels: cognitive, motivational, affective and decision-making. They determine how well students motivate themselves and persevere in the face of difficulties, they influence students' emotional life, and they affect the choices students make about coursework, additional classes, and even educational and career paths (Bandura, 1997; Wigfield and Eccles, 2000).

In 2012, PISA investigated a range of self-beliefs: mathematics self-efficacy (the extent to which students believe in their own ability to handle mathematical tasks effectively and overcome difficulties), mathematics self-concept (students' beliefs in their own mathematics abilities), mathematics anxiety (thoughts and feelings about the self in relation to mathematics, such as feelings of helplessness and stress when dealing with mathematics), and student engagement in mathematics activities at and outside school. Results confirm previous evidence that different mathematics self-beliefs are related, but are conceptually distinct (see Pajares and Kranzler, 1995; Pajares and Miller, 1994; Lent, Lopez and Bieschke, 1991; Lee, 2009).

What the data tell us

- Some 30% of students reported that they feel helpless when doing mathematics problems: 25% of boys, 35% of girls, 35% of disadvantaged students, and 24% of advantaged students reported feeling that way.
- On average across OECD countries, greater mathematics anxiety is associated with a 34-point lower score in mathematics – the equivalent of almost one year of school.
- Countries and economies in which mathematics anxiety decreased or did not change are more likely to be those where students' mathematics self-concept or self-efficacy improved.

▪ Figure III.4.1 ▪

Mathematics self-beliefs, dispositions and participation in mathematics-related activities

Mathematics self-efficacy

Constructed index based on students' responses about their perceived ability to solve a range of pure and applied mathematics problems

Mathematics self-concept

Constructed index based on students' responses about their perceived competence in mathematics

Mathematics anxiety

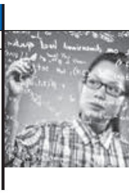
Constructed index based on students' responses about feelings of stress and helplessness when dealing with mathematics

Dispositions towards mathematics (mathematics intentions and subjective norms in mathematics)

Constructed indices based on students' responses about whether they intend to use mathematics in their future and whether students' parents and peers enjoy and value mathematics

Mathematics behaviours

Constructed indices based on students' responses about their participation in a range of mathematics-related activities



Mathematics self-beliefs illustrate students' subjective convictions. While they are built into how well students perform in mathematics over the course of their lives, once established, they play a determining and independent role in individuals' continued growth and in the development of their mathematical skills and competencies (Bandura, 1997; Markus and Nurius, 1986). While they are partly the product of a students' past performance in mathematics, mathematics self-beliefs influence how students function when confronted with mathematical problems. In addition, they have an independent effect on life choices and decisions. Students who perform similarly in mathematics usually choose different courses, educational pathways and ultimately different careers, in part depending on how they perceive themselves as mathematics learners (Bong and Skaalvik, 2003; Wang, Eccles and Kenny, 2013).

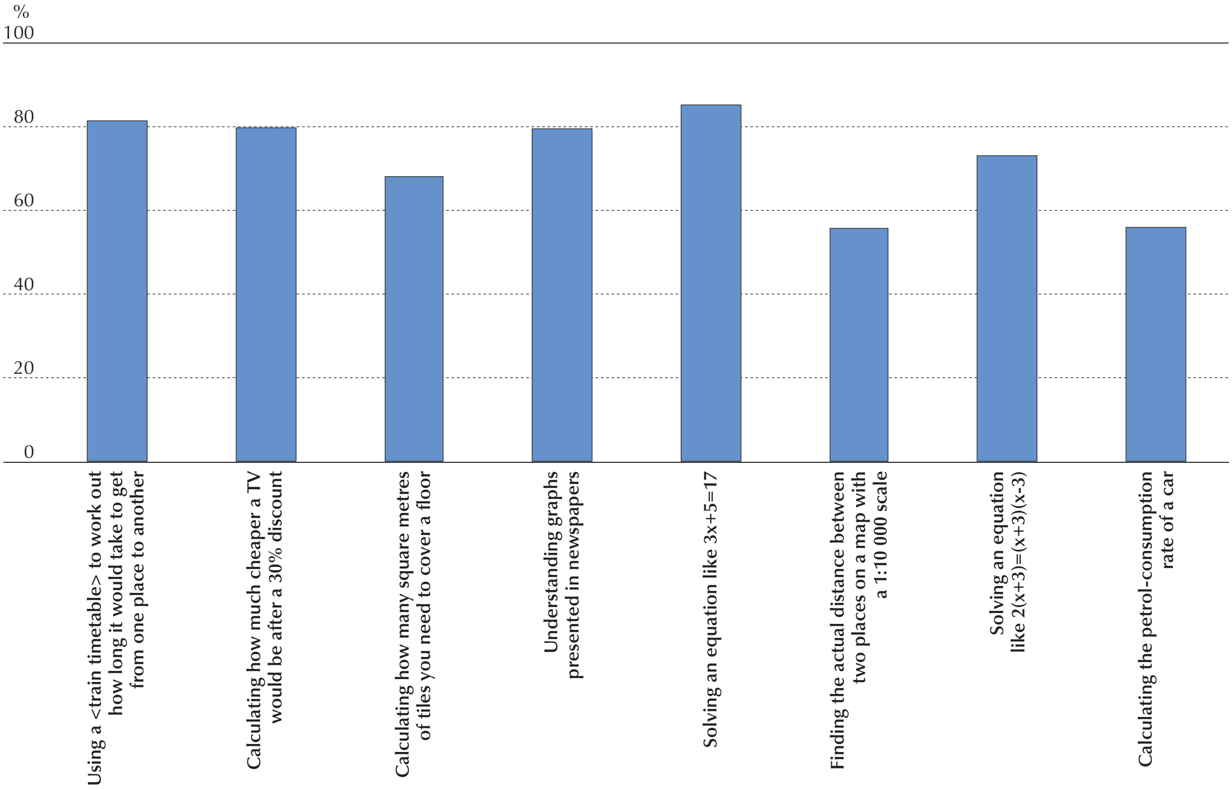
MATHEMATICS SELF-EFFICACY

The term "self-efficacy" is used to describe students' belief that, through their actions, they can produce desired effects, which, in turn, is a powerful incentive to act or to persevere in the face of difficulties (Bandura, 1977). Mathematics self-efficacy refers to students' convictions that they can successfully perform given academic tasks at designated levels (Schunk, 1991). While better performance in mathematics leads to higher levels of self-efficacy, students who have low levels of mathematics self-efficacy are at a high risk of underperforming in mathematics, despite their abilities (Bandura, 1997; Schunk and Pajares, 2009). If students do not believe in their ability to accomplish particular tasks, they will not exert the effort needed to complete the tasks successfully, and a lack of self-efficacy becomes a self-fulfilling prophecy. While other factors apart from self-efficacy can guide and motivate students, when students do not believe in their ability to succeed in a given task, they need to have much higher levels of self-control and motivation in order to succeed. Unfortunately, students who have low self-efficacy are less likely to regulate their achievement behaviors or be motivated to engage in learning (Klassen and Usher, 2010; Schunk and Pajares, 2009).

▪ Figure III.4.2 ▪

Students' mathematics self-efficacy

Percentage of students across OECD countries who reported feeling confident or very confident about doing the following tasks



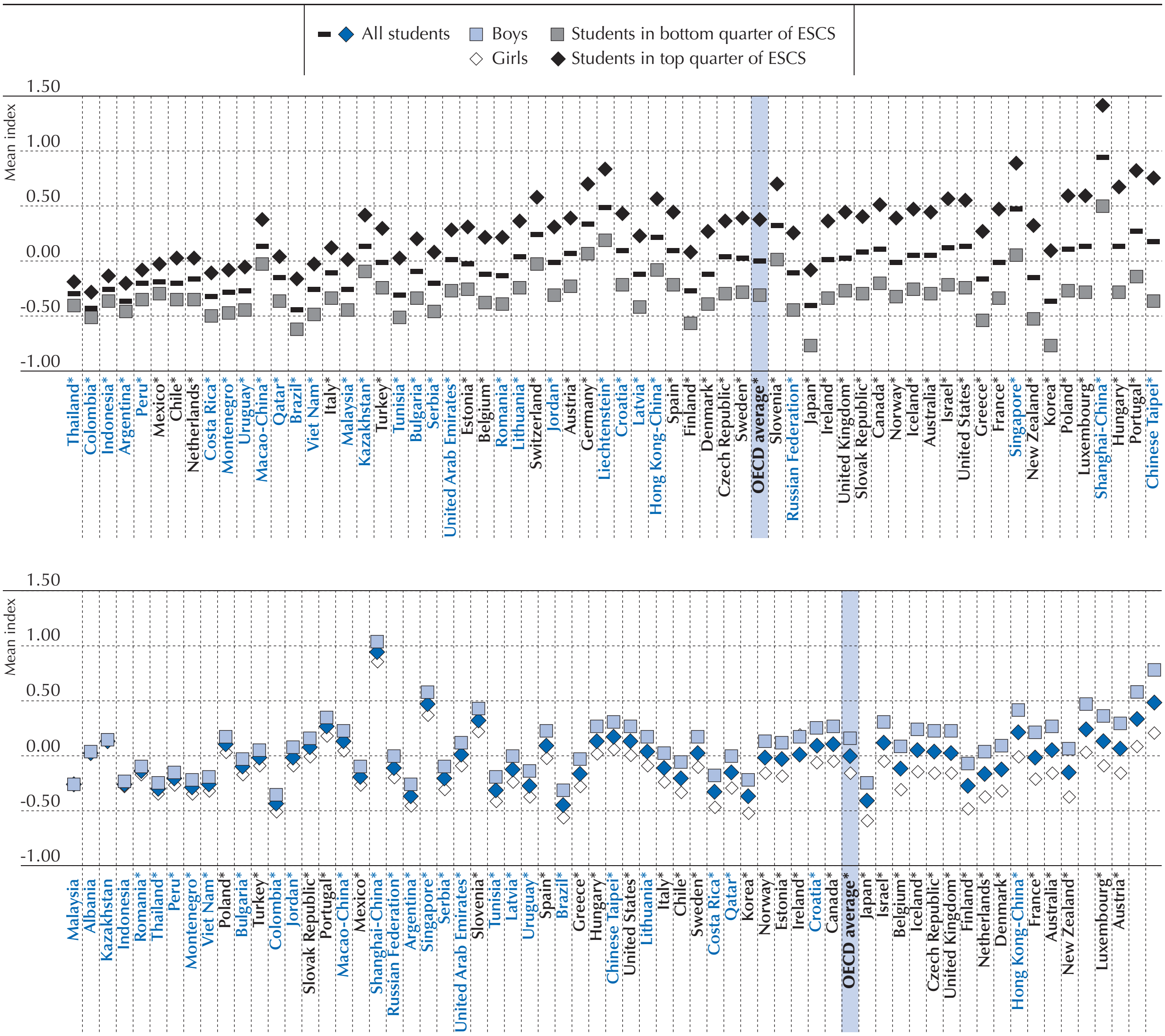
Note: Results for each participating country and economy can be found in Table III.4.1a.
Source: OECD, PISA 2012 Database, Table III.4.1a.
StatLink http://dx.doi.org/10.1787/888932963844

PISA 2012 asked students to report on whether they would feel confident doing a range of pure and applied mathematical tasks involving some algebra, such as using a train timetable to work out how long it would take to get from one place to another; calculating how much cheaper a TV would be after a 30% discount; calculating how many square metres of tiles would be needed to cover a floor; calculating the petrol-consumption rate of a car; understanding graphs presented in newspapers; finding the actual distance between two places on a map with a 1:10 000 scale; and solving equations like 3x+5=17 and 2(x+3)=(x+3)(x-3). Students' responses to questions about whether they feel very confident, confident, not very confident or not at all confident were used to create the *index of mathematics self-efficacy*, which identifies students' level of self-efficacy in mathematics. The index was standardised to have a mean of 0 and a standard deviation of 1 across OECD countries (see Box III.2.1 for a detailed description of how PISA indices were constructed and how they should be interpreted).

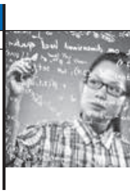
Tables III.4.7a and III.4.7b show that girls and socio-economically disadvantaged students are more likely to have low levels of self-efficacy than boys and socio-economically advantaged students. A detailed analysis of gender and socio-economic differences in students' responses to questions about their level of confidence in tackling a number of

▪ Figure III.4.3 ▪

Gender and socio-economic differences in mathematics self-efficacy



Notes: Countries/economies where the gender/socio-economic gap is significant are indicated with an asterisk.
ESCS refers to the *PISA index of economic, social and cultural status*.
Countries and economies are ranked in ascending order of gender differences (bottom panel) and socio-economic differences (top panel) on the index of mathematics self-efficacy.
Source: OECD, PISA 2012 Database, Tables III.4.1c and III.4.1d.
StatLink http://dx.doi.org/10.1787/888932963844



mathematical tasks reveal that across OECD countries 75% of girls feel confident or very confident about calculating how much cheaper a TV would be after a 30% discount, compared to 84% of boys. No gender differences in confidence are observed when students are asked about doing tasks that are more abstract and clearly match classroom content, such as solving a linear or a quadratic equation. However, gender differences are striking when students are asked to report their ability to solve applied mathematical tasks, particularly when the mathematics problem is presented in terms of tasks that are associated with stereotypical gender roles (such as calculating the petrol-consumption rate of a car). On average across OECD countries, 67% of boys but only 44% of girls reported feeling confident about performing such a calculation (Table III.4.1b).

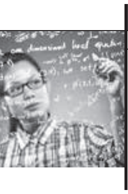
While gender differences in mathematics self-efficacy and related beliefs about competency have long been a subject of study (Eccles, 1984; Jacobs et al., 2002; Pajares and Miller, 1994), differences in self-efficacy related to socio-economic status are just as pervasive (Figure III.4.3). Disadvantaged students are generally less likely to feel confident about their ability to tackle specific mathematics tasks than advantaged students (Table III.4.7b). While these differences partly reflect differences in mathematics performance related to socio-economic status, these differences remain large and statistically significant even when comparing students who perform similarly in mathematics (see Table III.7.3b and Chapter 7 more generally for a detailed discussion of differences in self-reported self-efficacy related to gender and socio-economic status among students with similar mathematics performance).

Between 2003 and 2012, students' mathematics self-efficacy increased slightly across OECD countries as students became more likely, for example, to report feeling confident about using a train timetable to work out how long it would take to get from one place to another. However, this general trend masks the fact that students' mathematics self-efficacy decreased in New Zealand, Hungary, the Slovak Republic and Uruguay. In the Slovak Republic, Hungary and New Zealand, for example, the percentage of students who reported that they feel confident in calculating how many square metres of tiles are required to cover a floor dropped by at least eight percentage points during the period. Students' reported mathematics self-efficacy increased in 21 countries and economies. Increases in mathematics self-efficacy were notable in Portugal, Germany, Thailand, Turkey and Spain where the *index of mathematics self-efficacy* grew by more than 0.2 units. Reflecting the increase in the mathematics self-efficacy, the share of students who reported feeling confident in calculating the price of a TV that has been discounted by 30%, for example, increased by more than five percentage points in Thailand, Greece, Portugal, Turkey, Germany, the Russian Federation and Japan between 2003 and 2012 (Table III.4.1f) (Portugal's improvement in PISA and recent education policies and programmes is outlined in Box III.4.1).

Mathematics self-efficacy tended to increase among countries that show reduced levels of mathematics anxiety (correlation at the country level of -0.4, Table III.4.10). Such is the case in Portugal and Iceland where steep drops in mathematics anxiety coincided with increases in students' mathematics self-efficacy. The relationship between students' mathematics self-efficacy and their mathematics performance was strong in 2003 and remained strong in 2012 (a correlation of 0.5), on average across OECD countries and for 23 countries and economies.

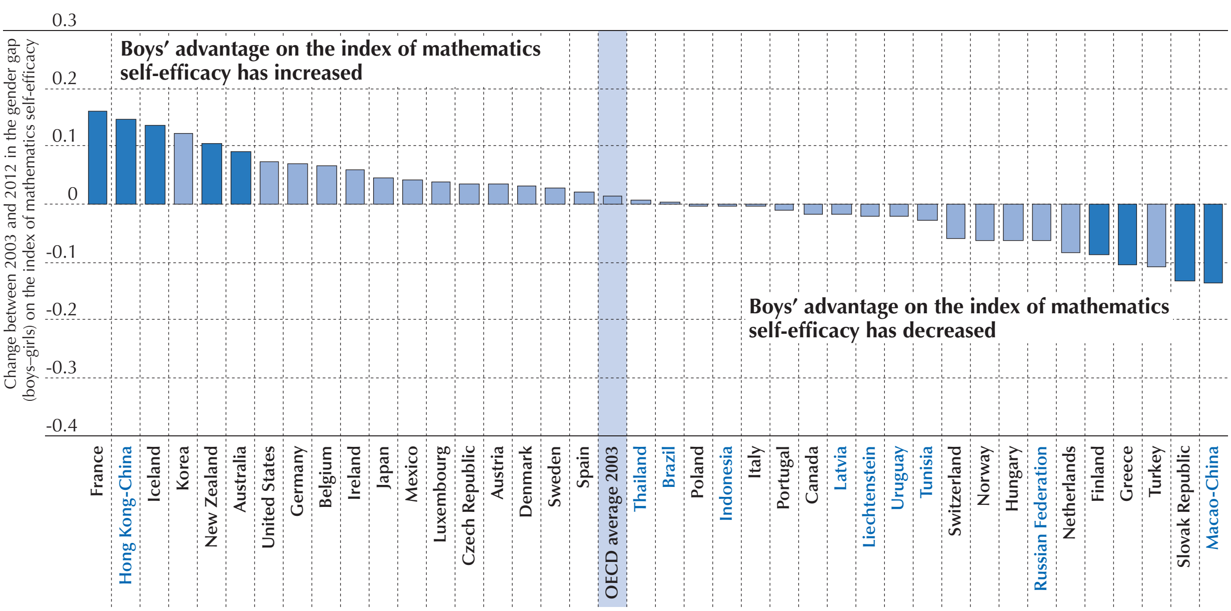
Boys' and girls' mathematics self-efficacy improved slightly between 2003 and 2012. On average across OECD countries, boys' mathematics self-efficacy improved by 0.08 units, with a similar improvement observed among girls (0.06 units), maintaining the gender gap in mathematics self-efficacy in favour of boys at over 0.3 points. Despite this average trend, the gap in mathematics self-efficacy widened in favour of boys in France, Hong Kong-China, Iceland, New Zealand and Australia. In France, Hong Kong-China, Iceland and Australia, mathematics self-efficacy increased more among boys than girls; in New Zealand, the decrease in self-efficacy was greater among girls than boys. In Iceland, for example, boys in 2012 were 5 percentage points less likely than boys in 2003 to feel confident about solving an equation like $3x+5=17$, but girls were no more likely to feel such confidence. The gender gap in mathematics self-efficacy narrowed in Macao-China, the Slovak Republic, Greece and Finland (Figure III.4.4a and Table III.4.1g).

In 2012, socio-economically disadvantaged students reported lower levels of mathematics self-efficacy when compared to their advantaged counterparts, and on average across OECD countries these differences remained similar to those in 2003. Socio-economic disparities in mathematics self-efficacy widened in Portugal and Luxembourg due to a larger increase in mathematics self-efficacy among advantaged students than among disadvantaged students, and in Latvia and Canada due to an increase in mathematics self-efficacy among advantaged students concurrent with no change among disadvantaged students. Differences in mathematics self-efficacy related to socio-economic status narrowed between 2003 and 2012 in Thailand, the Slovak Republic, Uruguay, Sweden and Belgium. In Thailand, Sweden and Belgium this was mostly due to an increase in mathematics self-efficacy among disadvantaged students (Figure III.4.4b).



■ Figure III.4.4a ■

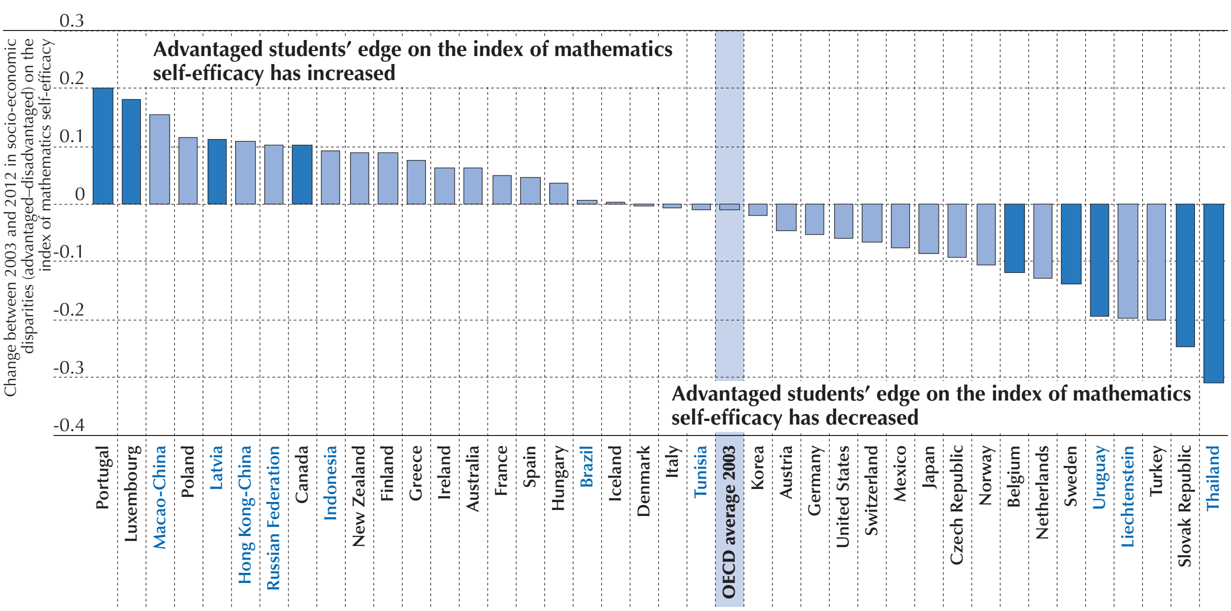
Change between 2003 and 2012 in the gender gap in mathematics self-efficacy



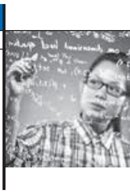
Notes: Statistically significant changes at the 5% level ($p < 0.05$) between PISA 2003 and PISA 2012 are marked in a darker tone.
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
OECD average 2003 compares only OECD countries with comparable *indices of mathematics self-efficacy* since 2003.
Countries and economies are ranked in descending order of the change in the gender gap on the index of mathematics self-efficacy *between PISA 2003 and PISA 2012.*
Source: OECD, PISA 2012 Database, Table III.4.1g.
StatLink http://dx.doi.org/10.1787/888932963844

■ Figure III.4.4b ■

Change between 2003 and 2012 in socio-economic disparities in mathematics self-efficacy



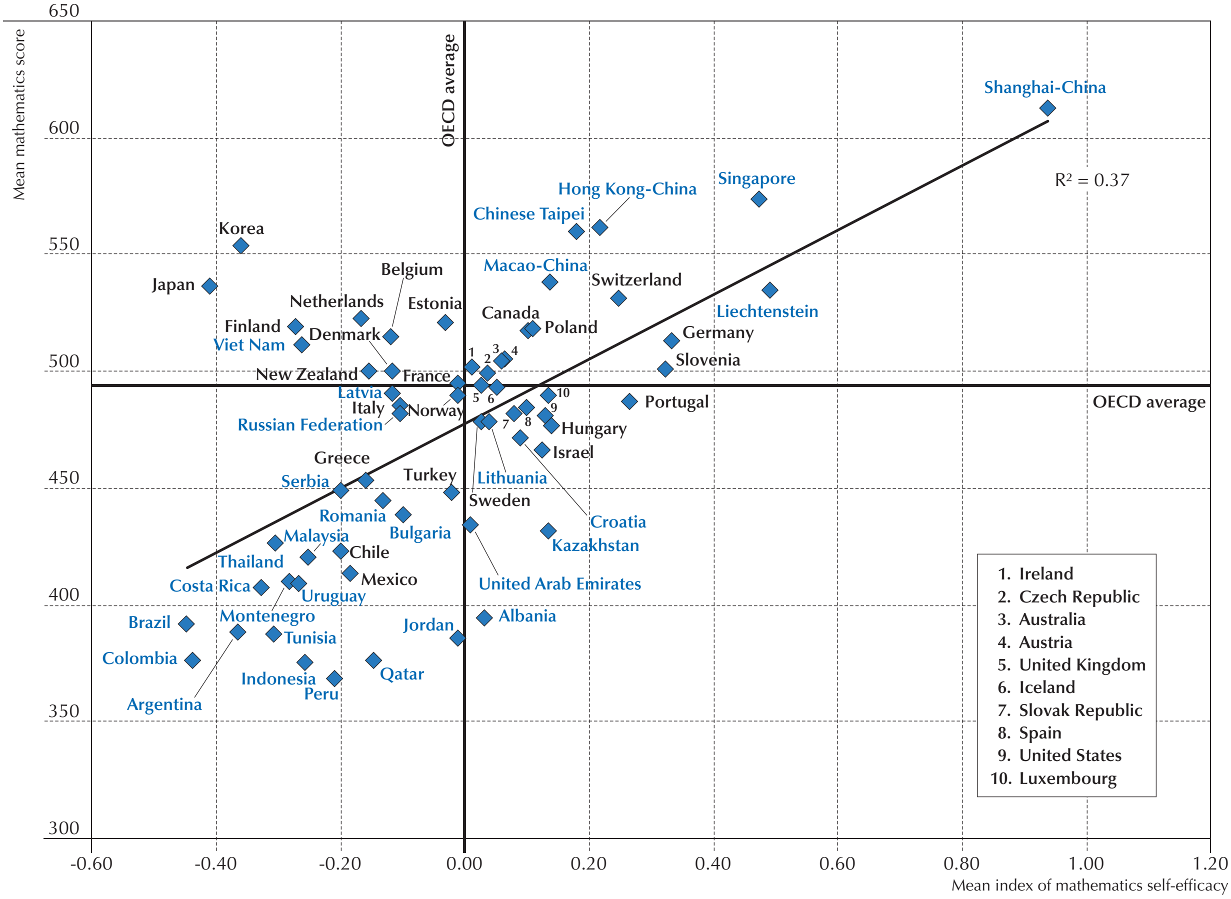
Notes: Statistically significant changes at the 5% level ($p < 0.05$) between PISA 2003 and PISA 2012 are marked in a darker tone.
Advantaged/disadvantaged students are students in the top/bottom quarter of the *PISA index of economic, social and cultural status*.
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
OECD average 2003 compares only OECD countries with comparable *indices of mathematics self-efficacy* since 2003.
Countries and economies are ranked in descending order of the change in socio-economic disparities on the index of mathematics self-efficacy *between PISA 2003 and PISA 2012.*
Source: OECD, PISA 2012 Database, Table III.4.1g.
StatLink http://dx.doi.org/10.1787/888932963844



At the country/economy level, mathematics self-efficacy is strongly associated with mathematics performance. Figure III.4.5 shows that countries with higher mean performance in mathematics are those where students are more likely to report feeling confident about being able to solve a range of pure and applied mathematics problems. When comparing PISA 2003 and PISA 2012 results, Indonesia and Thailand are the only countries where the correlation between students' mathematics self-efficacy and their mathematics performance was weak (at 0.10 and 0.17 in 2003 and 2012 for Indonesia, and 0.24 in 2012 for Thailand); in the remaining countries and economies the correlation between mathematics performance and self-efficacy was moderate (at least 0.3) or strong (at least 0.5). Between 2003 and 2012 this relationship remained relatively stable (Table III.4.9).

▪ Figure III.4.5 ▪

Country-level association between mathematics performance and mathematics self-efficacy



Source: OECD, PISA 2012 Database, Tables I.2.3a and III.4.1d.

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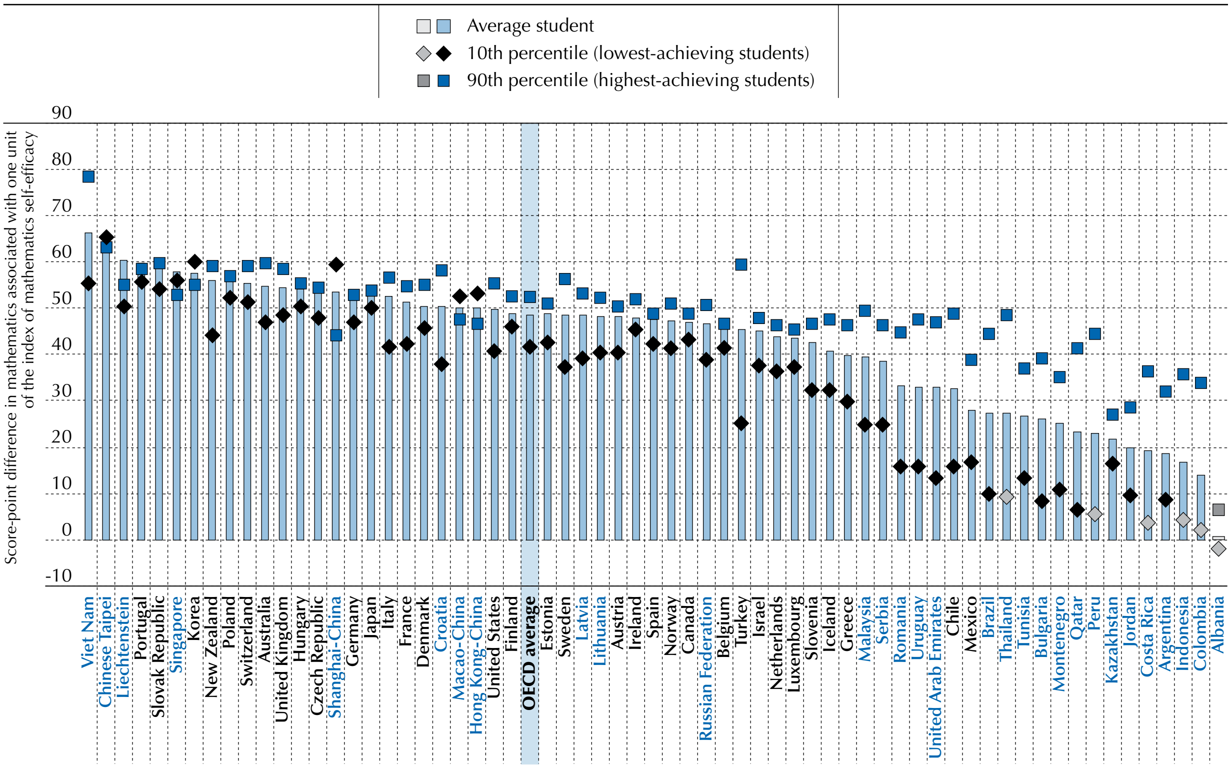
As Figure III.4.6 shows, students who have low levels of mathematics self-efficacy perform worse in mathematics than students who are confident about their ability to handle mathematical tasks (Tables III.4.1d and III.4.1e). The blue bars in Figure III.4.6 illustrate the estimated score-point difference in mathematics performance that is associated with a difference of one unit in the *index of mathematics self-efficacy*. On average across OECD countries, mathematics self-efficacy is associated with a difference of 49 score points – the equivalent of an additional year of school. The last section of the chapter considers the possible role of composition effects (differences in socio-economic status and gender) and how they explain only a small part of the relationship between mathematics performance and mathematics self-efficacy, other self-beliefs, and participation in mathematics activities. In 23 countries and economies, the difference in mathematics performance that is associated with students' self-efficacy is 50 points or more; in Viet Nam, Chinese Taipei and Liechtenstein, the difference is at least 60 score points. Albania is the only country where mathematics self-efficacy is not associated with performance; in Colombia, Indonesia, Argentina and Costa Rica, the difference is less than 20 score points. Across OECD countries, 29% of the variation in students' mathematics performance can be explained

by differences in how confident students feel about their ability to handle a range of applied and pure mathematics tasks, such as calculating the petrol-consumption rate of a car or solving an algebraic equation. In 21 countries and economies, mathematics self-efficacy explains more than 30% of the variation in mathematics performance; in Chinese Taipei, Portugal and Poland it explains more than 40% of the variation in performance. Albania, Colombia, Indonesia, Peru and Argentina are the only countries where knowing students' level of mathematics self-efficacy conveys little information about their likelihood of performing at a certain proficiency level in PISA. In these countries, less than 5% of the variation in student performance in mathematics is associated with students' efficacy (Tables III.4.1d and III.4.1e).

▪ Figure III.4.6 ▪

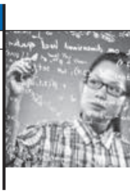
Relationship between mathematics self-efficacy and mathematics performance



Note: Differences that are statistically significant at the 5% level ($p < 0.05$) are marked in a darker tone.
Countries and economies are ranked in descending order of the average score-point difference in mathematics associated with a one-unit difference in the index of mathematics self-efficiency.
Source: OECD, PISA 2012 Database, Table III.4.1e.
StatLink `http://dx.doi.org/10.1787/888932963844`

While the blue bars in Figure III.4.6 denote the association between mathematics self-efficacy and mathematics performance at the mean, the black diamonds and the blue squares symbolise the relationship between mathematics self-efficacy and mathematics performance among the highest and lowest-achieving students. Across OECD countries, mathematics self-efficacy is positively associated with performance in mathematics; but while the association is 49 points at the mean, it varies substantially among the highest- and lowest-performing students. Greater self-efficacy is less closely related to the performance of the lowest-achieving students than to that of the highest-achieving students. A change of one unit on the index is associated with a 42 score-point difference in the performance of students in the bottom 10% of the performance distribution while it is associated with a 53 score-point difference in the performance of students in the top 10% of the performance distribution.

In 38 countries and economies, the performance difference among the highest- and lowest-achieving students is ten score points or more, and in Thailand and Peru it is around 39 points. In Thailand, for example, mathematics self-efficacy is associated with a difference of 49 points in mathematics performance among students at the 90th percentile in performance, but no difference in mathematics performance among students at the 10th percentile. Similarly, in Peru,



the score-point difference at the 90th percentile is related to 44 score-points in mathematics performance while there is no association at the 10th percentile. Shanghai-China, Hong Kong-China, Korea, Macao-China, Chinese Taipei and Singapore are notable exceptions: in these countries the association between self-efficacy and performance is stronger at the bottom of the performance distribution than it is at the top. In Shanghai-China, for example, the score-point difference in mathematics performance is 59 points at the 10th percentile and 44 points at the 90th percentile (Table III.4.1e).

MATHEMATICS SELF-CONCEPT

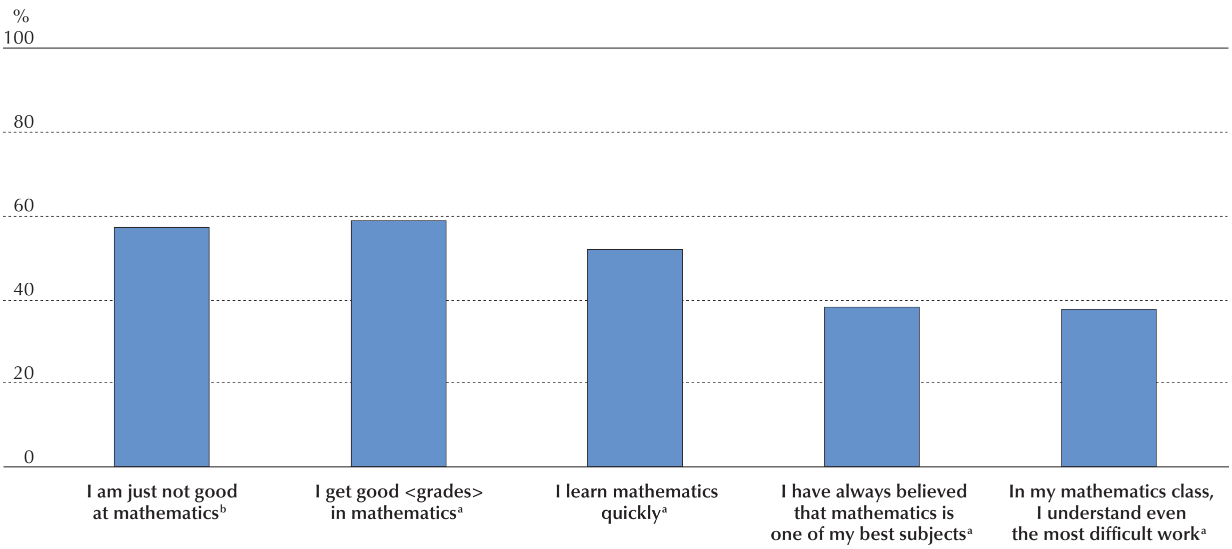
Students' mathematics self-concept, or belief in their own abilities, is an important outcome of education and strongly related to successful learning (Marsh, 1986; Marsh and O'Mara, 2008). Longitudinal studies of self-concept and achievement show that they are reciprocally related over time (Marsh, Xu and Martin, 2012; Marsh and Martin, 2011). Self-concept can also affect well-being and personality development. PISA 2012 measured students' mathematics self-concept by using students' responses as to whether they strongly agreed, agreed, disagreed or strongly disagreed that they are just not good in mathematics; that they get good grades in mathematics; that they learn mathematics quickly; that they have always believed that mathematics is one of their best subjects; and that they understand even the most difficult concepts in mathematics class. Student responses were used to create the *index of mathematics self-concept*, which was standardised to have a mean of 0 and a standard deviation of 1 across OECD countries (see Box III.2.1 in Chapter 2 for a detailed description of how PISA indices were constructed and how they should be interpreted).

On average across OECD countries, 43% of students reported that they agree or strongly agree that they are not good at mathematics; 59% reported that they get good grades in mathematics; 37% reported that they understand even the most difficult work; 52% reported that they learn mathematics quickly; and 38% reported to have always believed that mathematics is one of their best subjects (Figure III.4.7 and Table III.4.2a). These responses vary markedly among countries and economies: while in Jordan, the United Arab Emirates, Qatar, Kazakhstan, Singapore, the United States and Costa Rica at least 60% of students reported learning mathematics quickly, in Chinese Taipei, Korea, Viet Nam and Japan fewer than 40% of students agreed with the same statement. Gender disparities in students' mathematics self-concept closely mirror gender disparities in mathematics self-efficacy: 63% of boys, but only 52% of girls, reported that they disagree that they are just not good at mathematics. Conversely, across OECD countries, 30% of girls, but 45% of boys, reported that they understand even the most difficult work in mathematics classes (Table III.4.2b). Gender differences in mathematics self-concept are particularly wide in Switzerland, Denmark, Germany, Macao-China, Liechtenstein and Luxembourg, while no gender differences can be observed in Malaysia, Albania and Kazakhstan (Table III.4.2d).

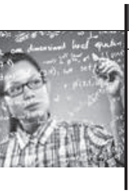
▪ Figure III.4.7 ▪

Students' mathematics self-concept

Percentage of students across OECD countries who reported that they "agree" or "strongly agree" (a) or who reported that they "disagree" or "strongly disagree" (b) with the following statements:



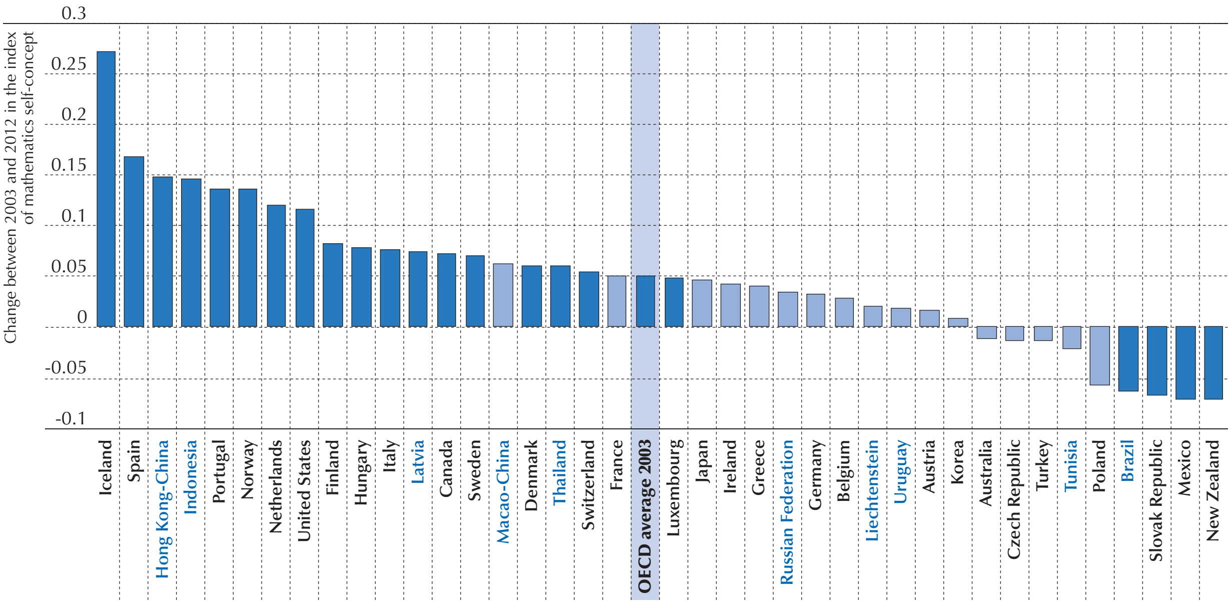
Note: Results for each participating country and economy can be found in Table III.4.2a.
Source: OECD, PISA 2012 Database, Table III.4.2a.
StatLink `http://dx.doi.org/10.1787/888932963844`



A comparison of the responses of students who participated in PISA 2003 and those who participated in PISA 2012 reveals that, on average across OECD countries, mathematics self-concept improved slightly during the period. Students in 2012 were four percentage points more likely to report that they understand even the most difficult work in mathematics compared to students in 2003, and three percentage points more likely to believe that mathematics is one of their best subjects. Significant improvements in mathematics self-concept were observed in 18 countries and economies, with the *index of mathematics self-concept* improving by more than 0.1 units in Iceland, Spain, Hong Kong-China, Indonesia, Portugal, Norway, the Netherlands and the United States. The improvement was greatest in Spain and Iceland (Figure III.4.8). In Spain, for example, students in 2012 were 10 percentage points more likely than their peers in 2003 to report they understand even the most difficult work, and 7 percentage points more likely to report that they learn mathematics quickly or that mathematics is one of their best subjects. In Iceland, students in 2012 were 14 percentage points more likely than their peers in 2003 to report that they get good grades in mathematics, and 10 percentage points less likely to report that they are just not good at mathematics (Table III.4.2f).

▪ Figure III.4.8 ▪

Change between 2003 and 2012 in students' mathematics self-concept



Notes: Statistically significant changes at the 5% level ($p < 0.05$) between PISA 2003 and PISA 2012 are marked in a darker tone.
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
OECD average 2003 compares only OECD countries with comparable *indices of mathematics self-concept* since 2003.
Countries and economies are ranked in descending order of the change in the index of mathematics self-concept *between PISA 2003 and PISA 2012.*
Source: OECD, PISA 2012 Database, Table III.4.2f.
StatLink http://dx.doi.org/10.1787/888932963844

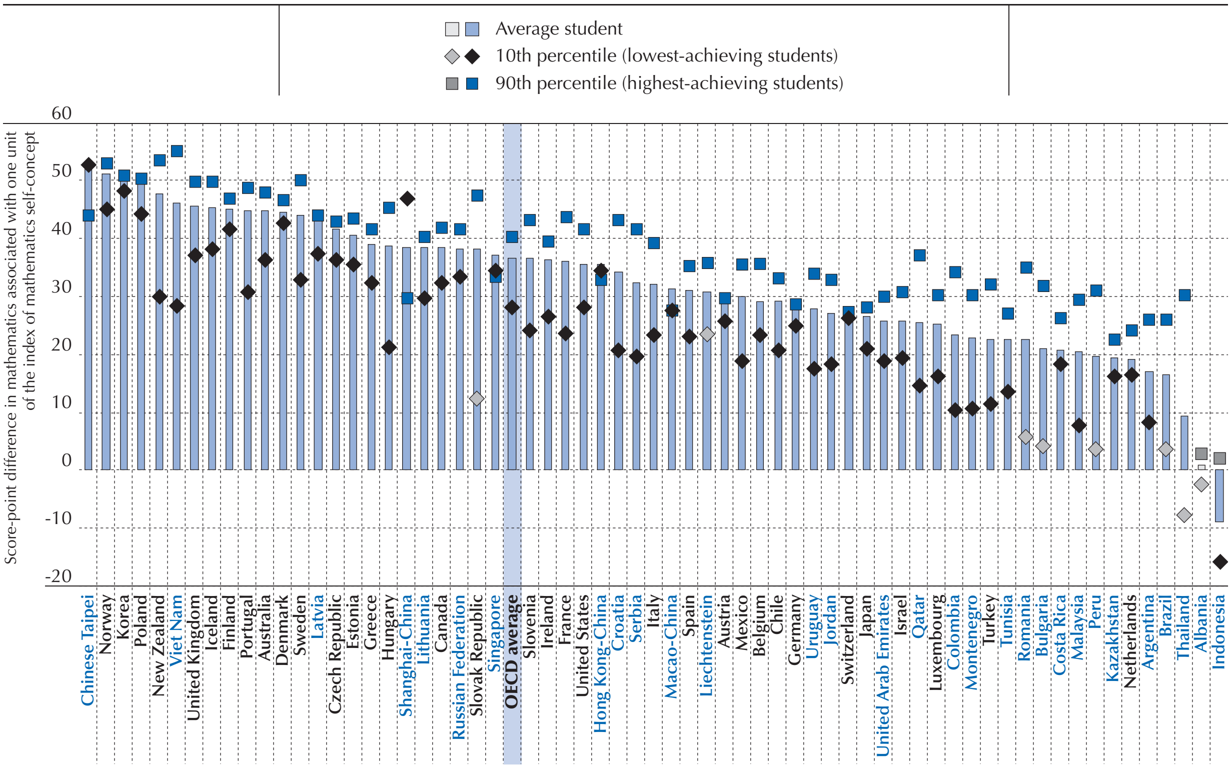
Mathematics self-concept tends to improve among those countries that saw improvements in students' intrinsic motivation to learn mathematics and in which reductions in students' anxiety towards mathematics were observed (a discussion of mathematics anxiety can be found in the following section) (Table III.4.10). Most notably, Iceland saw one of the greatest improvements in students' self-concept and intrinsic motivation to learn mathematics, and one of the largest reductions in anxiety towards mathematics among countries and economies that participated in both PISA 2003 and PISA 2012.

The magnitude of differences in mathematics self-concept related to gender and socio-economic status remained stable between 2003 and 2012, on average across OECD countries. Gender gaps in mathematics self-concept widened in favour of boys in eight countries and economies, especially in Uruguay, Mexico and Hong Kong-China, while there was little overall change in differences in mathematics self-concept related to socio-economic status during the period. The differences in favour of socio-economically advantaged students shrank most notably in Finland, Thailand and Norway, where disadvantaged students' mathematics self-concepts improved and that of advantaged students remained constant or declined between 2003 and 2012 (Table III.4.2g).

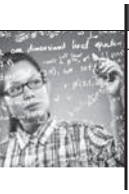
The relationship between mathematics self-concept and mathematics performance closely mirrors the relationship between mathematics self-efficacy and mathematics performance: as Figure III.4.9 shows, students who have low levels of mathematics self-concept perform worse in mathematics than students who are more confident in their own abilities as mathematics learners (Tables III.4.2d and III.4.2e). In 2003 as in 2012, the relationship between students' self-concept and their mathematics performance was strong and positive, on average across OECD countries with comparable data (Table III.4.9). The blue bars in the Figure III.4.9 illustrate the estimated score-point difference in mathematics performance that is associated with a difference of one unit in the *index of mathematics self-concept* and indicate that on average across OECD countries, mathematics self-concept is associated with a difference of 37 score points – the equivalent of almost an additional year of school. While the blue bars in Figure III.4.9 denote the association between mathematics self-concept and mathematics performance at the mean, the black diamonds and the blue squares symbolise the relationship between mathematics self-concept and mathematics performance among the lowest- and highest-achieving students. Across OECD countries, mathematics self-concept is positively associated with performance in mathematics; but while the association is 37 points at the mean, it varies substantially among the highest- and lowest-performing students. Greater self-concept tends to make less of a difference to the performance of the lowest-achieving students than to that of the highest-achieving students. A change of one unit on the index is associated with a 29 score-point difference in the performance of students in the bottom 10% of the performance distribution while it is associated with a 41 score-point difference in the performance of students in the top 10% of the performance distribution. Chinese Taipei and Shanghai-China are notable exceptions: in these countries, the difference in mathematics performance that is associated with a difference of one unit in mathematics self-concept is greater at the bottom than at the top of the performance distribution.

■ Figure III.4.9 ■

Relationship between mathematics self-concept and mathematics performance



Note: Differences that are statistically significant at the 5% level ($p < 0.05$) are marked in a darker tone.
Countries and economies are ranked in descending order of the average score-point difference in mathematics associated with a difference of one unit in the index of mathematics self-concept.
Source: OECD, PISA 2012 Database, Table III.4.2e.
StatLink `http://dx.doi.org/10.1787/888932963844`



MATHEMATICS ANXIETY

While many students worry about their performance in school and are anxious when they have to take exams, large proportions of students report feeling anxious about mathematics in particular (Ashcraft and Ridley, 2005; Hembree, 1990; Wigfield and Meece, 1988). Students who have high levels of mathematics anxiety generally report feeling tense, apprehensive and fearful of mathematics (Richardson and Suinn, 1972; Ma, 1999; Zeidner and Matthews, 2011; Tobias, 1993); they tend to underperform in mathematics tasks compared to students with no or low levels of mathematics anxiety (Hembree, 1990; Ma, 1999). While poor performance in mathematics tends to be associated with high mathematics anxiety (Ma and Kishor, 1997; Ma and Xu, 2004), evidence indicates that part of the performance gap between students with high and low levels of mathematics anxiety is directly related to the adverse effect of anxiety on cognitive resource activation (Ashcraft and Kirk, 2001). In other words, when students are very anxious in general, and are anxious about mathematics in particular, their brains cannot devote sufficient attention to solving mathematics problems because they are, instead, occupied with worrying about such tasks (Beilock et al., 2004; Hopko et al., 1998; Hopko et al., 2002; Kellogg, Hopko and Ashcraft, 1999).

Mathematics anxiety is not merely a psychological phenomenon that limits the ability to solve mathematical problems; individuals who suffer from mathematics anxiety may experience a physical reaction to mathematics that can be likened to pain. As a result, individuals who experience mathematics anxiety generally avoid mathematics, mathematics courses and career paths that require the mastery of some mathematical skills (Hembree, 1990; Ashcraft and Ridley, 2005; Beasley, Long and Natali, 2001; Ho et al., 2000). For these individuals, avoiding mathematics is as natural a response as avoiding pain, since, to them, even the mere anticipation of being confronted with a mathematical problem can be painful (Lyons and Beilock, 2012).

PISA 2012 asked students to report whether they agree or strongly agree that they often worry that mathematics classes will be difficult for them; that they get very tense when they have to do mathematics homework; that they get very nervous doing mathematics problems; that they feel helpless when doing a mathematics problem; and that they worry that they will get poor grades in mathematics. Student responses about their feelings of stress associated with anticipating mathematical tasks, anticipating their mathematics performance, and while attempting to solve mathematics problems were used to identify students' specific level of anxiety towards mathematics and to construct the *index of mathematics anxiety*, standardised to have a mean of 0 and a standard deviation of 1 across OECD countries. Positive values on the index indicate that students reported higher levels of anxiety towards mathematics than the average student across OECD countries, while negative values indicate that students reported lower levels of anxiety towards mathematics than the average student across OECD countries.

A considerable proportion of 15-year-olds reported feelings of helplessness and emotional stress when dealing with mathematics. Across OECD countries, 59% of students reported that they often worry that it will be difficult for them in mathematics classes; 33% reported that they get very tense when they have to do mathematics homework; 31% that they get very nervous doing mathematics problems; 30% that they feel helpless when doing a mathematics problem, and 61% that they worry about getting poor grades in mathematics (Figure III.4.10). In Argentina, Tunisia, Jordan, Mexico, Korea, Romania, Indonesia, Uruguay and Malaysia, students were particularly likely to report that they worry that it will be difficult for them in mathematics classes: in these countries at least 75% of students reported feeling worried. Similarly, in Jordan, Thailand, Tunisia, Brazil, Qatar and Argentina at least 45% of students feel helpless when doing a mathematics problem (Table III.4.3a).

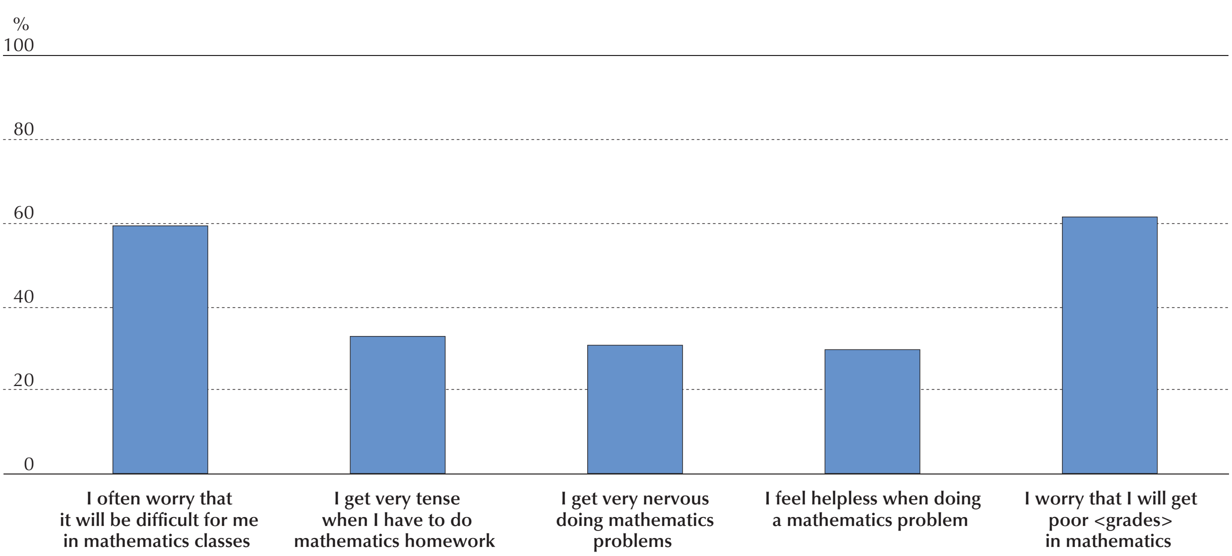
Across most countries and economies, differences in levels of mathematics anxiety related to gender are wide. In all countries and economies that participated in PISA 2012, except Albania, Turkey, Bulgaria, Indonesia, Kazakhstan, Montenegro, Malaysia, Serbia and Romania, girls reported stronger feelings of mathematics anxiety than boys; in Jordan, the United Arab Emirates and Qatar, boys reported greater feelings of anxiety than girls (Table III.4.3d). Gender differences in mathematics anxiety tend to be particularly wide in Denmark, Finland and Liechtenstein: in all these countries, the gender gap in the percentage of boys and girls who worry that it will be difficult for them in mathematics classes is greater than 20 percentage points (with girls more worried than boys) (see Tables III.4.3b, III.4.3d for overall gender differences in mathematics anxiety and Table III.4.7a for a comparison of gender differences across students' self-beliefs). Overall, the gender difference in mathematics anxiety appears to be widest in those countries that have comparatively low levels of mathematics anxiety.

In parallel with the slight increase in students' mathematics self-concept over time, on average across OECD countries, mathematics anxiety also increased slightly since 2003. That year, 29% of students reported getting very tense when

▪ Figure III.4.10 ▪

Students' mathematics anxiety

Percentage of students across OECD countries who reported that they "agree" or "strongly agree" with the following statements:



Note: Results for each participating country and economy can be found in Table III.4.3a.
Source: OECD, PISA 2012 Database, Table III.4.3a.
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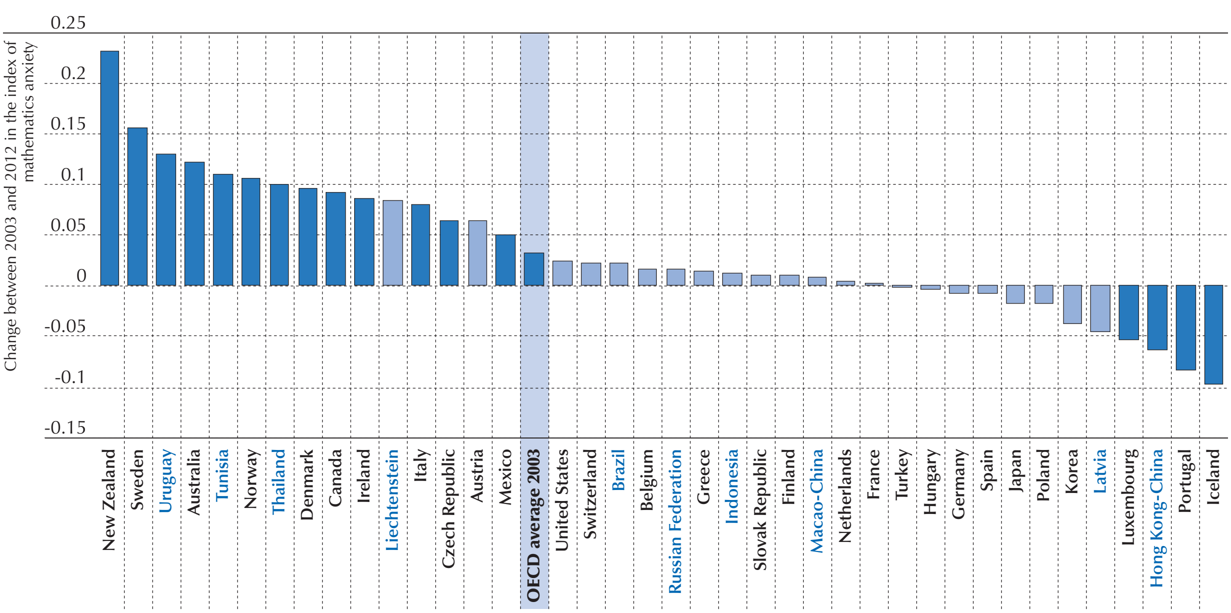
▪ Figure III.4.11 ▪

Change between 2003 and 2012 in students' anxiety towards mathematics



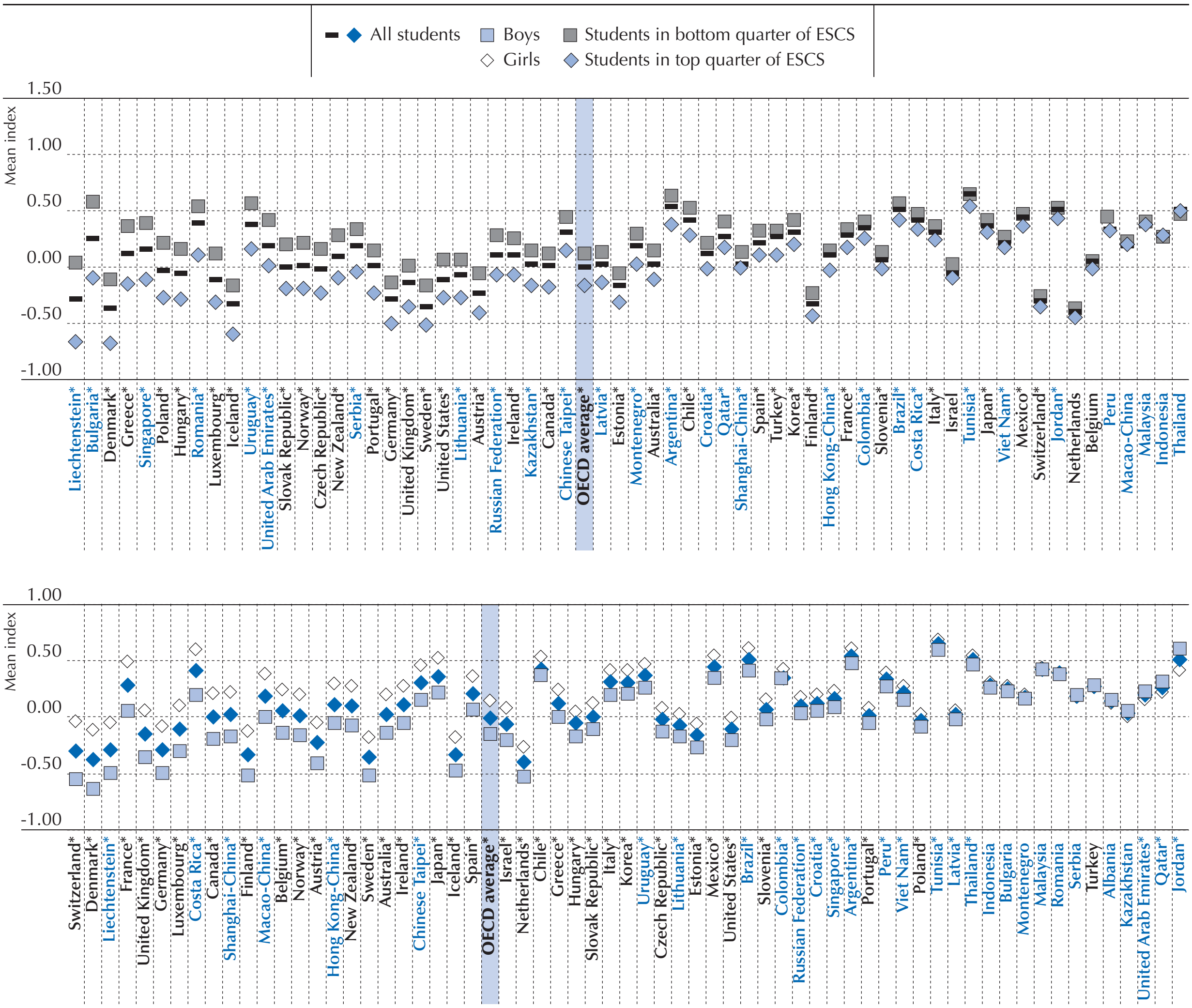
Notes: Statistically significant changes at the 5% level ($p < 0.05$) between PISA 2003 and PISA 2012 are marked in a darker tone.
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
OECD average 2003 compares only OECD countries with comparable *indices of mathematics anxiety* since 2003.
Countries and economies are ranked in descending order of the change in the index of mathematics anxiety *between PISA 2003 and PISA 2012.*
Source: OECD, PISA 2012 Database, Table III.4.3f.
StatLink `http://dx.doi.org/10.1787/888932963844`

having to do mathematics homework; by 2012 this proportion had grown to 32%. Similarly, students in 2012 were more likely than their counterparts in 2003 to worry that they will find it difficult in mathematics classes, more likely to worry that they will get poor grades in mathematics, and more likely to report getting nervous and feeling helpless doing mathematics problems. Consistent with this average trend, the *index of mathematics anxiety* increased in a statistically significant way in 13 countries and economies between 2003 and 2012, most notably in New Zealand, Sweden, Uruguay, Australia, Tunisia, Norway and Thailand, where the *index of mathematics anxiety* increased by more than 0.1 units during the period. In Sweden and New Zealand, for example, 15-year-old students in 2012 were at least ten percentage points more likely to report getting very tense when having to do mathematics homework and ten percentage points more likely to report that they will find it difficult in mathematics classes than their peers did in 2003. By contrast, anxiety towards mathematics has decreased significantly in Iceland, Portugal, Hong Kong-China and Luxembourg (Figure III.4.11 and Table III.4.3f).

While the trends towards greater mathematics anxiety may seem at odds with trends that point towards improving levels of mathematics self-concept and self-efficacy among students, countries and economies that saw increases in the levels of mathematics anxiety between 2003 and 2012 are, in many cases, also those that saw a decline in students' self-concepts and levels of self-efficacy (the correlation at the country/economy level is, in both cases, -0.4, signalling

▪ Figure III.4.12 ▪

Gender and socio-economic differences in students' mathematics anxiety



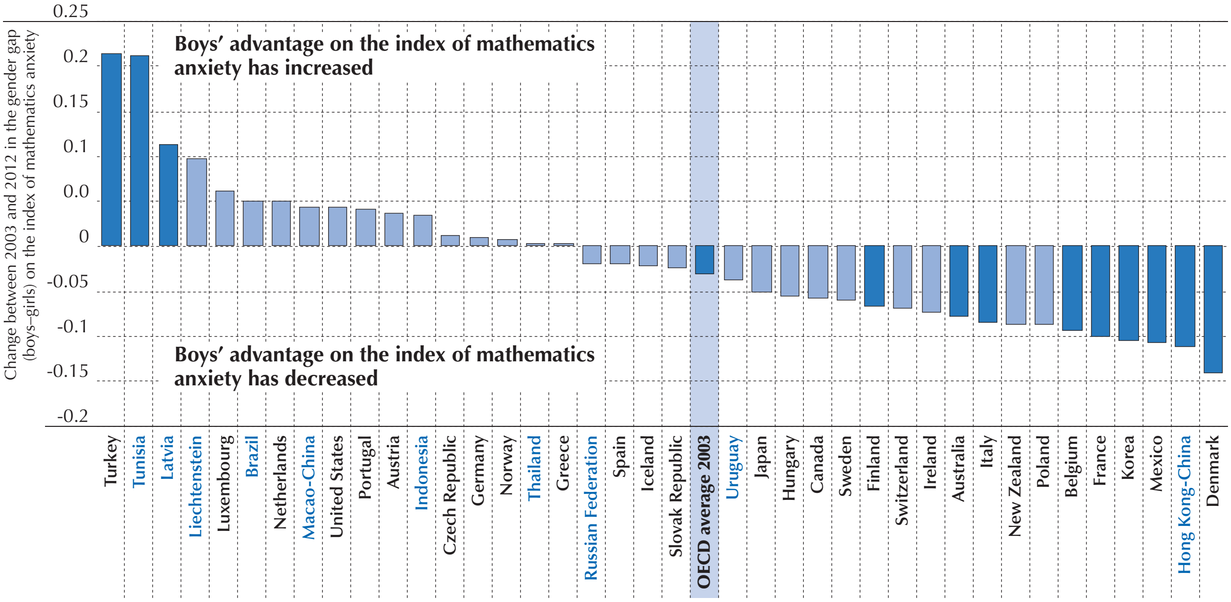
Notes: Countries/economies where gender/socio-economic differences are significant are indicated with an asterisk.
ESCS refers to the *PISA index of economic, social and cultural status*.
Countries and economies are ranked in ascending order of gender differences (left panel) and socio-economic differences (right panel) on the index of mathematics anxiety.
Source: OECD, PISA 2012 Database, Tables III.4.3c and III.4.3d.
StatLink http://dx.doi.org/10.1787/888932963844

that countries in which mathematics anxiety decreased or did not change are more likely to be those where students' mathematics self-concept or self-efficacy improved). In Iceland, Spain, Indonesia, Hong Kong-China and Portugal, for example, reductions in levels of mathematics anxiety were coupled with increases in mathematics self-concept during the period. Conversely, in New Zealand, mathematics anxiety increased as mathematics self-concept deteriorated. The exceptions to these concurrent changes are, most notably, Norway, Sweden, Thailand and Italy where both mathematics self-concept and mathematics anxiety improved/increased (Tables III.4.2f and III.4.3f).

Differences in mathematics anxiety related to socio-economic status are less pronounced than gender differences but are nonetheless present in many countries and economies that participated in PISA; these differences tend to be particularly wide in Greece, Bulgaria, Denmark, Singapore and Liechtenstein (Tables III.4.3c and III.4.7c). In Greece, for example, 81% of disadvantaged students but only 63% of advantaged students reported worrying that it will be difficult for them in mathematics classes, and 46% of disadvantaged students but only 25% of advantaged students reported getting very tense when they have to do mathematics homework. Similarly, in Singapore, 70% of disadvantaged students but only 49% of advantaged students reported worrying that it will be difficult for them in mathematics classes; 47% of disadvantaged students but only 28% of advantaged students reported getting very nervous doing mathematics problems; and 47% of disadvantaged students but only 23% of advantaged students reported getting very tense when they have to do mathematics homework (Table III.4.3a).

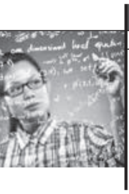
▪ Figure III.4.13 ▪

Change between 2003 and 2012 in the gender gap in anxiety towards mathematics



Notes: Statistically significant changes at the 5% level ($p < 0.05$) between PISA 2003 and PISA 2012 are marked in a darker tone.
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
OECD average 2003 compares only OECD countries with comparable *indices of anxiety towards mathematics* since 2003.
Countries and economies are ranked in descending order of the change in the gender gap on the index of mathematics anxiety *between PISA 2003 and PISA 2012.*
Source: OECD, PISA 2012 Database, Table III.4.3g.
StatLink `http://dx.doi.org/10.1787/888932963844`

Differences in mathematics anxiety related both to gender and to socio-economic status have narrowed between 2003 and 2012. In 2012, boys reported lower levels of mathematics anxiety than girls, and this difference is somewhat smaller than it was in 2003. Similarly, the difference in the reported levels of mathematics anxiety in favour of socio-economically advantaged students decreased slightly, on average across OECD countries, between 2003 and 2012. In both cases, however, the differences in mathematics anxiety related to gender and to socio-economic status remain large (Figure III.4.13 and Table III.4.3g).



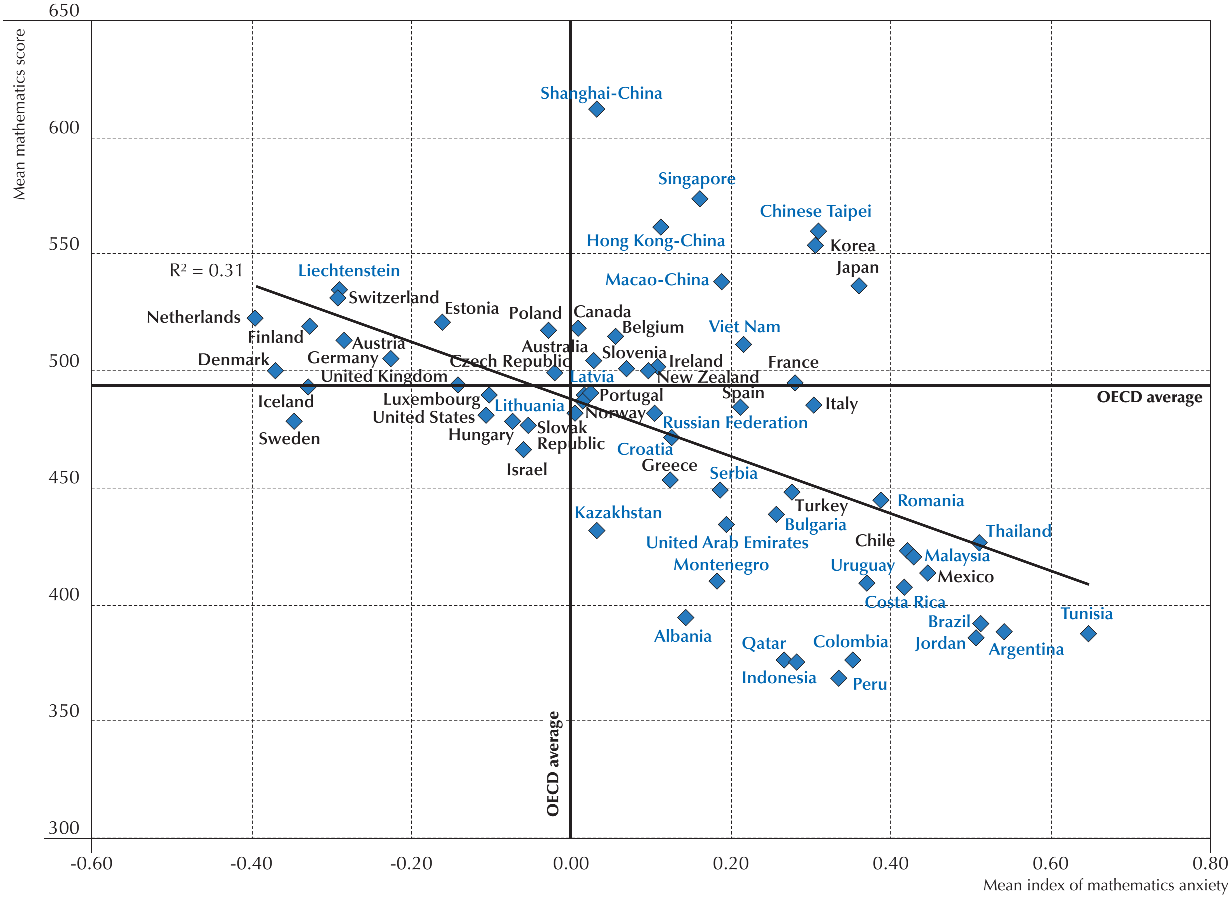
Countries and economies where students tended to report higher levels of anxiety are also those with lower-than-average performance in mathematics: Figure III.4.14 shows how countries where students report above average levels of mathematics anxiety are also countries where students tend to perform less well in mathematics. The relationship between anxiety towards mathematics and students' mathematics performance was strong in PISA 2003 and maintained that strength through PISA 2012 among most participating countries and economies (Table III.4.9).

As Figure III.4.15 indicates, students who reported that they often worry that it will be difficult for them in mathematics classes, that they get very tense when they have to do mathematics homework, that they get very nervous doing mathematics problems, that they feel helpless when doing a mathematics problem, and/or that they worry that they will get poor grades in mathematics have poorer performance in mathematics than students who reported lower levels of mathematics anxiety (Table III.4.3e). As discussed in Box III.2.2 (see Chapter 2), findings emerging from PISA 2012 cannot be used to establish a direct causal link between mathematics anxiety and poor mathematics performance; however, PISA can show how closely the two are associated. The blue bars in Figure III.4.15 denote the estimated difference in mathematics performance that is associated with a difference of one unit in the *index of mathematics anxiety*. This difference corresponds roughly to the difference in levels of mathematics anxiety that can be expected between the average student in OECD countries and a student that has very high levels of mathematics anxiety (only 16.5% of students, on average across OECD countries, have the highest levels of mathematics anxiety) (see Box III.2.2 in Chapter 2).

On average across OECD countries, greater mathematics anxiety is associated with a decrease in performance of 34 score points – or the equivalent of almost an additional year of school. In 13 countries and economies, the difference in mathematics performance that is associated with students' mathematics anxiety is 40 points or more, while in New Zealand,

▪ Figure III.4.14 ▪

System-level association between mathematics performance and mathematics anxiety



Source: OECD, PISA 2012 Database, Tables I.2.3a and III.4.3d.

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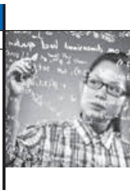
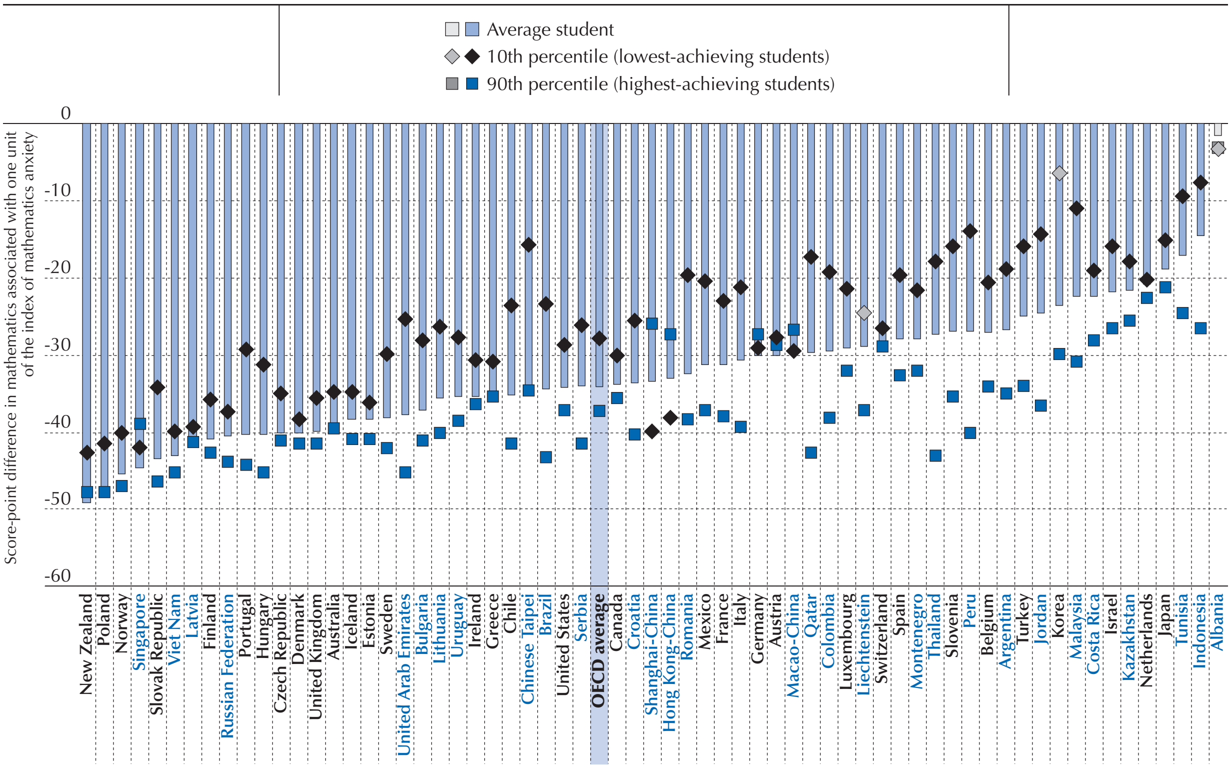


Poland and Norway the difference is particularly marked, at 45 score points or more. Albania is the only country where mathematics anxiety is not associated with mathematics performance; in Indonesia, Tunisia and Japan, the mathematics performance difference that is associated with a change of one unit in the *index of mathematics anxiety* is less than 20 score points. Across OECD countries, 14% of the variation in students' performance in mathematics can be explained by differences in students' reported levels of mathematics anxiety. In 41 countries and economies, more than 10% of the variation in student performance is explained in this way, and in Poland, Norway, Denmark, Estonia and Iceland, more than 20% of the variation is so explained. Albania, Indonesia, Tunisia, Korea, Japan, Thailand, the Netherlands and Malaysia are the only countries where mathematics anxiety appears to have little relationship with performance. In all these countries, less than 5% of the variation in student performance in mathematics is associated with students' mathematics anxiety (Tables III.4.3d and III.4.3e).

The blue bars in Figure III.4.15 represent the estimated relationship between mathematics anxiety and mathematics performance for the average student. The black diamonds and the blue squares in Figure III.4.15 represent the association between mathematics anxiety and mathematics performance at the two ends of the performance distribution (the 10th percentile and the 90th percentile). Figure III.4.15 reveals that the association between mathematics anxiety and mathematics performance is negative and significant across the performance distribution, but the association is weaker among the lowest-achieving students and stronger among the highest-achieving students. The performance advantage for students with low levels of mathematics anxiety is larger among the highest-achieving students than it is among the lowest-achieving students. On average across OECD countries, the performance difference that is associated with a change of one unit in the *index of mathematics anxiety* is 37 points among the highest-achieving students but only 28 points among the lowest-achieving students.

■ Figure III.4.15 ■

Relationship between mathematics anxiety and mathematics performance



Note: Differences that are statistically significant at the 5% level ($p < 0.05$) are marked in a darker tone.
Countries and economies are ranked in ascending order of the change in mathematics performance that is associated with a difference of one unit in the index of mathematics anxiety.
Source: OECD, PISA 2012 Database, Table III.4.3e.
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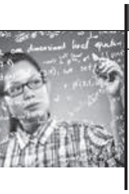

In 35 countries and economies, the performance difference associated with mathematics anxiety is greater than 10 points among the highest- and lowest-achieving students; in Peru, Qatar, Thailand, Korea and Jordan, it is 20 points or more. In Korea, for example, mathematics anxiety is associated with a performance difference of 30 points among students at the 90th percentile but with no difference in performance among students at the 10th percentile. In Peru, the performance difference related to mathematics performance is 40 points at the 90th percentile but 14 points at the 10th percentile. Shanghai-China and Hong Kong-China are notable exceptions: in these economies, the performance difference associated with mathematics anxiety is greater than 10 points among the lowest-achieving students than among the highest-achieving students. For example, in Shanghai-China the performance difference is 40 score points at the 10th percentile and 26 points at the 90th percentile (Table III.4.3e).

Box III.4.1. **Improving in PISA: Portugal**

Portugal's mathematics, reading and science scores began to improve in 2006. Mathematics scores in 2012 were 21 points higher than they were in 2003 and 2006, reading scores were around 15 points higher than they were in 2000 and 2006, and science scores were also 15 points higher than they were in 2006. The share of students who scored below Level 2 in mathematics and science shrank by about five percentage points since 2006 while the share of students performing at or above proficiency Level 5 increased in all the subjects: by 5.5 percentage points in mathematics, by 2.4 percentage points in reading, and by 3.4 percentage points in science. Both low- and high-achieving students have significantly improved their scores in all domains. In the case of mathematics, the improvement among the highest achievers (those in the 90th percentile of mathematics scores) is greater than the improvement among the lowest-achievers (those in the 10th percentile). This improvement among high-achieving students was largely observed within schools. While performance differences between schools did not change between PISA 2003 and PISA 2012, differences within schools increased. Consistent with the overall improvement in mathematics performance, students in 2012 reported higher levels of mathematics self-efficacy and self-concepts, as well as lower levels of anxiety towards mathematics when compared to their counterparts in 2003.

In the early 2000s, Portugal's performance in PISA was one of the lowest among OECD countries, prompting a wide public debate and the view that too many Portuguese students lacked the knowledge and skills needed to succeed in a modern society and economy. It was estimated that hourly productivity would be 14.4% higher if the working-age population in Portugal had the same level of education as workers in the United States (OECD, 2010a). Proposed reforms aimed to change this situation by offering children and adults from relatively disadvantaged backgrounds better learning opportunities. In addition, high rates of grade repetition were considered an obstacle to success for disadvantaged students. As part of the greater autonomy granted to schools, principals can target students who show initial signs of failure for special programmes, such as special study support, short-term ability grouping, or co-teaching in the classroom.

The government has devoted more resources to supporting students from low-income families, even though the Portuguese school system is almost entirely public, and compulsory education is free until 12th grade or when a student reaches the age of 18. In public schools, high-tech equipment, broadband Internet access and extracurricular activities are subsidised by the government; depending on the family's economic status, additional support, such as meals and books, is provided to disadvantaged students. These measures are applied from the first year of primary school until the end of secondary school. Between 2005 and 2009, the number of beneficiaries of the School Social Action programme tripled.

Encouraging students to stay in school

Official statistics show that between 2004 and 2009 there was a large decline in the repetition rate in 9th grade, from 21.5% of students to 12.8%. This, in itself, is a positive sign, given PISA's findings that grade repetition is generally associated with poorer performance and a larger impact of socio-economic status on learning outcomes (see Chapter 1 in Volume IV). Although there was a reduction in grade repetition among 9th graders, the overall rate of grade repetition remains high. In 2003 and 2012, around a third of students reported having repeated at least one grade during their time in formal education. The reduction in grade repetition rates in grade 9 implied

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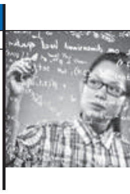

a higher enrolment of students in secondary education (10th through 12th grades) and a consequent decline in the number of students dropping out of school altogether. From 2007 on, the Ministry of Education considered 12th grade to be the minimum level of educational attainment for all Portuguese citizens. In 2009, legislation extending the end of compulsory education from age 15 to age 18 was adopted.

In addition, as part of the *Novas Oportunidades* programme, secondary schools offered more vocational courses. Now, in an effort to reduce school dropout, upper secondary vocational courses are being reinforced to encourage students who do not want to continue on to university to stay in school. About half of students enrolled in 10th, 11th and 12th grades attend vocational courses, reversing the decline in enrolment that had been observed since 1995. In 2003, 90% of 15-year-old students were enrolled in schools in grade 7 or above; by 2012, all 15-year-olds in Portugal were enrolled.

Training teachers, granting more autonomy and expanding assessments

In parallel, teachers were given more training, mostly in Portuguese language, mathematics and information technologies. A new system of evaluating teachers was developed, but teachers' opposition to the system has delayed implementation. Still, a shift towards more outcome-oriented accountability has already changed the ways teachers and schools perceive external assessments, including PISA (OECD, 2010b). Whereas in 2003, around a third of students attended schools where judgements about teacher effectiveness were made using tests or assessments of student achievement, almost all students in 2012 attended such schools. The efficiency of the school system was improved by reducing teacher absenteeism and replacing absent teachers. A school evaluation system was also introduced to increase accountability. More students in 2012 than in 2003 attended schools where a higher proportion of teachers have certification and a university-level degree and schools where the school principal is less likely to report that a shortage of teachers adversely affects student learning.

Portugal has had one of the lowest mean values, among OECD countries, on the *index of school responsibility in resource allocation* and on the *index of school responsibility for curriculum and assessment* (see Volume IV, and especially Tables IV.4.1 and IV.4.2). The policies that are now being implemented give greater autonomy to leaders of "school clusters". A school cluster is an organisational unit comprising several schools from kindergarten to 9th or 12th grade, vertically structured under a single education project that is led by a director. The director is elected by a council of teachers, parents, students, municipal leaders, institution representatives, and relevant community members. The vast majority of school clusters are now led by an elected director who has the autonomy to pursue a proposed education project. In the initial phases of the consolidation of school clusters, pre-primary and primary schools were combined; but from 2010 secondary schools began to be included in school clusters. This policy was accompanied by major investments in the physical infrastructure; but because of budgetary constraints, those investments had stopped by 2013.

As part of the reforms implemented in the 2000s, all students in 4th, 6th and 9th grades participated in annual national assessments, known as the Educational Progress Tests, in the Portuguese language and mathematics. By 2013, however, the 4th- and 6th-grade assessments, which previously had no direct consequences for students, were replaced with high-stakes national examinations (OECD, 2012). Students who fail the 4th-grade examination can benefit from extra three weeks of preparation before taking a second round of the exam (starting in 2014, this extra preparation time will be available for students who fail the 6th-grade exam). The expansion of assessments and examinations in the school system is reflected in the fact that students who participated in PISA 2012 were 52 percentage points more likely than students who participated in PISA 2003 to attend schools where the principal reported that assessment data are used to compare the school's performance with national benchmarks.

Mathematics had always been considered the most difficult subject for students in Portugal. PISA 2003 results showed that almost one-third of students performed below Level 2 in mathematics. Following the PISA results and the 2005 results in the 9th grade mathematics examinations, the Ministry of Education promoted a broad debate on the subject. The Action Plan for Mathematics, which was launched in 2005 and involves some 78 000 teachers and 400 000 students, has six components: implementing a mathematics plan in each school; training teachers in basic and secondary schools; reinforcing mathematics in initial teacher training; readjusting the mathematics curriculum throughout the compulsory education system; creating a resource bank specifically devoted to mathematics;

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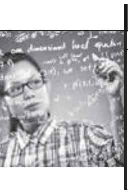

and evaluating textbooks on mathematics. At the same time, more mathematics teachers were trained and hired. Students in 2012 spent one-and-a-half hours more per week in mathematics lessons than students in 2003 did. Whereas students in 2003 reported 195 minutes of mathematics instruction per week, students in 2012 reported 288 minutes of mathematics instruction per week, but they spend around an hour less in after-school study than students in 2003 did.

Following the success of the Action Plan for Mathematics, in 2012 the initiatives that showed the greatest impact – collaboration between teachers and co-teaching in the classroom – were extended to all schools and all subjects. Mathematics and Portuguese standards and curricular goals were established and implemented in 2013 in primary and secondary schools with the aim of creating such standards for upper secondary schools and for other subjects, like science, history and geography. The implementation of these standards is being accompanied by teacher training to ensure that teachers have the tools to incorporate these changes into their practice.

More recently, the National Plan for Reading, launched in 2006 as a joint initiative involving the Ministry of Education, the Ministry of Culture and the Ministry of Parliamentary Affairs, aims to improve reading proficiency among children and foster good reading habits. More than one million children in all school clusters and secondary schools are involved in the programme.

Sources:

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http://dx.doi.org/10.1787/eco_surveys-prt-2010-en.

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http://dx.doi.org/*10.1787/9789264117020-en.*

PARTICIPATION IN MATHEMATICS ACTIVITIES, MATHEMATICS INTENTIONS AND NORMS

PISA 2012 asked students to report how often they participate in mathematics-related activities at or outside of school. Mathematics-related activities considered in PISA 2012 included: talking about mathematics problems with friends; helping friends with mathematics; doing mathematics as an extracurricular activity; taking part in mathematics competitions; doing mathematics for more than two hours a day outside of school; playing chess; programming computers; and participating in a mathematics club. Students could report engaging "always or almost always", "often", "sometimes" or "never or rarely".

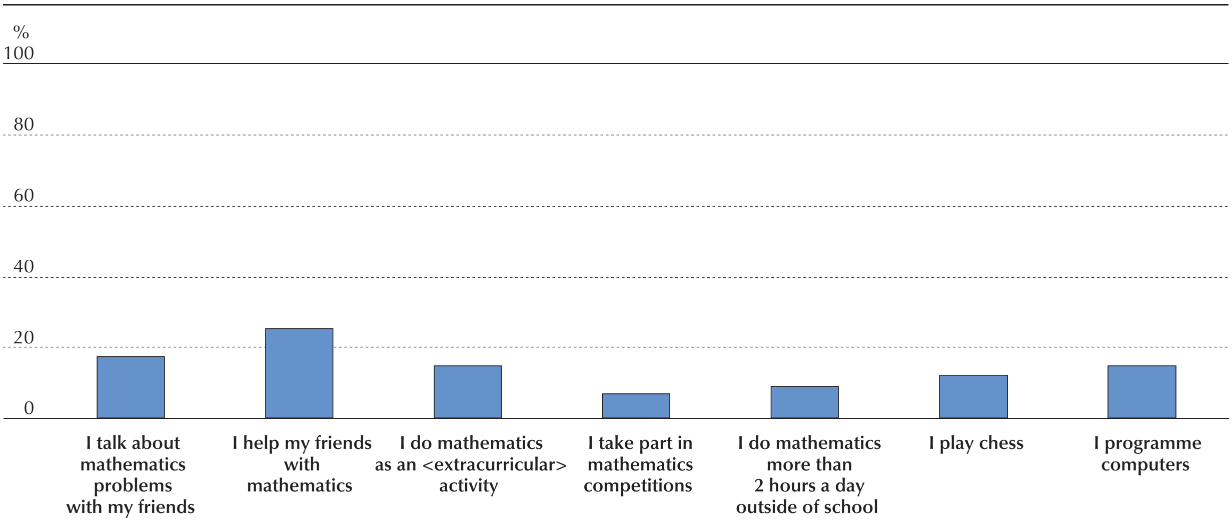
Across OECD countries, around 25% of students reported that they regularly help their friends with mathematics, where "reported regularly" corresponds to reporting that they always, almost always or often help. Similarly, only 18% of students reported that they regularly talk about mathematics problems with their friends; 15% reported regularly doing mathematics as an extracurricular activity; 7% reported regularly taking part in mathematics competitions; 9% reported regularly doing more than two hours a day of mathematics outside of school; 12% reported that they regularly play chess; 15% reported that they regularly programme computers; and 4% reported that they regularly participate in mathematics clubs. While some activities tend to be more common among 15-year-olds, in general students seldom participate in mathematics-related activities outside of school requirements. However, there are some notable exceptions, particularly when certain kinds of mathematics-related activities are considered. For example, 37% of students in Turkey play chess regularly, while in Poland, 20% of students participate in mathematics clubs (Figure III.4.16 and Table III.4.4a).

As Figure III.4.17 shows, boys are more likely than girls to participate in mathematics-related activities. Across OECD countries, 16% of boys, but only 14% of girls, do mathematics as an extracurricular activity; 9% of boys, but 5% of girls, take part in mathematics competitions; and 5% of boys, but 3% of girls, participate in a mathematics club. Gender differences are particularly pronounced with respect to playing chess and programming computers: 19% of boys, but only 6% of girls, play chess, and 22% of boys, but 8% of girls, programme computers (Table III.4.4b). Similarly, results shown in Figure III.4.18 suggest that socio-economically disadvantaged students are less likely to participate in

▪ Figure III.4.16 ▪

Students' participation in activities related to mathematics

Percentage of students across OECD countries who reported that they "agree" or "strongly agree" with the following statements:



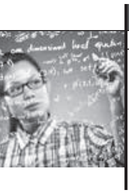
Note: Results for each participating country and economy can be found in Table III.4.4a.
Source: OECD, PISA 2012 Database, Table III.4.4a.
StatLink `http://dx.doi.org/10.1787/888932963844`

mathematics-related activities. However, PISA cannot determine whether disparities in participation are due to lower interest among disadvantaged students or less access to these activities because their families lack the resources or because these activities are not available in their communities.

PISA 2012 also asked students to report about their intentions to use mathematics in their future studies and careers. Students were presented with five pairs of statements and were asked to choose the one of each pair that best described their intentions and desires for their future lives. Students were first asked whether they intend to take additional mathematics courses or additional <test language> courses after their compulsory schooling ends.[1] On average across OECD countries, 57% of students reported intending to take additional mathematics courses, and 45% of students intend to major in a subject at university that requires mathematics skills compared to 55% who intend to major in a subject that requires science skills (Table III.4.5a). Overall, in all but six countries and economies, boys tend to have greater intention to pursue mathematics in their studies and careers than other subjects. Turkey is the only country where girls have more positive intentions than boys of continuing mathematics study (Table III.4.5b).

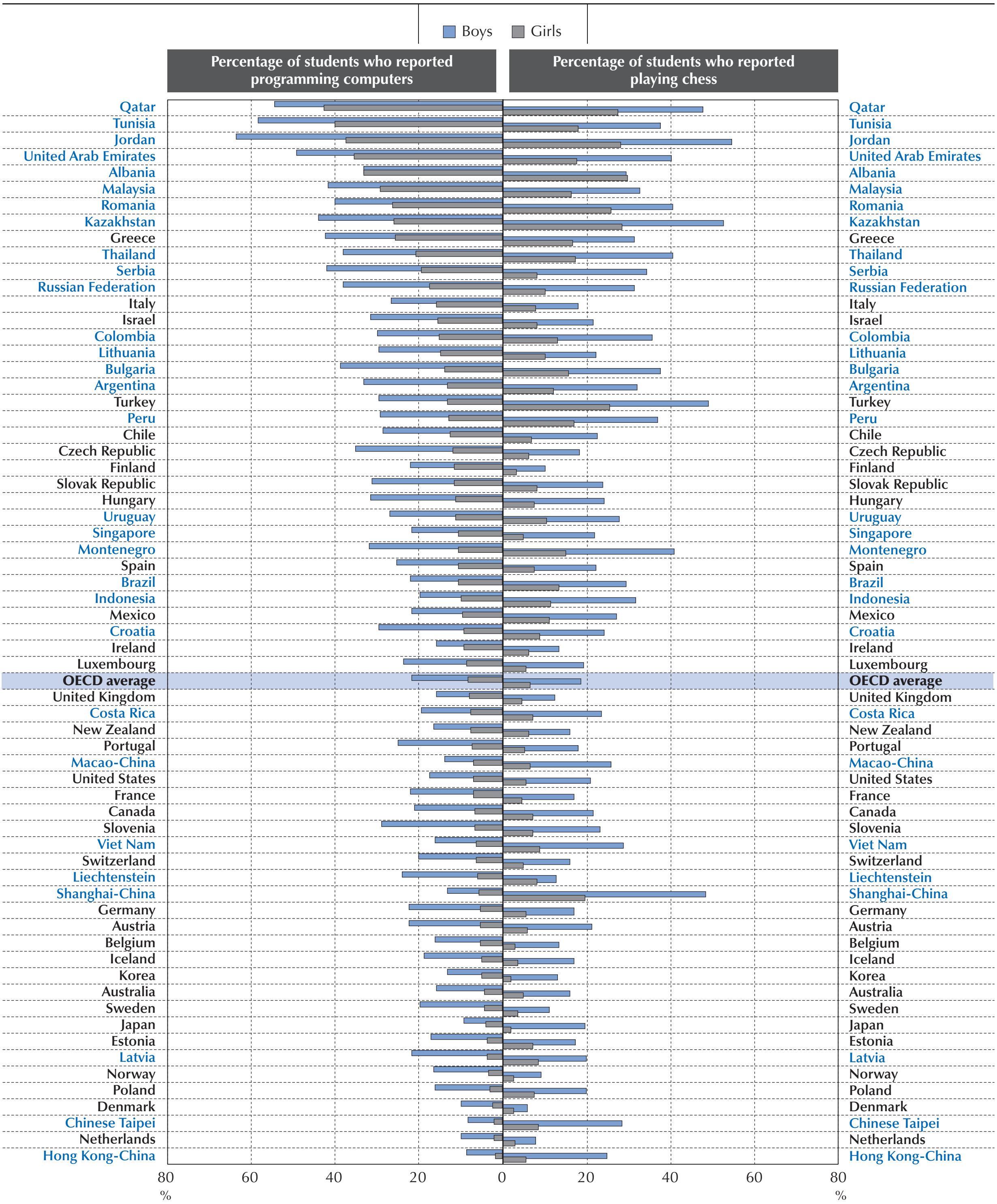
PISA 2012 also asked students to report on how people who are important to them, such as their parents and friends, view mathematics. Specifically, students were asked to report whether they strongly agree, agree, disagree or strongly disagree that most of their friends do well in mathematics, that most of their friends work hard at mathematics, that their friends enjoy taking mathematics tests, that their parents believe it is important that the student studies mathematics, that their parents believe that mathematics is important for the student's career, or that their parents like mathematics. Students' responses were used to create the *index of subjective norms in mathematics*, reflecting the extent to which a student's social environment promotes mathematics and the study of mathematics. The index was standardised to have a mean of 0 and a standard deviation of 1 across OECD countries so that positive index values indicate that the student encounters more positive social norms towards mathematics than the average student across OECD countries, while negative values indicate that the student encounters more negative social norms towards mathematics than the average student across OECD countries.

On average across OECD countries, 60% of students agreed or strongly agreed that most of their friends do well in mathematics; 51% reported that most of their friends work hard at mathematics; 13% reported that most of their friends enjoy taking mathematics tests; 90% reported that their parents believe that it is important for their child to study mathematics; 80% reported that their parents believe that mathematics is important for their career; and 58% reported that their parents like mathematics (Table III.4.6a). Gender differences in these subjective norms – in favour of boys – are more pronounced than socio-economic disparities: they tend to be larger and observed in more countries and economies (Tables III.4.7a and III.4.7b).



▪ Figure III.4.17 ▪

Gender differences in students' participation in mathematics-related activities

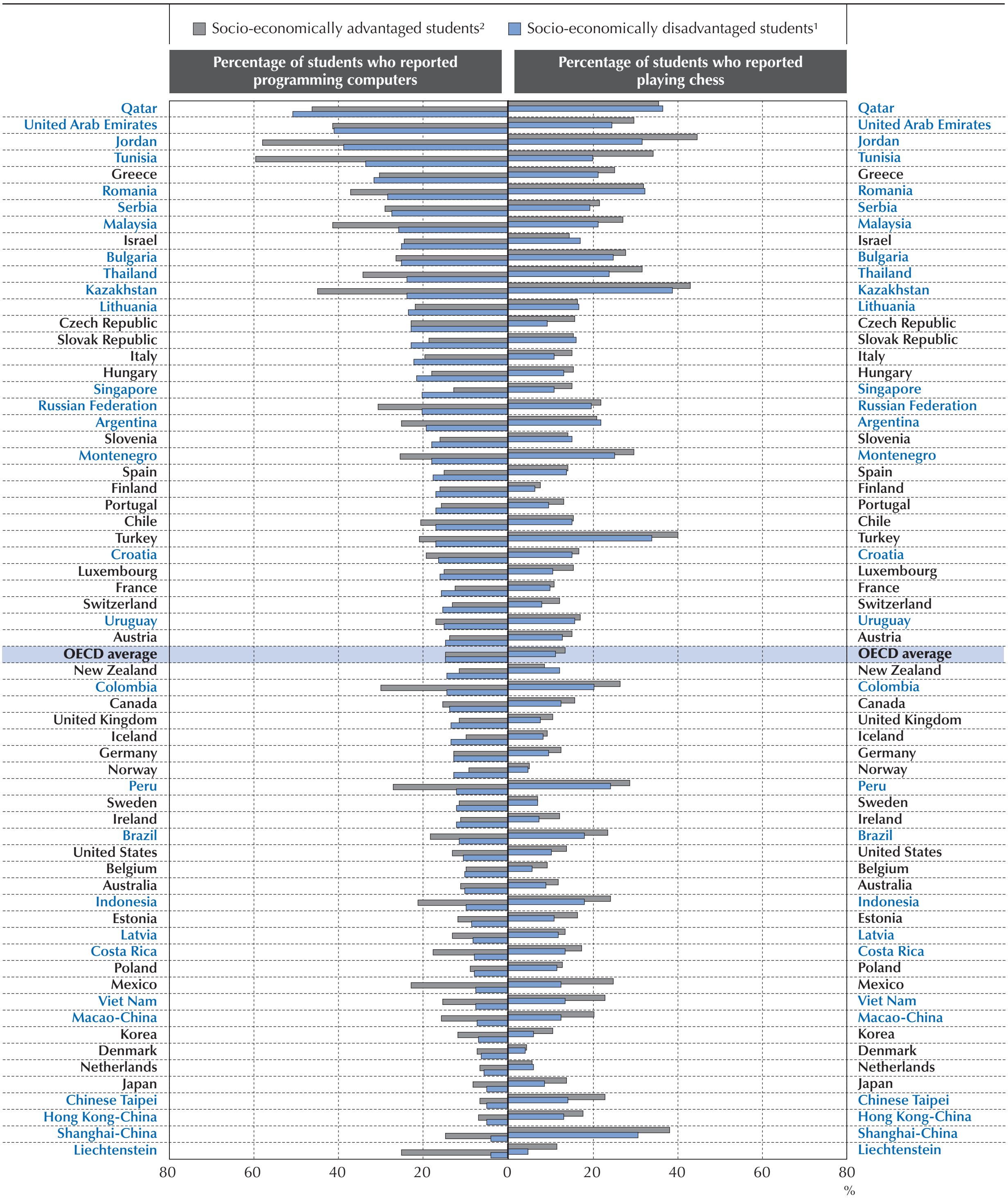


Countries and economies are ranked in descending order of the percentage of girls who reported programming computers.
Source: OECD, PISA 2012 Database, Table III.4.4b.

StatLink `http://dx.doi.org/10.1787/888932963844`

■ Figure III.4.18 ■

Socio-economic differences in students' participation in mathematics-related activities



1. Socio-economically disadvantaged students are students in the bottom quarter of the *PISA index of economic, social and cultural status* (ESCS).
2. Socio-economically advantaged students are students in the top quarter of the *PISA index of economic, social and cultural status* (ESCS).
Countries and economies are ranked in descending order of the percentage of socio-economically disadvantaged students who reported programming computers.
Source: OECD, PISA 2012 Database, Table III.4.4c.
StatLink http://dx.doi.org/10.1787/888932963844

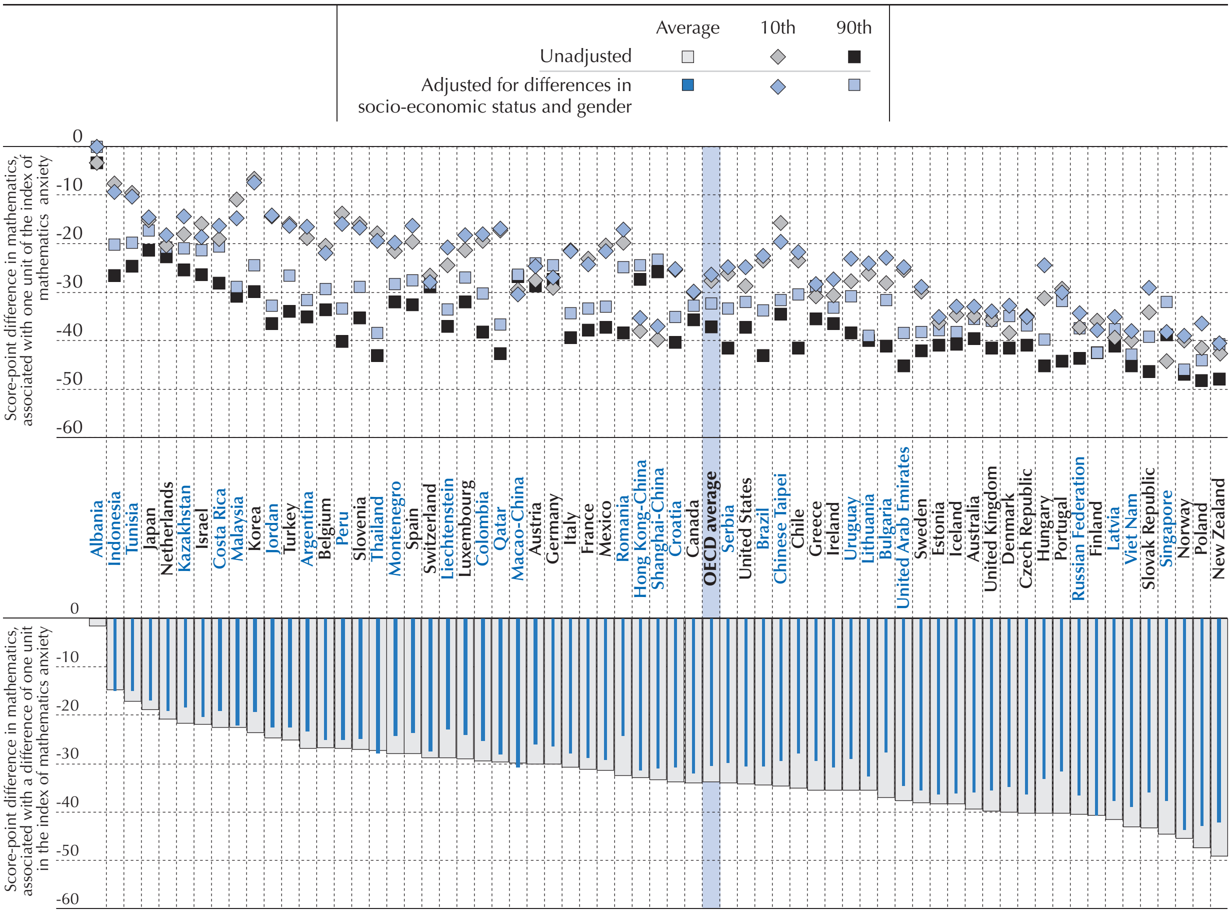
THE ROLE OF GENDER AND SOCIO-ECONOMIC DIFFERENCES IN THE RELATIONSHIP BETWEEN DISPOSITIONS TOWARDS MATHEMATICS AND PERFORMANCE

In order to examine whether the results presented in previous sections reflect differences in the profiles of the highest-achieving and lowest-achieving students, Tables III.4.1e, III.4.2e, III.4.3e and III.4.4e, present two sets of regression models. The first set – defined as unadjusted in the Tables – used earlier, reports regression results with the key factor of interest as the only independent variable. The second set – defined as adjusted in the tables – reports results from regression models that control for students' socio-economic status and gender as well as for the key factor of interest. Thus, they represent the differences in performance that are associated with students' dispositions, behaviours and self-beliefs at the high and low ends of the performance distribution between students of the same gender and with similar socio-economic status.

Figure III.4.19 shows the association between mathematics anxiety and mathematics performance among the highest-achieving and lowest-achieving students, and how this changes when controlling for students' socio-economic status and gender. Among the highest-achieving students, results indicate that the relationship between mathematics anxiety and mathematics performance generally remains unaffected when controlling for whether the student is a girl and socio-economic status. Among the highest-achieving students across OECD countries, the difference in mathematics performance that is associated with a one-unit change in the *index of mathematics anxiety* is 34 score points when not controlling for students' gender and socio-economic status and 30 points after accounting for these factors. This slight weakening of the

▪ Figure III.4.19 ▪

Relationship between mathematics anxiety and mathematics performance among the highest- and lowest-achieving students: The role of socio-economic and gender differences



Countries and economies are ranked in descending order of the unadjusted score-point difference in mathematics associated with mathematics anxiety, for the average student.

Source: OECD, PISA 2012 Database, Table III.4.3e.

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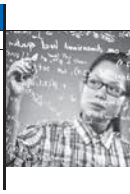

relationship occurs because girls are less likely than boys to be among the highest-achieving students in mathematics and are more likely than boys to be anxious about mathematics (Table III.4.3e). When controlling for gender and socio-economic differences, the association between mathematics anxiety and mathematics performance at the top of the performance distribution remains strong – much stronger than the association found among the lowest-achieving students.

Notes

1. The item "I plan on <taking> as many mathematics classes as I can during my education" and "I plan on <taking> as many science classes as I can during my education" might work differently across different education systems depending on the ability students have to adapt their course schedule. To reflect such differences, in some countries these items were, for example, translated along the following lines "I plan to engage as much as possible with mathematics/science during school time".

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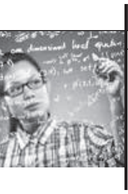

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5

The Role of Teachers and Schools in Shaping Students' Engagement, Drive and Self-Beliefs

This chapter discusses how students' engagement with and at school, their drive and their self-beliefs are influenced by policies and practices at school. Experience with mathematics problems at school, teachers' practices, teacher-student relations, and disciplinary climate in the classroom are discussed in relation to students' dispositions towards learning. The chapter also analyses the effect on these dispositions when students compare their performance to that of other students in the same school, and examines trends in the relationship between students' engagement, motivation and self-belief and the schools they attend.

Chapters 2, 3 and 4 map the extent to which students have high levels of engagement with and at school, drive and motivation to learn, and how they view themselves as mathematics learners. They also reveal the strong association between mathematics performance and students' engagement, drive, motivation and self-beliefs. This chapter looks at the role schools and teachers can play in fostering students' engagement with school, mathematics and learning, and also studies the concentration in schools of students with these dispositions. The learning environment examined by PISA may only partially reflect students' experience in education, particularly in school systems where students attend different educational institutions as they progress through pre-primary, primary, lower secondary and upper secondary education. To the extent that students' current learning environment differs from that of their earlier school years, the contextual data collected by PISA are an imperfect proxy for students' learning environments up until they reach the age of 15, and the effects of those environments on learning outcomes is likely to be underestimated. In many cases, 15-year-old students have been in their current school for only two to three years. This means that much of their academic development took place earlier, in other schools, which may have little or no connection with the present school.

What the data tell us

- Some 47% of students in OECD countries are in schools where between one in four and one in two students had arrived late for school at least once in the two weeks prior to the PISA test, and 21% are in schools where more than half of students arrived late.
- In all countries and economies except Turkey, Liechtenstein, Indonesia, Hong Kong-China and Malaysia, among students with equal performance and similar socio-economic status, students who attend schools with better teacher-student relations are less likely to report that they had arrived late during the two weeks before the PISA test.
- In most countries students' intrinsic motivation to learn mathematics is positively associated not only with how well they perform in mathematics, but also with how much better these students perform compared to other students in their school.
- On average across OECD countries, students who reported that their teacher uses cognitive-activation strategies and teacher-directed instruction reported particularly high levels of perseverance and openness to problem solving, are more likely to favour mathematics as a field of study over other subjects, and to see mathematics as more necessary to their careers than other subjects compared with students who perform as well but whose teachers do not use these strategies.

This chapter first examines the concentration of students with low levels of engagement, drive, motivation and self-beliefs across schools. There are large variations between countries in the extent to which students reported low levels of engagement with and at school, drive and motivation and mathematics self-beliefs. But are these students concentrated in some schools? The findings suggest that in some schools students are especially likely to have low levels of engagement. However, students' drive, motivation and self-beliefs tend to be similar across schools.

The chapter then examines the processes and policies applied in schools that are related to the observed outcomes. To a large extent, students' dispositions and self-beliefs are influenced by their peers; but the teaching practices, and the material teachers present to students can also influence students' drive, motivation and self-beliefs, and teaching practices can vary widely, even within the same school. What role does experience with mathematics problems play in the formation of students' drive and motivation to learn mathematics, and mathematics self-beliefs? Do teachers' behaviours and teaching practices help students develop drive, motivation and positive self-beliefs? The chapter concludes by examining other school practices and interventions that could promote these dispositions.

The associations between school factors and education policies on the one hand and students' engagement, drive, motivation and self-beliefs on the other are examined by comparing all students and by comparing students with similar levels of proficiency in mathematics. Because teachers' behaviour, opportunities to learn, school factors and education policies can all influence mathematics performance (see Volumes I and IV of this report), and students' engagement, drive, motivation and self-beliefs are strongly associated with mathematics performance (see Chapters 2, 3 and 4 of this volume), examining these relationships among students with similar performance reveals the specific role school factors and education policies can play in promoting students' engagement, drive, motivation and self-beliefs.[1]

THE ASSOCIATION BETWEEN SCHOOL CLIMATE AND DISPOSITIONS TO LEARN

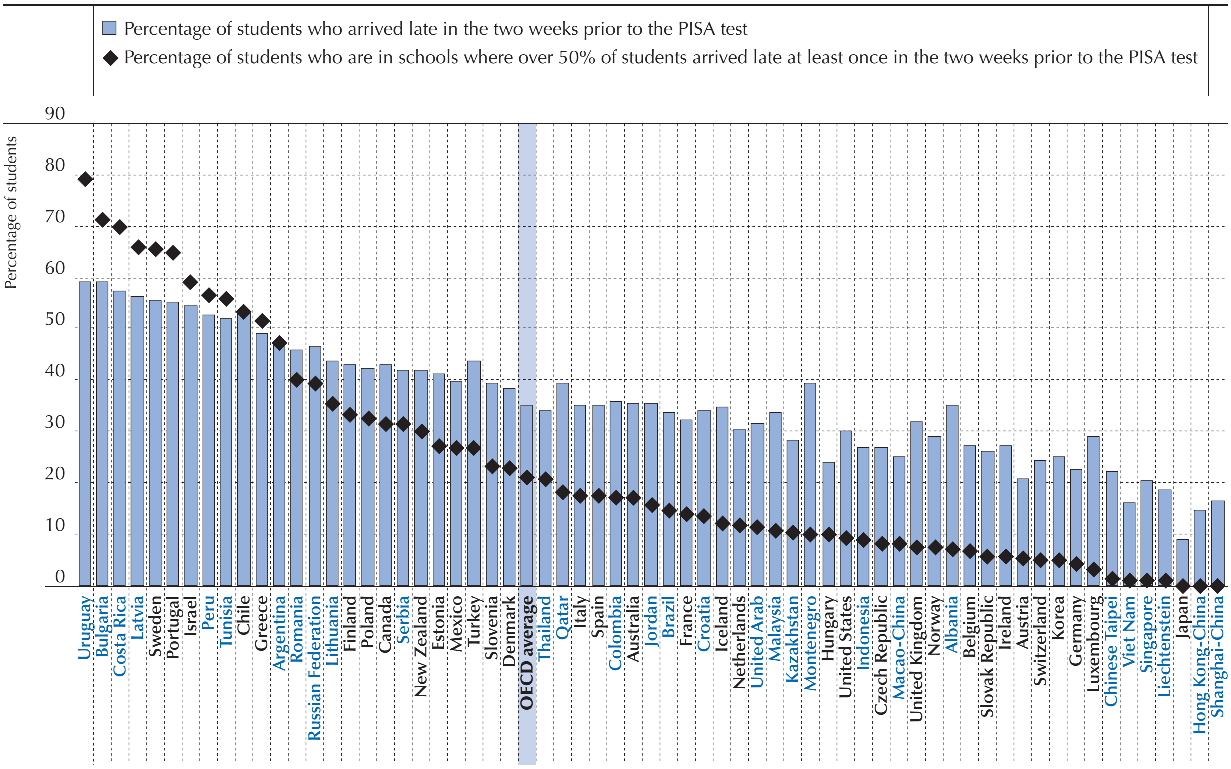
A high concentration of students with low levels of engagement, drive, motivation and self-beliefs might be particularly challenging for schools since students who, for example, arrive late or skip classes or days of school, disrupt the learning environment for all other students and the teaching staff, and could contribute to a climate where academic proficiency is not valued. Teachers and school principals might be particularly hard-pressed to ensure that students put effort into their studies and value learning when many of the students' peers do not.

Table III.5.1a shows that, across OECD countries, 8% of students are in schools where at most 10% of students reported to have arrived late for school in the two weeks prior to the PISA test, 24% are in schools where more than one in ten students but fewer than one in four students arrived late at least once during the same period. By contrast, 47% of students are in schools where between one in four and one in two students arrived late for school, and 21% are in schools where more than half of students reported to have arrived late for school at least once in the two weeks prior to the PISA test. However, the OECD average masks large variations in the extent to which a lack of punctuality is concentrated in some schools. Figure III.5.1 shows that in Bulgaria, Costa Rica and Uruguay more than 70% of students attend schools where more than one in two students reported having arrived late for school at least once in the two weeks prior to the PISA test. These are also countries where arriving late for school is relatively common.

Similarly, across OECD countries, an average of 27% of students are in schools where one in ten students or fewer reported having skipped classes or days of school in the two weeks prior to the PISA test; 31% are in schools where between one in ten and one in four students reported to have done so at least once; 30% are in schools where between a quarter and half of students reported to have done so; and 13% are in schools where more than half the students reported to have done so. In Argentina, Latvia and Turkey over 80% of students attend schools where more than half the students reported to have skipped a day of school or a class at least once in the two weeks prior to the assessment (Table III.5.2a).

▪ Figure III.5.1 ▪

Concentration of students who arrive late for school



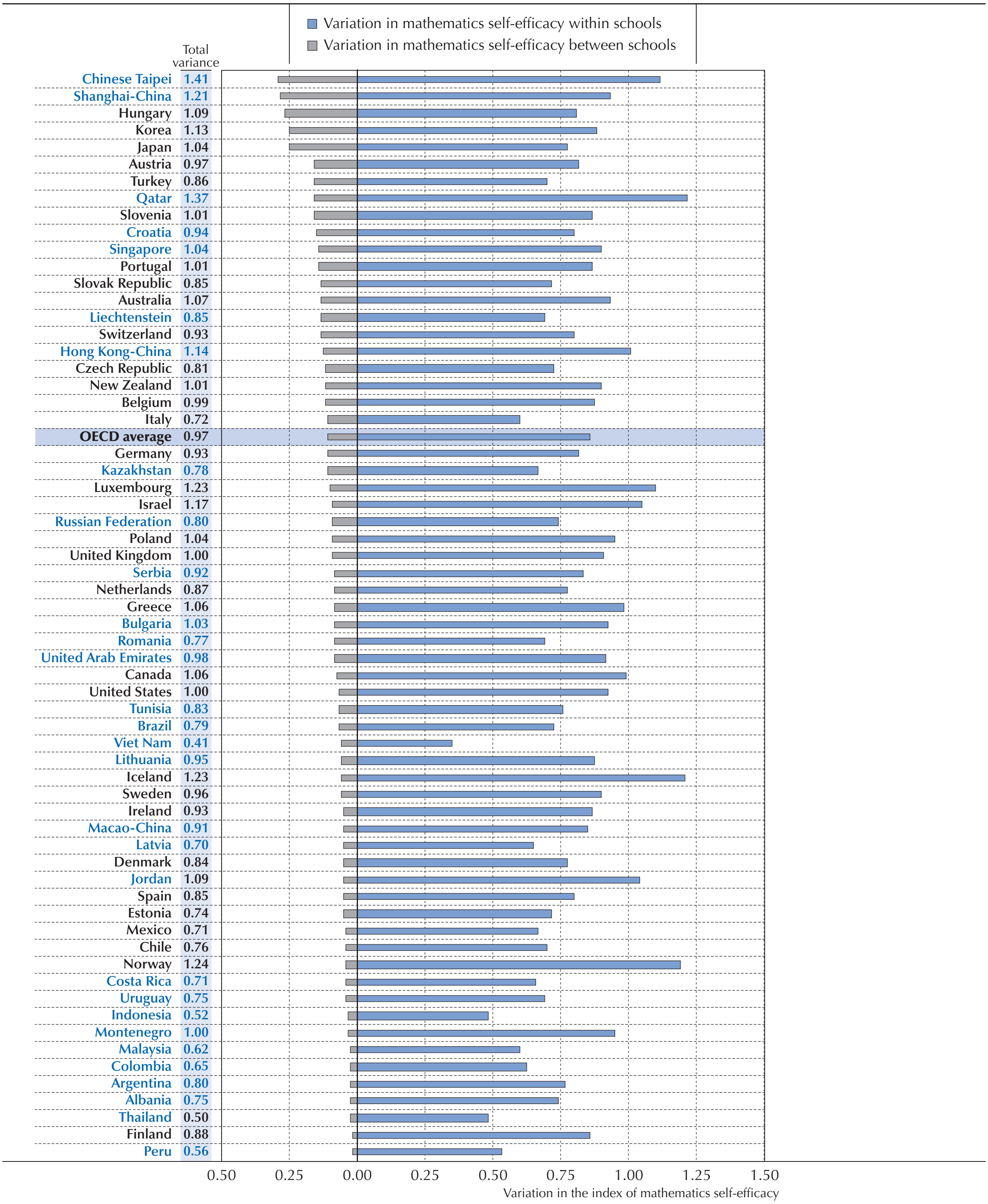
Countries and economies are ranked in descending order of the percentage of students who are in schools where over 50% of students arrived late at least once in the two weeks prior to the PISA test.

Source: OECD, PISA 2012 Database, Table III.5.1a.

StatLink http://dx.doi.org/10.1787/888932964015

■ Figure III.5.2 ■

Within- and between-school differences in mathematics self-efficacy



Notes: The total variation in mathematics self-efficacy is calculated from the square of the standard deviation for the students used in the analysis. The statistical variation in mathematics self-efficacy and not the standard deviation is used for this comparison to allow for the decomposition.

The sum of the between- and within-school variation components, as an estimate from a sample, does not necessarily add up to the total.

In some countries, sub-units within schools were sampled instead of schools; this may affect the estimation of the between-school variation components (see Annex A3).

Countries and economies are ranked in descending order of the variation in mathematics self-efficacy between schools.

Source: OECD, PISA 2012 Database, Table III.5.7a.

StatLink http://dx.doi.org/10.1787/888932964015

The proportion of 15-year-old students who reported having skipped classes or days of school varies across schools. However, in some systems, students who reported skipping classes or days of school are concentrated in certain schools, while in other systems students who reported having skipped classes or days of school are distributed more evenly among all schools. The high concentration of students who have low levels of engagement with school, as indicated by a lack of punctuality and the unauthorised non-attendance of classes, indicates that learning in certain schools in some countries might be severely hampered by a negative climate.

On average across OECD countries, around 11% of the overall variation in mathematics self-efficacy lies between schools (Table III.5.7a). In some countries and economies, most notably Chinese Taipei, Hungary, Japan, Korea and Shanghai-China more than 20% of the overall variation in students' reported levels of mathematics self-efficacy lie between schools. This means that while it is possible to find in the same school both students who feel very confident and students who do not feel so confident about solving a series of mathematics, in some schools students tend to share high levels of self-efficacy while in other schools students tend to feel less efficacious.

By contrast, on average across OECD countries, only a very small part of the overall variation in students' drive, motivation and self-beliefs lies between schools: 2% of the overall variation in perseverance (Table III.5.4a); 5% of the overall variation in intrinsic motivation and 4% of the overall variation in instrumental motivation to learn mathematics (Tables III.5.5a and III.5.6a); 3% of the variation in mathematics self-concept (Table III.5.8a); and 3% of the overall variation in mathematics anxiety lie between schools (Table III.5.9a). There are large differences in the levels of these dispositions among students who attend the same school. In some countries between-school variations are more pronounced. For example, in Italy, Indonesia, Kazakhstan and Peru, and more than 10% of the overall variation in intrinsic motivation to learn mathematics lies between schools (Table III.5.5a); and in Indonesia, Kazakhstan and Latvia more than 7% of the overall variation in students' perseverance lies between schools (Table III.5.4a). Across countries and economies that took part in PISA 2012, it is rare to encounter schools where students have generally high levels of intrinsic motivation to learn mathematics and schools where students do not, or schools where students report feeling anxious about mathematics and schools where students do not.

One of the possible reasons why in most countries there is little between-school variation in students' intrinsic and instrumental motivation to learn mathematics, perseverance and anxiety (as compared to self-efficacy) is not that the influence of schools on student dispositions and self-beliefs is weak, but rather that each and every school has a powerful influence on their students' feelings and perceptions about themselves as mathematics learners that acts differently from one student to the next. Students use information from both their own performance and from how their performance compares to others in their immediate environment (i.e. their classmates) in determining their perceptions of their skills and performance in mathematics (Festinger, 1954; Ruble, 1983; Wigfield, Eccles and Pintrich, 1996).

A second explanation is that students' drive, motivation and self-beliefs are closely associated with classroom practices. Because PISA does not gather information at the classroom level (15-year-olds in the same school often attend different classes), the large within-school variation might be due to the different teachers students work with, each of whom might adopt his or her own teaching and assessment strategies and expose their students to a different mix of pure and applied mathematics topics. Even though in some schools teachers may follow a common project and collaborate by sharing material, practices and experiences, teachers inevitably adapt to classroom dynamics and the composition of the class. Results from the OECD Teaching and Learning International Study (TALIS) confirm that that teacher attitudes, behaviours and practices show small between school variations and mostly within school variations (OECD, 2009).

THE ROLE OF SOCIAL COMPARISONS

Students around the world spend a significant part of their days in school; for most 15-year-olds, schools are an important social, as well as learning, environment. Through interactions with their peers at school students gather information about their standing on a range of measures, from how proficient they are in mathematics to whether they have similar tastes in music or admire the same sports champions and movie stars. Students shape their own preferences for school subjects or pursuits through a combination of observing their own abilities and how well they perform compared to others (Ruble, 1983; Wigfield, Byrnes and Eccles, 2006). For example, across the countries and economies that participated in PISA 2012, students who perform at higher levels in mathematics tend to enjoy mathematics more, are less anxious about mathematics, feel more competent in mathematics in general, and in solving specific mathematics problems (see Chapters 3 and 4 of this volume). However, their level of interest in mathematics and their mathematics self-beliefs also depend on whether they perform better or worse than their peers. Students who perform equally well in mathematics but who attend schools where other students perform at higher levels than they do, on average, tend to enjoy mathematics less, feel more anxious about

mathematics, and feel less competent in mathematics. Results presented in Tables III.5.5c, III.5.8c and III.5.9c indicate that student A, who attends a school where all students are highly proficient in mathematics, will report lower levels of intrinsic motivation to learn mathematics, greater mathematics anxiety, and lower levels of mathematics self-concept than student B, who performs similarly to student A, but attends a school where students perform at low levels, on average.

▪ Figure III.5.3 ▪

Relative performance and student engagement, drive and self-beliefs

Association between how much better (or worse) students perform compared to the average student in their school and …[1]

		Country/economy with smallest statistically significant association		OECD average	Country/economy with largest statistically significant association	
Arriving late for school	(Change in percentage)	Poland	**-9.3**	0.7	Macao-China	**13.5**
Skipping classes or days of school	(Change in percentage)	Malaysia	**-11.1**	0.5	Croatia	**9.9**
Sense of belonging	(Change in mean index)	Lithuania	**-0.3**	**-0.1**	Malaysia	**0.2**
Perseverance	(Change in mean index)	Singapore	**0.1**	**0.2**	Germany	**0.4**
Intrinsic motivation to learn	(Change in mean index)	Viet Nam	**0.1**	**0.2**	Germany	**0.5**
Instrumental motivation to learn	(Change in mean index)	Korea	**-0.1**	**0.2**	Liechtenstein	**0.7**
Mathematics self-efficacy	(Change in mean index)	Japan	**-0.1**	**0.1**	Argentina	**0.3**
Mathematics self-concept	(Change in mean index)	Viet Nam	**0.1**	**0.4**	Germany	**0.7**
Mathematics anxiety	(Change in mean index)	Liechtenstein	**-0.6**	**-0.2**	Singapore	**-0.1**

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. The figure represents the association between relative performance (defined as the difference between individual student performance and the mean performance of students attending the same school) and selected indicators of engagement, drive, motivation and self-beliefs. The reported coefficient refers to a difference in performance of 100 score points.

Source: OECD, PISA 2012 Database, Tables III.5.1b, III.5.2b, III.5.3c, III.5.4b, III.5.5c, III.5.6c, III.5.7c, III.5.8c and III.5.9c.

Within the classroom, one of the most important tools teachers have to guide the behaviour of students are school marks. Teachers use marks as a diagnostic tool as well as to communicate expectations and foster motivation in their students (Jussim, Robustelli and Cain, 2009; Stiggins and Conklin, 1992); students react to marks by modifying their behaviour (Bonesrønning, 1999). Marks as a mode of communication and a source of incentives influence student interest in school and in the subject matter, self-efficacy, motivation, and future performance (Brookhart, 2009; Docan, 2006; Guskey, 2004). Used effectively, marks can motivate students to put forth more effort and change their behaviours and attitudes in a way that is beneficial for learning. Marks can, however, also potentially discourage and alienate some students (Covington, 1984, 2009; Kohn, 1993; Deci and Ryan, 2002).

Students who attend higher-achieving schools tend to have lower levels of academic self-concept and receive lower marks (Espenshade et al., 2005; Kelly, 2008; Marsh and Hau, 2003; Marsh and O'Mara, 2008). Marsh and Hau have called this the "Little Fish Big Pond Effect": when one is in a high-performing school, many students do well and therefore it can be more difficult to maintain a positive sense of one's ability. PISA 2009 indicated that in some countries, students with similar performance receive marks that are almost one standard deviation lower than those in schools that perform 100 score points higher on the PISA reading assessment (OECD, 2012). In general, in the context of PISA 2009, in the majority of countries and economies, students who attend higher-achieving schools receive lower marks when compared to students who perform similarly and have similar learning habits but who attend poorer-performing schools. Research on effective marking practices strongly advises against normative grading,[2] as it creates incentives for unhealthy competition among students and reduces the motivation to excel.

Normative marking practices reflect the value particular teachers, and a school system as a whole, give to relative performance rather than to absolute performance. The most important information normative grading gives to students is that what matters for the teacher and for the school system is students' relative standing, not their absolute level of achievement. Students who participated in PISA 2012 were not asked about the school marks they received. Still, an indication of whether different school systems value relative standing more than absolute performance can be obtained by seeing how using students' reports on their motivation and self-beliefs vary when students' performance in mathematics is examined relative to that of other students attending the same school. While students who perform at higher levels in mathematics are inherently more likely to enjoy mathematics, if the analysis shows that peer comparisons and relative standing are closely tied with how much students enjoy a subject, this can then be an indicator that the school system is more likely to be structured on competitive pressures.

In general, students' feelings of competency depend on their relative standing among their school peers (Marsh and Parker, 1984; Marsh, 2005; Marsh and Hau, 2003; Marsh and Craven, 2002), at least in classrooms and schools that emphasise social comparison and competition among students (Deci and Ryan, 2002; Wigfield, Byrnes and Eccles, 2006). The focus on relative standing can adversely affect students' intrinsic motivation and interest as well (Deci and Ryan, 2002; Ryan and Deci, 2009; Wigfield, Byrnes and Eccles, 2006). In some countries students are more strongly and negatively affected by their relative standing than in others. In some school systems, students' success is measured by their ability to outperform their peers and therefore education is perceived as a zero-sum game. This can happen, for example, in school systems where there is excess demand for access to universities, academic programmes or particular schools, or where there is large between-school variation in achievement. When only the best, rather than all, students who meet specified standards have access to and can benefit from specific opportunities, a school system will promote competition between students and relative standing will become an important source of motivation for them (Covington, 2009).

Across the countries and economies that took part in PISA 2012, students' own performance is positively associated with higher levels of intrinsic motivation to learn mathematics, a greater belief that mathematics will be important for their future studies or careers, a belief that they learn mathematics quickly, are less likely to report feeling tense about having to do mathematics homework, and less likely give up easily when confronted with a problem when they perform at higher levels. However, the better their schoolmates' performance, the less likely students are to express high levels of intrinsic and instrumental motivation to learn mathematics, the lower their levels of self-concept, the less likely they are to report being perseverant, and the more likely they are to express feelings of anxiety towards mathematics (Tables III.5.4b, III.5.5c, III.5.6c, III.5.8c and III.5.9c).

In all countries except Croatia, Finland, Korea and Romania students' intrinsic motivation to learn mathematics is positively associated with how much better students perform compared to other students in their schools (Table III.5.5c). As Figures III.5.5a and III.5.5b show, on average across OECD countries, when comparing two students with equal performance, a student who scores 100 points higher in mathematics than the average student in his or her school has a value on the *index of intrinsic motivation to learn mathematics* that is one-fifth of a standard deviation higher than a student who performs at the same level as the average student in his or her school. Students in Germany, Liechtenstein, Peru, Israel, Argentina and the United States are particularly likely to report enjoying mathematics when they have higher relative standing compared to other students in their school (Table III.5.5c).

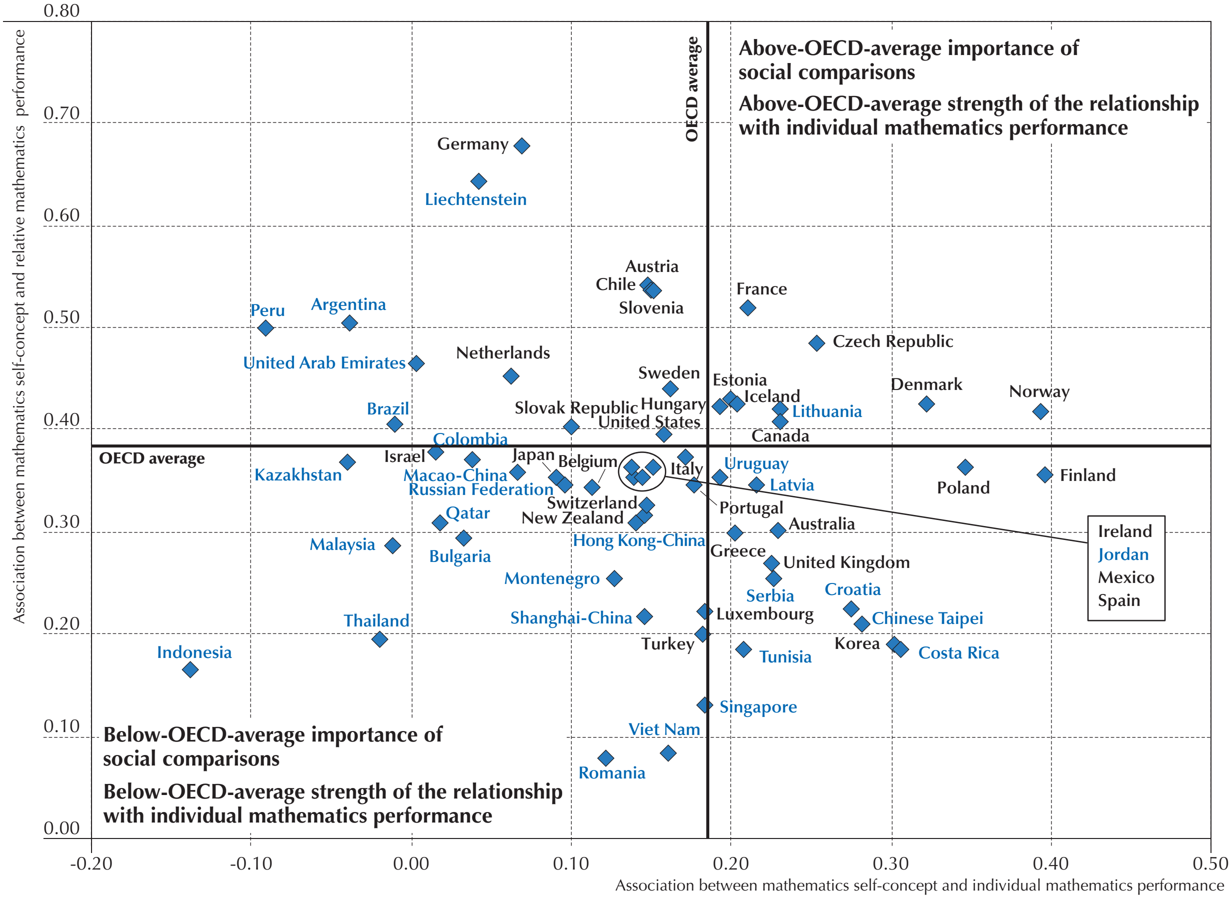
Students' self-reported level of mathematics self-concept is also highly dependent on how well they perform in mathematics relative to other students in their school (Table III.5.8c). As Figures III.5.4a and III.5.4b show, on average across OECD countries, when comparing two students with equal performance, a student who scores 100 points higher in mathematics than the average student in his or her school has a value on the *index of mathematics self-concept* that is two-fifths of a standard deviation higher than a student who performs at the same level as the average student in his or her school. Relative standing is particularly strongly associated with mathematics self-concept in Argentina, Austria, Chile, France, Germany, Liechtenstein, Slovenia and Peru. In all these countries, when students score 100 points higher than the average student in their school, their value on the *index of mathematics self-concept* is at least half a standard deviation higher (Table III.5.8c).

Students' reports of mathematics anxiety also depend on how well they perform compared to other students in their school (Table III.5.9c). On average across OECD countries, when comparing two students with equal performance, a student who performs 100 points higher in mathematics than the average student in his or her school has a value on the *index of mathematics anxiety* that is one-quarter of a standard deviation lower than a student who performs at the same level as the average student in his or her school. Mathematics anxiety is not associated with students' relative performance in New Zealand, the United Kingdom, Israel, Jordan, Costa Rica, Tunisia and Romania while the association is strongest in Liechtenstein, Germany, Slovenia, Austria, the Czech Republic, Japan, Canada, the Netherlands and France. In this latter group of countries, when students score 100 score points higher in mathematics compared to the average student in their school, their levels of mathematics anxiety are one-third of a standard deviation less than those of students with similar absolute performance levels, but are in schools where the average student performs as well as they do (see Table III.5.9c).

Results presented in Tables III.5.1b, III.5.2b and III.5.3c provide further validity to the fact that social comparisons are part of students' development of drive, motivation and mathematics self-beliefs. When mathematics performance is unlikely to be the frame of reference for students, as in the case of engagement with and at school, the relative performance indicator does not appear to have the same impact. Relative performance is not associated with students' sense of belonging, lack of punctuality and unauthorised non-attendance of classes or days of school.[3] In fact, in some countries, students who attend schools where other students perform at higher levels than they do are less, rather than more, likely to report having arrived late and having skipped classes or days of school, and are more likely to have a strong sense of belonging. These findings may indicate that a sense of belonging in school is based on much more than on social comparisons alone. Social connections, and the broader environment in schools, for example, are likely to be more important in these cases (Voelkl, 2012; Wentzel, 2009). Similarly, social comparisons are not strongly associated with students' feelings of competency in solving specific mathematics problems (mathematics self-efficacy) (Table III.5.7c). This is perhaps because self-efficacy has been relatively firmly established by the age of 15 and because it entails students' perceptions against a clear benchmark: a specific mathematics problem rather than a comparison with other students.

▪ Figure III.5.4a ▪

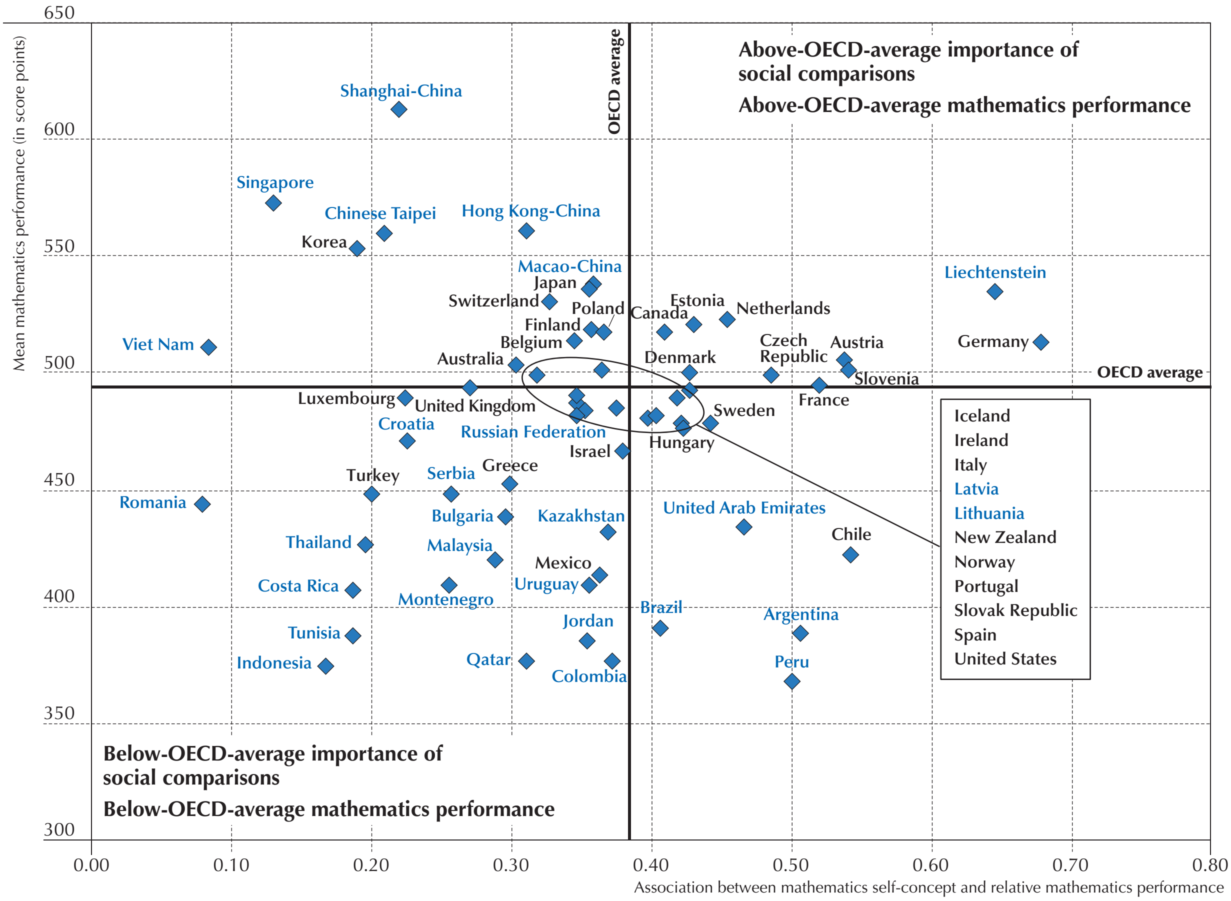
Relationship between absolute and relative performance and mathematics self-concept



Source: OECD, PISA 2012 Database, Table III.5.8c.
StatLink http://dx.doi.org/10.1787/888932964015

▪ Figure III.5.4b ▪

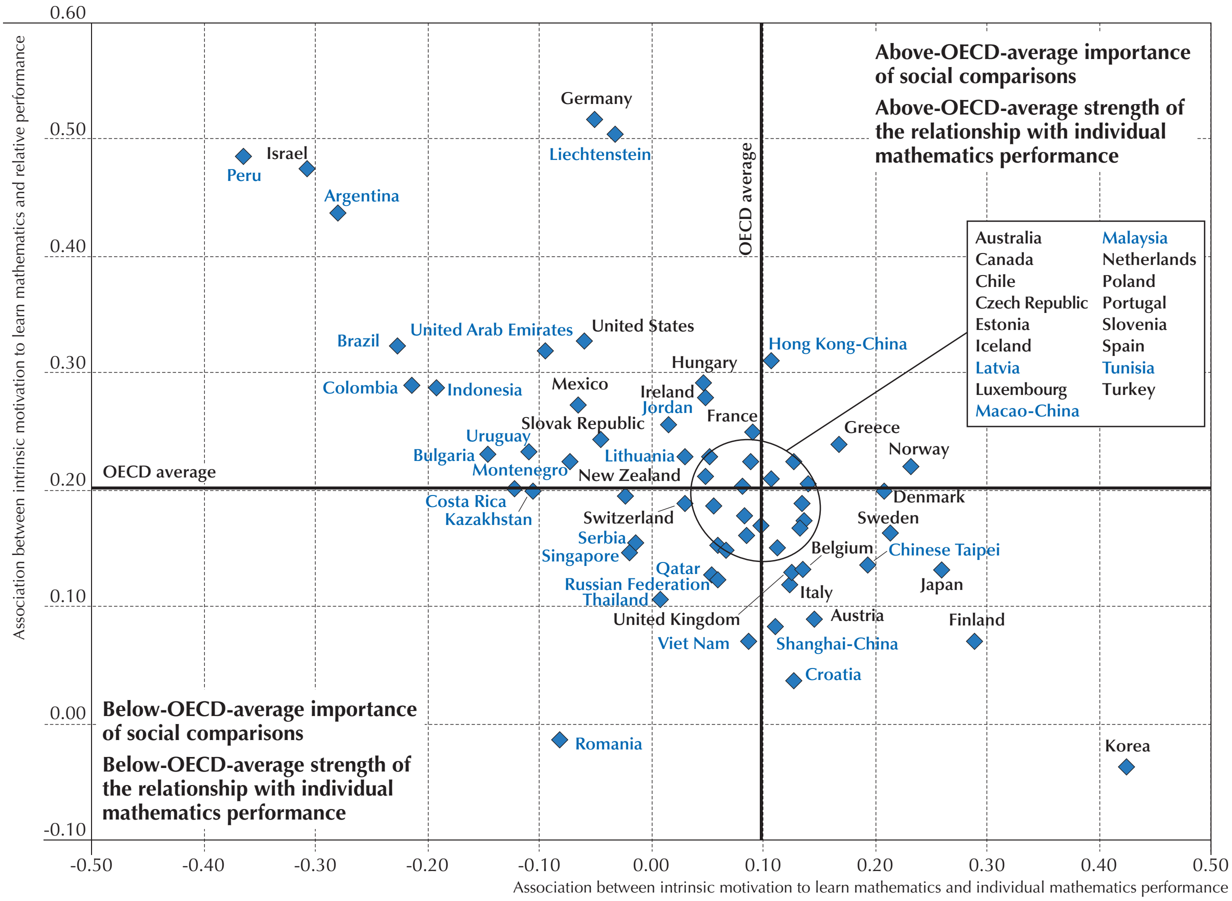
Relationship between relative performance and mathematics self-concept and mean mathematics performance



Source: OECD, PISA 2012 Database, Tables I.2.3a and III.5.8c.
StatLink http://dx.doi.org/10.1787/888932964015

■ Figure III.5.5a ■

Relationship between absolute and relative performance and intrinsic motivation to learn mathematics

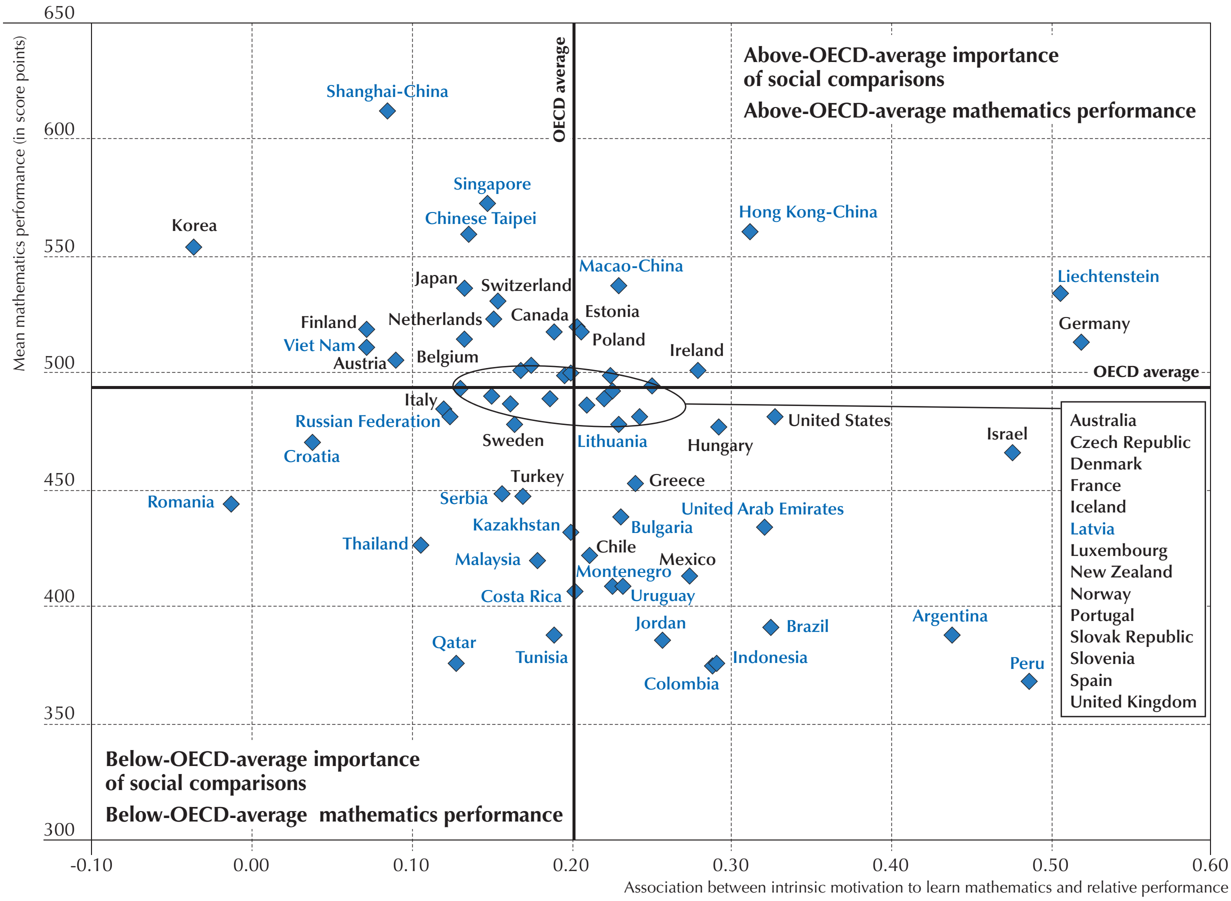


Source: OECD, PISA 2012 Database, Table III.5.5c.

StatLink http://dx.doi.org/10.1787/888932964015

▪ Figure III.5.5b ▪

Relationship between relative performance and intrinsic motivation to learn mathematics and mean mathematics performance



Source: OECD, PISA 2012 Database, Tables I.2.3a and III.5.5c.
StatLink http://dx.doi.org/10.1787/888932964015

THE RELATIONSHIP BETWEEN WHAT HAPPENS IN THE CLASSROOM AND STUDENT ENGAGEMENT, DRIVE AND MOTIVATION, AND MATHEMATICS SELF-BELIEFS

The previous section examines how 15-year-olds across PISA 2012 participating countries and economies tend to develop motivation and self-beliefs depending on their relative standing among their peers. Schools can also contribute significantly to the formation of students' dispositions and self-beliefs and promote greater engagement with school and learning through the strategies and practices teachers adopt in their classrooms (Hipkins, 2012; Wigfield, Cambria and Eccles, 2012). For example, teachers who expose their students not only to abstract mathematics concepts, but also to applied mathematics, might be more effective in nurturing student engagement. Some 15-year-olds might find the connection with real-world situations more interesting than learning abstract concepts without seeing their practical applications (Guthrie, Wigfield and Klauda, 2012). Results discussed in Volume I, *What Students Know and Can Do*, indicate that opportunities to learn are crucial for acquiring skills – and ultimately proficiency – in mathematics. Previous research has shown a relationship between students' exposure to subject content in school, what is known as "opportunity to learn", and student performance (Schmidt et al., 2001).

Box III.5.1. **Students' reports on teachers' behaviours in class**

Building on previous measures of opportunity to learn (Carroll, 1963; Wiley and Harnischfeger, 1974; Sykes, Schneider and Planck, 2009; Schmidt et al., 2001), the PISA 2012 assessment included questions to students on the mathematics theories, concepts and content to which they had been exposed in school, and the amount of class time devoted to different types of problems and subjects. Some of the students who took part in the PISA 2012 study* were first asked to report how confident they felt about having to do a series of mathematics tasks, and, after a series of other questions, were also asked to report how frequently they had encountered similar tasks. Student reports on their exposure to pure mathematics problems – for example, a linear or a quadratic equation – as well as applied mathematics problems – such as, for example, calculating how many square metres of tiles are needed to cover a floor, calculating the petrol consumption rate of a car, or calculating how much cheaper a TV would be after a 30% discount – were used to develop two indices: the *index of experience with applied mathematics problems* and the *index of experience with pure mathematics problems* (Tables III.5.10a and III.5.10c).

Students were asked to think about the mathematics teacher who taught their last mathematics class and to report the frequency with which the following eight situations happened: the teacher asks questions that make students reflect on the problem; the teacher gives problems that require students to think for an extended time; the teacher asks students to decide, on their own, procedures for solving complex problems; the teacher presents problems in different contexts so that students know whether they have understood the concepts; the teacher helps students to learn from mistakes they have made; the teacher asks students to explain how they solved a problem; the teacher presents problems that require students to apply what they have learned in new contexts; and the teacher gives problems that can be solved in different ways. Students were asked to report whether these behaviours and situations occur always or almost always, often, sometimes or never or rarely. Student responses were used to develop the *index of teachers' use of cognitive activation strategies*, which was standardised to have a mean of 0 and a standard deviation of 1 across OECD countries. Higher values on the index suggest that students reported that their most recent mathematics teacher more frequently used cognitive-activation strategies than the most recent mathematics teacher of the average student in OECD countries. Figure III.5.6 shows the extent to which students in PISA 2012 participating countries and economies reported that their teachers always, almost always or often use different cognitive-activation strategies.

Students were also asked to report how often a series of situations happen during their mathematics lessons. Students' reports on whether different things happen in every lesson, in most lessons, in some lessons, or never or hardly ever were used to develop three indices reflecting teacher's use of different strategies to foster student learning: the *index of teacher-directed instruction,* the *index of teachers' student orientation,* and the *index of teachers' use of formative assessment*. The *index of teacher-directed instruction* was constructed using students' reports on the frequency with which, in mathematics lessons, the teacher sets clear goals for student learning; the teacher asks students to present their thinking or reasoning at some length; the teacher asks questions to check whether students understood what was taught; and the teacher tells students what they have to learn. The *index of teachers' student orientation* was constructed using students' reports on the frequency with which, in mathematics lessons, the teacher gives different work to classmates who have difficulties learning and/or to those who can advance faster; the teacher assigns projects that require at least one week to complete; the teacher has students work in small groups to come up with a joint solution to a problem or task; and the teacher asks students to help plan classroom activities or topics. The *index of teachers' use of formative assessment* was constructed using students' reports on the frequency with which, in mathematics lessons, the teacher tells students how well they are doing in mathematics class; the teacher gives students feedback on their strengths and weaknesses in mathematics; and the teacher tells students what they need to do to become better in mathematics. Figure III.5.9 shows the extent to which students in PISA 2012 participating countries and economies reported that these different things happen in their mathematics classes.

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*One-third of students in each participating school were asked to fill "form A" of the student background questionnaire which contained questions related to mathematics self-beliefs and opportunity-to-learn constructs.

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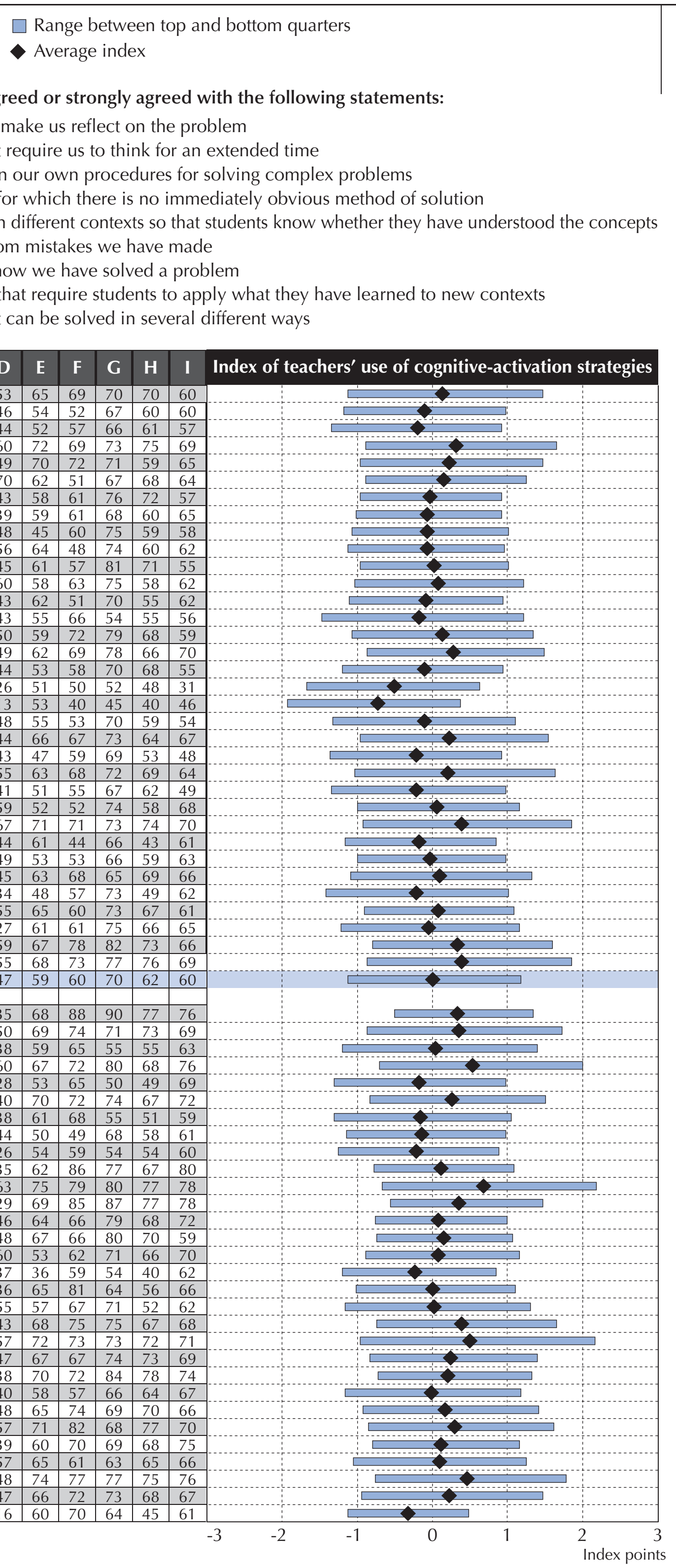
■ Figure III.5.6 ■

Index of teachers' use of cognitive-activation strategies

Percentage of students who agreed or strongly agreed with the following statements:

A	The teacher asks questions that make us reflect on the problem
B	The teacher gives problems that require us to think for an extended time
C	The teacher asks us to decide on our own procedures for solving complex problems
D	The teacher presents problems for which there is no immediately obvious method of solution
E	The teacher presents problems in different contexts so that students know whether they have understood the concepts
F	The teacher helps us to learn from mistakes we have made
G	The teacher asks us to explain how we have solved a problem
H	The teacher presents problems that require students to apply what they have learned to new contexts
I	The teacher gives problems that can be solved in several different ways

		A	B	C	D	E	F	G	H	I
OECD	Australia	62	62	39	53	65	69	70	70	60
	Austria	50	61	48	46	54	52	67	60	60
	Belgium	58	45	31	44	52	57	66	61	57
	Canada	65	66	48	60	72	69	73	75	69
	Chile	66	61	50	49	70	72	71	59	65
	Czech Republic	71	53	53	70	62	51	67	68	64
	Denmark	59	57	32	43	58	61	76	72	57
	Estonia	60	44	41	39	59	61	68	60	65
	Finland	57	53	41	48	45	60	75	59	58
	France	63	47	31	56	64	48	74	60	62
	Germany	49	62	48	45	61	57	81	71	55
	Greece	72	43	46	60	58	63	75	58	62
	Hungary	69	58	41	43	62	51	70	55	62
	Iceland	52	44	34	43	55	66	54	55	56
	Ireland	71	63	31	50	59	72	79	68	59
	Israel	71	68	48	49	62	69	78	66	70
	Italy	59	49	41	44	53	58	70	68	55
	Japan	40	37	29	26	51	50	52	48	31
	Korea	28	23	18	13	53	40	45	40	46
	Luxembourg	53	59	49	48	55	53	70	59	54
	Mexico	64	53	47	44	66	67	73	64	67
	Netherlands	66	49	28	43	47	59	69	53	48
	New Zealand	60	66	46	55	63	68	72	69	64
	Norway	42	37	47	41	51	55	67	62	49
	Poland	70	56	47	59	52	52	74	58	68
	Portugal	67	66	52	67	71	71	73	74	70
	Slovak Republic	61	52	26	44	61	44	66	43	61
	Slovenia	61	44	59	49	53	53	66	59	63
	Spain	62	57	42	45	63	68	65	69	66
	Sweden	46	33	40	34	48	57	73	49	62
	Switzerland	58	62	49	55	65	60	73	67	61
	Turkey	52	42	42	27	61	61	75	66	65
	United Kingdom	68	71	46	59	67	78	82	73	66
	United States	69	70	47	55	68	73	77	76	69
	OECD average	59	53	42	47	59	60	70	62	60
Partners	Albania	81	48	46	35	68	88	90	77	76
	Argentina	63	63	51	50	69	74	71	73	69
	Brazil	64	58	50	38	59	65	55	55	63
	Bulgaria	83	71	59	60	67	72	80	68	76
	Chinese Taipei	48	61	34	28	53	65	50	49	69
	Colombia	61	53	52	40	70	72	74	67	72
	Costa Rica	49	41	30	38	61	68	55	51	59
	Croatia	56	42	32	44	50	49	68	58	61
	Hong Kong-China	46	49	42	26	54	59	54	54	60
	Indonesia	84	54	42	35	62	86	77	67	80
	Jordan	82	77	66	63	75	79	80	77	78
	Kazakhstan	79	62	54	29	69	85	87	77	78
	Latvia	74	46	29	46	64	66	79	68	72
	Liechtenstein	62	71	59	48	67	66	80	70	59
	Lithuania	67	58	30	60	53	62	71	66	70
	Macao-China	43	64	41	37	36	59	54	40	62
	Malaysia	58	40	31	36	65	81	64	56	66
	Montenegro	53	47	48	55	57	67	71	52	62
	Peru	66	62	55	43	68	75	75	67	68
	Qatar	74	68	59	57	72	73	73	72	71
	Romania	68	53	46	47	67	67	74	73	69
	Russian Federation	61	53	30	38	70	72	84	78	74
	Serbia	57	45	51	40	58	57	66	64	67
	Shanghai-China	66	31	42	48	65	74	69	70	66
	Singapore	59	64	47	57	71	82	68	77	70
	Thailand	46	55	49	39	60	70	69	68	75
	Tunisia	54	50	46	57	65	61	63	65	66
	United Arab Emirates	73	70	54	48	74	77	77	75	76
	Uruguay	68	59	45	47	66	72	73	68	67
	Viet Nam	67	25	23	16	60	70	64	45	61



Note: Higher values on the index indicate greater teachers' use of cognitive-activation strategies.
Source: OECD, PISA 2012 Database, Table III.5.10e.

StatLink http://dx.doi.org/10.1787/888932964015

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■ Figure III.5.7 ■

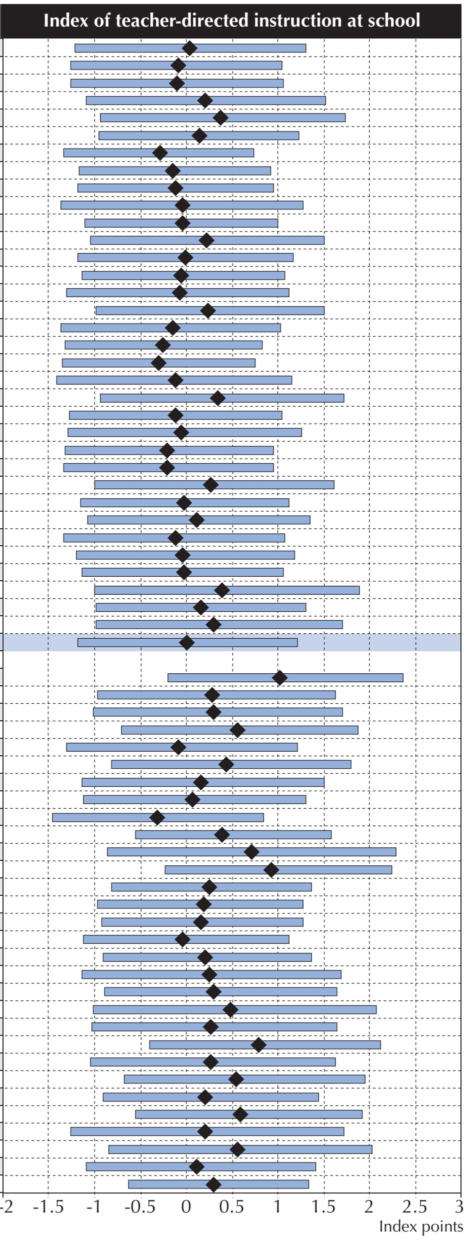
Index of teacher-directed instruction

▨ Range between top and bottom quarters
◆ Average index

Percentage of students who agreed or strongly agreed with the following statements:

A	The teacher sets clear goals for our learning
B	The teacher asks me or my classmates to present our thinking or reasoning at some length
C	The teacher asks questions to check whether we have understood what was taught
D	At the beginning of a lesson, the teacher presents a short summary of the previous lesson
E	The teacher tells us what we have to learn

		A	B	C	D	E
OECD	Australia	68	56	73	41	85
	Austria	65	60	64	40	80
	Belgium	61	47	68	42	83
	Canada	71	59	76	56	82
	Chile	82	53	82	54	84
	Czech Republic	74	60	75	54	78
	Denmark	67	31	76	30	75
	Estonia	75	36	68	28	88
	Finland	67	62	60	44	78
	France	61	53	65	49	79
	Germany	67	68	70	34	80
	Greece	76	61	78	45	81
	Hungary	61	55	72	44	85
	Iceland	80	39	71	31	89
	Ireland	59	57	75	29	84
	Israel	74	68	72	41	87
	Italy	68	47	71	35	75
	Japan	58	48	63	40	74
	Korea	60	30	59	48	76
	Luxembourg	57	59	63	34	85
	Mexico	82	61	79	54	73
	Netherlands	67	72	60	30	77
	New Zealand	57	54	69	40	84
	Norway	64	61	64	27	76
	Poland	69	43	66	27	81
	Portugal	78	75	78	47	80
	Slovak Republic	74	44	70	45	79
	Slovenia	71	64	68	50	81
	Spain	73	46	72	38	66
	Sweden	67	71	68	34	77
	Switzerland	70	67	68	39	76
	Turkey	69	77	76	56	79
	United Kingdom	75	57	80	39	87
	United States	74	65	80	49	83
	OECD average	69	56	71	41	80
Partners	Albania	87	79	91	75	89
	Argentina	75	53	84	52	76
	Brazil	81	60	77	49	80
	Bulgaria	82	62	84	70	86
	Chinese Taipei	63	49	70	46	74
	Colombia	75	63	86	55	77
	Costa Rica	78	47	81	46	70
	Croatia	79	40	68	54	78
	Hong Kong-China	49	43	63	43	69
	Indonesia	82	66	88	69	87
	Jordan	84	72	81	73	81
	Kazakhstan	87	74	91	84	92
	Latvia	77	71	78	42	89
	Liechtenstein	80	79	76	41	75
	Lithuania	78	42	74	58	88
	Macao-China	65	45	67	57	73
	Malaysia	74	39	80	60	81
	Montenegro	82	64	72	47	80
	Peru	77	57	80	49	77
	Qatar	81	66	80	63	79
	Romania	75	53	74	56	75
	Russian Federation	87	66	87	73	93
	Serbia	78	51	72	61	83
	Shanghai-China	78	70	77	70	86
	Singapore	71	59	82	50	88
	Thailand	83	67	84	74	81
	Tunisia	72	55	71	56	72
	United Arab Emirates	79	62	84	65	84
	Uruguay	75	51	74	55	66
	Viet Nam	90	40	79	65	81



Note: Higher values on the index indicate greater teachers' use of teacher-directed instruction at school.
Source: OECD, PISA 2012 Database, Table III.5.10l.
StatLink `http://dx.doi.org/10.1787/888932964015`

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▪ Figure III.5.8 ▪

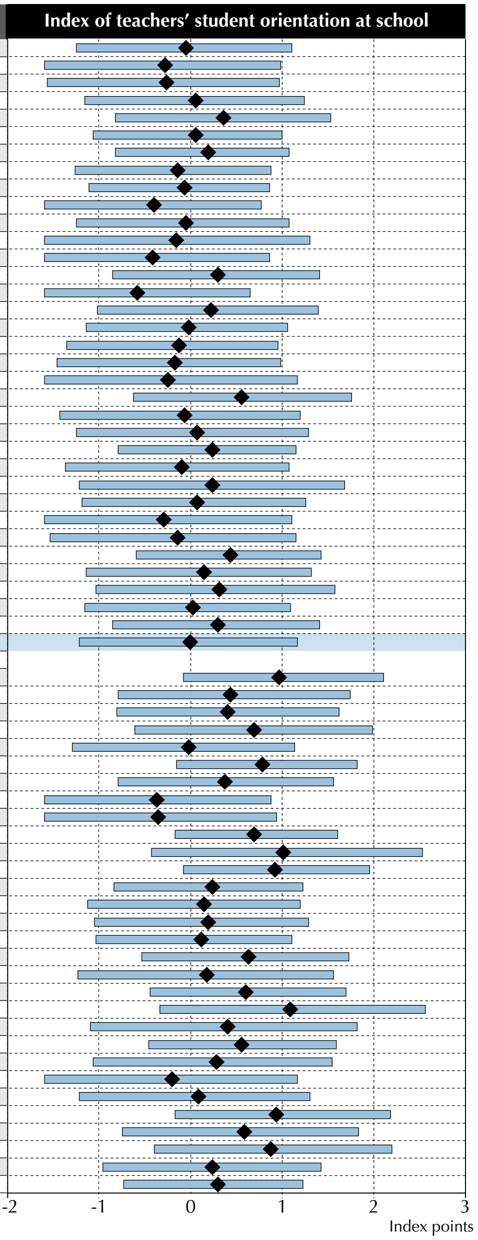
Index of teachers' student orientation

▨ Range between top and bottom quarters
◆ Average index

Percentage of students who agreed or strongly agreed with the following statements:

A	The teacher gives different work to classmates who have difficulties learning and/or to those who can advance faster
B	The teacher assigns projects that require at least one week to complete
C	The teacher has us work in small groups to come up with joint solutions to a problem or task
D	The teacher asks us to help plan classroom activities or topics

		A	B	C	D
OECD	Australia	27	23	17	11
	Austria	21	11	21	14
	Belgium	21	12	14	16
	Canada	22	17	37	13
	Chile	26	31	42	21
	Czech Republic	26	8	13	37
	Denmark	29	13	30	12
	Estonia	33	6	9	11
	Finland	56	6	11	5
	France	13	13	16	9
	Germany	25	12	27	14
	Greece	16	16	18	26
	Hungary	22	8	12	9
	Iceland	47	30	22	11
	Ireland	16	7	12	6
	Israel	39	28	20	19
	Italy	13	10	15	46
	Japan	32	13	14	15
	Korea	16	11	14	21
	Luxembourg	24	14	19	16
	Mexico	30	29	52	27
	Netherlands	25	17	23	18
	New Zealand	37	20	24	13
	Norway	58	11	21	11
	Poland	28	13	19	10
	Portugal	37	22	36	26
	Slovak Republic	33	15	16	26
	Slovenia	25	15	14	17
	Spain	22	17	17	18
	Sweden	62	19	33	13
	Switzerland	34	19	37	18
	Turkey	37	23	25	27
	United Kingdom	34	21	20	8
	United States	19	30	50	17
	OECD average	30	17	23	17
Partners	Albania	59	30	44	53
	Argentina	28	31	41	30
	Brazil	35	29	46	19
	Bulgaria	50	29	33	51
	Chinese Taipei	22	17	16	23
	Colombia	37	37	65	27
	Costa Rica	29	31	46	18
	Croatia	25	8	12	9
	Hong Kong-China	15	11	15	11
	Indonesia	31	32	58	37
	Jordan	58	47	50	52
	Kazakhstan	63	34	50	36
	Latvia	38	15	21	16
	Liechtenstein	34	17	44	16
	Lithuania	43	19	21	15
	Macao-China	26	20	22	12
	Malaysia	24	39	53	38
	Montenegro	49	21	21	20
	Peru	28	33	52	26
	Qatar	54	49	61	53
	Romania	38	27	36	32
	Russian Federation	65	20	32	17
	Serbia	45	17	19	38
	Shanghai-China	18	10	24	15
	Singapore	28	17	26	18
	Thailand	49	38	53	41
	Tunisia	47	30	37	41
	United Arab Emirates	51	38	52	46
	Uruguay	24	25	41	14
	Viet Nam	27	12	32	15



Note: Higher values on the index indicate greater teachers' student orientation at school.
Source: OECD, PISA 2012 Database, Table III.5.10j.
StatLink http://dx.doi.org/10.1787/888932964015

…

▪ Figure III.5.9 ▪

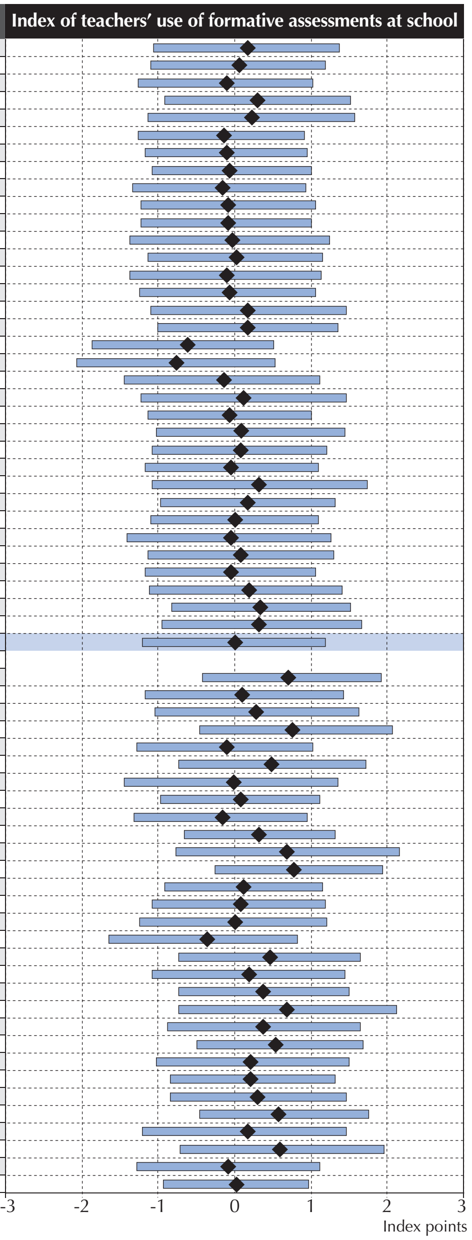
Index of teachers' use of formative assessments

▨ Range between top and bottom quarters
◆ Average index

Percentage of students who agreed or strongly agreed with the following statements:

A	The teacher tells me about how well I am doing in my mathematics class
B	The teacher gives me feedback on my strengths and weaknesses in mathematics
C	The teachers tells us what is expected of us when we get a test, quiz or assignment
D	The teacher tells me what I need to do to become better in mathematics

		A	B	C	D
OECD	Australia	33	33	71	52
	Austria	30	30	65	48
	Belgium	34	18	63	38
	Canada	43	32	76	52
	Chile	45	28	63	60
	Czech Republic	23	22	61	38
	Denmark	26	26	50	36
	Estonia	15	23	73	41
	Finland	28	19	56	37
	France	26	15	70	40
	Germany	26	25	54	47
	Greece	34	28	56	44
	Hungary	22	26	69	49
	Iceland	43	17	51	44
	Ireland	22	24	64	45
	Israel	34	28	76	52
	Italy	40	33	62	49
	Japan	8	11	42	40
	Korea	15	12	25	29
	Luxembourg	26	24	58	44
	Mexico	43	27	49	57
	Netherlands	29	22	68	38
	New Zealand	34	34	71	52
	Norway	34	28	63	44
	Poland	27	20	68	42
	Portugal	51	38	54	67
	Slovak Republic	36	36	57	52
	Slovenia	24	26	69	48
	Spain	42	27	43	46
	Sweden	35	26	64	48
	Switzerland	26	21	69	42
	Turkey	27	39	60	62
	United Kingdom	42	38	70	60
	United States	46	33	74	51
	OECD average	31	26	61	47
Partners	Albania	51	61	63	74
	Argentina	34	25	53	61
	Brazil	45	31	62	65
	Bulgaria	53	55	75	76
	Chinese Taipei	15	32	44	60
	Colombia	49	41	59	70
	Costa Rica	41	21	50	54
	Croatia	21	24	76	49
	Hong Kong-China	18	23	48	54
	Indonesia	37	39	63	72
	Jordan	57	57	69	68
	Kazakhstan	57	53	72	80
	Latvia	28	25	69	54
	Liechtenstein	31	23	74	53
	Lithuania	33	29	58	47
	Macao-China	19	21	36	37
	Malaysia	36	53	64	68
	Montenegro	33	28	70	58
	Peru	41	31	63	65
	Qatar	62	57	69	67
	Romania	47	36	63	62
	Russian Federation	43	41	81	66
	Serbia	30	36	71	54
	Shanghai-China	19	36	61	72
	Singapore	35	35	74	60
	Thailand	38	54	71	72
	Tunisia	46	33	54	58
	United Arab Emirates	53	52	71	67
	Uruguay	31	18	47	50
	Viet Nam	17	32	35	58



Note: Higher values on the index indicate greater teachers' use of formative assessments at school.
Source: OECD, PISA 2012 Database, Table III.5.10g.
StatLink http://dx.doi.org/10.1787/888932964015

Tables III.5.10a to III.5.10m and Figure III.5.10 suggest that, across the countries and economies that participated in PISA 2012, there is a large within-school variation in the extent to which students who attend the same school are exposed to different teaching strategies, teacher behaviours and mathematics content. On average across OECD countries, only 3% of the overall variation in students' reported experience with applied mathematics tasks lies between schools, as does 5% of the overall variation in students' reports that their teachers use cognitive-activation strategies. The between-school variation in students' reported exposure to pure mathematics tasks, and their reports on teachers' use of formative assessments, and student orientation is higher: 7% of the overall variation in teacher's use of formative assessment, 9% of the overall variation in student exposure to pure mathematics tasks, and 13% of the overall variation in teachers' student orientation lies between schools.

The proportion of the overall variation in students' reported exposure to applied mathematics topics in school is generally small: on average, across OECD countries the overall variation is 3% and is as high as 8% in Kazakhstan and 9% in the Czech Republic (Table III.5.10b); but in 21 countries and economies, that proportion is higher than 10% in the case of students' reported exposure to pure mathematics topics (Table III.5.10d). More than 10% of the overall variation in students' reports that their teachers use cognitive-activation strategies lie between schools only in Japan and Estonia (Table III.5.10f). In only 4 countries and economies more than 10% of the overall variation in students' reports that their teachers use formative assessments lie between schools (Table III.5.10h), while in 38 countries and economies the same proportion applies to students reports that their teachers use student orientation (Table III.5.10k), and it applies to student reports that teachers use teacher-directed instruction only in Estonia and Latvia (Table III.5.10m). A comparatively large between-school variation could be due, for example, to how the schooling is organised and handles heterogeneity in student performance.

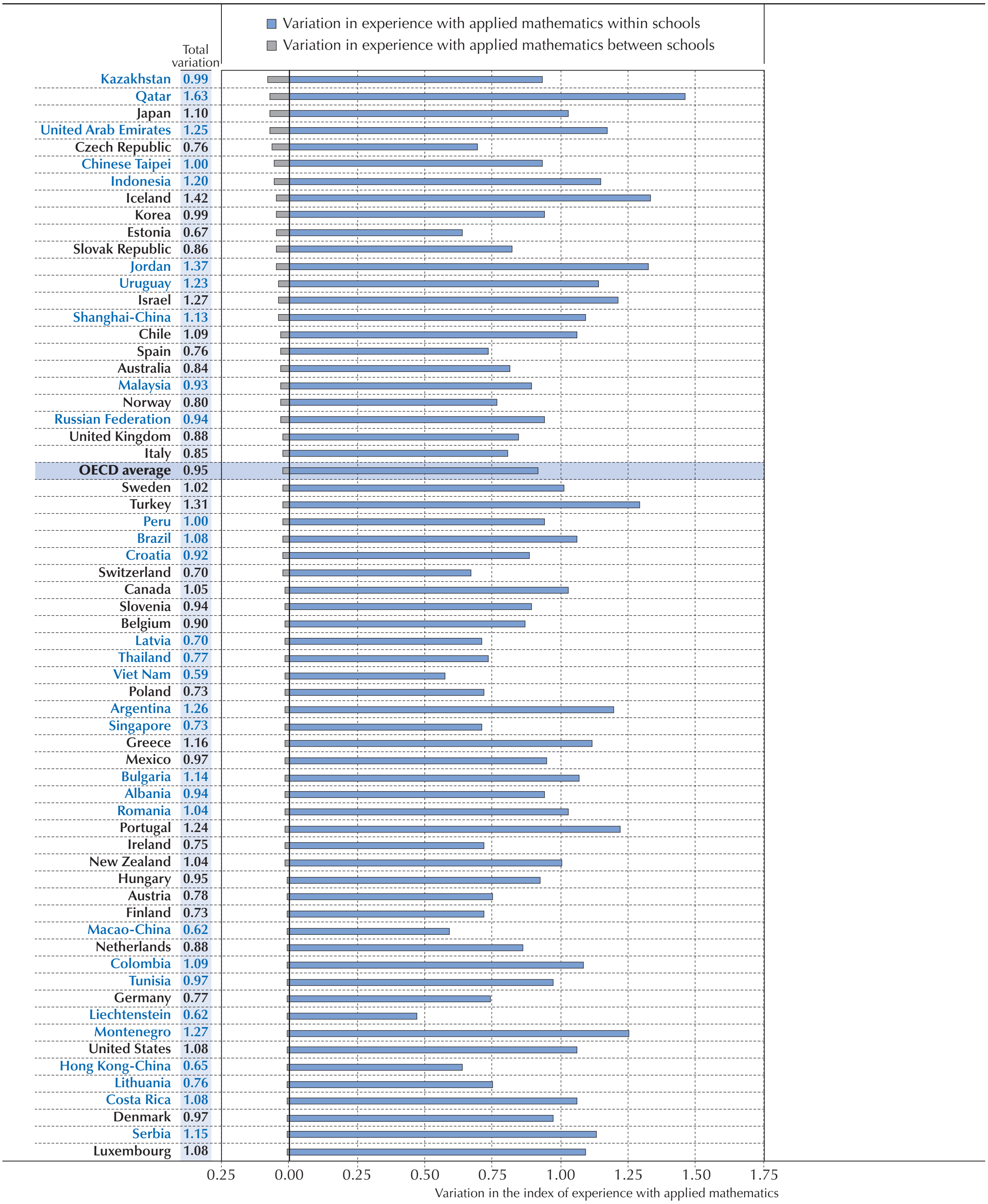
Experience with pure and applied mathematics

The previous section establishes that most of the variation in students' reported experience with pure and applied mathematics tasks occurs within schools. This section examines the relationship between students' exposure to pure and applied mathematics problems and student engagement, drive and motivation, and mathematics self-beliefs. Volume I illustrates how experience with applied, but especially with pure, mathematics problems is positively associated with performance in mathematics. Differences in exposure to pure and applied mathematics topics could therefore reflect differences in mathematics performance between students related to individual teaching practices or ability grouping. For example, teachers might only present applied mathematics problems to students who have mastered abstract mathematics concepts, because in the absence of such knowledge students would not be able to solve applied mathematics tasks. Other teachers might use applied mathematics problems as a way to spark interest and motivation among lower-achieving students. PISA data cannot be used to define exactly the direct and indirect relationships between students' experience with pure and applied mathematics problems, their mathematics performance, and their engagement, drive, motivation and self-beliefs. However, PISA data do allow for a detailed examination of the relationship between experience with pure and applied mathematics problems and students' levels of engagement, drive, motivation and self-beliefs among all students and among students who perform similarly in mathematics. Table III.5.11 shows two sets of results on the association between students' experience with pure and applied mathematics problems and student engagement, drive, motivation and self-beliefs. The first set represents the difference in engagement, drive, motivation and self-beliefs that is associated with students' exposure to different mathematics problems when the students share similar socio-economic status and gender, but differ in performance. The second set is calculated when comparing students with similar performance in mathematics.

The first set of results presented in Table III.5.11, which shows associations among all students, regardless of their performance in mathematics, indicates that students who reported having been more frequently exposed to pure mathematics problems reported a greater sense of belonging, more positive attitudes towards school, greater perseverance, greater openness to problem solving, greater intrinsic and instrumental motivation to learn mathematics, greater mathematics self-efficacy, a higher self-concept, and lower mathematics anxiety. The relationship between experience with applied mathematics problems and students' engagement, drive, motivation and self-beliefs is positive, but weaker than that estimated between experience with pure mathematics problems and students' engagement, drive, motivation and self-beliefs.

▪ Figure III.5.10 ▪

Within- and between-school differences in students' experience with applied mathematics tasks



Notes: The total variation in the *index of applied mathematics* is calculated from the square of the standard deviation for the students used in the analysis. The statistical variation in the *index of applied mathematics* and not the standard deviation is used for this comparison to allow for the decomposition. The sum of the between- and within-school variation components, as an estimate from a sample, does not necessarily add up to the total.

In some countries, sub-units within schools were sampled instead of schools; this may affect the estimation of the between-school variation components (see Annex A3).

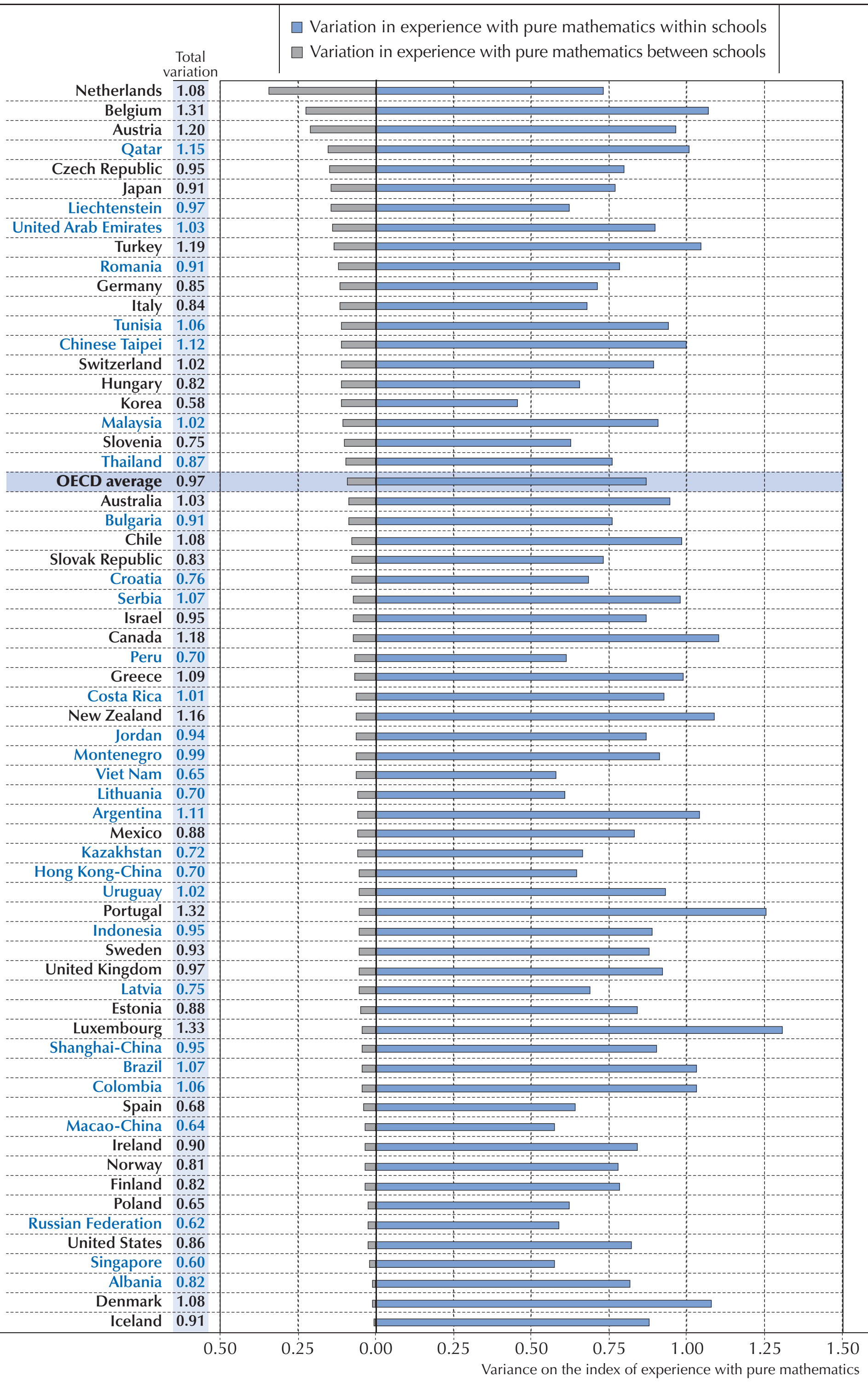
Countries and economies are ranked in descending order of the between-school variation in experience with applied mathematics tasks.

Source: OECD, PISA 2012 Database, Table III.5.10b, available on line.

StatLink http://dx.doi.org/10.1787/888932964015

■ Figure III.5.11 ■

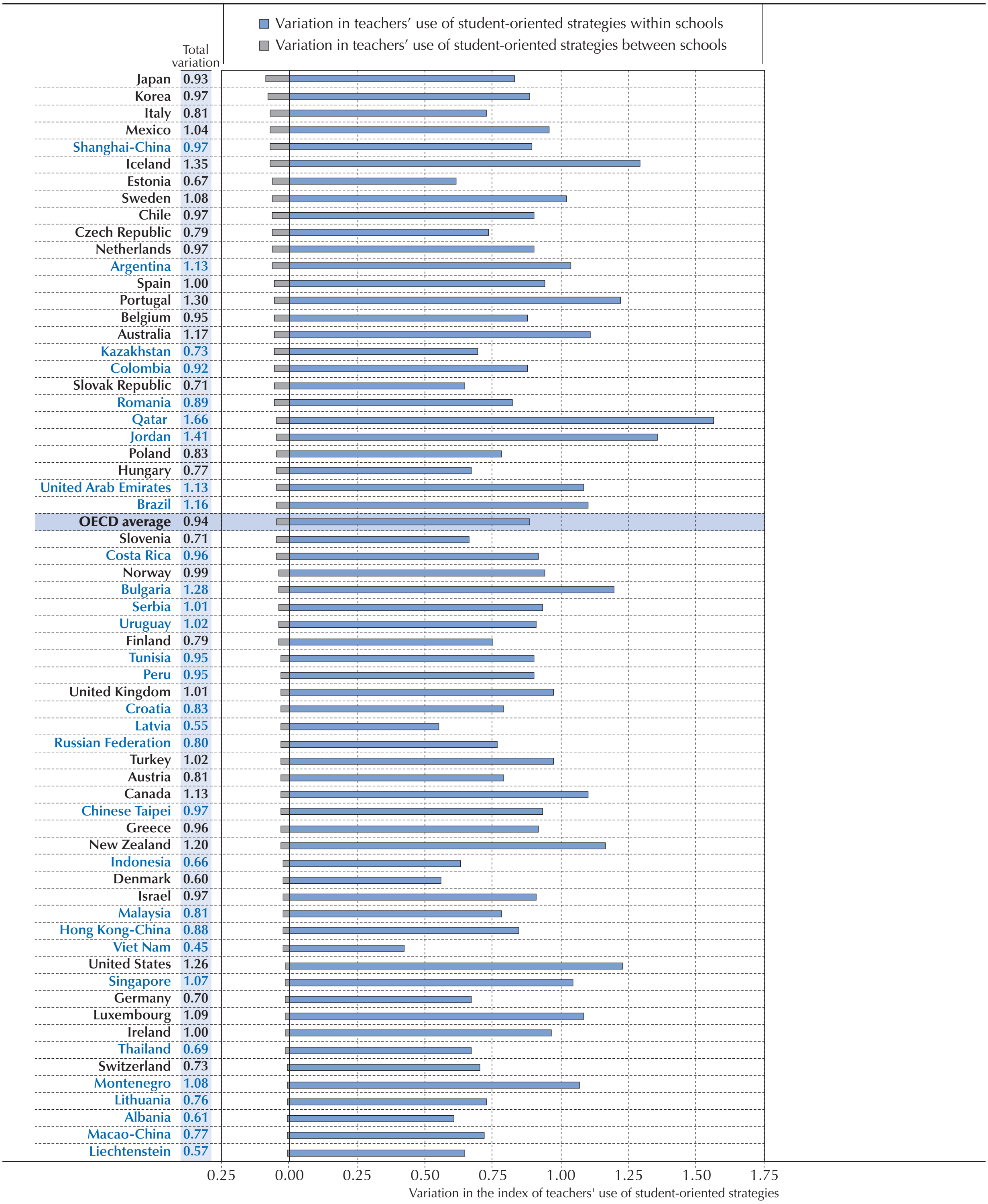
Within- and between-school differences in students' experience with pure mathematics tasks



Notes: The total variation in the *index of pure mathematics* is calculated from the square of the standard deviation for the students used in the analysis. The statistical variation in the *index of pure mathematics* and not the standard deviation is used for this comparison to allow for the decomposition.
The sum of the between- and within-school variation components, as an estimate from a sample, does not necessarily add up to the total.
In some countries, sub-units within schools were sampled instead of schools; this may affect the estimation of the between-school variation components (see Annex A3).
Countries and economies are ranked in descending order of the between-school variation in experience with pure mathematics.
Source: OECD, PISA 2012 Database, Table III.5.10d, available on line.
StatLink `http://dx.doi.org/10.1787/888932964015`

▪ Figure III.5.12 ▪

Within- and between-school differences in teachers' use of student-oriented strategies



Notes: The total variation in the *index of teachers' use of student-oriented strategies* is calculated from the square of the standard deviation for the students used in the analysis. The statistical variation in the *index of teachers' use of student-oriented strategies* and not the standard deviation is used for this comparison to allow for the decomposition.

The sum of the between- and within-school variation components, as an estimate from a sample, does not necessarily add up to the total.

In some countries, sub-units within schools were sampled instead of schools; this may affect the estimation of the between-school variation components (see Annex A3).

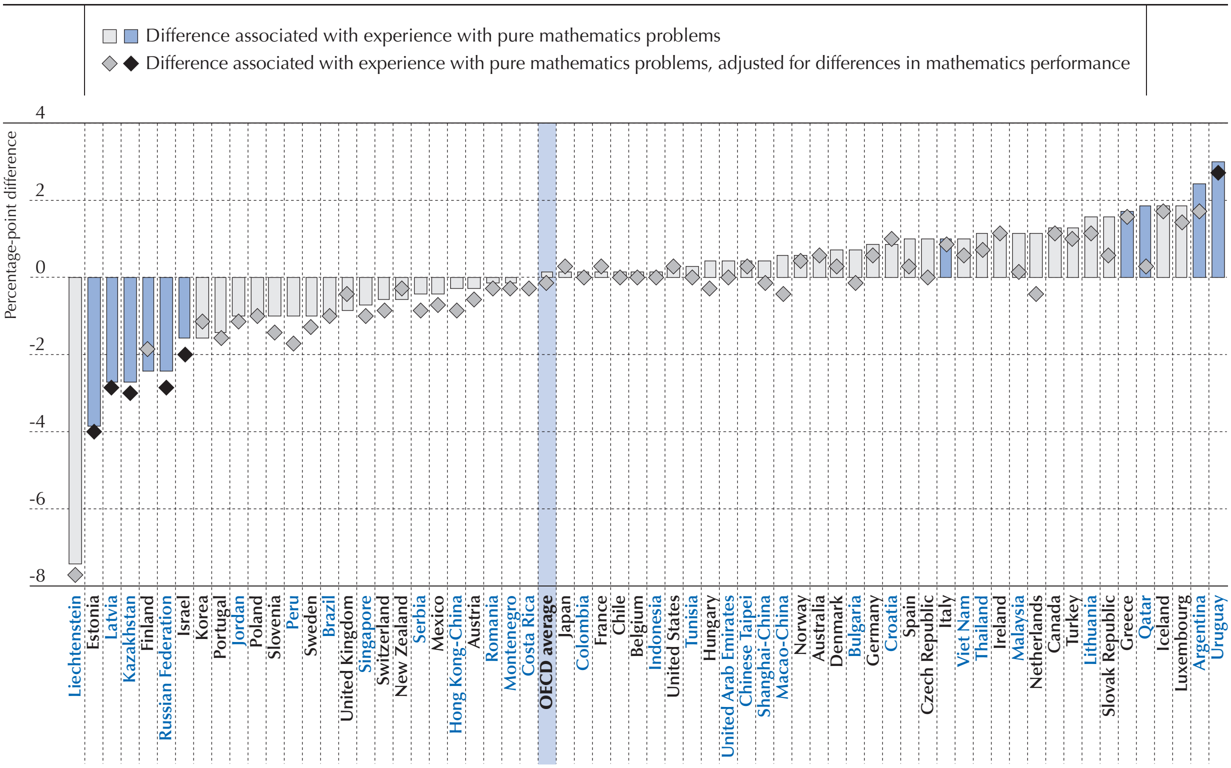
Countries and economies are ranked in descending order of the variation in teachers' use of student-oriented strategies between schools.

Source: OECD, PISA 2012 Database, Table III.5.10f, available on line.

StatLink http://dx.doi.org/10.1787/888932964015

▪ Figure III.5.13 ▪

Relationship between experience with pure mathematics problems and students' lack of punctuality



Note: Statistically significant percentage-point changes at the 5% level ($p < 0.05$) are marked in a darker tone.
Countries and economies are ranked in ascending order of the unadjusted percentage difference in mathematics performance associated with arriving late.
Source: OECD, PISA 2012 Database, Tables III.5.11.
StatLink http://dx.doi.org/10.1787/888932964015

However, the second set of results presented in Table III.5.11, where relationships are presented when comparing students with similar mathematics performance, reveals that experience with applied mathematics problems is strongly associated with students' drive, motivation and self-beliefs. While the association between experience with applied mathematics problems and students' drive, motivation and self-beliefs is stronger among students with similar proficiency in mathematics, the relationship between experience with pure mathematics problems and students' drive, motivation and self-beliefs is weaker, and in many cases not present, in this latter group. While findings in the first sets of results in Table III.5.11 can be interpreted as the "overall association" between experience with pure and applied mathematics topics, the second sets of results reveals the differences in the engagement, drive motivation and self-beliefs among students who reported different levels of exposure to pure and applied mathematics topics, but who perform similarly in mathematics.

Students' mathematics self-efficacy is also strongly and consistently associated with exposure to applied mathematics problems. In all countries and economies except Denmark and Liechtenstein, a change of one unit in the *index of applied mathematics problems* is positively associated with mathematics self-efficacy; and across OECD countries, a change of one unit in the index of exposure to applied mathematics problems is associated with a difference of almost one-fifth of a standard deviation in the *index of mathematics self-efficacy*. Experience with pure mathematics problems is also strongly and positively associated with mathematics self-efficacy, although the association is much weaker when examining differences among students who perform similarly in mathematics than when examining differences across students at all proficiency levels. This is because exposure to pure mathematics problems is very strongly and positively associated with how well students do in mathematics, while exposure to applied mathematics problems is less strongly associated with mathematics performance. Experience with pure mathematics problems is positively associated with mathematics self-efficacy in all countries and economies except Poland, Germany, Sweden, Denmark, Norway, Hong Kong-China, Macao-China, Liechtenstein, Iceland and Shanghai-China, and a difference of one unit in the *index of exposure to pure mathematics problems* is associated with a difference of one-tenth of a standard deviation in the *index of mathematics self-efficacy* among students with equal performance.

Results on the association between students' reported experience with pure and applied mathematics problems, mathematics performance, and engagement, drive, motivation and self-beliefs suggest that students who are frequently exposed to pure and applied mathematics problems fare particularly well: they perform at higher levels in mathematics and enjoy greater drive, motivation and more positive self-beliefs.

In all but six countries and economies, exposure to applied mathematics problems among students of equal performance is positively associated with intrinsic motivation to learn mathematics. Similarly, in all but 16 countries and economies, exposure to pure mathematics problems is associated with intrinsic motivation to learn mathematics among students with equal mathematics performance. Across OECD countries, exposure to pure and applied mathematics problems is similarly associated with intrinsic motivation to learn mathematics: a difference of one standard deviation in both indices

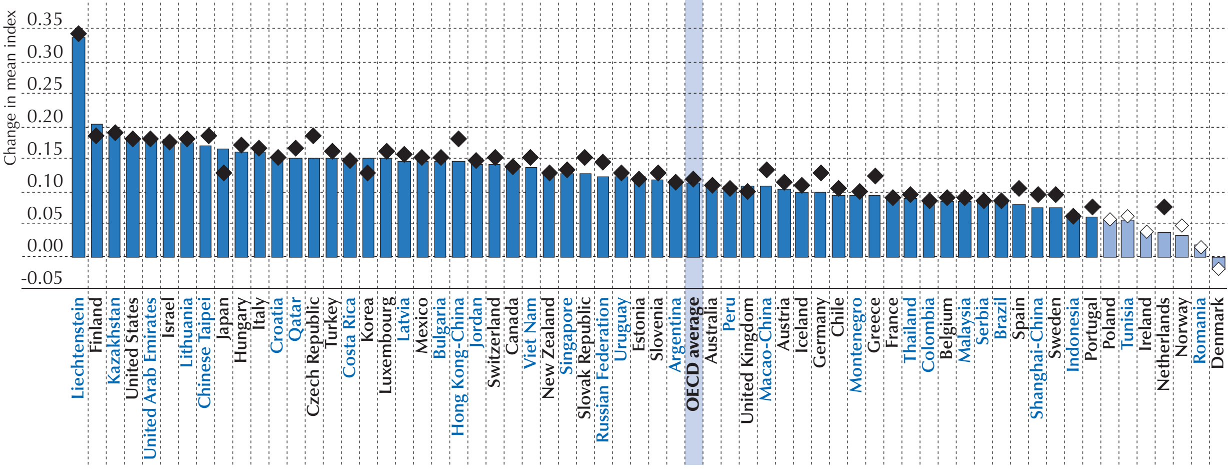
▪ Figure III.5.14 ▪

Relationship between students' experience with pure and applied mathematics tasks and intrinsic motivation to learn mathematics

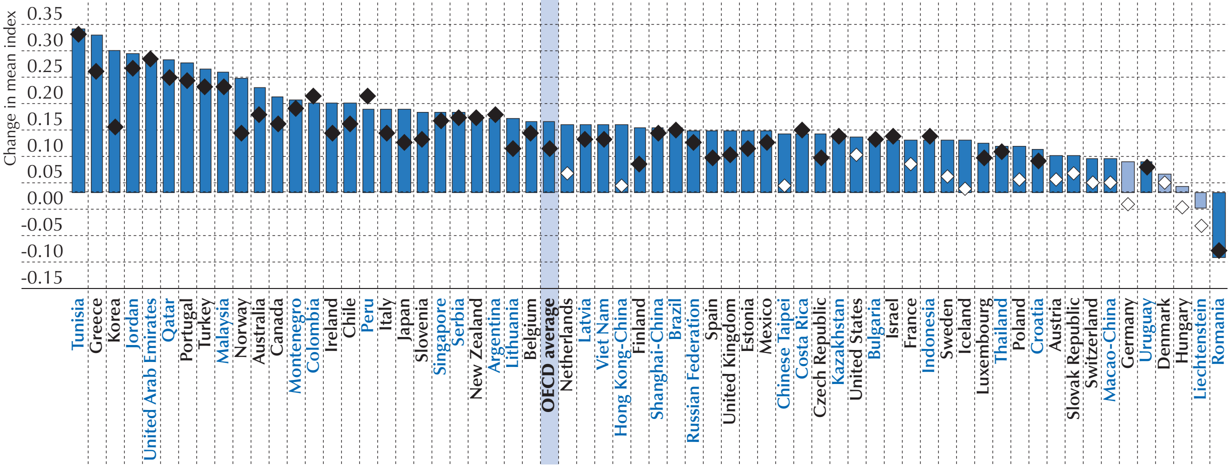
☐ ■ Difference in intrinsic motivation

◇ ◆ Difference in intrinsic motivation, adjusted for differences in mathematics performance

Applied mathematics problems



Pure mathematics problems

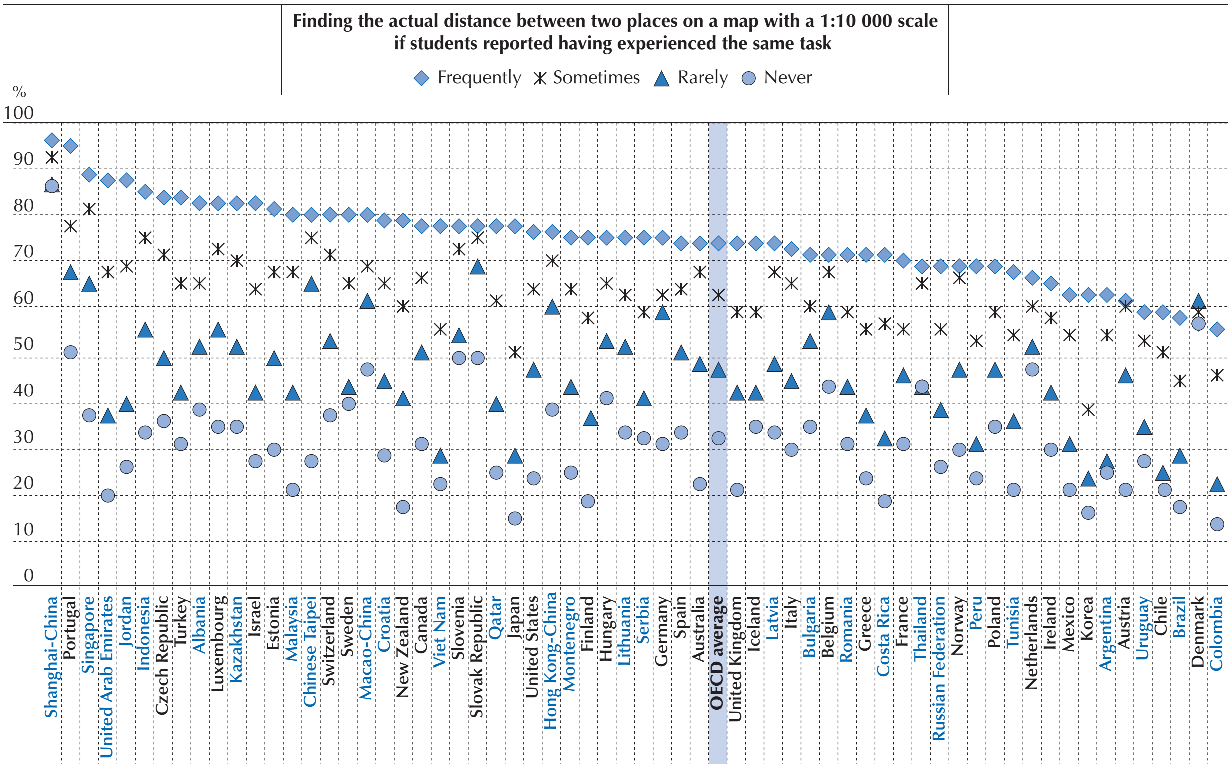


Note: Statistically significant changes at the 5% level ($p < 0.05$) are marked in a darker tone.
Countries and economies are ranked in descending order of the unadjusted change in the mean index of applied mathematics problems *and* index of pure mathematics problems*, respectively.*
Source: OECD, PISA 2012 Database, Table III.5.11.
StatLink http://dx.doi.org/10.1787/888932964015

is associated with a tenth of a standard deviation difference in intrinsic motivation. Similarly, in all but 8 countries and economies exposure to applied mathematics problems, and in 13 countries and economies, exposure to pure mathematics problems, is positively associated with instrumental motivation to learn mathematics, with a difference of around one-tenth of a standard deviation in instrumental motivation being associated with a difference of one unit in the two indices.

■ Figure III.5.15 ■

Students' confidence in solving an applied mathematics task as a function of frequency of experience with that task



Countries and economies are ranked in descending order of the percentage of students who reported being confident or very confident about having to "find the actual distance between two places on a map with a 1:10 000 scale" when they frequently experienced the same problem.
Source: OECD, PISA 2012 Database, Table III.5.12.
StatLink `http://dx.doi.org/10.1787/888932964015`

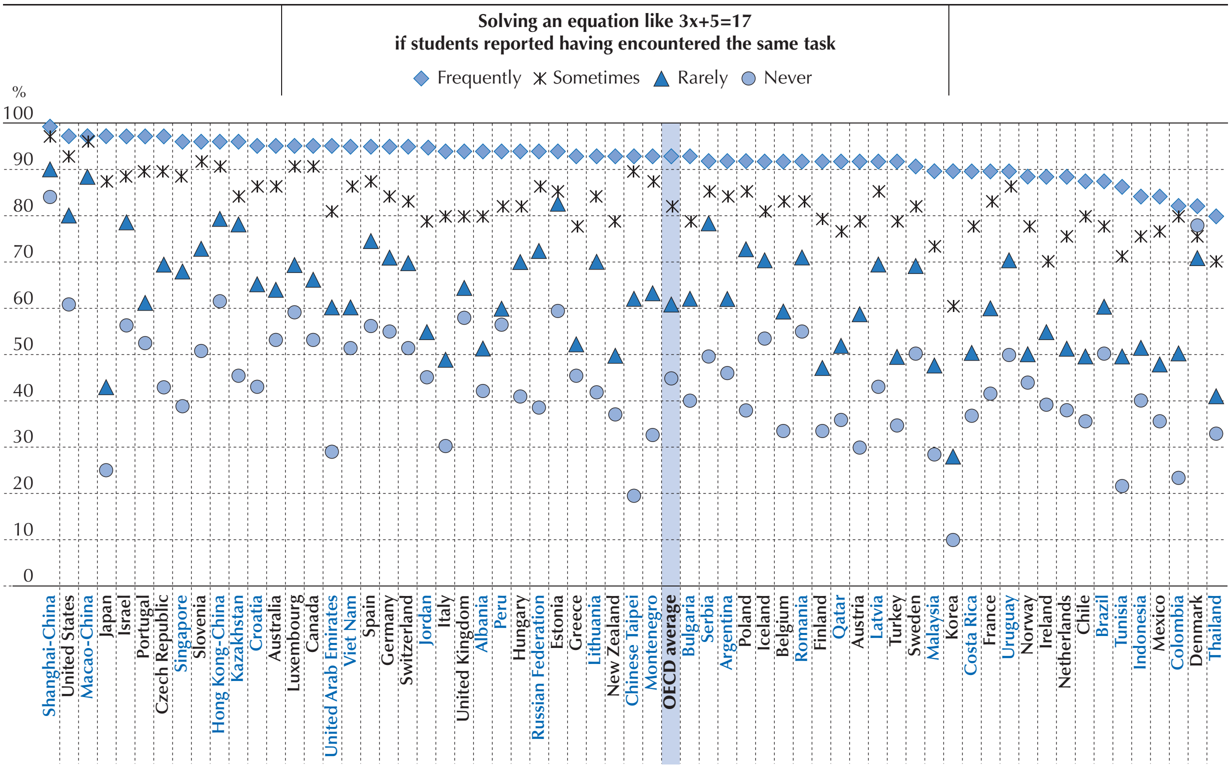
Student exposure to mathematics problems and mathematics self-efficacy

Chapter 4 highlights the strong association between students' feelings of confidence as expressed by mathematics self-efficacy and mathematics performance. This section examines in detail the connection between how confident students feel about being able to solve specific pure and applied mathematics problems, and whether they were exposed to similar or different problem sets in class.

Figure III.5.15 illustrates the proportion of students who feel confident or very confident about finding the actual distance between two places on a map with a 1:10 000 scale, depending on whether they reported having encountered the same mathematics task at school frequently, sometimes, rarely or never. On average across OECD countries, 56% of students feel confident or very confident about having to do such tasks (Table III.4.1a). However this percentage varies greatly depending on whether students reported having encountered the problem frequently, sometimes, rarely or never. For example, 74% of students across OECD countries who reported having frequently encountered the problem reported feeling confident about having to solve it; 63% of those who reported having sometimes encountered the problem reported feeling confident or very confident about having to solve it; 47% of those who reported having only rarely encountered the problem reported feeling confident or very confident, and 32% of those who reported never having encountered the problem felt confident or very confident about having to solve it (Table III.5.12).

▪ Figure III.5.16 ▪

Students' confidence in solving a pure mathematics task as a function of frequency of experience with that task



Countries and economies are ranked in descending order of the percentage of students who reported being confident or very confident about having to "[solve] an equation like 3x+5=17" when they frequently encountered the same problem.
Source: OECD, PISA 2012 Database, Table III.5.12.
StatLink http://dx.doi.org/10.1787/888932964015

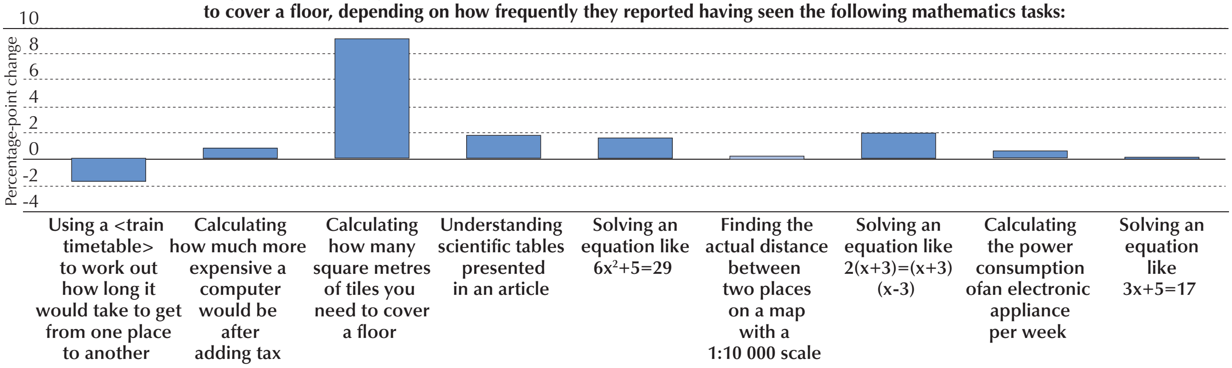
In contrast, Figure III.5.16 shows that many more students feel confident or very confident about solving a linear equation, such as 3x+5=17, and that virtually all students who reported having frequently encountered the same linear equation reported feeling confident or very confident about solving it (93% across OECD countries). However, fewer than half of those who reported never to have seen such an equation also reported being confident or very confident about solving it (Table III.5.12). The difference in the percentage of students who feel confident or very confident about solving a linear equation when they reported having frequently encountered, rather than having never encountered, a linear equation is larger than 50 percentage points in 28 countries and economies; it is larger than 70 percentage points in Korea, Chinese Taipei and Japan, and smaller than 30 percentage points in Shanghai-China and Denmark.

In general, almost all students who reported having frequently encountered pure mathematics tasks feel confident about having to solve such tasks. However, feelings of confidence about having to solve applied mathematics problems are much lower even when students reported having frequently encountered such problems. One possibility is that applied mathematics problems are, by their very nature, more ambiguous. A second possibility is that solving applied mathematics problems generally requires both a good understanding of an underlying abstract problem as well as a good understanding of the context in which such a problem is set. Results presented in Figures III.5.15 and III.5.16 suggest that exposure matters for students' mathematics self-efficacy: the more frequently students are exposed to a very specific problem set, according to their self-reports, the more confident they feel about solving that problem. But is the relationship between exposure and feelings of self-efficacy wide or narrow, i.e. does exposure to pure mathematics problems help students to feel more confident about having to solve applied mathematics problems? And does exposure to one type of applied mathematics problem help to foster feelings of confidence about being able to solve other types of applied mathematics problems?

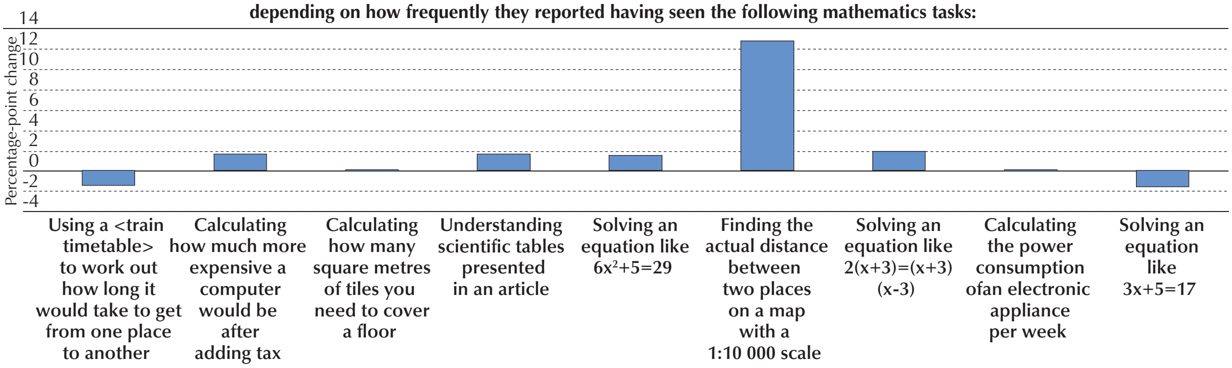
▪ Figure III.5.17 ▪

Students' confidence as a function of experience with different problems, OECD average

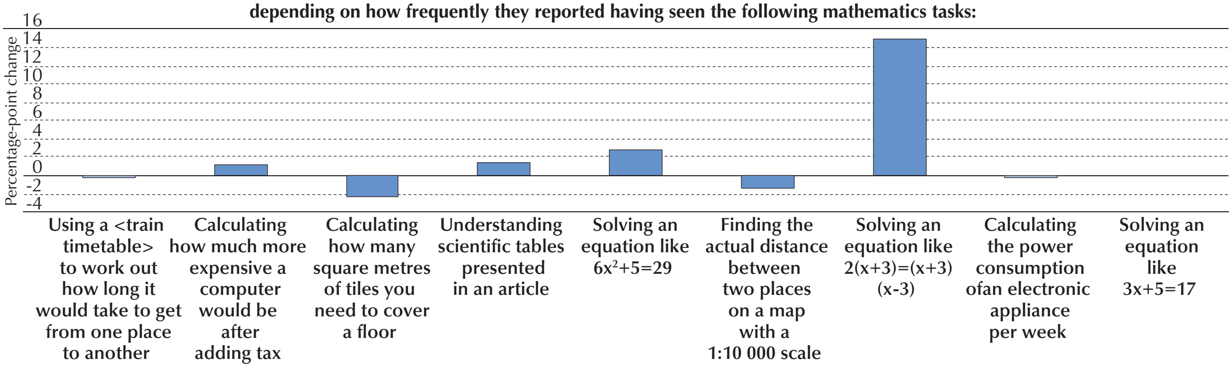
Change in the percentage of students who feel confident calculating how many square metres of tiles you need to cover a floor, depending on how frequently they reported having seen the following mathematics tasks:



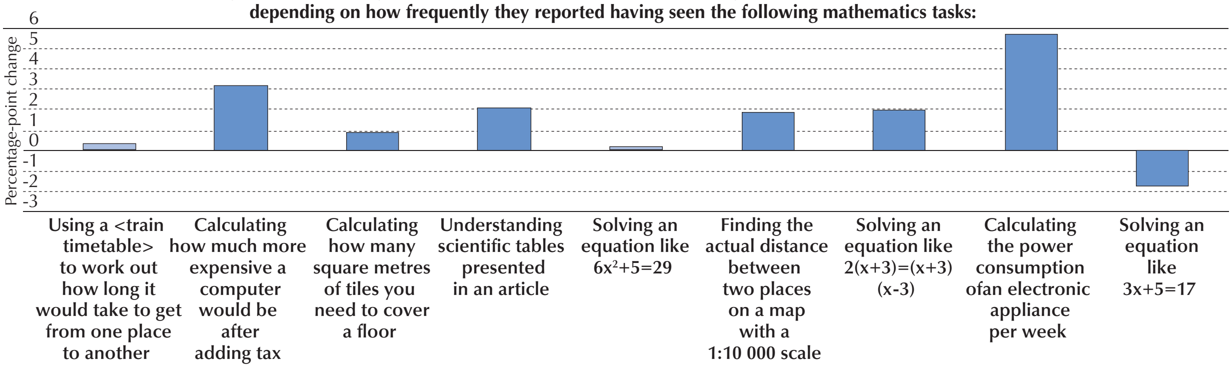
Change in the percentage of students who feel confident finding the actual distance between two places on a map with a 1:10 000 scale, depending on how frequently they reported having seen the following mathematics tasks:



Change in the percentage of students who feel confident solving an equation like 2(x+3)=(x+3)(x-3), depending on how frequently they reported having seen the following mathematics tasks:



Change in the percentage of students who feel confident calculating the petrol-consumption rate of a car, depending on how frequently they reported having seen the following mathematics tasks:



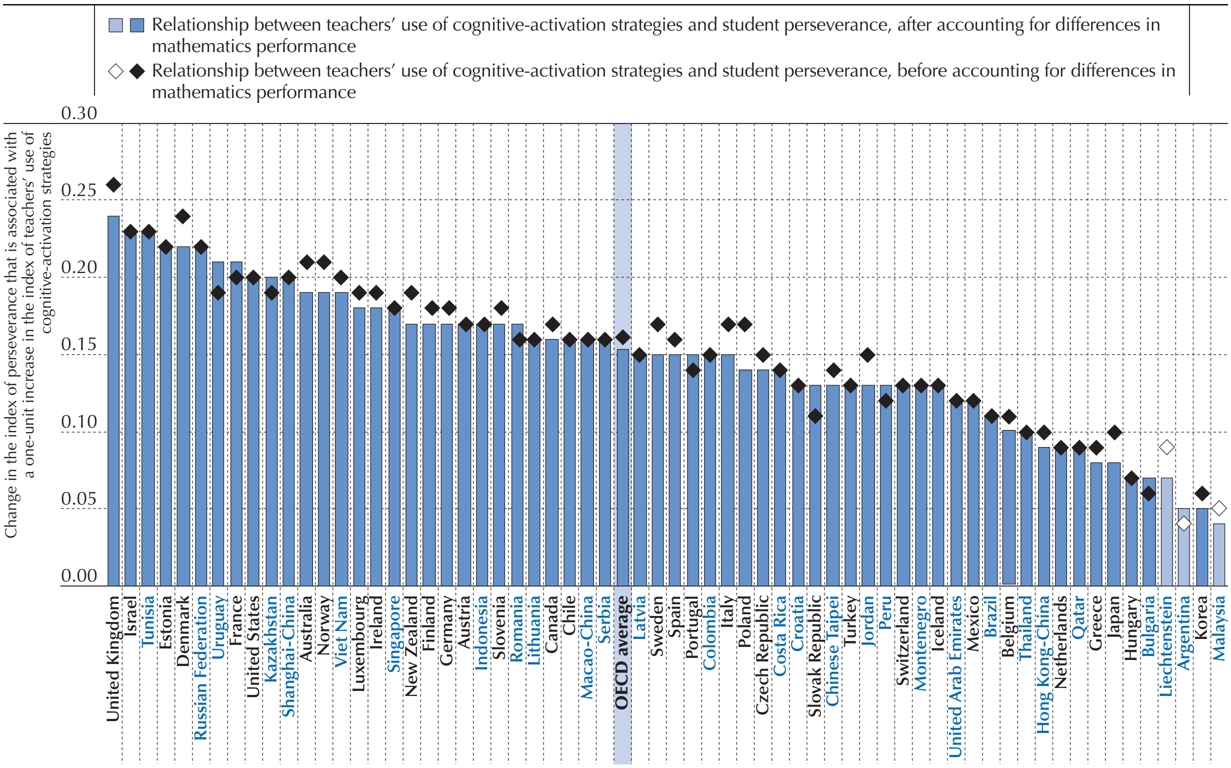
Note: Statistically significant percentage-point changes at the 5% level ($p < 0.05$) are marked in a darker tone.
Source: OECD, PISA 2012 Database, Tables III.5.13c, f, g and h, available on line.
StatLink `http://dx.doi.org/10.1787/888932964015`

Tables III.5.13a to III.5.13h show the percentage-point difference in whether students reported feeling confident or very confident about solving a specific mathematics problem depending on how frequently they reported having seen the same or a very similar problem. Results illustrate whether students' feelings of confidence about solving a set of problems are strictly related to having been exposed to very similar problem sets[4] or whether they are more generally associated with having been presented with pure or applied mathematics problems.

Figure III.5.17 shows that students are much more likely to report feeling confident or very confident about being able to solve a series of various applied and pure mathematics problems when they are exposed to the same problem set; being exposed to different problems sets is only weakly associated or not associated at all with self-reported confidence levels. For example, on average, students in OECD countries who reported having been rarely exposed to the problem "how many square metres of tiles would you need to cover a floor", were nine percentage points more likely to report feeling confident or very confident about solving such a task than students who reported that they were never exposed to such tasks. This reflects the difference in confidence associated with exposure to mathematics problems when comparing students of the same gender, socio-economic status and with similar levels of exposure to otherwise similar materials. Students who were frequently exposed to a problem asking them to calculate the power consumption, per week, of an electronic appliance were six percentage points more likely to feel confident or very confident about having to calculate a car's petrol consumption rate. Experience with other problems, such as calculating how much more expensive a computer would be after adding tax, finding the actual distance between two places on a map with a 1:10 000 scale, and solving an equation like 2(x+3)=(x+3)(x-3) was also positively associated with feelings of confidence but much less so. These results support findings in the literature that self-efficacy beliefs are based on performance and exposure to specific tasks (Schunk and Pajares, 2009).

■ Figure III.5.18 ■

Relationship between teachers' use of cognitive-activation strategies and student perseverance



Note: Index-point changes that are statistically significant are marked in a darker tone.
Countries and economies are ranked in descending order of the change in the index of perseverance *that is associated with a one-unit increase in the* index of teachers' use of cognitive-activation strategies, *after accounting for differences in mathematics performance.*
Source: OECD, PISA 2012 Database, Table III.5.14.
StatLink http://dx.doi.org/10.1787/888932964015

Solving an applied mathematics problem requires students to see through the surface structure of the problem: for example, in the case of two sets of problems presented in PISA 2012, the student first needs to recognise that "this is a problem about cars" and "this is a problem about purchasing a TV set", see the building blocks that define the problem (if a TV costs x before it is sold with a 30% discount, the discount is y=0.3x or the TV set after the discount will cost y=x-[0.3x]), and apply abstract principles to solve it (solve the equation when, for example, x=100). Does the framing of the problem affect students' ability to solve the problem and their feelings of confidence about solving it? Does the fact that a problem is framed in terms of a car's petrol consumption rate mean that students who do not have an interest in cars (or less of an interest in cars than other students do, which might be the case, for example, for 15-year-old girls compared to 15-year-old boys) will feel less confident about being able to solve such a problem?

PISA data cannot be used to determine exactly whether framing matters, but results presented in Tables III.5.13a to III.5.13h and Figure III.5.17 show that students who are exposed to a variety of applied mathematics problems and therefore a variety of contexts in which these problems are set feel more confident about solving a greater number of such problems than students who have little or only a narrow exposure. These findings are in line with empirical evidence that suggests that framing does matter: students perform at higher levels when they are familiar with the context used to present a particular problem set (Chiesi, Spilich and Voss, 1979; Alexander, 1992; Alexander and Judy, 1988; Alexander, Kulikowich and Schulze, 1994; Geary et al., 2011). Although the findings presented in this section refer to students' feelings of self-efficacy, they have important implications for students' mathematics performance more generally. A large body of evidence indicates that how individuals perform on a given task depends, crucially, on how capable they feel of solving it. Academic achievement is significantly influenced by self-stereotyping and, implicitly, by individuals' attitudes and beliefs about their own ability (see Steen, 1987; Aronson, 2002; Benbow, 1988; Eccles, 2009; Hedges and Nowell, 1995; Shih, Pittinsky and Ambady, 1999; Levy, 1996).

Only students who have developed a wide and extensive knowledge of mathematical concepts and processes can solve complex real-life problems that they have not encountered before. Learning new things and solving new, complex problems, depend on previously acquired knowledge; the more background knowledge students have stored in long-term memory, the easier it is for them to learn new, related material and to solve problems. The more knowledge students have acquired, the more new problems appear as *related* instead of *unrelated* to them. When students possess a complex web of memorised information, they will be more likely to be able to find relations in the structure of the new problem, the content of the problem, or the purpose of the problem, and in so going will be able to solve the problem faster and will find the problem easier.

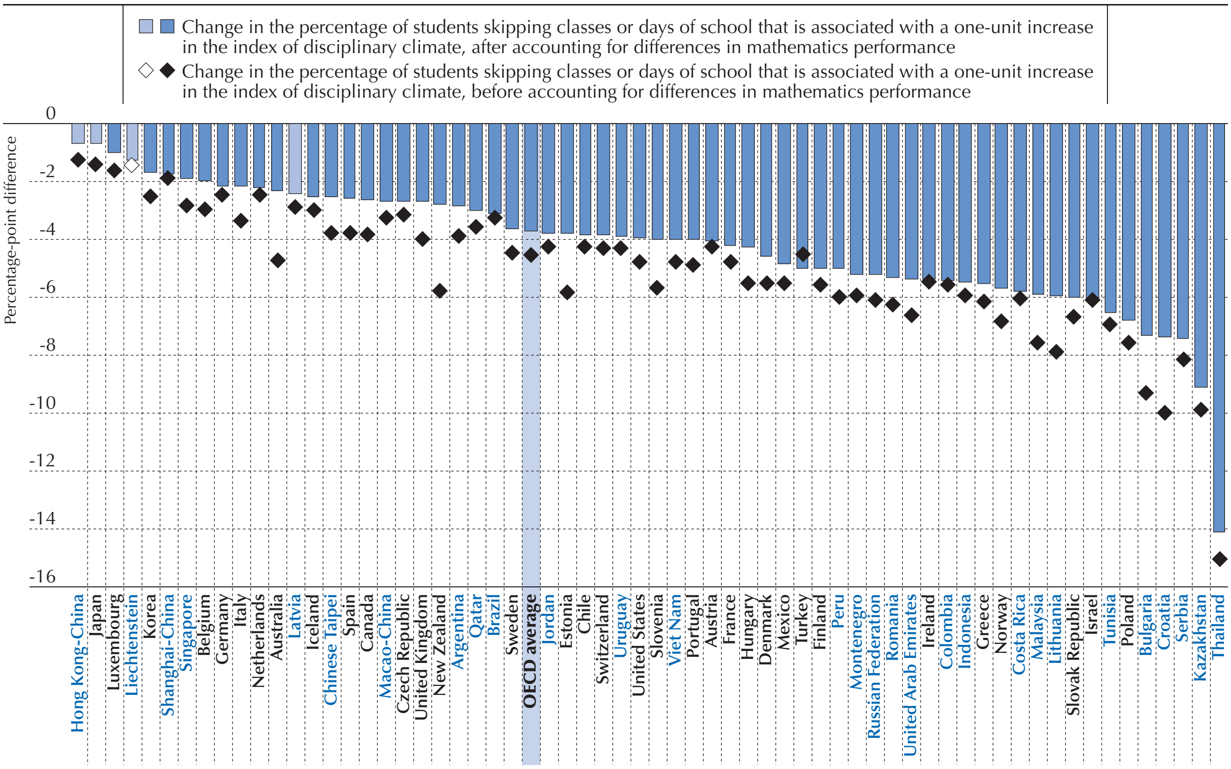
STUDENTS' DRIVE, MOTIVATION AND SELF-BELIEFS AND SCHOOL PRACTICES: TEACHER BEHAVIOUR IN CLASS AND SCHOOL CLIMATE

Previous sections in this chapter illustrate the role of social comparisons and the association between the material students encounter in class and their drive, motivation and self-beliefs. This section examines the association between students' reports of what behaviour and practices their mathematics teacher adopts in class and their level of engagement, drive, motivation and self-beliefs, as well as the association between students' reports of disciplinary climate in the school and of teacher student relations.

Table III.5.14 indicates that students who reported that their teacher uses cognitive-activation strategies reported particularly high levels of perseverance and openness to problem solving, are more likely to favour mathematics as a field of study over other subjects or to see mathematics as more necessary than other subjects to their careers. Teachers' use of cognitive-activation strategies is also positively associated with students' engagement with and at school, intrinsic motivation to learn mathematics and mathematics self-beliefs. However, in the latter cases the relationship is weaker and is less pervasive. In many countries there is no association between teachers' use of cognitive-activation strategies and students' engagement, motivation and self-beliefs. As Figure III.5.18 shows, on average across OECD countries, students who reported that their teachers use a large variety of cognitive-activations strategies relatively frequently (as indicated by a value of 1 on the relative index) also reported greater perseverance (values on the *index of perseverance* that are 0.16 higher) than that reported by students whose teachers use cognitive-activations strategies at around the OECD average frequency. In 12 countries and economies the difference in the *index of perseverance* that is associated with a change of one standard deviation in the *index of teachers' use of cognitive-activation strategies* is larger than one-fifth of a standard deviation. Results are not driven by differences in how well students perform in mathematics; the relationship between teachers' use of cognitive-activation strategies and engagement, drive, motivation and self-beliefs among students who show similar mathematics performance is much like that observed among students with varying levels of proficiency in mathematics (Table III.5.14).

▪ Figure III.5.19 ▪

Relationship between disciplinary climate and students' skipping classes or days of school



Note: Percentage-point changes that are statistically significant are marked in a darker tone.
Countries and economies are ranked in descending order of the change in the percentage of students skipping classes or days of school that is associated with a one-unit increase in the index of disciplinary climate*, after accounting for differences in mathematics performance.*
Source: OECD, PISA 2012 Database, Table III.5.18.
StatLink `http://dx.doi.org/10.1787/888932964015`

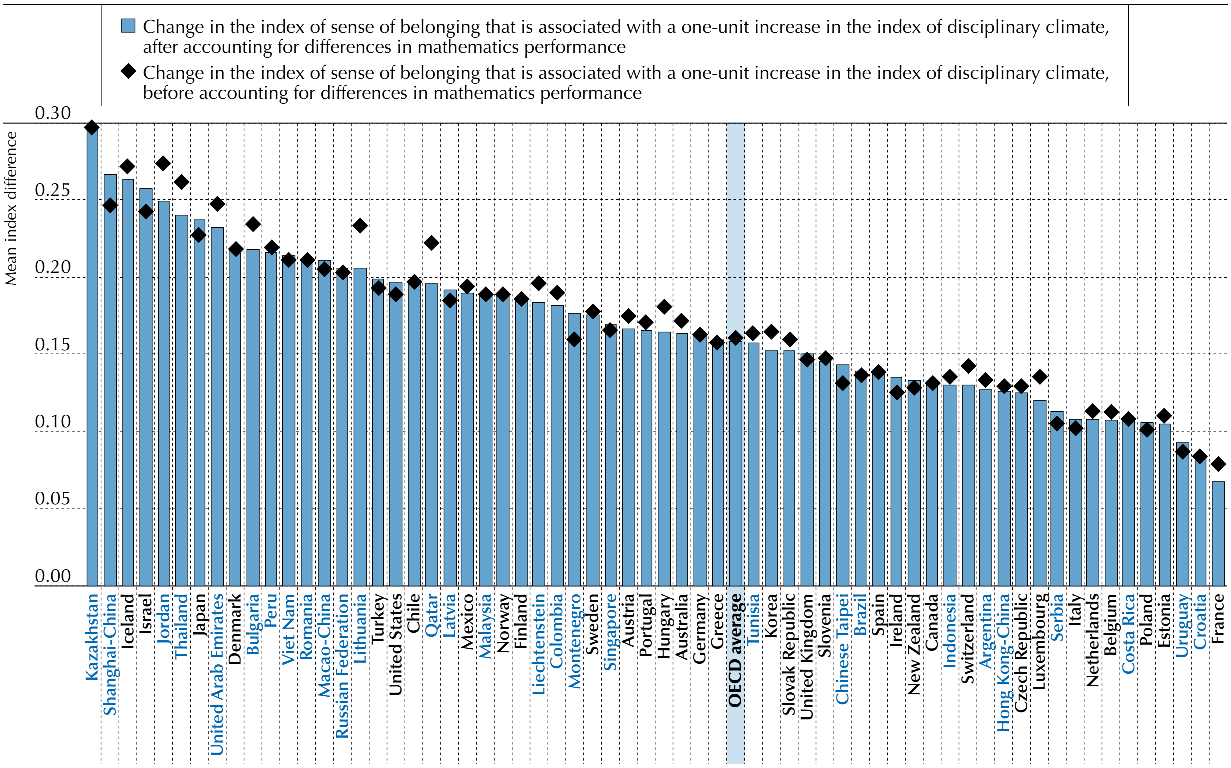
Tables III.5.15 and III.5.16 indicate that students who reported that in their mathematics lessons teachers use teacher-directed instruction and formative assessments also reported particularly high levels of perseverance, openness to problem solving and students' intentions to pursue mathematics as a career or a field of study and, to a lesser extent, higher levels of engagement with and at school, intrinsic motivation to learn mathematics and mathematics self-beliefs. The relationship is weaker and less pervasive in the case of teachers' use of student-orientation strategies (Table III.5.17).

Table III.5.18 indicates that disciplinary climate is strongly associated with students' engagement with and at school, students' intrinsic motivation to learn mathematics, and how anxious students reported to be about solving mathematics problems. However, disciplinary climate is only weakly associated with students' self-reported perseverance, openness to problem solving, mathematics self-efficacy and mathematics self-concept. On average across OECD countries, students who attend schools with better disciplinary climate are 5% less likely to report having arrived late and having skipped classes or days of school during the two weeks before the PISA test. They also have much more positive values on the *index of sense of belonging* (0.16 higher values), *index of intrinsic motivation to learn mathematics* (0.17 higher values) and *index of mathematics self-efficacy* (0.12 higher values). Table III.5.18 reveals that the strong association between disciplinary climate and engagement with and at school is not the result of a positive association between disciplinary climate and mathematics performance.

Figures III.5.19 and III.5.20 show, for example, that among students with similar mathematics performance, those who attend schools with better disciplinary climate report fewer incidents of unauthorised non-attendance of classes and days of school and a stronger sense of belonging. On average across OECD countries, a difference of one unit in the *index of disciplinary climate* is associated with a difference of four percentage points in the probability that students will report having skipped classes or days of school. This difference is largest, at more than six percentage points, in Thailand, Kazakhstan, Serbia, Croatia, Bulgaria, Poland, Tunisia, Israel and the Slovak Republic; by contrast, in Latvia, Liechtenstein, Japan and Hong Kong-China, there is no difference in the probability that students with equal performance

▪ Figure III.5.20 ▪

Relationship between disciplinary climate and students' sense of belonging



Note: All changes in the *index of sense of belonging* that are associated with a one-unit increase in the *index of disciplinary climate* are statistically significant.

Countries and economies are ranked in descending order of the change in the index of sense of belonging *that is associated with a one-unit increase in the* index of disciplinary climate*, after accounting for differences in mathematics performance.*

Source: OECD, PISA 2012 Database, Table III.5.18.

StatLink http://dx.doi.org/10.1787/888932964015

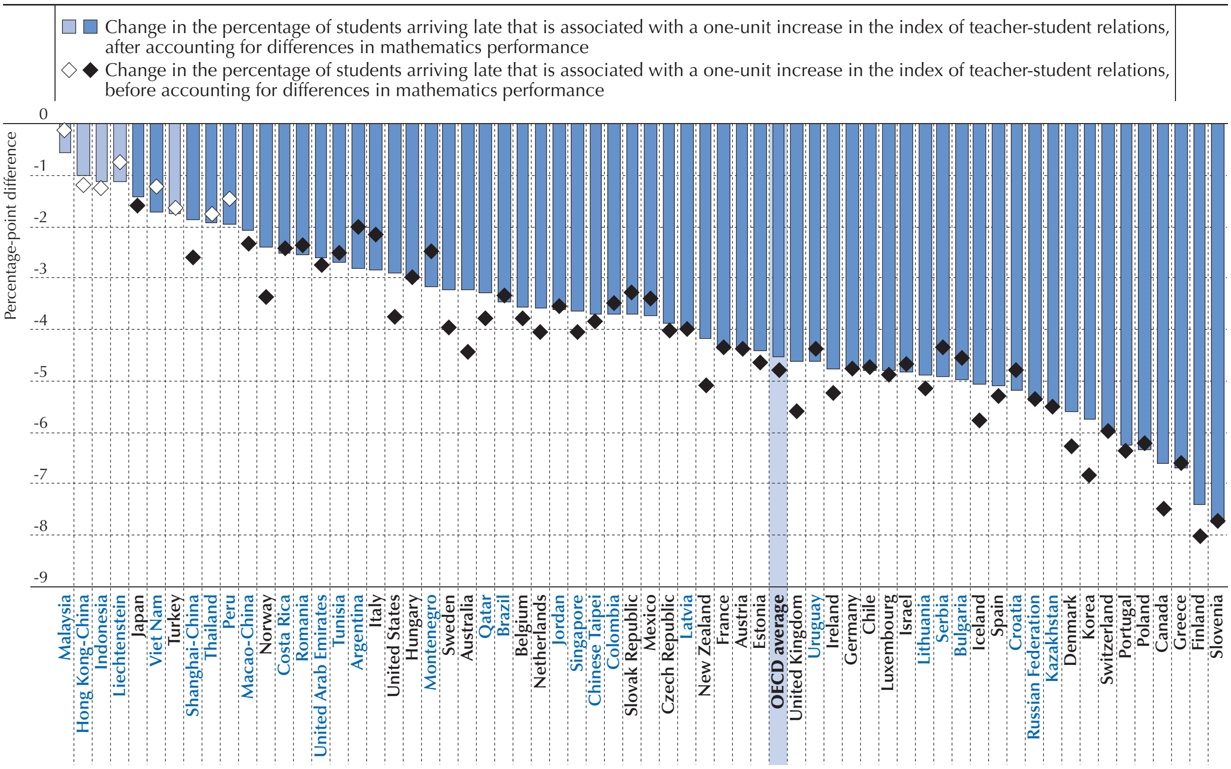
will report having skipped classes or days of school when they attend schools with different disciplinary climates. Figure III.5.20 also indicates that the difference in the sense of belonging between students with similar performance in mathematics, but who attend schools with different disciplinary climates, varies greatly across countries. This difference is largest, at one-quarter of a standard deviation or more, in Kazakhstan, Shanghai-China, Iceland and Israel and lowest, at less than one-tenth of a standard deviation, in France, Croatia and Uruguay.

Teacher-student relations are also strongly associated with students' engagement with and at school. The relationship between teacher-student relations and students' lack of punctuality, skipping classes or days of school, and a sense of belonging is strong in virtually all countries and economies (Table III.5.19). When comparing students with similar performance in mathematics, on average across OECD countries, students who reported that, for example, they get along with most of their teachers, that most teachers are interested in their well-being, that most teachers really listen to what they have to say, that they will receive extra help from their teachers, if needed, and that most teachers treat them fairly, are five percentage points less likely to report having arrived late for school and four percentage points less likely to report having skipped classes or days of school during the two weeks prior to the PISA test. They also have values on the *index of sense of belonging* that are almost two-fifth of a standard deviation higher than students who attend schools with poorer teacher-student relations.

Not surprisingly, Figure III.5.21 shows that in all countries and economies except Turkey, Liechtenstein, Indonesia, Hong Kong-China and Malaysia, among students with equal performance and similar socio-economic status, students who attend schools with better teacher-student relations are less likely to report having arrived late during the two weeks before the PISA test. In Slovenia, Finland, Greece, Canada, Poland, Portugal, Switzerland, Korea, Denmark, Kazakhstan, the Russian Federation, Croatia, Spain and Iceland this difference is particularly large – five percentage points or more. Similarly, Figure III.5.22 shows that in all countries and economies among students with equal performance and similar

▪ Figure III.5.21 ▪

Relationship between teacher-student relations and students' lack of punctuality



Note: Percentage-point changes that are statistically significant are marked in a darker tone.
Countries and economies are ranked in descending order of the change in the percentage of students arriving late that is associated with a one-unit increase in the index of teacher-student relations*, after accounting for differences in mathematics performance.*
Source: OECD, PISA 2012 Database, Table III.5.19.
StatLink `http://dx.doi.org/10.1787/888932964015`

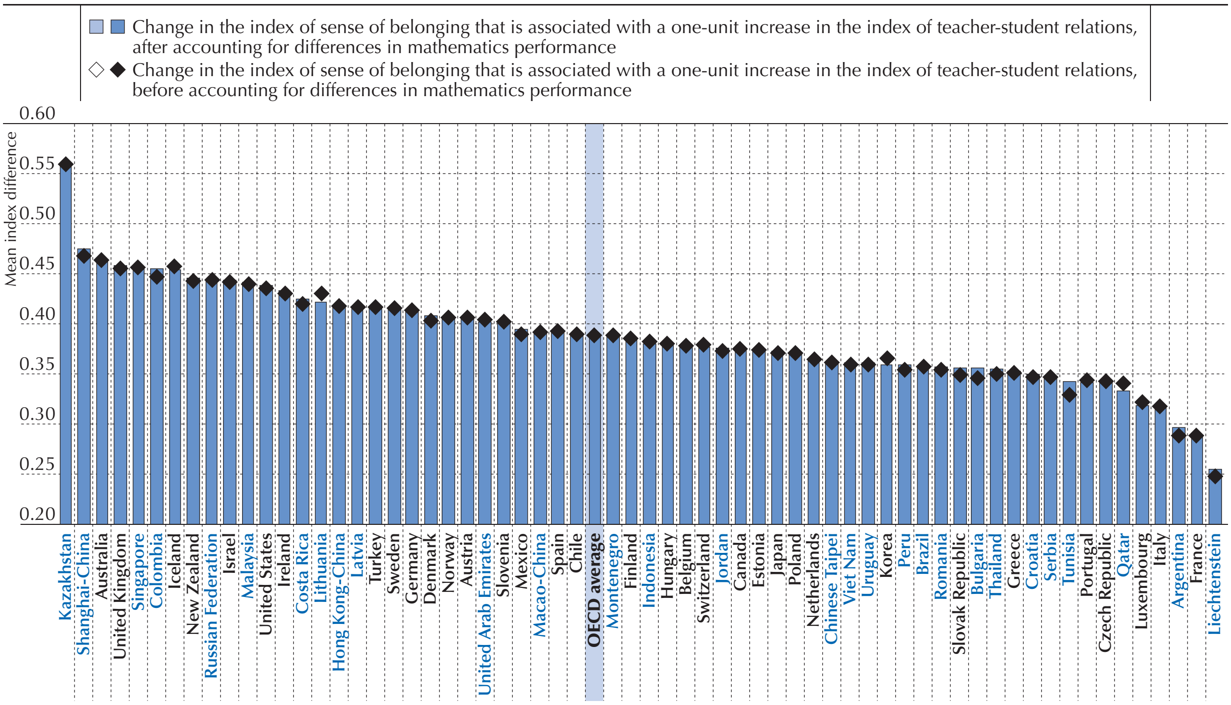
socio-economic status, students who attend schools with better teacher-student relations report a stronger sense of belonging. This difference is very large: in all countries and economies, the change in a sense of belonging that is associated with a one-unit difference in the *index of teacher-student relations* is larger than one-quarter of a standard deviation and it is larger than 0.4 in 25 countries and economies (Table III.5.19).

Table III.5.19 shows that positive teacher-student relations are also positively and strongly associated with students' intrinsic motivation to learn mathematics. With the exception of Romania and Liechtenstein, the *index of teacher-student relations* is positively associated with intrinsic motivation to learn mathematics in all countries and economies when controlling for students' socio-economic status and mathematics performance. On average across OECD countries, a difference of one unit in the *index of teacher-student relations* corresponds to a one-quarter of a standard deviation difference in the *index of intrinsic motivation to learn mathematics*. Positive teacher-student relations are positively associated with students' mathematics self-efficacy. Teacher-student relations are positively associated with mathematics self-efficacy in all countries and economies, except Liechtenstein. On average across OECD countries, a one-unit difference in the *index of teacher-student relations* is associated with a 0.16 difference on the *index of mathematics self-efficacy* among students of similar socio-economic status and with similar mathematics performance. Teacher-student relations are also positively associated with students' mathematics self-concept in all countries and economies (Table III.5.19).

Students who report having repeated a grade tend to have lower performance in mathematics than students who report not having repeated a grade. Results presented in Table III.5.21 suggest that grade repetition is also associated with worse outcomes for students: students of similar economic condition who reported having repeated a grade are more likely to report having arrived late and having skipped classes during the two weeks before the PISA test, to have a lower sense of belonging lower mathematics self-efficacy and self-concept, higher levels of mathematics anxiety and less openness to problem solving. However most of these differences reflect the lower performance of students who repeat a grade.

▪ Figure III.5.22 ▪

Relationship between teacher-student relations and students' sense of belonging



Note: All changes in the *index of sense of belonging* that are associated with a one-unit increase in the *index of teacher-student relations* are statistically significant.

Countries and economies are ranked in descending order of the change in the index of sense of belonging *that is associated with a one-unit increase in the* index of teacher-student relations*, after accounting for differences in mathematics performance.*

Source: OECD, PISA 2012 Database, Table III.5.19.

StatLink http://dx.doi.org/10.1787/888932964015

When comparing students of similar performance in mathematics and of similar socio-economic status, students who reported having repeated a grade are more likely to report having skipped classes or days of school, but when comparing students of similar socio-economic condition and mathematics performance, the relationship is weakened considerably. Grade repetition is also associated with more negative mathematics self-beliefs among students but those differences mostly reflect the lower performance of students who repeated a grade. When comparing students of similar performance in mathematics and similar socio-economic condition, in some countries, grade repetition is associated with slightly higher levels of mathematics self-efficacy, mathematics self-concept, lower mathematics anxiety and a higher propensity of students to report intending pursuing mathematics courses, degrees or careers rather than courses, careers or degrees requiring other subjects (Table III.5.21).

In general, there is only a weak association between learning time in mathematics and student engagement, drive, motivation and self-beliefs. Results shown in Table III.5.22 suggest that the most significant relationships are those between the reported amount of time students study mathematics at school and levels of mathematics self-efficacy and intrinsic motivation. For each additional 100 minutes students spend studying mathematics, students reported levels of mathematics self-efficacy and intrinsic motivation to learn mathematics that are roughly one-tenth of a standard deviation higher. This association reflects, to some extent, the better mathematics performance among students who spend more time studying mathematics, whether because higher-achieving students opt for more and more demanding mathematics courses or because time spent studying mathematics improves performance. In 23 countries and economies, learning time in mathematics is positively associated with intrinsic motivation to learn mathematics; in 22 countries and economies it is positively associated with mathematics self-efficacy. Macao-China and Romania represent notable exceptions because in these countries, among students who perform equally well, those who spend more time learning mathematics reported lower levels of intrinsic motivation to learn the subject. Similarly, Table III.5.23 indicates that the association between overall learning time in school and students' engagement, drive, motivation and self-beliefs, even when statistically significant, is quantitatively not important.

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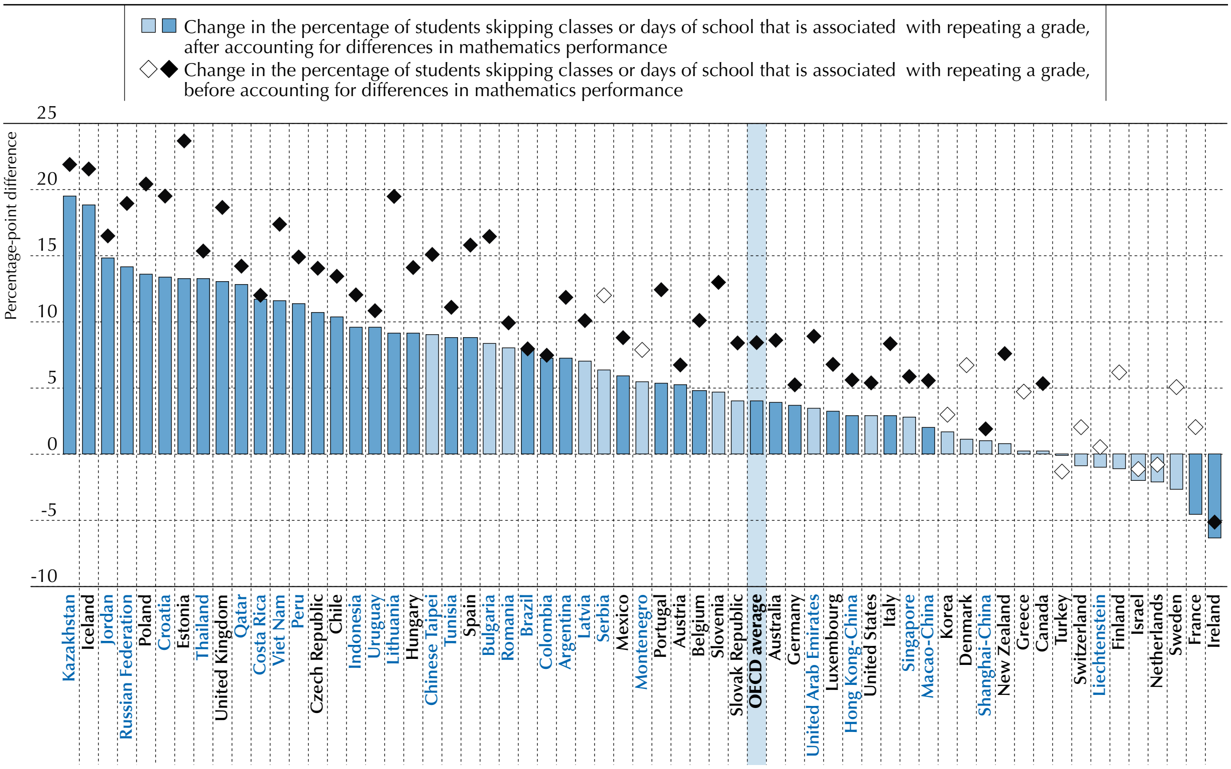
■ Figure III.5.23 ■

Relationship between repeating a grade and skipping classes or days of school



Note: Percentage-point changes that are statistically significant are marked in a darker tone.
Countries and economies are ranked in descending order of the change in the percentage of students skipping classes or days of school that is associated with repeating a grade, after accounting for differences in mathematics performance.
Source: OECD, PISA 2012 Database, Table III.5.21.
StatLink `http://dx.doi.org/10.1787/888932964015`

Other school characteristics, such as the use of ability grouping, the availability of creative extracurricular activities or extracurricular mathematics activities, class size and school size, are also not strongly associated with students' engagement, drive, motivation and self-beliefs (Tables III.5.24, III.5.25, III.5.26, III.5.27 and III.5.28).

At a first glance, students who attend more socio-economically advantaged schools do not appear to report levels of drive and motivation that are different from those reported by students who attend less-advantaged schools (Table III.5.29). However, when comparing students of similar performance who attend more- and less-advantaged schools, a different picture emerges: students who attend more advantaged schools reported much lower levels of perseverance, intrinsic motivation to learn mathematics and lower levels of openness to problem solving, and are less likely to report intending to engage in mathematics-related careers or coursework than students who perform similarly but who attend less-advantaged schools. For example, on average across OECD countries, students who attend more advantaged schools reported levels of intrinsic motivation to learn mathematics and openness to problem solving that are one-fifth of a standard deviation lower than students who attend less-advantaged schools, even if all these students share similar socio-economic status and performance in mathematics; when considering perseverance, the difference between the two groups of students is 0.16 of a standard deviation.

On the other hand, students who attend schools that are more advantaged tended to report much higher levels of mathematics self-efficacy and lower levels of mathematics anxiety (Table III.5.29). On average across OECD countries, a difference of one unit in the *PISA index of economic, social and cultural status* is associated with a difference of one-third of a standard deviation on the *index of mathematics self-efficacy* and one-tenth of a standard deviation on the *index of mathematics anxiety*. However, these differences simply reflect the better performance of students who attend advantaged schools.

These results confirm findings illustrated in previous sections of this chapter: social comparisons matter; and because advantaged schools tend to be schools where performance is generally better, students attending these schools, will tend to report lower levels of drive, motivation and self-beliefs.

Trends in the relationship between students' engagement, motivation and dispositions and the schools they attend

The proportion of students who attend schools in which their peers often arrive late decreased between 2003 and 2012. In 2012 and on average across OECD countries, compared with 2003 there were fewer 15-year-olds enrolled in schools where more than 25% of students reported arriving late at least once in the two weeks prior to the PISA test. The decrease in the proportion of students in these types of schools is notable in Luxembourg and Indonesia. In Luxembourg, for example, the proportion of students in schools where between one in four and one in two students reported arriving late shrank by 26 percentage points between 2003 and 2012. Decreases are also observed in Hong Kong-China, Japan, Hungary, Australia, the Netherlands, Spain, Denmark, Norway, Liechtenstein, Italy and Iceland. In the Russian Federation, Tunisia, Sweden, Turkey, the Czech Republic, Latvia, Uruguay, Poland and Macao-China, more students attended schools with a high concentration of late arrivers in 2012 than in 2003 (Table III.5.1c).

In general, there are no large differences between advantaged and disadvantaged schools, private and public schools, upper and lower secondary programmes, schools in urban and rural settings, or large and small schools in the share of students who reported arriving late for school. Nor have these differences changed substantially between 2003 and 2012. The share of students in large schools who arrived late shrank in 15 countries and economies, particularly in Mexico, Switzerland, Luxembourg, Norway and Iceland where, among students who attend large schools, the share of students who arrived late decreased by more than 10 percentage points during the period. In Latvia, Luxembourg and Iceland students in advantaged schools were more likely to have arrived late in 2003, but by 2012 this difference was no longer observed. In Mexico there was a reduction in the share of students in disadvantaged schools who arrived late, but no such change among students in advantaged schools (Table III.5.1d).

Students' self-reported motivation and dispositions towards school and mathematics are defined by comparisons with their peers at school (Festinger, 1954; Marsh et al., 2008). In line with this logic of social comparison, the variation of sense of belonging, instrumental and intrinsic motivation to learn mathematics, mathematics self-concept and anxiety towards mathematics varies mostly within schools. That is, in most schools there are students with high and low levels of these attitudes and dispositions and it is relatively uncommon to find, in any of PISA-participating countries and economies, schools that have exclusively high levels of intrinsic motivation to learn mathematics or anxiety towards mathematics, for example. In 2003, in all countries and economies, more than 93% of the variation in engagement, motivation and dispositions was observed within schools; by 2012, little had changed: Thailand was the only country in which more than 7% of the variation in students' sense of belonging and anxiety towards mathematics was related to different schools. Comparisons of overall levels of these dispositions across school types – and trends in these levels by school type – should not distract policy makers from the fact that policies and practices to improve these dispositions should be adopted within individual schools, targeting those students with little or no sense of belonging and high anxiety towards mathematics; the same can be said for motivation (intrinsic and instrumental motivation). Although a relatively larger proportion of the variation in mathematics self-beliefs is observed between schools, most of the variation is observed within schools as it has been since 2003 (Tables III.5.3b, III.5.5b, III.5.6b, III.5.7b, III.5.8b and III.5.9b).

Notes

1. Because of the positive and reciprocal association between mathematics performance and students' drive, motivation and self-beliefs, estimates of the relationship between these and school factors and education policies after controlling for mathematics performance represent the lower limit of this relationship. Upper-limit estimates are represented by relationships observed when not controlling for mathematics performance. In practice, the relationship between school factors and education policies and students' drive, motivation and self-beliefs lies between the lower- and upper-limit estimates.

2. Marks are used normatively when students are evaluated in the context of their peers' achievement. This means that, when marks are used normatively, students tend to be graded based on the distribution of performance within the school, so that, had they attended a poorer-performing school and maintained their performance levels, they would have obtained substantially better marks (Brookhart, 2009).

3. Models estimating changes in the probability that students reported having arrived late for school at least once in the two weeks prior to the PISA test and in the probability that they reported having skipped classes or days of school in the same period were estimated using Linear Probability Models (see Angrist and Pischke, 2008).

4. The assumption underlying the results presented in the tables is that the association between students' confidence and frequency of exposure is linear. In practice, the linearity assumption means that the difference in the probability that students will report feeling confident or very confident about solving a specific mathematics task is likely to be the same between, for example, having rarely seen vs. having sometimes seen a mathematics problem and having seen a problem frequently vs. sometimes. This assumption appears reasonable given the distributions illustrated in Tables III.5.13a to III.5.13h and the robustness checks, fitted using a quadratic specification that identified decreasing marginal returns to experience in a small subset of countries. In virtually all cases where the marginal returns to experience were observed to be decreasing, they remained positive up until the end of the measured scale (frequently). The linearity assumption therefore means that, in a small subset of countries and for some indicators, the marginal contribution of experience to confidence levels is higher than the estimates presented in Tables III.5.13a to III.5.13h, between having never seen and having rarely seen a problem set, and smaller than the estimates presented in Tables III.5.13a and III.5.13h between having sometimes seen to having frequently seen a problem set.

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6

The Role of Families in Shaping Students' Engagement, Drive and Self-Beliefs

This chapter explores the different ways in which home environment can contribute to students' engagement with and at school, their levels of drive and motivation and their beliefs about themselves as mathematics learners. It examines parents' influence as active participants in their child's education, both at home and at school, as role models, and as their child's best champions in the expectations they hold for their child's future. The association between the home environment and mathematics performance is also discussed.

By the time children enter school they differ greatly in the depth of their mathematical knowledge (Dowker, 2008; Starkey, Klein and Wakeley, 2004; Klibanoff et al., 2006), so much so that by the age of four, there is a one- to two-year gap between more and less mathematically advanced children (Sarnecka and Lee, 2009). Early differences in mathematical skills have long-lasting implications for the further acquisition of these skills when children enter school and later on as they progress through formal education (Case and Griffin, 1990; Denton and West, 2002; Entwisle and Alexander 1990). These differences not only shape the ease with which students acquire new knowledge, but they also influence students' engagement with and at school, their motivation and drive, and how they perceive themselves as learners.

The fact that young children have such different levels of mathematics skills indicates that, in addition to differences in innate abilities, parents and environmental factors play a role in shaping children's mathematical knowledge and dispositions (Gunderson and Levine, 2011; Levine et al., 2010). An understanding of the types of parent-child interactions that are most helpful for children when they are starting to acquire mathematical skills can help to narrow the achievement gap and disparities in students' engagement with and at school, their motivation and drive, and their beliefs as mathematics learners later on.

What the data tell us

- In most countries and economies, students whose parents eat the main meal around the table with them at least once or twice a week are less likely than students of similar socio-economic status, but whose parents eat with them less often, to arrive late for school or skip classes or days of school, and to have a strong sense of belonging at school.
- Students whose parents work in occupations related to science, technology, engineering or mathematics tend to perform better in mathematics than other students of similar socio-economic status, but whose parents work in other fields.
- Students whose parents have high expectations for them – who expect them to earn a university degree and work in a professional or managerial capacity later on – tend to have more perseverance, greater intrinsic motivation to learn mathematics, and more confidence in their own ability to learn and use mathematics than students of similar socio-economic status and performance in mathematics, but whose parents hold less ambitious expectations for them.

Differences in mathematics performance observed in PISA reflect not only the cumulative effects of schooling, but also students' experiences at home. For example, more educated parents are able to provide a richer set of learning opportunities, including access to written materials for reading, travel, and other resources that engage their child's curiosity. Research has shown that parents holding high expectations for their child's academic performance and showing interest in their child's school work is linked to their child's success at school, as are parents' participation in school conferences and involvement in homework (Alexander, Entwisle and Olson, 2007; Hoover-Dempsey and Sandler, 1997; Ma, 1999; Sui-Chu and Willms, 1996; Wang, Haertel and Walberg, 1993).

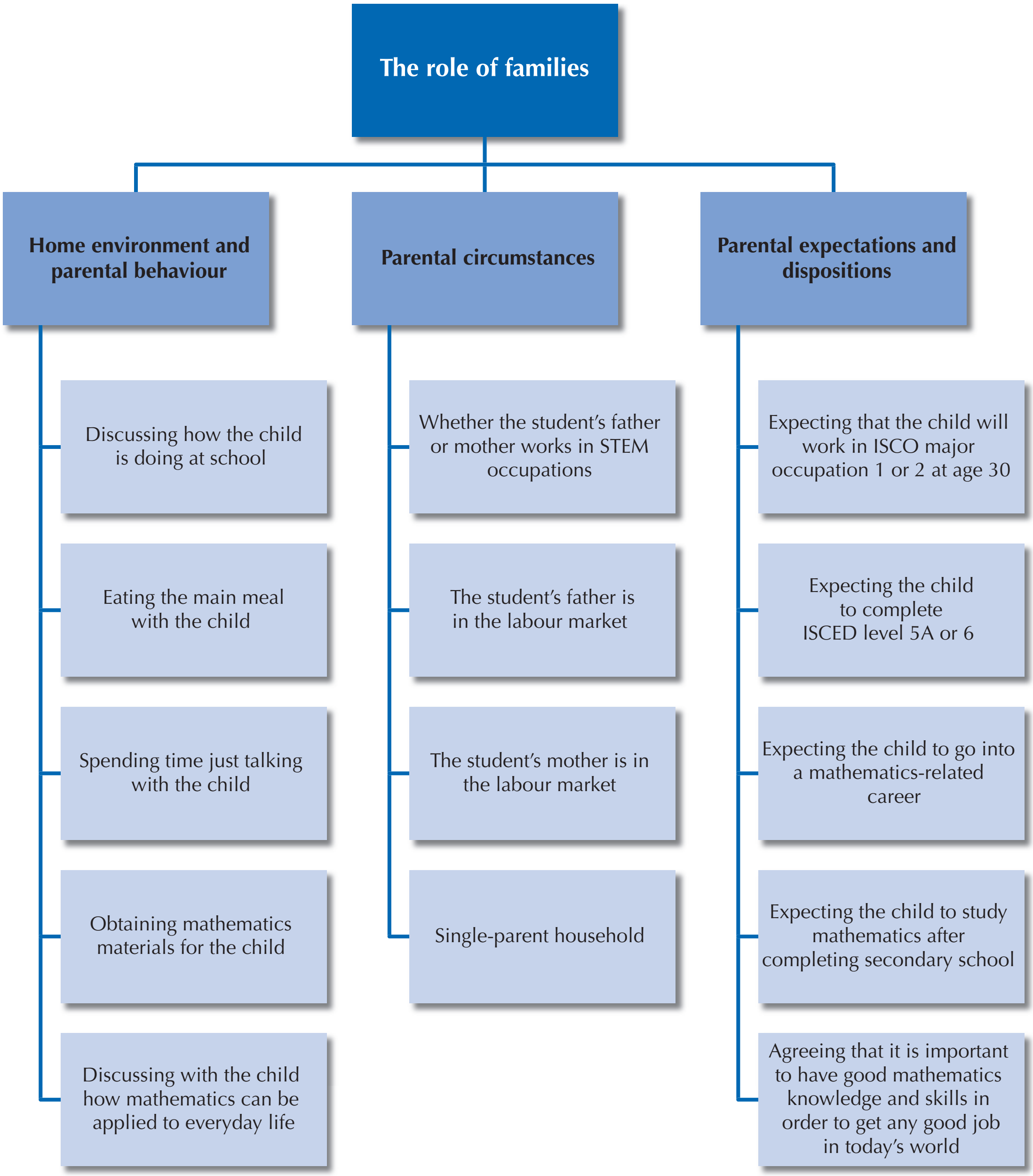
Although a range of policies have been put in place to promote parental reading habits and parental engagement with early language development (see Borgonovi and Montt, 2012; OECD, 2012 for a review), far less is known about which forms of parent-child interactions can be most helpful for children when they are starting to learn mathematics. Some recent research has investigated the effect of parental involvement on young children's acquisition of knowledge about cardinal numbers, one of the fundamental concepts of mathematics (Levine et al., 2010; Gunderson and Levine, 2011). Findings, for example, indicate that talking about numbers by counting or labelling sets of present, visible objects, particularly large sets, is associated to the acquisition of cardinal-number knowledge.

When estimating school effects and disparities in access to educational inputs and resources PISA uses information gathered from students about their family and household background to take into account how background influences learning (see, for example, analyses presented in Chapter 5 of this volume and Volumes II and IV of this series). The aim of this chapter is to examine in detail why and how family background matters. This chapter explores the different ways in which home environment can contribute to students' engagement with and at school, their levels of drive and motivation and their beliefs about themselves as mathematics learners. It focuses on three main channels. First, students are influenced by what parents do, both at home and in school-related activities. Second, students see their parents as role models, so parents' participation in the labour market, especially their involvement in occupations that rely on mathematical knowledge and understanding, may correlate significantly with students' engagement with school, their drive and motivation, and their mathematics self-beliefs. Finally, parents can influence students' levels of engagement, drive and self-beliefs through their expectations for their children's future and their own attitudes towards schooling, learning and mathematics. Parents' responses and the responses students gave about their household when answering the background questionnaire can be used to examine the role parents can play in promoting their child's learning.

For a subset of countries – Germany, Hungary, Chile, the Flemish Community of Belgium, Portugal, Mexico, Korea, Italy, Hong Kong-China, Croatia and Macao-China – the chapter also builds upon information from a questionnaire that students took home and gave to their parents to complete. The use of the parental questionnaire allows for more in-depth analyses of parental attitudes and perceptions, and of parents' involvement in activities at their child's school. Collectively, these instruments allow for a triangulation of parental support and academic expectations from a variety of perspectives.

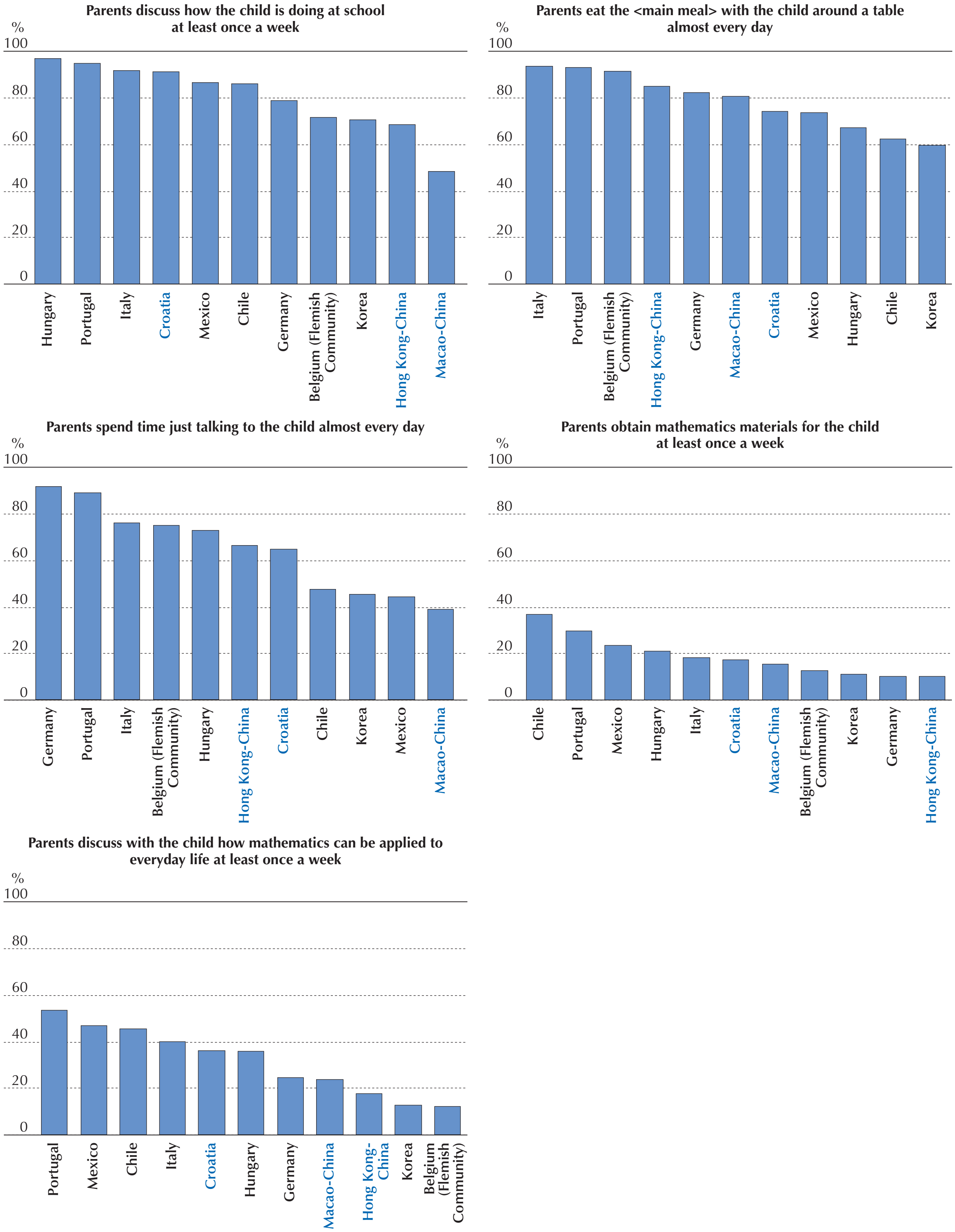
▪ Figure III.6.1 ▪

The role of families in education


The role of families
Home environment and parental behaviour
Parental circumstances
Parental expectations and dispositions
Discussing how the child is doing at school
Eating the main meal with the child
Spending time just talking with the child
Obtaining mathematics materials for the child
Discussing with the child how mathematics can be applied to everyday life
Whether the student's father or mother works in STEM occupations
The student's father is in the labour market
The student's mother is in the labour market
Single-parent household
Expecting that the child will work in ISCO major occupation 1 or 2 at age 30
Expecting the child to complete ISCED level 5A or 6
Expecting the child to go into a mathematics-related career
Expecting the child to study mathematics after completing secondary school
Agreeing that it is important to have good mathematics knowledge and skills in order to get any good job in today's world

▪ Figure III.6.2 ▪

The home environment



Countries and economies are ranked in descending order of the percentage of students whose parents reported that they engage with their child in this way.
Source: OECD, PISA 2012 Database, Table III.6.1a.
StatLink http://dx.doi.org/10.1787/888932963863

THE HOME ENVIRONMENT AND PARENTAL BEHAVIOUR

Parents were asked to report how often they, or someone else in their home, engaged with their child in different activities. These activities ranged from discussing how the child is doing at school to eating the main meal with the child around a table, from spending time just talking to their child to obtaining mathematics materials for the child and discussing with the child how mathematics can be applied to everyday life. Parents' responses reflected different levels of engagement and whether the parents themselves, or someone else in their home, is involved in these activities every day or almost every day, once or twice a week, once or twice a month, or less often.

On average across the countries and economies where the parental questionnaire was distributed, 82% of parents reported discussing how the child is doing at school at least once a week; 78% of parents reported eating the main meal with their child almost every day; 65% of parents reported spending time just talking to their child at least once a week; 20% of parents reported obtaining mathematics materials for the child at least once a week; and 33% of parents reported discussing with their child how mathematics can be applied to everyday life at least once a week (Figure III.6.2 and Table III.6.1a).

The activities in which parents engage at home are generally positively associated with students' mathematics performance. For example, as Figure III.6.3 shows, in eight out of the 11 countries and economies that distributed the parental questionnaire, students whose parents reported that they regularly discuss with their children how they are doing at school perform at higher levels in mathematics than students who have parents who do not. In five countries and economies students whose parents eat the main meal with them almost every day and, in three countries and economies, students whose parents spend time talking with them score higher in mathematics than students whose parents do not engage in these activities with them. The relationship is influenced by differences in socio-economic status between those students whose parents reported regularly engaging and other students. The difference in mathematics performance that is associated with students' having parents who regularly engage with them is smaller when comparing students with similar socio-economic status. In general, socio-economically disadvantaged students are less likely than advantaged students to have parents who reported engaging in such activities. These differences may reflect greater time constraints that disadvantaged parents face, less understanding of the importance and value for parental involvement, or the fact that disadvantaged parents may feel less equipped to engage in these activities, particularly discussing how mathematics can be applied to everyday life. Results presented in Figure III.6.3 illustrate that students whose parents obtain mathematics materials for them and who discuss with them how mathematics can be applied to everyday life tend to perform worse in mathematics than other students (Table III.6.1a). Relatively few parents of 15-year-olds engage in those activities and generally do so only reactively, when their children struggle at school.

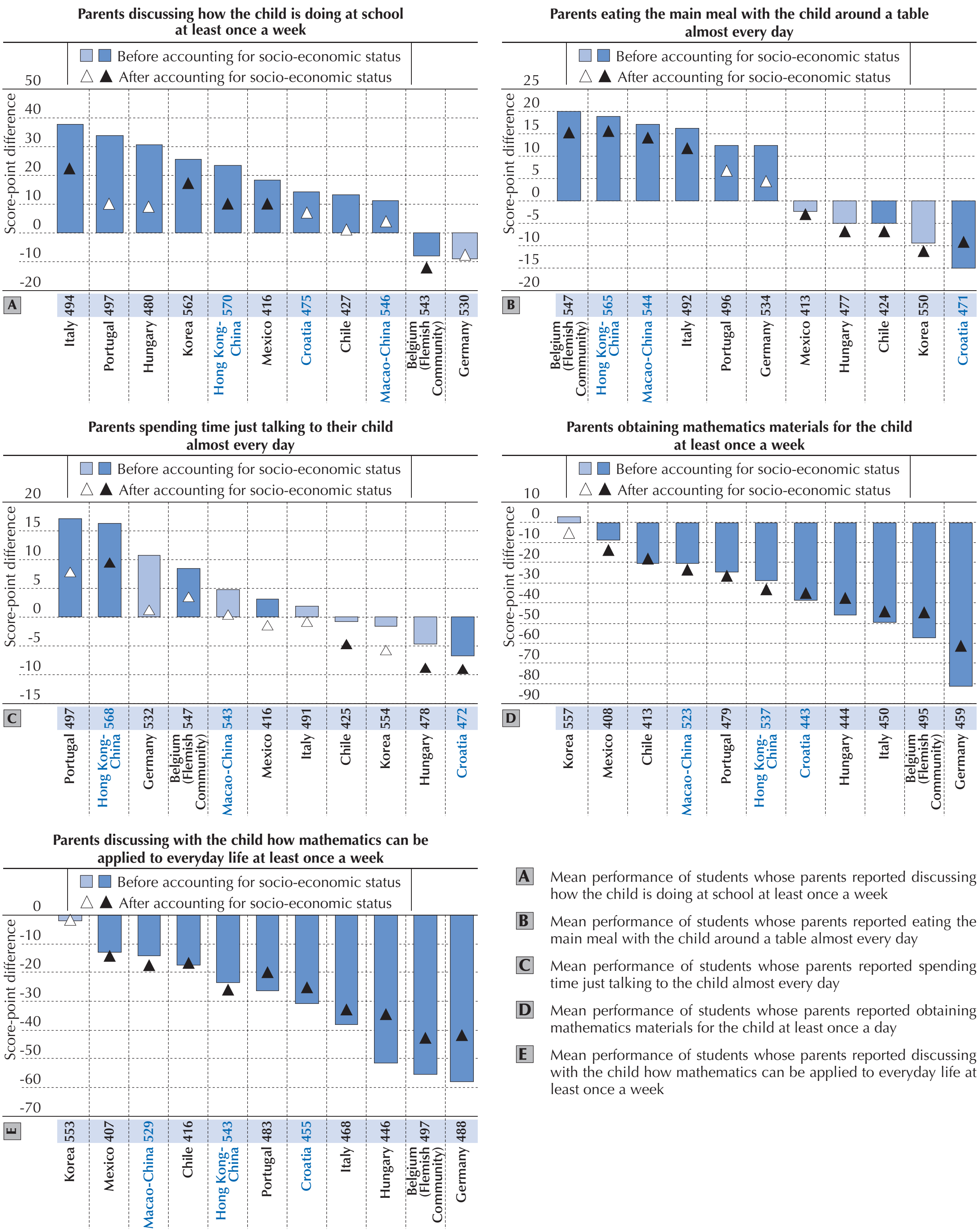
Parents' involvement in many of these activities is also associated with their children's level of engagement with and at school. For example, as Figures III.6.4 and III.6.5 show, in most countries and economies, students whose parents reported eating the main meal around the table with them at least once a week were less likely than students whose parents reported eating with them less often to report having arrived late for school or to have skipped classes or days of school, and to report having a strong sense of belonging. For example, in Portugal, students whose parents reported eating regularly with their 15-year-old child were 14 percentage points less likely to report having arrived late for school at least once in the two weeks before the PISA test than students whose parents reported eating with them less often. This difference was ten percentage points in the Flemish Community of Belgium and eight percentage points in Italy and Hong Kong-China. Similarly, in all countries and economies that distributed the parental questionnaire, except Croatia, Hungary, the Flemish Community of Belgium and Portugal, students whose parents spend time just talking with them are less likely to report arriving late for school (Table III.6.2a); and students whose parents talk to them almost every day (in nine out of the 11 participating countries and economies), who discuss how they are doing at school (in seven countries and economies), or who eat the main meal with them (in six countries and economies) reported a stronger sense of belonging than students whose parents do not engage in those activities (Table III.6.4a). Because of the nature of PISA data, it is not possible to establish the direction of causality. Therefore, while the data in Tables III.6.2a, III.6.3a and III.6.4a could mean that parental engagement in daily activities with their teenage children promotes their children's engagement with school, it could also reflect the fact that 15-year-olds who arrive for school on time, who attend school regularly, and who are socially integrated at school are easier to engage with at home too.

Students whose parents regularly discuss with them how they are doing at school also reported higher levels of perseverance than students whose parents do not do so or do so only sporadically, whatever the causal nature of this relationship (Table III.6.6a). Students' intrinsic motivation to learn mathematics is higher among students whose parents discuss with them how mathematics can be applied to everyday life or who obtain mathematics materials for them (Table III.6.8a). Because

▪ Figure III.6.3 ▪

The home environment and its relationship with mathematics performance

Change in mathematics performance that is associated with:



A Mean performance of students whose parents reported discussing how the child is doing at school at least once a week

B Mean performance of students whose parents reported eating the main meal with the child around a table almost every day

C Mean performance of students whose parents reported spending time just talking to the child almost every day

D Mean performance of students whose parents reported obtaining mathematics materials for the child at least once a day

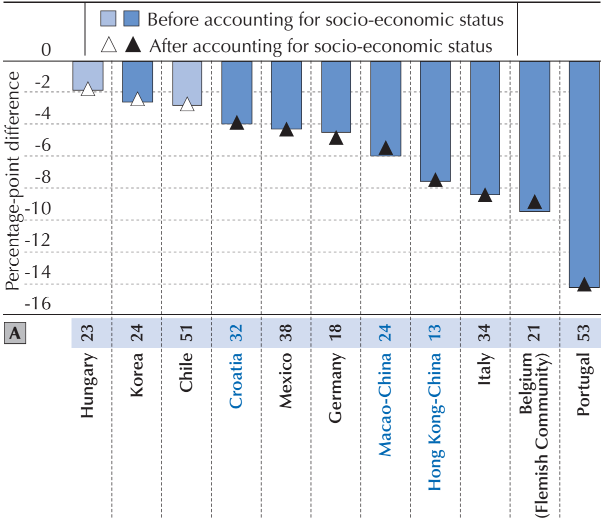
E Mean performance of students whose parents reported discussing with the child how mathematics can be applied to everyday life at least once a week

Note: Score-point differences that are statistically significant at the 5% level ($p < 0.05$) are marked in a darker tone.
Countries and economies are ranked in descending order of the score-point differences before accounting for socio-economic status.
Source: OECD, PISA 2012 Database, Table III.6.1a.
StatLink http://dx.doi.org/10.1787/888932963863

▪ Figure III.6.4 ▪

The relationship between parents regularly eating the main meal with their child and the likelihood that the child arrives late for school

Change in arriving late for school that is associated with parents eating the main meal with the child around a table almost every day



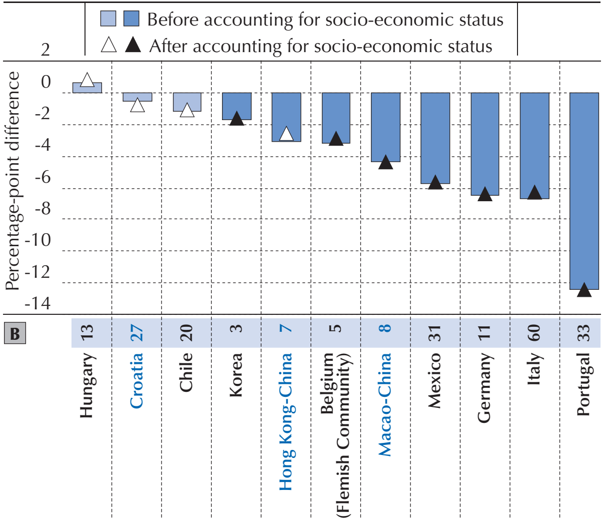
A Percentage of students who arrived late for school in the two weeks prior to the PISA test whose parents reported eating the main meal with the child around a table almost every day

Note: Percentage-point differences that are statistically significant at the 5% level (p < 0.05) are marked in a darker tone.
Countries and economies are ranked in descending order of the percentage-point difference before accounting for socio-economic status.
Source: OECD, PISA 2012 database, Table III.6.2a.
StatLink http://dx.doi.org/10.1787/888932963863

▪ Figure III.6.5 ▪

The relationship between parents regularly eating the main meal with their child and the child's propensity to skip classes or days of school

Change in skipping classes or days of school that is associated with parents eating the main meal with the child around a table almost every day



B Percentage of students who skipped classes or days of school in the two weeks prior to the PISA test whose parents reported eating the main meal with the child around a table almost every day

Note: Percentage-point differences that are statistically significant at the 5% level (p < 0.05) are marked in a darker tone.
Countries and economies are ranked in descending order of the percentage-point difference before accounting for socio-economic status.
Source: OECD, PISA 2012 Database, Table III.6.3a.
StatLink http://dx.doi.org/10.1787/888932963863

students who have low levels of mathematics self-efficacy and high levels of mathematics anxiety generally perform at much lower levels in mathematics, the association between parental behaviour, such as obtaining mathematics materials and discussing how mathematics can be applied to everyday life, are negatively associated with students' mathematics self-beliefs (Tables III.6.10a and III.6.11a).

PARENTS' CIRCUMSTANCES

A second mechanism through which parents can steer their children's engagement with and at school, their level of drive and motivation, and their mathematics self-beliefs is by being role models for their children. For example, parents who work in the so-called STEM-related occupations (science, technology, engineering and mathematics) might inspire their children to learn mathematics. Family structure and parents' status in the labour market may also influence students' academic achievement. For example, single parents often have many and conflicting demands on their time, such that they have less time to spend with their children. Students participating in PISA were asked to report on their parents' occupation and household circumstances, so analyses presented in this section refer to all countries participating in PISA 2012 rather than to the restricted set of countries that administered the parental questionnaire.

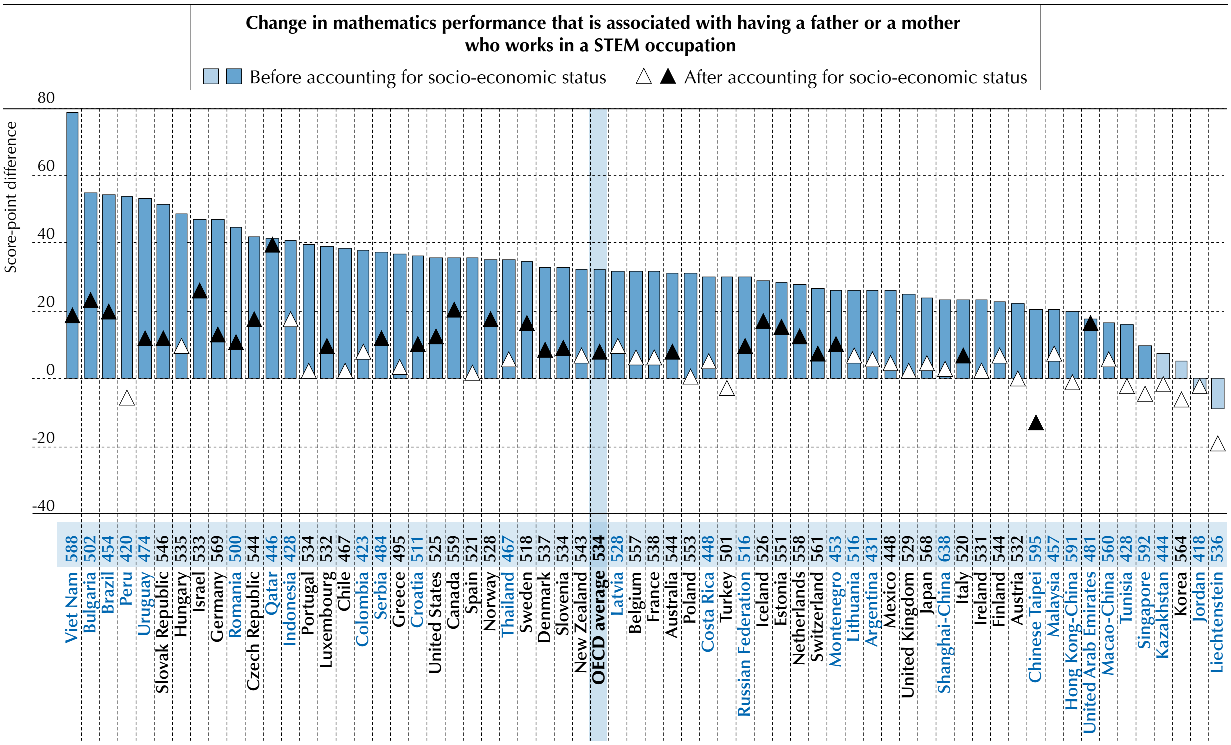
Across OECD countries around 14% of students reported that either their father or mother works in a STEM occupation.[1] This proportion is largest in Jordan and Qatar where more than one in three students are in households where at least one parent works in a STEM occupation; it is smallest in Viet Nam, where fewer than 2 in 100 students live in such households. Fathers tend to be more likely to be employed than mothers: on average across OECD countries, 89% of students reported that their fathers are currently employed while 72% of students reported that their mothers are currently employed. Around 14% of students reported that they live in single-parent households[2] (Table III.6.1b).

Students whose parents work in STEM occupations tend to perform at higher levels in mathematics than other students (Table III.6.1b). Similarly, on average across OECD countries, students whose parents are employed have higher performance in mathematics than students whose parents are currently out of the labour market; and students in single-parent households perform worse than students in other households. Most of these differences reflect more general differences in socio-economic status rather than a specific feature of households, such as where parents work in STEM occupations, are employed, or there is only one parent in the household. For example, Figure III.6.6 shows that the difference in mathematics performance that across OECD countries is associated with parents working in STEM occupations is 32 score points when not controlling for socio-economic status, but only 8 score points when socio-economic status is accounted for. This difference reflects the fact that individuals who work in STEM occupations tend to have comparatively high levels of education and work in occupations that have a higher-than-average social status. The difference in mathematics performance associated with a student's father and mother being in the labour market is 25 and 24 score points, respectively, when not controlling for socio-economic status and 6 and 8 score points, respectively, when controlling for that variable (Table III.6.1b).

Students who live in single-parent households are more likely to arrive late for school and to skip classes or days of school than students who live in households with two parental figures, whether natural parents, step or foster parents, in 53 countries and economies (Tables III.6.2b and III.6.3b). These differences are, in part, a reflection of the lower socio-economic status of students from single-parent households, but the relationships remain large and statistically significant even when socio-economic status is accounted for. For example, all other things being equal, on average across OECD countries, 41% of students living in single-parent households, but only 33% of students living in two-parent families, reported having arrived late for school at least once in the two weeks before the PISA test (Table III.6.2b). This difference remains almost unchanged, and amounts to seven percentage points, when considering students with similar socio-economic status. On average across OECD countries, 30% of students who live in single-parent households, but only 23% of students who live in two-parent families, reported having skipped classes or days of school in the two weeks

■ Figure III.6.6 ■

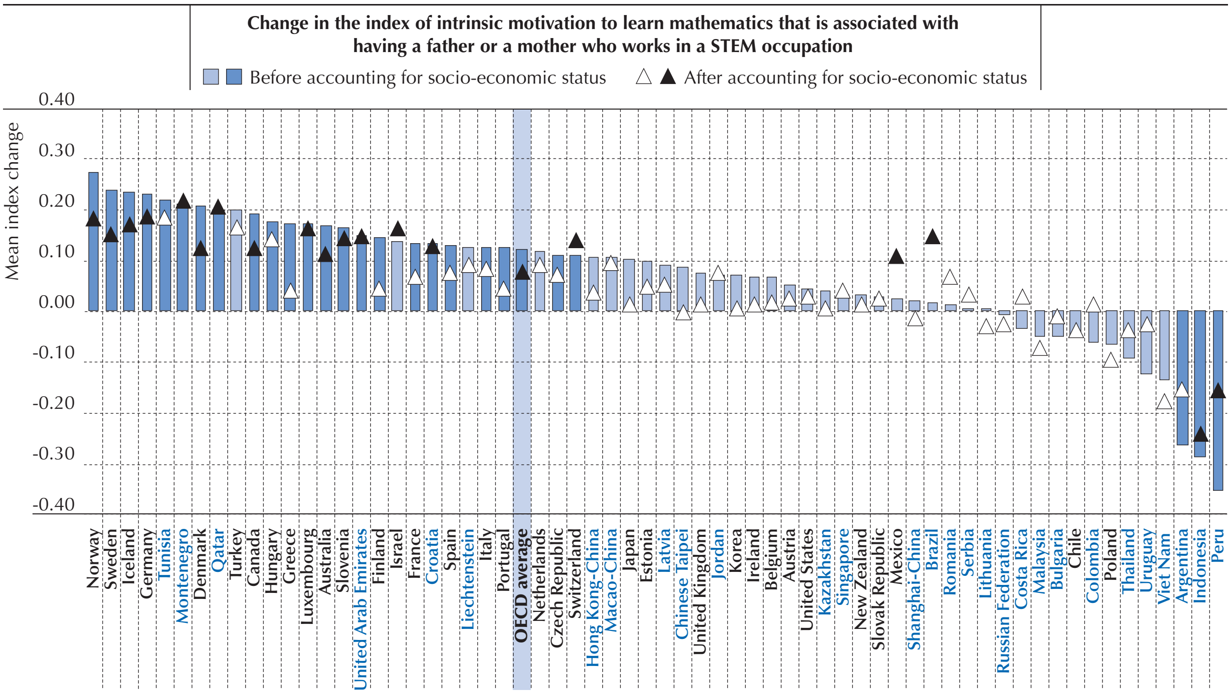
Students' mathematics performance and parents' work in STEM occupations



Notes: Score-point differences that are statistically significant at the 5% level ($p < 0.05$) are marked in a darker tone.
Mean mathematics performance of students whose father or mother works in a STEM occupation is shown above the country/economy name. STEM refers to occupations in science, technology, engineering or mathematics (see Annex A1).
Countries and economies are ranked in descending order of the score-point difference before accounting for socio-economic status.
Source: OECD, PISA 2012 Database, Table III.6.1b.
StatLink http://dx.doi.org/10.1787/888932963863

▪ Figure III.6.7 ▪

Parents working in STEM occupations and students' intrinsic motivation to learn mathematics



Note: Mean index changes that are statistically significant at the 5% level ($p < 0.05$) are marked in a darker tone.
Countries and economies are ranked in descending order of the mean index change before accounting for socio-economic status.
Source: OECD, PISA 2012 Database, Table III.6.8b.
StatLink http://dx.doi.org/10.1787/888932963863

before they sat the PISA test. This difference remains the same after accounting for socio-economic status (Table III.6.3b). Students who live in single-parent households also reported a weaker sense of belonging and less positive attitudes towards school (Tables III.6.4b and III.6.5b). While students' engagement with and at school is lower among students who live in single-parent households, in many countries and economies there is no association, or a very weak negative association, with perseverance, intrinsic and instrumental motivation to learn mathematics, mathematics self-efficacy, mathematics anxiety, and openness to problem solving (Tables III.6.6b, III.6.7b, III.6.8b, III.6.9b, III.6.10b and III.6.11b).

In some countries, students whose father or mother is involved in STEM occupations are less likely to hold negative beliefs about themselves as mathematics learners; however, in some of these countries and economies, this association reflects the higher socio-economic status of students whose parents work in such fields (Tables III.6.8b, III.6.9b and III.6.11b). A student whose father is currently employed is, on average across OECD countries, three percentage points less likely than a student with similar socio-economic status, but whose father is currently not working, to report having arrived late or having skipped a class or a day of school at least once in the two weeks prior to the PISA test (Tables III.6.2b and III.6.3b). Parents' employment status is also associated with students reporting a stronger sense of belonging (Table III.6.4b) while it is not associated with students' self-beliefs (Tables III.6.10b and III.6.11b).

PARENTAL EXPECTATIONS AND DISPOSITIONS

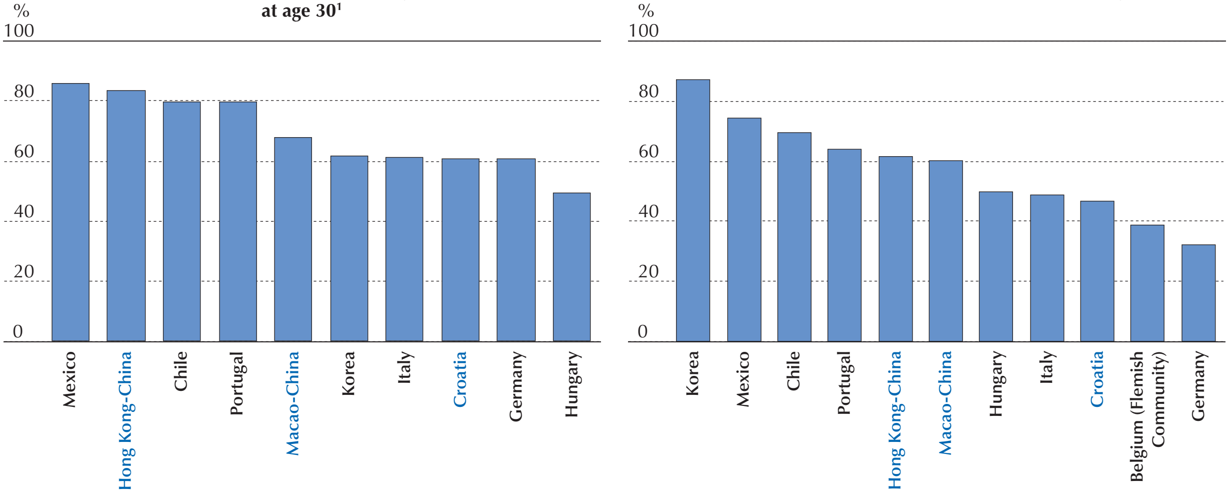
Figure III.6.8 shows that, across the countries and economies that collected parental data in PISA, around 58% of parents expect that their child will complete a university degree;[3] 69% expect their child to work in managerial or professional occupations by the age of 30; 46% expect their child to enter a mathematics-related career; 40% expect their child to study mathematics after completing secondary school; and 88% agree or strongly agree that it is important to have good mathematics knowledge and skills in order to get any good job in today's world (Table III.6.3b).

■ Figure III.6.8 ■

Parental expectations for their child's future

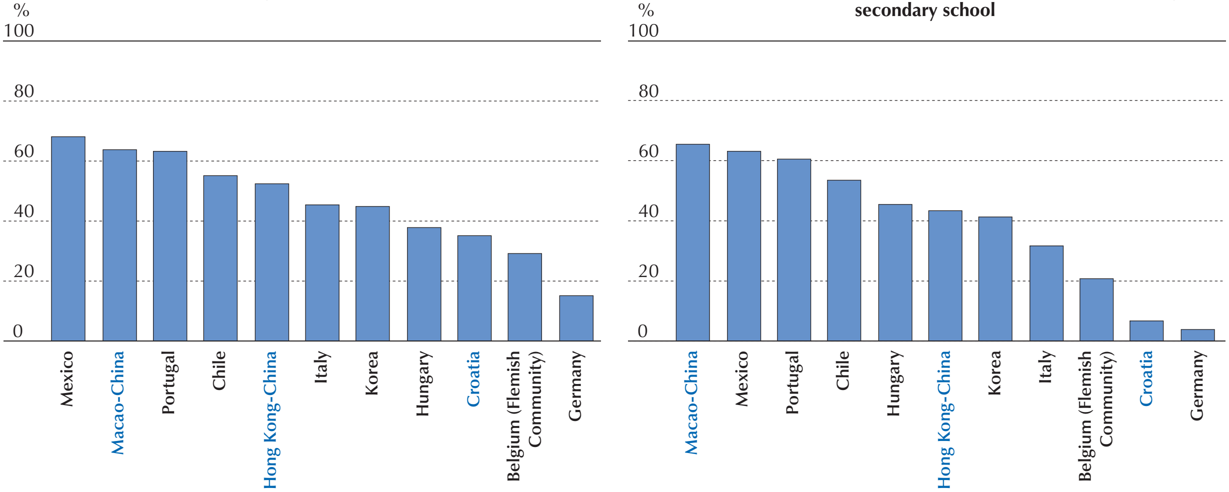
Parents expect the child to work as a manager or professional at age 30[1]

Parents expect the child to complete a university degree[2]

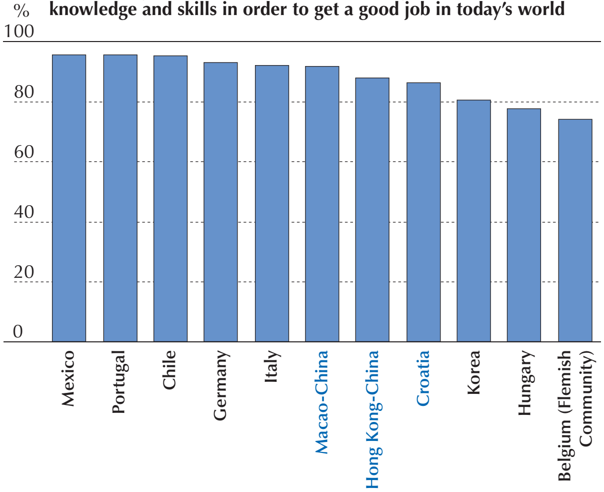


Parents expect the child to go into a mathematics-related career

Parents expect the child to study mathematics after completing secondary school



Parents agree that it is important to have good mathematics knowledge and skills in order to get a good job in today's world



1. Managerial and professional occupations refer to ISCO-08 codes 1 and 2.
2. A university degree refers to ISCED levels 5A and 6.

Countries and economies are ranked in descending order of the percentage of students whose parents reported having these expectations for their child.

Source: OECD, PISA 2012 Database, Table III.6.1c.

StatLink `http://dx.doi.org/10.1787/888932963863`

Figure III.6.9 shows that parental expectations are strongly and positively associated with students' mathematics performance across all the countries and economies that distributed the parental questionnaire. This association might reflect both the fact that parents whose children perform at high levels in mathematics tend to hold more ambitious expectations of them and that parental expectations and, presumably, their encouragement and support, have a positive impact on students' mathematics achievement. Results showing the association between parental expectations and mathematics performance reveal that the difference in performance associated with ambitious parental expectations or expectations that students will continue to study mathematics or enter a mathematics-related career is less pronounced, although it is still significant and larger than the equivalent of a year of school when comparing students of similar socio-economic status. This is because the parents of advantaged students are more likely than the parents of disadvantaged students to have ambitious expectations for their children, even if both groups of students perform equally well.

Students whose parents hold ambitious expectations for them are more likely to have positive perceptions of themselves as mathematics learners, to have high levels of drive and motivation, and are more likely to be engaged with school (see Table set *c* of this chapter from III.6.2c to III.6.12c). For example, on average across countries and economies that distributed the parental questionnaire, students of equal socio-economic status whose parents expect that they will work in professional or managerial occupations by the time they are 30, are five percentage points less likely to report having arrived late for school in the two weeks before the PISA test (Table III.6.2c) and six percentage points less likely to have skipped classes or days of school (Table III.6.3c) during that period. They are also more likely to report greater perseverance (Table III.6.6c), higher levels of both intrinsic and instrumental motivation to learn mathematics (Table III.6.8c), higher levels of mathematics self-efficacy (Table III.6.10c), lower levels of mathematics anxiety (Table III.6.11c) and greater participation in mathematics activities (Table III.6.12c). Similarly, the children of parents who agree or strongly agree that it is important to have good mathematics knowledge and skills in order to get any good job in today's world reported higher levels of engagement with and at school, greater drive and motivation, and more positive self-beliefs (see Table set *c*).

Table III.6.1c clearly indicates that parental expectations reflect to a large extent students' level of proficiency. Since academic achievement is associated with students' engagement with and at school, their drive and motivation, and the belief they hold of themselves as mathematics learners, results on the association between students' engagement, drive, motivation and self-beliefs and parental expectations should reflect differences in parents' expectations when they have higher-achieving students. Tables III.6.13a, III.6.13b, III.6.13c and III.6.13d present estimated relationships between four key indicators of students' engagement with school, their drive, motivation and self-beliefs, and both parents' expectations that their child will enter managerial or professional occupations and their expectations that their child will earn a university degree, after controlling for students' performance in mathematics and reading. These estimates thus represent the extent to which parents' expectations are associated with students' arriving late for school, their levels of perseverance, intrinsic motivation to learn mathematics and their level of mathematics self-efficacy, among students of equal socio-economic status and equal performance in reading and mathematics.

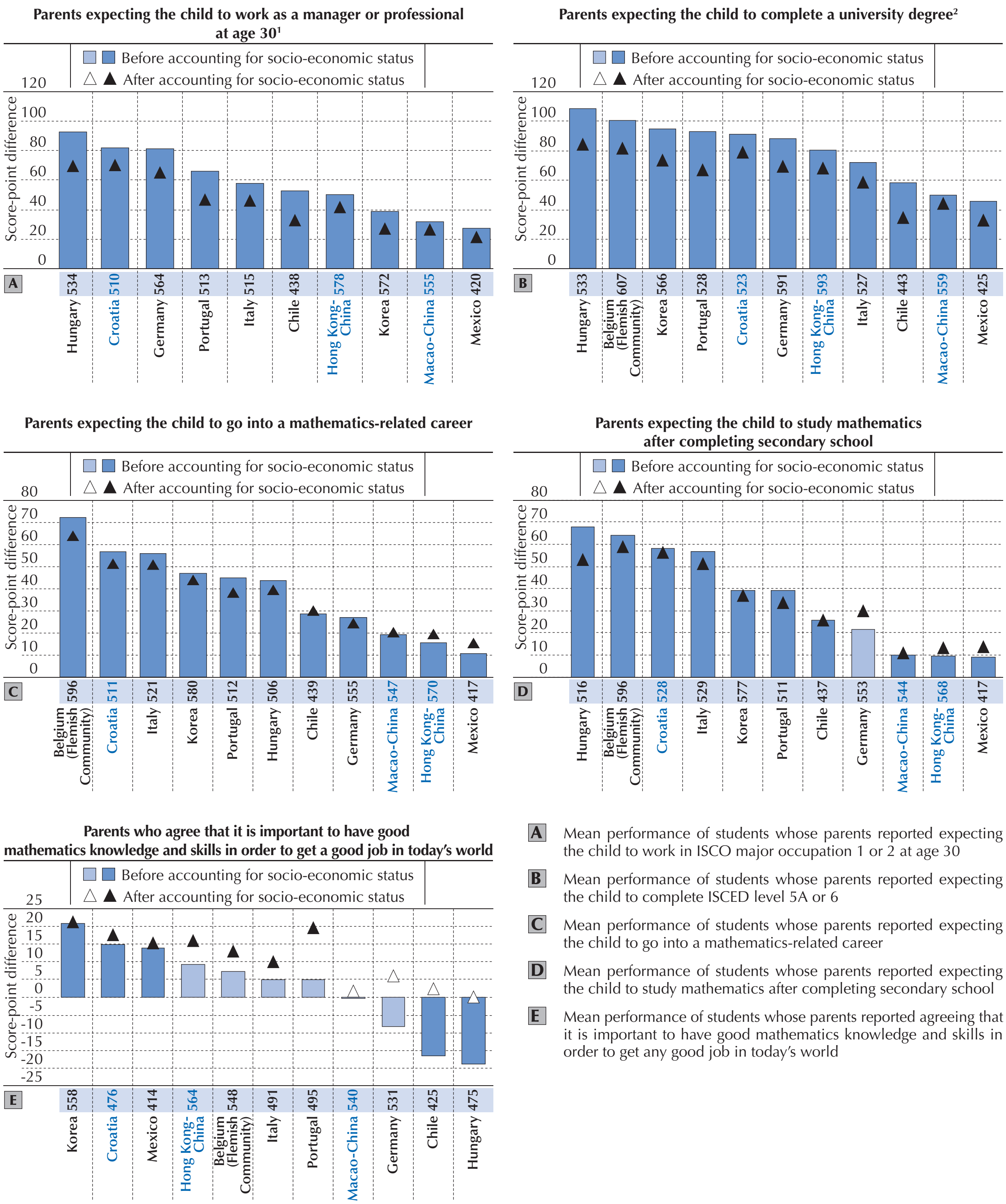
Results presented in Figure III.6.11 and Tables III.6.13a, III.6.13b, III.6.13c and III.6.13d suggest that, even among students with equal performance in mathematics and reading, those whose parents expect them to enter university generally reported higher levels of perseverance and mathematics self-efficacy than those whose parents do not expect the same of them. In Hong Kong-China, Croatia, Hungary, Portugal, Mexico and Korea they are also less likely to report having arrived late for school in the two weeks before they took the PISA test (Table III.6.13a). In Chile, the Flemish Community of Belgium, Mexico, Korea and Italy, they have higher intrinsic motivation to learn mathematics. Meanwhile, those students whose parents expect that they will be working in professional and managerial occupations tended to report similar levels of perseverance, motivation and mathematics self-efficacy as students with similar performance in reading and mathematics whose parents do not hold the same expectation.

Table III.6.14 shows that in most countries and economies that distributed the parental questionnaire, participation was high, and the parents of virtually all students who participated in PISA responded to the questionnaire. Response rates were as high as 90% or more in Chile, Croatia, Hong Kong-China, Hungary, Italy, Korea, Macao-China and Mexico. The response rate in Portugal was 83%, while it was comparatively low in Germany (57%) and the Flemish Community of Belgium (48%). Response rates for individual items vary as some parents responded to several questions but not to others. However, the extent of non-response to items in the parental questionnaire is similar to that of non-response to items in the student background questionnaire. Table III.6.14 illustrates how, in the Flemish Community of Belgium and in Germany, where response rates are low, and in Portugal, students whose parents responded to the parental questionnaire tend to score higher in PISA and have a more socio-economically advantaged status.

▪ Figure III.6.9 ▪

Difference in mathematics performance associated with parents' expectations for their child's future

Change in mathematics performance that is associated with:



A	Mean performance of students whose parents reported expecting the child to work in ISCO major occupation 1 or 2 at age 30
B	Mean performance of students whose parents reported expecting the child to complete ISCED level 5A or 6
C	Mean performance of students whose parents reported expecting the child to go into a mathematics-related career
D	Mean performance of students whose parents reported expecting the child to study mathematics after completing secondary school
E	Mean performance of students whose parents reported agreeing that it is important to have good mathematics knowledge and skills in order to get any good job in today's world

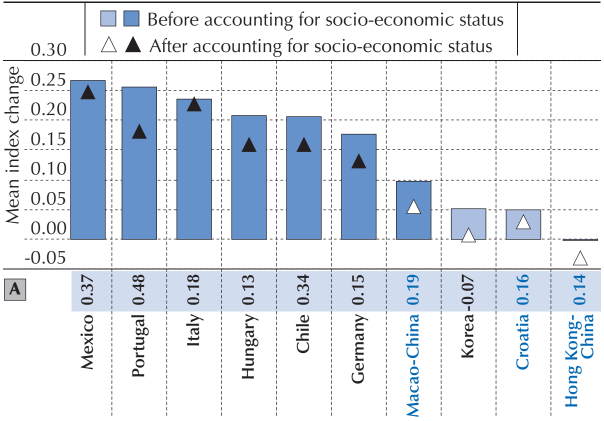
Note: Score-point differences that are statistically significant at the 5% level ($p < 0.05$) are marked in a darker tone.
1. Managerial and professional occupations refer to ISCO-08 codes 1 and 2.
2. A university degree refers to ISCED levels 5A and 6.
Countries and economies are ranked in descending order of the score-point difference before accounting for socio-economic status.
Source: OECD, PISA 2012 Database, Table III.6.1c.
StatLink http://dx.doi.org/10.1787/888932963863

▪ Figure III.6.10 ▪

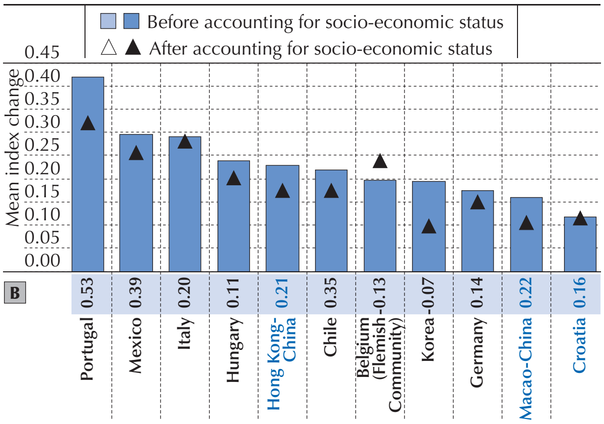
Difference in student perseverance that is associated with parents' expectations for their child's future

Change in the index of perseverance that is associated with:

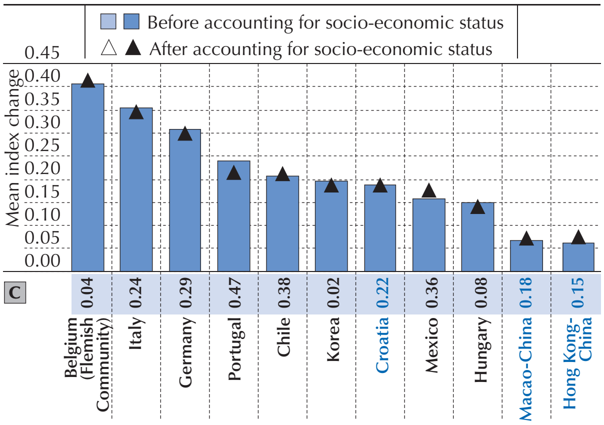
Parents expecting the child to work as a manager or professional at age 30[1]



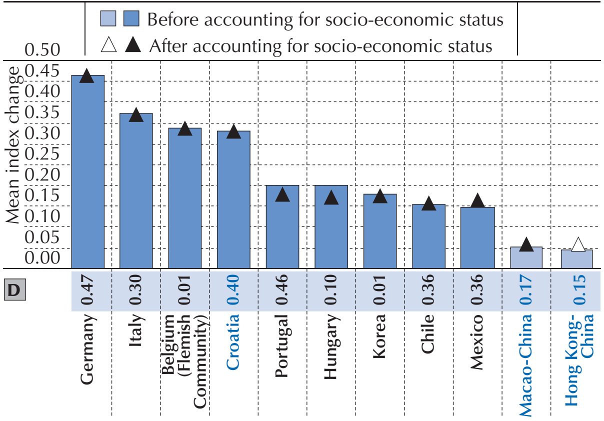
Parents expecting the child to complete a university degree[2]



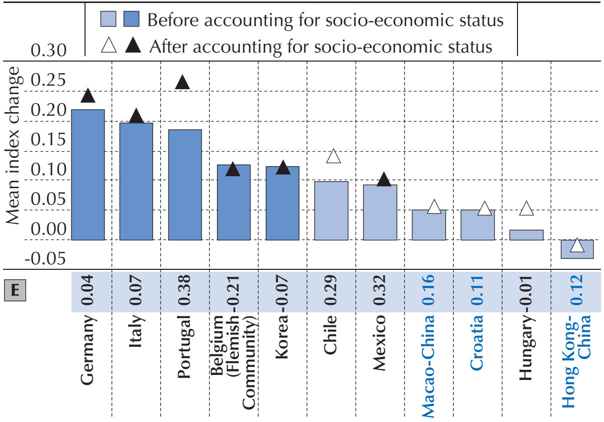
Parents expecting the child to go into a mathematics-related career



Parents expecting the child to study mathematics after completing secondary school



Parents who agree that it is important to have good mathematics knowledge and skills in order to get a good job in today's world



A	Index of perseverance of students whose parents reported expecting the child to work in ISCO major occupation 1 or 2 at age 30
B	Index of perseverance of students whose parents reported expecting the child to complete ISCED level 5A or 6
C	Index of perseverance of students whose parents reported expecting the child to go into a mathematics-related career
D	Index of perseverance of students whose parents reported expecting the child to study mathematics after completing secondary school
E	Index of perseverance of students whose parents reported agreeing that it is important to have good mathematics knowledge and skills in order to get any good job in today's world

Note: Mean index changes that are statistically significant at the 5% level ($p < 0.05$) are marked in a darker tone.

1. Managerial and professional occupations refer to ISCO-08 codes 1 and 2.

2. A university degree refers to ISCED levels 5A and 6.

Countries and economies are ranked in descending order of the mean index change before accounting for socio-economic status.

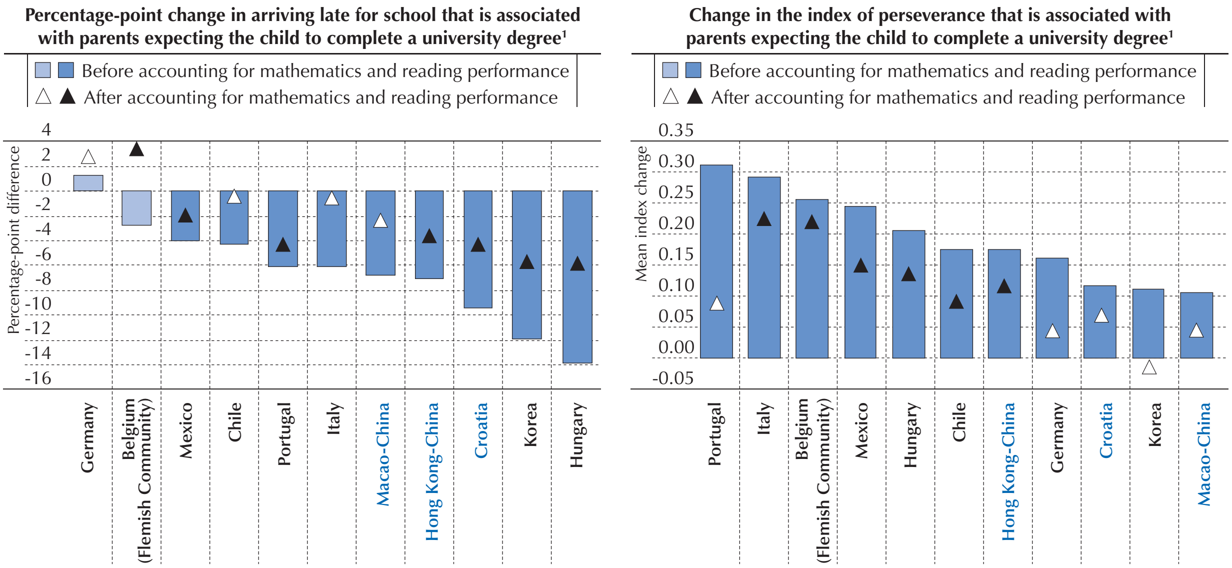
Source: OECD, PISA 2012 Database, Table III.6.6c.

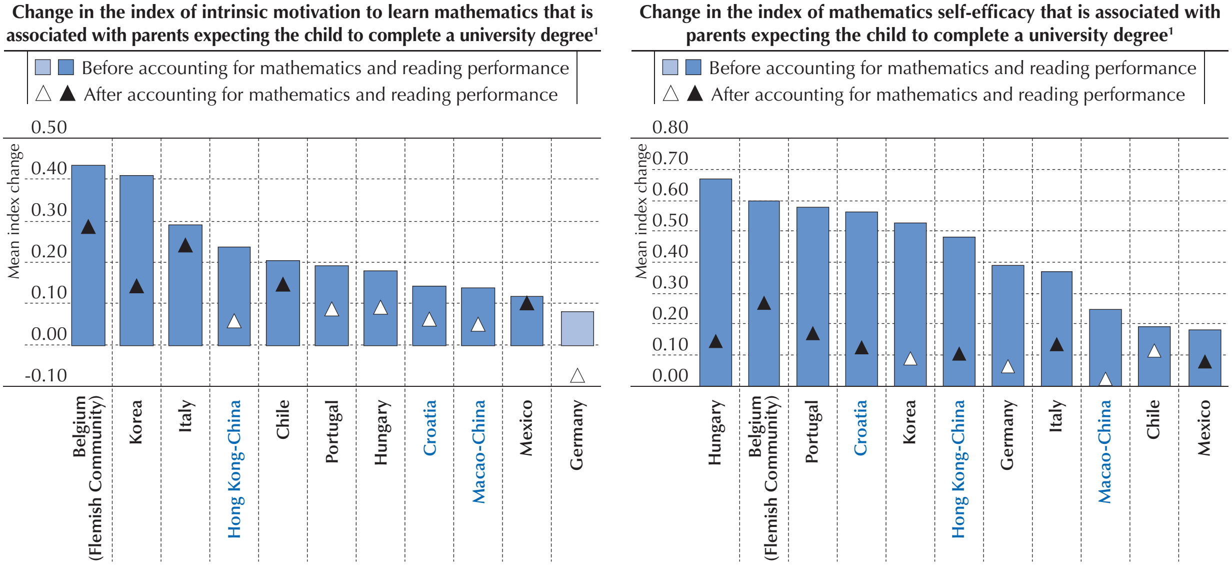
StatLink http://dx.doi.org/10.1787/888932963863

■ Figure III.6.11 ■

The association between parents' expectations and students' dispositions

Students with similar performance in mathematics and reading





Note: Percentage-point differences and mean index changes that are statistically significant at the 5% level ($p < 0.05$) are marked in a darker tone.
Countries and economies are ranked in descending order of the percentage-point difference/mean index change before accounting for mathematics and *reading performance.*
1. A university degree refers to ISCED levels 5A and 6.
Source: OECD PISA 2012 Database, Tables III.6.13a, III.6.13b, III.6.13c and III.6.13d.

StatLink http://dx.doi.org/10.1787/888932963863

Notes

1. This proportion does not necessarily reflect the prevalence of STEM occupations in different countries because of assortative mating: oftentimes individuals have a partner/spouse that works in the same field.

2. Only students who live with at least one parental figure, including step or foster parents, are considered.

3. A university degree refers to ISCED 5A and 6 in the questionnaire.

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7

Gender and Socio-Economic Disparities in Students' Engagement, Drive and Self-Beliefs

This chapter examines the link between students' dispositions towards learning mathematics and gender and socio-economic disparities in mathematics performance. It focuses particularly on these differences among students who show similar performance and among the highest-performing students.

This chapter assesses the extent to which student engagement with and at school, drive and motivation, and beliefs as mathematics learners contribute to observed differences in mathematics performance between boys and girls, and between socio-economically advantaged and disadvantaged students. If these relationships can be established and their causal nature inferred through other sources and methods (see Annex A3), such analyses can assist policy makers in determining whether and how differences in mathematics performance related to gender and to socio-economic status could be reduced.

What the data tell us

- In most countries and economies, the average girl underperforms in mathematics compared with the average boy; and among the highest-achieving students, the gender gap in favour of boys is even wider.
- The gender gap in performance mirrors the gender gap in students' drive, motivation and self-beliefs. Girls who perform as well as boys in mathematics have less perseverance, lower levels of openness to problem solving, lower levels of intrinsic and instrumental motivation to learn mathematics, and higher levels of anxiety about mathematics than boys, on average, and are more likely than boys to attribute failure in mathematics to themselves rather than to external factors.
- Boys and girls tend to benefit equally when they arrive on time for school, attend regularly, have a strong sense of belonging, are perseverant and motivated to learn, and have confidence in their abilities to learn mathematics. Consequently, the performance of both boys and girls suffers at the same rate when they lack motivation to learn and confidence in their own abilities as learners.
- Resilient students, those who are disadvantaged but achieve at high levels, and advantaged high-achievers have lower rates of absenteeism and lack of punctuality and less anxiety about mathematics than disadvantaged and advantaged low-achievers; they also have much higher levels of perseverance, intrinsic and instrumental motivation to learn mathematics, and greater confidence in their own ability to learn and use mathematics.

Figures III.7.1 and III.7.2 illustrate the relationship between gender and socio-economic gaps in mathematics performance and gender and socio-economic gaps in student dispositions.

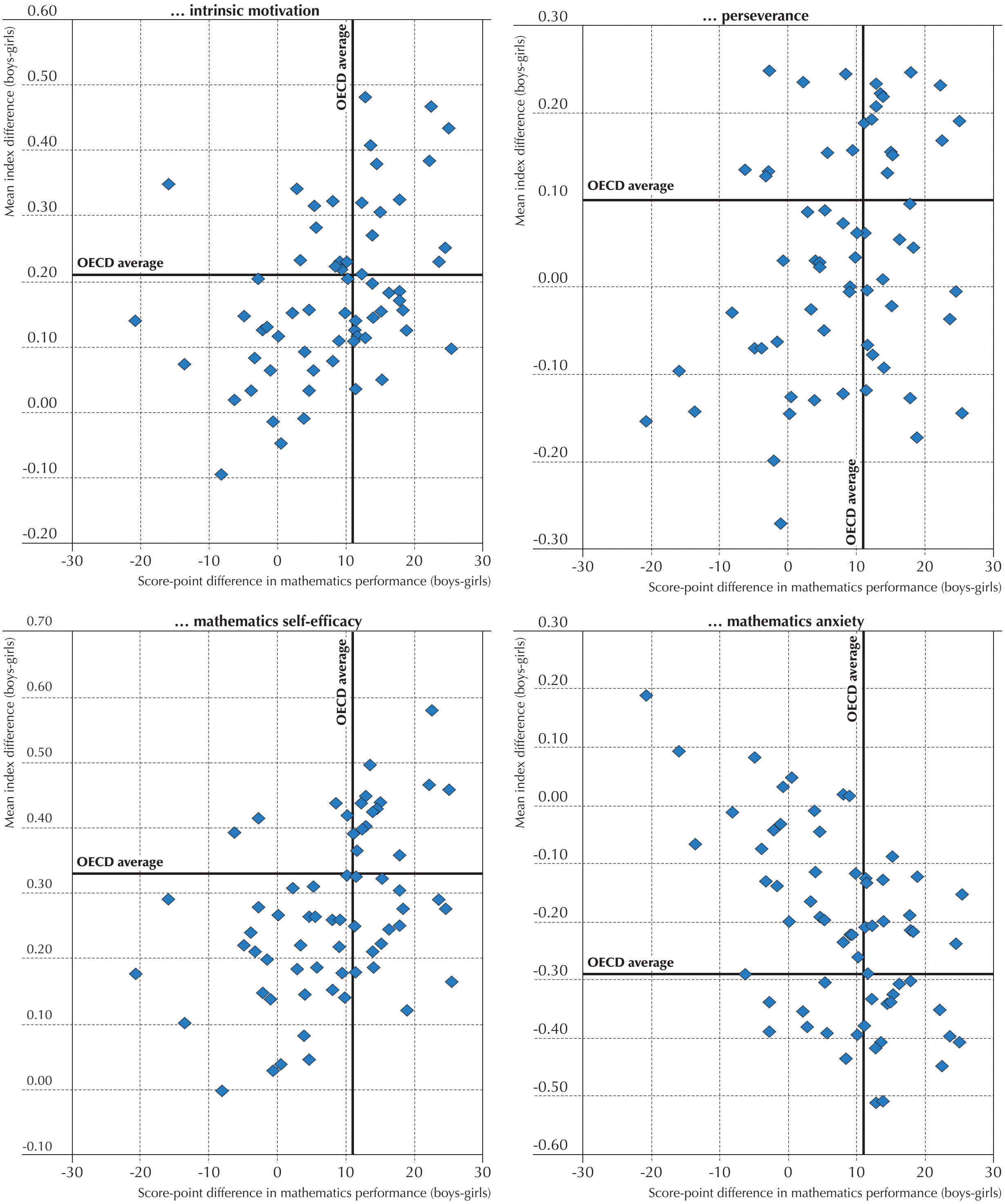
Volume I of this series, *What Students Know and Can Do*, indicates that boys outperform girls in the PISA 2012 mathematics assessment in 38 participating countries and economies by an average of 11 PISA score points across OECD countries – the equivalent of around 3 months of school (Table I.2.3a). However, gender differences are much wider in some countries and economies than in others; they also vary across different assessment areas and across different parts of the performance distribution. For example, the gender gap in mathematics is larger than 20 score points in Colombia, Luxembourg, Chile, Costa Rica, Liechtenstein and Austria, no gender gap is observed in 23 countries and economies, and in Thailand, Jordan, Iceland, Qatar and Malaysia girls outperform boys in mathematics.

Gender gaps tends to be particularly wide in the *space and shape* subscale and narrower in the *uncertainty* subscale: the gender gap is 15 score points in the *space and shape* subscale but only 9 points in the *uncertainty* subscale, on average across OECD countries. Similarly, the gender gap in favour of boys is wider with respect to students' ability to formulate concepts mathematically than with respect to students' ability to employ or interpret mathematical concepts. On average across OECD countries, the gender gap in favour of boys is 16 score points in the *formulating* subscale but only 9 points in the *employing* and *interpreting* subscales. Figures III.7.3 and III.7.4 illustrate how gender gaps in favour of boys are particularly wide at the top of the performance distribution. At the highest levels of performance, boys outperform girls; but at the bottom of the performance distribution, differences in performance related to gender are small or non-existent (Table III.7.4; and see Table I.2.2a in Annex B1 of Volume I). Differences in the performance of boys and girls in PISA closely mirror empirical estimates among adolescents that appear in other national and international achievement studies (Fryer and Levitt, 2010; Hyde and Mertz, 2009; Kane and Mertz, 2012; van Langen, Bosker and Dekkers, 2006; Pekkarinen, 2012).

▪ Figure III.7.1 ▪

Relationship between the gender gap in mathematics performance and student disposition

Relationship between the gender gap in mathematics performance and…



Source: OECD, PISA 2012 Database, Tables I.2.3a, III.3.1b, III.3.3d, III.4.1d and III.4.3d.

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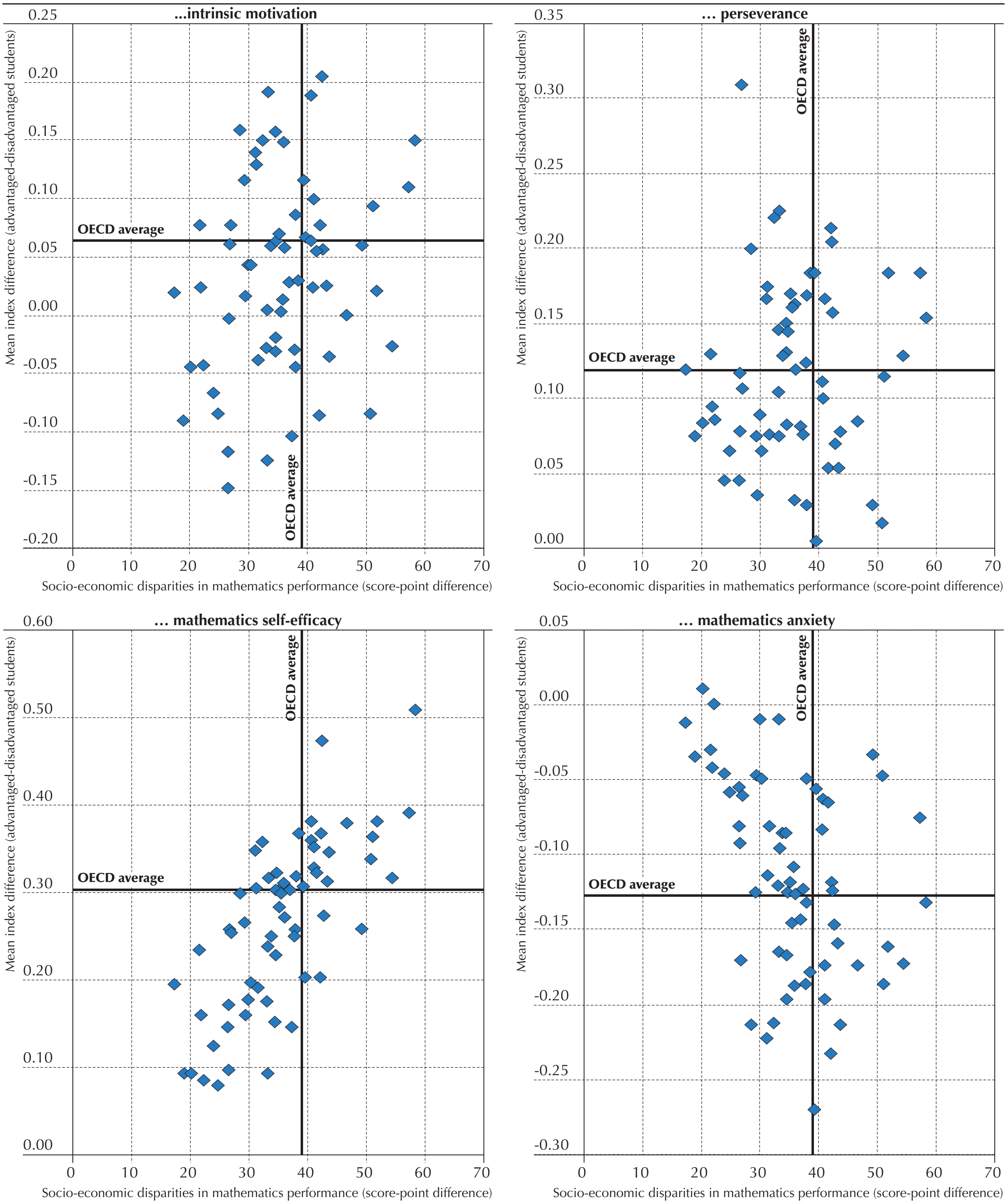
■ Figure III.7.2 ■

Relationship between socio-economic disparities in mathematics performance and student dispositions

Relationship between socio-economic disparities in mathematics performance and …



Notes: Socio-economic disparities refer to difference between advantaged and disadvantaged students. Socio-economically advantaged students are students in the top quarter of the *PISA index of economic, social and cultural status* in their country or economy of assessment. Socio-economically disadvantaged students are students in the bottom quarter of the *PISA index of economic, social and cultural status* in their country or economy of assessment.

Source: OECD, PISA 2012 Database, Tables II.2.1, III.3.1b, III.3.3d, III.4.1d and III.4.3d.

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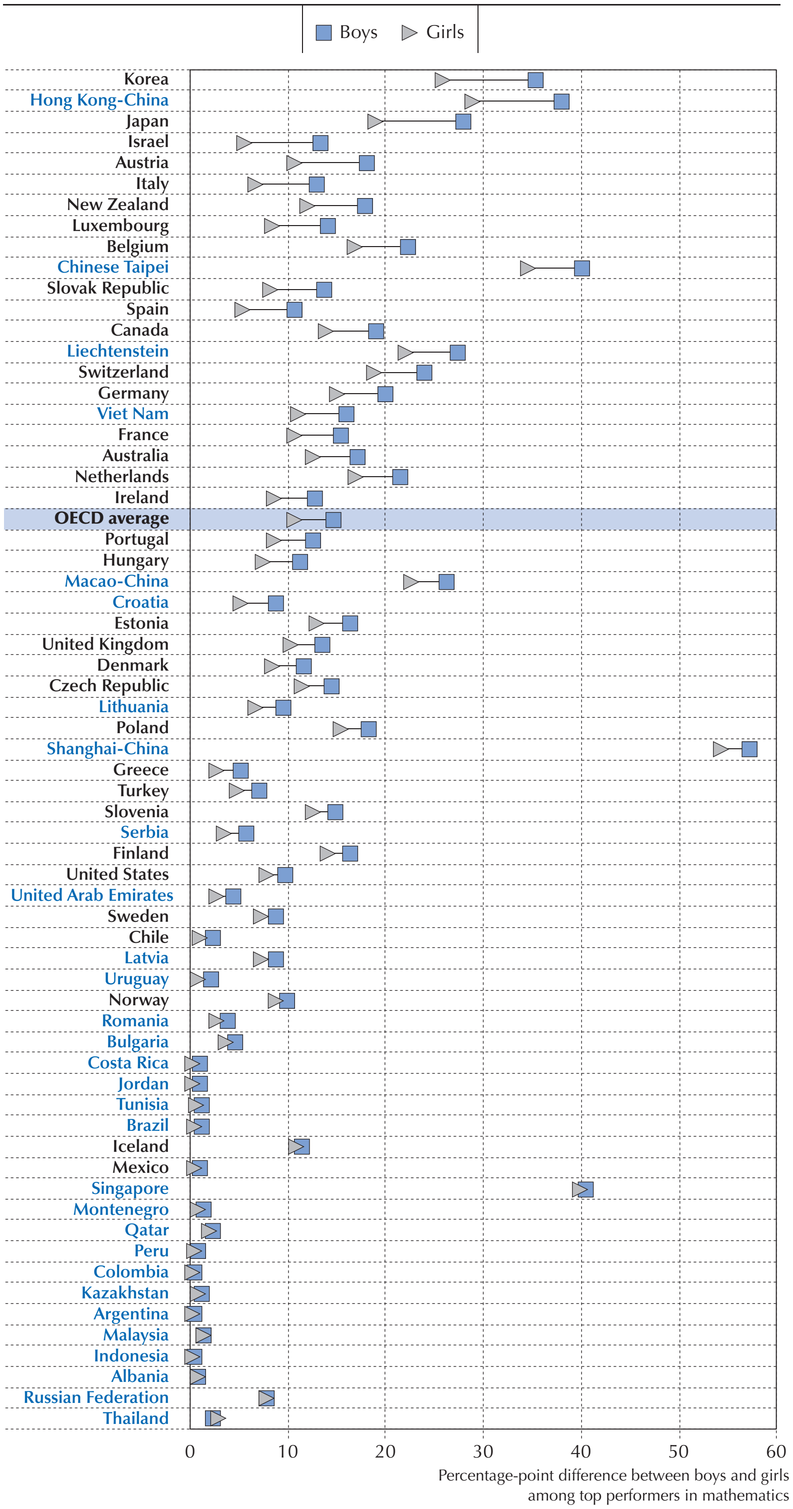
▪ Figure III.7.3 ▪

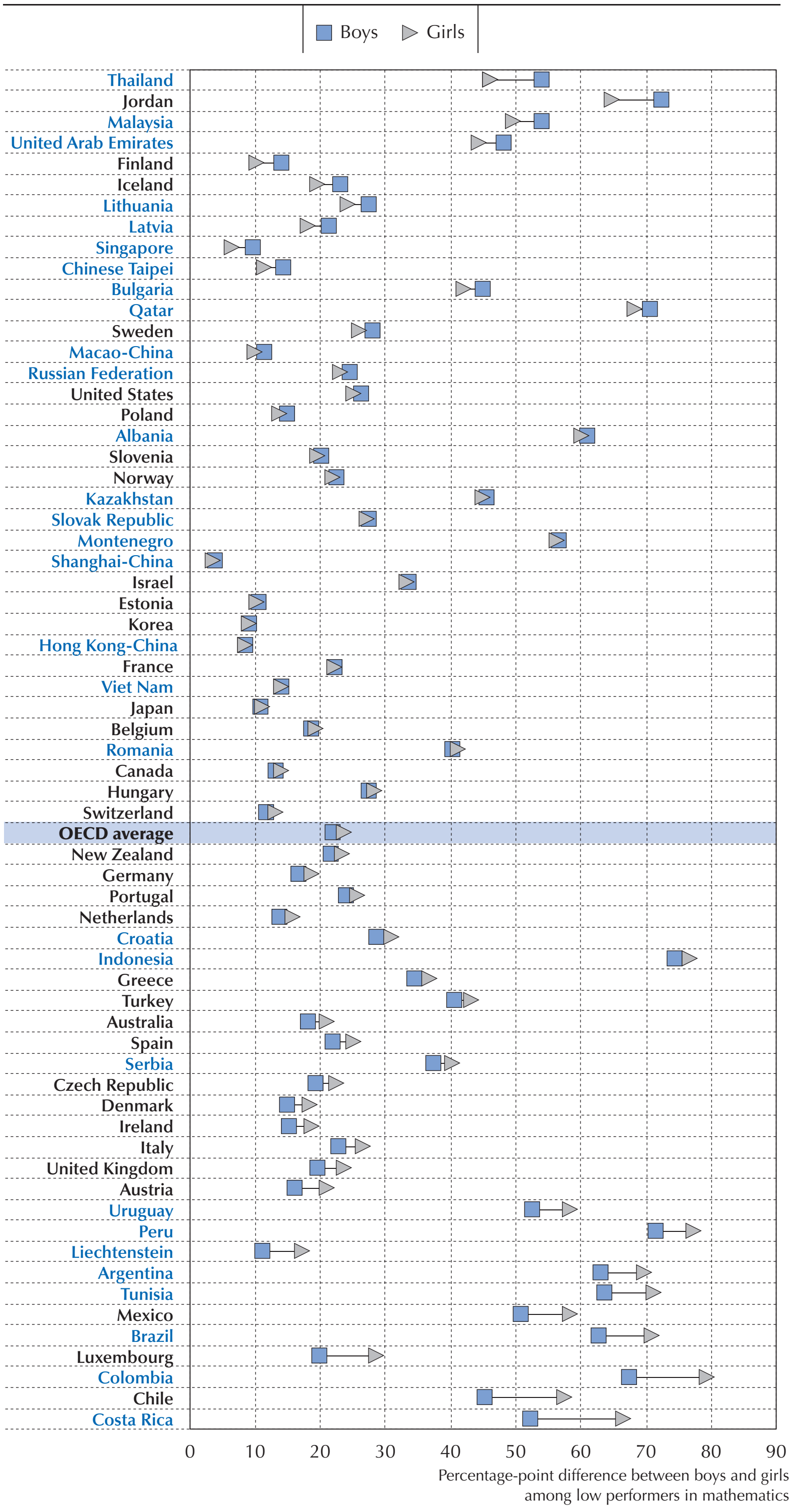
Gender gap among top performers in mathematics



Countries and economies are ranked in descending order of the percentage-point difference between boys and girls among top performers in mathematics.
Source: OECD, PISA 2012 Database, Table I.2.2a.
StatLink http://dx.doi.org/10.1787/888932963882

▪ Figure III.7.4 ▪

Gender gap among low performers in mathematics



Countries and economies are ranked in descending order of the percentage-point difference between boys and girls among low performers in mathematics.
Source: OECD, PISA 2012 Database, Table I.2.2a.
StatLink http://dx.doi.org/10.1787/888932963882

Volume II, *Excellence Through Equity*, confirms that in all countries and economies, students who come from socio-economically disadvantaged backgrounds show lower levels of mathematics performance in PISA 2012 than their better-off peers. Even countries and economies that have succeeded in reducing socio-economic disparities have only been able to reduce, but not eliminate, the influence of socio-economic status on mathematics performance (see Figure II.2.5). Socio-economic disparities in academic achievement are a widespread phenomenon that has attracted the attention of education researchers and policy makers since the 1960s (see, for example, Coleman et al., 1966; Jencks, 1972 and comprehensive reviews such as White, 1982; McLoyd, 1998; Buchmann, 2002; Sirin, 2005). Socio-economic differences are often compounded by racial and ethnic differences in achievement, as many poor children and adolescents are also from minority groups whose native languages are different from the language in which these students are taught in school (see Snow and Biancarosa, 2003; Strickland and Alvermann, 2004). While poor language skills are particularly problematic for reading proficiency, students' mathematics performance is also affected when students have difficulties understanding concepts and materials presented in class because of a language barrier (Brown, 2005; Martiniello, 2008).

Chapters 2, 3 and 4 of this volume showed large differences in levels of engagement, drive and self-beliefs related to gender and socio-economic status. The first section of this chapter illustrates how these differences are present even among students who perform at the same level. The chapter then examines the extent to which engagement, drive and self-beliefs may be reinforcing the gender gap and socio-economic disparities in average performance and in the performance of the lowest- and highest-achieving students.

DISPARITIES IN ENGAGEMENT WITH AND AT SCHOOL, DRIVE AND SELF-BELIEFS AMONG STUDENTS WHO PERFORM AT THE SAME LEVEL

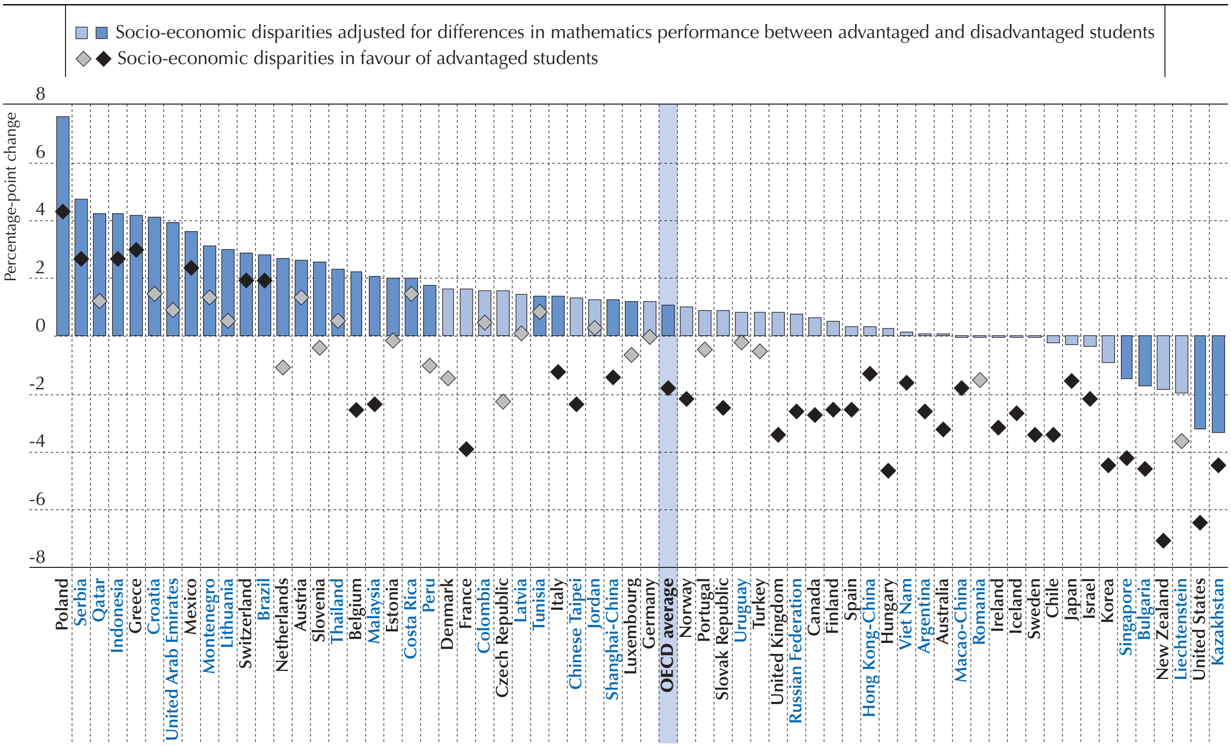
The first section of this chapter examines differences in the levels of students' engagement with and at school, and the drive, motivation and self-beliefs among students who perform at the same level on PISA. This kind of analysis can help to identify whether education systems are consistently and predictably leaving some students behind. For example, are girls more likely to feel anxious about mathematics than boys, even when they are performing at the same level in mathematics? Are socio-economically disadvantaged students less confident in their ability to solve mathematics problems than advantaged students who attain the same scores? Gender and socio-economic differences in student engagement, drive and self-beliefs might, in fact, reflect differences between boys and girls, and between advantaged and disadvantaged students, in their level of proficiency in mathematics. For example, when students perform poorly at school, they are less likely to find school enjoyable and stimulating, and are therefore more likely to arrive late or skip classes or days of school. Similarly, it is only natural for students who struggle to understand mathematics to feel nervous and tense when asked to solve mathematics problems. On the other hand, these differences may reflect the impact of other variables, like interest in or enjoyment of math (Eccles, 2007; Wang, Eccles and Kenny, 2013).

Figures III.7.5, III.7.6, III.7.7 and III.7.8 show major differences in the extent to which gender and socio-economic differences in engagement, drive and self-beliefs reflect differences in mathematics performance (see Tables III.7.1a, III.7.2a and III.7.3a and Tables III.7.1b, III.7.2b and III.7.3b for full results). The figures and tables indicate both upper- and lower-limit estimates of gender and socio-economic differences in engagement, drive and self-beliefs. The upper limit is represented by results on gender and socio-economic disparities that were calculated not controlling for differences in mathematics performance. The lower limit is represented by results calculated when comparing boys and girls and disadvantaged and advantaged students who perform the same in mathematics.

Differences between boys and girls in whether they arrive late for school or skip classes or days of school are not connected to gender differences in mathematics performance: when looking at boys and girls who perform equally well in mathematics, it is still possible to observe gender differences in whether students arrive late for school or skip classes and days of school. Figure III.7.6 shows that across OECD countries girls are, on average, three percentage points less likely than boys who perform at the same level to have reported that they arrived late for school or skipped classes or days of school during the two weeks prior to the PISA test. Girls are also more likely than boys to have positive attitudes towards school; in many countries these differences are even larger when gender-related performance differences in mathematics are taken into account (Table III.7.1a). Students with higher socio-economic status are less likely, on average, to have reported that they arrived late or skipped classes or days of school, and are more likely to hold more positive attitudes towards school. However differences in mathematics achievement between advantaged and disadvantaged students explain a large share of the difference in students' propensity to arrive late or to believe, for example, that school is a waste of time (Table III.7.1b). When comparing students of equal performance in mathematics, there are few differences in student engagement with and at school related to socio-economic status.

▪ Figure III.7.5 ▪

Socio-economic disparities in arriving late for school



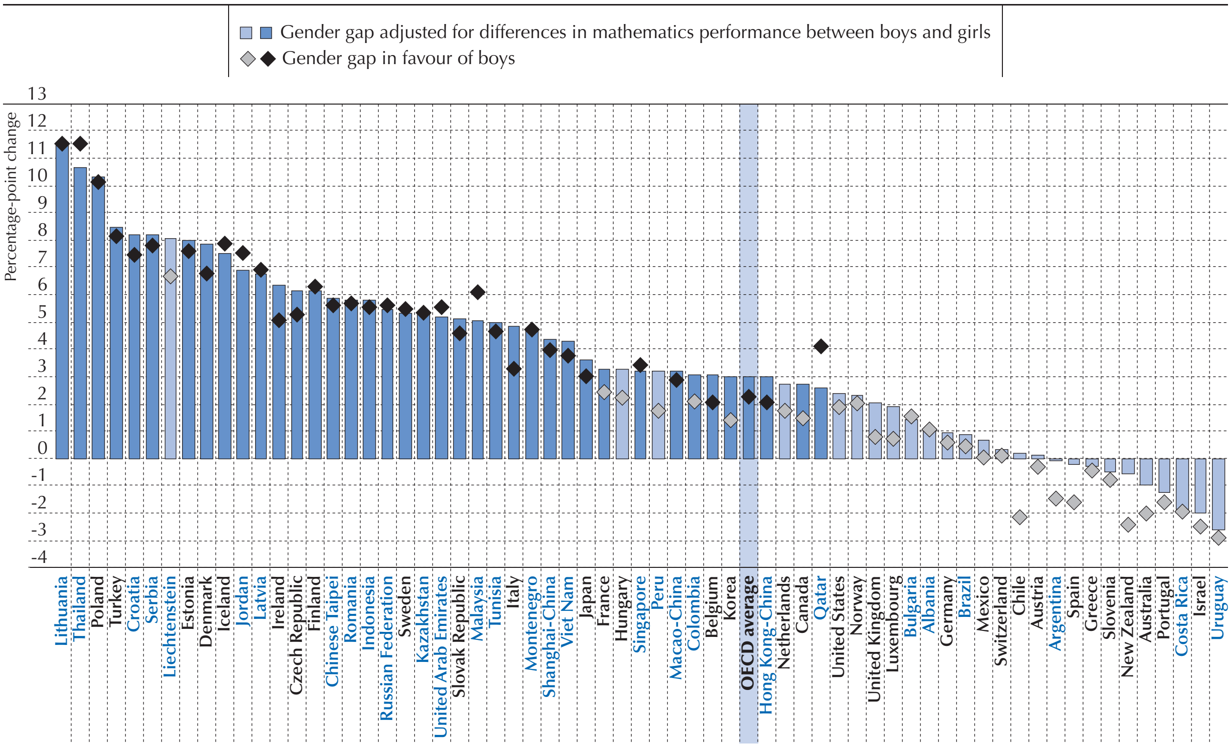
Notes: Statistically significant differences at the 5% level ($p < 0.05$) are marked in a darker tone.
Socio-economically advantaged students are students in the top quarter of the *PISA index of economic, social and cultural status* in their country or economy of assessment.
Socio-economically disadvantaged students are students in the bottom quarter of the *PISA index of economic, social and cultural status* in their country or economy of assessment.
Countries and economies are ranked in descending order of the percentage-point change in the proportion of advantaged minus disadvantaged students who reported that they had arrived late for school, after accounting for differences in mathematics performance.
Source: OECD, PISA 2012 Database, Table III.7.1b.
StatLink `http://dx.doi.org/10.1787/888932963882`

Performance differences explain only a small part of the gender gap in students' drive and motivation but a large part of the socio-economic gap in those dispositions and self-beliefs. Differences in mathematics performance explain most, and in many countries all, of the difference in perseverance, openness to problem solving, perceived self-responsibility for failure in mathematics, and intrinsic and instrumental motivation to learn mathematics between students of different socio-economic status (Table III.7.2b). For example, when looking at disadvantaged and advantaged students who perform equally well in mathematics, no differences in their reported levels of perseverance can be observed. By contrast, girls who perform as well as boys in mathematics reported having less perseverance, lower levels of openness to problem solving, and lower levels of intrinsic and instrumental motivation to learn mathematics than boys, on average, and are more likely than boys to attribute failure in mathematics to themselves rather than to external factors (Table III.7.2a; see Frenzel et al., 2010, for gender differences in intrinsic motivation for mathematics learning).

Gender differences in mathematics self-beliefs remain large, even among students who perform at the same level in mathematics. Girls who perform as well as boys reported much lower levels of mathematics self-efficacy, lower levels of mathematics self-concept, and higher levels of mathematics anxiety than boys. These results are in line with previous empirical estimates (see Jacobs et al., 2002). Girls rate their own ability as lower than that of boys as early as the first year of primary school, even when their actual performance does not differ from that of boys (Fredericks and Eccles, 2002; Herbert and Stipek, 2005). On average across OECD countries, girls have values on the self-beliefs indices that are over one quarter of a standard deviation lower than boys'. Similarly, girls are less likely to engage in mathematics activities, such as participating in mathematics competitions, programming computers, playing chess or participating in other mathematics-related extracurricular activities, or engaging in mathematics-related activities outside of school than boys who perform at the same level. Girls are also less likely than boys with similar mathematics performance

▪ Figure III.7.6 ▪

Gender gaps in arriving late for school



Note: Statistically significant differences at the 5% level ($p < 0.05$) are marked in a darker tone.
Countries and economies are ranked in descending order of the percentage-point change in the gender gap in arriving late for school, after accounting for differences in mathematics performance.
Source: OECD, PISA 2012 Database, Table III.7.1a.
StatLink `http://dx.doi.org/10.1787/888932963882`

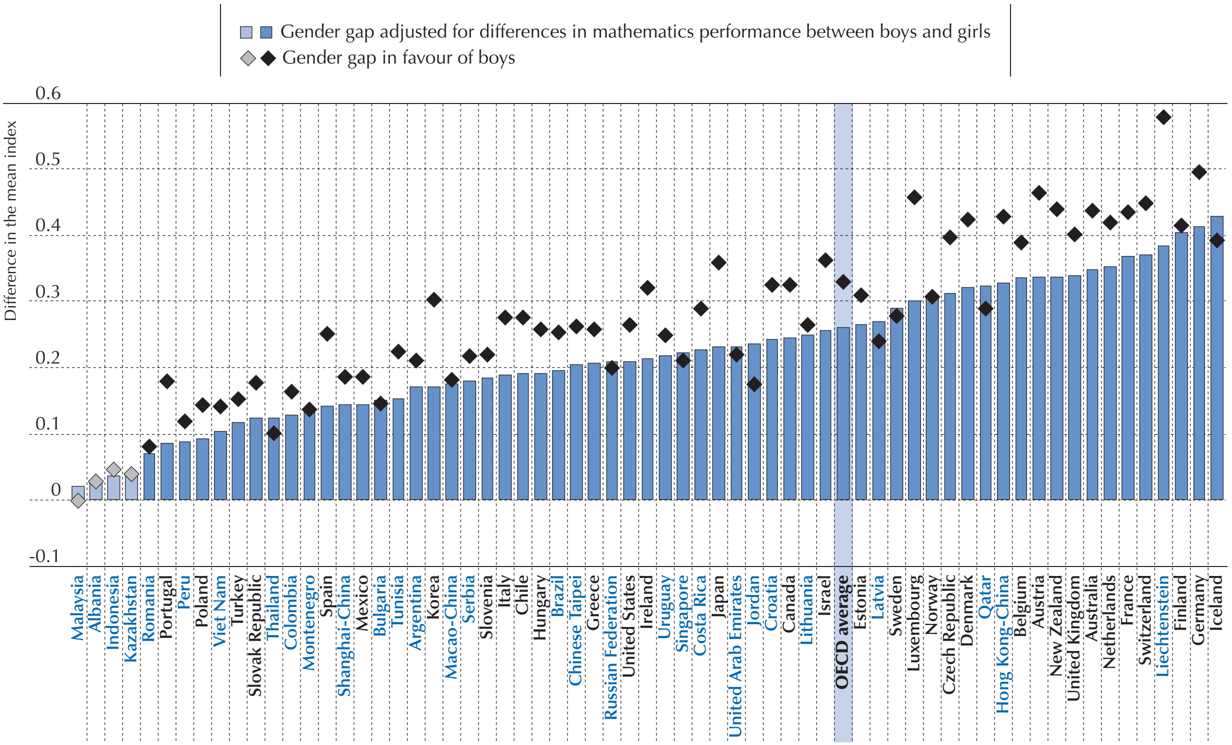
to choose mathematics instead of language or science in future courses, classes or careers (see also Eccles, 2007; see Table III.7.3a on mathematics intentions). By contrast, performance differences explain most, if not all, of the difference in students' self-beliefs related to socio-economic status (Table III.7.3b). Gender disparities in drive, motivation and self-beliefs are more pervasive and more firmly entrenched than differences in mathematics performance, while socio-economic disparities in engagement, drive and motivation and in self-beliefs generally stem from lower performance among disadvantaged students.

GENDER AND SOCIO-ECONOMIC DIFFERENCES IN THE ASSOCIATION BETWEEN ENGAGEMENT WITH AND AT SCHOOL, DRIVE AND SELF-BELIEFS AND MATHEMATICS PERFORMANCE

Academic achievement can be influenced by self-stereotyping and, implicitly, by individuals' attitudes and beliefs about their own identity. For example, in one study, Asian-American girls performed better on a mathematics assessment when they were told the reason for doing the test was to identify ethnic differences in performance – because of the stereotype that Asians have higher quantitative skills than other ethnic groups (see Steen, 1987) – but worse when they were told that the reason they were asked to take the assessment was to identify gender differences – because of the common stereotype that women are inferior to men in quantitative skills (see Aronson, 2002; Benbow, 1988; Hedges and Nowell, 1995), when compared with a control group that was not given any reason for taking the assessment (see Shih, Pittinsky and Ambady, 1999). Similar results occur with African-American students: when told they are taking a test to evaluate ability, they perform worse than when the experimenters say they want to see the psychological processes involved in completing the test, presumably because the issue of ability can be inferred as a reference to the stereotype that African-American students do less well in school (Aronson, 2002).[1]

▪ Figure III.7.7 ▪

Gender gaps in mathematics self-efficacy



Note: Statistically significant differences at the 5% level ($p < 0.05$) are marked in a darker tone.
Countries and economies are ranked in ascending order of the difference between boys and girls in the index of mathematics self-efficacy*, after accounting for differences in mathematics performance.*
Source: OECD, PISA 2012 Database, Table III.7.3a.
StatLink http://dx.doi.org/10.1787/888932963882

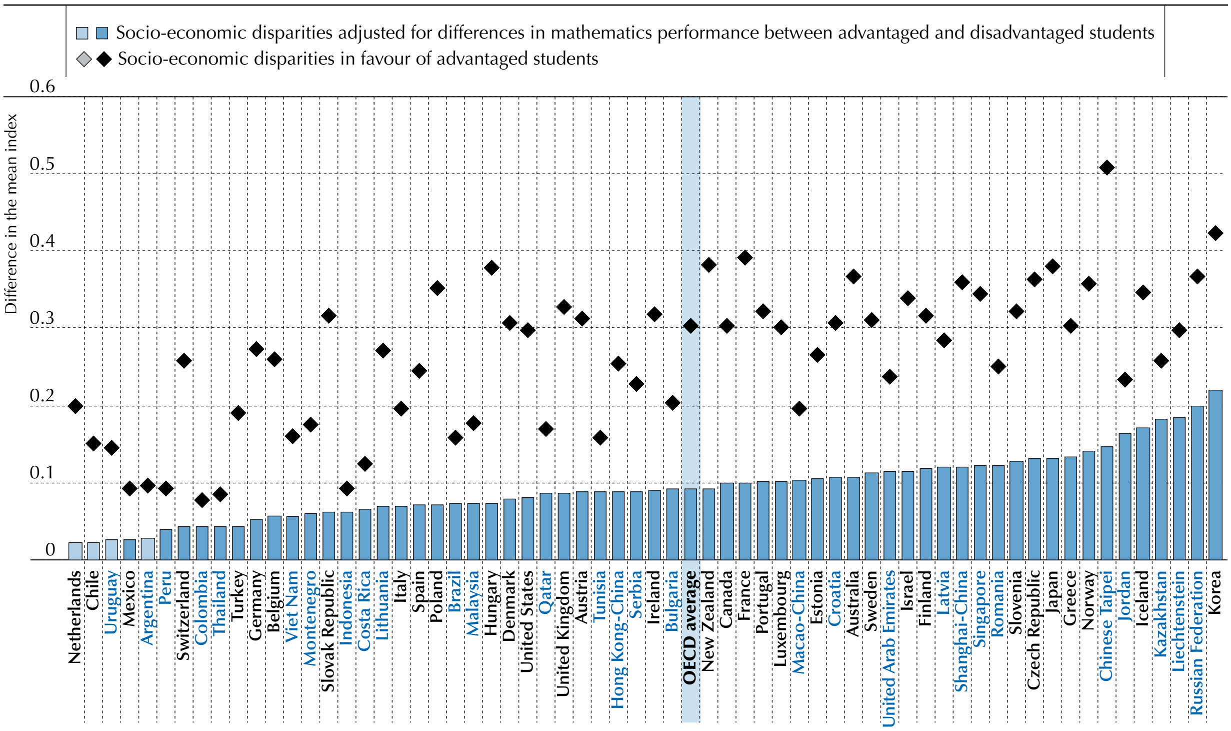
Some observational and interview studies also indicate that boys often feel that it is "inappropriate" and "contrary to their masculine identity" to show interest in school (see Francis, 2000; Paechter, 1998; Warrington, Younger and Williams, 2000). Moreover, boys appear to confront – and succumb to – greater peer pressure to conform to gender identities than girls (see Younger and Warrington, 1996; Warrington, Younger and Williams, 2000), and this identity is marked by a relative lack of interest in schooling in general, and in reading in particular (see Clark, 1995; Smith and Wilhelm, 2002).

Other work on identity suggests that some minority students distance themselves from school as a way to protect their self-esteem. For instance, Osborne (1995; 1997) found that correlations of grades, test scores, and self-esteem are lower among African-American males than other groups, and interpreted this finding as indicating that these students' identities and self-esteem are based on other qualities besides school achievement. Broader factors that are important to consider are some students' sense that they are treated differently by teachers because of their background, or that even if they do succeed in school, there will be no economic benefits accruing to them later on because of their socio-economic status (see Murdock, 2009). These findings provide for a better understanding of the nature of the relationships that are discussed below.

The previous section of this chapter shows that boys and girls of similar performance differ greatly in their levels of engagement, drive and motivation to learn mathematics, but that socio-economic differences in these dispositions mostly reflect differences in performance. Chapters 2, 3 and 4 also show that the association between mathematics performance and engagement, drive and self-beliefs differs across the performance distribution. The relationship between mathematics performance and engagement is strongest at the bottom of the performance distribution while the relationship between mathematics and self-beliefs, drive and motivation is strongest at the top of the performance distribution. This could help to explain why girls are underachievers in mathematics and, in particular, could explain the under-representation of girls at the highest levels of proficiency. Girls are more likely than boys to have low levels of confidence in their ability to learn mathematics, even when they perform as well as boys. Is the strength of this association similar among boys and girls? This section examines whether the differences in performance that is associated with low levels of engagement, drive and self-beliefs is more pronounced among girls and socio-economically disadvantaged students.

▪ Figure III.7.8 ▪

Socio-economic disparities in mathematics self-efficacy



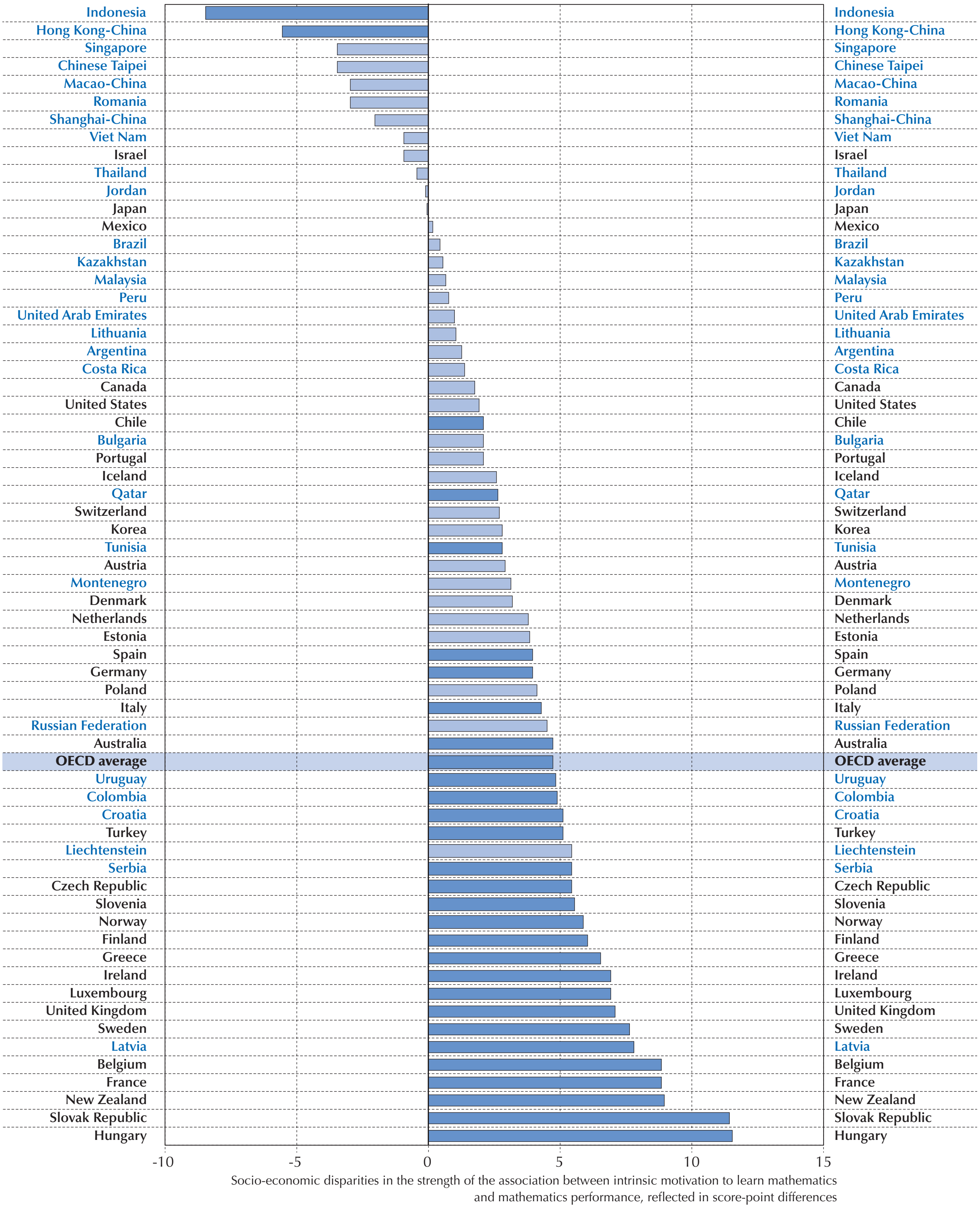
Notes: Statistically significant differences at the 5% level ($p < 0.05$) are marked in a darker tone.
Socio-economically advantaged students are students in the top quarter of the *PISA index of economic, social and cultural status* in their country or economy of assessment.
Socio-economically disadvantaged students are students in the bottom quarter of the *PISA index of economic, social and cultural status* in their country or economy of assessment.
Countries and economies are ranked in ascending order of the mean difference in the index of mathematics self-efficacy *between advantaged and disadvantaged students, after accounting for differences in mathematics performance.*
Source: OECD, PISA 2012 Database, Table III.7.3b.
StatLink `http://dx.doi.org/10.1787/888932963882`

Results presented in Tables III.7.6a, III.7.6b and III.7.6c show the extent to which the relationship between key indicators of engagement with and at school, drive and motivation, and self-beliefs varies across genders and socio-economic groups. Low levels of engagement are equally detrimental to mathematics performance among boys and girls and among socio-economically advantaged and disadvantaged students (Table III.7.6a). On average, across OECD countries, students who reported that they arrived late for school in the two weeks prior to the PISA test, or who reported that they skipped classes or days of school during the same period perform worse in mathematics than students who reported that they arrived on time for school and did not play truant. However, with very few exceptions, the relationship between lack of punctuality, skipping classes or days of school and performance is the same among boys and girls and among students with different socio-economic status. By contrast, in 12 countries and economies, the relationship between a sense of belonging in school and mathematics performance is stronger among boys than girls while it is stronger among girls in Korea. Similarly, in 16 countries and economies the relationship between attitudes towards school and performance is stronger among boys than among girls. Sense of belonging and attitudes towards school, however, are the indicators of engagement that are least associated with performance in mathematics. Overall, these findings show that the engagement- and behaviour-related variables are similarly correlated with math performance for boys and girls and across socio-economic groups, whereas the relationship between some of the self-belief variables and performance is different for boys and girls.

In 24 countries and economies, the relationship between intrinsic motivation to learn mathematics and mathematics performance is stronger among advantaged students and the socio-economic gradient is steeper, in particularly among OECD countries while in Indonesia and Hong Kong-China the relationship between intrinsic motivation to learn mathematics and mathematics performance is stronger among disadvantaged students. In Hungary, the Slovak Republic, New Zealand, France, Latvia, Sweden and the United Kingdom the association between intrinsic motivation and

▪ Figure III.7.9 ▪

Impact of socio-economic status on the relationship between intrinsic motivation to learn mathematics and mathematics performance



Notes: Statistically significant differences at the 5% level ($p < 0.05$) are marked in a darker tone.
Socio-economic disparities refer to the differences between students who have a difference of one unit in the *PISA index of economic, social and cultural status*.
Countries and economies are ranked in ascending order of the score-point difference in the interaction between intrinsic motivation and socio-economic status.
Source: OECD, PISA 2012 Database, Table III.7.6b.
StatLink `http://dx.doi.org/10.1787/888932963882`

mathematics performance for an advantaged student (one whose socio-economic status is one standard deviation above the OECD average on the *PISA index of economic, social and cultural status* [ESCS]) is at least 7 points stronger than that for a student whose socio-economic status is comparable to that of the average student in OECD countries. This result may reflect differences in the factors that influence performance among these groups. For example, cognitive factors might have a stronger impact than motivation and engagement among disadvantaged students. Among higher achievers, variables such as interest or instrumental motivation may have a greater influence on performance in mathematics, since these students' cognitive abilities are well developed (Spinath et al., 2006).

Mathematics self-efficacy is strongly associated with mathematics performance in all countries and economies except Albania (see Table III.4.1d in Chapter 4). In 26 countries and economies the relationship between mathematics self-efficacy and performance is stronger among girls than it is among boys, and in Serbia, the Czech Republic, Macao-China, Switzerland and Latvia the association between self-efficacy in mathematics and mathematics performance is 10 score points stronger among girls than it is among boys. In 24 countries and economies mathematics self-efficacy is also marginally more strongly associated with performance among socio-economically advantaged students than among students whose socio-economic status is comparable to the OECD average. Similarly, mathematics self-concept is more strongly associated with mathematics performance among advantaged students. In 27 countries and economies mathematics self-concept is more strongly associated with performance among advantaged than disadvantaged students, and the socio-economic gradient is steeper concerning mathematics self-concept than concerning mathematics self-efficacy (Table III.7.6c). In 27 countries and economies the relationship between mathematics anxiety and performance is also more pronounced among advantaged students than among other socio-economic groups, and its effect on performance is similar among boys and girls except for Israel, the United States, Jordan, Mexico and Estonia.

Overall these results suggest that the relationships between mathematics performance and engagement with and at school, drive and motivation, and mathematics self-beliefs are generally similar among boys and girls, with the notable exception of mathematics self-efficacy. However, these relationships tend to be stronger among more socio-economically advantaged students: the difference in performance that is associated with high levels of motivation and self-beliefs tends to be larger among advantaged than among disadvantaged students. A potential reason for this difference is that advantaged students who are motivated and have positive self-beliefs about themselves as mathematics learners tend to have more resources and better opportunities to be able to capitalise on their positive motivation disposition.

Socio-economic advantage provides students the possibility of making the most of their motivation to learn and their belief in their own abilities. Socio-economic advantage for example, could mean that students may have greater possibilities to engage in mathematics-related activities after school and to have parents who are able provide a continued stream of challenging material for their children. Socio-economically disadvantaged students on the other hand, may have fewer opportunities to be continually challenged.

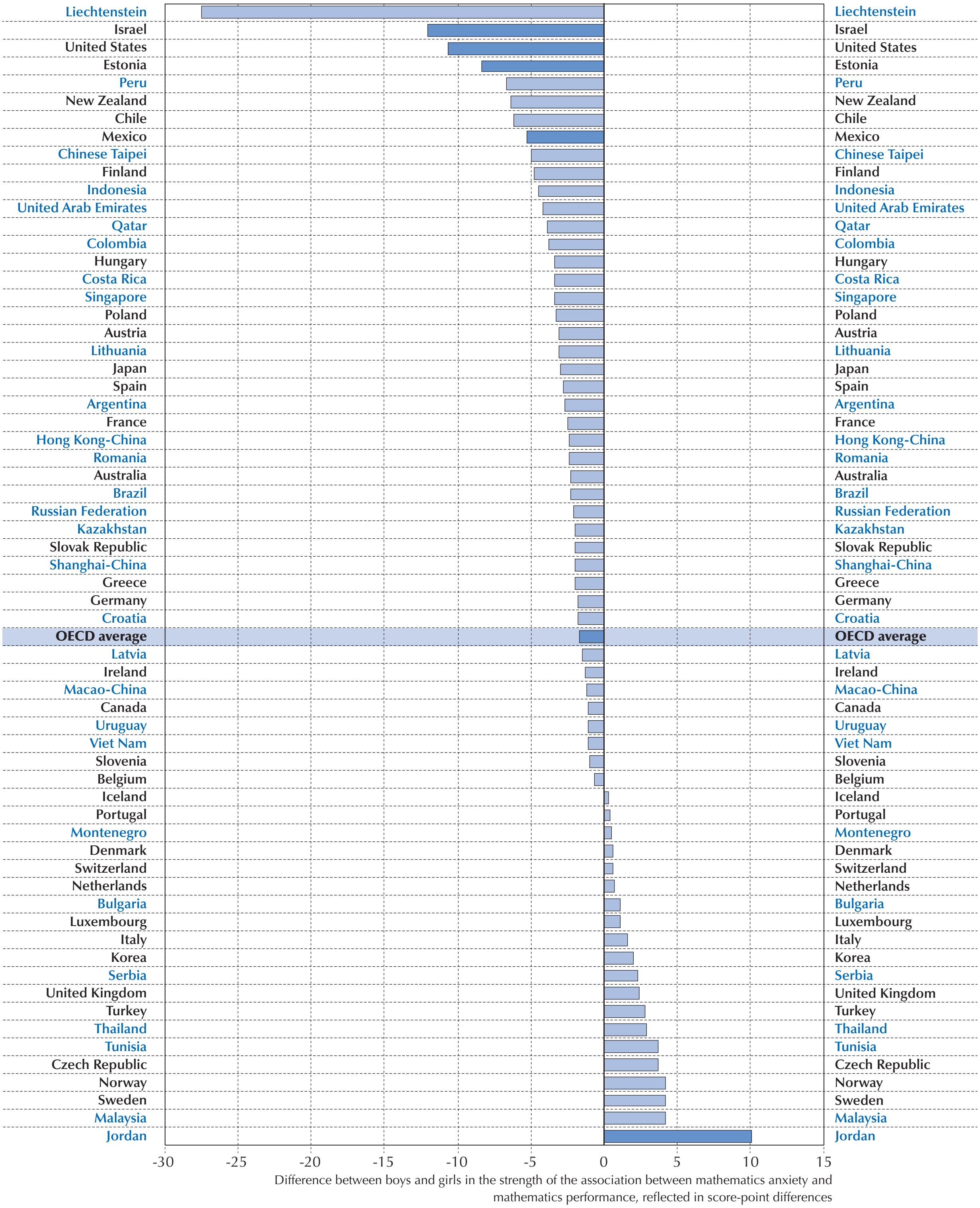
Volume II identifies a particular group of students, who, despite the odds are able to overcome the challenges posed by a disadvantaged socio-economic condition and perform at high levels (see Chapter 2 of Volume II, Tables II.2.7a and II.2.7b). ***Resilient students*** are students who come from relatively disadvantaged socio-economic backgrounds but manage to outperform given what would be expected of them in mathematics. Tables III.7.7a, III.7.7b and III.7.7c illustrate differences in levels of engagement, drive and self-beliefs between resilient students and three other groups of students: ***disadvantaged low-achievers*** (students who come from relatively disadvantaged socio-economic backgrounds and perform as would be expected of them or worse), ***advantaged low-achievers*** (students who come from relatively advantaged socio-economic backgrounds and perform as would be expected of them or worse) and ***advantaged high-achievers*** (students who come from relatively advantaged socio-economic backgrounds and outperform given what would be expected of them in mathematics).[2]

Results indicate that arriving late and skipping classes or days of school could be a barrier to students outperforming given what would be expected of them: Table III.7.7.a shows that resilient students and advantaged high-achievers have lower rates of absenteeism and lack of punctuality than disadvantaged and advantaged low-achievers. Table III.7.7a on the other hand shows that resilient and disadvantaged low-achievers tend to have lower sense of belonging than advantaged low-achievers and advantaged high-achievers: socio-economically disadvantaged students express a lower sense of belonging than socio-economically advantaged students irrespective of their performance in mathematics.

Resilient students tend to resemble advantaged high-achievers with respect to their level of drive, motivation and self-beliefs: resilient students and advantaged high-achievers have in fact much higher levels of perseverance, intrinsic and instrumental motivation to learn mathematics, mathematics self-efficacy, mathematics self-concept and lower levels

▪ Figure III.7.10 ▪

Gender gradient in the relationship between mathematics anxiety and mathematics performance



Note: Statistically significant differences at the 5% level ($p < 0.05$) are marked in a darker tone.
Countries and economies are ranked in ascending order for the score-point difference in the interaction between mathematics anxiety and gender.
Source: OECD, PISA 2012 Database, Table III.7.6c.
StatLink `http://dx.doi.org/10.1787/888932963882`

of mathematics anxiety than students who perform at lower levels than would be expected of them given their socio-economic condition (Tables III.7.7b and III.7.7c). In fact, one key characteristic that resilient students tend to share across participating countries and economies, is that they are generally physically and mentally present in class, are ready to persevere when faced with challenges and difficulties and believe in their abilities as mathematics learners.

TRENDS IN THE RELATIONSHIP BETWEEN ENGAGEMENT WITH AND AT SCHOOL, DRIVE AND SELF-BELIEFS AND MATHEMATICS PERFORMANCE RELATED TO GENDER AND SOCIO-ECONOMIC STATUS

PISA 2003 and PISA 2012 both asked students about their engagement with school, drive and self-beliefs. A comparison of similar questions from the two cycles and the relationship between these and performance sheds light on how students' attitudes and dispositions are related to their performance in mathematics, and whether these relationships have changed more (if at all) among girls than among boys or among advantaged students than among disadvantaged students. As discussed in Chapters 2, 3 and 4, the average relationship between engagement with school and mathematics is weak and has not changed significantly between 2003 and 2012. Students' drive, as measured by students' intrinsic and instrumental motivation to learn mathematics, has also remained stable in its association with mathematics performance, as has the strong relationship between students' self-beliefs and their mathematics performance.

Overall, gender and socio-economic differences in the relationship between mathematics performance and students' attitudes and dispositions towards school maintained their strength between 2003 and 2012. Mathematics self-efficacy was strongly related to boys' and girls' mathematics performance in both 2003 and 2012; and boys' and girls' mathematics self-concept and anxiety about mathematics were moderately related to their mathematics performance in 2003 and continued to be so in 2012 (Table III.7.8).

Similarly, socio-economic differences in the way attitudes and dispositions relate to mathematics performance maintained their strength between PISA 2003 and PISA 2012. In both PISA assessments, and on average across countries with comparable data for the period, the relationship between mathematics performance and intrinsic motivation to learn mathematics, instrumental motivation to learn mathematics, mathematics self-efficacy, self-concept and anxiety about mathematics was stronger among disadvantaged students than among advantaged students. Higher self-concept was associated with higher scores in PISA among disadvantaged students than it did among advantaged students, among whom the relationship between self-concept and mathematics performance is weaker (Table III.7.9).

THE GENDER GAP IN MATHEMATICS PERFORMANCE AMONG TOP PERFORMERS: THE ROLE OF ENGAGEMENT WITH AND AT SCHOOL, DRIVE AND SELF-BELIEFS

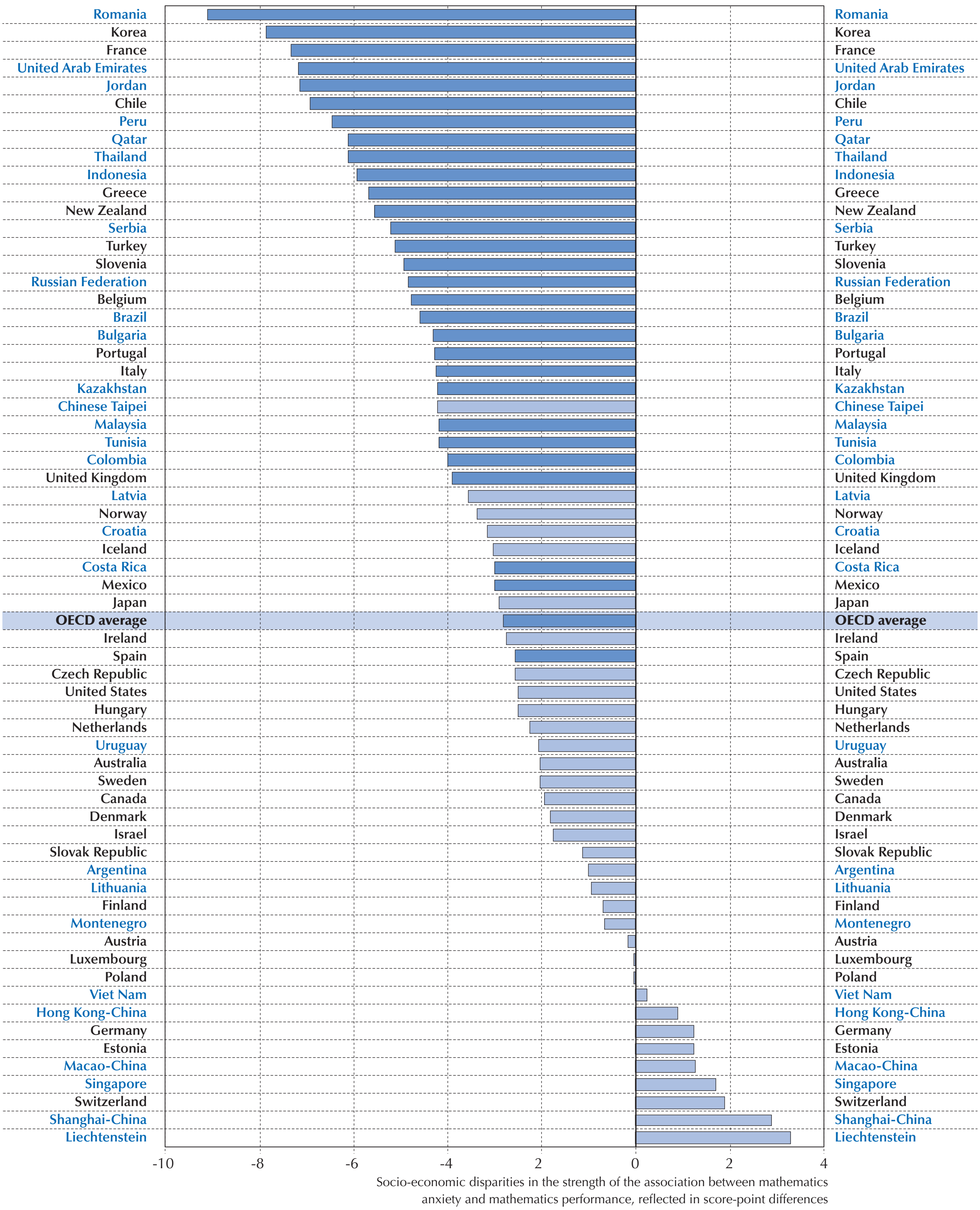
Results in Table III.7.4 show that, while boys outperform girls in mathematics, on average, in many countries and economies, the gender gap is much wider among top-performing students than among poor-performing students. Among boys and girls of similar socio-economic status, the average girl in OECD countries scores 11 points lower than the average boy. In 23 countries and economies girls and boys of similar socio-economic status perform at the same level; in Thailand, Jordan, Qatar and Malaysia when controlling for socio-economic status, the average girl outperforms the average boy. But the picture is different among the highest-achieving students: in the large majority of countries and economies, girls at this level underperform in mathematics compared to boys; in no country do they outperform boys, and the magnitude of the gender gap is much wider than it is among students at an average level of performance. This is a troubling finding, as some believe it is responsible for the under-representation of women in science, technology, engineering and mathematics (STEM) occupations (Summers, 2005; National Academy of Sciences, 2006; Hedges and Nowell, 1995; Bae et al., 2000).

Self-beliefs generally explain a large share of the gender gap in performance, particularly at the top of the performance distribution. However, differences in levels of engagement – as measured by lack of punctuality, truancy and sense of belonging – and differences in levels of drive and motivation – as measured by students' perseverance, openness to problem solving, perceived control of their success in school, and intrinsic and instrumental motivation to learn mathematics – do not explain the underachievement of girls among highest-achievers in mathematics (Table III.7.4; and see Tables III.3.1c, III.3.2c, III.3.3c, III.3.3e, III.3.3g, III.3.4e and III.3.5e).

Figure III.7.12 suggests that differences in students' reported levels of mathematics self-efficacy explain a very large share of the gender gap in performance among highest-achieving students (Table III.7.4; and see Table III.4.1e). On average across OECD countries, the score-point difference between high-achieving girls and boys of similar socio-economic

▪ Figure III.7.11 ▪

Impact of socio-economic status on the relationship between mathematics anxiety and mathematics performance



Notes: Statistically significant differences at the 5% level ($p < 0.05$) are marked in a darker tone.
Socio-economic disparities refer to the differences between students who have a difference of one unit on the *PISA index of economic, social and cultural status*.
Countries and economies are ranked in ascending order of the score-point difference in the interaction between mathematics anxiety and socio-economic status.
Source: OECD, PISA 2012 Database, Table III.7.6c.
StatLink http://dx.doi.org/10.1787/888932963882

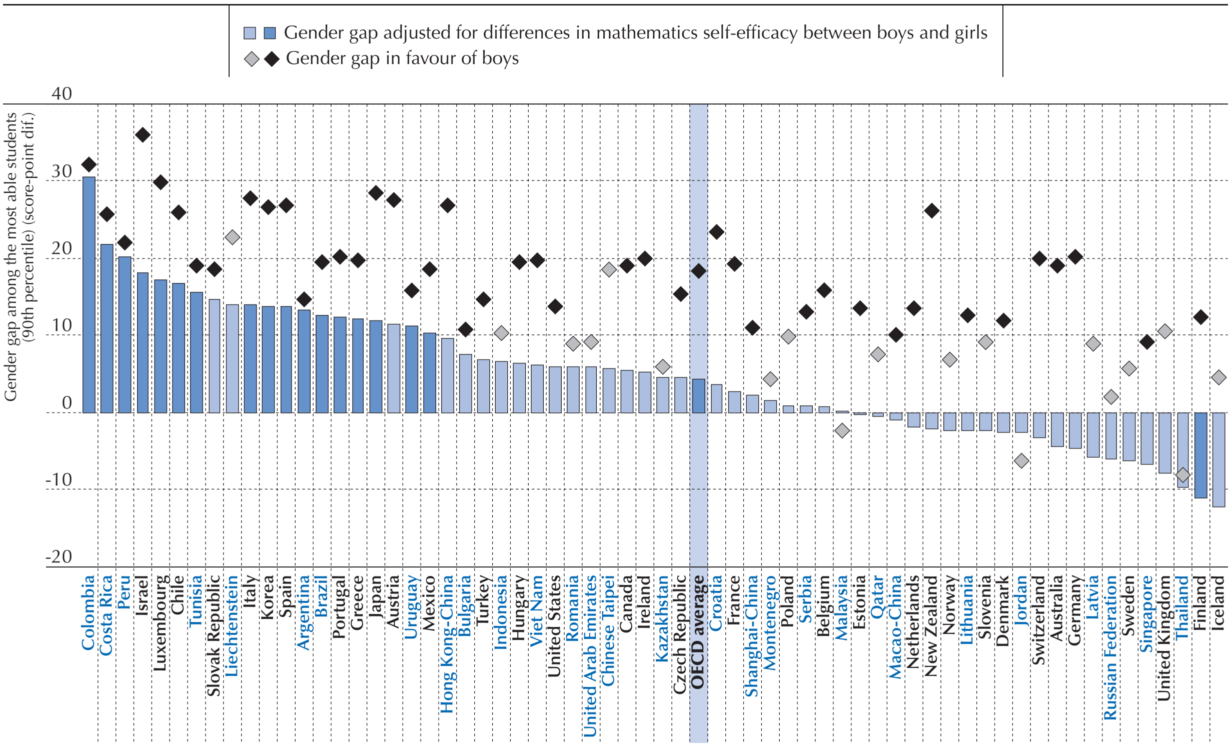
status is 19 score points. However, when comparing boys and girls who also report similar levels of mathematics self-efficacy there is no performance gap. Figure III.7.12 indicates that, when controlling for differences in levels of mathematics self-efficacy, among the highest-achieving students, girls underperform compared to boys in only 16 countries and economies; by contrast, when these differences are not taken into account, 43 countries and economies show a gender gap in performance. Even in those countries where high-achieving girls underperform compared with high-achieving boys with similar socio-economic status, the gender gap is considerably narrower when comparing boys and girls who reported the same levels of mathematics self-efficacy. In Finland the gender gap in favour of boys is 12 score points among highest-achieving students when not controlling for differences in mathematics self-efficacy; but when differences in mathematics self-efficacy are considered, girls outperform boys in mathematics by 12 points.

Figure III.7.13 suggests that differences in students' reported levels of mathematics anxiety also explain a large share of the gender gap in performance among the highest-achieving students (Table III.7.4; and see Table III.4.3e). In 21 of the countries and economies where high-achieving girls underperformed compared to high-achieving boys, differences in mathematics anxiety explain the gender gap. In most of the remaining countries, this underperformance by girls among high-achieving students shrinks considerably after accounting for differences in self-reported levels of mathematics anxiety. On average across OECD countries, the score-point difference between high-achieving girls and boys of similar socio-economic background is 19 score points. However, when comparing boys and girls who also reported similar levels of mathematics anxiety, the performance gap narrows to 9 points.

Gender disparities in mathematics achievement might also arise as a result of differences in the amount of time boys and girls invest in mathematics-related work (Fryer and Levitt, 2010; Wang, 2012). If girls invest less time than boys studying mathematics because they hold negative self-beliefs about mathematics, for example, or because they are less encouraged by teachers and parents to invest their effort in mathematics rather than in other subjects, then a gender gap

■ Figure III.7.12 ■

Role of mathematics self-efficacy in reducing the gender gap in mathematics performance among the highest-achieving students



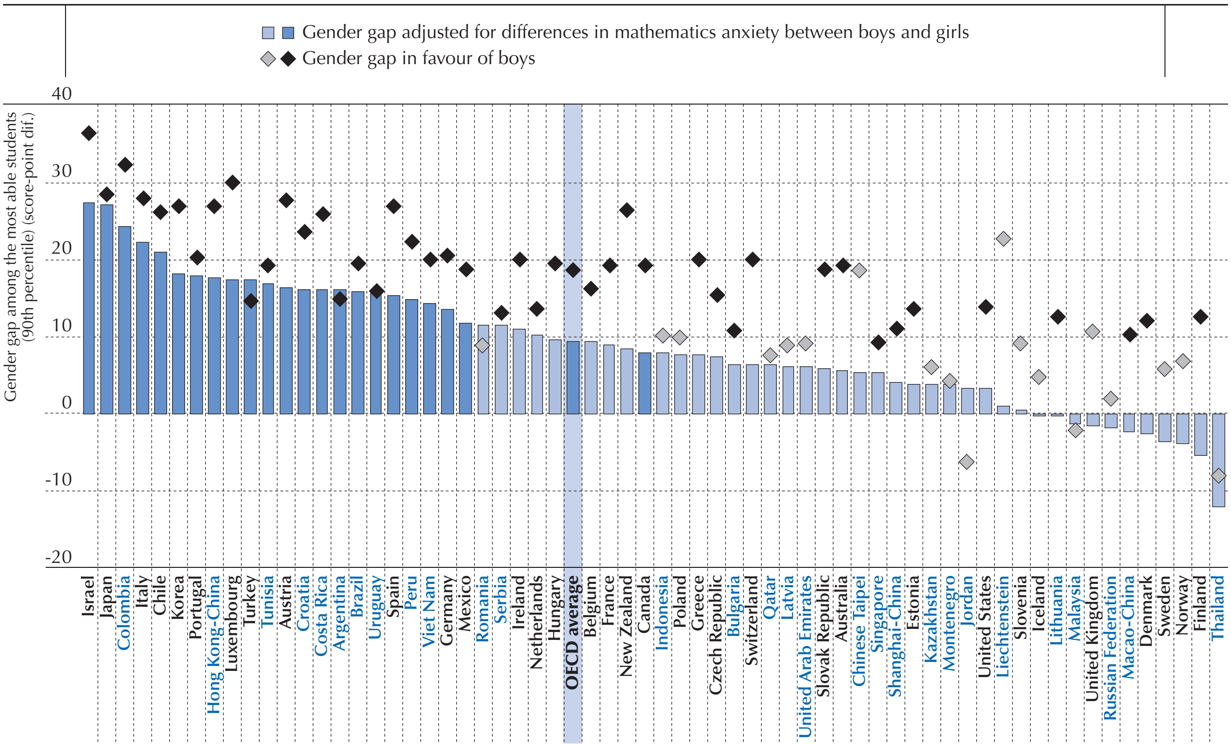
Note: Statistically significant differences at the 5% level ($p < 0.05$) are marked in a darker tone.
Countries and economies are ranked in descending order of the score-point difference in mathematics performance in favour of boys, adjusted for differences in mathematics self-efficacy between boys and girls.
Source: OECD, PISA 2012 Database, Tables III.4.1e (available on line) and III.7.4.

StatLink http://dx.doi.org/10.1787/888932963882

in mathematics performance could arise by the time students reach adolescence. PISA data cannot be used to map the cumulative time boys and girls invested in mathematics-related activities up until the moment they took the PISA test; however, PISA data can be used to identify gender differences in the likelihood of 15-year-old students participating in mathematics-related activities. Chapter 4 of this volume explains that girls are less likely than boys to play chess, programme computers, take part in mathematics competitions, or do mathematics as an extracurricular activity (see Table III.4.5a). However, results presented in Tables III.7.4 and III.4.5c indicate that participation in mathematics-related activities does not explain why boys and girls are not equally likely to perform at high levels in mathematics. The gender gap, whether at the mean, bottom or top of the performance distribution, remains unchanged, whether or not gender differences in participation in mathematics-related activities are taken into account. This might simply reflect that these are not the crucial type of activities that could help girls achieve at higher levels.

▪ Figure III.7.13 ▪

Role of mathematics anxiety in reducing the gender gap in mathematics performance among the highest-achieving students



Note: Statistically significant differences at the 5% level ($p < 0.05$) are marked in a darker tone.
Countries and economies are ranked in descending order of the score-point difference in mathematics performance in favour of boys, adjusted for differences in mathematics anxiety between boys and girls.
Source: OECD, PISA 2012 Database, Tables III.4.3e (available on line) and III.7.4.
StatLink http://dx.doi.org/10.1787/888932963882

Notes

1. Stereotype susceptibility affects the performance on cognitive tasks not only of students but also of other groups that are not in school settings. For example, elderly people who had absorbed a negative stereotype about older people being less able to remember information also performed worse on a memory task than elderly people who had absorbed positive stereotypes of the elderly (see Levy, 1996).

2. A student is classified as resilient if he or she is in the bottom quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country of assessment and performs in the top quarter across students from all countries after accounting for socio-economic status (see Chapter 2 in Volume II of this series).

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8

Policy Implications of Students' Dispositions Towards Learning

PISA results show that drive, motivation and confidence in oneself are essential if students are to fulfil their potential; but too many students lack some of these dispositions towards learning that would enable them to flourish. This chapter considers how the education policies of school systems and individual schools are associated with students' engagement with school, their drive and their self-beliefs.

PISA reveals that in most countries and economies, far too many students do not make the most of the learning opportunities available to them because they are not engaged with school and learning. That is most clearly evident in the fact that more than one in three students in OECD countries reported that they arrived late for school during the two weeks prior to the PISA assessment; and more than one in four students reported that they skipped classes or days of school during the same period.

This is not just a question of lost time; these students are also far more likely to show lower levels of student performance. On average across OECD countries, arriving late for school is associated with a 31-point lower score in mathematics, while skipping classes or days of school is associated with a 39-point lower score in mathematics – the equivalent of just under one full year of formal schooling. Learning demands engagement: unless students are physically present in class, they cannot learn; and unless parents, schools and governments commit to effective strategies to ensure that all students attend school regularly, and feel engaged while at school, public policies aimed at fighting social exclusion and promoting cohesive societies will be undermined.

It is interesting that attendance at and engagement with school does not just vary among students and schools, but also across countries. In particular, the high-performing East-Asian countries and economies, such as Hong Kong-China, Japan, Korea, Macao-China and Shanghai-China, have comparatively very low rates of students who reported that they arrived late for class or skipped classes or days of school. More generally, in countries with cultures based on the Confucian tradition, students, parents and educators value education and student achievement in school highly, and many observers believe that this cultural characteristic confers a large advantage on such countries. At the same time, the educational success of the countries with this tradition is relatively recent, and not all such countries show high levels of student performance. A Confucian heritage may be an asset, but it is no guarantee of success. The extent to which the educational aspirations of students and parents are the result of cultural values or determinants of these, and how such aspirations interact with education policies and practices is an important subject that merits further study. Whatever the case, it seems that if a country seeks better education performance, it is incumbent on political and social leaders to persuade the country's citizens to make the choices needed to show that they value education more than other areas of national interest.

PISA results also indicate that drive, motivation and confidence in oneself are essential if students are to fulfil their potential; but too many students lack the levels of perseverance, drive, motivation and confidence in their own abilities that would enable them to flourish. For example, across OECD countries, almost two in three students reported that they tend to "put off difficult problems", almost one in two reported that they tend to "give up easily when confronted with a problem", and only one in three reported "liking to solve complex problems".

Practice and hard work go a long way towards developing each student's potential, but students can only achieve at the highest levels when they believe that they are in control of their success and that they are capable of achieving at high levels. In Shanghai-China, for example, students not only believe they are in control of their ability to succeed, but they are prepared to do what it takes to do so: for example, 73% of students agreed or strongly agreed that they remain interested in the tasks that they start. The fact that students in some countries consistently believe that student achievement is mainly a product of hard work, rather than inherited intelligence, suggests that education and its social context can make a difference in instilling values that foster success in education.

Education systems and societies at large need to invest in ensuring that students enjoy learning, believe in their abilities and capacity to succeed, and also, crucially, have the stamina to face challenging problems and situations.

THE IMPACT OF SCHOOLS AND FAMILIES

Engagement with and at school

Students who are in schools where teacher-student relations and disciplinary climate are poor are more likely to have low levels of engagement with and at school. They are more likely to arrive late for school, skip classes or days of school, report a weak sense of belonging, and hold negative attitudes towards school. Establishing a positive school ethos, where teachers, students and administrative staff feel that they are members of a community and respect each other's roles and responsibilities, can help to ensure that all students are engaged with school. A lack of engagement – on the part of either teachers or students – can have adverse effects on the entire school community. Teachers and school principals need to be able to identify students who show signs of lack of engagement with school, and work with them individually before disengagement takes firm root.

Differences between schools and between countries in students' lack of punctuality and truancy signal that there are ways to engage students. Only when students find classes interesting and relevant, and have teachers who are willing, but also have the means, to engage their students, can schools maximise opportunities for student learning.

Drive and motivation

Schools can help students learn how to learn, nurture their willingness to solve problems, and build their capacity for hard work and persistence. These factors are as important as acquiring subject-specific competencies if students are to be able to succeed in a rapidly changing world. Teachers can help students to develop perseverance and motivation by supporting students in their efforts to meet high expectations and in showing greater degrees of commitment, and by encouraging students to regard mistakes and setbacks as learning opportunities.

PISA results reveal that teachers' practices can promote students' drive and willingness to engage with complex problems. Teachers' use of cognitive-activation strategies, such as giving students problems that require them to think for an extended time, presenting problems for which there is no immediately obvious way of arriving at a solution, and helping students to learn from the mistakes they have made, is associated with students' perseverance and openness to problem solving. Students whose teachers adopt such strategies are also more likely to favour mathematics as a field of study over other subjects or to see mathematics as more necessary to their careers than other subjects. Similarly, students who reported that their mathematics teachers use teacher-directed instruction and formative assessments also reported particularly high levels of perseverance, openness to problem solving, and willingness to pursue mathematics as a career or field of further study. Yet, the use of such strategies among teachers is not widespread: only 53% of students reported that their teachers "often"[1] present them with problems that require them to think for an extended time, and 47% reported that their teachers often present problems for which there is no immediately obvious way of arriving at a solution. Similarly, on average across OECD countries, only 17% of students reported that their teacher assigns projects that require at least one week to complete. Canada is more successful in this regard: 60% of students in Canada reported that their teachers often present problems for which there is no immediately obvious way of arriving at a solution, and 66% reported that their teachers "often" present them with problems that require them to think for an extended time. Education systems could and should do more to promote students' ability to work towards long-term goals.

Mathematics self-beliefs

Individuals' performance on a given task also depends on how capable of solving it they feel. As one would expect, PISA shows that students who are exposed to a variety of pure and applied mathematics problems feel more confident about solving a greater number of such problems than students who have little or only narrow exposure. Students who have developed wide and extensive knowledge of mathematical concepts and processes and who feel confident about their mathematics abilities can better assume the challenge of solving complex, real-life problems that they have not encountered before. Teachers can help their students develop these feelings by ensuring that they master mathematical concepts and processes, but also by challenging their students with a varied set of applied mathematics problems.

The role of social comparisons

PISA reveals that students' performance in mathematics is positively associated with their drive, motivation and mathematics-related self-beliefs. However, results also indicate that students' motivation and mathematics self-beliefs are closely related to the school students attend and to whether students perform better or less well than other students in their school. Students who attend schools where most other students perform better than they do reported lower levels of intrinsic and instrumental motivation to learn mathematics, mathematics self-concept and perseverance, and higher levels of mathematics anxiety, on average, than students who perform equally well but who attend schools with lower-achieving peers.

Teachers and parents can help all students develop their full potential by holding high expectations and celebrating each student's efforts and achievements, and rewarding each student who achieves specific learning goals. Korea, for example, reformed its grading practices so that assessments would not be used to rank students according to how well they did compared with other students, but rather to evaluate whether, and to what extent, individual students met the national curriculum standards developed for each subject.[2]

Parents' expectations for their child

Parents can also help their children develop high levels of engagement, drive, motivation and positive mathematics self-beliefs by engaging with their children at home, providing access to educational resources and, perhaps most

important, holding high expectations for their children's futures. Students whose parents expect that they will graduate from university display higher levels of perseverance and mathematics self-efficacy than students with the same socio-economic status and performance in mathematics and reading, but whose parents do not expect that they will earn a university degree. Parents who hold ambitious expectations for their children motivate and guide them in their learning; they create the conditions that promote academic excellence and the acquisition of skills.

Education systems can also promote motivation to learn by ensuring that all students are surrounded by excellence. PISA reveals that when education systems stream students into different schools based on ability, student motivation to learn and student performance suffers, on average. Only when education systems cultivate, foster and communicate the belief that all students can achieve at higher levels do students feel the drive and motivation that enables them to learn.

THE IMPACT OF A LEVEL PLAYING FIELD

PISA 2012 identifies two groups of students who are not only at particular risk of underachieving in mathematics but also of having low levels of engagement with school and negative dispositions towards mathematics: girls and socio-economically disadvantaged students.

Disadvantaged students are more likely than their advantaged peers to suffer from low levels of engagement, and lack of drive and motivation, and to hold negative self-beliefs. Disadvantaged students are also more likely to report skipping classes or days of school and arriving late for school, and are less likely to have a strong sense of belonging and hold positive attitudes towards school. For example, in OECD countries, while 85% of advantaged students agree or strongly agree with the statement "I feel like I belong at school", only 78% of disadvantaged students do. In some countries these differences are more pronounced. For example, in France, Korea and Lithuania, the difference between the proportion of advantaged students who agree or strongly agree with the statement and the proportion of disadvantaged students who do is larger than 15 percentage points.

Differences in mathematics achievement between advantaged and disadvantaged students explain a large share of the differences in students' propensity to arrive late or to believe, for example, that school is a waste of time. In fact, when comparing students who perform equally well in mathematics, there are few differences in drive, motivation and self-beliefs related to socio-economic status. Results from PISA show that disadvantaged students can succeed despite their socio-economic status by being engaged, motivated and holding strong beliefs in themselves and their abilities. Across OECD countries, 31% of students from disadvantaged backgrounds are resilient, meaning that they beat the odds against them and achieve beyond expectations. A key difference between disadvantaged students who are resilient and those who are not is that resilient students regularly attend school and have the kinds of dispositions and behaviours towards school and learning that are comparable to those observed among advantaged, high-achieving students.

That disadvantaged students tend to be less engaged in school may be because they have fewer resources at home through which they can benefit from their motivation to learn. Advantaged students might have an edge in how well they are able to translate their motivation into high levels of performance in school because these students have greater access to books, a quiet study area, extra tutoring, and after-school activities, to name just a few. Advantaged students also have better-educated parents who may feel more comfortable engaging with their children in ways that, even unconsciously, promote learning.

However, there are established strategies to aid disadvantaged students at school, including:

- promoting engagement with and at school, drive and positive self-beliefs. For example, disadvantaged students may be more likely to arrive late or skip classes or days of school because they need to help around the house or work to help support their families. They may also have less motivation and self-belief because they lack positive role models. These students would benefit disproportionately from conditional, incentive-based programmes aimed at promoting attendance at school (targeted policies), but also from teachers' efforts to create a culture that values effort, perseverance and motivation (policies inherently more universal in nature).
- developing targeted support mechanisms and strategies to ensure that disadvantaged students can fully benefit from their engagement, drive and motivation. PISA shows that many disadvantaged students, against all odds, are willing and ready to learn; but often they do not have all the tools that would enable them to capitalise on such positive dispositions. Strong partnerships among families, teachers and also local communities could ensure that socio-economic disadvantage does not prevent these students from flourishing.

While the demand for individuals with high-level mathematics skills is growing, because of the expansion of occupations in the so-called STEM fields (science, technology, engineering and mathematics), many economies are reporting shortages in the number of individuals with the solid mathematics foundations that are needed to enter such fields of study and work. PISA identifies large gender gaps in mathematics performance, but also related gender gaps in drive, motivation and self-beliefs. Girls underperform in mathematics, compared with boys, in 38 of the 65 countries and economies that participated in PISA 2012; in OECD countries, girls underperform boys by an average of 11 points. However, this gender gap between the average 15-year-old boy and girl masks even wider gaps among the *least* and *most able* students. In most countries, the *most able* girls lag behind the *most able* boys in mathematics performance. This underachievement, particularly among the most mathematically able students, together with gender disparities in mathematics self-beliefs, are of major concern among policy makers.

For many students, feelings of anxiety and lack of confidence in their own abilities are closely associated with mathematics as a subject. For example, across OECD countries, some 30% of students reported that they feel helpless when doing mathematics problems; 33% reported getting very tense when they have to do mathematics homework; and 43% believe that they are just not good in mathematics. By promoting mastery in mathematics, education systems can help students feel more confident in their skills and help them to feel less anxious about mathematics. It is noteworthy that many students, and girls in particular, feel anxious about mathematics and have low levels of confidence in their own abilities, irrespective of their performance in the subject. For example, even when they perform at the same level as boys, girls are more likely to report high levels of mathematics anxiety and to report low levels of confidence in their own mathematical skills and in their ability to solve particular mathematics problems.

Gender gaps in drive, motivation and self-beliefs are particularly worrying because, as this volume describes, these factors are essential if students are to achieve at the highest levels; and the relationship between drive, motivation and mathematics-related self-beliefs on the one hand, and mathematics performance on the other, is particularly strong at the top of the performance distribution. Unless girls believe that they can achieve at the highest levels, they will not be able to do so. Although boys show higher mean mathematics performance, differences within the genders are far greater than those between the genders. In addition, the size of the gender gap varies considerably across countries, suggesting that strengths and weaknesses in academic subjects are not inherent, but are acquired and often socially reinforced.

The results show that a substantial share of gender differences in mathematics performance can be explained by differences in boys' and girls' self-beliefs and motivation to learn mathematics. Once gender differences in motivation and self-beliefs are taken into account, the *most able* girls underachieve compared to the *most able* boys in only a small set of countries and by a much narrower margin. This does not mean that if girls' motivation and self-beliefs improved to match those of boys that they would perform equally well as boys. But given girls' lower levels of confidence in their own abilities, school systems, teachers and parents should try to find – or create – more effective ways of bolstering girls' beliefs in their own abilities in mathematics, both at school and at home.

The gender gap in mathematics performance has remained stable in most countries since 2003, as has the gender gap in mathematics self-beliefs. But changing students' dispositions may be inherently more difficult than, say, providing equal access to high-quality teachers and schools – two of the other factors that explain the poor performance of socio-economically disadvantaged students, and two areas where some countries have made significant progress over the past decade. In the short term, changing mindsets may require making mathematics more interesting to girls, identifying and eliminating gender stereotypes in textbooks, promoting female role models, and using learning materials that appeal to girls. Over the longer term, shrinking the gender gap in mathematics performance will require the concerted effort of parents, teachers and society as a whole to change the stereotyped notions of what boys and girls excel at, what they enjoy doing, and what they believe they can achieve.

Notes

1. This refers to the proportion of students who reported whether a series of statements related to the mathematics teacher who taught them their most recent mathematics class happened "often" or "always" or "almost always".

2. In December 2011, the Korean Ministry of Education, Science and Technology (MEST) announced the "Plans to Improve the Secondary School Academic Affairs Management" to meet the demands for creativity and character required in a global knowledge-based society. A key feature of the plan was a change in the assessment and in-class grading system within Korean schools, known as the Standard-Based Assessment. Details of the reform can be found in Box 2.1 Standard-Based Assessment, reforming marking schemes and practices in Korea in *Grade Expectations: How Marks and Education Policies Shape Students' Ambitions* (OECD, 2012).

References

OECD (2012), *Grade Expectations: How Marks and Education Policies Shape Students' Ambitions*, PISA, OECD Publishing.
http://dx.doi.org/10.1787/9789264187528-en

Annex A

PISA 2012 TECHNICAL BACKGROUND

All figures and tables in Annex A are available on line

Notes regarding Cyprus

Note by Turkey: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

A note regarding Israel

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

ANNEX A1

CONSTRUCTION OF MATHEMATICS SCALES AND INDICES FROM THE STUDENT, SCHOOL AND PARENT CONTEXT QUESTIONNAIRES

How the PISA 2012 mathematics assessments were designed, analysed and scaled

The development of the PISA 2012 mathematics tasks was co-ordinated by an international consortium of educational research institutions contracted by the OECD, under the guidance of a group of mathematics experts from participating countries. Participating countries contributed stimulus material and questions, which were reviewed, tried out and refined iteratively over the three years leading up to the administration of the assessment in 2012. The development process involved provisions for several rounds of commentary from participating countries and economies, as well as small-scale piloting and a formal field trial in which samples of 15-year-olds (about 1 000 students) from participating countries and economies took part. The mathematics expert group recommended the final selection of tasks, which included material submitted by participating countries and economies. The selection was made with regard to both their technical quality, assessed on the basis of their performance in the field trial, and their cultural appropriateness and interest level for 15-year-olds, as judged by the participating countries. Another essential criterion for selecting the set of material as a whole was its fit to the framework described in Volume 1, in order to maintain the balance across various categories of context, content and process. Finally, it was carefully ensured that the set of questions covered a range of difficulty, allowing good measurement and description of the mathematics literacy of all 15-year-old students, from the least proficient to the highly able.

More than 110 print mathematics questions were used in PISA 2012, but each student in the sample only saw a fraction of the total pool because different sets of questions were given to different students. The mathematics questions selected for inclusion in PISA 2012 were organised into half-hour clusters. These, along with clusters of reading and science questions, were assembled into booklets containing four clusters each. Each participating student was then given a two-hour assessment. As mathematics was the focus of the PISA 2012 assessment, every booklet included at least one cluster of mathematics material. The clusters were rotated so that each cluster appeared in each of the four possible positions in the booklets, and each pair of clusters appeared in at least one of the 13 booklets that were used.

This design, similar to those used in previous PISA assessments, makes it possible to construct a single scale of mathematics proficiency, in which each question is associated with a particular point on the scale that indicates its difficulty, whereby each student's performance is associated with a particular point on the same scale that indicates his or her estimated proficiency. A description of the modelling technique used to construct this scale can be found in the *PISA 2012 Technical Report* (OECD, forthcoming).

The relative difficulty of tasks in a test is estimated by considering the proportion of test takers who answer each question correctly. The relative proficiency of students taking a particular test can be estimated by considering the proportion of test questions they answer correctly. A single continuous scale shows the relationship between the difficulty of questions and the proficiency of students. By constructing a scale that shows the difficulty of each question, it is possible to locate the level of mathematics literacy that the question represents. By showing the proficiency of each student on the same scale, it is possible to describe the level of mathematics literacy that the student possesses.

The location of student proficiency on this scale is set in relation to the particular group of questions used in the assessment. However, just as the sample of students taking PISA in 2012 is drawn to represent all the 15-year-olds in the participating countries and economies, so the individual questions used in the assessment are designed to represent the definition of mathematics literacy adequately. Estimates of student proficiency reflect the kinds of tasks they would be expected to perform successfully. This means that students are likely to be able to complete questions successfully at or below the difficulty level associated with their own position on the scale (but they may not always do so). Conversely, they are unlikely to be able to successfully complete questions above the difficulty level associated with their position on the scale (but they may sometimes do so).

The further a student's proficiency is located above a given question, the more likely he or she is to successfully complete the question (and other questions of similar difficulty); the further the student's proficiency is located below a given question, the lower the probability that the student will be able to successfully complete the question, and other questions of similar difficulty.

How mathematics proficiency levels are defined in PISA 2012

PISA 2012 provides an overall mathematics literacy scale, drawing on all the questions in the mathematics assessment, as well as scales for three process and four content categories. The metric for the overall mathematics scale is based on a mean for OECD countries set at 500 in PISA 2003, with a standard deviation of 100. To help interpret what students' scores mean in substantive terms, the scale is divided into levels, based on a set of statistical principles, and then descriptions are generated, based on the tasks that are located within each level, to describe the kinds of skills and knowledge needed to successfully complete those tasks.

For PISA 2012, the range of difficulty of tasks allows for the description of six levels of mathematics proficiency: Level 1 is the lowest described level, then Level 2, Level 3 and so on up to Level 6.

Students with a proficiency within the range of Level 1 are likely to be able to successfully complete Level 1 tasks (and others like them), but are unlikely to be able to complete tasks at higher levels. Level 6 reflects tasks that present the greatest challenge in terms

of mathematics skills and knowledge. Students with scores in this range are likely to be able to complete mathematics tasks located at that level successfully, as well as all the other mathematics tasks in PISA.

PISA applies a standard methodology for constructing proficiency scales. Based on a student's performance on the tasks in the test, his or her score is generated and located in a specific part of the scale, thus allowing the score to be associated with a defined proficiency level. The level at which the student's score is located is the highest level for which he or she would be expected to answer correctly most of a random selection of questions within the same level. Thus, for example, in an assessment composed of tasks spread uniformly across Level 3, students with a score located within Level 3 would be expected to complete at least 50% of the tasks successfully. Because a level covers a range of difficulty and proficiency, success rates across the band vary. Students near the bottom of the level would be likely to succeed on just over 50% of the tasks spread uniformly across the level, while students at the top of the level would be likely to succeed on well over 70% of the same tasks.

Figure I.2.21 in Volume I provides details of the nature of mathematics skills, knowledge and understanding required at each level of the mathematics scale.

Context questionnaire indices

This section explains the indices derived from the student and school context questionnaires used in PISA 2012.

Several PISA measures reflect indices that summarise responses from students, their parents or school representatives (typically principals) to a series of related questions. The questions were selected from a larger pool of questions on the basis of theoretical considerations and previous research. The *PISA 2012 Assessment and Analytical Framework* (OECD, 2013) provides an in-depth description of this conceptual framework. Structural equation modelling was used to confirm the theoretically expected behaviour of the indices and to validate their comparability across countries and economies. For this purpose, a model was estimated separately for each country and collectively for all OECD countries. For a detailed description of other PISA indices and details on the methods, see the *PISA 2012 Technical Report* (OECD, forthcoming).

There are two types of indices: simple indices and scale indices.

Simple indices are the variables that are constructed through the arithmetic transformation or recoding of one or more items, in exactly the same way across assessments. Here, item responses are used to calculate meaningful variables, such as the recoding of the four-digit ISCO-08 codes into "Highest parents' socio-economic index (HISEI)" or, teacher-student ratio based on information from the school questionnaire.

Scale indices are the variables constructed through the scaling of multiple items. Unless otherwise indicated, the index was scaled using a weighted likelihood estimate (WLE) (Warm, 1989), using a one-parameter item response model (a partial credit model was used in the case of items with more than two categories). For details on how each scale index was constructed see the *PISA 2012 Technical Report* (OECD, forthcoming). In general, the scaling was done in three stages:

- The item parameters were estimated from equal-sized subsamples of students from all participating countries and economies.
- The estimates were computed for all students and all schools by anchoring the item parameters obtained in the preceding step.
- The indices were then standardised so that the mean of the index value for the OECD student population was zero and the standard deviation was one (countries being given equal weight in the standardisation process).

Sequential codes were assigned to the different response categories of the questions in the sequence in which the latter appeared in the student, school or parent questionnaires. Where indicated in this section, these codes were inverted for the purpose of constructing indices or scales. Negative values for an index do not necessarily imply that students responded negatively to the underlying questions. A negative value merely indicates that the respondents answered less positively than all respondents did on average across OECD countries. Likewise, a positive value on an index indicates that the respondents answered more favourably, or more positively, than respondents did, on average, across OECD countries. Terms enclosed in brackets < > in the following descriptions were replaced in the national versions of the student, school and parent questionnaires by the appropriate national equivalent. For example, the term <qualification at ISCED level 5A> was translated in the United States into "Bachelor's degree, post-graduate certificate program, Master's degree program or first professional degree program". Similarly the term <classes in the language of assessment> in Luxembourg was translated into "German classes" or "French classes" depending on whether students received the German or French version of the assessment instruments.

In addition to simple and scaled indices described in this annex, there are a number of variables from the questionnaires that correspond to single items not used to construct indices. These non-recoded variables have prefix of "ST" for the questionnaire items in the student questionnaire, "SC" for the items in the school questionnaire, and "PA" for the items in the parent questionnaire. All the context questionnaires as well as the PISA international database, including all variables, are available through *www.pisa.oecd.org*.

Scaling of questionnaire indices for trend analyses

In PISA, to gather information about students' and schools' characteristics, both students and schools complete a background questionnaire. In PISA 2003 and PISA 2012 several questions were kept untouched, enabling the comparison of responses to these

questions over time. In this report, only questions that maintained an exact wording are used for trends analyses. Questions with subtle word changes or questions with major word changes were not compared across time because it is impossible to discern whether observed changes in the response are due to changes in the construct they are measuring or to changes in the way the construct is being measured.

Also, in PISA, as described in this Annex, questionnaire items are used to construct indices. Whenever the questions used in the construction of indices remains intact in PISA 2003 and PISA 2012, the corresponding indices are compared. Two types of indices are used in PISA: simple indices and scale indices.

Simple indices recode a set of responses to questionnaire items. For trends analyses, the values observed in PISA 2003 are compared directly to PISA 2012, just as simple responses to questionnaire items are. This is the case of indices like student-teacher ratio and ability grouping in mathematics.

Scale indices, on the other hand, imply WLE estimates which require rescaling in order to be comparable across PISA cycles. Scale indices, like the *PISA index of economic, social and cultural status*, the *index of sense of belonging*, the *index of attitudes towards school*, the *index of intrinsic motivation to learn mathematics*, the *index of instrumental motivation to learn mathematics*, the *index of mathematics self-efficacy*, the *index of mathematics self-concept*, the *index of mathematics anxiety*, the *index of teacher shortage*, the *index of quality of physical infrastructure*, the *index of quality of educational resources*, the *index of disciplinary climate*, the *index of teacher-student relations*, the *index of teacher morale*, the *index of student-related factors affecting school climate* and the *index of teacher-related factors affecting school climate*, were scaled, in PISA 2012 to have an OECD average of 0 and a standard deviation of 1, on average, across OECD countries. These same scales were scaled, in PISA 2003, to have an OECD average of 0 and a standard deviation of 1. Because they are on different scales, values reported in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) cannot be compared with those reported in this volume. To make these scale indices comparable, values for 2003 have been rescaled to the 2012 scale, using the PISA 2012 parameter estimates.

These re-scaled indices are available at *www.pisa.oecd.org*. They can be merged to the corresponding PISA 2003 dataset using the country names, school and student-level identifiers. The rescaled *PISA index of economic, social and cultural status* is also available to be merged with the PISA 2000, PISA 2006 and PISA 2009 dataset.

Student-level indices

Age

The variable AGE is calculated as the difference between the middle month and the year in which students were assessed and their month and year of birth, expressed in years and months.

Study programme

In PISA 2012, study programmes available to 15-year-old students in each country were collected both through the student tracking form and the student questionnaire (ST02). All study programmes were classified using ISCED (OECD, 1999). In the PISA international database, all national programmes are indicated in a variable (PROGN) where the first six digits refer to the national centre code and the last two digits to the national study programme code.

The following internationally comparable indices were derived from the data on study programmes:

- Programme level (ISCEDL) indicates whether students are (1) primary education level (ISCED 1); (2) lower-secondary education level; or (3) upper secondary education level.
- Programme designation (ISCEDD) indicates the designation of the study programme: (1) "A" (general programmes designed to give access to the next programme level); (2) "B" (programmes designed to give access to vocational studies at the next programme level); (3) "C" (programmes designed to give direct access to the labour market); or (4) "M" (modular programmes that combine any or all of these characteristics).
- Programme orientation (ISCEDO) indicates whether the programme's curricular content is (1) general; (2) pre-vocational; (3) vocational; or (4) modular programmes that combine any or all of these characteristics.

Occupational status of parents

Occupational data for both a student's father and a student's mother were obtained by asking open-ended questions in the student questionnaire (ST12, ST16). The responses were coded to four-digit ISCO codes (ILO, 1990) and then mapped to the SEI index of Ganzeboom, de Graaf and Treiman (1992). Higher scores of SEI indicate higher levels of occupational status. The following three indices are obtained:

- Mother's occupational status (OCOD1).
- Father's occupational status (OCOD2).
- The highest occupational level of parents (HISEI) corresponds to the higher SEI score of either parent or to the only available parent's SEI score.

[Part 1/1]

Table A1.1 Levels of parental education converted into years of schooling

		Completed ISCED level 1 (primary education)	Completed ISCED level 2 (lower secondary education)	Completed ISCED levels 3B or 3C (upper secondary education providing direct access to the labour market or to ISCED 5B programmes)	Completed ISCED level 3A (upper secondary education providing access to ISCED 5A and 5B programmes) and/ or ISCED level 4 (non-tertiary post-secondary)	Completed ISCED level 5A (university level tertiary education) or ISCED level 6 (advanced research programmes)	Completed ISCED level 5B (non-university tertiary education)
OECD	**Australia**	6.0	10.0	11.0	12.0	15.0	14.0
	Austria	4.0	9.0	12.0	12.5	17.0	15.0
	Belgium[1]	6.0	9.0	12.0	12.0	17.0	15.0
	Canada	6.0	9.0	12.0	12.0	17.0	15.0
	Chile	6.0	8.0	12.0	12.0	17.0	16.0
	Czech Republic	5.0	9.0	11.0	13.0	16.0	16.0
	Denmark	7.0	10.0	13.0	13.0	18.0	16.0
	Estonia	6.0	9.0	12.0	12.0	16.0	15.0
	Finland	6.0	9.0	12.0	12.0	16.5	14.5
	France	5.0	9.0	12.0	12.0	15.0	14.0
	Germany	4.0	10.0	13.0	13.0	18.0	15.0
	Greece	6.0	9.0	11.5	12.0	17.0	15.0
	Hungary	4.0	8.0	10.5	12.0	16.5	13.5
	Iceland	7.0	10.0	13.0	14.0	18.0	16.0
	Ireland	6.0	9.0	12.0	12.0	16.0	14.0
	Israel	6.0	9.0	12.0	12.0	15.0	15.0
	Italy	5.0	8.0	12.0	13.0	17.0	16.0
	Japan	6.0	9.0	12.0	12.0	16.0	14.0
	Korea	6.0	9.0	12.0	12.0	16.0	14.0
	Luxembourg	6.0	9.0	12.0	13.0	17.0	16.0
	Mexico	6.0	9.0	12.0	12.0	16.0	14.0
	Netherlands	6.0	10.0	13.0	12.0	16.0	15.0
	New Zealand	5.5	10.0	11.0	12.0	15.0	14.0
	Norway	6.0	9.0	12.0	12.0	16.0	14.0
	Poland	a	8.0	11.0	12.0	16.0	15.0
	Portugal	6.0	9.0	12.0	12.0	17.0	15.0
	Slovak Republic[2]	4.0	9.0	12.0	13.0	18.0	16.0
	Slovenia	4.0	8.0	11.0	12.0	16.0	15.0
	Spain	5.0	8.0	10.0	12.0	16.5	13.0
	Sweden	6.0	9.0	11.5	12.0	16.0	14.0
	Switzerland	6.0	9.0	12.5	12.5	17.5	14.5
	Turkey	5.0	8.0	11.0	11.0	15.0	13.0
	United Kingdom (exclud. Scotland)	6.0	9.0	12.0	13.0	16.0	15.0
	United Kingdom (Scotland)	7.0	9.0	11.0	13.0	17.0	15.0
	United States	6.0	9.0	a	12.0	16.0	14.0
Partners	**Albania**	6.0	9.0	12.0	12.0	16.0	16.0
	Argentina	6.0	10.0	12.0	12.0	17.0	14.5
	Azerbaijan	4.0	9.0	11.0	11.0	17.0	14.0
	Brazil	4.0	8.0	11.0	11.0	16.0	14.5
	Bulgaria	4.0	8.0	10.0	12.0	17.5	15.0
	Colombia	5.0	9.0	11.0	11.0	15.5	14.0
	Costa Rica	6.0	9.0	11.0	12.0	14.0	16.0
	Croatia	4.0	8.0	11.0	12.0	17.0	15.0
	Hong Kong-China	6.0	9.0	11.0	13.0	16.0	14.0
	Indonesia	6.0	9.0	12.0	12.0	15.0	14.0
	Jordan	6.0	10.0	12.0	12.0	16.0	14.5
	Kazakhstan	4.0	9.0	11.5	12.5	15.0	14.0
	Latvia	4.0	8.0	11.0	11.0	16.0	14.0
	Liechtenstein	5.0	9.0	11.0	13.0	17.0	14.0
	Lithuania	3.0	8.0	11.0	11.0	16.0	15.0
	Macao-China	6.0	9.0	11.0	12.0	16.0	15.0
	Malaysia	6.0	9.0	11.0	13.0	15.0	16.0
	Montenegro	4.0	8.0	11.0	12.0	16.0	15.0
	Peru	6.0	9.0	11.0	11.0	17.0	14.0
	Qatar	6.0	9.0	12.0	12.0	16.0	15.0
	Romania	4.0	8.0	11.5	12.5	16.0	14.0
	Russian Federation	4.0	9.0	11.5	12.0	15.0	a
	Serbia	4.0	8.0	11.0	12.0	17.0	14.5
	Shanghai-China	6.0	9.0	12.0	12.0	16.0	15.0
	Singapore	6.0	8.0	10.0	11.0	16.0	13.0
	Chinese Taipei	6.0	9.0	12.0	12.0	16.0	14.0
	Thailand	6.0	9.0	12.0	12.0	16.0	14.0
	Tunisia	6.0	9.0	12.0	13.0	17.0	16.0
	United Arab Emirates	5.0	9.0	12.0	12.0	16.0	15.0
	Uruguay	6.0	9.0	12.0	12.0	17.0	15.0
	Viet Nam	5.0	9.0	12.0	12.0	17.0	a

1. In Belgium the distinction between universities and other tertiary schools doesn't match the distinction between ISCED 5A and ISCED 5B.

2. In the Slovak Republic, university education (ISCED 5A) usually lasts five years and doctoral studies (ISCED 6) lasts three more years. Therefore, university graduates will have completed 18 years of study and graduates of doctoral programmes will have completed 21 years of study.

Source: OECD, PISA 2012 Database.

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Some of the analyses distinguish between four different categories of occupations by the major groups identified by the ISCO coding of the highest parental occupation: Elementary (ISCO 9), semi-skilled blue-collar (ISCO 6, 7 and 8), semi-skilled white-collar (ISCO 4 and 5), skilled (ISCO 1, 2 and 3). This classification follows the same methodology used in other OECD publications such as *Education at a Glance* (OECD, 2013b) and the *OECD Skills Outlook* (OECD, 2013c).[1]

Educational level of parents

The educational level of parents is classified using ISCED (OECD, 1999) based on students' responses in the student questionnaire (ST13, ST14, ST17 and ST18).

As in PISA 2000, 2003, 2006 and 2009, indices were constructed by selecting the highest level for each parent and then assigning them to the following categories: (0) None, (1) ISCED 1 (primary education), (2) ISCED 2 (lower secondary), (3) ISCED level 3B or 3C (vocational/pre-vocational upper secondary), (4) ISCED 3A (upper secondary) and/or ISCED 4 (non-tertiary post-secondary), (5) ISCED 5B (vocational tertiary), (6) ISCED 5A, 6 (theoretically oriented tertiary and post-graduate). The following three indices with these categories are developed:

- Mother's educational level (MISCED).
- Father's educational level (FISCED).
- Highest educational level of parents (HISCED) corresponds to the higher ISCED level of either parent.

Highest educational level of parents was also converted into the number of years of schooling (PARED). For the conversion of level of education into years of schooling, see Table A1.1.

Immigration and language background

Information on the country of birth of students and their parents is collected in a similar manner as in PISA 2000, PISA 2003, PISA 2006 and PISA 2009 by using nationally specific ISO coded variables. The ISO codes of the country of birth for students and their parents are available in the PISA international database (COBN_S, COBN_M, and COBN_F).

The *index on immigrant background* (IMMIG) has the following categories: (1) non-immigrant students (those students born in the country of assessment, or those with at least one parent born in that country; students who were born abroad with at least one parent born in the country of assessment are also classified as non-immigrant students), (2) second-generation students (those born in the country of assessment but whose parents were born in another country) and (3) first-generation students (those born outside the country of assessment and whose parents were also born in another country). Students with missing responses for either the student or for both parents, or for all three questions have been given missing values for this variable.

Students indicate the language they usually speak at home. The data are captured in nationally-specific language codes, which were recoded into variable LANGN with the following two values: (1) language at home is the same as the language of assessment, and (2) language at home is a different language than the language of assessment.

Relative grade

Data on the student's grade are obtained both from the student questionnaire (ST01) and from the student tracking form. As with all variables that are on both the tracking form and the questionnaire, inconsistencies between the two sources are reviewed and resolved during data-cleaning. In order to capture between-country variation, the relative grade index (GRADE) indicates whether students are at the modal grade in a country (value of 0), or whether they are below or above the modal grade level (+ x grades, - x grades).

The relationship between the grade and student performance was estimated through a multilevel model accounting for the following background variables: *i)* the *PISA index of economic, social and cultural status*; *ii)* the *PISA index of economic, social and cultural status* squared; *iii)* the school mean of the *PISA index of economic, social and cultural status*; *iv)* an indicator as to whether students were foreign-born first-generation students; *v)* the percentage of first-generation students in the school; and *vi)* students' gender.

Table A1.2 presents the results of the multilevel model. Column 1 in Table A1.2 estimates the score-point difference that is associated with one grade level (or school year). This difference can be estimated for the 32 OECD countries in which a sizeable number of 15-year-olds in the PISA samples were enrolled in at least two different grades. Since 15-year-olds cannot be assumed to be distributed at random across the grade levels, adjustments had to be made for the above-mentioned contextual factors that may relate to the assignment of students to the different grade levels. These adjustments are documented in columns 2 to 7 of the table. While it is possible to estimate the typical performance difference among students in two adjacent grades net of the effects of selection and contextual factors, this difference cannot automatically be equated with the progress that students have made over the last school year but should be interpreted as a lower boundary of the progress achieved. This is not only because different students were assessed but also because the content of the PISA assessment was not expressly designed to match what students had learned in the preceding school year but more broadly to assess the cumulative outcome of learning in school up to age 15. For example, if the curriculum of the grades in which 15-year-olds are enrolled mainly includes material other than that assessed by PISA (which, in turn, may have been included in earlier school years) then the observed performance difference will underestimate student progress.

[Part 1/1]

Table A1.2 A multilevel model to estimate grade effects in mathematics accounting for some background variables

		Multilevel model to estimate grade effects in mathematics performance[1], accounting for:															
		grade		PISA index of economic, social and cultural status		PISA index of economic, social and cultural status squared		school mean of the PISA index of economic, social and cultural status		first-generation students		percentage of first-generation students at the school level		student is a female		intercept	
		Coeff	S.E.	Coeff	S.E.	Coeff	S.E.	Coeff	S.E.	Coeff	S.E.	Coeff	S.E.	Coeff	S.E.	Coeff	S.E.
OECD	**Australia**	**35**	(2.3)	**20**	(1.4)	1	(1.1)	**68**	(7.1)	6	(3.9)	0	(0.2)	**-12**	(2.9)	481	(4.1)
	Austria	**36**	(2.7)	**11**	(1.8)	-2	(1.6)	**62**	(8.2)	-9	(6.5)	0	(0.3)	**-28**	(3.3)	526	(5.8)
	Belgium	**43**	(2.4)	**4**	(1.4)	1	(0.9)	**83**	(14.6)	-3	(4.7)	0	(0.6)	**-15**	(2.0)	528	(8.0)
	Canada	**44**	(2.5)	**19**	(1.5)	**3**	(1.1)	**29**	(6.8)	6	(3.7)	0	(0.1)	**-13**	(1.9)	506	(4.0)
	Chile	**33**	(1.8)	**9**	(1.5)	1	(0.7)	**37**	(3.6)	-2	(10.2)	-1	(1.1)	**-29**	(2.1)	469	(4.7)
	Czech Republic	**47**	(3.5)	**13**	(2.0)	-3	(2.0)	**111**	(9.3)	1	(9.1)	-2	(0.9)	**-24**	(2.9)	502	(4.2)
	Denmark	**34**	(3.9)	**26**	(2.2)	2	(1.6)	**44**	(8.0)	**-34**	(5.3)	0	(0.5)	**-18**	(2.2)	483	(5.4)
	Estonia	**41**	(2.7)	**16**	(2.0)	2	(2.3)	**25**	(6.7)	-20	(17.0)	**-4**	(0.6)	**-7**	(2.5)	530	(3.3)
	Finland	**52**	(4.4)	**22**	(2.1)	**6**	(1.9)	**38**	(13.2)	**-38**	(8.7)	-1	(0.8)	1	(3.1)	501	(7.7)
	France	**49**	(4.8)	**16**	(2.3)	2	(1.7)	**60**	(9.5)	-6	(5.8)	0	(0.4)	**-18**	(2.7)	509	(6.3)
	Germany	**41**	(2.1)	**5**	(1.5)	1	(1.4)	**108**	(8.3)	**-20**	(7.9)	**-2**	(0.7)	**-28**	(2.6)	487	(5.6)
	Greece	**41**	(6.3)	**17**	(1.7)	1	(1.2)	**29**	(6.8)	8	(6.3)	0	(0.2)	**-15**	(2.6)	458	(4.5)
	Hungary	**32**	(3.0)	**7**	(1.8)	**3**	(1.2)	**64**	(8.6)	42	(23.9)	**-1**	(0.5)	**-27**	(2.5)	494	(5.6)
	Iceland	c	c	**19**	(3.2)	3	(1.9)	**24**	(9.4)	**-31**	(11.0)	-1	(0.5)	**7**	(3.5)	454	(8.4)
	Ireland	**18**	(1.8)	**24**	(1.7)	1	(1.8)	**60**	(6.1)	**10**	(4.8)	0	(0.3)	**-15**	(3.0)	491	(4.4)
	Israel	**35**	(4.2)	**21**	(2.6)	**3**	(1.5)	**91**	(14.8)	-12	(7.7)	1	(0.8)	**-11**	(4.2)	446	(9.7)
	Italy	**35**	(1.9)	**3**	(0.9)	-1	(0.7)	**54**	(5.5)	**-13**	(3.4)	0	(0.1)	**-23**	(1.7)	495	(3.1)
	Japan	c	c	3	(2.1)	1	(2.2)	**156**	(13.3)	c	c	c	c	**-14**	(3.2)	548	(5.5)
	Korea	**40**	(14.6)	**25**	(4.7)	5	(3.0)	**75**	(20.8)	c	c	c	c	-10	(5.8)	555	(6.2)
	Luxembourg	**50**	(2.3)	**12**	(1.8)	0	(0.8)	**55**	(5.4)	-7	(4.3)	0	(0.1)	**-23**	(2.7)	481	(4.7)
	Mexico	**26**	(1.8)	**8**	(1.1)	**2**	(0.4)	**17**	(2.0)	**-44**	(6.0)	-1	(0.5)	**-14**	(1.5)	451	(3.1)
	Netherlands	**35**	(2.6)	**6**	(1.6)	0	(1.1)	**108**	(22.6)	-14	(9.4)	-1	(1.1)	**-19**	(2.1)	480	(8.1)
	New Zealand	**35**	(5.6)	**31**	(2.5)	-1	(1.8)	**60**	(8.4)	-1	(4.4)	0	(0.4)	**-10**	(3.2)	502	(9.6)
	Norway	**36**	(17.8)	**24**	(2.5)	-2	(1.7)	29	(29.3)	**-21**	(7.8)	-1	(0.8)	3	(4.0)	474	(18.0)
	Poland	**80**	(7.0)	**26**	(2.1)	-2	(1.8)	**37**	(6.9)	c	c	c	c	-5	(3.7)	539	(4.5)
	Portugal	**51**	(2.9)	**17**	(1.5)	2	(0.9)	**27**	(4.0)	10	(7.1)	0	(0.5)	**-17**	(2.2)	540	(4.3)
	Slovak Republic	**42**	(3.8)	**21**	(2.2)	-1	(1.4)	**39**	(7.5)	c	c	c	c	**-20**	(3.0)	530	(4.4)
	Slovenia	**24**	(6.2)	1	(1.7)	**4**	(1.5)	**72**	(12.9)	**-34**	(6.7)	0	(0.8)	**-25**	(2.9)	484	(5.2)
	Spain	**64**	(1.5)	**14**	(0.9)	**2**	(0.7)	**21**	(3.0)	**-16**	(3.0)	0	(0.2)	**-24**	(1.5)	531	(2.4)
	Sweden	**67**	(6.7)	**27**	(2.1)	2	(1.4)	**29**	(7.8)	**-21**	(8.0)	0	(0.2)	3	(3.0)	461	(4.6)
	Switzerland	**52**	(3.0)	**20**	(1.8)	-2	(1.2)	**20**	(7.9)	**-29**	(4.5)	-1	(0.3)	**-20**	(2.4)	528	(4.3)
	Turkey	**29**	(2.9)	1	(2.4)	-1	(1.0)	**47**	(9.1)	c	c	c	c	**-22**	(2.7)	553	(17.0)
	United Kingdom	**23**	(5.4)	**20**	(2.3)	**3**	(1.8)	**88**	(8.2)	4	(6.2)	0	(0.3)	**-9**	(3.2)	465	(4.9)
	United States	**41**	(3.3)	**21**	(1.8)	**7**	(1.5)	**51**	(9.4)	9	(8.0)	**1**	(0.4)	**-12**	(3.5)	457	(6.5)
	OECD average	**41**	(1.0)	**16**	(0.4)	**1**	(0.3)	**56**	(1.9)	**-10**	(1.6)	**0**	(0.1)	**-15**	(0.5)	498	(1.2)
Partners	**Albania**	6	(3.9)	m	m	m	m	m	m	c	c	c	c	0	(4.1)	395	(4.0)
	Argentina	**31**	(1.7)	**9**	(1.7)	**2**	(0.9)	**38**	(7.1)	1	(12.1)	-2	(1.0)	**-18**	(2.3)	446	(5.3)
	Brazil	**31**	(1.2)	**5**	(2.1)	0	(0.7)	**26**	(4.3)	**-49**	(19.1)	0	(1.4)	**-25**	(1.8)	432	(7.3)
	Bulgaria	**30**	(4.2)	**12**	(1.6)	1	(1.1)	25	(12.6)	c	c	c	c	**-10**	(2.6)	429	(8.0)
	Colombia	**25**	(1.3)	**7**	(2.4)	1	(0.7)	**26**	(4.1)	c	c	c	c	**-30**	(2.0)	444	(5.7)
	Costa Rica	**26**	(1.3)	**8**	(1.6)	1	(0.6)	**25**	(4.2)	-7	(8.0)	0	(0.8)	**-29**	(2.3)	447	(7.5)
	Croatia	**21**	(2.8)	**9**	(1.9)	-1	(1.3)	**71**	(13.7)	-10	(7.6)	-1	(0.9)	**-24**	(2.9)	504	(8.1)
	Cyprus*	**39**	(6.0)	**18**	(1.8)	2	(1.1)	**61**	(8.7)	-5	(5.5)	0	(0.2)	**-14**	(2.4)	439	(5.3)
	Hong Kong-China	**36**	(2.2)	4	(2.6)	1	(1.2)	**48**	(14.5)	**26**	(4.3)	0	(1.0)	**-22**	(3.3)	613	(18.1)
	Indonesia	**17**	(2.7)	**6**	(2.3)	1	(0.6)	**27**	(5.6)	c	c	c	c	**-6**	(1.9)	438	(10.9)
	Jordan	**37**	(5.3)	**12**	(2.1)	**2**	(0.8)	22	(14.9)	6	(6.6)	2	(1.0)	9	(11.7)	393	(11.4)
	Kazakhstan	**16**	(2.5)	**14**	(2.4)	0	(1.5)	**36**	(10.3)	-5	(5.0)	0	(0.3)	-4	(2.2)	459	(5.2)
	Latvia	**53**	(4.0)	**18**	(1.9)	2	(1.8)	**25**	(5.9)	c	c	c	c	**-7**	(3.0)	510	(3.8)
	Liechtenstein	**40**	(8.9)	**8**	(4.1)	-5	(2.7)	**107**	(25.4)	-10	(9.3)	**-2**	(1.0)	**-27**	(5.2)	543	(20.9)
	Lithuania	**32**	(3.4)	**17**	(1.8)	-2	(1.5)	**47**	(6.9)	c	c	c	c	**-7**	(2.6)	483	(4.1)
	Macao-China	**50**	(1.7)	**7**	(2.9)	2	(1.4)	8	(12.2)	**24**	(3.0)	-1	(0.5)	**-26**	(2.3)	544	(14.2)
	Malaysia	**79**	(7.0)	**15**	(2.3)	**2**	(0.9)	**53**	(7.2)	c	c	c	c	2	(2.1)	466	(6.5)
	Montenegro	**9**	(3.1)	**13**	(1.9)	1	(1.0)	**76**	(15.6)	**16**	(7.0)	-2	(1.1)	**-11**	(3.2)	437	(8.6)
	Peru	**25**	(1.3)	**8**	(2.1)	1	(0.6)	**36**	(3.8)	c	c	c	c	**-28**	(2.5)	434	(6.4)
	Qatar	**28**	(2.2)	**6**	(1.4)	1	(0.7)	**26**	(7.9)	**32**	(3.3)	**1**	(0.1)	2	(4.1)	310	(5.4)
	Romania	-5	(5.6)	**20**	(2.3)	**5**	(1.0)	**51**	(9.6)	c	c	c	c	**-7**	(2.8)	475	(7.4)
	Russian Federation	**34**	(2.5)	**22**	(2.2)	-1	(1.5)	**21**	(9.6)	**-16**	(6.4)	**-1**	(0.5)	-2	(2.6)	487	(4.7)
	Serbia	**33**	(10.4)	**8**	(2.1)	-1	(1.7)	**81**	(11.8)	-11	(11.5)	0	(0.9)	**-26**	(3.9)	480	(8.0)
	Shanghai-China	**43**	(5.5)	**6**	(2.4)	**-3**	(1.4)	**52**	(6.5)	-27	(16.1)	-1	(1.0)	**-14**	(2.6)	674	(7.6)
	Singapore	**44**	(3.3)	**21**	(2.2)	0	(1.2)	**81**	(12.6)	**29**	(4.8)	**-1**	(0.3)	-1	(2.7)	608	(9.4)
	Chinese Taipei	**47**	(13.2)	**21**	(3.8)	**-6**	(2.1)	**114**	(9.6)	c	c	c	c	3	(4.1)	638	(9.8)
	Thailand	**16**	(3.9)	**13**	(3.0)	**3**	(1.1)	**-22**	(10.8)	c	c	c	c	2	(3.5)	418	(17.5)
	Tunisia	**36**	(1.7)	**7**	(2.0)	**2**	(0.7)	12	(7.0)	c	c	c	c	**-26**	(1.7)	429	(11.5)
	United Arab Emirates	**33**	(1.5)	**9**	(1.3)	**3**	(0.8)	**23**	(7.4)	**31**	(2.1)	**1**	(0.1)	-2	(4.7)	387	(4.1)
	Uruguay	**39**	(2.1)	**15**	(2.0)	**3**	(0.9)	**35**	(4.3)	c	c	c	c	**-19**	(2.3)	480	(4.7)
	Viet Nam	**36**	(4.8)	**12**	(4.1)	**3**	(1.1)	26	(15.1)	c	c	c	c	**-22**	(4.4)	550	(32.4)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Multilevel regression model (student and school levels): Mathematics performance is regressed on the variables of school policies and practices presented in this table.

* See notes at the beginning of this Annex.

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Learning time

Learning time in test language (LMINS) was computed by multiplying students' responses on the number of minutes on average in the test language class by number of test language class periods per week (ST69 and ST70). Comparable indices were computed for mathematics (MMINS) and science (SMINS).

Skipping classes or days of school

Student responses over whether, in the two weeks before the PISA test, they skipped classes (ST09) or days of school (ST115) at least once were used to derive an indicator of student truancy which takes value 0 if students reported not skipping any class and not skipping any day of school in the two weeks before the PISA test and value 1 if students reported skipping classes or days of school at least once in the same period.

Sense of belonging

The *index of sense of belonging* (BELONG) was constructed using student responses (ST87) over the extent they strongly agreed, agreed, disagreed or strongly disagreed to the following statements: I feel like an outsider (or left out of things) at school; I make friends easily at school; I feel like I belong at school; I feel awkward or out of place in my school; other students seem to like me; I feel lonely at school; I feel happy at school; things are ideal in my school; I am satisfied with my school.

For trends analyses, the PISA 2003 values of the *index of sense of belonging* were rescaled to be comparable to those in PISA 2012. As a result, values for the *index of sense of belonging* for PISA 2003 reported in this volume may differ from those reported in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004). Three of the questions included to compute the *index of sense of belonging* in PISA 2012 ("I feel happy at school," "things are ideal in my school," and "I am satisfied with my school") were not included in the PISA 2003 questionnaire. Estimation of the PISA 2003 index treats these questions as missing and, under the assumption that the relationship between the items remains unchanged with the inclusion of the new questions, the PISA 2003 and PISA 2012 values on the *index of sense of belonging* are comparable after the rescaling.

Attitudes towards school (learning outcomes)

The *index of attitudes towards school (learning outcomes)* (ATSCHL) was constructed using student responses (ST88) over the extent they strongly agreed, agreed, disagreed or strongly disagreed to the following statements when asked about what they have learned in school: School has done little to prepare me for adult life when I leave school; school has been a waste of time; school has helped give me confidence to make decisions; school has taught me things which could be useful in a job.

For trends analyses, the PISA 2003 values of the *index of attitudes towards school* were rescaled to be comparable to those in PISA 2012. As a result, values for the *index of attitudes towards school* for PISA 2003 reported in this volume may differ from those reported in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004).

Attitudes towards school (learning activities)

The *index of attitudes towards school (learning activities)* (ATTLNACT) was constructed using student responses (ST89) over the extent they strongly agreed, agreed, disagreed or strongly disagreed to the following statements when asked to think about their school: Trying hard at school will help me get a good job; trying hard at school will help me get into a good <college>; I enjoy receiving good <grades>; trying hard at school is important.

Perseverance

The *index of perseverance* (PERSEV) was constructed using student responses (ST93) over whether they report that the following statements describe them very much, mostly, somewhat, not much, not at all: When confronted with a problem, I give up easily; I put off difficult problems; I remain interested in the tasks that I start; I continue working on tasks until everything is perfect; when confronted with a problem, I do more than what is expected of me.

Openness to problem solving

The *index of openness to problem solving* (OPENPS) was constructed using student responses (ST94) over whether they report that the following statements describe them very much, mostly, somewhat, not much, not at all: I can handle a lot of information; I am quick to understand things; I seek explanations ofr things; I can easily link facts together; I like to solve complex problems.

Perceived self-responsibility for failing in mathematics

The *index of perceived self-responsibility for failing in mathematics* (FAILMAT) was constructed using student responses when examining the following scenario defined in (ST44): "suppose that you are a student in the following situation: each week, your mathematics teacher gives a short quiz. Recently you have done badly on these quizzes. Today you are trying to figure out why. Are you very likely, likely, slightly likely or not at all likely to have the following thoughts or feelings in this situation? I'm not very good at solving mathematics problems; my teacher did not explain the concepts well this week; this week I made bad guesses on the quiz; sometimes the course material is too hard; the teacher did not get students interested in the material; sometimes I am just unlucky.

Intrinsic motivation to learn mathematics

The *index of intrinsic motivation to learn mathematics* (INTMAT) was constructed using student responses over the extent they strongly agreed, agreed, disagreed or strongly disagreed to the statements asked in question (ST29), when asked to think about their views on mathematics: I enjoy reading about mathematics; I look forward to my mathematics; I do mathematics because I enjoy it; I am interested in the things I learn in mathematics.

For trends analyses, the PISA 2003 values of the *index of intrinsic motivation to learn mathematics* were rescaled to be comparable to those in PISA 2012. As a result, values for the *index of intrinsic motivation to learn mathematics* for PISA 2003 reported in this volume may differ from those reported in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004). In PISA 2003 the *index of intrinsic motivation to learn mathematics* was named the *index of interest and enjoyment in mathematics*. Given that both are based on the same questionnaire items, they are comparable over time.

Instrumental motivation to learn mathematics

The *index of instrumental motivation to learn mathematics* (INSTMOT) was constructed using student responses over the extent they strongly agreed, agreed, disagreed or strongly disagreed to a series of statements in question (ST29) when asked to think about their views on mathematics: Making an effort in mathematics is worth because it will help me in the work that I want to do later on; learning mathematics is worthwhile for me because it will improve my career <prospects, chances>; Mathematics is an important subject for me because I need it for what I want to study later on; I will learn many things in mathematics that will help me get a job.

For trends analyses, the PISA 2003 values of the *index of instrumental motivation to learn mathematics* were rescaled to be comparable to those in PISA 2012. As a result, values for the *index of instrumental motivation to learn mathematics* for PISA 2003 reported in this volume may differ from those reported in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004).

Mathematics self-efficacy

The *index of mathematics self-efficacy* (MATHEFF) was constructed using student responses over the extent they reported feeling very confident, confident, not very confident, not at confident about having to do a number of tasks. The question (ST37) asked about the following mathematics tasks: Using a <train timetable> to work out how long it would take to get from one place to another; calculating how much cheaper a TV would be after a 30% discount; calculating how many square metres of tiles you need to cover a floor; understanding graphs presented in newspapers; solving an equation like $3x+5=17$; finding the actual distance between two places on a map with a 1:10 000 scale; solving an equation like $2(x+3)=(x+3)(x-3)$; calculating the petrol consumption rate of a car.

For trends analyses, the PISA 2003 values of the *index of mathematics self-efficacy* were rescaled to be comparable to those in PISA 2012. As a result, values for the *index of mathematics self-efficacy* for PISA 2003 reported in this volume may differ from those reported in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004).

Mathematics self-concept

The *index of mathematics self-concept* (SCMAT) was constructed using student responses to question (ST42) over the extent they strongly agreed, agreed, disagreed or strongly disagreed with the following statements when asked to think about studying mathematics: I am just not good at mathematics; I get good <grades> in mathematics; I learn mathematics quickly; I have always believed that mathematics is one of my best subjects; in my mathematics class, I understand even the most difficult work.

For trends analyses, the PISA 2003 values of the *index of mathematics self-concept* were rescaled to be comparable to those in PISA 2012. As a result, values for the *index of mathematics self-concept* for PISA 2003 reported in this volume may differ from those reported in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004).

Mathematics anxiety

The *index of mathematics anxiety* (ANXMAT) was constructed using student responses to question (ST42) over the extent they strongly agreed, agreed, disagreed or strongly disagreed with the following statements when asked to think about studying mathematics: I often worry that it will be difficult for me in mathematics classes; I get very tense when I have to do mathematics homework; I get very nervousdoing mathematics problems; I feel helpless when doing a mathematics problem; I worry that I will get poor <grades> in mathematics.

For trends analyses, the PISA 2003 values of the *index of mathematics anxiety* were rescaled to be comparable to those in PISA 2012. As a result, values for the *index of mathematics anxiety* for PISA 2003 reported in this volume may differ from those reported in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004).

Mathematics intentions

The *index of mathematics intentions* (MATINTFC) was constructed asking students (ST48) to choose, for each pair of the following statements, the item that best described them: I intend to take additional mathematics courses after school finishes vs. I intend to take additional <test language> courses after school finishes; I plan on majoring in a subject in <college> that requires mathematics skills vs. I plan on majoring in a subject in <college> that requires science skills; I am willing to study harder in my mathematics classes than is

required vs. I am willing to study harder in my <test language> classes than is required; I pan on <taking> as many mathematics classes as I can during my education vs. I pan on <taking> as many science classes as I can during my education; I am planning on pursuing a career that involves a lot of mathematics vs. I am planning on pursuing a career that involves a lot of science.

Table A1.3 **Student questionnaire rotation design**

Form A	Common Question Set (all forms)	Question Set 1 – Mathematics Attitudes/ Problem Solving	Question Set 3 – Opportunity to Learn/ Learning Strategies
Form B	Common Question Set (all forms)	Question Set 2 – School Climate/Attitudes towards School/Anxiety	Question Set 1 – Mathematics Attitudes/ Problem Solving
Form C	Common Question Set (all forms)	Question Set 3 – Opportunity to Learn/ Learning Strategies	Question Set 2 – School Climate/Attitudes towards School/Anxiety

Note: For details regarding the questions in each question set, please refer to the *PISA 2012 Technical Report* (OECD, forthcoming).

Subjective norms in mathematics

The *index of subjective norms in mathematics* (SUBNORM) was constructed using student responses (ST35) over whether, thinking about how people important to them view mathematics, they strongly agreed, agreed, disagreed or strongly disagreed to the following statements: Most of my friends do well in mathematics; most of my friends work hard at mathematics; my friends enjoy taking mathematics tests; my parents believe it's important for me to study mathematics; my parents believe that mathematics is important for my career; my parents like mathematics

Mathematics behaviours

The *index of mathematics behaviours* (MATBEH) was constructed using student responses (ST49) over how often (always or almost always, often, sometimes, never, rarely) they do the following things at school and outside of school: I talk about mathematics problems with my friends; I help my friends with mathematics; I do mathematics as an <extracurricular> activity; I take part in mathematics competitions; I do mathematics more than 2 hours a day outside of school; I play chess; I program computers; I participate in a mathematics club.

Pre-primary attendance

Students were asked (ST05) whether they had attended pre-primary education (<ISCED 0> which was the adapted by each national centre) and if they did, if they attended "for one year or less" or "for more than one year."

Mother/father Current Job Status

After answering questions about parental occupation and education, students were asked (ST15 and ST19) "What is your mother/father currently doing?". They could then choose between four options: *i)* "Working full-time" <for pay>, *ii)* Working part-time <for pay>, *iii)* Not working, but looking for a job and, *iv)* Other (e.g. home duties, retired).

Teacher-Directed instruction

The *index of teacher-directed instruction* (TCHBEHTD) was constructed using students' reports (ST79) on the frequency (every lesson, most lessons, some lessons, never or hardly ever) with which, in mathematics lessons, the teacher sets clear goals for student learning; the teacher asks students to present their thinking or reasoning at some length; the teacher asks questions to check whether students understood what was taught; and the teacher tells students what they have to learn.

Teachers' student orientation

The *index of teachers' student orientation* (TCHBEHSO) was constructed using students' reports (ST79) on the frequency (every lesson, most lessons, some lessons, never or hardly ever) with which, in mathematics lessons, the teacher gives students different work to classmates who have difficulties learning and/or to those who can advance faster; the teacher assigns projects that require at least one week to complete; the teacher has students work in small groups to come up with a joint solution to a problem or task; and the teacher asks students to help plan classroom activities or topics.

Teachers' use of formative assessment

The *index of teachers' use of formative assessment* (TCHBEHFA) was constructed using students' reports (ST79) on the frequency (every lesson, most lessons, some lessons, never or hardly ever) with which, in mathematics lessons, the teacher tells students how well they are doing in mathematics class; the teacher gives students feedback on their strengths and weaknesses in mathematics; and the teacher tells students what they need to do to become better in mathematics.

Cognitive activation

The *index of teacher's use of cognitive activation strategies* (COGACT) was constructed using student responses (ST80) over how often (always or almost always, often, sometimes, never or rarely) a series of situations happened with the mathematics teacher that taught

them their last mathematics class: the teacher asks questions that make students reflect on the problem; the teacher gives problems that require students to think for an extended time; the teacher asks students to decide, on their own, procedures for solving complex problems; the teacher presents problems in different contexts so that students know whether they have understood the concepts; the teacher helps students to learn from mistakes they have made; the teacher asks students to explain how they solved a problem; the teacher presents problems that require students to apply what they have learned in new contexts; and the teacher gives problems that can be solved in different ways. Students were asked to report whether these behaviours and situations occur always or almost always, often, sometimes or never or rarely.

Experience with applied mathematics tasks

The *index of student experience with applied mathematics tasks* (EXAPPLM) was constructed using student responses (ST61) on whether they have frequently, sometimes, rarely or never encountered the following types of mathematics tasks during their time at school: working out from a <train timetable> how long it would take to get from one place to another; calculating how much more expensive a computer would be after adding tax; calculating how many square metres of tiles you need to cover a floor; understanding scientific tables presented in an article; finding the actual distance between two places on a map with a 1:10,000 scale; calculating the power consumption of an electronic appliance per week.

Experience with pure mathematics tasks

The *index of student experience with pure mathematics tasks* (EXPUREM) was constructed using student responses (ST61) on whether they have frequently, sometimes, rarely or never encountered the following types of mathematics tasks during their time at school: solving an equation like $6x^2+5=29$; solving an equation like $2(x+3)=(x+3)(x-3)$; solving an equation like $3x+5=17$.

For trends analyses, the PISA 2003 values of the *index of student-teacher relations* were rescaled to be comparable to those in PISA 2012. As a result, values for the *index of student-teacher relations* for PISA 2003 reported in this volume may differ from those reported in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004).

Parental occupation in STEM fields

Student responses over their parents' occupation were used to develop the *index of parental occupation* in STEM fields. The index takes value 1 if at least one parent works in ISCO-08 occupations: 2100 to 2166 (Science and engineering professionals, Physical and earth science professionals, Physicists and astronomers, Meteorologists, Chemists, Geologists and geophysicists, Mathematicians, actuaries and statisticians, Life science professionals, Biologists, botanists, zoologists and related professionals, Farming, forestry and fisheries advisers, Environmental protection professionals, Engineering professionals (excluding electrotechnology), Industrial and production engineers, Civil engineers, Environmental engineers, Mechanical engineers, Chemical engineers, Mining engineers, metallurgists and related professionals, Engineering professionals not elsewhere classified, Electrotechnology engineers, Electrical engineers, Electronics engineers, Telecommunications engineers, Architects, planners, surveyors and designers, Building architects, Landscape architects, Product and garment designers, Town and traffic planners, Cartographers and surveyors, Graphic and multimedia designers); 2510 to 2529 (Software and applications developers and analysts, Systems analysts, Software developers, Web and multimedia developers, Applications programmers, Software and applications developers and analysts not elsewhere classified, Database and network professionals, Database designers and administrators, Systems administrators, Computer network professionals, Database and network professionals not elsewhere classified); 3100 to 3155 (Science and engineering associate professionals, Physical and engineering science technicians, Chemical and physical science technicians, Civil engineering technicians, Electrical engineering technicians, Electronics engineering technicians, Mechanical engineering technicians, Chemical engineering technicians, Mining and metallurgical technicians, Draughtspersons, Physical and engineering science technicians not elsewhere classified, Mining, manufacturing and construction supervisors, Mining supervisors, Manufacturing supervisors, Construction supervisors, Process control technicians, Power production plant operators, Incinerator and water treatment plant operators, Chemical processing plant controllers, Petroleum and natural gas refining plant operators, Metal production process controllers, Process control technicians not elsewhere classified, Life science technicians and related associate professionals, Life science technicians (excluding medical), Agricultural technicians, Forestry technicians, Ship and aircraft controllers and technicians, Ships' engineers, Ships' deck officers and pilots, Aircraft pilots and related associate professionals, Air traffic controllers, Air traffic safety electronics technicians); 2631 (Economists); 3314 (Statistical, mathematical and related associate professionals); and 2413 (Financial analysts).

Disciplinary climate

The *index of disciplinary climate* (DISCLIMA) was derived from students' reports on how often the followings happened in their lessons of the language of instruction (ST81): *i)* students don't listen to what the teacher says; *ii)* there is noise and disorder; *iii)* the teacher has to wait a long time for the students to <quieten down>; *iv)* students cannot work well; and *v)* students don't start working for a long time after the lesson begins. In this index higher values indicate a better disciplinary climate.

For trends analyses, the PISA 2003 values of the *index of disciplinary climate* were rescaled to be comparable to those in PISA 2012. As a result, values for the *index of disciplinary climate* for PISA 2003 reported in this volume may differ from those reported in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004).

Teacher-student relations

The *index of teacher-student relations* (STUDREL) was derived from students' level of agreement with the following statements. The question asked (ST86) stated "Thinking about the teachers at your school: to what extent do you agree with the following statements": *i)* Students get along well with most of my teachers; *ii)* Most teachers are interested in students' well-being; *iii)* Most of my teachers really listen to what I have to say; *iv)* if I need extra help, I will receive it from my teachers; and *v)* Most of my teachers treat me fairly. Higher values on this index indicate positive teacher-student relations.

For trends analyses, the PISA 2003 values of the *index of student-teacher relations* were rescaled to be comparable to those in PISA 2012. As a result, values for the *index of student-teacher relations* for PISA 2003 reported in this volume may differ from those reported in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004).

Economic, social and cultural status

The *PISA index of economic, social and cultural status* (ESCS) was derived from the following three indices: *highest occupational status of parents* (HISEI), *highest educational level of parents* in years of education according to ISCED (PARED), and *home possessions* (HOMEPOS). The *index of home possessions* (HOMEPOS) comprises all items on the indices of WEALTH, CULTPOSS and HEDRES, as well as books in the home recoded into a four-level categorical variable (0-10 books, 11-25 or 26-100 books, 101-200 or 201-500 books, more than 500 books).

The *PISA index of economic, social and cultural status* (ESCS) was derived from a principal component analysis of standardised variables (each variable has an OECD mean of zero and a standard deviation of one), taking the factor scores for the first principal component as measures of the PISA *index of economic, social and cultural status*.

Principal component analysis was also performed for each participating country or economy to determine to what extent the components of the index operate in similar ways across countries or economy. The analysis revealed that patterns of factor loading were very similar across countries, with all three components contributing to a similar extent to the index (for details on reliability and factor loadings, see the *PISA 2012 Technical Report* (OECD, forthcoming).

The imputation of components for students with missing data on one component was done on the basis of a regression on the other two variables, with an additional random error component. The final values on the *PISA index of economic, social and cultural status* (ESCS) for 2012 have an OECD mean of 0 and a standard deviation of one.

ESCS was computed for all students in the five cycles, and ESCS indices for trends analyses were obtained by applying the parameters used to derive standardised values in 2012 to the ESCS components for previous cycles. These values will therefore not be directly comparable to ESCS values in the databases for previous cycles, though the differences are not large for the 2006 and 2009 cycles. ESCS values in earlier cycles were computed using different algorithms, so for 2000 and 2003 the differences are larger.

Changes to the computation of socio-economic status for PISA 2012

While the computation of socio-economic status followed what had been done in previous cycles, PISA 2012 undertook an important upgrade with respect to the coding of parental occupation. Prior to PISA 2012, the 1988 International Standard Classification of Occupations (ISCO-88) was used for the coding of parental occupation. By 2012, however, ISCO-88 was almost 25 years old and it was no longer tenable to maintain its use as an occupational coding scheme.[2] It was therefore decided to use its replacement, ISCO-08, for occupational coding in PISA 2012.

The change from ISCO-88 to ISCO-08 required an update of the International Socio-Economic Index (ISEI) of occupation codes. PISA 2012 therefore used a modified quantification scheme for ISCO-08 (referred to as ISEI-08), as developed by Harry Ganzeboom (2010). ISEI-08 was constructed using a database of 198 500 men and women with valid education, occupation and (personal) incomes derived from the combined 2002-07 datasets of the International Social Survey Programme (ISSP) (Ganzeboom, 2010). The methodology used for this purpose was similar to the one employed in the construction of ISEI for ISCO-68 and ISCO-88 described in different publications (Ganzeboom, de Graff and Treiman, 1992; Ganzeboom and Treiman,1996; Ganzeboom and Treiman, 2003).[3]

The main differences with regard to the previous ISEI construction are the following:

- A new database was used which is more recent, larger and cross-nationally more diverse than the one used earlier.
- The new ISEI was constructed using data for women and men, while previously only men were used to estimate the scale. The data on income were corrected for hours worked to adjust the different prevalence of part-time work between men and women in many countries.

A range of validation activities accompanied the transition from ISCO-88/ISEI-88 to ISCO-08/ISEI-08, including a comparison of *i)* the distributions of ISEI-88 with ISEI-08 in terms of range, mean and standard deviations for both mothers' and fathers' occupations and *ii)* correlations between the two ISEI indicators and performance, again separately undertaken for mothers' and fathers' occupations.

For this cycle, in order to obtain trends for all cycles from 2000 to 2012, the computation of the indices WEALTH, HEDRES, CULTPOSS and HOMEPOS was based on data from all cycles from 2000 to 2012. HOMEPOS is of particular importance as it is used in the computation of ESCS. These were then standardised on 2012 so that the OECD mean is 0 and the standard deviation is 1. This means

that the indices calculated on the previous cycle will be on the 2012 scale and thus not directly comparable to the indices in the database for the previously released cycles. To estimate item parameters for scaling, a calibration sample from all cycles was used, consisting of 500 students from all countries in the previous cycles, and 750 from 2012, as any particular student questionnaire item only occurs in two-thirds of the questionnaires in 2012.

The items used in the computation of the indices has changed to some extent from cycle to cycle, though cycles they have remained much the same from 2006 to 2012. The earlier cycles were are in general missing a few items that are present in the later cycles, but it was felt leaving out items only present in the later cycles would give too much weight to the earlier cycles. So a superset of all items (except country specific items) in the five cycles was used, and international item parameters were derived from this set.

The second step was to estimate WLEs for the indices, anchoring parameters on the international item set while estimating the country specific item parameters. This is the same procedure used in previous cycles.

Family wealth

The *index of family wealth* (WEALTH) is based on students' responses on whether they had the following at home: a room of their own, a link to the Internet, a dishwasher (treated as a country-specific item), a DVD player, and three other country-specific items (some items in ST26); and their responses on the number of cellular phones, televisions, computers, cars and the number of rooms with a bath or shower (ST27).

Home educational resources

The *index of home educational resources* (HEDRES) is based on the items measuring the existence of educational resources at home including a desk and a quiet place to study, a computer that students can use for schoolwork, educational software, books to help with students' school work, technical reference books and a dictionary (some items in ST26).

Cultural possessions

The *index of cultural possessions* (CULTPOSS) is based on students' responses to whether they had the following at home: classic literature, books of poetry and works of art (some items in ST26).

The rotated design of the student questionnaire

A major innovation in PISA 2012 is the rotated design of the student questionnaire. One of the main reasons for a rotated design, which had previously been implemented for the cognitive assessment, was to extend the content coverage of the student questionnaire. Table A1.3 provides an overview of the rotation design and content of questionnaire forms for the main survey.

The *PISA 2012 Technical Report* (OECD, forthcoming) provides all details regarding the rotated design of the student questionnaire in PISA 2012, including its implications in terms of *i)* proficiency estimates, *ii)* international reports and trends, *iii)* further analyses, *iv)* structure and documentation of the international database, and *v)* logistics. The rotated design has negligible implications for proficiency estimates and correlations of proficiency estimates with context constructs. The international database (available at *www.pisa.oecd.org*) includes all background variables for each student. The variables based on the questions that students answered reflect their responses; those that are based on questions that were not administered show a distinctive missing code. Rotation allows the estimation of a full co-variance matrix which means that all variables can be correlated with all other variables. It does not affect conclusions in terms of whether or not an effect would be considered significant in multilevel models.

School-level simple indices

School and class size

The *index of school size* (SCHSIZE) was derived by summing up the number of girls and boys at a school (SC07).

Student-teacher ratio

The *student-teacher ratio* (STRATIO) was obtained by dividing the school size by the total number of teachers (SC09). The number of part-time teachers was weighted by 0.5 and the number of full-time teachers was weighted by 1.0 in the computation of this index.

The *student-mathematics teacher ratio* (SMRATIO) was obtained by dividing the school size by the total number of mathematics teachers (SC10Q11 and SC10Q12). The number of part-time mathematics teachers was weighted by 0.5 and the number of full time mathematics teachers was weighted by 1.0 in the computation of this index.

School type

Schools are classified as either public or private, according to whether a private entity or a public agency has the ultimate power to make decisions concerning its affairs (SC01). This information is combined with SC02 which provides information on the percentage of total funding which comes from government sources to create the *index of school type* (SCHLTYPE). This index has three categories: (1) government-independent private schools controlled by a non-government organisation or with a governing board not selected by a government agency that receive less than 50% of their core funding from government agencies, (2) government-dependent private schools controlled by a non-government organisation or with a governing board not selected by a government agency that receive

more than 50% of their core funding from government agencies, and (3) public schools controlled and managed by a public education authority or agency.

Availability of computers

The *index of computer availability* (RATCMP15) was derived from dividing the number of computers available for educational purposes available to students in the modal grade for 15-year-olds (SC11Q02) by the number of students in the modal grade for 15-year-olds (SC11Q01). The wording of the questions asking about computer availability changed between 2006 and 2009. Comparisons involving availability of computers are possible for 2012 data with 2009 data, but not with 2006 or earlier.

The *index of computers connected to the Internet* (COMPWEB) was derived from dividing the number of computers for educational purposes available to students in the modal grade for 15-year-olds that are connected to the web (SC11Q03) by the number of computers for educational purposes available to students in the modal grade for 15-year-olds (SC11Q02).

Quantity of teaching staff at school

The *proportion of fully certified teachers* (PROPCERT) was computed by dividing the number of fully certified teachers (SC09Q21 plus 0.5*SC09Q22) by the total number of teachers (SC09Q11 plus 0.5*SC09Q12). The proportion of teachers who have an ISCED 5A qualification (PROPQUAL) was calculated by dividing the number of these kind of teachers (SC09Q31 plus 0.5*SC09Q32) by the total number of teachers (SC09Q11 plus 0.5*SC09Q12). The proportion of mathematics teachers (PROPMATH) was computed by dividing the number of mathematics teachers (SC10Q11 plus 0.5*SC10Q12) by the total number of teachers (SC09Q11 plus 0.5*SC09Q12). The proportion of mathematics teachers who have an ISCED 5A qualification (PROPMA5A) was computed by dividing the number of mathematics teachers who have an ISCED 5A qualification (SC10Q21 plus 0.5*SC10Q22) by the number of mathematics teachers (SC10Q11 plus 0.5*SC10Q12).

Although both PISA 2003 and PISA 2012 asked school principals about the school's teaching staff, the wording of the questions on the proportion of teachers with an ISCED 5A qualification changed, rendering comparisons impossible.

Academic selectivity

The *index of academic selectivity* (SCHSEL) was derived from school principals' responses on how frequently consideration was given to the following two factors when students were admitted to the school, based on a scale with response categories "never", "sometimes" and "always" (SC32Q02 and SC32Q03): students' record of academic performance (including placement tests); and recommendation of feeder schools. This index has the following three categories: (1) schools where these two factors are "never" considered for admission, (2) schools considering at least one of these two factors "sometimes" but neither factor "always", and (3) schools where at least one of these two factors is "always" considered for admission.

Although both PISA 2003 and PISA 2012 asked school principals about the school's criteria for admitting students, the wording of the questions changed, rendering comparisons impossible.

Ability grouping

The *index of ability grouping in mathematics classes* (ABGMATH) was derived from the two items of school principals' reports on whether their school organises mathematics instruction differently for student with different abilities "for all classes", "for some classes", or "not for any classes" (SC15Q01 for mathematics classes study similar content but at different levels and SC15Q02 for different classes study different content or sets of mathematics topics that have different levels of difficulty). This index has the following three categories: (1) no mathematic classes study different levels of difficulty or different content (i.e. "not for any classes" for both SC15Q01 and SC15Q02); (2) some mathematics classes study different levels of difficulty or different content (i.e. "for some classes" for either SC15Q01 or SC15Q02); (3) all mathematics classes study different levels of difficulty or different content (i.e. "for all classes" for either SC15Q01 or SC15Q02).

Extracurricular activities offered by school

The *index of mathematics extracurricular activities at school* (MACTIV) was derived from school principals' reports on whether their schools offered the following activities to students in the national modal grade for 15-year-olds in the academic year of the PISA assessment (SC16 and SC21 for the last one): *i)* mathematics club; *ii)* mathematics competition; *iii)* club with a focus on computers/Information, Communication Technology; and *iv*) additional mathematics lessons. This index was developed by summing up the number of activities that a school offers. For "additional mathematics lessons" (SC21), it is counted as one when school principals responded "enrichment mathematics only", "remedial mathematics only" or "without differentiation depending on the prior achievement level of the students"; and it is counted as two when school principals responded "both enrichment and remedial mathematics".

The *index of creative extracurricular activities at school* (CREACTIV) was derived from school principals' reports on whether their schools offered the following activities to students in the national modal grade for 15-year-olds in the academic year of the PISA assessment (SC16): *i)* band, orchestra or choir; *ii)* school play or school musical; and *iii)* art club or art activities. This index was developed by adding up the number of activities that a school offers.

Use of assessment

School principals were asked to report whether students' assessments are used for the following purposes (SC18): *i)* to inform parents

about their child's progress; *ii)* to make decisions about students' retention or promotion; *iii)* to group students for instructional purposes; *iv)* to compare the school to district or national performance; *v)* to monitor the school's progress from year to year; *vi)* to make judgements about teachers' effectiveness; *vii)* to identify aspects of instruction or the curriculum that could be improved; and *viii)* to compare the school with other schools. The *index of use of assessment* (ASSESS) was derived from these eight items by adding up the number of "yes" in principals' responses to these questions.

School responsibility for resource allocation

School principals were asked to report whether "principals", "teachers", "school governing board", "regional or local education authority" or "national education authority" have a considerable responsibility for the following tasks (SC33): *i)* selecting teachers for hire; *ii)* firing teachers; *iii)* establishing teachers' starting salaries; *iv)* determining teachers' salary increases; *v)* formulating the school budget; and *vi)* deciding on budget allocations within the school. *The index of school responsibility for resource allocation* (RESPRES) was derived from these six items. The ratio of the number of responsibilities that "principals" and/or "teachers" have for these six items to the number of responsibilities that "regional or local education authority" and/or "national education authority" have for these six items was computed. Positive values on this index indicate relatively more responsibility for schools than local, regional or national education authority. This index has an OECD mean of 0 and a standard deviation of 1.

Although both PISA 2003 and PISA 2012 asked school principals about the school's responsibility for resource allocation, the wording of the questions changed, rendering comparisons impossible.

School responsibility for curriculum and assessment

School principals were asked to report whether "principals", "teachers", "school governing board", "regional or local education authority", or "national education authority" have a considerable responsibility for the following tasks (SC33): *i)* establishing student assessment policies; *ii)* choosing which textbooks are used; *iii)* determining course content; and *iv)* deciding which courses are offered. The *index of the school responsibility for curriculum and assessment* (RESPCUR) was derived from these four items. The ratio of the number of responsibilities that "principals" and/or "teachers" have for these four items to the number of responsibilities that "regional or local education authority" and/or "national education authority" have for these four items was computed. Positive values on this index indicate relatively more responsibility for schools than local, regional or national education authority. This index has an OECD mean of 0 and a standard deviation of 1.

Although both PISA 2003 and PISA 2012 asked school principals about the school's responsibility for admission and instruction policies, the wording of the questions changed, rendering comparisons impossible.

School-level scale indices

School principals' leadership

The *index of school management: framing and communicating the school's goals and curricular development* (LEADCOM) was derived from school principals' responses about the frequency with which they were involved in the following school affairs in the previous school year (SC34): *i)* use student performance results to develop the school's educational goals; *ii)* make sure that the professional development activities of teachers are in accordance with the teaching goals of the school; *iii)* ensure that teachers work according to the school's educational goals; and *iv)* discuss the school's academic goals with teachers at faculty meetings. The *index of school management: instructional leadership* (LEADINST) was derived from school principals' responses about the frequency with which they were involved in the following school affairs in the previous school year (SC34): *i)* promote teaching practices based on recent educational research; *ii)* praise teachers whose students are actively participating in learning; and *iii)* draw teachers' attention to the importance of pupils' development of critical can social capacities. The *index of school management*: promoting instructional improvements and professional development (LEADPD) was derived from school principals' responses about the frequency with which they were involved in the following school affairs in the previous school year (SC34): *i)* take the initiative to discuss matters, when a teacher has problems in his/her classroom; *ii)* pay attention to disruptive behaviour in classrooms; and *iii)* solve a problem together with a teacher, when the teacher brings up a classroom problem. The *index of school management: teacher participation* (LEADTCH) was derived from school principals' responses about the frequency with which they were involved in the following school affairs in the previous school year (SC34): *i)* provide staff with opportunities to participate in school decision-making; *ii)* engage teachers to help build a school culture of continuous improvement; and *iii)* ask teachers to participate in reviewing management practices. Higher values on these indices indicate greater involvement of school principals in school affairs.

Teacher shortage

The *index of teacher shortage* (TCSHORT) was derived from four items measuring school principals' perceptions of potential factors hindering instruction at their school (SC14). These factors are a lack of: *i)* qualified science teachers; *ii)* qualified mathematics teachers; *iii)* qualified <test language> teachers; and *iv)* qualified teachers of other subjects. Higher values on this index indicate school principals' reports of higher teacher shortage at a school.

For trends analyses, the PISA 2003 values of the *index of teacher shortage* were rescaled to be comparable to those in PISA 2012. As a result, values for the *index of teacher shortage* for PISA 2003 reported in this volume may differ from those reported in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004).

Quality of school's educational resources

The *index of quality of school educational resources* (SCMATEDU) was derived from six items measuring school principals' perceptions of potential factors hindering instruction at their school (SC14). These factors are: *i)* shortage or inadequacy of science laboratory equipment; *ii)* shortage or inadequacy of instructional materials; *iii)* shortage or inadequacy of computers for instruction; *iv)* lack or inadequacy of Internet connectivity; *v)* shortage or inadequacy of computer software for instruction; and *vi)* shortage or inadequacy of library materials. As all items were inverted for scaling, higher values on this index indicate better quality of educational resources.

For trends analyses, the PISA 2003 values of the *index of quality of educational resources* were rescaled to be comparable to those in PISA 2012. As a result, values for the *index of quality of educational resources* for PISA 2003 reported in this volume may differ from those reported in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004). One of the questions included to compute the *index of quality of educational resources* in PISA 2012 ("lack or inadequacy of internet connection") was not included in the PISA 2003 questionnaire. Estimation of the PISA 2003 index treats this question as missing and, under the assumption that the relationship between the items remains unchanged with the inclusion of the new questions, the PISA 2003 and PISA 2012 values on the *index of quality of educational resources* are comparable after the rescaling.

Quality of schools' physical infrastructure

The *index of quality of physicals' infrastructure* (SCMATBUI) was derived from three items measuring school principals' perceptions of potential factors hindering instruction at their school (SC14). These factors are: *i)* shortage or inadequacy of school buildings and grounds; *ii)* shortage or inadequacy of heating/cooling and lighting systems; and *iii)* shortage or inadequacy of instructional space (e.g. classrooms). As all items were inverted for scaling, higher values on this index indicate better quality of physical infrastructure.

For trends analyses, the PISA 2003 values of the *index of quality of physical infrastructure* were rescaled to be comparable to those in PISA 2012. As a result, values for the *index of quality of physical infrastructure* for PISA 2003 reported in this volume may differ from those reported in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004).

Teacher behaviour

The *index on teacher-related factors affecting school climate* (TEACCLIM) was derived from school principals' reports on the extent to which the learning of students was hindered by the following factors in their schools (SC22): *i)* students not being encouraged to achieve their full potential; *ii)* poor student-teacher relations; *iii)* teachers having to teach students of heterogeneous ability levels within the same class; *iv)* teachers having to teach students of diverse ethnic backgrounds (i.e. language, culture) within the same class; *v)* teachers' low expectations of students; *vi)* teachers not meeting individual students' needs; *vii)* teacher absenteeism; *viii)* staff resisting change; *ix)* teachers being too strict with students; *x)* teachers being late for classes; and *xi)* teachers not being well prepared for classes. As all items were inverted for scaling, higher values on this index indicate a positive teacher behaviour.

For trends analyses, the PISA 2003 values of the *index of teacher-related factors affecting school climate* were rescaled to be comparable to those in PISA 2012. As a result, values for the *index of teacher-related factors affecting school climate* for PISA 2003 reported in this volume may differ from those reported in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004). Four of the questions included to compute the *index of teacher-related factors affecting school climate* in PISA 2012 ("teachers having to teach students of heterogeneous ability levels within the same class," "teachers having to teach students of diverse ethnic backgrounds (i.e. language, culture) within the same class," "teachers being late for classes," and "teachers not being well prepared for classes") were not included in the PISA 2003 questionnaire. Estimation of the PISA 2003 index treats these indices as missing and, under the assumption that the relationship between the items remains unchanged with the inclusion of the new questions, the PISA 2003 and PISA 2012 values on the *index of teacher-related factors affecting school climate* are comparable after the rescaling.

Student behaviour

The *index of student-related factors affecting school climate* (STUDCLIM) was derived from school principals' reports on the extent to which the learning of students was hindered by the following factors in their schools (SC22): *i)* student truancy; *ii)* students skipping classes; *iii)* students arriving late for school; *iv)* students not attending compulsory school events (e.g. sports day) or excursions, *v)* students lacking respect for teachers; *vi)* disruption of classes by students; *vii)* student use of alcohol or illegal drugs; and *viii)* students intimidating or bullying other students. As all items were inverted for scaling, higher values on this index indicate a positive student behaviour.

For trends analyses, the PISA 2003 values of the *index of student-related factors affecting school climate* were rescaled to be comparable to those in PISA 2012. As a result, values for the *index of student-related factors affecting school climate* for PISA 2003 reported in this volume may differ from those reported in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004). Two of the questions included to compute the *index of student-related factors affecting school climate* in PISA 2012 ("students arriving late for school," and "students not attending compulsory school events (e.g. sports day) or excursions") were not included in the PISA 2003 questionnaire. Estimation of the PISA 2003 index treats these questions as missing and, under the assumption that the relationship between the items remains unchanged with the inclusion of the new questions, the PISA 2003 and PISA 2012 values on the *index of student-related factors affecting school climate* are comparable after the rescaling.

Teacher morale

The *index of teacher morale* (TCMORALE) was derived from school principals' reports on the extent to which they agree with the following statements considering teachers in their schools (SC26): *i)* the morale of teachers in this school is high; *ii)* teachers work with enthusiasm; *iii)* teachers take pride in this school; and *iv)* teachers value academic achievement. As all items were inverted for scaling, higher values on this index indicate more positive teacher morale.

For trends analyses, the PISA 2003 values of the *index of teacher morale* were rescaled to be comparable to those in PISA 2012. As a result, values for the *index of teacher morale* for PISA 2003 reported in this volume may differ from those reported in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004).

Notes

1. Note that for ISCO coding 0 "Arm forces", the following recoding was followed: "Officers" were coded as "Managers" (ISCO 1), and "Other armed forces occupations" (drivers, gunners, seaman, generic armed forces) as "Plant and Machine operators" (ISCO 8). In addition, all answers starting with "97" (housewives, students, and "vague occupations") were coded into missing.

2. The update from ISCO-88 to ISCO-08 mainly involved *i)* more adequate categories for IT-related occupations, *ii)* distinction of military ranks and *iii)* a revision of the categories classifying different managers.

3.Information on ISCO08 and ISEI08 is included from *http://www.ilo.org/public/english/bureau/stat/isco/index.htm* and *http://home.fsw.vu.nl/hbg.ganzeboom/isco08*

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ANNEX A2

THE PISA TARGET POPULATION, THE PISA SAMPLES AND THE DEFINITION OF SCHOOLS

Definition of the PISA target population

PISA 2012 provides an assessment of the cumulative yield of education and learning at a point at which most young adults are still enrolled in initial education.

A major challenge for an international survey is to ensure that international comparability of national target populations is guaranteed in such a venture.

Differences between countries in the nature and extent of pre-primary education and care, the age of entry into formal schooling and the institutional structure of education systems do not allow the definition of internationally comparable grade levels of schooling. Consequently, international comparisons of education performance typically define their populations with reference to a target age group. Some previous international assessments have defined their target population on the basis of the grade level that provides maximum coverage of a particular age cohort. A disadvantage of this approach is that slight variations in the age distribution of students across grade levels often lead to the selection of different target grades in different countries, or between education systems within countries, raising serious questions about the comparability of results across, and at times within, countries. In addition, because not all students of the desired age are usually represented in grade-based samples, there may be a more serious potential bias in the results if the unrepresented students are typically enrolled in the next higher grade in some countries and the next lower grade in others. This would exclude students with potentially higher levels of performance in the former countries and students with potentially lower levels of performance in the latter.

In order to address this problem, PISA uses an age-based definition for its target population, i.e. a definition that is not tied to the institutional structures of national education systems. PISA assesses students who were aged between 15 years and 3 (complete) months and 16 years and 2 (complete) months at the beginning of the assessment period, plus or minus a 1 month allowable variation, and who were enrolled in an educational institution with grade 7 or higher, regardless of the grade levels or type of institution in which they were enrolled, and regardless of whether they were in full-time or part-time education. Educational institutions are generally referred to as schools in this publication, although some educational institutions (in particular, some types of vocational education establishments) may not be termed schools in certain countries. As expected from this definition, the average age of students across OECD countries was 15 years and 9 months. The range in country means was 2 months and 5 days (0.18 years), from the minimum country mean of 15 years and 8 months to the maximum country mean of 15 years and 10 months.

Given this definition of population, PISA makes statements about the knowledge and skills of a group of individuals who were born within a comparable reference period, but who may have undergone different educational experiences both in and outside of schools. In PISA, these knowledge and skills are referred to as the yield of education at an age that is common across countries. Depending on countries' policies on school entry, selection and promotion, these students may be distributed over a narrower or a wider range of grades across different education systems, tracks or streams. It is important to consider these differences when comparing PISA results across countries, as observed differences between students at age 15 may no longer appear as students' educational experiences converge later on.

If a country's scale scores in reading, scientific or mathematical literacy are significantly higher than those in another country, it cannot automatically be inferred that the schools or particular parts of the education system in the first country are more effective than those in the second. However, one can legitimately conclude that the cumulative impact of learning experiences in the first country, starting in early childhood and up to the age of 15, and embracing experiences both in school, home and beyond, have resulted in higher outcomes in the literacy domains that PISA measures.

The PISA target population did not include residents attending schools in a foreign country. It does, however, include foreign nationals attending schools in the country of assessment.

To accommodate countries that desired grade-based results for the purpose of national analyses, PISA 2012 provided a sampling option to supplement age-based sampling with grade-based sampling.

Population coverage

All countries attempted to maximise the coverage of 15-year-olds enrolled in education in their national samples, including students enrolled in special educational institutions. As a result, PISA 2012 reached standards of population coverage that are unprecedented in international surveys of this kind.

The sampling standards used in PISA permitted countries to exclude up to a total of 5% of the relevant population either by excluding schools or by excluding students within schools. All but eight countries, Luxembourg (8.34%), Canada (6.37%), Denmark (6.10%), Norway (6.09%), Estonia (5.67%), Sweden (5.42%), the United Kingdom (5.36%) and the United States (5.34%), achieved this standard, and in 30 countries and economies, the overall exclusion rate was less than 2%. When language exclusions were accounted for (i.e. removed from the overall exclusion rate), Norway, Sweden, the United Kingdom and the United States no longer had an exclusion rate greater than 5%. For details, see *www.pisa.oecd.org*.

Exclusions within the above limits include:

- At the school level: *i)* schools that were geographically inaccessible or where the administration of the PISA assessment was not considered feasible; and *ii)* schools that provided teaching only for students in the categories defined under "within-school exclusions", such as schools for the blind. The percentage of 15-year-olds enrolled in such schools had to be less than 2.5% of the nationally desired target population [0.5% maximum for *i)* and 2% maximum for *ii)*]. The magnitude, nature and justification of school-level exclusions are documented in the *PISA 2012 Technical Report* (OECD, forthcoming).
- At the student level: *i)* students with an intellectual disability; *ii)* students with a functional disability; *iii)* students with limited assessment language proficiency; *iv)* other – a category defined by the national centres and approved by the international centre; and *v)* students taught in a language of instruction for the main domain for which no materials were available. Students could not be excluded solely because of low proficiency or common discipline problems. The percentage of 15-year-olds excluded within schools had to be less than 2.5% of the nationally desired target population.

Table A2.1 describes the target population of the countries participating in PISA 2012. Further information on the target population and the implementation of PISA sampling standards can be found in the *PISA 2012 Technical Report* (OECD, forthcoming).

- ***Column 1*** shows the *total number of 15-year-olds* according to the most recent available information, which in most countries meant the year 2011 as the year before the assessment.
- ***Column 2*** shows the number of 15-year-olds enrolled in schools in grade 7 or above (as defined above), which is referred to as the *eligible population*.
- ***Column 3*** shows the *national desired target population*. Countries were allowed to exclude up to 0.5% of students a priori from the eligible population, essentially for practical reasons. The following a priori exclusions exceed this limit but were agreed with the PISA Consortium: Belgium excluded 0.23% of its population for a particular type of student educated while working; Canada excluded 1.14% of its population from Territories and Aboriginal reserves; Chile excluded 0.04% of its students who live in Easter Island, Juan Fernandez Archipelago and Antarctica; Indonesia excluded 1.55% of its students from two provinces because of operational reasons; Ireland excluded 0.05% of its students in three island schools off the west coast; Latvia excluded 0.08% of its students in distance learning schools; and Serbia excluded 2.11% of its students taught in Serbian in Kosovo.
- ***Column 4*** shows the n*umber of students enrolled in schools that were excluded from the national desired target population* either from the sampling frame or later in the field during data collection.
- ***Column 5*** shows the *size of the national desired target population after subtracting the students enrolled in excluded schools*. This is obtained by subtracting Column 4 from Column 3.
- ***Column 6*** shows the *percentage of students enrolled in excluded schools*. This is obtained by dividing Column 4 by Column 3 and multiplying by 100.
- ***Column 7*** shows the *number of students participating in PISA 2012*. Note that in some cases this number does not account for 15-year-olds assessed as part of additional national options.
- ***Column 8*** shows the *weighted number of participating students*, i.e. the number of students in the nationally defined target population that the PISA sample represents.
- Each country attempted to maximise the coverage of the PISA target population within the sampled schools. In the case of each sampled school, all eligible students, namely those 15 years of age, regardless of grade, were first listed. Sampled students who were to be excluded had still to be included in the sampling documentation, and a list drawn up stating the reason for their exclusion. ***Column 9*** indicates the *total number of excluded students*, which is further described and classified into specific categories in Table A2.2.
- ***Column 10*** indicates the *weighted number of excluded students*, i.e. the overall number of students in the nationally defined target population represented by the number of students excluded from the sample, which is also described and classified by exclusion categories in Table A2.2. Excluded students were excluded based on five categories: *i)* students with an intellectual disability – the student has a mental or emotional disability and is cognitively delayed such that he/she cannot perform in the PISA testing situation; *ii)* students with a functional disability – the student has a moderate to severe permanent physical disability such that he/she cannot perform in the PISA testing situation; *iii)* students with a limited assessment language proficiency – the student is unable to read or speak any of the languages of the assessment in the country and would be unable to overcome the language barrier in the testing situation (typically a student who has received less than one year of instruction in the languages of the assessment may be excluded); *iv)* other – a category defined by the national centres and approved by the international centre; and *v)* students taught in a language of instruction for the main domain for which no materials were available.
- ***Column 11*** shows the *percentage of students excluded within schools*. This is calculated as the weighted number of excluded students (Column 10), divided by the weighted number of excluded and participating students (Column 8 plus Column 10), then multiplied by 100.
- ***Column 12*** shows the *overall exclusion rate*, which represents the weighted percentage of the national desired target population excluded from PISA either through school-level exclusions or through the exclusion of students within schools. It is calculated as the school-level exclusion rate (Column 6 divided by 100) plus within-school exclusion rate (Column 11 divided by 100) multiplied by 1 minus the school-level exclusion rate (Column 6 divided by 100). This result is then multiplied by 100.

[Part 1/2]

Table A2.1 PISA target populations and samples

		Population and sample information							
		Total population of 15-year-olds	Total enrolled population of 15-year-olds at grade 7 or above	Total in national desired target population	Total school-level exclusions	Total in national desired target population after all school exclusions and before within-school exclusions	School-level exclusion rate (%)	Number of participating students	Weighted number of participating students
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
OECD	**Australia**	291 967	288 159	288 159	5 702	282 457	1.98	17 774	250 779
	Austria	93 537	89 073	89 073	106	88 967	0.12	4 756	82 242
	Belgium	123 469	121 493	121 209	1 324	119 885	1.09	9 690	117 912
	Canada	417 873	409 453	404 767	2 936	401 831	0.73	21 548	348 070
	Chile	274 803	252 733	252 625	2 687	249 938	1.06	6 857	229 199
	Czech Republic	96 946	93 214	93 214	1 577	91 637	1.69	6 535	82 101
	Denmark	72 310	70 854	70 854	1 965	68 889	2.77	7 481	65 642
	Estonia	12 649	12 438	12 438	442	11 996	3.55	5 867	11 634
	Finland	62 523	62 195	62 195	523	61 672	0.84	8 829	60 047
	France	792 983	755 447	755 447	27 403	728 044	3.63	5 682	701 399
	Germany	798 136	798 136	798 136	10 914	787 222	1.37	5 001	756 907
	Greece	110 521	105 096	105 096	1 364	103 732	1.30	5 125	96 640
	Hungary	111 761	108 816	108 816	1 725	107 091	1.59	4 810	91 179
	Iceland	4 505	4 491	4 491	10	4 481	0.22	3 508	4 169
	Ireland	59 296	57 979	57 952	0	57 952	0.00	5 016	54 010
	Israel	118 953	113 278	113 278	2 784	110 494	2.46	6 061	107 745
	Italy	605 490	566 973	566 973	8 498	558 475	1.50	38 142	521 288
	Japan	1 241 786	1 214 756	1 214 756	26 099	1 188 657	2.15	6 351	1 128 179
	Korea	687 104	672 101	672 101	3 053	669 048	0.45	5 033	603 632
	Luxembourg	6 187	6 082	6 082	151	5 931	2.48	5 260	5 523
	Mexico	2 114 745	1 472 875	1 472 875	7 307	1 465 568	0.50	33 806	1 326 025
	Netherlands	194 000	193 190	193 190	7 546	185 644	3.91	4 460	196 262
	New Zealand	60 940	59 118	59 118	579	58 539	0.98	5 248	53 414
	Norway	64 917	64 777	64 777	750	64 027	1.16	4 686	59 432
	Poland	425 597	410 700	410 700	6 900	403 800	1.68	5 662	379 275
	Portugal	108 728	127 537	127 537	0	127 537	0.00	5 722	96 034
	Slovak Republic	59 723	59 367	59 367	1 480	57 887	2.49	5 737	54 486
	Slovenia	19 471	18 935	18 935	115	18 820	0.61	7 229	18 303
	Spain	423 444	404 374	404 374	2 031	402 343	0.50	25 335	374 266
	Sweden	102 087	102 027	102 027	1 705	100 322	1.67	4 739	94 988
	Switzerland	87 200	85 239	85 239	2 479	82 760	2.91	11 234	79 679
	Turkey	1 266 638	965 736	965 736	10 387	955 349	1.08	4 848	866 681
	United Kingdom	738 066	745 581	745 581	19 820	725 761	2.66	12 659	688 236
	United States	3 985 714	4 074 457	4 074 457	41 142	4 033 315	1.01	6 111	3 536 153
Partners	**Albania**	76 910	50 157	50 157	56	50 101	0.11	4 743	42 466
	Argentina	684 879	637 603	637 603	3 995	633 608	0.63	5 908	545 942
	Brazil	3 574 928	2 786 064	2 786 064	34 932	2 751 132	1.25	20 091	2 470 804
	Bulgaria	70 188	59 684	59 684	1 437	58 247	2.41	5 282	54 255
	Colombia	889 729	620 422	620 422	4	620 418	0.00	11 173	560 805
	Costa Rica	81 489	64 326	64 326	0	64 326	0.00	4 602	40 384
	Croatia	48 155	46 550	46 550	417	46 133	0.90	6 153	45 502
	Cyprus*	9 956	9 956	9 955	128	9 827	1.29	5 078	9 650
	Hong Kong-China	84 200	77 864	77 864	813	77 051	1.04	4 670	70 636
	Indonesia	4 174 217	3 599 844	3 544 028	8 039	3 535 989	0.23	5 622	2 645 155
	Jordan	129 492	125 333	125 333	141	125 192	0.11	7 038	111 098
	Kazakhstan	258 716	247 048	247 048	7 374	239 674	2.98	5 808	208 411
	Latvia	18 789	18 389	18 375	655	17 720	3.56	5 276	16 054
	Liechtenstein	417	383	383	1	382	0.26	293	314
	Lithuania	38 524	35 567	35 567	526	35 041	1.48	4 618	33 042
	Macao-China	6 600	5 416	5 416	6	5 410	0.11	5 335	5 366
	Malaysia	544 302	457 999	457 999	225	457 774	0.05	5 197	432 080
	Montenegro	8 600	8 600	8 600	18	8 582	0.21	4 744	7 714
	Peru	584 294	508 969	508 969	263	508 706	0.05	6 035	419 945
	Qatar	11 667	11 532	11 532	202	11 330	1.75	10 966	11 003
	Romania	146 243	146 243	146 243	5 091	141 152	3.48	5 074	140 915
	Russian Federation	1 272 632	1 268 814	1 268 814	17 800	1 251 014	1.40	6 418	1 172 539
	Serbia	80 089	75 870	74 272	1 987	72 285	2.67	4 684	67 934
	Shanghai-China	108 056	90 796	90 796	1 252	89 544	1.38	6 374	85 127
	Singapore	53 637	52 163	52 163	293	51 870	0.56	5 546	51 088
	Chinese Taipei	328 356	328 336	328 336	1 747	326 589	0.53	6 046	292 542
	Thailand	982 080	784 897	784 897	9 123	775 774	1.16	6 606	703 012
	Tunisia	132 313	132 313	132 313	169	132 144	0.13	4 407	120 784
	United Arab Emirates	48 824	48 446	48 446	971	47 475	2.00	11 500	40 612
	Uruguay	54 638	46 442	46 442	14	46 428	0.03	5 315	39 771
	Viet Nam	1 717 996	1 091 462	1 091 462	7 729	1 083 733	0.71	4 959	956 517

Notes: For a full explanation of the details in this table please refer to the *PISA 2012 Technical Report* (OECD, forthcoming). The figure for total national population of 15-year-olds enrolled in Column 2 may occasionally be larger than the total number of 15-year-olds in Column 1 due to differing data sources.

Information for the adjudicated regions is available on line.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table A2.1 PISA target populations and samples

		Population and sample information				Coverage indices		
		Number of excluded students	Weighted number of excluded students	Within-school exclusion rate (%)	Overall exclusion rate (%)	Coverage index 1: Coverage of national desired population	Coverage index 2: Coverage of national enrolled population	Coverage index 3: Coverage of 15-year-old population
		(9)	(10)	(11)	(12)	(13)	(14)	(15)
OECD	Australia	505	5 282	2.06	4.00	0.960	0.960	0.859
	Austria	46	1 011	1.21	1.33	0.987	0.987	0.879
	Belgium	39	367	0.31	1.40	0.986	0.984	0.955
	Canada	1 796	21 013	5.69	6.38	0.936	0.926	0.833
	Chile	18	548	0.24	1.30	0.987	0.987	0.834
	Czech Republic	15	118	0.14	1.83	0.982	0.982	0.847
	Denmark	368	2 381	3.50	6.18	0.938	0.938	0.908
	Estonia	143	277	2.33	5.80	0.942	0.942	0.920
	Finland	225	653	1.08	1.91	0.981	0.981	0.960
	France	52	5 828	0.82	4.42	0.956	0.956	0.885
	Germany	8	1 302	0.17	1.54	0.985	0.985	0.948
	Greece	136	2 304	2.33	3.60	0.964	0.964	0.874
	Hungary	27	928	1.01	2.58	0.974	0.974	0.816
	Iceland	155	156	3.60	3.81	0.962	0.962	0.925
	Ireland	271	2 524	4.47	4.47	0.955	0.955	0.911
	Israel	114	1 884	1.72	4.13	0.959	0.959	0.906
	Italy	741	9 855	1.86	3.33	0.967	0.967	0.861
	Japan	0	0	0.00	2.15	0.979	0.979	0.909
	Korea	17	2 238	0.37	0.82	0.992	0.992	0.879
	Luxembourg	357	357	6.07	8.40	0.872	0.916	0.893
	Mexico	58	3 247	0.24	0.74	0.993	0.993	0.627
	Netherlands	27	1 056	0.54	4.42	0.956	0.956	1.012
	New Zealand	255	2 030	3.66	4.61	0.954	0.954	0.876
	Norway	278	3 133	5.01	6.11	0.939	0.939	0.916
	Poland	212	11 566	2.96	4.59	0.954	0.954	0.891
	Portugal	124	1 560	1.60	1.60	0.984	0.984	0.883
	Slovak Republic	29	246	0.45	2.93	0.971	0.971	0.912
	Slovenia	84	181	0.98	1.58	0.984	0.984	0.940
	Spain	959	14 931	3.84	4.32	0.957	0.957	0.884
	Sweden	201	3 789	3.84	5.44	0.946	0.946	0.930
	Switzerland	256	1 093	1.35	4.22	0.958	0.958	0.914
	Turkey	21	3 684	0.42	1.49	0.985	0.985	0.684
	United Kingdom	486	20 173	2.85	5.43	0.946	0.946	0.932
	United States	319	162 194	4.39	5.35	0.946	0.946	0.887
Partners	Albania	1	10	0.02	0.14	0.999	0.999	0.552
	Argentina	12	641	0.12	0.74	0.993	0.993	0.797
	Brazil	44	4 900	0.20	1.45	0.986	0.986	0.691
	Bulgaria	6	80	0.15	2.55	0.974	0.974	0.773
	Colombia	23	789	0.14	0.14	0.999	0.999	0.630
	Costa Rica	2	12	0.03	0.03	1.000	1.000	0.496
	Croatia	91	627	1.36	2.24	0.978	0.978	0.945
	Cyprus*	157	200	2.03	3.29	0.967	0.967	0.969
	Hong Kong-China	38	518	0.73	1.76	0.982	0.982	0.839
	Indonesia	2	860	0.03	0.26	0.997	0.982	0.634
	Jordan	19	304	0.27	0.39	0.996	0.996	0.858
	Kazakhstan	25	951	0.45	3.43	0.966	0.966	0.806
	Latvia	14	76	0.47	4.02	0.960	0.959	0.854
	Liechtenstein	13	13	3.97	4.22	0.958	0.958	0.753
	Lithuania	130	867	2.56	4.00	0.960	0.960	0.858
	Macao-China	3	3	0.06	0.17	0.998	0.998	0.813
	Malaysia	7	554	0.13	0.18	0.998	0.998	0.794
	Montenegro	4	8	0.10	0.31	0.997	0.997	0.897
	Peru	8	549	0.13	0.18	0.998	0.998	0.719
	Qatar	85	85	0.77	2.51	0.975	0.975	0.943
	Romania	0	0	0.00	3.48	0.965	0.965	0.964
	Russian Federation	69	11 940	1.01	2.40	0.976	0.976	0.921
	Serbia	10	136	0.20	2.87	0.971	0.951	0.848
	Shanghai-China	8	107	0.13	1.50	0.985	0.985	0.788
	Singapore	33	315	0.61	1.17	0.988	0.988	0.952
	Chinese Taipei	44	2 029	0.69	1.22	0.988	0.988	0.891
	Thailand	12	1 144	0.16	1.32	0.987	0.987	0.716
	Tunisia	5	130	0.11	0.24	0.998	0.998	0.913
	United Arab Emirates	11	37	0.09	2.09	0.979	0.979	0.832
	Uruguay	15	99	0.25	0.28	0.997	0.997	0.728
	Viet Nam	1	198	0.02	0.73	0.993	0.993	0.557

Notes: For a full explanation of the details in this table please refer to the *PISA 2012 Technical Report* (OECD, forthcoming). The figure for total national population of 15-year-olds enrolled in Column 2 may occasionally be larger than the total number of 15-year-olds in Column 1 due to differing data sources.
Information for the adjudicated regions is available on line.
* See notes at the beginning of this Annex.

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[Part 1/1]

Table A2.2 **Exclusions**

		Student exclusions (unweighted)						Student exclusions (weighted)					
		Number of excluded students with functional disability (Code 1)	Number of excluded students with intellectual disability (Code 2)	Number of excluded students because of language (Code 3)	Number of excluded students for other reasons (Code 4)	Number of excluded students because no materials available in the language of instruction (Code 5)	Total number of excluded students	Weighted number of excluded students with functional disability (Code 1)	Weighted number of excluded students with intellectual disability (Code 2)	Weighted number of excluded students because of language (Code 3)	Weighted number of excluded students for other reasons (Code 4)	Weighted number of excluded students because no materials available in the language of instruction (Code 5)	Total weighted number of excluded students
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
OECD	**Australia**	39	395	71	0	0	505	471	3 925	886	0	0	5 282
	Austria	11	24	11	0	0	46	332	438	241	0	0	1 011
	Belgium	5	22	12	0	0	39	24	154	189	0	0	367
	Canada	82	1 593	121	0	0	1 796	981	18 682	1 350	0	0	21 013
	Chile	3	15	0	0	0	18	74	474	0	0	0	548
	Czech Republic	1	8	6	0	0	15	1	84	34	0	0	118
	Denmark	10	204	112	42	0	368	44	1 469	559	310	0	2 381
	Estonia	7	134	2	0	0	143	14	260	3	0	0	277
	Finland	5	80	101	15	24	225	43	363	166	47	35	653
	France	52	0	0	0	0	52	5 828	0	0	0	0	5 828
	Germany	0	4	4	0	0	8	0	705	597	0	0	1 302
	Greece	3	18	4	111	0	136	49	348	91	1 816	0	2 304
	Hungary	1	15	2	9	0	27	36	568	27	296	0	928
	Iceland	5	105	27	18	0	155	5	105	27	18	0	156
	Ireland	13	159	33	66	0	271	121	1 521	283	599	0	2 524
	Israel	9	91	14	0	0	114	133	1 492	260	0	0	1 884
	Italy	64	566	111	0	0	741	596	7 899	1 361	0	0	9 855
	Japan	0	0	0	0	0	0	0	0	0	0	0	0
	Luxembourg	6	261	90	0	0	357	6	261	90	0	0	357
	Mexico	21	36	1	0	0	58	812	2 390	45	0	0	3 247
	Netherlands	5	21	1	0	0	27	188	819	50	0	0	1 056
	New Zealand	27	118	99	0	11	255	235	926	813	0	57	2 030
	Norway	11	192	75	0	0	278	120	2 180	832	0	0	3 133
	Poland	23	89	6	88	6	212	1 470	5 187	177	4 644	89	11 566
	Portugal	69	48	7	0	0	124	860	605	94	0	0	1 560
	Korea	2	15	0	0	0	17	223	2 015	0	0	0	2 238
	Slovak Republic	2	14	0	13	0	29	22	135	0	89	0	246
	Slovenia	13	27	44	0	0	84	23	76	81	0	0	181
	Spain	56	679	224	0	0	959	618	11 330	2 984	0	0	14 931
	Sweden	120	0	81	0	0	201	2 218	0	1 571	0	0	3 789
	Switzerland	7	99	150	0	0	256	41	346	706	0	0	1 093
	Turkey	5	14	2	0	0	21	757	2 556	371	0	0	3 684
	United Kingdom	40	405	41	0	0	486	1 468	15 514	3 191	0	0	20 173
	United States	37	219	63	0	0	319	18 399	113 965	29 830	0	0	162 194
Partners	**Albania**	0	0	1	0	0	1	0	0	10	0	0	10
	Argentina	1	11	0	0	0	12	84	557	0	0	0	641
	Brazil	17	27	0	0	0	44	1 792	3 108	0	0	0	4 900
	Bulgaria	6	0	0	0	0	6	80	0	0	0	0	80
	Colombia	12	10	1	0	0	23	397	378	14	0	0	789
	Costa Rica	0	2	0	0	0	2	0	12	0	0	0	12
	Croatia	10	78	3	0	0	91	69	539	19	0	0	627
	Cyprus*	8	54	60	35	0	157	9	64	72	55	0	200
	Hong Kong-China	4	33	1	0	0	38	57	446	15	0	0	518
	Indonesia	1	0	1	0	0	2	426	0	434	0	0	860
	Jordan	8	6	5	0	0	19	109	72	122	0	0	304
	Kazakhstan	9	16	0	0	0	25	317	634	0	0	0	951
	Latvia	3	7	4	0	0	14	8	45	24	0	0	76
	Liechtenstein	1	7	5	0	0	13	1	7	5	0	0	13
	Lithuania	10	120	0	0	0	130	66	801	0	0	0	867
	Macao-China	0	1	2	0	0	3	0	1	2	0	0	3
	Malaysia	3	4	0	0	0	7	274	279	0	0	0	554
	Montenegro	3	1	0	0	0	4	7	1	0	0	0	8
	Peru	3	5	0	0	0	8	269	280	0	0	0	549
	Qatar	23	43	19	0	0	85	23	43	19	0	0	85
	Romania	0	0	0	0	0	0	0	0	0	0	0	0
	Russian Federation	25	40	4	0	0	69	4 345	6 934	660	0	0	11 940
	Serbia	4	4	2	0	0	10	53	55	28	0	0	136
	Shanghai-China	1	6	1	0	0	8	14	80	14	0	0	107
	Singapore	5	17	11	0	0	33	50	157	109	0	0	315
	Chinese Taipei	6	36	2	0	0	44	296	1 664	70	0	0	2 029
	Thailand	2	10	0	0	0	12	13	1 131	0	0	0	1 144
	Tunisia	4	1	0	0	0	5	104	26	0	0	0	130
	United Arab Emirates	3	7	1	0	0	11	26	9	2	0	0	37
	Uruguay	9	6	0	0	0	15	66	33	0	0	0	99
	Viet Nam	0	1	0	0	0	1	0	198	0	0	0	198

Exclusion codes:

Code 1 Functional disability – student has a moderate to severe permanent physical disability.

Code 2 Intellectual disability – student has a mental or emotional disability and has either been tested as cognitively delayed or is considered in the professional opinion of qualified staff to be cognitively delayed.

Code 3 Limited assessment language proficiency – student is not a native speaker of any of the languages of the assessment in the country and has been resident in the country for less than one year.

Code 4 Other reasons defined by the national centres and approved by the international centre.

Code 5 No materials available in the language of instruction.

Note: For a full explanation of the details in this table please refer to the *PISA 2012 Technical Report* (OECD, forthcoming).

Information for the adjudicated regions is available on line.

* See notes at the beginning of this Annex.

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- ***Column 13*** presents an *index of the extent to which the national desired target population is covered by the PISA sample*. Canada, Denmark, Estonia, Luxembourg, Norway, Sweden, the United Kingdom and the United States were the only countries where the coverage is below 95%.
- ***Column 14*** presents an *index of the extent to which 15-year-olds enrolled in schools are covered by the PISA sample*. The index measures the overall proportion of the national enrolled population that is covered by the non-excluded portion of the student sample. The index takes into account both school-level and student-level exclusions. Values close to 100 indicate that the PISA sample represents the entire education system as defined for PISA 2012. The index is the weighted number of participating students (Column 8) divided by the weighted number of participating and excluded students (Column 8 plus Column 10), times the nationally defined target population (Column 5) divided by the eligible population (Column 2).
- ***Column 15*** presents an *index of the coverage of the 15-year-old population*. This index is the weighted number of participating students (Column 8) divided by the total population of 15-year-old students (Column 1).

This high level of coverage contributes to the comparability of the assessment results. For example, even assuming that the excluded students would have systematically scored worse than those who participated, and that this relationship is moderately strong, an exclusion rate in the order of 5% would likely lead to an overestimation of national mean scores of less than 5 score points (on a scale with an international mean of 500 score points and a standard deviation of 100 score points). This assessment is based on the following calculations: if the correlation between the propensity of exclusions and student performance is 0.3, resulting mean scores would likely be overestimated by 1 score point if the exclusion rate is 1%, by 3 score points if the exclusion rate is 5%, and by 6 score points if the exclusion rate is 10%. If the correlation between the propensity of exclusions and student performance is 0.5, resulting mean scores would be overestimated by 1 score point if the exclusion rate is 1%, by 5 score points if the exclusion rate is 5%, and by 10 score points if the exclusion rate is 10%. For this calculation, a model was employed that assumes a bivariate normal distribution for performance and the propensity to participate. For details, see the *PISA 2012 Technical Report* (OECD, forthcoming).

Sampling procedures and response rates

The accuracy of any survey results depends on the quality of the information on which national samples are based as well as on the sampling procedures. Quality standards, procedures, instruments and verification mechanisms were developed for PISA that ensured that national samples yielded comparable data and that the results could be compared with confidence.

Most PISA samples were designed as two-stage stratified samples (where countries applied different sampling designs, these are documented in the *PISA 2012 Technical Report* [OECD, forthcoming]). The first stage consisted of sampling individual schools in which 15-year-old students could be enrolled. Schools were sampled systematically with probabilities proportional to size, the measure of size being a function of the estimated number of eligible (15-year-old) students enrolled. A minimum of 150 schools were selected in each country (where this number existed), although the requirements for national analyses often required a somewhat larger sample. As the schools were sampled, replacement schools were simultaneously identified, in case a sampled school chose not to participate in PISA 2012.

In the case of Iceland, Liechtenstein, Luxembourg, Macao-China and Qatar, all schools and all eligible students within schools were included in the sample.

Experts from the PISA Consortium performed the sample selection process for most participating countries and monitored it closely in those countries that selected their own samples. The second stage of the selection process sampled students within sampled schools. Once schools were selected, a list of each sampled school's 15-year-old students was prepared. From this list, 35 students were then selected with equal probability (all 15-year-old students were selected if fewer than 35 were enrolled). The number of students to be sampled per school could deviate from 35, but could not be less than 20.

Data-quality standards in PISA required minimum participation rates for schools as well as for students. These standards were established to minimise the potential for response biases. In the case of countries meeting these standards, it was likely that any bias resulting from non-response would be negligible, i.e. typically smaller than the sampling error.

A minimum response rate of 85% was required for the schools initially selected. Where the initial response rate of schools was between 65% and 85%, however, an acceptable school response rate could still be achieved through the use of replacement schools. This procedure brought with it a risk of increased response bias. Participating countries were, therefore, encouraged to persuade as many of the schools in the original sample as possible to participate. Schools with a student participation rate between 25% and 50% were not regarded as participating schools, but data from these schools were included in the database and contributed to the various estimations. Data from schools with a student participation rate of less than 25% were excluded from the database.

PISA 2012 also required a minimum participation rate of 80% of students within participating schools. This minimum participation rate had to be met at the national level, not necessarily by each participating school. Follow-up sessions were required in schools in which too few students had participated in the original assessment sessions. Student participation rates were calculated over all original schools, and also over all schools, whether original sample or replacement schools, and from the participation of students in both the original assessment and any follow-up sessions. A student who participated in the original or follow-up cognitive sessions was regarded as a participant. Those who attended only the questionnaire session were included in the international database and contributed to the statistics presented in this publication if they provided at least a description of their father's or mother's occupation.

[Part 1/2]

Table A2.3 Response rates

		Initial sample – before school replacement					Final sample – after school replacement		
		Weighted school participation rate before replacement (%)	Weighted number of responding schools (weighted also by enrolment)	Weighted number of schools sampled (responding and non-responding) (weighted also by enrolment)	Number of responding schools (unweighted)	Number of responding and non-responding schools (unweighted)	Weighted school participation rate after replacement (%)	Weighted number of responding schools (weighted also by enrolment)	Weighted number of schools sampled (responding and non-responding) (weighted also by enrolment)
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
OECD	**Australia**	98	268 631	274 432	757	790	98	268 631	274 432
	Austria	100	88 967	88 967	191	191	100	88 967	88 967
	Belgium	84	100 482	119 019	246	294	97	115 004	119 006
	Canada	91	362 178	396 757	828	907	93	368 600	396 757
	Chile	92	220 009	239 429	200	224	99	236 576	239 370
	Czech Republic	98	87 238	88 884	292	297	100	88 447	88 797
	Denmark	87	61 749	71 015	311	366	96	67 709	70 892
	Estonia	100	12 046	12 046	206	206	100	12 046	12 046
	Finland	99	59 740	60 323	310	313	99	59 912	60 323
	France	97	703 458	728 401	223	231	97	703 458	728 401
	Germany	98	735 944	753 179	227	233	98	737 778	753 179
	Greece	93	95 107	102 087	176	192	99	100 892	102 053
	Hungary	98	99 317	101 751	198	208	99	101 187	101 751
	Iceland	99	4 395	4 424	133	140	99	4 395	4 424
	Ireland	99	56 962	57 711	182	185	99	57 316	57 711
	Israel	91	99 543	109 326	166	186	94	103 075	109 895
	Italy	89	478 317	536 921	1 104	1 232	97	522 686	536 821
	Japan	86	1 015 198	1 175 794	173	200	96	1 123 211	1 175 794
	Korea	100	661 575	662 510	156	157	100	661 575	662 510
	Luxembourg	100	5 931	5 931	42	42	100	5 931	5 931
	Mexico	92	1 323 816	1 442 242	1 431	1 562	95	1 374 615	1 442 234
	Netherlands	75	139 709	185 468	148	199	89	165 635	185 320
	New Zealand	81	47 441	58 676	156	197	89	52 360	58 616
	Norway	85	54 201	63 653	177	208	95	60 270	63 642
	Poland	85	343 344	402 116	159	188	98	393 872	402 116
	Portugal	95	122 238	128 129	186	195	96	122 713	128 050
	Slovak Republic	87	50 182	57 353	202	236	99	57 599	58 201
	Slovenia	98	18 329	18 680	335	353	98	18 329	18 680
	Spain	100	402 604	403 999	902	904	100	402 604	403 999
	Sweden	99	98 645	99 726	207	211	100	99 536	99 767
	Switzerland	94	78 825	83 450	397	422	98	82 032	83 424
	Turkey	97	921 643	945 357	165	170	100	944 807	945 357
	United Kingdom	80	564 438	705 011	477	550	89	624 499	699 839
	United States	67	2 647 253	3 945 575	139	207	77	3 040 661	3 938 077
Partners	**Albania**	100	49 632	49 632	204	204	100	49 632	49 632
	Argentina	95	578 723	606 069	218	229	96	580 989	606 069
	Brazil	93	2 545 863	2 745 045	803	886	95	2 622 293	2 747 688
	Bulgaria	99	57 101	57 574	186	188	100	57 464	57 574
	Colombia	87	530 553	612 605	323	363	97	596 557	612 261
	Costa Rica	99	64 235	64 920	191	193	99	64 235	64 920
	Croatia	99	45 037	45 636	161	164	100	45 608	45 636
	Cyprus*	97	9 485	9 821	117	131	97	9 485	9 821
	Hong Kong-China	79	60 277	76 589	123	156	94	72 064	76 567
	Indonesia	95	2 799 943	2 950 696	199	210	98	2 892 365	2 951 028
	Jordan	100	119 147	119 147	233	233	100	119 147	119 147
	Kazakhstan	100	239 767	239 767	218	218	100	239 767	239 767
	Latvia	88	15 371	17 488	186	213	100	17 428	17 448
	Liechtenstein	100	382	382	12	12	100	382	382
	Lithuania	98	33 989	34 614	211	216	100	34 604	34 604
	Macao-China	100	5 410	5 410	45	45	100	5 410	5 410
	Malaysia	100	455 543	455 543	164	164	100	455 543	455 543
	Montenegro	100	8 540	8 540	51	51	100	8 540	8 540
	Peru	98	503 915	514 574	238	243	99	507 602	514 574
	Qatar	100	11 333	11 340	157	164	100	11 333	11 340
	Romania	100	139 597	139 597	178	178	100	139 597	139 597
	Russian Federation	100	1 243 564	1 243 564	227	227	100	1 243 564	1 243 564
	Serbia	90	65 537	72 819	143	160	95	69 433	72 752
	Shanghai-China	100	89 832	89 832	155	155	100	89 832	89 832
	Singapore	98	50 415	51 687	170	176	98	50 945	51 896
	Chinese Taipei	100	324 667	324 667	163	163	100	324 667	324 667
	Thailand	98	757 516	772 654	235	240	100	772 452	772 654
	Tunisia	99	129 229	130 141	152	153	99	129 229	130 141
	United Arab Emirates	99	46 469	46 748	453	460	99	46 469	46 748
	Uruguay	99	45 736	46 009	179	180	100	46 009	46 009
	Viet Nam	100	1 068 462	1 068 462	162	162	100	1 068 462	1 068 462

Information for the adjudicated regions is available on line.
* See notes at the beginning of this Annex.

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[Part 2/2]

Table A2.3 Response rates

		Final sample – after school replacement		Final sample – students within schools after school replacement				
		Number of responding schools (unweighted)	Number of responding and non-responding schools (unweighted)	Weighted student participation rate after replacement (%)	Number of students assessed (weighted)	Number of students sampled (assessed and absent) (weighted)	Number of students assessed (unweighted)	Number of students sampled (assessed and absent) (unweighted)
		(9)	(10)	(11)	(12)	(13)	(14)	(15)
OECD	Australia	757	790	87	213 495	246 012	17 491	20 799
	Austria	191	191	92	75 393	82 242	4 756	5 318
	Belgium	282	294	91	103 914	114 360	9 649	10 595
	Canada	840	907	81	261 928	324 328	20 994	25 835
	Chile	221	224	95	214 558	226 689	6 857	7 246
	Czech Republic	295	297	90	73 536	81 642	6 528	7 222
	Denmark	339	366	89	56 096	62 988	7 463	8 496
	Estonia	206	206	93	10 807	11 634	5 867	6 316
	Finland	311	313	91	54 126	59 653	8 829	9 789
	France	223	231	89	605 371	676 730	5 641	6 308
	Germany	228	233	93	692 226	742 416	4 990	5 355
	Greece	188	192	97	92 444	95 580	5 125	5 301
	Hungary	204	208	93	84 032	90 652	4 810	5 184
	Iceland	133	140	85	3 503	4 135	3 503	4 135
	Ireland	183	185	84	45 115	53 644	5 016	5 977
	Israel	172	186	90	91 181	101 288	6 061	6 727
	Italy	1 186	1 232	93	473 104	510 005	38 084	41 003
	Japan	191	200	96	1 034 803	1 076 786	6 351	6 609
	Korea	156	157	99	595 461	603 004	5 033	5 101
	Luxembourg	42	42	95	5 260	5 523	5 260	5 523
	Mexico	1 468	1 562	94	1 193 866	1 271 639	33 786	35 972
	Netherlands	177	199	85	148 432	174 697	4 434	5 215
	New Zealand	177	197	85	40 397	47 703	5 248	6 206
	Norway	197	208	91	51 155	56 286	4 686	5 156
	Poland	182	188	88	325 389	371 434	5 629	6 452
	Portugal	187	195	87	80 719	92 395	5 608	6 426
	Slovak Republic	231	236	94	50 544	53 912	5 737	6 106
	Slovenia	335	353	90	16 146	17 849	7 211	7 921
	Spain	902	904	90	334 382	372 042	26 443	29 027
	Sweden	209	211	92	87 359	94 784	4 739	5 141
	Switzerland	410	422	92	72 116	78 424	11 218	12 138
	Turkey	169	170	98	850 830	866 269	4 847	4 939
	United Kingdom	505	550	86	528 231	613 736	12 638	14 649
	United States	161	207	89	2 429 718	2 734 268	6 094	6 848
Partners	Albania	204	204	92	39 275	42 466	4 743	5 102
	Argentina	219	229	88	457 294	519 733	5 804	6 680
	Brazil	837	886	90	2 133 035	2 368 438	19 877	22 326
	Bulgaria	187	188	96	51 819	54 145	5 280	5 508
	Colombia	352	363	93	507 178	544 862	11 164	12 045
	Costa Rica	191	193	89	35 525	39 930	4 582	5 187
	Croatia	163	164	92	41 912	45 473	6 153	6 675
	Cyprus*	117	131	93	8 719	9 344	5 078	5 458
	Hong Kong-China	147	156	93	62 059	66 665	4 659	5 004
	Indonesia	206	210	95	2 478 961	2 605 254	5 579	5 885
	Jordan	233	233	95	105 493	111 098	7 038	7 402
	Kazakhstan	218	218	99	206 053	208 411	5 808	5 874
	Latvia	211	213	91	14 579	16 039	5 276	5 785
	Liechtenstein	12	12	93	293	314	293	314
	Lithuania	216	216	92	30 429	33 042	4 618	5 018
	Macao-China	45	45	99	5 335	5 366	5 335	5 366
	Malaysia	164	164	94	405 983	432 080	5 197	5 529
	Montenegro	51	51	94	7 233	7 714	4 799	5 117
	Peru	240	243	96	398 193	414 728	6 035	6 291
	Qatar	157	164	100	10 966	10 996	10 966	10 996
	Romania	178	178	98	137 860	140 915	5 074	5 188
	Russian Federation	227	227	97	1 141 317	1 172 539	6 418	6 602
	Serbia	152	160	93	60 366	64 658	4 681	5 017
	Shanghai-China	155	155	98	83 821	85 127	6 374	6 467
	Singapore	172	176	94	47 465	50 330	5 546	5 887
	Chinese Taipei	163	163	96	281 799	292 542	6 046	6 279
	Thailand	239	240	99	695 088	702 818	6 606	6 681
	Tunisia	152	153	90	108 342	119 917	4 391	4 857
	United Arab Emirates	453	460	95	38 228	40 384	11 460	12 148
	Uruguay	180	180	90	35 800	39 771	5 315	5 904
	Viet Nam	162	162	100	955 222	956 517	4 959	4 966

Information for the adjudicated regions is available on line.
* See notes at the beginning of this Annex.
StatLink http://dx.doi.org/10.1787/888932937092

Table A2.3 shows the response rates for students and schools, before and after replacement.

- *Column 1* shows the *weighted participation rate of schools before replacement*. This is obtained by dividing Column 2 by Column 3, multiply by 100.
- *Column 2* shows the *weighted number of responding schools before school replacement* (weighted by student enrolment).
- *Column 3* shows the *weighted number of sampled schools before school replacement* (including both responding and non-responding schools, weighted by student enrolment).
- *Column 4* shows the *unweighted number of responding schools before school replacement*.
- *Column 5* shows the *unweighted number of responding and non-responding schools before school replacement.*
- *Column 6* shows the *weighted participation rate of schools after replacement*. This is obtained by dividing Column 7 by Column 8, multiply by 100.
- *Column 7* shows the *weighted number of responding schools after school replacement (weighted by student enrolment)*.
- *Column 8* shows the *weighted number of schools sampled after school replacement* (including both responding and non-responding schools, weighted by student enrolment).
- *Column 9* shows the *unweighted number of responding schools after school replacement*.
- *Column 10* shows the *unweighted number of responding and non-responding schools after school replacement.*
- *Column 11* shows the *weighted student participation rate after replacement*. This is obtained by dividing Column 12 by Column 13, multiply by 100.
- *Column 12* shows the *weighted number of students assessed*.
- *Column 13* shows the *weighted number of students sampled* (including both students who were assessed and students who were absent on the day of the assessment).
- *Column 14* shows the *unweighted number of students assessed.* Note that any students in schools with student-response rates less than 50% were not included in these rates (both weighted and unweighted).
- *Column 15* shows the *unweighted number of students sampled* (including both students that were assessed and students who were absent on the day of the assessment). Note that any students in schools where fewer than half of the eligible students were assessed were not included in these rates (neither weighted nor unweighted).

Definition of schools

In some countries, sub-units within schools were sampled instead of schools and this may affect the estimation of the between-school variance components. In Austria, the Czech Republic, Germany, Hungary, Japan, Romania and Slovenia, schools with more than one study programme were split into the units delivering these programmes. In the Netherlands, for schools with both lower and upper secondary programmes, schools were split into units delivering each programme level. In the Flemish Community of Belgium, in the case of multi-campus schools, implantations (campuses) were sampled, whereas in the French Community, in the case of multi-campus schools, the larger administrative units were sampled. In Australia, for schools with more than one campus, the individual campuses were listed for sampling. In Argentina, Croatia and Dubai (United Arab Emirates), schools that had more than one campus had the locations listed for sampling. In Spain, the schools in the Basque region with multi-linguistic models were split into linguistic models for sampling.

Grade levels

Students assessed in PISA 2012 are at various grade levels. The percentage of students at each grade level is presented by country and economy in Table A2.4a and by gender within each country and economy in Table A2.4b.

[Part 1/1]

Table A2.4a Percentage of students at each grade level

		All students											
		7th grade		8th grade		9th grade		10th grade		11th grade		12th grade and above	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	0.0	(0.0)	0.1	(0.0)	10.8	(0.5)	70.0	(0.6)	19.1	(0.4)	0.0	(0.0)
	Austria	0.3	(0.1)	5.4	(0.7)	43.3	(0.9)	51.0	(1.0)	0.1	(0.0)	0.0	c
	Belgium	0.9	(0.1)	6.4	(0.5)	30.9	(0.6)	60.8	(0.6)	1.0	(0.1)	0.0	(0.0)
	Canada	0.1	(0.0)	1.1	(0.1)	13.2	(0.6)	84.6	(0.6)	1.0	(0.1)	0.1	(0.0)
	Chile	1.4	(0.3)	4.1	(0.6)	21.7	(0.8)	66.1	(1.2)	6.7	(0.3)	0.0	c
	Czech Republic	0.4	(0.1)	4.5	(0.4)	51.1	(1.2)	44.1	(1.3)	0.0	c	0.0	c
	Denmark	0.1	(0.0)	18.2	(0.8)	80.6	(0.8)	1.0	(0.2)	0.0	c	0.0	c
	Estonia	0.6	(0.2)	22.1	(0.7)	75.4	(0.7)	1.9	(0.3)	0.0	c	0.0	c
	Finland	0.7	(0.2)	14.2	(0.4)	85.0	(0.4)	0.0	c	0.1	(0.1)	0.0	c
	France	0.0	(0.0)	1.9	(0.3)	27.9	(0.7)	66.6	(0.7)	3.5	(0.3)	0.1	(0.1)
	Germany	0.6	(0.1)	10.0	(0.6)	51.9	(0.8)	36.7	(0.9)	0.8	(0.4)	0.0	c
	Greece	0.3	(0.1)	1.2	(0.3)	4.0	(0.7)	94.5	(1.0)	0.0	c	0.0	c
	Hungary	2.8	(0.5)	8.7	(0.9)	67.8	(0.9)	20.6	(0.6)	0.0	c	0.0	c
	Iceland	0.0	c	0.0	c	0.0	c	100.0	c	0.0	c	0.0	c
	Ireland	0.0	(0.0)	1.9	(0.2)	60.5	(0.8)	24.3	(1.2)	13.3	(1.0)	0.0	c
	Israel	0.0	(0.0)	0.3	(0.1)	17.1	(0.9)	81.7	(0.9)	0.8	(0.3)	0.0	c
	Italy	0.4	(0.1)	1.7	(0.2)	16.8	(0.6)	78.5	(0.7)	2.6	(0.2)	0.0	(0.0)
	Japan	0.0	c	0.0	c	0.0	c	100.0	c	0.0	c	0.0	c
	Korea	0.0	c	0.0	c	5.9	(0.8)	93.8	(0.8)	0.2	(0.1)	0.0	c
	Luxembourg	0.7	(0.1)	10.2	(0.2)	50.7	(0.1)	38.0	(0.1)	0.5	(0.1)	0.0	c
	Mexico	1.1	(0.1)	5.2	(0.3)	30.8	(1.0)	60.8	(1.1)	2.1	(0.3)	0.1	(0.0)
	Netherlands	0.0	c	3.6	(0.4)	46.7	(1.0)	49.2	(1.1)	0.5	(0.1)	0.0	c
	New Zealand	0.0	c	0.0	c	0.1	(0.1)	6.2	(0.4)	88.3	(0.5)	5.4	(0.4)
	Norway	0.0	c	0.0	c	0.4	(0.1)	99.4	(0.1)	0.2	(0.0)	0.0	c
	Poland	0.5	(0.1)	4.1	(0.4)	94.9	(0.4)	0.5	(0.2)	0.0	c	0.0	c
	Portugal	2.4	(0.3)	8.2	(0.7)	28.6	(1.6)	60.5	(2.1)	0.3	(0.1)	0.0	c
	Slovak Republic	1.7	(0.3)	4.5	(0.5)	39.5	(1.5)	52.7	(1.4)	1.6	(0.5)	0.0	c
	Slovenia	0.0	c	0.3	(0.2)	5.1	(0.8)	90.7	(0.8)	3.9	(0.2)	0.0	c
	Spain	0.1	(0.0)	9.8	(0.5)	24.1	(0.4)	66.0	(0.6)	0.0	(0.0)	0.0	c
	Sweden	0.0	(0.0)	3.7	(0.3)	94.0	(0.6)	2.2	(0.5)	0.0	c	0.0	c
	Switzerland	0.6	(0.1)	12.9	(0.8)	60.6	(1.0)	25.6	(1.0)	0.2	(0.1)	0.0	c
	Turkey	0.5	(0.2)	2.2	(0.3)	27.6	(1.2)	65.5	(1.2)	4.0	(0.3)	0.3	(0.1)
	United Kingdom	0.0	c	0.0	c	0.0	(0.0)	1.3	(0.3)	95.0	(0.3)	3.6	(0.1)
	United States	0.0	c	0.3	(0.1)	11.7	(1.1)	71.2	(1.1)	16.6	(0.8)	0.2	(0.1)
	OECD average	0.5	(0.0)	4.9	(0.1)	34.7	(0.1)	51.9	(0.2)	7.7	(0.1)	0.3	(0.0)
Partners	Albania	0.1	(0.1)	2.2	(0.3)	39.4	(2.4)	58.0	(2.5)	0.3	(0.1)	0.0	c
	Argentina	2.0	(0.5)	12.0	(1.2)	22.6	(1.4)	59.4	(2.1)	2.8	(0.6)	1.1	(0.7)
	Brazil	0.0	c	6.9	(0.5)	13.5	(0.7)	34.9	(1.0)	42.0	(1.0)	2.6	(0.2)
	Bulgaria	0.9	(0.2)	4.6	(0.5)	89.5	(0.7)	4.9	(0.4)	0.0	(0.0)	0.0	c
	Colombia	5.5	(0.6)	12.1	(0.7)	21.5	(0.8)	40.2	(0.9)	20.7	(1.0)	0.0	c
	Costa Rica	7.4	(0.9)	13.7	(0.9)	39.6	(1.3)	39.1	(1.8)	0.2	(0.1)	0.0	c
	Croatia	0.0	c	0.0	c	79.8	(0.4)	20.2	(0.4)	0.0	c	0.0	c
	Cyprus*	0.0	(0.0)	0.5	(0.1)	4.5	(0.1)	94.3	(0.1)	0.7	(0.0)	0.0	(0.0)
	Hong Kong-China	1.1	(0.1)	6.5	(0.4)	25.9	(0.7)	65.0	(0.9)	1.5	(1.4)	0.0	c
	Indonesia	1.9	(0.4)	8.3	(0.8)	37.7	(2.6)	47.7	(3.0)	3.9	(0.6)	0.6	(0.6)
	Jordan	0.1	(0.0)	1.1	(0.1)	6.0	(0.4)	92.9	(0.4)	0.0	c	0.0	c
	Kazakhstan	0.2	(0.1)	4.9	(0.5)	67.2	(1.9)	27.4	(2.0)	0.2	(0.1)	0.1	(0.1)
	Latvia	2.1	(0.4)	14.8	(0.7)	80.0	(0.8)	3.0	(0.4)	0.0	(0.0)	0.0	c
	Liechtenstein	4.9	(0.7)	14.2	(1.5)	66.3	(1.3)	14.6	(0.2)	0.0	c	0.0	c
	Lithuania	0.2	(0.1)	6.2	(0.6)	81.2	(0.7)	12.4	(0.7)	0.0	(0.0)	0.0	c
	Macao-China	5.4	(0.1)	16.4	(0.2)	33.2	(0.2)	44.6	(0.1)	0.4	(0.1)	0.0	(0.0)
	Malaysia	0.0	c	0.1	(0.0)	4.0	(0.5)	96.0	(0.5)	0.0	(0.0)	0.0	c
	Montenegro	0.0	c	0.1	(0.0)	79.5	(0.1)	20.4	(0.1)	0.0	c	0.0	c
	Peru	2.7	(0.4)	7.8	(0.5)	18.1	(0.7)	47.7	(0.9)	23.7	(0.8)	0.0	c
	Qatar	0.9	(0.0)	3.1	(0.1)	13.8	(0.1)	64.8	(0.1)	17.1	(0.1)	0.3	(0.0)
	Romania	0.2	(0.1)	7.4	(0.5)	87.2	(0.6)	5.1	(0.4)	0.0	c	0.0	c
	Russian Federation	0.6	(0.1)	8.1	(0.5)	73.8	(1.6)	17.4	(1.8)	0.1	(0.1)	0.0	c
	Serbia	0.1	(0.1)	1.5	(0.7)	96.7	(0.7)	1.7	(0.2)	0.0	c	0.0	c
	Shanghai-China	1.1	(0.2)	4.5	(0.6)	39.6	(1.5)	54.2	(1.3)	0.6	(0.1)	0.1	(0.1)
	Singapore	0.4	(0.1)	2.0	(0.2)	8.0	(0.3)	89.6	(0.3)	0.1	(0.1)	0.0	c
	Chinese Taipei	0.0	c	0.2	(0.1)	36.2	(0.7)	63.6	(0.7)	0.0	c	0.0	c
	Thailand	0.1	(0.0)	0.3	(0.1)	20.7	(1.0)	76.0	(1.1)	2.9	(0.5)	0.0	c
	Tunisia	5.0	(0.6)	11.8	(1.3)	20.6	(1.4)	56.7	(2.7)	5.9	(0.5)	0.0	c
	United Arab Emirates	0.9	(0.2)	2.8	(0.2)	11.3	(0.8)	61.9	(1.0)	22.2	(0.7)	0.9	(0.2)
	Uruguay	6.9	(0.8)	12.2	(0.6)	22.4	(1.0)	57.3	(1.5)	1.3	(0.2)	0.0	c
	Viet Nam	0.4	(0.2)	2.7	(0.7)	8.3	(1.7)	88.6	(2.3)	0.0	c	0.0	c

Information for the adjudicated regions is available on line.
* See notes at the beginning of this Annex.
StatLink http://dx.doi.org/10.1787/888932937092

[Part 1/2]

Table A2.4b **Percentage of students at each grade level, by gender**

		Boys											
		7th grade		8th grade		9th grade		10th grade		11th grade		12th grade and above	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	0.0	c	0.1	(0.0)	13.1	(0.9)	69.2	(0.9)	17.5	(0.6)	0.0	(0.0)
	Austria	0.3	(0.1)	6.0	(0.9)	44.8	(1.4)	48.9	(1.5)	0.0	c	0.0	c
	Belgium	1.0	(0.1)	7.1	(0.6)	33.8	(0.9)	57.1	(1.0)	1.0	(0.2)	0.0	(0.0)
	Canada	0.1	(0.1)	1.3	(0.2)	14.8	(0.8)	82.7	(0.8)	0.9	(0.1)	0.1	(0.1)
	Chile	1.4	(0.4)	5.0	(0.9)	24.2	(1.0)	63.1	(1.6)	6.4	(0.4)	0.0	c
	Czech Republic	0.7	(0.2)	5.5	(0.6)	54.9	(2.0)	39.0	(2.1)	0.0	c	0.0	c
	Denmark	0.1	(0.0)	23.4	(1.0)	75.7	(1.0)	0.8	(0.3)	0.0	c	0.0	c
	Estonia	0.8	(0.3)	25.7	(1.0)	71.7	(1.1)	1.7	(0.4)	0.0	c	0.0	c
	Finland	0.9	(0.4)	16.2	(0.6)	82.8	(0.7)	0.0	c	0.1	(0.1)	0.0	c
	France	0.1	(0.1)	2.3	(0.4)	30.8	(0.9)	63.5	(1.0)	3.2	(0.5)	0.1	(0.1)
	Germany	0.9	(0.2)	11.6	(0.7)	53.6	(1.1)	33.2	(1.2)	0.7	(0.3)	0.0	c
	Greece	0.4	(0.2)	1.8	(0.6)	4.8	(1.0)	93.0	(1.4)	0.0	c	0.0	c
	Hungary	3.9	(0.6)	12.1	(1.5)	67.1	(1.3)	17.0	(0.8)	0.0	c	0.0	c
	Iceland	0.0	c	0.0	c	0.0	c	100.0	c	0.0	c	0.0	c
	Ireland	0.0	c	2.4	(0.3)	63.6	(1.0)	21.1	(1.4)	13.0	(1.3)	0.0	c
	Israel	0.1	(0.1)	0.3	(0.1)	18.9	(1.3)	79.6	(1.3)	1.2	(0.5)	0.0	c
	Italy	0.5	(0.2)	2.1	(0.3)	19.3	(0.7)	75.8	(0.7)	2.3	(0.2)	0.0	c
	Japan	0.0	c	0.0	c	0.0	c	100.0	c	0.0	c	0.0	c
	Korea	0.0	c	0.0	c	6.4	(1.2)	93.4	(1.2)	0.2	(0.1)	0.0	c
	Luxembourg	0.7	(0.1)	10.7	(0.2)	51.1	(0.2)	37.0	(0.2)	0.6	(0.1)	0.0	c
	Mexico	1.3	(0.2)	6.3	(0.3)	33.0	(1.1)	57.2	(1.2)	2.1	(0.5)	0.0	(0.0)
	Netherlands	0.0	c	4.4	(0.6)	49.5	(1.1)	45.7	(1.2)	0.4	(0.1)	0.0	c
	New Zealand	0.0	c	0.0	c	0.2	(0.1)	7.0	(0.5)	88.0	(0.7)	4.8	(0.5)
	Norway	0.0	c	0.0	c	0.6	(0.1)	99.1	(0.1)	0.3	(0.0)	0.0	c
	Poland	0.9	(0.2)	5.7	(0.6)	93.0	(0.6)	0.4	(0.2)	0.0	c	0.0	c
	Portugal	2.6	(0.5)	9.9	(0.9)	30.1	(1.7)	57.0	(2.2)	0.4	(0.2)	0.0	c
	Slovak Republic	1.5	(0.3)	5.4	(0.8)	40.1	(2.0)	51.5	(2.1)	1.5	(0.5)	0.0	c
	Slovenia	0.0	c	0.4	(0.3)	6.3	(1.0)	90.2	(1.0)	3.1	(0.4)	0.0	c
	Spain	0.1	(0.1)	11.8	(0.6)	25.8	(0.6)	62.2	(0.7)	0.1	(0.1)	0.0	c
	Sweden	0.1	(0.1)	4.6	(0.5)	93.7	(0.8)	1.7	(0.6)	0.0	c	0.0	c
	Switzerland	0.5	(0.1)	13.9	(0.9)	60.6	(1.7)	24.7	(2.0)	0.2	(0.1)	0.0	c
	Turkey	0.3	(0.1)	2.6	(0.5)	33.2	(1.5)	60.3	(1.5)	3.2	(0.4)	0.3	(0.1)
	United Kingdom	0.0	c	0.0	c	0.0	(0.0)	1.7	(0.4)	94.7	(0.4)	3.7	(0.2)
	United States	0.0	c	0.4	(0.2)	14.6	(1.1)	69.8	(1.1)	14.9	(0.9)	0.3	(0.2)
	OECD average	0.6	(0.1)	5.9	(0.1)	35.6	(0.2)	50.1	(0.2)	7.5	(0.1)	0.3	(0.1)
Partners	**Albania**	0.1	(0.1)	2.9	(0.4)	42.9	(2.7)	53.8	(2.8)	0.2	(0.1)	0.0	c
	Argentina	2.8	(0.8)	15.0	(1.7)	25.8	(1.9)	52.6	(2.6)	3.0	(0.9)	0.8	(0.5)
	Brazil	0.0	c	9.0	(0.7)	15.8	(0.8)	36.1	(1.1)	37.2	(1.0)	1.9	(0.2)
	Bulgaria	1.3	(0.3)	5.8	(0.7)	88.2	(1.0)	4.6	(0.4)	0.0	c	0.0	c
	Colombia	7.4	(0.8)	13.5	(1.0)	22.1	(1.0)	38.8	(1.4)	18.2	(1.2)	0.0	c
	Costa Rica	9.3	(1.3)	16.4	(1.2)	38.5	(1.5)	35.7	(2.0)	0.0	(0.0)	0.0	c
	Croatia	0.0	c	0.0	c	82.0	(0.6)	18.0	(0.6)	0.0	c	0.0	c
	Cyprus*	0.0	(0.0)	0.5	(0.1)	4.7	(0.1)	94.0	(0.2)	0.7	(0.1)	0.0	c
	Hong Kong-China	1.2	(0.2)	6.9	(0.5)	27.5	(0.7)	63.0	(1.0)	1.4	(1.3)	0.0	c
	Indonesia	2.3	(0.4)	10.0	(1.1)	38.5	(3.0)	45.5	(3.7)	3.1	(0.6)	0.6	(0.6)
	Jordan	0.1	(0.1)	0.8	(0.2)	5.7	(0.6)	93.4	(0.6)	0.0	c	0.0	c
	Kazakhstan	0.3	(0.1)	5.5	(0.6)	68.4	(2.4)	25.4	(2.6)	0.2	(0.1)	0.2	(0.2)
	Latvia	3.6	(0.8)	18.0	(0.9)	76.4	(1.3)	2.0	(0.3)	0.0	(0.0)	0.0	c
	Liechtenstein	4.5	(1.2)	16.5	(2.1)	69.4	(2.2)	9.6	(0.6)	0.0	c	0.0	c
	Lithuania	0.2	(0.1)	7.3	(0.6)	82.2	(0.9)	10.4	(0.8)	0.0	(0.0)	0.0	c
	Macao-China	7.1	(0.2)	19.3	(0.2)	33.3	(0.2)	40.0	(0.2)	0.2	(0.1)	0.0	(0.0)
	Malaysia	0.0	c	0.1	(0.1)	5.1	(0.7)	94.7	(0.7)	0.0	c	0.0	c
	Montenegro	0.0	c	0.1	(0.1)	82.0	(0.3)	17.9	(0.3)	0.0	c	0.0	c
	Peru	3.1	(0.5)	9.1	(0.8)	19.5	(0.7)	46.2	(1.0)	22.1	(0.9)	0.0	c
	Qatar	1.2	(0.1)	3.6	(0.1)	14.0	(0.1)	64.6	(0.2)	16.1	(0.2)	0.4	(0.0)
	Romania	0.3	(0.2)	6.5	(0.6)	88.7	(0.7)	4.5	(0.4)	0.0	c	0.0	c
	Russian Federation	0.7	(0.2)	8.9	(0.7)	73.7	(1.5)	16.7	(1.8)	0.1	(0.1)	0.0	c
	Serbia	0.1	(0.1)	1.9	(0.9)	96.7	(1.0)	1.4	(0.2)	0.0	c	0.0	c
	Shanghai-China	1.3	(0.3)	5.3	(0.8)	41.6	(1.6)	51.2	(1.4)	0.6	(0.1)	0.0	(0.0)
	Singapore	0.4	(0.1)	2.0	(0.3)	8.3	(0.4)	89.3	(0.5)	0.0	(0.0)	0.0	c
	Chinese Taipei	0.0	c	0.2	(0.2)	37.4	(1.5)	62.4	(1.5)	0.0	c	0.0	c
	Thailand	0.1	(0.1)	0.4	(0.2)	22.9	(1.3)	74.1	(1.5)	2.5	(0.5)	0.0	c
	Tunisia	6.3	(0.8)	14.6	(1.6)	21.9	(1.6)	52.3	(3.0)	4.9	(0.5)	0.0	c
	United Arab Emirates	1.3	(0.3)	3.1	(0.3)	12.9	(0.9)	60.3	(1.2)	21.8	(1.0)	0.6	(0.1)
	Uruguay	9.4	(1.3)	13.1	(0.8)	24.0	(1.1)	52.4	(1.9)	1.2	(0.2)	0.0	c
	Viet Nam	0.7	(0.3)	3.5	(0.8)	10.5	(2.2)	85.3	(2.8)	0.0	c	0.0	c

Information for the adjudicated regions is available on line.
* See notes at the beginning of this Annex.
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[Part 2/2]

Table A2.4b Percentage of students at each grade level, by gender

		Girls											
		7th grade		8th grade		9th grade		10th grade		11th grade		12th grade and above	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	0.0	(0.0)	0.2	(0.1)	8.3	(0.3)	70.8	(0.6)	20.7	(0.6)	0.0	(0.0)
	Austria	0.3	(0.1)	4.7	(0.7)	41.8	(1.3)	53.1	(1.4)	0.1	(0.1)	0.0	c
	Belgium	0.9	(0.1)	5.7	(0.5)	28.0	(0.7)	64.4	(0.8)	1.0	(0.2)	0.0	c
	Canada	0.1	(0.0)	0.9	(0.1)	11.5	(0.5)	86.4	(0.5)	1.2	(0.1)	0.0	(0.0)
	Chile	1.3	(0.3)	3.3	(0.6)	19.3	(1.0)	69.0	(1.2)	7.1	(0.4)	0.0	c
	Czech Republic	0.1	(0.1)	3.5	(0.5)	47.1	(2.0)	49.4	(2.1)	0.0	c	0.0	c
	Denmark	0.1	(0.0)	13.0	(0.9)	85.6	(0.9)	1.3	(0.3)	0.0	c	0.0	c
	Estonia	0.3	(0.1)	18.6	(0.8)	79.0	(0.9)	2.2	(0.4)	0.0	c	0.0	c
	Finland	0.5	(0.1)	12.0	(0.4)	87.3	(0.4)	0.0	c	0.2	(0.1)	0.0	c
	France	0.0	c	1.6	(0.3)	25.1	(1.1)	69.4	(1.1)	3.8	(0.4)	0.1	(0.1)
	Germany	0.3	(0.1)	8.2	(0.6)	50.2	(1.0)	40.4	(1.1)	0.8	(0.4)	0.0	c
	Greece	0.3	(0.1)	0.5	(0.1)	3.1	(0.7)	96.1	(0.8)	0.0	c	0.0	c
	Hungary	1.8	(0.7)	5.7	(0.8)	68.4	(1.1)	24.1	(0.8)	0.0	c	0.0	c
	Iceland	0.0	c	0.0	c	0.0	c	100.0	c	0.0	c	0.0	c
	Ireland	0.1	(0.1)	1.4	(0.2)	57.3	(1.0)	27.6	(1.4)	13.7	(1.2)	0.0	c
	Israel	0.0	(0.0)	0.2	(0.1)	15.5	(1.0)	83.8	(1.0)	0.4	(0.1)	0.0	c
	Italy	0.3	(0.1)	1.2	(0.2)	14.0	(0.6)	81.5	(0.8)	3.0	(0.3)	0.0	(0.0)
	Japan	0.0	c	0.0	c	0.0	c	100.0	c	0.0	c	0.0	c
	Korea	0.0	c	0.0	c	5.4	(1.1)	94.4	(1.1)	0.2	(0.1)	0.0	c
	Luxembourg	0.7	(0.1)	9.7	(0.2)	50.2	(0.2)	39.0	(0.2)	0.4	(0.1)	0.0	c
	Mexico	0.8	(0.1)	4.1	(0.3)	28.7	(1.0)	64.2	(1.1)	2.1	(0.3)	0.1	(0.1)
	Netherlands	0.0	c	2.7	(0.4)	43.8	(1.1)	53.0	(1.1)	0.5	(0.2)	0.0	c
	New Zealand	0.0	c	0.0	c	0.1	(0.1)	5.3	(0.4)	88.6	(0.6)	5.9	(0.6)
	Norway	0.0	c	0.0	c	0.2	(0.1)	99.8	(0.1)	0.0	c	0.0	c
	Poland	0.2	(0.1)	2.6	(0.3)	96.7	(0.4)	0.6	(0.2)	0.0	c	0.0	c
	Portugal	2.2	(0.3)	6.6	(0.7)	27.2	(1.6)	63.8	(2.2)	0.2	(0.1)	0.0	c
	Slovak Republic	1.9	(0.5)	3.5	(0.5)	38.8	(1.9)	54.0	(1.9)	1.8	(0.5)	0.0	c
	Slovenia	0.0	c	0.2	(0.2)	3.8	(0.9)	91.2	(1.0)	4.7	(0.5)	0.0	c
	Spain	0.1	(0.0)	7.8	(0.5)	22.3	(0.7)	69.9	(0.8)	0.0	(0.0)	0.0	c
	Sweden	0.0	c	2.8	(0.3)	94.4	(0.6)	2.8	(0.6)	0.0	c	0.0	c
	Switzerland	0.6	(0.2)	11.9	(1.0)	60.7	(1.7)	26.6	(1.8)	0.2	(0.1)	0.0	c
	Turkey	0.7	(0.3)	1.7	(0.3)	21.9	(1.2)	70.8	(1.1)	4.8	(0.4)	0.2	(0.1)
	United Kingdom	0.0	c	0.0	c	0.0	(0.0)	1.0	(0.3)	95.4	(0.3)	3.6	(0.2)
	United States	0.0	c	0.1	(0.1)	8.8	(1.2)	72.7	(1.3)	18.3	(0.9)	0.2	(0.1)
	OECD average	0.4	(0.0)	3.9	(0.1)	33.7	(0.2)	53.8	(0.2)	7.9	(0.1)	0.3	(0.1)
Partners	Albania	0.1	(0.1)	1.4	(0.4)	35.7	(2.6)	62.5	(2.6)	0.3	(0.1)	0.0	c
	Argentina	1.2	(0.3)	9.1	(0.9)	19.7	(1.3)	65.8	(1.9)	2.7	(0.4)	1.4	(0.8)
	Brazil	0.0	c	5.0	(0.4)	11.5	(0.7)	33.8	(1.0)	46.4	(1.1)	3.3	(0.2)
	Bulgaria	0.5	(0.2)	3.3	(0.5)	90.9	(0.7)	5.2	(0.5)	0.0	(0.0)	0.0	c
	Colombia	3.9	(0.6)	10.8	(0.7)	21.0	(0.9)	41.4	(1.1)	22.9	(1.1)	0.0	c
	Costa Rica	5.7	(0.8)	11.3	(0.8)	40.5	(1.3)	42.1	(1.7)	0.4	(0.2)	0.0	c
	Croatia	0.0	c	0.0	c	77.5	(0.6)	22.5	(0.6)	0.0	c	0.0	c
	Cyprus*	0.0	c	0.5	(0.1)	4.2	(0.2)	94.6	(0.2)	0.7	(0.1)	0.0	(0.0)
	Hong Kong-China	0.9	(0.2)	6.0	(0.6)	24.2	(0.8)	67.3	(1.0)	1.6	(1.5)	0.0	c
	Indonesia	1.5	(0.4)	6.4	(0.8)	36.8	(2.9)	50.0	(3.0)	4.7	(0.8)	0.5	(0.5)
	Jordan	0.0	(0.0)	1.3	(0.2)	6.3	(0.5)	92.4	(0.6)	0.0	c	0.0	c
	Kazakhstan	0.1	(0.1)	4.4	(0.5)	65.9	(1.9)	29.3	(2.1)	0.2	(0.1)	0.0	c
	Latvia	0.6	(0.2)	11.6	(0.8)	83.7	(1.1)	4.1	(0.7)	0.0	c	0.0	c
	Liechtenstein	5.3	(1.3)	11.5	(1.9)	62.8	(1.9)	20.4	(0.8)	0.0	c	0.0	c
	Lithuania	0.1	(0.1)	5.2	(0.6)	80.2	(0.9)	14.4	(0.8)	0.0	(0.0)	0.0	c
	Macao-China	3.5	(0.1)	13.3	(0.2)	33.1	(0.3)	49.5	(0.3)	0.7	(0.2)	0.0	c
	Malaysia	0.0	c	0.0	c	2.9	(0.4)	97.1	(0.4)	0.0	(0.1)	0.0	c
	Montenegro	0.0	c	0.0	c	77.1	(0.3)	22.9	(0.3)	0.0	c	0.0	c
	Peru	2.3	(0.5)	6.6	(0.6)	16.8	(1.0)	49.1	(1.2)	25.3	(1.0)	0.0	c
	Qatar	0.5	(0.1)	2.7	(0.1)	13.6	(0.1)	64.9	(0.2)	18.2	(0.1)	0.2	(0.0)
	Romania	0.1	(0.1)	8.3	(0.6)	85.9	(0.9)	5.7	(0.6)	0.0	c	0.0	c
	Russian Federation	0.6	(0.2)	7.3	(0.5)	73.9	(2.0)	18.1	(2.0)	0.1	(0.1)	0.0	c
	Serbia	0.1	(0.1)	1.0	(0.6)	96.8	(0.7)	2.0	(0.3)	0.0	c	0.0	c
	Shanghai-China	0.8	(0.2)	3.8	(0.5)	37.6	(1.8)	57.0	(1.8)	0.6	(0.1)	0.1	(0.1)
	Singapore	0.4	(0.1)	2.1	(0.2)	7.6	(0.4)	89.8	(0.4)	0.2	(0.1)	0.0	c
	Chinese Taipei	0.0	c	0.1	(0.1)	35.0	(1.5)	64.9	(1.4)	0.0	c	0.0	c
	Thailand	0.0	(0.0)	0.2	(0.1)	19.0	(1.2)	77.5	(1.2)	3.3	(0.5)	0.0	c
	Tunisia	3.9	(0.5)	9.3	(1.1)	19.4	(1.5)	60.6	(2.5)	6.7	(0.6)	0.0	c
	United Arab Emirates	0.6	(0.1)	2.6	(0.4)	9.7	(1.1)	63.4	(1.7)	22.6	(1.3)	1.2	(0.3)
	Uruguay	4.6	(0.6)	11.4	(0.8)	21.0	(1.1)	61.7	(1.5)	1.4	(0.2)	0.0	c
	Viet Nam	0.1	(0.1)	2.1	(0.6)	6.4	(1.5)	91.4	(1.9)	0.0	c	0.0	c

Information for the adjudicated regions is available on line.
* See notes at the beginning of this Annex.
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ANNEX A3

TECHNICAL NOTES ON ANALYSES IN THIS VOLUME

Methods and definitions

Relative risk or increased likelihood

The relative risk is a measure of the association between an antecedent factor and an outcome factor. The relative risk is simply the ratio of two risks, i.e. the risk of observing the outcome when the antecedent is present and the risk of observing the outcome when the antecedent is not present. Figure A3.1 presents the notation that is used in the following.

■ Figure A3.1 ■

Labels used in a two-way table

p_{11}	p_{12}	$p_{1.}$
p_{21}	p_{22}	$p_{2.}$
$p_{.1}$	$p_{.2}$	$p_{..}$

$p_{..}$ is equal to $\frac{n_{..}}{n_{..}}$, with $n_{..}$ the total number of students and $p_{..}$ is therefore equal to 1, $p_{i.}$, $p_{.j}$ respectively represent the marginal probabilities for each row and for each column. The marginal probabilities are equal to the marginal frequencies divided by the total number of students. Finally, the p_{ij} represents the probabilities for each cell and are equal to the number of observations in a particular cell divided by the total number of observations.

In PISA, the rows represent the antecedent factor, with the first row for “having the antecedent” and the second row for “not having the antecedent”. The columns represent the outcome: the first column for “having the outcome” and the second column for “not having the outcome”. The relative risk is then equal to:

$$RR = \frac{(p_{11}/p_{1.})}{(p_{21}/p_{2.})}$$

Attributable risk or population relevance

The attributable risk, also referred to as population relevance in the text and tables of this volume, is interpreted as follows: if the risk factor could be eliminated, then the rate of occurrence of the outcome characteristic in the population would be reduced by this coefficient. The attributable risk is equal to (see Figure A3.1 for the notation that is used in the following formula):

$$AR = \frac{(p_{11}\,p_{22}) - (p_{12}\,p_{21})}{(p_{.1}\,p_{2.})}$$

The coefficients are multiplied by 100 to express the result as a percentage.

Statistics based on multilevel models

Statistics based on multi level models include variance components (between- and within-school variance), the index of inclusion derived from these components, and regression coefficients where this has been indicated. Multilevel models are generally specified as two-level regression models (the student and school levels), with normally distributed residuals, and estimated with maximum likelihood estimation. Where the dependent variable is mathematics performance, the estimation uses five plausible values for each student’s performance on the mathematics scale. Models were estimated using Mplus® software.

In multilevel models, weights are used at both the student and school levels. The purpose of these weights is to account for differences in the probabilities of students being selected in the sample. Since PISA applies a two-stage sampling procedure, these differences are due to factors at both the school and the student levels. For the multilevel models, student final weights (W_FSTUWT) were used. Within-school-weights correspond to student final weights, rescaled to sum up within each school to the school sample size. Between-school weights correspond to the sum of student final weights (W_FSTUWT) within each school. The definition of between-school weights has changed with respect to PISA 2009.

The index of inclusion is defined and estimated as:

$$100 * \frac{\sigma_w^2}{\sigma_w^2 + \sigma_b^2}$$

where σ_w^2 and σ_b^2, respectively, represent the within- and between-variance estimates.

The results in multilevel models, and the between-school variance estimate in particular, depend on how schools are defined and organised within countries and by the units that were chosen for sampling purposes. For example, in some countries, some of the schools in the PISA sample were defined as administrative units (even if they spanned several geographically separate institutions, as in Italy); in others they were defined as those parts of larger educational institutions that serve 15-year-olds; in still others they were defined as physical school buildings; and in others they were defined from a management perspective (e.g. entities having a principal). The *PISA 2012 Technical Report* (OECD, forthcoming) and Annex A2 provide an overview of how schools were defined. In Slovenia, the primary sampling unit is defined as a group of students who follow the same study programme within a school (an educational track within a school). So in this particular case the between-school variance is actually the within-school, between-track variation. The use of stratification variables in the selection of schools may also affect the estimate of the between-school variance, particularly if stratification variables are associated with between-school differences.

Because of the manner in which students were sampled, the within-school variation includes variation between classes as well as between students.

Multiple imputation replaces each missing value with a set of plausible values that represent the uncertainty about the right value to impute. The multiple imputed data sets are then analysed by using standard procedures for complete data and by combining results from these analyses. Five imputed values are computed for each missing value. Different methods can be used according to the pattern of missing values. For arbitrary missing data patterns, the MCMC (Monte Carlo Markov Chain) approach can be used.

This approach is used with the SAS procedure MI for the multilevel analyses in this volume. Multiple imputation is conducted separately for each model and each country, except for the model with all variables (Tables IV.1.12a, IV.1.12b and IV.1.12c) in which the data were constructed from imputed data for the individual models, such as the model for learning environment, model for selecting and grouping students, etc. Where continuous values are generated for missing discrete variables, these are rounded to the nearest discrete value of the variable. Each of the five plausible value of mathematics performance is analysed by Mplus® software using one of the five imputed data sets, which were combined taking account of the between imputation variance.

Standard errors and significance tests

The statistics in this report represent estimates of national performance based on samples of students, rather than values that could be calculated if every student in every country had answered every question. Consequently, it is important to measure the degree of uncertainty of the estimates. In PISA, each estimate has an associated degree of uncertainty, which is expressed through a standard error. The use of confidence intervals provides a way to make inferences about the population means and proportions in a manner that reflects the uncertainty associated with the sample estimates. From an observed sample statistic and assuming a normal distribution, it can be inferred that the corresponding population result would lie within the confidence interval in 95 out of 100 replications of the measurement on different samples drawn from the same population.

In many cases, readers are primarily interested in whether a given value in a particular country is different from a second value in the same or another country, e.g. whether girls in a country perform better than boys in the same country. In the tables and charts used in this report, differences are labelled as statistically significant when a difference of that size, smaller or larger, would be observed less than 5% of the time, if there were actually no difference in corresponding population values. Similarly, the risk of reporting a correlation as significant if there is, in fact, no correlation between two measures, is contained at 5%.

Throughout the report, significance tests were undertaken to assess the statistical significance of the comparisons made.

Gender differences and differences between subgroup means

Gender differences in student performance or other indices were tested for statistical significance. Positive differences indicate higher scores for boys while negative differences indicate higher scores for girls. Generally, differences marked in bold in the tables in this volume are statistically significant at the 95% confidence level.

Similarly, differences between other groups of students (e.g. native students and students with an immigrant background) were tested for statistical significance. The definitions of the subgroups can in general be found in the tables and the text accompanying the analysis. All differences marked in bold in the tables presented in Annex B of this report are statistically significant at the 95% level.

Differences between subgroup means, after accounting for other variables

For many tables, subgroup comparisons were performed both on the observed difference ("before accounting for other variables") and after accounting for other variables, such as the *PISA index of economic, social and cultural status of students* (ESCS). The adjusted differences were estimated using linear regression and tested for significance at the 95% confidence level. Significant differences are marked in bold.

Performance differences between the top and bottom quartiles of PISA indices and scales

Differences in average performance between the top and bottom quarters of the PISA indices and scales were tested for statistical significance. Figures marked in bold indicate that performance between the top and bottom quarters of students on the respective index is statistically significantly different at the 95% confidence level.

Differences between subgroups of schools

In this Volume, schools are compared across several aspects, such as resource allocation or performance. For this purpose, schools are grouped in categories by socio-economic status of students and schools, public-private status, lower and upper secondary education and school location. The differences between subgroups of schools are tested for statistical significance in the following way:

- *Socio-economic status of students*: Students in the top quarter of ESCS are compared to students in the bottom quarter of ESCS. If the difference is statistically significant at the 95% confidence levels, both figures are marked in bold. The second and third quarters do not enter the comparison.
- *Socio-economic status of schools*: advantaged schools are compared to disadvantaged schools. If the difference is statistically significant at the 95% confidence levels, both figures are marked in bold. Average schools do not enter the comparison.
- *Public and private schools:* Government-dependent and government-independent private schools are jointly considered as private schools. Figures in bold in data tables presented in Annex B of this report indicate statistically significant differences, at the 95% confidence level, between public and private schools.
- *Education levels*: Students at the upper secondary education are compared to students at the lower secondary education. If the difference is statistically significant at the 95% confidence levels, both figures are marked in bold.
- *School location*: For the purpose of significance tests, "schools located in a small town" and "schools located in a town" are jointly considered to form a single group. Figures for "schools located in a city or large city" are marked in bold in data tables presented in Annex B of this report if the difference with this middle category ("schools located in a small town" and "schools located in a town") is significant at the 95% confidence levels. In turn, figures for "schools located in a village, hamlet, or rural area" are marked in bold if the difference with this middle category is significant. Differences between the extreme categories were not tested for significance.

Change in the performance per unit of the index

For many tables, the difference in student performance per unit of the index shown was calculated. Figures in bold indicate that the differences are statistically significantly different from zero at the 95% confidence level.

Relative risk or increased likelihood

Figures in bold in the data tables presented in Annex B of this report indicate that the relative risk is statistically significantly different from 1 at the 95% confidence level. To compute statistical significance around the value of 1 (the null hypothesis), the relative-risk statistic is assumed to follow a log-normal distribution, rather than a normal distribution, under the null hypothesis.

Attributable risk or population relevance

Figures in bold in the data tables presented in Annex B of this report indicate that the attributable risk is statistically significantly different from 0 at the 95% confidence level.

Standard errors in statistics estimated from multilevel models

For statistics based on multilevel models (such as the estimates of variance components and regression coefficients from two-level regression models) the standard errors are not estimated with the usual replication method which accounts for stratification and sampling rates from finite populations. Instead, standard errors are "model-based": their computation assumes that schools, and students within schools, are sampled at random (with sampling probabilities reflected in school and student weights) from a theoretical, infinite population of schools and students which complies with the model's parametric assumptions.

The standard error for the estimated index of inclusion is calculated by deriving an approximate distribution for it from the (model-based) standard errors for the variance components, using the delta-method.

Standard errors in trend analyses of performance: Link error

Standard errors for performance trend estimates had to be adjusted because the equating procedure that allows scores in different PISA assessments to be compared introduces a form of random error that is related to performance changes on the link items. These more conservative standard errors (larger than standard errors that were estimated before the introduction of the link error) reflect not only the measurement precision and sampling variation as for the usual PISA results, but also the link error (see Annex A5 for a technical discussion of the link error).

Link items represent only a subset of all items used to derive PISA scores. If different items were chosen to equate PISA scores over time, the comparison of performance for a group of students across time could vary. As a result, standard errors for the estimates of the change over time in mathematics, reading or science performance of a particular group (e.g. a country or economy, a region, boys, girls, students with an immigrant background, students without an immigrant background, socio-economically advantaged students, students in public schools, etc.) include the link error in addition to the sampling and imputation error commonly added to estimates in performance for a particular year. Because the equating procedure adds uncertainty to the position in the distribution (a change in the intercept) but does not result in any change in the variance of a distribution, standard errors for location-invariant estimates do not

include the link error. Location-invariant estimates include, for example, estimates for variances, regression coefficients for student- or school-level covariates, and correlation coefficients.

Figures in bold in the data tables for trends in performance presented in Annex B of this report indicate that the the change in performance for that particular group is statistically significantly different from 0 at the 95% confidence level. The standard errors used to calculate the statistical significance of the reported trend include the link error.

ANNEX A4

QUALITY ASSURANCE

Quality assurance procedures were implemented in all parts of PISA 2012, as was done for all previous PISA surveys.

The consistent quality and linguistic equivalence of the PISA 2012 assessment instruments were facilitated by providing countries with equivalent source versions of the assessment instruments in English and French and requiring countries (other than those assessing students in English and French) to prepare and consolidate two independent translations using both source versions. Precise translation and adaptation guidelines were supplied, also including instructions for selecting and training the translators. For each country, the translation and format of the assessment instruments (including test materials, marking guides, questionnaires and manuals) were verified by expert translators appointed by the PISA Consortium before they were used in the PISA 2012 Field Trial and Main Study. These translators' mother tongue was the language of instruction in the country concerned and they were knowledgeable about education systems. For further information on the PISA translation procedures, see the *PISA 2012 Technical Report* (OECD, forthcoming).

The survey was implemented through standardised procedures. The PISA Consortium provided comprehensive manuals that explained the implementation of the survey, including precise instructions for the work of School Co-ordinators and scripts for Test Administrators to use during the assessment sessions. Proposed adaptations to survey procedures, or proposed modifications to the assessment session script, were submitted to the PISA Consortium for approval prior to verification. The PISA Consortium then verified the national translation and adaptation of these manuals.

To establish the credibility of PISA as valid and unbiased and to encourage uniformity in administering the assessment sessions, Test Administrators in participating countries were selected using the following criteria: it was required that the Test Administrator not be the reading, mathematics or science instructor of any students in the sessions he or she would administer for PISA; it was recommended that the Test Administrator not be a member of the staff of any school where he or she would administer for PISA; and it was considered preferable that the Test Administrator not be a member of the staff of any school in the PISA sample. Participating countries organised an in-person training session for Test Administrators.

Participating countries and economies were required to ensure that: Test Administrators worked with the School Co-ordinator to prepare the assessment session, including updating student tracking forms and identifying excluded students; no extra time was given for the cognitive items (while it was permissible to give extra time for the student questionnaire); no instrument was administered before the two one-hour parts of the cognitive session; Test Administrators recorded the student participation status on the student tracking forms and filled in a Session Report Form; no cognitive instrument was permitted to be photocopied; no cognitive instrument could be viewed by school staff before the assessment session; and Test Administrators returned the material to the national centre immediately after the assessment sessions.

National Project Managers were encouraged to organise a follow-up session when more than 15% of the PISA sample was not able to attend the original assessment session.

National Quality Monitors from the PISA Consortium visited all national centres to review data-collection procedures. Finally, School Quality Monitors from the PISA Consortium visited a sample of seven schools during the assessment. For further information on the field operations, see the *PISA 2012 Technical Report* (OECD, forthcoming).

Marking procedures were designed to ensure consistent and accurate application of the marking guides outlined in the PISA Operations Manuals. National Project Managers were required to submit proposed modifications to these procedures to the Consortium for approval. Reliability studies to analyse the consistency of marking were implemented.

Software specially designed for PISA facilitated data entry, detected common errors during data entry, and facilitated the process of data cleaning. Training sessions familiarised National Project Managers with these procedures.

For a description of the quality assurance procedures applied in PISA and in the results, see the *PISA 2012 Technical Report* (OECD, forthcoming).

The results of adjudication showed that the PISA Technical Standards were fully met in all countries and economies that participated in PISA 2012, with the exception of Albania. Albania submitted parental occupation data that was incomplete and appeared inaccurate, since there was over-use of a narrow range of occupations. It was not possible to resolve these issues during the course of data cleaning, and as a result neither parental occupation data nor any indices which depend on this data are included in the international dataset. Results for Albania are omitted from any analyses which depend on these indices.

ANNEX A5

TECHNICAL DETAILS OF TRENDS ANALYSES

Comparing mathematics, reading and science performance across PISA cycles

The PISA 2003, 2006, 2009 and 2012 assessments use the same mathematics performance scale, which means that score points on this scale are directly comparable over time. The same is true for the reading performance scale used since PISA 2000 and the science performance scale used since PISA 2006. The comparability of scores across time is possible because of the use of link items that are common across assessments and can be used in the equating procedure to align performance scales. The items that are common across assessments are a subset of the total items that make up the assessment because PISA progressively renews its pool of items. As a result, out of a total of 110 items in the PISA 2012 mathematics assessment, 84 are linked to 2003 items, 48 to 2006 items and 35 to 2009 items. The number of PISA 2012 items linked to the PISA 2003 assessment is larger than the number linked to the PISA 2006 or the PISA 2009 assessments because mathematics was a major domain in PISA 2003 and PISA 2012. In PISA 2006 and PISA 2009, mathematics was a minor domain and all the mathematics items included in these assessments were link items. The *PISA 2012 Technical Report* (OECD, forthcoming) provides the technical details on equating the PISA 2012 mathematics scale for trends purposes.

Link error

Standard errors for performance trend estimates had to be adjusted because the equating procedure that allows scores in different PISA assessments to be compared introduces a form of random error that is related to performance changes on the link items. These more conservative standard errors (larger than standard errors that were estimated before the introduction of the link error) reflect not only the measurement precision and sampling variation as for the usual PISA results, but also the link error provided in Table A5.1.

Link items represent only a subset of all items used to derive PISA scores. If different items were chosen to equate PISA scores over time, the comparison of performance for a group of students across time could vary. As a result, standard errors for the estimates of the change over time in mathematics, reading or science performance of a particular group (e.g. a country or economy, a region, boys, girls, students with an immigrant background, students without an immigrant background, socio-economically advantaged students, students in public schools, etc.) include the link error in addition to the sampling and imputation error commonly added to estimates in performance for a particular year. Because the equating procedure adds uncertainty to the position in the distribution (a change in the intercept) but does not result in any change in the variance of a distribution, standard errors for location-invariant estimates do not include the link error. Location-invariant estimates include, for example, estimates for variances, regression coefficients for student- or school-level covariates, and correlation coefficients.

Link error for scores between two PISA assessments

The following equations describe how link errors between two PISA assessments are calculated. Suppose we have *L* score points in *K* units. Use *i* to index items in a unit and *j* to index units so that $\hat{\mu}_{ij}^{y}$ is the estimated difficulty of item *i* in unit *j* for year *y*, and let for example to compare PISA 2006 and PISA 2003:

$$c_{ij} = \hat{\mu}_{ij}^{2006} - \hat{\mu}_{ij}^{2003}$$

The size (total number of score points) of unit *j* is m_j so that:

$$\sum_{j=1}^{K} m_j = L$$

and

$$\bar{m} = \frac{1}{K}\sum_{j=1}^{K} m_j$$

Further let:

$$c_{.j} = \frac{1}{m_j}\sum_{j=1}^{m_j} c_{ij}$$

and

$$\bar{c} = \frac{1}{N}\sum_{j=1}^{K}\sum_{i=1}^{m_j} c_{ij}$$

then the link error, taking clustering into account, is as follows:

$$error_{2006,2003} = \sqrt{\frac{\sum_{j=1}^{K} m_j^2\,(c_{.j} - \bar{c})^2}{K(K-1)\bar{m}^2}}$$

This approach for estimating the link errors was used in PISA 2006, PISA 2009 and PISA 2012. The link errors for comparisons of PISA 2012 results with previous assessments are shown in Table A5.1.

[Part 1/1]

Table A5.1 **Link error for comparisons of performance between PISA 2012 and previous assessments**

Comparison	Mathematics	Reading	Science
PISA 2000 to PISA 2012		5.923	
PISA 2003 to PISA 2012	1.931	5.604	
PISA 2006 to PISA 2012	2.084	5.580	3.512
PISA 2009 to PISA 2012	2.294	2.602	2.006

Note: Comparisons between PISA 2012 scores and previous assessments can only be made to when the subject first became a major domain. As a result, comparisons in mathematics performance between PISA 2012 and PISA 2000 are not possible, nor are comparisons in science performance between PISA 2012 and PISA 2000 or PISA 2003.

StatLink `http://dx.doi.org/10.1787/888932960500`

Comparisons of performance: Difference between two assessments

To evaluate the evolution of performance, analyses report the change in performance between two cycles. Comparisons between two assessments (e.g. a country's/economy's change in performance between PISA 2003 and PISA 2012 or the change in performance of a subgroup) are calculated as:

$$\Delta_{2012-t} = PISA_{2012} - PISA_t$$

where $\Delta_{2012\text{-}t}$ is the difference in performance between PISA 2012 and a previous PISA assessment, where t can take any of the following values: 2000, 2003, 2006 or 2009. $PISA_{2012}$ is the mathematics, reading or science score observed in PISA 2012, and $PISA_t$ is the mathematics, reading or science score observed in a previous assessment (2000, 2003, 2006 or 2009). The standard error of the change in performance $\sigma(\Delta_{2012\text{-}t})$ is:

$$\sigma(\Delta_{2012-t}) = \sqrt{\sigma_{2012}^2 + \sigma_t^2 + error_{2012,t}^2}$$

where σ_{2012} is the standard error observed for $PISA_{2012}$, σ_t is the standard error observed for $PISA_t$ and $error_{2012,t}$ is the link error for comparisons of mathematics, reading or science performance between the PISA 2012 assessment and a previous (t) assessment. The value for $error_{2012,t}$ is shown in Table A5.1.

Comparing items and non-performance scales across PISA cycles

To gather information about students' and schools' characteristics, PISA asks both students and schools to complete a background questionnaire. In PISA 2003 and PISA 2012 several questions were left untouched, allowing for a comparison of responses to these questions over time. In this report, only questions that retained the same wording were used for trends analyses. Questions with subtle word changes or questions with major word changes were not compared across time because it is impossible to discern whether observed changes in the response are due to changes in the construct they are measuring or to changes in the way the construct is being measured.

Also, as described in Annex A1, questionnaire items in PISA are used to construct indices. Whenever the questions used in the construction of indices remains intact in PISA 2003 and PISA 2012, the corresponding indices are compared. Two types of indices are used in PISA: simple indices and scale indices.

Simple indices recode a set of responses to questionnaire items. For trends analyses, the values observed in PISA 2003 are compared directly to PISA 2012, just as simple responses to questionnaire items are. This is the case of indices like student-teacher ratio and ability grouping in mathematics.

Scale indices, on the other hand, imply WLE estimates which require rescaling in order to be comparable across PISA cycles. Scale indices, like the *PISA index of economic, social and cultural status*, the *index of sense of belonging*, the *index of attitudes towards school*, the *index of intrinsic motivation to learn mathematics*, the *index of instrumental motivation to learn mathematics*, the *index of mathematics self-efficacy*, the *index of mathematics self-concept*, the *index of mathematics anxiety*, the *index of teacher shortage*, the *index of quality of physical infrastructure*, the *index of quality of educational resources*, the *index of disciplinary climate*, the *index of student-teacher relations*, the *index of teacher morale*, the *index of student-related factors affecting school climate*, and the *index of teacher-related factors affecting school climate*, were scaled in PISA 2012 to have an OECD mean of 0 and a standard deviation of 1. In PISA 2003 these same scales were scaled to have an OECD average of 0 and a standard deviation of 1. Because they are on different scales, values reported in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) cannot be compared with those reported in this volume. To make these scale indices comparable, values for 2003 have been rescaled to the 2012 scale, using the PISA 2012 parameter estimates.

To evaluate change in these items and scales, analyses report the change in the estimate between two assessments, usually PISA 2003 and PISA 2012. Comparisons between two assessments (e.g. a country's/economy's change in the index of mathematics anxiety between PISA 2003 and PISA 2012 or the change in this index for a subgroup) is calculated as:

$$\Delta_{2012,t} = PISA_{2012} - PISA_t$$

where $\Delta_{2012,t}$ is the difference in the index between PISA 2012 and a previous assessment, $PISA_{2012}$ is the index value observed in PISA 2012, and $PISA_t$ is the index value observed in a previous assessment (2000, 2003, 2006 or 2009). The standard error of the change in performance $\sigma(\Delta_{2012\text{-}t})$ is:

$$\sigma(\Delta_{2012-t}) = \sqrt{\sigma_{2012}^2 + \sigma_t^2}$$

where σ_{2012} is the standard error observed for $PISA_{2012}$ and σ_t is the standard error observed for $PISA_t$. These comparisons are based on an identical set of items; there is no uncertainty related to the choice of items for equating purposes, so no link error is needed.

Although only scale indices that use the same items in PISA 2003 and PISA 2012 are valid for trend comparisons, this does not imply that PISA 2012 indices that include exactly the same items as 2003 as well as new questionnaire items cannot be compared with PISA 2003 indices that included a smaller pool of items. In such cases, for example the *index of sense of belonging,* trend analyses were conducted by treating as missing in PISA 2003 items that were asked in the context of PISA 2012 but not in the PISA 2003 student questionnaire. This means that while the full set of information was used to scale the sense of belonging index in 2012, the PISA 2003 sense of belonging index was scaled under the assumption that if the 2012 items that were missing in 2003 had been asked in 2003, the overall index and index variation would have remained the same as those that were observed on common 2003 items. This is a tenable assumption inasmuch as in both PISA 2003 and PISA 2012 the questionnaire items used to construct the scale hold as an underlying factor in the construction of the scale.

OECD average

Throughout this report, the OECD average is used as a benchmark. It is calculated as the average across OECD countries, weighting each country equally. Some OECD countries did not participate in certain assessments, other OECD countries do not have comparable results for some assessments, others did not include certain questions in their questionnaires or changed them substantially from assessment to assessment. For this reason in trends tables and figures, the OECD average is reported as assessment-specific, that is, it includes only those countries for which there is comparable information in that particular assessment. This way, the 2003 OECD average includes only those OECD countries that have comparable information from the 2003 assessment, even if the results it refers to the PISA 2012 assessment and more countries have comparable information. This restriction allows for valid comparisons of the OECD average over time.

References

OECD (forthcoming), *PISA 2012 Technical Report, PISA,* OECD Publishing.

OECD (2004), *Learning for Tomorrow's World: First Results from PISA 2003*, PISA, OECD Publishing.
http://dx.doi.org/10.1787/9789264006416-en

ANNEX A6

ANCHORING VIGNETTES IN THE PISA 2012 STUDENT QUESTIONNAIRE

Annex A6 is available on line only.

It can be found at: *www.pisa.oecd.org*

Annex B

PISA 2012 DATA

All figures and tables in Annex B are available on line

Annex B1: Results for countries and economies
http://dx.doi.org/10.1787/888932963920
http://dx.doi.org/10.1787/888932963939
http://dx.doi.org/10.1787/888932963958
http://dx.doi.org/10.1787/888932963977
http://dx.doi.org/10.1787/888932963996
http://dx.doi.org/10.1787/888932964034
http://dx.doi.org/10.1787/888932964053

Annex B2: Results for regions within countries
http://dx.doi.org/10.1787/888932964072

Annex B3: List of tables available on line

The reader should note that there are gaps in the numbering of tables because some tables appear on line only and are not included in this publication.

Notes regarding Cyprus

Note by Turkey: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

A note regarding Israel

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

ANNEX B1

RESULTS FOR COUNTRIES AND ECONOMIES

[Part 1/4]

Mathematics performance, by the number of times students arrived late for school in the two weeks prior to the PISA test

Table III.2.1a *Results based on students' self-reports*

		Percentage of students, by the number of times students arrived late for school in the two weeks prior to the PISA test								Mathematics score, by the number of times students arrived late for school in the two weeks prior to the PISA test							
		None		One or two times		Three or four times		Five times or more		None		One or two times		Three or four times		Five times or more	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	Australia	64.5	(0.6)	25.4	(0.5)	6.6	(0.3)	3.5	(0.2)	**517**	(1.7)	495	(2.4)	469	(4.3)	**456**	(5.5)
	Austria	79.1	(0.9)	15.6	(0.7)	3.2	(0.3)	2.0	(0.3)	**508**	(2.8)	503	(5.7)	485	(9.5)	**477**	(12.3)
	Belgium	72.7	(0.7)	20.8	(0.6)	3.7	(0.3)	2.8	(0.2)	**528**	(2.1)	493	(4.0)	458	(7.0)	**426**	(8.4)
	Canada	56.9	(0.7)	28.6	(0.5)	9.2	(0.4)	5.4	(0.3)	**534**	(1.8)	510	(2.5)	491	(3.4)	**471**	(4.5)
	Chile	47.0	(1.1)	35.0	(0.7)	10.5	(0.5)	7.5	(0.5)	**436**	(3.1)	418	(3.3)	407	(4.6)	**391**	(6.0)
	Czech Republic	73.0	(0.8)	20.7	(0.7)	3.3	(0.3)	3.0	(0.3)	**508**	(3.0)	481	(4.1)	467	(12.3)	**447**	(12.2)
	Denmark	61.5	(1.1)	26.3	(0.7)	7.5	(0.4)	4.6	(0.4)	**509**	(2.2)	494	(3.2)	480	(4.3)	**471**	(7.6)
	Estonia	58.9	(0.9)	29.1	(0.7)	7.8	(0.4)	4.2	(0.4)	**529**	(2.2)	518	(2.9)	493	(4.7)	**486**	(7.1)
	Finland	57.0	(0.9)	30.8	(0.7)	8.2	(0.5)	4.0	(0.3)	**532**	(2.6)	512	(2.3)	495	(3.3)	**465**	(7.1)
	France	67.7	(0.9)	24.4	(0.7)	5.0	(0.4)	2.8	(0.3)	**509**	(2.7)	480	(3.7)	445	(7.8)	**421**	(10.4)
	Germany	77.3	(0.8)	17.8	(0.7)	3.0	(0.3)	1.9	(0.2)	**521**	(3.2)	509	(4.7)	507	(10.1)	**488**	(13.6)
	Greece	50.7	(1.0)	29.3	(0.7)	10.5	(0.5)	9.4	(0.4)	**456**	(2.7)	452	(3.6)	458	(4.4)	**440**	(5.5)
	Hungary	75.9	(1.2)	18.6	(1.0)	2.9	(0.4)	2.6	(0.3)	**490**	(3.0)	443	(6.6)	446	(12.7)	**409**	(11.7)
	Iceland	65.0	(0.8)	26.8	(0.8)	5.7	(0.4)	2.5	(0.2)	**505**	(2.2)	479	(3.2)	467	(8.1)	**446**	(12.1)
	Ireland	72.6	(1.0)	20.1	(0.7)	4.8	(0.4)	2.5	(0.3)	**510**	(1.9)	485	(3.7)	474	(7.4)	**450**	(9.4)
	Israel	45.7	(1.1)	35.7	(0.8)	11.0	(0.6)	7.7	(0.5)	**477**	(4.7)	466	(4.9)	456	(6.5)	**444**	(10.5)
	Italy	64.8	(0.6)	26.3	(0.5)	5.4	(0.3)	3.5	(0.2)	**497**	(2.2)	472	(2.3)	456	(4.4)	**436**	(5.1)
	Japan	91.1	(0.6)	7.5	(0.5)	1.0	(0.1)	0.5	(0.1)	**541**	(3.3)	512	(8.5)	479	(16.5)	**468**	(25.1)
	Korea	74.9	(1.0)	17.3	(0.7)	4.6	(0.4)	3.2	(0.3)	**565**	(4.4)	529	(5.1)	501	(7.3)	**499**	(12.3)
	Luxembourg	70.9	(0.5)	21.4	(0.5)	4.6	(0.3)	3.1	(0.2)	**496**	(1.4)	478	(3.0)	475	(6.0)	**463**	(7.2)
	Mexico	60.1	(0.6)	31.9	(0.5)	5.9	(0.2)	2.1	(0.1)	**418**	(1.6)	408	(1.5)	406	(2.5)	**397**	(4.7)
	Netherlands	69.7	(1.0)	23.4	(0.8)	3.7	(0.3)	3.2	(0.3)	**535**	(3.5)	509	(4.7)	477	(9.8)	**461**	(9.4)
	New Zealand	57.9	(1.3)	28.0	(0.8)	8.9	(0.6)	5.2	(0.3)	**520**	(2.6)	486	(3.3)	464	(5.7)	**440**	(6.4)
	Norway	70.8	(1.0)	21.2	(0.7)	4.9	(0.4)	3.1	(0.3)	**502**	(2.8)	472	(4.8)	456	(6.5)	**420**	(9.3)
	Poland	57.6	(1.2)	28.2	(0.7)	8.0	(0.5)	6.2	(0.5)	**525**	(3.6)	517	(4.6)	499	(6.1)	**476**	(6.2)
	Portugal	44.8	(1.0)	39.0	(0.7)	10.2	(0.5)	6.0	(0.4)	**495**	(4.2)	486	(3.7)	484	(5.9)	**465**	(7.6)
	Slovak Republic	73.8	(0.9)	20.1	(0.8)	3.7	(0.3)	2.5	(0.3)	**490**	(3.2)	472	(5.8)	433	(8.9)	**406**	(14.4)
	Slovenia	60.4	(0.8)	29.1	(0.7)	5.9	(0.4)	4.5	(0.3)	**511**	(2.1)	494	(2.7)	482	(6.7)	**462**	(6.6)
	Spain	64.7	(0.8)	24.3	(0.6)	6.5	(0.2)	4.4	(0.2)	**495**	(2.0)	472	(2.8)	466	(4.5)	**448**	(5.7)
	Sweden	44.4	(1.0)	34.3	(0.7)	12.9	(0.5)	8.4	(0.5)	**497**	(2.7)	477	(2.8)	460	(4.0)	**438**	(5.6)
	Switzerland	75.7	(0.8)	19.4	(0.6)	3.4	(0.3)	1.5	(0.1)	**533**	(3.0)	530	(4.7)	512	(9.2)	**503**	(10.8)
	Turkey	56.2	(1.0)	30.1	(0.7)	8.4	(0.5)	5.3	(0.4)	454	(5.5)	442	(4.3)	433	(6.8)	444	(7.7)
	United Kingdom	68.2	(0.8)	24.0	(0.6)	5.1	(0.3)	2.7	(0.2)	**509**	(3.1)	471	(4.0)	469	(5.9)	**440**	(9.9)
	United States	69.9	(1.2)	21.8	(0.8)	5.1	(0.4)	3.2	(0.4)	**494**	(3.5)	465	(4.4)	427	(7.0)	**427**	(7.9)
	OECD average	64.7	(0.2)	25.1	(0.1)	6.2	(0.1)	4.0	(0.1)	**504**	(0.5)	483	(0.7)	467	(1.3)	**449**	(1.7)
Partners	Albania	64.7	(0.7)	27.8	(0.6)	4.9	(0.4)	2.6	(0.3)	392	(2.6)	395	(3.2)	395	(7.5)	413	(10.3)
	Argentina	53.0	(1.3)	28.6	(0.8)	9.9	(0.6)	8.5	(0.6)	**401**	(4.0)	381	(3.4)	378	(4.6)	**359**	(6.0)
	Brazil	66.3	(0.8)	24.8	(0.6)	5.5	(0.3)	3.4	(0.2)	**394**	(2.3)	391	(2.5)	388	(4.6)	**372**	(4.5)
	Bulgaria	41.0	(1.1)	37.0	(0.7)	12.7	(0.6)	9.3	(0.7)	**456**	(4.8)	438	(4.0)	422	(4.4)	**399**	(5.4)
	Colombia	64.1	(1.4)	29.0	(1.1)	4.8	(0.4)	2.2	(0.3)	**380**	(3.0)	374	(3.5)	363	(5.2)	**354**	(9.3)
	Costa Rica	42.5	(1.1)	37.9	(0.9)	12.2	(0.7)	7.3	(0.6)	408	(3.8)	404	(3.3)	411	(4.4)	413	(4.7)
	Croatia	66.1	(0.9)	26.0	(0.7)	5.4	(0.3)	2.5	(0.3)	**479**	(3.7)	461	(4.0)	460	(6.5)	**417**	(9.5)
	Cyprus*	52.3	(0.7)	28.0	(0.6)	10.6	(0.5)	9.1	(0.4)	**452**	(1.8)	440	(2.4)	426	(3.9)	**408**	(4.4)
	Hong Kong-China	85.4	(0.6)	12.5	(0.5)	1.3	(0.2)	0.8	(0.1)	**569**	(3.1)	533	(5.8)	494	(15.2)	**469**	(22.7)
	Indonesia	73.0	(1.0)	22.2	(0.8)	3.0	(0.3)	1.7	(0.3)	**379**	(4.3)	365	(4.0)	369	(11.1)	**358**	(9.6)
	Jordan	64.6	(0.8)	25.1	(0.6)	5.5	(0.4)	4.8	(0.4)	**392**	(3.3)	387	(3.1)	368	(5.4)	**371**	(6.4)
	Kazakhstan	71.8	(1.2)	23.6	(0.9)	3.3	(0.3)	1.3	(0.2)	**435**	(3.1)	424	(4.1)	418	(7.1)	**405**	(9.1)
	Latvia	43.7	(1.2)	35.0	(0.9)	12.7	(0.6)	8.6	(0.7)	**496**	(3.5)	494	(3.3)	482	(4.5)	**465**	(5.9)
	Liechtenstein	81.3	(2.3)	16.5	(2.1)	c	c	c	c	541	(4.7)	514	(15.1)	c	c	c	c
	Lithuania	56.3	(1.2)	31.2	(0.9)	7.5	(0.4)	5.0	(0.4)	**487**	(2.6)	474	(3.7)	464	(5.8)	**441**	(9.1)
	Macao-China	74.9	(0.5)	20.9	(0.5)	2.7	(0.2)	1.5	(0.2)	**551**	(1.2)	511	(2.7)	488	(9.1)	**454**	(9.7)
	Malaysia	66.4	(1.0)	23.3	(0.8)	6.2	(0.3)	4.1	(0.3)	**434**	(3.4)	400	(3.3)	383	(5.6)	**376**	(6.4)
	Montenegro	60.6	(0.9)	29.7	(0.8)	5.4	(0.3)	4.4	(0.3)	**415**	(1.3)	407	(2.4)	413	(6.0)	**364**	(6.4)
	Peru	47.2	(1.2)	36.2	(0.9)	11.0	(0.5)	5.7	(0.5)	**379**	(4.6)	360	(3.8)	361	(4.4)	**345**	(5.8)
	Qatar	60.5	(0.5)	26.9	(0.4)	7.5	(0.2)	5.1	(0.2)	**395**	(1.1)	359	(1.9)	341	(3.1)	**319**	(3.7)
	Romania	54.2	(1.1)	31.4	(0.8)	7.8	(0.5)	6.6	(0.5)	**450**	(3.9)	447	(4.2)	436	(7.1)	**408**	(5.4)
	Russian Federation	53.3	(1.3)	30.9	(0.8)	8.2	(0.5)	7.6	(0.5)	**494**	(3.2)	475	(3.6)	474	(4.3)	**439**	(5.8)
	Serbia	58.2	(1.0)	30.4	(0.8)	6.6	(0.4)	4.8	(0.4)	**455**	(3.7)	445	(4.0)	440	(6.9)	**414**	(8.4)
	Shanghai-China	83.4	(0.7)	13.1	(0.6)	2.1	(0.3)	1.3	(0.2)	**620**	(3.2)	581	(5.9)	558	(10.2)	**545**	(15.5)
	Singapore	79.4	(0.5)	16.9	(0.5)	2.4	(0.2)	1.3	(0.2)	**583**	(1.5)	547	(3.5)	504	(8.5)	**473**	(15.5)
	Chinese Taipei	77.7	(0.8)	14.7	(0.6)	4.5	(0.3)	3.1	(0.3)	**570**	(3.4)	536	(5.2)	511	(8.5)	**485**	(12.7)
	Thailand	65.9	(1.2)	24.0	(0.8)	6.3	(0.5)	3.8	(0.3)	**434**	(3.9)	417	(3.7)	411	(6.2)	**391**	(6.6)
	Tunisia	48.2	(0.9)	38.4	(0.8)	7.6	(0.4)	5.8	(0.5)	391	(4.5)	388	(4.3)	382	(4.9)	383	(7.5)
	United Arab Emirates	68.5	(0.7)	22.8	(0.5)	5.0	(0.2)	3.8	(0.3)	**444**	(2.4)	418	(3.2)	412	(5.4)	**398**	(7.7)
	Uruguay	40.7	(0.9)	38.1	(0.7)	12.6	(0.5)	8.6	(0.5)	**415**	(3.9)	410	(2.8)	412	(4.7)	**385**	(5.4)
	Viet Nam	83.8	(0.8)	14.2	(0.7)	1.4	(0.2)	0.7	(0.2)	**517**	(4.9)	488	(6.4)	460	(11.2)	**472**	(18.0)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of ecnomic, social and cultural status*.
* See notes at the beginning of this Annex.
StatLink `http://dx.doi.org/10.1787/888932963920`

[Part 2/4]

Table III.2.1a Mathematics performance, by the number of times students arrived late for school in the two weeks prior to the PISA test

Results based on students' self-reports

		Percentage of students who arrived late for school in the two weeks prior to the PISA test													
		All students		Boys		Girls		Bottom quarter of ESCS[1]		Second quarter of ESCS		Third quarter of ESCS		Top quarter of ESCS	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	35.5	(0.6)	34.6	(0.7)	36.6	(0.8)	**37.4**	(1.1)	38.2	(0.8)	35.2	(1.1)	**31.3**	(1.0)
	Austria	20.9	(0.9)	20.7	(1.3)	21.0	(1.2)	**20.8**	(1.6)	18.7	(1.3)	18.4	(1.3)	**25.7**	(1.8)
	Belgium	27.3	(0.7)	28.4	(0.9)	26.3	(0.8)	**29.9**	(1.4)	28.3	(1.3)	24.8	(1.1)	**25.4**	(1.2)
	Canada	43.1	(0.7)	43.9	(0.7)	42.4	(0.9)	**45.5**	(1.3)	43.1	(1.1)	44.0	(1.2)	**39.6**	(0.9)
	Chile	53.0	(1.1)	51.9	(1.3)	54.0	(1.4)	**56.5**	(2.1)	54.8	(1.7)	54.4	(1.7)	**46.7**	(1.6)
	Czech Republic	27.0	(0.8)	**29.6**	(1.2)	**24.3**	(1.1)	30.6	(1.7)	25.3	(1.6)	25.5	(1.6)	26.7	(1.4)
	Denmark	38.5	(1.1)	**41.9**	(1.4)	**35.1**	(1.2)	39.9	(1.6)	38.5	(1.7)	36.9	(1.5)	38.4	(1.8)
	Estonia	41.1	(0.9)	**45.0**	(1.3)	**37.4**	(1.1)	40.1	(1.8)	41.5	(1.4)	44.1	(1.6)	38.9	(1.5)
	Finland	43.0	(0.9)	**46.1**	(1.2)	**39.8**	(1.1)	**45.8**	(1.6)	41.8	(1.5)	43.9	(1.5)	**40.1**	(1.4)
	France	32.3	(0.9)	33.5	(1.1)	31.1	(1.2)	**36.0**	(2.0)	32.7	(1.7)	31.9	(1.6)	**27.9**	(1.3)
	Germany	22.7	(0.8)	22.9	(1.0)	22.4	(0.9)	24.0	(1.5)	19.7	(1.4)	21.4	(1.3)	24.7	(1.5)
	Greece	49.3	(1.0)	49.1	(1.3)	49.5	(1.1)	**42.4**	(1.7)	51.1	(1.3)	52.6	(1.7)	**51.1**	(1.8)
	Hungary	24.1	(1.2)	25.2	(1.6)	23.0	(1.4)	**31.8**	(2.7)	22.2	(1.6)	22.8	(1.7)	**19.4**	(1.9)
	Iceland	35.0	(0.8)	**38.9**	(1.1)	**31.0**	(1.1)	**35.7**	(1.8)	37.1	(1.6)	35.9	(1.8)	**30.9**	(1.4)
	Ireland	27.4	(1.0)	**29.8**	(1.5)	**24.8**	(1.2)	**30.2**	(2.1)	28.5	(1.5)	26.0	(1.5)	**24.4**	(1.5)
	Israel	54.3	(1.1)	53.1	(1.5)	55.6	(1.4)	**57.3**	(1.6)	56.8	(1.6)	53.3	(1.7)	**50.6**	(1.9)
	Italy	35.2	(0.6)	**36.8**	(0.7)	**33.5**	(0.9)	**37.2**	(1.0)	35.9	(0.8)	33.4	(0.8)	**34.3**	(0.9)
	Japan	8.9	(0.6)	**10.4**	(0.7)	**7.4**	(0.6)	**11.2**	(1.2)	7.5	(0.9)	8.7	(0.8)	**8.2**	(0.7)
	Korea	25.1	(1.0)	25.7	(1.3)	24.3	(1.3)	**29.3**	(1.8)	25.9	(1.4)	24.5	(1.3)	**20.6**	(1.6)
	Luxembourg	29.1	(0.5)	29.5	(0.9)	28.7	(0.7)	31.4	(1.2)	28.1	(1.1)	29.1	(1.1)	28.5	(1.1)
	Mexico	39.9	(0.6)	39.9	(0.7)	39.9	(0.7)	**33.1**	(0.9)	40.6	(0.9)	43.6	(0.8)	**42.2**	(1.1)
	Netherlands	30.3	(1.0)	31.2	(1.3)	29.4	(1.2)	33.2	(1.7)	29.4	(1.5)	27.7	(1.4)	30.7	(1.8)
	New Zealand	42.1	(1.3)	40.9	(1.5)	43.3	(1.7)	**50.8**	(1.8)	40.0	(1.7)	42.9	(1.5)	**33.4**	(1.9)
	Norway	29.2	(1.0)	30.2	(1.2)	28.1	(1.2)	30.8	(1.6)	29.7	(1.6)	28.2	(1.4)	27.6	(1.5)
	Poland	42.4	(1.2)	**47.5**	(1.5)	**37.4**	(1.4)	**37.3**	(1.9)	38.7	(1.9)	46.1	(1.8)	**47.0**	(1.8)
	Portugal	55.2	(1.0)	54.4	(1.4)	56.0	(1.3)	56.6	(1.9)	53.3	(1.4)	56.5	(1.6)	54.4	(1.6)
	Slovak Republic	26.2	(0.9)	**28.4**	(1.2)	**23.9**	(1.2)	**29.5**	(1.7)	24.2	(1.7)	27.0	(1.6)	**24.1**	(1.4)
	Slovenia	39.6	(0.8)	39.2	(1.0)	40.0	(1.2)	39.8	(1.4)	39.7	(1.4)	40.3	(1.7)	38.7	(1.6)
	Spain	35.3	(0.8)	34.5	(0.8)	36.1	(1.1)	**39.0**	(1.4)	34.1	(1.2)	36.8	(1.0)	**31.5**	(1.2)
	Sweden	55.6	(1.0)	**58.3**	(1.3)	**52.8**	(1.3)	**60.9**	(1.8)	52.8	(1.5)	54.8	(1.8)	**53.6**	(1.6)
	Switzerland	24.3	(0.8)	24.4	(1.1)	24.3	(1.0)	**23.0**	(1.2)	20.1	(1.2)	25.1	(1.3)	**29.0**	(1.6)
	Turkey	43.8	(1.0)	**47.8**	(1.2)	**39.7**	(1.3)	43.6	(1.7)	44.5	(1.6)	44.5	(1.6)	42.7	(1.5)
	United Kingdom	31.8	(0.8)	32.2	(1.1)	31.5	(1.0)	**35.2**	(1.3)	33.3	(1.5)	31.7	(1.4)	**26.7**	(1.2)
	United States	30.1	(1.2)	31.0	(1.3)	29.1	(1.4)	**39.2**	(2.0)	31.7	(1.6)	27.1	(1.6)	**22.5**	(1.4)
	OECD average	35.3	(0.2)	**36.4**	(0.2)	**34.1**	(0.2)	**37.2**	(0.3)	34.9	(0.2)	35.3	(0.2)	**33.5**	(0.3)
Partners	Albania	35.3	(0.7)	35.8	(1.0)	34.7	(0.9)	m	m	m	m	m	m	m	m
	Argentina	47.0	(1.3)	46.2	(1.6)	47.7	(1.6)	**49.2**	(2.2)	48.2	(1.9)	48.9	(1.8)	**41.1**	(2.2)
	Brazil	33.7	(0.8)	34.0	(1.0)	33.5	(0.9)	**30.4**	(0.9)	33.0	(1.4)	35.8	(1.2)	**35.6**	(1.3)
	Bulgaria	59.0	(1.1)	59.8	(1.3)	58.2	(1.5)	**64.3**	(1.8)	60.7	(1.5)	59.5	(1.5)	**51.3**	(1.8)
	Colombia	35.9	(1.4)	37.0	(1.5)	34.9	(1.5)	33.6	(2.0)	37.5	(1.9)	36.4	(2.0)	36.2	(1.7)
	Costa Rica	57.5	(1.1)	56.4	(1.4)	58.4	(1.3)	52.1	(1.9)	59.0	(1.5)	62.4	(2.0)	56.6	(2.2)
	Croatia	33.9	(0.9)	**37.6**	(1.2)	**30.1**	(1.1)	**30.7**	(1.5)	35.5	(1.9)	34.3	(1.3)	**34.9**	(1.3)
	Cyprus*	47.7	(0.7)	**49.7**	(1.0)	**45.5**	(0.9)	**51.3**	(1.5)	46.7	(1.4)	47.6	(1.3)	**45.1**	(1.5)
	Hong Kong-China	14.6	(0.6)	15.6	(0.8)	13.6	(0.8)	16.7	(1.2)	14.5	(1.1)	13.6	(1.0)	13.6	(1.2)
	Indonesia	27.0	(1.0)	**29.7**	(1.4)	**24.2**	(1.2)	**22.7**	(1.7)	26.0	(1.5)	28.3	(1.5)	**30.7**	(2.2)
	Jordan	35.4	(0.8)	**39.3**	(1.2)	**31.8**	(1.2)	34.2	(1.5)	35.9	(1.5)	36.0	(1.4)	35.1	(1.5)
	Kazakhstan	28.2	(1.2)	**30.8**	(1.2)	**25.5**	(1.5)	**31.7**	(2.2)	28.9	(1.7)	29.0	(1.7)	**23.3**	(1.4)
	Latvia	56.3	(1.2)	**59.7**	(1.6)	**52.8**	(1.6)	56.1	(2.6)	56.3	(2.0)	56.2	(1.7)	56.2	(2.1)
	Liechtenstein	18.7	(2.3)	21.8	(3.2)	c	c	22.3	(4.7)	20.3	(5.0)	15.8	(4.3)	16.5	(4.5)
	Lithuania	43.7	(1.2)	**49.4**	(1.3)	**37.9**	(1.5)	43.1	(2.0)	43.2	(1.6)	45.0	(1.6)	43.4	(1.9)
	Macao-China	25.1	(0.5)	**26.6**	(0.8)	**23.7**	(0.8)	**26.5**	(1.3)	26.0	(1.3)	24.9	(1.0)	**23.0**	(1.0)
	Malaysia	33.6	(1.0)	**36.8**	(1.4)	**30.7**	(1.2)	**35.5**	(1.7)	35.8	(1.6)	33.6	(1.5)	**29.5**	(1.7)
	Montenegro	39.4	(0.9)	**41.8**	(1.1)	**37.1**	(1.1)	37.9	(1.5)	39.2	(1.6)	40.2	(1.7)	40.3	(1.6)
	Peru	52.8	(1.2)	53.7	(1.2)	51.9	(1.7)	50.6	(1.7)	56.2	(1.6)	55.1	(1.6)	49.3	(2.4)
	Qatar	39.5	(0.5)	**41.5**	(0.6)	**37.4**	(0.7)	39.5	(1.0)	37.4	(1.0)	38.4	(0.9)	41.5	(1.0)
	Romania	45.8	(1.1)	**48.7**	(1.3)	**43.0**	(1.4)	50.2	(2.0)	42.8	(1.6)	44.2	(1.8)	46.3	(1.9)
	Russian Federation	46.7	(1.3)	**49.5**	(1.5)	**43.9**	(1.4)	49.2	(2.1)	46.1	(2.2)	46.5	(2.2)	44.7	(1.5)
	Serbia	41.8	(1.0)	**45.8**	(1.2)	**38.0**	(1.4)	39.3	(1.8)	38.7	(1.7)	44.8	(1.5)	44.3	(2.0)
	Shanghai-China	16.6	(0.7)	**18.6**	(0.9)	**14.6**	(0.8)	**18.4**	(1.2)	16.9	(1.1)	16.4	(1.1)	**14.6**	(1.2)
	Singapore	20.6	(0.5)	**22.2**	(0.7)	**18.8**	(0.7)	**26.1**	(1.1)	21.2	(1.1)	19.7	(1.0)	**15.3**	(1.1)
	Chinese Taipei	22.3	(0.8)	**25.1**	(1.0)	**19.6**	(1.1)	**24.1**	(1.3)	21.5	(1.2)	23.3	(1.4)	**20.1**	(1.4)
	Thailand	34.1	(1.2)	**40.5**	(1.7)	**29.0**	(1.1)	32.4	(1.9)	35.0	(1.8)	32.9	(1.5)	36.0	(1.5)
	Tunisia	51.8	(0.9)	**54.3**	(1.3)	**49.7**	(1.3)	50.4	(1.5)	50.1	(1.8)	54.1	(1.9)	52.3	(1.6)
	United Arab Emirates	31.5	(0.7)	**34.4**	(1.2)	**28.8**	(0.9)	32.0	(1.1)	30.7	(1.1)	30.6	(1.1)	32.7	(1.3)
	Uruguay	59.3	(0.9)	57.8	(1.3)	60.6	(1.2)	58.0	(1.3)	58.9	(1.4)	62.5	(1.8)	57.6	(1.9)
	Viet Nam	16.2	(0.8)	**18.2**	(1.0)	**14.5**	(0.9)	18.8	(1.4)	15.5	(1.3)	15.6	(1.2)	15.3	(1.1)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 3/4]

Table III.2.1a Mathematics performance, by the number of times students arrived late for school in the two weeks prior to the PISA test

Results based on students' self-reports

		Percentage of students who arrived late for school in the two weeks prior to the PISA test											
		Bottom quarter of ESCS[1] boys		Bottom quarter of ESCS girls		Top quarter of ESCS boys		Top quarter of ESCS girls		Gender gap in the bottom quarter of ESCS		Gender gap in the top quarter of ESCS	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	% dif.	S.E.
OECD	Australia	**37.3**	(1.3)	37.5	(1.5)	30.5	(1.4)	**32.2**	(1.4)	-0.2	(1.7)	-1.7	(1.9)
	Austria	20.2	(2.4)	21.3	(2.0)	27.3	(2.2)	24.3	(2.2)	-1.0	(2.9)	3.0	(2.7)
	Belgium	**30.4**	(1.5)	29.4	(2.2)	25.9	(1.4)	**24.9**	(1.7)	1.0	(2.4)	1.0	(2.0)
	Canada	**46.3**	(1.4)	44.8	(1.8)	40.2	(1.4)	**39.0**	(1.5)	1.6	(2.1)	1.2	(2.3)
	Chile	**56.4**	(3.0)	56.6	(2.7)	45.0	(2.2)	**48.4**	(2.2)	-0.2	(3.7)	-3.4	(2.9)
	Czech Republic	**32.3**	(2.7)	28.9	(1.9)	27.7	(2.0)	**25.6**	(1.7)	3.4	(3.3)	2.1	(2.6)
	Denmark	**42.7**	(2.5)	37.1	(2.0)	41.2	(2.3)	**35.6**	(2.3)	5.6	(3.1)	**5.6**	(2.7)
	Estonia	**44.0**	(2.6)	36.8	(2.4)	41.5	(2.1)	**36.1**	(2.2)	**7.2**	(3.5)	5.4	(3.0)
	Finland	**51.4**	(2.4)	39.6	(1.7)	41.6	(2.0)	**38.6**	(1.8)	**11.9**	(2.9)	3.0	(2.7)
	France	**35.6**	(2.4)	36.3	(2.6)	32.1	(2.2)	**24.0**	(1.6)	-0.7	(2.9)	**8.2**	(2.9)
	Germany	23.3	(2.2)	24.7	(2.0)	28.0	(2.1)	21.4	(1.9)	-1.4	(2.8)	**6.6**	(2.5)
	Greece	**42.1**	(2.4)	42.7	(2.5)	50.3	(2.9)	**51.8**	(1.9)	-0.6	(3.5)	-1.5	(3.2)
	Hungary	**34.0**	(2.8)	29.9	(3.5)	21.3	(2.5)	**17.6**	(1.9)	4.1	(3.3)	3.7	(2.3)
	Iceland	**41.9**	(2.6)	30.0	(2.2)	34.0	(2.2)	**27.7**	(2.1)	**11.8**	(3.1)	**6.4**	(3.2)
	Ireland	**31.8**	(3.0)	28.6	(2.2)	27.9	(2.1)	**20.7**	(1.9)	3.3	(3.3)	**7.2**	(2.7)
	Israel	57.2	(2.8)	57.3	(2.1)	50.2	(2.8)	51.2	(2.3)	0.0	(3.6)	-1.0	(3.3)
	Italy	**38.9**	(1.4)	35.6	(1.5)	36.3	(1.0)	**32.1**	(1.2)	3.3	(1.9)	**4.2**	(1.4)
	Japan	**12.2**	(1.4)	10.1	(1.6)	11.0	(1.2)	**5.1**	(0.8)	2.1	(1.9)	**5.9**	(1.5)
	Korea	**32.1**	(2.5)	26.4	(2.2)	21.4	(2.0)	**19.6**	(2.2)	5.8	(3.1)	1.7	(2.8)
	Luxembourg	32.6	(1.8)	30.3	(1.6)	27.9	(1.6)	29.3	(1.4)	2.3	(2.3)	-1.4	(2.2)
	Mexico	**33.9**	(1.3)	32.5	(1.1)	40.2	(1.4)	**44.3**	(1.4)	1.4	(1.5)	**-4.1**	(1.8)
	Netherlands	33.0	(2.2)	33.4	(2.3)	31.7	(2.3)	29.8	(3.0)	-0.4	(3.0)	1.9	(4.0)
	New Zealand	**49.8**	(2.4)	51.8	(2.7)	32.2	(3.1)	**34.5**	(2.7)	-2.0	(3.7)	-2.3	(4.3)
	Norway	32.9	(2.4)	28.8	(2.2)	27.4	(1.7)	27.7	(2.2)	4.1	(3.2)	-0.3	(2.5)
	Poland	44.8	(2.9)	31.0	(2.2)	48.0	(2.5)	46.1	(2.3)	**13.9**	(3.4)	1.9	(3.1)
	Portugal	58.2	(2.6)	55.1	(2.7)	51.6	(2.3)	57.5	(2.2)	3.0	(3.7)	-5.9	(3.3)
	Slovak Republic	**32.5**	(2.3)	26.5	(2.1)	24.3	(2.1)	**24.0**	(2.4)	**6.0**	(2.8)	0.4	(3.4)
	Slovenia	38.9	(2.3)	40.7	(1.8)	38.3	(2.1)	39.1	(2.3)	-1.8	(3.0)	-0.8	(2.9)
	Spain	36.2	(1.6)	41.7	(1.9)	30.4	(1.4)	32.6	(1.6)	**-5.6**	(2.0)	-2.2	(1.8)
	Sweden	**64.2**	(2.3)	57.6	(2.4)	55.5	(2.1)	**51.6**	(2.2)	**6.6**	(3.0)	3.9	(3.0)
	Switzerland	23.8	(1.5)	22.2	(1.6)	30.5	(2.1)	27.6	(1.8)	1.6	(2.0)	2.9	(2.4)
	Turkey	**49.8**	(2.4)	37.8	(1.9)	43.9	(2.1)	**41.4**	(2.7)	**12.0**	(2.8)	2.4	(3.9)
	United Kingdom	**36.7**	(2.5)	33.9	(1.9)	26.2	(1.8)	**27.2**	(1.5)	2.9	(3.4)	-0.9	(2.2)
	United States	**40.8**	(2.6)	37.5	(2.3)	24.0	(1.9)	**20.8**	(2.1)	3.3	(2.7)	3.2	(2.8)
	OECD average	**38.8**	(0.4)	35.7	(0.4)	34.3	(0.4)	**32.6**	(0.3)	**3.1**	(0.5)	**1.7**	(0.5)
Partners	Albania	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	46.2	(2.6)	51.7	(2.4)	42.6	(2.3)	39.5	(3.0)	**-5.6**	(2.4)	3.1	(2.9)
	Brazil	31.1	(1.5)	29.8	(1.1)	36.1	(1.6)	35.1	(1.5)	1.4	(1.9)	1.0	(1.7)
	Bulgaria	**65.2**	(2.1)	63.4	(2.6)	52.3	(2.2)	**50.3**	(2.2)	1.7	(3.2)	2.0	(2.5)
	Colombia	35.5	(2.9)	32.1	(2.1)	37.6	(2.1)	34.8	(2.5)	3.4	(2.8)	2.9	(3.3)
	Costa Rica	49.1	(2.5)	54.0	(2.3)	57.2	(3.0)	56.0	(2.7)	-4.9	(3.0)	1.2	(3.6)
	Croatia	34.9	(2.2)	26.8	(1.5)	38.8	(1.5)	30.6	(2.0)	**8.0**	(2.5)	**8.2**	(2.5)
	Cyprus*	**55.2**	(2.0)	47.3	(2.1)	45.4	(2.0)	**44.8**	(2.2)	**7.9**	(2.7)	0.6	(2.9)
	Hong Kong-China	18.7	(1.8)	14.6	(1.3)	12.8	(1.4)	14.7	(1.9)	**4.1**	(2.0)	-1.8	(2.2)
	Indonesia	25.5	(2.5)	19.7	(1.9)	33.3	(2.1)	28.0	(2.8)	**5.8**	(2.8)	**5.3**	(2.2)
	Jordan	**39.3**	(2.2)	30.3	(1.9)	37.8	(2.2)	**32.0**	(2.1)	**9.0**	(2.8)	5.7	(3.1)
	Kazakhstan	**36.2**	(2.6)	27.0	(2.9)	26.0	(1.9)	**20.6**	(1.7)	**9.1**	(3.4)	**5.4**	(2.3)
	Latvia	60.5	(3.4)	51.5	(3.1)	59.0	(2.8)	53.7	(2.5)	**9.0**	(4.1)	5.3	(3.3)
	Liechtenstein	26.6	(6.7)	17.5	(6.2)	18.8	(6.3)	13.9	(6.0)	9.1	(8.9)	4.9	(8.5)
	Lithuania	**51.1**	(2.1)	35.0	(2.5)	46.3	(2.5)	**40.4**	(2.4)	**16.1**	(2.6)	5.9	(3.2)
	Macao-China	**28.8**	(1.7)	23.7	(1.6)	23.7	(1.5)	**22.4**	(1.4)	**5.1**	(2.2)	1.3	(2.1)
	Malaysia	**38.4**	(2.3)	32.8	(2.2)	32.9	(2.5)	**26.4**	(2.0)	**5.5**	(2.8)	**6.5**	(3.0)
	Montenegro	40.8	(2.3)	35.5	(1.8)	41.1	(2.2)	39.5	(2.4)	5.4	(2.8)	1.6	(3.3)
	Peru	50.8	(2.2)	50.4	(2.4)	52.8	(2.3)	46.1	(3.3)	0.5	(3.1)	6.7	(3.4)
	Qatar	42.7	(1.5)	36.6	(1.3)	42.4	(1.4)	40.6	(1.4)	**6.1**	(1.8)	1.8	(2.0)
	Romania	**52.9**	(2.0)	47.7	(2.6)	49.8	(2.2)	**42.8**	(2.6)	**5.2**	(2.6)	**7.0**	(3.0)
	Russian Federation	**51.8**	(2.5)	46.7	(2.1)	47.2	(2.1)	**42.1**	(2.1)	**5.1**	(2.3)	5.1	(3.0)
	Serbia	47.3	(2.3)	32.3	(2.0)	44.3	(2.2)	44.3	(2.8)	**15.0**	(2.6)	0.1	(2.9)
	Shanghai-China	**19.6**	(1.4)	17.2	(1.7)	17.4	(1.9)	**12.0**	(1.4)	2.3	(2.2)	**5.4**	(2.3)
	Singapore	**28.7**	(1.7)	23.4	(1.6)	17.2	(1.5)	**13.4**	(1.4)	**5.4**	(2.3)	3.8	(2.0)
	Chinese Taipei	**26.6**	(1.8)	21.7	(1.6)	23.5	(2.0)	**16.8**	(2.0)	**4.8**	(2.1)	**6.7**	(2.9)
	Thailand	**41.2**	(3.1)	25.8	(1.9)	38.9	(2.5)	**33.7**	(1.9)	**15.4**	(3.5)	5.2	(3.1)
	Tunisia	55.0	(2.2)	46.6	(2.2)	54.9	(2.4)	49.7	(2.2)	**8.4**	(3.2)	5.2	(3.3)
	United Arab Emirates	**36.5**	(1.6)	27.9	(1.6)	35.7	(2.6)	**29.6**	(1.5)	**8.7**	(2.4)	6.1	(3.5)
	Uruguay	58.9	(2.0)	57.4	(1.9)	55.5	(2.5)	59.8	(2.4)	1.5	(2.8)	-4.3	(3.1)
	Viet Nam	**21.6**	(2.0)	16.6	(1.8)	14.6	(1.3)	**15.9**	(1.5)	**5.1**	(2.5)	-1.3	(1.7)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 4/4]

Table III.2.1a Mathematics performance, by the number of times students arrived late for school in the two weeks prior to the PISA test

Results based on students' self-reports

		Mathematics score, by whether students arrived late for school in the two weeks prior to the PISA test													
		All students		Boys		Girls		Bottom quarter of ESCS[1]		Second quarter of ESCS		Third quarter of ESCS		Top quarter of ESCS	
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	**Australia**	486	(2.3)	**493**	(3.2)	**479**	(3.2)	**443**	(2.8)	475	(3.0)	503	(3.8)	**535**	(3.9)
	Austria	498	(5.1)	**510**	(7.0)	**486**	(6.0)	**436**	(7.9)	477	(7.2)	515	(7.2)	**549**	(7.4)
	Belgium	481	(3.7)	488	(5.3)	473	(4.5)	**428**	(5.4)	466	(5.2)	500	(5.2)	**551**	(5.3)
	Canada	501	(2.4)	**507**	(2.8)	**495**	(2.9)	**469**	(2.9)	491	(3.3)	510	(3.1)	**542**	(3.9)
	Chile	412	(3.4)	**424**	(4.2)	**401**	(3.6)	**372**	(3.6)	402	(4.2)	420	(4.4)	**461**	(5.8)
	Czech Republic	476	(3.8)	482	(5.1)	468	(5.9)	**423**	(6.0)	463	(7.8)	495	(6.1)	**530**	(6.9)
	Denmark	489	(3.2)	**497**	(4.2)	**479**	(3.6)	**441**	(4.2)	472	(3.7)	506	(3.6)	**539**	(4.8)
	Estonia	510	(2.6)	510	(3.5)	510	(3.4)	**488**	(4.4)	497	(4.2)	510	(4.5)	**549**	(4.3)
	Finland	505	(2.0)	502	(2.9)	507	(2.8)	**467**	(4.2)	501	(3.5)	517	(3.4)	**540**	(3.3)
	France	470	(3.5)	**479**	(5.3)	**460**	(3.9)	**417**	(4.8)	449	(5.7)	489	(5.7)	**546**	(5.1)
	Germany	507	(4.2)	**520**	(5.7)	**494**	(4.9)	**450**	(7.4)	480	(7.7)	531	(6.6)	**571**	(6.5)
	Greece	451	(3.2)	455	(4.4)	448	(3.4)	**409**	(5.0)	435	(4.8)	454	(4.2)	**499**	(4.2)
	Hungary	440	(6.5)	448	(7.8)	432	(7.0)	**389**	(8.0)	430	(6.1)	456	(6.6)	**518**	(15.8)
	Iceland	475	(2.7)	472	(3.6)	478	(3.9)	**442**	(4.7)	462	(5.1)	492	(6.0)	**510**	(5.6)
	Ireland	480	(3.8)	**489**	(5.7)	**469**	(3.8)	**442**	(5.2)	469	(5.0)	488	(5.3)	**535**	(6.0)
	Israel	461	(5.3)	466	(9.1)	456	(4.0)	**409**	(5.4)	446	(5.5)	482	(6.3)	**517**	(6.7)
	Italy	466	(2.3)	**475**	(3.1)	**455**	(2.9)	**429**	(2.8)	455	(3.5)	477	(2.7)	**507**	(3.3)
	Japan	506	(8.6)	**519**	(10.7)	**487**	(9.2)	**459**	(8.4)	500	(10.4)	525	(12.5)	**563**	(14.2)
	Korea	520	(5.3)	526	(7.2)	514	(5.7)	**491**	(7.2)	516	(7.7)	524	(6.2)	**562**	(8.4)
	Luxembourg	476	(2.6)	**492**	(3.2)	**459**	(3.6)	**424**	(4.5)	458	(4.6)	495	(5.5)	**536**	(4.6)
	Mexico	408	(1.3)	**414**	(1.6)	**401**	(1.7)	**377**	(1.9)	398	(1.9)	412	(2.2)	**436**	(2.0)
	Netherlands	500	(4.6)	**508**	(4.9)	**491**	(6.3)	**465**	(5.9)	485	(6.0)	514	(7.9)	**542**	(7.3)
	New Zealand	476	(2.9)	**486**	(4.1)	**465**	(3.7)	**429**	(4.6)	473	(5.2)	494	(4.9)	**537**	(6.8)
	Norway	464	(4.1)	462	(4.5)	467	(5.5)	**432**	(5.1)	450	(6.6)	479	(5.8)	**501**	(6.3)
	Poland	508	(4.4)	508	(4.6)	507	(5.4)	**457**	(4.8)	487	(4.8)	509	(5.2)	**563**	(6.0)
	Portugal	484	(3.8)	488	(4.5)	479	(4.0)	**434**	(5.3)	469	(4.3)	489	(4.3)	**544**	(4.1)
	Slovak Republic	460	(5.8)	465	(6.7)	454	(7.3)	**391**	(7.9)	456	(6.0)	473	(7.2)	**536**	(9.0)
	Slovenia	489	(2.4)	491	(3.2)	487	(3.7)	**446**	(3.6)	473	(5.1)	494	(5.0)	**543**	(4.6)
	Spain	468	(2.5)	**478**	(3.4)	**458**	(2.9)	**423**	(3.3)	453	(3.1)	483	(3.6)	**522**	(3.8)
	Sweden	467	(2.6)	468	(3.8)	467	(2.8)	**431**	(3.8)	456	(4.1)	483	(4.2)	**506**	(4.3)
	Switzerland	526	(4.6)	533	(6.1)	519	(4.6)	**470**	(6.3)	504	(5.5)	537	(6.3)	**576**	(6.3)
	Turkey	441	(4.5)	445	(5.3)	436	(5.7)	**403**	(5.0)	429	(4.1)	444	(5.7)	**489**	(7.2)
	United Kingdom	468	(3.7)	**474**	(4.8)	**461**	(4.2)	**436**	(5.1)	453	(5.2)	478	(5.5)	**525**	(5.1)
	United States	455	(4.3)	456	(5.6)	453	(4.4)	**427**	(5.5)	441	(5.5)	468	(5.5)	**508**	(6.8)
	OECD average	477	(0.7)	**483**	(0.9)	**470**	(0.8)	**434**	(0.9)	464	(0.9)	490	(1.0)	**529**	(1.1)
Partners	**Albania**	396	(2.7)	399	(4.2)	394	(3.2)	m	m	m	m	m	m	m	m
	Argentina	377	(3.4)	**383**	(4.8)	**371**	(3.4)	**343**	(3.5)	367	(4.2)	383	(4.6)	**425**	(4.5)
	Brazil	389	(2.4)	**399**	(2.9)	**379**	(2.7)	**354**	(3.0)	372	(2.5)	388	(2.9)	**435**	(6.2)
	Bulgaria	428	(3.7)	428	(4.6)	428	(3.8)	**377**	(5.1)	418	(3.8)	439	(5.0)	**493**	(5.4)
	Colombia	371	(3.4)	**384**	(4.0)	**359**	(3.8)	**339**	(5.3)	358	(4.0)	376	(4.0)	**410**	(5.5)
	Costa Rica	407	(2.9)	**420**	(3.4)	**395**	(3.3)	**376**	(4.7)	393	(3.4)	411	(3.8)	**443**	(3.9)
	Croatia	458	(3.7)	461	(4.9)	453	(4.2)	**423**	(4.8)	446	(4.9)	454	(5.3)	**504**	(6.7)
	Cyprus*	431	(1.6)	429	(2.3)	433	(2.7)	**391**	(3.6)	420	(3.7)	437	(4.0)	**483**	(4.0)
	Hong Kong-China	526	(5.7)	533	(7.2)	516	(7.2)	**499**	(8.8)	509	(7.7)	533	(9.3)	**572**	(10.3)
	Indonesia	365	(4.3)	365	(3.9)	365	(6.5)	**343**	(4.1)	350	(4.3)	362	(4.1)	**396**	(9.8)
	Jordan	382	(3.1)	**374**	(5.0)	**392**	(3.1)	**359**	(4.0)	371	(3.8)	388	(4.8)	**414**	(5.3)
	Kazakhstan	422	(3.9)	422	(4.6)	422	(4.6)	**398**	(5.5)	416	(5.0)	430	(5.0)	**453**	(7.2)
	Latvia	487	(3.0)	484	(3.9)	490	(3.5)	**444**	(3.8)	471	(4.0)	504	(4.1)	**528**	(5.8)
	Liechtenstein	508	(13.2)	**520**	(15.2)	c	c	c	c	c	c	c	c	c	c
	Lithuania	468	(3.8)	467	(4.1)	471	(4.6)	**429**	(5.2)	451	(4.7)	480	(4.3)	**513**	(5.2)
	Macao-China	505	(2.5)	507	(3.7)	502	(3.5)	**485**	(4.7)	494	(4.8)	515	(5.5)	**531**	(5.4)
	Malaysia	394	(3.2)	390	(3.8)	398	(3.8)	**369**	(4.3)	385	(3.8)	393	(3.8)	**436**	(5.8)
	Montenegro	403	(2.1)	403	(3.0)	404	(2.9)	**366**	(3.5)	389	(3.8)	406	(3.7)	**448**	(3.9)
	Peru	359	(3.5)	**371**	(3.6)	**347**	(4.3)	**311**	(4.0)	345	(3.1)	373	(4.4)	**407**	(5.6)
	Qatar	351	(1.5)	**343**	(2.1)	**360**	(2.0)	**318**	(2.8)	345	(3.0)	368	(3.5)	**378**	(3.3)
	Romania	439	(4.1)	441	(4.7)	437	(4.7)	**402**	(5.2)	422	(3.8)	435	(4.0)	**500**	(6.9)
	Russian Federation	469	(3.5)	467	(4.3)	470	(4.0)	**432**	(4.7)	455	(3.9)	486	(3.8)	**506**	(6.5)
	Serbia	441	(4.0)	441	(5.0)	440	(4.6)	**406**	(5.2)	420	(5.0)	444	(4.6)	**487**	(6.0)
	Shanghai-China	576	(5.6)	583	(6.9)	566	(6.2)	**530**	(9.0)	562	(8.2)	587	(8.4)	**635**	(9.0)
	Singapore	537	(3.2)	532	(4.4)	544	(4.5)	**487**	(4.6)	522	(7.0)	561	(6.6)	**613**	(7.9)
	Chinese Taipei	524	(5.0)	524	(7.0)	523	(6.5)	**453**	(7.6)	513	(8.3)	538	(6.5)	**607**	(6.6)
	Thailand	413	(3.5)	**404**	(3.8)	**423**	(5.0)	**395**	(5.7)	397	(3.8)	403	(4.0)	**454**	(6.7)
	Tunisia	386	(3.9)	**396**	(4.4)	**378**	(4.2)	**361**	(4.6)	370	(4.2)	390	(3.9)	**423**	(8.3)
	United Arab Emirates	415	(3.1)	**408**	(4.7)	**422**	(3.5)	**376**	(3.3)	407	(3.6)	430	(4.7)	**446**	(6.0)
	Uruguay	407	(2.8)	**413**	(3.6)	**402**	(3.3)	**361**	(3.6)	390	(3.7)	413	(3.3)	**464**	(4.7)
	Viet Nam	485	(6.5)	486	(8.0)	484	(6.4)	**446**	(8.8)	470	(9.7)	498	(7.0)	**534**	(8.8)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/5]

Table III.2.1b **Change between 2003 and 2012 in the number of times students arrived late for school**

Results based on students' self-reports

		PISA 2003								PISA 2012								Change between 2003 and 2012 (PISA 2012 - PISA 2003)							
		Percentage of students who arrived late for school in the two weeks prior to the PISA test								Percentage of students who arrived late for school in the two weeks prior to the PISA test								Percentage of students who arrived late for school in the two weeks prior to the PISA test							
		None		One or two times		Three or four times		Five times or more		None		One or two times		Three or four times		Five times or more		None		One or two times		Three or four times		Five times or more	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.
OECD	**Australia**	63.5	(0.7)	25.5	(0.5)	6.5	(0.3)	4.5	(0.2)	64.5	(0.6)	25.4	(0.5)	6.6	(0.3)	3.5	(0.2)	1.0	(0.9)	-0.1	(0.7)	0.1	(0.4)	**-0.9**	(0.3)
	Austria	76.9	(1.1)	16.5	(0.8)	3.6	(0.3)	2.9	(0.3)	79.1	(0.9)	15.6	(0.7)	3.2	(0.3)	2.0	(0.3)	2.2	(1.4)	-0.9	(1.1)	-0.4	(0.4)	**-0.9**	(0.4)
	Belgium	71.9	(0.8)	20.1	(0.6)	4.3	(0.3)	3.8	(0.3)	72.7	(0.7)	20.8	(0.6)	3.7	(0.3)	2.8	(0.2)	0.7	(1.1)	0.7	(0.8)	-0.6	(0.5)	**-0.9**	(0.4)
	Canada	56.2	(0.6)	27.8	(0.5)	9.3	(0.3)	6.8	(0.3)	56.9	(0.7)	28.6	(0.5)	9.2	(0.4)	5.4	(0.3)	0.7	(0.9)	0.8	(0.7)	-0.1	(0.5)	**-1.4**	(0.4)
	Czech Republic	76.9	(0.7)	17.6	(0.6)	3.0	(0.3)	2.5	(0.2)	73.0	(0.8)	20.7	(0.7)	3.3	(0.3)	3.0	(0.3)	**-3.9**	(1.1)	**3.2**	(0.9)	0.3	(0.4)	0.5	(0.4)
	Denmark	56.9	(1.3)	26.8	(0.8)	9.6	(0.6)	6.7	(0.6)	61.5	(1.1)	26.3	(0.7)	7.5	(0.4)	4.6	(0.4)	**4.6**	(1.7)	-0.5	(1.1)	**-2.0**	(0.8)	**-2.1**	(0.7)
	Finland	55.5	(1.1)	29.7	(0.7)	8.9	(0.5)	5.9	(0.4)	57.0	(0.9)	30.8	(0.7)	8.2	(0.5)	4.0	(0.3)	1.5	(1.5)	1.1	(1.0)	-0.7	(0.7)	**-1.9**	(0.5)
	France	67.6	(1.2)	24.1	(0.9)	4.9	(0.4)	3.5	(0.3)	67.7	(0.9)	24.4	(0.7)	5.0	(0.4)	2.8	(0.3)	0.2	(1.5)	0.3	(1.2)	0.2	(0.5)	-0.6	(0.4)
	Germany	78.6	(1.0)	15.5	(0.7)	3.4	(0.3)	2.4	(0.3)	77.3	(0.8)	17.8	(0.7)	3.0	(0.3)	1.9	(0.2)	-1.3	(1.2)	**2.3**	(0.9)	-0.5	(0.5)	-0.6	(0.4)
	Greece	51.8	(1.1)	30.4	(0.8)	9.4	(0.4)	8.3	(0.5)	50.7	(1.0)	29.3	(0.7)	10.5	(0.5)	9.4	(0.4)	-1.1	(1.4)	-1.1	(1.1)	1.1	(0.6)	1.1	(0.6)
	Hungary	72.4	(1.0)	20.7	(0.8)	3.8	(0.3)	3.2	(0.4)	75.9	(1.2)	18.6	(1.0)	2.9	(0.4)	2.6	(0.3)	**3.5**	(1.6)	-2.1	(1.3)	-0.8	(0.5)	-0.6	(0.5)
	Iceland	54.4	(0.9)	29.3	(0.8)	9.9	(0.5)	6.4	(0.4)	65.0	(0.8)	26.8	(0.8)	5.7	(0.4)	2.5	(0.2)	**10.6**	(1.2)	**-2.5**	(1.1)	**-4.2**	(0.6)	**-4.0**	(0.5)
	Ireland	71.3	(1.0)	21.0	(0.8)	4.3	(0.4)	3.4	(0.4)	72.6	(1.0)	20.1	(0.7)	4.8	(0.4)	2.5	(0.3)	1.4	(1.5)	-0.9	(1.1)	0.4	(0.6)	-0.9	(0.5)
	Italy	55.4	(1.0)	29.6	(0.8)	7.9	(0.4)	7.1	(0.4)	64.8	(0.6)	26.3	(0.5)	5.4	(0.3)	3.5	(0.2)	**9.4**	(1.2)	**-3.3**	(0.9)	**-2.5**	(0.5)	**-3.7**	(0.5)
	Japan	83.7	(1.0)	11.7	(0.6)	2.6	(0.4)	2.0	(0.3)	91.1	(0.6)	7.5	(0.5)	1.0	(0.1)	0.5	(0.1)	**7.4**	(1.1)	**-4.1**	(0.8)	**-1.7**	(0.4)	**-1.5**	(0.3)
	Korea	73.0	(1.0)	17.8	(0.7)	5.3	(0.4)	3.8	(0.3)	74.9	(1.0)	17.3	(0.7)	4.6	(0.4)	3.2	(0.3)	1.9	(1.5)	-0.5	(1.0)	-0.7	(0.5)	-0.7	(0.5)
	Luxembourg	64.3	(0.6)	24.5	(0.6)	5.5	(0.4)	5.7	(0.4)	70.9	(0.5)	21.4	(0.5)	4.6	(0.3)	3.1	(0.2)	**6.6**	(0.8)	**-3.1**	(0.8)	**-0.9**	(0.5)	**-2.6**	(0.4)
	Mexico	54.5	(1.0)	33.5	(0.9)	7.4	(0.3)	4.5	(0.3)	60.1	(0.6)	31.9	(0.5)	5.9	(0.2)	2.1	(0.1)	**5.6**	(1.2)	-1.6	(1.0)	**-1.6**	(0.4)	**-2.4**	(0.3)
	Netherlands	55.5	(1.1)	31.5	(0.8)	7.3	(0.5)	5.7	(0.6)	69.7	(1.0)	23.4	(0.8)	3.7	(0.3)	3.2	(0.3)	**14.2**	(1.5)	**-8.1**	(1.1)	**-3.6**	(0.6)	**-2.4**	(0.6)
	New Zealand	54.3	(1.1)	28.1	(0.8)	9.3	(0.4)	8.3	(0.6)	57.9	(1.3)	28.0	(0.8)	8.9	(0.6)	5.2	(0.3)	**3.7**	(1.7)	-0.1	(1.2)	-0.4	(0.7)	**-3.2**	(0.6)
	Norway	64.4	(0.9)	24.3	(0.7)	6.0	(0.4)	5.3	(0.4)	70.8	(1.0)	21.2	(0.7)	4.9	(0.4)	3.1	(0.3)	**6.4**	(1.3)	**-3.1**	(1.0)	**-1.1**	(0.5)	**-2.2**	(0.5)
	Poland	63.5	(0.9)	23.2	(0.7)	7.3	(0.5)	6.0	(0.4)	57.6	(1.2)	28.2	(0.7)	8.0	(0.5)	6.2	(0.5)	**-5.9**	(1.5)	**5.0**	(1.0)	0.6	(0.7)	0.2	(0.7)
	Portugal	46.0	(1.1)	39.4	(0.8)	9.0	(0.6)	5.5	(0.4)	44.8	(1.0)	39.0	(0.7)	10.2	(0.5)	6.0	(0.4)	-1.3	(1.5)	-0.4	(1.1)	1.2	(0.8)	0.5	(0.5)
	Slovak Republic	77.1	(1.0)	17.9	(0.7)	3.0	(0.3)	2.0	(0.2)	73.8	(0.9)	20.1	(0.8)	3.7	(0.3)	2.5	(0.3)	**-3.4**	(1.3)	**2.2**	(1.1)	0.7	(0.4)	0.4	(0.4)
	Spain	58.8	(0.9)	26.3	(0.6)	7.2	(0.4)	7.7	(0.5)	64.7	(0.8)	24.3	(0.6)	6.5	(0.2)	4.4	(0.2)	**5.9**	(1.2)	**-1.9**	(0.9)	-0.7	(0.4)	**-3.3**	(0.5)
	Sweden	49.2	(1.2)	29.0	(0.9)	11.8	(0.6)	10.1	(0.5)	44.4	(1.0)	34.3	(0.7)	12.9	(0.5)	8.4	(0.5)	**-4.8**	(1.6)	**5.4**	(1.2)	1.1	(0.8)	**-1.6**	(0.7)
	Switzerland	73.4	(0.8)	20.4	(0.7)	3.5	(0.2)	2.6	(0.2)	75.7	(0.8)	19.4	(0.6)	3.4	(0.3)	1.5	(0.1)	2.2	(1.2)	-1.0	(0.9)	-0.1	(0.4)	**-1.1**	(0.3)
	Turkey	73.3	(1.1)	20.1	(0.7)	4.0	(0.4)	2.6	(0.4)	56.2	(1.0)	30.1	(0.7)	8.4	(0.5)	5.3	(0.4)	**-17.1**	(1.5)	**10.0**	(1.0)	**4.4**	(0.6)	**2.8**	(0.6)
	United States	65.4	(1.0)	23.3	(0.8)	6.3	(0.4)	5.0	(0.4)	69.9	(1.2)	21.8	(0.8)	5.1	(0.4)	3.2	(0.4)	**4.5**	(1.5)	-1.5	(1.1)	-1.1	(0.6)	**-1.9**	(0.6)
	OECD average 2003	64.3	(0.2)	24.3	(0.1)	6.4	(0.1)	5.0	(0.1)	66.2	(0.2)	24.1	(0.1)	5.9	(0.1)	3.7	(0.1)	**1.9**	(0.2)	-0.2	(0.2)	**-0.5**	(0.1)	**-1.2**	(0.1)
Partners	**Brazil**	63.0	(1.2)	25.8	(0.8)	7.0	(0.5)	4.2	(0.4)	66.3	(0.8)	24.8	(0.6)	5.5	(0.3)	3.4	(0.2)	**3.3**	(1.5)	-0.9	(1.0)	**-1.6**	(0.6)	-0.8	(0.5)
	Hong Kong-China	83.0	(0.8)	13.4	(0.6)	2.1	(0.2)	1.4	(0.2)	85.4	(0.6)	12.5	(0.5)	1.3	(0.2)	0.8	(0.1)	**2.3**	(1.0)	-0.9	(0.8)	**-0.8**	(0.3)	**-0.6**	(0.3)
	Indonesia	64.0	(1.1)	28.4	(0.8)	4.9	(0.4)	2.7	(0.3)	73.0	(1.0)	22.2	(0.8)	3.0	(0.3)	1.7	(0.3)	**9.0**	(1.5)	**-6.2**	(1.1)	**-1.9**	(0.5)	**-0.9**	(0.4)
	Latvia	51.8	(1.5)	30.0	(1.0)	9.9	(0.5)	8.3	(0.7)	43.7	(1.2)	35.0	(0.9)	12.7	(0.6)	8.6	(0.7)	**-8.0**	(1.9)	**5.0**	(1.4)	**2.8**	(0.8)	0.3	(1.0)
	Liechtenstein	79.3	(2.4)	14.0	(2.1)	4.9	(1.1)	1.8	(0.8)	81.3	(2.3)	16.5	(2.1)	1.0	(0.6)	1.1	(0.6)	2.1	(3.3)	2.5	(2.9)	**-3.9**	(1.2)	-0.7	(1.0)
	Macao-China	81.4	(1.1)	14.4	(1.1)	3.2	(0.5)	1.0	(0.2)	74.9	(0.5)	20.9	(0.5)	2.7	(0.2)	1.5	(0.2)	**-6.5**	(1.2)	**6.5**	(1.2)	-0.5	(0.6)	0.5	(0.3)
	Russian Federation	59.4	(1.2)	27.2	(1.1)	7.1	(0.5)	6.3	(0.4)	53.3	(1.3)	30.9	(0.8)	8.2	(0.5)	7.6	(0.5)	**-6.1**	(1.8)	**3.7**	(1.4)	1.1	(0.7)	**1.3**	(0.6)
	Thailand	66.0	(1.2)	23.7	(0.8)	5.7	(0.5)	4.6	(0.4)	65.9	(1.2)	24.0	(0.8)	6.3	(0.5)	3.8	(0.3)	-0.1	(1.7)	0.2	(1.1)	0.6	(0.7)	-0.7	(0.5)
	Tunisia	62.1	(1.1)	27.5	(0.9)	5.7	(0.4)	4.6	(0.4)	48.2	(0.9)	38.4	(0.8)	7.6	(0.4)	5.8	(0.5)	**-13.9**	(1.4)	**10.9**	(1.2)	**1.9**	(0.5)	1.1	(0.7)
	Uruguay	43.5	(1.1)	36.2	(0.8)	11.7	(0.6)	8.6	(0.4)	40.7	(0.9)	38.1	(0.7)	12.6	(0.5)	8.6	(0.5)	-2.8	(1.4)	1.9	(1.1)	0.9	(0.8)	0.0	(0.7)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
For comparability over time, PISA 2003 values on the *PISA index of economic, social and cultural status* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).

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[Part 2/5]

Table III.2.1b

Change between 2003 and 2012 in the number of times students arrived late for school

Results based on students' self-reports

		PISA 2003																					
		Percentage of students who arrived late for school in the two weeks prior to the PISA test																					
		All students		Boys		Girls		Bottom quarter of ESCS[1]		Second quarter of ESCS		Third quarter of ESCS		Top quarter of ESCS		Bottom quarter of ESCS boys		Bottom quarter of ESCS girls		Top quarter of ESCS boys		Top quarter of ESCS girls	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	36.5	(0.7)	35.1	(0.9)	38.0	(0.9)	38.6	(1.3)	38.2	(1.4)	35.4	(1.1)	34.0	(1.1)	34.8	(1.1)	41.2	(1.7)	30.9	(1.6)	36.9	(1.4)
	Austria	23.1	(1.1)	23.2	(1.4)	22.9	(1.4)	18.6	(1.8)	21.4	(1.7)	23.1	(1.4)	29.1	(1.8)	24.2	(1.4)	17.0	(2.3)	27.1	(2.4)	31.1	(2.3)
	Belgium	28.1	(0.8)	28.9	(0.9)	27.2	(1.2)	33.6	(1.3)	27.8	(1.3)	27.2	(1.2)	23.9	(1.4)	27.1	(0.9)	32.5	(1.9)	24.3	(1.4)	23.4	(2.0)
	Canada	43.8	(0.6)	43.5	(0.7)	44.2	(0.9)	44.9	(1.1)	44.1	(1.0)	44.3	(1.1)	41.9	(1.0)	42.7	(0.8)	44.2	(1.7)	40.0	(1.4)	43.6	(1.5)
	Czech Republic	23.1	(0.7)	24.3	(0.9)	21.8	(1.1)	22.2	(1.2)	23.5	(1.6)	23.4	(1.4)	23.2	(1.5)	24.0	(1.1)	19.4	(1.7)	23.3	(1.9)	23.1	(2.2)
	Denmark	43.1	(1.3)	44.1	(1.6)	42.2	(1.4)	44.8	(1.6)	40.4	(1.6)	40.6	(2.0)	46.5	(2.1)	42.6	(1.8)	41.4	(2.3)	48.3	(2.8)	44.5	(2.7)
	Finland	44.5	(1.1)	47.1	(1.6)	42.0	(1.2)	45.4	(1.5)	43.8	(1.7)	44.0	(1.5)	44.9	(1.5)	46.3	(1.7)	41.3	(2.1)	46.9	(2.1)	43.2	(2.0)
	France	32.4	(1.2)	34.1	(1.3)	30.9	(1.3)	35.3	(1.8)	33.3	(1.8)	29.8	(1.6)	31.4	(1.7)	33.4	(1.5)	34.2	(2.1)	31.4	(2.1)	31.4	(2.4)
	Germany	21.4	(1.0)	22.5	(1.2)	20.2	(1.2)	23.8	(1.6)	18.8	(1.5)	19.5	(1.5)	23.5	(1.5)	21.6	(1.4)	22.0	(2.1)	22.3	(1.9)	25.0	(2.1)
	Greece	48.2	(1.1)	50.8	(1.2)	45.8	(1.4)	45.8	(1.7)	47.3	(1.8)	49.8	(1.6)	49.8	(1.9)	50.9	(1.4)	42.3	(2.2)	50.0	(2.5)	49.7	(3.0)
	Hungary	27.6	(1.0)	29.9	(1.2)	24.9	(1.4)	35.0	(1.9)	27.7	(1.5)	23.9	(1.5)	23.7	(1.4)	27.4	(1.3)	31.9	(2.5)	25.9	(1.7)	21.4	(2.1)
	Iceland	45.6	(0.9)	50.2	(1.3)	40.7	(1.2)	43.3	(1.7)	44.6	(2.0)	47.4	(1.5)	47.0	(1.7)	51.1	(1.4)	40.3	(2.0)	51.6	(2.4)	41.9	(2.4)
	Ireland	28.7	(1.0)	31.8	(1.3)	25.6	(1.4)	32.4	(2.0)	30.3	(1.6)	27.3	(1.8)	25.1	(1.5)	30.7	(1.5)	29.8	(2.7)	27.1	(2.0)	23.3	(2.4)
	Italy	44.6	(1.0)	45.9	(1.3)	43.4	(1.2)	48.5	(1.7)	44.8	(1.6)	43.3	(1.6)	41.9	(1.4)	43.9	(1.2)	45.3	(1.9)	38.7	(1.6)	45.1	(2.0)
	Japan	16.3	(1.0)	18.1	(1.3)	14.6	(1.1)	20.7	(2.0)	15.6	(1.5)	13.9	(1.1)	15.1	(1.3)	16.7	(1.3)	19.3	(2.7)	17.0	(2.0)	13.4	(1.7)
	Korea	27.0	(1.0)	25.4	(1.2)	29.3	(1.5)	29.7	(1.7)	27.5	(1.4)	26.2	(1.5)	24.5	(1.6)	24.6	(1.3)	32.1	(2.3)	22.2	(2.0)	28.0	(2.6)
	Luxembourg	35.7	(0.6)	34.4	(1.0)	37.0	(0.9)	34.3	(1.3)	34.6	(1.5)	34.6	(1.5)	39.4	(1.4)	34.6	(1.2)	34.7	(1.9)	34.8	(2.1)	44.0	(1.9)
	Mexico	45.5	(1.0)	46.8	(1.2)	44.3	(1.3)	42.5	(2.2)	45.7	(1.8)	47.3	(1.5)	46.5	(1.1)	47.5	(1.1)	40.6	(2.8)	47.1	(1.8)	45.9	(2.1)
	Netherlands	44.5	(1.1)	46.2	(1.5)	42.8	(1.3)	48.8	(2.0)	43.5	(1.9)	43.3	(1.5)	42.4	(1.9)	45.0	(1.5)	47.8	(2.7)	44.3	(2.5)	40.3	(2.7)
	New Zealand	45.7	(1.1)	43.0	(1.4)	48.4	(1.2)	51.2	(1.6)	46.4	(1.6)	43.0	(1.8)	42.4	(1.9)	41.2	(1.5)	53.1	(2.0)	39.8	(2.1)	45.6	(2.8)
	Norway	35.6	(0.9)	35.2	(1.1)	35.9	(1.4)	38.1	(1.8)	34.4	(1.5)	35.4	(1.7)	34.5	(1.5)	33.4	(1.3)	35.3	(2.5)	34.4	(2.2)	34.6	(2.1)
	Poland	36.5	(0.9)	39.6	(1.3)	33.4	(1.2)	33.0	(1.4)	36.9	(1.7)	36.7	(1.8)	39.3	(1.5)	39.8	(1.3)	27.5	(2.0)	39.4	(2.4)	39.2	(2.3)
	Portugal	54.0	(1.1)	53.4	(1.2)	54.5	(1.4)	49.7	(2.0)	50.0	(1.5)	57.0	(1.9)	59.2	(2.4)	53.7	(1.4)	47.7	(2.4)	56.7	(2.5)	62.0	(3.4)
	Slovak Republic	22.9	(1.0)	24.4	(1.4)	21.3	(1.0)	24.4	(1.8)	22.7	(1.2)	20.5	(1.3)	24.0	(1.4)	23.5	(1.3)	21.7	(2.2)	24.5	(1.6)	23.3	(1.8)
	Spain	41.2	(0.9)	41.1	(1.1)	41.3	(1.1)	41.7	(2.2)	42.7	(1.5)	40.6	(1.2)	39.7	(1.4)	41.0	(1.0)	41.9	(2.3)	40.2	(2.1)	39.1	(1.6)
	Sweden	50.8	(1.2)	52.2	(1.6)	49.4	(1.3)	53.7	(1.8)	47.7	(1.9)	50.1	(1.6)	51.6	(2.0)	51.2	(1.8)	52.2	(2.2)	52.3	(2.8)	50.9	(2.6)
	Switzerland	26.6	(0.8)	26.3	(1.0)	26.8	(1.1)	25.3	(1.3)	24.8	(1.4)	25.0	(1.2)	31.1	(1.8)	26.7	(1.1)	25.3	(2.1)	28.7	(2.1)	33.2	(2.5)
	Turkey	26.7	(1.1)	26.1	(1.5)	27.4	(1.3)	28.2	(1.6)	26.3	(1.6)	26.2	(1.8)	26.0	(2.0)	25.5	(1.8)	28.9	(2.2)	27.1	(2.8)	24.6	(1.8)
	United States	34.6	(1.0)	34.2	(1.2)	35.0	(1.3)	40.7	(1.8)	35.6	(1.5)	32.9	(1.4)	29.3	(1.5)	32.3	(1.2)	42.2	(2.4)	29.8	(2.0)	28.8	(1.9)
	OECD average 2003	35.7	(0.2)	36.5	(0.2)	34.9	(0.2)	37.0	(0.3)	35.2	(0.3)	34.9	(0.3)	35.5	(0.3)	35.8	(0.3)	35.6	(0.4)	35.4	(0.4)	35.7	(0.4)
Partners	**Brazil**	37.0	(1.2)	37.6	(1.4)	36.5	(1.5)	34.7	(1.8)	37.3	(1.6)	38.4	(1.6)	37.6	(2.3)	38.7	(1.5)	35.3	(2.3)	37.7	(2.4)	37.5	(3.0)
	Hong Kong-China	17.0	(0.8)	19.7	(1.2)	14.2	(0.8)	19.1	(1.2)	17.9	(1.3)	16.0	(1.3)	14.9	(1.3)	18.8	(1.3)	15.5	(1.7)	15.9	(1.6)	13.9	(1.9)
	Indonesia	36.0	(1.1)	40.0	(1.3)	32.1	(1.3)	35.0	(1.7)	37.3	(1.6)	36.5	(1.6)	35.2	(1.5)	40.5	(1.4)	31.1	(2.3)	40.1	(2.5)	30.7	(1.3)
	Latvia	48.2	(1.5)	50.8	(1.8)	45.9	(1.7)	50.6	(2.3)	46.2	(2.2)	50.5	(2.0)	45.7	(2.4)	50.1	(1.9)	48.3	(3.0)	49.7	(3.1)	42.0	(2.7)
	Liechtenstein	20.7	(2.4)	c	c	26.1	(3.5)	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Macao-China	18.6	(1.1)	20.0	(1.6)	17.3	(1.6)	21.0	(2.6)	15.2	(2.4)	21.5	(2.7)	16.8	(2.3)	18.8	(1.9)	18.5	(2.7)	18.4	(3.4)	15.2	(3.2)
	Russian Federation	40.6	(1.2)	43.8	(1.5)	37.4	(1.4)	41.9	(1.7)	42.3	(1.8)	40.2	(2.2)	38.0	(1.8)	42.6	(1.7)	36.7	(2.3)	39.5	(2.2)	36.2	(2.2)
	Thailand	34.0	(1.2)	38.4	(1.7)	30.4	(1.2)	33.2	(2.2)	32.9	(1.7)	37.7	(1.7)	32.0	(2.0)	38.6	(1.6)	30.0	(2.4)	35.9	(2.8)	28.4	(1.9)
	Tunisia	37.9	(1.1)	41.6	(1.5)	34.3	(1.1)	33.2	(1.8)	36.9	(1.6)	40.3	(1.5)	41.0	(2.0)	44.1	(1.7)	31.9	(2.0)	47.2	(2.7)	34.8	(1.9)
	Uruguay	56.5	(1.1)	58.3	(1.0)	54.9	(1.7)	57.2	(1.7)	58.0	(1.8)	55.2	(2.3)	55.7	(2.0)	58.1	(1.3)	55.9	(2.5)	57.9	(2.3)	53.1	(3.1)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.

For comparability over time, PISA 2003 values on the *PISA index of economic, social and cultural status* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

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[Part 3/5]

Table III.2.1b

Change between 2003 and 2012 in the number of times students arrived late for school

Results based on students' self-reports

		PISA 2012																					
		Percentage of students who arrived late for school in the two weeks prior to the PISA test																					
		All students		Boys		Girls		Bottom quarter of ESCS[1]		Second quarter of ESCS		Third quarter of ESCS		Top quarter of ESCS		Bottom quarter of ESCS boys		Bottom quarter of ESCS girls		Top quarter of ESCS boys		Top quarter of ESCS girls	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	35.5	(0.6)	34.6	(0.7)	36.6	(0.8)	37.5	(1.1)	38.1	(0.8)	35.2	(1.1)	31.4	(1.0)	33.9	(0.8)	37.7	(1.5)	30.5	(1.4)	32.2	(1.4)
	Austria	20.9	(0.9)	20.7	(1.3)	21.0	(1.2)	21.1	(1.6)	18.5	(1.3)	18.4	(1.3)	25.6	(1.8)	20.7	(1.4)	21.3	(2.0)	27.2	(2.2)	24.1	(2.3)
	Belgium	27.3	(0.7)	28.4	(0.9)	26.3	(0.8)	29.8	(1.4)	28.4	(1.3)	24.8	(1.1)	25.4	(1.2)	27.3	(1.1)	29.3	(2.1)	25.9	(1.4)	24.9	(1.7)
	Canada	43.1	(0.7)	43.9	(0.7)	42.4	(0.9)	45.6	(1.3)	43.1	(1.2)	44.2	(1.1)	39.4	(0.9)	43.0	(0.9)	44.9	(1.8)	39.9	(1.4)	38.8	(1.5)
	Czech Republic	27.0	(0.8)	29.6	(1.2)	24.3	(1.1)	30.5	(1.7)	25.5	(1.6)	25.3	(1.6)	26.7	(1.4)	28.8	(1.5)	28.9	(2.0)	27.7	(2.0)	25.7	(1.7)
	Denmark	38.5	(1.1)	41.9	(1.4)	35.1	(1.2)	39.7	(1.6)	38.5	(1.7)	37.1	(1.5)	38.4	(1.8)	41.5	(1.5)	36.7	(2.0)	40.9	(2.3)	35.9	(2.3)
	Finland	43.0	(0.9)	46.1	(1.2)	39.8	(1.1)	45.7	(1.6)	42.0	(1.5)	43.7	(1.5)	40.1	(1.4)	44.0	(1.3)	39.6	(1.7)	41.5	(2.0)	38.7	(1.8)
	France	32.3	(0.9)	33.5	(1.1)	31.1	(1.2)	35.9	(2.0)	32.5	(1.7)	32.3	(1.6)	27.7	(1.3)	32.5	(1.2)	36.3	(2.6)	31.9	(2.3)	23.7	(1.6)
	Germany	22.7	(0.8)	22.9	(1.0)	22.4	(0.9)	24.0	(1.5)	19.6	(1.4)	21.7	(1.4)	24.5	(1.5)	22.9	(1.2)	24.7	(2.0)	27.8	(2.1)	21.1	(1.9)
	Greece	49.3	(1.0)	49.1	(1.3)	49.5	(1.1)	42.4	(1.7)	51.2	(1.4)	52.5	(1.7)	51.1	(1.8)	51.3	(1.5)	42.7	(2.5)	50.4	(2.9)	51.8	(1.9)
	Hungary	24.1	(1.2)	25.2	(1.6)	23.0	(1.4)	31.8	(2.7)	22.3	(1.6)	22.6	(1.7)	19.4	(1.9)	22.3	(1.7)	29.8	(3.5)	21.3	(2.5)	17.7	(1.9)
	Iceland	35.0	(0.8)	38.9	(1.1)	31.0	(1.1)	35.5	(1.8)	37.1	(1.6)	36.0	(1.8)	30.9	(1.4)	37.8	(1.2)	30.0	(2.1)	33.9	(2.2)	27.7	(2.1)
	Ireland	27.4	(1.0)	29.8	(1.5)	24.8	(1.2)	30.2	(2.1)	28.5	(1.5)	26.0	(1.5)	24.4	(1.5)	29.0	(1.3)	28.6	(2.3)	28.1	(2.1)	20.5	(1.9)
	Italy	35.2	(0.6)	36.8	(0.7)	33.5	(0.9)	37.3	(1.0)	35.8	(0.8)	33.4	(0.8)	34.4	(0.9)	36.1	(0.7)	35.6	(1.5)	36.4	(1.0)	32.1	(1.2)
	Japan	8.9	(0.6)	10.4	(0.7)	7.4	(0.6)	11.3	(1.2)	7.3	(0.9)	8.8	(0.7)	8.1	(0.7)	9.6	(0.7)	10.3	(1.6)	10.8	(1.2)	5.1	(0.8)
	Korea	25.1	(1.0)	25.7	(1.3)	24.3	(1.3)	28.7	(1.8)	26.2	(1.4)	24.7	(1.3)	20.6	(1.6)	23.9	(1.4)	26.0	(2.1)	21.2	(2.0)	19.7	(2.3)
	Luxembourg	29.1	(0.5)	29.5	(0.9)	28.7	(0.7)	31.4	(1.2)	28.1	(1.1)	29.1	(1.1)	28.6	(1.1)	28.7	(1.0)	30.3	(1.6)	27.9	(1.6)	29.4	(1.4)
	Mexico	39.9	(0.6)	39.9	(0.7)	39.9	(0.7)	33.1	(0.9)	40.7	(0.9)	43.6	(0.8)	42.2	(1.1)	41.8	(0.8)	32.5	(1.1)	40.2	(1.4)	44.3	(1.4)
	Netherlands	30.3	(1.0)	31.2	(1.3)	29.4	(1.2)	33.0	(1.7)	29.4	(1.5)	27.8	(1.5)	30.8	(1.8)	30.5	(1.6)	33.2	(2.3)	31.6	(2.2)	29.8	(3.0)
	New Zealand	42.1	(1.3)	40.9	(1.5)	43.3	(1.7)	50.8	(1.8)	39.7	(1.7)	43.0	(1.6)	33.5	(1.9)	37.5	(1.8)	51.8	(2.7)	32.5	(3.0)	34.5	(2.7)
	Norway	29.2	(1.0)	30.2	(1.2)	28.1	(1.2)	30.7	(1.6)	30.0	(1.6)	28.0	(1.5)	27.6	(1.5)	29.2	(1.2)	28.9	(2.2)	27.5	(1.8)	27.8	(2.2)
	Poland	42.4	(1.2)	47.5	(1.5)	37.4	(1.4)	37.2	(1.9)	38.8	(1.9)	46.1	(1.8)	47.1	(1.8)	48.3	(1.5)	30.9	(2.2)	48.1	(2.5)	46.1	(2.3)
	Portugal	55.2	(1.0)	54.4	(1.4)	56.0	(1.3)	56.6	(1.8)	53.4	(1.5)	56.3	(1.6)	54.6	(1.6)	53.1	(1.5)	55.0	(2.6)	52.0	(2.3)	57.5	(2.2)
	Slovak Republic	26.2	(0.9)	28.4	(1.2)	23.9	(1.2)	29.5	(1.7)	24.3	(1.7)	26.8	(1.6)	24.2	(1.4)	27.1	(1.5)	26.5	(2.1)	24.4	(2.1)	24.0	(2.4)
	Spain	35.3	(0.8)	34.5	(0.8)	36.1	(1.1)	38.9	(1.4)	34.1	(1.3)	36.8	(1.0)	31.4	(1.2)	34.0	(0.9)	41.7	(1.9)	30.4	(1.4)	32.5	(1.6)
	Sweden	55.6	(1.0)	58.3	(1.3)	52.8	(1.3)	60.7	(1.8)	52.8	(1.5)	55.0	(1.8)	53.5	(1.6)	56.1	(1.5)	57.3	(2.4)	55.4	(2.2)	51.5	(2.2)
	Switzerland	24.3	(0.8)	24.4	(1.1)	24.3	(1.0)	23.0	(1.2)	20.1	(1.2)	25.2	(1.4)	28.9	(1.5)	24.5	(1.3)	22.0	(1.6)	30.2	(2.0)	27.7	(1.9)
	Turkey	43.8	(1.0)	47.8	(1.2)	39.7	(1.3)	43.7	(1.7)	44.5	(1.6)	44.6	(1.6)	42.7	(1.5)	47.2	(1.3)	37.8	(1.9)	44.0	(2.1)	41.3	(2.7)
	United States	30.1	(1.2)	31.0	(1.3)	29.1	(1.4)	39.3	(2.0)	31.5	(1.7)	27.1	(1.5)	22.5	(1.4)	27.7	(1.3)	37.6	(2.2)	24.0	(1.9)	20.9	(2.1)
	OECD average 2003	33.8	(0.2)	35.0	(0.2)	32.5	(0.2)	35.7	(0.3)	33.2	(0.3)	33.7	(0.3)	32.3	(0.3)	34.1	(0.2)	34.1	(0.4)	33.2	(0.4)	31.3	(0.4)
Partners	**Brazil**	33.7	(0.8)	34.0	(1.0)	33.5	(0.9)	30.4	(0.9)	33.0	(1.5)	35.9	(1.2)	35.5	(1.3)	34.7	(1.1)	29.8	(1.1)	36.1	(1.6)	34.9	(1.5)
	Hong Kong-China	14.6	(0.6)	15.6	(0.8)	13.6	(0.8)	16.4	(1.2)	14.7	(1.1)	13.7	(1.0)	13.6	(1.2)	14.5	(0.9)	14.5	(1.3)	12.5	(1.3)	15.0	(1.9)
	Indonesia	27.0	(1.0)	29.7	(1.4)	24.2	(1.2)	22.7	(1.7)	26.1	(1.5)	28.2	(1.6)	30.7	(2.2)	31.1	(1.4)	19.9	(1.9)	33.4	(2.1)	28.0	(2.8)
	Latvia	56.3	(1.2)	59.7	(1.6)	52.8	(1.6)	56.2	(2.5)	56.1	(2.0)	56.3	(1.8)	56.3	(2.1)	59.6	(1.6)	51.7	(3.1)	59.1	(2.8)	53.8	(2.5)
	Liechtenstein	18.7	(2.3)	21.8	(3.2)	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Macao-China	25.1	(0.5)	26.6	(0.8)	23.7	(0.8)	26.4	(1.2)	26.0	(1.3)	24.9	(1.0)	23.0	(1.0)	25.6	(0.9)	23.7	(1.6)	23.8	(1.5)	22.2	(1.4)
	Russian Federation	46.7	(1.3)	49.5	(1.5)	43.9	(1.4)	49.1	(2.0)	46.0	(2.2)	47.0	(2.1)	44.4	(1.5)	48.7	(1.7)	46.4	(2.1)	46.8	(2.1)	41.9	(2.1)
	Thailand	34.1	(1.2)	40.5	(1.7)	29.0	(1.1)	32.4	(1.8)	35.0	(1.8)	32.9	(1.5)	36.0	(1.5)	40.4	(1.7)	25.7	(1.9)	38.9	(2.5)	33.7	(1.9)
	Tunisia	51.8	(0.9)	54.3	(1.3)	49.7	(1.3)	50.4	(1.5)	49.9	(1.8)	54.1	(1.9)	52.5	(1.6)	53.9	(1.5)	46.6	(2.2)	55.2	(2.4)	49.8	(2.2)
	Uruguay	59.3	(0.9)	57.8	(1.3)	60.6	(1.2)	57.9	(1.3)	58.8	(1.4)	62.7	(1.9)	57.5	(1.9)	57.2	(1.5)	57.1	(1.9)	55.5	(2.5)	59.5	(2.4)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.

For comparability over time, PISA 2003 values on the *PISA index of economic, social and cultural status* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

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[Part 4/5]

Table III.2.1b Change between 2003 and 2012 in the number of times students arrived late for school

Results based on students' self-reports

		Change between 2003 and 2012 (PISA 2012 - PISA 2003)															
		Percentage of students who arrived late for school in the two weeks prior to the PISA test															
		All students		Boys		Girls		Gender gap (change among boys - change among girls)		Bottom quarter of ESCS[1]		Second quarter of ESCS		Third quarter of ESCS		Top quarter of ESCS	
		% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.
OECD	Australia	-1.0	(0.9)	-0.5	(1.1)	-1.4	(1.2)	0.9	(1.5)	-1.2	(1.7)	0.0	(1.7)	-0.2	(1.6)	-2.6	(1.5)
	Austria	-2.2	(1.4)	-2.5	(1.9)	-1.9	(1.8)	-0.6	(2.3)	2.5	(2.5)	-2.9	(2.1)	**-4.7**	(1.9)	-3.5	(2.5)
	Belgium	-0.7	(1.1)	-0.5	(1.3)	-0.9	(1.5)	0.3	(1.6)	**-3.8**	(1.9)	0.6	(1.8)	-2.4	(1.6)	1.5	(1.8)
	Canada	-0.7	(0.9)	0.5	(1.0)	-1.8	(1.2)	2.2	(1.4)	0.7	(1.6)	-1.1	(1.5)	-0.2	(1.6)	-2.6	(1.3)
	Czech Republic	**3.9**	(1.1)	**5.3**	(1.5)	2.5	(1.5)	2.8	(2.1)	**8.3**	(2.1)	2.0	(2.3)	1.9	(2.2)	3.5	(2.1)
	Denmark	**-4.6**	(1.7)	-2.2	(2.1)	**-7.1**	(1.9)	**4.9**	(2.0)	**-5.1**	(2.3)	-2.0	(2.3)	-3.5	(2.5)	**-8.1**	(2.8)
	Finland	-1.5	(1.5)	-1.0	(1.9)	-2.1	(1.6)	1.1	(2.1)	0.3	(2.2)	-1.8	(2.3)	-0.3	(2.2)	**-4.8**	(2.1)
	France	-0.2	(1.5)	-0.6	(1.7)	0.1	(1.8)	-0.7	(2.0)	0.7	(2.7)	-0.8	(2.5)	2.5	(2.2)	-3.7	(2.2)
	Germany	1.3	(1.2)	0.4	(1.6)	2.2	(1.5)	-1.8	(2.2)	0.2	(2.2)	0.9	(2.0)	2.2	(2.0)	1.0	(2.2)
	Greece	1.1	(1.4)	-1.7	(1.8)	**3.7**	(1.8)	**-5.4**	(2.2)	-3.4	(2.5)	3.9	(2.3)	2.7	(2.3)	1.3	(2.6)
	Hungary	**-3.5**	(1.6)	**-4.7**	(2.0)	-1.9	(2.0)	-2.8	(2.4)	-3.2	(3.3)	**-5.3**	(2.2)	-1.2	(2.2)	-4.3	(2.4)
	Iceland	**-10.6**	(1.2)	**-11.3**	(1.7)	**-9.7**	(1.6)	-1.6	(2.3)	**-7.8**	(2.5)	**-7.5**	(2.5)	**-11.4**	(2.3)	**-16.2**	(2.2)
	Ireland	-1.4	(1.5)	-1.9	(2.0)	-0.8	(1.9)	-1.1	(2.2)	-2.2	(2.9)	-1.8	(2.2)	-1.3	(2.3)	-0.7	(2.2)
	Italy	**-9.4**	(1.2)	**-9.2**	(1.4)	**-9.8**	(1.5)	0.7	(1.9)	**-11.2**	(2.0)	**-9.0**	(1.8)	**-9.9**	(1.8)	**-7.5**	(1.6)
	Japan	**-7.4**	(1.1)	**-7.7**	(1.5)	**-7.2**	(1.3)	-0.5	(1.7)	**-9.4**	(2.3)	**-8.3**	(1.8)	**-5.0**	(1.3)	**-7.0**	(1.5)
	Korea	-1.9	(1.5)	0.4	(1.8)	**-5.0**	(2.0)	**5.4**	(2.3)	-1.0	(2.5)	-1.3	(2.0)	-1.5	(2.0)	-3.9	(2.2)
	Luxembourg	**-6.6**	(0.8)	**-5.0**	(1.3)	**-8.3**	(1.1)	3.3	(1.9)	-2.9	(1.8)	**-6.5**	(1.9)	**-5.5**	(1.9)	**-10.8**	(1.8)
	Mexico	**-5.6**	(1.2)	**-6.9**	(1.4)	**-4.4**	(1.5)	-2.5	(1.9)	**-9.4**	(2.3)	**-5.0**	(2.0)	**-3.7**	(1.7)	**-4.3**	(1.6)
	Netherlands	**-14.2**	(1.5)	**-15.0**	(2.0)	**-13.4**	(1.8)	-1.6	(2.6)	**-15.8**	(2.6)	**-14.1**	(2.4)	**-15.5**	(2.1)	**-11.6**	(2.6)
	New Zealand	**-3.7**	(1.7)	-2.1	(2.1)	**-5.1**	(2.1)	3.0	(2.5)	-0.4	(2.4)	**-6.7**	(2.3)	0.0	(2.4)	**-8.9**	(2.7)
	Norway	**-6.4**	(1.3)	**-5.0**	(1.7)	**-7.8**	(1.8)	2.7	(2.2)	**-7.4**	(2.4)	**-4.4**	(2.2)	**-7.4**	(2.3)	**-6.9**	(2.1)
	Poland	**5.9**	(1.5)	**8.0**	(1.9)	**4.0**	(1.8)	4.0	(2.5)	4.2	(2.4)	1.9	(2.5)	**9.4**	(2.6)	**7.8**	(2.3)
	Portugal	1.3	(1.5)	1.0	(1.9)	1.5	(1.9)	-0.5	(2.4)	**6.9**	(2.7)	3.5	(2.1)	-0.7	(2.5)	-4.6	(2.9)
	Slovak Republic	**3.4**	(1.3)	**4.0**	(1.8)	2.6	(1.6)	1.4	(2.0)	**5.1**	(2.5)	1.6	(2.1)	**6.3**	(2.1)	0.2	(2.0)
	Spain	**-5.9**	(1.2)	**-6.6**	(1.4)	**-5.1**	(1.5)	-1.5	(1.5)	-2.8	(2.7)	**-8.6**	(2.0)	**-3.8**	(1.6)	**-8.3**	(1.8)
	Sweden	**4.8**	(1.6)	**6.1**	(2.0)	3.5	(1.9)	2.6	(2.1)	**7.0**	(2.6)	**5.0**	(2.5)	**4.9**	(2.4)	1.9	(2.6)
	Switzerland	-2.2	(1.2)	-1.9	(1.5)	-2.5	(1.5)	0.6	(1.8)	-2.3	(1.8)	**-4.7**	(1.8)	0.1	(1.8)	-2.1	(2.3)
	Turkey	**17.1**	(1.5)	**21.7**	(2.0)	**12.3**	(1.8)	**9.5**	(2.4)	**15.4**	(2.3)	**18.1**	(2.3)	**18.3**	(2.4)	**16.7**	(2.5)
	United States	**-4.5**	(1.5)	-3.2	(1.8)	**-5.9**	(1.9)	2.7	(2.1)	-1.5	(2.7)	-4.1	(2.2)	**-5.8**	(2.1)	**-6.8**	(2.0)
	OECD average 2003	**-1.9**	(0.2)	**-1.5**	(0.3)	**-2.4**	(0.3)	**0.9**	(0.4)	**-1.4**	(0.4)	**-2.0**	(0.4)	**-1.2**	(0.4)	**-3.3**	(0.4)
Partners	Brazil	**-3.3**	(1.5)	**-3.6**	(1.7)	-3.0	(1.8)	-0.6	(1.9)	**-4.3**	(2.1)	**-4.4**	(2.2)	-2.5	(2.0)	-2.1	(2.6)
	Hong Kong-China	**-2.3**	(1.0)	**-4.1**	(1.4)	-0.7	(1.1)	**-3.4**	(1.7)	-2.7	(1.7)	-3.2	(1.7)	-2.3	(1.7)	-1.3	(1.8)
	Indonesia	**-9.0**	(1.5)	**-10.4**	(1.9)	**-7.9**	(1.7)	-2.5	(2.2)	**-12.3**	(2.5)	**-11.2**	(2.2)	**-8.3**	(2.2)	-4.5	(2.7)
	Latvia	**8.0**	(1.9)	**8.8**	(2.4)	**6.9**	(2.3)	1.9	(2.6)	5.6	(3.4)	**9.9**	(3.0)	**5.8**	(2.7)	**10.6**	(3.2)
	Liechtenstein	-2.1	(3.3)	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Macao-China	**6.5**	(1.2)	**6.5**	(1.8)	**6.4**	(1.8)	0.2	(2.6)	5.5	(2.9)	**10.8**	(2.7)	3.5	(2.9)	**6.1**	(2.5)
	Russian Federation	**6.1**	(1.8)	**5.7**	(2.1)	**6.5**	(2.0)	-0.8	(2.0)	**7.2**	(2.7)	3.7	(2.9)	**6.8**	(3.0)	**6.4**	(2.3)
	Thailand	0.1	(1.7)	2.2	(2.3)	-1.4	(1.6)	3.5	(2.3)	-0.9	(2.9)	2.2	(2.4)	**-4.8**	(2.2)	4.0	(2.5)
	Tunisia	**13.9**	(1.4)	**12.7**	(1.9)	**15.4**	(1.7)	-2.7	(2.2)	**17.2**	(2.3)	**13.0**	(2.4)	**13.9**	(2.4)	**11.5**	(2.5)
	Uruguay	2.8	(1.4)	-0.6	(1.7)	**5.8**	(2.1)	**-6.3**	(2.7)	0.8	(2.2)	0.8	(2.3)	**7.5**	(3.0)	1.8	(2.8)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
For comparability over time, PISA 2003 values on the *PISA index of economic, social and cultural status* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).
1. ESCS refers to the *PISA index of economic, social and cultural status*.

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[Part 5/5]

Table III.2.1b **Change between 2003 and 2012 in the number of times students arrived late for school**
Results based on students' self-reports

		Change between 2003 and 2012 (PISA 2012 - PISA 2003)									
		Percentage of students who arrived late for school in the two weeks prior to the PISA test									
		Socio-economic disparity (change in difference between top and bottom quarter of ESCS[1])		Bottom quarter of ESCS boys		Bottom quarter of ESCS girls		Top quarter of ESCS boys		Top quarter of ESCS girls	
		% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.
OECD	**Australia**	-1.4	(2.2)	-0.9	(1.3)	-3.5	(2.3)	-0.3	(2.1)	**-4.7**	(2.0)
	Austria	-5.9	(3.1)	-3.5	(2.0)	4.3	(3.0)	0.1	(3.3)	**-6.9**	(3.2)
	Belgium	**5.3**	(2.5)	0.1	(1.4)	-3.2	(2.8)	1.6	(2.0)	1.5	(2.7)
	Canada	-3.3	(2.2)	0.2	(1.2)	0.7	(2.5)	-0.1	(2.0)	**-4.8**	(2.1)
	Czech Republic	-4.8	(3.3)	**4.8**	(1.8)	**9.5**	(2.6)	4.4	(2.8)	2.6	(2.8)
	Denmark	-3.0	(3.4)	-1.1	(2.3)	-4.6	(3.0)	**-7.3**	(3.6)	**-8.7**	(3.5)
	Finland	-5.1	(2.9)	-2.3	(2.1)	-1.7	(2.7)	-5.3	(2.9)	-4.4	(2.6)
	France	-4.4	(3.0)	-0.8	(1.9)	2.0	(3.3)	0.5	(3.1)	**-7.7**	(2.9)
	Germany	0.8	(2.9)	1.3	(1.8)	2.7	(2.9)	5.5	(2.8)	-3.9	(2.9)
	Greece	4.6	(3.5)	0.4	(2.0)	0.4	(3.3)	0.4	(3.8)	2.1	(3.5)
	Hungary	-1.1	(3.9)	**-5.1**	(2.1)	-2.1	(4.3)	-4.6	(3.0)	-3.7	(2.9)
	Iceland	**-8.4**	(3.1)	**-13.3**	(1.9)	**-10.3**	(2.9)	**-17.7**	(3.2)	**-14.2**	(3.1)
	Ireland	1.5	(3.6)	-1.7	(2.0)	-1.2	(3.5)	0.9	(3.0)	-2.7	(3.0)
	Italy	3.7	(2.3)	**-7.8**	(1.4)	**-9.6**	(2.4)	-2.4	(1.9)	**-13.0**	(2.3)
	Japan	2.4	(2.6)	**-7.1**	(1.5)	**-9.0**	(3.1)	**-6.1**	(2.3)	**-8.3**	(1.8)
	Korea	-2.9	(3.4)	-0.7	(1.9)	-6.1	(3.1)	-1.0	(2.8)	**-8.2**	(3.4)
	Luxembourg	**-8.0**	(2.7)	**-5.9**	(1.6)	-4.4	(2.5)	**-6.9**	(2.7)	**-14.6**	(2.4)
	Mexico	5.1	(2.7)	**-5.7**	(1.4)	**-8.1**	(3.0)	**-6.9**	(2.2)	-1.6	(2.6)
	Netherlands	4.2	(3.4)	**-14.4**	(2.2)	**-14.6**	(3.5)	**-12.7**	(3.3)	**-10.4**	(4.1)
	New Zealand	**-8.6**	(3.0)	-3.7	(2.3)	-1.4	(3.4)	**-7.3**	(3.7)	**-11.1**	(4.0)
	Norway	0.5	(3.2)	**-4.2**	(1.8)	-6.5	(3.3)	**-6.9**	(2.8)	**-6.8**	(3.0)
	Poland	3.6	(3.1)	**8.5**	(2.1)	3.4	(3.0)	**8.8**	(3.5)	**6.9**	(3.2)
	Portugal	**-11.5**	(3.9)	-0.6	(2.0)	**7.3**	(3.6)	-4.7	(3.4)	-4.5	(4.1)
	Slovak Republic	-4.9	(2.7)	3.5	(2.0)	4.8	(3.1)	-0.1	(2.6)	0.7	(3.0)
	Spain	**-5.5**	(2.8)	**-7.0**	(1.4)	-0.2	(3.0)	**-9.8**	(2.5)	**-6.7**	(2.3)
	Sweden	-5.1	(3.4)	**4.8**	(2.3)	5.1	(3.2)	3.1	(3.6)	0.6	(3.4)
	Switzerland	0.1	(2.8)	-2.1	(1.7)	-3.3	(2.6)	1.5	(2.9)	-5.5	(3.1)
	Turkey	1.3	(3.2)	**21.7**	(2.3)	**8.9**	(2.9)	**16.9**	(3.5)	**16.7**	(3.3)
	United States	-5.3	(3.4)	**-4.6**	(1.8)	-4.6	(3.3)	**-5.8**	(2.7)	**-7.9**	(2.8)
	OECD average 2003	**-1.9**	(0.6)	**-1.6**	(0.3)	**-1.5**	(0.6)	**-2.1**	(0.5)	**-4.5**	(0.6)
Partners	**Brazil**	2.2	(3.4)	**-4.0**	(1.9)	**-5.5**	(2.5)	-1.6	(2.9)	-2.6	(3.4)
	Hong Kong-China	1.4	(2.5)	**-4.3**	(1.5)	-1.1	(2.1)	-3.4	(2.1)	1.1	(2.6)
	Indonesia	**7.8**	(3.8)	**-9.3**	(2.0)	**-11.3**	(3.0)	**-6.7**	(3.3)	-2.7	(3.1)
	Latvia	5.0	(4.3)	**9.5**	(2.5)	3.4	(4.4)	**9.4**	(4.1)	**11.8**	(3.7)
	Liechtenstein	c	c	c	c	c	c	c	c	c	c
	Macao-China	0.7	(4.1)	**6.8**	(2.1)	5.2	(3.1)	5.4	(3.7)	**6.9**	(3.5)
	Russian Federation	-0.8	(3.1)	**6.0**	(2.4)	**9.7**	(3.1)	**7.3**	(3.1)	5.7	(3.1)
	Thailand	4.9	(3.7)	1.8	(2.3)	-4.3	(3.0)	3.0	(3.7)	**5.4**	(2.7)
	Tunisia	-5.7	(3.1)	**9.8**	(2.2)	**14.7**	(3.0)	**8.0**	(3.6)	**15.0**	(2.9)
	Uruguay	1.1	(3.6)	-0.9	(2.0)	1.3	(3.1)	-2.4	(3.4)	6.4	(3.9)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
For comparability over time, PISA 2003 values on the *PISA index of economic, social and cultural status* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).
1. ESCS refers to the *PISA index of economic, social and cultural status*.

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[Part 1/4]

Table III.2.2a

Mathematics performance, by the number of times students skipped some classes in the two weeks prior to the PISA test

Results based on students' self-reports

		Percentage of students, by the number of times students skipped some classes in the two weeks prior to the PISA test								Mathematics score, by the number of times students skipped some classes in the two weeks prior to the PISA test							
		None		One or two times		Three or four times		Five times or more		None		One or two times		Three or four times		Five times or more	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	**Australia**	86.5	(0.4)	10.4	(0.3)	1.9	(0.1)	1.2	(0.1)	**510**	(1.6)	488	(3.6)	467	(7.5)	**441**	(7.9)
	Austria	87.2	(0.8)	11.4	(0.7)	1.0	(0.2)	0.0	c	507	(2.6)	500	(6.6)	506	(13.9)	c	c
	Belgium	91.8	(0.4)	6.8	(0.3)	0.7	(0.1)	0.7	(0.1)	**521**	(2.2)	455	(5.3)	411	(15.7)	**429**	(13.8)
	Canada	75.4	(0.5)	19.1	(0.4)	3.7	(0.2)	1.8	(0.2)	**527**	(1.9)	503	(2.8)	488	(5.8)	**476**	(7.3)
	Chile	84.6	(0.8)	13.8	(0.7)	1.2	(0.2)	0.5	(0.1)	**427**	(3.1)	406	(4.3)	388	(11.7)	**355**	(17.5)
	Czech Republic	92.6	(0.5)	6.5	(0.5)	0.0	c	0.0	c	501	(2.9)	481	(7.8)	c	c	c	c
	Denmark	83.7	(0.9)	13.7	(0.7)	1.8	(0.3)	0.9	(0.2)	**507**	(2.2)	478	(4.0)	457	(8.8)	**425**	(17.1)
	Estonia	70.1	(0.9)	23.2	(0.7)	4.5	(0.3)	2.3	(0.3)	**531**	(2.0)	500	(3.2)	496	(6.0)	**487**	(9.6)
	Finland	84.4	(0.6)	13.1	(0.5)	1.7	(0.2)	0.8	(0.2)	**525**	(2.0)	498	(3.5)	471	(10.0)	**435**	(25.6)
	France	83.2	(0.8)	13.8	(0.7)	2.0	(0.2)	1.1	(0.2)	**501**	(2.5)	483	(4.8)	443	(12.9)	**449**	(18.3)
	Germany	90.3	(0.5)	8.6	(0.4)	0.7	(0.1)	0.0	c	520	(3.0)	505	(6.0)	495	(13.1)	c	c
	Greece	58.0	(1.2)	30.3	(0.9)	7.7	(0.5)	4.0	(0.3)	**458**	(2.7)	451	(3.2)	448	(4.9)	**413**	(8.1)
	Hungary	90.8	(0.6)	7.7	(0.4)	1.1	(0.2)	0.0	c	483	(3.2)	434	(7.3)	397	(13.5)	c	c
	Iceland	88.3	(0.5)	9.6	(0.4)	1.6	(0.2)	0.0	c	500	(1.9)	458	(5.6)	437	(11.6)	c	c
	Ireland	87.6	(0.8)	9.9	(0.6)	1.7	(0.2)	0.8	(0.2)	**503**	(2.3)	495	(4.6)	497	(9.5)	**460**	(18.9)
	Israel	68.8	(1.1)	23.5	(0.8)	4.5	(0.4)	3.2	(0.3)	464	(4.1)	477	(5.8)	478	(12.6)	471	(17.5)
	Italy	65.5	(0.5)	29.0	(0.4)	3.6	(0.2)	2.0	(0.1)	**492**	(2.2)	477	(2.2)	461	(4.9)	**450**	(7.9)
	Japan	97.1	(0.5)	2.3	(0.4)	0.0	c	0.0	c	541	(3.6)	454	(13.1)	c	c	c	c
	Korea	97.1	(0.4)	2.3	(0.3)	0.0	c	0.0	c	557	(4.3)	449	(11.7)	c	c	c	c
	Luxembourg	93.0	(0.4)	5.6	(0.3)	0.6	(0.1)	0.8	(0.1)	**493**	(1.2)	452	(5.7)	418	(15.8)	**455**	(14.3)
	Mexico	78.2	(0.4)	18.9	(0.4)	2.2	(0.1)	0.7	(0.1)	413	(1.4)	415	(2.0)	416	(4.7)	400	(8.2)
	Netherlands	89.0	(0.7)	9.5	(0.6)	1.1	(0.2)	0.0	c	524	(3.4)	527	(8.6)	504	(19.6)	c	c
	New Zealand	84.7	(0.7)	11.8	(0.6)	2.1	(0.3)	1.4	(0.2)	**511**	(2.2)	450	(5.8)	432	(11.1)	**420**	(13.1)
	Norway	88.2	(0.5)	9.7	(0.5)	1.3	(0.2)	0.9	(0.2)	**497**	(2.8)	454	(4.8)	441	(13.4)	**357**	(12.4)
	Poland	79.6	(0.9)	16.4	(0.7)	2.4	(0.2)	1.5	(0.2)	**523**	(3.5)	499	(5.1)	488	(8.7)	**472**	(12.7)
	Portugal	71.4	(0.9)	23.2	(0.8)	3.4	(0.3)	2.1	(0.2)	**497**	(4.0)	473	(4.3)	457	(9.4)	**435**	(10.2)
	Slovak Republic	88.2	(0.8)	10.0	(0.7)	1.1	(0.2)	0.7	(0.1)	**487**	(3.4)	453	(7.4)	400	(18.0)	**393**	(19.0)
	Slovenia	74.4	(0.6)	20.4	(0.6)	3.2	(0.3)	1.9	(0.2)	**511**	(1.4)	483	(3.9)	454	(8.4)	**431**	(7.5)
	Spain	67.7	(0.8)	25.5	(0.6)	3.9	(0.3)	2.9	(0.2)	**494**	(1.8)	468	(2.9)	461	(5.3)	**470**	(7.1)
	Sweden	79.5	(0.8)	16.1	(0.7)	3.0	(0.3)	1.4	(0.2)	**489**	(2.1)	454	(4.2)	418	(8.6)	**417**	(11.4)
	Switzerland	89.4	(0.6)	9.0	(0.5)	0.9	(0.1)	0.7	(0.1)	**533**	(3.1)	520	(6.4)	513	(12.4)	**468**	(19.5)
	Turkey	54.8	(1.1)	30.5	(0.8)	8.9	(0.5)	5.8	(0.4)	**444**	(4.7)	450	(5.8)	453	(7.1)	**474**	(8.1)
	United Kingdom	88.0	(0.5)	9.5	(0.4)	1.4	(0.2)	1.1	(0.2)	**499**	(3.2)	471	(6.6)	467	(16.9)	**446**	(17.4)
	United States	87.1	(0.6)	10.4	(0.6)	1.8	(0.2)	0.7	(0.1)	484	(3.6)	471	(5.9)	451	(14.4)	467	(17.3)
	OECD average	82.2	(0.1)	14.2	(0.1)	2.3	(0.0)	1.2	(0.0)	**499**	(0.5)	472	(1.0)	455	(2.1)	**438**	(2.8)
Partners	**Albania**	80.6	(0.6)	16.6	(0.6)	2.2	(0.2)	0.7	(0.2)	**392**	(2.3)	400	(4.3)	391	(10.4)	**424**	(14.7)
	Argentina	55.7	(1.1)	33.0	(0.9)	6.7	(0.4)	4.6	(0.4)	**399**	(3.5)	386	(4.0)	359	(7.0)	**343**	(6.3)
	Brazil	81.2	(0.5)	15.8	(0.4)	1.9	(0.1)	1.1	(0.1)	393	(2.0)	392	(3.4)	373	(7.6)	385	(10.7)
	Bulgaria	66.2	(1.2)	24.7	(0.8)	5.3	(0.5)	3.8	(0.4)	**453**	(4.3)	423	(4.3)	393	(7.3)	**386**	(6.1)
	Colombia	84.3	(0.7)	14.5	(0.7)	0.8	(0.1)	0.4	(0.1)	377	(2.9)	376	(3.7)	371	(11.6)	367	(14.9)
	Costa Rica	57.0	(1.4)	33.5	(1.1)	6.3	(0.4)	3.2	(0.4)	407	(3.2)	411	(3.6)	396	(6.3)	401	(8.1)
	Croatia	76.4	(0.7)	18.5	(0.6)	3.2	(0.3)	1.8	(0.2)	**480**	(3.8)	449	(3.4)	436	(7.9)	**410**	(10.7)
	Cyprus*	64.0	(0.7)	26.0	(0.6)	6.1	(0.4)	3.9	(0.3)	**452**	(1.4)	428	(2.4)	413	(5.6)	**404**	(6.8)
	Hong Kong-China	96.9	(0.3)	2.8	(0.3)	0.0	c	0.0	c	565	(3.2)	499	(11.4)	c	c	c	c
	Indonesia	75.0	(0.9)	21.5	(0.8)	2.2	(0.2)	1.3	(0.1)	380	(3.9)	362	(5.3)	362	(8.5)	366	(15.4)
	Jordan	70.3	(0.9)	23.8	(0.8)	3.8	(0.3)	2.1	(0.2)	387	(2.7)	395	(3.7)	379	(8.2)	387	(16.4)
	Kazakhstan	82.5	(0.8)	15.2	(0.7)	1.6	(0.2)	0.7	(0.1)	**436**	(3.1)	415	(4.0)	403	(9.4)	**394**	(11.3)
	Latvia	36.8	(1.0)	45.7	(1.1)	10.2	(0.6)	7.2	(0.6)	494	(3.5)	492	(3.0)	477	(6.7)	485	(7.0)
	Liechtenstein	96.3	(1.0)	0.0	c	0.0	c	0.0	c	538	(3.9)	c	c	c	c	c	c
	Lithuania	67.3	(1.1)	26.4	(0.9)	4.3	(0.3)	1.9	(0.3)	**490**	(2.7)	460	(4.2)	447	(7.7)	**416**	(14.8)
	Macao-China	94.6	(0.4)	4.7	(0.3)	0.0	c	0.0	c	540	(1.0)	520	(5.9)	c	c	c	c
	Malaysia	74.6	(1.0)	20.5	(0.7)	3.2	(0.3)	1.7	(0.2)	**424**	(3.0)	414	(4.9)	403	(10.4)	**391**	(14.0)
	Montenegro	67.9	(0.7)	25.9	(0.6)	4.1	(0.3)	2.2	(0.2)	**413**	(1.2)	409	(2.6)	406	(7.6)	**370**	(10.5)
	Peru	88.0	(0.8)	10.5	(0.7)	1.1	(0.2)	0.0	c	373	(3.7)	334	(4.6)	341	(13.7)	c	c
	Qatar	79.7	(0.4)	15.9	(0.3)	2.7	(0.1)	1.7	(0.1)	**384**	(0.9)	362	(2.3)	330	(6.9)	**307**	(7.6)
	Romania	55.8	(1.3)	34.1	(1.0)	6.1	(0.4)	4.0	(0.4)	**450**	(3.9)	441	(4.0)	437	(6.7)	**424**	(8.4)
	Russian Federation	69.6	(1.1)	23.4	(0.8)	4.5	(0.4)	2.4	(0.3)	**489**	(3.4)	471	(3.6)	464	(7.0)	**442**	(7.7)
	Serbia	73.3	(1.0)	21.9	(0.8)	3.2	(0.3)	1.6	(0.2)	**455**	(3.6)	437	(4.2)	425	(12.0)	**406**	(13.6)
	Shanghai-China	96.6	(0.4)	2.9	(0.3)	0.0	c	0.0	c	614	(3.2)	596	(14.9)	c	c	c	c
	Singapore	87.5	(0.5)	10.6	(0.5)	1.4	(0.1)	0.5	(0.1)	**574**	(1.4)	577	(4.5)	557	(13.4)	**516**	(18.6)
	Chinese Taipei	90.7	(0.6)	7.1	(0.5)	1.2	(0.2)	1.0	(0.2)	**568**	(3.2)	493	(6.8)	446	(13.1)	**438**	(13.8)
	Thailand	73.4	(0.8)	23.0	(0.7)	2.5	(0.2)	1.0	(0.2)	**431**	(3.7)	416	(3.9)	405	(8.0)	**387**	(10.6)
	Tunisia	74.5	(0.9)	21.1	(0.8)	2.6	(0.3)	1.7	(0.3)	389	(4.2)	391	(4.4)	368	(9.8)	382	(10.8)
	United Arab Emirates	77.2	(0.7)	17.2	(0.6)	3.5	(0.3)	2.2	(0.2)	**437**	(2.4)	431	(3.9)	431	(7.4)	**405**	(9.7)
	Uruguay	76.2	(0.9)	19.0	(0.8)	3.1	(0.2)	1.6	(0.2)	**415**	(2.9)	401	(4.0)	379	(6.9)	**364**	(12.7)
	Viet Nam	93.4	(0.5)	5.6	(0.4)	0.7	(0.1)	0.0	c	513	(4.8)	484	(8.0)	484	(20.1)	c	c

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/4]

Table III.2.2a Mathematics performance, by the number of times students skipped some classes in the two weeks prior to the PISA test

Results based on students' self-reports

		Percentage of students who skipped at least a class in the two weeks prior to the PISA test													
		All students		Boys		Girls		Bottom quarter of ESCS[1]		Second quarter of ESCS		Third quarter of ESCS		Top quarter of ESCS	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	13.5	(0.4)	**12.5**	(0.5)	**14.6**	(0.6)	**14.7**	(0.7)	13.0	(0.7)	13.6	(0.7)	**12.5**	(0.8)
	Austria	12.8	(0.8)	11.8	(1.0)	13.8	(1.1)	**11.4**	(1.3)	11.5	(1.1)	13.1	(1.4)	**15.4**	(1.1)
	Belgium	8.2	(0.4)	8.6	(0.5)	7.8	(0.5)	**9.8**	(0.7)	8.9	(0.8)	7.2	(0.8)	**6.0**	(0.7)
	Canada	24.6	(0.5)	**22.8**	(0.6)	**26.5**	(0.7)	**27.6**	(1.0)	25.0	(0.8)	23.6	(1.0)	**22.3**	(0.8)
	Chile	15.4	(0.8)	15.8	(1.0)	15.0	(0.9)	**18.7**	(1.2)	15.4	(1.1)	13.3	(1.1)	**14.3**	(1.0)
	Czech Republic	7.4	(0.5)	7.0	(0.7)	7.8	(0.7)	7.5	(1.1)	7.4	(1.0)	7.4	(1.0)	7.3	(1.0)
	Denmark	16.3	(0.9)	15.7	(1.1)	17.0	(1.1)	**17.9**	(1.1)	17.0	(1.4)	16.2	(1.3)	**14.2**	(1.2)
	Estonia	29.9	(0.9)	**32.8**	(1.1)	**27.1**	(1.0)	**31.3**	(1.6)	32.6	(1.8)	30.6	(1.6)	**25.1**	(1.3)
	Finland	15.6	(0.6)	15.3	(0.9)	15.9	(0.6)	**18.5**	(1.2)	15.1	(1.0)	15.7	(1.2)	**12.7**	(1.0)
	France	16.8	(0.8)	16.7	(1.1)	16.9	(1.1)	18.7	(1.6)	16.7	(1.4)	16.1	(1.2)	15.6	(1.2)
	Germany	9.7	(0.5)	9.1	(0.6)	10.2	(0.7)	9.4	(1.2)	8.1	(1.0)	8.7	(0.9)	11.2	(1.1)
	Greece	42.0	(1.2)	**44.8**	(1.4)	**39.4**	(1.4)	39.2	(1.9)	44.2	(1.7)	46.5	(2.0)	38.1	(1.7)
	Hungary	9.2	(0.6)	10.2	(0.8)	8.3	(0.7)	**13.6**	(1.3)	8.2	(1.0)	8.6	(1.1)	**6.6**	(0.9)
	Iceland	11.7	(0.5)	**13.0**	(0.8)	**10.5**	(0.7)	**14.6**	(1.2)	13.9	(1.1)	11.8	(0.9)	**6.6**	(0.8)
	Ireland	12.4	(0.8)	**14.7**	(1.0)	**10.1**	(0.9)	12.3	(1.3)	13.3	(1.3)	12.4	(1.2)	11.8	(1.1)
	Israel	31.2	(1.1)	33.1	(2.0)	29.3	(1.1)	**26.9**	(1.6)	29.0	(1.5)	32.2	(1.5)	**37.0**	(2.0)
	Italy	34.5	(0.5)	**36.7**	(0.6)	**32.2**	(0.6)	33.8	(0.9)	36.5	(0.7)	34.5	(0.8)	33.4	(0.8)
	Japan	2.9	(0.5)	2.6	(0.4)	3.2	(0.6)	4.3	(1.3)	2.4	(0.5)	2.3	(0.4)	2.3	(0.4)
	Korea	2.9	(0.4)	3.3	(0.6)	2.6	(0.4)	**4.4**	(0.8)	2.8	(0.5)	2.8	(0.5)	**1.8**	(0.4)
	Luxembourg	7.0	(0.4)	7.0	(0.5)	7.0	(0.5)	8.8	(0.7)	6.9	(0.7)	5.3	(0.6)	7.4	(0.7)
	Mexico	21.8	(0.4)	**23.1**	(0.5)	**20.5**	(0.5)	**15.1**	(0.5)	22.3	(0.8)	23.4	(0.7)	**26.2**	(0.9)
	Netherlands	11.0	(0.7)	10.9	(0.8)	11.2	(0.8)	**9.1**	(1.0)	9.7	(1.0)	11.0	(1.2)	**14.3**	(1.4)
	New Zealand	15.3	(0.7)	14.2	(1.0)	16.4	(0.9)	**21.0**	(1.2)	15.2	(1.2)	14.2	(1.2)	**10.3**	(1.3)
	Norway	11.8	(0.5)	10.9	(0.8)	12.9	(0.8)	13.9	(1.1)	10.1	(0.8)	10.9	(1.0)	12.3	(1.2)
	Poland	20.4	(0.9)	**23.2**	(1.2)	**17.7**	(1.1)	20.2	(1.7)	19.1	(1.4)	22.5	(1.6)	19.5	(1.4)
	Portugal	28.6	(0.9)	29.2	(1.2)	28.1	(1.1)	**31.2**	(1.7)	28.5	(1.5)	30.2	(1.4)	**24.7**	(1.7)
	Slovak Republic	11.8	(0.8)	12.4	(0.9)	11.1	(1.1)	**15.9**	(1.5)	12.6	(1.0)	10.9	(1.3)	**7.8**	(0.9)
	Slovenia	25.6	(0.6)	**27.8**	(1.0)	**23.2**	(1.0)	**28.7**	(1.5)	26.7	(1.5)	25.8	(1.3)	**21.3**	(1.5)
	Spain	32.3	(0.8)	**30.9**	(0.9)	**33.8**	(1.0)	**36.0**	(1.2)	32.7	(1.2)	32.8	(1.2)	**28.0**	(1.3)
	Sweden	20.5	(0.8)	19.7	(1.0)	21.3	(1.1)	**26.1**	(1.3)	20.4	(1.5)	18.4	(1.4)	**16.8**	(1.2)
	Switzerland	10.6	(0.6)	**9.6**	(0.6)	**11.7**	(0.9)	**8.1**	(0.6)	9.5	(1.0)	11.1	(1.1)	**13.6**	(1.2)
	Turkey	45.2	(1.1)	**50.9**	(1.4)	**39.4**	(1.4)	42.8	(1.7)	43.5	(1.8)	46.6	(1.8)	47.7	(1.9)
	United Kingdom	12.0	(0.5)	11.4	(0.6)	12.5	(0.9)	12.8	(0.9)	12.3	(0.8)	10.9	(0.8)	11.9	(1.2)
	United States	12.9	(0.6)	12.6	(0.8)	13.2	(0.9)	**15.8**	(1.3)	15.3	(1.1)	10.5	(1.2)	**10.0**	(0.8)
	OECD average	17.8	(0.1)	**18.2**	(0.2)	**17.3**	(0.2)	**18.8**	(0.2)	17.8	(0.2)	17.7	(0.2)	**16.6**	(0.2)
Partners	**Albania**	19.4	(0.6)	19.1	(0.9)	19.8	(0.8)	m	m	m	m	m	m	m	m
	Argentina	44.3	(1.1)	43.5	(1.4)	45.0	(1.4)	45.1	(2.0)	47.5	(1.9)	43.3	(1.9)	40.7	(1.7)
	Brazil	18.8	(0.5)	**20.9**	(0.7)	**16.8**	(0.4)	**17.8**	(0.7)	17.9	(1.0)	18.8	(0.8)	**20.5**	(1.0)
	Bulgaria	33.8	(1.2)	**36.6**	(1.4)	**30.8**	(1.4)	**40.4**	(1.9)	35.7	(1.9)	33.4	(1.9)	**26.1**	(1.6)
	Colombia	15.7	(0.7)	**19.6**	(1.0)	**12.2**	(0.8)	12.9	(1.2)	14.8	(1.3)	19.8	(1.4)	15.3	(1.3)
	Costa Rica	43.0	(1.4)	**45.7**	(1.5)	**40.7**	(1.7)	42.7	(2.2)	44.5	(1.7)	43.5	(2.0)	41.4	(2.2)
	Croatia	23.6	(0.7)	**27.3**	(1.0)	**19.7**	(0.9)	23.6	(1.1)	23.5	(1.3)	25.1	(1.3)	22.0	(1.3)
	Cyprus*	36.0	(0.7)	**40.5**	(1.0)	**31.4**	(0.9)	**41.1**	(1.3)	35.2	(1.3)	36.2	(1.2)	**31.7**	(1.2)
	Hong Kong-China	3.1	(0.3)	3.4	(0.4)	2.7	(0.3)	3.4	(0.6)	3.3	(0.5)	2.7	(0.5)	2.9	(0.5)
	Indonesia	25.0	(0.9)	**26.8**	(1.2)	**23.1**	(1.2)	23.5	(1.6)	24.6	(1.7)	24.7	(1.4)	27.1	(1.5)
	Jordan	29.7	(0.9)	**31.5**	(0.9)	**27.9**	(1.5)	**24.1**	(1.6)	31.1	(1.5)	31.8	(1.4)	**31.6**	(1.4)
	Kazakhstan	17.5	(0.8)	**19.4**	(1.1)	**15.7**	(1.0)	**21.6**	(1.7)	18.0	(1.4)	16.8	(1.3)	**13.8**	(1.2)
	Latvia	63.2	(1.0)	62.1	(1.3)	64.2	(1.4)	62.9	(2.2)	64.9	(1.5)	61.5	(2.0)	63.9	(1.8)
	Liechtenstein	0.0	c	0.0	c	0.0	c	8.0	(2.6)	1.3	(1.3)	0.0	(0.0)	5.7	(2.7)
	Lithuania	32.7	(1.1)	**36.8**	(1.2)	**28.5**	(1.2)	**38.9**	(2.0)	31.5	(1.7)	32.7	(1.6)	**27.6**	(1.6)
	Macao-China	5.4	(0.4)	6.0	(0.5)	4.8	(0.5)	**5.2**	(0.6)	5.4	(0.7)	3.8	(0.6)	**7.3**	(0.7)
	Malaysia	25.4	(1.0)	**32.6**	(1.3)	**18.7**	(1.2)	**22.3**	(1.4)	24.6	(1.6)	26.9	(1.4)	**27.7**	(1.8)
	Montenegro	32.1	(0.7)	**35.4**	(1.1)	**28.9**	(0.9)	30.6	(1.4)	30.9	(1.4)	32.3	(1.3)	34.5	(1.6)
	Peru	12.0	(0.8)	**15.8**	(1.0)	**8.5**	(0.8)	**14.0**	(1.3)	13.5	(1.1)	11.6	(1.0)	**9.0**	(1.0)
	Qatar	20.3	(0.4)	**22.5**	(0.5)	**18.0**	(0.5)	20.0	(0.7)	21.2	(0.7)	20.7	(0.6)	19.1	(0.7)
	Romania	44.2	(1.3)	**47.0**	(1.5)	**41.5**	(1.3)	47.6	(2.3)	43.3	(1.8)	41.7	(1.9)	44.5	(1.5)
	Russian Federation	30.4	(1.1)	31.2	(1.2)	29.7	(1.2)	**32.7**	(1.5)	30.9	(1.9)	30.9	(1.6)	**26.9**	(1.3)
	Serbia	26.7	(1.0)	**32.0**	(1.3)	**21.5**	(1.1)	26.7	(1.4)	26.4	(1.7)	26.3	(1.4)	27.2	(1.8)
	Shanghai-China	3.4	(0.4)	**4.6**	(0.5)	**2.2**	(0.4)	3.5	(0.6)	3.5	(0.5)	2.5	(0.5)	4.0	(0.6)
	Singapore	12.5	(0.5)	**13.7**	(0.7)	**11.2**	(0.6)	12.3	(0.9)	12.0	(1.0)	12.4	(0.9)	13.2	(1.1)
	Chinese Taipei	9.3	(0.6)	**11.4**	(0.8)	**7.3**	(0.8)	**12.9**	(0.9)	10.7	(1.1)	8.0	(0.8)	**5.8**	(0.6)
	Thailand	26.6	(0.8)	**34.3**	(1.3)	**20.5**	(0.9)	25.3	(1.6)	26.1	(1.4)	27.4	(1.3)	27.6	(1.4)
	Tunisia	25.5	(0.9)	**33.4**	(1.2)	**18.7**	(1.1)	**23.9**	(1.2)	23.9	(1.4)	25.4	(1.7)	**28.6**	(1.8)
	United Arab Emirates	22.8	(0.7)	23.3	(0.9)	22.3	(0.9)	22.5	(1.0)	23.6	(1.1)	23.7	(1.1)	21.4	(0.9)
	Uruguay	23.8	(0.9)	**26.9**	(1.4)	**21.0**	(0.9)	**26.6**	(1.5)	26.1	(1.5)	23.0	(1.5)	**19.3**	(1.5)
	Viet Nam	6.6	(0.5)	**8.2**	(0.6)	**5.2**	(0.6)	6.9	(0.8)	6.0	(0.7)	6.2	(0.7)	7.3	(1.0)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status*.
* See notes at the beginning of this Annex.
StatLink `http://dx.doi.org/10.1787/888932963920`

[Part 3/4]

Table III.2.2a Mathematics performance, by the number of times students skipped some classes in the two weeks prior to the PISA test

Results based on students' self-reports

		Percentage of students who skipped at least a class in the two weeks prior to the PISA test											
		Bottom quarter of ESCS[1] boys		Bottom quarter of ESCS girls		Top quarter of ESCS boys		Top quarter of ESCS girls		Gender gap in the bottom quarter of ESCS		Gender gap in the top quarter of ESCS	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	% dif.	S.E.
OECD	**Australia**	13.6	(1.0)	16.0	(0.9)	11.3	(1.0)	13.6	(1.1)	-2.4	(1.3)	-2.3	(1.2)
	Austria	9.9	(1.4)	12.8	(1.9)	15.1	(1.8)	15.7	(1.8)	-2.9	(2.1)	-0.6	(2.9)
	Belgium	9.2	(1.0)	10.4	(1.2)	7.5	(0.9)	4.5	(0.8)	**-1.2**	(1.7)	**3.0**	(1.1)
	Canada	25.7	(1.2)	29.3	(1.5)	20.4	(1.2)	24.1	(1.4)	-3.6	(1.7)	-3.7	(2.0)
	Chile	21.8	(2.0)	16.1	(1.6)	13.0	(1.4)	15.5	(1.4)	**5.7**	(2.6)	**-2.5**	(1.9)
	Czech Republic	7.5	(1.6)	7.6	(1.4)	6.7	(1.2)	7.9	(1.5)	-0.2	(1.9)	-1.2	(1.7)
	Denmark	16.3	(1.8)	19.5	(1.6)	12.0	(1.6)	16.4	(1.7)	-3.2	(2.5)	-4.4	(2.1)
	Estonia	34.6	(2.2)	28.3	(1.9)	26.9	(1.7)	23.3	(1.8)	6.3	(2.8)	3.6	(2.5)
	Finland	18.8	(2.0)	18.2	(1.1)	11.5	(1.3)	13.9	(1.3)	0.5	(2.2)	-2.4	(1.7)
	France	16.2	(2.0)	20.9	(2.1)	18.0	(1.8)	13.3	(1.6)	**-4.6**	(2.5)	**4.7**	(2.2)
	Germany	8.9	(1.5)	10.0	(1.6)	11.3	(1.4)	11.1	(1.4)	-1.0	(1.9)	0.2	(1.9)
	Greece	41.0	(2.2)	37.5	(2.5)	40.8	(2.3)	35.6	(2.0)	3.5	(2.7)	5.2	(2.7)
	Hungary	15.1	(1.6)	12.3	(1.9)	6.5	(1.3)	6.6	(1.2)	2.8	(2.3)	-0.1	(1.8)
	Iceland	14.5	(2.0)	14.7	(1.6)	7.2	(1.2)	6.1	(1.1)	-0.2	(2.7)	1.1	(1.7)
	Ireland	13.5	(1.7)	11.1	(1.6)	15.0	(1.5)	8.4	(1.3)	2.4	(2.1)	6.7	(2.0)
	Israel	29.0	(2.3)	25.3	(1.9)	37.4	(3.2)	36.5	(2.0)	3.7	(2.6)	0.9	(3.7)
	Italy	36.7	(1.2)	30.9	(1.3)	35.2	(1.1)	31.2	(1.0)	5.8	(1.8)	4.0	(1.5)
	Japan	4.0	(1.2)	4.7	(1.6)	2.5	(0.6)	2.1	(0.6)	-0.6	(0.9)	0.4	(0.9)
	Korea	5.6	(1.3)	3.1	(0.7)	1.8	(0.6)	1.8	(0.5)	2.5	(1.3)	0.0	(0.7)
	Luxembourg	7.9	(1.0)	9.7	(1.0)	8.3	(1.0)	6.3	(0.9)	-1.8	(1.5)	2.0	(1.5)
	Mexico	17.8	(0.8)	12.8	(0.7)	26.8	(1.0)	25.6	(1.2)	**5.0**	(1.0)	**1.2**	(1.4)
	Netherlands	9.2	(1.2)	9.1	(1.5)	15.1	(1.7)	13.4	(1.9)	0.1	(1.9)	1.8	(2.2)
	New Zealand	17.4	(1.6)	24.5	(1.7)	10.9	(1.5)	9.7	(2.0)	**-7.1**	(2.3)	**1.2**	(2.4)
	Norway	13.1	(1.5)	14.7	(1.7)	11.3	(1.4)	13.5	(1.7)	-1.6	(2.2)	-2.2	(2.0)
	Poland	23.8	(2.4)	17.1	(1.9)	20.7	(2.0)	18.4	(1.8)	6.7	(2.8)	2.3	(2.5)
	Portugal	33.7	(2.6)	28.7	(2.5)	23.3	(2.3)	26.3	(1.8)	5.0	(3.7)	-3.0	(2.4)
	Slovak Republic	18.1	(1.8)	13.5	(2.0)	6.7	(1.3)	8.9	(1.3)	**4.6**	(2.4)	**-2.2**	(1.8)
	Slovenia	27.9	(2.1)	29.5	(2.3)	24.8	(2.4)	17.9	(1.6)	**-1.6**	(3.3)	**6.9**	(2.7)
	Spain	33.2	(2.0)	38.8	(1.6)	26.9	(1.8)	29.1	(1.5)	-5.6	(2.7)	-2.2	(2.0)
	Sweden	26.0	(2.1)	26.1	(2.0)	15.4	(1.5)	18.2	(1.9)	-0.2	(3.2)	-2.8	(2.5)
	Switzerland	8.4	(0.8)	7.9	(0.9)	12.7	(1.4)	14.5	(1.5)	0.5	(1.3)	-1.8	(1.6)
	Turkey	50.4	(2.5)	35.6	(2.2)	53.2	(2.4)	42.1	(2.3)	14.8	(3.3)	11.1	(3.0)
	United Kingdom	13.7	(1.3)	12.1	(1.1)	10.1	(1.1)	13.7	(2.1)	1.6	(1.6)	-3.6	(2.4)
	United States	15.0	(1.4)	16.6	(1.9)	10.2	(1.3)	9.7	(1.2)	-1.6	(2.0)	0.5	(1.8)
	OECD average	19.3	(0.3)	18.4	(0.3)	17.0	(0.3)	16.3	(0.3)	0.9	(0.4)	0.6	(0.4)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	42.8	(3.1)	47.0	(2.3)	39.7	(1.9)	41.9	(2.3)	-4.2	(3.5)	-2.2	(2.6)
	Brazil	20.0	(1.4)	16.2	(0.8)	22.3	(1.3)	18.7	(1.1)	3.9	(1.6)	3.6	(1.4)
	Bulgaria	43.3	(2.2)	37.4	(2.6)	30.2	(2.4)	21.9	(1.6)	6.0	(2.9)	8.3	(2.7)
	Colombia	14.9	(1.8)	11.5	(1.4)	18.6	(1.6)	12.0	(2.0)	3.4	(2.2)	6.6	(2.5)
	Costa Rica	47.8	(3.1)	39.5	(2.3)	40.1	(2.5)	42.7	(3.0)	**8.3**	(3.0)	**-2.6**	(3.2)
	Croatia	28.1	(1.7)	19.3	(1.3)	24.8	(2.0)	18.8	(1.5)	8.8	(2.2)	6.0	(2.5)
	Cyprus*	46.6	(2.0)	35.3	(1.9)	34.7	(1.6)	28.8	(1.7)	11.2	(3.0)	5.9	(2.4)
	Hong Kong-China	4.4	(1.1)	2.2	(0.5)	2.9	(0.6)	3.0	(0.9)	2.2	(1.2)	-0.1	(1.2)
	Indonesia	23.6	(1.9)	23.3	(2.3)	29.0	(2.0)	25.1	(1.9)	0.3	(2.8)	3.9	(2.5)
	Jordan	26.6	(1.9)	22.0	(2.4)	33.5	(1.7)	29.4	(2.4)	4.6	(3.0)	4.2	(3.0)
	Kazakhstan	22.8	(2.2)	20.4	(2.5)	16.3	(1.6)	11.4	(1.4)	2.4	(3.3)	4.9	(1.8)
	Latvia	64.5	(2.8)	61.2	(3.2)	58.7	(2.5)	68.7	(1.8)	**3.2**	(3.9)	**-10.0**	(2.5)
	Liechtenstein	12.6	(4.1)	2.8	(2.7)	8.5	(4.5)	2.6	(2.7)	9.7	(4.8)	5.8	(5.3)
	Lithuania	42.9	(2.1)	34.9	(2.7)	31.8	(2.2)	23.2	(1.8)	8.1	(2.9)	8.6	(2.4)
	Macao-China	6.5	(0.9)	3.8	(0.8)	7.1	(1.0)	7.6	(1.1)	2.8	(1.2)	-0.6	(1.5)
	Malaysia	29.7	(2.3)	15.2	(1.6)	35.1	(2.2)	20.8	(2.4)	14.5	(3.0)	14.3	(2.6)
	Montenegro	33.5	(2.2)	28.1	(1.9)	38.8	(2.3)	29.7	(2.2)	5.4	(3.1)	9.1	(3.2)
	Peru	18.7	(1.8)	9.9	(1.5)	11.5	(1.4)	6.7	(1.2)	8.8	(2.0)	4.8	(1.7)
	Qatar	22.4	(1.3)	17.9	(1.1)	20.8	(1.1)	17.4	(0.9)	4.5	(1.9)	3.4	(1.6)
	Romania	49.2	(2.6)	46.1	(2.9)	45.7	(2.2)	43.2	(2.2)	3.1	(3.0)	2.4	(3.0)
	Russian Federation	33.7	(1.8)	31.7	(1.9)	28.0	(1.7)	25.7	(1.7)	2.0	(2.2)	2.3	(2.3)
	Serbia	33.7	(2.1)	20.6	(1.7)	31.2	(2.3)	23.0	(2.0)	13.1	(2.7)	8.1	(2.3)
	Shanghai-China	5.2	(1.0)	1.8	(0.6)	5.0	(1.0)	3.0	(0.6)	3.4	(1.2)	2.1	(1.1)
	Singapore	15.3	(1.4)	9.4	(1.0)	12.9	(1.5)	13.6	(1.3)	**5.9**	(1.7)	**-0.6**	(1.7)
	Chinese Taipei	14.4	(1.4)	11.4	(1.2)	8.0	(1.1)	3.8	(0.7)	3.0	(1.7)	4.2	(1.3)
	Thailand	35.9	(2.4)	17.4	(1.6)	33.2	(2.0)	23.3	(1.6)	**18.4**	(2.4)	**9.9**	(2.1)
	Tunisia	32.0	(2.1)	17.3	(1.7)	34.6	(2.4)	22.6	(1.9)	14.6	(2.8)	12.0	(2.6)
	United Arab Emirates	23.1	(1.3)	22.0	(1.6)	20.8	(1.3)	22.0	(1.4)	1.1	(1.9)	-1.3	(1.9)
	Uruguay	32.8	(2.6)	22.2	(1.7)	19.8	(1.8)	18.7	(1.9)	**10.6**	(3.1)	**1.1**	(2.4)
	Viet Nam	9.5	(1.3)	4.8	(1.0)	8.7	(1.2)	5.9	(1.3)	4.7	(1.5)	2.8	(1.5)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 4/4]

Table III.2.2a Mathematics performance, by the number of times students skipped some classes in the two weeks prior to the PISA test

Results based on students' self-reports

		Mathematics score, by whether students skipped some classes in the two weeks prior to the PISA test													
		All students		Boys		Girls		Bottom quarter of ESCS[1]		Second quarter of ESCS		Third quarter of ESCS		Top quarter of ESCS	
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	**Australia**	481	(3.3)	485	(4.7)	477	(4.2)	**438**	(5.0)	464	(5.7)	499	(5.5)	**536**	(6.2)
	Austria	500	(6.3)	**519**	(9.7)	**485**	(7.4)	**448**	(12.5)	489	(9.7)	514	(11.1)	**535**	(7.9)
	Belgium	449	(5.2)	**461**	(6.7)	**436**	(7.8)	**407**	(8.9)	441	(9.4)	471	(8.1)	**522**	(11.3)
	Canada	499	(2.7)	503	(3.4)	495	(3.3)	**467**	(3.5)	492	(4.0)	511	(4.2)	**536**	(4.2)
	Chile	403	(4.4)	**412**	(5.2)	**394**	(6.1)	**359**	(5.2)	395	(5.9)	406	(7.1)	**464**	(8.5)
	Czech Republic	477	(7.8)	472	(11.1)	481	(10.3)	**418**	(14.3)	470	(11.3)	492	(12.8)	**528**	(12.3)
	Denmark	473	(3.9)	**483**	(6.0)	**464**	(4.2)	**427**	(5.2)	467	(5.5)	495	(5.8)	**514**	(7.3)
	Estonia	499	(3.1)	499	(4.2)	498	(3.5)	**481**	(5.0)	485	(4.7)	499	(4.7)	**539**	(5.4)
	Finland	492	(3.9)	**483**	(6.2)	**501**	(4.0)	**461**	(6.7)	486	(5.8)	505	(6.8)	**531**	(6.4)
	France	476	(4.5)	481	(7.0)	471	(5.7)	**419**	(6.7)	459	(6.8)	496	(7.5)	**548**	(6.6)
	Germany	504	(5.8)	511	(8.3)	498	(7.2)	**446**	(11.0)	488	(12.4)	523	(11.4)	**560**	(7.6)
	Greece	447	(3.1)	451	(4.4)	443	(3.3)	**408**	(5.0)	432	(4.3)	455	(4.8)	**495**	(4.2)
	Hungary	427	(6.8)	434	(7.4)	420	(10.0)	**382**	(9.9)	424	(7.7)	448	(13.4)	**500**	(17.1)
	Iceland	452	(5.1)	454	(7.3)	450	(6.6)	**430**	(8.4)	449	(7.3)	471	(9.7)	**474**	(14.3)
	Ireland	493	(4.6)	500	(6.8)	482	(6.9)	**455**	(7.1)	478	(6.4)	500	(8.0)	**541**	(7.3)
	Israel	477	(6.8)	485	(11.1)	468	(4.9)	**409**	(6.8)	452	(8.2)	497	(8.9)	**527**	(6.9)
	Italy	474	(2.3)	**481**	(2.8)	**464**	(2.8)	**435**	(3.0)	465	(3.0)	483	(3.3)	**512**	(3.5)
	Japan	449	(11.6)	460	(16.0)	439	(12.8)	**396**	(10.8)	459	(15.9)	454	(19.2)	**539**	(19.1)
	Korea	437	(10.5)	436	(13.4)	437	(13.5)	436	(15.0)	433	(19.7)	440	(15.8)	c	c
	Luxembourg	450	(5.0)	**468**	(7.5)	**431**	(7.2)	**402**	(9.5)	438	(9.5)	475	(11.0)	**503**	(9.7)
	Mexico	415	(1.9)	**419**	(2.4)	**410**	(2.2)	**375**	(3.0)	403	(2.8)	416	(2.9)	**446**	(2.8)
	Netherlands	522	(8.7)	535	(8.7)	510	(11.6)	**480**	(9.5)	501	(9.8)	527	(16.8)	**561**	(12.1)
	New Zealand	445	(5.1)	**456**	(7.9)	**435**	(5.9)	**403**	(6.6)	439	(6.8)	466	(8.6)	**518**	(13.8)
	Norway	445	(4.7)	437	(7.0)	452	(5.9)	**414**	(6.3)	438	(8.8)	457	(7.4)	**478**	(8.8)
	Poland	496	(5.1)	498	(5.5)	492	(6.8)	**454**	(6.0)	479	(5.8)	499	(7.5)	**551**	(9.1)
	Portugal	469	(4.1)	472	(5.1)	465	(4.6)	**426**	(5.4)	459	(5.3)	482	(5.7)	**518**	(5.4)
	Slovak Republic	445	(7.4)	439	(7.5)	451	(11.5)	**385**	(8.6)	455	(8.7)	467	(11.3)	**519**	(11.1)
	Slovenia	475	(3.4)	**482**	(4.2)	**467**	(4.9)	**436**	(4.4)	464	(5.4)	487	(5.7)	**529**	(7.4)
	Spain	467	(2.6)	**475**	(3.1)	**459**	(2.9)	**428**	(3.6)	453	(3.4)	482	(4.0)	**516**	(3.3)
	Sweden	446	(4.0)	**436**	(5.2)	**455**	(4.9)	**417**	(4.6)	448	(7.0)	461	(7.6)	**477**	(8.8)
	Switzerland	516	(6.4)	515	(8.8)	517	(6.4)	**454**	(10.3)	487	(10.3)	520	(8.6)	**571**	(7.7)
	Turkey	454	(5.6)	456	(6.1)	451	(6.7)	**414**	(5.1)	439	(4.9)	451	(6.7)	**505**	(8.1)
	United Kingdom	468	(7.2)	469	(7.8)	467	(11.5)	**435**	(8.6)	445	(8.0)	471	(8.4)	**529**	(15.3)
	United States	468	(5.8)	470	(6.3)	466	(7.5)	**440**	(5.8)	446	(7.8)	483	(10.2)	**530**	(9.4)
	OECD average	467	(1.0)	**472**	(1.3)	**463**	(1.2)	**426**	(1.4)	457	(1.4)	480	(1.6)	**520**	(1.7)
Partners	**Albania**	400	(3.9)	403	(5.4)	396	(4.7)	m	m	m	m	m	m	m	m
	Argentina	377	(4.1)	384	(5.3)	372	(4.0)	**343**	(4.3)	366	(4.8)	383	(5.3)	**427**	(4.7)
	Brazil	389	(3.6)	395	(4.2)	383	(3.7)	**350**	(3.3)	374	(4.0)	390	(4.9)	**437**	(8.1)
	Bulgaria	414	(4.2)	411	(4.8)	418	(4.9)	**372**	(6.0)	404	(4.6)	429	(5.5)	**474**	(6.5)
	Colombia	375	(3.7)	**384**	(4.3)	**364**	(5.2)	**336**	(6.6)	364	(5.1)	380	(5.5)	**414**	(6.6)
	Costa Rica	408	(3.7)	**419**	(4.5)	**397**	(3.6)	**374**	(5.2)	395	(4.3)	413	(4.4)	**450**	(5.0)
	Croatia	445	(3.4)	447	(4.6)	441	(4.6)	**413**	(5.3)	427	(5.5)	446	(5.3)	**495**	(5.9)
	Cyprus*	423	(1.9)	**420**	(2.7)	**426**	(2.7)	**389**	(3.5)	410	(4.4)	427	(4.1)	**477**	(5.2)
	Hong Kong-China	491	(11.3)	495	(14.5)	484	(14.8)	**448**	(18.0)	488	(15.3)	497	(24.0)	**541**	(17.8)
	Indonesia	362	(5.3)	361	(5.2)	364	(7.0)	**339**	(4.5)	344	(6.3)	366	(7.6)	**394**	(9.9)
	Jordan	392	(4.3)	**384**	(5.9)	**401**	(5.0)	**360**	(4.6)	376	(4.0)	401	(4.9)	**426**	(10.4)
	Kazakhstan	413	(4.0)	415	(5.1)	412	(5.2)	**388**	(4.9)	412	(6.7)	418	(5.4)	**449**	(8.3)
	Latvia	489	(3.1)	485	(4.0)	493	(3.5)	**447**	(3.4)	470	(4.6)	507	(4.1)	**533**	(5.3)
	Liechtenstein	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Lithuania	456	(4.2)	457	(4.9)	454	(4.6)	**416**	(5.0)	442	(5.5)	472	(5.6)	**509**	(6.6)
	Macao-China	517	(5.6)	515	(7.7)	520	(7.7)	**491**	(10.5)	505	(9.4)	526	(13.4)	**542**	(11.1)
	Malaysia	411	(5.2)	405	(6.0)	420	(6.8)	**374**	(5.6)	389	(5.8)	408	(6.3)	**463**	(8.5)
	Montenegro	406	(2.6)	406	(3.6)	406	(3.4)	**370**	(4.0)	388	(5.4)	411	(4.5)	**449**	(4.6)
	Peru	334	(4.8)	**341**	(5.3)	**321**	(5.7)	**301**	(8.4)	330	(6.2)	346	(7.1)	**374**	(7.8)
	Qatar	353	(2.1)	**346**	(3.0)	**363**	(2.8)	**322**	(3.6)	347	(4.0)	375	(5.1)	**377**	(4.8)
	Romania	439	(4.2)	441	(4.6)	437	(4.9)	**402**	(4.6)	421	(4.5)	438	(4.2)	**495**	(6.8)
	Russian Federation	468	(3.5)	467	(4.1)	468	(4.5)	**428**	(5.6)	453	(4.0)	488	(4.4)	**509**	(6.4)
	Serbia	434	(4.7)	436	(5.8)	431	(5.6)	**403**	(5.1)	418	(6.0)	432	(5.6)	**483**	(7.6)
	Shanghai-China	584	(14.2)	574	(14.2)	604	(24.4)	**562**	(20.4)	559	(21.7)	568	(28.3)	**634**	(19.1)
	Singapore	572	(4.2)	**564**	(6.2)	**582**	(5.8)	**511**	(8.4)	548	(9.1)	598	(8.0)	**627**	(6.5)
	Chinese Taipei	481	(6.3)	488	(9.1)	471	(7.1)	**428**	(8.2)	494	(9.0)	502	(11.1)	**547**	(13.4)
	Thailand	414	(3.9)	**407**	(4.3)	**423**	(5.8)	**388**	(6.3)	400	(4.7)	411	(4.3)	**453**	(8.6)
	Tunisia	388	(4.5)	392	(5.4)	382	(5.7)	**366**	(5.7)	371	(5.3)	388	(6.8)	**422**	(8.9)
	United Arab Emirates	428	(3.8)	424	(5.7)	432	(4.7)	**385**	(4.0)	423	(4.5)	446	(6.4)	**461**	(7.0)
	Uruguay	396	(4.0)	401	(5.1)	390	(5.0)	**359**	(5.0)	379	(5.2)	403	(6.5)	**463**	(8.8)
	Viet Nam	485	(7.6)	484	(8.7)	486	(9.4)	**443**	(15.0)	475	(12.0)	488	(10.7)	**527**	(9.6)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/4]

Table III.2.2b Mathematics performance, by the number of times students skipped a day of school in the two weeks prior to the PISA test

Results based on students' self-reports

		Percentage of students, by the number of times students skipped a day of school in the two weeks prior to the PISA test								Mathematics score, by the number of times students skipped a day of school in the two weeks prior to the PISA test							
		None		One or two times		Three or four times		Five times or more		None		One or two times		Three or four times		Five times or more	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	Australia	68.2	(0.6)	25.7	(0.5)	4.3	(0.2)	1.8	(0.1)	**519**	(1.9)	482	(2.1)	461	(4.3)	**448**	(7.1)
	Austria	92.0	(0.5)	7.1	(0.5)	0.0	c	0.0	c	508	(2.6)	482	(6.1)	c	c	c	c
	Belgium	94.4	(0.4)	4.2	(0.3)	0.7	(0.1)	0.6	(0.1)	**520**	(2.0)	442	(7.6)	415	(13.0)	**390**	(13.5)
	Canada	77.9	(0.6)	18.9	(0.4)	2.3	(0.2)	0.9	(0.1)	**527**	(1.9)	498	(3.0)	489	(7.1)	**462**	(8.5)
	Chile	92.3	(0.5)	6.5	(0.5)	0.8	(0.1)	0.5	(0.1)	**427**	(3.0)	384	(5.7)	362	(13.2)	**361**	(15.2)
	Czech Republic	94.1	(0.5)	4.1	(0.4)	0.7	(0.1)	1.1	(0.2)	**502**	(2.8)	457	(9.8)	443	(25.0)	**433**	(22.0)
	Denmark	90.4	(0.6)	7.8	(0.5)	1.3	(0.2)	0.6	(0.1)	**505**	(2.0)	468	(5.6)	435	(10.7)	**409**	(17.5)
	Estonia	84.7	(0.7)	11.9	(0.6)	2.0	(0.2)	1.4	(0.2)	**529**	(2.0)	484	(4.2)	461	(11.2)	**453**	(12.9)
	Finland	89.6	(0.5)	8.9	(0.4)	0.8	(0.1)	0.7	(0.2)	**525**	(2.0)	482	(4.0)	496	(13.3)	**404**	(24.8)
	France	90.5	(0.6)	7.3	(0.5)	1.1	(0.2)	1.0	(0.2)	**502**	(2.5)	453	(5.3)	414	(15.2)	**396**	(17.6)
	Germany	94.9	(0.4)	4.2	(0.3)	0.0	c	0.0	c	520	(2.9)	474	(9.7)	c	c	c	c
	Greece	78.3	(0.8)	16.7	(0.7)	3.0	(0.3)	2.0	(0.2)	**460**	(2.5)	441	(3.9)	401	(9.1)	**378**	(8.9)
	Hungary	93.2	(0.5)	5.5	(0.5)	0.8	(0.1)	0.0	c	484	(3.2)	405	(6.5)	366	(13.4)	c	c
	Iceland	97.9	(0.2)	1.7	(0.2)	0.0	c	0.0	c	495	(1.7)	444	(11.9)	c	c	c	c
	Ireland	96.0	(0.3)	3.3	(0.3)	0.0	c	0.0	c	503	(2.2)	480	(8.4)	c	c	c	c
	Israel	69.5	(0.7)	25.0	(0.7)	3.4	(0.3)	2.2	(0.2)	**476**	(4.8)	460	(5.0)	415	(9.4)	**397**	(12.1)
	Italy	51.8	(0.5)	41.3	(0.5)	4.6	(0.2)	2.2	(0.1)	**502**	(2.3)	475	(2.1)	443	(4.5)	**407**	(6.1)
	Japan	98.5	(0.2)	1.3	(0.2)	0.0	c	0.0	c	539	(3.6)	461	(14.2)	c	c	c	c
	Korea	98.2	(0.3)	1.3	(0.2)	0.0	c	0.0	c	556	(4.4)	433	(12.2)	c	c	c	c
	Luxembourg	93.0	(0.3)	5.3	(0.3)	0.7	(0.1)	1.0	(0.1)	**495**	(1.1)	432	(5.5)	436	(16.1)	**433**	(15.6)
	Mexico	79.1	(0.5)	18.7	(0.4)	1.6	(0.1)	0.6	(0.1)	**419**	(1.4)	395	(2.1)	372	(4.7)	**373**	(9.2)
	Netherlands	97.3	(0.2)	2.2	(0.2)	0.0	c	0.0	c	526	(3.4)	455	(13.4)	c	c	c	c
	New Zealand	82.9	(0.6)	12.9	(0.5)	2.6	(0.3)	1.5	(0.2)	**515**	(2.2)	439	(3.4)	417	(8.3)	**401**	(12.3)
	Norway	92.9	(0.4)	5.9	(0.4)	0.0	c	0.0	c	496	(2.7)	436	(6.8)	c	c	c	c
	Poland	84.1	(0.8)	13.3	(0.8)	1.6	(0.2)	1.1	(0.2)	**524**	(3.6)	490	(5.0)	473	(10.4)	**446**	(13.9)
	Portugal	80.7	(0.7)	15.2	(0.7)	2.4	(0.3)	1.7	(0.2)	**497**	(3.7)	459	(5.1)	439	(10.6)	**424**	(16.1)
	Slovak Republic	90.6	(0.5)	7.3	(0.4)	1.4	(0.2)	0.7	(0.2)	**488**	(3.3)	444	(6.9)	391	(16.7)	**388**	(27.4)
	Slovenia	85.8	(0.5)	10.8	(0.5)	2.0	(0.2)	1.4	(0.1)	**512**	(1.2)	448	(4.4)	437	(11.4)	**404**	(7.8)
	Spain	72.0	(0.9)	24.2	(0.7)	2.6	(0.2)	1.2	(0.1)	**498**	(1.7)	459	(2.8)	425	(6.7)	**405**	(7.8)
	Sweden	92.8	(0.4)	5.8	(0.4)	0.8	(0.1)	0.0	c	485	(2.1)	423	(7.0)	409	(14.4)	c	c
	Switzerland	95.0	(0.3)	4.3	(0.3)	0.4	(0.1)	0.3	(0.1)	**534**	(3.1)	474	(6.7)	471	(27.9)	**456**	(25.3)
	Turkey	45.8	(1.0)	33.7	(1.0)	12.7	(0.6)	7.8	(0.4)	**445**	(5.8)	443	(4.6)	462	(5.7)	**472**	(7.6)
	United Kingdom	82.1	(0.6)	15.2	(0.5)	1.9	(0.2)	0.8	(0.1)	**502**	(3.5)	469	(4.0)	440	(9.4)	**425**	(14.6)
	United States	78.9	(0.8)	17.9	(0.7)	2.4	(0.3)	0.8	(0.1)	**488**	(3.7)	467	(4.1)	434	(11.0)	**401**	(14.7)
	OECD average	85.5	(0.1)	11.6	(0.1)	1.7	(0.0)	1.0	(0.0)	**501**	(0.5)	454	(1.2)	431	(2.5)	**415**	(3.1)
Partners	Albania	85.3	(0.6)	12.0	(0.6)	2.0	(0.3)	0.7	(0.1)	392	(2.3)	403	(5.1)	396	(10.9)	406	(16.3)
	Argentina	41.9	(1.0)	41.9	(0.8)	8.7	(0.6)	7.6	(0.4)	**404**	(3.6)	391	(3.8)	360	(5.0)	**333**	(5.5)
	Brazil	79.7	(0.5)	16.6	(0.4)	2.3	(0.2)	1.4	(0.1)	**394**	(2.2)	389	(2.9)	364	(6.1)	**357**	(5.6)
	Bulgaria	74.8	(1.2)	18.0	(0.8)	3.9	(0.4)	3.2	(0.4)	**456**	(4.0)	399	(4.6)	370	(7.3)	**372**	(7.8)
	Colombia	95.6	(0.4)	4.1	(0.4)	0.0	c	0.0	c	378	(2.9)	354	(6.7)	c	c	c	c
	Costa Rica	68.5	(1.0)	25.1	(0.9)	4.0	(0.4)	2.4	(0.3)	**413**	(3.0)	398	(4.5)	385	(7.0)	**385**	(7.6)
	Croatia	87.3	(0.6)	9.4	(0.4)	1.7	(0.2)	1.6	(0.2)	**481**	(3.7)	415	(3.8)	394	(10.6)	**373**	(9.2)
	Cyprus*	77.3	(0.6)	16.0	(0.6)	3.8	(0.3)	2.9	(0.2)	**450**	(1.4)	425	(3.1)	390	(7.2)	**375**	(9.1)
	Hong Kong-China	96.0	(0.3)	3.4	(0.3)	0.0	c	0.0	c	566	(3.1)	499	(10.9)	c	c	c	c
	Indonesia	88.0	(0.7)	10.0	(0.6)	1.4	(0.2)	0.6	(0.1)	**378**	(4.1)	358	(6.3)	353	(9.5)	**328**	(16.6)
	Jordan	56.6	(0.9)	36.6	(0.8)	4.6	(0.3)	2.1	(0.2)	**397**	(3.5)	382	(2.9)	357	(6.2)	**332**	(6.2)
	Kazakhstan	80.3	(0.9)	17.2	(0.8)	1.8	(0.2)	0.8	(0.1)	**437**	(3.2)	413	(3.5)	393	(9.6)	**389**	(11.9)
	Latvia	77.3	(0.8)	18.2	(0.7)	2.7	(0.3)	1.8	(0.2)	**503**	(2.9)	457	(4.3)	429	(6.8)	**413**	(13.2)
	Liechtenstein	98.0	(0.8)	0.0	c	0.0	c	0.0	c	535	(4.0)	c	c	c	c	c	c
	Lithuania	81.0	(0.9)	16.1	(0.8)	1.8	(0.2)	1.1	(0.2)	**491**	(2.6)	434	(4.6)	407	(9.2)	**391**	(14.1)
	Macao-China	95.1	(0.3)	4.3	(0.3)	0.0	c	0.0	c	543	(1.0)	472	(6.7)	c	c	c	c
	Malaysia	71.6	(1.2)	22.0	(0.9)	4.1	(0.4)	2.3	(0.3)	**430**	(3.2)	401	(3.9)	383	(7.9)	**379**	(8.9)
	Montenegro	75.3	(0.8)	18.4	(0.7)	3.3	(0.3)	2.9	(0.3)	**418**	(1.3)	392	(2.7)	385	(8.0)	**359**	(8.6)
	Peru	85.8	(0.8)	11.3	(0.6)	2.2	(0.3)	0.7	(0.1)	**374**	(3.9)	336	(3.7)	326	(10.4)	**311**	(15.4)
	Qatar	83.6	(0.4)	12.7	(0.4)	2.4	(0.1)	1.3	(0.1)	**379**	(1.0)	382	(2.9)	328	(6.8)	**328**	(9.2)
	Romania	65.7	(1.1)	25.9	(0.8)	4.7	(0.4)	3.6	(0.4)	**456**	(3.9)	425	(4.3)	430	(7.3)	**413**	(8.4)
	Russian Federation	78.7	(0.7)	15.7	(0.6)	3.1	(0.3)	2.5	(0.2)	**491**	(3.0)	459	(4.3)	429	(10.0)	**410**	(8.9)
	Serbia	87.1	(0.7)	10.3	(0.6)	1.5	(0.2)	1.2	(0.2)	**455**	(3.3)	417	(6.4)	397	(13.0)	**377**	(14.0)
	Shanghai-China	99.3	(0.1)	0.6	(0.1)	0.0	c	0.0	c	614	(3.2)	532	(24.9)	c	c	c	c
	Singapore	85.5	(0.4)	12.5	(0.4)	1.5	(0.2)	0.5	(0.1)	**580**	(1.4)	540	(4.6)	506	(11.6)	**486**	(21.7)
	Chinese Taipei	95.7	(0.3)	3.2	(0.2)	0.6	(0.1)	0.6	(0.1)	**566**	(3.2)	441	(8.7)	414	(25.3)	**402**	(18.3)
	Thailand	81.8	(0.7)	14.2	(0.6)	2.4	(0.3)	1.5	(0.2)	**433**	(3.5)	404	(4.5)	375	(7.9)	**365**	(9.2)
	Tunisia	79.3	(1.0)	16.3	(0.7)	2.4	(0.3)	2.0	(0.3)	**395**	(4.2)	366	(4.3)	359	(8.5)	**363**	(9.8)
	United Arab Emirates	60.8	(0.8)	31.6	(0.7)	5.4	(0.2)	2.1	(0.2)	**449**	(2.7)	418	(2.6)	398	(4.4)	**371**	(7.2)
	Uruguay	76.4	(0.9)	18.4	(0.7)	3.0	(0.3)	2.2	(0.2)	**418**	(3.0)	394	(3.7)	368	(8.2)	**347**	(10.0)
	Viet Nam	90.8	(0.8)	7.9	(0.6)	1.0	(0.2)	0.0	c	518	(4.7)	451	(7.4)	436	(13.2)	c	c

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status*.
* See notes at the beginning of this Annex.
StatLink `http://dx.doi.org/10.1787/888932963920`

[Part 2/4]

Table III.2.2b Mathematics performance, by the number of times students skipped a day of school in the two weeks prior to the PISA test

Results based on students' self-reports

		Percentage of students who skipped a day of school in the two weeks prior to the PISA test													
		All students		Boys		Girls		Bottom quarter of ESCS¹		Second quarter of ESCS		Third quarter of ESCS		Top quarter of ESCS	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	31.8	(0.6)	**29.0**	(0.7)	**34.7**	(0.8)	**39.5**	(1.2)	33.4	(0.9)	28.8	(0.9)	**25.3**	(1.0)
	Austria	8.0	(0.5)	7.4	(0.7)	8.6	(0.7)	10.3	(1.2)	8.1	(0.8)	6.5	(0.8)	7.4	(0.9)
	Belgium	5.6	(0.4)	**6.4**	(0.4)	**4.8**	(0.5)	**7.8**	(0.8)	6.5	(0.9)	4.3	(0.5)	**3.2**	(0.4)
	Canada	22.1	(0.6)	**20.2**	(0.7)	**24.0**	(0.7)	**25.2**	(0.9)	22.0	(1.0)	21.9	(0.9)	**19.4**	(0.9)
	Chile	7.7	(0.5)	8.1	(0.8)	7.4	(0.7)	**10.1**	(1.2)	9.1	(1.1)	7.0	(0.8)	**4.8**	(0.5)
	Czech Republic	5.9	(0.5)	6.5	(0.6)	5.2	(0.7)	8.5	(1.4)	4.7	(0.8)	4.7	(0.7)	5.6	(0.7)
	Denmark	9.6	(0.6)	8.9	(0.7)	10.3	(0.8)	**13.9**	(1.0)	9.8	(1.2)	8.0	(0.7)	**6.7**	(0.7)
	Estonia	15.3	(0.7)	16.1	(1.0)	14.4	(0.8)	**15.6**	(1.2)	18.5	(1.2)	15.8	(1.2)	**11.1**	(0.9)
	Finland	10.4	(0.5)	9.9	(0.7)	10.9	(0.6)	**13.8**	(1.1)	11.1	(0.9)	9.7	(0.9)	**6.9**	(0.9)
	France	9.5	(0.6)	10.3	(0.8)	8.7	(0.7)	**14.1**	(1.2)	9.7	(1.0)	9.0	(1.0)	**5.0**	(0.7)
	Germany	5.1	(0.4)	5.1	(0.5)	5.1	(0.5)	**6.8**	(1.0)	5.5	(0.7)	3.6	(0.7)	**4.0**	(0.6)
	Greece	21.7	(0.8)	**25.6**	(1.2)	**17.9**	(1.0)	**22.4**	(1.5)	23.3	(1.5)	22.7	(1.2)	**18.3**	(1.3)
	Hungary	6.8	(0.5)	7.1	(0.8)	6.4	(0.6)	**10.7**	(1.3)	7.2	(0.9)	5.4	(1.1)	**3.6**	(0.6)
	Iceland	2.1	(0.2)	2.3	(0.4)	1.8	(0.3)	**2.9**	(0.6)	2.3	(0.5)	1.8	(0.4)	**1.2**	(0.4)
	Ireland	4.0	(0.3)	**5.2**	(0.6)	**2.8**	(0.4)	**5.0**	(0.7)	4.9	(0.7)	3.1	(0.6)	**2.8**	(0.5)
	Israel	30.5	(0.7)	29.1	(1.1)	31.9	(1.0)	**34.2**	(1.3)	32.1	(1.3)	28.5	(1.6)	**27.3**	(1.4)
	Italy	48.2	(0.5)	48.9	(0.6)	47.4	(0.7)	**53.7**	(0.9)	48.7	(0.9)	46.3	(0.9)	**43.9**	(0.9)
	Japan	1.5	(0.2)	1.9	(0.3)	1.2	(0.3)	**2.8**	(0.6)	0.8	(0.3)	1.2	(0.3)	**1.2**	(0.3)
	Korea	1.8	(0.3)	2.1	(0.4)	1.5	(0.2)	**3.0**	(0.5)	1.5	(0.3)	1.6	(0.3)	**1.1**	(0.4)
	Luxembourg	7.0	(0.3)	6.6	(0.4)	7.5	(0.5)	**10.5**	(0.8)	7.7	(0.9)	4.7	(0.6)	**5.1**	(0.5)
	Mexico	20.9	(0.5)	21.5	(0.6)	20.3	(0.6)	18.4	(0.8)	21.9	(0.9)	23.5	(0.7)	19.7	(0.9)
	Netherlands	2.7	(0.2)	2.2	(0.3)	3.1	(0.4)	**3.9**	(0.6)	2.4	(0.4)	2.3	(0.5)	**2.1**	(0.5)
	New Zealand	17.1	(0.6)	16.7	(0.9)	17.4	(0.9)	**28.3**	(1.4)	17.5	(1.0)	13.0	(1.2)	**9.0**	(1.0)
	Norway	7.1	(0.4)	6.9	(0.6)	7.3	(0.6)	8.7	(1.0)	6.3	(0.7)	5.6	(0.7)	7.5	(0.9)
	Poland	15.9	(0.8)	**17.6**	(1.1)	**14.2**	(0.9)	**20.1**	(1.5)	13.7	(1.2)	17.1	(1.3)	**12.6**	(1.1)
	Portugal	19.3	(0.7)	18.9	(1.2)	19.8	(0.9)	**23.3**	(1.4)	19.0	(1.4)	19.0	(1.2)	**15.9**	(1.4)
	Slovak Republic	9.4	(0.5)	10.1	(0.7)	8.7	(0.7)	**14.1**	(1.3)	8.9	(1.0)	8.4	(1.0)	**6.4**	(0.8)
	Slovenia	14.2	(0.5)	15.1	(0.7)	13.2	(0.8)	**16.9**	(1.1)	17.5	(1.2)	12.8	(1.1)	**9.4**	(0.9)
	Spain	28.0	(0.9)	**26.6**	(0.9)	**29.5**	(1.0)	**36.9**	(1.4)	30.1	(1.4)	26.1	(1.2)	**19.1**	(0.8)
	Sweden	7.2	(0.4)	7.1	(0.6)	7.2	(0.6)	**11.1**	(0.9)	6.9	(0.7)	6.1	(0.8)	**4.3**	(0.6)
	Switzerland	5.0	(0.3)	5.6	(0.5)	4.4	(0.4)	6.0	(0.7)	3.9	(0.5)	5.3	(0.7)	4.6	(0.5)
	Turkey	54.2	(1.0)	**56.8**	(1.2)	**51.6**	(1.4)	**49.8**	(1.5)	51.8	(1.5)	57.0	(1.5)	**57.9**	(2.1)
	United Kingdom	17.9	(0.6)	**16.2**	(0.8)	**19.5**	(0.9)	**21.6**	(1.1)	20.8	(1.1)	15.8	(1.0)	**13.4**	(1.1)
	United States	21.1	(0.8)	**19.7**	(0.8)	**22.5**	(1.1)	**27.3**	(1.5)	24.1	(1.3)	18.7	(1.2)	**14.2**	(1.0)
	OECD average	14.5	(0.1)	14.6	(0.1)	14.5	(0.1)	**17.6**	(0.2)	15.1	(0.2)	13.7	(0.2)	**11.8**	(0.2)
Partners	Albania	14.7	(0.6)	15.0	(1.0)	14.4	(0.8)	m	m	m	m	m	m	m	m
	Argentina	58.1	(1.0)	57.6	(1.3)	58.6	(1.3)	58.9	(2.2)	60.8	(1.6)	57.1	(1.4)	55.3	(1.4)
	Brazil	20.3	(0.5)	20.7	(0.7)	19.9	(0.6)	21.6	(0.9)	19.2	(0.9)	20.1	(0.7)	20.1	(0.9)
	Bulgaria	25.2	(1.2)	**27.7**	(1.4)	**22.4**	(1.3)	**34.2**	(2.0)	27.6	(1.8)	23.6	(1.6)	**15.4**	(1.2)
	Colombia	4.4	(0.4)	**5.5**	(0.6)	**3.5**	(0.4)	4.0	(0.6)	5.1	(0.7)	4.7	(0.8)	3.9	(0.6)
	Costa Rica	31.5	(1.0)	**28.6**	(1.2)	**34.0**	(1.3)	33.9	(1.9)	32.8	(1.4)	29.8	(1.5)	29.3	(1.6)
	Croatia	12.7	(0.6)	**16.0**	(0.8)	**9.3**	(0.7)	**14.7**	(1.0)	12.9	(1.1)	12.8	(1.1)	**10.1**	(0.9)
	Cyprus*	22.7	(0.6)	**28.5**	(1.0)	**16.8**	(0.8)	24.5	(1.1)	22.7	(1.2)	22.2	(1.0)	21.2	(1.3)
	Hong Kong-China	4.0	(0.3)	3.7	(0.4)	4.3	(0.6)	3.9	(0.6)	4.3	(0.6)	3.6	(0.6)	4.1	(0.8)
	Indonesia	12.0	(0.7)	**15.8**	(1.0)	**8.1**	(0.7)	12.5	(1.6)	11.8	(1.1)	12.6	(1.2)	11.0	(1.1)
	Jordan	43.4	(0.9)	43.1	(1.2)	43.6	(1.2)	**46.4**	(1.5)	42.9	(1.4)	42.8	(1.4)	**40.7**	(1.6)
	Kazakhstan	19.7	(0.9)	**22.1**	(1.1)	**17.3**	(1.1)	**26.9**	(1.6)	19.4	(1.4)	17.9	(1.3)	**14.6**	(1.2)
	Latvia	22.7	(0.8)	24.0	(1.2)	21.4	(1.1)	**30.5**	(2.0)	24.5	(1.8)	19.4	(1.4)	**16.6**	(1.2)
	Liechtenstein	0.0	c	0.0	c	0.0	c	4.4	(2.6)	1.3	(1.3)	0.0	(0.0)	2.5	(1.8)
	Lithuania	19.0	(0.9)	**22.2**	(1.1)	**15.8**	(1.0)	**26.9**	(1.6)	19.1	(1.3)	15.9	(1.3)	**14.2**	(1.1)
	Macao-China	4.9	(0.3)	5.4	(0.4)	4.3	(0.5)	5.0	(0.5)	5.3	(0.7)	4.1	(0.6)	5.0	(0.6)
	Malaysia	28.4	(1.2)	**31.0**	(1.5)	**26.1**	(1.3)	**32.7**	(2.0)	28.3	(1.7)	27.6	(1.8)	**25.2**	(1.8)
	Montenegro	24.7	(0.8)	**30.2**	(1.2)	**19.2**	(0.8)	26.0	(1.3)	23.8	(1.2)	25.5	(1.5)	23.4	(1.3)
	Peru	14.2	(0.8)	**18.6**	(0.9)	**10.1**	(0.8)	**17.3**	(1.5)	16.6	(1.2)	13.5	(1.1)	**9.4**	(0.8)
	Qatar	16.4	(0.4)	**17.5**	(0.5)	**15.1**	(0.5)	**12.9**	(0.7)	16.6	(0.7)	17.4	(0.8)	**17.7**	(0.7)
	Romania	34.3	(1.1)	34.7	(1.4)	33.9	(1.2)	**42.7**	(1.9)	33.3	(1.6)	31.4	(1.7)	**30.1**	(1.6)
	Russian Federation	21.3	(0.7)	21.4	(1.0)	21.3	(0.9)	**27.4**	(1.7)	22.6	(1.1)	19.7	(1.2)	**15.6**	(1.2)
	Serbia	12.9	(0.7)	**17.4**	(1.2)	**8.4**	(0.6)	12.8	(1.1)	13.9	(1.2)	13.9	(1.2)	10.9	(1.2)
	Shanghai-China	0.7	(0.1)	1.3	(0.2)	0.0	c	0.8	(0.2)	0.5	(0.2)	0.9	(0.3)	0.7	(0.2)
	Singapore	14.5	(0.4)	14.9	(0.7)	14.1	(0.7)	**17.5**	(0.9)	16.3	(1.1)	11.9	(1.0)	**12.3**	(0.8)
	Chinese Taipei	4.3	(0.3)	**5.6**	(0.5)	**3.1**	(0.4)	**8.0**	(0.7)	3.6	(0.5)	3.4	(0.6)	**2.4**	(0.4)
	Thailand	18.2	(0.7)	**23.9**	(1.1)	**13.7**	(0.8)	18.1	(1.3)	19.1	(1.1)	18.9	(1.2)	16.1	(1.2)
	Tunisia	20.7	(1.0)	**28.5**	(1.4)	**13.9**	(0.9)	22.4	(1.4)	19.2	(1.3)	21.4	(1.6)	19.3	(1.7)
	United Arab Emirates	39.2	(0.8)	**37.1**	(1.0)	**41.1**	(1.1)	**43.2**	(1.4)	39.3	(1.3)	38.0	(1.2)	**36.0**	(1.4)
	Uruguay	23.6	(0.9)	**26.5**	(1.2)	**21.0**	(1.0)	**28.7**	(1.6)	28.1	(1.6)	22.7	(1.2)	**14.5**	(1.1)
	Viet Nam	9.2	(0.8)	**12.8**	(1.0)	**6.0**	(0.7)	**14.5**	(1.5)	9.1	(1.0)	7.5	(0.9)	**5.8**	(1.0)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 3/4]

Table III.2.2b **Mathematics performance, by the number of times students skipped a day of school in the two weeks prior to the PISA test**

Results based on students' self-reports

		Percentage of students who skipped a day of school in the two weeks prior to the PISA test										
		Bottom quarter of ESCS[1] boys		Bottom quarter of ESCS girls		Top quarter of ESCS boys		Top quarter of ESCS girls		Gender gap in the bottom quarter of ESCS		Gender gap in the top quarter of ESCS	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	% dif.	S.E.
OECD	Australia	36.9	(1.4)	42.2	(1.4)	22.1	(1.4)	28.8	(1.4)	**-5.2**	(1.5)	**-6.8**	(1.9)
	Austria	10.6	(2.0)	9.9	(1.4)	5.7	(1.0)	9.0	(1.3)	0.8	(2.5)	**-3.3**	(1.5)
	Belgium	8.2	(1.0)	7.5	(1.2)	3.8	(0.6)	2.6	(0.6)	0.8	(1.4)	1.2	(0.9)
	Canada	23.0	(1.2)	27.2	(1.2)	16.7	(1.2)	22.0	(1.4)	**-4.2**	(1.6)	**-5.3**	(1.8)
	Chile	11.0	(1.8)	9.3	(1.3)	4.9	(0.8)	4.7	(0.8)	1.7	(1.8)	0.2	(1.2)
	Czech Republic	10.0	(1.6)	7.0	(2.3)	6.4	(1.1)	4.8	(1.1)	2.9	(2.7)	1.6	(1.5)
	Denmark	12.7	(1.3)	15.0	(1.7)	6.5	(1.0)	7.0	(0.9)	-2.4	(2.3)	-0.5	(1.3)
	Estonia	15.9	(1.8)	15.4	(1.6)	11.4	(1.2)	10.7	(1.2)	0.6	(2.3)	0.7	(1.6)
	Finland	13.8	(1.7)	13.8	(1.1)	7.0	(1.0)	6.7	(1.0)	-0.1	(2.0)	0.3	(1.0)
	France	13.6	(1.6)	14.6	(1.7)	6.8	(1.3)	3.2	(0.7)	-0.9	(2.4)	**3.6**	(1.4)
	Germany	6.1	(1.2)	7.5	(1.2)	4.2	(0.8)	3.7	(0.8)	-1.3	(1.3)	0.6	(1.3)
	Greece	27.6	(2.3)	17.5	(1.6)	22.2	(1.9)	14.5	(1.8)	**10.0**	(2.8)	**7.6**	(2.6)
	Hungary	9.5	(1.6)	11.8	(2.0)	4.1	(1.0)	3.1	(0.8)	-2.3	(2.5)	1.0	(1.2)
	Iceland	3.2	(1.0)	2.7	(0.7)	1.3	(0.5)	1.0	(0.5)	0.6	(1.1)	0.4	(0.7)
	Ireland	5.8	(1.1)	4.2	(0.9)	3.6	(0.8)	1.8	(0.5)	1.6	(1.3)	1.8	(1.0)
	Israel	33.1	(2.4)	35.0	(1.4)	24.1	(2.0)	30.9	(1.9)	-1.8	(2.9)	**-6.8**	(2.7)
	Italy	54.0	(1.1)	53.4	(1.3)	44.6	(1.3)	43.1	(1.2)	0.6	(1.6)	1.5	(1.7)
	Japan	3.1	(0.8)	2.4	(0.8)	1.7	(0.5)	0.6	(0.3)	0.7	(0.9)	1.1	(0.6)
	Korea	4.0	(0.9)	2.0	(0.5)	1.6	(0.6)	0.5	(0.3)	1.9	(1.0)	1.1	(0.6)
	Luxembourg	9.5	(1.1)	11.4	(1.2)	5.1	(0.8)	5.1	(0.7)	-2.0	(1.7)	0.1	(1.1)
	Mexico	19.4	(1.2)	17.5	(0.8)	20.5	(1.0)	18.9	(1.2)	2.0	(1.2)	1.6	(1.4)
	Netherlands	3.3	(0.8)	4.4	(1.0)	1.3	(0.4)	2.9	(1.0)	-1.1	(1.3)	-1.6	(1.2)
	New Zealand	28.6	(1.8)	28.0	(2.3)	8.0	(1.3)	9.9	(1.2)	0.7	(3.0)	-1.9	(1.6)
	Norway	8.5	(1.3)	9.0	(1.3)	7.2	(1.1)	7.7	(1.2)	-0.5	(1.8)	-0.5	(1.4)
	Poland	21.4	(2.2)	18.9	(1.9)	13.7	(1.5)	11.6	(1.5)	2.5	(2.7)	2.1	(2.1)
	Portugal	24.2	(2.4)	22.4	(1.8)	14.6	(2.1)	17.3	(1.8)	1.7	(3.2)	-2.7	(2.6)
	Slovak Republic	16.7	(1.8)	11.4	(1.5)	6.2	(1.1)	6.7	(1.1)	**5.3**	(2.0)	-0.5	(1.6)
	Slovenia	14.8	(1.2)	19.0	(1.8)	10.5	(1.3)	8.3	(1.2)	-4.2	(2.2)	2.2	(1.7)
	Spain	34.4	(1.9)	39.4	(1.7)	20.1	(1.2)	18.1	(1.1)	-5.0	(2.1)	2.0	(1.6)
	Sweden	11.6	(1.3)	10.6	(1.3)	4.1	(0.9)	4.6	(0.8)	1.0	(1.8)	-0.5	(1.2)
	Switzerland	5.9	(0.9)	6.1	(0.9)	6.2	(1.0)	3.1	(0.7)	-0.2	(1.1)	**3.1**	(1.3)
	Turkey	53.0	(2.3)	46.8	(2.4)	60.6	(2.6)	55.3	(2.4)	6.1	(3.6)	5.2	(2.8)
	United Kingdom	22.2	(1.8)	21.1	(2.0)	12.1	(1.3)	14.7	(1.5)	1.1	(3.0)	-2.7	(1.7)
	United States	25.6	(1.8)	29.1	(2.2)	13.9	(1.2)	14.5	(1.6)	-3.5	(2.7)	-0.7	(2.1)
	OECD average	17.7	(0.3)	17.5	(0.3)	11.8	(0.2)	11.7	(0.2)	0.2	(0.4)	0.2	(0.3)
Partners	Albania	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	55.8	(3.1)	61.4	(2.3)	55.9	(1.7)	54.6	(1.9)	-5.6	(3.0)	1.3	(2.3)
	Brazil	22.1	(1.5)	21.2	(1.0)	19.6	(1.2)	20.6	(1.5)	0.9	(1.6)	-1.0	(2.0)
	Bulgaria	38.2	(2.6)	30.1	(2.4)	17.5	(1.6)	13.2	(1.5)	**8.1**	(2.9)	**4.3**	(2.1)
	Colombia	4.5	(1.1)	3.6	(0.8)	4.1	(0.8)	3.7	(1.0)	0.9	(1.4)	0.4	(1.2)
	Costa Rica	31.2	(2.8)	35.6	(2.2)	26.8	(2.0)	31.8	(2.6)	-4.4	(3.0)	-5.0	(3.3)
	Croatia	18.1	(1.7)	11.5	(1.3)	14.8	(1.4)	5.1	(0.9)	**6.6**	(2.1)	**9.7**	(1.6)
	Cyprus*	33.4	(1.8)	15.4	(1.5)	24.8	(1.9)	17.8	(1.7)	18.0	(2.5)	**7.0**	(2.5)
	Hong Kong-China	4.5	(0.9)	3.2	(0.8)	2.6	(0.6)	6.0	(1.8)	1.4	(1.1)	-3.4	(2.1)
	Indonesia	15.8	(2.1)	9.0	(1.5)	13.4	(1.2)	8.4	(1.6)	**6.7**	(2.0)	**5.0**	(1.9)
	Jordan	44.7	(2.1)	47.8	(2.1)	40.1	(2.6)	41.4	(2.0)	-3.1	(3.0)	-1.3	(3.4)
	Kazakhstan	30.0	(1.9)	23.6	(2.5)	17.6	(2.0)	11.8	(1.6)	**6.4**	(2.9)	**5.9**	(2.7)
	Latvia	28.8	(2.9)	32.3	(2.6)	18.4	(1.7)	15.1	(1.6)	-3.5	(3.7)	3.3	(2.3)
	Liechtenstein	2.9	(3.0)	6.1	(4.2)	2.4	(2.4)	2.6	(2.7)	-3.2	(5.2)	-0.2	(3.6)
	Lithuania	28.2	(2.0)	25.5	(2.3)	18.8	(1.6)	9.4	(1.4)	2.7	(3.0)	**9.3**	(2.2)
	Macao-China	6.3	(0.8)	3.6	(0.7)	5.0	(0.9)	5.0	(0.9)	**2.7**	(1.1)	0.1	(1.4)
	Malaysia	38.1	(3.1)	27.6	(2.0)	24.6	(2.3)	25.8	(2.0)	**10.5**	(3.1)	-1.3	(2.5)
	Montenegro	31.5	(2.2)	21.2	(1.5)	28.1	(2.0)	18.1	(1.8)	**10.2**	(2.7)	**10.0**	(2.8)
	Peru	21.8	(1.8)	13.3	(1.6)	11.8	(1.2)	7.2	(1.1)	**8.5**	(1.8)	**4.6**	(1.6)
	Qatar	16.8	(1.2)	9.3	(0.8)	17.0	(1.0)	18.3	(1.0)	**7.5**	(1.4)	-1.4	(1.3)
	Romania	42.0	(2.4)	43.4	(2.3)	30.8	(2.0)	29.4	(2.0)	-1.5	(2.6)	1.3	(2.3)
	Russian Federation	26.7	(2.3)	28.2	(1.8)	16.6	(1.6)	14.6	(1.6)	-1.5	(2.3)	2.0	(2.1)
	Serbia	18.5	(1.7)	7.8	(1.2)	13.6	(1.9)	7.9	(1.3)	**10.7**	(1.9)	**5.7**	(2.2)
	Shanghai-China	1.3	(0.4)	0.3	(0.2)	1.3	(0.5)	0.2	(0.2)	**1.0**	(0.5)	**1.1**	(0.5)
	Singapore	18.4	(1.6)	16.5	(1.1)	12.7	(1.2)	11.9	(1.4)	1.8	(2.1)	0.9	(2.0)
	Chinese Taipei	9.6	(1.3)	6.5	(1.0)	3.4	(0.6)	1.4	(0.4)	3.1	(1.8)	**1.9**	(0.8)
	Thailand	23.3	(1.8)	14.2	(1.5)	21.8	(1.9)	11.8	(1.2)	**9.1**	(2.1)	**10.0**	(1.9)
	Tunisia	30.7	(2.2)	15.6	(1.7)	26.2	(2.3)	12.4	(1.7)	**15.1**	(2.6)	**13.7**	(2.3)
	United Arab Emirates	38.6	(1.8)	47.3	(2.1)	36.1	(1.9)	35.8	(2.0)	**-8.7**	(2.7)	0.2	(2.7)
	Uruguay	34.4	(2.6)	24.7	(1.8)	16.2	(1.5)	12.8	(1.5)	**9.7**	(3.0)	3.4	(2.1)
	Viet Nam	20.2	(2.2)	10.0	(1.5)	6.8	(1.0)	4.9	(1.2)	**10.2**	(2.1)	1.9	(1.1)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 4/4]

Table III.2.2b Mathematics performance, by the number of times students skipped a day of school in the two weeks prior to the PISA test

Results based on students' self-reports

		Mathematics score, by whether students skipped a day of school in the two weeks prior to the PISA test													
		All students		Boys		Girls		Bottom quarter of ESCS[1]		Second quarter of ESCS		Third quarter of ESCS		Top quarter of ESCS	
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	Australia	477	(2.0)	**484**	(2.9)	**471**	(2.6)	**444**	(3.0)	469	(3.0)	496	(3.6)	**523**	(4.1)
	Austria	475	(6.6)	486	(11.2)	466	(7.6)	**424**	(10.4)	469	(10.8)	500	(12.0)	**529**	(11.9)
	Belgium	433	(6.3)	436	(8.2)	429	(9.6)	**395**	(8.9)	428	(11.1)	470	(12.6)	**501**	(12.9)
	Canada	495	(2.8)	499	(3.7)	492	(3.3)	**465**	(3.9)	485	(3.7)	509	(4.6)	**533**	(4.5)
	Chile	380	(5.3)	388	(7.5)	373	(6.9)	**345**	(6.9)	372	(9.0)	404	(9.4)	**439**	(9.2)
	Czech Republic	451	(9.6)	450	(10.6)	452	(19.5)	**399**	(17.9)	459	(13.7)	476	(12.0)	**501**	(12.7)
	Denmark	460	(5.3)	471	(8.6)	451	(6.0)	**433**	(7.3)	447	(7.7)	480	(7.2)	**517**	(9.6)
	Estonia	479	(4.0)	477	(4.9)	480	(5.3)	**465**	(6.8)	467	(6.5)	482	(6.7)	**515**	(8.0)
	Finland	478	(4.9)	**467**	(8.7)	**488**	(4.3)	**458**	(8.9)	470	(6.1)	492	(8.3)	**518**	(9.1)
	France	442	(5.8)	**454**	(9.4)	**429**	(8.1)	**399**	(8.1)	437	(9.4)	483	(10.2)	**509**	(11.5)
	Germany	474	(8.4)	478	(10.9)	470	(11.0)	**433**	(11.5)	468	(12.5)	494	(16.5)	**551**	(15.1)
	Greece	430	(4.1)	431	(5.6)	428	(4.8)	**388**	(6.2)	421	(5.8)	442	(6.2)	**478**	(6.7)
	Hungary	400	(5.6)	**412**	(7.5)	**387**	(7.8)	**371**	(8.5)	397	(8.6)	413	(16.7)	**473**	(16.6)
	Iceland	429	(11.1)	418	(15.4)	444	(17.2)	c	c	c	c	c	c	c	c
	Ireland	471	(8.7)	472	(12.4)	468	(10.3)	**440**	(12.3)	467	(10.6)	493	(17.6)	**528**	(11.6)
	Israel	451	(5.1)	452	(8.2)	450	(4.7)	**399**	(7.3)	440	(5.7)	473	(7.6)	**509**	(6.9)
	Italy	469	(2.2)	**478**	(2.5)	**458**	(2.6)	**435**	(2.6)	460	(2.8)	480	(3.1)	**508**	(3.1)
	Japan	449	(13.5)	450	(15.6)	449	(17.5)	415	(18.6)	c	c	c	c	c	c
	Korea	422	(11.8)	416	(14.9)	431	(16.5)	423	(19.1)	c	c	c	c	c	c
	Luxembourg	433	(4.6)	**454**	(7.4)	**414**	(5.7)	**402**	(7.5)	426	(8.7)	447	(11.8)	**501**	(11.0)
	Mexico	393	(2.0)	**400**	(2.5)	**386**	(2.2)	**365**	(2.7)	387	(2.9)	397	(3.2)	**420**	(3.3)
	Netherlands	449	(11.4)	457	(15.2)	443	(18.2)	434	(13.7)	c	c	454	(23.5)	c	c
	New Zealand	432	(3.1)	436	(4.5)	428	(4.8)	**409**	(4.9)	439	(5.1)	455	(8.3)	**475**	(11.2)
	Norway	427	(6.2)	425	(9.0)	429	(10.2)	**414**	(9.8)	416	(18.9)	439	(12.0)	**445**	(10.0)
	Poland	485	(4.6)	486	(5.8)	483	(6.0)	**450**	(5.9)	473	(6.7)	492	(6.5)	**542**	(10.1)
	Portugal	454	(4.8)	454	(6.3)	454	(5.4)	**415**	(5.3)	439	(6.7)	469	(5.6)	**514**	(6.7)
	Slovak Republic	432	(7.4)	431	(8.8)	433	(8.8)	**384**	(11.8)	431	(9.6)	449	(11.3)	**517**	(11.5)
	Slovenia	442	(3.8)	447	(4.8)	437	(6.9)	**412**	(5.3)	434	(6.1)	453	(8.7)	**496**	(9.6)
	Spain	453	(2.8)	**462**	(3.8)	**445**	(3.1)	**419**	(3.6)	446	(4.0)	472	(5.6)	**504**	(4.5)
	Sweden	421	(6.0)	419	(9.0)	423	(7.6)	**403**	(8.3)	408	(11.0)	433	(10.8)	**476**	(13.9)
	Switzerland	473	(6.3)	479	(8.2)	465	(9.1)	**430**	(10.6)	450	(12.5)	501	(10.5)	**519**	(11.6)
	Turkey	451	(4.7)	455	(5.2)	448	(5.8)	**415**	(4.7)	438	(4.8)	448	(5.3)	**498**	(7.5)
	United Kingdom	464	(4.0)	467	(5.4)	462	(5.3)	**438**	(5.6)	444	(5.2)	478	(6.3)	**528**	(8.9)
	United States	460	(4.1)	461	(5.0)	460	(4.8)	**434**	(5.7)	449	(5.9)	475	(6.7)	**513**	(7.1)
	OECD average	448	(1.1)	**452**	(1.5)	**445**	(1.6)	**417**	(1.6)	441	(1.6)	466	(1.9)	**503**	(1.8)
Partners	Albania	402	(4.9)	407	(6.6)	396	(6.2)	m	m	m	m	m	m	m	m
	Argentina	379	(3.6)	**387**	(4.7)	**371**	(3.5)	**344**	(3.5)	371	(4.0)	384	(5.1)	**423**	(4.2)
	Brazil	384	(2.6)	389	(3.7)	380	(2.8)	**356**	(2.9)	372	(3.7)	384	(4.1)	**426**	(5.2)
	Bulgaria	391	(4.4)	389	(4.7)	393	(5.7)	**359**	(6.8)	388	(5.2)	404	(5.7)	**448**	(7.9)
	Colombia	354	(6.7)	360	(7.9)	347	(10.2)	**321**	(10.4)	345	(10.6)	358	(10.5)	**397**	(14.8)
	Costa Rica	395	(4.2)	**407**	(5.7)	**387**	(4.1)	**361**	(5.9)	384	(4.9)	401	(5.1)	**440**	(5.6)
	Croatia	407	(3.6)	411	(4.5)	399	(5.3)	**386**	(5.7)	400	(5.7)	408	(6.7)	**444**	(6.9)
	Cyprus*	413	(2.6)	**407**	(3.2)	**422**	(4.1)	**372**	(4.7)	403	(4.9)	418	(4.5)	**467**	(6.3)
	Hong Kong-China	495	(9.5)	492	(12.6)	497	(14.8)	**471**	(17.8)	465	(13.4)	486	(16.0)	**559**	(14.5)
	Indonesia	356	(5.9)	354	(5.3)	360	(10.4)	**342**	(6.8)	346	(7.9)	350	(4.9)	**388**	(15.4)
	Jordan	377	(2.7)	**369**	(4.8)	**384**	(3.4)	**357**	(3.6)	365	(3.2)	386	(4.2)	**406**	(4.6)
	Kazakhstan	410	(3.5)	409	(4.0)	411	(4.6)	**390**	(4.5)	411	(6.5)	422	(5.2)	**434**	(7.2)
	Latvia	450	(3.7)	447	(5.8)	454	(5.4)	**421**	(5.1)	435	(6.6)	469	(6.7)	**505**	(7.6)
	Liechtenstein	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Lithuania	429	(4.4)	432	(5.2)	425	(6.2)	**395**	(5.3)	421	(6.5)	446	(7.4)	**480**	(7.9)
	Macao-China	470	(6.2)	470	(8.7)	470	(10.0)	**445**	(11.3)	473	(10.4)	469	(12.9)	**499**	(13.9)
	Malaysia	397	(4.1)	**389**	(4.7)	**405**	(5.4)	**367**	(4.0)	379	(4.4)	401	(5.3)	**450**	(8.2)
	Montenegro	387	(2.7)	386	(3.4)	389	(3.9)	**357**	(4.5)	376	(5.8)	391	(5.1)	**427**	(5.2)
	Peru	333	(4.0)	**343**	(4.6)	**315**	(5.2)	**302**	(6.9)	330	(5.6)	342	(5.6)	**381**	(8.1)
	Qatar	370	(2.7)	**349**	(3.6)	**394**	(3.5)	**322**	(5.5)	359	(4.6)	394	(4.9)	**401**	(5.1)
	Romania	425	(4.1)	428	(5.0)	422	(4.5)	**393**	(5.5)	408	(4.3)	425	(4.1)	**488**	(7.3)
	Russian Federation	449	(3.9)	445	(5.4)	452	(4.6)	**421**	(6.1)	444	(5.4)	465	(5.4)	**486**	(8.6)
	Serbia	411	(6.3)	413	(7.3)	407	(8.4)	**390**	(6.7)	394	(8.3)	403	(8.1)	**466**	(11.6)
	Shanghai-China	519	(21.6)	517	(25.2)	c	c	c	c	c	c	c	c	c	c
	Singapore	534	(4.2)	532	(5.0)	537	(6.1)	**487**	(6.3)	519	(7.7)	557	(8.3)	**602**	(9.0)
	Chinese Taipei	432	(8.1)	435	(11.2)	427	(10.1)	**402**	(10.1)	427	(12.1)	453	(14.5)	**512**	(21.4)
	Thailand	397	(4.2)	**390**	(4.9)	**407**	(5.5)	**386**	(6.5)	391	(5.3)	390	(5.0)	**427**	(9.1)
	Tunisia	365	(4.2)	**372**	(5.0)	**354**	(5.0)	**351**	(5.7)	351	(6.0)	373	(6.3)	**387**	(7.6)
	United Arab Emirates	412	(2.4)	**406**	(3.5)	**418**	(3.5)	**376**	(3.3)	407	(2.9)	431	(4.4)	**443**	(4.5)
	Uruguay	386	(3.6)	391	(5.0)	380	(3.8)	**356**	(5.2)	378	(5.1)	395	(6.8)	**446**	(7.1)
	Viet Nam	450	(7.4)	457	(8.2)	436	(8.5)	**424**	(9.6)	445	(10.1)	468	(10.7)	**494**	(12.3)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.2.2c Association between skipping classes or days of school and mathematics performance, by performance level

Results based on students' self-reports

		Score-point difference that is associated with students skipping classes or days of school, by performance decile in mathematics															
		Mean								10th Percentile[1]							
		Unadjusted[2]		Adjusted[3]		ESCS[4]		Boys		Unadjusted[2]		Adjusted[3]		ESCS[4]		Boys	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	**-40.0**	(2.2)	**-32.4**	(2.1)	**40.1**	(1.3)	**10.9**	(2.5)	**-34.1**	(3.4)	**-28.4**	(3.6)	**37.0**	(2.4)	3.0	(3.6)
	Austria	**-14.4**	(5.2)	**-14.7**	(4.6)	**43.0**	(2.2)	**22.0**	(4.4)	**-20.1**	(10.1)	**-18.3**	(9.3)	**42.7**	(4.3)	10.6	(6.8)
	Belgium	**-73.1**	(4.5)	**-60.5**	(3.9)	**47.3**	(1.7)	**10.4**	(2.8)	**-67.4**	(9.5)	**-57.3**	(8.5)	**46.0**	(2.9)	1.0	(5.3)
	Canada	**-29.4**	(2.3)	**-25.5**	(2.1)	**30.4**	(1.2)	**10.2**	(1.7)	**-23.6**	(3.5)	**-23.4**	(3.3)	**30.0**	(2.1)	2.6	(3.5)
	Chile	**-29.8**	(3.7)	**-24.0**	(3.2)	**33.5**	(1.5)	**22.3**	(3.0)	**-26.2**	(5.2)	**-21.5**	(5.7)	**26.0**	(2.3)	**19.0**	(4.5)
	Czech Republic	**-34.6**	(6.9)	**-30.0**	(5.9)	**50.5**	(2.7)	**12.6**	(4.3)	**-44.9**	(13.0)	**-41.9**	(12.0)	**40.9**	(5.2)	8.4	(9.1)
	Denmark	**-35.5**	(2.9)	**-29.3**	(2.6)	**38.1**	(1.8)	**12.3**	(2.2)	**-35.1**	(5.5)	**-30.7**	(4.9)	**35.9**	(2.9)	4.7	(4.6)
	Estonia	**-37.5**	(3.0)	**-35.3**	(2.9)	**27.9**	(1.6)	**6.5**	(2.6)	**-36.9**	(4.6)	**-35.0**	(5.4)	**27.3**	(3.7)	2.5	(6.4)
	Finland	**-35.7**	(3.7)	**-30.2**	(3.6)	**32.0**	(1.7)	-0.1	(2.6)	**-31.8**	(6.6)	**-26.3**	(8.0)	**35.1**	(3.4)	**-12.6**	(4.5)
	France	**-32.2**	(4.0)	**-24.6**	(3.5)	**56.3**	(2.2)	**8.5**	(2.7)	**-40.7**	(6.9)	**-26.9**	(8.0)	**57.6**	(4.3)	-6.4	(6.0)
	Germany	**-22.8**	(5.8)	**-20.4**	(5.2)	**42.5**	(2.0)	**13.8**	(2.7)	**-24.4**	(8.7)	-19.1	(11.2)	**40.2**	(3.7)	4.0	(5.5)
	Greece	**-14.2**	(3.1)	**-14.3**	(2.6)	**34.4**	(1.9)	**9.6**	(2.8)	**-15.3**	(5.3)	**-13.9**	(6.0)	**29.2**	(2.9)	-10.6	(6.2)
	Hungary	**-65.1**	(5.4)	**-48.3**	(4.7)	**44.1**	(2.7)	**8.5**	(3.2)	**-54.4**	(10.3)	**-42.7**	(8.4)	**39.1**	(3.5)	-6.5	(6.3)
	Iceland	**-47.2**	(5.5)	**-40.0**	(5.4)	**29.3**	(2.1)	-3.8	(2.8)	**-43.1**	(9.2)	**-40.5**	(11.4)	**27.4**	(4.1)	**-15.7**	(6.3)
	Ireland	**-14.1**	(4.7)	**-12.4**	(4.3)	**37.7**	(1.8)	**16.3**	(2.9)	**-20.0**	(7.9)	-12.2	(8.0)	**39.2**	(2.7)	**11.8**	(5.5)
	Israel	-4.0	(3.4)	**-6.5**	(2.9)	**50.5**	(2.6)	11.0	(6.6)	-11.8	(7.2)	-9.8	(6.2)	**42.7**	(4.5)	-16.0	(10.8)
	Italy	**-31.2**	(1.9)	**-28.0**	(1.7)	**29.2**	(1.1)	**18.0**	(2.1)	**-29.2**	(3.6)	**-26.2**	(3.4)	**27.2**	(1.7)	5.9	(3.8)
	Japan	**-88.2**	(10.2)	**-75.4**	(7.4)	**39.3**	(3.6)	**19.5**	(3.7)	**-97.3**	(15.2)	**-84.8**	(12.3)	**36.1**	(5.5)	4.7	(5.1)
	Korea	**-117.6**	(9.9)	**-107.3**	(9.9)	**39.9**	(3.1)	**16.4**	(5.2)	**-114.6**	(17.4)	**-118.4**	(20.8)	**35.4**	(5.1)	1.2	(10.0)
	Luxembourg	**-49.4**	(3.9)	**-40.2**	(3.7)	**35.4**	(1.2)	**22.3**	(2.2)	**-44.2**	(6.7)	**-38.5**	(8.5)	**30.1**	(2.5)	**16.4**	(3.9)
	Mexico	**-9.5**	(1.7)	**-14.0**	(1.5)	**19.1**	(0.8)	**12.3**	(1.1)	**-11.0**	(2.5)	**-14.1**	(2.3)	**16.6**	(1.2)	**5.2**	(2.4)
	Netherlands	-9.2	(8.1)	-14.5	(7.7)	**39.8**	(3.0)	**9.6**	(2.7)	-23.3	(12.1)	-25.0	(17.3)	**35.9**	(4.6)	6.0	(5.8)
	New Zealand	**-76.8**	(3.7)	**-59.7**	(3.8)	**45.5**	(1.9)	**16.1**	(3.2)	**-60.3**	(6.6)	**-51.0**	(8.1)	**38.9**	(3.5)	2.4	(5.5)
	Norway	**-55.5**	(4.0)	**-53.3**	(3.7)	**31.4**	(2.4)	1.2	(2.8)	**-53.9**	(7.1)	**-51.4**	(6.6)	**27.2**	(4.1)	-1.7	(5.4)
	Poland	**-30.8**	(3.5)	**-29.8**	(3.2)	**40.9**	(2.4)	4.9	(2.8)	**-25.9**	(5.7)	**-24.3**	(5.0)	**38.7**	(3.0)	-5.0	(4.3)
	Portugal	**-31.7**	(3.2)	**-26.3**	(2.9)	**34.0**	(1.6)	**10.7**	(2.4)	**-31.1**	(6.4)	**-29.5**	(6.0)	**33.5**	(2.5)	1.2	(4.9)
	Slovak Republic	**-45.2**	(6.4)	**-30.4**	(5.3)	**52.8**	(2.9)	**9.2**	(4.0)	**-44.4**	(10.6)	**-26.5**	(10.5)	**48.2**	(3.8)	-0.8	(6.2)
	Slovenia	**-42.0**	(3.7)	**-36.3**	(3.3)	**40.0**	(1.6)	**6.0**	(2.9)	**-35.6**	(5.5)	**-35.2**	(5.6)	**33.5**	(2.7)	-1.4	(3.9)
	Spain	**-35.3**	(1.9)	**-27.1**	(1.7)	**32.2**	(1.1)	**15.1**	(2.1)	**-38.1**	(4.4)	**-30.2**	(4.7)	**30.3**	(2.0)	2.8	(4.0)
	Sweden	**-46.3**	(3.9)	**-39.8**	(3.5)	**33.9**	(1.9)	-2.1	(2.7)	**-41.1**	(7.3)	**-39.0**	(7.1)	**30.2**	(3.6)	-8.9	(5.7)
	Switzerland	**-23.9**	(5.3)	**-27.6**	(4.8)	**38.5**	(1.8)	**13.7**	(2.4)	**-34.2**	(8.0)	**-31.5**	(7.3)	**37.9**	(3.6)	4.2	(4.6)
	Turkey	**10.3**	(3.8)	4.3	(3.5)	**31.4**	(2.4)	**8.4**	(4.1)	5.0	(5.3)	3.9	(4.8)	**20.9**	(2.5)	1.8	(5.4)
	United Kingdom	**-35.0**	(4.4)	**-29.2**	(4.1)	**39.6**	(2.4)	**9.7**	(4.0)	**-38.9**	(9.6)	**-34.8**	(7.8)	**35.9**	(3.5)	7.4	(6.3)
	United States	**-23.7**	(3.1)	**-14.6**	(2.6)	**34.6**	(1.7)	5.0	(2.8)	**-20.8**	(4.8)	**-16.6**	(4.8)	**30.5**	(2.9)	-4.7	(5.8)
	OECD average	**-37.4**	(0.8)	**-32.3**	(0.7)	**38.1**	(0.4)	**10.8**	(0.5)	**-37.3**	(1.4)	**-33.0**	(1.5)	**34.8**	(0.6)	1.1	(1.0)
Partners	Albania	**9.7**	(4.2)	m	m	m	m	m	m	11.1	(7.7)	m	m	m	m	m	m
	Argentina	**-24.5**	(2.9)	**-21.8**	(2.6)	**26.0**	(1.6)	**11.5**	(2.6)	**-28.6**	(5.4)	**-23.0**	(5.5)	**24.2**	(3.4)	6.3	(5.0)
	Brazil	-3.9	(2.8)	**-5.5**	(2.1)	**26.1**	(1.7)	**14.8**	(1.8)	-3.8	(3.1)	-5.7	(3.3)	**16.9**	(1.4)	**9.2**	(2.6)
	Bulgaria	**-46.1**	(4.5)	**-34.9**	(3.4)	**40.0**	(2.6)	1.3	(3.1)	**-38.9**	(6.2)	**-33.5**	(5.4)	**33.5**	(3.2)	-6.8	(5.1)
	Colombia	-4.8	(2.8)	**-10.5**	(2.5)	**24.3**	(1.7)	**22.9**	(2.8)	-4.9	(5.6)	-9.6	(6.0)	**20.5**	(2.8)	**17.2**	(4.4)
	Costa Rica	**-7.3**	(3.5)	**-6.4**	(3.0)	**23.2**	(1.6)	**19.2**	(2.2)	-8.3	(4.8)	**-8.5**	(4.1)	**19.8**	(2.0)	**12.1**	(4.9)
	Croatia	**-46.9**	(3.4)	**-46.9**	(3.2)	**35.0**	(2.5)	**15.0**	(3.7)	**-38.5**	(4.3)	**-42.4**	(5.3)	**26.2**	(3.4)	8.6	(6.0)
	Cyprus*	**-29.8**	(2.4)	**-27.7**	(2.3)	**37.7**	(1.6)	**5.3**	(2.3)	**-34.8**	(5.0)	**-31.9**	(4.7)	**28.9**	(2.7)	**-17.5**	(4.3)
	Hong Kong-China	**-67.3**	(6.9)	**-66.4**	(6.3)	**26.6**	(2.6)	**13.6**	(4.8)	**-81.5**	(13.2)	**-81.8**	(10.7)	**31.3**	(4.5)	-2.5	(6.5)
	Indonesia	**-17.2**	(3.6)	**-19.4**	(3.4)	**20.5**	(3.5)	5.0	(3.4)	**-18.0**	(6.5)	**-19.1**	(6.9)	**13.3**	(2.4)	1.9	(3.4)
	Jordan	**-9.9**	(2.5)	**-9.3**	(2.3)	**22.6**	(2.1)	**-17.8**	(5.3)	**-12.1**	(4.2)	**-11.4**	(3.8)	**15.2**	(2.4)	**-29.3**	(5.1)
	Kazakhstan	**-24.5**	(3.1)	**-20.2**	(2.9)	**25.5**	(2.8)	2.4	(2.6)	**-25.7**	(4.4)	**-19.8**	(4.2)	**23.5**	(2.8)	-0.8	(4.0)
	Latvia	**-12.0**	(3.6)	**-11.9**	(3.3)	**35.1**	(2.1)	-3.3	(3.3)	**-17.6**	(5.6)	**-14.8**	(7.3)	**32.1**	(4.6)	**-13.7**	(6.3)
	Liechtenstein	**-57.0**	(26.9)	-52.8	(30.4)	**27.5**	(6.0)	**23.4**	(8.2)	-67.1	(65.1)	-107.5	(111.9)	22.1	(13.4)	42.9	(26.7)
	Lithuania	**-41.8**	(4.4)	**-36.3**	(4.0)	**34.1**	(1.7)	3.7	(2.3)	**-49.7**	(5.2)	**-38.6**	(6.2)	**29.6**	(3.0)	-7.4	(5.0)
	Macao-China	**-47.2**	(4.3)	**-47.3**	(4.1)	**17.4**	(1.5)	**4.9**	(1.8)	**-56.2**	(11.5)	**-53.9**	(11.3)	**17.0**	(3.3)	-7.0	(5.1)
	Malaysia	**-23.1**	(3.6)	**-21.9**	(3.0)	**29.8**	(2.1)	-5.3	(3.3)	**-24.6**	(4.6)	**-24.2**	(4.4)	**19.6**	(2.6)	-7.7	(4.2)
	Montenegro	**-13.7**	(2.9)	**-15.1**	(2.6)	**33.2**	(1.3)	-1.0	(2.3)	**-12.6**	(5.1)	**-16.2**	(5.1)	**27.1**	(2.8)	-6.4	(4.2)
	Peru	**-41.2**	(4.2)	**-36.5**	(3.5)	**32.0**	(2.0)	**22.0**	(2.6)	**-29.4**	(6.9)	**-36.5**	(5.0)	**25.3**	(2.5)	**19.2**	(4.3)
	Qatar	**-15.3**	(2.4)	**-15.9**	(2.4)	**27.0**	(1.1)	**-12.4**	(1.4)	**-24.3**	(3.5)	**-22.5**	(4.4)	**11.3**	(1.4)	**-27.5**	(2.8)
	Romania	**-20.3**	(3.4)	**-16.2**	(2.6)	**37.0**	(2.9)	3.4	(3.1)	**-20.2**	(4.8)	**-15.1**	(4.8)	**29.1**	(3.3)	-0.3	(5.1)
	Russian Federation	**-27.1**	(3.0)	**-22.5**	(2.9)	**37.5**	(3.2)	-2.0	(2.9)	**-25.2**	(5.9)	**-19.4**	(4.8)	**33.8**	(4.7)	-9.5	(5.9)
	Serbia	**-22.8**	(4.8)	**-23.9**	(4.1)	**34.3**	(2.4)	**9.5**	(3.5)	**-17.1**	(5.8)	**-18.3**	(5.7)	**26.6**	(3.2)	8.6	(5.8)
	Shanghai-China	**-33.1**	(13.0)	**-36.0**	(12.9)	**40.7**	(2.6)	**8.9**	(3.0)	**-59.1**	(27.3)	**-77.7**	(21.7)	**41.5**	(3.6)	4.7	(5.2)
	Singapore	**-26.7**	(3.4)	**-21.7**	(3.2)	**43.2**	(1.5)	-2.5	(2.5)	**-31.1**	(6.8)	**-21.2**	(6.5)	**43.7**	(3.5)	**-17.8**	(6.2)
	Chinese Taipei	**-93.4**	(6.1)	**-76.9**	(5.5)	**54.9**	(2.4)	9.9	(6.5)	**-82.1**	(12.3)	**-72.9**	(11.3)	**55.0**	(3.8)	-9.5	(7.2)
	Thailand	**-21.1**	(3.5)	**-19.8**	(3.1)	**22.3**	(2.4)	**-10.4**	(3.0)	**-20.0**	(5.0)	**-17.7**	(5.6)	**16.5**	(2.8)	**-12.8**	(4.7)
	Tunisia	**-13.4**	(3.3)	**-17.5**	(3.1)	**21.8**	(2.6)	**17.1**	(2.6)	**-13.0**	(6.3)	**-18.6**	(5.0)	**15.0**	(2.3)	**12.8**	(5.5)
	United Arab Emirates	**-27.7**	(2.0)	**-25.6**	(2.0)	**32.5**	(1.8)	-5.9	(4.4)	**-24.6**	(3.5)	**-22.8**	(4.1)	**20.4**	(2.8)	**-18.4**	(4.4)
	Uruguay	**-22.1**	(3.6)	**-12.3**	(3.1)	**36.5**	(1.8)	**7.3**	(2.6)	**-19.8**	(5.9)	-13.4	(7.7)	**34.1**	(3.0)	-5.4	(5.3)
	Viet Nam	**-48.4**	(5.7)	**-43.9**	(4.8)	**28.3**	(2.5)	**10.9**	(2.6)	**-52.4**	(9.2)	**-50.1**	(10.3)	**27.2**	(3.8)	3.9	(6.2)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Results based on quantile regression of mathematics performance on whether students reported skipping classes or days of school at least once in the two weeks prior to the PISA test.
2. The unadjusted result corresponds to the coefficient for skipping classes or days of school in a regression where skipping classes or days of school is the only independent variable.
3. The adjusted result corresponds to the coefficient for skipping classes or days of school in a regression where ESCS and boy are introduced as further independent variables.
4. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.2.2c Association between skipping classes or days of school and mathematics performance, by performance level

Results based on students' self-reports

		Score-point difference that is associated with students skipping classes or days of school, by performance decile in mathematics							
		90th Percentile[1]							
		Unadjusted[2]		Adjusted[3]		ESCS[4]		Boys	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	**Australia**	**-39.0**	(5.5)	**-32.8**	(4.7)	**40.1**	(2.1)	**18.3**	(4.2)
	Austria	-8.2	(7.9)	-9.1	(8.1)	**35.9**	(3.5)	**27.2**	(6.8)
	Belgium	**-72.8**	(9.6)	**-61.9**	(8.6)	**43.1**	(2.3)	**17.6**	(3.8)
	Canada	**-31.3**	(4.6)	**-28.1**	(3.8)	**29.4**	(2.2)	**17.5**	(3.4)
	Chile	**-28.3**	(5.9)	**-24.1**	(5.1)	**37.4**	(1.8)	**25.8**	(4.6)
	Czech Republic	**-26.5**	(8.4)	**-23.0**	(9.7)	**50.2**	(2.8)	**14.8**	(5.9)
	Denmark	**-31.7**	(6.9)	**-26.5**	(5.8)	**38.5**	(3.0)	**13.5**	(5.0)
	Estonia	**-40.3**	(6.0)	**-38.2**	(5.2)	**27.9**	(3.5)	**14.9**	(4.8)
	Finland	**-38.6**	(5.4)	**-31.8**	(6.3)	**28.3**	(3.2)	**11.5**	(5.5)
	France	**-28.6**	(6.2)	**-20.7**	(7.0)	**51.9**	(3.5)	**19.6**	(5.0)
	Germany	-12.2	(9.9)	-16.1	(11.9)	**38.6**	(3.5)	**20.9**	(6.8)
	Greece	**-17.1**	(4.8)	**-14.1**	(4.2)	**35.7**	(2.8)	**20.1**	(5.4)
	Hungary	**-62.4**	(9.4)	**-49.0**	(9.5)	**49.8**	(3.8)	**21.6**	(5.0)
	Iceland	**-42.7**	(11.4)	**-30.8**	(10.4)	**29.5**	(3.9)	5.7	(6.1)
	Ireland	-6.4	(8.9)	-5.5	(7.6)	**36.3**	(3.2)	**20.0**	(5.4)
	Israel	-5.0	(7.3)	-7.3	(5.0)	**49.9**	(3.9)	**36.7**	(7.5)
	Italy	**-30.0**	(3.4)	**-30.0**	(3.1)	**28.2**	(1.7)	**29.5**	(3.2)
	Japan	**-65.0**	(12.4)	**-66.1**	(16.2)	**39.3**	(4.3)	**28.3**	(5.3)
	Korea	**-112.0**	(18.6)	**-86.7**	(17.3)	**38.2**	(4.3)	**26.5**	(6.4)
	Luxembourg	**-42.0**	(6.5)	**-37.8**	(9.1)	**35.6**	(2.3)	**30.6**	(5.6)
	Mexico	**-8.3**	(2.7)	**-14.0**	(2.9)	**21.4**	(1.1)	**19.0**	(2.4)
	Netherlands	-3.2	(10.9)	-8.1	(9.7)	**35.0**	(4.2)	**13.6**	(5.3)
	New Zealand	**-83.2**	(9.6)	**-61.5**	(7.1)	**48.7**	(3.6)	**26.0**	(6.9)
	Norway	**-53.5**	(8.5)	**-52.4**	(9.4)	**29.8**	(4.3)	6.0	(5.8)
	Poland	**-30.6**	(6.9)	**-28.7**	(5.4)	**41.4**	(4.4)	**13.2**	(5.4)
	Portugal	**-28.7**	(5.8)	**-22.3**	(5.3)	**30.3**	(2.0)	**20.4**	(4.7)
	Slovak Republic	**-39.7**	(12.8)	**-30.9**	(9.9)	**52.4**	(4.3)	**19.0**	(6.0)
	Slovenia	**-40.1**	(7.5)	**-37.4**	(5.8)	**41.9**	(3.7)	10.3	(6.1)
	Spain	**-30.5**	(3.8)	**-24.7**	(4.3)	**29.8**	(7.9)	**25.8**	(4.3)
	Sweden	**-42.1**	(8.8)	**-36.2**	(6.8)	**36.2**	(3.3)	4.2	(5.1)
	Switzerland	-11.8	(8.4)	**-19.9**	(8.5)	**37.9**	(2.9)	**20.1**	(5.4)
	Turkey	8.8	(9.7)	2.9	(6.3)	**37.5**	(3.4)	**14.1**	(6.5)
	United Kingdom	**-29.1**	(8.2)	**-22.5**	(7.4)	**42.0**	(4.4)	10.1	(7.9)
	United States	**-26.4**	(7.0)	**-13.8**	(5.6)	**37.1**	(2.7)	12.2	(6.3)
	OECD average	**-34.1**	(1.5)	**-29.7**	(1.4)	**37.8**	(0.6)	**18.7**	(0.9)
Partners	**Albania**	7.6	(6.6)	m	m	m	m	m	m
	Argentina	**-18.0**	(4.6)	**-19.0**	(5.0)	**27.1**	(2.6)	**13.6**	(5.3)
	Brazil	-2.4	(6.3)	-5.3	(4.0)	**33.4**	(2.5)	**19.7**	(3.3)
	Bulgaria	**-52.1**	(7.9)	**-36.0**	(6.5)	**41.8**	(4.4)	10.1	(5.4)
	Colombia	-6.5	(7.4)	**-11.1**	(5.6)	**29.3**	(2.3)	**32.9**	(5.0)
	Costa Rica	-9.3	(6.8)	-6.3	(5.8)	**27.5**	(2.7)	**25.3**	(4.1)
	Croatia	**-48.7**	(8.3)	**-46.8**	(7.1)	**39.7**	(4.1)	**24.1**	(6.7)
	Cyprus*	**-22.6**	(6.4)	**-20.9**	(5.2)	**41.8**	(2.7)	**28.7**	(4.2)
	Hong Kong-China	**-46.5**	(15.8)	**-51.5**	(11.4)	**22.1**	(2.8)	**26.7**	(7.2)
	Indonesia	-12.7	(7.3)	**-21.3**	(5.9)	**27.9**	(5.9)	9.2	(7.4)
	Jordan	-5.1	(6.2)	-3.8	(4.5)	**27.2**	(4.2)	-5.4	(8.5)
	Kazakhstan	**-18.0**	(5.8)	**-15.9**	(5.6)	**27.9**	(4.6)	7.8	(5.1)
	Latvia	-0.9	(6.7)	-6.9	(6.6)	**36.1**	(3.5)	8.3	(5.8)
	Liechtenstein	-21.1	(63.7)	-8.1	(52.0)	**30.9**	(15.2)	23.4	(21.4)
	Lithuania	**-30.1**	(7.7)	**-27.2**	(6.1)	**35.0**	(2.7)	**14.0**	(4.6)
	Macao-China	**-28.1**	(6.7)	**-30.5**	(8.2)	**15.5**	(2.4)	**11.3**	(5.0)
	Malaysia	-5.9	(7.2)	**-12.9**	(5.3)	**36.9**	(3.1)	-0.9	(6.1)
	Montenegro	**-15.3**	(6.7)	**-18.1**	(7.3)	**34.5**	(3.4)	6.2	(5.7)
	Peru	**-53.9**	(8.9)	**-42.3**	(5.8)	**39.8**	(2.7)	**27.2**	(4.3)
	Qatar	**-9.0**	(4.6)	**-12.1**	(4.9)	**47.3**	(2.3)	7.7	(4.4)
	Romania	**-23.8**	(6.3)	**-19.7**	(4.8)	**40.1**	(4.1)	7.5	(5.1)
	Russian Federation	**-26.9**	(6.4)	**-22.8**	(6.1)	**40.2**	(4.4)	2.8	(5.6)
	Serbia	**-28.2**	(8.9)	**-27.5**	(7.6)	**38.9**	(4.4)	**14.4**	(6.1)
	Shanghai-China	8.9	(15.6)	-1.3	(16.1)	**35.4**	(4.2)	**11.1**	(4.8)
	Singapore	**-14.9**	(6.9)	**-14.7**	(6.5)	**37.7**	(2.9)	**9.4**	(4.6)
	Chinese Taipei	**-69.6**	(12.6)	**-62.0**	(10.4)	**45.4**	(3.9)	20.0	(10.6)
	Thailand	**-24.7**	(7.4)	**-23.1**	(7.4)	**29.0**	(3.6)	-6.1	(6.6)
	Tunisia	-11.0	(8.0)	**-14.7**	(6.2)	**27.2**	(4.7)	**20.2**	(6.7)
	United Arab Emirates	**-25.8**	(4.4)	**-20.3**	(4.1)	**42.9**	(2.8)	9.2	(6.7)
	Uruguay	**-23.1**	(5.2)	-10.0	(6.4)	**36.6**	(3.0)	**16.2**	(5.1)
	Viet Nam	**-42.3**	(8.2)	**-40.7**	(10.6)	**28.5**	(4.2)	**21.3**	(5.2)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Results based on quantile regression of mathematics performance on whether students reported skipping classes or days of school at least once in the two weeks prior to the PISA test.
2. The unadjusted result corresponds to the coefficient for skipping classes or days of school in a regression where skipping classes or days of school is the only independent variable.
3. The adjusted result corresponds to the coefficient for skipping classes or days of school in a regression where ESCS and boys are introduced as further independent variables.
4. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/1]

Table III.2.3a **Students' sense of belonging**

Percentage of students who reported "agree" or "strongly agree" (a) or who reported "disagree" or "strongly disagree" (b)

		Percentage of students who agree/disagree with the following statements:																	
		I feel like an outsider (or left out of things) at school[b]		I make friends easily at school[a]		I feel like I belong at school[a]		I feel awkward and out of place in my school[b]		Other students seem to like me[a]		I feel lonely at school[b]		I feel happy at school[a]		Things are ideal in my school[a]		I am satisfied with my school[a]	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	85.2	(0.5)	85.5	(0.4)	78.1	(0.5)	84.9	(0.4)	91.5	(0.4)	88.3	(0.4)	79.7	(0.5)	69.1	(0.6)	78.9	(0.5)
	Austria	92.8	(0.6)	90.1	(0.6)	86.0	(0.8)	91.3	(0.6)	93.7	(0.4)	94.2	(0.5)	79.9	(0.9)	77.4	(1.0)	82.3	(1.0)
	Belgium	90.4	(0.5)	87.8	(0.5)	68.4	(0.8)	87.8	(0.5)	91.6	(0.3)	92.7	(0.3)	84.5	(0.5)	78.3	(0.6)	81.1	(0.7)
	Canada	86.7	(0.5)	87.0	(0.5)	78.4	(0.5)	85.3	(0.4)	93.3	(0.3)	88.8	(0.4)	80.9	(0.5)	65.0	(0.5)	79.9	(0.6)
	Chile	86.2	(0.7)	85.6	(0.6)	87.5	(0.6)	85.3	(0.8)	88.0	(0.6)	91.5	(0.5)	85.0	(0.7)	69.3	(1.0)	77.0	(1.0)
	Czech Republic	84.7	(0.8)	87.5	(0.8)	78.1	(1.1)	89.9	(0.7)	88.6	(0.7)	90.2	(0.7)	63.4	(1.0)	42.0	(1.4)	74.3	(1.2)
	Denmark	93.0	(0.5)	84.4	(0.6)	77.4	(0.8)	90.5	(0.5)	87.7	(0.5)	92.7	(0.5)	86.1	(0.6)	38.5	(0.9)	81.5	(0.8)
	Estonia	90.9	(0.6)	82.4	(0.8)	81.0	(0.9)	88.5	(0.7)	80.8	(0.8)	90.9	(0.6)	66.6	(1.0)	36.4	(1.0)	76.4	(1.0)
	Finland	90.9	(0.5)	85.5	(0.5)	84.3	(0.7)	85.5	(0.7)	87.6	(0.6)	91.3	(0.5)	66.9	(0.9)	51.0	(1.0)	73.4	(1.2)
	France	79.0	(0.8)	92.1	(0.5)	47.4	(1.0)	86.9	(0.6)	92.5	(0.5)	93.0	(0.5)	81.0	(0.8)	80.4	(0.8)	81.5	(0.8)
	Germany	91.5	(0.6)	82.1	(0.7)	83.6	(0.8)	89.5	(0.6)	92.5	(0.5)	93.9	(0.5)	79.4	(0.8)	69.8	(1.1)	74.1	(1.1)
	Greece	85.5	(0.8)	86.8	(0.6)	88.9	(0.6)	88.4	(0.7)	90.3	(0.5)	89.8	(0.7)	74.6	(0.9)	44.7	(1.0)	68.0	(1.1)
	Hungary	88.6	(0.6)	89.5	(0.5)	84.9	(0.7)	88.1	(0.7)	90.8	(0.5)	91.4	(0.5)	80.1	(0.9)	82.3	(0.9)	82.3	(1.0)
	Iceland	90.4	(0.6)	85.6	(0.7)	88.2	(0.6)	89.0	(0.6)	91.2	(0.6)	91.8	(0.6)	90.4	(0.5)	75.2	(0.8)	85.1	(0.7)
	Ireland	90.9	(0.5)	89.5	(0.5)	79.7	(0.9)	89.8	(0.6)	94.1	(0.4)	93.3	(0.5)	81.9	(0.8)	66.0	(1.1)	79.5	(1.0)
	Israel	88.4	(0.6)	89.6	(0.5)	90.6	(0.6)	91.1	(0.6)	89.7	(0.6)	92.0	(0.5)	88.6	(0.6)	72.9	(0.8)	80.1	(0.9)
	Italy	91.2	(0.3)	89.6	(0.3)	77.2	(0.4)	88.6	(0.4)	85.8	(0.3)	92.7	(0.3)	75.6	(0.5)	31.6	(0.6)	69.4	(0.6)
	Japan	91.5	(0.5)	79.0	(0.6)	83.9	(0.6)	83.3	(0.8)	77.4	(0.8)	89.8	(0.5)	85.4	(0.7)	30.6	(0.8)	67.6	(0.9)
	Korea	91.8	(0.5)	78.8	(0.7)	76.3	(1.0)	89.3	(0.5)	77.7	(0.8)	91.1	(0.5)	60.4	(1.0)	48.4	(1.3)	65.0	(1.3)
	Luxembourg	88.3	(0.6)	86.8	(0.6)	76.0	(0.7)	83.8	(0.5)	88.4	(0.5)	90.7	(0.5)	79.7	(0.7)	76.5	(0.7)	77.6	(0.7)
	Mexico	85.6	(0.4)	89.0	(0.4)	91.5	(0.3)	86.4	(0.3)	88.9	(0.3)	88.9	(0.3)	90.9	(0.3)	59.4	(0.6)	81.6	(0.4)
	Netherlands	92.8	(0.6)	89.6	(0.6)	84.5	(1.0)	91.0	(0.7)	94.0	(0.5)	94.6	(0.5)	82.3	(0.8)	65.3	(1.4)	83.1	(1.0)
	New Zealand	86.1	(0.7)	86.8	(0.7)	78.4	(0.9)	85.5	(0.7)	91.4	(0.5)	88.0	(0.5)	81.2	(0.8)	70.1	(1.0)	78.0	(1.0)
	Norway	91.6	(0.5)	85.6	(0.6)	87.1	(0.6)	87.7	(0.6)	88.7	(0.6)	90.5	(0.5)	86.9	(0.8)	71.4	(0.8)	73.9	(1.0)
	Poland	89.8	(0.8)	86.7	(0.7)	76.0	(0.8)	88.9	(0.7)	83.7	(0.7)	91.2	(0.6)	68.4	(1.0)	29.6	(1.2)	72.4	(1.3)
	Portugal	91.1	(0.6)	86.9	(0.7)	91.1	(0.6)	83.9	(0.8)	93.6	(0.5)	92.5	(0.6)	86.4	(0.6)	56.5	(1.4)	79.1	(1.1)
	Slovak Republic	82.3	(1.0)	86.5	(0.6)	77.7	(0.9)	83.3	(0.9)	84.5	(0.8)	86.3	(0.7)	64.4	(1.3)	66.2	(1.1)	80.3	(1.1)
	Slovenia	89.8	(0.6)	91.4	(0.6)	83.4	(0.7)	89.4	(0.6)	88.5	(0.6)	92.1	(0.5)	78.5	(0.8)	44.2	(0.9)	85.1	(0.7)
	Spain	92.1	(0.4)	90.8	(0.3)	93.1	(0.4)	91.1	(0.4)	91.7	(0.3)	94.2	(0.3)	87.3	(0.4)	76.3	(0.7)	82.3	(0.6)
	Sweden	89.5	(0.6)	86.8	(0.7)	78.6	(0.9)	90.2	(0.6)	88.8	(0.7)	90.5	(0.6)	85.0	(0.8)	36.7	(1.0)	76.6	(1.1)
	Switzerland	92.6	(0.5)	87.9	(0.5)	82.5	(0.9)	90.3	(0.6)	94.2	(0.4)	94.6	(0.4)	87.1	(0.6)	82.3	(0.7)	84.1	(0.7)
	Turkey	82.7	(0.7)	85.5	(0.6)	84.2	(0.7)	81.6	(0.8)	85.9	(0.7)	82.9	(0.9)	83.1	(0.7)	69.6	(1.2)	83.4	(0.9)
	United Kingdom	88.6	(0.6)	88.0	(0.6)	79.4	(0.8)	87.8	(0.5)	92.6	(0.4)	92.5	(0.5)	83.2	(0.8)	71.4	(0.8)	84.2	(0.7)
	United States	85.6	(0.7)	87.9	(0.6)	80.6	(0.8)	83.4	(0.7)	93.5	(0.5)	88.1	(0.7)	79.7	(0.9)	73.8	(0.9)	80.5	(1.1)
	OECD average	88.8	(0.1)	86.9	(0.1)	81.3	(0.1)	87.6	(0.1)	89.2	(0.1)	91.1	(0.1)	79.8	(0.1)	61.1	(0.2)	78.2	(0.2)
Partners	Albania	89.2	(0.9)	86.1	(0.8)	93.8	(0.6)	81.6	(1.1)	81.3	(0.9)	89.2	(0.7)	94.0	(0.6)	90.7	(0.6)	93.6	(0.5)
	Argentina	67.4	(1.3)	87.1	(0.6)	89.9	(0.6)	81.3	(0.9)	83.3	(0.7)	83.9	(0.8)	77.0	(0.9)	42.0	(1.1)	78.4	(0.9)
	Brazil	84.2	(0.5)	86.1	(0.5)	86.2	(0.5)	86.8	(0.5)	88.1	(0.5)	80.8	(0.6)	84.7	(0.5)	39.1	(0.8)	73.5	(0.7)
	Bulgaria	76.2	(1.2)	90.4	(0.5)	82.0	(0.8)	79.0	(1.1)	83.5	(0.7)	81.0	(1.1)	80.4	(0.8)	66.4	(1.0)	85.7	(0.8)
	Colombia	85.5	(0.8)	90.2	(0.5)	94.1	(0.5)	83.5	(0.8)	86.6	(0.7)	87.5	(0.7)	92.2	(0.5)	82.8	(1.0)	89.5	(0.7)
	Costa Rica	87.3	(0.8)	90.6	(0.6)	90.7	(0.7)	89.2	(0.7)	90.1	(0.6)	89.8	(0.8)	90.6	(0.7)	77.7	(1.0)	83.3	(0.8)
	Croatia	91.7	(0.5)	91.2	(0.5)	88.1	(0.6)	90.9	(0.5)	87.8	(0.7)	93.1	(0.4)	87.0	(0.6)	70.6	(0.9)	85.7	(0.7)
	Cyprus*	81.1	(0.7)	88.0	(0.6)	85.5	(0.7)	83.1	(0.6)	88.4	(0.5)	86.2	(0.6)	76.9	(0.8)	55.3	(0.9)	72.8	(1.0)
	Hong Kong-China	82.0	(0.9)	86.3	(0.6)	73.0	(1.0)	87.3	(0.7)	80.1	(0.7)	86.0	(0.6)	86.3	(0.6)	59.8	(1.2)	76.6	(1.1)
	Indonesia	87.7	(0.7)	96.1	(0.4)	92.7	(0.5)	74.8	(1.0)	86.1	(0.7)	87.2	(0.6)	95.7	(0.4)	82.1	(0.9)	91.1	(0.6)
	Jordan	73.2	(1.0)	86.6	(0.6)	86.4	(0.7)	65.6	(0.9)	87.8	(0.6)	76.0	(1.0)	83.8	(0.8)	69.6	(1.2)	76.1	(1.0)
	Kazakhstan	91.0	(0.7)	93.2	(0.4)	88.7	(0.7)	91.8	(0.6)	89.1	(0.7)	91.4	(0.6)	90.5	(0.7)	89.5	(0.8)	94.3	(0.5)
	Latvia	91.4	(0.7)	87.1	(0.7)	90.1	(0.6)	85.7	(0.7)	80.0	(0.9)	90.1	(0.8)	67.7	(1.1)	44.9	(1.2)	81.4	(1.0)
	Liechtenstein	93.5	(1.8)	87.9	(2.7)	92.5	(1.6)	92.9	(1.9)	89.8	(2.3)	95.2	(1.5)	86.6	(2.2)	83.6	(2.5)	84.9	(2.5)
	Lithuania	84.0	(0.9)	87.6	(0.5)	66.6	(0.9)	83.7	(0.8)	81.9	(0.8)	86.8	(0.7)	77.9	(0.8)	72.5	(0.9)	82.6	(0.9)
	Macao-China	84.3	(0.7)	81.9	(0.6)	65.5	(0.9)	83.4	(0.6)	72.8	(0.7)	82.6	(0.7)	81.8	(0.7)	53.1	(0.8)	60.0	(0.8)
	Malaysia	79.9	(1.0)	90.7	(0.6)	81.5	(0.8)	77.4	(1.1)	80.3	(0.7)	80.1	(1.0)	91.4	(0.5)	72.5	(0.8)	81.8	(0.8)
	Montenegro	88.7	(0.6)	92.0	(0.6)	67.7	(0.9)	88.3	(0.6)	88.7	(0.6)	91.7	(0.6)	81.5	(0.8)	56.2	(0.9)	82.0	(0.7)
	Peru	84.8	(1.1)	86.5	(0.6)	86.4	(0.8)	75.1	(1.1)	86.6	(0.8)	86.3	(1.0)	93.6	(0.5)	70.4	(1.0)	85.7	(0.8)
	Qatar	66.8	(0.5)	85.1	(0.5)	78.2	(0.5)	68.3	(0.5)	85.9	(0.4)	72.1	(0.5)	75.2	(0.5)	68.9	(0.6)	71.5	(0.6)
	Romania	77.4	(1.4)	85.9	(0.9)	66.8	(0.9)	73.5	(1.3)	83.0	(0.8)	72.8	(1.4)	77.5	(1.0)	69.2	(0.9)	79.9	(0.8)
	Russian Federation	91.2	(0.6)	85.3	(0.7)	81.2	(0.8)	82.0	(0.7)	79.3	(0.8)	89.3	(0.6)	72.2	(1.2)	56.2	(1.8)	81.2	(1.1)
	Serbia	86.7	(0.8)	90.3	(0.6)	87.3	(0.6)	89.4	(0.6)	92.3	(0.6)	90.1	(0.6)	80.9	(0.7)	50.7	(1.3)	84.0	(0.7)
	Shanghai-China	86.7	(0.6)	87.3	(0.5)	67.5	(0.9)	86.8	(0.7)	77.3	(0.7)	86.2	(0.6)	84.6	(0.7)	46.9	(1.0)	69.3	(1.1)
	Singapore	83.7	(0.7)	88.4	(0.4)	83.8	(0.7)	83.3	(0.6)	86.4	(0.5)	84.4	(0.6)	87.9	(0.7)	75.2	(0.8)	81.0	(0.7)
	Chinese Taipei	90.5	(0.5)	88.1	(0.5)	91.0	(0.5)	85.8	(0.5)	72.3	(0.8)	88.3	(0.6)	86.5	(0.6)	44.8	(1.0)	71.1	(1.0)
	Thailand	78.5	(0.9)	91.7	(0.5)	91.2	(0.5)	67.4	(1.1)	71.7	(0.8)	79.2	(1.0)	93.5	(0.5)	86.1	(0.6)	94.2	(0.4)
	Tunisia	74.7	(1.0)	86.9	(0.7)	65.9	(1.1)	63.8	(1.1)	85.1	(0.7)	81.0	(0.9)	82.3	(0.9)	71.0	(1.1)	74.3	(1.1)
	United Arab Emirates	77.5	(0.8)	87.6	(0.5)	83.6	(0.5)	76.4	(0.6)	84.1	(0.7)	83.2	(0.7)	83.7	(0.6)	72.8	(0.7)	81.1	(0.6)
	Uruguay	85.0	(0.8)	88.0	(0.6)	92.5	(0.5)	86.7	(0.8)	96.9	(0.4)	82.3	(0.8)	87.5	(0.6)	70.9	(1.1)	84.0	(0.8)
	Viet Nam	94.5	(0.5)	91.9	(0.5)	82.7	(0.8)	88.7	(0.6)	40.8	(1.1)	93.9	(0.5)	85.8	(0.7)	68.0	(1.1)	89.9	(0.7)

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.2.3d Index of sense of belonging and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Index of sense of belonging at school																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	-0.15	(0.02)	0.97	(0.01)	-0.11	(0.02)	-0.19	(0.02)	**0.08**	(0.03)	-1.23	(0.01)	-0.51	(0.01)	-0.04	(0.02)	1.17	(0.03)
	Austria	0.55	(0.03)	1.12	(0.02)	0.51	(0.04)	0.58	(0.04)	-0.07	(0.05)	-0.87	(0.04)	0.20	(0.04)	0.86	(0.04)	2.01	(0.04)
	Belgium	-0.05	(0.02)	0.92	(0.01)	-0.06	(0.02)	-0.05	(0.02)	-0.02	(0.03)	-1.09	(0.02)	-0.40	(0.01)	0.12	(0.01)	1.16	(0.03)
	Canada	-0.09	(0.01)	0.97	(0.01)	-0.04	(0.02)	-0.13	(0.02)	**0.09**	(0.02)	-1.17	(0.01)	-0.47	(0.01)	0.07	(0.02)	1.23	(0.03)
	Chile	0.14	(0.02)	1.02	(0.01)	0.17	(0.03)	0.10	(0.03)	0.07	(0.04)	-1.05	(0.02)	-0.30	(0.02)	0.37	(0.03)	1.52	(0.03)
	Czech Republic	-0.36	(0.02)	0.81	(0.02)	-0.37	(0.03)	-0.34	(0.03)	-0.03	(0.04)	-1.26	(0.02)	-0.67	(0.02)	-0.23	(0.02)	0.72	(0.04)
	Denmark	-0.05	(0.02)	0.95	(0.02)	0.00	(0.02)	-0.08	(0.02)	**0.08**	(0.03)	-1.15	(0.02)	-0.42	(0.02)	0.19	(0.02)	1.20	(0.03)
	Estonia	-0.33	(0.02)	0.81	(0.01)	-0.32	(0.03)	-0.34	(0.02)	0.02	(0.03)	-1.27	(0.02)	-0.63	(0.02)	-0.15	(0.02)	0.75	(0.04)
	Finland	-0.22	(0.02)	0.86	(0.01)	-0.19	(0.02)	-0.26	(0.02)	**0.07**	(0.03)	-1.23	(0.02)	-0.54	(0.01)	-0.01	(0.02)	0.89	(0.03)
	France	-0.11	(0.02)	0.93	(0.01)	-0.15	(0.02)	-0.07	(0.02)	**-0.07**	(0.03)	-1.13	(0.02)	-0.49	(0.01)	0.05	(0.02)	1.15	(0.03)
	Germany	0.27	(0.02)	1.03	(0.02)	0.27	(0.03)	0.27	(0.03)	-0.01	(0.04)	-1.03	(0.03)	-0.05	(0.02)	0.58	(0.02)	1.58	(0.04)
	Greece	-0.14	(0.02)	0.94	(0.02)	-0.18	(0.03)	-0.10	(0.02)	**-0.08**	(0.04)	-1.17	(0.02)	-0.55	(0.02)	0.00	(0.02)	1.15	(0.04)
	Hungary	0.11	(0.02)	0.96	(0.01)	0.08	(0.03)	0.14	(0.02)	-0.06	(0.03)	-1.00	(0.02)	-0.29	(0.02)	0.33	(0.02)	1.40	(0.03)
	Iceland	0.36	(0.02)	1.14	(0.01)	0.41	(0.04)	0.30	(0.03)	**0.11**	(0.05)	-0.99	(0.02)	-0.13	(0.02)	0.63	(0.03)	1.92	(0.04)
	Ireland	-0.03	(0.02)	0.96	(0.02)	0.00	(0.03)	-0.05	(0.03)	0.05	(0.04)	-1.11	(0.02)	-0.44	(0.02)	0.16	(0.03)	1.28	(0.04)
	Israel	0.41	(0.03)	1.16	(0.02)	0.41	(0.04)	0.42	(0.03)	-0.02	(0.05)	-0.97	(0.03)	-0.09	(0.03)	0.71	(0.03)	2.01	(0.04)
	Italy	-0.21	(0.01)	0.86	(0.01)	-0.25	(0.01)	-0.17	(0.01)	**-0.08**	(0.02)	-1.20	(0.01)	-0.55	(0.01)	-0.02	(0.01)	0.91	(0.02)
	Japan	-0.16	(0.02)	0.98	(0.01)	-0.18	(0.02)	-0.14	(0.02)	-0.04	(0.03)	-1.30	(0.02)	-0.61	(0.02)	0.09	(0.03)	1.17	(0.02)
	Korea	-0.32	(0.02)	0.84	(0.02)	-0.28	(0.03)	-0.36	(0.03)	0.08	(0.04)	-1.27	(0.02)	-0.66	(0.02)	-0.15	(0.02)	0.80	(0.04)
	Luxembourg	0.20	(0.02)	1.11	(0.01)	0.20	(0.03)	0.21	(0.02)	0.00	(0.04)	-1.13	(0.02)	-0.23	(0.02)	0.48	(0.02)	1.69	(0.04)
	Mexico	0.10	(0.01)	0.97	(0.01)	0.04	(0.02)	0.16	(0.02)	**-0.12**	(0.02)	-0.99	(0.01)	-0.35	(0.01)	0.33	(0.02)	1.42	(0.02)
	Netherlands	-0.03	(0.02)	0.84	(0.02)	-0.06	(0.03)	0.00	(0.04)	-0.06	(0.05)	-0.97	(0.02)	-0.37	(0.02)	0.13	(0.02)	1.08	(0.04)
	New Zealand	-0.14	(0.02)	0.95	(0.02)	-0.12	(0.02)	-0.16	(0.03)	0.04	(0.03)	-1.19	(0.02)	-0.49	(0.01)	-0.01	(0.02)	1.14	(0.04)
	Norway	0.08	(0.02)	1.05	(0.01)	0.09	(0.03)	0.08	(0.03)	0.01	(0.04)	-1.12	(0.02)	-0.35	(0.01)	0.30	(0.03)	1.51	(0.04)
	Poland	-0.32	(0.02)	0.87	(0.02)	-0.31	(0.03)	-0.33	(0.02)	0.02	(0.03)	-1.28	(0.02)	-0.67	(0.02)	-0.19	(0.02)	0.85	(0.04)
	Portugal	0.03	(0.02)	0.92	(0.01)	0.05	(0.03)	0.01	(0.02)	0.03	(0.03)	-0.99	(0.02)	-0.37	(0.02)	0.21	(0.03)	1.28	(0.03)
	Slovak Republic	-0.31	(0.02)	0.85	(0.02)	-0.39	(0.02)	-0.23	(0.03)	**-0.17**	(0.04)	-1.25	(0.02)	-0.63	(0.02)	-0.19	(0.02)	0.82	(0.04)
	Slovenia	-0.01	(0.02)	0.94	(0.02)	-0.06	(0.02)	0.05	(0.03)	**-0.11**	(0.04)	-1.08	(0.02)	-0.41	(0.02)	0.21	(0.02)	1.26	(0.03)
	Spain	0.41	(0.02)	1.08	(0.01)	0.38	(0.02)	0.44	(0.02)	**-0.06**	(0.03)	-0.85	(0.02)	-0.03	(0.02)	0.65	(0.02)	1.87	(0.03)
	Sweden	-0.04	(0.02)	1.00	(0.01)	0.04	(0.03)	-0.12	(0.03)	**0.16**	(0.04)	-1.20	(0.03)	-0.45	(0.03)	0.17	(0.03)	1.32	(0.03)
	Switzerland	0.43	(0.02)	1.02	(0.01)	0.40	(0.03)	0.45	(0.03)	-0.05	(0.04)	-0.84	(0.03)	0.09	(0.02)	0.70	(0.03)	1.76	(0.03)
	Turkey	0.12	(0.02)	1.09	(0.01)	0.00	(0.03)	0.25	(0.03)	**-0.24**	(0.04)	-1.12	(0.02)	-0.36	(0.03)	0.38	(0.03)	1.60	(0.04)
	United Kingdom	-0.02	(0.02)	0.96	(0.01)	0.03	(0.02)	-0.08	(0.02)	**0.11**	(0.03)	-1.11	(0.02)	-0.41	(0.01)	0.15	(0.02)	1.27	(0.03)
	United States	-0.05	(0.02)	1.02	(0.02)	0.00	(0.03)	-0.09	(0.03)	0.09	(0.05)	-1.14	(0.02)	-0.47	(0.01)	0.07	(0.04)	1.36	(0.04)
	OECD average	0.00	(0.00)	0.97	(0.00)	0.00	(0.00)	0.00	(0.00)	-0.01	(0.01)	-1.11	(0.00)	-0.39	(0.00)	0.20	(0.00)	1.30	(0.01)
Partners	**Albania**	0.37	(0.02)	0.95	(0.02)	0.34	(0.03)	0.40	(0.03)	-0.06	(0.04)	-0.77	(0.02)	0.00	(0.03)	0.63	(0.04)	1.61	(0.03)
	Argentina	-0.23	(0.02)	0.88	(0.02)	-0.24	(0.03)	-0.21	(0.02)	-0.03	(0.04)	-1.21	(0.02)	-0.59	(0.02)	-0.06	(0.03)	0.97	(0.04)
	Brazil	-0.17	(0.01)	0.89	(0.01)	-0.17	(0.02)	-0.17	(0.02)	0.00	(0.02)	-1.14	(0.01)	-0.57	(0.01)	-0.02	(0.02)	1.06	(0.03)
	Bulgaria	-0.10	(0.02)	0.96	(0.01)	-0.15	(0.03)	-0.05	(0.03)	**-0.10**	(0.04)	-1.17	(0.02)	-0.52	(0.02)	0.05	(0.04)	1.22	(0.03)
	Colombia	0.21	(0.02)	0.99	(0.02)	0.19	(0.03)	0.24	(0.03)	-0.05	(0.05)	-0.89	(0.02)	-0.27	(0.03)	0.44	(0.03)	1.57	(0.04)
	Costa Rica	0.38	(0.03)	1.13	(0.01)	0.46	(0.04)	0.32	(0.03)	**0.14**	(0.04)	-0.92	(0.03)	-0.14	(0.03)	0.67	(0.04)	1.92	(0.04)
	Croatia	0.13	(0.02)	0.98	(0.01)	0.13	(0.03)	0.12	(0.03)	0.01	(0.04)	-0.97	(0.02)	-0.31	(0.02)	0.33	(0.03)	1.47	(0.03)
	Cyprus*	-0.12	(0.02)	1.00	(0.02)	-0.27	(0.03)	0.03	(0.03)	**-0.30**	(0.04)	-1.23	(0.02)	-0.55	(0.02)	0.03	(0.03)	1.26	(0.04)
	Hong Kong-China	-0.39	(0.02)	0.78	(0.02)	-0.36	(0.03)	-0.43	(0.02)	**0.07**	(0.03)	-1.24	(0.02)	-0.65	(0.02)	-0.31	(0.01)	0.64	(0.05)
	Indonesia	-0.01	(0.02)	0.79	(0.02)	-0.02	(0.02)	0.00	(0.03)	-0.03	(0.03)	-0.85	(0.02)	-0.37	(0.02)	0.11	(0.03)	1.08	(0.04)
	Jordan	0.02	(0.02)	1.09	(0.01)	-0.15	(0.04)	0.19	(0.03)	**-0.34**	(0.05)	-1.24	(0.02)	-0.47	(0.02)	0.29	(0.04)	1.52	(0.03)
	Kazakhstan	0.39	(0.03)	1.02	(0.01)	0.31	(0.04)	0.47	(0.04)	**-0.16**	(0.04)	-0.76	(0.03)	-0.12	(0.04)	0.64	(0.04)	1.79	(0.05)
	Latvia	-0.20	(0.02)	0.88	(0.02)	-0.20	(0.03)	-0.21	(0.03)	0.01	(0.04)	-1.19	(0.02)	-0.56	(0.01)	-0.05	(0.03)	0.99	(0.04)
	Liechtenstein	0.57	(0.07)	1.01	(0.05)	0.57	(0.10)	0.57	(0.09)	0.00	(0.13)	-0.65	(0.09)	0.21	(0.09)	0.86	(0.08)	1.91	(0.13)
	Lithuania	0.14	(0.03)	1.07	(0.01)	0.04	(0.03)	0.24	(0.04)	**-0.19**	(0.04)	-1.17	(0.03)	-0.28	(0.03)	0.47	(0.03)	1.53	(0.03)
	Macao-China	-0.50	(0.01)	0.81	(0.01)	-0.47	(0.02)	-0.52	(0.02)	0.04	(0.03)	-1.40	(0.02)	-0.77	(0.02)	-0.38	(0.01)	0.57	(0.03)
	Malaysia	-0.16	(0.02)	0.84	(0.01)	-0.25	(0.03)	-0.08	(0.03)	**-0.18**	(0.03)	-1.08	(0.02)	-0.52	(0.02)	-0.04	(0.03)	0.99	(0.04)
	Montenegro	-0.03	(0.02)	0.97	(0.01)	-0.10	(0.03)	0.04	(0.03)	**-0.14**	(0.04)	-1.11	(0.02)	-0.45	(0.02)	0.13	(0.02)	1.29	(0.04)
	Peru	-0.05	(0.02)	0.85	(0.01)	-0.09	(0.03)	-0.02	(0.02)	**-0.07**	(0.03)	-0.98	(0.03)	-0.43	(0.02)	0.09	(0.02)	1.10	(0.03)
	Qatar	-0.22	(0.01)	1.03	(0.01)	-0.30	(0.02)	-0.14	(0.02)	**-0.17**	(0.03)	-1.31	(0.01)	-0.69	(0.01)	-0.11	(0.02)	1.24	(0.03)
	Romania	-0.27	(0.02)	0.90	(0.02)	-0.27	(0.03)	-0.27	(0.03)	-0.01	(0.04)	-1.21	(0.02)	-0.67	(0.02)	-0.19	(0.02)	0.98	(0.04)
	Russian Federation	-0.17	(0.02)	0.90	(0.02)	-0.20	(0.03)	-0.15	(0.03)	-0.04	(0.03)	-1.17	(0.02)	-0.54	(0.02)	-0.05	(0.03)	1.06	(0.05)
	Serbia	0.07	(0.02)	0.97	(0.01)	0.08	(0.03)	0.05	(0.03)	0.03	(0.05)	-1.04	(0.02)	-0.36	(0.02)	0.28	(0.03)	1.39	(0.03)
	Shanghai-China	-0.32	(0.02)	0.93	(0.02)	-0.31	(0.03)	-0.32	(0.02)	0.02	(0.03)	-1.31	(0.02)	-0.69	(0.02)	-0.21	(0.02)	0.95	(0.04)
	Singapore	-0.15	(0.02)	0.93	(0.01)	-0.10	(0.02)	-0.20	(0.02)	**0.10**	(0.03)	-1.17	(0.02)	-0.48	(0.01)	-0.06	(0.02)	1.11	(0.03)
	Chinese Taipei	-0.19	(0.02)	0.91	(0.01)	-0.14	(0.02)	-0.25	(0.02)	**0.11**	(0.03)	-1.18	(0.02)	-0.57	(0.01)	-0.09	(0.02)	1.06	(0.03)
	Thailand	-0.08	(0.02)	0.82	(0.01)	-0.18	(0.03)	0.00	(0.02)	**-0.18**	(0.03)	-0.97	(0.02)	-0.45	(0.01)	0.06	(0.03)	1.06	(0.03)
	Tunisia	-0.16	(0.02)	1.00	(0.01)	-0.25	(0.04)	-0.08	(0.03)	**-0.17**	(0.04)	-1.27	(0.02)	-0.60	(0.02)	0.02	(0.03)	1.22	(0.04)
	United Arab Emirates	0.00	(0.02)	1.03	(0.01)	-0.05	(0.03)	0.05	(0.02)	**-0.11**	(0.04)	-1.17	(0.02)	-0.44	(0.02)	0.22	(0.02)	1.40	(0.04)
	Uruguay	0.16	(0.02)	0.99	(0.01)	0.20	(0.03)	0.12	(0.03)	**0.08**	(0.03)	-0.94	(0.02)	-0.31	(0.02)	0.36	(0.02)	1.53	(0.03)
	Viet Nam	-0.26	(0.02)	0.70	(0.01)	-0.21	(0.03)	-0.30	(0.02)	**0.09**	(0.03)	-1.01	(0.02)	-0.55	(0.02)	-0.18	(0.02)	0.70	(0.03)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 2/2]

Table III.2.3d Index of sense of belonging and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student mathematics performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Australia**	**483**	(2.9)	503	(3.4)	513	(3.3)	**519**	(2.8)	**11.9**	(1.2)	**1.5**	(0.1)	1.5	(0.3)
	Austria	**488**	(5.4)	510	(4.3)	518	(3.5)	**517**	(4.3)	**9.0**	(2.0)	**1.5**	(0.1)	1.2	(0.5)
	Belgium	**499**	(3.6)	524	(3.7)	535	(3.2)	**527**	(3.4)	**9.6**	(1.8)	**1.5**	(0.1)	0.8	(0.3)
	Canada	**510**	(3.4)	519	(3.0)	528	(2.7)	**525**	(2.9)	**5.3**	(1.1)	**1.3**	(0.1)	0.3	(0.1)
	Chile	420	(4.2)	417	(5.0)	427	(4.1)	428	(4.2)	**4.1**	(1.6)	1.0	(0.1)	0.3	(0.2)
	Czech Republic	**485**	(4.1)	507	(4.6)	512	(3.6)	**513**	(4.9)	**10.7**	(2.5)	**1.6**	(0.1)	0.9	(0.4)
	Denmark	**491**	(3.6)	507	(3.9)	515	(3.7)	**508**	(3.5)	**6.2**	(1.8)	**1.3**	(0.1)	0.5	(0.3)
	Estonia	**510**	(3.6)	519	(3.8)	523	(4.1)	**530**	(4.3)	**8.5**	(2.4)	**1.3**	(0.1)	0.7	(0.4)
	Finland	**510**	(3.4)	528	(3.4)	526	(3.3)	**527**	(2.7)	**5.6**	(1.5)	**1.4**	(0.1)	0.3	(0.2)
	France	**467**	(4.6)	504	(4.2)	508	(4.2)	**512**	(5.2)	**15.6**	(2.0)	**1.8**	(0.1)	2.3	(0.6)
	Germany	**511**	(5.0)	520	(4.7)	533	(5.1)	**526**	(4.9)	**5.7**	(2.0)	**1.3**	(0.1)	0.4	(0.3)
	Greece	**444**	(4.4)	460	(4.0)	459	(4.4)	**459**	(3.7)	**3.5**	(1.7)	**1.3**	(0.1)	0.1	(0.1)
	Hungary	**457**	(4.8)	475	(4.8)	487	(4.6)	**494**	(5.0)	**13.4**	(2.2)	**1.6**	(0.1)	2.0	(0.6)
	Iceland	**476**	(3.6)	500	(5.0)	500	(3.8)	**509**	(4.7)	**9.6**	(1.8)	**1.4**	(0.1)	1.4	(0.5)
	Ireland	501	(4.1)	496	(3.5)	504	(4.1)	504	(3.5)	0.8	(1.7)	1.0	(0.1)	0.0	(0.0)
	Israel	460	(6.7)	487	(6.6)	478	(6.2)	469	(6.3)	2.6	(2.0)	**1.4**	(0.1)	0.1	(0.1)
	Italy	477	(2.6)	493	(2.9)	497	(2.9)	482	(2.9)	-0.3	(1.3)	**1.2**	(0.1)	0.0	(0.0)
	Japan	530	(4.7)	541	(4.7)	540	(4.7)	538	(4.8)	3.1	(1.9)	**1.2**	(0.1)	0.1	(0.1)
	Korea	**532**	(5.9)	552	(5.4)	561	(5.1)	**571**	(7.1)	**16.0**	(3.2)	**1.5**	(0.1)	1.9	(0.7)
	Luxembourg	**466**	(3.4)	488	(3.5)	499	(3.6)	**506**	(3.3)	**12.9**	(1.6)	**1.6**	(0.1)	2.3	(0.5)
	Mexico	**406**	(1.9)	410	(1.9)	420	(2.0)	**423**	(1.8)	**6.4**	(0.7)	**1.3**	(0.1)	0.7	(0.2)
	Netherlands	**507**	(5.7)	533	(5.2)	538	(4.5)	**535**	(5.2)	**8.4**	(2.4)	**1.5**	(0.2)	0.7	(0.4)
	New Zealand	**490**	(4.5)	496	(5.4)	511	(4.2)	**502**	(4.3)	3.4	(2.0)	**1.2**	(0.1)	0.1	(0.1)
	Norway	**472**	(5.3)	496	(4.7)	499	(4.3)	**495**	(4.1)	**6.8**	(2.1)	**1.4**	(0.1)	0.6	(0.4)
	Poland	519	(4.7)	521	(4.8)	515	(4.7)	521	(6.0)	-1.4	(2.1)	1.0	(0.1)	0.0	(0.1)
	Portugal	**468**	(5.5)	488	(5.1)	501	(4.8)	**502**	(4.7)	**11.7**	(2.3)	**1.5**	(0.1)	1.4	(0.5)
	Slovak Republic	**467**	(6.3)	486	(5.1)	489	(5.8)	**496**	(4.8)	**12.0**	(2.9)	**1.5**	(0.1)	1.0	(0.5)
	Slovenia	**489**	(3.3)	505	(4.3)	513	(4.2)	**511**	(4.7)	**7.2**	(2.2)	**1.3**	(0.1)	0.6	(0.3)
	Spain	**472**	(3.5)	492	(2.6)	495	(3.3)	**486**	(3.0)	**3.7**	(1.3)	**1.4**	(0.1)	0.2	(0.1)
	Sweden	**465**	(4.6)	485	(4.3)	491	(3.5)	**489**	(4.3)	**6.5**	(2.0)	**1.5**	(0.1)	0.5	(0.3)
	Switzerland	**510**	(4.1)	533	(4.4)	541	(4.3)	**542**	(4.3)	**11.0**	(1.7)	**1.4**	(0.1)	1.5	(0.4)
	Turkey	**439**	(6.5)	449	(4.8)	457	(5.9)	**452**	(6.3)	3.3	(1.8)	**1.3**	(0.1)	0.2	(0.2)
	United Kingdom	**484**	(4.4)	501	(3.7)	499	(5.3)	**505**	(4.8)	**5.8**	(1.7)	**1.4**	(0.1)	0.4	(0.2)
	United States	**474**	(5.2)	480	(4.6)	491	(4.9)	**490**	(4.5)	**5.9**	(1.6)	**1.4**	(0.1)	0.5	(0.3)
	OECD average	**482**	(0.8)	498	(0.7)	504	(0.7)	**503**	(0.8)	**7.2**	(0.3)	**1.4**	(0.0)	0.8	(0.1)
Partners	**Albania**	399	(4.9)	397	(4.8)	387	(4.4)	393	(4.5)	-3.7	(2.3)	1.0	(0.1)	0.2	(0.2)
	Argentina	**378**	(4.4)	390	(5.6)	394	(4.7)	**399**	(4.1)	**7.8**	(1.9)	**1.3**	(0.1)	0.8	(0.4)
	Brazil	**387**	(3.4)	394	(2.9)	398	(2.8)	**394**	(2.8)	2.1	(1.4)	**1.2**	(0.1)	0.1	(0.1)
	Bulgaria	**417**	(5.1)	436	(5.2)	451	(5.4)	**463**	(4.6)	**15.6**	(2.1)	**1.7**	(0.1)	2.6	(0.7)
	Colombia	**369**	(3.6)	380	(4.9)	388	(4.3)	**388**	(4.1)	**7.6**	(1.8)	**1.4**	(0.2)	1.1	(0.5)
	Costa Rica	404	(4.8)	401	(4.2)	412	(4.4)	409	(4.2)	2.3	(1.6)	1.2	(0.1)	0.2	(0.2)
	Croatia	464	(4.2)	471	(4.3)	480	(4.7)	475	(6.4)	3.1	(2.3)	1.1	(0.1)	0.1	(0.2)
	Cyprus*	**421**	(3.1)	448	(3.7)	456	(4.0)	**450**	(3.2)	**6.5**	(1.7)	**1.6**	(0.1)	0.5	(0.3)
	Hong Kong-China	**550**	(5.8)	562	(5.0)	569	(4.8)	**573**	(4.5)	**8.5**	(2.7)	**1.3**	(0.1)	0.5	(0.3)
	Indonesia	**364**	(5.3)	375	(5.6)	378	(5.0)	**386**	(4.2)	**9.8**	(1.9)	**1.4**	(0.1)	1.2	(0.5)
	Jordan	**368**	(4.3)	381	(4.5)	400	(3.2)	**405**	(4.1)	**12.5**	(1.5)	**1.6**	(0.1)	3.3	(0.7)
	Kazakhstan	**423**	(4.2)	429	(4.3)	438	(3.5)	**439**	(4.2)	**6.2**	(1.5)	**1.3**	(0.1)	0.8	(0.4)
	Latvia	489	(4.6)	493	(4.8)	490	(4.8)	489	(4.0)	-1.5	(2.3)	1.1	(0.1)	0.0	(0.1)
	Liechtenstein	**513**	(13.1)	540	(14.8)	541	(16.6)	**551**	(14.7)	**14.1**	(6.0)	1.4	(0.5)	2.3	(1.9)
	Lithuania	**447**	(4.0)	476	(4.7)	494	(4.1)	**497**	(4.3)	**17.4**	(1.8)	**1.9**	(0.1)	4.4	(0.8)
	Macao-China	538	(3.4)	542	(3.6)	538	(3.3)	541	(3.2)	-0.3	(2.1)	1.0	(0.1)	0.0	(0.0)
	Malaysia	**412**	(5.1)	423	(4.3)	426	(4.5)	**425**	(3.7)	**5.1**	(1.9)	**1.4**	(0.1)	0.3	(0.2)
	Montenegro	**417**	(3.2)	412	(3.7)	417	(3.8)	**400**	(3.2)	**-6.8**	(1.4)	0.9	(0.1)	0.7	(0.3)
	Peru	**363**	(4.4)	368	(5.4)	380	(4.6)	**385**	(5.0)	**9.3**	(2.0)	**1.3**	(0.1)	0.9	(0.4)
	Qatar	**350**	(2.3)	376	(2.4)	399	(2.6)	**403**	(2.9)	**16.5**	(1.1)	**1.7**	(0.1)	3.0	(0.4)
	Romania	**436**	(5.4)	438	(4.7)	447	(4.4)	**459**	(5.2)	**9.3**	(2.1)	**1.2**	(0.1)	1.1	(0.5)
	Russian Federation	**479**	(3.9)	478	(4.6)	485	(3.8)	**489**	(4.3)	**4.1**	(2.1)	1.1	(0.1)	0.2	(0.2)
	Serbia	446	(5.5)	447	(4.1)	458	(4.9)	444	(5.0)	0.1	(2.0)	1.1	(0.1)	0.0	(0.0)
	Shanghai-China	614	(4.8)	608	(5.4)	608	(5.2)	621	(4.7)	3.6	(1.9)	1.0	(0.1)	0.1	(0.1)
	Singapore	**560**	(3.6)	581	(4.0)	585	(4.3)	**577**	(3.2)	**5.6**	(1.8)	**1.3**	(0.1)	0.3	(0.2)
	Chinese Taipei	558	(5.7)	561	(4.8)	556	(4.7)	564	(4.4)	0.9	(2.1)	1.0	(0.1)	0.0	(0.0)
	Thailand	**407**	(4.5)	425	(4.3)	433	(4.3)	**446**	(4.7)	**18.0**	(1.8)	**1.7**	(0.1)	3.3	(0.6)
	Tunisia	**379**	(4.8)	387	(5.1)	394	(4.4)	**396**	(4.7)	**6.0**	(1.4)	**1.3**	(0.1)	0.6	(0.3)
	United Arab Emirates	**415**	(3.9)	434	(3.6)	447	(3.3)	**448**	(3.4)	**11.3**	(1.3)	**1.6**	(0.1)	1.7	(0.4)
	Uruguay	407	(4.5)	415	(4.5)	416	(3.9)	411	(4.4)	1.3	(2.0)	1.1	(0.1)	0.0	(0.1)
	Viet Nam	513	(6.1)	508	(5.4)	511	(6.1)	514	(6.9)	0.4	(3.2)	0.9	(0.1)	0.0	(0.1)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 1/3]

Table III.2.3f Change between 2003 and 2012 in students' sense of belonging

Percentage of students who reported "agree" or "strongly agree" (a) or who reported "disagree" or "strongly disagree" (b)

		PISA 2003													
				Percentage of students who agree/disagree with the following statements:											
		Index of sense of belonging at school		I feel like an outsider (or left out of things) at school[b]		I make friends easily at school[a]		I feel like I belong at school[a]		I feel awkward and out of place in my school[b]		Other students seem to like me[a]		I feel lonely at school[b]	
		Mean Index	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	0.05	(0.02)	92.4	(0.3)	91.4	(0.3)	88.0	(0.4)	91.2	(0.3)	95.1	(0.2)	93.5	(0.3)
	Austria	0.44	(0.02)	94.0	(0.5)	90.1	(0.5)	88.7	(0.6)	91.2	(0.6)	78.2	(0.8)	92.6	(0.4)
	Belgium	-0.27	(0.01)	92.1	(0.4)	89.3	(0.4)	55.7	(0.8)	84.2	(0.4)	91.8	(0.4)	93.6	(0.4)
	Canada	0.03	(0.01)	91.3	(0.3)	89.9	(0.3)	81.2	(0.5)	89.2	(0.3)	94.2	(0.3)	92.1	(0.3)
	Czech Republic	-0.26	(0.01)	89.8	(0.5)	89.1	(0.5)	77.4	(0.7)	93.4	(0.5)	87.3	(0.5)	92.6	(0.4)
	Denmark	0.02	(0.02)	94.8	(0.4)	88.1	(0.6)	69.5	(0.9)	88.2	(0.5)	91.9	(0.5)	93.7	(0.5)
	Finland	-0.01	(0.01)	94.4	(0.3)	87.6	(0.5)	88.7	(0.5)	91.2	(0.4)	86.9	(0.5)	93.5	(0.4)
	France	-0.17	(0.02)	92.0	(0.5)	91.9	(0.4)	45.0	(1.0)	87.4	(0.6)	92.5	(0.4)	93.4	(0.5)
	Germany	0.24	(0.02)	93.8	(0.5)	86.4	(0.5)	87.2	(0.6)	88.4	(0.5)	70.0	(0.7)	93.7	(0.3)
	Greece	0.05	(0.02)	93.6	(0.4)	90.6	(0.4)	90.9	(0.5)	91.8	(0.4)	92.2	(0.4)	93.4	(0.3)
	Hungary	0.09	(0.02)	90.7	(0.4)	88.4	(0.5)	90.8	(0.5)	92.6	(0.4)	88.9	(0.5)	92.7	(0.4)
	Iceland	0.17	(0.02)	90.1	(0.5)	84.9	(0.6)	88.6	(0.5)	89.1	(0.5)	89.6	(0.5)	89.6	(0.5)
	Ireland	0.09	(0.02)	94.3	(0.4)	91.5	(0.5)	87.9	(0.6)	92.1	(0.4)	95.3	(0.4)	95.4	(0.4)
	Italy	0.06	(0.01)	95.2	(0.3)	92.1	(0.4)	85.4	(0.6)	93.7	(0.4)	91.5	(0.4)	94.2	(0.4)
	Japan	-0.50	(0.02)	94.1	(0.3)	76.9	(0.7)	80.2	(0.7)	82.0	(0.7)	68.6	(0.8)	70.3	(0.9)
	Korea	-0.37	(0.01)	91.5	(0.3)	78.8	(0.7)	75.8	(0.8)	91.4	(0.4)	44.8	(0.9)	92.9	(0.4)
	Luxembourg	0.23	(0.02)	92.1	(0.4)	89.1	(0.5)	72.8	(0.6)	89.6	(0.5)	90.6	(0.5)	92.7	(0.4)
	Mexico	0.09	(0.02)	90.4	(0.7)	87.6	(0.6)	92.0	(0.5)	89.9	(0.6)	89.1	(0.6)	89.4	(0.5)
	Netherlands	-0.05	(0.02)	96.0	(0.3)	91.6	(0.6)	77.2	(1.0)	92.4	(0.6)	92.6	(0.5)	97.1	(0.3)
	New Zealand	0.00	(0.01)	92.1	(0.4)	90.8	(0.5)	85.9	(0.6)	89.3	(0.5)	93.7	(0.4)	93.4	(0.4)
	Norway	0.24	(0.02)	94.5	(0.4)	90.0	(0.5)	85.2	(0.7)	91.0	(0.5)	90.7	(0.4)	92.9	(0.4)
	Poland	-0.15	(0.02)	91.8	(0.5)	88.1	(0.5)	76.4	(0.7)	90.1	(0.5)	92.8	(0.4)	91.7	(0.5)
	Portugal	0.10	(0.02)	93.8	(0.6)	93.3	(0.5)	93.2	(0.5)	88.3	(0.6)	90.7	(0.5)	95.1	(0.4)
	Slovak Republic	-0.15	(0.01)	91.8	(0.5)	91.7	(0.4)	85.2	(0.5)	88.5	(0.5)	91.0	(0.4)	93.0	(0.4)
	Spain	0.21	(0.02)	96.2	(0.3)	91.1	(0.4)	85.0	(0.6)	90.7	(0.5)	91.9	(0.4)	95.0	(0.5)
	Sweden	0.25	(0.02)	94.7	(0.4)	88.4	(0.6)	81.0	(0.7)	95.1	(0.3)	90.7	(0.5)	93.3	(0.4)
	Switzerland	0.20	(0.03)	92.6	(0.4)	88.3	(0.5)	81.7	(1.5)	88.2	(0.6)	78.4	(0.8)	93.6	(0.3)
	Turkey	-0.42	(0.02)	86.2	(0.8)	87.8	(0.5)	75.0	(0.8)	88.9	(0.8)	41.2	(0.9)	74.8	(0.8)
	United States	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	OECD average 2003	0.01	(0.00)	92.7	(0.1)	88.7	(0.1)	81.1	(0.1)	90.0	(0.1)	85.4	(0.1)	91.8	(0.1)
Partners	**Brazil**	0.14	(0.02)	93.3	(0.5)	91.4	(0.5)	92.2	(0.5)	89.3	(0.5)	92.3	(0.5)	92.7	(0.5)
	Hong Kong-China	-0.58	(0.01)	82.2	(0.6)	87.7	(0.5)	68.2	(0.9)	89.6	(0.6)	76.7	(0.7)	88.5	(0.6)
	Indonesia	-0.28	(0.01)	96.2	(0.3)	97.7	(0.2)	68.0	(1.3)	88.8	(0.7)	83.2	(0.6)	92.7	(0.3)
	Latvia	-0.20	(0.02)	94.9	(0.4)	89.1	(0.6)	92.0	(0.5)	90.6	(0.7)	72.3	(1.7)	91.2	(0.5)
	Liechtenstein	0.20	(0.05)	93.3	(1.4)	86.3	(2.0)	91.0	(1.3)	88.9	(1.6)	69.9	(2.5)	92.4	(1.6)
	Macao-China	-0.58	(0.02)	84.4	(1.1)	83.6	(1.1)	65.0	(1.7)	86.2	(1.1)	72.3	(1.3)	84.8	(1.3)
	Russian Federation	-0.27	(0.02)	93.8	(0.4)	87.6	(0.5)	92.1	(0.6)	85.2	(0.6)	50.8	(1.0)	91.1	(0.5)
	Thailand	-0.26	(0.02)	93.6	(0.5)	94.7	(0.4)	95.4	(0.4)	84.9	(0.6)	79.6	(0.7)	88.9	(0.6)
	Tunisia	-0.08	(0.02)	90.0	(0.6)	88.2	(0.5)	58.1	(1.1)	82.3	(0.7)	88.7	(0.5)	88.9	(0.6)
	Uruguay	0.24	(0.01)	92.5	(0.4)	89.9	(0.5)	92.8	(0.4)	92.8	(0.5)	92.7	(0.5)	93.5	(0.4)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
For comparability over time, PISA 2003 values on the *index of sense of belonging* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).

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[Part 2/3]

Table III.2.3f

Change between 2003 and 2012 in students' sense of belonging

Percentage of students who reported "agree" or "strongly agree" (a) or who reported "disagree" or "strongly disagree" (b)

		PISA 2012													
				Percentage of students who agree/disagree with the following statements:											
		Index of sense of belonging at school		I feel like an outsider (or left out of things) at school[b]		I make friends easily at school[a]		I feel like I belong at school[a]		I feel awkward and out of place in my school[b]		Other students seem to like me[a]		I feel lonely at school[b]	
		Mean Index	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	-0.15	(0.02)	85.2	(0.5)	85.5	(0.4)	78.1	(0.5)	84.9	(0.4)	91.5	(0.4)	88.3	(0.4)
	Austria	0.55	(0.03)	92.8	(0.6)	90.1	(0.6)	86.0	(0.8)	91.3	(0.6)	93.7	(0.4)	94.2	(0.5)
	Belgium	-0.05	(0.02)	90.4	(0.5)	87.8	(0.5)	68.4	(0.8)	87.8	(0.5)	91.6	(0.3)	92.7	(0.3)
	Canada	-0.09	(0.01)	86.7	(0.5)	87.0	(0.5)	78.4	(0.5)	85.3	(0.4)	93.3	(0.3)	88.8	(0.4)
	Czech Republic	-0.36	(0.02)	84.7	(0.8)	87.5	(0.8)	78.1	(1.1)	89.9	(0.7)	88.6	(0.7)	90.2	(0.7)
	Denmark	-0.05	(0.02)	93.0	(0.5)	84.4	(0.6)	77.4	(0.8)	90.5	(0.5)	87.7	(0.5)	92.7	(0.5)
	Finland	-0.22	(0.02)	90.9	(0.5)	85.5	(0.5)	84.3	(0.7)	85.5	(0.7)	87.6	(0.6)	91.3	(0.5)
	France	-0.11	(0.02)	79.0	(0.8)	92.1	(0.5)	47.4	(1.0)	86.9	(0.6)	92.5	(0.5)	93.0	(0.5)
	Germany	0.27	(0.02)	91.5	(0.6)	82.1	(0.7)	83.6	(0.8)	89.5	(0.6)	92.5	(0.5)	93.9	(0.5)
	Greece	-0.14	(0.02)	85.5	(0.8)	86.8	(0.6)	88.9	(0.6)	88.4	(0.7)	90.3	(0.5)	89.8	(0.7)
	Hungary	0.11	(0.02)	88.6	(0.6)	89.5	(0.5)	84.9	(0.7)	88.1	(0.7)	90.8	(0.5)	91.4	(0.5)
	Iceland	0.36	(0.02)	90.4	(0.6)	85.6	(0.7)	88.2	(0.6)	89.0	(0.6)	91.2	(0.6)	91.8	(0.6)
	Ireland	-0.03	(0.02)	90.9	(0.5)	89.5	(0.5)	79.7	(0.9)	89.8	(0.6)	94.1	(0.4)	93.3	(0.5)
	Italy	-0.21	(0.01)	91.2	(0.3)	89.6	(0.3)	77.2	(0.4)	88.6	(0.4)	85.8	(0.3)	92.7	(0.3)
	Japan	-0.16	(0.02)	91.5	(0.5)	79.0	(0.6)	83.9	(0.6)	83.3	(0.8)	77.4	(0.8)	89.8	(0.5)
	Korea	-0.32	(0.02)	91.8	(0.5)	78.8	(0.7)	76.3	(1.0)	89.3	(0.5)	77.7	(0.8)	91.1	(0.5)
	Luxembourg	0.20	(0.02)	88.3	(0.6)	86.8	(0.6)	76.0	(0.7)	83.8	(0.5)	88.4	(0.5)	90.7	(0.5)
	Mexico	0.10	(0.01)	85.6	(0.4)	89.0	(0.4)	91.5	(0.3)	86.4	(0.3)	88.9	(0.3)	88.9	(0.3)
	Netherlands	-0.03	(0.02)	92.8	(0.6)	89.6	(0.6)	84.5	(1.0)	91.0	(0.7)	94.0	(0.5)	94.6	(0.5)
	New Zealand	-0.14	(0.02)	86.1	(0.7)	86.8	(0.7)	78.4	(0.9)	85.5	(0.7)	91.4	(0.5)	88.0	(0.5)
	Norway	0.08	(0.02)	91.6	(0.5)	85.6	(0.6)	87.1	(0.6)	87.7	(0.6)	88.7	(0.6)	90.5	(0.5)
	Poland	-0.32	(0.02)	89.8	(0.8)	86.7	(0.7)	76.0	(0.8)	88.9	(0.7)	83.7	(0.7)	91.2	(0.6)
	Portugal	0.03	(0.02)	91.1	(0.6)	86.9	(0.7)	91.1	(0.6)	83.9	(0.8)	93.6	(0.5)	92.5	(0.6)
	Slovak Republic	-0.31	(0.02)	82.3	(1.0)	86.5	(0.6)	77.7	(0.9)	83.3	(0.9)	84.5	(0.8)	86.3	(0.7)
	Spain	0.41	(0.02)	92.1	(0.4)	90.8	(0.3)	93.1	(0.4)	91.1	(0.4)	91.7	(0.3)	94.2	(0.3)
	Sweden	-0.04	(0.02)	89.5	(0.6)	86.8	(0.7)	78.6	(0.9)	90.2	(0.6)	88.8	(0.7)	90.5	(0.6)
	Switzerland	0.43	(0.02)	92.6	(0.5)	87.9	(0.5)	82.5	(0.9)	90.3	(0.6)	94.2	(0.4)	94.6	(0.4)
	Turkey	0.12	(0.02)	82.7	(0.7)	85.5	(0.6)	84.2	(0.7)	81.6	(0.8)	85.9	(0.7)	82.9	(0.9)
	United States	-0.05	(0.02)	85.6	(0.7)	87.9	(0.6)	80.6	(0.8)	83.4	(0.7)	93.5	(0.5)	88.1	(0.7)
	OECD average 2003	0.00	(0.00)	88.9	(0.1)	86.8	(0.1)	80.8	(0.1)	87.6	(0.1)	89.3	(0.1)	91.1	(0.1)
Partners	Brazil	-0.17	(0.01)	84.2	(0.5)	86.1	(0.5)	86.2	(0.5)	86.8	(0.5)	88.1	(0.5)	80.8	(0.6)
	Hong Kong-China	-0.39	(0.02)	82.0	(0.9)	86.3	(0.6)	73.0	(1.0)	87.3	(0.7)	80.1	(0.7)	86.0	(0.6)
	Indonesia	-0.01	(0.02)	87.7	(0.7)	96.1	(0.4)	92.7	(0.5)	74.8	(1.0)	86.1	(0.7)	87.2	(0.6)
	Latvia	-0.20	(0.02)	91.4	(0.7)	87.1	(0.7)	90.1	(0.6)	85.7	(0.7)	80.0	(0.9)	90.1	(0.8)
	Liechtenstein	0.57	(0.07)	93.5	(1.8)	87.9	(2.7)	92.5	(1.6)	92.9	(1.9)	89.8	(2.3)	95.2	(1.5)
	Macao-China	-0.50	(0.01)	84.3	(0.7)	81.9	(0.6)	65.5	(0.9)	83.4	(0.6)	72.8	(0.7)	82.6	(0.7)
	Russian Federation	-0.17	(0.02)	91.2	(0.6)	85.3	(0.7)	81.2	(0.8)	82.0	(0.7)	79.3	(0.8)	89.3	(0.6)
	Thailand	-0.08	(0.02)	78.5	(0.9)	91.7	(0.5)	91.2	(0.5)	67.4	(1.1)	71.7	(0.8)	79.2	(1.0)
	Tunisia	-0.16	(0.02)	74.7	(1.0)	86.9	(0.7)	65.9	(1.1)	63.8	(1.1)	85.1	(0.7)	81.0	(0.9)
	Uruguay	0.16	(0.02)	85.0	(0.8)	88.0	(0.6)	92.5	(0.5)	86.7	(0.8)	96.9	(0.4)	82.3	(0.8)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
For comparability over time, PISA 2003 values on the *index of sense of belonging* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).

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[Part 3/3]

Table III.2.3f

Change between 2003 and 2012 in students' sense of belonging

Percentage of students who reported "agree" or "strongly agree" (a) or who reported "disagree" or "strongly disagree" (b)

		Change between 2003 and 2012 (PISA 2012 - PISA 2003)													
				Percentage of students who agree/disagree with the following statements:											
		Index of sense of belonging at school		I feel like an outsider (or left out of things) at school[b]		I make friends easily at school[a]		I feel like I belong at school[a]		I feel awkward and out of place in my school[b]		Other students seem to like me[a]		I feel lonely at school[b]	
		Dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.
OECD	Australia	**-0.21**	(0.02)	**-7.2**	(0.6)	**-5.9**	(0.5)	**-9.9**	(0.7)	**-6.3**	(0.5)	**-3.6**	(0.4)	**-5.2**	(0.5)
	Austria	**0.11**	(0.04)	-1.2	(0.7)	0.0	(0.8)	**-2.8**	(1.0)	0.1	(0.9)	**15.6**	(0.9)	**1.6**	(0.7)
	Belgium	**0.21**	(0.02)	**-1.7**	(0.6)	**-1.5**	(0.7)	**12.7**	(1.1)	**3.6**	(0.6)	-0.1	(0.5)	-0.9	(0.5)
	Canada	**-0.12**	(0.02)	**-4.6**	(0.6)	**-2.9**	(0.6)	**-2.8**	(0.7)	**-4.0**	(0.5)	**-0.9**	(0.4)	**-3.4**	(0.5)
	Czech Republic	**-0.10**	(0.02)	**-5.1**	(0.9)	-1.7	(0.9)	0.6	(1.3)	**-3.5**	(0.8)	1.2	(0.8)	**-2.3**	(0.8)
	Denmark	**-0.07**	(0.02)	**-1.8**	(0.6)	**-3.7**	(0.8)	**7.9**	(1.2)	**2.3**	(0.8)	**-4.2**	(0.7)	-1.0	(0.7)
	Finland	**-0.22**	(0.02)	**-3.5**	(0.6)	**-2.1**	(0.7)	**-4.4**	(0.8)	**-5.7**	(0.8)	0.7	(0.8)	**-2.2**	(0.6)
	France	**0.06**	(0.02)	**-13.0**	(0.9)	0.2	(0.6)	2.3	(1.4)	-0.6	(0.9)	0.0	(0.6)	-0.4	(0.7)
	Germany	0.03	(0.03)	**-2.3**	(0.8)	**-4.4**	(0.9)	**-3.5**	(1.0)	1.1	(0.8)	**22.4**	(0.9)	0.2	(0.6)
	Greece	**-0.19**	(0.02)	**-8.0**	(0.9)	**-3.8**	(0.7)	**-2.0**	(0.8)	**-3.4**	(0.8)	**-1.9**	(0.6)	**-3.7**	(0.7)
	Hungary	0.02	(0.03)	**-2.1**	(0.8)	1.2	(0.7)	**-5.8**	(0.9)	**-4.5**	(0.9)	**1.9**	(0.7)	**-1.3**	(0.7)
	Iceland	**0.19**	(0.03)	0.3	(0.8)	0.7	(0.9)	-0.4	(0.8)	-0.1	(0.8)	**1.6**	(0.8)	**2.2**	(0.8)
	Ireland	**-0.11**	(0.03)	**-3.4**	(0.6)	**-2.0**	(0.7)	**-8.2**	(1.0)	**-2.3**	(0.7)	**-1.2**	(0.6)	**-2.1**	(0.6)
	Italy	**-0.27**	(0.02)	**-4.0**	(0.5)	**-2.5**	(0.5)	**-8.2**	(0.7)	**-5.2**	(0.6)	**-5.6**	(0.5)	**-1.5**	(0.5)
	Japan	**0.34**	(0.02)	**-2.5**	(0.6)	**2.1**	(1.0)	**3.7**	(0.9)	1.3	(1.1)	**8.8**	(1.1)	**19.4**	(1.1)
	Korea	0.05	(0.03)	0.3	(0.6)	0.1	(1.0)	0.6	(1.3)	**-2.1**	(0.6)	**33.0**	(1.2)	**-1.8**	(0.6)
	Luxembourg	-0.03	(0.02)	**-3.8**	(0.7)	**-2.3**	(0.8)	**3.2**	(0.9)	**-5.9**	(0.7)	**-2.2**	(0.7)	**-2.1**	(0.6)
	Mexico	0.02	(0.02)	**-4.9**	(0.8)	**1.4**	(0.7)	-0.5	(0.6)	**-3.5**	(0.7)	-0.2	(0.7)	-0.5	(0.6)
	Netherlands	0.02	(0.03)	**-3.3**	(0.7)	**-2.0**	(0.8)	**7.4**	(1.4)	-1.3	(0.9)	**1.4**	(0.7)	**-2.5**	(0.6)
	New Zealand	**-0.15**	(0.02)	**-6.0**	(0.8)	**-4.0**	(0.9)	**-7.5**	(1.1)	**-3.8**	(0.8)	**-2.3**	(0.6)	**-5.5**	(0.6)
	Norway	**-0.16**	(0.03)	**-2.8**	(0.6)	**-4.5**	(0.8)	**1.9**	(0.9)	**-3.3**	(0.8)	**-2.0**	(0.7)	**-2.4**	(0.6)
	Poland	**-0.17**	(0.03)	**-2.0**	(0.9)	-1.4	(0.9)	-0.4	(1.1)	-1.3	(0.9)	**-9.0**	(0.8)	-0.5	(0.7)
	Portugal	**-0.07**	(0.03)	**-2.7**	(0.8)	**-6.3**	(0.9)	**-2.1**	(0.8)	**-4.4**	(1.0)	**2.9**	(0.7)	**-2.6**	(0.7)
	Slovak Republic	**-0.17**	(0.02)	**-9.5**	(1.1)	**-5.2**	(0.7)	**-7.5**	(1.0)	**-5.2**	(1.1)	**-6.5**	(0.9)	**-6.7**	(0.9)
	Spain	**0.20**	(0.02)	**-4.1**	(0.5)	-0.3	(0.5)	**8.1**	(0.7)	0.4	(0.6)	-0.3	(0.5)	-0.8	(0.6)
	Sweden	**-0.29**	(0.03)	**-5.2**	(0.8)	-1.6	(0.9)	**-2.4**	(1.1)	**-4.9**	(0.7)	**-2.0**	(0.9)	**-2.8**	(0.8)
	Switzerland	**0.23**	(0.03)	0.0	(0.6)	-0.4	(0.7)	0.8	(1.8)	**2.1**	(0.8)	**15.7**	(0.9)	**1.0**	(0.5)
	Turkey	**0.54**	(0.03)	**-3.6**	(1.0)	**-2.3**	(0.8)	**9.2**	(1.1)	**-7.3**	(1.1)	**44.6**	(1.1)	**8.1**	(1.2)
	United States	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	OECD average 2003	**-0.01**	(0.00)	**-3.9**	(0.1)	**-2.0**	(0.1)	-0.4	(0.2)	**-2.4**	(0.2)	**3.8**	(0.1)	**-0.7**	(0.1)
Partners	Brazil	**-0.31**	(0.02)	**-9.0**	(0.7)	**-5.3**	(0.7)	**-6.0**	(0.7)	**-2.5**	(0.7)	**-4.2**	(0.7)	**-12.0**	(0.8)
	Hong Kong-China	**0.18**	(0.02)	-0.2	(1.0)	-1.3	(0.8)	**4.9**	(1.3)	**-2.3**	(0.9)	**3.5**	(1.0)	**-2.5**	(0.9)
	Indonesia	**0.27**	(0.02)	**-8.4**	(0.8)	**-1.6**	(0.4)	**24.7**	(1.4)	**-14.0**	(1.3)	**2.8**	(0.9)	**-5.6**	(0.7)
	Latvia	-0.01	(0.03)	**-3.5**	(0.8)	**-2.1**	(0.9)	**-1.9**	(0.8)	**-4.9**	(1.0)	**7.7**	(1.9)	-1.0	(0.9)
	Liechtenstein	**0.38**	(0.09)	0.2	(2.3)	1.6	(3.3)	1.6	(2.0)	4.0	(2.5)	**19.9**	(3.4)	2.7	(2.2)
	Macao-China	**0.09**	(0.03)	-0.1	(1.3)	-1.7	(1.3)	0.5	(1.9)	**-2.7**	(1.3)	0.5	(1.5)	-2.2	(1.4)
	Russian Federation	**0.10**	(0.03)	**-2.6**	(0.8)	**-2.3**	(0.9)	**-10.9**	(1.0)	**-3.2**	(0.9)	**28.5**	(1.3)	**-1.8**	(0.8)
	Thailand	**0.19**	(0.03)	**-15.1**	(1.0)	**-3.0**	(0.6)	**-4.2**	(0.6)	**-17.5**	(1.2)	**-7.9**	(1.1)	**-9.8**	(1.2)
	Tunisia	**-0.08**	(0.03)	**-15.3**	(1.2)	-1.4	(0.8)	**7.9**	(1.6)	**-18.5**	(1.3)	**-3.6**	(0.8)	**-7.8**	(1.1)
	Uruguay	**-0.08**	(0.02)	**-7.5**	(0.9)	**-1.9**	(0.8)	-0.4	(0.7)	**-6.1**	(0.9)	**4.3**	(0.6)	**-11.2**	(0.9)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
For comparability over time, PISA 2003 values on the *index of sense of belonging* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).

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[Part 1/1]

Table III.2.4a Students' attitudes towards school: Learning outcomes

Percentage of students who reported "agree" or "strongly agree" (a) or who reported "disagree" or "strongly disagree" (b)

		Percentage of students who agree/disagree with the following statements:							
		School has done little to prepare me for adult life when I leave school[b]		School has been a waste of time[b]		School has helped give me confidence to make decisions[a]		School has taught me things which could be useful in a job[a]	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	75.2	(0.5)	89.8	(0.4)	83.2	(0.4)	90.1	(0.3)
	Austria	75.1	(1.0)	89.5	(0.6)	70.8	(0.9)	87.4	(0.7)
	Belgium	75.4	(0.6)	87.8	(0.5)	74.5	(0.7)	88.7	(0.5)
	Canada	74.2	(0.7)	88.6	(0.4)	77.2	(0.5)	89.1	(0.4)
	Chile	68.5	(1.2)	91.8	(0.5)	84.6	(0.8)	92.7	(0.5)
	Czech Republic	67.7	(1.0)	88.2	(0.9)	71.3	(1.1)	88.2	(0.7)
	Denmark	71.8	(1.0)	90.5	(0.6)	72.0	(1.0)	86.8	(0.7)
	Estonia	74.8	(1.2)	92.5	(0.6)	79.3	(0.8)	90.5	(0.6)
	Finland	81.0	(0.7)	88.8	(0.7)	79.8	(0.8)	93.6	(0.5)
	France	74.4	(0.9)	89.3	(0.6)	77.3	(0.8)	91.2	(0.5)
	Germany	62.3	(0.9)	89.4	(0.6)	67.7	(0.9)	81.8	(0.7)
	Greece	54.3	(1.1)	85.9	(0.8)	73.7	(0.9)	86.3	(0.7)
	Hungary	77.4	(1.1)	88.0	(0.8)	80.2	(0.8)	89.9	(0.7)
	Iceland	78.1	(0.9)	91.0	(0.6)	70.4	(1.0)	88.4	(0.7)
	Ireland	73.8	(0.9)	90.6	(0.6)	83.6	(0.7)	88.4	(0.5)
	Israel	67.3	(1.1)	84.9	(0.6)	69.1	(1.0)	85.1	(0.8)
	Italy	71.6	(0.5)	89.3	(0.4)	83.1	(0.4)	88.0	(0.4)
	Japan	79.3	(0.7)	91.9	(0.5)	64.6	(0.8)	75.5	(0.8)
	Korea	75.4	(0.9)	87.8	(0.7)	67.2	(1.0)	71.5	(0.9)
	Luxembourg	61.6	(0.8)	86.2	(0.6)	66.5	(0.9)	85.3	(0.6)
	Mexico	65.1	(0.6)	92.5	(0.3)	92.1	(0.4)	95.7	(0.2)
	Netherlands	72.4	(1.2)	80.6	(0.9)	67.9	(1.2)	84.9	(0.9)
	New Zealand	72.2	(0.9)	89.9	(0.6)	82.3	(0.8)	90.0	(0.6)
	Norway	66.3	(0.9)	86.8	(0.7)	67.0	(0.9)	81.9	(0.7)
	Poland	61.7	(1.2)	78.9	(0.9)	71.2	(1.0)	70.9	(1.0)
	Portugal	78.3	(0.9)	91.9	(0.7)	87.1	(0.6)	92.9	(0.5)
	Slovak Republic	65.0	(1.3)	82.7	(0.9)	76.9	(0.8)	87.2	(0.8)
	Slovenia	72.1	(0.9)	88.1	(0.7)	84.5	(0.7)	87.9	(0.7)
	Spain	72.9	(0.9)	91.2	(0.5)	85.6	(0.5)	92.4	(0.4)
	Sweden	66.7	(1.0)	84.8	(0.9)	72.4	(0.9)	88.0	(0.6)
	Switzerland	65.5	(0.9)	89.1	(0.5)	72.9	(0.7)	88.5	(0.6)
	Turkey	55.7	(0.8)	86.3	(0.8)	82.7	(0.7)	87.9	(0.7)
	United Kingdom	74.2	(0.9)	93.6	(0.4)	82.8	(0.7)	85.6	(0.7)
	United States	71.9	(1.0)	89.5	(0.6)	84.8	(0.6)	88.3	(0.6)
	OECD average	70.6	(0.2)	88.5	(0.1)	76.7	(0.1)	87.1	(0.1)
Partners	**Albania**	64.4	(1.4)	89.8	(0.7)	94.2	(0.5)	95.4	(0.4)
	Argentina	59.1	(1.2)	82.7	(0.9)	86.2	(0.8)	91.3	(0.6)
	Brazil	67.7	(0.6)	92.2	(0.3)	88.1	(0.4)	94.0	(0.4)
	Bulgaria	45.6	(1.1)	81.0	(1.2)	85.9	(0.7)	90.7	(0.6)
	Colombia	71.3	(1.1)	92.1	(0.7)	91.4	(0.5)	94.5	(0.5)
	Costa Rica	70.0	(1.3)	92.8	(0.6)	89.8	(0.7)	94.6	(0.5)
	Croatia	72.4	(0.9)	89.5	(0.6)	83.6	(0.6)	91.3	(0.5)
	Cyprus*	55.7	(0.8)	79.8	(0.6)	74.1	(0.7)	84.9	(0.7)
	Hong Kong-China	59.8	(1.1)	86.3	(0.7)	73.1	(0.9)	79.2	(0.9)
	Indonesia	72.7	(0.9)	90.2	(0.7)	91.1	(0.5)	95.4	(0.4)
	Jordan	13.8	(0.7)	74.5	(1.0)	87.0	(0.7)	88.8	(0.8)
	Kazakhstan	69.3	(1.1)	92.6	(0.7)	95.4	(0.4)	96.5	(0.4)
	Latvia	78.0	(0.9)	90.6	(0.8)	77.6	(0.8)	91.0	(0.7)
	Liechtenstein	68.7	(3.3)	90.4	(2.1)	76.4	(2.6)	87.1	(2.7)
	Lithuania	68.7	(1.0)	86.0	(0.8)	84.2	(0.7)	91.2	(0.5)
	Macao-China	49.9	(0.7)	87.5	(0.5)	73.1	(0.8)	83.6	(0.6)
	Malaysia	43.3	(1.2)	85.3	(0.9)	90.5	(0.6)	93.0	(0.6)
	Montenegro	64.0	(0.9)	88.3	(0.7)	86.8	(0.6)	90.2	(0.6)
	Peru	60.1	(1.4)	92.2	(0.6)	93.7	(0.4)	95.4	(0.4)
	Qatar	37.7	(0.6)	67.2	(0.6)	76.7	(0.6)	80.4	(0.6)
	Romania	61.4	(1.2)	78.8	(1.4)	85.2	(0.8)	88.1	(0.8)
	Russian Federation	77.7	(1.0)	92.4	(0.5)	90.5	(0.6)	92.2	(0.6)
	Serbia	35.4	(1.0)	87.9	(0.7)	83.3	(0.8)	91.4	(0.6)
	Shanghai-China	68.2	(1.0)	92.0	(0.5)	72.4	(0.9)	75.3	(0.8)
	Singapore	64.4	(0.7)	89.4	(0.4)	84.8	(0.6)	87.9	(0.6)
	Chinese Taipei	58.1	(1.0)	86.5	(0.6)	75.5	(0.7)	90.9	(0.5)
	Thailand	37.8	(0.8)	83.1	(0.9)	94.0	(0.5)	96.6	(0.4)
	Tunisia	55.7	(1.1)	83.8	(0.9)	84.8	(0.7)	90.0	(0.6)
	United Arab Emirates	52.7	(1.0)	83.0	(0.7)	84.0	(0.6)	86.9	(0.5)
	Uruguay	58.7	(1.0)	87.3	(0.9)	88.1	(0.6)	93.7	(0.5)
	Viet Nam	72.9	(1.0)	95.3	(0.5)	93.3	(0.6)	90.8	(0.7)

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.2.4d

Index of attitudes towards school (learning outcomes) and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Index of attitudes towards school (learning outcomes)																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	0.09	(0.02)	1.01	(0.01)	0.08	(0.02)	0.10	(0.02)	-0.02	(0.03)	-0.99	(0.01)	-0.31	(0.01)	0.15	(0.03)	1.51	(0.03)
	Austria	0.28	(0.03)	1.12	(0.01)	0.26	(0.03)	0.29	(0.04)	-0.03	(0.05)	-1.11	(0.03)	-0.12	(0.04)	0.58	(0.03)	1.76	(0.05)
	Belgium	-0.11	(0.01)	0.89	(0.01)	-0.17	(0.02)	-0.05	(0.02)	**-0.12**	(0.03)	-1.07	(0.01)	-0.40	(0.01)	-0.05	(0.01)	1.09	(0.03)
	Canada	0.05	(0.01)	1.01	(0.01)	-0.02	(0.02)	0.11	(0.02)	**-0.13**	(0.02)	-1.08	(0.02)	-0.35	(0.01)	0.17	(0.02)	1.45	(0.02)
	Chile	0.29	(0.03)	1.06	(0.01)	0.29	(0.04)	0.29	(0.03)	-0.01	(0.05)	-0.92	(0.02)	-0.19	(0.04)	0.49	(0.02)	1.78	(0.05)
	Czech Republic	-0.22	(0.02)	0.84	(0.02)	-0.27	(0.03)	-0.16	(0.03)	**-0.11**	(0.04)	-1.13	(0.03)	-0.49	(0.02)	-0.13	(0.02)	0.89	(0.03)
	Denmark	-0.09	(0.02)	0.93	(0.01)	-0.12	(0.03)	-0.05	(0.03)	**-0.07**	(0.03)	-1.08	(0.02)	-0.43	(0.02)	-0.02	(0.02)	1.18	(0.04)
	Estonia	0.02	(0.02)	0.90	(0.01)	-0.03	(0.03)	0.07	(0.02)	**-0.10**	(0.03)	-1.00	(0.02)	-0.31	(0.02)	0.15	(0.04)	1.23	(0.03)
	Finland	0.06	(0.02)	0.95	(0.01)	-0.09	(0.03)	0.22	(0.03)	**-0.31**	(0.03)	-0.98	(0.02)	-0.29	(0.01)	0.15	(0.04)	1.37	(0.03)
	France	0.08	(0.02)	1.01	(0.01)	-0.05	(0.03)	0.20	(0.03)	**-0.24**	(0.04)	-1.03	(0.02)	-0.33	(0.01)	0.21	(0.04)	1.48	(0.04)
	Germany	-0.06	(0.02)	1.02	(0.01)	-0.10	(0.03)	-0.01	(0.03)	**-0.09**	(0.03)	-1.25	(0.02)	-0.45	(0.02)	0.15	(0.04)	1.32	(0.03)
	Greece	-0.16	(0.02)	0.97	(0.02)	-0.27	(0.03)	-0.06	(0.03)	**-0.21**	(0.04)	-1.26	(0.02)	-0.54	(0.03)	-0.02	(0.02)	1.16	(0.04)
	Hungary	0.10	(0.02)	0.98	(0.01)	0.01	(0.03)	0.19	(0.03)	**-0.18**	(0.04)	-0.99	(0.02)	-0.30	(0.02)	0.26	(0.04)	1.44	(0.03)
	Iceland	0.05	(0.02)	0.99	(0.01)	-0.02	(0.03)	0.12	(0.03)	**-0.14**	(0.04)	-1.04	(0.02)	-0.37	(0.01)	0.19	(0.04)	1.41	(0.03)
	Ireland	0.11	(0.02)	1.03	(0.02)	0.07	(0.03)	0.15	(0.03)	**-0.08**	(0.04)	-1.05	(0.02)	-0.31	(0.02)	0.28	(0.04)	1.52	(0.04)
	Israel	0.00	(0.02)	1.11	(0.02)	-0.08	(0.03)	0.07	(0.03)	**-0.15**	(0.04)	-1.26	(0.02)	-0.47	(0.03)	0.20	(0.04)	1.53	(0.04)
	Italy	0.01	(0.01)	0.94	(0.01)	-0.06	(0.02)	0.07	(0.01)	**-0.13**	(0.02)	-1.06	(0.01)	-0.32	(0.01)	0.11	(0.02)	1.30	(0.02)
	Japan	-0.13	(0.02)	0.97	(0.01)	-0.20	(0.02)	-0.05	(0.02)	**-0.15**	(0.03)	-1.18	(0.02)	-0.48	(0.02)	-0.06	(0.02)	1.19	(0.03)
	Korea	-0.28	(0.03)	0.91	(0.02)	-0.26	(0.04)	-0.31	(0.03)	0.05	(0.05)	-1.28	(0.02)	-0.58	(0.03)	-0.19	(0.02)	0.92	(0.05)
	Luxembourg	-0.07	(0.02)	1.03	(0.01)	-0.15	(0.03)	0.01	(0.02)	**-0.16**	(0.03)	-1.26	(0.02)	-0.46	(0.02)	0.10	(0.03)	1.33	(0.03)
	Mexico	0.35	(0.01)	1.01	(0.01)	0.26	(0.01)	0.45	(0.01)	**-0.19**	(0.02)	-0.76	(0.01)	-0.12	(0.01)	0.53	(0.01)	1.76	(0.02)
	Netherlands	-0.36	(0.02)	0.72	(0.01)	-0.39	(0.02)	-0.34	(0.02)	-0.05	(0.03)	-1.17	(0.01)	-0.61	(0.03)	-0.24	(0.00)	0.56	(0.04)
	New Zealand	0.08	(0.02)	1.01	(0.01)	0.09	(0.03)	0.06	(0.03)	0.02	(0.04)	-1.00	(0.02)	-0.34	(0.02)	0.16	(0.04)	1.48	(0.03)
	Norway	-0.27	(0.02)	0.92	(0.02)	-0.30	(0.03)	-0.23	(0.03)	-0.07	(0.04)	-1.27	(0.02)	-0.59	(0.02)	-0.15	(0.02)	0.96	(0.04)
	Poland	-0.41	(0.02)	0.94	(0.02)	-0.49	(0.03)	-0.33	(0.03)	**-0.17**	(0.04)	-1.46	(0.03)	-0.77	(0.02)	-0.24	(0.02)	0.83	(0.05)
	Portugal	0.24	(0.02)	1.03	(0.01)	0.16	(0.03)	0.33	(0.03)	**-0.17**	(0.04)	-0.88	(0.03)	-0.24	(0.00)	0.39	(0.04)	1.70	(0.04)
	Slovak Republic	-0.26	(0.02)	0.86	(0.02)	-0.37	(0.03)	-0.14	(0.03)	**-0.22**	(0.04)	-1.21	(0.03)	-0.51	(0.02)	-0.19	(0.02)	0.88	(0.04)
	Slovenia	0.01	(0.02)	0.94	(0.02)	-0.06	(0.03)	0.08	(0.02)	**-0.14**	(0.04)	-1.01	(0.02)	-0.33	(0.01)	0.05	(0.02)	1.31	(0.06)
	Spain	0.30	(0.02)	1.08	(0.01)	0.17	(0.02)	0.44	(0.02)	**-0.27**	(0.03)	-0.95	(0.03)	-0.17	(0.01)	0.53	(0.02)	1.79	(0.03)
	Sweden	-0.14	(0.02)	0.95	(0.01)	-0.20	(0.03)	-0.09	(0.03)	**-0.12**	(0.04)	-1.18	(0.03)	-0.49	(0.02)	-0.06	(0.02)	1.16	(0.05)
	Switzerland	0.04	(0.02)	0.98	(0.01)	-0.06	(0.03)	0.14	(0.03)	**-0.20**	(0.04)	-1.08	(0.02)	-0.39	(0.01)	0.25	(0.03)	1.38	(0.03)
	Turkey	0.08	(0.03)	1.05	(0.01)	-0.10	(0.03)	0.26	(0.03)	**-0.36**	(0.03)	-1.11	(0.03)	-0.37	(0.02)	0.29	(0.04)	1.51	(0.04)
	United Kingdom	0.13	(0.02)	1.02	(0.01)	0.13	(0.03)	0.12	(0.03)	0.01	(0.03)	-1.00	(0.02)	-0.29	(0.01)	0.27	(0.04)	1.53	(0.04)
	United States	0.12	(0.03)	1.08	(0.01)	0.03	(0.03)	0.21	(0.04)	**-0.18**	(0.05)	-1.03	(0.02)	-0.34	(0.01)	0.19	(0.04)	1.67	(0.05)
	OECD average	0.00	(0.00)	0.98	(0.00)	-0.07	(0.00)	0.06	(0.00)	**-0.13**	(0.01)	-1.09	(0.00)	-0.38	(0.00)	0.13	(0.01)	1.33	(0.01)
Partners	**Albania**	0.53	(0.03)	1.06	(0.01)	0.52	(0.03)	0.54	(0.04)	-0.02	(0.04)	-0.76	(0.03)	0.08	(0.02)	0.85	(0.05)	1.94	(0.03)
	Argentina	0.03	(0.02)	1.03	(0.01)	-0.05	(0.03)	0.11	(0.03)	**-0.17**	(0.04)	-1.09	(0.02)	-0.40	(0.02)	0.15	(0.04)	1.48	(0.04)
	Brazil	0.21	(0.02)	0.98	(0.01)	0.13	(0.02)	0.28	(0.02)	**-0.15**	(0.03)	-0.90	(0.01)	-0.24	(0.01)	0.43	(0.03)	1.54	(0.03)
	Bulgaria	-0.11	(0.03)	0.96	(0.01)	-0.23	(0.03)	0.02	(0.03)	**-0.25**	(0.03)	-1.16	(0.02)	-0.49	(0.03)	0.01	(0.02)	1.21	(0.05)
	Colombia	0.40	(0.03)	1.08	(0.01)	0.30	(0.03)	0.48	(0.04)	**-0.18**	(0.05)	-0.83	(0.03)	-0.11	(0.02)	0.58	(0.02)	1.94	(0.06)
	Costa Rica	0.45	(0.03)	1.07	(0.02)	0.44	(0.04)	0.45	(0.04)	-0.01	(0.05)	-0.73	(0.03)	-0.08	(0.02)	0.63	(0.05)	1.99	(0.04)
	Croatia	0.09	(0.02)	0.98	(0.01)	0.05	(0.03)	0.13	(0.03)	**-0.08**	(0.04)	-0.99	(0.02)	-0.31	(0.01)	0.24	(0.03)	1.43	(0.03)
	Cyprus*	-0.23	(0.02)	0.98	(0.01)	-0.39	(0.02)	-0.06	(0.02)	**-0.33**	(0.03)	-1.29	(0.02)	-0.63	(0.02)	-0.09	(0.01)	1.11	(0.04)
	Hong Kong-China	-0.42	(0.02)	0.73	(0.01)	-0.42	(0.02)	-0.42	(0.02)	0.00	(0.03)	-1.25	(0.02)	-0.65	(0.03)	-0.24	(0.00)	0.48	(0.04)
	Indonesia	0.29	(0.03)	0.97	(0.01)	0.26	(0.03)	0.32	(0.03)	-0.07	(0.04)	-0.80	(0.03)	-0.17	(0.02)	0.53	(0.02)	1.61	(0.04)
	Jordan	-0.32	(0.02)	0.79	(0.01)	-0.53	(0.03)	-0.12	(0.02)	**-0.41**	(0.03)	-1.23	(0.02)	-0.63	(0.03)	-0.03	(0.02)	0.63	(0.02)
	Kazakhstan	0.45	(0.03)	1.06	(0.01)	0.33	(0.04)	0.58	(0.04)	**-0.25**	(0.05)	-0.72	(0.03)	-0.10	(0.03)	0.67	(0.05)	1.97	(0.03)
	Latvia	0.02	(0.02)	0.91	(0.02)	-0.09	(0.03)	0.13	(0.03)	**-0.23**	(0.04)	-0.96	(0.02)	-0.31	(0.02)	0.06	(0.03)	1.30	(0.05)
	Liechtenstein	0.13	(0.06)	0.93	(0.05)	0.12	(0.09)	0.14	(0.10)	-0.03	(0.15)	-1.02	(0.07)	-0.21	(0.10)	0.49	(0.07)	1.29	(0.11)
	Lithuania	0.41	(0.03)	1.16	(0.01)	0.22	(0.03)	0.61	(0.03)	**-0.39**	(0.04)	-1.01	(0.02)	-0.07	(0.03)	0.78	(0.04)	1.96	(0.02)
	Macao-China	-0.43	(0.01)	0.72	(0.02)	-0.44	(0.02)	-0.43	(0.02)	-0.01	(0.02)	-1.22	(0.01)	-0.68	(0.01)	-0.28	(0.01)	0.45	(0.03)
	Malaysia	-0.01	(0.03)	0.87	(0.01)	-0.12	(0.04)	0.08	(0.03)	**-0.20**	(0.04)	-0.96	(0.02)	-0.40	(0.02)	0.11	(0.05)	1.19	(0.03)
	Montenegro	0.04	(0.02)	0.96	(0.02)	-0.11	(0.03)	0.19	(0.03)	**-0.30**	(0.04)	-1.04	(0.02)	-0.31	(0.02)	0.17	(0.03)	1.35	(0.03)
	Peru	0.21	(0.03)	0.92	(0.01)	0.16	(0.03)	0.26	(0.03)	**-0.09**	(0.04)	-0.80	(0.03)	-0.22	(0.02)	0.42	(0.03)	1.46	(0.04)
	Qatar	-0.39	(0.01)	0.95	(0.01)	-0.47	(0.02)	-0.31	(0.02)	**-0.16**	(0.02)	-1.34	(0.01)	-0.83	(0.01)	-0.31	(0.02)	0.92	(0.02)
	Romania	0.00	(0.03)	1.03	(0.01)	-0.06	(0.04)	0.04	(0.03)	**-0.10**	(0.04)	-1.15	(0.03)	-0.42	(0.03)	0.14	(0.04)	1.42	(0.04)
	Russian Federation	0.20	(0.03)	1.00	(0.01)	0.18	(0.03)	0.23	(0.04)	-0.05	(0.04)	-0.86	(0.03)	-0.24	(0.00)	0.31	(0.05)	1.60	(0.05)
	Serbia	-0.22	(0.02)	0.81	(0.02)	-0.30	(0.03)	-0.15	(0.02)	**-0.15**	(0.03)	-1.08	(0.02)	-0.53	(0.02)	-0.11	(0.02)	0.83	(0.04)
	Shanghai-China	-0.23	(0.02)	0.92	(0.01)	-0.27	(0.03)	-0.20	(0.03)	**-0.08**	(0.04)	-1.27	(0.02)	-0.51	(0.03)	-0.14	(0.02)	0.99	(0.04)
	Singapore	-0.05	(0.02)	0.92	(0.01)	-0.07	(0.02)	-0.03	(0.02)	-0.04	(0.03)	-1.02	(0.02)	-0.36	(0.01)	-0.01	(0.02)	1.21	(0.04)
	Chinese Taipei	-0.26	(0.01)	0.84	(0.01)	-0.27	(0.02)	-0.24	(0.02)	-0.03	(0.03)	-1.15	(0.02)	-0.54	(0.01)	-0.21	(0.01)	0.88	(0.03)
	Thailand	0.00	(0.02)	0.86	(0.01)	-0.13	(0.03)	0.09	(0.02)	**-0.22**	(0.03)	-0.93	(0.02)	-0.38	(0.02)	0.12	(0.02)	1.18	(0.04)
	Tunisia	0.16	(0.03)	1.11	(0.01)	-0.09	(0.04)	0.39	(0.03)	**-0.48**	(0.05)	-1.14	(0.03)	-0.33	(0.04)	0.46	(0.03)	1.67	(0.04)
	United Arab Emirates	0.01	(0.02)	1.05	(0.01)	-0.15	(0.03)	0.16	(0.03)	**-0.30**	(0.04)	-1.17	(0.02)	-0.44	(0.02)	0.18	(0.03)	1.46	(0.03)
	Uruguay	0.01	(0.02)	0.91	(0.01)	-0.05	(0.02)	0.07	(0.02)	**-0.12**	(0.03)	-0.99	(0.02)	-0.33	(0.02)	0.10	(0.03)	1.27	(0.03)
	Viet Nam	0.13	(0.02)	0.86	(0.02)	0.14	(0.02)	0.13	(0.03)	0.01	(0.03)	-0.79	(0.03)	-0.24	(0.00)	0.24	(0.04)	1.32	(0.03)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 2/2]

Table III.2.4d

Index of attitudes towards school (learning outcomes) and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Australia**	471	(2.8)	496	(2.7)	518	(2.9)	532	(3.0)	**21.4**	(1.2)	**1.8**	(0.1)	5.2	(0.5)
	Austria	**497**	(4.2)	507	(4.5)	515	(4.9)	**514**	(4.5)	**5.2**	(1.9)	**1.3**	(0.1)	0.4	(0.3)
	Belgium	**497**	(3.7)	526	(3.7)	534	(4.0)	**529**	(3.3)	**10.6**	(1.7)	**1.5**	(0.1)	0.9	(0.3)
	Canada	**504**	(3.7)	515	(3.5)	526	(3.0)	**537**	(2.8)	**12.1**	(1.2)	**1.5**	(0.1)	2.0	(0.4)
	Chile	**416**	(4.6)	421	(4.2)	426	(4.8)	**430**	(4.2)	**4.5**	(1.6)	**1.2**	(0.1)	0.4	(0.2)
	Czech Republic	**494**	(4.4)	500	(4.7)	505	(5.8)	**519**	(4.7)	**9.9**	(2.5)	**1.3**	(0.1)	0.8	(0.4)
	Denmark	**484**	(4.1)	501	(4.0)	516	(3.6)	**521**	(4.0)	**13.7**	(2.0)	**1.5**	(0.1)	2.4	(0.7)
	Estonia	**513**	(4.0)	517	(4.2)	523	(3.8)	**530**	(4.1)	**8.7**	(2.1)	**1.3**	(0.1)	0.9	(0.4)
	Finland	**495**	(3.2)	523	(3.2)	530	(3.8)	**544**	(3.2)	**18.2**	(1.4)	**1.8**	(0.1)	4.4	(0.7)
	France	**476**	(4.8)	501	(4.3)	508	(4.1)	**506**	(5.1)	**9.3**	(2.2)	**1.5**	(0.1)	1.0	(0.5)
	Germany	521	(4.8)	523	(4.9)	526	(4.8)	521	(5.2)	-1.2	(2.0)	1.0	(0.1)	0.0	(0.1)
	Greece	451	(4.5)	462	(4.3)	460	(4.0)	450	(4.1)	-1.9	(2.0)	**1.2**	(0.1)	0.0	(0.1)
	Hungary	**454**	(5.2)	475	(4.6)	488	(4.6)	**497**	(5.1)	**15.0**	(2.3)	**1.7**	(0.1)	2.6	(0.8)
	Iceland	466	(4.3)	489	(4.1)	505	(5.3)	525	(3.9)	**22.7**	(1.9)	**1.7**	(0.2)	6.0	(1.0)
	Ireland	**492**	(4.3)	497	(4.2)	504	(4.3)	**512**	(4.2)	**6.5**	(1.5)	**1.2**	(0.1)	0.6	(0.3)
	Israel	**470**	(6.7)	480	(5.9)	477	(5.9)	**470**	(5.6)	-1.8	(1.9)	**1.2**	(0.1)	0.0	(0.1)
	Italy	469	(2.9)	493	(2.9)	496	(2.6)	491	(2.6)	**6.9**	(1.2)	**1.4**	(0.1)	0.5	(0.2)
	Japan	526	(6.0)	540	(4.6)	543	(4.2)	540	(5.2)	2.3	(2.2)	**1.3**	(0.1)	0.1	(0.1)
	Korea	**548**	(5.7)	545	(5.2)	553	(5.3)	**572**	(7.6)	**9.0**	(3.0)	1.1	(0.1)	0.7	(0.5)
	Luxembourg	**470**	(3.5)	497	(3.6)	494	(3.7)	**501**	(4.2)	**8.2**	(1.9)	**1.5**	(0.1)	0.8	(0.4)
	Mexico	391	(2.1)	413	(2.0)	422	(2.2)	432	(1.8)	**14.8**	(0.8)	**1.7**	(0.1)	4.1	(0.4)
	Netherlands	**505**	(4.8)	528	(4.9)	541	(5.2)	**539**	(5.7)	**13.7**	(3.2)	**1.6**	(0.2)	1.3	(0.6)
	New Zealand	**471**	(4.5)	501	(5.0)	502	(5.7)	**524**	(4.2)	**19.3**	(1.8)	**1.7**	(0.1)	3.9	(0.7)
	Norway	**464**	(4.7)	488	(5.2)	499	(4.4)	**510**	(4.6)	**17.2**	(2.1)	**1.6**	(0.2)	3.0	(0.7)
	Poland	525	(5.5)	519	(4.9)	513	(4.7)	519	(6.4)	-2.4	(2.0)	1.0	(0.1)	0.1	(0.1)
	Portugal	**460**	(5.4)	486	(4.3)	501	(5.8)	**512**	(5.1)	**16.3**	(2.0)	**1.8**	(0.1)	3.4	(0.8)
	Slovak Republic	**467**	(6.3)	488	(5.2)	489	(4.8)	**494**	(5.2)	**9.1**	(3.4)	**1.4**	(0.1)	0.6	(0.5)
	Slovenia	**494**	(4.0)	509	(5.7)	518	(4.9)	**496**	(3.8)	-0.8	(2.0)	**1.2**	(0.1)	0.0	(0.1)
	Spain	**467**	(3.3)	488	(2.9)	495	(3.2)	**496**	(2.8)	**8.7**	(1.2)	**1.5**	(0.1)	1.2	(0.3)
	Sweden	**455**	(4.5)	479	(4.1)	493	(3.7)	**503**	(4.3)	**17.5**	(2.0)	**1.7**	(0.1)	3.4	(0.8)
	Switzerland	516	(4.9)	535	(4.9)	539	(4.1)	536	(3.8)	**5.8**	(1.9)	**1.4**	(0.1)	0.4	(0.2)
	Turkey	453	(7.4)	452	(5.9)	444	(5.5)	448	(5.3)	**-4.4**	(2.0)	1.2	(0.1)	0.3	(0.2)
	United Kingdom	**473**	(5.0)	496	(4.4)	510	(5.0)	**512**	(4.1)	**13.2**	(1.9)	**1.7**	(0.1)	2.1	(0.5)
	United States	**463**	(5.2)	482	(5.6)	492	(5.0)	**499**	(4.7)	**11.4**	(1.7)	**1.6**	(0.1)	1.9	(0.5)
	OECD average	**480**	(0.8)	496	(0.8)	503	(0.8)	**508**	(0.8)	**9.4**	(0.3)	**1.4**	(0.0)	1.6	(0.1)
Partners	**Albania**	402	(4.4)	394	(4.7)	387	(5.0)	393	(4.7)	-2.6	(1.9)	0.9	(0.1)	0.1	(0.1)
	Argentina	**370**	(4.3)	387	(5.0)	398	(4.7)	**406**	(4.5)	**12.3**	(1.5)	**1.6**	(0.1)	2.9	(0.7)
	Brazil	**379**	(2.9)	391	(2.6)	398	(3.1)	**405**	(3.2)	**10.2**	(1.2)	**1.4**	(0.1)	1.7	(0.4)
	Bulgaria	**411**	(5.3)	441	(5.8)	452	(5.7)	**463**	(5.7)	**17.4**	(2.6)	**1.9**	(0.2)	3.2	(0.9)
	Colombia	**361**	(4.0)	384	(3.5)	383	(4.1)	**398**	(4.2)	**11.4**	(1.5)	**1.7**	(0.1)	2.9	(0.7)
	Costa Rica	**403**	(3.6)	404	(4.5)	408	(4.9)	**413**	(4.3)	**3.8**	(1.5)	1.1	(0.1)	0.4	(0.3)
	Croatia	466	(4.3)	476	(4.4)	478	(5.0)	471	(5.3)	1.4	(2.0)	**1.2**	(0.1)	0.0	(0.1)
	Cyprus*	**419**	(3.4)	441	(3.7)	456	(3.5)	**461**	(3.1)	**14.3**	(1.6)	**1.8**	(0.1)	2.4	(0.5)
	Hong Kong-China	**555**	(5.4)	559	(5.1)	565	(5.1)	**574**	(4.4)	**6.5**	(2.8)	**1.2**	(0.1)	0.2	(0.2)
	Indonesia	**358**	(4.8)	377	(5.8)	381	(5.4)	**388**	(4.3)	**10.8**	(1.6)	**1.6**	(0.1)	2.2	(0.7)
	Jordan	**359**	(4.2)	395	(4.6)	401	(3.4)	**402**	(4.7)	**17.7**	(2.3)	**2.0**	(0.1)	3.5	(0.8)
	Kazakhstan	**410**	(4.3)	430	(4.2)	437	(3.9)	**453**	(4.1)	**14.9**	(1.5)	**1.7**	(0.2)	5.0	(1.0)
	Latvia	**470**	(5.3)	491	(4.8)	499	(5.1)	**501**	(4.1)	**12.8**	(2.2)	**1.7**	(0.1)	2.0	(0.7)
	Liechtenstein	**532**	(14.9)	550	(18.0)	528	(17.9)	**534**	(18.0)	0.9	(8.3)	1.1	(0.4)	0.1	(0.6)
	Lithuania	**452**	(4.5)	475	(4.5)	496	(4.6)	**490**	(4.1)	**12.3**	(1.7)	**1.8**	(0.1)	2.6	(0.7)
	Macao-China	**536**	(3.4)	534	(3.5)	539	(3.0)	**550**	(3.5)	**6.3**	(2.5)	1.1	(0.1)	0.2	(0.2)
	Malaysia	**406**	(5.8)	430	(4.7)	424	(3.9)	**426**	(3.4)	**7.7**	(2.3)	**1.7**	(0.1)	0.7	(0.5)
	Montenegro	**406**	(3.2)	414	(3.9)	414	(4.1)	**411**	(3.7)	1.5	(1.7)	**1.2**	(0.1)	0.0	(0.1)
	Peru	**357**	(5.3)	374	(4.5)	379	(4.9)	**389**	(5.4)	**12.5**	(2.0)	**1.5**	(0.1)	1.9	(0.6)
	Qatar	**343**	(2.5)	360	(2.7)	401	(3.0)	**424**	(2.5)	**32.9**	(1.4)	**1.9**	(0.1)	9.8	(0.7)
	Romania	437	(5.0)	440	(5.1)	447	(4.6)	455	(5.0)	**6.8**	(1.7)	**1.3**	(0.1)	0.7	(0.4)
	Russian Federation	**469**	(4.2)	484	(3.9)	488	(5.4)	**490**	(4.4)	**7.1**	(1.9)	**1.3**	(0.1)	0.7	(0.4)
	Serbia	**438**	(5.3)	450	(5.2)	450	(5.1)	**458**	(5.4)	**8.9**	(2.8)	**1.3**	(0.1)	0.6	(0.4)
	Shanghai-China	625	(4.8)	608	(4.6)	606	(5.0)	611	(6.4)	-4.1	(2.9)	0.9	(0.1)	0.1	(0.2)
	Singapore	**555**	(4.5)	574	(4.5)	582	(4.2)	**593**	(4.2)	**14.0**	(2.1)	**1.4**	(0.1)	1.6	(0.5)
	Chinese Taipei	556	(5.9)	554	(4.7)	560	(5.2)	568	(4.6)	3.2	(2.4)	**1.2**	(0.1)	0.1	(0.1)
	Thailand	**400**	(4.6)	429	(4.7)	437	(4.9)	**444**	(4.3)	**18.0**	(2.0)	**1.9**	(0.2)	3.7	(0.8)
	Tunisia	**375**	(5.0)	393	(5.4)	396	(4.8)	**392**	(5.0)	**4.3**	(1.6)	**1.5**	(0.2)	0.4	(0.3)
	United Arab Emirates	**406**	(3.8)	440	(4.3)	443	(3.5)	**455**	(3.7)	**15.6**	(1.4)	**1.8**	(0.1)	3.4	(0.6)
	Uruguay	**397**	(5.4)	423	(4.1)	416	(4.4)	**414**	(3.8)	2.4	(2.0)	**1.4**	(0.1)	0.1	(0.1)
	Viet Nam	**519**	(6.8)	507	(5.8)	513	(6.2)	**507**	(5.8)	**-5.2**	(2.4)	0.9	(0.1)	0.3	(0.3)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.2.4e **Change between PISA 2003 and PISA 2012 in students' attitudes towards school learning outcomes**
Percentage of students who reported "agree" or "strongly agree" (a) or who reported "disagree" or "strongly disagree" (b)

		PISA 2003										PISA 2012									
				Percentage of students who agree/disagree with the following statements:										Percentage of students who agree/disagree with the following statements:							
		Index of attitudes towards school		School has done little to prepare me for adult life when I leave school[b]		School has been a waste of time[b]		School has helped give me confidence to make decisions[a]		School has taught me things which could be useful in a job[a]		Index of attitudes towards school		School has done little to prepare me for adult life when I leave school[b]		School has been a waste of time[b]		School has helped give me confidence to make decisions[a]		School has taught me things which could be useful in a job[a]	
		Mean Index	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	Mean Index	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	0.26	(0.01)	77.3	(0.5)	93.6	(0.3)	83.9	(0.4)	92.1	(0.3)	0.09	(0.02)	75.2	(0.5)	89.8	(0.4)	83.2	(0.4)	90.1	(0.3)
	Austria	0.13	(0.02)	71.3	(0.7)	92.3	(0.4)	64.1	(0.8)	85.6	(0.6)	0.28	(0.03)	75.1	(1.0)	89.5	(0.6)	70.8	(0.9)	87.4	(0.7)
	Belgium	-0.15	(0.02)	68.2	(0.6)	89.3	(0.6)	63.0	(0.8)	90.1	(0.4)	-0.11	(0.01)	75.4	(0.6)	87.8	(0.5)	74.5	(0.7)	88.7	(0.5)
	Canada	0.07	(0.01)	74.3	(0.5)	91.4	(0.3)	73.6	(0.5)	89.4	(0.3)	0.05	(0.01)	74.2	(0.7)	88.6	(0.4)	77.2	(0.5)	89.1	(0.4)
	Czech Republic	0.01	(0.02)	69.2	(0.8)	93.6	(0.5)	73.3	(0.8)	91.6	(0.5)	-0.22	(0.02)	67.7	(1.0)	88.2	(0.9)	71.3	(1.1)	88.2	(0.7)
	Denmark	-0.01	(0.02)	68.4	(0.7)	93.4	(0.4)	72.1	(0.8)	85.7	(0.6)	-0.09	(0.02)	71.8	(1.0)	90.5	(0.6)	72.0	(1.0)	86.8	(0.7)
	Finland	0.13	(0.01)	78.8	(0.6)	92.6	(0.4)	78.7	(0.6)	95.0	(0.4)	0.06	(0.02)	81.0	(0.7)	88.8	(0.7)	79.8	(0.8)	93.6	(0.5)
	France	0.15	(0.02)	75.3	(0.7)	92.5	(0.4)	68.1	(1.0)	93.2	(0.4)	0.08	(0.02)	74.4	(0.9)	89.3	(0.6)	77.3	(0.8)	91.2	(0.5)
	Germany	-0.05	(0.02)	56.6	(0.7)	92.7	(0.4)	56.2	(0.9)	89.3	(0.5)	-0.06	(0.02)	62.3	(0.9)	89.4	(0.6)	67.7	(0.9)	81.8	(0.7)
	Greece	0.10	(0.02)	60.6	(0.9)	94.3	(0.5)	77.8	(0.9)	89.6	(0.5)	-0.16	(0.02)	54.3	(1.1)	85.9	(0.8)	73.7	(0.9)	86.3	(0.7)
	Hungary	-0.19	(0.02)	54.2	(0.9)	94.1	(0.4)	66.0	(0.9)	92.1	(0.5)	0.10	(0.02)	77.4	(1.1)	88.0	(0.8)	80.2	(0.8)	89.9	(0.7)
	Iceland	0.02	(0.02)	72.7	(0.7)	90.1	(0.6)	63.4	(0.9)	85.9	(0.6)	0.05	(0.02)	78.1	(0.9)	91.0	(0.6)	70.4	(1.0)	88.4	(0.7)
	Ireland	0.14	(0.02)	73.8	(0.9)	93.2	(0.5)	79.4	(0.7)	90.9	(0.6)	0.11	(0.02)	73.8	(0.9)	90.6	(0.6)	83.6	(0.7)	88.4	(0.5)
	Italy	-0.03	(0.02)	65.9	(0.8)	94.1	(0.4)	74.5	(0.9)	90.1	(0.4)	0.01	(0.01)	71.6	(0.5)	89.3	(0.4)	83.1	(0.4)	88.0	(0.4)
	Japan	-0.46	(0.01)	66.8	(0.8)	89.6	(0.5)	52.4	(0.7)	60.1	(0.8)	-0.13	(0.02)	79.3	(0.7)	91.9	(0.5)	64.6	(0.8)	75.5	(0.8)
	Korea	-0.33	(0.01)	72.2	(0.7)	89.6	(0.5)	66.2	(0.8)	71.5	(0.7)	-0.28	(0.03)	75.4	(0.9)	87.8	(0.7)	67.2	(1.0)	71.5	(0.9)
	Luxembourg	-0.20	(0.02)	51.4	(0.8)	90.2	(0.5)	53.4	(0.9)	87.5	(0.5)	-0.07	(0.02)	61.6	(0.8)	86.2	(0.6)	66.5	(0.9)	85.3	(0.6)
	Mexico	0.42	(0.03)	55.3	(1.2)	94.8	(0.4)	93.2	(0.5)	94.1	(0.4)	0.35	(0.01)	65.1	(0.6)	92.5	(0.3)	92.1	(0.4)	95.7	(0.2)
	Netherlands	-0.16	(0.02)	76.8	(0.9)	89.4	(0.7)	65.0	(1.0)	92.3	(0.5)	-0.36	(0.02)	72.4	(1.2)	80.6	(0.9)	67.9	(1.2)	84.9	(0.9)
	New Zealand	0.11	(0.02)	70.4	(0.8)	91.9	(0.5)	80.6	(0.7)	90.4	(0.5)	0.08	(0.02)	72.2	(0.9)	89.9	(0.6)	82.3	(0.8)	90.0	(0.6)
	Norway	-0.18	(0.02)	62.6	(1.0)	89.1	(0.6)	64.0	(0.9)	84.6	(0.6)	-0.27	(0.02)	66.3	(0.9)	86.8	(0.7)	67.0	(0.9)	81.9	(0.7)
	Poland	-0.10	(0.02)	68.1	(0.9)	89.1	(0.6)	76.1	(0.7)	80.2	(0.6)	-0.41	(0.02)	61.7	(1.2)	78.9	(0.9)	71.2	(1.0)	70.9	(1.0)
	Portugal	0.28	(0.02)	74.1	(0.9)	95.6	(0.4)	86.0	(0.7)	93.5	(0.5)	0.24	(0.02)	78.3	(0.9)	91.9	(0.7)	87.1	(0.6)	92.9	(0.5)
	Slovak Republic	0.06	(0.02)	71.8	(0.6)	94.3	(0.4)	78.3	(0.6)	94.3	(0.3)	-0.26	(0.02)	65.0	(1.3)	82.7	(0.9)	76.9	(0.8)	87.2	(0.8)
	Spain	0.15	(0.02)	67.1	(0.7)	92.9	(0.4)	79.1	(0.8)	92.4	(0.4)	0.30	(0.02)	72.9	(0.9)	91.2	(0.5)	85.6	(0.5)	92.4	(0.4)
	Sweden	0.04	(0.02)	69.4	(0.8)	93.3	(0.4)	66.3	(0.7)	92.4	(0.4)	-0.14	(0.02)	66.7	(1.0)	84.8	(0.9)	72.4	(0.9)	88.0	(0.6)
	Switzerland	0.05	(0.02)	63.3	(0.9)	91.4	(0.5)	65.1	(0.9)	88.5	(0.4)	0.04	(0.02)	65.5	(0.9)	89.1	(0.5)	72.9	(0.7)	88.5	(0.6)
	Turkey	0.14	(0.03)	56.5	(0.9)	92.1	(0.7)	83.7	(0.8)	86.4	(0.8)	0.08	(0.03)	55.7	(0.8)	86.3	(0.8)	82.7	(0.7)	87.9	(0.7)
	United States	0.11	(0.02)	69.0	(0.8)	90.3	(0.5)	79.2	(0.7)	91.0	(0.4)	0.12	(0.03)	71.9	(1.0)	89.5	(0.6)	84.8	(0.6)	88.3	(0.6)
	OECD average 2003	0.02	(0.00)	67.6	(0.1)	92.1	(0.1)	71.8	(0.1)	88.3	(0.1)	-0.02	(0.00)	70.4	(0.2)	88.2	(0.1)	76.1	(0.2)	86.9	(0.1)
Partners	**Brazil**	0.52	(0.02)	69.8	(0.9)	97.7	(0.3)	90.1	(0.6)	95.1	(0.4)	0.21	(0.02)	67.7	(0.6)	92.2	(0.3)	88.1	(0.4)	94.0	(0.4)
	Hong Kong-China	-0.48	(0.01)	46.7	(0.9)	86.9	(0.6)	65.8	(0.9)	83.1	(0.6)	-0.42	(0.02)	59.8	(1.1)	86.3	(0.7)	73.1	(0.9)	79.2	(0.9)
	Indonesia	0.59	(0.02)	81.7	(0.8)	97.7	(0.2)	94.7	(0.3)	96.8	(0.2)	0.29	(0.03)	72.7	(0.9)	90.2	(0.7)	91.1	(0.5)	95.4	(0.4)
	Latvia	0.24	(0.02)	83.5	(0.6)	96.3	(0.3)	82.6	(0.7)	92.2	(0.4)	0.02	(0.02)	78.0	(0.9)	90.6	(0.8)	77.6	(0.8)	91.0	(0.7)
	Liechtenstein	-0.07	(0.05)	57.2	(2.5)	91.3	(1.7)	62.3	(2.8)	87.4	(1.8)	0.13	(0.06)	68.7	(3.3)	90.4	(2.1)	76.4	(2.6)	87.1	(2.7)
	Macao-China	-0.33	(0.03)	53.5	(1.6)	90.5	(1.0)	69.9	(1.6)	86.6	(1.1)	-0.43	(0.01)	49.9	(0.7)	87.5	(0.5)	73.1	(0.8)	83.6	(0.6)
	Russian Federation	0.20	(0.03)	81.2	(1.0)	95.3	(0.4)	86.3	(0.8)	89.9	(0.6)	0.20	(0.03)	77.7	(1.0)	92.4	(0.5)	90.5	(0.6)	92.2	(0.6)
	Thailand	0.29	(0.02)	60.8	(1.2)	94.6	(0.4)	95.0	(0.4)	96.5	(0.3)	0.00	(0.02)	37.8	(0.8)	83.1	(0.9)	94.0	(0.5)	96.6	(0.4)
	Tunisia	0.70	(0.02)	74.7	(0.9)	93.9	(0.5)	90.5	(0.6)	94.2	(0.4)	0.16	(0.03)	55.7	(1.1)	83.8	(0.9)	84.8	(0.7)	90.0	(0.6)
	Uruguay	0.13	(0.02)	59.1	(1.0)	93.6	(0.4)	86.6	(0.7)	92.3	(0.5)	0.01	(0.02)	58.7	(1.0)	87.3	(0.9)	88.1	(0.6)	93.7	(0.5)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
For comparability over time, PISA 2003 values on the *index of attitudes towards school* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).

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[Part 2/2]

Table III.2.4e

Change between PISA 2003 and PISA 2012 in students' attitudes towards school learning outcomes

Percentage of students who reported "agree" or "strongly agree" (a) or who reported "disagree" or "strongly disagree" (b)

		Change between 2003 and 2012 (PISA 2012 - PISA 2003)									
				Percentage of students who agree/disagree with the following statements:							
		Index of attitudes towards school		School has done little to prepare me for adult life when I leave school[b]		School has been a waste of time[b]		School has helped give me confidence to make decisions[a]		School has taught me things which could be useful in a job[a]	
		Dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.
OECD	Australia	**-0.17**	(0.02)	**-2.1**	(0.8)	**-3.8**	(0.5)	-0.7	(0.6)	**-1.9**	(0.5)
	Austria	**0.15**	(0.03)	**3.9**	(1.2)	**-2.8**	(0.8)	**6.8**	(1.2)	**1.9**	(0.9)
	Belgium	**0.05**	(0.02)	**7.1**	(0.9)	**-1.6**	(0.8)	**11.5**	(1.0)	**-1.4**	(0.6)
	Canada	-0.03	(0.02)	-0.2	(0.9)	**-2.8**	(0.5)	**3.7**	(0.7)	-0.3	(0.5)
	Czech Republic	**-0.23**	(0.03)	-1.5	(1.3)	**-5.4**	(1.0)	-2.0	(1.4)	**-3.4**	(0.9)
	Denmark	**-0.08**	(0.03)	**3.4**	(1.2)	**-2.9**	(0.8)	-0.1	(1.3)	1.2	(0.9)
	Finland	**-0.07**	(0.03)	**2.2**	(0.9)	**-3.8**	(0.8)	1.1	(1.0)	**-1.3**	(0.6)
	France	**-0.07**	(0.03)	-0.9	(1.2)	**-3.2**	(0.7)	**9.2**	(1.3)	**-2.0**	(0.7)
	Germany	0.00	(0.03)	**5.7**	(1.2)	**-3.4**	(0.7)	**11.4**	(1.2)	**-7.5**	(0.8)
	Greece	**-0.26**	(0.03)	**-6.3**	(1.4)	**-8.5**	(0.9)	**-4.1**	(1.3)	**-3.4**	(0.9)
	Hungary	**0.29**	(0.03)	**23.1**	(1.4)	**-6.1**	(0.9)	**14.2**	(1.2)	**-2.2**	(0.9)
	Iceland	0.03	(0.03)	**5.4**	(1.2)	0.9	(0.8)	**7.0**	(1.3)	**2.6**	(0.9)
	Ireland	-0.03	(0.03)	0.0	(1.2)	**-2.6**	(0.7)	**4.2**	(0.9)	**-2.4**	(0.8)
	Italy	0.03	(0.02)	**5.7**	(0.9)	**-4.8**	(0.5)	**8.6**	(0.9)	**-2.1**	(0.6)
	Japan	**0.33**	(0.02)	**12.6**	(1.1)	**2.3**	(0.7)	**12.2**	(1.1)	**15.4**	(1.1)
	Korea	0.05	(0.03)	**3.1**	(1.1)	**-1.8**	(0.9)	1.0	(1.3)	0.0	(1.1)
	Luxembourg	**0.13**	(0.02)	**10.1**	(1.1)	**-4.0**	(0.8)	**13.1**	(1.2)	**-2.2**	(0.8)
	Mexico	**-0.07**	(0.03)	**9.8**	(1.3)	**-2.3**	(0.5)	-1.1	(0.6)	**1.6**	(0.4)
	Netherlands	**-0.21**	(0.03)	**-4.3**	(1.5)	**-8.8**	(1.1)	2.9	(1.5)	**-7.5**	(1.0)
	New Zealand	-0.04	(0.03)	1.8	(1.2)	**-2.1**	(0.8)	1.7	(1.1)	-0.4	(0.8)
	Norway	**-0.09**	(0.03)	**3.7**	(1.4)	**-2.3**	(1.0)	**3.1**	(1.3)	**-2.8**	(0.9)
	Poland	**-0.31**	(0.03)	**-6.4**	(1.4)	**-10.1**	(1.1)	**-4.8**	(1.3)	**-9.3**	(1.2)
	Portugal	-0.04	(0.03)	**4.2**	(1.3)	**-3.7**	(0.8)	1.2	(1.0)	-0.6	(0.7)
	Slovak Republic	**-0.32**	(0.03)	**-6.8**	(1.4)	**-11.6**	(1.0)	-1.4	(1.0)	**-7.0**	(0.8)
	Spain	**0.15**	(0.03)	**5.8**	(1.1)	**-1.7**	(0.6)	**6.6**	(0.9)	0.0	(0.5)
	Sweden	**-0.19**	(0.03)	**-2.7**	(1.3)	**-8.5**	(1.0)	**6.1**	(1.2)	**-4.4**	(0.7)
	Switzerland	-0.01	(0.02)	2.2	(1.3)	**-2.3**	(0.7)	**7.8**	(1.2)	0.0	(0.7)
	Turkey	-0.06	(0.04)	-0.8	(1.2)	**-5.7**	(1.1)	-1.1	(1.1)	1.5	(1.0)
	United States	0.02	(0.03)	**2.8**	(1.3)	-0.8	(0.8)	**5.6**	(0.9)	**-2.7**	(0.7)
	OECD average 2003	**-0.04**	(0.01)	**2.8**	(0.2)	**-3.9**	(0.2)	**4.3**	(0.2)	**-1.4**	(0.2)
Partners	Brazil	**-0.31**	(0.03)	-2.1	(1.1)	**-5.4**	(0.5)	**-1.9**	(0.8)	**-1.1**	(0.5)
	Hong Kong-China	**0.06**	(0.02)	**13.1**	(1.5)	-0.6	(0.9)	**7.3**	(1.3)	**-3.9**	(1.1)
	Indonesia	**-0.30**	(0.03)	**-8.9**	(1.2)	**-7.5**	(0.8)	**-3.5**	(0.6)	**-1.4**	(0.4)
	Latvia	**-0.22**	(0.03)	**-5.5**	(1.1)	**-5.7**	(0.8)	**-5.0**	(1.0)	-1.2	(0.8)
	Liechtenstein	**0.20**	(0.08)	**11.5**	(4.2)	-0.9	(2.8)	**14.1**	(3.8)	-0.3	(3.3)
	Macao-China	**-0.10**	(0.03)	**-3.6**	(1.8)	**-3.0**	(1.1)	3.2	(1.8)	**-3.0**	(1.2)
	Russian Federation	0.00	(0.04)	**-3.5**	(1.4)	**-2.9**	(0.6)	**4.2**	(1.1)	**2.3**	(0.8)
	Thailand	**-0.30**	(0.03)	**-23.0**	(1.4)	**-11.5**	(1.0)	-1.0	(0.6)	0.1	(0.5)
	Tunisia	**-0.54**	(0.04)	**-19.1**	(1.4)	**-10.2**	(1.0)	**-5.6**	(0.9)	**-4.2**	(0.7)
	Uruguay	**-0.12**	(0.03)	-0.4	(1.5)	**-6.3**	(1.0)	1.5	(0.9)	**1.4**	(0.7)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.

For comparability over time, PISA 2003 values on the *index of attitudes towards school* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).

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[Part 1/1]

Table III.2.5a **Students' attitudes towards school: Learning activities**

Percentage of students who reported "agree" or "strongly agree"

		Percentage of students who agree with the following statements:							
		Trying hard at school will help me get a good job		Trying hard at school will help me get into a good <college>		I enjoy receiving good <grades>		Trying hard at school is important	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	94.7	(0.2)	96.5	(0.2)	97.4	(0.2)	95.6	(0.3)
	Austria	88.0	(0.6)	89.4	(0.7)	97.7	(0.3)	93.2	(0.5)
	Belgium	88.9	(0.5)	89.5	(0.4)	96.9	(0.3)	90.2	(0.5)
	Canada	93.5	(0.3)	96.6	(0.3)	97.9	(0.2)	95.0	(0.3)
	Chile	96.3	(0.4)	95.9	(0.3)	97.3	(0.3)	96.7	(0.4)
	Czech Republic	86.4	(0.8)	93.3	(0.6)	97.3	(0.4)	89.1	(0.7)
	Denmark	94.3	(0.4)	97.1	(0.3)	97.8	(0.3)	95.9	(0.4)
	Estonia	91.4	(0.6)	94.9	(0.5)	96.4	(0.4)	93.8	(0.5)
	Finland	89.3	(0.7)	97.5	(0.2)	96.0	(0.3)	89.4	(0.6)
	France	88.9	(0.6)	94.7	(0.4)	96.8	(0.4)	89.5	(0.6)
	Germany	87.2	(0.6)	86.2	(0.9)	97.5	(0.4)	94.4	(0.4)
	Greece	81.4	(0.7)	86.9	(0.6)	93.0	(0.5)	90.8	(0.6)
	Hungary	93.3	(0.5)	93.9	(0.4)	97.8	(0.3)	95.6	(0.4)
	Iceland	95.7	(0.4)	97.6	(0.3)	96.5	(0.4)	97.3	(0.3)
	Ireland	95.2	(0.4)	98.1	(0.2)	98.1	(0.2)	96.1	(0.3)
	Israel	91.8	(0.6)	93.9	(0.6)	96.7	(0.4)	93.0	(0.6)
	Italy	90.6	(0.3)	88.7	(0.3)	96.6	(0.2)	92.8	(0.2)
	Japan	89.7	(0.6)	92.5	(0.5)	57.7	(0.8)	92.6	(0.5)
	Korea	88.2	(0.7)	94.0	(0.5)	79.3	(0.9)	92.0	(0.6)
	Luxembourg	88.9	(0.6)	91.2	(0.4)	95.7	(0.3)	92.2	(0.5)
	Mexico	95.9	(0.2)	95.5	(0.2)	95.3	(0.2)	97.1	(0.2)
	Netherlands	94.2	(0.5)	92.2	(0.5)	97.1	(0.4)	93.8	(0.6)
	New Zealand	95.4	(0.4)	97.2	(0.3)	98.3	(0.3)	96.3	(0.4)
	Norway	91.3	(0.6)	94.7	(0.4)	97.7	(0.3)	82.8	(0.8)
	Poland	80.6	(0.9)	92.8	(0.5)	97.7	(0.3)	82.0	(0.8)
	Portugal	96.8	(0.3)	95.9	(0.5)	97.7	(0.3)	97.8	(0.3)
	Slovak Republic	84.3	(0.7)	89.0	(0.8)	95.6	(0.4)	89.7	(0.8)
	Slovenia	92.7	(0.5)	92.4	(0.5)	97.1	(0.3)	93.4	(0.5)
	Spain	93.9	(0.3)	93.6	(0.3)	95.5	(0.2)	94.9	(0.3)
	Sweden	94.8	(0.5)	95.5	(0.5)	97.3	(0.4)	94.5	(0.4)
	Switzerland	90.4	(0.5)	88.1	(0.5)	97.7	(0.3)	93.1	(0.4)
	Turkey	90.0	(0.6)	94.8	(0.4)	96.3	(0.4)	91.4	(0.6)
	United Kingdom	95.8	(0.3)	95.8	(0.4)	98.1	(0.3)	97.5	(0.3)
	United States	95.7	(0.4)	98.4	(0.2)	97.6	(0.4)	96.9	(0.3)
	OECD average	91.3	(0.1)	93.7	(0.1)	95.3	(0.1)	93.1	(0.1)
Partners	Albania	97.8	(0.3)	97.3	(0.3)	98.1	(0.2)	97.9	(0.3)
	Argentina	95.8	(0.3)	94.0	(0.5)	91.9	(0.6)	93.6	(0.6)
	Brazil	95.8	(0.2)	96.1	(0.3)	96.2	(0.2)	95.8	(0.2)
	Bulgaria	92.4	(0.4)	94.7	(0.5)	95.3	(0.4)	93.3	(0.5)
	Colombia	86.0	(0.8)	97.2	(0.3)	98.1	(0.3)	97.0	(0.3)
	Costa Rica	97.8	(0.3)	98.2	(0.3)	97.5	(0.4)	98.2	(0.3)
	Croatia	89.2	(0.6)	95.4	(0.4)	98.5	(0.2)	93.9	(0.5)
	Cyprus*	89.2	(0.6)	90.9	(0.6)	92.8	(0.4)	89.8	(0.5)
	Hong Kong-China	87.8	(0.6)	92.1	(0.5)	95.7	(0.3)	94.3	(0.5)
	Indonesia	97.0	(0.3)	96.6	(0.3)	97.0	(0.3)	95.8	(0.3)
	Jordan	94.3	(0.5)	90.4	(0.6)	91.5	(0.6)	90.8	(0.5)
	Kazakhstan	96.0	(0.4)	97.8	(0.3)	97.8	(0.3)	97.1	(0.4)
	Latvia	89.7	(0.6)	94.8	(0.5)	98.3	(0.3)	92.5	(0.5)
	Liechtenstein	89.2	(2.3)	84.5	(2.5)	97.6	(1.3)	93.1	(1.9)
	Lithuania	91.3	(0.5)	93.0	(0.5)	96.5	(0.4)	92.4	(0.5)
	Macao-China	81.5	(0.7)	93.3	(0.4)	91.9	(0.5)	89.0	(0.5)
	Malaysia	94.5	(0.6)	94.6	(0.5)	95.2	(0.4)	94.6	(0.5)
	Montenegro	87.8	(0.6)	94.2	(0.5)	96.8	(0.4)	87.1	(0.7)
	Peru	95.3	(0.4)	96.9	(0.3)	95.7	(0.4)	97.8	(0.3)
	Qatar	90.3	(0.4)	91.7	(0.4)	88.3	(0.5)	89.4	(0.4)
	Romania	87.4	(0.8)	91.2	(0.8)	91.3	(0.8)	86.8	(0.8)
	Russian Federation	94.3	(0.4)	96.4	(0.3)	97.7	(0.3)	88.6	(0.9)
	Serbia	85.5	(0.7)	92.6	(0.5)	95.7	(0.4)	91.7	(0.5)
	Shanghai-China	89.1	(0.5)	94.2	(0.5)	85.0	(0.6)	94.9	(0.4)
	Singapore	87.7	(0.7)	97.0	(0.3)	98.1	(0.2)	97.1	(0.3)
	Chinese Taipei	84.9	(0.6)	91.8	(0.5)	88.7	(0.6)	91.9	(0.5)
	Thailand	94.3	(0.3)	95.0	(0.4)	97.1	(0.3)	95.7	(0.3)
	Tunisia	95.0	(0.4)	92.4	(0.7)	93.2	(0.6)	93.2	(0.5)
	United Arab Emirates	93.6	(0.4)	95.2	(0.4)	95.9	(0.4)	94.4	(0.4)
	Uruguay	97.9	(0.2)	94.5	(0.5)	95.7	(0.4)	97.3	(0.3)
	Viet Nam	92.1	(0.5)	94.0	(0.5)	83.6	(0.8)	85.6	(0.7)

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.2.5d Index of attitudes towards school (learning activities) and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Index of attitudes towards school (learning activities)																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	0.15	(0.01)	1.00	(0.01)	0.08	(0.02)	0.21	(0.02)	**-0.12**	(0.02)	-1.15	(0.01)	-0.34	(0.03)	0.87	(0.03)	1.21	(0.00)
	Austria	0.14	(0.02)	0.93	(0.01)	0.02	(0.03)	0.25	(0.03)	**-0.23**	(0.04)	-1.14	(0.04)	-0.07	(0.02)	0.55	(0.04)	1.21	(0.00)
	Belgium	-0.33	(0.02)	0.94	(0.01)	-0.38	(0.02)	-0.29	(0.02)	**-0.08**	(0.03)	-1.39	(0.02)	-0.83	(0.02)	-0.07	(0.02)	0.96	(0.02)
	Canada	0.17	(0.01)	0.98	(0.01)	0.07	(0.02)	0.28	(0.01)	**-0.21**	(0.02)	-1.16	(0.01)	-0.21	(0.02)	0.85	(0.02)	1.21	(0.00)
	Chile	0.37	(0.02)	0.90	(0.01)	0.32	(0.03)	0.41	(0.02)	**-0.09**	(0.03)	-0.93	(0.03)	0.22	(0.03)	0.98	(0.03)	1.21	(0.00)
	Czech Republic	-0.24	(0.03)	0.95	(0.01)	-0.30	(0.03)	-0.18	(0.03)	**-0.12**	(0.04)	-1.36	(0.03)	-0.69	(0.03)	0.09	(0.04)	1.01	(0.03)
	Denmark	0.10	(0.02)	0.93	(0.01)	-0.01	(0.03)	0.20	(0.02)	**-0.21**	(0.04)	-1.12	(0.01)	-0.28	(0.03)	0.58	(0.04)	1.21	(0.00)
	Estonia	-0.11	(0.02)	0.97	(0.01)	-0.22	(0.02)	0.00	(0.03)	**-0.22**	(0.03)	-1.24	(0.02)	-0.64	(0.02)	0.25	(0.04)	1.21	(0.02)
	Finland	-0.18	(0.02)	0.98	(0.01)	-0.34	(0.03)	-0.01	(0.03)	**-0.33**	(0.03)	-1.32	(0.02)	-0.71	(0.03)	0.19	(0.03)	1.12	(0.02)
	France	-0.10	(0.02)	0.99	(0.01)	-0.17	(0.03)	-0.04	(0.02)	**-0.12**	(0.04)	-1.33	(0.02)	-0.58	(0.03)	0.29	(0.03)	1.21	(0.01)
	Germany	0.10	(0.02)	0.93	(0.01)	0.00	(0.03)	0.19	(0.03)	**-0.19**	(0.03)	-1.18	(0.04)	-0.13	(0.02)	0.49	(0.04)	1.21	(0.00)
	Greece	-0.38	(0.02)	0.96	(0.01)	-0.43	(0.03)	-0.34	(0.03)	**-0.09**	(0.04)	-1.52	(0.03)	-0.83	(0.02)	-0.09	(0.02)	0.92	(0.03)
	Hungary	0.03	(0.02)	0.95	(0.01)	-0.02	(0.03)	0.09	(0.02)	**-0.11**	(0.03)	-1.18	(0.02)	-0.35	(0.04)	0.46	(0.04)	1.21	(0.00)
	Iceland	0.39	(0.02)	0.97	(0.01)	0.20	(0.03)	0.57	(0.02)	**-0.37**	(0.04)	-1.07	(0.03)	0.21	(0.04)	1.20	(0.03)	1.21	(0.00)
	Ireland	0.20	(0.02)	0.96	(0.01)	0.13	(0.03)	0.27	(0.03)	**-0.14**	(0.04)	-1.11	(0.01)	-0.19	(0.05)	0.88	(0.03)	1.21	(0.00)
	Israel	0.28	(0.03)	0.99	(0.02)	0.18	(0.04)	0.37	(0.03)	**-0.19**	(0.05)	-1.15	(0.05)	0.08	(0.04)	0.97	(0.03)	1.21	(0.00)
	Italy	-0.12	(0.01)	0.96	(0.01)	-0.22	(0.02)	-0.01	(0.01)	**-0.21**	(0.02)	-1.31	(0.01)	-0.54	(0.01)	0.23	(0.02)	1.14	(0.01)
	Japan	-0.56	(0.02)	1.01	(0.01)	-0.57	(0.03)	-0.54	(0.02)	-0.03	(0.03)	-1.71	(0.02)	-1.06	(0.02)	-0.28	(0.04)	0.83	(0.02)
	Korea	-0.38	(0.03)	1.02	(0.01)	-0.41	(0.04)	-0.35	(0.04)	-0.06	(0.05)	-1.57	(0.03)	-0.94	(0.02)	-0.02	(0.05)	1.01	(0.02)
	Luxembourg	0.07	(0.02)	1.01	(0.01)	-0.05	(0.02)	0.20	(0.02)	**-0.25**	(0.03)	-1.32	(0.02)	-0.21	(0.03)	0.62	(0.04)	1.21	(0.00)
	Mexico	0.17	(0.01)	0.93	(0.01)	0.12	(0.01)	0.22	(0.01)	**-0.10**	(0.02)	-1.13	(0.01)	-0.13	(0.02)	0.73	(0.02)	1.21	(0.00)
	Netherlands	-0.30	(0.02)	0.93	(0.01)	-0.34	(0.04)	-0.26	(0.03)	-0.09	(0.05)	-1.25	(0.02)	-0.91	(0.03)	-0.06	(0.03)	1.02	(0.02)
	New Zealand	0.24	(0.02)	0.97	(0.01)	0.17	(0.03)	0.32	(0.03)	**-0.15**	(0.04)	-1.11	(0.02)	-0.09	(0.05)	0.96	(0.02)	1.21	(0.00)
	Norway	-0.08	(0.02)	1.00	(0.01)	-0.24	(0.03)	0.09	(0.02)	**-0.33**	(0.03)	-1.36	(0.03)	-0.49	(0.04)	0.37	(0.02)	1.18	(0.02)
	Poland	-0.42	(0.02)	0.98	(0.01)	-0.54	(0.03)	-0.31	(0.03)	**-0.23**	(0.04)	-1.53	(0.03)	-0.94	(0.01)	-0.21	(0.04)	0.98	(0.03)
	Portugal	0.19	(0.02)	0.97	(0.01)	0.12	(0.03)	0.27	(0.03)	**-0.15**	(0.04)	-1.10	(0.02)	-0.24	(0.06)	0.91	(0.04)	1.21	(0.00)
	Slovak Republic	-0.41	(0.02)	0.96	(0.01)	-0.49	(0.03)	-0.33	(0.03)	**-0.16**	(0.03)	-1.50	(0.03)	-0.94	(0.02)	-0.14	(0.03)	0.92	(0.03)
	Slovenia	-0.08	(0.02)	0.95	(0.01)	-0.21	(0.03)	0.06	(0.03)	**-0.27**	(0.04)	-1.22	(0.02)	-0.54	(0.02)	0.24	(0.04)	1.20	(0.02)
	Spain	0.12	(0.01)	0.98	(0.01)	0.02	(0.02)	0.22	(0.02)	**-0.20**	(0.03)	-1.21	(0.01)	-0.22	(0.02)	0.69	(0.02)	1.21	(0.00)
	Sweden	0.20	(0.02)	0.99	(0.01)	0.10	(0.03)	0.29	(0.03)	**-0.19**	(0.03)	-1.18	(0.02)	-0.14	(0.05)	0.90	(0.03)	1.21	(0.00)
	Switzerland	0.03	(0.02)	0.92	(0.01)	-0.09	(0.03)	0.15	(0.02)	**-0.24**	(0.03)	-1.25	(0.02)	-0.18	(0.02)	0.35	(0.02)	1.18	(0.02)
	Turkey	0.20	(0.02)	1.01	(0.01)	0.11	(0.03)	0.30	(0.03)	**-0.19**	(0.03)	-1.25	(0.03)	-0.04	(0.05)	0.90	(0.03)	1.21	(0.00)
	United Kingdom	0.27	(0.02)	0.98	(0.01)	0.19	(0.02)	0.35	(0.02)	**-0.16**	(0.04)	-1.11	(0.02)	-0.03	(0.04)	1.03	(0.02)	1.21	(0.00)
	United States	0.31	(0.02)	0.97	(0.01)	0.18	(0.03)	0.45	(0.02)	**-0.27**	(0.04)	-1.08	(0.01)	0.04	(0.05)	1.08	(0.03)	1.21	(0.00)
	OECD average	0.00	(0.00)	0.97	(0.00)	-0.09	(0.00)	0.09	(0.00)	**-0.18**	(0.01)	-1.25	(0.00)	-0.38	(0.01)	0.49	(0.01)	1.14	(0.00)
Partners	**Albania**	0.52	(0.02)	0.83	(0.01)	0.51	(0.03)	0.53	(0.02)	-0.03	(0.03)	-0.70	(0.04)	0.37	(0.02)	1.19	(0.03)	1.21	(0.00)
	Argentina	0.04	(0.02)	0.99	(0.01)	-0.03	(0.03)	0.11	(0.03)	**-0.13**	(0.04)	-1.24	(0.02)	-0.34	(0.04)	0.55	(0.04)	1.21	(0.00)
	Brazil	0.20	(0.02)	0.97	(0.01)	0.10	(0.02)	0.29	(0.02)	**-0.19**	(0.02)	-1.13	(0.01)	-0.13	(0.05)	0.86	(0.02)	1.21	(0.00)
	Bulgaria	0.11	(0.03)	1.03	(0.01)	0.02	(0.03)	0.22	(0.03)	**-0.20**	(0.04)	-1.26	(0.02)	-0.30	(0.05)	0.81	(0.05)	1.21	(0.00)
	Colombia	0.11	(0.02)	0.93	(0.01)	0.11	(0.03)	0.11	(0.02)	0.00	(0.04)	-1.15	(0.02)	-0.21	(0.03)	0.60	(0.04)	1.21	(0.00)
	Costa Rica	0.54	(0.02)	0.85	(0.01)	0.51	(0.03)	0.57	(0.02)	-0.06	(0.03)	-0.73	(0.04)	0.48	(0.05)	1.21	(0.00)	1.21	(0.00)
	Croatia	0.06	(0.02)	0.98	(0.01)	0.02	(0.03)	0.11	(0.03)	**-0.09**	(0.04)	-1.20	(0.02)	-0.38	(0.04)	0.61	(0.04)	1.21	(0.00)
	Cyprus*	-0.13	(0.02)	1.07	(0.01)	-0.30	(0.03)	0.04	(0.02)	**-0.33**	(0.04)	-1.46	(0.03)	-0.65	(0.03)	0.36	(0.03)	1.21	(0.00)
	Hong Kong-China	-0.31	(0.02)	0.95	(0.01)	-0.34	(0.03)	-0.28	(0.03)	-0.06	(0.04)	-1.34	(0.02)	-0.88	(0.02)	-0.06	(0.03)	1.02	(0.02)
	Indonesia	0.02	(0.02)	0.94	(0.01)	0.01	(0.03)	0.04	(0.03)	-0.03	(0.04)	-1.10	(0.01)	-0.50	(0.04)	0.48	(0.05)	1.21	(0.00)
	Jordan	0.16	(0.02)	1.03	(0.02)	-0.01	(0.04)	0.30	(0.03)	**-0.31**	(0.05)	-1.33	(0.04)	-0.07	(0.02)	0.81	(0.04)	1.21	(0.00)
	Kazakhstan	0.31	(0.03)	0.94	(0.01)	0.28	(0.03)	0.35	(0.03)	**-0.08**	(0.04)	-1.05	(0.04)	0.08	(0.05)	1.02	(0.04)	1.21	(0.00)
	Latvia	-0.07	(0.02)	0.97	(0.01)	-0.15	(0.03)	0.02	(0.03)	**-0.18**	(0.03)	-1.23	(0.02)	-0.58	(0.04)	0.34	(0.05)	1.21	(0.00)
	Liechtenstein	0.16	(0.07)	0.99	(0.05)	-0.02	(0.11)	0.38	(0.08)	**-0.40**	(0.12)	-1.18	(0.14)	-0.12	(0.06)	0.75	(0.15)	1.21	(0.00)
	Lithuania	0.24	(0.02)	0.94	(0.01)	0.08	(0.03)	0.39	(0.03)	**-0.31**	(0.04)	-1.09	(0.04)	0.01	(0.03)	0.81	(0.03)	1.21	(0.00)
	Macao-China	-0.45	(0.02)	0.97	(0.01)	-0.49	(0.03)	-0.39	(0.02)	**-0.10**	(0.03)	-1.54	(0.02)	-0.94	(0.00)	-0.24	(0.03)	0.93	(0.03)
	Malaysia	0.12	(0.03)	1.00	(0.01)	-0.01	(0.04)	0.25	(0.03)	**-0.26**	(0.04)	-1.21	(0.02)	-0.30	(0.05)	0.77	(0.05)	1.21	(0.00)
	Montenegro	-0.09	(0.02)	1.02	(0.01)	-0.15	(0.03)	-0.03	(0.02)	**-0.12**	(0.04)	-1.35	(0.03)	-0.60	(0.03)	0.38	(0.03)	1.21	(0.00)
	Peru	0.14	(0.02)	0.91	(0.01)	0.11	(0.03)	0.17	(0.02)	-0.06	(0.04)	-1.09	(0.01)	-0.18	(0.03)	0.61	(0.04)	1.21	(0.00)
	Qatar	0.07	(0.01)	1.15	(0.01)	0.01	(0.02)	0.14	(0.02)	**-0.14**	(0.03)	-1.48	(0.02)	-0.34	(0.02)	0.92	(0.03)	1.21	(0.00)
	Romania	-0.14	(0.03)	1.05	(0.01)	-0.20	(0.03)	-0.07	(0.03)	**-0.13**	(0.04)	-1.44	(0.03)	-0.63	(0.04)	0.32	(0.04)	1.21	(0.01)
	Russian Federation	-0.02	(0.02)	0.98	(0.01)	-0.06	(0.03)	0.02	(0.02)	**-0.08**	(0.04)	-1.21	(0.02)	-0.54	(0.04)	0.47	(0.04)	1.21	(0.00)
	Serbia	-0.15	(0.02)	0.99	(0.01)	-0.18	(0.03)	-0.12	(0.03)	-0.05	(0.04)	-1.36	(0.02)	-0.65	(0.03)	0.25	(0.03)	1.15	(0.02)
	Shanghai-China	-0.30	(0.02)	0.99	(0.01)	-0.31	(0.03)	-0.29	(0.03)	-0.02	(0.03)	-1.42	(0.02)	-0.89	(0.03)	0.05	(0.04)	1.06	(0.02)
	Singapore	0.07	(0.02)	0.96	(0.01)	0.03	(0.02)	0.11	(0.02)	**-0.08**	(0.03)	-1.17	(0.02)	-0.32	(0.03)	0.57	(0.04)	1.21	(0.00)
	Chinese Taipei	-0.44	(0.02)	1.02	(0.01)	-0.48	(0.03)	-0.39	(0.03)	**-0.09**	(0.04)	-1.55	(0.02)	-0.94	(0.00)	-0.30	(0.05)	1.04	(0.02)
	Thailand	-0.09	(0.02)	0.93	(0.01)	-0.12	(0.03)	-0.08	(0.02)	-0.04	(0.03)	-1.14	(0.01)	-0.65	(0.02)	0.23	(0.03)	1.19	(0.02)
	Tunisia	0.22	(0.03)	1.02	(0.01)	0.08	(0.04)	0.35	(0.03)	-0.27	(0.04)	-1.25	(0.03)	0.00	(0.05)	0.93	(0.03)	1.21	(0.00)
	United Arab Emirates	0.37	(0.02)	0.98	(0.01)	0.24	(0.03)	0.50	(0.02)	-0.26	(0.03)	-1.06	(0.03)	0.22	(0.03)	1.13	(0.02)	1.21	(0.00)
	Uruguay	0.24	(0.02)	0.93	(0.01)	0.16	(0.03)	0.31	(0.02)	-0.15	(0.04)	-1.08	(0.03)	-0.03	(0.03)	0.86	(0.03)	1.21	(0.00)
	Viet Nam	-0.53	(0.02)	0.82	(0.01)	-0.53	(0.02)	-0.53	(0.02)	0.00	(0.03)	-1.50	(0.02)	-0.94	(0.00)	-0.27	(0.04)	0.57	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.2.5d Index of attitudes towards school (learning activities) and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Australia**	**478**	(2.7)	501	(2.9)	520	(3.0)	**519**	(2.8)	**17.8**	(1.1)	**1.6**	(0.1)	3.6	(0.4)
	Austria	**495**	(4.5)	514	(4.7)	516	(4.6)	**509**	(4.5)	**7.2**	(1.9)	**1.4**	(0.1)	0.5	(0.3)
	Belgium	513	(3.7)	526	(3.5)	530	(3.5)	516	(3.8)	3.0	(4.7)	2.1	(2.0)	1.1	(0.1)
	Canada	**504**	(3.2)	522	(2.6)	526	(3.4)	**530**	(2.9)	**10.0**	(1.1)	**1.4**	(0.1)	1.3	(0.3)
	Chile	423	(4.6)	420	(4.3)	423	(4.3)	428	(3.7)	2.5	(1.6)	1.1	(0.1)	0.1	(0.1)
	Czech Republic	507	(4.8)	504	(4.5)	509	(4.6)	498	(4.9)	-2.1	(2.1)	1.0	(0.1)	0.1	(0.1)
	Denmark	**490**	(4.3)	508	(4.7)	511	(4.5)	**514**	(4.0)	**9.5**	(1.8)	**1.4**	(0.1)	1.2	(0.5)
	Estonia	513	(4.4)	521	(3.8)	529	(3.7)	519	(4.3)	3.2	(1.9)	**1.2**	(0.1)	0.2	(0.2)
	Finland	**507**	(3.3)	516	(3.7)	537	(3.8)	**532**	(3.2)	**11.7**	(1.4)	**1.4**	(0.1)	1.9	(0.4)
	France	**485**	(4.7)	501	(4.4)	505	(4.4)	**500**	(3.9)	**7.3**	(2.0)	**1.2**	(0.1)	0.6	(0.3)
	Germany	**507**	(4.8)	529	(5.0)	526	(5.4)	**527**	(4.4)	**8.2**	(1.8)	**1.4**	(0.1)	0.7	(0.3)
	Greece	**463**	(3.8)	460	(4.6)	457	(4.1)	**442**	(4.4)	**-7.8**	(1.9)	0.9	(0.1)	0.7	(0.4)
	Hungary	**459**	(4.5)	478	(5.6)	487	(5.1)	**489**	(4.8)	**13.2**	(2.0)	**1.3**	(0.1)	1.9	(0.5)
	Iceland	**463**	(4.0)	496	(4.5)	511	(5.5)	**515**	(5.5)	**22.3**	(2.0)	**1.8**	(0.2)	5.5	(0.9)
	Ireland	**487**	(3.7)	505	(3.7)	507	(4.4)	**506**	(4.1)	**8.2**	(1.7)	**1.2**	(0.1)	0.9	(0.3)
	Israel	469	(7.9)	490	(6.1)	471	(6.9)	467	(5.3)	0.3	(2.5)	**1.2**	(0.1)	0.0	(0.0)
	Italy	**478**	(2.8)	495	(3.0)	491	(2.6)	**486**	(2.6)	**4.1**	(1.1)	**1.2**	(0.1)	0.2	(0.1)
	Japan	**518**	(5.0)	536	(4.4)	547	(4.4)	**548**	(5.2)	**12.1**	(2.0)	**1.5**	(0.1)	1.8	(0.5)
	Korea	**520**	(6.0)	540	(5.4)	569	(5.8)	**588**	(6.3)	**27.3**	(2.4)	**1.7**	(0.1)	8.1	(1.3)
	Luxembourg	**474**	(3.9)	491	(3.1)	502	(3.6)	**497**	(3.9)	**10.9**	(1.8)	**1.5**	(0.1)	1.4	(0.5)
	Mexico	**404**	(1.9)	415	(1.9)	418	(2.0)	**424**	(1.9)	**8.8**	(0.9)	**1.3**	(0.0)	1.3	(0.2)
	Netherlands	521	(4.8)	530	(5.8)	536	(5.1)	526	(5.5)	2.7	(2.5)	1.2	(0.1)	0.1	(0.1)
	New Zealand	**484**	(4.1)	506	(4.3)	506	(4.7)	**503**	(5.5)	**7.5**	(2.0)	**1.3**	(0.1)	0.6	(0.3)
	Norway	**463**	(5.4)	488	(5.8)	506	(4.0)	**506**	(4.6)	**19.7**	(2.0)	**1.7**	(0.1)	4.7	(0.9)
	Poland	**510**	(5.2)	512	(5.0)	527	(5.0)	**526**	(5.7)	**7.3**	(1.8)	**1.2**	(0.1)	0.6	(0.3)
	Portugal	**466**	(4.5)	482	(6.0)	507	(5.9)	**505**	(5.5)	**18.5**	(2.1)	**1.4**	(0.1)	3.8	(0.9)
	Slovak Republic	479	(6.4)	483	(4.9)	493	(5.4)	485	(4.7)	4.0	(2.6)	1.1	(0.1)	0.2	(0.2)
	Slovenia	**489**	(4.0)	512	(4.7)	513	(4.3)	**503**	(3.8)	**6.9**	(1.7)	**1.3**	(0.1)	0.5	(0.3)
	Spain	**467**	(3.0)	489	(3.6)	491	(3.8)	**499**	(2.7)	**13.2**	(1.2)	**1.4**	(0.1)	2.3	(0.4)
	Sweden	**458**	(4.3)	489	(3.9)	492	(4.5)	**492**	(4.2)	**14.2**	(1.9)	**1.5**	(0.1)	2.5	(0.6)
	Switzerland	**516**	(3.6)	538	(4.1)	539	(5.0)	**535**	(4.3)	**9.0**	(1.5)	**1.4**	(0.1)	0.8	(0.3)
	Turkey	450	(6.1)	457	(6.7)	446	(5.7)	443	(5.6)	-3.3	(1.9)	1.2	(0.1)	0.1	(0.2)
	United Kingdom	**478**	(4.0)	505	(5.6)	504	(4.4)	**504**	(4.6)	**11.1**	(1.9)	**1.4**	(0.1)	1.4	(0.5)
	United States	**467**	(4.6)	486	(4.4)	490	(6.9)	**493**	(5.4)	**10.5**	(1.9)	**1.4**	(0.1)	1.3	(0.5)
	OECD average	**482**	(0.8)	498	(0.8)	504	(0.8)	**502**	(0.8)	**8.8**	(0.3)	**1.3**	(0.0)	1.5	(0.1)
Partners	**Albania**	398	(4.5)	396	(5.0)	391	(4.4)	392	(4.6)	-2.8	(2.4)	1.0	(0.1)	0.1	(0.1)
	Argentina	391	(4.8)	398	(4.6)	390	(4.6)	388	(5.0)	-1.0	(1.7)	1.1	(0.1)	0.0	(0.1)
	Brazil	391	(2.8)	395	(3.1)	394	(3.5)	396	(3.5)	1.9	(1.1)	1.1	(0.1)	0.1	(0.1)
	Bulgaria	431	(4.7)	450	(5.2)	450	(5.8)	441	(5.5)	**4.3**	(2.2)	**1.3**	(0.1)	0.2	(0.2)
	Colombia	380	(3.5)	388	(4.0)	386	(4.2)	375	(4.4)	-1.5	(1.8)	1.1	(0.1)	0.1	(0.1)
	Costa Rica	409	(4.4)	408	(3.7)	406	(4.1)	406	(4.9)	-0.5	(2.2)	1.0	(0.1)	0.0	(0.1)
	Croatia	468	(5.2)	476	(5.8)	479	(6.7)	468	(4.6)	0.9	(1.6)	1.1	(0.1)	0.0	(0.0)
	Cyprus*	**422**	(4.5)	443	(4.9)	456	(3.6)	**456**	(3.2)	**14.7**	(1.5)	**1.6**	(0.1)	3.0	(0.6)
	Hong Kong-China	**542**	(5.4)	557	(5.3)	575	(4.9)	**580**	(4.6)	**15.7**	(2.2)	**1.5**	(0.1)	2.5	(0.7)
	Indonesia	374	(6.0)	374	(5.3)	379	(4.7)	377	(4.3)	1.6	(2.1)	1.1	(0.1)	0.1	(0.1)
	Jordan	**367**	(3.8)	399	(4.4)	396	(4.8)	**397**	(3.9)	**11.8**	(1.5)	**1.7**	(0.1)	2.6	(0.6)
	Kazakhstan	**422**	(4.1)	434	(4.3)	439	(4.5)	**437**	(4.4)	**7.2**	(1.8)	**1.3**	(0.1)	0.9	(0.4)
	Latvia	490	(5.0)	491	(4.8)	493	(5.2)	487	(4.1)	-0.1	(1.9)	1.1	(0.2)	0.0	(0.0)
	Liechtenstein	537	(14.7)	529	(20.3)	535	(20.0)	539	(16.8)	0.5	(7.2)	1.0	(0.3)	0.0	(0.5)
	Lithuania	**458**	(4.5)	487	(4.2)	489	(4.6)	**479**	(4.7)	**10.3**	(2.2)	**1.5**	(0.1)	1.2	(0.5)
	Macao-China	539	(3.4)	536	(3.4)	545	(3.9)	539	(2.7)	1.1	(1.5)	1.0	(0.1)	0.0	(0.0)
	Malaysia	**412**	(5.6)	424	(4.6)	425	(3.5)	**427**	(4.1)	**6.6**	(2.1)	**1.4**	(0.1)	0.7	(0.4)
	Montenegro	**413**	(3.7)	418	(3.7)	417	(3.7)	**398**	(3.6)	**-4.3**	(1.6)	1.0	(0.1)	0.3	(0.2)
	Peru	369	(5.2)	378	(4.8)	378	(4.5)	378	(4.7)	2.4	(1.8)	**1.2**	(0.1)	0.1	(0.1)
	Qatar	**343**	(2.8)	382	(3.1)	406	(2.8)	**399**	(2.8)	**21.3**	(1.1)	**1.9**	(0.1)	6.0	(0.6)
	Romania	446	(5.8)	447	(5.1)	452	(4.4)	437	(4.9)	-1.7	(2.0)	1.0	(0.1)	0.1	(0.1)
	Russian Federation	**474**	(4.5)	482	(4.1)	487	(4.6)	**488**	(4.3)	**5.1**	(1.8)	1.2	(0.1)	0.3	(0.2)
	Serbia	445	(4.9)	451	(4.3)	458	(4.7)	444	(5.4)	1.1	(2.1)	1.1	(0.1)	0.0	(0.1)
	Shanghai-China	**602**	(5.2)	614	(5.1)	619	(5.5)	**615**	(4.8)	**5.7**	(2.2)	**1.3**	(0.1)	0.3	(0.2)
	Singapore	577	(3.8)	581	(4.2)	579	(4.2)	566	(4.6)	-3.5	(1.9)	1.0	(0.1)	0.1	(0.1)
	Chinese Taipei	**537**	(5.2)	548	(5.5)	575	(5.8)	**578**	(3.9)	**18.2**	(1.6)	**1.4**	(0.1)	2.6	(0.4)
	Thailand	419	(4.8)	428	(5.1)	435	(4.7)	428	(4.4)	3.8	(2.0)	**1.2**	(0.1)	0.2	(0.2)
	Tunisia	**376**	(5.1)	389	(5.2)	395	(5.3)	**396**	(5.3)	**9.1**	(1.6)	**1.4**	(0.1)	1.5	(0.5)
	United Arab Emirates	**422**	(4.3)	445	(3.3)	439	(3.7)	**439**	(3.7)	**8.7**	(1.7)	**1.4**	(0.1)	0.9	(0.4)
	Uruguay	419	(4.1)	417	(4.5)	412	(4.7)	410	(4.4)	-2.7	(1.9)	0.9	(0.1)	0.1	(0.1)
	Viet Nam	506	(5.0)	512	(5.3)	514	(7.2)	514	(6.1)	3.1	(2.3)	1.1	(0.1)	0.1	(0.1)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See notes at the beginning of this Annex.

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[Part 1/1]

Table III.2.7a Effect sizes for gender differences in engagement with and at school

Results based on students' self-reports

Effect size in favour of boys:
- 🟦 from 0.2 to 0.5
- 🟦 from 0.5 to 0.8
- 🟦 equal or greater than 0.8

Effect size in favour of girls:
- ▨ from -0.2 to -0.5
- ▨ from -0.5 to -0.8
- ▨ equal or less than -0.8

		Index of sense of belonging at school		Index of attitudes towards school (learning outcomes)	
		Effect size	S.E.	Effect size	S.E.
OECD	**Australia**	**0.08**	(0.03)	-0.02	(0.03)
	Austria	-0.06	(0.05)	-0.03	(0.04)
	Belgium	-0.02	(0.03)	**-0.13**	(0.03)
	Canada	**0.09**	(0.02)	**-0.13**	(0.02)
	Chile	0.07	(0.04)	0.00	(0.05)
	Czech Republic	-0.03	(0.06)	**-0.13**	(0.05)
	Denmark	**0.08**	(0.03)	**-0.08**	(0.04)
	Estonia	0.03	(0.04)	**-0.11**	(0.03)
	Finland	**0.08**	(0.04)	**-0.34**	(0.04)
	France	**-0.08**	(0.03)	**-0.24**	(0.04)
	Germany	-0.01	(0.04)	**-0.09**	(0.03)
	Greece	**-0.09**	(0.04)	**-0.21**	(0.04)
	Hungary	-0.06	(0.04)	**-0.19**	(0.04)
	Iceland	**0.10**	(0.04)	**-0.14**	(0.04)
	Ireland	0.05	(0.04)	**-0.08**	(0.04)
	Israel	-0.01	(0.04)	**-0.14**	(0.04)
	Italy	**-0.09**	(0.02)	**-0.14**	(0.02)
	Japan	-0.05	(0.03)	**-0.15**	(0.03)
	Korea	0.10	(0.05)	0.05	(0.05)
	Luxembourg	0.00	(0.03)	**-0.16**	(0.03)
	Mexico	**-0.13**	(0.02)	**-0.19**	(0.02)
	Netherlands	-0.07	(0.06)	-0.07	(0.04)
	New Zealand	0.04	(0.03)	0.02	(0.04)
	Norway	0.01	(0.04)	-0.07	(0.04)
	Poland	0.02	(0.04)	**-0.18**	(0.04)
	Portugal	0.03	(0.03)	**-0.17**	(0.03)
	Slovak Republic	**-0.20**	(0.05)	**-0.26**	(0.04)
	Slovenia	**-0.12**	(0.05)	**-0.15**	(0.04)
	Spain	**-0.05**	(0.03)	**-0.25**	(0.02)
	Sweden	**0.16**	(0.04)	**-0.12**	(0.04)
	Switzerland	-0.05	(0.04)	**-0.21**	(0.04)
	Turkey	**-0.22**	(0.04)	**-0.35**	(0.03)
	United Kingdom	**0.11**	(0.03)	0.01	(0.03)
	United States	0.08	(0.05)	**-0.17**	(0.05)
	OECD average	-0.01	(0.01)	**-0.14**	(0.01)
Partners	**Albania**	-0.06	(0.04)	-0.02	(0.04)
	Argentina	-0.03	(0.04)	**-0.16**	(0.04)
	Brazil	0.00	(0.03)	**-0.15**	(0.03)
	Bulgaria	**-0.11**	(0.04)	**-0.26**	(0.04)
	Colombia	-0.05	(0.05)	**-0.17**	(0.04)
	Costa Rica	**0.12**	(0.04)	-0.01	(0.05)
	Croatia	0.01	(0.04)	**-0.08**	(0.04)
	Cyprus*	**-0.30**	(0.04)	**-0.35**	(0.04)
	Hong Kong-China	**0.10**	(0.04)	0.00	(0.04)
	Indonesia	-0.03	(0.04)	-0.07	(0.04)
	Jordan	**-0.31**	(0.05)	**-0.53**	(0.05)
	Kazakhstan	**-0.16**	(0.04)	**-0.24**	(0.04)
	Latvia	0.01	(0.05)	**-0.25**	(0.04)
	Liechtenstein	0.00	(0.13)	-0.03	(0.16)
	Lithuania	**-0.18**	(0.04)	**-0.34**	(0.04)
	Macao-China	0.06	(0.03)	-0.01	(0.03)
	Malaysia	**-0.22**	(0.04)	**-0.23**	(0.05)
	Montenegro	**-0.15**	(0.04)	**-0.31**	(0.04)
	Peru	**-0.08**	(0.04)	**-0.10**	(0.04)
	Qatar	**-0.16**	(0.03)	**-0.17**	(0.02)
	Romania	-0.01	(0.04)	**-0.10**	(0.04)
	Russian Federation	-0.05	(0.04)	-0.05	(0.04)
	Serbia	0.03	(0.05)	**-0.19**	(0.04)
	Shanghai-China	0.02	(0.04)	**-0.08**	(0.04)
	Singapore	**0.11**	(0.03)	-0.04	(0.03)
	Chinese Taipei	**0.12**	(0.03)	-0.04	(0.03)
	Thailand	**-0.23**	(0.04)	**-0.26**	(0.04)
	Tunisia	**-0.17**	(0.05)	**-0.44**	(0.04)
	United Arab Emirates	**-0.10**	(0.04)	**-0.29**	(0.04)
	Uruguay	**0.08**	(0.03)	**-0.13**	(0.03)
	Viet Nam	**0.12**	(0.04)	0.01	(0.04)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.

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[Part 1/1]

Table III.2.7b Effect sizes for socio-economic differences in engagement with and at school

Results based on students' self-reports

Effect size in favour of socio-economically advantaged students:
▨ from 0.2 to 0.5
▨ from 0.5 to 0.8
▨ equal or greater than 0.8

Effect size in favour of socio-economically disadvantaged students:
▨ from -0.2 to -0.5
▨ from -0.5 to -0.8
▨ equal or less than -0.8

		Index of sense of belonging at school		Index of attitudes towards school (learning outcomes)	
		Effect size	S.E.	Effect size	S.E.
OECD	**Australia**	**0.37**	(0.04)	**0.45**	(0.04)
	Austria	**0.31**	(0.07)	0.01	(0.06)
	Belgium	**0.21**	(0.04)	**0.16**	(0.04)
	Canada	**0.28**	(0.03)	**0.26**	(0.03)
	Chile	**0.19**	(0.06)	-0.05	(0.06)
	Czech Republic	**0.24**	(0.06)	0.04	(0.06)
	Denmark	**0.34**	(0.05)	**0.45**	(0.06)
	Estonia	**0.23**	(0.06)	**0.16**	(0.05)
	Finland	**0.29**	(0.04)	**0.37**	(0.05)
	France	**0.44**	(0.06)	**0.24**	(0.06)
	Germany	**0.17**	(0.07)	-0.08	(0.05)
	Greece	0.09	(0.05)	**-0.12**	(0.05)
	Hungary	**0.27**	(0.07)	**0.14**	(0.06)
	Iceland	**0.48**	(0.06)	**0.33**	(0.06)
	Ireland	**0.11**	(0.05)	**0.16**	(0.05)
	Israel	0.12	(0.06)	**-0.12**	(0.06)
	Italy	**0.10**	(0.03)	0.05	(0.03)
	Japan	**0.19**	(0.05)	0.09	(0.05)
	Korea	**0.31**	(0.05)	0.01	(0.06)
	Luxembourg	**0.31**	(0.05)	-0.03	(0.05)
	Mexico	**0.28**	(0.03)	**0.14**	(0.03)
	Netherlands	**0.26**	(0.08)	0.11	(0.07)
	New Zealand	**0.13**	(0.06)	**0.36**	(0.06)
	Norway	**0.23**	(0.06)	**0.23**	(0.07)
	Poland	0.08	(0.06)	**-0.15**	(0.07)
	Portugal	**0.38**	(0.06)	**0.34**	(0.06)
	Slovak Republic	**0.15**	(0.08)	0.08	(0.08)
	Slovenia	**0.16**	(0.06)	**-0.12**	(0.05)
	Spain	**0.12**	(0.04)	**0.18**	(0.04)
	Sweden	**0.30**	(0.06)	**0.37**	(0.05)
	Switzerland	0.07	(0.04)	-0.05	(0.05)
	Turkey	**0.25**	(0.05)	-0.11	(0.06)
	United Kingdom	**0.25**	(0.04)	**0.24**	(0.05)
	United States	**0.32**	(0.05)	**0.31**	(0.06)
	OECD average	**0.24**	(0.01)	**0.13**	(0.01)
Partners	**Albania**	m	m	m	m
	Argentina	**0.15**	(0.05)	**0.19**	(0.06)
	Brazil	**0.15**	(0.03)	**0.12**	(0.04)
	Bulgaria	**0.36**	(0.06)	**0.28**	(0.06)
	Colombia	**0.21**	(0.06)	**0.23**	(0.06)
	Costa Rica	**0.16**	(0.07)	-0.01	(0.07)
	Croatia	0.03	(0.05)	**-0.15**	(0.05)
	Cyprus*	**0.25**	(0.05)	**0.21**	(0.05)
	Hong Kong-China	**0.25**	(0.05)	-0.01	(0.06)
	Indonesia	**0.25**	(0.06)	0.08	(0.06)
	Jordan	0.10	(0.06)	-0.04	(0.05)
	Kazakhstan	**0.35**	(0.06)	**0.42**	(0.06)
	Latvia	**0.13**	(0.06)	0.09	(0.06)
	Liechtenstein	**0.58**	(0.20)	0.19	(0.20)
	Lithuania	**0.41**	(0.06)	**0.12**	(0.05)
	Macao-China	**0.25**	(0.05)	**0.17**	(0.05)
	Malaysia	0.04	(0.05)	0.00	(0.06)
	Montenegro	-0.06	(0.06)	-0.12	(0.07)
	Peru	**0.31**	(0.06)	**0.27**	(0.06)
	Qatar	**0.16**	(0.04)	**0.18**	(0.03)
	Romania	**0.34**	(0.06)	**0.15**	(0.05)
	Russian Federation	**0.25**	(0.05)	**0.13**	(0.05)
	Serbia	0.06	(0.05)	-0.06	(0.05)
	Shanghai-China	**0.21**	(0.05)	0.05	(0.06)
	Singapore	**0.11**	(0.05)	**0.16**	(0.05)
	Chinese Taipei	**0.27**	(0.05)	**0.10**	(0.05)
	Thailand	**0.31**	(0.05)	**0.26**	(0.05)
	Tunisia	**0.11**	(0.06)	-0.07	(0.06)
	United Arab Emirates	**0.13**	(0.05)	**0.14**	(0.05)
	Uruguay	**0.12**	(0.05)	-0.03	(0.06)
	Viet Nam	0.11	(0.06)	**-0.13**	(0.07)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.

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[Part 1/1]

Table III.2.7c Effect sizes for differences in immigrant background in engagement with and at school

Results based on students' self-reports

Effect size in favour of students without an immigrant background:
░ from 0.2 to 0.5
▒ from 0.5 to 0.8
▓ equal or greater than 0.8

Effect size in favour of students with an immigrant background:
░ from -0.2 to -0.5
▒ from -0.5 to -0.8
▓ equal or less than -0.8

		Index of sense of belonging at school		Index of attitudes towards school (learning outcomes)	
		Effect size	S.E.	Effect size	S.E.
OECD	Australia	**-0.09**	(0.03)	**-0.09**	(0.03)
	Austria	**0.11**	(0.05)	0.04	(0.06)
	Belgium	0.01	(0.06)	-0.06	(0.05)
	Canada	-0.04	(0.03)	**-0.11**	(0.03)
	Chile	-0.08	(0.18)	0.01	(0.23)
	Czech Republic	0.18	(0.11)	0.14	(0.12)
	Denmark	-0.03	(0.06)	0.04	(0.06)
	Estonia	-0.02	(0.07)	0.03	(0.09)
	Finland	**-0.17**	(0.05)	-0.07	(0.04)
	France	0.06	(0.06)	-0.05	(0.05)
	Germany	**0.17**	(0.07)	0.01	(0.07)
	Greece	0.13	(0.07)	-0.03	(0.07)
	Hungary	**0.30**	(0.11)	**0.39**	(0.11)
	Iceland	**0.37**	(0.11)	**0.39**	(0.12)
	Ireland	**0.17**	(0.06)	0.01	(0.07)
	Israel	**0.15**	(0.05)	**0.09**	(0.04)
	Italy	**0.27**	(0.04)	0.04	(0.05)
	Japan	0.51	(0.31)	0.08	(0.38)
	Korea	**0.71**	(0.03)	-0.06	(0.04)
	Luxembourg	**0.30**	(0.03)	**-0.13**	(0.03)
	Mexico	**0.30**	(0.07)	**0.50**	(0.09)
	Netherlands	-0.07	(0.05)	0.05	(0.06)
	New Zealand	**-0.16**	(0.04)	**-0.13**	(0.05)
	Norway	-0.01	(0.07)	-0.12	(0.06)
	Poland	-0.53	(0.39)	-0.01	(0.50)
	Portugal	0.09	(0.09)	0.14	(0.12)
	Slovak Republic	0.06	(0.28)	0.25	(0.16)
	Slovenia	0.07	(0.09)	0.00	(0.08)
	Spain	**0.27**	(0.04)	**0.11**	(0.05)
	Sweden	0.03	(0.06)	-0.05	(0.06)
	Switzerland	**0.08**	(0.03)	**-0.12**	(0.04)
	Turkey	0.22	(0.19)	0.25	(0.18)
	United Kingdom	-0.08	(0.06)	-0.06	(0.06)
	United States	0.06	(0.06)	-0.12	(0.08)
	OECD average	**0.10**	(0.02)	0.04	(0.02)
Partners	Albania	0.23	(0.35)	0.37	(0.33)
	Argentina	**0.20**	(0.10)	0.10	(0.10)
	Brazil	0.25	(0.20)	0.28	(0.17)
	Bulgaria	0.18	(0.24)	0.13	(0.32)
	Colombia	0.29	(0.29)	**0.85**	(0.30)
	Costa Rica	0.02	(0.11)	-0.08	(0.10)
	Croatia	0.03	(0.06)	0.06	(0.06)
	Cyprus*	**0.21**	(0.06)	0.03	(0.07)
	Hong Kong-China	0.08	(0.04)	-0.04	(0.04)
	Indonesia	0.61	(0.36)	0.72	(0.38)
	Jordan	0.06	(0.05)	-0.07	(0.05)
	Kazakhstan	0.12	(0.06)	**0.17**	(0.07)
	Latvia	-0.02	(0.09)	0.08	(0.11)
	Liechtenstein	0.29	(0.16)	-0.05	(0.15)
	Lithuania	0.36	(0.20)	0.25	(0.15)
	Macao-China	**-0.07**	(0.03)	-0.07	(0.03)
	Malaysia	-0.01	(0.15)	0.01	(0.18)
	Montenegro	**0.32**	(0.09)	0.19	(0.10)
	Peru	0.27	(0.27)	0.07	(0.25)
	Qatar	**-0.17**	(0.03)	**-0.46**	(0.03)
	Romania	0.04	(0.46)	0.24	(0.45)
	Russian Federation	-0.03	(0.06)	0.09	(0.07)
	Serbia	-0.06	(0.07)	**-0.27**	(0.06)
	Shanghai-China	-0.15	(0.16)	-0.11	(0.16)
	Singapore	0.06	(0.04)	0.00	(0.05)
	Chinese Taipei	-0.43	(0.28)	0.10	(0.24)
	Thailand	0.50	(0.29)	**0.46**	(0.16)
	Tunisia	0.51	(0.43)	0.28	(0.33)
	United Arab Emirates	**-0.08**	(0.04)	-0.06	(0.04)
	Uruguay	-0.09	(0.31)	-0.36	(0.28)
	Viet Nam	**-1.02**	(0.47)	**-1.23**	(0.48)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.

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[Part 1/1]

Table III.2.9 Change between 2003 and 2012 in the association between students' engagement with school and mathematics performance

Results based on students' self-reports

		PISA 2003						PISA 2012						Change between 2003 and 2012 (PISA 2012 - PISA 2003)					
		Arriving late		Sense of belonging		Attitudes towards school		Arriving late		Sense of belonging		Attitudes towards school		Arriving late		Sense of belonging		Attitudes towards school	
		Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr. dif.	S.E.	Corr. dif.	S.E.	Corr. dif.	S.E.
OECD	**Australia**	**-0.12**	(0.01)	0.03	(0.02)	**0.16**	(0.01)	**-0.15**	(0.01)	**0.12**	(0.01)	**0.23**	(0.01)	-0.03	(0.02)	**0.09**	(0.02)	**0.07**	(0.02)
	Austria	-0.01	(0.02)	0.03	(0.02)	-0.03	(0.02)	**-0.05**	(0.02)	**0.11**	(0.02)	**0.06**	(0.02)	-0.04	(0.03)	**0.08**	(0.03)	**0.09**	(0.03)
	Belgium	**-0.23**	(0.02)	**0.05**	(0.02)	-0.04	(0.02)	**-0.21**	(0.01)	**0.09**	(0.02)	**0.10**	(0.02)	**0.02**	(0.02)	0.04	(0.02)	**0.13**	(0.02)
	Canada	**-0.13**	(0.01)	-0.01	(0.01)	**0.09**	(0.01)	**-0.19**	(0.01)	**0.06**	(0.01)	**0.14**	(0.01)	**-0.06**	(0.02)	**0.07**	(0.02)	**0.05**	(0.02)
	Czech Republic	**-0.06**	(0.02)	**0.11**	(0.02)	**0.03**	(0.02)	**-0.15**	(0.02)	**0.10**	(0.02)	**0.09**	(0.02)	**-0.09**	(0.02)	-0.02	(0.03)	**0.06**	(0.03)
	Denmark	**-0.12**	(0.02)	0.03	(0.02)	**0.08**	(0.02)	**-0.12**	(0.02)	**0.07**	(0.02)	**0.16**	(0.02)	0.00	(0.03)	0.04	(0.03)	**0.08**	(0.03)
	Finland	**-0.13**	(0.02)	-0.02	(0.02)	**0.14**	(0.02)	**-0.16**	(0.02)	**0.06**	(0.02)	**0.21**	(0.02)	-0.03	(0.02)	**0.08**	(0.02)	**0.07**	(0.02)
	France	**-0.15**	(0.02)	0.01	(0.01)	**0.08**	(0.02)	**-0.19**	(0.02)	**0.15**	(0.02)	**0.10**	(0.02)	-0.04	(0.03)	**0.14**	(0.02)	0.02	(0.03)
	Germany	**-0.09**	(0.02)	-0.02	(0.02)	**-0.09**	(0.02)	**-0.06**	(0.02)	**0.06**	(0.02)	-0.01	(0.02)	0.03	(0.03)	**0.08**	(0.03)	**0.08**	(0.03)
	Greece	**-0.05**	(0.02)	**0.06**	(0.02)	**-0.12**	(0.02)	-0.03	(0.02)	**0.04**	(0.02)	-0.02	(0.02)	0.02	(0.03)	-0.02	(0.02)	**0.10**	(0.03)
	Hungary	**-0.22**	(0.02)	**0.10**	(0.02)	**-0.06**	(0.02)	**-0.23**	(0.03)	**0.14**	(0.02)	**0.16**	(0.02)	-0.01	(0.04)	0.04	(0.03)	**0.22**	(0.03)
	Iceland	**-0.12**	(0.02)	0.01	(0.02)	**0.19**	(0.02)	**-0.16**	(0.02)	**0.12**	(0.02)	**0.24**	(0.02)	-0.04	(0.02)	**0.11**	(0.03)	**0.06**	(0.03)
	Ireland	**-0.11**	(0.02)	**-0.06**	(0.02)	**0.08**	(0.02)	**-0.16**	(0.02)	0.01	(0.02)	**0.08**	(0.02)	**-0.05**	(0.03)	**0.07**	(0.03)	-0.01	(0.03)
	Italy	**-0.16**	(0.01)	**-0.04**	(0.02)	**-0.05**	(0.02)	**-0.16**	(0.01)	0.00	(0.01)	**0.07**	(0.01)	0.00	(0.02)	0.03	(0.02)	**0.12**	(0.02)
	Japan	**-0.16**	(0.03)	**0.11**	(0.02)	0.02	(0.02)	**-0.11**	(0.02)	0.03	(0.02)	0.02	(0.02)	0.05	(0.04)	**-0.08**	(0.03)	0.00	(0.03)
	Korea	**-0.15**	(0.02)	**0.10**	(0.02)	0.00	(0.02)	**-0.20**	(0.02)	**0.14**	(0.03)	**0.08**	(0.03)	-0.04	(0.03)	0.04	(0.03)	**0.08**	(0.03)
	Luxembourg	-0.01	(0.02)	**0.07**	(0.02)	**-0.10**	(0.02)	**-0.09**	(0.01)	**0.15**	(0.02)	**0.09**	(0.02)	**-0.09**	(0.02)	**0.08**	(0.02)	**0.19**	(0.03)
	Mexico	**-0.04**	(0.02)	**0.17**	(0.02)	**0.28**	(0.02)	**-0.07**	(0.01)	**0.08**	(0.01)	**0.20**	(0.01)	-0.02	(0.02)	**-0.08**	(0.02)	**-0.07**	(0.02)
	Netherlands	**-0.18**	(0.02)	**0.06**	(0.02)	0.04	(0.03)	**-0.18**	(0.02)	**0.08**	(0.02)	**0.11**	(0.02)	0.01	(0.03)	0.02	(0.03)	**0.08**	(0.04)
	New Zealand	**-0.15**	(0.02)	0.03	(0.02)	**0.15**	(0.02)	**-0.22**	(0.02)	0.03	(0.02)	**0.20**	(0.02)	**-0.07**	(0.02)	0.01	(0.03)	0.04	(0.02)
	Norway	**-0.12**	(0.02)	0.00	(0.02)	**0.17**	(0.02)	**-0.19**	(0.02)	**0.08**	(0.02)	**0.17**	(0.02)	**-0.07**	(0.02)	**0.08**	(0.03)	0.00	(0.03)
	Poland	**-0.06**	(0.02)	**0.08**	(0.02)	-0.04	(0.02)	**-0.09**	(0.02)	-0.01	(0.02)	-0.03	(0.02)	-0.03	(0.03)	**-0.09**	(0.03)	0.01	(0.03)
	Portugal	0.01	(0.02)	**0.17**	(0.02)	**0.11**	(0.02)	**-0.06**	(0.02)	**0.12**	(0.02)	**0.18**	(0.02)	**-0.07**	(0.03)	-0.05	(0.03)	**0.08**	(0.03)
	Slovak Republic	**-0.09**	(0.02)	**0.03**	(0.01)	**-0.10**	(0.01)	**-0.13**	(0.02)	**0.10**	(0.02)	**0.08**	(0.03)	-0.05	(0.03)	**0.07**	(0.03)	**0.18**	(0.03)
	Spain	**-0.16**	(0.02)	0.03	(0.02)	**0.05**	(0.02)	**-0.15**	(0.01)	**0.05**	(0.02)	**0.11**	(0.01)	0.01	(0.02)	0.02	(0.02)	**0.06**	(0.02)
	Sweden	**-0.13**	(0.02)	0.00	(0.02)	**0.15**	(0.02)	**-0.17**	(0.02)	**0.07**	(0.02)	**0.19**	(0.02)	-0.04	(0.02)	**0.07**	(0.03)	0.04	(0.03)
	Switzerland	**-0.05**	(0.02)	**0.09**	(0.02)	0.01	(0.02)	-0.03	(0.02)	**0.12**	(0.02)	**0.06**	(0.02)	0.01	(0.03)	0.03	(0.03)	0.05	(0.03)
	Turkey	**-0.11**	(0.02)	**0.18**	(0.02)	-0.03	(0.04)	**-0.07**	(0.02)	0.04	(0.02)	**-0.05**	(0.02)	0.04	(0.03)	**-0.14**	(0.03)	-0.02	(0.04)
	United States	**-0.18**	(0.02)	m	m	**0.08**	(0.02)	**-0.20**	(0.02)	**0.07**	(0.02)	**0.14**	(0.02)	-0.02	(0.02)	m	m	**0.06**	(0.03)
	OECD average 2003	**-0.11**	(0.00)	**0.05**	(0.00)	**0.04**	(0.00)	**-0.14**	(0.00)	**0.08**	(0.00)	**0.11**	(0.00)	**-0.02**	(0.00)	**0.03**	(0.00)	**0.07**	(0.01)
Partners	**Brazil**	**-0.04**	(0.02)	**0.05**	(0.02)	0.01	(0.02)	**-0.03**	(0.01)	0.02	(0.02)	**0.13**	(0.02)	0.01	(0.02)	-0.03	(0.02)	**0.12**	(0.02)
	Hong Kong-China	**-0.19**	(0.02)	**0.12**	(0.02)	**0.10**	(0.02)	**-0.16**	(0.02)	**0.07**	(0.02)	**0.05**	(0.02)	0.03	(0.03)	-0.05	(0.03)	-0.05	(0.03)
	Indonesia	**-0.11**	(0.02)	**0.06**	(0.02)	**0.07**	(0.02)	**-0.09**	(0.02)	**0.11**	(0.02)	**0.15**	(0.02)	0.02	(0.03)	0.05	(0.03)	**0.08**	(0.03)
	Latvia	**-0.11**	(0.02)	**0.12**	(0.02)	**0.10**	(0.02)	**-0.05**	(0.02)	-0.02	(0.03)	**0.14**	(0.02)	0.06	(0.03)	**-0.14**	(0.03)	0.04	(0.03)
	Liechtenstein	-0.02	(0.06)	0.10	(0.05)	-0.09	(0.05)	**-0.14**	(0.06)	**0.15**	(0.06)	0.01	(0.08)	-0.12	(0.09)	0.05	(0.08)	0.10	(0.10)
	Macao-China	**-0.24**	(0.04)	0.05	(0.04)	0.02	(0.05)	**-0.21**	(0.01)	0.00	(0.02)	**0.05**	(0.02)	0.03	(0.04)	-0.06	(0.05)	0.03	(0.05)
	Russian Federation	**-0.12**	(0.02)	**0.11**	(0.01)	**0.05**	(0.02)	**-0.15**	(0.02)	0.04	(0.02)	**0.08**	(0.02)	-0.03	(0.03)	**-0.07**	(0.03)	0.03	(0.03)
	Thailand	**-0.10**	(0.02)	**0.13**	(0.02)	**0.10**	(0.02)	**-0.12**	(0.02)	**0.18**	(0.02)	**0.19**	(0.02)	-0.02	(0.03)	0.06	(0.03)	**0.09**	(0.03)
	Tunisia	-0.01	(0.02)	0.04	(0.02)	**0.12**	(0.02)	-0.03	(0.02)	**0.08**	(0.02)	**0.06**	(0.02)	-0.02	(0.03)	0.04	(0.03)	-0.05	(0.03)
	Uruguay	**-0.09**	(0.02)	**0.04**	(0.02)	0.02	(0.02)	**-0.04**	(0.02)	0.01	(0.02)	0.02	(0.02)	0.05	(0.03)	-0.02	(0.03)	0.01	(0.03)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.

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[Part 1/1]

Table III.3.1a

Students and perseverance

Percentage of students who reported that the statements describe someone "very much like me" or "mostly like me" (a) or "not much like me" or "not at all like me" (b)

		Percentage of students who reported that the following statements describe/do not describe them:									
		When confronted with a problem, I give up easily[b]		I put off difficult problems[b]		I remain interested in the tasks that I start[a]		I continue working on tasks until everything is perfect[a]		When confronted with a problem, I do more than what is expected of me[a]	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	62.1	(0.6)	44.3	(0.7)	49.8	(0.7)	45.8	(0.6)	31.2	(0.4)
	Austria	65.7	(1.0)	36.5	(1.0)	53.7	(0.9)	48.3	(1.0)	22.8	(0.8)
	Belgium	48.9	(0.8)	29.5	(0.7)	35.6	(0.8)	33.1	(0.8)	22.0	(0.6)
	Canada	67.4	(0.7)	44.4	(0.7)	52.2	(0.8)	51.2	(0.7)	38.5	(0.6)
	Chile	63.0	(0.9)	29.5	(0.9)	70.6	(0.7)	50.7	(0.9)	56.0	(0.9)
	Czech Republic	59.0	(1.0)	37.4	(1.0)	37.9	(1.0)	30.2	(0.9)	32.3	(1.1)
	Denmark	53.6	(0.9)	29.7	(0.7)	45.2	(0.9)	36.5	(0.9)	25.4	(0.8)
	Estonia	67.5	(0.9)	51.1	(1.0)	60.9	(0.8)	53.5	(1.0)	40.2	(0.9)
	Finland	58.9	(0.8)	45.7	(0.9)	45.4	(0.9)	40.1	(0.8)	28.1	(0.6)
	France	47.6	(1.0)	29.4	(0.8)	38.8	(1.0)	30.3	(0.9)	19.4	(0.9)
	Germany	67.5	(1.0)	35.9	(0.9)	56.0	(1.0)	43.2	(0.9)	21.7	(0.8)
	Greece	47.0	(1.0)	29.3	(0.8)	44.1	(0.8)	46.4	(0.8)	42.7	(0.9)
	Hungary	58.1	(0.9)	38.4	(1.0)	43.7	(0.9)	44.1	(1.1)	34.7	(1.0)
	Iceland	53.2	(1.1)	36.4	(1.0)	36.5	(1.2)	47.8	(1.1)	28.6	(0.9)
	Ireland	61.2	(0.9)	45.4	(0.9)	55.4	(0.8)	47.8	(1.0)	33.3	(0.9)
	Israel	61.9	(0.9)	41.3	(1.0)	53.8	(1.0)	62.8	(1.0)	51.9	(1.0)
	Italy	52.6	(0.6)	53.1	(0.5)	49.1	(0.5)	34.9	(0.4)	44.6	(0.5)
	Japan	32.5	(0.9)	16.0	(0.6)	29.3	(0.9)	25.3	(0.7)	12.2	(0.7)
	Korea	39.9	(1.1)	19.8	(0.8)	60.4	(1.1)	43.9	(1.1)	26.9	(1.0)
	Luxembourg	60.8	(0.7)	38.2	(0.8)	44.2	(0.9)	40.9	(0.9)	27.9	(0.8)
	Mexico	59.6	(0.5)	37.8	(0.6)	54.8	(0.5)	56.5	(0.5)	55.7	(0.5)
	Netherlands	61.5	(1.0)	40.3	(1.0)	27.8	(0.9)	35.8	(1.3)	28.8	(1.1)
	New Zealand	59.2	(1.1)	42.1	(1.1)	44.9	(1.1)	40.6	(1.0)	29.1	(1.0)
	Norway	38.2	(0.9)	26.9	(0.9)	41.8	(0.9)	34.8	(0.8)	25.1	(0.8)
	Poland	72.6	(0.8)	44.8	(1.1)	40.8	(1.0)	34.3	(1.0)	32.7	(0.9)
	Portugal	60.2	(1.4)	32.0	(1.0)	63.3	(0.8)	62.5	(0.9)	60.4	(1.0)
	Slovak Republic	38.0	(1.1)	22.7	(0.8)	43.8	(1.0)	34.0	(0.9)	20.9	(0.9)
	Slovenia	45.9	(0.9)	39.9	(1.1)	60.5	(1.0)	46.8	(1.0)	40.7	(1.0)
	Spain	57.3	(0.7)	36.1	(0.6)	56.3	(0.7)	46.5	(0.6)	41.1	(0.7)
	Sweden	40.2	(0.9)	40.3	(1.0)	37.9	(0.9)	34.5	(1.0)	29.0	(0.9)
	Switzerland	61.0	(0.9)	34.3	(0.7)	49.2	(0.7)	38.4	(0.8)	21.6	(0.7)
	Turkey	52.0	(1.2)	32.3	(0.9)	70.6	(0.9)	66.5	(0.8)	66.1	(0.8)
	United Kingdom	59.3	(0.9)	43.9	(0.7)	52.3	(0.9)	46.8	(1.0)	35.6	(0.7)
	United States	69.7	(0.8)	49.0	(0.8)	57.0	(1.0)	55.1	(0.8)	44.4	(1.1)
	OECD average	56.0	(0.2)	36.9	(0.1)	48.9	(0.2)	43.8	(0.2)	34.5	(0.1)
Partners	Albania	63.3	(1.1)	49.2	(1.0)	73.7	(1.1)	70.2	(1.0)	66.7	(1.1)
	Argentina	52.9	(1.1)	25.4	(0.8)	48.9	(1.0)	46.0	(0.9)	47.7	(1.0)
	Brazil	55.0	(0.5)	30.1	(0.7)	58.1	(0.7)	55.1	(0.7)	54.5	(0.7)
	Bulgaria	66.8	(1.1)	60.3	(1.1)	63.7	(0.9)	59.4	(1.0)	61.2	(0.9)
	Colombia	64.8	(1.0)	50.9	(1.1)	64.2	(1.0)	55.7	(1.2)	54.9	(1.2)
	Costa Rica	69.3	(1.1)	38.8	(1.1)	58.0	(1.1)	60.0	(1.0)	61.4	(1.1)
	Croatia	57.6	(1.0)	44.9	(0.9)	44.8	(0.9)	35.2	(1.1)	37.5	(1.0)
	Cyprus*	59.7	(0.9)	40.3	(0.9)	43.3	(0.9)	53.8	(0.9)	47.9	(0.9)
	Hong Kong-China	61.4	(0.9)	36.5	(0.9)	52.2	(0.9)	49.9	(0.8)	35.4	(0.9)
	Indonesia	43.3	(1.0)	34.1	(1.0)	63.6	(1.1)	62.7	(0.9)	60.2	(0.9)
	Jordan	39.7	(1.1)	23.9	(0.8)	77.5	(0.8)	77.4	(0.8)	71.3	(0.8)
	Kazakhstan	70.2	(1.0)	60.1	(1.2)	81.9	(0.9)	73.4	(1.1)	55.9	(1.1)
	Latvia	62.7	(1.2)	53.3	(1.2)	50.5	(1.5)	33.5	(1.3)	36.2	(1.1)
	Liechtenstein	59.2	(4.2)	32.7	(3.1)	52.1	(3.2)	40.8	(3.5)	22.7	(2.7)
	Lithuania	63.9	(0.9)	44.7	(1.0)	52.7	(1.0)	44.2	(1.0)	39.5	(1.1)
	Macao-China	49.8	(0.8)	33.9	(0.7)	50.9	(0.9)	52.9	(1.0)	46.2	(0.8)
	Malaysia	39.5	(0.9)	35.9	(0.9)	64.4	(0.8)	62.9	(0.9)	54.2	(1.0)
	Montenegro	59.1	(1.0)	46.9	(0.9)	60.1	(1.0)	55.8	(1.0)	59.3	(0.8)
	Peru	57.7	(1.0)	36.4	(0.9)	64.5	(1.0)	63.3	(1.0)	62.6	(0.9)
	Qatar	43.5	(0.6)	27.7	(0.5)	68.8	(0.6)	69.4	(0.6)	63.6	(0.7)
	Romania	47.3	(1.2)	40.5	(1.3)	56.9	(0.9)	47.9	(1.0)	44.5	(1.1)
	Russian Federation	75.0	(0.7)	59.9	(1.1)	53.7	(1.0)	66.6	(0.8)	52.6	(1.1)
	Serbia	63.0	(1.0)	52.4	(1.0)	45.1	(1.0)	44.7	(1.1)	47.8	(1.2)
	Shanghai-China	53.1	(1.0)	37.3	(0.9)	72.7	(0.7)	54.6	(1.1)	38.2	(0.8)
	Singapore	61.8	(0.7)	43.8	(0.7)	57.9	(0.8)	61.1	(0.9)	45.3	(0.9)
	Chinese Taipei	59.3	(0.8)	45.0	(0.8)	34.9	(1.0)	31.5	(0.8)	28.2	(0.8)
	Thailand	46.4	(1.1)	20.2	(0.7)	62.3	(1.0)	66.1	(0.8)	53.0	(1.0)
	Tunisia	46.5	(1.3)	30.2	(1.2)	59.9	(0.9)	64.1	(0.8)	55.7	(1.0)
	United Arab Emirates	50.4	(0.9)	29.8	(0.6)	75.7	(0.6)	76.3	(0.6)	66.3	(0.6)
	Uruguay	62.3	(0.9)	40.7	(0.9)	59.5	(0.9)	51.9	(0.9)	48.7	(1.0)
	Viet Nam	61.9	(1.0)	64.6	(0.9)	75.4	(0.9)	60.9	(0.9)	39.4	(0.9)

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.3.1d Index of perseverance and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Index of perseverance																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	0.10	(0.01)	0.94	(0.01)	0.19	(0.02)	0.00	(0.02)	**0.19**	(0.02)	-0.94	(0.02)	-0.20	(0.01)	0.26	(0.01)	1.29	(0.03)
	Austria	-0.03	(0.02)	0.90	(0.01)	0.09	(0.03)	-0.14	(0.03)	**0.23**	(0.04)	-1.05	(0.03)	-0.31	(0.01)	0.16	(0.02)	1.09	(0.04)
	Belgium	-0.34	(0.02)	0.96	(0.02)	-0.24	(0.02)	-0.43	(0.02)	**0.19**	(0.03)	-1.45	(0.03)	-0.59	(0.02)	-0.13	(0.01)	0.82	(0.03)
	Canada	0.22	(0.01)	0.99	(0.01)	0.25	(0.02)	0.19	(0.02)	**0.06**	(0.02)	-0.86	(0.02)	-0.13	(0.01)	0.39	(0.02)	1.49	(0.03)
	Chile	0.28	(0.02)	0.98	(0.02)	0.27	(0.02)	0.28	(0.03)	0.00	(0.03)	-0.77	(0.02)	-0.10	(0.01)	0.43	(0.02)	1.55	(0.04)
	Czech Republic	-0.11	(0.02)	0.87	(0.02)	-0.15	(0.03)	-0.07	(0.03)	**-0.08**	(0.04)	-1.07	(0.03)	-0.39	(0.02)	0.04	(0.01)	0.98	(0.04)
	Denmark	-0.08	(0.02)	0.93	(0.02)	0.03	(0.03)	-0.19	(0.02)	**0.22**	(0.03)	-1.09	(0.02)	-0.38	(0.02)	0.07	(0.01)	1.07	(0.04)
	Estonia	0.31	(0.02)	0.91	(0.01)	0.29	(0.03)	0.34	(0.03)	-0.05	(0.04)	-0.70	(0.02)	-0.02	(0.02)	0.46	(0.02)	1.51	(0.04)
	Finland	0.00	(0.02)	0.89	(0.02)	0.07	(0.02)	-0.07	(0.02)	**0.13**	(0.03)	-0.98	(0.02)	-0.29	(0.01)	0.17	(0.02)	1.10	(0.03)
	France	-0.45	(0.02)	1.05	(0.02)	-0.33	(0.03)	-0.57	(0.03)	**0.24**	(0.03)	-1.71	(0.03)	-0.73	(0.02)	-0.18	(0.02)	0.81	(0.04)
	Germany	0.00	(0.02)	0.89	(0.02)	0.11	(0.03)	-0.11	(0.02)	**0.22**	(0.03)	-0.97	(0.03)	-0.29	(0.01)	0.14	(0.02)	1.13	(0.04)
	Greece	-0.09	(0.02)	0.99	(0.02)	-0.05	(0.03)	-0.13	(0.02)	**0.07**	(0.04)	-1.19	(0.03)	-0.38	(0.02)	0.06	(0.02)	1.14	(0.04)
	Hungary	-0.02	(0.02)	0.84	(0.02)	-0.02	(0.03)	-0.02	(0.02)	0.00	(0.03)	-0.93	(0.02)	-0.28	(0.01)	0.11	(0.02)	1.03	(0.04)
	Iceland	-0.10	(0.02)	0.97	(0.03)	-0.04	(0.03)	-0.17	(0.03)	**0.13**	(0.04)	-1.15	(0.03)	-0.37	(0.01)	0.04	(0.01)	1.07	(0.05)
	Ireland	0.15	(0.02)	1.02	(0.02)	0.22	(0.03)	0.07	(0.03)	**0.15**	(0.04)	-1.00	(0.03)	-0.16	(0.02)	0.32	(0.02)	1.43	(0.04)
	Israel	0.36	(0.02)	1.18	(0.02)	0.32	(0.03)	0.39	(0.03)	-0.07	(0.04)	-0.91	(0.03)	-0.09	(0.02)	0.51	(0.02)	1.92	(0.05)
	Italy	0.05	(0.01)	1.02	(0.01)	0.07	(0.02)	0.02	(0.01)	0.05	(0.02)	-1.11	(0.02)	-0.28	(0.01)	0.24	(0.01)	1.34	(0.02)
	Japan	-0.59	(0.02)	0.86	(0.02)	-0.55	(0.02)	-0.64	(0.02)	**0.10**	(0.03)	-1.60	(0.03)	-0.76	(0.01)	-0.37	(0.01)	0.36	(0.03)
	Korea	-0.09	(0.02)	0.75	(0.02)	0.03	(0.02)	-0.22	(0.02)	**0.25**	(0.03)	-0.92	(0.02)	-0.33	(0.02)	0.05	(0.02)	0.83	(0.03)
	Luxembourg	-0.06	(0.02)	0.96	(0.02)	0.03	(0.03)	-0.16	(0.02)	**0.19**	(0.03)	-1.09	(0.03)	-0.37	(0.01)	0.06	(0.02)	1.15	(0.04)
	Mexico	0.31	(0.01)	1.01	(0.01)	0.27	(0.01)	0.36	(0.01)	**-0.09**	(0.02)	-0.71	(0.01)	-0.11	(0.01)	0.41	(0.01)	1.66	(0.03)
	Netherlands	-0.13	(0.02)	0.82	(0.02)	-0.10	(0.03)	-0.16	(0.03)	**0.06**	(0.03)	-1.04	(0.02)	-0.39	(0.02)	0.02	(0.02)	0.89	(0.04)
	New Zealand	-0.01	(0.02)	0.91	(0.02)	0.07	(0.02)	-0.08	(0.03)	**0.16**	(0.03)	-1.02	(0.03)	-0.30	(0.02)	0.18	(0.03)	1.13	(0.03)
	Norway	-0.34	(0.02)	1.09	(0.02)	-0.23	(0.03)	-0.46	(0.03)	**0.23**	(0.04)	-1.61	(0.04)	-0.61	(0.02)	-0.11	(0.02)	0.95	(0.04)
	Poland	0.03	(0.02)	1.03	(0.02)	0.05	(0.03)	0.02	(0.03)	0.03	(0.05)	-1.05	(0.02)	-0.33	(0.02)	0.17	(0.02)	1.35	(0.05)
	Portugal	0.36	(0.03)	1.05	(0.02)	0.30	(0.03)	0.42	(0.03)	**-0.12**	(0.04)	-0.73	(0.03)	-0.08	(0.03)	0.49	(0.03)	1.76	(0.05)
	Slovak Republic	-0.49	(0.02)	1.01	(0.02)	-0.41	(0.03)	-0.57	(0.03)	**0.16**	(0.04)	-1.68	(0.04)	-0.70	(0.02)	-0.23	(0.02)	0.67	(0.04)
	Slovenia	0.09	(0.02)	0.95	(0.02)	0.08	(0.03)	0.11	(0.03)	-0.03	(0.04)	-0.92	(0.02)	-0.24	(0.02)	0.22	(0.02)	1.31	(0.05)
	Spain	0.10	(0.01)	0.97	(0.01)	0.12	(0.02)	0.07	(0.02)	0.05	(0.03)	-0.96	(0.02)	-0.24	(0.01)	0.26	(0.01)	1.34	(0.03)
	Sweden	-0.25	(0.02)	1.01	(0.02)	-0.12	(0.03)	-0.37	(0.03)	**0.25**	(0.04)	-1.40	(0.04)	-0.53	(0.02)	-0.05	(0.02)	0.98	(0.04)
	Switzerland	-0.14	(0.02)	0.88	(0.02)	-0.04	(0.02)	-0.24	(0.02)	**0.21**	(0.03)	-1.14	(0.02)	-0.40	(0.02)	0.04	(0.01)	0.94	(0.03)
	Turkey	0.45	(0.02)	1.08	(0.02)	0.39	(0.03)	0.51	(0.03)	**-0.12**	(0.04)	-0.66	(0.02)	0.00	(0.02)	0.54	(0.03)	1.91	(0.04)
	United Kingdom	0.11	(0.02)	1.00	(0.02)	0.23	(0.03)	-0.01	(0.02)	**0.23**	(0.03)	-1.01	(0.03)	-0.20	(0.02)	0.27	(0.01)	1.37	(0.04)
	United States	0.38	(0.02)	1.06	(0.02)	0.39	(0.03)	0.36	(0.03)	0.03	(0.04)	-0.74	(0.03)	-0.02	(0.02)	0.49	(0.02)	1.78	(0.06)
	OECD average	0.00	(0.00)	0.96	(0.00)	0.05	(0.00)	-0.05	(0.00)	**0.10**	(0.01)	-1.06	(0.00)	-0.31	(0.00)	0.16	(0.00)	1.21	(0.01)
Partners	**Albania**	0.65	(0.02)	1.09	(0.02)	0.66	(0.04)	0.63	(0.03)	0.03	(0.05)	-0.50	(0.02)	0.17	(0.02)	0.78	(0.03)	2.15	(0.05)
	Argentina	0.03	(0.02)	0.96	(0.02)	0.03	(0.02)	0.02	(0.02)	0.01	(0.03)	-1.00	(0.02)	-0.30	(0.01)	0.17	(0.02)	1.25	(0.04)
	Brazil	0.15	(0.01)	0.95	(0.01)	0.08	(0.02)	0.20	(0.02)	**-0.12**	(0.02)	-0.85	(0.02)	-0.19	(0.01)	0.24	(0.01)	1.39	(0.03)
	Bulgaria	0.57	(0.03)	1.17	(0.02)	0.47	(0.03)	0.67	(0.03)	**-0.20**	(0.04)	-0.67	(0.02)	0.04	(0.02)	0.70	(0.03)	2.19	(0.05)
	Colombia	0.41	(0.03)	0.97	(0.02)	0.33	(0.03)	0.47	(0.03)	**-0.14**	(0.03)	-0.60	(0.03)	0.01	(0.02)	0.52	(0.03)	1.70	(0.05)
	Costa Rica	0.48	(0.03)	0.99	(0.03)	0.46	(0.03)	0.49	(0.04)	-0.04	(0.04)	-0.55	(0.03)	0.08	(0.02)	0.60	(0.03)	1.78	(0.06)
	Croatia	0.09	(0.02)	1.02	(0.02)	0.09	(0.03)	0.10	(0.02)	0.00	(0.03)	-0.96	(0.03)	-0.28	(0.02)	0.20	(0.02)	1.42	(0.04)
	Cyprus*	0.15	(0.02)	0.91	(0.02)	0.05	(0.03)	0.26	(0.02)	**-0.21**	(0.03)	-0.82	(0.03)	-0.18	(0.01)	0.27	(0.02)	1.33	(0.04)
	Hong Kong-China	0.12	(0.02)	0.80	(0.02)	0.18	(0.02)	0.05	(0.02)	**0.13**	(0.03)	-0.72	(0.02)	-0.16	(0.01)	0.24	(0.01)	1.13	(0.04)
	Indonesia	0.26	(0.03)	0.87	(0.03)	0.27	(0.03)	0.25	(0.03)	0.02	(0.03)	-0.60	(0.02)	-0.09	(0.02)	0.32	(0.03)	1.41	(0.06)
	Jordan	0.35	(0.02)	1.02	(0.02)	0.27	(0.03)	0.42	(0.03)	**-0.15**	(0.04)	-0.74	(0.03)	-0.02	(0.02)	0.46	(0.02)	1.69	(0.04)
	Kazakhstan	0.77	(0.03)	1.12	(0.02)	0.70	(0.04)	0.83	(0.04)	**-0.13**	(0.04)	-0.38	(0.02)	0.26	(0.02)	0.86	(0.04)	2.33	(0.06)
	Latvia	0.16	(0.02)	0.86	(0.02)	0.12	(0.03)	0.19	(0.03)	-0.07	(0.04)	-0.75	(0.03)	-0.17	(0.02)	0.27	(0.02)	1.28	(0.04)
	Liechtenstein	-0.11	(0.06)	0.78	(0.07)	-0.02	(0.09)	-0.19	(0.07)	0.17	(0.11)	-0.91	(0.07)	-0.38	(0.05)	0.03	(0.05)	0.86	(0.14)
	Lithuania	0.15	(0.02)	0.84	(0.02)	0.08	(0.02)	0.22	(0.02)	**-0.14**	(0.03)	-0.76	(0.02)	-0.15	(0.01)	0.27	(0.02)	1.23	(0.04)
	Macao-China	0.15	(0.01)	0.80	(0.02)	0.19	(0.02)	0.11	(0.02)	**0.09**	(0.02)	-0.68	(0.02)	-0.13	(0.01)	0.26	(0.01)	1.16	(0.03)
	Malaysia	0.22	(0.02)	0.84	(0.02)	0.21	(0.03)	0.23	(0.02)	-0.03	(0.03)	-0.63	(0.02)	-0.09	(0.01)	0.29	(0.02)	1.31	(0.04)
	Montenegro	0.35	(0.02)	1.12	(0.02)	0.21	(0.03)	0.48	(0.03)	**-0.27**	(0.04)	-0.81	(0.02)	-0.12	(0.01)	0.45	(0.03)	1.87	(0.05)
	Peru	0.36	(0.01)	0.88	(0.02)	0.27	(0.02)	0.44	(0.02)	**-0.17**	(0.03)	-0.55	(0.02)	0.00	(0.01)	0.46	(0.01)	1.51	(0.04)
	Qatar	0.27	(0.01)	0.98	(0.01)	0.22	(0.02)	0.31	(0.02)	**-0.10**	(0.02)	-0.74	(0.01)	-0.10	(0.01)	0.34	(0.01)	1.56	(0.03)
	Romania	0.04	(0.02)	0.96	(0.02)	-0.02	(0.03)	0.11	(0.03)	**-0.13**	(0.04)	-0.96	(0.02)	-0.26	(0.01)	0.14	(0.02)	1.25	(0.05)
	Russian Federation	0.50	(0.02)	1.04	(0.02)	0.47	(0.03)	0.53	(0.02)	**-0.06**	(0.03)	-0.60	(0.02)	0.06	(0.01)	0.63	(0.02)	1.91	(0.04)
	Serbia	0.20	(0.02)	1.06	(0.02)	0.20	(0.03)	0.20	(0.03)	0.00	(0.04)	-0.89	(0.03)	-0.18	(0.02)	0.28	(0.02)	1.59	(0.05)
	Shanghai-China	0.25	(0.02)	0.83	(0.02)	0.32	(0.03)	0.17	(0.02)	**0.16**	(0.03)	-0.66	(0.02)	-0.03	(0.02)	0.38	(0.02)	1.30	(0.04)
	Singapore	0.29	(0.02)	0.83	(0.02)	0.36	(0.02)	0.23	(0.02)	**0.13**	(0.03)	-0.58	(0.02)	0.00	(0.01)	0.41	(0.01)	1.34	(0.04)
	Chinese Taipei	-0.08	(0.02)	0.89	(0.02)	-0.04	(0.02)	-0.12	(0.02)	**0.09**	(0.03)	-1.02	(0.03)	-0.36	(0.01)	0.06	(0.01)	1.01	(0.04)
	Thailand	0.22	(0.01)	0.74	(0.02)	0.14	(0.02)	0.28	(0.02)	**-0.14**	(0.03)	-0.49	(0.01)	-0.09	(0.01)	0.28	(0.02)	1.18	(0.03)
	Tunisia	0.13	(0.03)	1.11	(0.02)	0.12	(0.04)	0.14	(0.03)	-0.02	(0.05)	-1.07	(0.03)	-0.26	(0.02)	0.27	(0.03)	1.59	(0.05)
	United Arab Emirates	0.42	(0.01)	0.96	(0.01)	0.38	(0.02)	0.45	(0.02)	**-0.07**	(0.03)	-0.60	(0.02)	0.05	(0.01)	0.54	(0.02)	1.67	(0.03)
	Uruguay	0.27	(0.02)	1.01	(0.02)	0.30	(0.03)	0.24	(0.02)	0.06	(0.04)	-0.81	(0.02)	-0.10	(0.01)	0.41	(0.02)	1.57	(0.05)
	Viet Nam	0.45	(0.02)	0.87	(0.02)	0.47	(0.03)	0.43	(0.03)	0.03	(0.04)	-0.49	(0.02)	0.12	(0.02)	0.56	(0.02)	1.60	(0.04)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 2/2]

Table III.3.1d Index of perseverance and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	Australia	470	(2.6)	494	(3.0)	523	(2.8)	544	(2.5)	**28.7**	(1.3)	**2.0**	(0.1)	8.2	(0.6)
	Austria	**496**	(3.9)	497	(3.9)	513	(4.2)	**531**	(5.1)	**16.0**	(2.1)	1.2	(0.1)	2.6	(0.7)
	Belgium	**499**	(3.4)	519	(3.6)	525	(3.5)	**542**	(3.4)	**16.0**	(1.7)	**1.3**	(0.1)	2.4	(0.5)
	Canada	**494**	(2.6)	504	(3.3)	534	(3.0)	**553**	(2.3)	**21.1**	(1.1)	**1.6**	(0.1)	5.8	(0.5)
	Chile	**409**	(3.9)	412	(3.8)	431	(4.8)	**446**	(3.9)	**12.7**	(1.6)	**1.3**	(0.1)	2.4	(0.6)
	Czech Republic	**487**	(4.7)	501	(5.2)	510	(4.7)	**518**	(3.8)	**12.3**	(2.2)	**1.3**	(0.2)	1.4	(0.5)
	Denmark	**466**	(3.9)	495	(4.0)	512	(3.8)	**537**	(3.9)	**27.6**	(1.8)	**2.0**	(0.1)	10.1	(1.2)
	Estonia	**517**	(3.4)	515	(4.2)	528	(4.0)	**529**	(3.5)	**4.3**	(1.9)	1.2	(0.1)	0.2	(0.2)
	Finland	**484**	(3.2)	508	(2.7)	535	(3.2)	**565**	(3.2)	**35.2**	(1.3)	**2.1**	(0.1)	14.3	(1.1)
	France	**468**	(3.4)	491	(3.9)	503	(4.2)	**538**	(6.0)	**25.7**	(2.0)	**1.4**	(0.1)	7.9	(1.2)
	Germany	**500**	(4.6)	514	(4.2)	533	(5.0)	**551**	(4.4)	**20.3**	(2.3)	**1.5**	(0.1)	3.7	(0.8)
	Greece	**429**	(3.8)	437	(4.0)	455	(4.4)	**496**	(3.9)	**25.2**	(1.8)	**1.5**	(0.1)	8.2	(1.0)
	Hungary	**460**	(5.3)	470	(4.3)	484	(6.1)	**502**	(4.6)	**16.8**	(2.5)	**1.4**	(0.1)	2.3	(0.7)
	Iceland	**460**	(3.9)	476	(4.6)	504	(4.4)	**541**	(4.4)	**31.1**	(2.1)	**1.8**	(0.1)	11.4	(1.4)
	Ireland	**470**	(3.6)	495	(3.8)	516	(3.5)	**529**	(3.5)	**21.2**	(1.7)	**1.9**	(0.1)	6.6	(0.9)
	Israel	**467**	(4.9)	468	(6.6)	477	(6.5)	**471**	(4.3)	1.3	(1.6)	1.1	(0.1)	0.0	(0.1)
	Italy	**462**	(2.6)	481	(2.8)	499	(2.9)	**503**	(2.8)	**13.5**	(0.9)	**1.5**	(0.1)	2.3	(0.3)
	Japan	**508**	(4.7)	534	(4.3)	545	(5.1)	**566**	(5.5)	**24.8**	(2.6)	**1.6**	(0.1)	5.3	(1.0)
	Korea	**523**	(5.2)	540	(6.1)	560	(6.1)	**594**	(6.4)	**35.0**	(3.0)	**1.5**	(0.1)	7.2	(1.0)
	Luxembourg	**474**	(3.7)	485	(3.5)	492	(3.5)	**521**	(3.4)	**18.2**	(2.0)	**1.3**	(0.1)	3.3	(0.7)
	Mexico	397	(2.0)	403	(2.1)	421	(2.3)	437	(1.9)	**14.6**	(0.8)	**1.4**	(0.1)	4.0	(0.4)
	Netherlands	**520**	(4.4)	521	(5.9)	533	(5.3)	**537**	(4.7)	**6.7**	(2.3)	1.1	(0.1)	0.4	(0.3)
	New Zealand	**467**	(4.6)	484	(4.5)	514	(5.5)	**547**	(4.7)	**32.9**	(1.9)	**1.7**	(0.1)	9.3	(1.0)
	Norway	**452**	(3.8)	480	(4.1)	497	(4.8)	**545**	(4.1)	**33.0**	(1.5)	**1.9**	(0.1)	16.4	(1.4)
	Poland	**481**	(4.1)	505	(4.5)	526	(5.0)	**558**	(5.3)	**25.0**	(1.6)	**1.8**	(0.1)	8.2	(0.9)
	Portugal	**458**	(4.3)	460	(7.1)	505	(5.0)	**531**	(4.5)	**26.5**	(1.7)	**1.7**	(0.1)	9.0	(1.1)
	Slovak Republic	**458**	(4.4)	480	(5.1)	482	(5.1)	**516**	(5.9)	**22.0**	(2.0)	**1.4**	(0.1)	4.9	(1.0)
	Slovenia	**492**	(4.2)	498	(4.3)	508	(4.7)	**520**	(4.6)	**9.7**	(2.3)	**1.2**	(0.1)	1.1	(0.5)
	Spain	**462**	(2.8)	474	(3.0)	495	(3.3)	**514**	(3.1)	**20.8**	(1.4)	**1.4**	(0.1)	5.5	(0.7)
	Sweden	**454**	(3.2)	461	(4.3)	485	(4.7)	**532**	(4.1)	**30.0**	(1.9)	**1.5**	(0.1)	11.0	(1.2)
	Switzerland	**518**	(4.2)	524	(4.1)	535	(5.4)	**550**	(4.4)	**14.7**	(1.7)	**1.2**	(0.1)	1.9	(0.5)
	Turkey	**425**	(4.4)	436	(5.6)	465	(6.2)	**467**	(7.3)	**13.7**	(2.2)	**1.6**	(0.1)	2.7	(0.7)
	United Kingdom	**462**	(4.3)	484	(5.0)	509	(4.6)	**529**	(3.3)	**25.2**	(2.0)	**1.8**	(0.1)	7.4	(1.1)
	United States	**452**	(4.5)	472	(5.7)	502	(4.5)	**509**	(5.1)	**18.3**	(1.7)	**1.8**	(0.2)	4.8	(0.8)
	OECD average	**472**	(0.7)	486	(0.8)	505	(0.8)	**525**	(0.8)	**20.6**	(0.3)	**1.5**	(0.0)	5.7	(0.1)
Partners	Albania	391	(4.6)	397	(4.9)	401	(4.5)	389	(4.9)	0.1	(1.8)	1.0	(0.1)	0.0	(0.0)
	Argentina	**383**	(4.5)	383	(4.5)	393	(4.6)	**413**	(4.4)	**11.7**	(1.4)	1.2	(0.1)	2.3	(0.5)
	Brazil	**382**	(2.7)	385	(2.6)	399	(3.2)	**414**	(3.1)	**11.7**	(1.2)	**1.2**	(0.1)	2.1	(0.4)
	Bulgaria	**415**	(4.7)	428	(6.2)	464	(4.9)	**467**	(4.7)	**15.1**	(1.5)	**1.7**	(0.1)	3.7	(0.7)
	Colombia	**372**	(3.7)	379	(4.6)	385	(4.2)	**395**	(4.5)	**8.1**	(1.6)	**1.3**	(0.1)	1.2	(0.5)
	Costa Rica	**399**	(4.9)	403	(4.5)	409	(4.4)	**422**	(3.9)	**7.8**	(1.8)	**1.3**	(0.1)	1.3	(0.6)
	Croatia	**460**	(5.2)	467	(4.1)	478	(4.8)	**482**	(5.2)	**5.9**	(1.4)	**1.3**	(0.1)	0.5	(0.2)
	Cyprus*	**412**	(3.7)	428	(3.5)	451	(3.9)	**479**	(3.5)	**26.5**	(2.0)	**1.8**	(0.1)	7.1	(1.0)
	Hong Kong-China	**540**	(4.9)	551	(5.0)	569	(5.3)	**589**	(4.5)	**18.6**	(2.6)	**1.5**	(0.1)	2.4	(0.6)
	Indonesia	**368**	(5.0)	369	(5.1)	381	(4.9)	**388**	(4.5)	**8.5**	(2.1)	**1.2**	(0.1)	1.1	(0.6)
	Jordan	**364**	(3.6)	373	(3.7)	401	(3.8)	**427**	(4.8)	**22.3**	(1.6)	**1.8**	(0.1)	9.3	(1.1)
	Kazakhstan	**414**	(4.5)	426	(4.2)	440	(4.5)	**447**	(4.3)	**10.4**	(1.6)	**1.5**	(0.1)	2.6	(0.8)
	Latvia	**468**	(4.2)	483	(5.0)	498	(5.5)	**515**	(3.7)	**19.6**	(2.1)	**1.6**	(0.2)	4.3	(0.9)
	Liechtenstein	**514**	(18.0)	538	(15.9)	545	(16.5)	**543**	(15.9)	18.2	(9.7)	**1.8**	(0.5)	2.2	(2.4)
	Lithuania	**458**	(4.3)	475	(4.7)	489	(4.1)	**499**	(4.2)	**16.0**	(2.2)	**1.6**	(0.1)	2.3	(0.6)
	Macao-China	**514**	(3.6)	531	(3.1)	549	(4.0)	**565**	(2.8)	**21.8**	(2.3)	**1.6**	(0.1)	3.5	(0.7)
	Malaysia	**404**	(3.9)	410	(3.8)	433	(4.8)	**441**	(4.4)	**14.7**	(1.9)	**1.4**	(0.1)	2.4	(0.6)
	Montenegro	**395**	(2.8)	395	(3.5)	419	(3.7)	**442**	(3.7)	**15.5**	(1.5)	**1.4**	(0.1)	4.5	(0.8)
	Peru	**364**	(4.8)	366	(5.0)	379	(6.1)	**396**	(4.4)	**14.3**	(1.8)	1.2	(0.1)	2.3	(0.6)
	Qatar	**349**	(2.5)	357	(2.7)	399	(2.6)	**427**	(2.6)	**29.0**	(1.6)	**1.8**	(0.1)	8.4	(0.8)
	Romania	**430**	(4.0)	441	(5.0)	448	(5.2)	**468**	(5.0)	**11.8**	(1.7)	**1.3**	(0.1)	1.9	(0.5)
	Russian Federation	**461**	(3.7)	485	(4.1)	493	(4.7)	**493**	(4.6)	**8.8**	(1.8)	**1.5**	(0.1)	1.1	(0.4)
	Serbia	**438**	(5.2)	445	(4.7)	452	(5.0)	**472**	(5.3)	**11.1**	(1.8)	**1.3**	(0.1)	1.8	(0.5)
	Shanghai-China	**592**	(4.9)	609	(4.8)	619	(5.0)	**633**	(4.4)	**16.2**	(2.3)	**1.4**	(0.1)	1.8	(0.5)
	Singapore	**552**	(4.2)	566	(4.0)	586	(4.3)	**587**	(3.7)	**13.0**	(2.4)	**1.4**	(0.1)	1.1	(0.4)
	Chinese Taipei	**519**	(5.3)	547	(5.2)	577	(4.7)	**598**	(4.6)	**31.9**	(2.3)	**1.8**	(0.1)	6.0	(0.8)
	Thailand	**401**	(3.9)	421	(5.0)	438	(4.9)	**453**	(4.5)	**23.1**	(2.4)	**1.7**	(0.1)	4.3	(0.8)
	Tunisia	**380**	(4.2)	374	(4.0)	392	(5.7)	**420**	(6.8)	**14.8**	(2.0)	1.2	(0.1)	4.5	(1.1)
	United Arab Emirates	**402**	(2.9)	421	(4.0)	450	(3.7)	**473**	(3.6)	**26.5**	(1.4)	**1.8**	(0.1)	8.1	(0.8)
	Uruguay	**399**	(4.3)	402	(4.7)	428	(4.3)	**435**	(4.3)	**14.4**	(1.6)	**1.3**	(0.1)	2.8	(0.6)
	Viet Nam	**497**	(5.7)	507	(5.5)	523	(6.1)	**517**	(5.9)	**8.1**	(2.5)	**1.3**	(0.1)	0.7	(0.4)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 1/1]

Table III.3.2a Students' openness to problem solving

Percentage of students who reported "agree" or "strongly agree"

		Percentage of students who agreed with the following statements:									
		I can handle a lot of information		I am quick to understand things		I seek explanations for things		I can easily link facts together		I like to solve complex problems	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	49.4	(0.7)	52.5	(0.7)	62.8	(0.6)	53.4	(0.7)	30.7	(0.6)
	Austria	59.7	(1.0)	61.5	(0.9)	63.8	(0.9)	56.1	(0.8)	26.7	(0.8)
	Belgium	44.5	(0.8)	53.3	(0.9)	46.5	(0.8)	44.3	(0.8)	23.8	(0.7)
	Canada	57.2	(0.6)	61.5	(0.6)	64.6	(0.7)	60.4	(0.7)	37.2	(0.7)
	Chile	58.3	(0.9)	60.5	(0.9)	69.4	(0.8)	63.8	(0.9)	37.6	(0.9)
	Czech Republic	50.1	(1.1)	47.2	(0.9)	50.1	(1.0)	48.6	(1.0)	27.8	(0.9)
	Denmark	48.7	(0.9)	56.9	(1.0)	65.9	(0.9)	56.4	(1.0)	33.7	(0.9)
	Estonia	51.4	(0.9)	55.3	(1.1)	62.5	(1.0)	57.9	(0.9)	37.8	(0.8)
	Finland	40.9	(1.0)	52.5	(0.9)	52.9	(0.9)	56.5	(1.0)	33.5	(0.8)
	France	45.2	(0.9)	54.1	(1.0)	53.8	(1.0)	51.0	(1.1)	25.5	(1.0)
	Germany	65.4	(0.9)	66.7	(1.0)	66.5	(0.9)	62.9	(0.8)	32.2	(0.9)
	Greece	61.1	(0.9)	73.2	(0.8)	68.5	(0.9)	67.9	(0.9)	33.7	(0.8)
	Hungary	61.3	(0.9)	67.1	(1.1)	66.1	(0.8)	64.5	(0.9)	44.3	(0.9)
	Iceland	50.5	(1.1)	56.1	(1.0)	64.4	(1.2)	60.3	(1.2)	34.9	(1.0)
	Ireland	52.4	(1.0)	55.3	(0.9)	66.2	(0.8)	56.8	(0.9)	29.8	(0.7)
	Israel	66.9	(0.9)	69.0	(0.8)	71.1	(0.8)	68.7	(0.9)	44.1	(0.9)
	Italy	52.1	(0.5)	54.8	(0.5)	61.5	(0.4)	60.3	(0.6)	26.6	(0.4)
	Japan	26.2	(0.7)	34.6	(0.8)	31.8	(0.7)	25.9	(0.8)	19.0	(0.7)
	Korea	30.2	(1.1)	37.0	(1.2)	52.2	(1.2)	47.5	(1.2)	23.2	(1.0)
	Luxembourg	59.3	(0.9)	62.7	(0.9)	60.5	(0.8)	53.5	(0.8)	32.6	(0.8)
	Mexico	40.7	(0.6)	44.5	(0.6)	57.5	(0.5)	49.1	(0.5)	33.0	(0.5)
	Netherlands	54.4	(1.1)	60.4	(1.1)	49.9	(1.0)	51.9	(1.0)	31.7	(0.9)
	New Zealand	42.2	(1.0)	45.3	(1.0)	57.8	(1.0)	47.7	(1.1)	30.3	(1.0)
	Norway	59.6	(1.0)	60.7	(0.9)	59.8	(1.0)	58.7	(0.9)	42.7	(1.0)
	Poland	66.5	(1.0)	64.3	(0.9)	78.5	(0.9)	72.2	(0.9)	48.2	(0.9)
	Portugal	61.3	(1.0)	59.0	(1.1)	69.1	(1.0)	60.5	(1.3)	40.3	(1.0)
	Slovak Republic	48.4	(1.0)	41.2	(1.0)	50.8	(0.9)	48.9	(0.8)	21.9	(0.9)
	Slovenia	64.2	(0.8)	59.9	(1.0)	55.7	(0.9)	58.3	(0.9)	34.2	(1.0)
	Spain	52.3	(0.7)	54.8	(0.5)	65.2	(0.7)	60.6	(0.8)	30.7	(0.7)
	Sweden	61.2	(1.0)	64.6	(0.9)	61.7	(0.9)	59.8	(0.9)	35.5	(0.9)
	Switzerland	58.9	(0.7)	61.5	(0.9)	59.3	(0.8)	54.6	(0.7)	29.0	(0.9)
	Turkey	53.2	(1.1)	66.3	(0.9)	70.8	(0.9)	71.4	(0.8)	36.9	(1.0)
	United Kingdom	51.9	(1.1)	52.0	(0.8)	60.4	(0.8)	56.7	(0.9)	37.0	(0.8)
	United States	58.2	(0.8)	58.1	(1.0)	65.9	(0.9)	59.6	(1.0)	39.4	(0.9)
	OECD average	53.0	(0.2)	56.6	(0.2)	60.7	(0.2)	56.7	(0.2)	33.1	(0.1)
Partners	Albania	77.4	(0.8)	78.1	(1.0)	72.1	(1.0)	68.9	(1.0)	54.0	(1.2)
	Argentina	42.2	(1.1)	48.1	(1.0)	56.1	(1.1)	46.4	(1.1)	28.7	(0.9)
	Brazil	61.7	(0.6)	58.1	(0.7)	73.4	(0.5)	62.6	(0.7)	39.4	(0.6)
	Bulgaria	64.5	(0.9)	69.2	(0.9)	73.0	(0.8)	73.3	(0.9)	47.7	(0.9)
	Colombia	52.2	(1.1)	58.0	(1.1)	68.8	(0.8)	57.6	(1.1)	47.4	(1.0)
	Costa Rica	51.9	(1.3)	57.9	(1.4)	70.0	(1.3)	59.8	(1.2)	39.5	(1.0)
	Croatia	51.0	(0.9)	64.3	(0.9)	39.8	(1.0)	64.8	(0.9)	32.4	(0.8)
	Cyprus*	63.0	(0.8)	70.7	(0.9)	68.6	(0.9)	70.5	(0.9)	42.8	(0.9)
	Hong Kong-China	34.7	(0.8)	47.9	(0.9)	48.1	(0.8)	41.8	(0.8)	30.9	(1.0)
	Indonesia	54.9	(1.2)	59.9	(1.1)	64.7	(1.3)	45.3	(1.2)	43.0	(1.0)
	Jordan	83.2	(0.7)	79.1	(0.7)	76.1	(0.8)	72.7	(0.8)	57.1	(1.0)
	Kazakhstan	65.7	(0.9)	72.9	(1.0)	82.3	(0.8)	64.9	(0.9)	55.8	(1.2)
	Latvia	40.8	(1.1)	52.9	(1.1)	53.8	(1.1)	52.3	(1.2)	33.0	(1.1)
	Liechtenstein	69.2	(3.3)	60.8	(3.6)	61.5	(3.6)	54.4	(3.3)	26.7	(2.9)
	Lithuania	48.7	(1.0)	53.7	(1.0)	56.1	(1.1)	51.0	(1.1)	26.2	(0.9)
	Macao-China	30.8	(0.8)	38.2	(0.8)	48.5	(0.8)	38.1	(0.8)	25.4	(0.8)
	Malaysia	37.4	(0.9)	48.9	(0.9)	52.9	(0.8)	36.1	(0.9)	35.2	(0.8)
	Montenegro	83.7	(0.7)	85.7	(0.7)	64.8	(1.0)	81.2	(0.9)	57.2	(0.9)
	Peru	58.2	(0.8)	60.9	(0.9)	71.3	(1.0)	57.3	(0.9)	49.3	(1.0)
	Qatar	72.2	(0.6)	70.0	(0.6)	70.2	(0.6)	65.7	(0.5)	50.3	(0.6)
	Romania	65.1	(0.9)	70.2	(1.0)	67.1	(0.9)	64.5	(0.9)	43.9	(1.0)
	Russian Federation	52.2	(0.8)	59.1	(0.8)	60.3	(1.1)	55.0	(0.9)	41.2	(1.0)
	Serbia	73.0	(1.0)	78.3	(0.7)	64.4	(0.9)	75.0	(0.8)	46.9	(0.9)
	Shanghai-China	46.6	(1.0)	55.4	(0.9)	65.5	(0.9)	62.2	(1.1)	36.2	(0.8)
	Singapore	44.2	(0.9)	50.4	(0.9)	68.5	(0.7)	52.4	(1.0)	39.1	(0.9)
	Chinese Taipei	30.3	(0.9)	42.0	(0.8)	54.1	(0.9)	39.2	(0.9)	25.7	(0.7)
	Thailand	31.2	(0.8)	39.6	(0.8)	38.4	(0.8)	34.9	(0.8)	27.3	(0.8)
	Tunisia	69.0	(0.9)	68.3	(1.0)	68.7	(1.0)	64.7	(1.0)	44.0	(1.0)
	United Arab Emirates	72.5	(0.6)	72.3	(0.7)	71.2	(0.6)	68.0	(0.7)	48.9	(0.9)
	Uruguay	48.9	(1.0)	53.3	(0.9)	63.4	(0.9)	50.5	(0.9)	39.8	(1.0)
	Viet Nam	24.3	(1.0)	28.2	(1.2)	36.4	(1.1)	26.5	(1.1)	24.0	(1.0)

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.3.2d

Index of openness to problem solving and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Index of openness to problem solving																	
		All students		Variability in this index		Boys		Girls		Gender difference (B - G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	-0.07	(0.02)	0.97	(0.01)	0.05	(0.02)	-0.19	(0.02)	**0.24**	(0.02)	-1.20	(0.02)	-0.38	(0.01)	0.15	(0.02)	1.15	(0.02)
	Austria	0.04	(0.02)	0.94	(0.02)	0.20	(0.03)	-0.13	(0.02)	**0.33**	(0.04)	-1.06	(0.03)	-0.30	(0.02)	0.26	(0.01)	1.26	(0.04)
	Belgium	-0.29	(0.02)	0.96	(0.01)	-0.11	(0.03)	-0.46	(0.02)	**0.35**	(0.03)	-1.42	(0.02)	-0.60	(0.02)	-0.06	(0.02)	0.92	(0.03)
	Canada	0.14	(0.01)	1.01	(0.01)	0.26	(0.02)	0.02	(0.02)	**0.23**	(0.03)	-1.03	(0.02)	-0.21	(0.01)	0.33	(0.02)	1.48	(0.02)
	Chile	0.18	(0.02)	0.94	(0.02)	0.26	(0.03)	0.10	(0.02)	**0.15**	(0.03)	-0.94	(0.03)	-0.14	(0.01)	0.39	(0.02)	1.39	(0.03)
	Czech Republic	-0.20	(0.02)	0.87	(0.02)	-0.12	(0.03)	-0.28	(0.03)	**0.16**	(0.04)	-1.20	(0.03)	-0.49	(0.02)	0.01	(0.02)	0.90	(0.03)
	Denmark	0.01	(0.02)	0.96	(0.02)	0.18	(0.03)	-0.14	(0.03)	**0.32**	(0.04)	-1.09	(0.03)	-0.33	(0.02)	0.23	(0.02)	1.25	(0.04)
	Estonia	0.04	(0.02)	0.96	(0.02)	0.08	(0.03)	0.01	(0.02)	0.06	(0.04)	-1.09	(0.03)	-0.30	(0.02)	0.27	(0.02)	1.30	(0.03)
	Finland	-0.11	(0.02)	0.98	(0.01)	0.00	(0.03)	-0.21	(0.02)	**0.21**	(0.03)	-1.25	(0.03)	-0.44	(0.02)	0.13	(0.02)	1.13	(0.03)
	France	-0.19	(0.02)	1.01	(0.02)	0.00	(0.03)	-0.36	(0.03)	**0.37**	(0.03)	-1.38	(0.02)	-0.55	(0.03)	0.07	(0.02)	1.11	(0.04)
	Germany	0.17	(0.02)	0.92	(0.02)	0.35	(0.03)	-0.02	(0.03)	**0.37**	(0.04)	-0.91	(0.03)	-0.14	(0.02)	0.35	(0.02)	1.37	(0.04)
	Greece	0.24	(0.02)	0.97	(0.02)	0.31	(0.03)	0.18	(0.02)	**0.13**	(0.03)	-0.88	(0.03)	-0.09	(0.02)	0.44	(0.02)	1.50	(0.03)
	Hungary	0.18	(0.02)	0.90	(0.02)	0.22	(0.04)	0.14	(0.02)	0.08	(0.04)	-0.86	(0.04)	-0.11	(0.01)	0.35	(0.01)	1.34	(0.04)
	Iceland	0.06	(0.02)	1.17	(0.02)	0.27	(0.03)	-0.16	(0.03)	**0.42**	(0.05)	-1.30	(0.03)	-0.38	(0.03)	0.29	(0.02)	1.62	(0.04)
	Ireland	-0.02	(0.02)	0.97	(0.01)	0.06	(0.03)	-0.10	(0.02)	**0.16**	(0.04)	-1.17	(0.02)	-0.33	(0.01)	0.21	(0.02)	1.21	(0.03)
	Israel	0.34	(0.02)	1.05	(0.02)	0.44	(0.03)	0.26	(0.03)	**0.18**	(0.04)	-0.89	(0.03)	-0.03	(0.02)	0.56	(0.02)	1.74	(0.04)
	Italy	-0.08	(0.01)	0.91	(0.01)	-0.01	(0.02)	-0.16	(0.01)	**0.15**	(0.02)	-1.17	(0.02)	-0.36	(0.01)	0.14	(0.01)	1.06	(0.02)
	Japan	-0.73	(0.02)	1.01	(0.02)	-0.54	(0.03)	-0.94	(0.03)	**0.40**	(0.04)	-1.93	(0.03)	-1.04	(0.02)	-0.46	(0.02)	0.51	(0.03)
	Korea	-0.37	(0.02)	0.85	(0.02)	-0.26	(0.03)	-0.50	(0.03)	**0.24**	(0.04)	-1.36	(0.03)	-0.64	(0.03)	-0.16	(0.02)	0.67	(0.04)
	Luxembourg	0.06	(0.02)	1.03	(0.02)	0.27	(0.03)	-0.16	(0.02)	**0.43**	(0.04)	-1.13	(0.02)	-0.31	(0.02)	0.27	(0.02)	1.41	(0.04)
	Mexico	-0.11	(0.01)	1.01	(0.01)	-0.01	(0.02)	-0.20	(0.01)	**0.19**	(0.02)	-1.27	(0.01)	-0.48	(0.01)	0.11	(0.01)	1.20	(0.02)
	Netherlands	-0.08	(0.02)	0.93	(0.02)	0.09	(0.03)	-0.24	(0.03)	**0.33**	(0.03)	-1.12	(0.03)	-0.38	(0.02)	0.10	(0.02)	1.11	(0.04)
	New Zealand	-0.18	(0.02)	0.96	(0.02)	-0.06	(0.03)	-0.31	(0.03)	**0.25**	(0.04)	-1.30	(0.03)	-0.50	(0.02)	0.05	(0.02)	1.02	(0.03)
	Norway	0.18	(0.02)	1.13	(0.02)	0.32	(0.03)	0.04	(0.03)	**0.29**	(0.04)	-1.17	(0.03)	-0.22	(0.02)	0.46	(0.03)	1.67	(0.04)
	Poland	0.36	(0.02)	0.99	(0.02)	0.36	(0.03)	0.36	(0.03)	0.00	(0.04)	-0.76	(0.03)	0.05	(0.01)	0.47	(0.01)	1.70	(0.04)
	Portugal	0.16	(0.02)	0.93	(0.01)	0.21	(0.03)	0.10	(0.03)	**0.10**	(0.04)	-0.94	(0.02)	-0.17	(0.03)	0.39	(0.02)	1.35	(0.03)
	Slovak Republic	-0.32	(0.02)	0.99	(0.02)	-0.23	(0.03)	-0.42	(0.03)	**0.19**	(0.05)	-1.50	(0.03)	-0.60	(0.02)	-0.07	(0.02)	0.89	(0.04)
	Slovenia	0.08	(0.02)	0.91	(0.02)	0.21	(0.03)	-0.06	(0.03)	**0.27**	(0.04)	-0.95	(0.02)	-0.23	(0.02)	0.24	(0.02)	1.25	(0.04)
	Spain	0.02	(0.01)	0.95	(0.01)	0.16	(0.02)	-0.11	(0.02)	**0.27**	(0.02)	-1.09	(0.02)	-0.30	(0.01)	0.24	(0.01)	1.25	(0.02)
	Sweden	0.12	(0.02)	1.07	(0.02)	0.25	(0.03)	-0.01	(0.03)	**0.26**	(0.05)	-1.16	(0.04)	-0.24	(0.02)	0.36	(0.02)	1.52	(0.04)
	Switzerland	0.00	(0.02)	0.90	(0.01)	0.19	(0.03)	-0.18	(0.02)	**0.37**	(0.03)	-1.04	(0.02)	-0.32	(0.01)	0.20	(0.02)	1.16	(0.03)
	Turkey	0.21	(0.02)	0.96	(0.02)	0.24	(0.03)	0.18	(0.03)	0.06	(0.04)	-0.89	(0.03)	-0.12	(0.02)	0.40	(0.02)	1.44	(0.03)
	United Kingdom	-0.02	(0.02)	0.93	(0.01)	0.09	(0.02)	-0.12	(0.02)	**0.22**	(0.03)	-1.11	(0.03)	-0.32	(0.02)	0.20	(0.01)	1.15	(0.02)
	United States	0.18	(0.02)	1.08	(0.02)	0.29	(0.03)	0.08	(0.03)	**0.21**	(0.05)	-1.06	(0.03)	-0.22	(0.02)	0.39	(0.02)	1.62	(0.04)
	OECD average	0.00	(0.00)	0.97	(0.00)	0.12	(0.00)	-0.12	(0.00)	**0.23**	(0.01)	-1.14	(0.00)	-0.33	(0.00)	0.22	(0.00)	1.26	(0.01)
Partners	**Albania**	0.51	(0.02)	0.95	(0.02)	0.53	(0.03)	0.49	(0.03)	0.04	(0.04)	-0.63	(0.03)	0.20	(0.02)	0.71	(0.02)	1.77	(0.04)
	Argentina	-0.15	(0.02)	1.07	(0.02)	-0.06	(0.03)	-0.24	(0.03)	**0.18**	(0.04)	-1.38	(0.03)	-0.56	(0.03)	0.09	(0.02)	1.24	(0.04)
	Brazil	0.21	(0.01)	0.99	(0.01)	0.27	(0.02)	0.16	(0.02)	**0.11**	(0.03)	-0.93	(0.02)	-0.13	(0.01)	0.40	(0.01)	1.51	(0.03)
	Bulgaria	0.37	(0.02)	1.06	(0.02)	0.41	(0.03)	0.33	(0.03)	**0.08**	(0.04)	-0.88	(0.04)	0.05	(0.01)	0.55	(0.02)	1.76	(0.04)
	Colombia	0.18	(0.02)	0.94	(0.02)	0.26	(0.03)	0.12	(0.03)	**0.14**	(0.04)	-0.92	(0.02)	-0.14	(0.02)	0.38	(0.02)	1.41	(0.04)
	Costa Rica	0.21	(0.03)	1.01	(0.02)	0.32	(0.04)	0.12	(0.04)	**0.20**	(0.05)	-0.99	(0.03)	-0.16	(0.03)	0.44	(0.03)	1.56	(0.04)
	Croatia	-0.03	(0.01)	0.81	(0.01)	0.05	(0.02)	-0.11	(0.02)	**0.16**	(0.03)	-0.94	(0.02)	-0.30	(0.01)	0.12	(0.02)	1.00	(0.03)
	Cyprus*	0.30	(0.02)	1.01	(0.02)	0.34	(0.03)	0.25	(0.02)	**0.09**	(0.04)	-0.86	(0.03)	-0.03	(0.02)	0.48	(0.02)	1.61	(0.03)
	Hong Kong-China	-0.25	(0.02)	0.94	(0.02)	-0.08	(0.02)	-0.44	(0.02)	**0.36**	(0.03)	-1.34	(0.03)	-0.57	(0.01)	-0.03	(0.02)	0.93	(0.03)
	Indonesia	0.06	(0.02)	0.90	(0.02)	0.05	(0.03)	0.07	(0.03)	-0.02	(0.03)	-0.98	(0.03)	-0.25	(0.03)	0.28	(0.02)	1.20	(0.04)
	Jordan	0.62	(0.02)	1.11	(0.02)	0.70	(0.04)	0.55	(0.02)	**0.15**	(0.04)	-0.75	(0.03)	0.27	(0.02)	0.91	(0.03)	2.05	(0.04)
	Kazakhstan	0.47	(0.03)	1.00	(0.02)	0.46	(0.03)	0.47	(0.03)	-0.01	(0.04)	-0.69	(0.03)	0.11	(0.02)	0.62	(0.02)	1.82	(0.05)
	Latvia	-0.09	(0.02)	0.85	(0.03)	-0.08	(0.03)	-0.11	(0.02)	0.03	(0.03)	-1.06	(0.04)	-0.35	(0.02)	0.07	(0.02)	0.97	(0.04)
	Liechtenstein	0.05	(0.07)	0.88	(0.05)	0.22	(0.08)	-0.12	(0.10)	**0.33**	(0.13)	-0.99	(0.09)	-0.24	(0.08)	0.24	(0.05)	1.21	(0.12)
	Lithuania	-0.16	(0.02)	0.90	(0.01)	-0.12	(0.03)	-0.19	(0.02)	0.07	(0.03)	-1.21	(0.02)	-0.43	(0.02)	0.05	(0.02)	0.96	(0.04)
	Macao-China	-0.34	(0.01)	0.90	(0.02)	-0.26	(0.02)	-0.42	(0.02)	**0.17**	(0.03)	-1.36	(0.02)	-0.67	(0.01)	-0.15	(0.02)	0.83	(0.03)
	Malaysia	-0.20	(0.01)	0.89	(0.02)	-0.18	(0.03)	-0.22	(0.02)	0.04	(0.03)	-1.23	(0.03)	-0.49	(0.01)	-0.02	(0.02)	0.91	(0.03)
	Montenegro	0.62	(0.02)	0.96	(0.02)	0.63	(0.03)	0.60	(0.03)	0.04	(0.03)	-0.47	(0.03)	0.27	(0.02)	0.76	(0.03)	1.90	(0.03)
	Peru	0.18	(0.02)	0.87	(0.02)	0.23	(0.02)	0.13	(0.02)	**0.10**	(0.03)	-0.83	(0.03)	-0.11	(0.01)	0.37	(0.02)	1.30	(0.03)
	Qatar	0.38	(0.01)	1.07	(0.01)	0.46	(0.02)	0.30	(0.02)	**0.16**	(0.03)	-0.88	(0.02)	0.02	(0.01)	0.60	(0.02)	1.77	(0.02)
	Romania	0.22	(0.02)	0.94	(0.02)	0.21	(0.03)	0.23	(0.03)	-0.02	(0.03)	-0.89	(0.04)	-0.06	(0.02)	0.44	(0.02)	1.39	(0.03)
	Russian Federation	0.05	(0.02)	1.01	(0.01)	0.11	(0.03)	0.00	(0.02)	**0.11**	(0.03)	-1.13	(0.03)	-0.27	(0.02)	0.26	(0.02)	1.36	(0.03)
	Serbia	0.46	(0.02)	1.00	(0.02)	0.55	(0.03)	0.38	(0.02)	**0.16**	(0.04)	-0.69	(0.03)	0.08	(0.01)	0.63	(0.02)	1.83	(0.04)
	Shanghai-China	0.07	(0.02)	0.99	(0.01)	0.21	(0.03)	-0.08	(0.02)	**0.29**	(0.03)	-1.10	(0.03)	-0.29	(0.02)	0.29	(0.02)	1.36	(0.03)
	Singapore	0.01	(0.02)	0.87	(0.01)	0.13	(0.02)	-0.12	(0.02)	**0.26**	(0.03)	-0.99	(0.02)	-0.31	(0.02)	0.21	(0.01)	1.12	(0.03)
	Chinese Taipei	-0.33	(0.02)	1.01	(0.02)	-0.19	(0.03)	-0.48	(0.03)	**0.29**	(0.04)	-1.49	(0.03)	-0.69	(0.02)	-0.10	(0.02)	0.95	(0.03)
	Thailand	-0.31	(0.01)	0.78	(0.02)	-0.21	(0.02)	-0.38	(0.02)	**0.18**	(0.03)	-1.18	(0.02)	-0.56	(0.01)	-0.17	(0.01)	0.69	(0.03)
	Tunisia	0.26	(0.02)	1.00	(0.02)	0.34	(0.03)	0.19	(0.02)	**0.15**	(0.03)	-0.97	(0.03)	-0.06	(0.02)	0.54	(0.03)	1.52	(0.03)
	United Arab Emirates	0.39	(0.02)	1.02	(0.01)	0.48	(0.03)	0.30	(0.02)	**0.18**	(0.03)	-0.83	(0.03)	0.06	(0.01)	0.62	(0.02)	1.71	(0.03)
	Uruguay	0.04	(0.02)	1.02	(0.02)	0.20	(0.03)	-0.10	(0.02)	**0.30**	(0.03)	-1.15	(0.03)	-0.33	(0.02)	0.25	(0.02)	1.39	(0.04)
	Viet Nam	-0.60	(0.03)	0.86	(0.02)	-0.49	(0.03)	-0.70	(0.03)	**0.21**	(0.03)	-1.61	(0.03)	-0.91	(0.03)	-0.37	(0.02)	0.48	(0.04)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 2/2]

Table III.3.2d Index of openness to problem solving and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Australia**	**453**	(2.2)	491	(2.6)	526	(2.7)	**560**	(3.2)	**41.7**	(1.2)	**2.5**	(0.1)	18.1	(0.9)
	Austria	**466**	(3.7)	494	(4.1)	529	(4.5)	**548**	(4.3)	**32.3**	(1.9)	**2.0**	(0.2)	11.4	(1.4)
	Belgium	**481**	(3.4)	507	(3.1)	539	(3.6)	**558**	(3.9)	**30.5**	(1.8)	**1.7**	(0.1)	8.7	(1.0)
	Canada	**471**	(2.5)	508	(3.0)	537	(3.2)	**569**	(2.7)	**36.6**	(1.1)	**2.4**	(0.1)	18.0	(1.0)
	Chile	**388**	(3.4)	419	(3.8)	436	(3.9)	**455**	(4.2)	**26.3**	(1.5)	**2.0**	(0.1)	9.7	(1.0)
	Czech Republic	**464**	(4.3)	489	(4.4)	518	(5.0)	**545**	(4.4)	**35.0**	(2.0)	**1.9**	(0.2)	11.4	(1.2)
	Denmark	**458**	(3.6)	489	(3.3)	519	(3.6)	**544**	(4.1)	**34.2**	(1.8)	**2.3**	(0.1)	16.6	(1.6)
	Estonia	**478**	(3.1)	512	(4.1)	536	(3.4)	**564**	(3.8)	**31.9**	(2.1)	**2.3**	(0.2)	14.8	(1.6)
	Finland	**471**	(3.1)	505	(2.8)	540	(3.0)	**578**	(3.2)	**40.9**	(1.5)	**2.7**	(0.2)	23.6	(1.4)
	France	**454**	(3.5)	488	(3.9)	519	(4.2)	**540**	(5.6)	**33.2**	(2.1)	**1.9**	(0.1)	12.2	(1.5)
	Germany	**484**	(3.8)	517	(4.4)	543	(4.8)	**553**	(5.1)	**27.5**	(2.2)	**1.9**	(0.1)	7.2	(1.1)
	Greece	**413**	(4.0)	446	(3.6)	466	(4.9)	**491**	(4.1)	**29.1**	(1.8)	**2.0**	(0.2)	10.5	(1.1)
	Hungary	**439**	(4.4)	471	(4.4)	494	(4.7)	**512**	(5.7)	**28.5**	(2.9)	**1.8**	(0.1)	7.6	(1.3)
	Iceland	**446**	(3.3)	477	(3.7)	516	(4.4)	**542**	(4.5)	**29.4**	(1.6)	**2.4**	(0.2)	14.9	(1.4)
	Ireland	**459**	(3.0)	488	(3.4)	516	(3.7)	**547**	(3.8)	**34.6**	(1.5)	**2.1**	(0.1)	16.0	(1.2)
	Israel	**445**	(4.7)	465	(5.7)	483	(6.0)	**490**	(5.8)	**17.4**	(2.0)	**1.3**	(0.1)	3.2	(0.7)
	Italy	**456**	(2.5)	479	(2.7)	501	(2.8)	**509**	(3.2)	**22.8**	(1.2)	**1.6**	(0.1)	5.1	(0.5)
	Japan	**496**	(5.5)	535	(4.3)	550	(4.8)	**572**	(5.6)	**28.1**	(2.4)	**2.1**	(0.2)	9.2	(1.4)
	Korea	**499**	(5.0)	544	(6.1)	570	(5.0)	**605**	(7.2)	**47.7**	(2.7)	**2.4**	(0.2)	17.1	(1.5)
	Luxembourg	**454**	(3.7)	485	(3.4)	506	(3.5)	**528**	(3.5)	**26.6**	(1.8)	**1.8**	(0.1)	8.4	(1.1)
	Mexico	**386**	(1.6)	406	(2.0)	426	(2.0)	**441**	(2.1)	**21.8**	(0.8)	**1.7**	(0.1)	8.9	(0.6)
	Netherlands	**491**	(4.3)	525	(4.7)	545	(4.5)	**549**	(5.5)	**20.9**	(2.3)	**1.8**	(0.2)	4.9	(1.1)
	New Zealand	**453**	(3.4)	486	(4.2)	521	(4.8)	**553**	(4.7)	**42.1**	(2.1)	**2.0**	(0.2)	16.8	(1.6)
	Norway	**442**	(3.6)	482	(3.8)	507	(3.9)	**543**	(4.4)	**33.4**	(1.4)	**2.4**	(0.2)	18.3	(1.4)
	Poland	**478**	(3.9)	514	(5.1)	528	(5.4)	**549**	(5.7)	**25.6**	(1.6)	**1.9**	(0.1)	8.0	(0.9)
	Portugal	**449**	(3.9)	481	(5.0)	496	(5.8)	**529**	(6.0)	**31.1**	(2.1)	**1.8**	(0.1)	9.7	(1.3)
	Slovak Republic	**449**	(4.1)	475	(4.9)	497	(6.1)	**517**	(6.5)	**25.0**	(2.2)	**1.6**	(0.1)	6.2	(1.1)
	Slovenia	**468**	(3.5)	497	(4.1)	513	(4.1)	**538**	(4.6)	**28.7**	(2.5)	**1.8**	(0.2)	8.6	(1.4)
	Spain	**443**	(2.3)	474	(2.7)	502	(3.1)	**525**	(3.0)	**32.1**	(1.3)	**2.0**	(0.1)	12.5	(0.9)
	Sweden	**428**	(3.6)	470	(3.5)	503	(4.3)	**532**	(4.8)	**35.0**	(2.1)	**2.4**	(0.2)	16.9	(1.8)
	Switzerland	**498**	(4.1)	520	(4.4)	544	(4.5)	**565**	(4.6)	**28.7**	(1.6)	**1.6**	(0.1)	7.6	(0.8)
	Turkey	**418**	(4.7)	449	(5.1)	462	(6.9)	**465**	(7.3)	**18.2**	(2.3)	**1.7**	(0.1)	3.7	(0.8)
	United Kingdom	**443**	(6.5)	484	(3.8)	512	(4.0)	**543**	(3.9)	**41.4**	(1.8)	**2.4**	(0.2)	17.3	(1.3)
	United States	**434**	(3.6)	477	(4.6)	498	(5.4)	**526**	(5.8)	**29.9**	(1.7)	**2.3**	(0.2)	13.2	(1.3)
	OECD average	**455**	(0.7)	487	(0.7)	512	(0.8)	**535**	(0.8)	**30.8**	(0.3)	**2.0**	(0.0)	11.7	(0.2)
Partners	**Albania**	396	(4.9)	394	(6.1)	394	(5.1)	394	(4.6)	-0.1	(2.1)	1.0	(0.1)	0.0	(0.0)
	Argentina	**372**	(3.5)	390	(4.6)	405	(5.1)	**407**	(4.0)	**12.9**	(1.2)	**1.5**	(0.1)	3.5	(0.6)
	Brazil	**374**	(2.8)	395	(2.9)	406	(2.9)	**407**	(3.6)	**11.1**	(1.3)	**1.5**	(0.1)	2.1	(0.4)
	Bulgaria	**415**	(5.0)	453	(4.7)	453	(5.3)	**454**	(6.2)	**12.5**	(1.9)	**1.6**	(0.1)	2.1	(0.6)
	Colombia	**371**	(3.5)	386	(3.6)	388	(3.8)	**388**	(4.8)	**5.9**	(1.5)	1.1	(0.1)	0.6	(0.3)
	Costa Rica	**376**	(4.8)	406	(3.2)	416	(4.5)	**435**	(4.9)	**20.3**	(2.0)	**2.1**	(0.2)	9.0	(1.5)
	Croatia	**443**	(3.9)	468	(5.1)	486	(5.6)	**489**	(4.8)	**19.5**	(2.1)	**1.6**	(0.1)	3.3	(0.6)
	Cyprus*	**398**	(3.1)	438	(3.3)	458	(3.4)	**476**	(3.6)	**29.3**	(1.7)	**2.2**	(0.1)	10.6	(1.1)
	Hong Kong-China	**521**	(4.2)	552	(4.8)	580	(4.5)	**596**	(4.6)	**29.3**	(2.1)	**1.9**	(0.1)	8.1	(1.1)
	Indonesia	**362**	(4.1)	378	(5.1)	385	(6.2)	**380**	(4.6)	**7.0**	(1.8)	**1.3**	(0.1)	0.8	(0.4)
	Jordan	**363**	(3.1)	390	(3.6)	405	(4.6)	**406**	(4.3)	**13.6**	(1.4)	**1.7**	(0.1)	4.1	(0.7)
	Kazakhstan	**415**	(3.8)	434	(4.4)	438	(4.4)	**440**	(4.9)	**9.0**	(1.8)	**1.5**	(0.1)	1.6	(0.6)
	Latvia	**456**	(3.9)	480	(4.3)	503	(4.9)	**525**	(4.7)	**29.8**	(1.9)	**1.8**	(0.2)	9.6	(1.3)
	Liechtenstein	**495**	(13.5)	537	(21.1)	546	(16.0)	**564**	(16.0)	**29.7**	(8.1)	**1.9**	(0.5)	7.7	(4.2)
	Lithuania	**436**	(3.9)	467	(4.5)	500	(4.5)	**519**	(4.5)	**34.9**	(2.0)	**2.1**	(0.2)	12.3	(1.2)
	Macao-China	**501**	(3.6)	530	(3.6)	552	(3.2)	**576**	(3.2)	**29.8**	(1.8)	**2.0**	(0.1)	8.4	(1.0)
	Malaysia	**402**	(4.1)	422	(3.7)	434	(4.5)	**431**	(4.8)	**11.6**	(1.8)	**1.4**	(0.1)	1.6	(0.5)
	Montenegro	**398**	(3.3)	415	(3.4)	421	(3.7)	**417**	(3.7)	**5.4**	(1.9)	**1.2**	(0.1)	0.4	(0.3)
	Peru	**356**	(3.8)	373	(4.1)	384	(4.9)	**395**	(5.8)	**17.4**	(2.1)	**1.4**	(0.1)	3.3	(0.7)
	Qatar	**358**	(2.1)	395	(2.5)	387	(2.7)	**392**	(2.8)	**10.2**	(1.2)	**1.4**	(0.1)	1.2	(0.3)
	Romania	**424**	(4.5)	448	(4.5)	454	(4.7)	**460**	(5.9)	**14.3**	(2.2)	**1.5**	(0.1)	2.7	(0.8)
	Russian Federation	**447**	(3.7)	477	(3.9)	497	(3.9)	**511**	(5.3)	**24.3**	(1.9)	**1.8**	(0.1)	8.0	(1.2)
	Serbia	**423**	(4.7)	455	(5.1)	461	(5.0)	**468**	(5.3)	**14.8**	(2.0)	**1.5**	(0.1)	2.8	(0.7)
	Shanghai-China	**566**	(4.9)	608	(5.4)	634	(4.2)	**644**	(4.7)	**29.7**	(2.2)	**2.2**	(0.2)	8.5	(1.1)
	Singapore	**535**	(4.2)	567	(3.8)	592	(4.4)	**597**	(3.8)	**24.8**	(2.1)	**1.7**	(0.1)	4.3	(0.7)
	Chinese Taipei	**509**	(5.0)	550	(5.4)	583	(4.9)	**599**	(5.1)	**34.1**	(2.2)	**2.0**	(0.2)	8.9	(1.1)
	Thailand	**421**	(4.1)	419	(4.4)	437	(4.8)	**435**	(5.1)	**9.4**	(2.1)	1.0	(0.1)	0.8	(0.3)
	Tunisia	**370**	(3.9)	388	(4.9)	401	(5.7)	**408**	(5.6)	**14.5**	(1.8)	**1.5**	(0.1)	3.5	(0.8)
	United Arab Emirates	**412**	(3.4)	438	(3.1)	443	(3.8)	**453**	(3.8)	**14.9**	(1.3)	**1.5**	(0.1)	2.9	(0.5)
	Uruguay	**382**	(3.4)	414	(4.0)	429	(4.8)	**438**	(4.7)	**19.8**	(1.9)	**1.7**	(0.1)	5.4	(1.0)
	Viet Nam	**480**	(5.6)	502	(5.0)	526	(5.8)	**537**	(6.8)	**25.4**	(2.4)	**1.7**	(0.1)	6.6	(1.2)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.

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[Part 1/3]

Table III.3.3a

Students' self-responsibility for failing in mathematics

Percentage of students who reported "agree" or "strongly agree"

		Percentage of students who agreed with the following statements:											
		I'm not very good at solving mathematics problems		My teacher did not explain the concepts well this week		This week I made bad guesses on the quiz		Sometimes the course material is too hard		The teacher did not get students interested in the material		Sometimes I am just unlucky	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	51.9	(0.5)	46.9	(0.6)	37.8	(0.6)	56.9	(0.6)	48.8	(0.7)	37.7	(0.7)
	Austria	49.8	(0.8)	54.9	(1.0)	62.0	(1.0)	65.5	(1.0)	61.8	(1.1)	54.1	(1.1)
	Belgium	62.4	(0.7)	40.0	(0.8)	51.6	(0.8)	73.0	(0.8)	54.5	(1.0)	53.8	(0.7)
	Canada	50.2	(0.6)	45.9	(0.8)	45.9	(0.5)	57.9	(0.7)	51.7	(0.8)	36.8	(0.6)
	Chile	70.6	(0.7)	45.1	(1.0)	41.5	(0.9)	79.5	(0.8)	52.0	(1.2)	39.4	(0.9)
	Czech Republic	67.4	(1.0)	52.0	(1.3)	34.0	(1.1)	80.8	(0.8)	64.6	(1.1)	79.8	(1.0)
	Denmark	51.0	(0.9)	47.7	(0.9)	37.8	(0.9)	56.0	(1.0)	50.2	(1.2)	51.7	(0.9)
	Estonia	63.2	(1.1)	53.4	(1.3)	56.2	(0.9)	84.1	(0.7)	55.5	(1.2)	62.2	(1.0)
	Finland	54.0	(0.8)	49.9	(1.1)	29.0	(1.0)	68.8	(1.0)	53.3	(1.1)	41.3	(0.8)
	France	67.2	(0.9)	51.7	(1.2)	82.1	(0.8)	77.1	(0.8)	65.2	(1.1)	48.1	(0.9)
	Germany	49.8	(0.9)	56.4	(1.1)	65.5	(0.9)	67.3	(1.1)	61.0	(1.0)	49.9	(1.0)
	Greece	60.9	(1.0)	52.9	(1.0)	70.0	(0.9)	81.6	(0.8)	59.7	(1.0)	53.8	(0.9)
	Hungary	63.1	(1.2)	45.7	(1.1)	36.8	(1.0)	79.5	(0.9)	54.5	(1.4)	53.2	(1.0)
	Iceland	49.5	(1.0)	40.7	(1.1)	28.6	(0.9)	59.6	(1.0)	41.0	(0.9)	39.3	(1.0)
	Ireland	53.9	(1.0)	45.4	(1.1)	41.0	(0.8)	71.8	(0.8)	51.0	(1.1)	37.6	(0.8)
	Israel	50.9	(0.9)	53.5	(1.0)	62.7	(1.0)	73.4	(0.9)	53.3	(1.1)	42.0	(0.9)
	Italy	70.6	(0.5)	58.9	(0.6)	40.2	(0.5)	76.2	(0.5)	59.7	(0.7)	40.4	(0.5)
	Japan	54.9	(0.8)	24.5	(0.8)	22.3	(0.8)	63.9	(0.8)	22.3	(0.8)	21.4	(0.7)
	Korea	47.0	(0.9)	18.8	(0.7)	48.1	(1.0)	51.7	(1.0)	47.2	(1.0)	38.3	(1.0)
	Luxembourg	53.2	(0.9)	50.9	(0.8)	60.3	(0.8)	66.6	(0.9)	58.4	(0.9)	53.5	(1.0)
	Mexico	62.5	(0.5)	42.1	(0.6)	30.4	(0.5)	67.4	(0.4)	45.2	(0.5)	27.8	(0.5)
	Netherlands	50.3	(1.1)	47.5	(1.0)	31.8	(1.0)	74.1	(1.0)	46.1	(1.2)	67.4	(1.0)
	New Zealand	52.3	(1.0)	47.2	(1.1)	36.8	(0.9)	58.6	(0.8)	49.5	(1.0)	35.8	(0.8)
	Norway	58.1	(1.0)	62.9	(0.9)	34.2	(0.9)	74.2	(0.9)	65.9	(0.8)	60.0	(0.8)
	Poland	54.7	(1.1)	42.6	(1.2)	33.0	(1.1)	73.5	(1.0)	45.9	(1.3)	56.4	(1.0)
	Portugal	65.8	(0.9)	48.4	(1.0)	72.0	(0.9)	87.0	(0.6)	57.7	(1.1)	62.1	(1.2)
	Slovak Republic	63.4	(0.9)	52.8	(1.2)	33.4	(1.1)	74.8	(0.8)	59.9	(1.1)	73.6	(0.8)
	Slovenia	65.7	(1.0)	56.4	(0.9)	36.9	(0.9)	81.1	(0.8)	60.6	(1.0)	58.8	(0.9)
	Spain	74.4	(0.5)	46.2	(0.8)	64.6	(0.6)	76.4	(0.6)	54.3	(0.7)	45.8	(0.7)
	Sweden	55.7	(0.9)	56.9	(1.0)	31.9	(0.9)	77.2	(0.7)	59.3	(1.1)	49.7	(1.0)
	Switzerland	53.7	(0.9)	54.1	(1.0)	69.3	(0.8)	69.9	(0.8)	61.1	(1.0)	48.5	(0.9)
	Turkey	66.0	(0.8)	45.0	(0.9)	59.4	(0.8)	83.7	(0.9)	50.3	(1.2)	58.1	(0.9)
	United Kingdom	54.8	(0.9)	43.6	(1.1)	39.2	(0.9)	60.8	(0.9)	43.8	(0.9)	39.0	(0.9)
	United States	45.6	(1.1)	45.5	(1.2)	32.4	(0.9)	57.1	(0.9)	47.3	(1.2)	35.5	(1.0)
	OECD average	57.8	(0.2)	47.8	(0.2)	45.9	(0.2)	70.8	(0.1)	53.3	(0.2)	48.6	(0.2)
Partners	**Albania**	76.5	(1.1)	32.3	(0.9)	63.6	(1.0)	84.4	(1.1)	33.0	(1.2)	70.9	(1.2)
	Argentina	67.1	(1.0)	47.4	(1.4)	67.3	(1.0)	78.4	(0.8)	57.6	(1.1)	48.9	(1.1)
	Brazil	60.1	(0.6)	37.2	(0.6)	51.7	(0.6)	82.9	(0.5)	45.8	(0.7)	54.5	(0.6)
	Bulgaria	81.0	(0.7)	53.1	(1.3)	49.7	(1.1)	89.0	(0.5)	54.7	(1.2)	85.2	(0.5)
	Colombia	68.0	(0.9)	43.9	(1.0)	60.4	(1.1)	57.0	(0.8)	51.4	(1.1)	49.0	(1.2)
	Costa Rica	62.1	(1.0)	43.5	(1.2)	61.2	(1.0)	72.6	(1.0)	46.1	(1.2)	30.8	(1.0)
	Croatia	62.7	(1.0)	53.1	(1.3)	75.6	(0.8)	83.9	(0.6)	53.6	(1.1)	63.5	(1.0)
	Cyprus*	56.2	(0.7)	50.7	(0.9)	60.0	(0.9)	73.2	(0.8)	58.7	(0.9)	47.3	(0.8)
	Hong Kong-China	56.4	(1.1)	38.6	(0.9)	25.1	(0.9)	60.7	(1.1)	41.3	(1.0)	22.2	(0.7)
	Indonesia	79.4	(0.9)	42.9	(1.0)	62.6	(1.2)	81.5	(0.7)	55.6	(1.1)	59.4	(1.0)
	Jordan	63.3	(0.8)	51.3	(1.2)	61.2	(0.9)	76.6	(0.9)	48.4	(1.1)	65.5	(0.9)
	Kazakhstan	41.8	(1.3)	20.6	(1.0)	29.1	(1.1)	60.4	(1.2)	21.8	(1.0)	43.0	(1.2)
	Latvia	60.0	(1.2)	53.8	(1.4)	45.4	(1.3)	85.2	(0.9)	48.1	(1.1)	76.7	(1.0)
	Liechtenstein	47.4	(3.3)	54.2	(3.5)	58.9	(3.1)	62.2	(3.5)	61.8	(3.7)	48.6	(3.2)
	Lithuania	67.7	(0.8)	48.4	(1.1)	31.1	(0.8)	74.5	(0.7)	55.8	(1.1)	72.2	(0.8)
	Macao-China	54.5	(0.9)	39.9	(0.8)	38.5	(0.9)	59.1	(0.8)	57.6	(0.7)	39.2	(0.8)
	Malaysia	53.9	(1.0)	31.1	(0.9)	48.6	(0.9)	62.8	(0.9)	39.5	(1.0)	44.9	(0.9)
	Montenegro	57.6	(1.1)	43.2	(1.0)	50.3	(0.8)	80.3	(0.6)	40.4	(0.9)	68.3	(0.8)
	Peru	60.1	(0.9)	53.1	(1.1)	41.2	(0.9)	80.0	(0.8)	53.2	(0.9)	37.6	(1.0)
	Qatar	55.2	(0.6)	46.9	(0.6)	49.5	(0.6)	63.1	(0.6)	50.3	(0.6)	52.7	(0.6)
	Romania	68.9	(1.0)	48.6	(1.1)	62.1	(0.9)	78.5	(0.9)	57.3	(1.3)	64.8	(0.9)
	Russian Federation	65.4	(0.9)	31.1	(1.0)	25.5	(1.0)	79.3	(0.9)	40.2	(1.3)	55.7	(0.8)
	Serbia	63.4	(1.0)	45.3	(1.3)	42.7	(1.0)	86.1	(0.7)	44.3	(1.2)	66.6	(1.0)
	Shanghai-China	50.4	(0.9)	34.7	(0.9)	24.4	(0.8)	52.5	(1.1)	40.6	(0.9)	32.7	(0.7)
	Singapore	50.2	(0.8)	30.5	(0.7)	31.2	(0.8)	57.0	(0.8)	35.4	(0.8)	37.0	(0.9)
	Chinese Taipei	57.4	(0.7)	32.2	(0.8)	32.7	(1.0)	41.2	(0.9)	42.6	(0.9)	42.8	(1.0)
	Thailand	75.4	(0.8)	44.1	(0.9)	48.0	(1.0)	50.3	(1.1)	38.3	(1.1)	39.5	(1.0)
	Tunisia	62.1	(1.1)	54.8	(0.9)	65.6	(0.8)	69.1	(1.1)	56.8	(1.1)	60.7	(0.9)
	United Arab Emirates	56.6	(0.8)	43.5	(0.7)	51.2	(0.8)	70.8	(0.8)	43.0	(0.7)	53.2	(0.8)
	Uruguay	65.3	(0.9)	48.9	(1.0)	62.5	(1.0)	76.7	(0.8)	46.3	(1.1)	65.9	(0.9)
	Viet Nam	72.8	(0.9)	34.1	(0.9)	78.8	(1.0)	83.8	(0.8)	41.5	(1.1)	37.5	(1.0)

* See notes at the beginning of this Annex.
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[Part 2/3]
Table III.3.3a Students' self-responsibility for failing in mathematics
Percentage of students who reported "agree" or "strongly agree"

		Percentage of boys who agreed with the following statements:											
		I'm not very good at solving mathematics problems		My teacher did not explain the concepts well this week		This week I made bad guesses on the quiz		Sometimes the course material is too hard		The teacher did not get students interested in the material		Sometimes I am just unlucky	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	44.2	(0.7)	43.6	(0.8)	34.9	(0.8)	50.3	(0.9)	48.7	(0.8)	38.0	(0.9)
	Austria	43.0	(1.2)	51.9	(1.4)	57.1	(1.3)	58.8	(1.4)	59.2	(1.4)	55.6	(1.6)
	Belgium	55.7	(1.1)	39.8	(1.1)	51.0	(1.1)	67.7	(1.0)	59.5	(1.2)	56.4	(0.9)
	Canada	43.9	(1.0)	43.6	(0.9)	44.7	(0.8)	51.6	(1.0)	53.3	(1.0)	38.8	(0.9)
	Chile	65.2	(1.1)	44.7	(1.3)	40.8	(1.2)	76.1	(1.1)	54.0	(1.5)	42.5	(1.4)
	Czech Republic	62.4	(1.5)	49.8	(1.5)	33.9	(1.6)	75.7	(1.2)	65.2	(1.3)	79.6	(1.6)
	Denmark	42.3	(1.5)	46.6	(1.2)	35.2	(1.2)	49.9	(1.5)	50.0	(1.4)	51.5	(1.1)
	Estonia	57.3	(1.5)	48.5	(1.6)	55.8	(1.4)	80.4	(1.0)	55.3	(1.6)	65.7	(1.3)
	Finland	46.9	(1.1)	46.3	(1.3)	28.4	(1.2)	61.3	(1.4)	53.6	(1.4)	44.2	(1.0)
	France	59.0	(1.2)	50.8	(1.5)	78.3	(1.2)	71.3	(1.1)	65.3	(1.3)	49.7	(1.3)
	Germany	43.2	(1.3)	53.2	(1.6)	58.2	(1.3)	59.3	(1.4)	59.7	(1.3)	49.6	(1.5)
	Greece	54.8	(1.3)	50.0	(1.5)	65.9	(1.0)	76.2	(1.3)	58.3	(1.4)	56.7	(1.1)
	Hungary	55.4	(1.5)	43.5	(1.3)	37.6	(1.4)	72.1	(1.3)	57.3	(1.6)	52.7	(1.7)
	Iceland	45.2	(1.4)	36.6	(1.4)	29.1	(1.4)	53.5	(1.5)	41.7	(1.3)	42.0	(1.5)
	Ireland	46.0	(1.4)	44.6	(1.5)	39.1	(1.1)	66.5	(1.2)	52.5	(1.5)	38.8	(1.1)
	Israel	45.1	(1.6)	53.1	(1.3)	60.5	(1.5)	66.0	(1.5)	55.2	(1.6)	40.3	(1.3)
	Italy	64.6	(0.6)	56.2	(0.8)	41.9	(0.7)	71.5	(0.7)	59.5	(0.8)	44.2	(0.8)
	Japan	48.7	(1.1)	26.1	(1.0)	24.8	(1.2)	61.2	(1.1)	24.6	(1.1)	24.3	(1.1)
	Korea	43.9	(1.3)	20.6	(1.0)	50.1	(1.1)	52.1	(1.1)	49.6	(1.4)	43.7	(1.2)
	Luxembourg	45.4	(1.3)	48.7	(1.2)	53.6	(1.1)	57.9	(1.2)	57.6	(1.2)	52.6	(1.4)
	Mexico	60.1	(0.7)	42.9	(0.8)	33.3	(0.6)	66.5	(0.6)	47.9	(0.8)	30.3	(0.7)
	Netherlands	42.1	(1.2)	46.3	(1.3)	28.7	(1.3)	67.0	(1.4)	48.4	(1.5)	65.8	(1.7)
	New Zealand	44.4	(1.4)	44.4	(1.3)	35.8	(1.4)	52.7	(1.3)	49.1	(1.6)	38.7	(1.3)
	Norway	50.8	(1.4)	56.8	(1.2)	33.3	(1.1)	67.2	(1.3)	64.7	(1.3)	61.8	(1.2)
	Poland	48.9	(1.6)	42.3	(1.4)	36.8	(1.4)	68.5	(1.4)	49.4	(1.6)	57.4	(1.4)
	Portugal	60.4	(1.6)	47.9	(1.3)	70.7	(1.3)	83.5	(0.9)	58.5	(1.3)	64.8	(1.3)
	Slovak Republic	60.1	(1.2)	49.9	(1.4)	37.3	(1.4)	71.8	(1.1)	61.5	(1.3)	72.9	(1.2)
	Slovenia	59.5	(1.3)	55.3	(1.4)	38.3	(1.4)	76.3	(1.2)	61.8	(1.3)	60.4	(1.2)
	Spain	69.0	(0.8)	46.7	(1.2)	62.7	(0.8)	73.0	(0.9)	57.6	(1.1)	49.0	(0.9)
	Sweden	47.5	(1.3)	50.2	(1.4)	29.8	(1.1)	70.1	(1.2)	55.7	(1.5)	51.1	(1.5)
	Switzerland	46.0	(1.2)	50.4	(1.3)	62.6	(1.2)	61.2	(1.2)	60.2	(1.4)	49.8	(1.1)
	Turkey	64.5	(1.1)	48.5	(1.2)	59.4	(1.0)	81.6	(1.3)	53.4	(1.3)	63.4	(1.0)
	United Kingdom	46.0	(1.3)	41.6	(1.5)	37.9	(1.3)	54.5	(1.2)	45.4	(1.2)	41.0	(1.5)
	United States	40.4	(1.3)	42.5	(1.3)	30.9	(1.2)	52.3	(1.2)	48.7	(1.6)	38.0	(1.5)
	OECD average	51.5	(0.2)	46.0	(0.2)	44.7	(0.2)	65.5	(0.2)	54.2	(0.2)	50.3	(0.2)
Partners	Albania	76.1	(1.3)	34.2	(1.4)	63.7	(1.8)	84.2	(1.8)	34.1	(1.7)	71.0	(1.5)
	Argentina	63.1	(1.6)	48.3	(1.8)	65.3	(1.6)	76.0	(1.3)	58.7	(1.6)	50.6	(1.7)
	Brazil	55.0	(1.0)	37.8	(0.9)	52.5	(0.8)	79.5	(0.7)	48.4	(0.9)	56.2	(1.0)
	Bulgaria	79.0	(0.9)	53.7	(1.4)	53.3	(1.6)	85.4	(0.8)	57.1	(1.3)	82.4	(0.8)
	Colombia	64.4	(1.2)	44.6	(1.5)	58.7	(1.3)	58.1	(1.3)	54.0	(1.3)	50.2	(1.5)
	Costa Rica	55.6	(1.7)	42.1	(1.5)	61.2	(1.3)	67.4	(1.4)	48.3	(1.5)	33.6	(1.5)
	Croatia	58.5	(1.3)	50.3	(1.4)	69.3	(1.2)	80.5	(1.0)	53.3	(1.5)	66.3	(1.2)
	Cyprus*	50.6	(1.1)	49.6	(1.2)	56.9	(1.4)	68.8	(1.3)	57.9	(1.3)	50.8	(1.0)
	Hong Kong-China	51.0	(1.4)	40.2	(1.2)	25.1	(1.1)	54.9	(1.4)	43.0	(1.4)	24.8	(1.0)
	Indonesia	76.6	(1.2)	44.2	(1.2)	62.3	(1.3)	80.5	(1.1)	55.6	(1.3)	59.9	(1.2)
	Jordan	61.2	(1.2)	53.6	(1.6)	58.1	(1.1)	69.6	(1.1)	51.2	(1.4)	64.4	(1.3)
	Kazakhstan	44.6	(1.6)	24.3	(1.2)	30.5	(1.3)	59.0	(1.5)	25.5	(1.3)	44.6	(1.2)
	Latvia	58.4	(1.7)	50.2	(1.9)	47.9	(1.7)	81.1	(1.3)	50.2	(1.3)	76.5	(1.3)
	Liechtenstein	41.6	(5.1)	52.7	(4.9)	50.4	(4.3)	50.9	(5.1)	59.7	(4.8)	47.3	(4.8)
	Lithuania	65.0	(1.3)	47.3	(1.4)	35.7	(1.3)	70.6	(1.0)	58.2	(1.4)	70.4	(1.0)
	Macao-China	47.4	(1.3)	40.4	(1.1)	38.9	(1.3)	54.9	(1.1)	58.4	(1.1)	43.1	(1.2)
	Malaysia	53.0	(1.4)	34.6	(1.1)	50.4	(1.2)	62.4	(1.4)	41.5	(1.3)	45.9	(1.4)
	Montenegro	54.9	(1.5)	41.2	(1.5)	50.1	(1.3)	75.8	(1.1)	40.3	(1.3)	69.3	(1.3)
	Peru	57.8	(1.4)	52.7	(1.3)	43.0	(1.4)	79.3	(1.2)	53.9	(1.2)	40.5	(1.5)
	Qatar	56.1	(0.7)	51.2	(0.8)	51.8	(0.9)	62.2	(0.9)	53.8	(0.7)	56.5	(0.8)
	Romania	68.5	(1.3)	50.8	(1.5)	61.3	(1.3)	78.1	(1.0)	59.2	(1.6)	64.0	(1.4)
	Russian Federation	60.8	(1.6)	28.9	(1.3)	27.2	(1.2)	75.7	(1.1)	40.4	(1.6)	57.4	(1.2)
	Serbia	60.3	(1.5)	44.0	(1.5)	45.0	(1.3)	84.0	(0.9)	43.4	(1.5)	67.9	(1.2)
	Shanghai-China	44.4	(1.1)	33.7	(1.1)	25.5	(1.2)	47.8	(1.2)	40.1	(1.3)	34.3	(1.2)
	Singapore	46.0	(1.1)	30.9	(1.0)	33.4	(1.1)	55.4	(1.0)	39.1	(1.2)	41.4	(1.2)
	Chinese Taipei	50.6	(1.1)	33.1	(1.2)	35.2	(1.2)	39.5	(1.1)	43.7	(1.3)	44.4	(1.5)
	Thailand	72.8	(1.3)	48.1	(1.3)	52.9	(1.3)	54.5	(1.5)	46.4	(1.6)	47.5	(1.4)
	Tunisia	61.5	(1.5)	57.2	(1.5)	64.9	(1.6)	66.9	(1.4)	58.2	(1.5)	62.0	(1.3)
	United Arab Emirates	54.7	(1.1)	45.9	(1.0)	52.6	(1.1)	69.2	(1.1)	46.7	(1.2)	58.5	(1.1)
	Uruguay	59.7	(1.3)	47.1	(1.4)	61.4	(1.3)	73.3	(1.3)	48.2	(1.5)	66.4	(1.6)
	Viet Nam	69.6	(1.2)	33.2	(1.3)	76.8	(1.3)	80.7	(1.0)	39.4	(1.5)	38.1	(1.5)

* See notes at the beginning of this Annex.
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[Part 3/3]

Table III.3.3a Students' self-responsibility for failing in mathematics

Percentage of students who reported "agree" or "strongly agree"

		Percentage of girls who agreed with the following statements:											
		I'm not very good at solving mathematics problems		My teacher did not explain the concepts well this week		This week I made bad guesses on the quiz		Sometimes the course material is too hard		The teacher did not get students interested in the material		Sometimes I am just unlucky	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	60.2	(0.8)	50.4	(0.9)	40.9	(0.9)	64.0	(0.9)	48.8	(1.0)	37.3	(0.9)
	Austria	56.4	(1.2)	57.8	(1.5)	66.9	(1.4)	72.0	(1.3)	64.4	(1.4)	52.7	(1.3)
	Belgium	68.7	(0.9)	40.3	(1.1)	52.2	(1.1)	78.0	(1.0)	49.8	(1.3)	51.4	(1.1)
	Canada	56.4	(0.9)	48.3	(1.0)	47.1	(0.8)	64.1	(0.9)	50.2	(1.0)	34.7	(0.8)
	Chile	75.5	(1.0)	45.4	(1.4)	42.2	(1.3)	82.6	(0.9)	50.2	(1.6)	36.4	(1.3)
	Czech Republic	72.8	(1.2)	54.2	(1.9)	34.1	(1.5)	86.2	(1.0)	64.0	(1.7)	79.9	(1.0)
	Denmark	59.4	(1.4)	48.7	(1.4)	40.3	(1.4)	61.9	(1.4)	50.5	(1.5)	51.9	(1.5)
	Estonia	69.0	(1.6)	58.2	(1.5)	56.5	(1.3)	87.8	(0.8)	55.7	(1.6)	58.9	(1.6)
	Finland	61.2	(1.2)	53.6	(1.4)	29.7	(1.2)	76.4	(1.1)	53.0	(1.3)	38.2	(1.3)
	France	74.8	(1.2)	52.5	(1.5)	85.7	(0.9)	82.3	(1.0)	65.0	(1.4)	46.6	(1.1)
	Germany	56.5	(1.4)	59.6	(1.5)	72.9	(1.3)	75.5	(1.4)	62.2	(1.5)	50.2	(1.6)
	Greece	66.9	(1.2)	55.8	(1.3)	74.1	(1.3)	86.9	(0.9)	61.1	(1.4)	50.9	(1.1)
	Hungary	70.1	(1.4)	47.6	(1.6)	36.0	(1.3)	86.2	(0.8)	52.0	(1.9)	53.7	(1.4)
	Iceland	53.9	(1.6)	44.9	(1.5)	28.2	(1.3)	65.8	(1.6)	40.3	(1.6)	36.5	(1.6)
	Ireland	61.9	(1.3)	46.2	(1.2)	42.9	(1.0)	77.3	(1.0)	49.4	(1.4)	36.4	(1.3)
	Israel	56.3	(1.2)	53.9	(1.6)	64.9	(1.2)	80.2	(1.0)	51.6	(1.3)	43.5	(1.0)
	Italy	77.1	(0.7)	61.8	(0.7)	38.3	(0.7)	81.2	(0.5)	59.9	(0.8)	36.2	(0.7)
	Japan	61.7	(1.2)	22.7	(1.0)	19.6	(0.9)	66.8	(1.2)	19.8	(1.0)	18.3	(0.8)
	Korea	50.5	(1.1)	16.8	(0.9)	45.9	(1.5)	51.2	(1.5)	44.5	(1.2)	32.2	(1.5)
	Luxembourg	61.3	(1.2)	53.2	(1.2)	67.2	(1.1)	75.6	(1.1)	59.1	(1.2)	54.4	(1.3)
	Mexico	64.9	(0.7)	41.3	(0.8)	27.7	(0.6)	68.2	(0.6)	42.7	(0.7)	25.3	(0.6)
	Netherlands	58.8	(2.1)	48.7	(1.6)	35.1	(1.5)	81.7	(1.1)	43.6	(1.7)	69.0	(1.5)
	New Zealand	60.4	(1.5)	50.0	(1.7)	37.8	(1.3)	64.8	(1.3)	49.9	(1.2)	32.8	(1.3)
	Norway	65.6	(1.3)	69.3	(1.4)	35.1	(1.2)	81.5	(1.0)	67.2	(1.3)	58.0	(1.2)
	Poland	60.1	(1.5)	43.0	(1.5)	29.5	(1.4)	78.2	(1.3)	42.7	(1.6)	55.5	(1.5)
	Portugal	71.3	(1.0)	48.9	(1.6)	73.4	(1.2)	90.5	(0.8)	57.0	(1.5)	59.4	(1.5)
	Slovak Republic	66.9	(1.4)	55.9	(1.6)	29.4	(1.5)	78.0	(1.1)	58.2	(1.5)	74.5	(1.1)
	Slovenia	72.2	(1.3)	57.6	(1.5)	35.5	(1.1)	86.2	(1.0)	59.3	(1.4)	57.2	(1.3)
	Spain	79.9	(0.7)	45.8	(1.2)	66.6	(1.1)	79.8	(0.7)	51.0	(1.1)	42.6	(1.0)
	Sweden	63.5	(1.1)	63.3	(1.2)	34.0	(1.3)	84.0	(0.9)	62.7	(1.4)	48.4	(1.3)
	Switzerland	61.2	(1.3)	57.8	(1.5)	75.7	(0.9)	78.3	(0.9)	62.0	(1.2)	47.2	(1.1)
	Turkey	67.6	(1.2)	41.4	(1.3)	59.3	(1.3)	85.9	(0.9)	47.2	(1.6)	52.9	(1.3)
	United Kingdom	63.2	(1.2)	45.5	(1.2)	40.3	(1.2)	66.8	(1.2)	42.2	(1.2)	37.0	(1.0)
	United States	50.7	(1.5)	48.4	(1.8)	33.9	(1.3)	61.8	(1.3)	45.8	(1.5)	33.0	(1.5)
	OECD average	64.0	(0.2)	49.7	(0.2)	47.0	(0.2)	76.1	(0.2)	52.4	(0.2)	46.9	(0.2)
Partners	**Albania**	77.0	(1.4)	30.3	(1.3)	63.5	(1.6)	84.7	(1.0)	31.9	(1.3)	70.8	(1.6)
	Argentina	70.8	(1.4)	46.6	(1.6)	69.1	(1.2)	80.5	(0.9)	56.7	(1.2)	47.3	(1.7)
	Brazil	64.6	(0.7)	36.6	(0.9)	50.9	(0.9)	85.9	(0.6)	43.6	(0.9)	53.0	(0.8)
	Bulgaria	83.2	(1.0)	52.4	(1.7)	45.8	(1.3)	92.9	(0.6)	52.0	(1.6)	88.2	(0.8)
	Colombia	71.0	(1.2)	43.3	(1.2)	61.9	(1.4)	56.0	(1.2)	49.2	(1.6)	47.9	(1.5)
	Costa Rica	68.0	(1.4)	44.7	(1.8)	61.2	(1.5)	77.4	(1.2)	44.1	(1.7)	28.2	(1.3)
	Croatia	67.0	(1.3)	55.9	(1.8)	81.9	(1.1)	87.3	(0.8)	53.9	(1.6)	60.7	(1.6)
	Cyprus*	62.0	(1.2)	51.9	(1.4)	63.1	(1.2)	77.7	(1.0)	59.5	(1.4)	43.6	(1.4)
	Hong Kong-China	62.4	(1.6)	36.8	(1.6)	25.0	(1.3)	67.2	(1.6)	39.4	(1.5)	19.3	(1.0)
	Indonesia	82.2	(1.0)	41.7	(1.6)	62.9	(1.6)	82.6	(0.8)	55.6	(1.6)	58.9	(1.2)
	Jordan	65.3	(1.1)	49.2	(1.7)	64.1	(1.4)	83.1	(1.1)	45.9	(1.5)	66.5	(1.0)
	Kazakhstan	38.9	(1.5)	16.8	(1.2)	27.6	(1.3)	61.8	(1.6)	18.1	(1.2)	41.4	(1.7)
	Latvia	61.6	(1.8)	57.5	(1.7)	42.9	(1.7)	89.4	(1.0)	45.9	(1.4)	76.9	(1.4)
	Liechtenstein	53.4	(4.6)	55.8	(4.9)	67.5	(4.0)	73.8	(4.3)	64.0	(5.3)	50.0	(4.9)
	Lithuania	70.5	(1.1)	49.5	(1.4)	26.4	(1.0)	78.4	(1.1)	53.4	(1.3)	74.0	(1.3)
	Macao-China	62.2	(1.2)	39.3	(1.1)	38.1	(1.3)	63.8	(1.1)	56.7	(1.0)	35.0	(1.3)
	Malaysia	54.6	(1.3)	28.1	(1.2)	46.9	(1.2)	63.1	(1.1)	37.7	(1.4)	44.0	(1.2)
	Montenegro	60.2	(1.4)	45.0	(1.4)	50.4	(1.3)	84.7	(0.9)	40.5	(1.3)	67.4	(1.2)
	Peru	62.3	(1.2)	53.5	(1.5)	39.5	(1.3)	80.6	(1.0)	52.4	(1.4)	34.9	(1.3)
	Qatar	54.3	(0.9)	42.7	(0.9)	47.2	(0.9)	64.0	(0.8)	46.8	(0.8)	48.9	(0.9)
	Romania	69.3	(1.2)	46.6	(1.5)	62.9	(1.2)	79.0	(1.2)	55.4	(1.6)	65.7	(1.1)
	Russian Federation	70.0	(1.1)	33.3	(1.4)	23.9	(1.2)	82.9	(1.2)	40.1	(1.8)	53.9	(1.2)
	Serbia	66.5	(1.4)	46.6	(1.6)	40.5	(1.4)	88.2	(0.9)	45.2	(1.5)	65.3	(1.6)
	Shanghai-China	56.3	(1.3)	35.6	(1.3)	23.4	(1.0)	56.9	(1.5)	41.0	(1.3)	31.1	(1.0)
	Singapore	54.5	(1.1)	30.0	(1.0)	29.0	(1.0)	58.8	(1.1)	31.5	(1.1)	32.4	(1.1)
	Chinese Taipei	64.1	(1.2)	31.3	(1.1)	30.2	(1.3)	42.9	(1.2)	41.6	(1.3)	41.3	(1.2)
	Thailand	77.5	(1.0)	40.9	(1.2)	44.1	(1.3)	46.9	(1.3)	31.8	(1.2)	33.2	(1.2)
	Tunisia	62.6	(1.3)	52.7	(1.3)	66.2	(1.2)	71.1	(1.3)	55.6	(1.6)	59.6	(1.2)
	United Arab Emirates	58.4	(1.3)	41.3	(1.3)	49.8	(1.2)	72.3	(1.1)	39.5	(1.0)	48.3	(1.2)
	Uruguay	70.0	(1.2)	50.4	(1.3)	63.5	(1.2)	79.6	(1.0)	44.7	(1.3)	65.5	(1.2)
	Viet Nam	75.4	(1.2)	34.8	(1.2)	80.6	(1.2)	86.4	(0.9)	43.3	(1.5)	36.9	(1.3)

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.3.3b

Index of self-responsibility for failing in mathematics and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Index of self-responsibility for failing in mathematics:																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	Australia	-0.24	(0.01)	1.06	(0.02)	-0.38	(0.02)	-0.09	(0.02)	**-0.29**	(0.03)	-1.51	(0.03)	-0.48	(0.01)	0.06	(0.02)	0.97	(0.02)
	Austria	0.15	(0.02)	0.92	(0.02)	0.02	(0.02)	0.27	(0.02)	**-0.25**	(0.03)	-0.95	(0.03)	-0.04	(0.02)	0.40	(0.02)	1.20	(0.03)
	Belgium	0.05	(0.01)	0.90	(0.02)	0.00	(0.02)	0.09	(0.02)	**-0.09**	(0.03)	-1.02	(0.02)	-0.18	(0.02)	0.29	(0.01)	1.11	(0.02)
	Canada	-0.20	(0.02)	1.09	(0.01)	-0.30	(0.02)	-0.10	(0.02)	**-0.20**	(0.03)	-1.53	(0.03)	-0.41	(0.02)	0.11	(0.01)	1.03	(0.02)
	Chile	0.04	(0.02)	0.96	(0.02)	0.00	(0.03)	0.09	(0.03)	**-0.09**	(0.04)	-1.08	(0.03)	-0.19	(0.02)	0.28	(0.02)	1.17	(0.03)
	Czech Republic	0.30	(0.02)	0.80	(0.02)	0.23	(0.03)	0.37	(0.03)	**-0.14**	(0.04)	-0.60	(0.03)	0.06	(0.01)	0.47	(0.02)	1.27	(0.04)
	Denmark	-0.15	(0.02)	0.88	(0.02)	-0.27	(0.03)	-0.04	(0.02)	**-0.24**	(0.04)	-1.25	(0.03)	-0.33	(0.02)	0.11	(0.02)	0.85	(0.03)
	Estonia	0.24	(0.02)	0.83	(0.02)	0.18	(0.03)	0.29	(0.02)	**-0.11**	(0.03)	-0.71	(0.04)	0.06	(0.01)	0.44	(0.02)	1.15	(0.03)
	Finland	-0.12	(0.02)	0.95	(0.02)	-0.21	(0.03)	-0.03	(0.03)	**-0.18**	(0.03)	-1.21	(0.02)	-0.38	(0.03)	0.10	(0.02)	1.00	(0.04)
	France	0.32	(0.02)	0.86	(0.03)	0.25	(0.02)	0.39	(0.02)	**-0.14**	(0.03)	-0.65	(0.04)	0.09	(0.02)	0.50	(0.01)	1.36	(0.04)
	Germany	0.12	(0.02)	0.93	(0.02)	-0.01	(0.03)	0.27	(0.03)	**-0.28**	(0.04)	-0.98	(0.04)	-0.06	(0.02)	0.39	(0.02)	1.15	(0.03)
	Greece	0.35	(0.02)	0.95	(0.03)	0.24	(0.03)	0.46	(0.02)	**-0.22**	(0.03)	-0.73	(0.04)	0.12	(0.02)	0.58	(0.02)	1.45	(0.04)
	Hungary	0.06	(0.02)	0.89	(0.03)	-0.01	(0.04)	0.13	(0.02)	**-0.15**	(0.04)	-0.92	(0.05)	-0.15	(0.02)	0.26	(0.01)	1.08	(0.04)
	Iceland	-0.36	(0.02)	1.18	(0.03)	-0.45	(0.04)	-0.26	(0.03)	**-0.19**	(0.05)	-1.75	(0.04)	-0.61	(0.02)	-0.05	(0.02)	0.99	(0.05)
	Ireland	-0.10	(0.02)	0.96	(0.02)	-0.20	(0.03)	0.00	(0.02)	**-0.19**	(0.03)	-1.24	(0.04)	-0.32	(0.02)	0.15	(0.02)	1.01	(0.03)
	Israel	0.04	(0.02)	1.11	(0.03)	-0.07	(0.03)	0.14	(0.03)	**-0.21**	(0.04)	-1.29	(0.05)	-0.19	(0.02)	0.34	(0.02)	1.29	(0.04)
	Italy	0.10	(0.01)	0.86	(0.01)	0.08	(0.02)	0.13	(0.01)	**-0.06**	(0.02)	-0.88	(0.02)	-0.12	(0.01)	0.30	(0.01)	1.12	(0.02)
	Japan	-0.68	(0.02)	1.20	(0.02)	-0.71	(0.03)	-0.64	(0.03)	-0.07	(0.04)	-2.11	(0.03)	-0.96	(0.02)	-0.38	(0.02)	0.73	(0.04)
	Korea	-0.33	(0.02)	0.90	(0.02)	-0.30	(0.02)	-0.36	(0.02)	0.05	(0.03)	-1.39	(0.03)	-0.55	(0.02)	-0.07	(0.01)	0.69	(0.03)
	Luxembourg	0.10	(0.02)	1.11	(0.02)	-0.05	(0.03)	0.26	(0.02)	**-0.30**	(0.04)	-1.19	(0.04)	-0.11	(0.01)	0.38	(0.02)	1.33	(0.04)
	Mexico	-0.26	(0.01)	1.00	(0.01)	-0.23	(0.02)	-0.29	(0.01)	**0.06**	(0.02)	-1.43	(0.02)	-0.50	(0.01)	-0.03	(0.01)	0.91	(0.02)
	Netherlands	-0.01	(0.02)	0.82	(0.02)	-0.11	(0.02)	0.10	(0.03)	**-0.21**	(0.03)	-0.93	(0.04)	-0.17	(0.01)	0.18	(0.02)	0.88	(0.03)
	New Zealand	-0.23	(0.02)	1.04	(0.03)	-0.34	(0.03)	-0.12	(0.03)	**-0.22**	(0.04)	-1.48	(0.04)	-0.46	(0.02)	0.07	(0.02)	0.96	(0.04)
	Norway	0.16	(0.02)	0.95	(0.02)	0.05	(0.03)	0.27	(0.02)	**-0.21**	(0.03)	-0.87	(0.03)	-0.05	(0.02)	0.34	(0.02)	1.22	(0.04)
	Poland	-0.07	(0.03)	1.06	(0.02)	-0.11	(0.04)	-0.03	(0.03)	-0.08	(0.04)	-1.33	(0.05)	-0.31	(0.02)	0.19	(0.02)	1.18	(0.04)
	Portugal	0.28	(0.02)	0.79	(0.03)	0.25	(0.02)	0.30	(0.02)	-0.05	(0.03)	-0.61	(0.03)	0.07	(0.01)	0.48	(0.01)	1.17	(0.04)
	Slovak Republic	0.21	(0.02)	0.99	(0.03)	0.18	(0.03)	0.25	(0.03)	**-0.07**	(0.04)	-0.93	(0.04)	-0.04	(0.02)	0.44	(0.02)	1.38	(0.05)
	Slovenia	0.19	(0.02)	0.94	(0.02)	0.15	(0.03)	0.23	(0.02)	**-0.08**	(0.04)	-0.86	(0.03)	-0.06	(0.02)	0.41	(0.02)	1.29	(0.03)
	Spain	0.21	(0.01)	0.85	(0.02)	0.20	(0.02)	0.23	(0.02)	-0.03	(0.03)	-0.73	(0.02)	-0.01	(0.01)	0.39	(0.01)	1.22	(0.02)
	Sweden	0.02	(0.02)	0.92	(0.03)	-0.12	(0.03)	0.15	(0.02)	**-0.27**	(0.03)	-1.03	(0.04)	-0.16	(0.01)	0.25	(0.01)	1.02	(0.03)
	Switzerland	0.15	(0.02)	0.90	(0.02)	0.01	(0.03)	0.29	(0.02)	**-0.28**	(0.03)	-0.92	(0.03)	-0.01	(0.01)	0.38	(0.02)	1.14	(0.03)
	Turkey	0.26	(0.02)	1.08	(0.03)	0.31	(0.03)	0.21	(0.03)	**0.10**	(0.04)	-0.99	(0.04)	-0.03	(0.01)	0.50	(0.02)	1.55	(0.04)
	United Kingdom	-0.23	(0.02)	0.96	(0.02)	-0.34	(0.02)	-0.13	(0.02)	**-0.21**	(0.03)	-1.38	(0.03)	-0.46	(0.01)	0.05	(0.02)	0.87	(0.02)
	United States	-0.35	(0.02)	1.17	(0.02)	-0.44	(0.03)	-0.27	(0.03)	**-0.16**	(0.04)	-1.81	(0.05)	-0.56	(0.02)	0.00	(0.02)	0.95	(0.03)
	OECD average	0.00	(0.00)	0.97	(0.00)	-0.07	(0.00)	0.08	(0.00)	**-0.15**	(0.01)	-1.13	(0.01)	-0.22	(0.00)	0.24	(0.00)	1.11	(0.01)
Partners	Albania	0.14	(0.02)	0.84	(0.02)	0.17	(0.03)	0.12	(0.03)	0.05	(0.04)	-0.81	(0.04)	-0.07	(0.02)	0.33	(0.02)	1.13	(0.04)
	Argentina	0.24	(0.03)	1.09	(0.03)	0.21	(0.04)	0.26	(0.03)	-0.06	(0.04)	-1.03	(0.06)	0.01	(0.02)	0.49	(0.02)	1.48	(0.05)
	Brazil	0.08	(0.01)	0.98	(0.01)	0.07	(0.02)	0.09	(0.01)	-0.03	(0.02)	-1.05	(0.02)	-0.17	(0.02)	0.32	(0.01)	1.23	(0.02)
	Bulgaria	0.47	(0.02)	0.99	(0.03)	0.48	(0.03)	0.47	(0.03)	0.01	(0.03)	-0.57	(0.03)	0.19	(0.02)	0.61	(0.02)	1.66	(0.05)
	Colombia	0.01	(0.02)	0.98	(0.02)	0.02	(0.03)	0.00	(0.02)	0.01	(0.04)	-1.15	(0.04)	-0.20	(0.02)	0.25	(0.02)	1.15	(0.03)
	Costa Rica	-0.05	(0.02)	1.01	(0.03)	-0.09	(0.03)	-0.01	(0.03)	-0.08	(0.04)	-1.24	(0.05)	-0.24	(0.02)	0.21	(0.02)	1.08	(0.04)
	Croatia	0.42	(0.02)	0.96	(0.02)	0.35	(0.03)	0.50	(0.03)	**-0.15**	(0.03)	-0.67	(0.03)	0.16	(0.02)	0.62	(0.02)	1.57	(0.04)
	Cyprus*	0.13	(0.02)	1.13	(0.02)	0.05	(0.03)	0.21	(0.03)	**-0.17**	(0.04)	-1.23	(0.05)	-0.07	(0.02)	0.44	(0.02)	1.38	(0.04)
	Hong Kong-China	-0.39	(0.02)	1.01	(0.02)	-0.44	(0.03)	-0.34	(0.03)	**-0.10**	(0.04)	-1.56	(0.03)	-0.66	(0.03)	-0.13	(0.02)	0.79	(0.03)
	Indonesia	0.12	(0.02)	0.91	(0.02)	0.10	(0.02)	0.14	(0.03)	-0.04	(0.03)	-0.95	(0.03)	-0.09	(0.02)	0.38	(0.02)	1.13	(0.03)
	Jordan	0.29	(0.03)	1.26	(0.03)	0.28	(0.04)	0.30	(0.04)	-0.01	(0.05)	-1.14	(0.05)	-0.04	(0.02)	0.53	(0.03)	1.82	(0.06)
	Kazakhstan	-0.67	(0.03)	1.12	(0.02)	-0.61	(0.04)	-0.73	(0.04)	**0.12**	(0.04)	-2.07	(0.06)	-0.92	(0.04)	-0.33	(0.02)	0.64	(0.05)
	Latvia	0.19	(0.02)	0.78	(0.02)	0.19	(0.03)	0.20	(0.02)	-0.01	(0.03)	-0.70	(0.04)	0.02	(0.01)	0.39	(0.02)	1.07	(0.03)
	Liechtenstein	0.12	(0.06)	0.79	(0.06)	-0.06	(0.08)	0.30	(0.08)	**-0.35**	(0.11)	-0.84	(0.10)	-0.04	(0.06)	0.30	(0.06)	1.07	(0.10)
	Lithuania	0.17	(0.02)	1.00	(0.02)	0.13	(0.03)	0.20	(0.02)	**-0.07**	(0.03)	-1.02	(0.04)	-0.09	(0.02)	0.42	(0.02)	1.36	(0.03)
	Macao-China	-0.12	(0.02)	0.98	(0.02)	-0.16	(0.03)	-0.07	(0.02)	**-0.09**	(0.03)	-1.28	(0.04)	-0.36	(0.02)	0.14	(0.01)	1.04	(0.03)
	Malaysia	-0.16	(0.02)	0.94	(0.02)	-0.15	(0.02)	-0.18	(0.02)	0.03	(0.03)	-1.26	(0.03)	-0.43	(0.02)	0.08	(0.02)	0.95	(0.03)
	Montenegro	0.07	(0.02)	1.08	(0.02)	0.00	(0.03)	0.15	(0.02)	**-0.15**	(0.04)	-1.20	(0.04)	-0.15	(0.02)	0.36	(0.02)	1.28	(0.03)
	Peru	0.03	(0.02)	0.90	(0.02)	0.04	(0.03)	0.01	(0.02)	0.03	(0.03)	-1.01	(0.03)	-0.21	(0.01)	0.22	(0.01)	1.10	(0.04)
	Qatar	-0.03	(0.02)	1.44	(0.02)	0.07	(0.02)	-0.13	(0.02)	**0.20**	(0.03)	-1.77	(0.04)	-0.32	(0.01)	0.35	(0.01)	1.61	(0.03)
	Romania	0.34	(0.03)	0.99	(0.02)	0.34	(0.03)	0.33	(0.03)	0.02	(0.04)	-0.79	(0.04)	0.06	(0.03)	0.54	(0.02)	1.53	(0.04)
	Russian Federation	-0.14	(0.02)	0.86	(0.02)	-0.16	(0.03)	-0.12	(0.03)	-0.04	(0.04)	-1.12	(0.04)	-0.35	(0.02)	0.06	(0.02)	0.85	(0.04)
	Serbia	0.20	(0.02)	1.03	(0.02)	0.17	(0.03)	0.23	(0.03)	-0.06	(0.04)	-0.99	(0.03)	-0.05	(0.02)	0.42	(0.02)	1.41	(0.04)
	Shanghai-China	-0.49	(0.02)	1.05	(0.02)	-0.59	(0.03)	-0.40	(0.03)	**-0.19**	(0.04)	-1.76	(0.03)	-0.73	(0.02)	-0.17	(0.03)	0.70	(0.03)
	Singapore	-0.48	(0.02)	1.07	(0.02)	-0.48	(0.02)	-0.49	(0.02)	0.01	(0.03)	-1.82	(0.03)	-0.72	(0.02)	-0.12	(0.02)	0.73	(0.03)
	Chinese Taipei	-0.39	(0.03)	1.31	(0.02)	-0.43	(0.04)	-0.35	(0.03)	-0.08	(0.04)	-1.94	(0.04)	-0.73	(0.03)	-0.07	(0.02)	1.19	(0.04)
	Thailand	-0.21	(0.02)	1.05	(0.02)	-0.09	(0.03)	-0.31	(0.03)	**0.22**	(0.03)	-1.50	(0.03)	-0.52	(0.02)	0.12	(0.03)	1.05	(0.04)
	Tunisia	0.30	(0.02)	1.06	(0.02)	0.29	(0.04)	0.32	(0.03)	-0.03	(0.04)	-0.93	(0.04)	0.02	(0.02)	0.56	(0.02)	1.57	(0.04)
	United Arab Emirates	-0.01	(0.02)	1.17	(0.02)	0.05	(0.03)	-0.07	(0.03)	**0.12**	(0.05)	-1.41	(0.03)	-0.28	(0.01)	0.29	(0.02)	1.35	(0.04)
	Uruguay	0.24	(0.02)	1.03	(0.02)	0.22	(0.03)	0.26	(0.02)	-0.05	(0.04)	-0.91	(0.04)	-0.01	(0.02)	0.44	(0.02)	1.45	(0.04)
	Viet Nam	0.10	(0.01)	0.63	(0.01)	0.04	(0.02)	0.14	(0.02)	**-0.10**	(0.02)	-0.66	(0.02)	-0.10	(0.02)	0.26	(0.01)	0.88	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.3.3b Index of self-responsibility for failing in mathematics and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	Australia	**533**	(3.1)	521	(2.9)	502	(2.3)	**474**	(2.9)	**-19.8**	(1.3)	0.7	(0.0)	4.9	(0.6)
	Austria	**514**	(4.3)	516	(4.5)	511	(4.3)	**497**	(4.0)	**-7.3**	(1.6)	1.0	(0.1)	0.6	(0.2)
	Belgium	**541**	(4.0)	531	(3.2)	519	(3.5)	**493**	(3.7)	**-18.4**	(2.0)	0.8	(0.1)	2.8	(0.6)
	Canada	**538**	(3.1)	532	(3.3)	521	(3.0)	**494**	(2.8)	**-14.3**	(1.1)	0.7	(0.1)	3.2	(0.5)
	Chile	**448**	(4.6)	433	(3.7)	417	(3.8)	**399**	(3.8)	**-18.8**	(1.9)	0.6	(0.1)	5.1	(1.0)
	Czech Republic	**531**	(4.9)	513	(4.8)	500	(3.9)	**472**	(4.8)	**-25.1**	(3.2)	0.6	(0.1)	5.0	(1.2)
	Denmark	**524**	(3.4)	506	(4.2)	496	(4.0)	**481**	(3.8)	**-18.3**	(2.1)	0.6	(0.1)	4.0	(0.9)
	Estonia	**531**	(4.2)	526	(3.9)	524	(3.2)	**507**	(3.3)	**-12.7**	(2.1)	0.9	(0.1)	1.7	(0.6)
	Finland	**548**	(3.5)	530	(3.4)	517	(3.3)	**497**	(3.6)	**-19.5**	(1.8)	0.6	(0.1)	5.0	(0.9)
	France	**511**	(5.5)	514	(4.8)	499	(3.8)	**472**	(3.8)	**-15.6**	(2.9)	1.0	(0.1)	2.0	(0.7)
	Germany	**538**	(5.1)	533	(4.5)	523	(4.7)	**505**	(5.1)	**-10.1**	(2.5)	0.8	(0.1)	1.0	(0.5)
	Greece	**461**	(4.0)	460	(4.7)	454	(4.8)	**440**	(3.9)	**-8.9**	(1.8)	0.9	(0.1)	0.9	(0.4)
	Hungary	**506**	(4.9)	484	(6.1)	475	(4.5)	**451**	(3.9)	**-22.1**	(2.3)	0.7	(0.1)	4.4	(0.8)
	Iceland	**514**	(4.3)	496	(4.4)	495	(4.2)	**475**	(3.7)	**-11.4**	(1.7)	0.7	(0.1)	2.3	(0.7)
	Ireland	**523**	(3.4)	511	(3.7)	497	(3.7)	**478**	(3.6)	**-16.7**	(2.0)	0.7	(0.1)	3.7	(0.9)
	Israel	**471**	(6.8)	480	(6.6)	479	(5.6)	**450**	(5.1)	-3.2	(2.0)	1.0	(0.1)	0.1	(0.2)
	Italy	**503**	(2.9)	497	(3.1)	484	(2.8)	**461**	(2.5)	**-16.3**	(1.3)	0.8	(0.0)	2.3	(0.4)
	Japan	**555**	(5.1)	544	(4.4)	536	(4.6)	**518**	(5.3)	**-11.8**	(1.3)	0.7	(0.1)	2.3	(0.5)
	Korea	**566**	(6.2)	561	(6.6)	561	(5.4)	**530**	(5.3)	**-12.5**	(2.5)	0.8	(0.1)	1.3	(0.5)
	Luxembourg	**502**	(4.0)	505	(3.4)	493	(4.3)	**471**	(3.3)	**-9.0**	(1.7)	0.9	(0.1)	1.1	(0.4)
	Mexico	**433**	(2.2)	423	(1.8)	412	(1.8)	**389**	(1.9)	**-16.4**	(0.8)	0.6	(0.0)	4.9	(0.4)
	Netherlands	**534**	(5.3)	542	(5.7)	531	(5.5)	**507**	(5.0)	**-11.5**	(3.0)	0.9	(0.1)	1.1	(0.6)
	New Zealand	**530**	(4.4)	511	(4.9)	501	(4.3)	**468**	(4.5)	**-20.8**	(1.6)	0.7	(0.1)	4.9	(0.8)
	Norway	**524**	(5.0)	500	(4.1)	491	(4.0)	**458**	(3.8)	**-25.3**	(2.2)	0.6	(0.1)	7.3	(1.2)
	Poland	**559**	(6.2)	519	(4.8)	506	(4.2)	**487**	(4.3)	**-24.1**	(1.9)	0.4	(0.1)	8.1	(1.1)
	Portugal	**503**	(5.4)	497	(5.3)	482	(4.9)	**472**	(5.0)	**-16.6**	(2.7)	0.8	(0.1)	2.0	(0.6)
	Slovak Republic	**511**	(4.9)	487	(6.2)	482	(4.8)	**456**	(4.8)	**-19.9**	(2.0)	0.6	(0.1)	3.9	(0.7)
	Slovenia	**518**	(4.1)	508	(5.3)	505	(5.0)	**488**	(4.1)	**-12.3**	(2.0)	0.9	(0.1)	1.7	(0.5)
	Spain	**490**	(2.7)	493	(2.9)	487	(2.8)	**476**	(2.6)	**-7.6**	(1.6)	1.0	(0.1)	0.6	(0.2)
	Sweden	**509**	(3.9)	490	(5.1)	480	(4.5)	**452**	(4.1)	**-22.5**	(1.9)	0.6	(0.1)	5.1	(0.8)
	Switzerland	527	(4.6)	542	(4.3)	534	(4.1)	523	(3.9)	-2.1	(1.8)	**1.2**	(0.1)	0.0	(0.1)
	Turkey	**454**	(6.8)	456	(6.8)	449	(6.1)	**435**	(4.7)	**-8.9**	(2.1)	0.9	(0.1)	1.1	(0.5)
	United Kingdom	**510**	(4.7)	504	(5.0)	495	(4.0)	**471**	(4.4)	**-15.5**	(1.8)	0.7	(0.1)	2.6	(0.6)
	United States	**501**	(5.0)	493	(4.9)	482	(5.2)	**457**	(5.0)	**-12.3**	(1.5)	0.7	(0.1)	2.6	(0.6)
	OECD average	**514**	(0.8)	505	(0.8)	495	(0.7)	**474**	(0.7)	**-14.9**	(0.3)	0.8	(0.0)	2.9	(0.1)
Partners	Albania	**388**	(5.4)	395	(4.6)	396	(4.5)	**401**	(3.9)	4.5	(2.8)	1.2	(0.1)	0.2	(0.2)
	Argentina	**400**	(4.9)	397	(4.2)	395	(3.7)	**378**	(4.7)	**-5.9**	(1.8)	0.9	(0.1)	0.8	(0.4)
	Brazil	**400**	(3.4)	402	(2.8)	398	(3.3)	**379**	(2.4)	**-8.6**	(1.0)	0.9	(0.1)	1.2	(0.3)
	Bulgaria	**456**	(5.7)	445	(5.6)	441	(4.7)	**428**	(5.2)	**-13.3**	(2.0)	0.8	(0.1)	2.0	(0.6)
	Colombia	378	(3.9)	384	(4.1)	386	(3.5)	376	(4.1)	-2.0	(1.2)	1.0	(0.1)	0.1	(0.1)
	Costa Rica	409	(4.4)	414	(4.8)	407	(4.9)	403	(4.3)	**-4.6**	(1.8)	1.0	(0.1)	0.5	(0.3)
	Croatia	**474**	(5.8)	479	(4.9)	475	(5.2)	**458**	(4.2)	**-6.3**	(2.0)	1.0	(0.1)	0.5	(0.3)
	Cyprus*	**457**	(3.7)	453	(4.2)	439	(3.5)	**420**	(3.4)	**-10.4**	(1.5)	0.8	(0.1)	1.7	(0.5)
	Hong Kong-China	**591**	(5.2)	572	(5.0)	558	(4.4)	**528**	(5.6)	**-22.2**	(2.3)	0.6	(0.1)	5.4	(1.1)
	Indonesia	375	(4.4)	378	(5.5)	377	(5.2)	374	(4.8)	0.9	(1.5)	1.0	(0.1)	0.0	(0.1)
	Jordan	**406**	(4.2)	397	(4.4)	385	(3.7)	**373**	(3.5)	**-11.2**	(1.0)	0.7	(0.1)	3.6	(0.6)
	Kazakhstan	**441**	(4.4)	437	(4.3)	433	(4.0)	**416**	(4.4)	**-8.6**	(1.7)	0.8	(0.1)	1.8	(0.7)
	Latvia	**503**	(4.5)	488	(4.4)	488	(4.8)	**484**	(4.4)	**-11.8**	(2.0)	0.8	(0.1)	1.3	(0.4)
	Liechtenstein	518	(14.0)	553	(16.1)	529	(20.2)	539	(17.1)	2.0	(10.2)	1.4	(0.4)	0.1	(0.7)
	Lithuania	**494**	(4.1)	489	(4.3)	480	(4.5)	**459**	(4.2)	**-12.7**	(1.9)	0.8	(0.1)	2.0	(0.6)
	Macao-China	**560**	(2.5)	548	(3.5)	534	(3.5)	**517**	(3.5)	**-16.2**	(1.8)	0.6	(0.1)	2.9	(0.6)
	Malaysia	**435**	(4.9)	422	(4.2)	419	(4.3)	**411**	(4.0)	**-10.1**	(1.8)	0.8	(0.1)	1.4	(0.5)
	Montenegro	**424**	(3.9)	415	(3.9)	410	(3.8)	**399**	(3.3)	**-8.2**	(1.6)	0.9	(0.1)	1.2	(0.5)
	Peru	**383**	(4.3)	383	(4.7)	375	(5.5)	**354**	(5.0)	**-13.5**	(2.0)	0.8	(0.1)	2.1	(0.6)
	Qatar	**405**	(2.8)	398	(2.5)	377	(2.9)	**352**	(2.5)	**-12.2**	(0.9)	0.6	(0.1)	3.2	(0.4)
	Romania	**455**	(5.0)	453	(5.0)	445	(4.6)	**433**	(5.2)	**-9.8**	(2.0)	0.8	(0.1)	1.4	(0.6)
	Russian Federation	**502**	(4.0)	492	(5.6)	478	(4.6)	**459**	(3.9)	**-19.5**	(2.0)	0.7	(0.1)	3.8	(0.8)
	Serbia	**459**	(4.5)	459	(5.0)	453	(5.8)	**435**	(5.4)	**-9.0**	(1.8)	0.8	(0.1)	1.1	(0.4)
	Shanghai-China	**639**	(4.8)	626	(4.2)	609	(5.6)	**577**	(5.2)	**-20.8**	(2.1)	0.6	(0.1)	4.7	(0.8)
	Singapore	**596**	(3.5)	592	(4.1)	566	(4.1)	**538**	(3.6)	**-19.6**	(1.7)	0.6	(0.1)	4.0	(0.6)
	Chinese Taipei	**612**	(4.2)	578	(4.9)	554	(5.3)	**499**	(4.7)	**-30.9**	(1.3)	0.3	(0.0)	12.2	(1.0)
	Thailand	**458**	(4.6)	431	(4.7)	420	(4.4)	**401**	(3.9)	**-19.9**	(1.5)	0.5	(0.1)	6.6	(0.9)
	Tunisia	**400**	(5.3)	392	(5.2)	390	(5.3)	**381**	(4.6)	**-7.9**	(1.7)	0.9	(0.1)	1.2	(0.5)
	United Arab Emirates	**457**	(4.1)	449	(3.3)	431	(3.8)	**408**	(3.4)	**-15.2**	(1.4)	0.7	(0.0)	4.1	(0.7)
	Uruguay	**423**	(4.5)	428	(4.4)	419	(5.0)	**389**	(4.3)	**-14.8**	(1.7)	0.8	(0.1)	3.1	(0.7)
	Viet Nam	505	(6.0)	511	(5.8)	516	(5.3)	513	(6.2)	5.4	(3.0)	**1.2**	(0.1)	0.2	(0.2)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 1/1]

Table III.3.3d **Students' perceived control of success in mathematics**

Percentage of students who reported "agree" or "strongly agree" (a) or "disagree" or "strongly disagree" (b)

		Percentage of students who agreed/disagreed with the following statements:											
		If I put in enough effort, I can succeed in mathematics[a]		Whether or not I do well in mathematics is completely up to me[a]		Family demands or other problems prevent me from putting a lot of time into my mathematics work[b]		If I had different teachers, I would try harder in mathematics[b]		If I wanted to, I could do well in mathematics[a]		I do badly in mathematics whether or not I study for my exams[b]	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	92.9	(0.4)	86.1	(0.5)	64.6	(0.6)	61.2	(0.6)	88.7	(0.4)	71.7	(0.6)
	Austria	91.3	(0.6)	83.4	(0.7)	71.0	(0.9)	61.5	(1.2)	81.5	(0.8)	81.0	(0.8)
	Belgium	92.9	(0.4)	80.2	(0.6)	72.0	(0.9)	70.6	(0.8)	81.0	(0.6)	78.9	(0.7)
	Canada	94.2	(0.3)	82.9	(0.5)	66.7	(0.7)	62.8	(0.7)	87.4	(0.4)	74.7	(0.6)
	Chile	97.3	(0.3)	93.4	(0.4)	59.3	(0.9)	61.8	(1.2)	88.6	(0.6)	65.8	(1.1)
	Czech Republic	91.0	(0.7)	74.8	(1.0)	76.6	(1.0)	68.0	(1.4)	82.3	(0.8)	69.0	(1.1)
	Denmark	95.1	(0.3)	83.1	(0.7)	73.9	(0.7)	71.5	(1.1)	84.9	(0.7)	83.6	(0.7)
	Estonia	93.3	(0.5)	86.4	(0.7)	81.3	(0.9)	69.9	(1.1)	88.2	(0.6)	78.4	(0.8)
	Finland	90.9	(0.5)	79.0	(0.8)	88.1	(0.5)	68.0	(1.0)	78.2	(0.6)	71.1	(0.8)
	France	88.0	(0.6)	78.2	(0.9)	76.9	(0.7)	59.7	(1.1)	78.6	(0.8)	66.5	(0.9)
	Germany	90.8	(0.6)	82.2	(0.8)	70.6	(0.8)	59.7	(1.1)	81.4	(0.8)	79.3	(0.8)
	Greece	91.7	(0.6)	79.3	(0.8)	67.4	(0.8)	57.4	(1.2)	85.8	(0.8)	70.9	(0.9)
	Hungary	86.6	(0.8)	76.8	(0.9)	80.7	(0.9)	69.4	(1.1)	82.9	(0.7)	71.7	(1.1)
	Iceland	93.9	(0.5)	91.3	(0.6)	74.0	(0.9)	74.4	(0.8)	88.8	(0.7)	74.1	(0.9)
	Ireland	93.2	(0.4)	77.8	(0.8)	70.9	(0.8)	59.0	(1.2)	84.1	(0.7)	73.5	(0.8)
	Israel	94.9	(0.4)	78.7	(0.8)	67.2	(1.0)	62.5	(1.2)	86.6	(0.6)	82.3	(0.8)
	Italy	92.5	(0.3)	81.5	(0.5)	75.9	(0.4)	63.0	(0.7)	81.5	(0.4)	76.7	(0.5)
	Japan	83.8	(0.7)	93.3	(0.4)	72.5	(0.8)	73.1	(1.0)	69.8	(0.8)	67.1	(0.7)
	Korea	87.4	(0.7)	91.8	(0.6)	76.3	(0.8)	71.7	(0.9)	85.8	(0.7)	67.8	(1.1)
	Luxembourg	87.7	(0.5)	82.2	(0.6)	71.6	(0.8)	62.5	(0.9)	79.5	(0.7)	73.5	(0.8)
	Mexico	97.9	(0.1)	94.0	(0.2)	60.9	(0.6)	56.3	(0.6)	92.9	(0.2)	63.5	(0.6)
	Netherlands	81.7	(0.9)	78.2	(1.0)	83.4	(0.8)	68.4	(1.3)	68.3	(0.9)	75.0	(0.9)
	New Zealand	94.8	(0.4)	86.5	(0.7)	62.5	(0.9)	59.4	(1.2)	87.6	(0.6)	71.7	(0.9)
	Norway	89.8	(0.7)	80.8	(0.7)	72.7	(0.9)	61.7	(1.0)	80.4	(0.9)	70.4	(1.0)
	Poland	86.4	(0.8)	75.5	(0.9)	76.3	(0.7)	61.0	(1.3)	78.8	(1.0)	69.4	(0.9)
	Portugal	93.8	(0.4)	88.1	(0.7)	64.8	(1.0)	65.0	(1.1)	84.0	(0.8)	73.7	(1.1)
	Slovak Republic	89.9	(0.7)	82.1	(0.8)	78.7	(0.8)	62.6	(1.5)	83.6	(0.8)	55.2	(1.2)
	Slovenia	93.0	(0.5)	90.4	(0.6)	71.9	(0.9)	64.0	(1.1)	80.5	(0.8)	75.2	(0.9)
	Spain	89.3	(0.4)	78.5	(0.5)	79.0	(0.6)	64.2	(0.7)	77.3	(0.5)	74.5	(0.7)
	Sweden	95.3	(0.4)	86.1	(0.6)	78.4	(0.9)	65.4	(1.1)	83.5	(0.7)	80.0	(0.7)
	Switzerland	90.8	(0.6)	80.9	(0.7)	71.9	(0.7)	64.8	(1.0)	79.4	(0.8)	77.2	(0.6)
	Turkey	92.3	(0.5)	85.2	(0.6)	70.9	(0.7)	54.5	(1.2)	89.4	(0.6)	59.8	(1.2)
	United Kingdom	95.5	(0.3)	82.8	(0.6)	71.2	(0.8)	68.6	(0.9)	87.4	(0.8)	76.7	(0.7)
	United States	95.4	(0.4)	84.3	(0.6)	68.1	(1.0)	66.2	(1.3)	87.2	(0.6)	72.3	(1.0)
	OECD average	91.6	(0.1)	83.4	(0.1)	72.6	(0.1)	64.4	(0.2)	83.1	(0.1)	72.7	(0.1)
Partners	Albania	96.2	(0.4)	92.8	(0.6)	66.5	(1.3)	65.2	(1.1)	88.2	(0.7)	74.4	(1.0)
	Argentina	95.5	(0.5)	90.2	(0.6)	61.5	(1.1)	55.3	(1.2)	88.0	(0.6)	63.4	(0.9)
	Brazil	95.9	(0.3)	87.5	(0.5)	65.8	(0.5)	61.0	(0.7)	83.2	(0.5)	59.5	(0.5)
	Bulgaria	92.7	(0.4)	86.8	(0.6)	69.7	(1.1)	66.7	(1.2)	82.7	(0.6)	62.9	(1.1)
	Colombia	98.1	(0.3)	95.1	(0.4)	61.0	(0.9)	59.1	(1.1)	89.1	(0.6)	66.7	(1.0)
	Costa Rica	97.3	(0.4)	91.2	(0.7)	68.6	(1.0)	66.3	(1.3)	87.9	(0.7)	70.9	(1.2)
	Croatia	93.4	(0.5)	87.2	(0.7)	78.1	(0.7)	64.2	(1.2)	84.8	(0.6)	69.9	(0.9)
	Cyprus*	92.4	(0.5)	81.1	(0.7)	64.5	(0.9)	56.1	(1.0)	84.6	(0.8)	67.9	(0.9)
	Hong Kong-China	90.2	(0.6)	80.5	(0.7)	68.5	(0.9)	65.8	(1.1)	87.9	(0.7)	75.9	(0.9)
	Indonesia	98.2	(0.2)	92.8	(0.6)	45.1	(1.1)	26.7	(1.1)	90.6	(0.6)	63.9	(1.1)
	Jordan	94.6	(0.4)	82.2	(0.6)	50.6	(1.0)	36.5	(1.0)	86.6	(0.5)	65.0	(1.1)
	Kazakhstan	93.5	(0.4)	94.0	(0.5)	74.4	(0.9)	63.7	(0.9)	87.5	(0.7)	77.9	(1.0)
	Latvia	92.3	(0.5)	87.5	(0.7)	78.9	(0.8)	73.1	(1.1)	87.0	(0.9)	73.0	(1.0)
	Liechtenstein	91.4	(2.3)	80.3	(3.1)	75.2	(3.5)	70.9	(3.1)	83.5	(2.8)	82.2	(2.9)
	Lithuania	92.9	(0.5)	88.3	(0.7)	79.8	(0.9)	67.4	(1.1)	83.6	(0.7)	64.8	(0.9)
	Macao-China	81.0	(0.6)	74.8	(0.7)	71.6	(0.8)	47.2	(0.9)	83.6	(0.6)	68.6	(0.8)
	Malaysia	96.0	(0.4)	78.6	(0.7)	58.2	(1.1)	39.0	(0.9)	92.4	(0.5)	67.0	(1.1)
	Montenegro	92.4	(0.5)	85.4	(0.7)	72.3	(1.0)	62.8	(0.9)	80.9	(0.8)	71.6	(0.9)
	Peru	96.9	(0.3)	92.7	(0.4)	46.9	(1.1)	42.8	(1.2)	91.4	(0.5)	60.4	(1.0)
	Qatar	91.7	(0.4)	78.6	(0.5)	58.6	(0.5)	44.4	(0.6)	83.3	(0.4)	60.2	(0.6)
	Romania	88.8	(0.8)	82.9	(0.9)	63.3	(1.1)	60.6	(1.2)	79.3	(1.0)	60.9	(1.4)
	Russian Federation	94.8	(0.5)	91.7	(0.5)	77.7	(0.8)	77.2	(1.2)	88.2	(0.7)	73.4	(0.9)
	Serbia	92.0	(0.5)	80.3	(0.9)	77.4	(0.9)	61.8	(1.2)	81.8	(0.9)	69.8	(1.0)
	Shanghai-China	92.1	(0.5)	88.4	(0.6)	75.7	(0.7)	75.4	(0.8)	84.4	(0.5)	81.5	(0.8)
	Singapore	98.1	(0.2)	89.9	(0.5)	63.1	(1.0)	60.5	(0.8)	94.3	(0.4)	75.7	(0.7)
	Chinese Taipei	85.9	(0.6)	84.5	(0.6)	84.4	(0.7)	52.5	(0.8)	86.6	(0.6)	71.0	(0.8)
	Thailand	95.9	(0.3)	83.5	(0.8)	42.6	(0.9)	43.3	(0.9)	86.2	(0.6)	43.5	(1.1)
	Tunisia	92.7	(0.5)	65.3	(1.0)	58.9	(1.0)	38.9	(1.1)	84.0	(0.7)	47.9	(1.1)
	United Arab Emirates	96.9	(0.3)	84.3	(0.6)	65.0	(1.0)	43.4	(0.8)	90.0	(0.5)	72.0	(0.7)
	Uruguay	96.1	(0.3)	85.7	(0.6)	69.7	(0.9)	62.4	(1.3)	79.3	(0.8)	65.7	(1.0)
	Viet Nam	94.3	(0.5)	87.6	(0.8)	75.2	(0.9)	64.9	(0.9)	72.6	(0.9)	88.6	(0.8)

* See notes at the beginning of this Annex.

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[Part 1/1]

Table III.3.3h **Students' perceived control of success in school**

Percentage of students who reported "agree" or "strongly agree" (a) or "disagree" or "strongly disagree" (b)

		Percentage of students who agreed/disagreed with the following statements:											
		If I put in enough effort, I can succeed in school[a]		It is completely my choice whether or not I do well in school[a]		Family demands or other problems prevent me from putting a lot of time into my school work[b]		If I had different teachers, I would try harder at school[b]		If I wanted to, I could perform well at school[a]		I perform poorly at school whether or not I study for my exams[b]	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	97.2	(0.2)	87.3	(0.5)	58.4	(0.6)	57.7	(0.6)	93.4	(0.3)	79.3	(0.5)
	Austria	95.6	(0.4)	86.9	(0.6)	60.4	(0.9)	56.1	(1.0)	90.1	(0.6)	83.2	(0.9)
	Belgium	96.4	(0.3)	83.6	(0.5)	65.6	(0.8)	63.7	(0.8)	85.2	(0.6)	84.4	(0.5)
	Canada	97.1	(0.2)	84.5	(0.5)	61.7	(0.6)	61.2	(0.7)	92.9	(0.3)	81.4	(0.5)
	Chile	98.9	(0.2)	95.1	(0.4)	50.4	(0.9)	60.0	(1.0)	92.0	(0.5)	74.4	(1.0)
	Czech Republic	96.7	(0.4)	80.4	(0.8)	67.4	(0.9)	57.9	(1.3)	91.0	(0.7)	75.4	(1.0)
	Denmark	96.9	(0.3)	85.0	(0.8)	63.9	(0.9)	64.3	(1.2)	88.1	(0.7)	89.4	(0.7)
	Estonia	94.8	(0.5)	83.6	(0.6)	71.4	(0.8)	65.2	(1.0)	93.5	(0.4)	85.7	(0.7)
	Finland	96.4	(0.3)	85.2	(0.6)	83.2	(0.6)	58.6	(1.0)	88.5	(0.5)	80.3	(0.5)
	France	96.1	(0.4)	83.9	(0.7)	70.5	(0.8)	56.7	(1.1)	89.2	(0.6)	73.7	(0.8)
	Germany	96.9	(0.3)	83.5	(0.8)	62.5	(1.0)	50.0	(1.0)	89.8	(0.6)	81.1	(0.8)
	Greece	97.9	(0.3)	80.8	(0.7)	59.8	(1.0)	49.1	(1.0)	89.6	(0.5)	78.5	(1.0)
	Hungary	96.6	(0.3)	83.6	(0.7)	69.8	(1.0)	68.8	(1.2)	92.3	(0.5)	79.2	(1.0)
	Iceland	97.1	(0.3)	91.6	(0.5)	71.2	(1.0)	72.5	(0.9)	90.6	(0.6)	82.1	(0.7)
	Ireland	98.4	(0.2)	82.8	(0.8)	60.5	(0.9)	47.2	(1.0)	92.3	(0.5)	81.9	(0.8)
	Israel	97.1	(0.3)	72.5	(1.0)	57.3	(0.9)	58.2	(1.0)	89.2	(0.6)	84.4	(0.8)
	Italy	96.3	(0.2)	85.1	(0.3)	63.6	(0.5)	56.8	(0.5)	85.5	(0.4)	83.7	(0.5)
	Japan	89.3	(0.5)	95.0	(0.4)	66.5	(0.8)	70.9	(1.0)	75.4	(0.8)	66.7	(0.9)
	Korea	95.6	(0.5)	94.5	(0.4)	65.7	(0.8)	67.7	(1.1)	88.6	(0.6)	81.6	(0.8)
	Luxembourg	95.4	(0.3)	86.3	(0.6)	59.9	(0.8)	57.3	(0.9)	87.8	(0.6)	77.1	(0.7)
	Mexico	98.5	(0.1)	94.4	(0.3)	60.9	(0.6)	60.4	(0.6)	91.0	(0.3)	74.5	(0.4)
	Netherlands	95.9	(0.5)	80.3	(0.9)	75.7	(1.0)	66.0	(1.1)	88.3	(0.7)	83.8	(0.8)
	New Zealand	97.9	(0.3)	87.6	(0.7)	54.3	(1.0)	52.6	(1.0)	92.4	(0.7)	79.5	(0.9)
	Norway	94.8	(0.4)	82.3	(0.8)	65.4	(1.0)	54.8	(1.0)	88.4	(0.5)	78.1	(1.0)
	Poland	95.1	(0.5)	82.0	(0.8)	67.6	(0.9)	52.7	(1.1)	89.1	(0.6)	75.8	(1.0)
	Portugal	96.2	(0.4)	95.4	(0.4)	58.5	(0.9)	60.7	(1.2)	89.7	(0.5)	80.8	(1.0)
	Slovak Republic	96.5	(0.3)	89.0	(0.6)	68.3	(1.0)	54.6	(1.2)	90.5	(0.7)	66.7	(1.1)
	Slovenia	96.9	(0.3)	92.9	(0.5)	65.9	(1.0)	56.1	(1.0)	87.7	(0.6)	80.2	(0.9)
	Spain	95.9	(0.3)	82.8	(0.5)	72.9	(0.7)	59.6	(0.9)	90.3	(0.4)	82.5	(0.5)
	Sweden	96.5	(0.4)	89.2	(0.5)	67.4	(1.0)	57.4	(1.0)	92.3	(0.5)	84.0	(0.7)
	Switzerland	96.6	(0.4)	85.1	(0.6)	62.2	(0.8)	60.8	(0.9)	88.5	(0.5)	83.7	(0.7)
	Turkey	97.1	(0.3)	83.4	(0.8)	68.2	(1.2)	54.6	(1.0)	91.7	(0.6)	70.2	(0.9)
	United Kingdom	97.5	(0.3)	83.9	(0.6)	65.1	(0.9)	59.4	(0.8)	90.8	(0.5)	85.6	(0.6)
	United States	97.8	(0.3)	87.4	(0.7)	63.3	(0.9)	68.2	(1.1)	92.5	(0.5)	80.2	(0.9)
	OECD average	96.5	(0.1)	86.1	(0.1)	64.9	(0.2)	59.4	(0.2)	89.7	(0.1)	79.7	(0.1)
Partners	**Albania**	98.0	(0.3)	84.6	(0.7)	66.0	(1.1)	72.4	(0.9)	92.6	(0.6)	74.4	(1.0)
	Argentina	97.6	(0.3)	92.8	(0.5)	52.2	(1.2)	54.2	(1.1)	89.3	(0.5)	65.8	(1.1)
	Brazil	97.1	(0.2)	82.2	(0.6)	63.3	(0.6)	58.0	(0.7)	83.9	(0.5)	73.3	(0.7)
	Bulgaria	95.7	(0.4)	86.1	(0.7)	64.9	(1.2)	61.9	(1.0)	80.5	(0.7)	74.3	(1.3)
	Colombia	98.2	(0.3)	96.0	(0.4)	59.6	(1.2)	61.7	(1.2)	89.1	(0.5)	77.3	(0.9)
	Costa Rica	99.1	(0.2)	94.3	(0.6)	65.6	(1.0)	63.4	(1.3)	90.8	(0.6)	78.5	(1.0)
	Croatia	98.5	(0.3)	87.8	(0.6)	67.6	(1.1)	59.4	(0.9)	91.8	(0.5)	78.6	(0.9)
	Cyprus*	96.4	(0.3)	83.2	(0.7)	54.7	(1.0)	44.3	(1.0)	88.1	(0.6)	72.7	(0.8)
	Hong Kong-China	92.4	(0.6)	79.5	(0.7)	65.2	(1.0)	54.5	(0.9)	93.7	(0.5)	84.4	(0.6)
	Indonesia	99.0	(0.2)	74.8	(1.2)	53.2	(1.0)	22.6	(1.1)	90.4	(0.5)	74.9	(1.1)
	Jordan	96.6	(0.3)	88.7	(0.7)	48.5	(1.0)	37.5	(1.0)	88.3	(0.6)	70.2	(0.9)
	Kazakhstan	96.6	(0.3)	75.6	(0.9)	75.1	(0.9)	55.3	(1.3)	86.3	(0.8)	84.2	(1.0)
	Latvia	95.5	(0.5)	82.5	(1.0)	70.7	(1.0)	66.7	(1.2)	89.5	(0.6)	82.3	(0.9)
	Liechtenstein	98.0	(1.0)	85.6	(2.3)	65.3	(3.3)	57.0	(3.5)	91.1	(2.2)	85.4	(2.5)
	Lithuania	97.4	(0.3)	87.3	(0.6)	71.4	(1.1)	61.4	(1.0)	89.9	(0.5)	69.3	(1.0)
	Macao-China	82.3	(0.6)	77.7	(0.7)	58.0	(0.8)	42.4	(0.8)	88.8	(0.5)	80.9	(0.5)
	Malaysia	96.3	(0.4)	69.2	(1.1)	54.6	(1.1)	27.6	(0.7)	92.6	(0.5)	72.6	(1.2)
	Montenegro	97.6	(0.3)	91.9	(0.6)	66.3	(1.0)	58.0	(1.0)	90.0	(0.6)	79.6	(0.8)
	Peru	98.2	(0.3)	79.9	(0.7)	57.0	(1.0)	49.9	(1.2)	85.5	(0.6)	79.9	(0.9)
	Qatar	94.0	(0.3)	81.1	(0.5)	50.4	(0.6)	38.1	(0.7)	87.2	(0.4)	61.1	(0.7)
	Romania	92.7	(0.8)	90.3	(0.7)	61.0	(1.4)	60.1	(1.3)	83.8	(0.8)	72.5	(1.6)
	Russian Federation	97.6	(0.2)	80.0	(0.9)	75.3	(1.1)	75.4	(1.3)	88.7	(0.6)	79.1	(0.7)
	Serbia	96.3	(0.4)	89.8	(0.5)	66.0	(1.1)	56.0	(1.0)	94.5	(0.4)	76.9	(0.9)
	Shanghai-China	90.3	(0.6)	86.4	(0.6)	75.4	(0.8)	77.9	(0.8)	88.1	(0.6)	82.9	(0.7)
	Singapore	97.0	(0.3)	88.1	(0.5)	57.3	(0.9)	51.2	(0.8)	94.6	(0.4)	77.7	(0.6)
	Chinese Taipei	89.1	(0.6)	91.4	(0.5)	68.9	(0.9)	40.1	(1.0)	86.4	(0.6)	83.5	(0.8)
	Thailand	98.6	(0.2)	91.2	(0.5)	38.0	(0.9)	48.6	(0.9)	89.2	(0.7)	54.1	(1.0)
	Tunisia	97.4	(0.3)	66.1	(0.8)	55.2	(1.2)	36.1	(1.1)	88.9	(0.6)	72.3	(1.2)
	United Arab Emirates	97.9	(0.2)	83.6	(0.5)	59.0	(0.7)	36.6	(0.9)	92.1	(0.4)	75.4	(0.7)
	Uruguay	98.1	(0.2)	85.4	(0.7)	64.7	(0.9)	55.8	(1.1)	88.9	(0.5)	69.2	(1.0)
	Viet Nam	97.4	(0.3)	66.3	(1.0)	73.1	(1.0)	63.1	(0.9)	73.9	(1.0)	91.1	(0.6)

* See notes at the beginning of this Annex.

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[Part 1/1]

Table III.3.4a Students' intrinsic motivation to learn mathematics

Percentage of students who reported "agree" or "strongly agree"

		Percentage of students who agreed with the following statements:							
		I enjoy reading about mathematics		I look forward to my mathematics lessons		I do mathematics because I enjoy it		I am interested in the things I learn in mathematics	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	34.7	(0.6)	45.3	(0.6)	39.0	(0.7)	53.7	(0.7)
	Austria	17.1	(0.8)	32.6	(1.0)	23.8	(0.9)	41.3	(1.1)
	Belgium	22.9	(0.6)	24.2	(0.8)	28.8	(0.8)	50.0	(0.8)
	Canada	34.7	(0.5)	39.7	(0.6)	36.6	(0.6)	53.9	(0.6)
	Chile	40.8	(0.9)	50.5	(0.9)	42.3	(0.9)	70.1	(0.9)
	Czech Republic	17.5	(0.8)	33.9	(1.1)	30.3	(1.0)	41.5	(1.3)
	Denmark	40.4	(1.0)	51.5	(1.1)	56.9	(1.1)	64.1	(1.1)
	Estonia	29.4	(0.9)	27.4	(0.9)	38.1	(1.1)	49.1	(1.0)
	Finland	21.0	(0.6)	24.8	(0.8)	28.8	(0.7)	44.3	(0.8)
	France	31.8	(1.1)	23.8	(0.9)	41.5	(1.1)	65.2	(1.0)
	Germany	18.0	(0.8)	36.9	(1.0)	39.0	(0.9)	51.6	(1.1)
	Greece	42.9	(1.0)	36.8	(1.1)	51.7	(1.0)	63.6	(0.9)
	Hungary	25.9	(1.0)	30.3	(1.1)	27.5	(1.0)	40.7	(1.3)
	Iceland	37.9	(1.1)	39.7	(1.1)	47.7	(1.1)	57.6	(1.1)
	Ireland	33.3	(0.9)	40.2	(1.1)	37.0	(1.0)	49.6	(1.0)
	Israel	43.3	(1.1)	42.3	(1.2)	39.8	(1.1)	57.2	(1.1)
	Italy	31.4	(0.6)	29.0	(0.6)	45.8	(0.8)	57.4	(0.7)
	Japan	16.9	(0.8)	33.7	(0.9)	30.8	(0.8)	37.8	(1.0)
	Korea	27.2	(1.2)	21.8	(1.1)	30.7	(1.1)	47.2	(1.2)
	Luxembourg	25.0	(0.7)	35.7	(0.7)	35.3	(0.8)	48.5	(0.8)
	Mexico	62.0	(0.6)	70.6	(0.5)	52.8	(0.5)	85.0	(0.4)
	Netherlands	12.1	(0.9)	19.8	(0.8)	32.4	(1.1)	44.6	(1.3)
	New Zealand	33.3	(1.0)	46.1	(1.1)	38.2	(1.1)	55.4	(1.3)
	Norway	26.5	(0.8)	33.2	(1.1)	32.2	(1.1)	50.3	(0.9)
	Poland	24.7	(0.9)	21.3	(0.8)	36.1	(1.1)	45.6	(1.1)
	Portugal	32.2	(1.1)	32.6	(1.1)	45.5	(0.9)	67.5	(1.0)
	Slovak Republic	22.4	(0.9)	30.8	(1.2)	27.9	(1.0)	35.6	(1.1)
	Slovenia	23.3	(0.9)	29.9	(0.9)	27.1	(1.0)	37.7	(0.9)
	Spain	19.3	(0.5)	25.7	(0.6)	37.0	(0.7)	60.2	(0.6)
	Sweden	50.7	(1.0)	36.2	(1.0)	37.0	(1.0)	54.5	(1.0)
	Switzerland	19.1	(0.6)	38.9	(1.0)	48.5	(0.8)	56.2	(0.9)
	Turkey	56.2	(1.0)	48.9	(1.1)	52.7	(1.1)	62.1	(1.0)
	United Kingdom	34.0	(1.0)	50.9	(1.1)	40.8	(0.9)	56.5	(0.8)
	United States	33.8	(1.3)	45.4	(1.5)	36.6	(1.4)	49.9	(1.3)
	OECD average	30.6	(0.2)	36.2	(0.2)	38.1	(0.2)	53.1	(0.2)
Partners	**Albania**	84.6	(0.8)	73.3	(1.0)	70.3	(1.0)	88.4	(0.7)
	Argentina	39.5	(1.1)	45.9	(0.9)	37.9	(1.1)	65.2	(1.1)
	Brazil	46.8	(0.8)	43.9	(0.7)	55.8	(0.7)	73.3	(0.6)
	Bulgaria	51.8	(1.1)	35.1	(1.2)	39.2	(1.2)	61.3	(1.0)
	Colombia	57.5	(1.2)	58.8	(1.2)	51.3	(1.1)	86.1	(0.8)
	Costa Rica	45.9	(1.3)	44.3	(1.2)	47.5	(1.3)	72.8	(0.9)
	Croatia	24.3	(1.1)	27.2	(1.0)	20.9	(1.0)	37.2	(1.2)
	Cyprus*	57.8	(1.0)	38.5	(0.9)	47.1	(0.9)	59.9	(0.8)
	Hong Kong-China	44.4	(1.0)	49.8	(1.0)	54.9	(1.0)	52.4	(1.1)
	Indonesia	76.9	(1.2)	72.3	(1.2)	78.3	(0.9)	73.5	(1.3)
	Jordan	70.2	(0.9)	67.3	(0.9)	64.9	(1.1)	82.1	(0.8)
	Kazakhstan	77.7	(1.2)	71.0	(1.6)	72.6	(1.4)	83.1	(1.0)
	Latvia	27.9	(1.3)	20.8	(1.0)	38.6	(1.2)	49.3	(1.3)
	Liechtenstein	22.1	(3.0)	42.3	(3.7)	56.2	(3.6)	55.3	(3.6)
	Lithuania	41.2	(1.2)	39.6	(1.1)	47.6	(1.2)	57.9	(1.0)
	Macao-China	42.5	(0.8)	41.7	(0.8)	42.3	(0.8)	46.2	(0.7)
	Malaysia	77.0	(0.8)	77.9	(0.8)	73.4	(0.9)	80.4	(0.7)
	Montenegro	34.6	(1.0)	35.8	(0.8)	34.0	(1.0)	51.0	(0.9)
	Peru	71.6	(1.0)	65.6	(1.1)	62.7	(1.1)	85.0	(0.7)
	Qatar	63.0	(0.6)	60.0	(0.6)	60.6	(0.6)	72.7	(0.5)
	Romania	58.6	(1.0)	62.6	(1.0)	57.8	(1.1)	43.5	(1.3)
	Russian Federation	34.4	(1.2)	45.9	(1.4)	42.9	(1.3)	70.4	(1.1)
	Serbia	26.2	(1.0)	25.1	(1.1)	26.8	(1.1)	49.0	(1.1)
	Shanghai-China	50.1	(1.0)	54.4	(1.0)	49.3	(1.0)	60.6	(1.0)
	Singapore	68.1	(0.9)	76.8	(0.8)	72.2	(0.8)	77.1	(0.8)
	Chinese Taipei	40.4	(0.9)	37.8	(0.8)	40.3	(0.7)	41.7	(0.8)
	Thailand	77.2	(0.9)	68.8	(1.0)	70.6	(1.0)	86.3	(0.6)
	Tunisia	61.2	(1.1)	54.4	(1.1)	58.0	(1.1)	75.9	(0.8)
	United Arab Emirates	59.8	(0.8)	75.5	(0.6)	63.9	(0.8)	74.1	(0.8)
	Uruguay	39.2	(1.0)	40.7	(1.0)	50.6	(1.1)	70.2	(1.0)
	Viet Nam	76.1	(1.0)	58.1	(1.1)	67.4	(1.1)	79.8	(0.9)

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.3.4d

Index of intrinsic motivation to learn mathematics and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Index of intrinsic motivation to learn mathematics																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	Australia	0.11	(0.01)	1.00	(0.01)	0.26	(0.02)	-0.06	(0.02)	**0.32**	(0.03)	-1.16	(0.02)	-0.21	(0.01)	0.44	(0.02)	1.36	(0.01)
	Austria	-0.35	(0.02)	1.01	(0.01)	-0.16	(0.03)	-0.54	(0.03)	**0.38**	(0.04)	-1.61	(0.02)	-0.72	(0.03)	-0.06	(0.03)	0.99	(0.03)
	Belgium	-0.24	(0.02)	0.94	(0.01)	-0.18	(0.02)	-0.29	(0.02)	**0.11**	(0.03)	-1.47	(0.02)	-0.51	(0.02)	0.07	(0.02)	0.96	(0.02)
	Canada	0.05	(0.01)	1.04	(0.01)	0.16	(0.02)	-0.07	(0.02)	**0.23**	(0.03)	-1.29	(0.02)	-0.28	(0.02)	0.37	(0.02)	1.39	(0.02)
	Chile	0.28	(0.02)	0.99	(0.01)	0.41	(0.03)	0.16	(0.03)	**0.25**	(0.04)	-0.99	(0.02)	-0.03	(0.02)	0.63	(0.02)	1.52	(0.03)
	Czech Republic	-0.16	(0.02)	0.88	(0.01)	-0.06	(0.03)	-0.27	(0.03)	**0.21**	(0.04)	-1.29	(0.03)	-0.41	(0.01)	0.10	(0.03)	0.95	(0.03)
	Denmark	0.35	(0.02)	0.94	(0.01)	0.49	(0.03)	0.22	(0.02)	**0.27**	(0.03)	-0.85	(0.03)	0.04	(0.03)	0.71	(0.03)	1.51	(0.02)
	Estonia	-0.01	(0.02)	0.88	(0.01)	0.02	(0.03)	-0.05	(0.03)	0.06	(0.04)	-1.12	(0.03)	-0.28	(0.02)	0.24	(0.02)	1.11	(0.02)
	Finland	-0.22	(0.02)	0.92	(0.01)	-0.12	(0.02)	-0.33	(0.02)	**0.20**	(0.03)	-1.42	(0.02)	-0.47	(0.02)	0.03	(0.02)	0.97	(0.02)
	France	-0.02	(0.02)	0.95	(0.01)	0.10	(0.03)	-0.12	(0.03)	**0.22**	(0.03)	-1.28	(0.03)	-0.27	(0.02)	0.31	(0.02)	1.17	(0.03)
	Germany	-0.11	(0.02)	1.07	(0.01)	0.09	(0.03)	-0.32	(0.03)	**0.41**	(0.04)	-1.46	(0.02)	-0.53	(0.03)	0.24	(0.03)	1.30	(0.04)
	Greece	0.21	(0.02)	1.06	(0.01)	0.37	(0.03)	0.05	(0.03)	**0.32**	(0.04)	-1.19	(0.04)	-0.10	(0.03)	0.62	(0.02)	1.52	(0.02)
	Hungary	-0.18	(0.02)	0.94	(0.01)	-0.06	(0.03)	-0.28	(0.03)	**0.23**	(0.04)	-1.37	(0.03)	-0.45	(0.01)	0.06	(0.04)	1.06	(0.03)
	Iceland	0.15	(0.02)	1.02	(0.01)	0.16	(0.03)	0.14	(0.03)	0.02	(0.04)	-1.17	(0.04)	-0.17	(0.03)	0.55	(0.03)	1.40	(0.03)
	Ireland	0.06	(0.02)	0.97	(0.01)	0.08	(0.03)	0.03	(0.03)	0.05	(0.04)	-1.16	(0.04)	-0.25	(0.01)	0.34	(0.03)	1.31	(0.02)
	Israel	0.16	(0.02)	1.06	(0.01)	0.22	(0.03)	0.11	(0.03)	**0.12**	(0.04)	-1.20	(0.02)	-0.20	(0.02)	0.52	(0.04)	1.53	(0.03)
	Italy	0.01	(0.02)	0.95	(0.01)	0.09	(0.02)	-0.07	(0.02)	**0.16**	(0.02)	-1.23	(0.02)	-0.27	(0.02)	0.34	(0.02)	1.20	(0.02)
	Japan	-0.23	(0.02)	1.02	(0.01)	-0.08	(0.03)	-0.40	(0.02)	**0.32**	(0.03)	-1.55	(0.02)	-0.51	(0.02)	0.00	(0.03)	1.12	(0.03)
	Korea	-0.20	(0.03)	0.99	(0.01)	-0.12	(0.04)	-0.30	(0.03)	**0.18**	(0.04)	-1.53	(0.03)	-0.44	(0.02)	0.10	(0.04)	1.06	(0.04)
	Luxembourg	-0.16	(0.02)	1.09	(0.01)	0.05	(0.03)	-0.38	(0.02)	**0.43**	(0.04)	-1.56	(0.02)	-0.57	(0.02)	0.23	(0.02)	1.25	(0.02)
	Mexico	0.67	(0.01)	0.82	(0.01)	0.74	(0.01)	0.60	(0.01)	**0.14**	(0.02)	-0.39	(0.02)	0.44	(0.01)	0.95	(0.01)	1.68	(0.01)
	Netherlands	-0.33	(0.02)	0.86	(0.01)	-0.23	(0.02)	-0.44	(0.03)	**0.20**	(0.03)	-1.48	(0.02)	-0.54	(0.02)	-0.04	(0.03)	0.73	(0.02)
	New Zealand	0.11	(0.02)	0.94	(0.01)	0.26	(0.03)	-0.04	(0.03)	**0.31**	(0.04)	-1.06	(0.04)	-0.19	(0.02)	0.40	(0.04)	1.30	(0.02)
	Norway	-0.15	(0.02)	1.03	(0.01)	-0.07	(0.03)	-0.23	(0.03)	**0.15**	(0.03)	-1.50	(0.02)	-0.47	(0.03)	0.22	(0.03)	1.16	(0.03)
	Poland	-0.16	(0.02)	0.93	(0.01)	-0.11	(0.03)	-0.20	(0.03)	**0.09**	(0.04)	-1.35	(0.03)	-0.43	(0.01)	0.11	(0.03)	1.04	(0.02)
	Portugal	0.12	(0.02)	0.89	(0.01)	0.14	(0.03)	0.10	(0.02)	0.03	(0.03)	-1.03	(0.03)	-0.14	(0.02)	0.42	(0.02)	1.23	(0.03)
	Slovak Republic	-0.19	(0.02)	0.92	(0.01)	-0.09	(0.03)	-0.30	(0.03)	**0.22**	(0.04)	-1.35	(0.03)	-0.44	(0.01)	0.01	(0.03)	1.01	(0.03)
	Slovenia	-0.24	(0.02)	0.98	(0.01)	-0.12	(0.03)	-0.35	(0.03)	**0.23**	(0.04)	-1.48	(0.02)	-0.50	(0.02)	0.01	(0.02)	1.04	(0.04)
	Spain	-0.14	(0.01)	0.94	(0.01)	-0.05	(0.02)	-0.23	(0.02)	**0.19**	(0.02)	-1.36	(0.02)	-0.43	(0.02)	0.16	(0.01)	1.07	(0.02)
	Sweden	0.12	(0.02)	1.05	(0.01)	0.23	(0.03)	0.02	(0.03)	**0.20**	(0.04)	-1.24	(0.03)	-0.21	(0.02)	0.52	(0.03)	1.43	(0.03)
	Switzerland	-0.02	(0.02)	0.98	(0.01)	0.22	(0.02)	-0.26	(0.02)	**0.48**	(0.03)	-1.28	(0.03)	-0.34	(0.02)	0.33	(0.02)	1.20	(0.02)
	Turkey	0.44	(0.02)	1.06	(0.01)	0.47	(0.03)	0.40	(0.04)	0.08	(0.04)	-0.91	(0.03)	0.05	(0.03)	0.83	(0.03)	1.78	(0.02)
	United Kingdom	0.19	(0.02)	0.94	(0.01)	0.24	(0.03)	0.13	(0.02)	**0.11**	(0.03)	-0.99	(0.03)	-0.15	(0.02)	0.51	(0.02)	1.37	(0.02)
	United States	0.08	(0.03)	1.03	(0.01)	0.16	(0.04)	0.00	(0.03)	**0.16**	(0.04)	-1.22	(0.03)	-0.25	(0.02)	0.41	(0.05)	1.40	(0.03)
	OECD average	0.00	(0.00)	0.97	(0.00)	0.10	(0.00)	-0.11	(0.00)	**0.21**	(0.01)	-1.25	(0.00)	-0.30	(0.00)	0.31	(0.00)	1.24	(0.00)
Partners	Albania	0.96	(0.02)	0.80	(0.01)	0.95	(0.02)	0.97	(0.03)	-0.01	(0.03)	-0.09	(0.03)	0.80	(0.01)	1.18	(0.03)	1.94	(0.03)
	Argentina	0.18	(0.02)	1.01	(0.01)	0.28	(0.04)	0.09	(0.03)	**0.20**	(0.04)	-1.12	(0.03)	-0.13	(0.03)	0.55	(0.03)	1.43	(0.03)
	Brazil	0.42	(0.01)	0.89	(0.01)	0.52	(0.02)	0.34	(0.02)	**0.18**	(0.02)	-0.71	(0.02)	0.15	(0.01)	0.71	(0.02)	1.54	(0.02)
	Bulgaria	0.22	(0.02)	0.98	(0.02)	0.28	(0.03)	0.15	(0.03)	**0.12**	(0.04)	-1.01	(0.03)	-0.11	(0.03)	0.55	(0.03)	1.45	(0.03)
	Colombia	0.59	(0.02)	0.84	(0.01)	0.64	(0.03)	0.54	(0.03)	**0.10**	(0.03)	-0.47	(0.03)	0.33	(0.03)	0.87	(0.03)	1.62	(0.02)
	Costa Rica	0.32	(0.03)	1.01	(0.01)	0.44	(0.04)	0.21	(0.03)	**0.23**	(0.04)	-0.98	(0.04)	0.01	(0.03)	0.67	(0.03)	1.59	(0.03)
	Croatia	-0.26	(0.03)	0.97	(0.01)	-0.19	(0.03)	-0.33	(0.03)	**0.14**	(0.04)	-1.47	(0.02)	-0.50	(0.02)	-0.06	(0.03)	1.01	(0.04)
	Cyprus*	0.26	(0.02)	1.11	(0.01)	0.29	(0.03)	0.22	(0.04)	0.07	(0.04)	-1.21	(0.04)	-0.06	(0.02)	0.67	(0.02)	1.64	(0.03)
	Hong Kong-China	0.30	(0.02)	0.98	(0.01)	0.47	(0.02)	0.10	(0.03)	**0.38**	(0.04)	-0.92	(0.03)	-0.06	(0.02)	0.68	(0.02)	1.48	(0.03)
	Indonesia	0.80	(0.02)	0.69	(0.01)	0.81	(0.02)	0.78	(0.03)	0.03	(0.03)	-0.09	(0.03)	0.69	(0.03)	0.94	(0.01)	1.65	(0.03)
	Jordan	0.81	(0.02)	0.98	(0.01)	0.88	(0.04)	0.74	(0.03)	**0.14**	(0.05)	-0.50	(0.04)	0.61	(0.02)	1.14	(0.02)	1.98	(0.02)
	Kazakhstan	0.89	(0.03)	0.84	(0.01)	0.86	(0.03)	0.91	(0.03)	-0.05	(0.03)	-0.21	(0.04)	0.76	(0.04)	1.05	(0.02)	1.97	(0.04)
	Latvia	-0.05	(0.02)	0.83	(0.01)	-0.04	(0.03)	-0.07	(0.03)	0.03	(0.04)	-1.11	(0.03)	-0.28	(0.02)	0.20	(0.03)	0.99	(0.02)
	Liechtenstein	0.09	(0.08)	1.05	(0.04)	0.32	(0.12)	-0.15	(0.11)	**0.47**	(0.17)	-1.24	(0.11)	-0.26	(0.10)	0.43	(0.08)	1.47	(0.12)
	Lithuania	0.09	(0.03)	1.07	(0.01)	0.15	(0.03)	0.04	(0.04)	**0.12**	(0.04)	-1.32	(0.03)	-0.24	(0.04)	0.53	(0.03)	1.41	(0.03)
	Macao-China	0.15	(0.01)	0.93	(0.01)	0.31	(0.02)	-0.03	(0.02)	**0.34**	(0.03)	-0.97	(0.03)	-0.21	(0.01)	0.45	(0.03)	1.32	(0.02)
	Malaysia	0.91	(0.02)	0.82	(0.01)	0.86	(0.02)	0.95	(0.02)	**-0.10**	(0.03)	-0.17	(0.03)	0.78	(0.02)	1.09	(0.02)	1.94	(0.02)
	Montenegro	-0.01	(0.02)	1.03	(0.01)	0.02	(0.03)	-0.04	(0.03)	0.06	(0.04)	-1.32	(0.03)	-0.33	(0.02)	0.30	(0.03)	1.32	(0.02)
	Peru	0.74	(0.02)	0.80	(0.01)	0.81	(0.02)	0.68	(0.03)	**0.13**	(0.03)	-0.29	(0.03)	0.56	(0.03)	0.98	(0.01)	1.72	(0.02)
	Qatar	0.61	(0.01)	1.07	(0.01)	0.78	(0.02)	0.43	(0.02)	**0.35**	(0.03)	-0.83	(0.02)	0.36	(0.02)	1.01	(0.01)	1.89	(0.02)
	Romania	0.49	(0.02)	0.83	(0.01)	0.48	(0.03)	0.49	(0.03)	-0.01	(0.03)	-0.55	(0.03)	0.23	(0.03)	0.73	(0.02)	1.54	(0.03)
	Russian Federation	0.29	(0.02)	0.81	(0.01)	0.36	(0.03)	0.23	(0.02)	**0.13**	(0.03)	-0.68	(0.02)	0.01	(0.03)	0.52	(0.03)	1.32	(0.02)
	Serbia	-0.16	(0.02)	0.94	(0.01)	-0.11	(0.03)	-0.22	(0.03)	**0.11**	(0.04)	-1.37	(0.03)	-0.44	(0.01)	0.09	(0.03)	1.07	(0.04)
	Shanghai-China	0.43	(0.02)	0.92	(0.01)	0.57	(0.03)	0.29	(0.03)	**0.28**	(0.04)	-0.67	(0.02)	0.03	(0.02)	0.76	(0.02)	1.59	(0.03)
	Singapore	0.84	(0.02)	0.92	(0.01)	0.88	(0.03)	0.79	(0.02)	**0.08**	(0.03)	-0.37	(0.03)	0.66	(0.02)	1.07	(0.02)	1.99	(0.02)
	Chinese Taipei	0.07	(0.02)	0.96	(0.01)	0.23	(0.02)	-0.09	(0.02)	**0.31**	(0.04)	-1.11	(0.03)	-0.27	(0.01)	0.35	(0.02)	1.30	(0.02)
	Thailand	0.77	(0.02)	0.72	(0.01)	0.82	(0.02)	0.74	(0.02)	**0.07**	(0.02)	-0.15	(0.03)	0.69	(0.02)	0.94	(0.01)	1.62	(0.02)
	Tunisia	0.59	(0.02)	1.03	(0.01)	0.68	(0.03)	0.52	(0.03)	**0.15**	(0.04)	-0.78	(0.04)	0.31	(0.02)	0.98	(0.03)	1.86	(0.03)
	United Arab Emirates	0.73	(0.02)	1.00	(0.01)	0.81	(0.03)	0.66	(0.02)	**0.15**	(0.03)	-0.61	(0.03)	0.50	(0.02)	1.11	(0.02)	1.94	(0.01)
	Uruguay	0.27	(0.02)	0.97	(0.01)	0.34	(0.03)	0.22	(0.02)	**0.13**	(0.03)	-0.96	(0.03)	-0.04	(0.03)	0.62	(0.02)	1.48	(0.02)
	Viet Nam	0.69	(0.02)	0.66	(0.01)	0.77	(0.02)	0.62	(0.02)	**0.15**	(0.02)	-0.17	(0.02)	0.52	(0.03)	0.91	(0.00)	1.50	(0.03)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
StatLink http://dx.doi.org/10.1787/888932963939

[Part 2/2]

Table III.3.4d Index of intrinsic motivation to learn mathematics and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	Australia	476	(2.5)	502	(2.9)	513	(3.1)	537	(3.1)	**23.4**	(1.1)	**1.6**	(0.1)	6.0	(0.6)
	Austria	**486**	(3.5)	507	(4.2)	516	(4.5)	**529**	(4.9)	**15.8**	(2.2)	**1.4**	(0.1)	3.1	(0.9)
	Belgium	**491**	(3.4)	511	(3.7)	535	(3.5)	**545**	(4.3)	**21.8**	(1.9)	**1.4**	(0.1)	4.2	(0.7)
	Canada	**496**	(3.1)	510	(3.0)	528	(2.6)	**549**	(3.2)	**21.2**	(1.1)	**1.5**	(0.1)	6.3	(0.6)
	Chile	**415**	(3.8)	413	(4.2)	422	(4.5)	**447**	(4.5)	**12.3**	(1.5)	**1.2**	(0.1)	2.3	(0.6)
	Czech Republic	**481**	(3.8)	488	(4.3)	515	(4.5)	**531**	(5.8)	**23.0**	(2.5)	**1.4**	(0.1)	5.0	(1.0)
	Denmark	470	(3.0)	492	(4.0)	511	(3.7)	535	(3.8)	**27.1**	(1.5)	**1.8**	(0.1)	10.0	(1.1)
	Estonia	**499**	(3.0)	515	(3.9)	525	(4.6)	**549**	(3.9)	**21.4**	(1.7)	**1.5**	(0.2)	5.6	(0.9)
	Finland	**488**	(2.6)	512	(2.8)	533	(3.4)	**559**	(2.9)	**30.4**	(1.3)	**1.9**	(0.2)	11.5	(0.9)
	France	**473**	(3.2)	488	(4.4)	509	(4.9)	**524**	(5.6)	**20.5**	(2.3)	**1.3**	(0.1)	4.1	(0.9)
	Germany	**500**	(4.7)	514	(4.4)	533	(4.1)	**550**	(4.9)	**18.0**	(2.0)	**1.5**	(0.1)	4.2	(1.0)
	Greece	**422**	(3.4)	440	(4.7)	465	(4.9)	**487**	(4.5)	**24.7**	(1.8)	**1.6**	(0.1)	8.9	(1.2)
	Hungary	**468**	(4.1)	469	(3.9)	476	(5.7)	**501**	(6.5)	**13.4**	(2.8)	1.0	(0.1)	1.8	(0.7)
	Iceland	**461**	(4.0)	486	(4.1)	506	(4.4)	**523**	(4.5)	**25.5**	(2.1)	**1.8**	(0.2)	8.4	(1.3)
	Ireland	480	(3.7)	490	(4.1)	507	(3.5)	530	(4.1)	**20.6**	(1.9)	**1.4**	(0.1)	5.6	(1.0)
	Israel	**469**	(5.0)	477	(5.5)	471	(7.4)	**460**	(5.6)	-3.6	(2.1)	0.9	(0.1)	0.1	(0.2)
	Italy	**462**	(2.4)	480	(3.0)	498	(3.3)	**503**	(3.0)	**17.4**	(1.1)	**1.4**	(0.1)	3.2	(0.4)
	Japan	**499**	(4.8)	527	(4.6)	549	(4.3)	**577**	(5.4)	**29.7**	(1.8)	**2.0**	(0.1)	10.6	(1.1)
	Korea	503	(4.8)	537	(4.4)	569	(6.5)	609	(7.5)	**40.8**	(2.3)	**2.3**	(0.2)	17.0	(1.6)
	Luxembourg	**471**	(3.3)	489	(3.3)	493	(3.8)	**514**	(3.8)	**15.5**	(1.6)	**1.2**	(0.1)	3.1	(0.6)
	Mexico	**411**	(2.1)	412	(1.9)	411	(1.8)	**421**	(2.4)	**4.7**	(1.2)	1.0	(0.0)	0.3	(0.2)
	Netherlands	**503**	(5.0)	525	(5.2)	536	(5.3)	**548**	(5.9)	**18.2**	(2.4)	**1.5**	(0.1)	3.2	(0.8)
	New Zealand	**484**	(4.6)	502	(4.1)	510	(4.9)	**515**	(5.6)	**14.1**	(2.9)	1.2	(0.1)	1.8	(0.8)
	Norway	447	(3.6)	482	(3.6)	504	(4.6)	535	(4.3)	**31.9**	(1.8)	**2.1**	(0.2)	13.4	(1.4)
	Poland	**497**	(4.5)	496	(4.3)	522	(5.2)	**554**	(5.5)	**24.6**	(1.9)	**1.3**	(0.1)	6.5	(1.0)
	Portugal	**463**	(4.7)	481	(4.9)	498	(5.1)	**511**	(5.6)	**22.4**	(2.1)	**1.5**	(0.1)	4.5	(0.8)
	Slovak Republic	**471**	(4.7)	479	(4.5)	490	(5.3)	**492**	(6.6)	**7.0**	(3.0)	1.0	(0.1)	0.4	(0.3)
	Slovenia	**482**	(3.5)	498	(3.6)	515	(4.4)	**522**	(3.7)	**16.8**	(1.9)	**1.4**	(0.1)	3.3	(0.8)
	Spain	**465**	(2.5)	477	(2.8)	490	(2.6)	**512**	(3.6)	**18.8**	(1.5)	**1.3**	(0.1)	4.2	(0.6)
	Sweden	**441**	(3.6)	473	(3.4)	500	(4.0)	**513**	(5.2)	**26.3**	(1.9)	**1.9**	(0.1)	9.1	(1.2)
	Switzerland	514	(4.6)	528	(4.5)	537	(4.4)	546	(4.4)	**12.8**	(1.7)	**1.3**	(0.1)	1.8	(0.5)
	Turkey	**437**	(5.0)	442	(5.3)	455	(6.3)	**459**	(7.7)	**9.1**	(2.4)	1.2	(0.1)	1.1	(0.6)
	United Kingdom	**471**	(4.9)	484	(5.6)	500	(4.6)	**524**	(4.5)	**22.4**	(2.3)	**1.4**	(0.1)	5.2	(1.0)
	United States	**467**	(4.4)	481	(4.8)	484	(5.2)	**498**	(5.7)	**12.5**	(2.0)	**1.2**	(0.1)	2.1	(0.6)
	OECD average	**472**	(0.7)	488	(0.7)	504	(0.8)	**521**	(0.8)	**19.4**	(0.3)	**1.4**	(0.0)	5.2	(0.2)
Partners	Albania	399	(4.5)	394	(4.6)	394	(5.4)	391	(5.2)	-3.3	(2.9)	0.9	(0.1)	0.1	(0.2)
	Argentina	397	(4.9)	393	(3.7)	392	(5.3)	382	(4.4)	**-5.5**	(1.7)	0.7	(0.1)	0.5	(0.3)
	Brazil	**401**	(2.9)	396	(2.5)	390	(2.6)	**387**	(3.4)	**-6.1**	(1.4)	0.7	(0.0)	0.5	(0.2)
	Bulgaria	**442**	(5.2)	448	(5.0)	447	(5.5)	**427**	(6.2)	**-5.8**	(2.3)	0.9	(0.1)	0.4	(0.3)
	Colombia	**381**	(3.9)	382	(3.3)	379	(4.1)	**373**	(4.8)	**-4.6**	(2.2)	0.8	(0.1)	0.3	(0.3)
	Costa Rica	**412**	(4.1)	405	(4.8)	407	(4.6)	**406**	(4.5)	-1.2	(1.7)	0.8	(0.1)	0.0	(0.1)
	Croatia	**459**	(3.7)	465	(4.4)	473	(4.9)	**489**	(7.3)	**11.8**	(2.6)	1.1	(0.1)	1.7	(0.7)
	Cyprus*	**408**	(3.4)	435	(3.6)	450	(3.8)	**472**	(3.5)	**22.4**	(1.5)	**1.7**	(0.1)	7.4	(0.9)
	Hong Kong-China	**523**	(4.2)	553	(4.9)	576	(4.8)	**596**	(4.9)	**29.5**	(1.8)	**1.9**	(0.1)	8.9	(1.0)
	Indonesia	**386**	(7.2)	374	(4.7)	369	(4.7)	**372**	(4.7)	-7.1	(4.3)	0.8	(0.1)	0.5	(0.6)
	Jordan	**377**	(3.1)	384	(3.7)	396	(4.0)	**402**	(5.8)	**10.8**	(2.1)	**1.3**	(0.1)	2.0	(0.6)
	Kazakhstan	**433**	(4.5)	429	(4.3)	425	(4.2)	**438**	(4.8)	2.4	(2.4)	0.9	(0.1)	0.1	(0.2)
	Latvia	**475**	(4.4)	484	(4.6)	492	(5.4)	**512**	(4.6)	**17.2**	(2.2)	1.2	(0.1)	3.1	(0.8)
	Liechtenstein	**519**	(15.9)	518	(20.2)	542	(16.9)	**565**	(14.8)	**18.1**	(7.3)	1.3	(0.4)	4.1	(3.3)
	Lithuania	**462**	(4.3)	474	(4.1)	485	(4.7)	**500**	(5.0)	**13.2**	(1.8)	**1.3**	(0.1)	2.5	(0.6)
	Macao-China	**515**	(3.4)	529	(3.4)	551	(2.9)	**564**	(3.2)	**21.4**	(1.8)	**1.6**	(0.1)	4.6	(0.8)
	Malaysia	**403**	(4.6)	416	(4.7)	421	(5.0)	**445**	(4.1)	**19.4**	(2.1)	**1.4**	(0.2)	3.9	(0.9)
	Montenegro	**404**	(3.4)	415	(3.8)	413	(3.2)	**413**	(3.5)	**3.6**	(1.7)	1.0	(0.1)	0.2	(0.2)
	Peru	**388**	(5.1)	375	(5.1)	362	(4.8)	**361**	(4.9)	**-14.2**	(2.3)	0.6	(0.1)	1.9	(0.6)
	Qatar	**370**	(2.4)	381	(2.7)	384	(2.8)	**393**	(2.4)	**8.6**	(1.1)	1.1	(0.1)	0.9	(0.2)
	Romania	**455**	(4.9)	452	(5.6)	442	(5.4)	**436**	(4.7)	**-8.8**	(2.0)	0.9	(0.1)	0.8	(0.4)
	Russian Federation	**470**	(3.4)	469	(4.4)	488	(4.7)	**503**	(5.5)	**16.0**	(2.7)	**1.1**	(0.1)	2.2	(0.7)
	Serbia	**446**	(4.3)	445	(4.7)	454	(4.7)	**459**	(5.6)	**5.2**	(2.2)	1.0	(0.1)	0.3	(0.2)
	Shanghai-China	**590**	(5.7)	608	(5.0)	617	(4.8)	**637**	(4.7)	**19.5**	(2.1)	**1.5**	(0.1)	3.2	(0.7)
	Singapore	**563**	(4.2)	576	(4.7)	578	(5.1)	**574**	(4.0)	**6.8**	(1.9)	**1.2**	(0.1)	0.4	(0.2)
	Chinese Taipei	**513**	(5.2)	543	(4.5)	581	(5.0)	**605**	(4.8)	**40.4**	(1.9)	**2.0**	(0.1)	11.3	(1.1)
	Thailand	428	(4.1)	424	(5.0)	422	(4.3)	438	(4.7)	**5.0**	(2.2)	0.9	(0.1)	0.2	(0.2)
	Tunisia	**378**	(3.7)	390	(5.5)	392	(5.2)	**401**	(5.4)	**7.4**	(1.6)	1.1	(0.1)	1.0	(0.4)
	United Arab Emirates	**429**	(2.8)	434	(3.4)	434	(3.9)	**446**	(4.2)	**6.1**	(1.3)	1.0	(0.1)	0.5	(0.2)
	Uruguay	416	(3.8)	413	(4.1)	416	(4.8)	410	(5.0)	-3.0	(1.9)	0.9	(0.1)	0.1	(0.1)
	Viet Nam	**493**	(5.6)	508	(6.3)	512	(5.9)	**531**	(5.7)	**19.4**	(3.1)	**1.3**	(0.1)	2.3	(0.7)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 1/2]

Table III.3.4f **Change between 2003 and 2012 in students' intrinsic motivation to learn mathematics**

Results based on students' self-reports

		PISA 2003										PISA 2012									
				Percentage of students who agreed with the following statements:										Percentage of students who agreed with the following statements:							
		Index of intrinsic motivation to learn mathematics		I enjoy reading about mathematics		I look forward to my mathematics lessons		I do mathematics because I enjoy it		I am interested in the things I learn in mathematics		Index of intrinsic motivation to learn mathematics		I enjoy reading about mathematics		I look forward to my mathematics lessons		I do mathematics because I enjoy it		I am interested in the things I learn in mathematics	
		Mean index	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	Mean index	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	-0.03	(0.02)	28.3	(0.7)	36.7	(0.8)	35.8	(0.9)	50.6	(0.8)	0.11	(0.01)	34.7	(0.6)	45.3	(0.6)	39.0	(0.7)	53.7	(0.7)
	Austria	-0.32	(0.02)	19.5	(0.8)	30.9	(0.9)	27.7	(0.7)	40.9	(1.0)	-0.35	(0.02)	17.1	(0.8)	32.6	(1.0)	23.8	(0.9)	41.3	(1.1)
	Belgium	-0.20	(0.02)	23.1	(0.6)	23.1	(0.7)	33.4	(0.7)	53.6	(0.7)	-0.24	(0.02)	22.9	(0.6)	24.2	(0.8)	28.8	(0.8)	50.0	(0.8)
	Canada	-0.05	(0.01)	31.1	(0.6)	33.9	(0.6)	36.5	(0.6)	51.8	(0.6)	0.05	(0.01)	34.7	(0.5)	39.7	(0.6)	36.6	(0.6)	53.9	(0.6)
	Czech Republic	-0.22	(0.02)	10.1	(0.5)	30.2	(0.9)	31.0	(0.9)	40.1	(1.0)	-0.16	(0.02)	17.5	(0.8)	33.9	(1.1)	30.3	(1.0)	41.5	(1.3)
	Denmark	0.37	(0.02)	47.9	(0.9)	47.4	(1.0)	58.6	(0.8)	65.4	(0.8)	0.35	(0.02)	40.4	(1.0)	51.5	(1.1)	56.9	(1.1)	64.1	(1.1)
	Finland	-0.27	(0.02)	17.5	(0.5)	20.1	(0.7)	24.7	(0.7)	45.5	(0.7)	-0.22	(0.02)	21.0	(0.6)	24.8	(0.8)	28.8	(0.7)	44.3	(0.8)
	France	0.01	(0.02)	31.4	(0.9)	24.0	(0.8)	46.9	(1.0)	67.2	(0.9)	-0.02	(0.02)	31.8	(1.1)	23.8	(0.9)	41.5	(1.1)	65.2	(1.0)
	Germany	0.01	(0.02)	21.4	(0.6)	39.8	(0.9)	43.3	(0.9)	55.4	(0.9)	-0.11	(0.02)	18.0	(0.8)	36.9	(1.0)	39.0	(0.9)	51.6	(1.1)
	Greece	0.06	(0.02)	45.7	(1.0)	27.2	(1.0)	44.2	(1.1)	49.8	(1.2)	0.21	(0.02)	42.9	(1.0)	36.8	(1.1)	51.7	(1.0)	63.6	(0.9)
	Hungary	-0.24	(0.02)	18.0	(0.8)	23.8	(0.8)	26.8	(0.9)	40.4	(1.0)	-0.18	(0.02)	25.9	(1.0)	30.3	(1.1)	27.5	(1.0)	40.7	(1.3)
	Iceland	-0.15	(0.02)	32.8	(0.8)	24.0	(0.7)	37.8	(0.7)	48.6	(0.8)	0.15	(0.02)	37.9	(1.1)	39.7	(1.1)	47.7	(1.1)	57.6	(1.1)
	Ireland	-0.09	(0.02)	29.3	(0.9)	32.2	(0.9)	33.2	(1.0)	47.9	(1.1)	0.06	(0.02)	33.3	(0.9)	40.2	(1.1)	37.0	(1.0)	49.6	(1.0)
	Italy	0.03	(0.02)	31.2	(1.0)	28.0	(0.9)	47.3	(1.1)	60.1	(1.1)	0.01	(0.02)	31.4	(0.6)	29.0	(0.6)	45.8	(0.8)	57.4	(0.7)
	Japan	-0.41	(0.03)	12.8	(0.7)	26.0	(0.8)	26.1	(0.9)	32.5	(1.1)	-0.23	(0.02)	16.9	(0.8)	33.7	(0.9)	30.8	(0.8)	37.8	(1.0)
	Korea	-0.15	(0.02)	29.3	(0.8)	22.0	(0.7)	31.3	(0.8)	44.1	(0.9)	-0.20	(0.03)	27.2	(1.2)	21.8	(1.1)	30.7	(1.1)	47.2	(1.2)
	Luxembourg	-0.29	(0.02)	21.1	(0.7)	29.8	(0.7)	33.2	(0.7)	43.1	(0.8)	-0.16	(0.02)	25.0	(0.7)	35.7	(0.7)	35.3	(0.8)	48.5	(0.8)
	Mexico	0.52	(0.02)	64.1	(1.0)	49.7	(0.9)	45.2	(0.9)	86.8	(0.7)	0.67	(0.01)	62.0	(0.6)	70.6	(0.5)	52.8	(0.5)	85.0	(0.4)
	Netherlands	-0.23	(0.02)	20.0	(0.9)	19.6	(1.0)	35.3	(1.1)	46.0	(1.1)	-0.33	(0.02)	12.1	(0.9)	19.8	(0.8)	32.4	(1.1)	44.6	(1.3)
	New Zealand	0.08	(0.02)	34.9	(0.9)	41.5	(1.0)	39.1	(0.9)	55.8	(1.0)	0.11	(0.02)	33.3	(1.0)	46.1	(1.1)	38.2	(1.1)	55.4	(1.3)
	Norway	-0.20	(0.02)	26.2	(0.8)	28.8	(0.9)	34.1	(0.8)	50.2	(0.9)	-0.15	(0.02)	26.5	(0.8)	33.2	(1.1)	32.2	(1.1)	50.3	(0.9)
	Poland	0.07	(0.02)	40.1	(0.9)	30.3	(0.9)	40.4	(0.9)	53.7	(1.0)	-0.16	(0.02)	24.7	(0.9)	21.3	(0.8)	36.1	(1.1)	45.6	(1.1)
	Portugal	0.12	(0.02)	35.1	(1.0)	27.1	(1.0)	46.9	(0.9)	69.3	(0.9)	0.12	(0.02)	32.2	(1.1)	32.6	(1.1)	45.5	(0.9)	67.5	(1.0)
	Slovak Republic	-0.01	(0.02)	26.5	(0.8)	34.1	(0.9)	32.6	(0.8)	57.8	(0.9)	-0.19	(0.02)	22.4	(0.9)	30.8	(1.2)	27.9	(1.0)	35.6	(1.1)
	Spain	-0.11	(0.02)	32.3	(0.8)	20.4	(0.7)	36.8	(0.9)	61.0	(0.9)	-0.14	(0.01)	19.3	(0.5)	25.7	(0.6)	37.0	(0.7)	60.2	(0.6)
	Sweden	0.05	(0.02)	49.2	(0.9)	30.1	(0.9)	35.1	(1.0)	53.5	(1.1)	0.12	(0.02)	50.7	(1.0)	36.2	(1.0)	37.0	(1.0)	54.5	(1.0)
	Switzerland	0.08	(0.02)	24.1	(0.8)	41.2	(0.7)	51.7	(0.8)	59.8	(0.9)	-0.02	(0.02)	19.1	(0.6)	38.9	(1.0)	48.5	(0.8)	56.2	(0.9)
	Turkey	0.50	(0.03)	59.6	(1.2)	49.7	(1.4)	58.2	(1.2)	64.9	(1.3)	0.44	(0.02)	56.2	(1.0)	48.9	(1.1)	52.7	(1.1)	62.1	(1.0)
	United States	0.00	(0.02)	32.2	(0.8)	40.4	(0.8)	34.5	(0.8)	51.4	(0.9)	0.08	(0.03)	33.8	(1.3)	45.4	(1.5)	36.6	(1.4)	49.9	(1.3)
	OECD average 2003	-0.04	(0.00)	30.8	(0.2)	31.5	(0.2)	38.2	(0.2)	53.4	(0.2)	-0.01	(0.00)	30.0	(0.2)	35.5	(0.2)	38.2	(0.2)	52.9	(0.2)
Partners	**Brazil**	0.51	(0.02)	51.6	(1.2)	47.2	(1.3)	60.6	(1.1)	80.4	(0.7)	0.42	(0.01)	46.8	(0.8)	43.9	(0.7)	55.8	(0.7)	73.3	(0.6)
	Hong Kong-China	0.18	(0.02)	36.8	(1.0)	45.0	(0.9)	51.8	(0.9)	51.0	(0.9)	0.30	(0.02)	44.4	(1.0)	49.8	(1.0)	54.9	(1.0)	52.4	(1.1)
	Indonesia	0.68	(0.01)	78.0	(0.9)	64.6	(1.1)	73.8	(0.9)	70.2	(1.0)	0.80	(0.02)	76.9	(1.2)	72.3	(1.2)	78.3	(0.9)	73.5	(1.3)
	Latvia	0.01	(0.02)	25.7	(0.8)	22.2	(1.0)	41.3	(1.2)	55.3	(1.2)	-0.05	(0.02)	27.9	(1.3)	20.8	(1.0)	38.6	(1.2)	49.3	(1.3)
	Liechtenstein	0.05	(0.05)	22.1	(2.3)	40.9	(2.4)	52.5	(2.7)	54.1	(2.3)	0.09	(0.08)	22.1	(3.0)	42.3	(3.7)	56.2	(3.6)	55.3	(3.6)
	Macao-China	0.09	(0.03)	34.5	(1.5)	35.3	(1.7)	45.1	(1.7)	42.8	(1.7)	0.15	(0.01)	42.5	(0.8)	41.7	(0.8)	42.3	(0.8)	46.2	(0.7)
	Russian Federation	0.20	(0.02)	27.5	(1.0)	41.4	(1.3)	40.8	(1.2)	68.6	(1.1)	0.29	(0.02)	34.4	(1.2)	45.9	(1.4)	42.9	(1.3)	70.4	(1.1)
	Thailand	0.66	(0.01)	70.0	(1.0)	66.2	(1.0)	68.6	(0.9)	83.8	(0.6)	0.77	(0.02)	77.2	(0.9)	68.8	(1.0)	70.6	(1.0)	86.3	(0.6)
	Tunisia	0.88	(0.02)	76.2	(0.9)	62.8	(1.1)	67.2	(1.0)	81.8	(0.8)	0.59	(0.02)	61.2	(1.1)	54.4	(1.1)	58.0	(1.1)	75.9	(0.8)
	Uruguay	0.31	(0.02)	40.3	(0.9)	50.7	(0.9)	48.4	(0.9)	70.5	(0.8)	0.27	(0.02)	39.2	(1.0)	40.7	(1.0)	50.6	(1.1)	70.2	(1.0)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
For comparability over time, PISA 2003 values on the *index of intrinsic motivation to learn mathematics* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).

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[Part 2/2]

Table III.3.4f

Change between 2003 and 2012 in students' intrinsic motivation to learn mathematics

Results based on students' self-reports

		Change between 2003 and 2012 (PISA 2012 - PISA 2003)									
				Percentage of students who agreed with the following statements:							
		Index of intrinsic motivation to learn mathematics		I enjoy reading about mathematics		I look forward to my mathematics lessons		I do mathematics because I enjoy it		I am interested in the things I learn in mathematics	
		Dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.
OECD	Australia	**0.14**	(0.02)	**6.4**	(0.9)	**8.6**	(1.0)	**3.2**	(1.1)	**3.1**	(1.0)
	Austria	-0.03	(0.03)	**-2.4**	(1.1)	1.7	(1.4)	**-4.0**	(1.2)	0.4	(1.5)
	Belgium	-0.04	(0.02)	-0.3	(0.9)	1.1	(1.1)	**-4.5**	(1.0)	**-3.6**	(1.1)
	Canada	**0.09**	(0.02)	**3.6**	(0.8)	**5.8**	(0.9)	0.1	(0.8)	**2.1**	(0.9)
	Czech Republic	**0.06**	(0.03)	**7.4**	(1.0)	**3.7**	(1.4)	-0.7	(1.3)	1.4	(1.6)
	Denmark	-0.01	(0.03)	**-7.5**	(1.4)	**4.1**	(1.5)	-1.7	(1.4)	-1.2	(1.3)
	Finland	**0.05**	(0.02)	**3.5**	(0.8)	**4.7**	(1.1)	**4.0**	(1.0)	-1.2	(1.0)
	France	-0.02	(0.03)	0.4	(1.4)	-0.2	(1.2)	**-5.4**	(1.5)	-2.1	(1.3)
	Germany	**-0.12**	(0.03)	**-3.4**	(1.0)	**-2.9**	(1.3)	**-4.2**	(1.3)	**-3.8**	(1.4)
	Greece	**0.15**	(0.03)	**-2.8**	(1.4)	**9.6**	(1.5)	**7.5**	(1.4)	**13.8**	(1.5)
	Hungary	**0.07**	(0.03)	**8.0**	(1.2)	**6.5**	(1.4)	0.7	(1.4)	0.3	(1.7)
	Iceland	**0.30**	(0.03)	**5.1**	(1.4)	**15.6**	(1.3)	**9.9**	(1.3)	**9.0**	(1.4)
	Ireland	**0.14**	(0.03)	**4.0**	(1.2)	**8.0**	(1.4)	**3.8**	(1.4)	1.7	(1.5)
	Italy	-0.02	(0.03)	0.3	(1.2)	1.0	(1.1)	-1.5	(1.3)	**-2.7**	(1.3)
	Japan	**0.18**	(0.03)	**4.2**	(1.1)	**7.8**	(1.2)	**4.7**	(1.2)	**5.3**	(1.5)
	Korea	-0.05	(0.03)	-2.1	(1.4)	-0.3	(1.3)	-0.6	(1.4)	**3.1**	(1.5)
	Luxembourg	**0.13**	(0.02)	**4.0**	(1.0)	**5.9**	(1.0)	2.0	(1.1)	**5.5**	(1.1)
	Mexico	**0.15**	(0.02)	-2.1	(1.1)	**20.9**	(1.0)	**7.6**	(1.1)	**-1.8**	(0.8)
	Netherlands	**-0.10**	(0.03)	**-7.8**	(1.2)	0.2	(1.3)	-2.8	(1.5)	-1.4	(1.7)
	New Zealand	0.03	(0.03)	-1.7	(1.4)	**4.6**	(1.5)	-0.9	(1.4)	-0.5	(1.6)
	Norway	0.05	(0.03)	0.3	(1.2)	**4.4**	(1.4)	-1.9	(1.4)	0.1	(1.3)
	Poland	**-0.23**	(0.03)	**-15.4**	(1.3)	**-9.0**	(1.2)	**-4.3**	(1.4)	**-8.0**	(1.4)
	Portugal	0.00	(0.02)	-2.8	(1.5)	**5.6**	(1.4)	-1.4	(1.3)	-1.8	(1.3)
	Slovak Republic	**-0.19**	(0.03)	**-4.2**	(1.2)	**-3.3**	(1.5)	**-4.6**	(1.3)	**-22.3**	(1.4)
	Spain	-0.03	(0.02)	**-13.0**	(0.9)	**5.3**	(0.9)	0.3	(1.2)	-0.8	(1.1)
	Sweden	**0.08**	(0.03)	1.6	(1.3)	**6.0**	(1.3)	1.8	(1.4)	1.1	(1.4)
	Switzerland	**-0.10**	(0.02)	**-4.9**	(1.0)	-2.3	(1.3)	**-3.2**	(1.1)	**-3.7**	(1.2)
	Turkey	-0.06	(0.04)	**-3.3**	(1.6)	-0.9	(1.7)	**-5.4**	(1.6)	-2.9	(1.6)
	United States	**0.08**	(0.03)	1.6	(1.5)	**5.0**	(1.7)	2.2	(1.6)	-1.6	(1.6)
	OECD average 2003	**0.02**	(0.01)	**-0.8**	(0.2)	**4.0**	(0.2)	0.0	(0.2)	-0.4	(0.3)
Partners	Brazil	**-0.09**	(0.03)	**-4.8**	(1.4)	**-3.4**	(1.5)	**-4.8**	(1.3)	**-7.1**	(0.9)
	Hong Kong-China	**0.11**	(0.03)	**7.6**	(1.4)	**4.7**	(1.3)	**3.2**	(1.3)	1.4	(1.4)
	Indonesia	**0.12**	(0.03)	-1.1	(1.5)	**7.6**	(1.6)	**4.5**	(1.3)	**3.3**	(1.6)
	Latvia	**-0.06**	(0.03)	2.2	(1.5)	-1.4	(1.4)	-2.7	(1.7)	**-6.0**	(1.8)
	Liechtenstein	0.04	(0.10)	0.1	(3.8)	1.4	(4.4)	3.7	(4.5)	1.2	(4.3)
	Macao-China	0.06	(0.03)	**8.1**	(1.7)	**6.3**	(1.9)	-2.8	(1.8)	3.3	(1.8)
	Russian Federation	**0.09**	(0.03)	**6.9**	(1.5)	**4.5**	(1.9)	2.1	(1.8)	1.8	(1.6)
	Thailand	**0.12**	(0.02)	**7.2**	(1.4)	2.7	(1.4)	2.0	(1.3)	**2.5**	(0.9)
	Tunisia	**-0.29**	(0.03)	**-15.0**	(1.4)	**-8.4**	(1.5)	**-9.2**	(1.5)	**-5.9**	(1.2)
	Uruguay	-0.03	(0.03)	-1.1	(1.3)	**-10.0**	(1.4)	2.2	(1.4)	-0.3	(1.3)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.

For comparability over time, PISA 2003 values on the *index of intrinsic motivation to learn mathematics* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).

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[Part 1/1]

Table III.3.5a Students' instrumental motivation to learn mathematics

Percentage of students who reported "agree" or "strongly agree"

		Percentage of students who agreed with the following statements:							
		Making an effort in mathematics is worth it because it will help me in the work that I want to do later on		Learning mathematics is worthwhile for me because it will improve my career prospects and chances		Mathematics is an important subject for me because I need it for what I want to study later on		I will learn many things in mathematics that will help me get a job	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	84.3	(0.4)	86.1	(0.4)	73.8	(0.5)	80.0	(0.4)
	Austria	66.6	(1.0)	55.9	(1.1)	39.8	(1.2)	57.9	(1.1)
	Belgium	63.7	(0.7)	63.0	(0.8)	54.0	(0.8)	57.3	(0.8)
	Canada	82.2	(0.5)	85.7	(0.5)	73.4	(0.6)	79.0	(0.5)
	Chile	84.4	(0.6)	87.3	(0.6)	67.3	(0.8)	80.5	(0.8)
	Czech Republic	67.9	(1.0)	75.2	(0.9)	65.7	(1.1)	70.5	(1.1)
	Denmark	87.8	(0.6)	87.9	(0.7)	71.7	(1.0)	77.6	(0.9)
	Estonia	76.4	(0.8)	78.8	(0.8)	81.4	(0.7)	65.0	(1.0)
	Finland	73.2	(0.8)	85.4	(0.5)	70.3	(0.8)	73.8	(0.7)
	France	71.6	(0.9)	72.9	(0.8)	63.3	(0.9)	61.0	(0.8)
	Germany	66.4	(0.9)	76.0	(0.8)	51.9	(1.1)	67.2	(1.0)
	Greece	75.6	(0.7)	76.8	(0.8)	66.1	(0.8)	68.3	(0.8)
	Hungary	80.2	(0.8)	81.9	(0.9)	66.2	(1.1)	70.2	(1.1)
	Iceland	82.9	(0.8)	88.2	(0.6)	78.5	(0.7)	83.4	(0.7)
	Ireland	79.9	(0.7)	88.3	(0.7)	66.2	(1.0)	75.6	(0.8)
	Israel	80.8	(0.9)	86.3	(0.8)	73.6	(1.0)	69.9	(1.1)
	Italy	68.6	(0.6)	71.9	(0.6)	64.7	(0.6)	65.5	(0.5)
	Japan	56.5	(1.1)	51.6	(1.1)	47.9	(1.0)	53.5	(1.1)
	Korea	59.3	(1.1)	63.1	(1.3)	61.4	(1.1)	50.2	(1.3)
	Luxembourg	63.6	(0.8)	65.0	(0.8)	53.2	(0.8)	58.4	(0.9)
	Mexico	90.7	(0.3)	92.8	(0.2)	83.1	(0.4)	89.8	(0.3)
	Netherlands	57.8	(1.0)	71.3	(1.0)	61.3	(1.2)	62.2	(1.1)
	New Zealand	86.2	(0.8)	88.5	(0.7)	76.5	(0.9)	83.0	(0.8)
	Norway	84.6	(0.7)	82.6	(0.6)	77.4	(0.9)	78.2	(0.8)
	Poland	71.9	(1.0)	78.5	(0.8)	67.5	(1.0)	66.3	(1.1)
	Portugal	83.8	(0.9)	88.6	(0.6)	79.8	(0.8)	81.2	(0.9)
	Slovak Republic	67.0	(1.1)	71.8	(1.0)	48.1	(1.3)	63.0	(1.1)
	Slovenia	67.2	(1.1)	74.0	(0.9)	63.2	(1.1)	63.1	(1.1)
	Spain	72.4	(0.7)	77.3	(0.6)	59.8	(0.7)	72.8	(0.6)
	Sweden	78.9	(0.7)	85.5	(0.6)	75.6	(0.9)	78.8	(0.8)
	Switzerland	73.7	(1.1)	73.7	(1.1)	54.0	(0.9)	64.3	(1.2)
	Turkey	76.5	(0.8)	75.5	(0.9)	73.0	(0.8)	67.9	(1.1)
	United Kingdom	88.0	(0.6)	90.8	(0.5)	73.0	(0.9)	81.1	(0.6)
	United States	80.6	(0.7)	80.2	(0.7)	70.0	(0.9)	80.2	(0.8)
	OECD average	75.0	(0.1)	78.2	(0.1)	66.3	(0.2)	70.5	(0.2)
Partners	Albania	91.7	(0.6)	90.7	(0.7)	85.1	(0.9)	85.5	(0.7)
	Argentina	80.1	(0.8)	85.4	(0.7)	67.0	(1.2)	80.3	(0.7)
	Brazil	86.2	(0.5)	89.3	(0.4)	77.7	(0.5)	85.9	(0.4)
	Bulgaria	71.8	(0.8)	79.1	(0.8)	65.6	(0.9)	69.3	(0.8)
	Colombia	90.6	(0.5)	87.3	(0.7)	79.0	(0.9)	87.1	(0.7)
	Costa Rica	80.1	(0.9)	87.4	(0.7)	67.8	(1.2)	82.5	(0.8)
	Croatia	72.3	(1.0)	68.5	(1.1)	53.0	(1.1)	66.9	(1.3)
	Cyprus*	75.6	(0.7)	79.3	(0.7)	67.4	(0.9)	71.8	(0.8)
	Hong Kong-China	69.2	(0.9)	71.7	(0.8)	66.3	(0.9)	58.6	(1.0)
	Indonesia	88.6	(0.7)	89.0	(0.6)	87.2	(0.6)	89.6	(0.6)
	Jordan	87.1	(0.7)	83.0	(0.8)	84.0	(0.8)	84.0	(0.7)
	Kazakhstan	88.9	(0.7)	85.8	(0.9)	84.2	(0.9)	85.1	(0.9)
	Latvia	76.4	(0.9)	82.6	(0.9)	84.2	(0.8)	75.2	(0.8)
	Liechtenstein	79.2	(2.7)	79.2	(2.9)	59.2	(3.4)	66.5	(3.4)
	Lithuania	81.2	(0.8)	80.7	(0.9)	73.8	(0.9)	76.0	(0.8)
	Macao-China	68.0	(0.8)	71.6	(0.8)	62.3	(0.7)	57.0	(0.8)
	Malaysia	91.2	(0.6)	91.4	(0.6)	91.6	(0.6)	88.7	(0.7)
	Montenegro	70.7	(0.9)	60.7	(0.9)	53.4	(0.9)	62.7	(0.8)
	Peru	91.6	(0.5)	94.2	(0.4)	87.5	(0.7)	92.5	(0.5)
	Qatar	82.1	(0.5)	81.0	(0.5)	77.9	(0.5)	79.0	(0.5)
	Romania	42.4	(1.2)	40.3	(1.1)	47.1	(1.2)	42.1	(1.0)
	Russian Federation	71.0	(0.9)	67.0	(1.0)	62.7	(1.0)	70.6	(1.0)
	Serbia	79.4	(0.8)	75.9	(1.0)	68.6	(1.2)	68.0	(1.2)
	Shanghai-China	78.2	(0.7)	72.7	(0.9)	79.0	(0.9)	66.3	(1.0)
	Singapore	90.4	(0.6)	88.2	(0.6)	87.4	(0.6)	85.5	(0.7)
	Chinese Taipei	65.3	(0.8)	62.1	(0.9)	64.4	(1.0)	57.9	(0.9)
	Thailand	91.7	(0.5)	91.0	(0.6)	89.2	(0.5)	92.2	(0.4)
	Tunisia	85.0	(0.7)	84.2	(0.6)	77.4	(0.9)	81.3	(0.8)
	United Arab Emirates	83.9	(0.5)	84.9	(0.5)	80.5	(0.6)	78.1	(0.7)
	Uruguay	80.5	(0.7)	84.4	(0.7)	66.5	(1.0)	80.8	(0.9)
	Viet Nam	94.5	(0.5)	88.4	(0.6)	88.2	(0.6)	86.7	(0.7)

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.3.5d Index of instrumental motivation to learn mathematics and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Index of instrumental motivation to learn mathematics																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	0.24	(0.01)	0.96	(0.01)	0.39	(0.02)	0.08	(0.01)	**0.30**	(0.02)	-0.99	(0.02)	-0.06	(0.01)	0.53	(0.02)	1.47	(0.01)
	Austria	-0.41	(0.03)	1.01	(0.01)	-0.16	(0.04)	-0.66	(0.03)	**0.50**	(0.05)	-1.62	(0.03)	-0.84	(0.02)	-0.14	(0.04)	0.97	(0.03)
	Belgium	-0.37	(0.02)	0.98	(0.01)	-0.24	(0.02)	-0.50	(0.02)	**0.26**	(0.03)	-1.57	(0.02)	-0.73	(0.02)	-0.08	(0.01)	0.90	(0.03)
	Canada	0.25	(0.01)	1.00	(0.01)	0.32	(0.02)	0.18	(0.02)	**0.13**	(0.03)	-1.05	(0.02)	-0.07	(0.01)	0.62	(0.02)	1.50	(0.01)
	Chile	0.32	(0.02)	0.99	(0.01)	0.43	(0.03)	0.21	(0.02)	**0.22**	(0.04)	-1.00	(0.03)	-0.04	(0.03)	0.79	(0.02)	1.52	(0.01)
	Czech Republic	-0.17	(0.02)	0.90	(0.01)	-0.05	(0.03)	-0.29	(0.03)	**0.24**	(0.04)	-1.29	(0.03)	-0.45	(0.03)	0.06	(0.02)	1.00	(0.03)
	Denmark	0.23	(0.02)	0.88	(0.01)	0.38	(0.02)	0.09	(0.02)	**0.29**	(0.03)	-0.88	(0.03)	-0.08	(0.02)	0.51	(0.03)	1.39	(0.02)
	Estonia	0.02	(0.02)	0.88	(0.01)	0.07	(0.02)	-0.03	(0.03)	**0.10**	(0.04)	-1.09	(0.02)	-0.24	(0.03)	0.21	(0.02)	1.19	(0.02)
	Finland	-0.01	(0.02)	0.90	(0.01)	0.02	(0.02)	-0.04	(0.02)	**0.06**	(0.03)	-1.14	(0.02)	-0.25	(0.02)	0.16	(0.02)	1.18	(0.03)
	France	-0.16	(0.02)	0.99	(0.01)	-0.04	(0.03)	-0.28	(0.02)	**0.23**	(0.03)	-1.42	(0.02)	-0.52	(0.03)	0.15	(0.02)	1.13	(0.03)
	Germany	-0.13	(0.02)	0.99	(0.01)	0.05	(0.03)	-0.32	(0.03)	**0.36**	(0.04)	-1.36	(0.02)	-0.56	(0.03)	0.21	(0.03)	1.17	(0.03)
	Greece	0.02	(0.02)	1.04	(0.01)	0.13	(0.03)	-0.09	(0.03)	**0.22**	(0.05)	-1.32	(0.03)	-0.29	(0.02)	0.37	(0.02)	1.35	(0.02)
	Hungary	-0.05	(0.02)	0.89	(0.01)	0.08	(0.03)	-0.16	(0.02)	**0.24**	(0.03)	-1.16	(0.03)	-0.28	(0.03)	0.15	(0.02)	1.11	(0.03)
	Iceland	0.33	(0.02)	0.97	(0.01)	0.32	(0.03)	0.34	(0.03)	-0.02	(0.04)	-0.94	(0.03)	0.03	(0.01)	0.66	(0.04)	1.57	(0.02)
	Ireland	0.13	(0.02)	0.93	(0.01)	0.21	(0.03)	0.04	(0.02)	**0.16**	(0.03)	-1.04	(0.03)	-0.17	(0.02)	0.37	(0.03)	1.35	(0.02)
	Israel	0.31	(0.02)	1.02	(0.01)	0.40	(0.03)	0.22	(0.03)	**0.19**	(0.05)	-1.07	(0.04)	-0.04	(0.04)	0.81	(0.02)	1.53	(0.02)
	Italy	-0.19	(0.01)	0.95	(0.01)	-0.10	(0.02)	-0.28	(0.02)	**0.19**	(0.02)	-1.38	(0.02)	-0.50	(0.02)	0.10	(0.01)	1.05	(0.01)
	Japan	-0.50	(0.02)	1.04	(0.01)	-0.38	(0.03)	-0.63	(0.02)	**0.25**	(0.03)	-1.75	(0.03)	-0.91	(0.02)	-0.20	(0.03)	0.87	(0.03)
	Korea	-0.39	(0.03)	1.05	(0.01)	-0.31	(0.04)	-0.48	(0.03)	**0.17**	(0.05)	-1.71	(0.03)	-0.75	(0.03)	-0.07	(0.02)	0.97	(0.04)
	Luxembourg	-0.28	(0.02)	1.13	(0.01)	-0.05	(0.03)	-0.52	(0.02)	**0.47**	(0.04)	-1.71	(0.02)	-0.72	(0.02)	0.10	(0.02)	1.23	(0.02)
	Mexico	0.51	(0.01)	0.83	(0.00)	0.55	(0.01)	0.48	(0.01)	**0.07**	(0.01)	-0.54	(0.01)	0.19	(0.01)	0.87	(0.01)	1.53	(0.01)
	Netherlands	-0.36	(0.02)	0.91	(0.01)	-0.22	(0.03)	-0.49	(0.03)	**0.27**	(0.05)	-1.52	(0.03)	-0.62	(0.02)	-0.03	(0.02)	0.75	(0.03)
	New Zealand	0.28	(0.02)	0.92	(0.01)	0.38	(0.03)	0.17	(0.03)	**0.21**	(0.04)	-0.88	(0.03)	-0.02	(0.02)	0.56	(0.04)	1.46	(0.01)
	Norway	0.19	(0.02)	0.97	(0.01)	0.21	(0.03)	0.18	(0.03)	0.03	(0.03)	-1.06	(0.03)	-0.07	(0.02)	0.47	(0.04)	1.44	(0.01)
	Poland	-0.14	(0.02)	0.93	(0.01)	-0.14	(0.03)	-0.14	(0.03)	0.00	(0.03)	-1.32	(0.03)	-0.39	(0.03)	0.07	(0.02)	1.07	(0.03)
	Portugal	0.26	(0.02)	0.94	(0.01)	0.28	(0.03)	0.24	(0.03)	0.04	(0.03)	-0.94	(0.03)	0.01	(0.02)	0.52	(0.04)	1.47	(0.02)
	Slovak Republic	-0.33	(0.02)	0.90	(0.01)	-0.25	(0.04)	-0.42	(0.03)	**0.18**	(0.04)	-1.44	(0.03)	-0.63	(0.02)	-0.08	(0.02)	0.83	(0.04)
	Slovenia	-0.23	(0.02)	0.94	(0.01)	-0.14	(0.03)	-0.33	(0.03)	**0.18**	(0.04)	-1.42	(0.02)	-0.56	(0.03)	0.07	(0.03)	0.98	(0.02)
	Spain	-0.02	(0.02)	1.04	(0.01)	0.06	(0.02)	-0.11	(0.02)	**0.17**	(0.03)	-1.35	(0.02)	-0.37	(0.02)	0.29	(0.02)	1.33	(0.02)
	Sweden	0.18	(0.02)	0.95	(0.01)	0.26	(0.03)	0.10	(0.03)	**0.16**	(0.04)	-1.02	(0.03)	-0.11	(0.02)	0.43	(0.03)	1.42	(0.02)
	Switzerland	-0.12	(0.02)	1.02	(0.01)	0.16	(0.03)	-0.39	(0.03)	**0.55**	(0.03)	-1.39	(0.03)	-0.54	(0.04)	0.24	(0.03)	1.22	(0.02)
	Turkey	0.06	(0.02)	0.99	(0.01)	0.03	(0.03)	0.09	(0.03)	-0.06	(0.04)	-1.22	(0.03)	-0.24	(0.03)	0.38	(0.03)	1.31	(0.02)
	United Kingdom	0.32	(0.02)	0.90	(0.01)	0.40	(0.02)	0.25	(0.02)	**0.15**	(0.03)	-0.83	(0.02)	-0.03	(0.02)	0.68	(0.04)	1.47	(0.02)
	United States	0.14	(0.02)	0.99	(0.01)	0.17	(0.03)	0.10	(0.03)	0.07	(0.04)	-1.13	(0.03)	-0.13	(0.02)	0.38	(0.02)	1.43	(0.02)
	OECD average	0.00	(0.00)	0.96	(0.00)	0.09	(0.00)	-0.10	(0.00)	**0.19**	(0.01)	-1.22	(0.00)	-0.32	(0.00)	0.30	(0.00)	1.24	(0.00)
Partners	**Albania**	0.55	(0.02)	0.84	(0.01)	0.56	(0.03)	0.55	(0.03)	0.01	(0.04)	-0.56	(0.03)	0.27	(0.03)	0.95	(0.03)	1.56	(0.02)
	Argentina	0.16	(0.02)	0.95	(0.01)	0.21	(0.03)	0.12	(0.02)	**0.09**	(0.04)	-1.05	(0.03)	-0.15	(0.02)	0.47	(0.03)	1.38	(0.03)
	Brazil	0.37	(0.01)	0.89	(0.01)	0.42	(0.02)	0.34	(0.02)	**0.08**	(0.02)	-0.79	(0.02)	0.05	(0.02)	0.74	(0.02)	1.49	(0.01)
	Bulgaria	-0.04	(0.02)	0.98	(0.01)	0.01	(0.03)	-0.08	(0.03)	**0.09**	(0.03)	-1.26	(0.03)	-0.35	(0.02)	0.21	(0.03)	1.26	(0.02)
	Colombia	0.42	(0.02)	0.87	(0.01)	0.45	(0.02)	0.40	(0.02)	0.06	(0.03)	-0.70	(0.03)	0.10	(0.02)	0.78	(0.02)	1.52	(0.01)
	Costa Rica	0.30	(0.02)	1.01	(0.01)	0.41	(0.03)	0.20	(0.03)	**0.21**	(0.04)	-1.04	(0.03)	-0.06	(0.03)	0.77	(0.03)	1.53	(0.02)
	Croatia	-0.24	(0.02)	0.96	(0.01)	-0.15	(0.03)	-0.33	(0.03)	**0.18**	(0.04)	-1.43	(0.03)	-0.59	(0.02)	0.02	(0.02)	1.03	(0.04)
	Cyprus*	0.10	(0.02)	1.08	(0.01)	0.16	(0.03)	0.04	(0.03)	**0.12**	(0.04)	-1.32	(0.03)	-0.24	(0.02)	0.48	(0.04)	1.48	(0.01)
	Hong Kong-China	-0.23	(0.02)	0.91	(0.01)	-0.11	(0.02)	-0.35	(0.03)	**0.24**	(0.03)	-1.36	(0.02)	-0.53	(0.03)	0.05	(0.00)	0.94	(0.03)
	Indonesia	0.35	(0.02)	0.73	(0.01)	0.32	(0.02)	0.37	(0.03)	-0.05	(0.03)	-0.53	(0.02)	0.05	(0.00)	0.53	(0.03)	1.34	(0.03)
	Jordan	0.45	(0.02)	0.96	(0.01)	0.40	(0.03)	0.49	(0.02)	**-0.08**	(0.04)	-0.85	(0.04)	0.18	(0.02)	0.89	(0.02)	1.57	(0.01)
	Kazakhstan	0.41	(0.03)	0.87	(0.01)	0.39	(0.03)	0.44	(0.03)	-0.05	(0.03)	-0.71	(0.04)	0.07	(0.02)	0.78	(0.03)	1.51	(0.02)
	Latvia	0.13	(0.02)	0.87	(0.01)	0.16	(0.03)	0.11	(0.02)	0.05	(0.04)	-0.96	(0.03)	-0.11	(0.02)	0.33	(0.03)	1.27	(0.02)
	Liechtenstein	0.10	(0.07)	1.02	(0.03)	0.30	(0.09)	-0.12	(0.09)	**0.42**	(0.14)	-1.19	(0.08)	-0.35	(0.09)	0.52	(0.13)	1.43	(0.05)
	Lithuania	0.27	(0.02)	1.06	(0.01)	0.29	(0.03)	0.24	(0.04)	0.06	(0.04)	-1.17	(0.04)	-0.08	(0.03)	0.77	(0.03)	1.54	(0.02)
	Macao-China	-0.26	(0.02)	0.89	(0.01)	-0.15	(0.02)	-0.39	(0.02)	**0.24**	(0.03)	-1.35	(0.02)	-0.59	(0.02)	0.02	(0.01)	0.87	(0.03)
	Malaysia	0.53	(0.02)	0.81	(0.01)	0.46	(0.03)	0.60	(0.02)	**-0.13**	(0.03)	-0.46	(0.03)	0.16	(0.02)	0.88	(0.02)	1.55	(0.02)
	Montenegro	-0.29	(0.02)	1.02	(0.01)	-0.26	(0.02)	-0.32	(0.03)	0.05	(0.04)	-1.56	(0.02)	-0.66	(0.02)	0.00	(0.02)	1.06	(0.02)
	Peru	0.56	(0.01)	0.80	(0.01)	0.55	(0.02)	0.56	(0.02)	-0.01	(0.04)	-0.42	(0.02)	0.17	(0.02)	0.89	(0.02)	1.57	(0.01)
	Qatar	0.29	(0.01)	1.03	(0.01)	0.39	(0.02)	0.19	(0.02)	**0.19**	(0.03)	-1.08	(0.02)	-0.01	(0.01)	0.72	(0.02)	1.54	(0.01)
	Romania	-0.57	(0.02)	0.94	(0.01)	-0.58	(0.03)	-0.56	(0.03)	-0.01	(0.04)	-1.56	(0.02)	-1.02	(0.01)	-0.44	(0.04)	0.74	(0.04)
	Russian Federation	-0.07	(0.02)	0.95	(0.01)	0.03	(0.02)	-0.18	(0.03)	**0.21**	(0.04)	-1.21	(0.02)	-0.46	(0.04)	0.16	(0.02)	1.22	(0.02)
	Serbia	-0.09	(0.02)	0.92	(0.01)	-0.03	(0.03)	-0.14	(0.03)	**0.12**	(0.04)	-1.25	(0.03)	-0.30	(0.03)	0.12	(0.02)	1.09	(0.03)
	Shanghai-China	0.01	(0.02)	0.90	(0.01)	0.05	(0.03)	-0.03	(0.03)	**0.08**	(0.03)	-1.12	(0.02)	-0.24	(0.03)	0.18	(0.02)	1.22	(0.03)
	Singapore	0.40	(0.02)	0.84	(0.01)	0.46	(0.02)	0.33	(0.02)	**0.13**	(0.03)	-0.62	(0.03)	0.05	(0.00)	0.68	(0.04)	1.49	(0.01)
	Chinese Taipei	-0.33	(0.02)	0.91	(0.01)	-0.23	(0.02)	-0.43	(0.03)	**0.20**	(0.04)	-1.43	(0.03)	-0.65	(0.02)	-0.01	(0.02)	0.78	(0.03)
	Thailand	0.39	(0.01)	0.73	(0.01)	0.34	(0.02)	0.43	(0.02)	**-0.09**	(0.03)	-0.44	(0.02)	0.05	(0.00)	0.58	(0.03)	1.37	(0.02)
	Tunisia	0.41	(0.02)	0.99	(0.01)	0.43	(0.03)	0.39	(0.03)	0.04	(0.04)	-0.96	(0.03)	0.16	(0.03)	0.88	(0.03)	1.56	(0.02)
	United Arab Emirates	0.37	(0.02)	0.98	(0.01)	0.45	(0.02)	0.30	(0.02)	**0.14**	(0.03)	-0.95	(0.02)	0.07	(0.02)	0.84	(0.02)	1.54	(0.01)
	Uruguay	0.21	(0.02)	0.98	(0.01)	0.26	(0.03)	0.17	(0.02)	**0.10**	(0.04)	-1.06	(0.03)	-0.11	(0.02)	0.55	(0.03)	1.46	(0.01)
	Viet Nam	0.37	(0.02)	0.72	(0.01)	0.37	(0.02)	0.37	(0.02)	0.00	(0.03)	-0.48	(0.03)	0.05	(0.00)	0.57	(0.03)	1.34	(0.03)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
StatLink `http://dx.doi.org/10.1787/888932963939`

[Part 2/2]

Table III.3.5d

Index of instrumental motivation to learn mathematics and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Australia**	**486**	(2.8)	496	(2.9)	510	(2.7)	**536**	(2.6)	**20.6**	(1.0)	**1.5**	(0.1)	4.3	(0.4)
	Austria	505	(4.7)	507	(3.6)	511	(5.3)	516	(4.8)	**4.6**	(2.3)	1.1	(0.1)	0.3	(0.3)
	Belgium	**492**	(3.5)	511	(3.3)	534	(3.1)	**545**	(4.2)	**22.8**	(1.8)	**1.4**	(0.1)	5.1	(0.8)
	Canada	**496**	(3.2)	509	(2.7)	529	(2.9)	**551**	(3.1)	**22.4**	(1.2)	**1.6**	(0.1)	6.5	(0.7)
	Chile	**419**	(4.0)	410	(4.2)	421	(4.0)	**445**	(4.0)	**9.2**	(1.5)	1.0	(0.1)	1.3	(0.4)
	Czech Republic	**491**	(4.3)	498	(4.7)	509	(4.6)	**518**	(4.7)	**12.4**	(2.1)	**1.3**	(0.1)	1.5	(0.5)
	Denmark	**474**	(3.4)	496	(3.9)	506	(3.6)	**531**	(3.2)	**25.0**	(1.5)	**1.7**	(0.1)	7.4	(0.9)
	Estonia	**504**	(3.5)	516	(3.4)	526	(3.9)	**542**	(4.0)	**16.6**	(2.0)	**1.4**	(0.1)	3.4	(0.7)
	Finland	**492**	(2.7)	515	(3.5)	529	(3.4)	**557**	(3.3)	**29.0**	(1.2)	**1.8**	(0.1)	10.0	(0.8)
	France	**483**	(3.3)	491	(4.2)	502	(4.4)	**519**	(5.2)	**14.7**	(1.9)	1.1	(0.1)	2.3	(0.6)
	Germany	**510**	(4.3)	521	(4.5)	523	(4.5)	**544**	(4.6)	**12.9**	(1.6)	**1.3**	(0.1)	1.9	(0.5)
	Greece	**426**	(3.7)	448	(5.0)	462	(4.5)	**479**	(4.0)	**19.8**	(1.4)	**1.5**	(0.1)	5.5	(0.8)
	Hungary	**472**	(4.5)	474	(4.9)	470	(4.4)	**500**	(6.1)	**13.1**	(2.6)	1.0	(0.1)	1.6	(0.6)
	Iceland	**462**	(3.8)	489	(4.1)	501	(4.4)	**524**	(4.2)	**25.1**	(2.3)	**1.8**	(0.1)	7.4	(1.3)
	Ireland	**494**	(3.1)	492	(3.8)	501	(4.4)	**521**	(4.4)	**12.5**	(1.9)	1.1	(0.1)	1.9	(0.6)
	Israel	**458**	(5.2)	466	(6.0)	475	(6.4)	**477**	(5.9)	**7.7**	(2.0)	1.1	(0.1)	0.6	(0.3)
	Italy	**470**	(2.4)	482	(2.6)	493	(2.8)	**498**	(3.4)	**12.7**	(1.2)	**1.2**	(0.1)	1.7	(0.3)
	Japan	**498**	(5.3)	532	(4.6)	549	(4.5)	**572**	(5.2)	**28.0**	(1.8)	**2.0**	(0.1)	9.7	(1.0)
	Korea	**499**	(4.6)	544	(6.3)	563	(5.0)	**611**	(7.6)	**39.9**	(2.3)	**2.5**	(0.2)	17.9	(1.7)
	Luxembourg	**472**	(3.5)	484	(3.0)	499	(3.8)	**513**	(3.3)	**14.3**	(1.5)	**1.2**	(0.1)	2.9	(0.6)
	Mexico	**410**	(1.9)	409	(1.9)	413	(2.1)	**424**	(2.0)	**6.2**	(0.9)	1.0	(0.0)	0.5	(0.1)
	Netherlands	**506**	(4.2)	524	(4.8)	537	(5.2)	**545**	(5.2)	**17.5**	(2.0)	**1.5**	(0.1)	3.3	(0.8)
	New Zealand	**483**	(4.1)	494	(5.2)	508	(5.0)	**528**	(4.3)	**20.3**	(2.2)	**1.4**	(0.1)	3.6	(0.8)
	Norway	**449**	(3.6)	487	(4.4)	504	(4.6)	**529**	(3.8)	**32.5**	(1.5)	**2.2**	(0.2)	12.6	(1.1)
	Poland	**491**	(4.8)	502	(4.5)	517	(5.2)	**559**	(5.7)	**28.1**	(1.7)	**1.5**	(0.1)	8.5	(1.0)
	Portugal	**458**	(5.3)	478	(5.2)	499	(6.0)	**519**	(5.3)	**25.8**	(2.1)	**1.6**	(0.1)	6.8	(1.0)
	Slovak Republic	**477**	(4.8)	477	(4.8)	489	(5.6)	**492**	(7.4)	**7.7**	(3.2)	1.0	(0.1)	0.5	(0.4)
	Slovenia	**492**	(4.4)	496	(3.9)	508	(3.8)	**520**	(4.2)	**13.1**	(2.2)	1.1	(0.1)	1.9	(0.6)
	Spain	**462**	(2.5)	475	(2.8)	492	(3.1)	**515**	(3.4)	**20.0**	(1.2)	**1.3**	(0.1)	5.8	(0.7)
	Sweden	**456**	(4.0)	474	(3.8)	489	(4.4)	**508**	(4.4)	**21.1**	(1.8)	**1.5**	(0.1)	4.8	(0.8)
	Switzerland	**526**	(4.6)	528	(4.1)	533	(4.2)	**538**	(4.1)	**5.4**	(1.6)	1.1	(0.1)	0.3	(0.2)
	Turkey	**440**	(4.8)	442	(6.2)	446	(7.5)	**466**	(6.6)	**9.5**	(1.9)	1.1	(0.1)	1.1	(0.4)
	United Kingdom	**484**	(5.2)	486	(4.3)	498	(5.1)	**511**	(5.1)	**12.2**	(2.0)	1.2	(0.1)	1.4	(0.4)
	United States	**470**	(4.8)	474	(4.5)	476	(5.0)	**510**	(5.6)	**14.8**	(1.7)	1.1	(0.1)	2.7	(0.6)
	OECD average	**477**	(0.7)	489	(0.7)	501	(0.8)	**519**	(0.8)	**17.6**	(0.3)	**1.4**	(0.0)	4.3	(0.1)
Partners	**Albania**	398	(4.5)	397	(4.5)	393	(4.7)	390	(4.5)	-4.3	(2.7)	1.0	(0.1)	0.2	(0.2)
	Argentina	395	(4.1)	393	(4.4)	390	(4.7)	389	(4.0)	-2.4	(1.7)	0.8	(0.1)	0.1	(0.1)
	Brazil	**402**	(2.8)	389	(2.5)	391	(2.9)	**394**	(3.5)	**-3.6**	(1.2)	0.8	(0.0)	0.2	(0.1)
	Bulgaria	440	(5.3)	439	(4.9)	439	(4.7)	449	(6.1)	3.6	(2.2)	0.9	(0.1)	0.1	(0.2)
	Colombia	**386**	(4.1)	377	(3.3)	377	(4.4)	**374**	(4.0)	**-5.5**	(2.0)	0.8	(0.1)	0.4	(0.3)
	Costa Rica	412	(4.3)	405	(4.1)	410	(4.4)	404	(4.9)	-2.4	(1.7)	0.8	(0.1)	0.1	(0.2)
	Croatia	**458**	(3.7)	467	(4.3)	475	(6.6)	**486**	(6.1)	**12.3**	(2.8)	1.1	(0.1)	1.8	(0.8)
	Cyprus*	**407**	(3.2)	431	(3.1)	450	(3.2)	**479**	(3.2)	**25.2**	(1.3)	**1.7**	(0.1)	9.1	(0.9)
	Hong Kong-China	**530**	(4.1)	563	(5.1)	568	(5.0)	**586**	(4.5)	**23.2**	(1.9)	**1.7**	(0.1)	4.8	(0.7)
	Indonesia	376	(6.0)	374	(4.7)	375	(4.4)	378	(4.4)	2.2	(2.4)	1.0	(0.1)	0.1	(0.1)
	Jordan	**369**	(3.5)	390	(4.0)	396	(3.4)	**405**	(4.8)	**14.3**	(1.4)	**1.6**	(0.1)	3.3	(0.6)
	Kazakhstan	433	(4.6)	429	(3.6)	430	(3.9)	435	(4.5)	0.9	(1.9)	1.0	(0.1)	0.0	(0.1)
	Latvia	**478**	(4.0)	485	(4.6)	496	(4.6)	**505**	(4.8)	**12.6**	(1.8)	1.2	(0.2)	1.8	(0.5)
	Liechtenstein	558	(16.3)	529	(17.1)	532	(17.9)	524	(15.2)	-9.7	(6.7)	0.5	(0.3)	1.1	(1.5)
	Lithuania	**462**	(3.9)	469	(4.7)	489	(4.4)	**502**	(4.5)	**16.0**	(1.6)	**1.4**	(0.1)	3.6	(0.7)
	Macao-China	**530**	(3.1)	533	(3.8)	541	(3.7)	**555**	(3.4)	**12.4**	(1.8)	1.1	(0.1)	1.4	(0.4)
	Malaysia	**402**	(5.0)	415	(4.1)	427	(4.4)	**441**	(4.1)	**18.7**	(2.1)	**1.7**	(0.1)	3.5	(0.8)
	Montenegro	411	(3.7)	410	(3.5)	408	(3.5)	416	(3.1)	2.4	(1.7)	0.9	(0.1)	0.1	(0.1)
	Peru	375	(5.4)	370	(4.4)	367	(5.0)	375	(4.6)	-0.6	(2.1)	0.9	(0.1)	0.0	(0.0)
	Qatar	**359**	(2.5)	374	(2.5)	391	(3.0)	**407**	(2.6)	**19.3**	(1.1)	**1.5**	(0.1)	4.1	(0.5)
	Romania	**463**	(6.0)	447	(5.1)	438	(4.7)	**438**	(5.4)	**-9.8**	(2.3)	0.8	(0.1)	1.3	(0.6)
	Russian Federation	**477**	(4.3)	473	(3.5)	484	(5.3)	**497**	(5.7)	**9.7**	(2.0)	1.1	(0.1)	1.1	(0.5)
	Serbia	449	(4.7)	450	(5.1)	450	(5.9)	456	(5.4)	3.6	(2.1)	1.0	(0.1)	0.1	(0.2)
	Shanghai-China	**600**	(5.3)	609	(4.9)	613	(5.8)	**629**	(4.7)	**13.0**	(2.3)	**1.3**	(0.1)	1.4	(0.5)
	Singapore	**579**	(4.6)	574	(5.1)	572	(3.8)	**566**	(3.9)	-4.7	(2.6)	0.9	(0.1)	0.1	(0.2)
	Chinese Taipei	**512**	(5.8)	551	(4.6)	575	(4.9)	**603**	(5.1)	**39.2**	(2.1)	**2.0**	(0.1)	9.5	(1.0)
	Thailand	**418**	(4.6)	422	(4.6)	426	(4.4)	**445**	(4.4)	**14.0**	(2.1)	**1.2**	(0.1)	1.6	(0.5)
	Tunisia	**372**	(4.2)	383	(5.2)	396	(5.6)	**410**	(5.3)	**13.6**	(1.8)	**1.4**	(0.1)	3.0	(0.7)
	United Arab Emirates	**425**	(3.7)	431	(3.4)	437	(3.8)	**450**	(3.9)	**10.1**	(1.5)	**1.2**	(0.1)	1.2	(0.4)
	Uruguay	**422**	(3.5)	412	(4.3)	411	(4.3)	**412**	(4.9)	**-3.7**	(1.7)	0.7	(0.1)	0.2	(0.2)
	Viet Nam	**496**	(6.5)	506	(5.0)	514	(6.4)	**528**	(6.1)	**18.3**	(2.7)	**1.4**	(0.1)	2.4	(0.7)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 1/2]

Table III.3.5f Change between 2003 and 2012 in students' instrumental motivation to learn mathematics

Results based on students' self-reports

		PISA 2003										PISA 2012									
				Percentage of students who agreed with the following statements:										Percentage of students who agreed with the following statements:							
		Index of instrumental motivation to learn mathematics		Making an effort in mathematics is worth it because it will help me in the work that I want to do later on		Learning mathematics is worthwhile for me because it will improve my career prospects and chances		Mathematics is an important subject for me because I need it for what I want to study later on		I will learn many things in mathematics that will help me get a job		Index of instrumental motivation to learn mathematics		Making an effort in mathematics is worth it because it will help me in the work that I want to do later on		Learning mathematics is worthwhile for me because it will improve my career prospects and chances		Mathematics is an important subject for me because I need it for what I want to study later on		I will learn many things in mathematics that will help me get a job	
		Mean index	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	Mean index	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	0.17	(0.01)	82.9	(0.6)	86.7	(0.5)	73.7	(0.6)	79.0	(0.5)	0.24	(0.01)	84.3	(0.4)	86.1	(0.4)	73.8	(0.5)	80.0	(0.4)
	Austria	-0.52	(0.03)	64.2	(1.1)	50.9	(1.2)	35.8	(1.1)	55.6	(1.1)	-0.41	(0.03)	66.6	(1.0)	55.9	(1.1)	39.8	(1.2)	57.9	(1.1)
	Belgium	-0.36	(0.02)	65.8	(0.7)	65.0	(0.6)	56.2	(0.8)	56.7	(0.7)	-0.37	(0.02)	63.7	(0.7)	63.0	(0.8)	54.0	(0.8)	57.3	(0.8)
	Canada	0.17	(0.01)	79.9	(0.4)	87.0	(0.4)	73.0	(0.6)	78.8	(0.5)	0.25	(0.01)	82.2	(0.5)	85.7	(0.5)	73.4	(0.6)	79.0	(0.5)
	Czech Republic	-0.04	(0.02)	74.5	(0.8)	80.8	(0.7)	73.7	(1.0)	76.7	(0.7)	-0.17	(0.02)	67.9	(1.0)	75.2	(0.9)	65.7	(1.1)	70.5	(1.1)
	Denmark	0.31	(0.01)	90.8	(0.5)	88.0	(0.5)	74.7	(0.7)	82.8	(0.7)	0.23	(0.02)	87.8	(0.6)	87.9	(0.7)	71.7	(1.0)	77.6	(0.9)
	Finland	0.01	(0.01)	73.0	(0.6)	87.5	(0.5)	73.9	(0.7)	75.6	(0.6)	-0.01	(0.02)	73.2	(0.8)	85.4	(0.5)	70.3	(0.8)	73.8	(0.7)
	France	-0.13	(0.02)	73.4	(0.9)	73.8	(0.8)	64.7	(0.9)	61.8	(0.9)	-0.16	(0.02)	71.6	(0.9)	72.9	(0.8)	63.3	(0.9)	61.0	(0.8)
	Germany	-0.09	(0.02)	72.9	(0.8)	79.0	(0.6)	48.4	(0.9)	71.7	(0.7)	-0.13	(0.02)	66.4	(0.9)	76.0	(0.8)	51.9	(1.1)	67.2	(1.0)
	Greece	-0.09	(0.02)	74.4	(0.8)	72.3	(0.9)	63.0	(1.1)	70.4	(0.8)	0.02	(0.02)	75.6	(0.7)	76.8	(0.8)	66.1	(0.8)	68.3	(0.8)
	Hungary	-0.16	(0.02)	79.3	(0.7)	70.8	(0.8)	68.9	(1.0)	67.3	(0.8)	-0.05	(0.02)	80.2	(0.8)	81.9	(0.9)	66.2	(1.1)	70.2	(1.1)
	Iceland	0.24	(0.02)	82.8	(0.6)	85.3	(0.6)	79.2	(0.6)	78.2	(0.7)	0.33	(0.02)	82.9	(0.8)	88.2	(0.6)	78.5	(0.7)	83.4	(0.7)
	Ireland	0.04	(0.02)	80.2	(0.8)	85.2	(0.7)	66.4	(0.8)	74.6	(0.8)	0.13	(0.02)	79.9	(0.7)	88.3	(0.7)	66.2	(1.0)	75.6	(0.8)
	Italy	-0.19	(0.02)	68.8	(0.9)	75.6	(0.9)	66.3	(1.0)	65.4	(0.8)	-0.19	(0.01)	68.6	(0.6)	71.9	(0.6)	64.7	(0.6)	65.5	(0.5)
	Japan	-0.67	(0.03)	49.4	(1.1)	42.9	(1.1)	41.4	(1.2)	47.1	(1.2)	-0.50	(0.02)	56.5	(1.1)	51.6	(1.1)	47.9	(1.0)	53.5	(1.1)
	Korea	-0.46	(0.02)	56.7	(0.8)	60.3	(0.8)	58.1	(1.0)	46.3	(0.8)	-0.39	(0.03)	59.3	(1.1)	63.1	(1.3)	61.4	(1.1)	50.2	(1.3)
	Luxembourg	-0.44	(0.02)	52.1	(0.8)	60.8	(0.8)	50.6	(0.8)	53.3	(0.8)	-0.28	(0.02)	63.6	(0.8)	65.0	(0.8)	53.2	(0.8)	58.4	(0.9)
	Mexico	0.49	(0.02)	95.2	(0.3)	94.1	(0.5)	81.8	(0.7)	90.9	(0.4)	0.51	(0.01)	90.7	(0.3)	92.8	(0.2)	83.1	(0.4)	89.8	(0.3)
	Netherlands	-0.29	(0.02)	70.4	(0.9)	70.8	(0.9)	63.1	(1.0)	60.5	(1.0)	-0.36	(0.02)	57.8	(1.0)	71.3	(1.0)	61.3	(1.2)	62.2	(1.1)
	New Zealand	0.23	(0.02)	85.2	(0.6)	88.5	(0.6)	77.0	(0.7)	81.9	(0.7)	0.28	(0.02)	86.2	(0.8)	88.5	(0.7)	76.5	(0.9)	83.0	(0.8)
	Norway	0.10	(0.02)	82.4	(0.8)	81.6	(0.8)	75.4	(0.8)	73.0	(0.8)	0.19	(0.02)	84.6	(0.7)	82.6	(0.6)	77.4	(0.9)	78.2	(0.8)
	Poland	-0.01	(0.02)	79.3	(0.8)	86.6	(0.7)	78.8	(0.8)	78.9	(0.8)	-0.14	(0.02)	71.9	(1.0)	78.5	(0.8)	67.5	(1.0)	66.3	(1.1)
	Portugal	0.21	(0.02)	82.2	(0.7)	88.9	(0.5)	80.4	(0.7)	79.8	(0.7)	0.26	(0.02)	83.8	(0.9)	88.6	(0.6)	79.8	(0.8)	81.2	(0.9)
	Slovak Republic	-0.09	(0.02)	75.9	(1.0)	81.0	(0.8)	64.1	(1.1)	76.9	(1.0)	-0.33	(0.02)	67.0	(1.1)	71.8	(1.0)	48.1	(1.3)	63.0	(1.1)
	Spain	-0.10	(0.02)	75.9	(0.8)	79.4	(0.7)	62.5	(1.0)	67.6	(0.9)	-0.02	(0.02)	72.4	(0.7)	77.3	(0.6)	59.8	(0.7)	72.8	(0.6)
	Sweden	-0.03	(0.02)	70.7	(0.7)	86.2	(0.6)	67.4	(0.7)	73.4	(0.7)	0.18	(0.02)	78.9	(0.7)	85.5	(0.6)	75.6	(0.9)	78.8	(0.8)
	Switzerland	-0.09	(0.02)	76.4	(0.7)	75.1	(0.6)	52.0	(0.8)	65.5	(0.7)	-0.12	(0.02)	73.7	(1.1)	73.7	(1.1)	54.0	(0.9)	64.3	(1.2)
	Turkey	0.16	(0.02)	81.4	(0.9)	85.5	(0.7)	78.5	(0.8)	66.3	(0.9)	0.06	(0.02)	76.5	(0.8)	75.5	(0.9)	73.0	(0.8)	67.9	(1.1)
	United States	0.12	(0.02)	80.9	(0.7)	82.4	(0.7)	72.8	(0.7)	82.7	(0.6)	0.14	(0.02)	80.6	(0.7)	80.2	(0.7)	70.0	(0.9)	80.2	(0.8)
	OECD average 2003	-0.05	(0.00)	75.1	(0.1)	77.7	(0.1)	66.3	(0.2)	70.3	(0.1)	-0.03	(0.00)	74.3	(0.2)	77.3	(0.1)	65.3	(0.2)	70.2	(0.2)
Partners	Brazil	0.39	(0.02)	88.5	(0.9)	86.5	(0.8)	80.6	(1.1)	88.4	(0.7)	0.37	(0.01)	86.2	(0.5)	89.3	(0.4)	77.7	(0.5)	85.9	(0.4)
	Hong Kong-China	-0.16	(0.02)	74.3	(0.7)	82.1	(0.6)	70.4	(0.7)	62.7	(0.9)	-0.23	(0.02)	69.2	(0.9)	71.7	(0.8)	66.3	(0.9)	58.6	(1.0)
	Indonesia	0.38	(0.01)	94.4	(0.3)	89.7	(0.6)	94.6	(0.4)	88.9	(0.5)	0.35	(0.02)	88.6	(0.7)	89.0	(0.6)	87.2	(0.6)	89.6	(0.6)
	Latvia	0.02	(0.02)	81.7	(0.7)	84.1	(0.9)	67.5	(1.0)	78.7	(0.7)	0.13	(0.02)	76.4	(0.9)	82.6	(0.9)	84.2	(0.8)	75.2	(0.8)
	Liechtenstein	-0.09	(0.04)	77.4	(1.8)	70.3	(2.1)	51.2	(2.2)	59.0	(2.2)	0.10	(0.07)	79.2	(2.7)	79.2	(2.9)	59.2	(3.4)	66.5	(3.4)
	Macao-China	-0.08	(0.02)	78.9	(1.3)	85.4	(1.1)	70.5	(1.6)	64.9	(1.6)	-0.26	(0.02)	68.0	(0.8)	71.6	(0.8)	62.3	(0.7)	57.0	(0.8)
	Russian Federation	-0.06	(0.02)	77.3	(0.7)	69.6	(1.0)	67.8	(1.0)	72.3	(0.9)	-0.07	(0.02)	71.0	(0.9)	67.0	(1.0)	62.7	(1.0)	70.6	(1.0)
	Thailand	0.42	(0.01)	95.7	(0.4)	93.0	(0.4)	93.7	(0.4)	93.3	(0.4)	0.39	(0.01)	91.7	(0.5)	91.0	(0.6)	89.2	(0.5)	92.2	(0.4)
	Tunisia	0.44	(0.02)	84.2	(0.6)	81.7	(0.7)	82.1	(0.7)	81.3	(0.6)	0.41	(0.02)	85.0	(0.7)	84.2	(0.6)	77.4	(0.9)	81.3	(0.8)
	Uruguay	0.20	(0.02)	82.8	(0.7)	83.0	(0.8)	70.8	(1.0)	83.6	(0.9)	0.21	(0.02)	80.5	(0.7)	84.4	(0.7)	66.5	(1.0)	80.8	(0.9)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
For comparability over time, PISA 2003 values on the *index of instrumental motivation to learn mathematics* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).

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[Part 2/2]

Table III.3.5f Change between 2003 and 2012 in students' instrumental motivation to learn mathematics

Results based on students' self-reports

		Change between 2003 and 2012 (PISA 2012 - PISA 2003)									
				Percentage of students who agreed with the following statements:							
		Index of instrumental motivation to learn mathematics		Making an effort in mathematics is worth it because it will help me in the work that I want to do later on		Learning mathematics is worthwhile for me because it will improve my career prospects and chances		Mathematics is an important subject for me because I need it for what I want to study later on		I will learn many things in mathematics that will help me get a job	
		Dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.
OECD	**Australia**	**0.07**	(0.02)	1.4	(0.7)	-0.6	(0.7)	0.1	(0.7)	1.0	(0.7)
	Austria	**0.11**	(0.04)	2.4	(1.5)	**5.0**	(1.6)	**3.9**	(1.6)	2.4	(1.6)
	Belgium	-0.02	(0.02)	**-2.1**	(1.0)	-1.9	(1.0)	**-2.2**	(1.1)	0.6	(1.0)
	Canada	**0.08**	(0.02)	**2.3**	(0.7)	**-1.3**	(0.6)	0.3	(0.8)	0.1	(0.7)
	Czech Republic	**-0.13**	(0.03)	**-6.5**	(1.3)	**-5.6**	(1.1)	**-8.0**	(1.4)	**-6.2**	(1.3)
	Denmark	**-0.07**	(0.02)	**-3.1**	(0.8)	-0.1	(0.9)	**-3.0**	(1.3)	**-5.2**	(1.1)
	Finland	-0.02	(0.02)	0.2	(1.0)	**-2.1**	(0.7)	**-3.6**	(1.0)	-1.7	(0.9)
	France	-0.04	(0.03)	-1.8	(1.3)	-0.9	(1.2)	-1.4	(1.3)	-0.8	(1.2)
	Germany	-0.04	(0.03)	**-6.6**	(1.2)	**-3.0**	(1.0)	**3.6**	(1.4)	**-4.5**	(1.3)
	Greece	**0.12**	(0.03)	1.2	(1.1)	**4.5**	(1.2)	**3.2**	(1.4)	-2.1	(1.1)
	Hungary	**0.11**	(0.03)	0.9	(1.1)	**11.1**	(1.2)	-2.7	(1.5)	**2.9**	(1.4)
	Iceland	**0.08**	(0.02)	0.1	(1.0)	**2.8**	(0.9)	-0.7	(1.0)	**5.1**	(1.0)
	Ireland	**0.08**	(0.03)	-0.3	(1.1)	**3.1**	(1.0)	-0.2	(1.2)	1.1	(1.2)
	Italy	0.01	(0.02)	-0.2	(1.1)	**-3.6**	(1.1)	-1.7	(1.2)	0.1	(1.0)
	Japan	**0.17**	(0.04)	**7.1**	(1.5)	**8.7**	(1.5)	**6.6**	(1.6)	**6.4**	(1.6)
	Korea	**0.07**	(0.03)	2.6	(1.4)	2.8	(1.5)	**3.3**	(1.5)	**3.9**	(1.5)
	Luxembourg	**0.16**	(0.03)	**11.5**	(1.1)	**4.2**	(1.1)	**2.6**	(1.2)	**5.1**	(1.2)
	Mexico	0.02	(0.02)	**-4.5**	(0.4)	**-1.3**	(0.5)	1.3	(0.8)	**-1.0**	(0.5)
	Netherlands	**-0.07**	(0.03)	**-12.6**	(1.4)	0.5	(1.3)	-1.9	(1.5)	1.7	(1.5)
	New Zealand	**0.05**	(0.03)	1.0	(1.0)	-0.1	(0.9)	-0.5	(1.2)	1.1	(1.0)
	Norway	**0.10**	(0.03)	**2.2**	(1.0)	1.0	(1.0)	2.0	(1.2)	**5.2**	(1.1)
	Poland	**-0.14**	(0.03)	**-7.4**	(1.2)	**-8.0**	(1.1)	**-11.3**	(1.2)	**-12.6**	(1.4)
	Portugal	**0.06**	(0.03)	1.6	(1.1)	-0.3	(0.8)	-0.6	(1.0)	1.5	(1.1)
	Slovak Republic	**-0.24**	(0.03)	**-9.0**	(1.5)	**-9.2**	(1.2)	**-16.0**	(1.7)	**-13.9**	(1.5)
	Spain	**0.07**	(0.03)	**-3.5**	(1.1)	**-2.1**	(0.9)	**-2.7**	(1.2)	**5.2**	(1.1)
	Sweden	**0.21**	(0.03)	**8.3**	(1.0)	-0.7	(0.8)	**8.1**	(1.2)	**5.4**	(1.0)
	Switzerland	-0.03	(0.03)	**-2.6**	(1.3)	-1.4	(1.2)	2.0	(1.2)	-1.3	(1.4)
	Turkey	**-0.10**	(0.03)	**-5.0**	(1.2)	**-10.0**	(1.1)	**-5.5**	(1.2)	1.6	(1.4)
	United States	0.02	(0.02)	-0.3	(1.0)	**-2.2**	(0.9)	**-2.7**	(1.1)	**-2.5**	(1.0)
	OECD average 2003	**0.02**	(0.00)	**-0.8**	(0.2)	-0.4	(0.2)	**-1.0**	(0.2)	0.0	(0.2)
Partners	**Brazil**	-0.02	(0.03)	**-2.3**	(1.0)	**2.8**	(0.9)	**-2.9**	(1.2)	**-2.5**	(0.8)
	Hong Kong-China	**-0.07**	(0.02)	**-5.1**	(1.2)	**-10.4**	(1.0)	**-4.1**	(1.1)	**-4.1**	(1.3)
	Indonesia	-0.03	(0.02)	**-5.8**	(0.8)	-0.8	(0.8)	**-7.4**	(0.8)	0.7	(0.8)
	Latvia	**0.11**	(0.03)	**-5.3**	(1.1)	-1.5	(1.3)	**16.7**	(1.3)	**-3.5**	(1.0)
	Liechtenstein	**0.19**	(0.08)	1.8	(3.3)	**9.0**	(3.5)	**8.0**	(4.1)	7.5	(4.0)
	Macao-China	**-0.19**	(0.03)	**-10.9**	(1.6)	**-13.8**	(1.4)	**-8.2**	(1.8)	**-7.9**	(1.8)
	Russian Federation	-0.02	(0.03)	**-6.3**	(1.2)	-2.6	(1.4)	**-5.2**	(1.4)	-1.7	(1.3)
	Thailand	-0.03	(0.02)	**-4.1**	(0.6)	**-2.1**	(0.7)	**-4.5**	(0.6)	**-1.1**	(0.6)
	Tunisia	-0.04	(0.03)	0.8	(1.0)	**2.5**	(0.9)	**-4.7**	(1.1)	0.1	(1.0)
	Uruguay	0.01	(0.03)	**-2.2**	(1.1)	1.4	(1.1)	**-4.3**	(1.4)	**-2.8**	(1.3)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
For comparability over time, PISA 2003 values on the *index of instrumental motivation to learn mathematics* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).

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[Part 1/1]

Table III.3.7a Effect sizes for gender differences in drive and motivation

Results based on students' self-reports

Effect size in favour of boys:	Effect size in favour of girls:
░ *from 0.2 to 0.5*	░ *from -0.2 to -0.5*
▒ *from 0.5 to 0.8*	▒ *from -0.5 to -0.8*
▓ *equal to or greater than 0.8*	▓ *equal to or less than -0.8*

		Index of perseverance		Index of openness to problem solving		Index of intrinsic motivation to learn mathematics		Index of instrumental motivation to learn mathematics		Index of self-responsibility for failing in mathematics	
		Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.
OECD	Australia	**0.21**	(0.02)	**0.25**	(0.03)	**0.32**	(0.03)	**0.32**	(0.02)	**-0.28**	(0.03)
	Austria	**0.26**	(0.05)	**0.36**	(0.04)	**0.39**	(0.05)	**0.51**	(0.05)	**-0.28**	(0.04)
	Belgium	**0.20**	(0.03)	**0.37**	(0.03)	**0.12**	(0.03)	**0.26**	(0.03)	**-0.10**	(0.03)
	Canada	**0.06**	(0.02)	**0.23**	(0.03)	**0.22**	(0.02)	**0.13**	(0.03)	**-0.18**	(0.02)
	Chile	0.00	(0.03)	**0.16**	(0.03)	**0.26**	(0.04)	**0.23**	(0.04)	**-0.09**	(0.04)
	Czech Republic	**-0.09**	(0.04)	**0.19**	(0.05)	**0.24**	(0.05)	**0.27**	(0.04)	**-0.17**	(0.05)
	Denmark	**0.24**	(0.04)	**0.33**	(0.04)	**0.29**	(0.04)	**0.33**	(0.04)	**-0.27**	(0.04)
	Estonia	-0.05	(0.05)	0.06	(0.04)	0.07	(0.05)	**0.11**	(0.04)	**-0.14**	(0.04)
	Finland	**0.15**	(0.03)	**0.21**	(0.04)	**0.22**	(0.03)	**0.06**	(0.03)	**-0.19**	(0.03)
	France	**0.23**	(0.03)	**0.37**	(0.03)	**0.24**	(0.04)	**0.23**	(0.03)	**-0.16**	(0.03)
	Germany	**0.25**	(0.04)	**0.41**	(0.04)	**0.39**	(0.04)	**0.37**	(0.04)	**-0.30**	(0.04)
	Greece	**0.07**	(0.04)	**0.13**	(0.04)	**0.31**	(0.04)	**0.21**	(0.05)	**-0.24**	(0.03)
	Hungary	0.00	(0.04)	0.08	(0.05)	**0.24**	(0.04)	**0.27**	(0.04)	**-0.16**	(0.05)
	Iceland	**0.14**	(0.05)	**0.37**	(0.04)	0.02	(0.04)	-0.02	(0.05)	**-0.16**	(0.04)
	Ireland	**0.15**	(0.04)	**0.16**	(0.04)	0.05	(0.04)	**0.18**	(0.04)	**-0.20**	(0.04)
	Israel	-0.06	(0.04)	**0.17**	(0.04)	**0.11**	(0.04)	**0.18**	(0.05)	**-0.19**	(0.04)
	Italy	0.04	(0.02)	**0.16**	(0.02)	**0.17**	(0.02)	**0.20**	(0.03)	**-0.07**	(0.02)
	Japan	**0.11**	(0.03)	**0.41**	(0.04)	**0.32**	(0.03)	**0.25**	(0.03)	-0.06	(0.04)
	Korea	**0.33**	(0.04)	**0.29**	(0.05)	**0.19**	(0.04)	**0.16**	(0.04)	0.06	(0.03)
	Luxembourg	**0.20**	(0.03)	**0.42**	(0.04)	**0.40**	(0.04)	**0.42**	(0.04)	**-0.28**	(0.04)
	Mexico	**-0.09**	(0.02)	**0.19**	(0.02)	**0.17**	(0.02)	**0.08**	(0.02)	**0.06**	(0.02)
	Netherlands	**0.07**	(0.04)	**0.36**	(0.04)	**0.24**	(0.04)	**0.30**	(0.05)	**-0.26**	(0.04)
	New Zealand	**0.17**	(0.04)	**0.26**	(0.04)	**0.33**	(0.04)	**0.23**	(0.04)	**-0.21**	(0.04)
	Norway	**0.22**	(0.03)	**0.26**	(0.04)	**0.15**	(0.03)	0.03	(0.03)	**-0.23**	(0.03)
	Poland	0.03	(0.04)	0.00	(0.04)	**0.10**	(0.04)	0.00	(0.03)	-0.08	(0.04)
	Portugal	**-0.11**	(0.04)	**0.11**	(0.04)	0.04	(0.04)	0.04	(0.04)	-0.06	(0.04)
	Slovak Republic	**0.16**	(0.05)	**0.19**	(0.05)	**0.24**	(0.05)	**0.20**	(0.05)	-0.07	(0.04)
	Slovenia	-0.03	(0.05)	**0.30**	(0.05)	**0.24**	(0.04)	**0.19**	(0.05)	**-0.08**	(0.04)
	Spain	0.05	(0.03)	**0.29**	(0.03)	**0.20**	(0.03)	**0.17**	(0.02)	-0.04	(0.03)
	Sweden	**0.25**	(0.04)	**0.25**	(0.05)	**0.20**	(0.04)	**0.17**	(0.05)	**-0.30**	(0.04)
	Switzerland	**0.23**	(0.03)	**0.42**	(0.03)	**0.51**	(0.03)	**0.56**	(0.03)	**-0.31**	(0.03)
	Turkey	**-0.11**	(0.03)	0.06	(0.04)	0.07	(0.04)	-0.06	(0.04)	**0.09**	(0.04)
	United Kingdom	**0.23**	(0.03)	**0.23**	(0.04)	**0.12**	(0.04)	**0.17**	(0.03)	**-0.22**	(0.03)
	United States	0.03	(0.03)	**0.20**	(0.04)	**0.15**	(0.04)	0.07	(0.04)	**-0.14**	(0.03)
	OECD average	**0.10**	(0.01)	**0.24**	(0.01)	**0.22**	(0.01)	**0.20**	(0.01)	**-0.16**	(0.01)
Partners	Albania	0.03	(0.05)	0.04	(0.05)	-0.02	(0.04)	0.01	(0.04)	0.06	(0.05)
	Argentina	0.01	(0.03)	**0.17**	(0.04)	**0.20**	(0.04)	**0.10**	(0.04)	-0.05	(0.04)
	Brazil	**-0.13**	(0.03)	**0.11**	(0.04)	**0.20**	(0.02)	**0.09**	(0.03)	-0.03	(0.02)
	Bulgaria	**-0.17**	(0.04)	**0.08**	(0.03)	**0.13**	(0.04)	**0.09**	(0.04)	0.01	(0.03)
	Colombia	**-0.15**	(0.03)	**0.15**	(0.04)	**0.12**	(0.04)	0.06	(0.04)	0.01	(0.04)
	Costa Rica	-0.04	(0.04)	**0.20**	(0.05)	**0.23**	(0.04)	**0.21**	(0.04)	-0.08	(0.04)
	Croatia	0.00	(0.03)	**0.20**	(0.03)	**0.15**	(0.04)	**0.19**	(0.04)	**-0.16**	(0.04)
	Cyprus*	**-0.23**	(0.04)	**0.09**	(0.04)	0.06	(0.04)	**0.11**	(0.04)	**-0.15**	(0.04)
	Hong Kong-China	**0.17**	(0.04)	**0.40**	(0.03)	**0.39**	(0.04)	**0.27**	(0.04)	**-0.10**	(0.04)
	Indonesia	0.03	(0.03)	-0.02	(0.03)	0.05	(0.04)	-0.06	(0.04)	-0.05	(0.03)
	Jordan	**-0.15**	(0.04)	**0.14**	(0.04)	**0.14**	(0.05)	**-0.09**	(0.04)	-0.01	(0.04)
	Kazakhstan	**-0.11**	(0.04)	-0.01	(0.04)	-0.06	(0.04)	-0.06	(0.03)	**0.11**	(0.04)
	Latvia	-0.08	(0.05)	0.04	(0.04)	0.04	(0.05)	0.05	(0.04)	-0.01	(0.04)
	Liechtenstein	0.22	(0.13)	**0.38**	(0.14)	**0.45**	(0.16)	**0.41**	(0.14)	**-0.45**	(0.13)
	Lithuania	**-0.17**	(0.04)	0.07	(0.04)	**0.11**	(0.04)	0.06	(0.04)	**-0.07**	(0.03)
	Macao-China	**0.11**	(0.03)	**0.19**	(0.03)	**0.37**	(0.04)	**0.27**	(0.04)	**-0.09**	(0.03)
	Malaysia	-0.03	(0.03)	0.05	(0.04)	**-0.12**	(0.04)	**-0.17**	(0.04)	0.04	(0.03)
	Montenegro	**-0.24**	(0.04)	0.04	(0.04)	0.06	(0.04)	0.05	(0.04)	**-0.14**	(0.04)
	Peru	**-0.20**	(0.03)	**0.12**	(0.03)	**0.16**	(0.04)	-0.01	(0.04)	0.03	(0.04)
	Qatar	**-0.10**	(0.02)	**0.15**	(0.02)	**0.33**	(0.03)	**0.19**	(0.03)	**0.14**	(0.02)
	Romania	**-0.14**	(0.04)	-0.02	(0.03)	-0.01	(0.04)	-0.02	(0.04)	0.02	(0.04)
	Russian Federation	**-0.06**	(0.03)	**0.11**	(0.03)	**0.16**	(0.03)	**0.22**	(0.04)	-0.04	(0.05)
	Serbia	0.00	(0.04)	**0.16**	(0.04)	**0.11**	(0.05)	**0.13**	(0.04)	-0.06	(0.04)
	Shanghai-China	**0.19**	(0.03)	**0.30**	(0.03)	**0.31**	(0.04)	**0.09**	(0.04)	**-0.18**	(0.03)
	Singapore	**0.16**	(0.03)	**0.30**	(0.03)	**0.09**	(0.03)	**0.16**	(0.04)	0.01	(0.03)
	Chinese Taipei	**0.10**	(0.04)	**0.29**	(0.04)	**0.33**	(0.04)	**0.22**	(0.04)	-0.06	(0.03)
	Thailand	**-0.19**	(0.04)	**0.22**	(0.04)	**0.10**	(0.03)	**-0.12**	(0.04)	**0.21**	(0.03)
	Tunisia	-0.02	(0.04)	**0.15**	(0.03)	**0.15**	(0.04)	0.04	(0.04)	-0.03	(0.04)
	United Arab Emirates	**-0.07**	(0.03)	**0.17**	(0.03)	**0.15**	(0.04)	**0.15**	(0.03)	**0.10**	(0.04)
	Uruguay	0.06	(0.04)	**0.30**	(0.03)	**0.13**	(0.03)	**0.10**	(0.04)	-0.04	(0.04)
	Viet Nam	0.04	(0.04)	**0.24**	(0.03)	**0.23**	(0.03)	0.01	(0.04)	**-0.16**	(0.04)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See notes at the beginning of this Annex.

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[Part 1/1]

Table III.3.7b Effect sizes for socio-economic differences in drive and motivation

Results based on students' self-reports

Effect size in favour of socio-economically advantaged students:	Effect size in favour of socio-economically disadvantaged students:
▨ *from 0.2 to 0.5*	▨ *from -0.2 to -0.5*
▨ *from 0.5 to 0.8*	▨ *from -0.5 to -0.8*
▨ *equal to or greater than 0.8*	▨ *equal to or less than -0.8*

		Index of perseverance		Index of openness to problem solving		Index of intrinsic motivation to learn mathematics		Index of instrumental motivation to learn mathematics		Index of self-responsibility for failing in mathematics	
		Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.
OECD	Australia	**0.44**	(0.04)	**0.61**	(0.03)	**0.19**	(0.04)	**0.21**	(0.03)	**-0.19**	(0.04)
	Austria	0.12	(0.06)	**0.52**	(0.06)	-0.01	(0.05)	**-0.15**	(0.06)	-0.02	(0.05)
	Belgium	0.08	(0.05)	**0.40**	(0.05)	**0.18**	(0.05)	**0.27**	(0.04)	-0.02	(0.04)
	Canada	**0.41**	(0.04)	**0.53**	(0.04)	**0.31**	(0.04)	**0.36**	(0.04)	**-0.18**	(0.04)
	Chile	**0.22**	(0.05)	**0.49**	(0.05)	-0.10	(0.06)	**-0.17**	(0.05)	**-0.20**	(0.05)
	Czech Republic	**0.24**	(0.06)	**0.67**	(0.06)	**0.20**	(0.06)	0.03	(0.05)	**-0.21**	(0.06)
	Denmark	**0.47**	(0.06)	**0.72**	(0.05)	**0.28**	(0.06)	**0.42**	(0.05)	**-0.20**	(0.05)
	Estonia	**0.13**	(0.05)	**0.62**	(0.06)	**0.30**	(0.06)	**0.28**	(0.05)	-0.06	(0.06)
	Finland	**0.52**	(0.05)	**0.74**	(0.05)	**0.45**	(0.05)	**0.54**	(0.05)	**-0.24**	(0.05)
	France	**0.37**	(0.06)	**0.57**	(0.06)	**0.24**	(0.05)	**0.29**	(0.05)	-0.10	(0.06)
	Germany	**0.19**	(0.06)	**0.46**	(0.06)	**0.13**	(0.06)	0.00	(0.05)	-0.11	(0.06)
	Greece	**0.42**	(0.05)	**0.64**	(0.05)	**0.44**	(0.05)	**0.33**	(0.05)	0.06	(0.06)
	Hungary	**0.27**	(0.06)	**0.60**	(0.06)	0.05	(0.06)	0.05	(0.06)	**-0.22**	(0.06)
	Iceland	**0.43**	(0.07)	**0.60**	(0.07)	**0.35**	(0.06)	**0.37**	(0.06)	**-0.22**	(0.06)
	Ireland	**0.37**	(0.05)	**0.56**	(0.05)	**0.21**	(0.05)	0.11	(0.07)	**-0.14**	(0.05)
	Israel	0.03	(0.06)	**0.27**	(0.06)	**-0.18**	(0.05)	0.05	(0.05)	0.06	(0.06)
	Italy	**0.15**	(0.03)	**0.37**	(0.03)	**0.11**	(0.03)	**0.08**	(0.03)	-0.05	(0.03)
	Japan	**0.21**	(0.05)	**0.45**	(0.05)	**0.35**	(0.06)	**0.41**	(0.06)	**-0.16**	(0.05)
	Korea	**0.43**	(0.06)	**0.66**	(0.06)	**0.40**	(0.06)	**0.41**	(0.06)	**-0.15**	(0.05)
	Luxembourg	**0.28**	(0.04)	**0.54**	(0.05)	0.08	(0.05)	**0.17**	(0.05)	0.02	(0.04)
	Mexico	**0.25**	(0.03)	**0.55**	(0.03)	**-0.38**	(0.03)	**-0.18**	(0.02)	-0.02	(0.03)
	Netherlands	0.00	(0.05)	**0.32**	(0.06)	**0.17**	(0.07)	**0.20**	(0.06)	-0.03	(0.06)
	New Zealand	**0.42**	(0.06)	**0.60**	(0.06)	0.08	(0.06)	**0.23**	(0.06)	**-0.20**	(0.06)
	Norway	**0.39**	(0.06)	**0.61**	(0.05)	**0.31**	(0.07)	**0.40**	(0.06)	**-0.17**	(0.05)
	Poland	**0.42**	(0.06)	**0.56**	(0.05)	0.09	(0.06)	**0.24**	(0.06)	**-0.28**	(0.06)
	Portugal	**0.38**	(0.07)	**0.62**	(0.06)	**0.19**	(0.05)	**0.36**	(0.07)	-0.09	(0.06)
	Slovak Republic	**0.30**	(0.06)	**0.45**	(0.06)	-0.08	(0.06)	-0.12	(0.07)	**-0.16**	(0.06)
	Slovenia	**0.17**	(0.06)	**0.35**	(0.05)	**0.13**	(0.06)	0.08	(0.06)	**-0.20**	(0.05)
	Spain	**0.31**	(0.04)	**0.52**	(0.03)	**0.17**	(0.05)	**0.30**	(0.05)	0.07	(0.04)
	Sweden	**0.37**	(0.05)	**0.61**	(0.06)	**0.33**	(0.05)	**0.35**	(0.05)	**-0.30**	(0.06)
	Switzerland	0.05	(0.04)	**0.42**	(0.04)	**-0.12**	(0.04)	**-0.19**	(0.04)	**0.16**	(0.04)
	Turkey	**0.20**	(0.05)	**0.38**	(0.06)	-0.10	(0.05)	-0.03	(0.06)	-0.02	(0.05)
	United Kingdom	**0.34**	(0.06)	**0.54**	(0.05)	**0.21**	(0.04)	**0.15**	(0.05)	**-0.24**	(0.04)
	United States	**0.43**	(0.06)	**0.58**	(0.06)	0.02	(0.06)	**0.21**	(0.06)	**-0.14**	(0.05)
	OECD average	**0.29**	(0.01)	**0.53**	(0.01)	**0.15**	(0.01)	**0.18**	(0.01)	**-0.12**	(0.01)
Partners	Albania	m	m	m	m	m	m	m	m	m	m
	Argentina	**0.23**	(0.04)	**0.49**	(0.06)	**-0.42**	(0.05)	**-0.27**	(0.05)	0.06	(0.06)
	Brazil	**0.12**	(0.03)	**0.25**	(0.03)	**-0.36**	(0.03)	**-0.25**	(0.04)	0.00	(0.04)
	Bulgaria	**0.48**	(0.06)	**0.51**	(0.06)	**-0.22**	(0.05)	0.01	(0.05)	**-0.17**	(0.05)
	Colombia	**0.16**	(0.06)	**0.23**	(0.06)	**-0.31**	(0.07)	**-0.26**	(0.06)	0.11	(0.06)
	Costa Rica	**0.16**	(0.07)	**0.57**	(0.07)	**-0.23**	(0.06)	-0.10	(0.06)	0.02	(0.07)
	Croatia	0.05	(0.05)	**0.33**	(0.05)	-0.02	(0.06)	-0.05	(0.07)	-0.02	(0.06)
	Cyprus*	**0.50**	(0.05)	**0.66**	(0.06)	**0.47**	(0.05)	**0.42**	(0.05)	**-0.26**	(0.06)
	Hong Kong-China	**0.37**	(0.06)	**0.51**	(0.05)	**0.18**	(0.05)	**0.14**	(0.05)	-0.12	(0.07)
	Indonesia	**0.24**	(0.07)	**0.46**	(0.07)	**-0.16**	(0.07)	0.01	(0.05)	**0.24**	(0.06)
	Jordan	**0.36**	(0.05)	**0.45**	(0.04)	**0.19**	(0.05)	**0.16**	(0.05)	-0.07	(0.06)
	Kazakhstan	**0.55**	(0.06)	**0.55**	(0.06)	**0.18**	(0.07)	**0.18**	(0.07)	**-0.29**	(0.06)
	Latvia	**0.46**	(0.07)	**0.71**	(0.07)	**0.20**	(0.07)	0.12	(0.07)	-0.09	(0.06)
	Liechtenstein	**0.62**	(0.19)	**0.78**	(0.20)	0.36	(0.20)	0.24	(0.19)	0.21	(0.21)
	Lithuania	**0.29**	(0.05)	**0.53**	(0.06)	**0.12**	(0.06)	**0.15**	(0.05)	**-0.13**	(0.05)
	Macao-China	**0.29**	(0.05)	**0.46**	(0.05)	0.03	(0.04)	0.06	(0.05)	-0.04	(0.05)
	Malaysia	**0.29**	(0.05)	**0.34**	(0.05)	**0.15**	(0.06)	**0.22**	(0.06)	0.09	(0.06)
	Montenegro	**0.21**	(0.05)	**0.30**	(0.06)	-0.08	(0.05)	**-0.13**	(0.06)	**-0.13**	(0.05)
	Peru	**0.25**	(0.05)	**0.33**	(0.06)	**-0.55**	(0.06)	**-0.14**	(0.05)	-0.08	(0.05)
	Qatar	**0.29**	(0.03)	**0.30**	(0.04)	-0.02	(0.04)	**0.13**	(0.04)	**-0.19**	(0.03)
	Romania	**0.33**	(0.05)	**0.44**	(0.06)	-0.04	(0.06)	-0.10	(0.06)	-0.05	(0.06)
	Russian Federation	**0.33**	(0.04)	**0.64**	(0.05)	0.08	(0.05)	0.05	(0.05)	-0.08	(0.06)
	Serbia	**0.30**	(0.05)	**0.38**	(0.06)	-0.09	(0.05)	-0.06	(0.05)	-0.07	(0.06)
	Shanghai-China	**0.36**	(0.05)	**0.71**	(0.05)	**0.18**	(0.06)	**0.15**	(0.05)	**-0.17**	(0.05)
	Singapore	**0.23**	(0.05)	**0.55**	(0.05)	**-0.09**	(0.05)	**-0.17**	(0.05)	**-0.18**	(0.04)
	Chinese Taipei	**0.38**	(0.05)	**0.65**	(0.06)	**0.34**	(0.05)	**0.41**	(0.04)	**-0.36**	(0.05)
	Thailand	**0.29**	(0.05)	**0.27**	(0.05)	**-0.18**	(0.05)	-0.08	(0.05)	-0.03	(0.06)
	Tunisia	**0.26**	(0.06)	**0.47**	(0.05)	0.11	(0.07)	**0.21**	(0.06)	-0.06	(0.05)
	United Arab Emirates	**0.37**	(0.04)	**0.31**	(0.04)	0.01	(0.04)	**0.13**	(0.04)	**-0.17**	(0.05)
	Uruguay	**0.21**	(0.05)	**0.37**	(0.05)	**-0.36**	(0.06)	**-0.21**	(0.06)	-0.01	(0.06)
	Viet Nam	0.10	(0.06)	**0.55**	(0.06)	0.08	(0.06)	**0.30**	(0.06)	**0.23**	(0.05)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.

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[Part 1/1]

Table III.3.7c Effect sizes for differences by immigrant status in drive and motivation

Results based on students' self-reports

Effect size in favour of students without an immigrant background:	Effect size in favour of students with an immigrant background:
▨ *from 0.2 to 0.5*	▨ *from -0.2 to -0.5*
▨ *from 0.5 to 0.8*	▨ *from -0.5 to -0.8*
▨ *equal to or greater than 0.8*	▨ *equal to or less than -0.8*

		Index of perseverance		Index of openness to problem solving		Index of intrinsic motivation to learn mathematics		Index of instrumental motivation to learn mathematics		Index of self-responsibility for failing in mathematics	
		Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.
OECD	**Australia**	0.00	(0.03)	**-0.16**	(0.03)	**-0.30**	(0.03)	**-0.16**	(0.03)	**0.10**	(0.03)
	Austria	**-0.11**	(0.05)	0.08	(0.06)	**-0.15**	(0.06)	**-0.15**	(0.06)	-0.03	(0.06)
	Belgium	**-0.28**	(0.05)	-0.12	(0.06)	**-0.19**	(0.04)	**-0.24**	(0.05)	**-0.11**	(0.04)
	Canada	**-0.18**	(0.03)	**-0.09**	(0.03)	**-0.35**	(0.02)	**-0.17**	(0.03)	**0.16**	(0.03)
	Chile	-0.27	(0.18)	-0.38	(0.20)	**-0.28**	(0.14)	**-0.39**	(0.16)	**0.33**	(0.14)
	Czech Republic	-0.03	(0.12)	0.12	(0.14)	-0.12	(0.12)	-0.21	(0.13)	-0.05	(0.14)
	Denmark	**-0.21**	(0.05)	-0.03	(0.05)	**-0.25**	(0.05)	**-0.25**	(0.04)	0.06	(0.05)
	Estonia	**-0.30**	(0.07)	0.03	(0.07)	**-0.23**	(0.08)	0.02	(0.08)	**0.43**	(0.09)
	Finland	**-0.13**	(0.04)	-0.09	(0.05)	**-0.47**	(0.05)	**-0.33**	(0.05)	**-0.10**	(0.05)
	France	-0.09	(0.05)	-0.03	(0.05)	**-0.17**	(0.07)	**-0.15**	(0.07)	-0.05	(0.06)
	Germany	-0.08	(0.05)	0.03	(0.05)	-0.08	(0.06)	-0.09	(0.05)	-0.07	(0.06)
	Greece	0.07	(0.06)	**0.20**	(0.08)	0.09	(0.06)	0.01	(0.07)	0.02	(0.07)
	Hungary	-0.14	(0.15)	**-0.47**	(0.18)	-0.07	(0.13)	0.05	(0.17)	-0.11	(0.12)
	Iceland	-0.10	(0.14)	0.03	(0.14)	**-0.41**	(0.13)	-0.08	(0.13)	0.06	(0.12)
	Ireland	-0.09	(0.07)	**-0.18**	(0.07)	**-0.31**	(0.07)	**-0.19**	(0.06)	**0.22**	(0.07)
	Israel	**0.16**	(0.05)	0.08	(0.06)	0.05	(0.06)	-0.07	(0.04)	-0.06	(0.04)
	Italy	0.04	(0.05)	**0.13**	(0.05)	**-0.15**	(0.04)	**-0.22**	(0.05)	-0.02	(0.05)
	Japan	-0.21	(0.29)	-0.01	(0.34)	-0.35	(0.28)	-0.28	(0.27)	0.23	(0.29)
	Korea	**1.19**	(0.04)	**-0.37**	(0.04)	**-0.29**	(0.04)	0.00	(0.04)	**0.32**	(0.02)
	Luxembourg	**0.10**	(0.04)	**0.15**	(0.03)	**-0.12**	(0.04)	**-0.08**	(0.03)	0.05	(0.04)
	Mexico	**0.30**	(0.08)	**0.16**	(0.08)	**-0.18**	(0.09)	0.01	(0.09)	**-0.17**	(0.08)
	Netherlands	**-0.29**	(0.06)	**-0.25**	(0.06)	**-0.44**	(0.07)	**-0.25**	(0.06)	0.08	(0.07)
	New Zealand	**-0.36**	(0.04)	**-0.29**	(0.04)	**-0.50**	(0.06)	**-0.31**	(0.05)	**0.10**	(0.04)
	Norway	**-0.29**	(0.06)	-0.02	(0.06)	**-0.38**	(0.06)	**-0.19**	(0.07)	**0.21**	(0.06)
	Poland	0.08	(0.51)	0.07	(0.53)	0.15	(0.42)	-0.72	(0.50)	-0.30	(0.37)
	Portugal	0.03	(0.08)	0.02	(0.08)	-0.02	(0.07)	0.01	(0.08)	0.03	(0.09)
	Slovak Republic	-0.15	(0.21)	-0.06	(0.24)	-0.22	(0.15)	**-0.56**	(0.19)	0.13	(0.21)
	Slovenia	-0.08	(0.07)	0.02	(0.08)	0.01	(0.08)	0.03	(0.07)	-0.05	(0.08)
	Spain	**0.11**	(0.04)	**0.10**	(0.04)	**-0.25**	(0.04)	**-0.13**	(0.04)	0.03	(0.04)
	Sweden	**-0.29**	(0.05)	-0.10	(0.06)	**-0.39**	(0.05)	**-0.34**	(0.05)	-0.01	(0.06)
	Switzerland	**-0.14**	(0.04)	-0.04	(0.04)	**-0.23**	(0.04)	**-0.18**	(0.04)	0.07	(0.04)
	Turkey	0.09	(0.22)	0.25	(0.16)	-0.02	(0.20)	0.02	(0.20)	-0.15	(0.14)
	United Kingdom	**-0.26**	(0.05)	**-0.29**	(0.05)	**-0.35**	(0.07)	**-0.25**	(0.06)	0.03	(0.05)
	United States	0.00	(0.04)	0.08	(0.04)	**-0.37**	(0.05)	**-0.22**	(0.04)	0.07	(0.04)
	OECD average	**-0.06**	(0.02)	-0.04	(0.02)	**-0.22**	(0.02)	**-0.18**	(0.02)	**0.04**	(0.02)
Partners	**Albania**	**0.83**	(0.22)	-0.40	(0.39)	0.21	(0.39)	0.22	(0.40)	**-0.64**	(0.32)
	Argentina	0.11	(0.10)	0.14	(0.09)	**-0.29**	(0.08)	**-0.18**	(0.08)	0.10	(0.08)
	Brazil	0.17	(0.12)	0.01	(0.17)	-0.22	(0.13)	**-0.34**	(0.10)	-0.20	(0.14)
	Bulgaria	-0.08	(0.29)	0.00	(0.33)	-0.04	(0.31)	0.03	(0.29)	-0.16	(0.30)
	Colombia	**0.59**	(0.14)	0.54	(0.30)	0.42	(0.22)	-0.09	(0.29)	-0.28	(0.34)
	Costa Rica	-0.01	(0.17)	0.12	(0.15)	-0.06	(0.12)	**-0.24**	(0.08)	-0.03	(0.09)
	Croatia	0.09	(0.04)	0.06	(0.05)	**0.14**	(0.05)	0.04	(0.05)	-0.07	(0.05)
	Cyprus*	**0.11**	(0.05)	0.08	(0.06)	**0.22**	(0.07)	**0.17**	(0.07)	-0.07	(0.08)
	Hong Kong-China	0.00	(0.04)	0.00	(0.04)	-0.02	(0.05)	-0.05	(0.04)	-0.01	(0.05)
	Indonesia	-0.23	(0.34)	0.01	(0.41)	0.38	(0.32)	-0.08	(0.41)	**-0.81**	(0.35)
	Jordan	-0.10	(0.05)	-0.04	(0.06)	-0.01	(0.05)	-0.01	(0.05)	**0.15**	(0.05)
	Kazakhstan	0.10	(0.06)	-0.03	(0.05)	**-0.17**	(0.05)	**-0.15**	(0.06)	0.06	(0.05)
	Latvia	**-0.33**	(0.09)	-0.13	(0.09)	**-0.27**	(0.14)	0.02	(0.10)	**0.25**	(0.10)
	Liechtenstein	0.09	(0.14)	-0.07	(0.17)	0.04	(0.17)	-0.06	(0.15)	-0.10	(0.16)
	Lithuania	-0.03	(0.15)	0.04	(0.14)	-0.04	(0.16)	0.07	(0.15)	0.25	(0.14)
	Macao-China	**-0.12**	(0.04)	**-0.12**	(0.04)	-0.07	(0.04)	**-0.12**	(0.04)	0.05	(0.03)
	Malaysia	0.04	(0.11)	0.11	(0.11)	0.18	(0.12)	0.10	(0.17)	-0.04	(0.13)
	Montenegro	0.08	(0.06)	0.03	(0.08)	**0.19**	(0.07)	**0.15**	(0.07)	-0.03	(0.08)
	Peru	0.32	(0.29)	-0.23	(0.34)	**-0.85**	(0.22)	-0.33	(0.25)	-0.15	(0.35)
	Qatar	**-0.31**	(0.03)	**-0.12**	(0.02)	**-0.28**	(0.02)	**-0.33**	(0.03)	**0.13**	(0.02)
	Romania	0.32	(0.42)	-0.05	(0.48)	0.38	(0.38)	-0.33	(0.55)	0.33	(0.33)
	Russian Federation	0.02	(0.06)	-0.05	(0.07)	0.01	(0.06)	0.04	(0.06)	-0.08	(0.07)
	Serbia	0.07	(0.06)	0.03	(0.06)	0.12	(0.07)	0.10	(0.07)	0.02	(0.06)
	Shanghai-China	-0.04	(0.16)	**0.46**	(0.19)	0.20	(0.18)	0.03	(0.13)	-0.02	(0.19)
	Singapore	-0.07	(0.05)	**-0.27**	(0.05)	-0.05	(0.04)	0.00	(0.05)	**0.13**	(0.04)
	Chinese Taipei	0.10	(0.19)	-0.21	(0.20)	0.18	(0.22)	0.35	(0.23)	-0.28	(0.21)
	Thailand	**0.51**	(0.17)	**0.55**	(0.12)	0.16	(0.23)	0.29	(0.32)	0.05	(0.16)
	Tunisia	0.15	(0.20)	-0.07	(0.28)	0.05	(0.27)	0.17	(0.27)	0.06	(0.17)
	United Arab Emirates	**-0.18**	(0.03)	**-0.11**	(0.03)	-0.02	(0.03)	-0.07	(0.04)	**0.11**	(0.03)
	Uruguay	0.01	(0.22)	0.07	(0.22)	0.19	(0.28)	0.22	(0.29)	-0.01	(0.33)
	Viet Nam	-0.87	(0.72)	**-0.72**	(0.28)	-0.19	(0.46)	**-0.26**	(0.04)	-0.14	(0.39)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.3.8 Students' drive and motivation, by proficiency level in mathematics

Results based on students' self-reports

		Index of student perseverance, by level of proficiency in mathematics						Index of students' openness to problem solving, by level of proficiency in mathematics					
		Below proficiency Level 2		Proficiency Level 4		Proficiency at or above Level 5		Below proficiency Level 2		Proficiency Level 4		Proficiency at or above Level 5	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	-0.33	(0.03)	0.32	(0.02)	0.50	(0.03)	-0.64	(0.03)	0.24	(0.03)	0.65	(0.03)
	Austria	**-0.24**	(0.04)	0.07	(0.03)	**0.27**	(0.05)	**-0.39**	(0.05)	0.28	(0.03)	**0.64**	(0.04)
	Belgium	-0.53	(0.05)	-0.26	(0.03)	-0.08	(0.03)	**-0.59**	(0.05)	-0.15	(0.02)	**0.21**	(0.02)
	Canada	-0.21	(0.03)	0.38	(0.02)	0.59	(0.03)	-0.51	(0.03)	0.36	(0.03)	0.91	(0.03)
	Chile	0.15	(0.03)	0.56	(0.06)	0.65	(0.12)	**-0.06**	(0.02)	0.76	(0.05)	**1.08**	(0.10)
	Czech Republic	**-0.23**	(0.05)	-0.01	(0.03)	**0.06**	(0.04)	**-0.52**	(0.05)	0.02	(0.04)	**0.38**	(0.05)
	Denmark	-0.49	(0.04)	0.22	(0.04)	0.49	(0.07)	-0.48	(0.04)	0.39	(0.04)	0.89	(0.06)
	Estonia	**0.22**	(0.07)	0.35	(0.03)	**0.38**	(0.04)	**-0.52**	(0.07)	0.27	(0.03)	**0.76**	(0.04)
	Finland	**-0.46**	(0.05)	0.21	(0.03)	**0.63**	(0.04)	**-0.73**	(0.05)	0.17	(0.03)	**0.82**	(0.04)
	France	**-0.71**	(0.05)	-0.22	(0.04)	**0.23**	(0.05)	**-0.50**	(0.05)	0.08	(0.04)	**0.62**	(0.05)
	Germany	**-0.20**	(0.05)	0.12	(0.03)	**0.27**	(0.05)	**-0.10**	(0.06)	0.30	(0.04)	**0.59**	(0.04)
	Greece	-0.36	(0.03)	0.31	(0.06)	0.84	(0.09)	-0.07	(0.03)	0.75	(0.05)	1.13	(0.08)
	Hungary	**-0.19**	(0.04)	0.10	(0.04)	**0.22**	(0.05)	**-0.10**	(0.04)	0.43	(0.04)	**0.72**	(0.04)
	Iceland	**-0.52**	(0.05)	0.24	(0.05)	**0.54**	(0.05)	**-0.54**	(0.06)	0.48	(0.05)	**1.01**	(0.06)
	Ireland	**-0.24**	(0.06)	0.37	(0.03)	**0.62**	(0.06)	**-0.47**	(0.05)	0.34	(0.04)	**0.86**	(0.05)
	Israel	**0.37**	(0.04)	0.36	(0.05)	**0.33**	(0.07)	**0.19**	(0.04)	0.59	(0.05)	**0.77**	(0.07)
	Italy	-0.14	(0.03)	0.18	(0.02)	0.38	(0.03)	-0.31	(0.03)	0.10	(0.02)	0.45	(0.03)
	Japan	**-0.99**	(0.06)	-0.51	(0.03)	**-0.33**	(0.03)	-1.28	(0.07)	-0.64	(0.03)	-0.29	(0.03)
	Korea	**-0.43**	(0.04)	-0.11	(0.03)	**0.18**	(0.03)	**-1.04**	(0.05)	-0.37	(0.03)	**0.06**	(0.03)
	Luxembourg	**-0.24**	(0.03)	-0.01	(0.04)	**0.42**	(0.06)	-0.30	(0.04)	0.29	(0.04)	0.74	(0.05)
	Mexico	0.15	(0.01)	0.76	(0.05)	1.02	(0.11)	-0.34	(0.01)	0.81	(0.04)	1.09	(0.08)
	Netherlands	**-0.24**	(0.04)	-0.15	(0.04)	**-0.06**	(0.04)	**-0.36**	(0.08)	0.01	(0.04)	**0.27**	(0.03)
	New Zealand	-0.36	(0.04)	0.23	(0.04)	0.47	(0.04)	-0.60	(0.05)	0.08	(0.04)	0.62	(0.05)
	Norway	-0.87	(0.05)	0.13	(0.04)	0.60	(0.07)	-0.44	(0.05)	0.67	(0.04)	1.19	(0.06)
	Poland	-0.40	(0.05)	0.20	(0.04)	0.57	(0.04)	-0.05	(0.05)	0.53	(0.03)	0.88	(0.04)
	Portugal	**-0.07**	(0.04)	0.73	(0.05)	**0.88**	(0.05)	-0.14	(0.04)	0.45	(0.03)	0.87	(0.05)
	Slovak Republic	**-0.71**	(0.04)	-0.18	(0.05)	**0.03**	(0.06)	**-0.55**	(0.04)	-0.07	(0.05)	**0.29**	(0.05)
	Slovenia	-0.03	(0.05)	0.09	(0.04)	0.35	(0.06)	**-0.25**	(0.04)	0.19	(0.04)	**0.68**	(0.06)
	Spain	-0.14	(0.03)	0.33	(0.03)	0.71	(0.06)	-0.37	(0.03)	0.38	(0.03)	0.87	(0.03)
	Sweden	**-0.58**	(0.03)	0.07	(0.04)	**0.67**	(0.07)	**-0.39**	(0.05)	0.61	(0.04)	**1.15**	(0.05)
	Switzerland	-0.33	(0.04)	-0.05	(0.03)	0.03	(0.04)	-0.31	(0.05)	0.08	(0.02)	0.42	(0.03)
	Turkey	**0.26**	(0.03)	0.65	(0.06)	**0.81**	(0.10)	**0.03**	(0.03)	0.46	(0.06)	**0.64**	(0.06)
	United Kingdom	-0.31	(0.04)	0.36	(0.03)	0.55	(0.04)	**-0.53**	(0.04)	0.31	(0.03)	**0.76**	(0.05)
	United States	**0.04**	(0.04)	0.60	(0.05)	**0.81**	(0.07)	**-0.29**	(0.04)	0.63	(0.05)	**1.04**	(0.06)
	OECD average	**-0.28**	(0.01)	0.19	(0.01)	**0.43**	(0.01)	**-0.40**	(0.01)	0.29	(0.01)	**0.70**	(0.01)
Partners	**Albania**	0.65	(0.03)	0.60	(0.12)	c	c	0.53	(0.02)	0.47	(0.10)	c	c
	Argentina	-0.05	(0.02)	0.79	(0.16)	c	c	-0.28	(0.03)	0.87	(0.15)	c	c
	Brazil	**0.06**	(0.01)	0.46	(0.10)	**0.71**	(0.12)	**0.13**	(0.02)	0.69	(0.07)	**0.98**	(0.12)
	Bulgaria	0.32	(0.03)	0.75	(0.07)	0.79	(0.08)	0.25	(0.03)	0.62	(0.05)	0.83	(0.07)
	Colombia	0.37	(0.03)	0.84	(0.11)	c	c	0.13	(0.02)	0.76	(0.10)	c	c
	Costa Rica	0.40	(0.03)	0.57	(0.13)	c	c	-0.01	(0.03)	1.03	(0.09)	c	c
	Croatia	**-0.01**	(0.03)	0.12	(0.05)	**0.22**	(0.06)	-0.17	(0.03)	0.14	(0.03)	0.35	(0.06)
	Cyprus*	**-0.08**	(0.03)	0.47	(0.05)	**0.77**	(0.10)	**-0.03**	(0.03)	0.78	(0.05)	**1.12**	(0.09)
	Hong Kong-China	-0.17	(0.04)	0.18	(0.03)	0.23	(0.03)	-0.75	(0.06)	-0.23	(0.03)	0.05	(0.03)
	Indonesia	0.21	(0.03)	0.03	(0.11)	c	c	0.02	(0.03)	0.27	(0.09)	c	c
	Jordan	0.16	(0.02)	1.04	(0.13)	c	c	**0.47**	(0.02)	1.15	(0.15)	c	c
	Kazakhstan	0.59	(0.04)	1.01	(0.11)	c	c	0.36	(0.03)	0.80	(0.11)	c	c
	Latvia	-0.09	(0.05)	0.32	(0.04)	0.51	(0.07)	-0.40	(0.06)	0.21	(0.04)	0.49	(0.07)
	Liechtenstein	c	c	0.05	(0.12)	c	c	c	c	0.21	(0.12)	c	c
	Lithuania	**-0.06**	(0.03)	0.29	(0.04)	**0.26**	(0.04)	**-0.53**	(0.03)	0.19	(0.04)	**0.53**	(0.05)
	Macao-China	**-0.10**	(0.04)	0.20	(0.03)	**0.36**	(0.03)	**-0.77**	(0.04)	-0.25	(0.03)	**0.05**	(0.03)
	Malaysia	0.12	(0.02)	0.52	(0.06)	0.45	(0.21)	-0.30	(0.02)	0.14	(0.05)	0.19	(0.20)
	Montenegro	0.18	(0.03)	0.97	(0.13)	c	c	0.56	(0.03)	1.01	(0.10)	c	c
	Peru	0.28	(0.02)	0.54	(0.12)	c	c	0.09	(0.02)	0.72	(0.12)	c	c
	Qatar	**0.11**	(0.01)	0.76	(0.05)	**0.87**	(0.10)	**0.33**	(0.02)	0.66	(0.04)	**0.87**	(0.09)
	Romania	**-0.08**	(0.03)	0.31	(0.06)	**0.50**	(0.10)	**0.08**	(0.04)	0.49	(0.05)	**0.80**	(0.09)
	Russian Federation	**0.32**	(0.04)	0.67	(0.04)	**0.63**	(0.06)	**-0.28**	(0.05)	0.39	(0.03)	**0.71**	(0.07)
	Serbia	**0.06**	(0.03)	0.36	(0.07)	**0.47**	(0.07)	**0.29**	(0.04)	0.74	(0.05)	**0.96**	(0.07)
	Shanghai-China	0.12	(0.09)	0.18	(0.03)	0.33	(0.02)	-0.61	(0.10)	-0.09	(0.04)	0.28	(0.02)
	Singapore	0.09	(0.04)	0.35	(0.03)	0.36	(0.03)	-0.30	(0.06)	0.02	(0.03)	0.20	(0.03)
	Chinese Taipei	**-0.38**	(0.05)	-0.08	(0.04)	**0.18**	(0.02)	**-0.78**	(0.06)	-0.31	(0.03)	**0.00**	(0.02)
	Thailand	**0.08**	(0.02)	0.46	(0.08)	**0.54**	(0.11)	**-0.35**	(0.02)	-0.13	(0.05)	**0.08**	(0.11)
	Tunisia	0.00	(0.03)	0.72	(0.10)	c	c	0.13	(0.03)	0.71	(0.07)	c	c
	United Arab Emirates	**0.15**	(0.02)	0.79	(0.05)	**0.93**	(0.09)	**0.23**	(0.03)	0.65	(0.05)	**0.95**	(0.08)
	Uruguay	**0.13**	(0.03)	0.60	(0.08)	**0.83**	(0.13)	**-0.14**	(0.03)	0.69	(0.08)	**1.00**	(0.11)
	Viet Nam	**0.33**	(0.07)	0.48	(0.03)	**0.60**	(0.04)	**-0.81**	(0.06)	-0.41	(0.03)	**-0.11**	(0.04)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
StatLink http://dx.doi.org/10.1787/888932963939

[Part 2/2]

Table III.3.8 Students' drive and motivation, by proficiency level in mathematics

Results based on students' self-reports

		Index of intrinsic motivation to learn mathematics, by level of proficiency in mathematics						Index of students' instrumental motivation to learn mathematics, by level of proficiency in mathematics					
		Below proficiency Level 2		Proficiency Level 4		Proficiency at or above Level 5		Below proficiency Level 2		Proficiency Level 4		Proficiency at or above Level 5	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	-0.16	(0.03)	0.29	(0.03)	0.59	(0.03)	**-0.04**	(0.02)	0.38	(0.03)	**0.58**	(0.03)
	Austria	**-0.58**	(0.06)	-0.26	(0.05)	**0.08**	(0.04)	**-0.46**	(0.06)	-0.40	(0.04)	**-0.23**	(0.06)
	Belgium	**-0.38**	(0.05)	-0.17	(0.02)	**0.17**	(0.03)	**-0.56**	(0.05)	-0.26	(0.03)	**0.05**	(0.02)
	Canada	**-0.28**	(0.04)	0.18	(0.02)	**0.57**	(0.03)	**-0.19**	(0.04)	0.43	(0.02)	**0.66**	(0.02)
	Chile	**0.15**	(0.03)	0.58	(0.06)	**1.01**	(0.10)	**0.22**	(0.03)	0.58	(0.07)	**0.95**	(0.10)
	Czech Republic	**-0.36**	(0.04)	0.01	(0.05)	**0.26**	(0.05)	**-0.33**	(0.04)	-0.04	(0.04)	**-0.01**	(0.05)
	Denmark	-0.01	(0.04)	0.65	(0.04)	1.04	(0.05)	-0.09	(0.04)	0.46	(0.03)	0.74	(0.04)
	Estonia	**-0.29**	(0.05)	0.12	(0.03)	**0.43**	(0.04)	**-0.24**	(0.05)	0.11	(0.03)	**0.33**	(0.04)
	Finland	**-0.53**	(0.04)	-0.01	(0.03)	**0.39**	(0.03)	**-0.40**	(0.04)	0.19	(0.03)	**0.49**	(0.03)
	France	**-0.12**	(0.04)	0.16	(0.04)	**0.57**	(0.05)	**-0.20**	(0.04)	-0.03	(0.03)	**0.33**	(0.05)
	Germany	**-0.32**	(0.06)	-0.01	(0.05)	**0.26**	(0.05)	**-0.29**	(0.04)	-0.04	(0.04)	**0.05**	(0.04)
	Greece	**-0.12**	(0.04)	0.78	(0.04)	**1.02**	(0.06)	**-0.21**	(0.03)	0.46	(0.04)	**0.63**	(0.09)
	Hungary	**-0.18**	(0.05)	0.00	(0.05)	**0.49**	(0.06)	**-0.10**	(0.04)	0.08	(0.04)	**0.43**	(0.06)
	Iceland	**-0.24**	(0.05)	0.44	(0.05)	**0.77**	(0.06)	**-0.07**	(0.05)	0.53	(0.04)	**0.84**	(0.06)
	Ireland	**-0.16**	(0.06)	0.26	(0.04)	**0.65**	(0.06)	**0.03**	(0.05)	0.21	(0.04)	**0.53**	(0.05)
	Israel	**0.28**	(0.05)	0.06	(0.05)	**0.26**	(0.07)	**0.25**	(0.04)	0.41	(0.04)	**0.51**	(0.06)
	Italy	**-0.16**	(0.03)	0.21	(0.02)	**0.49**	(0.03)	**-0.30**	(0.02)	-0.04	(0.02)	**0.18**	(0.03)
	Japan	**-0.75**	(0.05)	-0.12	(0.04)	**0.25**	(0.03)	**-1.01**	(0.06)	-0.34	(0.04)	**-0.06**	(0.04)
	Korea	**-0.86**	(0.05)	-0.15	(0.03)	**0.32**	(0.04)	**-1.19**	(0.05)	-0.35	(0.03)	**0.16**	(0.04)
	Luxembourg	**-0.28**	(0.04)	-0.03	(0.04)	**0.42**	(0.05)	**-0.44**	(0.03)	-0.14	(0.04)	**0.27**	(0.05)
	Mexico	0.62	(0.01)	0.92	(0.04)	1.03	(0.13)	0.46	(0.01)	0.69	(0.04)	0.87	(0.11)
	Netherlands	**-0.48**	(0.06)	-0.30	(0.04)	**-0.03**	(0.03)	**-0.60**	(0.05)	-0.30	(0.03)	**-0.07**	(0.04)
	New Zealand	**0.04**	(0.06)	0.15	(0.04)	**0.47**	(0.03)	**0.08**	(0.04)	0.42	(0.04)	**0.61**	(0.04)
	Norway	-0.59	(0.05)	0.25	(0.03)	0.69	(0.06)	-0.31	(0.04)	0.57	(0.04)	0.77	(0.05)
	Poland	**-0.34**	(0.05)	-0.01	(0.04)	**0.38**	(0.04)	**-0.43**	(0.05)	0.00	(0.05)	**0.43**	(0.05)
	Portugal	**-0.09**	(0.03)	0.30	(0.04)	**0.57**	(0.05)	**-0.03**	(0.04)	0.50	(0.05)	**0.78**	(0.05)
	Slovak Republic	**-0.17**	(0.05)	-0.12	(0.04)	**0.26**	(0.05)	**-0.33**	(0.04)	-0.22	(0.04)	**0.00**	(0.07)
	Slovenia	**-0.36**	(0.04)	-0.18	(0.04)	**0.29**	(0.05)	**-0.31**	(0.05)	-0.19	(0.04)	**0.13**	(0.05)
	Spain	-0.28	(0.04)	0.08	(0.03)	0.52	(0.03)	-0.24	(0.03)	0.32	(0.03)	0.65	(0.04)
	Sweden	**-0.21**	(0.04)	0.49	(0.04)	**0.90**	(0.06)	**-0.06**	(0.03)	0.45	(0.05)	**0.62**	(0.06)
	Switzerland	-0.20	(0.05)	0.01	(0.03)	0.20	(0.04)	-0.26	(0.05)	-0.10	(0.04)	-0.04	(0.05)
	Turkey	**0.32**	(0.04)	0.69	(0.05)	**0.75**	(0.07)	**-0.05**	(0.03)	0.20	(0.06)	**0.26**	(0.06)
	United Kingdom	**-0.05**	(0.04)	0.35	(0.03)	**0.70**	(0.06)	**0.19**	(0.04)	0.38	(0.03)	**0.60**	(0.05)
	United States	**-0.06**	(0.06)	0.26	(0.05)	**0.57**	(0.07)	**0.00**	(0.04)	0.34	(0.05)	**0.62**	(0.07)
	OECD average	**-0.21**	(0.01)	0.17	(0.01)	**0.51**	(0.01)	**-0.22**	(0.01)	0.15	(0.01)	**0.40**	(0.01)
Partners	**Albania**	0.97	(0.02)	0.92	(0.09)	c	c	0.59	(0.03)	0.45	(0.10)	c	c
	Argentina	0.22	(0.03)	0.59	(0.16)	c	c	0.17	(0.02)	0.51	(0.12)	c	c
	Brazil	0.44	(0.02)	0.50	(0.11)	0.78	(0.19)	**0.39**	(0.02)	0.35	(0.07)	**0.88**	(0.10)
	Bulgaria	0.30	(0.04)	0.19	(0.05)	0.57	(0.11)	-0.03	(0.03)	0.04	(0.06)	0.50	(0.12)
	Colombia	0.59	(0.03)	0.97	(0.11)	c	c	0.45	(0.02)	0.64	(0.13)	c	c
	Costa Rica	**0.33**	(0.03)	0.66	(0.09)	c	c	0.32	(0.03)	0.53	(0.12)	c	c
	Croatia	**-0.32**	(0.04)	-0.15	(0.06)	**0.35**	(0.08)	**-0.34**	(0.03)	-0.13	(0.05)	**0.27**	(0.08)
	Cyprus*	**-0.05**	(0.03)	0.73	(0.06)	**0.90**	(0.10)	**-0.25**	(0.03)	0.62	(0.06)	**0.78**	(0.07)
	Hong Kong-China	**-0.24**	(0.06)	0.33	(0.04)	**0.62**	(0.03)	**-0.63**	(0.05)	-0.21	(0.03)	**-0.01**	(0.03)
	Indonesia	0.80	(0.02)	0.38	(0.20)	c	c	0.33	(0.02)	0.26	(0.15)	c	c
	Jordan	0.72	(0.03)	1.03	(0.10)	c	c	0.35	(0.02)	0.57	(0.12)	c	c
	Kazakhstan	0.86	(0.03)	0.91	(0.09)	c	c	0.41	(0.03)	0.43	(0.08)	c	c
	Latvia	**-0.16**	(0.05)	0.12	(0.04)	**0.37**	(0.05)	**0.02**	(0.05)	0.29	(0.04)	**0.44**	(0.06)
	Liechtenstein	c	c	0.29	(0.16)	c	c	c	c	-0.16	(0.19)	c	c
	Lithuania	**-0.08**	(0.05)	0.37	(0.05)	**0.44**	(0.06)	**0.02**	(0.05)	0.55	(0.04)	**0.59**	(0.05)
	Macao-China	**-0.08**	(0.05)	0.22	(0.03)	**0.44**	(0.03)	**-0.35**	(0.04)	-0.27	(0.03)	**-0.08**	(0.03)
	Malaysia	**0.75**	(0.02)	1.18	(0.05)	**1.22**	(0.20)	**0.39**	(0.03)	0.73	(0.06)	**0.44**	(0.21)
	Montenegro	-0.05	(0.02)	0.48	(0.09)	c	c	-0.32	(0.02)	0.08	(0.10)	c	c
	Peru	0.77	(0.02)	0.79	(0.10)	c	c	**0.55**	(0.02)	0.70	(0.11)	c	c
	Qatar	**0.54**	(0.02)	0.91	(0.05)	**1.08**	(0.09)	0.17	(0.01)	0.68	(0.05)	0.87	(0.06)
	Romania	**0.55**	(0.03)	0.32	(0.05)	**0.28**	(0.11)	**-0.47**	(0.04)	-0.76	(0.07)	**-0.88**	(0.13)
	Russian Federation	**0.18**	(0.04)	0.45	(0.04)	**0.68**	(0.06)	**-0.20**	(0.04)	0.10	(0.04)	**0.21**	(0.08)
	Serbia	**-0.19**	(0.03)	-0.06	(0.06)	**0.19**	(0.08)	**-0.10**	(0.03)	-0.07	(0.06)	**0.15**	(0.08)
	Shanghai-China	**0.03**	(0.09)	0.43	(0.04)	**0.55**	(0.02)	**-0.21**	(0.09)	-0.02	(0.04)	**0.09**	(0.02)
	Singapore	**0.60**	(0.06)	0.88	(0.03)	**0.88**	(0.02)	**0.38**	(0.06)	0.44	(0.03)	**0.34**	(0.03)
	Chinese Taipei	**-0.39**	(0.05)	0.11	(0.03)	**0.43**	(0.03)	**-0.75**	(0.05)	-0.28	(0.03)	**-0.02**	(0.02)
	Thailand	0.75	(0.02)	0.99	(0.06)	0.89	(0.09)	**0.30**	(0.01)	0.58	(0.06)	**0.59**	(0.10)
	Tunisia	0.51	(0.03)	0.81	(0.10)	c	c	0.29	(0.02)	0.66	(0.06)	c	c
	United Arab Emirates	**0.67**	(0.03)	0.89	(0.05)	**1.10**	(0.06)	**0.27**	(0.02)	0.60	(0.05)	**0.63**	(0.08)
	Uruguay	**0.30**	(0.03)	0.38	(0.09)	**0.55**	(0.14)	**0.26**	(0.02)	0.30	(0.07)	**0.50**	(0.14)
	Viet Nam	**0.58**	(0.05)	0.75	(0.03)	**0.92**	(0.03)	**0.20**	(0.04)	0.47	(0.03)	**0.58**	(0.04)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 1/1]

Table III.3.9 Change between 2003 and 2012 in the association between students' drive and mathematics performance

Results based on students' self-reports

		PISA 2003				PISA 2012				Change between 2003 and 2012 (PISA 2012 - PISA 2003)			
		Intrinsic motivation to learn mathematics		Instrumental motivation to learn mathematics		Intrinsic motivation to learn mathematics		Instrumental motivation to learn mathematics		Intrinsic motivation to learn mathematics		Instrumental motivation to learn mathematics	
		Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr. dif.	S.E.	Corr. dif.	S.E.
OECD	Australia	**0.19**	(0.01)	**0.17**	(0.01)	**0.25**	(0.01)	**0.21**	(0.01)	**0.06**	(0.02)	**0.03**	(0.01)
	Austria	**0.10**	(0.02)	**-0.04**	(0.02)	**0.18**	(0.02)	**0.05**	(0.03)	**0.08**	(0.03)	**0.09**	(0.03)
	Belgium	**0.14**	(0.01)	**0.11**	(0.02)	**0.21**	(0.02)	**0.22**	(0.02)	**0.07**	(0.02)	**0.12**	(0.02)
	Canada	**0.24**	(0.01)	**0.23**	(0.01)	**0.25**	(0.01)	**0.25**	(0.01)	0.01	(0.02)	0.02	(0.02)
	Czech Republic	**0.20**	(0.02)	**0.10**	(0.02)	**0.22**	(0.02)	**0.12**	(0.02)	0.03	(0.03)	0.02	(0.03)
	Denmark	**0.30**	(0.02)	**0.21**	(0.02)	**0.32**	(0.02)	**0.27**	(0.02)	0.02	(0.03)	**0.06**	(0.02)
	Finland	**0.33**	(0.02)	**0.29**	(0.02)	**0.34**	(0.01)	**0.32**	(0.01)	0.01	(0.02)	0.02	(0.02)
	France	**0.22**	(0.02)	**0.16**	(0.02)	**0.20**	(0.02)	**0.15**	(0.02)	-0.02	(0.03)	-0.01	(0.03)
	Germany	**0.12**	(0.02)	0.01	(0.02)	**0.21**	(0.02)	**0.14**	(0.02)	**0.09**	(0.03)	**0.12**	(0.03)
	Greece	**0.26**	(0.02)	**0.16**	(0.02)	**0.30**	(0.02)	**0.24**	(0.02)	0.04	(0.03)	**0.07**	(0.02)
	Hungary	**0.09**	(0.02)	**0.08**	(0.02)	**0.13**	(0.03)	**0.12**	(0.02)	0.04	(0.04)	0.05	(0.03)
	Iceland	**0.29**	(0.02)	**0.20**	(0.02)	**0.29**	(0.02)	**0.27**	(0.02)	0.00	(0.03)	**0.07**	(0.03)
	Ireland	**0.20**	(0.02)	**0.09**	(0.02)	**0.24**	(0.02)	**0.14**	(0.02)	0.04	(0.03)	0.05	(0.03)
	Italy	**0.10**	(0.02)	**0.09**	(0.02)	**0.18**	(0.01)	**0.13**	(0.01)	**0.08**	(0.02)	**0.05**	(0.02)
	Japan	**0.28**	(0.02)	**0.25**	(0.02)	**0.33**	(0.02)	**0.31**	(0.02)	0.04	(0.03)	**0.06**	(0.03)
	Korea	**0.39**	(0.01)	**0.35**	(0.02)	**0.41**	(0.02)	**0.42**	(0.02)	0.02	(0.02)	**0.08**	(0.03)
	Luxembourg	**0.08**	(0.02)	0.00	(0.02)	**0.18**	(0.02)	**0.17**	(0.02)	**0.10**	(0.02)	**0.17**	(0.02)
	Mexico	**-0.06**	(0.02)	**0.07**	(0.02)	**0.05**	(0.01)	**0.07**	(0.01)	**0.11**	(0.03)	0.00	(0.03)
	Netherlands	**0.14**	(0.02)	**0.06**	(0.02)	**0.18**	(0.02)	**0.18**	(0.02)	0.03	(0.03)	**0.12**	(0.03)
	New Zealand	**0.11**	(0.02)	**0.15**	(0.02)	**0.13**	(0.03)	**0.19**	(0.02)	0.02	(0.03)	0.04	(0.03)
	Norway	**0.40**	(0.02)	**0.32**	(0.02)	**0.37**	(0.02)	**0.35**	(0.02)	-0.04	(0.03)	0.04	(0.02)
	Poland	**0.16**	(0.02)	**0.16**	(0.02)	**0.25**	(0.02)	**0.29**	(0.02)	**0.10**	(0.03)	**0.14**	(0.02)
	Portugal	**0.14**	(0.02)	**0.19**	(0.02)	**0.21**	(0.02)	**0.26**	(0.02)	**0.08**	(0.03)	**0.07**	(0.03)
	Slovak Republic	**0.11**	(0.02)	**0.06**	(0.02)	**0.06**	(0.03)	**0.07**	(0.03)	-0.04	(0.03)	0.01	(0.03)
	Spain	**0.22**	(0.02)	**0.23**	(0.02)	**0.20**	(0.02)	**0.24**	(0.01)	-0.02	(0.02)	0.01	(0.02)
	Sweden	**0.29**	(0.02)	**0.23**	(0.02)	**0.30**	(0.02)	**0.22**	(0.02)	0.01	(0.03)	-0.01	(0.03)
	Switzerland	**0.11**	(0.02)	-0.02	(0.02)	**0.13**	(0.02)	**0.06**	(0.02)	0.02	(0.02)	**0.08**	(0.02)
	Turkey	**0.18**	(0.03)	**0.14**	(0.02)	**0.11**	(0.03)	**0.10**	(0.02)	-0.07	(0.04)	-0.04	(0.03)
	United States	**0.09**	(0.02)	**0.14**	(0.02)	**0.14**	(0.02)	**0.16**	(0.02)	**0.06**	(0.03)	0.02	(0.02)
	OECD average 2003	**0.19**	(0.00)	**0.14**	(0.00)	**0.22**	(0.00)	**0.20**	(0.00)	**0.03**	(0.01)	**0.05**	(0.00)
Partners	Brazil	**-0.12**	(0.03)	**-0.14**	(0.03)	**-0.07**	(0.02)	**-0.04**	(0.01)	0.05	(0.03)	**0.10**	(0.03)
	Hong Kong-China	**0.30**	(0.01)	**0.22**	(0.02)	**0.30**	(0.02)	**0.22**	(0.02)	0.00	(0.02)	0.00	(0.02)
	Indonesia	**-0.07**	(0.03)	-0.04	(0.02)	-0.07	(0.04)	0.02	(0.03)	0.00	(0.05)	0.06	(0.04)
	Latvia	**0.13**	(0.02)	**0.19**	(0.02)	**0.17**	(0.02)	**0.13**	(0.02)	0.04	(0.03)	**-0.06**	(0.03)
	Liechtenstein	0.03	(0.06)	-0.06	(0.06)	**0.20**	(0.08)	-0.10	(0.07)	0.18	(0.10)	-0.04	(0.09)
	Macao-China	**0.20**	(0.04)	0.03	(0.04)	**0.21**	(0.02)	**0.12**	(0.02)	0.01	(0.04)	**0.09**	(0.04)
	Russian Federation	**0.12**	(0.02)	**0.14**	(0.02)	**0.15**	(0.02)	**0.11**	(0.02)	0.03	(0.03)	-0.04	(0.03)
	Thailand	0.03	(0.02)	**0.08**	(0.02)	**0.04**	(0.02)	**0.12**	(0.02)	0.01	(0.03)	0.05	(0.03)
	Tunisia	**0.10**	(0.02)	**0.18**	(0.02)	**0.10**	(0.02)	**0.17**	(0.02)	0.00	(0.03)	0.00	(0.03)
	Uruguay	0.15	(0.02)	**0.07**	(0.02)	-0.03	(0.02)	**-0.04**	(0.02)	**-0.18**	(0.03)	**-0.11**	(0.03)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.

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[Part 1/1]

Table III.4.1a **Students' self-efficacy in mathematics**

Percentage of students who reported feeling "very confident" or "confident"

		Percentage of students who reported that they feel very confident or confident about having to do the following tasks in mathematics:															
		Using a <train timetable> to work out how long it would take to get from one place to another		Calculating how much cheaper a TV would be after a 30% discount		Calculating how many square metres of tiles you need to cover a floor		Understanding graphs presented in newspapers		Solving an equation like 3x+5=17		Finding the actual distance between two places on a map with a 1:10 000 scale		Solving an equation like 2(x+3)=(x+3)(x-3)		Calculating the petrol-consumption rate of a car	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	86.6	(0.5)	76.2	(0.6)	72.9	(0.6)	85.2	(0.4)	87.2	(0.4)	56.0	(0.6)	73.1	(0.6)	54.0	(0.6)
	Austria	88.8	(0.8)	81.1	(0.8)	75.3	(1.0)	73.3	(1.0)	82.8	(0.8)	50.4	(1.1)	74.5	(0.9)	52.1	(1.1)
	Belgium	82.0	(0.6)	75.6	(0.7)	63.9	(0.8)	74.6	(0.7)	81.4	(0.7)	62.6	(0.8)	65.8	(0.9)	51.1	(0.8)
	Canada	80.6	(0.6)	78.6	(0.6)	76.9	(0.6)	83.8	(0.5)	89.7	(0.4)	57.8	(0.7)	79.2	(0.5)	57.4	(0.7)
	Chile	80.9	(0.8)	78.9	(0.7)	64.5	(0.8)	76.1	(0.8)	79.8	(0.7)	41.6	(0.9)	69.8	(0.9)	49.5	(0.9)
	Czech Republic	87.0	(0.7)	82.9	(0.8)	64.8	(1.1)	77.2	(1.0)	88.6	(0.8)	57.3	(1.3)	77.3	(0.9)	53.4	(1.2)
	Denmark	87.7	(0.7)	78.1	(0.9)	67.4	(0.9)	86.3	(0.8)	76.7	(1.1)	57.7	(1.0)	46.5	(1.1)	62.2	(0.9)
	Estonia	83.2	(0.8)	78.0	(0.8)	64.8	(1.0)	83.0	(0.7)	88.7	(0.7)	59.3	(1.2)	80.7	(1.0)	42.4	(0.9)
	Finland	83.8	(0.7)	72.3	(0.8)	58.0	(0.8)	59.4	(0.8)	83.7	(0.7)	54.2	(0.9)	61.9	(0.9)	46.4	(0.9)
	France	79.5	(0.7)	76.4	(0.9)	65.3	(1.0)	85.7	(0.7)	82.6	(0.8)	49.7	(1.0)	65.1	(0.9)	58.9	(0.9)
	Germany	92.1	(0.5)	83.9	(0.7)	79.2	(0.9)	89.0	(0.7)	89.4	(0.6)	59.6	(1.0)	73.4	(1.0)	64.4	(1.1)
	Greece	74.0	(1.0)	77.9	(0.8)	62.7	(1.0)	69.0	(1.2)	83.7	(0.8)	44.7	(1.1)	74.6	(1.0)	46.1	(0.9)
	Hungary	78.8	(1.0)	82.3	(1.0)	65.3	(1.2)	85.9	(0.9)	88.0	(1.0)	60.8	(1.1)	77.4	(1.1)	59.7	(1.0)
	Iceland	81.5	(0.8)	82.7	(0.7)	63.0	(1.0)	73.8	(0.9)	86.7	(0.8)	57.1	(1.1)	76.5	(1.0)	61.1	(1.1)
	Ireland	85.9	(0.6)	83.2	(0.8)	69.2	(0.9)	87.9	(0.7)	80.2	(0.9)	48.7	(1.1)	72.6	(0.9)	53.0	(0.9)
	Israel	78.8	(0.9)	76.2	(1.0)	64.9	(1.1)	80.4	(1.0)	89.9	(0.8)	49.3	(1.0)	87.5	(0.8)	59.4	(1.0)
	Italy	81.2	(0.4)	83.4	(0.5)	68.1	(0.7)	78.7	(0.5)	87.0	(0.5)	50.7	(0.7)	84.0	(0.6)	48.7	(0.6)
	Japan	67.6	(1.0)	60.6	(1.1)	43.7	(1.2)	54.0	(1.1)	90.6	(0.9)	48.1	(1.3)	83.4	(0.9)	28.3	(1.1)
	Korea	63.7	(1.2)	67.6	(1.3)	55.4	(1.5)	71.8	(1.1)	81.5	(1.1)	38.2	(1.4)	73.9	(1.3)	31.0	(1.4)
	Luxembourg	82.6	(0.7)	74.8	(0.8)	72.3	(0.7)	79.1	(0.7)	87.5	(0.6)	60.6	(0.9)	79.5	(0.6)	58.9	(0.9)
	Mexico	69.2	(0.6)	78.9	(0.5)	69.7	(0.5)	76.7	(0.4)	76.3	(0.5)	48.5	(0.5)	68.3	(0.6)	72.6	(0.5)
	Netherlands	72.4	(0.9)	85.5	(0.8)	70.0	(1.2)	82.6	(0.7)	77.4	(0.8)	59.7	(0.8)	60.8	(1.3)	59.4	(0.9)
	New Zealand	79.7	(0.9)	76.9	(0.9)	67.1	(1.0)	82.3	(0.7)	79.6	(0.9)	48.6	(0.9)	63.0	(1.1)	47.5	(1.0)
	Norway	82.6	(0.7)	81.3	(0.8)	63.4	(0.9)	70.1	(1.0)	82.3	(0.8)	60.8	(1.0)	58.6	(1.1)	61.6	(1.1)
	Poland	79.7	(1.0)	79.7	(1.0)	70.4	(1.2)	87.0	(0.7)	86.9	(0.7)	58.3	(1.4)	73.0	(1.1)	59.7	(1.1)
	Portugal	89.2	(0.7)	86.9	(0.9)	74.7	(1.2)	91.0	(0.7)	86.9	(0.9)	72.3	(1.1)	77.5	(1.2)	76.1	(1.0)
	Slovak Republic	77.9	(1.0)	90.2	(0.8)	71.7	(1.2)	76.0	(1.1)	86.8	(0.9)	73.0	(1.2)	76.9	(1.1)	62.7	(1.1)
	Slovenia	84.8	(0.7)	87.6	(0.6)	79.7	(1.0)	86.0	(0.6)	92.5	(0.5)	66.3	(1.1)	87.9	(0.7)	67.3	(1.0)
	Spain	78.2	(0.6)	85.9	(0.5)	69.3	(0.7)	79.4	(0.5)	91.1	(0.5)	60.9	(0.7)	84.1	(0.5)	62.4	(0.6)
	Sweden	89.5	(0.6)	82.6	(0.9)	66.6	(1.1)	86.9	(0.8)	83.3	(0.8)	62.9	(1.4)	59.5	(1.2)	58.0	(0.9)
	Switzerland	89.9	(0.5)	87.5	(0.7)	79.9	(0.9)	80.1	(0.7)	87.2	(0.7)	62.3	(1.1)	77.0	(0.8)	60.4	(1.0)
	Turkey	83.0	(0.7)	78.7	(0.7)	73.7	(0.9)	83.5	(0.7)	79.9	(0.8)	57.7	(1.1)	67.6	(1.2)	58.4	(1.2)
	United Kingdom	87.3	(0.7)	84.2	(0.7)	68.7	(1.1)	84.3	(0.9)	86.8	(0.6)	48.9	(1.3)	70.2	(0.8)	50.7	(1.1)
	United States	79.5	(0.9)	76.1	(1.0)	73.4	(1.1)	84.1	(0.8)	94.2	(0.5)	55.3	(1.2)	83.9	(0.9)	68.8	(0.9)
	OECD average	81.4	(0.1)	79.8	(0.1)	68.1	(0.2)	79.5	(0.1)	85.2	(0.1)	55.9	(0.2)	73.1	(0.2)	56.0	(0.2)
Partners	**Albania**	69.4	(1.2)	81.9	(1.0)	76.9	(1.2)	71.1	(1.3)	85.3	(0.9)	67.4	(1.2)	79.4	(1.2)	72.8	(1.2)
	Argentina	59.9	(0.9)	71.5	(0.9)	59.5	(0.9)	68.1	(1.1)	81.5	(0.9)	43.4	(1.1)	69.4	(0.9)	58.3	(1.2)
	Brazil	65.9	(0.6)	68.3	(0.7)	44.4	(0.8)	65.4	(0.7)	76.3	(0.6)	41.4	(0.6)	61.8	(0.7)	54.3	(0.6)
	Bulgaria	66.0	(0.9)	73.3	(0.9)	66.4	(1.1)	70.2	(1.0)	84.2	(0.9)	61.4	(1.2)	79.1	(1.0)	64.1	(1.0)
	Colombia	62.8	(0.9)	70.8	(0.9)	60.1	(1.1)	70.2	(0.9)	73.3	(1.1)	37.7	(1.1)	63.9	(0.9)	49.8	(1.0)
	Costa Rica	73.1	(1.1)	69.2	(1.1)	46.4	(1.4)	68.1	(1.2)	80.2	(1.1)	42.1	(1.2)	74.1	(1.2)	53.0	(1.1)
	Croatia	79.3	(0.8)	79.9	(0.9)	67.6	(1.2)	75.4	(0.9)	90.8	(0.6)	61.7	(1.2)	80.0	(1.0)	54.5	(0.9)
	Cyprus*	76.9	(0.7)	76.1	(0.7)	62.8	(0.9)	67.4	(0.9)	86.7	(0.6)	56.0	(0.9)	82.6	(0.6)	52.6	(0.9)
	Hong Kong-China	80.3	(0.7)	92.9	(0.6)	78.7	(0.8)	82.0	(0.8)	92.9	(0.5)	65.3	(1.1)	81.2	(0.8)	51.3	(1.1)
	Indonesia	73.9	(0.9)	77.6	(1.0)	71.8	(1.2)	76.9	(0.8)	77.7	(1.0)	75.8	(0.9)	70.1	(1.2)	58.6	(1.0)
	Jordan	65.9	(0.9)	72.7	(0.8)	71.2	(0.9)	74.7	(0.8)	83.6	(0.8)	64.4	(1.0)	74.9	(0.8)	72.9	(0.7)
	Kazakhstan	86.2	(0.7)	84.8	(0.8)	79.1	(0.8)	78.1	(0.8)	89.9	(0.8)	71.5	(1.1)	82.5	(1.0)	77.5	(0.8)
	Latvia	75.1	(0.9)	74.3	(1.0)	66.5	(1.0)	78.0	(0.9)	86.6	(0.8)	58.9	(1.1)	69.6	(1.1)	54.9	(0.9)
	Liechtenstein	93.0	(1.9)	88.5	(2.3)	85.4	(2.6)	85.8	(2.2)	91.9	(2.2)	68.4	(3.1)	84.6	(2.7)	68.8	(3.1)
	Lithuania	75.3	(1.0)	79.4	(0.8)	68.7	(0.9)	83.8	(0.8)	87.6	(0.7)	61.0	(0.9)	72.4	(0.9)	56.9	(1.1)
	Macao-China	71.3	(0.7)	91.1	(0.5)	76.1	(0.7)	73.6	(0.8)	95.5	(0.4)	65.6	(0.8)	84.5	(0.6)	47.2	(0.9)
	Malaysia	59.1	(1.0)	75.5	(0.8)	62.4	(1.0)	73.7	(0.8)	77.6	(1.0)	62.3	(1.0)	74.5	(1.0)	48.4	(0.9)
	Montenegro	65.6	(0.9)	75.7	(0.9)	64.2	(0.9)	62.4	(1.0)	82.8	(0.8)	57.2	(0.9)	70.5	(0.9)	57.6	(1.0)
	Peru	66.9	(0.7)	75.3	(0.8)	63.0	(0.9)	78.1	(0.7)	86.8	(0.7)	49.8	(1.2)	82.3	(0.8)	59.9	(0.7)
	Qatar	72.5	(0.6)	75.3	(0.5)	68.6	(0.5)	74.0	(0.4)	76.8	(0.6)	56.2	(0.6)	73.1	(0.6)	61.7	(0.6)
	Romania	62.7	(1.1)	77.9	(0.9)	73.0	(0.9)	69.5	(0.9)	84.8	(0.9)	60.6	(0.9)	75.0	(1.0)	65.1	(0.9)
	Russian Federation	65.9	(1.0)	76.5	(1.1)	65.3	(0.8)	70.1	(0.9)	90.2	(0.7)	50.9	(1.2)	78.3	(0.9)	64.3	(1.0)
	Serbia	66.3	(1.1)	71.6	(1.0)	63.6	(1.0)	75.7	(1.2)	84.9	(0.8)	52.7	(1.1)	69.6	(1.1)	59.3	(1.1)
	Shanghai-China	90.8	(0.7)	95.2	(0.5)	91.8	(0.6)	90.3	(0.5)	96.9	(0.4)	92.8	(0.6)	95.1	(0.5)	80.0	(1.0)
	Singapore	79.6	(0.7)	94.4	(0.4)	79.8	(0.7)	77.9	(0.9)	93.3	(0.4)	81.2	(0.5)	86.9	(0.5)	73.4	(0.7)
	Chinese Taipei	77.8	(0.8)	89.6	(0.6)	73.1	(0.9)	76.1	(0.8)	84.9	(0.8)	69.6	(0.9)	75.7	(1.1)	47.0	(0.9)
	Thailand	75.1	(0.8)	76.8	(0.9)	72.9	(0.8)	75.2	(0.7)	72.4	(0.9)	63.6	(1.0)	65.4	(1.1)	57.0	(0.8)
	Tunisia	57.5	(1.0)	67.6	(1.1)	65.9	(1.1)	73.3	(1.0)	72.1	(1.3)	50.3	(1.0)	67.6	(1.1)	64.4	(1.0)
	United Arab Emirates	73.3	(0.8)	76.8	(0.7)	69.5	(0.6)	75.9	(0.7)	85.2	(0.6)	61.0	(1.0)	76.4	(0.7)	58.9	(0.9)
	Uruguay	72.2	(0.9)	76.8	(0.8)	71.3	(0.9)	68.9	(0.9)	84.3	(0.7)	42.7	(1.0)	68.8	(1.0)	48.9	(0.9)
	Viet Nam	55.6	(1.2)	82.6	(1.0)	85.9	(0.9)	55.0	(1.0)	89.8	(1.0)	46.7	(1.3)	78.4	(1.5)	41.9	(1.2)

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.4.1d **Index of mathematics self-efficacy and mathematics performance, by national quarters of this index**

Results based on students' self-reports

		Index of mathematics self-efficacy																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	Standard deviation	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	0.06	(0.02)	1.03	(0.01)	0.27	(0.02)	-0.17	(0.02)	**0.44**	(0.03)	-1.08	(0.02)	-0.37	(0.01)	0.20	(0.02)	1.49	(0.03)
	Austria	0.06	(0.02)	0.99	(0.01)	0.30	(0.04)	-0.17	(0.02)	**0.46**	(0.05)	-1.09	(0.03)	-0.31	(0.02)	0.27	(0.03)	1.38	(0.03)
	Belgium	-0.12	(0.02)	1.00	(0.01)	0.08	(0.02)	-0.31	(0.02)	**0.39**	(0.03)	-1.24	(0.03)	-0.46	(0.01)	0.04	(0.02)	1.18	(0.03)
	Canada	0.11	(0.02)	1.03	(0.01)	0.27	(0.02)	-0.05	(0.02)	**0.33**	(0.02)	-1.04	(0.02)	-0.30	(0.02)	0.28	(0.02)	1.51	(0.03)
	Chile	-0.20	(0.02)	0.87	(0.01)	-0.06	(0.03)	-0.33	(0.02)	**0.28**	(0.04)	-1.15	(0.02)	-0.52	(0.02)	-0.07	(0.02)	0.95	(0.03)
	Czech Republic	0.04	(0.02)	0.90	(0.02)	0.23	(0.03)	-0.17	(0.02)	**0.40**	(0.04)	-0.95	(0.02)	-0.33	(0.01)	0.16	(0.03)	1.26	(0.04)
	Denmark	-0.12	(0.02)	0.91	(0.01)	0.10	(0.03)	-0.32	(0.03)	**0.42**	(0.03)	-1.13	(0.03)	-0.48	(0.02)	0.02	(0.02)	1.13	(0.04)
	Estonia	-0.03	(0.02)	0.86	(0.01)	0.12	(0.02)	-0.18	(0.02)	**0.31**	(0.03)	-0.95	(0.02)	-0.39	(0.02)	0.09	(0.02)	1.13	(0.03)
	Finland	-0.27	(0.02)	0.94	(0.01)	-0.07	(0.02)	-0.48	(0.02)	**0.42**	(0.03)	-1.32	(0.02)	-0.60	(0.02)	-0.12	(0.02)	0.96	(0.03)
	France	-0.01	(0.02)	0.99	(0.02)	0.21	(0.03)	-0.22	(0.02)	**0.44**	(0.04)	-1.10	(0.02)	-0.41	(0.02)	0.13	(0.03)	1.34	(0.04)
	Germany	0.33	(0.02)	0.96	(0.02)	0.58	(0.03)	0.08	(0.03)	**0.49**	(0.04)	-0.79	(0.03)	-0.05	(0.03)	0.56	(0.02)	1.61	(0.04)
	Greece	-0.16	(0.02)	1.03	(0.02)	-0.03	(0.03)	-0.29	(0.03)	**0.26**	(0.03)	-1.35	(0.03)	-0.50	(0.03)	0.04	(0.02)	1.18	(0.04)
	Hungary	0.14	(0.03)	1.05	(0.03)	0.27	(0.04)	0.01	(0.03)	**0.26**	(0.04)	-0.99	(0.05)	-0.32	(0.02)	0.28	(0.04)	1.59	(0.04)
	Iceland	0.05	(0.02)	1.11	(0.02)	0.25	(0.03)	-0.15	(0.03)	**0.39**	(0.04)	-1.20	(0.04)	-0.34	(0.02)	0.22	(0.03)	1.54	(0.05)
	Ireland	0.01	(0.02)	0.97	(0.02)	0.17	(0.03)	-0.15	(0.03)	**0.32**	(0.04)	-1.07	(0.03)	-0.36	(0.02)	0.18	(0.03)	1.31	(0.03)
	Israel	0.13	(0.03)	1.08	(0.02)	0.32	(0.05)	-0.05	(0.02)	**0.36**	(0.05)	-1.12	(0.05)	-0.25	(0.02)	0.32	(0.03)	1.55	(0.04)
	Italy	-0.10	(0.01)	0.85	(0.01)	0.03	(0.02)	-0.25	(0.01)	**0.28**	(0.02)	-1.01	(0.02)	-0.40	(0.01)	0.01	(0.01)	1.00	(0.02)
	Japan	-0.41	(0.03)	1.02	(0.02)	-0.24	(0.04)	-0.60	(0.03)	**0.36**	(0.04)	-1.56	(0.05)	-0.68	(0.02)	-0.25	(0.02)	0.84	(0.06)
	Korea	-0.36	(0.04)	1.06	(0.03)	-0.22	(0.05)	-0.52	(0.04)	**0.30**	(0.06)	-1.52	(0.05)	-0.68	(0.02)	-0.24	(0.03)	1.01	(0.08)
	Luxembourg	0.14	(0.02)	1.11	(0.02)	0.36	(0.03)	-0.10	(0.02)	**0.46**	(0.03)	-1.15	(0.03)	-0.26	(0.01)	0.38	(0.02)	1.57	(0.03)
	Mexico	-0.18	(0.01)	0.85	(0.01)	-0.09	(0.02)	-0.27	(0.01)	**0.19**	(0.02)	-1.11	(0.01)	-0.50	(0.01)	-0.06	(0.01)	0.94	(0.02)
	Netherlands	-0.17	(0.02)	0.93	(0.02)	0.04	(0.02)	-0.38	(0.03)	**0.42**	(0.04)	-1.19	(0.03)	-0.46	(0.02)	-0.04	(0.03)	1.03	(0.04)
	New Zealand	-0.15	(0.02)	1.00	(0.02)	0.06	(0.03)	-0.38	(0.03)	**0.44**	(0.04)	-1.22	(0.03)	-0.55	(0.02)	-0.06	(0.02)	1.22	(0.04)
	Norway	-0.01	(0.02)	1.12	(0.02)	0.14	(0.03)	-0.17	(0.03)	**0.31**	(0.04)	-1.28	(0.03)	-0.43	(0.02)	0.18	(0.03)	1.49	(0.04)
	Poland	0.10	(0.03)	1.02	(0.02)	0.18	(0.04)	0.03	(0.04)	**0.14**	(0.04)	-1.01	(0.03)	-0.35	(0.02)	0.25	(0.05)	1.51	(0.05)
	Portugal	0.27	(0.03)	1.00	(0.02)	0.35	(0.04)	0.17	(0.03)	**0.18**	(0.03)	-0.86	(0.03)	-0.19	(0.03)	0.46	(0.04)	1.65	(0.04)
	Slovak Republic	0.08	(0.03)	0.92	(0.02)	0.17	(0.03)	-0.01	(0.03)	**0.18**	(0.04)	-0.94	(0.04)	-0.28	(0.02)	0.25	(0.03)	1.28	(0.04)
	Slovenia	0.32	(0.02)	1.00	(0.01)	0.43	(0.02)	0.21	(0.03)	**0.22**	(0.04)	-0.76	(0.02)	-0.14	(0.02)	0.49	(0.02)	1.71	(0.04)
	Spain	0.10	(0.01)	0.92	(0.01)	0.22	(0.02)	-0.03	(0.02)	**0.25**	(0.03)	-0.92	(0.03)	-0.25	(0.01)	0.25	(0.01)	1.32	(0.02)
	Sweden	0.03	(0.02)	0.98	(0.02)	0.17	(0.03)	-0.11	(0.03)	**0.28**	(0.04)	-1.07	(0.03)	-0.35	(0.02)	0.19	(0.03)	1.34	(0.04)
	Switzerland	0.25	(0.02)	0.96	(0.02)	0.48	(0.03)	0.03	(0.03)	**0.45**	(0.04)	-0.88	(0.03)	-0.12	(0.03)	0.47	(0.03)	1.52	(0.04)
	Turkey	-0.02	(0.03)	0.93	(0.02)	0.06	(0.03)	-0.10	(0.04)	**0.15**	(0.04)	-1.06	(0.03)	-0.36	(0.02)	0.14	(0.04)	1.20	(0.04)
	United Kingdom	0.03	(0.02)	1.00	(0.02)	0.23	(0.04)	-0.17	(0.03)	**0.40**	(0.04)	-1.08	(0.03)	-0.38	(0.02)	0.19	(0.03)	1.38	(0.04)
	United States	0.13	(0.03)	1.00	(0.02)	0.26	(0.03)	0.00	(0.04)	**0.26**	(0.03)	-0.95	(0.03)	-0.27	(0.02)	0.24	(0.04)	1.51	(0.05)
	OECD average	0.00	(0.00)	0.98	(0.00)	0.17	(0.01)	-0.16	(0.00)	**0.33**	(0.01)	-1.09	(0.01)	-0.37	(0.00)	0.16	(0.00)	1.31	(0.01)
Partners	**Albania**	0.03	(0.03)	0.87	(0.02)	0.04	(0.04)	0.02	(0.03)	0.03	(0.05)	-0.94	(0.03)	-0.29	(0.02)	0.19	(0.03)	1.17	(0.04)
	Argentina	-0.36	(0.02)	0.90	(0.02)	-0.25	(0.03)	-0.47	(0.02)	**0.21**	(0.04)	-1.35	(0.04)	-0.62	(0.01)	-0.22	(0.01)	0.73	(0.04)
	Brazil	-0.45	(0.01)	0.89	(0.01)	-0.31	(0.02)	-0.57	(0.02)	**0.25**	(0.02)	-1.44	(0.02)	-0.74	(0.01)	-0.28	(0.01)	0.67	(0.03)
	Bulgaria	-0.10	(0.03)	1.01	(0.02)	-0.03	(0.03)	-0.17	(0.03)	**0.15**	(0.04)	-1.20	(0.04)	-0.42	(0.02)	0.02	(0.02)	1.21	(0.05)
	Colombia	-0.44	(0.02)	0.81	(0.02)	-0.35	(0.03)	-0.51	(0.02)	**0.17**	(0.03)	-1.32	(0.03)	-0.71	(0.02)	-0.31	(0.02)	0.59	(0.04)
	Costa Rica	-0.33	(0.03)	0.84	(0.02)	-0.18	(0.03)	-0.47	(0.03)	**0.29**	(0.03)	-1.25	(0.04)	-0.61	(0.02)	-0.20	(0.02)	0.75	(0.05)
	Croatia	0.09	(0.03)	0.97	(0.02)	0.25	(0.04)	-0.07	(0.03)	**0.32**	(0.04)	-0.93	(0.02)	-0.34	(0.01)	0.17	(0.03)	1.46	(0.06)
	Cyprus*	-0.04	(0.02)	1.09	(0.02)	0.04	(0.03)	-0.13	(0.02)	**0.17**	(0.04)	-1.29	(0.03)	-0.40	(0.01)	0.14	(0.02)	1.37	(0.04)
	Hong Kong-China	0.22	(0.03)	1.07	(0.02)	0.42	(0.03)	-0.01	(0.03)	**0.43**	(0.04)	-0.99	(0.03)	-0.23	(0.02)	0.46	(0.03)	1.64	(0.05)
	Indonesia	-0.26	(0.02)	0.72	(0.02)	-0.24	(0.02)	-0.28	(0.02)	0.05	(0.03)	-1.01	(0.02)	-0.50	(0.01)	-0.19	(0.01)	0.66	(0.05)
	Jordan	-0.01	(0.02)	1.04	(0.02)	0.08	(0.03)	-0.10	(0.03)	**0.18**	(0.04)	-1.21	(0.03)	-0.36	(0.01)	0.20	(0.02)	1.33	(0.04)
	Kazakhstan	0.13	(0.03)	0.88	(0.02)	0.15	(0.04)	0.11	(0.03)	0.04	(0.04)	-0.78	(0.02)	-0.26	(0.02)	0.21	(0.04)	1.37	(0.06)
	Latvia	-0.12	(0.02)	0.83	(0.02)	0.00	(0.03)	-0.24	(0.03)	**0.24**	(0.04)	-0.98	(0.02)	-0.46	(0.01)	-0.04	(0.03)	1.01	(0.04)
	Liechtenstein	0.49	(0.06)	0.92	(0.04)	0.78	(0.08)	0.20	(0.08)	**0.58**	(0.12)	-0.62	(0.08)	0.14	(0.07)	0.77	(0.09)	1.70	(0.09)
	Lithuania	0.04	(0.02)	0.98	(0.02)	0.17	(0.03)	-0.10	(0.03)	**0.27**	(0.03)	-1.05	(0.03)	-0.32	(0.02)	0.20	(0.03)	1.32	(0.04)
	Macao-China	0.14	(0.01)	0.95	(0.01)	0.22	(0.02)	0.04	(0.02)	**0.18**	(0.03)	-0.92	(0.02)	-0.27	(0.01)	0.30	(0.02)	1.44	(0.03)
	Malaysia	-0.25	(0.02)	0.79	(0.01)	-0.25	(0.03)	-0.25	(0.02)	0.00	(0.03)	-1.11	(0.02)	-0.53	(0.02)	-0.13	(0.02)	0.77	(0.03)
	Montenegro	-0.28	(0.02)	1.00	(0.02)	-0.21	(0.04)	-0.35	(0.02)	**0.14**	(0.04)	-1.37	(0.04)	-0.54	(0.02)	-0.15	(0.02)	0.94	(0.04)
	Peru	-0.21	(0.02)	0.75	(0.01)	-0.15	(0.02)	-0.27	(0.02)	**0.12**	(0.02)	-1.02	(0.02)	-0.48	(0.01)	-0.10	(0.02)	0.77	(0.03)
	Qatar	-0.15	(0.02)	1.17	(0.01)	0.00	(0.02)	-0.29	(0.02)	**0.29**	(0.03)	-1.49	(0.03)	-0.44	(0.01)	0.04	(0.01)	1.31	(0.03)
	Romania	-0.13	(0.02)	0.88	(0.02)	-0.09	(0.03)	-0.17	(0.03)	**0.08**	(0.03)	-1.08	(0.03)	-0.43	(0.02)	-0.04	(0.02)	1.03	(0.05)
	Russian Federation	-0.10	(0.02)	0.89	(0.02)	0.00	(0.03)	-0.20	(0.02)	**0.20**	(0.03)	-1.05	(0.03)	-0.45	(0.02)	-0.01	(0.02)	1.09	(0.04)
	Serbia	-0.20	(0.03)	0.96	(0.02)	-0.09	(0.04)	-0.31	(0.03)	**0.22**	(0.04)	-1.25	(0.04)	-0.49	(0.02)	-0.08	(0.03)	1.02	(0.05)
	Shanghai-China	0.94	(0.03)	1.10	(0.01)	1.03	(0.04)	0.85	(0.03)	**0.19**	(0.04)	-0.48	(0.03)	0.46	(0.06)	1.50	(0.05)	2.27	(0.00)
	Singapore	0.47	(0.02)	1.02	(0.01)	0.58	(0.02)	0.37	(0.02)	**0.21**	(0.03)	-0.71	(0.02)	0.01	(0.02)	0.71	(0.02)	1.89	(0.03)
	Chinese Taipei	0.18	(0.03)	1.19	(0.02)	0.31	(0.04)	0.05	(0.04)	**0.26**	(0.07)	-1.21	(0.04)	-0.30	(0.02)	0.49	(0.04)	1.75	(0.03)
	Thailand	-0.30	(0.02)	0.71	(0.02)	-0.25	(0.02)	-0.35	(0.02)	**0.10**	(0.03)	-1.08	(0.02)	-0.54	(0.02)	-0.19	(0.01)	0.60	(0.03)
	Tunisia	-0.31	(0.03)	0.91	(0.02)	-0.19	(0.03)	-0.41	(0.03)	**0.22**	(0.04)	-1.33	(0.03)	-0.59	(0.02)	-0.14	(0.02)	0.84	(0.05)
	United Arab Emirates	0.01	(0.02)	0.99	(0.01)	0.12	(0.02)	-0.10	(0.02)	**0.22**	(0.03)	-1.11	(0.03)	-0.34	(0.02)	0.19	(0.02)	1.30	(0.03)
	Uruguay	-0.27	(0.02)	0.87	(0.02)	-0.13	(0.03)	-0.38	(0.02)	**0.25**	(0.03)	-1.23	(0.03)	-0.54	(0.02)	-0.12	(0.02)	0.82	(0.03)
	Viet Nam	-0.26	(0.02)	0.64	(0.01)	-0.19	(0.03)	-0.33	(0.02)	**0.14**	(0.02)	-0.95	(0.02)	-0.52	(0.02)	-0.17	(0.02)	0.59	(0.04)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 2/2]

Table III.4.1d Index of mathematics self-efficacy and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Australia**	**435**	(2.1)	482	(2.2)	527	(3.1)	**586**	(3.3)	**54.6**	(1.2)	**3.4**	(0.1)	35.5	(1.0)
	Austria	**449**	(3.7)	487	(4.3)	527	(4.0)	**576**	(4.7)	**48.1**	(2.1)	**2.9**	(0.3)	28.0	(2.0)
	Belgium	**456**	(3.7)	505	(3.4)	538	(3.4)	**584**	(3.3)	**45.7**	(1.7)	**2.8**	(0.2)	21.0	(1.4)
	Canada	**458**	(2.5)	498	(3.1)	541	(2.5)	**587**	(2.9)	**47.0**	(1.0)	**3.1**	(0.2)	30.6	(1.1)
	Chile	**387**	(3.2)	409	(3.7)	432	(4.6)	**468**	(4.2)	**32.6**	(2.0)	**1.8**	(0.2)	12.6	(1.3)
	Czech Republic	**442**	(4.3)	479	(4.1)	521	(4.3)	**573**	(4.3)	**53.9**	(2.6)	**3.0**	(0.3)	28.8	(2.1)
	Denmark	**442**	(3.3)	483	(3.4)	518	(3.9)	**566**	(3.6)	**50.4**	(1.8)	**3.2**	(0.2)	32.6	(1.8)
	Estonia	**469**	(3.5)	501	(3.6)	534	(3.9)	**583**	(3.7)	**48.7**	(1.9)	**3.0**	(0.2)	27.5	(1.5)
	Finland	**465**	(2.7)	505	(2.8)	533	(2.9)	**589**	(3.0)	**48.9**	(1.4)	**3.1**	(0.2)	30.6	(1.5)
	France	**430**	(3.1)	480	(3.8)	517	(3.7)	**569**	(5.1)	**51.4**	(2.1)	**3.0**	(0.2)	28.3	(1.8)
	Germany	**452**	(4.3)	506	(4.8)	553	(4.2)	**588**	(4.4)	**53.2**	(2.1)	**3.4**	(0.3)	29.9	(1.7)
	Greece	**400**	(3.6)	440	(3.9)	466	(3.8)	**512**	(4.6)	**39.9**	(2.0)	**2.6**	(0.2)	22.1	(1.6)
	Hungary	**406**	(3.9)	451	(3.9)	498	(5.3)	**560**	(6.4)	**54.2**	(2.8)	**3.6**	(0.3)	36.6	(2.1)
	Iceland	**429**	(3.6)	474	(4.0)	524	(4.5)	**551**	(4.5)	**40.7**	(1.8)	**3.3**	(0.2)	25.5	(2.0)
	Ireland	**442**	(3.4)	480	(3.9)	519	(3.5)	**566**	(3.3)	**47.9**	(1.7)	**3.0**	(0.2)	30.4	(1.9)
	Israel	**406**	(5.3)	451	(5.3)	488	(5.0)	**534**	(6.7)	**45.0**	(2.5)	**2.5**	(0.2)	22.9	(1.9)
	Italy	**426**	(2.5)	469	(2.8)	500	(2.6)	**549**	(3.1)	**52.6**	(1.5)	**2.8**	(0.1)	23.6	(1.0)
	Japan	**459**	(5.7)	524	(4.5)	563	(4.2)	**607**	(5.4)	**53.1**	(1.9)	**4.0**	(0.3)	33.6	(2.0)
	Korea	**474**	(5.2)	533	(4.7)	574	(5.5)	**637**	(7.5)	**57.5**	(1.9)	**3.9**	(0.3)	38.7	(2.1)
	Luxembourg	**422**	(2.9)	477	(3.5)	514	(3.1)	**558**	(2.9)	**43.6**	(1.5)	**3.1**	(0.2)	25.8	(1.4)
	Mexico	**382**	(1.7)	406	(1.8)	420	(2.1)	**446**	(2.3)	**27.9**	(1.1)	**1.8**	(0.1)	10.2	(0.7)
	Netherlands	**470**	(4.7)	517	(4.5)	543	(5.2)	**584**	(4.7)	**43.8**	(2.4)	**3.0**	(0.2)	21.5	(1.8)
	New Zealand	**437**	(3.2)	476	(4.4)	512	(4.4)	**587**	(4.7)	**56.1**	(2.1)	**2.8**	(0.2)	32.7	(2.1)
	Norway	**421**	(3.2)	473	(3.8)	514	(4.2)	**562**	(3.6)	**47.3**	(1.5)	**3.6**	(0.3)	35.1	(1.9)
	Poland	**446**	(3.2)	489	(4.2)	535	(6.0)	**599**	(5.7)	**55.9**	(1.9)	**3.7**	(0.3)	40.0	(1.6)
	Portugal	**413**	(4.7)	457	(5.2)	513	(4.7)	**570**	(4.2)	**59.7**	(1.6)	**3.7**	(0.3)	41.0	(1.6)
	Slovak Republic	**408**	(5.0)	461	(4.9)	503	(5.1)	**560**	(5.5)	**59.0**	(2.8)	**3.5**	(0.3)	29.5	(1.7)
	Slovenia	**446**	(3.0)	487	(4.1)	520	(4.6)	**566**	(3.8)	**42.7**	(2.0)	**2.7**	(0.2)	22.9	(1.8)
	Spain	**429**	(2.3)	466	(2.7)	505	(2.6)	**544**	(2.6)	**47.4**	(1.2)	**2.8**	(0.2)	25.5	(1.2)
	Sweden	**420**	(3.7)	458	(3.4)	504	(4.6)	**547**	(4.1)	**48.5**	(1.8)	**2.8**	(0.2)	27.2	(1.7)
	Switzerland	**458**	(3.1)	512	(4.4)	556	(4.5)	**600**	(4.4)	**55.2**	(1.5)	**3.4**	(0.2)	32.4	(1.5)
	Turkey	**394**	(3.6)	431	(4.4)	462	(7.4)	**507**	(9.1)	**45.5**	(3.5)	**2.4**	(0.2)	21.5	(2.5)
	United Kingdom	**422**	(5.0)	473	(4.8)	516	(4.4)	**568**	(3.9)	**54.3**	(1.6)	**3.6**	(0.3)	33.9	(1.5)
	United States	**424**	(4.5)	454	(4.5)	499	(5.0)	**553**	(5.7)	**49.7**	(1.7)	**2.6**	(0.2)	31.0	(1.8)
	OECD average	**433**	(0.6)	476	(0.7)	514	(0.7)	**563**	(0.8)	**48.9**	(0.3)	**3.1**	(0.0)	28.5	(0.3)
Partners	**Albania**	395	(3.9)	391	(4.5)	395	(5.2)	397	(4.4)	0.7	(2.1)	0.9	(0.1)	0.0	(0.0)
	Argentina	**367**	(4.5)	389	(4.2)	396	(4.4)	**414**	(5.1)	**18.5**	(1.9)	**1.5**	(0.1)	4.8	(0.9)
	Brazil	**361**	(2.3)	382	(2.4)	403	(2.9)	**428**	(4.6)	**27.3**	(2.1)	**1.7**	(0.1)	9.9	(1.2)
	Bulgaria	**402**	(4.6)	432	(4.6)	453	(6.1)	**477**	(6.7)	**26.1**	(2.5)	**1.7**	(0.1)	8.0	(1.5)
	Colombia	**361**	(2.9)	377	(4.3)	383	(3.9)	**397**	(5.6)	**13.8**	(2.6)	**1.3**	(0.1)	2.3	(0.8)
	Costa Rica	**384**	(4.4)	401	(4.2)	414	(4.8)	**432**	(5.2)	**19.1**	(2.9)	**1.5**	(0.1)	5.5	(1.5)
	Croatia	**407**	(4.0)	451	(4.0)	486	(4.8)	**541**	(7.6)	**50.3**	(2.7)	**3.3**	(0.2)	30.8	(2.5)
	Cyprus*	**384**	(3.0)	425	(2.8)	456	(3.3)	**505**	(3.9)	**41.1**	(1.7)	**2.7**	(0.2)	24.3	(1.7)
	Hong Kong-China	**484**	(5.4)	549	(4.2)	586	(3.6)	**628**	(4.2)	**50.0**	(1.7)	**3.9**	(0.3)	30.5	(1.6)
	Indonesia	**357**	(3.8)	377	(4.9)	376	(4.9)	**391**	(6.0)	**16.9**	(2.9)	**1.3**	(0.1)	2.9	(0.9)
	Jordan	**355**	(2.7)	382	(3.2)	406	(4.6)	**414**	(6.3)	**20.0**	(2.5)	**1.9**	(0.1)	7.7	(1.4)
	Kazakhstan	**408**	(3.9)	422	(3.6)	437	(4.6)	**458**	(5.5)	**21.7**	(2.5)	**1.5**	(0.1)	7.0	(1.6)
	Latvia	**441**	(4.2)	471	(4.1)	499	(5.4)	**552**	(4.3)	**48.5**	(2.4)	**2.5**	(0.2)	24.6	(1.9)
	Liechtenstein	**463**	(12.2)	511	(16.3)	568	(13.7)	**605**	(11.7)	**60.3**	(6.3)	**3.3**	(0.9)	34.1	(5.8)
	Lithuania	**418**	(3.7)	463	(3.4)	495	(5.5)	**546**	(4.6)	**48.3**	(1.9)	**3.0**	(0.3)	27.7	(1.7)
	Macao-China	**473**	(2.9)	522	(2.9)	559	(2.7)	**604**	(2.8)	**50.0**	(1.4)	**3.2**	(0.2)	26.3	(1.3)
	Malaysia	**376**	(2.7)	413	(3.9)	432	(5.1)	**464**	(5.2)	**39.6**	(2.1)	**2.3**	(0.2)	14.8	(1.4)
	Montenegro	**378**	(2.9)	407	(3.6)	417	(3.9)	**450**	(3.6)	**25.2**	(1.6)	**1.8**	(0.2)	9.5	(1.1)
	Peru	**345**	(3.6)	369	(4.5)	375	(5.3)	**396**	(6.4)	**22.9**	(3.1)	**1.4**	(0.1)	4.2	(1.0)
	Qatar	**345**	(2.6)	372	(3.0)	390	(3.5)	**422**	(2.9)	**23.1**	(1.2)	**1.5**	(0.1)	7.7	(0.7)
	Romania	**412**	(3.9)	436	(4.3)	445	(4.8)	**491**	(7.8)	**33.2**	(3.2)	**1.8**	(0.1)	12.9	(2.1)
	Russian Federation	**430**	(3.5)	460	(4.4)	498	(4.6)	**542**	(5.3)	**46.7**	(2.5)	**2.5**	(0.2)	23.0	(2.0)
	Serbia	**403**	(3.9)	437	(4.8)	461	(4.5)	**505**	(6.7)	**38.4**	(2.6)	**2.2**	(0.2)	16.9	(1.9)
	Shanghai-China	**531**	(5.8)	593	(5.0)	651	(4.6)	**677**	(3.7)	**53.5**	(2.0)	**3.9**	(0.2)	34.2	(1.8)
	Singapore	**489**	(3.1)	553	(3.2)	603	(3.8)	**646**	(3.3)	**57.7**	(1.3)	**3.8**	(0.2)	31.4	(1.3)
	Chinese Taipei	**446**	(4.8)	541	(5.4)	604	(4.7)	**651**	(3.6)	**64.2**	(1.5)	**5.8**	(0.5)	43.5	(1.3)
	Thailand	**406**	(3.9)	425	(4.1)	422	(4.5)	**459**	(5.8)	**27.3**	(3.3)	**1.3**	(0.1)	5.5	(1.3)
	Tunisia	**360**	(3.6)	378	(4.4)	395	(5.6)	**430**	(7.8)	**26.8**	(3.2)	**1.7**	(0.1)	10.0	(1.9)
	United Arab Emirates	**390**	(3.1)	420	(2.9)	451	(3.9)	**482**	(4.7)	**33.0**	(2.0)	**2.0**	(0.1)	13.5	(1.4)
	Uruguay	**372**	(4.3)	405	(3.8)	424	(4.6)	**454**	(4.6)	**33.0**	(2.3)	**1.9**	(0.1)	10.6	(1.2)
	Viet Nam	**458**	(5.3)	493	(5.7)	521	(5.7)	**572**	(7.2)	**66.4**	(3.8)	**2.5**	(0.2)	24.5	(2.0)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.

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[Part 1/3]

Table III.4.1f **Change between 2003 and 2012 in students' self-efficacy in mathematics**

Percentage of students who reported feeling "very confident" or "confident"

		PISA 2003																	
		Index of mathematics self-efficacy		Percentage of students who reported that they feel very confident or confident about having to do the following mathematics tasks:															
				Using a <train timetable> to work out how long it would take to get from one place to another		Calculating how much cheaper a TV would be after a 30% discount		Calculating how many square metres of tiles you need to cover a floor		Understanding graphs presented in newspapers		Solving an equation like 3x+5=17		Finding the actual distance between two places on a map with a 1:10 000 scale		Solving an equation like 2(x+3)=(x+3)(x-3)		Calculating the petrol-consumption rate of a car	
		Mean index	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	0.01	(0.02)	89.5	(0.5)	79.3	(0.6)	75.5	(0.6)	88.4	(0.3)	83.3	(0.6)	58.3	(0.8)	67.8	(0.7)	60.3	(0.7)
	Austria	0.07	(0.02)	85.6	(0.6)	82.0	(0.8)	76.4	(0.9)	75.4	(1.0)	83.5	(0.7)	53.8	(1.0)	76.4	(0.8)	56.9	(1.0)
	Belgium	-0.12	(0.02)	79.8	(0.7)	77.9	(0.7)	66.2	(0.7)	73.6	(0.7)	81.5	(0.7)	65.8	(0.7)	64.9	(0.7)	54.2	(0.7)
	Canada	0.15	(0.02)	81.9	(0.5)	80.8	(0.5)	77.1	(0.4)	86.1	(0.4)	91.0	(0.3)	61.5	(0.7)	80.6	(0.5)	59.1	(0.6)
	Czech Republic	0.07	(0.02)	83.2	(0.6)	86.3	(0.7)	71.0	(1.0)	68.8	(1.0)	90.5	(0.5)	60.6	(0.9)	78.5	(0.7)	54.7	(1.0)
	Denmark	-0.15	(0.02)	85.1	(0.7)	78.2	(0.8)	68.4	(0.8)	86.1	(0.7)	74.8	(0.9)	63.4	(0.9)	47.4	(1.1)	61.4	(0.9)
	Finland	-0.23	(0.02)	85.4	(0.6)	75.0	(0.8)	62.9	(0.9)	62.6	(0.9)	82.1	(0.8)	62.3	(0.9)	54.8	(1.0)	49.9	(0.7)
	France	-0.09	(0.02)	72.9	(0.8)	75.2	(0.8)	63.4	(1.0)	81.1	(0.8)	84.9	(0.7)	49.4	(1.1)	67.6	(1.0)	58.1	(0.9)
	Germany	0.06	(0.02)	83.3	(0.7)	77.4	(0.7)	75.0	(0.8)	79.0	(0.9)	86.2	(0.7)	54.5	(0.8)	73.0	(0.9)	58.5	(0.8)
	Greece	-0.33	(0.02)	68.1	(0.8)	66.8	(0.9)	53.2	(0.9)	68.1	(0.9)	82.3	(0.9)	44.7	(0.9)	73.2	(1.1)	43.2	(0.9)
	Hungary	0.25	(0.02)	82.5	(0.7)	90.9	(0.5)	73.5	(0.9)	81.1	(0.7)	94.4	(0.5)	64.6	(1.0)	85.1	(0.7)	57.4	(0.9)
	Iceland	-0.05	(0.02)	70.2	(0.7)	82.5	(0.6)	71.1	(0.8)	76.4	(0.8)	84.3	(0.6)	61.7	(0.8)	69.0	(0.8)	53.8	(1.0)
	Ireland	-0.11	(0.02)	84.0	(0.7)	81.8	(0.8)	67.6	(0.9)	88.2	(0.6)	76.0	(0.9)	51.7	(1.1)	65.9	(0.9)	51.7	(0.9)
	Italy	-0.18	(0.02)	79.9	(0.7)	82.9	(0.8)	69.9	(1.0)	77.7	(0.5)	84.6	(0.9)	48.1	(0.9)	80.1	(0.9)	49.8	(0.8)
	Japan	-0.58	(0.04)	61.6	(1.1)	55.5	(1.4)	43.0	(1.3)	52.4	(1.1)	86.1	(0.9)	42.1	(1.5)	77.3	(1.1)	22.8	(1.2)
	Korea	-0.48	(0.02)	59.0	(1.0)	65.5	(0.9)	50.1	(1.0)	65.6	(0.8)	78.3	(1.1)	47.9	(1.1)	66.9	(1.1)	22.6	(0.9)
	Luxembourg	0.01	(0.01)	80.0	(0.6)	73.1	(0.7)	65.8	(0.7)	72.5	(0.7)	89.4	(0.5)	59.3	(0.7)	77.9	(0.6)	56.5	(0.8)
	Mexico	-0.29	(0.02)	62.7	(0.9)	78.4	(1.0)	67.1	(0.9)	69.6	(0.8)	73.4	(1.0)	45.4	(0.8)	66.3	(1.0)	66.3	(0.7)
	Netherlands	-0.17	(0.02)	79.3	(0.8)	86.4	(0.7)	71.2	(0.9)	83.5	(0.7)	73.0	(1.0)	63.5	(1.1)	54.2	(1.0)	63.1	(1.0)
	New Zealand	-0.08	(0.01)	85.7	(0.6)	80.5	(0.7)	75.4	(0.7)	89.3	(0.5)	83.6	(0.6)	54.0	(0.9)	61.8	(0.8)	53.9	(0.8)
	Norway	-0.13	(0.02)	84.5	(0.7)	83.4	(0.8)	59.9	(1.1)	70.9	(0.9)	73.7	(1.0)	64.0	(1.1)	47.2	(1.1)	60.5	(1.0)
	Poland	-0.04	(0.02)	74.5	(0.8)	75.3	(0.8)	69.1	(0.8)	84.5	(0.6)	89.7	(0.6)	53.8	(0.9)	81.6	(0.8)	51.7	(1.0)
	Portugal	-0.13	(0.02)	84.9	(0.7)	77.8	(0.8)	60.0	(1.2)	90.6	(0.7)	82.1	(0.9)	57.5	(0.9)	71.1	(0.9)	67.8	(1.0)
	Slovak Republic	0.28	(0.03)	78.2	(0.8)	90.9	(0.8)	80.8	(1.0)	71.2	(0.9)	95.8	(0.6)	74.3	(1.2)	89.7	(0.8)	56.4	(1.0)
	Spain	-0.12	(0.02)	74.5	(0.9)	81.7	(0.8)	64.9	(0.9)	75.6	(0.9)	88.7	(0.6)	55.5	(0.9)	78.7	(0.8)	51.9	(0.9)
	Sweden	-0.05	(0.02)	88.8	(0.7)	82.3	(0.7)	68.8	(0.9)	90.3	(0.5)	74.6	(1.0)	60.4	(1.2)	50.2	(1.3)	62.6	(1.0)
	Switzerland	0.22	(0.03)	88.7	(0.6)	85.8	(0.6)	79.9	(0.7)	76.2	(1.1)	86.2	(0.7)	63.4	(0.9)	74.8	(0.9)	66.1	(0.7)
	Turkey	-0.25	(0.05)	60.8	(1.4)	72.0	(1.2)	65.0	(1.3)	67.3	(1.3)	80.3	(1.2)	59.1	(1.5)	69.7	(1.3)	54.7	(1.5)
	United States	0.17	(0.02)	71.8	(0.7)	81.3	(0.6)	79.4	(0.7)	88.0	(0.5)	91.2	(0.4)	62.0	(0.9)	81.1	(0.7)	74.9	(0.7)
	OECD average 2003	-0.08	(0.00)	78.1	(0.1)	78.9	(0.1)	68.0	(0.2)	77.3	(0.1)	83.6	(0.1)	57.3	(0.2)	70.1	(0.2)	55.2	(0.2)
Partners	**Brazil**	-0.44	(0.02)	66.3	(1.1)	67.9	(0.9)	42.9	(1.0)	60.6	(1.0)	80.0	(0.9)	40.5	(0.9)	68.7	(0.9)	52.3	(0.9)
	Hong Kong-China	0.02	(0.03)	76.2	(0.9)	91.3	(0.6)	78.3	(1.0)	73.1	(1.1)	92.4	(0.5)	65.4	(1.1)	75.3	(1.0)	44.7	(0.9)
	Indonesia	-0.37	(0.01)	67.4	(1.0)	81.7	(0.9)	72.3	(0.8)	61.6	(0.8)	77.1	(0.9)	77.8	(1.0)	63.1	(0.9)	49.6	(1.2)
	Latvia	-0.18	(0.02)	69.6	(1.3)	77.0	(1.0)	69.3	(0.9)	76.3	(0.9)	88.4	(0.8)	54.2	(1.1)	71.3	(1.3)	52.6	(1.0)
	Liechtenstein	0.42	(0.04)	89.1	(1.5)	91.4	(1.3)	87.6	(1.7)	87.0	(1.8)	89.0	(1.7)	66.4	(2.4)	81.3	(2.0)	72.9	(2.4)
	Macao-China	-0.01	(0.03)	70.9	(1.5)	93.2	(0.9)	72.5	(1.7)	62.3	(1.5)	97.2	(0.6)	58.3	(1.6)	85.6	(1.2)	33.9	(1.4)
	Russian Federation	-0.16	(0.02)	66.9	(1.0)	71.5	(0.8)	68.2	(0.9)	64.5	(1.0)	90.6	(0.8)	57.1	(0.8)	78.8	(1.0)	63.2	(0.8)
	Thailand	-0.57	(0.02)	54.5	(1.1)	60.8	(1.0)	56.3	(1.1)	58.9	(1.0)	73.2	(0.9)	48.5	(1.0)	55.1	(1.0)	43.3	(1.0)
	Tunisia	-0.36	(0.02)	55.7	(1.0)	68.1	(1.0)	64.0	(1.0)	68.7	(0.8)	64.5	(1.0)	50.2	(0.9)	59.3	(1.1)	58.8	(1.0)
	Uruguay	-0.06	(0.02)	72.4	(0.8)	84.8	(0.6)	79.0	(0.6)	77.6	(0.7)	85.7	(0.6)	52.0	(1.0)	74.1	(1.0)	59.0	(0.7)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
For comparability over time, PISA 2003 values on the *index of mathematics self-efficacy* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).

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[Part 2/3]

Table III.4.1f Change between 2003 and 2012 in students' self-efficacy in mathematics

Percentage of students who reported feeling "very confident" or "confident"

		PISA 2012																	
				Percentage of students who reported that they feel very confident or confident about having to do the following mathematics tasks:															
		Index of mathematics self-efficacy		Using a <train timetable> to work out how long it would take to get from one place to another		Calculating how much cheaper a TV would be after a 30% discount		Calculating how many square metres of tiles you need to cover a floor		Understanding graphs presented in newspapers		Solving an equation like 3x+5=17		Finding the actual distance between two places on a map with a 1:10 000 scale		Solving an equation like 2(x+3)=(x+3)(x-3)		Calculating the petrol-consumption rate of a car	
		Mean index	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	0.06	(0.02)	86.6	(0.5)	76.2	(0.6)	72.9	(0.6)	85.2	(0.4)	87.2	(0.4)	56.0	(0.6)	73.1	(0.6)	54.0	(0.6)
	Austria	0.06	(0.02)	88.8	(0.8)	81.1	(0.8)	75.3	(1.0)	73.3	(1.0)	82.8	(0.8)	50.4	(1.1)	74.5	(0.9)	52.1	(1.1)
	Belgium	-0.12	(0.02)	82.0	(0.6)	75.6	(0.7)	63.9	(0.8)	74.6	(0.7)	81.4	(0.7)	62.6	(0.8)	65.8	(0.9)	51.1	(0.8)
	Canada	0.11	(0.02)	80.6	(0.6)	78.6	(0.6)	76.9	(0.6)	83.8	(0.5)	89.7	(0.4)	57.8	(0.7)	79.2	(0.5)	57.4	(0.7)
	Czech Republic	0.04	(0.02)	87.0	(0.7)	82.9	(0.8)	64.8	(1.1)	77.2	(1.0)	88.6	(0.8)	57.3	(1.3)	77.3	(0.9)	53.4	(1.2)
	Denmark	-0.12	(0.02)	87.7	(0.7)	78.1	(0.9)	67.4	(0.9)	86.3	(0.8)	76.7	(1.1)	57.7	(1.0)	46.5	(1.1)	62.2	(0.9)
	Finland	-0.27	(0.02)	83.8	(0.7)	72.3	(0.8)	58.0	(0.8)	59.4	(0.8)	83.7	(0.7)	54.2	(0.9)	61.9	(0.9)	46.4	(0.9)
	France	-0.01	(0.02)	79.5	(0.7)	76.4	(0.9)	65.3	(1.0)	85.7	(0.7)	82.6	(0.8)	49.7	(1.0)	65.1	(0.9)	58.9	(0.9)
	Germany	0.33	(0.02)	92.1	(0.5)	83.9	(0.7)	79.2	(0.9)	89.0	(0.7)	89.4	(0.6)	59.6	(1.0)	73.4	(1.0)	64.4	(1.1)
	Greece	-0.16	(0.02)	74.0	(1.0)	77.9	(0.8)	62.7	(1.0)	69.0	(1.2)	83.7	(0.8)	44.7	(1.1)	74.6	(1.0)	46.1	(0.9)
	Hungary	0.14	(0.03)	78.8	(1.0)	82.3	(1.0)	65.3	(1.2)	85.9	(0.9)	88.0	(1.0)	60.8	(1.1)	77.4	(1.1)	59.7	(1.0)
	Iceland	0.05	(0.02)	81.5	(0.8)	82.7	(0.7)	63.0	(1.0)	73.8	(0.9)	86.7	(0.8)	57.1	(1.1)	76.5	(1.0)	61.1	(1.1)
	Ireland	0.01	(0.02)	85.9	(0.6)	83.2	(0.8)	69.2	(0.9)	87.9	(0.7)	80.2	(0.9)	48.7	(1.1)	72.6	(0.9)	53.0	(0.9)
	Italy	-0.10	(0.01)	81.2	(0.4)	83.4	(0.5)	68.1	(0.7)	78.7	(0.5)	87.0	(0.5)	50.7	(0.7)	84.0	(0.6)	48.7	(0.6)
	Japan	-0.41	(0.03)	67.6	(1.0)	60.6	(1.1)	43.7	(1.2)	54.0	(1.1)	90.6	(0.9)	48.1	(1.3)	83.4	(0.9)	28.3	(1.1)
	Korea	-0.36	(0.04)	63.7	(1.2)	67.6	(1.3)	55.4	(1.5)	71.8	(1.1)	81.5	(1.1)	38.2	(1.4)	73.9	(1.3)	31.0	(1.4)
	Luxembourg	0.14	(0.02)	82.6	(0.7)	74.8	(0.8)	72.3	(0.7)	79.1	(0.7)	87.5	(0.6)	60.6	(0.9)	79.5	(0.6)	58.9	(0.9)
	Mexico	-0.18	(0.01)	69.2	(0.6)	78.9	(0.5)	69.7	(0.5)	76.7	(0.4)	76.3	(0.5)	48.5	(0.5)	68.3	(0.6)	72.6	(0.5)
	Netherlands	-0.17	(0.02)	72.4	(0.9)	85.5	(0.8)	70.0	(1.2)	82.6	(0.7)	77.4	(0.8)	59.7	(0.8)	60.8	(1.3)	59.4	(0.9)
	New Zealand	-0.15	(0.02)	79.7	(0.9)	76.9	(0.9)	67.1	(1.0)	82.3	(0.7)	79.6	(0.9)	48.6	(0.9)	63.0	(1.1)	47.5	(1.0)
	Norway	-0.01	(0.02)	82.6	(0.7)	81.3	(0.8)	63.4	(0.9)	70.1	(1.0)	82.3	(0.8)	60.8	(1.0)	58.6	(1.1)	61.6	(1.1)
	Poland	0.10	(0.03)	79.7	(1.0)	79.7	(1.0)	70.4	(1.2)	87.0	(0.7)	86.9	(0.7)	58.3	(1.4)	73.0	(1.1)	59.7	(1.1)
	Portugal	0.27	(0.03)	89.2	(0.7)	86.9	(0.9)	74.7	(1.2)	91.0	(0.7)	86.9	(0.9)	72.3	(1.1)	77.5	(1.2)	76.1	(1.0)
	Slovak Republic	0.08	(0.03)	77.9	(1.0)	90.2	(0.8)	71.7	(1.2)	76.0	(1.1)	86.8	(0.9)	73.0	(1.2)	76.9	(1.1)	62.7	(1.1)
	Spain	0.10	(0.01)	78.2	(0.6)	85.9	(0.5)	69.3	(0.7)	79.4	(0.5)	91.1	(0.5)	60.9	(0.7)	84.1	(0.5)	62.4	(0.6)
	Sweden	0.03	(0.02)	89.5	(0.6)	82.6	(0.9)	66.6	(1.1)	86.9	(0.8)	83.3	(0.8)	62.9	(1.4)	59.5	(1.2)	58.0	(0.9)
	Switzerland	0.25	(0.02)	89.9	(0.5)	87.5	(0.7)	79.9	(0.9)	80.1	(0.7)	87.2	(0.7)	62.3	(1.1)	77.0	(0.8)	60.4	(1.0)
	Turkey	-0.02	(0.03)	83.0	(0.7)	78.7	(0.7)	73.7	(0.9)	83.5	(0.7)	79.9	(0.8)	57.7	(1.1)	67.6	(1.2)	58.4	(1.2)
	United States	0.13	(0.03)	79.5	(0.9)	76.1	(1.0)	73.4	(1.1)	84.1	(0.8)	94.2	(0.5)	55.3	(1.2)	83.9	(0.9)	68.8	(0.9)
	OECD average 2003	-0.01	(0.00)	81.2	(0.1)	79.6	(0.2)	68.0	(0.2)	79.1	(0.1)	84.8	(0.1)	56.4	(0.2)	72.0	(0.2)	56.3	(0.2)
Partners	**Brazil**	-0.45	(0.01)	65.9	(0.6)	68.3	(0.7)	44.4	(0.8)	65.4	(0.7)	76.3	(0.6)	41.4	(0.6)	61.8	(0.7)	54.3	(0.6)
	Hong Kong-China	0.22	(0.03)	80.3	(0.7)	92.9	(0.6)	78.7	(0.8)	82.0	(0.8)	92.9	(0.5)	65.3	(1.1)	81.2	(0.8)	51.3	(1.1)
	Indonesia	-0.26	(0.02)	73.9	(0.9)	77.6	(1.0)	71.8	(1.2)	76.9	(0.8)	77.7	(1.0)	75.8	(0.9)	70.1	(1.2)	58.6	(1.0)
	Latvia	-0.12	(0.02)	75.1	(0.9)	74.3	(1.0)	66.5	(1.0)	78.0	(0.9)	86.6	(0.8)	58.9	(1.1)	69.6	(1.1)	54.9	(0.9)
	Liechtenstein	0.49	(0.06)	93.0	(1.9)	88.5	(2.3)	85.4	(2.6)	85.8	(2.2)	91.9	(2.2)	68.4	(3.1)	84.6	(2.7)	68.8	(3.1)
	Macao-China	0.14	(0.01)	71.3	(0.7)	91.1	(0.5)	76.1	(0.7)	73.6	(0.8)	95.5	(0.4)	65.6	(0.8)	84.5	(0.6)	47.2	(0.9)
	Russian Federation	-0.10	(0.02)	65.9	(1.0)	76.5	(1.1)	65.3	(0.8)	70.1	(0.9)	90.2	(0.7)	50.9	(1.2)	78.3	(0.9)	64.3	(1.0)
	Thailand	-0.30	(0.02)	75.1	(0.8)	76.8	(0.9)	72.9	(0.8)	75.2	(0.7)	72.4	(0.9)	63.6	(1.0)	65.4	(1.1)	57.0	(0.8)
	Tunisia	-0.31	(0.03)	57.5	(1.0)	67.6	(1.1)	65.9	(1.1)	73.3	(1.0)	72.1	(1.3)	50.3	(1.0)	67.6	(1.1)	64.4	(1.0)
	Uruguay	-0.27	(0.02)	72.2	(0.9)	76.8	(0.8)	71.3	(0.9)	68.9	(0.9)	84.3	(0.7)	42.7	(1.0)	68.8	(1.0)	48.9	(0.9)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
For comparability over time, PISA 2003 values on the *index of mathematics self-efficacy* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).

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[Part 3/3]

Table III.4.1f **Change between 2003 and 2012 in students' self-efficacy in mathematics**

Percentage of students who reported feeling "very confident" or "confident"

		Change between 2003 and 2012 (PISA 2012 - PISA 2003)																	
		Index of mathematics self-efficacy		Percentage of students who reported that they feel very confident or confident about having to do the following mathematics tasks:															
				Using a <train timetable> to work out how long it would take to get from one place to another		Calculating how much cheaper a TV would be after a 30% discount		Calculating how many square metres of tiles you need to cover a floor		Understanding graphs presented in newspapers		Solving an equation like 3x+5=17		Finding the actual distance between two places on a map with a 1:10 000 scale		Solving an equation like 2(x+3)=(x+3)(x-3)		Calculating the petrol-consumption rate of a car	
		Dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.
OECD	**Australia**	0.05	(0.02)	**-2.9**	(0.6)	**-3.1**	(0.8)	**-2.6**	(0.8)	**-3.2**	(0.5)	**3.9**	(0.7)	**-2.4**	(1.0)	**5.3**	(0.9)	**-6.3**	(1.0)
	Austria	0.00	(0.03)	**3.1**	(1.0)	-0.9	(1.2)	-1.1	(1.3)	-2.0	(1.4)	-0.7	(1.0)	**-3.5**	(1.5)	-1.9	(1.2)	**-4.8**	(1.5)
	Belgium	0.00	(0.02)	**2.3**	(0.9)	**-2.3**	(1.0)	**-2.3**	(1.0)	1.0	(0.9)	-0.1	(1.0)	**-3.2**	(1.1)	0.8	(1.1)	**-3.2**	(1.0)
	Canada	-0.04	(0.02)	-1.3	(0.8)	**-2.3**	(0.8)	-0.3	(0.8)	**-2.3**	(0.7)	**-1.3**	(0.5)	**-3.7**	(1.0)	**-1.5**	(0.7)	-1.7	(1.0)
	Czech Republic	-0.03	(0.03)	**3.9**	(0.9)	**-3.4**	(1.1)	**-6.2**	(1.5)	**8.4**	(1.4)	**-1.9**	(1.0)	**-3.3**	(1.6)	-1.2	(1.2)	-1.3	(1.6)
	Denmark	0.03	(0.03)	**2.5**	(0.9)	-0.2	(1.2)	-1.1	(1.2)	0.2	(1.1)	1.9	(1.4)	**-5.7**	(1.4)	-0.9	(1.6)	0.8	(1.3)
	Finland	-0.04	(0.02)	-1.6	(0.9)	**-2.7**	(1.1)	**-4.9**	(1.2)	**-3.3**	(1.2)	1.7	(1.1)	**-8.1**	(1.3)	**7.2**	(1.4)	**-3.5**	(1.2)
	France	**0.08**	(0.03)	**6.6**	(1.1)	1.2	(1.2)	1.9	(1.4)	**4.6**	(1.0)	**-2.3**	(1.1)	0.3	(1.5)	-2.5	(1.3)	0.8	(1.3)
	Germany	**0.27**	(0.03)	**8.8**	(0.8)	**6.5**	(1.0)	**4.3**	(1.2)	**10.0**	(1.1)	**3.2**	(1.0)	**5.1**	(1.3)	0.5	(1.3)	**5.9**	(1.3)
	Greece	**0.17**	(0.03)	**5.9**	(1.3)	**11.1**	(1.2)	**9.5**	(1.3)	0.8	(1.5)	1.4	(1.2)	0.0	(1.4)	1.3	(1.5)	**2.9**	(1.2)
	Hungary	**-0.11**	(0.04)	**-3.7**	(1.2)	**-8.6**	(1.1)	**-8.2**	(1.5)	**4.8**	(1.1)	**-6.5**	(1.1)	**-3.8**	(1.5)	**-7.8**	(1.3)	2.2	(1.3)
	Iceland	**0.10**	(0.03)	**11.3**	(1.1)	0.2	(0.9)	**-8.1**	(1.3)	**-2.6**	(1.2)	**2.4**	(1.0)	**-4.7**	(1.3)	**7.5**	(1.3)	**7.3**	(1.5)
	Ireland	**0.12**	(0.03)	**1.9**	(0.9)	1.4	(1.1)	1.7	(1.3)	-0.3	(0.9)	**4.2**	(1.2)	-2.9	(1.5)	**6.7**	(1.3)	1.3	(1.3)
	Italy	**0.08**	(0.02)	1.3	(0.8)	0.6	(1.0)	-1.8	(1.2)	1.0	(0.8)	**2.5**	(1.0)	**2.6**	(1.1)	**3.8**	(1.1)	-1.2	(1.0)
	Japan	**0.17**	(0.05)	**5.9**	(1.5)	**5.1**	(1.8)	0.6	(1.8)	1.6	(1.6)	**4.5**	(1.3)	**6.0**	(2.0)	**6.1**	(1.4)	**5.5**	(1.6)
	Korea	**0.12**	(0.05)	**4.7**	(1.5)	2.2	(1.6)	**5.3**	(1.8)	**6.1**	(1.3)	**3.2**	(1.6)	**-9.6**	(1.7)	**6.9**	(1.7)	**8.4**	(1.7)
	Luxembourg	**0.12**	(0.02)	**2.6**	(0.9)	1.6	(1.1)	**6.5**	(1.0)	**6.6**	(0.9)	**-2.0**	(0.7)	1.3	(1.2)	1.6	(0.9)	**2.4**	(1.2)
	Mexico	**0.11**	(0.02)	**6.5**	(1.1)	0.5	(1.1)	**2.6**	(1.0)	**7.1**	(0.9)	**2.9**	(1.1)	**3.1**	(0.9)	2.0	(1.2)	**6.3**	(0.8)
	Netherlands	0.00	(0.03)	**-6.8**	(1.2)	-0.9	(1.1)	-1.1	(1.5)	-0.9	(1.0)	**4.3**	(1.3)	**-3.9**	(1.4)	**6.6**	(1.6)	**-3.7**	(1.4)
	New Zealand	**-0.08**	(0.03)	**-6.1**	(1.1)	**-3.6**	(1.2)	**-8.3**	(1.3)	**-7.0**	(0.8)	**-4.0**	(1.1)	**-5.4**	(1.3)	1.2	(1.4)	**-6.4**	(1.2)
	Norway	**0.12**	(0.03)	-1.8	(1.0)	-2.1	(1.1)	**3.5**	(1.5)	-0.8	(1.4)	**8.6**	(1.2)	**-3.2**	(1.5)	**11.5**	(1.6)	1.1	(1.5)
	Poland	**0.14**	(0.04)	**5.2**	(1.3)	**4.4**	(1.3)	1.4	(1.5)	**2.5**	(0.9)	**-2.8**	(1.0)	**4.5**	(1.6)	**-8.6**	(1.4)	**8.0**	(1.5)
	Portugal	**0.40**	(0.04)	**4.4**	(1.0)	**9.1**	(1.2)	**14.6**	(1.7)	0.4	(0.9)	**4.8**	(1.2)	**14.8**	(1.4)	**6.4**	(1.5)	**8.3**	(1.4)
	Slovak Republic	**-0.20**	(0.04)	-0.2	(1.3)	-0.7	(1.1)	**-9.1**	(1.6)	**4.8**	(1.4)	**-9.0**	(1.0)	-1.3	(1.7)	**-12.8**	(1.3)	**6.3**	(1.5)
	Spain	**0.22**	(0.02)	**3.6**	(1.1)	**4.2**	(0.9)	**4.3**	(1.1)	**3.8**	(1.1)	**2.4**	(0.8)	**5.4**	(1.2)	**5.3**	(1.0)	**10.5**	(1.1)
	Sweden	**0.08**	(0.03)	0.7	(0.9)	0.3	(1.2)	-2.2	(1.4)	**-3.5**	(0.9)	**8.8**	(1.3)	2.5	(1.8)	**9.3**	(1.7)	**-4.5**	(1.3)
	Switzerland	0.03	(0.04)	1.2	(0.8)	1.6	(0.9)	0.0	(1.2)	**3.9**	(1.3)	0.9	(1.0)	-1.1	(1.4)	2.1	(1.2)	**-5.7**	(1.2)
	Turkey	**0.23**	(0.05)	**22.2**	(1.6)	**6.8**	(1.4)	**8.6**	(1.6)	**16.2**	(1.5)	-0.4	(1.4)	-1.3	(1.8)	-2.1	(1.8)	3.7	(1.9)
	United States	-0.04	(0.04)	**7.7**	(1.1)	**-5.2**	(1.2)	**-6.0**	(1.3)	**-3.9**	(1.0)	**3.1**	(0.6)	**-6.8**	(1.5)	**2.8**	(1.2)	**-6.0**	(1.2)
	OECD average 2003	**0.07**	(0.01)	**3.0**	(0.2)	**0.7**	(0.2)	0.1	(0.2)	**1.9**	(0.2)	**1.2**	(0.2)	**-1.0**	(0.3)	**1.9**	(0.2)	**1.1**	(0.2)
Partners	**Brazil**	-0.01	(0.03)	-0.5	(1.3)	0.4	(1.1)	1.5	(1.3)	**4.8**	(1.2)	**-3.6**	(1.1)	0.9	(1.1)	**-6.9**	(1.2)	2.0	(1.1)
	Hong Kong-China	**0.20**	(0.04)	**4.2**	(1.2)	**1.7**	(0.8)	0.5	(1.3)	**8.9**	(1.4)	0.5	(0.8)	-0.1	(1.6)	**6.0**	(1.3)	**6.6**	(1.4)
	Indonesia	**0.11**	(0.02)	**6.5**	(1.3)	**-4.1**	(1.3)	-0.4	(1.4)	**15.4**	(1.1)	0.6	(1.3)	-2.0	(1.3)	**7.0**	(1.5)	**9.0**	(1.5)
	Latvia	**0.06**	(0.03)	**5.5**	(1.6)	-2.7	(1.4)	**-2.9**	(1.4)	1.8	(1.3)	-1.8	(1.2)	**4.7**	(1.6)	-1.7	(1.7)	2.3	(1.4)
	Liechtenstein	0.08	(0.07)	3.9	(2.4)	-3.0	(2.7)	-2.1	(3.1)	-1.2	(2.8)	2.8	(2.8)	2.0	(3.9)	3.3	(3.4)	-4.1	(3.9)
	Macao-China	**0.15**	(0.03)	0.4	(1.7)	**-2.2**	(1.0)	3.6	(1.8)	**11.2**	(1.7)	**-1.7**	(0.7)	**7.2**	(1.8)	-1.1	(1.3)	**13.3**	(1.7)
	Russian Federation	0.05	(0.03)	-1.0	(1.4)	**5.1**	(1.4)	**-2.9**	(1.2)	**5.5**	(1.4)	-0.4	(1.0)	**-6.1**	(1.5)	-0.5	(1.4)	1.2	(1.3)
	Thailand	**0.27**	(0.02)	**20.7**	(1.4)	**16.1**	(1.3)	**16.6**	(1.3)	**16.3**	(1.2)	-0.8	(1.3)	**15.2**	(1.4)	**10.2**	(1.4)	**13.6**	(1.3)
	Tunisia	0.05	(0.03)	1.8	(1.4)	-0.5	(1.4)	1.8	(1.5)	**4.6**	(1.2)	**7.6**	(1.7)	0.2	(1.4)	**8.3**	(1.6)	**5.6**	(1.4)
	Uruguay	**-0.20**	(0.03)	-0.2	(1.2)	**-8.0**	(1.0)	**-7.8**	(1.1)	**-8.8**	(1.1)	-1.3	(1.0)	**-9.3**	(1.5)	**-5.3**	(1.4)	**-10.0**	(1.2)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
For comparability over time, PISA 2003 values on the *index of mathematics self-efficacy* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).
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[Part 1/1]

Table III.4.2a

Students' self-concept in mathematics

Percentage of students who reported "agree" or "strongly agree" (a) or who reported "disagree" or "strongly disagree" (b)

		Percentage of students who agreed/disagreed with the following statements:									
		I am just not good at mathematics[b]		I get good <grades> in mathematics[a]		I learn mathematics quickly[a]		I have always believed that mathematics is one of my best subjects[a]		In my mathematics class, I understand even the most difficult work[a]	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	63.4	(0.6)	64.5	(0.6)	54.1	(0.6)	39.9	(0.6)	40.1	(0.6)
	Austria	63.1	(1.1)	59.1	(1.0)	52.2	(1.1)	34.7	(1.0)	40.5	(1.0)
	Belgium	61.3	(0.9)	61.6	(0.9)	50.4	(0.9)	32.9	(0.7)	32.8	(0.8)
	Canada	63.4	(0.7)	66.3	(0.7)	58.4	(0.7)	44.2	(0.7)	46.5	(0.8)
	Chile	40.1	(1.0)	52.2	(1.0)	48.9	(1.0)	32.7	(0.9)	29.4	(0.8)
	Czech Republic	57.6	(1.1)	55.1	(1.1)	45.4	(1.0)	33.5	(1.0)	24.6	(0.9)
	Denmark	71.0	(0.9)	72.8	(0.9)	58.8	(0.9)	48.4	(1.0)	39.8	(0.9)
	Estonia	50.5	(0.9)	64.1	(1.0)	55.6	(1.0)	35.1	(0.9)	34.2	(0.9)
	Finland	58.6	(0.9)	58.4	(0.9)	56.6	(1.0)	35.3	(0.9)	43.5	(1.0)
	France	57.7	(1.0)	49.8	(1.0)	46.9	(1.0)	33.7	(0.9)	31.3	(0.9)
	Germany	64.9	(1.0)	60.8	(1.0)	55.5	(1.0)	37.7	(0.9)	43.8	(1.0)
	Greece	56.5	(1.2)	62.7	(1.0)	58.7	(1.0)	45.9	(0.9)	34.7	(0.8)
	Hungary	53.7	(1.1)	48.2	(1.4)	45.8	(1.3)	36.8	(1.2)	29.8	(0.9)
	Iceland	63.8	(0.9)	69.5	(0.9)	58.0	(1.0)	47.2	(1.1)	46.4	(1.0)
	Ireland	60.1	(1.0)	61.4	(1.0)	46.5	(1.0)	34.3	(0.9)	34.2	(0.8)
	Israel	73.5	(0.9)	71.1	(0.9)	58.5	(0.9)	48.7	(0.8)	52.2	(0.9)
	Italy	52.8	(0.6)	61.3	(0.6)	51.9	(0.7)	40.2	(0.6)	44.0	(0.6)
	Japan	45.9	(0.9)	31.0	(0.8)	25.9	(0.8)	29.1	(0.8)	12.8	(0.6)
	Korea	42.6	(1.1)	30.0	(0.9)	33.8	(0.9)	33.2	(1.0)	21.1	(0.9)
	Luxembourg	61.3	(0.8)	58.8	(0.8)	54.1	(0.9)	39.5	(0.7)	42.3	(0.8)
	Mexico	47.0	(0.6)	60.8	(0.5)	52.5	(0.4)	41.3	(0.5)	37.8	(0.4)
	Netherlands	62.6	(1.1)	64.1	(1.4)	55.5	(1.2)	37.8	(1.0)	39.7	(1.1)
	New Zealand	59.0	(1.1)	69.2	(1.0)	51.0	(0.9)	38.4	(0.9)	36.6	(1.1)
	Norway	57.0	(1.1)	52.1	(1.1)	48.1	(1.1)	34.0	(1.1)	37.3	(1.0)
	Poland	46.3	(1.1)	54.4	(1.1)	49.5	(1.1)	37.7	(1.1)	31.5	(1.1)
	Portugal	51.5	(1.1)	51.9	(1.1)	50.9	(0.9)	33.1	(1.0)	38.4	(0.9)
	Slovak Republic	46.8	(1.2)	55.6	(1.0)	47.0	(1.2)	31.6	(1.0)	27.1	(1.1)
	Slovenia	54.7	(1.1)	55.7	(1.0)	52.8	(1.1)	32.4	(0.9)	40.5	(0.9)
	Spain	50.5	(0.6)	52.6	(0.8)	51.5	(0.7)	37.5	(0.8)	40.4	(0.6)
	Sweden	64.9	(1.0)	65.0	(1.1)	59.8	(0.9)	35.3	(0.9)	46.9	(1.1)
	Switzerland	65.8	(0.8)	63.7	(0.9)	57.0	(1.0)	39.2	(0.9)	41.2	(0.9)
	Turkey	47.6	(1.1)	48.4	(1.0)	50.5	(1.0)	43.3	(0.9)	34.9	(1.0)
	United Kingdom	67.5	(0.9)	73.2	(0.9)	57.6	(1.1)	42.7	(1.2)	48.6	(1.2)
	United States	66.7	(1.0)	76.9	(0.9)	60.5	(1.1)	48.8	(0.9)	48.8	(1.3)
	OECD average	57.3	(0.2)	58.9	(0.2)	51.8	(0.2)	38.1	(0.2)	37.5	(0.2)
Partners	Albania	39.4	(1.1)	68.7	(1.0)	56.7	(1.2)	59.7	(1.1)	50.2	(1.1)
	Argentina	37.8	(1.1)	56.6	(1.3)	52.4	(1.0)	39.7	(1.3)	37.2	(0.9)
	Brazil	44.5	(0.8)	58.5	(0.8)	43.7	(0.8)	32.7	(0.8)	38.8	(0.8)
	Bulgaria	43.7	(1.2)	51.2	(1.1)	49.7	(1.1)	37.1	(1.2)	35.6	(1.2)
	Colombia	56.5	(1.1)	70.1	(0.9)	57.6	(1.0)	42.3	(1.1)	42.9	(0.9)
	Costa Rica	55.8	(1.2)	63.3	(1.5)	60.3	(1.2)	39.2	(1.3)	43.7	(1.1)
	Croatia	55.1	(1.2)	47.4	(1.2)	46.0	(1.3)	23.5	(1.0)	24.6	(1.1)
	Cyprus*	59.1	(0.8)	62.5	(0.8)	60.1	(0.9)	53.0	(0.9)	38.5	(0.9)
	Hong Kong-China	50.1	(1.1)	33.1	(1.1)	55.3	(1.1)	37.1	(1.0)	34.5	(1.1)
	Indonesia	39.0	(1.2)	77.3	(0.8)	53.5	(1.3)	58.6	(1.3)	49.7	(1.3)
	Jordan	48.9	(1.0)	79.8	(0.8)	70.0	(1.0)	61.3	(1.1)	60.6	(0.9)
	Kazakhstan	63.0	(1.4)	76.4	(1.1)	66.5	(1.4)	64.9	(1.2)	54.5	(1.3)
	Latvia	59.1	(1.1)	51.7	(1.3)	49.5	(1.1)	31.0	(1.0)	26.7	(1.0)
	Liechtenstein	65.6	(3.2)	64.4	(3.4)	59.4	(3.7)	33.1	(3.2)	40.4	(3.6)
	Lithuania	53.4	(0.9)	57.3	(0.9)	50.4	(1.1)	41.7	(1.0)	36.4	(0.9)
	Macao-China	51.6	(0.7)	36.8	(0.9)	44.8	(0.8)	32.3	(0.8)	35.1	(0.9)
	Malaysia	48.3	(0.9)	57.3	(0.9)	51.8	(0.9)	60.5	(1.0)	38.1	(1.0)
	Montenegro	51.8	(1.0)	49.6	(0.9)	52.9	(1.1)	31.2	(1.0)	32.9	(0.9)
	Peru	51.2	(0.8)	66.1	(1.1)	57.4	(1.0)	49.2	(1.0)	42.7	(1.0)
	Qatar	53.2	(0.6)	74.7	(0.6)	66.9	(0.6)	58.2	(0.6)	58.0	(0.6)
	Romania	48.9	(1.1)	61.3	(1.1)	51.4	(1.2)	38.9	(1.2)	39.1	(1.0)
	Russian Federation	57.7	(1.2)	58.1	(1.0)	48.2	(1.0)	41.4	(1.1)	45.9	(0.8)
	Serbia	52.1	(1.2)	47.1	(1.2)	49.1	(1.2)	32.5	(1.2)	31.1	(1.1)
	Shanghai-China	53.1	(1.0)	34.1	(0.8)	48.8	(0.9)	41.8	(0.9)	32.4	(0.8)
	Singapore	62.3	(0.8)	62.9	(0.8)	62.6	(0.8)	56.7	(0.9)	44.9	(0.9)
	Chinese Taipei	39.9	(0.9)	29.4	(0.8)	36.7	(0.9)	27.6	(0.8)	24.7	(0.7)
	Thailand	24.2	(0.8)	55.7	(1.0)	44.2	(1.0)	51.5	(1.0)	37.7	(1.1)
	Tunisia	45.2	(1.4)	54.5	(1.1)	54.4	(1.3)	48.3	(1.0)	46.4	(0.9)
	United Arab Emirates	62.7	(0.9)	79.2	(0.8)	68.8	(0.6)	58.6	(0.7)	54.9	(0.7)
	Uruguay	47.2	(1.0)	57.1	(0.9)	51.2	(1.0)	42.0	(1.0)	37.4	(1.1)
	Viet Nam	75.5	(1.2)	27.7	(1.0)	32.8	(1.2)	25.9	(1.0)	16.2	(0.7)

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.4.2d Index of mathematics self-concept and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Index of mathematics self-concept																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	Standard deviation	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	Australia	0.06	(0.01)	0.95	(0.01)	0.25	(0.02)	-0.13	(0.02)	**0.38**	(0.02)	-1.16	(0.02)	-0.21	(0.02)	0.39	(0.01)	1.22	(0.02)
	Austria	0.02	(0.03)	1.07	(0.01)	0.24	(0.03)	-0.19	(0.03)	**0.44**	(0.04)	-1.32	(0.03)	-0.36	(0.03)	0.37	(0.03)	1.42	(0.03)
	Belgium	-0.06	(0.02)	0.95	(0.01)	0.13	(0.02)	-0.24	(0.02)	**0.37**	(0.03)	-1.28	(0.02)	-0.31	(0.02)	0.26	(0.02)	1.11	(0.02)
	Canada	0.19	(0.02)	1.06	(0.01)	0.39	(0.02)	0.00	(0.02)	**0.39**	(0.03)	-1.15	(0.02)	-0.16	(0.02)	0.53	(0.02)	1.56	(0.02)
	Chile	-0.17	(0.02)	1.03	(0.01)	0.05	(0.03)	-0.39	(0.02)	**0.43**	(0.04)	-1.44	(0.02)	-0.53	(0.01)	0.09	(0.02)	1.19	(0.03)
	Czech Republic	-0.16	(0.02)	0.99	(0.02)	-0.03	(0.03)	-0.29	(0.03)	**0.27**	(0.04)	-1.44	(0.04)	-0.44	(0.03)	0.17	(0.02)	1.07	(0.04)
	Denmark	0.23	(0.02)	1.02	(0.01)	0.52	(0.03)	-0.04	(0.02)	**0.56**	(0.04)	-1.08	(0.02)	-0.06	(0.02)	0.55	(0.02)	1.53	(0.03)
	Estonia	0.02	(0.02)	0.94	(0.01)	0.12	(0.03)	-0.07	(0.02)	**0.19**	(0.04)	-1.13	(0.03)	-0.33	(0.02)	0.30	(0.02)	1.25	(0.03)
	Finland	0.03	(0.02)	1.05	(0.01)	0.23	(0.03)	-0.17	(0.03)	**0.40**	(0.03)	-1.29	(0.03)	-0.31	(0.02)	0.39	(0.03)	1.34	(0.03)
	France	-0.17	(0.02)	1.05	(0.01)	0.07	(0.03)	-0.39	(0.03)	**0.47**	(0.04)	-1.56	(0.03)	-0.47	(0.03)	0.19	(0.02)	1.14	(0.03)
	Germany	0.11	(0.02)	1.11	(0.01)	0.39	(0.03)	-0.16	(0.03)	**0.55**	(0.04)	-1.31	(0.03)	-0.27	(0.03)	0.50	(0.03)	1.54	(0.03)
	Greece	0.09	(0.02)	0.95	(0.01)	0.25	(0.03)	-0.06	(0.03)	**0.30**	(0.04)	-1.11	(0.02)	-0.18	(0.03)	0.40	(0.02)	1.26	(0.03)
	Hungary	-0.12	(0.02)	0.88	(0.01)	0.03	(0.03)	-0.25	(0.03)	**0.28**	(0.03)	-1.22	(0.03)	-0.38	(0.03)	0.14	(0.02)	1.00	(0.03)
	Iceland	0.24	(0.02)	1.05	(0.01)	0.39	(0.03)	0.09	(0.03)	**0.30**	(0.05)	-1.09	(0.03)	-0.10	(0.03)	0.56	(0.03)	1.59	(0.03)
	Ireland	-0.04	(0.02)	0.94	(0.01)	0.09	(0.03)	-0.17	(0.02)	**0.26**	(0.04)	-1.22	(0.03)	-0.33	(0.02)	0.24	(0.02)	1.15	(0.02)
	Israel	0.33	(0.02)	0.97	(0.01)	0.48	(0.03)	0.19	(0.02)	**0.28**	(0.03)	-0.88	(0.03)	0.03	(0.02)	0.63	(0.02)	1.56	(0.03)
	Italy	0.02	(0.01)	0.98	(0.01)	0.14	(0.02)	-0.11	(0.02)	**0.24**	(0.02)	-1.22	(0.02)	-0.28	(0.01)	0.36	(0.02)	1.22	(0.02)
	Japan	-0.52	(0.02)	0.96	(0.01)	-0.32	(0.02)	-0.75	(0.02)	**0.43**	(0.03)	-1.79	(0.02)	-0.76	(0.02)	-0.23	(0.02)	0.69	(0.02)
	Korea	-0.38	(0.02)	0.93	(0.01)	-0.25	(0.03)	-0.54	(0.03)	**0.30**	(0.03)	-1.58	(0.03)	-0.63	(0.02)	-0.11	(0.02)	0.78	(0.03)
	Luxembourg	0.05	(0.02)	1.11	(0.01)	0.31	(0.03)	-0.21	(0.03)	**0.52**	(0.04)	-1.39	(0.02)	-0.29	(0.03)	0.43	(0.02)	1.46	(0.02)
	Mexico	0.05	(0.01)	0.84	(0.01)	0.17	(0.01)	-0.08	(0.01)	**0.25**	(0.01)	-0.96	(0.01)	-0.25	(0.01)	0.27	(0.01)	1.13	(0.01)
	Netherlands	0.06	(0.02)	0.94	(0.02)	0.25	(0.02)	-0.14	(0.03)	**0.39**	(0.04)	-1.14	(0.04)	-0.19	(0.03)	0.36	(0.02)	1.22	(0.03)
	New Zealand	0.02	(0.02)	0.86	(0.01)	0.21	(0.03)	-0.18	(0.02)	**0.38**	(0.04)	-1.07	(0.03)	-0.25	(0.02)	0.30	(0.03)	1.09	(0.03)
	Norway	-0.10	(0.03)	1.10	(0.01)	0.08	(0.03)	-0.27	(0.03)	**0.35**	(0.04)	-1.50	(0.03)	-0.46	(0.03)	0.25	(0.03)	1.32	(0.03)
	Poland	-0.08	(0.03)	1.02	(0.02)	0.03	(0.03)	-0.19	(0.03)	**0.22**	(0.04)	-1.32	(0.03)	-0.46	(0.02)	0.21	(0.03)	1.24	(0.04)
	Portugal	-0.10	(0.02)	0.93	(0.01)	0.02	(0.03)	-0.22	(0.02)	**0.24**	(0.03)	-1.29	(0.03)	-0.36	(0.02)	0.22	(0.02)	1.04	(0.03)
	Slovak Republic	-0.16	(0.02)	0.86	(0.01)	-0.02	(0.03)	-0.33	(0.03)	**0.31**	(0.03)	-1.25	(0.03)	-0.43	(0.02)	0.11	(0.02)	0.91	(0.03)
	Slovenia	-0.04	(0.02)	0.93	(0.01)	0.10	(0.02)	-0.18	(0.03)	**0.28**	(0.04)	-1.20	(0.03)	-0.33	(0.02)	0.23	(0.02)	1.15	(0.04)
	Spain	-0.07	(0.01)	1.04	(0.01)	0.09	(0.02)	-0.23	(0.02)	**0.32**	(0.03)	-1.39	(0.02)	-0.39	(0.02)	0.27	(0.02)	1.23	(0.02)
	Sweden	0.13	(0.02)	0.98	(0.01)	0.31	(0.03)	-0.05	(0.03)	**0.36**	(0.04)	-1.10	(0.03)	-0.18	(0.03)	0.44	(0.02)	1.38	(0.03)
	Switzerland	0.12	(0.02)	1.04	(0.01)	0.45	(0.02)	-0.21	(0.02)	**0.66**	(0.03)	-1.19	(0.03)	-0.23	(0.02)	0.47	(0.02)	1.45	(0.02)
	Turkey	-0.05	(0.02)	0.97	(0.01)	-0.01	(0.02)	-0.10	(0.03)	**0.08**	(0.04)	-1.26	(0.03)	-0.36	(0.02)	0.23	(0.03)	1.19	(0.02)
	United Kingdom	0.18	(0.02)	0.90	(0.01)	0.39	(0.03)	-0.02	(0.02)	**0.41**	(0.03)	-0.97	(0.02)	-0.07	(0.02)	0.47	(0.02)	1.30	(0.03)
	United States	0.30	(0.02)	1.01	(0.01)	0.40	(0.02)	0.20	(0.03)	**0.19**	(0.04)	-0.99	(0.04)	-0.02	(0.02)	0.61	(0.02)	1.60	(0.03)
	OECD average	0.00	(0.00)	0.98	(0.00)	0.17	(0.00)	-0.17	(0.00)	**0.35**	(0.01)	-1.24	(0.00)	-0.30	(0.00)	0.31	(0.00)	1.25	(0.00)
Partners	Albania	0.21	(0.02)	0.80	(0.01)	0.20	(0.02)	0.21	(0.02)	-0.01	(0.04)	-0.77	(0.03)	-0.07	(0.02)	0.45	(0.02)	1.22	(0.03)
	Argentina	-0.09	(0.02)	0.93	(0.01)	0.07	(0.03)	-0.25	(0.03)	**0.32**	(0.04)	-1.27	(0.02)	-0.39	(0.03)	0.21	(0.02)	1.08	(0.03)
	Brazil	-0.08	(0.02)	0.86	(0.01)	0.08	(0.02)	-0.22	(0.02)	**0.30**	(0.02)	-1.15	(0.02)	-0.35	(0.01)	0.17	(0.01)	1.01	(0.02)
	Bulgaria	-0.06	(0.02)	0.89	(0.01)	0.02	(0.02)	-0.14	(0.03)	**0.16**	(0.03)	-1.16	(0.03)	-0.36	(0.02)	0.20	(0.02)	1.07	(0.03)
	Colombia	0.18	(0.02)	0.83	(0.01)	0.30	(0.02)	0.07	(0.02)	**0.23**	(0.03)	-0.81	(0.02)	-0.11	(0.02)	0.40	(0.02)	1.25	(0.03)
	Costa Rica	0.11	(0.02)	0.97	(0.01)	0.32	(0.03)	-0.06	(0.03)	**0.38**	(0.04)	-1.10	(0.03)	-0.19	(0.03)	0.40	(0.02)	1.35	(0.03)
	Croatia	-0.25	(0.03)	0.96	(0.01)	-0.13	(0.03)	-0.37	(0.04)	**0.23**	(0.04)	-1.45	(0.03)	-0.55	(0.03)	0.03	(0.03)	0.98	(0.03)
	Cyprus*	0.19	(0.02)	0.97	(0.01)	0.26	(0.02)	0.12	(0.02)	**0.14**	(0.04)	-1.02	(0.02)	-0.11	(0.02)	0.46	(0.02)	1.44	(0.02)
	Hong Kong-China	-0.16	(0.02)	0.93	(0.01)	0.04	(0.03)	-0.39	(0.02)	**0.43**	(0.03)	-1.35	(0.03)	-0.42	(0.03)	0.15	(0.02)	0.99	(0.03)
	Indonesia	0.21	(0.02)	0.61	(0.01)	0.23	(0.02)	0.19	(0.02)	**0.04**	(0.02)	-0.53	(0.02)	-0.01	(0.02)	0.40	(0.02)	0.97	(0.02)
	Jordan	0.43	(0.02)	0.90	(0.01)	0.48	(0.03)	0.38	(0.03)	**0.10**	(0.04)	-0.73	(0.03)	0.17	(0.02)	0.73	(0.03)	1.54	(0.02)
	Kazakhstan	0.39	(0.02)	0.75	(0.01)	0.39	(0.03)	0.40	(0.03)	-0.01	(0.03)	-0.55	(0.03)	0.18	(0.03)	0.61	(0.02)	1.33	(0.03)
	Latvia	-0.08	(0.02)	0.85	(0.01)	-0.03	(0.03)	-0.13	(0.03)	**0.10**	(0.04)	-1.13	(0.03)	-0.34	(0.02)	0.17	(0.02)	0.99	(0.03)
	Liechtenstein	0.08	(0.07)	1.02	(0.06)	0.33	(0.09)	-0.21	(0.12)	**0.54**	(0.16)	-1.25	(0.13)	-0.18	(0.09)	0.46	(0.07)	1.35	(0.11)
	Lithuania	-0.02	(0.02)	1.02	(0.01)	0.10	(0.03)	-0.15	(0.03)	**0.24**	(0.04)	-1.33	(0.03)	-0.35	(0.03)	0.31	(0.03)	1.28	(0.03)
	Macao-China	-0.19	(0.01)	0.94	(0.01)	0.06	(0.02)	-0.44	(0.02)	**0.50**	(0.03)	-1.38	(0.02)	-0.47	(0.01)	0.11	(0.02)	0.99	(0.02)
	Malaysia	0.11	(0.02)	0.76	(0.01)	0.09	(0.02)	0.12	(0.02)	-0.03	(0.03)	-0.83	(0.03)	-0.14	(0.02)	0.35	(0.01)	1.04	(0.02)
	Montenegro	-0.10	(0.02)	0.95	(0.01)	0.00	(0.03)	-0.20	(0.03)	**0.20**	(0.03)	-1.30	(0.03)	-0.40	(0.02)	0.18	(0.02)	1.12	(0.03)
	Peru	0.16	(0.01)	0.76	(0.01)	0.28	(0.02)	0.06	(0.02)	**0.22**	(0.03)	-0.75	(0.02)	-0.11	(0.02)	0.39	(0.02)	1.13	(0.02)
	Qatar	0.36	(0.01)	0.85	(0.01)	0.43	(0.02)	0.30	(0.02)	**0.13**	(0.02)	-0.72	(0.02)	0.12	(0.01)	0.61	(0.01)	1.43	(0.02)
	Romania	0.03	(0.02)	0.75	(0.01)	0.09	(0.03)	-0.03	(0.02)	**0.12**	(0.03)	-0.90	(0.03)	-0.19	(0.01)	0.25	(0.02)	0.96	(0.03)
	Russian Federation	0.11	(0.02)	0.82	(0.02)	0.16	(0.02)	0.06	(0.03)	**0.10**	(0.03)	-0.87	(0.03)	-0.17	(0.02)	0.33	(0.02)	1.15	(0.03)
	Serbia	-0.14	(0.03)	1.00	(0.01)	-0.05	(0.03)	-0.23	(0.04)	**0.17**	(0.04)	-1.41	(0.04)	-0.47	(0.03)	0.17	(0.02)	1.15	(0.04)
	Shanghai-China	-0.05	(0.01)	0.85	(0.01)	0.20	(0.02)	-0.28	(0.02)	**0.48**	(0.03)	-1.02	(0.02)	-0.38	(0.01)	0.16	(0.01)	1.05	(0.03)
	Singapore	0.22	(0.02)	0.90	(0.01)	0.33	(0.02)	0.10	(0.02)	**0.23**	(0.03)	-0.93	(0.02)	-0.04	(0.02)	0.53	(0.01)	1.33	(0.03)
	Chinese Taipei	-0.45	(0.02)	1.01	(0.01)	-0.25	(0.03)	-0.64	(0.03)	**0.39**	(0.04)	-1.77	(0.02)	-0.71	(0.02)	-0.17	(0.02)	0.85	(0.03)
	Thailand	-0.07	(0.02)	0.68	(0.01)	0.06	(0.02)	-0.16	(0.02)	**0.22**	(0.02)	-0.88	(0.02)	-0.31	(0.02)	0.17	(0.02)	0.75	(0.02)
	Tunisia	0.06	(0.02)	0.98	(0.01)	0.16	(0.03)	-0.02	(0.03)	**0.19**	(0.04)	-1.18	(0.03)	-0.25	(0.03)	0.40	(0.02)	1.29	(0.03)
	United Arab Emirates	0.44	(0.01)	0.89	(0.01)	0.48	(0.02)	0.40	(0.02)	**0.09**	(0.03)	-0.70	(0.02)	0.17	(0.01)	0.70	(0.02)	1.58	(0.02)
	Uruguay	-0.02	(0.02)	1.03	(0.01)	0.18	(0.03)	-0.20	(0.03)	**0.38**	(0.04)	-1.32	(0.03)	-0.39	(0.02)	0.32	(0.02)	1.30	(0.03)
	Viet Nam	-0.19	(0.01)	0.59	(0.01)	-0.09	(0.02)	-0.28	(0.02)	**0.19**	(0.02)	-0.87	(0.02)	-0.36	(0.01)	-0.09	(0.02)	0.57	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 2/2]

Table III.4.2d Index of mathematics self-concept and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	Australia	**454**	(2.3)	488	(2.5)	513	(2.8)	**563**	(3.1)	**44.7**	(1.2)	**2.2**	(0.1)	19.9	(0.9)
	Austria	**474**	(4.1)	491	(4.6)	508	(5.6)	**560**	(3.9)	**30.6**	(1.7)	**1.7**	(0.2)	13.0	(1.3)
	Belgium	**483**	(3.3)	518	(4.1)	529	(3.4)	**557**	(3.4)	**29.3**	(1.5)	**1.7**	(0.1)	8.0	(0.8)
	Canada	**473**	(2.4)	499	(2.9)	531	(3.4)	**578**	(3.2)	**38.3**	(1.1)	**2.2**	(0.1)	21.3	(1.0)
	Chile	**397**	(3.4)	403	(4.0)	423	(4.2)	**470**	(4.9)	**29.3**	(1.4)	**1.5**	(0.1)	14.1	(1.4)
	Czech Republic	**456**	(4.0)	481	(5.3)	518	(4.3)	**562**	(4.6)	**41.7**	(1.9)	**2.4**	(0.2)	21.0	(1.8)
	Denmark	**447**	(3.1)	488	(3.8)	517	(3.4)	**568**	(3.6)	**44.7**	(1.3)	**3.0**	(0.2)	31.1	(1.5)
	Estonia	**478**	(3.1)	497	(4.0)	531	(4.1)	**577**	(3.7)	**40.6**	(1.6)	**2.2**	(0.1)	22.4	(1.5)
	Finland	**470**	(2.2)	495	(3.2)	537	(4.1)	**589**	(2.9)	**45.2**	(1.1)	**2.7**	(0.2)	32.7	(1.3)
	France	**452**	(3.4)	482	(4.5)	500	(4.3)	**556**	(4.9)	**36.1**	(1.7)	**1.8**	(0.1)	15.6	(1.4)
	Germany	**487**	(4.2)	507	(4.7)	529	(5.1)	**569**	(4.7)	**29.1**	(1.4)	**1.9**	(0.1)	12.5	(1.2)
	Greece	**410**	(3.8)	439	(3.8)	468	(4.6)	**506**	(4.1)	**39.0**	(1.6)	**2.3**	(0.2)	18.1	(1.3)
	Hungary	**448**	(3.8)	456	(4.6)	472	(5.3)	**536**	(6.4)	**38.7**	(2.5)	**1.4**	(0.1)	14.0	(1.5)
	Iceland	**443**	(3.6)	470	(3.4)	510	(5.1)	**565**	(4.1)	**45.5**	(1.7)	**2.3**	(0.2)	27.4	(1.7)
	Ireland	**466**	(3.8)	482	(4.2)	506	(3.7)	**551**	(4.0)	**36.5**	(1.6)	**1.7**	(0.1)	16.2	(1.3)
	Israel	**439**	(5.5)	465	(6.1)	489	(5.7)	**503**	(6.5)	**25.8**	(2.1)	**1.6**	(0.1)	5.9	(1.0)
	Italy	**448**	(2.6)	475	(2.5)	497	(2.9)	**529**	(3.3)	**32.0**	(1.2)	**1.9**	(0.1)	11.5	(0.8)
	Japan	**505**	(3.9)	529	(4.8)	548	(4.5)	**568**	(5.0)	**26.5**	(1.9)	**1.8**	(0.1)	7.6	(1.0)
	Korea	**495**	(4.7)	536	(4.8)	572	(5.8)	**614**	(6.6)	**51.0**	(2.1)	**2.6**	(0.2)	23.3	(1.7)
	Luxembourg	**454**	(3.0)	477	(3.9)	502	(3.3)	**527**	(3.2)	**25.3**	(1.4)	**1.7**	(0.1)	9.0	(0.9)
	Mexico	**391**	(1.5)	400	(1.7)	415	(1.8)	**453**	(2.1)	**30.0**	(0.9)	**1.5**	(0.1)	11.7	(0.7)
	Netherlands	**505**	(5.3)	522	(4.6)	535	(6.1)	**556**	(4.8)	**19.3**	(2.3)	**1.5**	(0.1)	4.4	(1.0)
	New Zealand	**452**	(3.7)	480	(3.5)	506	(4.0)	**561**	(4.5)	**47.7**	(2.0)	**1.9**	(0.2)	17.8	(1.4)
	Norway	**421**	(4.7)	465	(3.5)	507	(4.5)	**568**	(4.6)	**51.3**	(1.5)	**3.2**	(0.2)	38.5	(1.9)
	Poland	**467**	(3.6)	483	(4.4)	528	(5.6)	**597**	(6.3)	**50.3**	(2.0)	**2.3**	(0.2)	31.3	(1.8)
	Portugal	**439**	(4.3)	474	(4.8)	497	(5.1)	**549**	(5.6)	**44.7**	(2.0)	**2.2**	(0.2)	20.5	(1.6)
	Slovak Republic	**454**	(4.3)	454	(4.9)	494	(5.4)	**535**	(6.7)	**38.1**	(2.9)	**1.4**	(0.1)	11.0	(1.6)
	Slovenia	**466**	(3.2)	486	(4.6)	514	(3.9)	**552**	(4.1)	**36.6**	(2.0)	**1.7**	(0.1)	14.0	(1.5)
	Spain	**449**	(2.2)	471	(3.0)	490	(3.1)	**534**	(3.0)	**31.0**	(0.9)	**1.8**	(0.1)	13.8	(0.8)
	Sweden	**432**	(3.4)	461	(4.1)	494	(3.6)	**541**	(4.0)	**44.1**	(1.6)	**2.2**	(0.2)	23.5	(1.5)
	Switzerland	**500**	(4.0)	518	(4.8)	537	(3.9)	**572**	(5.3)	**27.0**	(1.5)	**1.6**	(0.1)	9.2	(0.9)
	Turkey	**429**	(4.0)	432	(5.7)	450	(6.0)	**486**	(8.4)	**22.7**	(2.7)	**1.4**	(0.1)	5.9	(1.1)
	United Kingdom	**449**	(4.0)	481	(4.0)	509	(4.6)	**552**	(5.0)	**45.6**	(1.9)	**2.2**	(0.2)	19.4	(1.5)
	United States	**439**	(4.0)	471	(4.7)	492	(5.1)	**534**	(5.3)	**35.7**	(1.7)	**2.1**	(0.2)	16.3	(1.3)
	OECD average	**455**	(0.6)	479	(0.7)	505	(0.8)	**548**	(0.8)	**36.9**	(0.3)	**2.0**	(0.0)	17.1	(0.2)
Partners	Albania	392	(4.2)	395	(5.3)	393	(4.3)	395	(4.8)	0.9	(2.6)	1.0	(0.1)	0.0	(0.1)
	Argentina	**374**	(4.0)	382	(3.8)	394	(5.4)	**414**	(5.2)	**17.2**	(1.8)	**1.2**	(0.1)	4.6	(1.0)
	Brazil	**383**	(2.6)	380	(2.8)	395	(3.5)	**417**	(3.4)	**16.6**	(1.8)	1.1	(0.1)	3.5	(0.7)
	Bulgaria	**424**	(4.7)	432	(4.5)	450	(5.4)	**465**	(7.3)	**21.1**	(2.9)	1.1	(0.1)	4.2	(1.2)
	Colombia	**361**	(3.0)	371	(3.7)	387	(4.4)	**405**	(5.3)	**23.3**	(2.0)	**1.4**	(0.1)	7.1	(1.2)
	Costa Rica	**382**	(4.1)	400	(4.6)	410	(4.0)	**434**	(4.2)	**20.8**	(1.6)	**1.7**	(0.2)	8.9	(1.1)
	Croatia	**437**	(3.2)	454	(4.2)	479	(5.3)	**520**	(7.4)	**34.2**	(2.8)	**1.6**	(0.1)	13.8	(1.9)
	Cyprus*	**399**	(2.7)	423	(3.1)	454	(3.5)	**502**	(3.0)	**41.7**	(1.2)	**2.1**	(0.1)	20.0	(1.0)
	Hong Kong-China	**522**	(4.5)	548	(5.1)	576	(5.0)	**608**	(4.5)	**35.6**	(2.0)	**1.9**	(0.2)	12.1	(1.4)
	Indonesia	**389**	(5.3)	375	(4.7)	367	(5.2)	**373**	(5.4)	**-8.8**	(2.2)	0.6	(0.1)	0.6	(0.3)
	Jordan	**362**	(3.2)	377	(4.7)	393	(4.1)	**424**	(4.4)	**27.2**	(1.4)	**1.6**	(0.1)	10.6	(1.3)
	Kazakhstan	**417**	(3.9)	426	(4.3)	434	(4.9)	**454**	(4.5)	**19.4**	(2.6)	**1.3**	(0.1)	4.2	(1.1)
	Latvia	**454**	(3.4)	468	(4.5)	490	(4.6)	**550**	(4.9)	**43.1**	(1.9)	**1.8**	(0.2)	20.1	(1.7)
	Liechtenstein	**496**	(15.7)	532	(18.1)	550	(17.6)	**570**	(14.2)	**30.9**	(6.3)	1.5	(0.6)	11.2	(4.4)
	Lithuania	**441**	(3.7)	451	(3.5)	483	(4.7)	**538**	(4.7)	**38.4**	(1.7)	**1.7**	(0.1)	19.6	(1.5)
	Macao-China	**505**	(2.8)	525	(3.3)	550	(3.2)	**579**	(3.2)	**31.2**	(1.5)	**1.8**	(0.1)	10.2	(0.9)
	Malaysia	**406**	(3.5)	414	(4.3)	424	(4.3)	**444**	(4.6)	**20.4**	(2.0)	**1.2**	(0.1)	3.8	(0.7)
	Montenegro	**390**	(3.4)	400	(3.5)	411	(3.9)	**445**	(4.2)	**22.8**	(1.9)	**1.3**	(0.1)	7.0	(1.1)
	Peru	**362**	(4.6)	364	(4.4)	368	(4.4)	**396**	(5.8)	**19.8**	(2.1)	1.1	(0.1)	3.4	(0.8)
	Qatar	**362**	(2.2)	370	(2.7)	387	(2.9)	**412**	(2.6)	**25.4**	(1.4)	**1.3**	(0.1)	4.8	(0.5)
	Romania	**427**	(3.9)	437	(4.2)	449	(4.5)	**468**	(7.2)	**22.5**	(3.3)	**1.3**	(0.1)	4.3	(1.2)
	Russian Federation	**448**	(3.4)	461	(4.3)	494	(4.5)	**528**	(4.5)	**38.3**	(2.1)	**1.7**	(0.1)	13.4	(1.1)
	Serbia	**413**	(3.4)	431	(5.4)	456	(4.7)	**497**	(6.8)	**32.4**	(2.4)	**1.6**	(0.1)	12.8	(1.6)
	Shanghai-China	**575**	(5.4)	596	(5.9)	625	(4.6)	**655**	(4.3)	**38.4**	(2.4)	**1.8**	(0.1)	10.5	(1.1)
	Singapore	**528**	(3.4)	567	(3.8)	597	(3.7)	**612**	(3.2)	**37.1**	(1.7)	**2.0**	(0.1)	10.6	(0.9)
	Chinese Taipei	**492**	(4.6)	537	(5.4)	579	(6.4)	**633**	(4.1)	**53.2**	(2.0)	**2.6**	(0.2)	22.2	(1.5)
	Thailand	**425**	(4.1)	426	(4.3)	423	(4.2)	**436**	(5.2)	**9.4**	(2.3)	0.9	(0.1)	0.6	(0.3)
	Tunisia	**368**	(3.7)	370	(4.2)	390	(5.9)	**427**	(6.3)	**22.5**	(2.2)	**1.4**	(0.1)	8.3	(1.2)
	United Arab Emirates	**410**	(2.5)	424	(3.1)	441	(4.2)	**469**	(3.5)	**25.9**	(1.2)	**1.6**	(0.1)	6.9	(0.7)
	Uruguay	**383**	(3.6)	393	(4.2)	424	(4.0)	**451**	(4.2)	**28.0**	(1.8)	**1.6**	(0.1)	11.1	(1.3)
	Viet Nam	**478**	(5.0)	496	(5.0)	520	(6.6)	**552**	(6.9)	**46.2**	(3.7)	**1.7**	(0.1)	10.0	(1.4)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
StatLink http://dx.doi.org/10.1787/888932963958

[Part 1/3]

Table III.4.2f Change between 2003 and 2012 in students' mathematics self-concept

Percentage of students who reported "agree" or "strongly agree" ([a]) or who reported "disagree" or "strongly disagree" ([b])

		PISA 2003													
				Percentage of students who agreed/disagreed with the following statements:											
		Index of mathematics self-concept		I am just not good at mathematics[b]		I get good <grades> in mathematics[a]		I learn mathematics quickly[a]		I have always believed that mathematics is one of my best subjects[a]		In my mathematics class, I understand even the most difficult work[a]			
		Mean index	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.		
OECD	**Australia**	0.07	(0.02)	67.7	(0.7)	64.8	(0.7)	56.3	(0.7)	38.2	(0.7)	38.4	(0.6)		
	Austria	0.01	(0.02)	64.1	(0.8)	58.8	(1.0)	55.0	(0.9)	33.1	(0.8)	39.1	(0.8)		
	Belgium	-0.08	(0.01)	62.1	(0.7)	61.7	(0.8)	51.0	(0.7)	30.4	(0.7)	27.9	(0.6)		
	Canada	0.12	(0.01)	65.6	(0.5)	63.4	(0.5)	57.8	(0.5)	40.6	(0.5)	42.9	(0.6)		
	Czech Republic	-0.15	(0.02)	61.7	(1.0)	55.1	(1.1)	46.1	(1.0)	30.5	(0.8)	21.0	(0.7)		
	Denmark	0.17	(0.02)	70.0	(0.7)	69.8	(0.8)	59.7	(0.7)	48.3	(0.8)	34.1	(1.0)		
	Finland	-0.05	(0.02)	59.7	(0.7)	55.9	(0.9)	54.0	(0.9)	32.8	(0.7)	37.9	(0.7)		
	France	-0.22	(0.02)	60.8	(0.9)	48.0	(1.1)	46.8	(1.0)	26.5	(0.8)	28.3	(0.9)		
	Germany	0.08	(0.02)	64.2	(0.9)	58.8	(0.9)	57.2	(0.8)	35.6	(0.7)	41.7	(0.7)		
	Greece	0.05	(0.02)	57.3	(1.2)	62.9	(1.1)	58.8	(1.0)	44.4	(1.0)	24.0	(0.8)		
	Hungary	-0.20	(0.02)	55.3	(0.9)	41.6	(1.0)	42.3	(0.9)	32.7	(0.8)	24.0	(0.7)		
	Iceland	-0.03	(0.02)	53.7	(0.8)	55.2	(0.8)	55.3	(0.8)	40.7	(0.8)	39.4	(1.0)		
	Ireland	-0.08	(0.02)	62.5	(0.9)	60.3	(0.9)	49.2	(1.1)	32.1	(1.0)	29.3	(0.8)		
	Italy	-0.06	(0.02)	50.1	(0.8)	55.5	(0.9)	51.0	(0.7)	36.3	(0.7)	40.1	(0.8)		
	Japan	-0.57	(0.02)	47.5	(0.9)	28.2	(0.8)	24.7	(0.8)	26.9	(0.8)	10.1	(0.5)		
	Korea	-0.39	(0.02)	38.2	(0.8)	35.7	(1.0)	33.8	(0.8)	30.0	(0.8)	15.6	(0.6)		
	Luxembourg	0.00	(0.02)	62.0	(0.7)	60.6	(0.7)	54.7	(0.7)	34.6	(0.8)	36.9	(0.7)		
	Mexico	0.12	(0.02)	51.6	(1.0)	65.1	(1.0)	49.6	(0.9)	43.6	(0.9)	45.2	(0.7)		
	Netherlands	-0.06	(0.02)	62.3	(1.1)	62.2	(1.2)	54.1	(1.1)	33.0	(1.0)	29.1	(1.0)		
	New Zealand	0.09	(0.02)	66.9	(0.7)	70.6	(0.9)	56.0	(0.7)	39.5	(0.8)	38.2	(0.7)		
	Norway	-0.23	(0.02)	55.3	(1.0)	48.4	(0.9)	47.1	(0.9)	30.7	(0.8)	30.3	(0.8)		
	Poland	-0.02	(0.01)	48.0	(0.9)	59.1	(0.9)	49.7	(0.8)	36.9	(0.8)	31.1	(0.8)		
	Portugal	-0.23	(0.02)	47.1	(1.0)	47.1	(0.9)	45.6	(1.0)	27.0	(0.7)	31.9	(0.8)		
	Slovak Republic	-0.10	(0.02)	56.0	(1.0)	58.3	(0.9)	48.0	(0.9)	27.7	(0.8)	25.7	(0.6)		
	Spain	-0.24	(0.02)	49.4	(1.0)	46.7	(1.1)	44.8	(1.0)	30.6	(0.7)	30.6	(0.9)		
	Sweden	0.06	(0.02)	66.2	(0.9)	59.0	(1.0)	59.9	(0.9)	30.9	(0.8)	44.0	(1.1)		
	Switzerland	0.07	(0.02)	66.2	(0.9)	61.1	(1.1)	56.8	(1.0)	37.2	(0.7)	39.5	(0.9)		
	Turkey	-0.04	(0.03)	40.5	(1.6)	53.3	(1.4)	54.6	(1.4)	45.8	(1.5)	29.8	(1.5)		
	United States	0.19	(0.02)	64.1	(0.8)	72.4	(0.8)	58.1	(0.8)	44.3	(0.8)	44.3	(0.9)		
	OECD average 2003	-0.06	(0.00)	57.8	(0.2)	56.5	(0.2)	51.0	(0.2)	35.2	(0.2)	32.8	(0.2)		
Partners	**Brazil**	-0.02	(0.02)	48.5	(1.2)	60.6	(1.3)	47.6	(1.2)	32.9	(1.1)	40.8	(0.9)		
	Hong Kong-China	-0.31	(0.02)	43.4	(1.1)	25.1	(0.9)	44.5	(1.0)	31.5	(0.9)	30.1	(0.8)		
	Indonesia	0.06	(0.01)	32.4	(1.0)	64.3	(1.1)	47.2	(1.1)	57.0	(1.1)	35.9	(1.1)		
	Latvia	-0.15	(0.02)	60.9	(1.0)	43.9	(1.0)	46.4	(1.1)	24.4	(0.8)	24.7	(1.1)		
	Liechtenstein	0.06	(0.05)	64.7	(2.7)	64.5	(2.6)	59.2	(2.6)	35.1	(2.5)	40.7	(2.6)		
	Macao-China	-0.25	(0.03)	49.7	(1.9)	29.3	(1.7)	45.5	(1.5)	26.1	(1.7)	28.2	(1.6)		
	Russian Federation	0.07	(0.02)	62.6	(1.3)	49.9	(1.1)	45.9	(1.1)	41.7	(1.1)	42.5	(0.8)		
	Thailand	-0.13	(0.01)	31.9	(1.1)	43.7	(1.1)	37.8	(0.9)	45.4	(1.1)	34.7	(1.1)		
	Tunisia	0.08	(0.02)	47.5	(1.0)	53.5	(0.9)	53.9	(1.0)	54.2	(1.0)	39.4	(1.0)		
	Uruguay	-0.04	(0.02)	54.0	(0.9)	55.3	(1.0)	50.1	(0.9)	40.1	(0.9)	31.9	(0.8)		

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.

For comparability over time, PISA 2003 values on the *index of mathematics self-concept* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).

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[Part 2/3]

Table III.4.2f Change between 2003 and 2012 in students' mathematics self-concept

Percentage of students who reported "agree" or "strongly agree" (a) or who reported "disagree" or "strongly disagree" (b)

		PISA 2012											
				Percentage of students who agreed/disagreed with the following statements:									
		Index of mathematics self-concept		I am just not good at mathematics[b]		I get good <grades> in mathematics[a]		I learn mathematics quickly[a]		I have always believed that mathematics is one of my best subjects[a]		In my mathematics class, I understand even the most difficult work[a]	
		Mean index	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	0.06	(0.01)	63.4	(0.6)	64.5	(0.6)	54.1	(0.6)	39.9	(0.6)	40.1	(0.6)
	Austria	0.02	(0.03)	63.1	(1.1)	59.1	(1.0)	52.2	(1.1)	34.7	(1.0)	40.5	(1.0)
	Belgium	-0.06	(0.02)	61.3	(0.9)	61.6	(0.9)	50.4	(0.9)	32.9	(0.7)	32.8	(0.8)
	Canada	0.19	(0.02)	63.4	(0.7)	66.3	(0.7)	58.4	(0.7)	44.2	(0.7)	46.5	(0.8)
	Czech Republic	-0.16	(0.02)	57.6	(1.1)	55.1	(1.1)	45.4	(1.0)	33.5	(1.0)	24.6	(0.9)
	Denmark	0.23	(0.02)	71.0	(0.9)	72.8	(0.9)	58.8	(0.9)	48.4	(1.0)	39.8	(0.9)
	Finland	0.03	(0.02)	58.6	(0.9)	58.4	(0.9)	56.6	(1.0)	35.3	(0.9)	43.5	(1.0)
	France	-0.17	(0.02)	57.7	(1.0)	49.8	(1.0)	46.9	(1.0)	33.7	(0.9)	31.3	(0.9)
	Germany	0.11	(0.02)	64.9	(1.0)	60.8	(1.0)	55.5	(1.0)	37.7	(0.9)	43.8	(1.0)
	Greece	0.09	(0.02)	56.5	(1.2)	62.7	(1.0)	58.7	(1.0)	45.9	(0.9)	34.7	(0.8)
	Hungary	-0.12	(0.02)	53.7	(1.1)	48.2	(1.4)	45.8	(1.3)	36.8	(1.2)	29.8	(0.9)
	Iceland	0.24	(0.02)	63.8	(0.9)	69.5	(0.9)	58.0	(1.0)	47.2	(1.1)	46.4	(1.0)
	Ireland	-0.04	(0.02)	60.1	(1.0)	61.4	(1.0)	46.5	(1.0)	34.3	(0.9)	34.2	(0.8)
	Italy	0.02	(0.01)	52.8	(0.6)	61.3	(0.6)	51.9	(0.7)	40.2	(0.6)	44.0	(0.6)
	Japan	-0.52	(0.02)	45.9	(0.9)	31.0	(0.8)	25.9	(0.8)	29.1	(0.8)	12.8	(0.6)
	Korea	-0.38	(0.02)	42.6	(1.1)	30.0	(0.9)	33.8	(0.9)	33.2	(1.0)	21.1	(0.9)
	Luxembourg	0.05	(0.02)	61.3	(0.8)	58.8	(0.8)	54.1	(0.9)	39.5	(0.7)	42.3	(0.8)
	Mexico	0.05	(0.01)	47.0	(0.6)	60.8	(0.5)	52.5	(0.4)	41.3	(0.5)	37.8	(0.4)
	Netherlands	0.06	(0.02)	62.6	(1.1)	64.1	(1.4)	55.5	(1.2)	37.8	(1.0)	39.7	(1.1)
	New Zealand	0.02	(0.02)	59.0	(1.1)	69.2	(1.0)	51.0	(0.9)	38.4	(0.9)	36.6	(1.1)
	Norway	-0.10	(0.03)	57.0	(1.1)	52.1	(1.1)	48.1	(1.1)	34.0	(1.1)	37.3	(1.0)
	Poland	-0.08	(0.03)	46.3	(1.1)	54.4	(1.1)	49.5	(1.1)	37.7	(1.1)	31.5	(1.1)
	Portugal	-0.10	(0.02)	51.5	(1.1)	51.9	(1.1)	50.9	(0.9)	33.1	(1.0)	38.4	(0.9)
	Slovak Republic	-0.16	(0.02)	46.8	(1.2)	55.6	(1.0)	47.0	(1.2)	31.6	(1.0)	27.1	(1.1)
	Spain	-0.07	(0.01)	50.5	(0.6)	52.6	(0.8)	51.5	(0.7)	37.5	(0.8)	40.4	(0.6)
	Sweden	0.13	(0.02)	64.9	(1.0)	65.0	(1.1)	59.8	(0.9)	35.3	(0.9)	46.9	(1.1)
	Switzerland	0.12	(0.02)	65.8	(0.8)	63.7	(0.9)	57.0	(1.0)	39.2	(0.9)	41.2	(0.9)
	Turkey	-0.05	(0.02)	47.6	(1.1)	48.4	(1.0)	50.5	(1.0)	43.3	(0.9)	34.9	(1.0)
	United States	0.30	(0.02)	66.7	(1.0)	76.9	(0.9)	60.5	(1.1)	48.8	(0.9)	48.8	(1.3)
	OECD average 2003	-0.01	(0.00)	57.4	(0.2)	58.1	(0.2)	51.3	(0.2)	38.1	(0.2)	36.9	(0.2)
Partners	Brazil	-0.08	(0.02)	44.5	(0.8)	58.5	(0.8)	43.7	(0.8)	32.7	(0.8)	38.8	(0.8)
	Hong Kong-China	-0.16	(0.02)	50.1	(1.1)	33.1	(1.1)	55.3	(1.1)	37.1	(1.0)	34.5	(1.1)
	Indonesia	0.21	(0.02)	39.0	(1.2)	77.3	(0.8)	53.5	(1.3)	58.6	(1.3)	49.7	(1.3)
	Latvia	-0.08	(0.02)	59.1	(1.1)	51.7	(1.3)	49.5	(1.1)	31.0	(1.0)	26.7	(1.0)
	Liechtenstein	0.08	(0.07)	65.6	(3.2)	64.4	(3.4)	59.4	(3.7)	33.1	(3.2)	40.4	(3.6)
	Macao-China	-0.19	(0.01)	51.6	(0.7)	36.8	(0.9)	44.8	(0.8)	32.3	(0.8)	35.1	(0.9)
	Russian Federation	0.11	(0.02)	57.7	(1.2)	58.1	(1.0)	48.2	(1.0)	41.4	(1.1)	45.9	(0.8)
	Thailand	-0.07	(0.02)	24.2	(0.8)	55.7	(1.0)	44.2	(1.0)	51.5	(1.0)	37.7	(1.1)
	Tunisia	0.06	(0.02)	45.2	(1.4)	54.5	(1.1)	54.4	(1.3)	48.3	(1.0)	46.4	(0.9)
	Uruguay	-0.02	(0.02)	47.2	(1.0)	57.1	(0.9)	51.2	(1.0)	42.0	(1.0)	37.4	(1.1)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
For comparability over time, PISA 2003 values on the *index of mathematics self-concept* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).

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[Part 3/3]

Table III.4.2f

Change between 2003 and 2012 in students' mathematics self-concept

Percentage of students who reported "agree" or "strongly agree" (a) or who reported "disagree" or "strongly disagree" (b)

		Change between 2003 and 2012 (PISA 2012 - PISA 2003)											
				Percentage of students who agreed/disagreed with the following statements:									
		Index of mathematics self-concept		I am just not good at mathematics[b]		I get good <grades> in mathematics[a]		I learn mathematics quickly[a]		I have always believed that mathematics is one of my best subjects[a]		In my mathematics class, I understand even the most difficult work[a]	
		Dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.
OECD	**Australia**	-0.01	(0.02)	**-4.3**	(1.0)	-0.3	(1.0)	**-2.2**	(0.9)	1.7	(1.0)	**1.7**	(0.9)
	Austria	0.02	(0.03)	-0.9	(1.4)	0.2	(1.4)	**-2.8**	(1.4)	1.6	(1.3)	1.4	(1.3)
	Belgium	0.03	(0.02)	-0.9	(1.1)	-0.2	(1.2)	-0.6	(1.1)	**2.5**	(1.0)	**4.9**	(1.0)
	Canada	**0.07**	(0.02)	**-2.2**	(0.9)	**2.9**	(0.9)	0.6	(0.9)	**3.7**	(0.9)	**3.6**	(1.0)
	Czech Republic	-0.01	(0.03)	**-4.0**	(1.5)	0.0	(1.5)	-0.7	(1.4)	**3.0**	(1.3)	**3.6**	(1.1)
	Denmark	**0.06**	(0.02)	1.0	(1.2)	**2.9**	(1.2)	-1.0	(1.2)	0.1	(1.3)	**5.7**	(1.3)
	Finland	**0.08**	(0.03)	-1.1	(1.1)	2.5	(1.3)	2.6	(1.4)	**2.5**	(1.2)	**5.6**	(1.2)
	France	0.05	(0.03)	**-3.1**	(1.3)	1.8	(1.5)	0.1	(1.4)	**7.3**	(1.2)	**3.0**	(1.3)
	Germany	0.03	(0.03)	0.7	(1.3)	1.9	(1.3)	-1.7	(1.3)	2.1	(1.2)	2.0	(1.3)
	Greece	0.04	(0.03)	-0.8	(1.7)	-0.2	(1.5)	0.0	(1.4)	1.5	(1.3)	**10.6**	(1.2)
	Hungary	**0.08**	(0.03)	-1.6	(1.5)	**6.6**	(1.7)	**3.5**	(1.6)	**4.1**	(1.4)	**5.7**	(1.2)
	Iceland	**0.27**	(0.03)	**10.2**	(1.2)	**14.3**	(1.2)	**2.7**	(1.3)	**6.5**	(1.4)	**7.0**	(1.4)
	Ireland	0.04	(0.03)	-2.4	(1.4)	1.1	(1.4)	-2.7	(1.4)	2.1	(1.4)	**4.8**	(1.2)
	Italy	**0.08**	(0.02)	**2.7**	(1.0)	**5.8**	(1.1)	0.9	(1.0)	**3.9**	(1.0)	**3.9**	(1.0)
	Japan	0.05	(0.03)	-1.6	(1.2)	**2.8**	(1.2)	1.3	(1.1)	2.2	(1.1)	**2.7**	(0.7)
	Korea	0.01	(0.03)	**4.5**	(1.4)	**-5.7**	(1.3)	0.0	(1.2)	**3.2**	(1.3)	**5.5**	(1.1)
	Luxembourg	**0.05**	(0.02)	-0.6	(1.1)	-1.8	(1.1)	-0.6	(1.1)	**4.9**	(1.1)	**5.4**	(1.1)
	Mexico	**-0.07**	(0.02)	**-4.7**	(1.1)	**-4.3**	(1.1)	**2.9**	(1.0)	**-2.3**	(1.1)	**-7.5**	(0.9)
	Netherlands	**0.12**	(0.03)	0.3	(1.6)	1.8	(1.8)	1.5	(1.6)	**4.8**	(1.4)	**10.6**	(1.5)
	New Zealand	**-0.07**	(0.03)	**-7.9**	(1.3)	-1.4	(1.3)	**-5.0**	(1.2)	-1.1	(1.2)	-1.6	(1.3)
	Norway	**0.14**	(0.03)	1.7	(1.5)	**3.7**	(1.5)	1.0	(1.5)	**3.3**	(1.3)	**6.9**	(1.3)
	Poland	-0.06	(0.03)	-1.7	(1.4)	**-4.7**	(1.5)	-0.2	(1.4)	0.8	(1.4)	0.4	(1.3)
	Portugal	**0.14**	(0.03)	**4.4**	(1.5)	**4.8**	(1.4)	**5.3**	(1.4)	**6.0**	(1.3)	**6.5**	(1.3)
	Slovak Republic	**-0.07**	(0.03)	**-9.2**	(1.5)	-2.6	(1.4)	-0.9	(1.5)	**3.8**	(1.3)	1.4	(1.2)
	Spain	**0.17**	(0.02)	1.1	(1.2)	**5.9**	(1.3)	**6.7**	(1.2)	**6.9**	(1.1)	**9.8**	(1.1)
	Sweden	**0.07**	(0.03)	-1.3	(1.4)	**5.9**	(1.5)	-0.1	(1.3)	**4.4**	(1.2)	**3.0**	(1.5)
	Switzerland	**0.05**	(0.03)	-0.4	(1.2)	2.6	(1.4)	0.2	(1.4)	2.0	(1.1)	1.7	(1.3)
	Turkey	-0.01	(0.04)	**7.1**	(1.9)	**-4.9**	(1.7)	**-4.2**	(1.7)	-2.5	(1.8)	**5.1**	(1.8)
	United States	**0.12**	(0.03)	**2.6**	(1.2)	**4.5**	(1.2)	2.4	(1.3)	**4.5**	(1.2)	**4.4**	(1.6)
	OECD average 2003	**0.05**	(0.01)	-0.4	(0.2)	**1.6**	(0.3)	0.3	(0.2)	**2.9**	(0.2)	**4.1**	(0.2)
Partners	**Brazil**	**-0.06**	(0.03)	**-4.1**	(1.4)	-2.2	(1.6)	**-3.9**	(1.5)	-0.3	(1.3)	-2.0	(1.2)
	Hong Kong-China	**0.15**	(0.03)	**6.7**	(1.6)	**8.1**	(1.5)	**10.8**	(1.4)	**5.5**	(1.3)	**4.4**	(1.3)
	Indonesia	**0.15**	(0.02)	**6.7**	(1.6)	**13.1**	(1.4)	**6.2**	(1.7)	1.6	(1.6)	**13.8**	(1.7)
	Latvia	**0.07**	(0.03)	-1.8	(1.5)	**7.8**	(1.6)	**3.1**	(1.5)	**6.6**	(1.3)	2.0	(1.5)
	Liechtenstein	0.02	(0.09)	0.9	(4.2)	-0.2	(4.2)	0.2	(4.6)	-2.0	(4.0)	-0.3	(4.4)
	Macao-China	0.06	(0.03)	1.9	(2.1)	**7.5**	(1.9)	-0.7	(1.7)	**6.2**	(1.9)	**7.0**	(1.8)
	Russian Federation	0.04	(0.02)	**-4.9**	(1.7)	**8.1**	(1.5)	2.2	(1.5)	-0.3	(1.6)	**3.4**	(1.1)
	Thailand	**0.06**	(0.02)	**-7.7**	(1.4)	**12.1**	(1.4)	**6.4**	(1.3)	**6.2**	(1.5)	3.0	(1.6)
	Tunisia	-0.02	(0.03)	-2.3	(1.7)	1.1	(1.5)	0.6	(1.6)	**-5.9**	(1.4)	**7.0**	(1.3)
	Uruguay	0.02	(0.03)	**-6.7**	(1.3)	1.7	(1.4)	1.1	(1.4)	1.9	(1.3)	**5.4**	(1.4)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
For comparability over time, PISA 2003 values on the *index of mathematics self-concept* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).

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[Part 1/1]

Table III.4.3a **Students and mathematics anxiety**

Percentage of students who reported that they "agree" or "strongly agree"

		Percentage of students who agreed with the following statements:									
		I often worry that it will be difficult for me in mathematics classes		I get very tense when I have to do mathematics homework		I get very nervous doing mathematics problems		I feel helpless when doing a mathematics problem		I worry that I will get poor <grades> in mathematics	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	59.7	(0.6)	36.8	(0.6)	28.9	(0.6)	24.6	(0.5)	61.8	(0.7)
	Austria	55.4	(1.1)	32.7	(1.1)	24.0	(1.1)	26.8	(1.1)	49.0	(1.2)
	Belgium	58.2	(0.8)	29.6	(0.7)	33.5	(0.7)	34.5	(0.7)	64.4	(0.8)
	Canada	59.6	(0.8)	38.0	(0.7)	30.9	(0.6)	26.0	(0.6)	61.2	(0.7)
	Chile	72.3	(0.8)	48.1	(1.1)	42.1	(0.9)	31.3	(0.9)	89.9	(0.5)
	Czech Republic	55.3	(1.2)	24.3	(0.9)	36.1	(1.2)	33.8	(1.0)	56.4	(1.3)
	Denmark	38.6	(1.0)	27.3	(0.7)	19.7	(0.7)	20.3	(0.8)	45.5	(0.9)
	Estonia	53.8	(0.9)	28.6	(1.0)	21.1	(0.8)	24.4	(0.9)	53.3	(0.9)
	Finland	51.7	(0.9)	10.0	(0.5)	18.4	(0.6)	27.3	(1.0)	52.4	(0.9)
	France	64.5	(1.0)	51.0	(0.9)	36.0	(0.8)	43.1	(0.9)	72.5	(0.9)
	Germany	53.2	(1.1)	29.9	(1.0)	21.1	(0.8)	25.1	(1.0)	48.7	(1.0)
	Greece	72.7	(0.9)	35.0	(1.0)	45.5	(0.9)	32.7	(0.9)	53.3	(1.0)
	Hungary	62.0	(1.0)	21.6	(1.1)	20.5	(1.0)	35.3	(1.2)	62.7	(0.9)
	Iceland	45.2	(1.0)	22.0	(0.8)	17.9	(0.8)	23.4	(0.7)	52.4	(1.1)
	Ireland	69.8	(0.9)	36.0	(1.0)	29.7	(0.9)	28.0	(0.9)	62.1	(1.0)
	Israel	66.6	(1.0)	32.0	(0.9)	34.0	(0.9)	23.6	(1.0)	53.5	(0.9)
	Italy	73.2	(0.5)	35.1	(0.5)	43.0	(0.6)	42.9	(0.6)	79.1	(0.4)
	Japan	70.4	(0.8)	55.5	(0.9)	39.5	(0.9)	34.8	(0.9)	67.0	(0.8)
	Korea	76.9	(0.7)	31.6	(0.9)	43.5	(0.9)	42.1	(1.0)	82.1	(0.6)
	Luxembourg	55.9	(0.9)	36.6	(0.8)	28.7	(0.7)	31.5	(0.8)	57.2	(0.9)
	Mexico	77.5	(0.4)	45.4	(0.5)	48.7	(0.6)	36.3	(0.5)	87.9	(0.4)
	Netherlands	36.9	(1.1)	11.2	(0.6)	18.2	(0.9)	18.8	(0.9)	45.3	(1.0)
	New Zealand	62.1	(1.1)	38.1	(1.0)	33.0	(1.0)	26.6	(1.0)	63.6	(0.9)
	Norway	53.5	(1.0)	40.2	(1.1)	23.3	(0.8)	32.7	(1.0)	61.0	(1.0)
	Poland	57.4	(1.3)	29.5	(1.1)	31.2	(1.0)	31.0	(1.0)	60.6	(1.1)
	Portugal	69.7	(0.9)	18.9	(0.7)	27.3	(1.1)	33.8	(0.9)	69.6	(0.9)
	Slovak Republic	57.6	(1.2)	30.6	(1.0)	34.8	(1.1)	34.1	(1.0)	55.0	(1.0)
	Slovenia	61.3	(1.0)	32.9	(1.0)	38.1	(1.0)	30.1	(0.8)	65.3	(1.1)
	Spain	68.0	(0.7)	36.0	(0.8)	41.4	(0.7)	30.3	(0.6)	78.4	(0.6)
	Sweden	42.3	(0.9)	24.5	(0.9)	17.9	(0.7)	20.9	(0.8)	45.4	(1.0)
	Switzerland	49.2	(1.0)	26.1	(0.9)	18.2	(0.6)	25.7	(0.8)	53.4	(0.9)
	Turkey	66.7	(1.0)	50.7	(1.0)	38.8	(1.0)	40.3	(0.9)	69.4	(0.8)
	United Kingdom	47.3	(0.9)	28.2	(0.8)	26.1	(1.0)	19.8	(0.7)	57.6	(0.9)
	United States	57.3	(1.0)	36.6	(1.1)	29.0	(0.9)	22.5	(0.9)	48.7	(0.9)
	OECD average	59.5	(0.2)	32.7	(0.2)	30.6	(0.1)	29.8	(0.2)	61.4	(0.2)
Partners	Albania	66.8	(1.2)	39.5	(1.1)	47.3	(1.1)	32.4	(0.8)	59.5	(0.9)
	Argentina	80.0	(0.8)	51.3	(0.9)	51.2	(1.2)	45.4	(1.2)	83.0	(1.0)
	Brazil	70.9	(0.7)	46.9	(0.7)	49.0	(0.6)	47.1	(0.6)	88.7	(0.4)
	Bulgaria	70.2	(0.9)	45.2	(1.1)	46.1	(0.8)	39.3	(1.1)	59.6	(0.9)
	Colombia	64.4	(0.9)	49.0	(0.9)	46.7	(0.9)	32.3	(0.9)	83.3	(0.8)
	Costa Rica	72.4	(1.0)	42.6	(1.1)	44.9	(1.2)	34.1	(1.1)	87.1	(0.8)
	Croatia	66.4	(1.1)	33.4	(1.1)	38.5	(1.0)	30.9	(1.0)	66.1	(1.0)
	Cyprus*	68.0	(0.8)	32.9	(0.9)	38.8	(0.8)	32.4	(0.8)	55.0	(0.8)
	Hong Kong-China	68.9	(1.2)	26.8	(0.9)	26.4	(1.0)	32.2	(1.1)	70.8	(0.9)
	Indonesia	76.7	(1.0)	39.0	(1.2)	50.4	(1.0)	36.6	(1.1)	64.1	(1.1)
	Jordan	77.5	(0.9)	48.5	(1.1)	43.6	(0.9)	55.4	(1.0)	77.6	(0.7)
	Kazakhstan	55.2	(1.5)	35.4	(1.4)	39.4	(1.3)	24.3	(0.9)	61.5	(1.2)
	Latvia	57.1	(1.2)	33.6	(1.1)	23.9	(1.1)	23.2	(1.0)	67.7	(1.1)
	Liechtenstein	49.8	(3.7)	26.0	(3.3)	13.6	(2.8)	25.6	(3.6)	55.7	(3.1)
	Lithuania	57.4	(1.1)	35.2	(1.0)	33.2	(1.1)	28.8	(0.9)	69.4	(1.0)
	Macao-China	70.4	(0.8)	32.1	(0.7)	36.1	(0.8)	39.5	(0.8)	65.3	(0.8)
	Malaysia	76.6	(0.8)	45.9	(1.1)	54.7	(1.0)	43.8	(0.9)	75.3	(0.8)
	Montenegro	65.0	(0.7)	39.1	(1.0)	46.5	(1.0)	32.4	(1.1)	64.2	(1.1)
	Peru	72.9	(0.7)	45.5	(0.8)	46.3	(0.9)	35.6	(1.0)	81.3	(0.7)
	Qatar	68.6	(0.6)	45.9	(0.7)	47.0	(0.7)	46.1	(0.7)	62.0	(0.6)
	Romania	76.8	(1.0)	47.1	(1.1)	48.0	(1.2)	44.3	(1.1)	67.6	(1.0)
	Russian Federation	57.8	(1.1)	39.0	(1.0)	35.7	(1.1)	24.4	(0.8)	70.8	(0.8)
	Serbia	62.6	(1.2)	34.7	(1.1)	43.6	(1.0)	33.3	(1.1)	74.3	(1.0)
	Shanghai-China	53.4	(1.0)	31.4	(0.9)	27.0	(0.8)	27.7	(0.9)	71.3	(0.8)
	Singapore	60.7	(0.8)	35.8	(0.8)	37.4	(0.8)	26.9	(0.7)	73.5	(0.7)
	Chinese Taipei	71.5	(0.9)	35.2	(0.8)	39.9	(0.8)	43.7	(1.0)	76.3	(0.8)
	Thailand	73.0	(0.9)	55.1	(1.2)	64.7	(1.0)	52.2	(1.0)	77.7	(0.7)
	Tunisia	79.4	(0.9)	69.0	(1.1)	55.8	(1.3)	49.8	(1.2)	78.5	(0.9)
	United Arab Emirates	68.1	(0.8)	37.0	(0.9)	40.9	(0.8)	35.2	(0.9)	66.9	(0.7)
	Uruguay	76.7	(0.8)	41.9	(1.0)	41.9	(1.0)	38.0	(0.9)	78.5	(0.7)
	Viet Nam	72.1	(0.9)	33.3	(1.2)	43.7	(1.2)	38.8	(1.3)	71.6	(0.8)

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.4.3b **Students and mathematics anxiety, by gender**

Percentage of students who reported "agree" or "strongly agree"

		Percentage of boys who agreed with the following statements:										Percentage of girls who agreed with the following statements:									
		I often worry that it will be difficult for me in mathematics classes		I get very tense when I have to do mathematics homework		I get very nervous doing mathematics problems		I feel helpless when doing a mathematics problem		I worry that I will get poor <grades> in mathematics		I often worry that it will be difficult for me in mathematics classes		I get very tense when I have to do mathematics homework		I get very nervous doing mathematics problems		I feel helpless when doing a mathematics problem		I worry that I will get poor <grades> in mathematics	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	52.4	(0.8)	33.7	(0.9)	22.6	(0.8)	19.9	(0.7)	55.0	(0.8)	67.3	(0.7)	40.1	(0.9)	35.4	(0.9)	29.5	(0.7)	68.9	(0.9)
	Austria	50.2	(1.4)	27.4	(1.4)	20.9	(1.5)	20.7	(1.3)	44.6	(1.6)	60.5	(1.4)	37.8	(1.5)	27.0	(1.3)	32.7	(1.4)	53.2	(1.3)
	Belgium	51.1	(1.0)	25.0	(0.9)	28.1	(1.0)	26.7	(0.9)	57.3	(1.1)	65.1	(1.1)	34.0	(1.0)	38.7	(1.0)	42.2	(1.2)	71.2	(1.0)
	Canada	52.1	(0.9)	34.3	(0.8)	25.0	(0.7)	20.9	(0.7)	54.0	(0.8)	66.9	(1.0)	41.6	(1.0)	36.7	(1.0)	31.0	(0.9)	68.3	(0.9)
	Chile	70.1	(1.2)	42.2	(1.6)	35.2	(1.3)	26.9	(1.3)	88.3	(0.8)	74.5	(1.0)	53.9	(1.3)	48.8	(1.2)	35.7	(1.0)	91.6	(0.6)
	Czech Republic	51.2	(1.7)	24.3	(1.2)	33.4	(1.6)	28.4	(1.5)	52.5	(1.6)	59.6	(1.5)	24.3	(1.3)	38.8	(1.4)	39.4	(1.4)	60.4	(1.6)
	Denmark	28.3	(1.3)	22.9	(1.0)	14.9	(0.9)	12.0	(0.9)	34.0	(1.2)	48.6	(1.2)	31.5	(1.0)	24.4	(1.0)	28.5	(1.2)	56.7	(1.2)
	Estonia	50.1	(1.4)	25.6	(1.3)	18.2	(1.0)	19.9	(1.2)	50.4	(1.3)	57.2	(1.1)	31.4	(1.4)	23.8	(1.1)	28.7	(1.3)	56.1	(1.3)
	Finland	40.7	(1.1)	8.2	(0.7)	15.4	(0.9)	20.0	(1.0)	41.2	(1.1)	62.9	(1.1)	11.8	(0.8)	21.5	(0.8)	34.8	(1.4)	63.8	(1.2)
	France	55.3	(1.6)	42.5	(1.2)	29.7	(1.3)	33.1	(1.2)	66.2	(1.4)	72.8	(1.3)	58.8	(1.4)	41.8	(1.1)	52.2	(1.1)	78.2	(1.0)
	Germany	45.7	(1.4)	25.8	(1.3)	17.7	(1.0)	18.9	(0.9)	41.7	(1.4)	60.5	(1.4)	33.9	(1.4)	24.5	(1.2)	31.3	(1.4)	55.7	(1.3)
	Greece	67.8	(1.2)	33.0	(1.2)	40.0	(1.2)	29.4	(1.2)	50.8	(1.3)	77.4	(1.0)	36.9	(1.4)	51.0	(1.4)	35.9	(1.5)	55.8	(1.4)
	Hungary	57.5	(1.4)	20.5	(1.6)	18.6	(1.3)	30.8	(1.5)	56.2	(1.4)	66.2	(1.6)	22.5	(1.5)	22.2	(1.4)	39.6	(1.8)	68.9	(1.3)
	Iceland	40.3	(1.7)	17.9	(1.3)	15.2	(1.1)	19.1	(1.1)	47.0	(1.5)	50.2	(1.3)	26.1	(1.2)	20.5	(1.2)	27.8	(1.1)	57.8	(1.6)
	Ireland	63.7	(1.4)	32.1	(1.4)	23.7	(1.1)	21.9	(1.1)	55.0	(1.4)	76.1	(1.1)	40.2	(1.1)	36.0	(1.2)	34.4	(1.3)	69.4	(1.1)
	Israel	61.9	(1.4)	28.2	(1.4)	29.5	(1.3)	20.1	(1.3)	48.8	(1.4)	71.1	(1.3)	35.8	(1.2)	38.4	(1.3)	27.0	(1.2)	58.1	(1.2)
	Italy	69.7	(0.6)	33.0	(0.7)	38.8	(0.7)	37.8	(0.7)	75.4	(0.5)	77.0	(0.6)	37.4	(0.7)	47.7	(0.9)	48.5	(0.8)	83.1	(0.6)
	Japan	63.7	(1.2)	53.3	(1.1)	36.6	(1.0)	30.1	(1.1)	61.1	(1.1)	78.1	(1.1)	58.0	(1.4)	42.7	(1.3)	40.0	(1.4)	73.6	(1.1)
	Korea	72.0	(1.1)	30.4	(1.1)	40.9	(1.1)	40.1	(1.4)	77.8	(0.9)	82.5	(0.9)	33.0	(1.5)	46.5	(1.5)	44.4	(1.3)	87.1	(0.8)
	Luxembourg	48.3	(1.4)	33.7	(1.1)	23.1	(1.0)	24.9	(1.1)	50.6	(1.3)	63.7	(1.1)	39.7	(1.1)	34.4	(1.0)	38.4	(1.3)	64.1	(1.2)
	Mexico	74.1	(0.5)	41.3	(0.8)	44.3	(0.8)	34.4	(0.7)	85.6	(0.5)	80.8	(0.6)	49.3	(0.7)	52.9	(0.7)	38.1	(0.7)	90.1	(0.5)
	Netherlands	30.6	(1.4)	9.6	(0.8)	16.3	(1.2)	15.0	(1.2)	38.2	(1.5)	43.4	(1.5)	12.8	(0.9)	20.2	(1.3)	22.9	(1.6)	52.9	(1.3)
	New Zealand	54.7	(1.5)	35.6	(1.4)	27.4	(1.2)	21.1	(1.4)	55.5	(1.4)	69.8	(1.3)	40.8	(1.4)	38.8	(1.3)	32.2	(1.3)	72.0	(1.2)
	Norway	46.3	(1.2)	35.4	(1.2)	19.7	(1.0)	26.3	(1.1)	53.5	(1.4)	60.8	(1.5)	45.2	(1.5)	27.0	(1.1)	39.3	(1.5)	68.5	(1.3)
	Poland	53.7	(1.7)	32.1	(1.7)	30.8	(1.5)	27.7	(1.4)	56.4	(1.5)	61.0	(1.5)	26.9	(1.5)	31.6	(1.4)	34.2	(1.3)	64.8	(1.3)
	Portugal	67.0	(1.5)	19.1	(1.2)	25.9	(1.5)	31.3	(1.4)	65.5	(1.4)	72.4	(1.2)	18.7	(0.9)	28.8	(1.2)	36.2	(1.1)	73.8	(1.0)
	Slovak Republic	52.5	(1.4)	30.0	(1.5)	32.7	(1.7)	31.8	(1.4)	50.1	(1.0)	63.2	(1.6)	31.4	(1.2)	37.1	(1.3)	36.6	(1.4)	60.4	(1.5)
	Slovenia	58.0	(1.4)	33.2	(1.3)	37.0	(1.5)	27.6	(1.2)	60.8	(1.3)	64.7	(1.5)	32.6	(1.4)	39.1	(1.5)	32.7	(1.3)	70.0	(1.5)
	Spain	63.1	(1.0)	32.8	(1.0)	35.9	(0.9)	26.0	(0.8)	73.4	(1.1)	72.9	(0.8)	39.3	(1.1)	46.9	(0.9)	34.7	(1.0)	83.5	(0.7)
	Sweden	36.0	(1.3)	21.6	(1.1)	15.3	(1.0)	17.4	(1.1)	37.6	(1.4)	48.8	(1.3)	27.4	(1.3)	20.6	(1.1)	24.4	(1.2)	53.4	(1.3)
	Switzerland	40.9	(1.2)	21.6	(1.2)	15.1	(0.9)	17.1	(0.9)	44.7	(1.1)	57.6	(1.3)	30.7	(1.0)	21.4	(1.0)	34.5	(1.3)	62.2	(1.3)
	Turkey	65.8	(1.5)	52.7	(1.6)	40.6	(1.3)	42.0	(1.3)	67.3	(1.0)	67.7	(1.3)	48.7	(1.4)	36.8	(1.5)	38.5	(1.2)	71.7	(1.3)
	United Kingdom	38.7	(1.3)	23.8	(1.1)	19.6	(1.1)	15.0	(1.0)	48.8	(1.2)	55.7	(1.1)	32.5	(1.2)	32.5	(1.2)	24.4	(1.0)	66.1	(1.2)
	United States	52.5	(1.3)	35.1	(1.2)	25.4	(1.3)	21.2	(1.3)	45.0	(1.3)	62.5	(1.4)	38.2	(1.6)	32.7	(1.3)	23.8	(1.2)	52.6	(1.3)
	OECD average	53.7	(0.2)	29.9	(0.2)	26.9	(0.2)	25.2	(0.2)	55.6	(0.2)	65.3	(0.2)	35.4	(0.2)	34.3	(0.2)	34.6	(0.2)	67.2	(0.2)
Partners	Albania	67.2	(1.6)	39.1	(1.7)	49.2	(1.6)	33.9	(1.5)	60.4	(1.8)	66.4	(1.4)	39.9	(1.4)	45.1	(1.3)	30.7	(1.2)	58.5	(1.8)
	Argentina	78.7	(1.0)	49.3	(1.3)	49.4	(1.6)	44.9	(1.4)	80.9	(1.1)	81.1	(1.4)	53.3	(1.2)	53.1	(1.4)	45.8	(1.6)	85.1	(1.2)
	Brazil	70.7	(0.9)	41.7	(1.0)	43.5	(1.0)	42.4	(1.0)	85.1	(0.6)	71.1	(1.0)	51.6	(1.0)	53.9	(0.9)	51.3	(0.9)	92.0	(0.4)
	Bulgaria	66.4	(1.3)	46.9	(1.6)	44.9	(1.2)	40.8	(1.5)	56.8	(1.2)	74.2	(1.0)	43.5	(1.2)	47.3	(1.1)	37.7	(1.3)	62.5	(1.3)
	Colombia	60.2	(1.2)	46.0	(1.3)	43.9	(1.5)	30.7	(1.4)	81.4	(1.2)	68.2	(1.3)	51.8	(1.3)	49.2	(1.2)	33.9	(1.2)	85.1	(0.9)
	Costa Rica	66.2	(1.4)	31.8	(1.2)	34.6	(1.6)	28.1	(1.5)	83.6	(1.3)	77.5	(1.3)	51.5	(1.5)	53.5	(1.6)	39.2	(1.4)	90.0	(0.9)
	Croatia	63.2	(1.4)	33.5	(1.4)	37.1	(1.3)	28.4	(1.2)	62.3	(1.5)	69.6	(1.3)	33.3	(1.5)	40.1	(1.5)	33.4	(1.4)	69.9	(1.2)
	Cyprus*	66.4	(1.3)	32.4	(1.2)	38.6	(1.2)	31.6	(1.1)	52.9	(1.3)	69.7	(0.9)	33.4	(1.3)	39.0	(1.2)	33.2	(1.2)	57.2	(1.2)
	Hong Kong-China	62.1	(1.8)	23.9	(1.2)	21.5	(1.1)	25.0	(1.5)	65.3	(1.3)	76.9	(1.0)	30.3	(1.2)	32.1	(1.3)	40.6	(1.5)	77.2	(1.2)
	Indonesia	74.5	(1.3)	39.2	(1.5)	50.1	(1.3)	37.2	(1.4)	62.0	(1.2)	79.1	(1.2)	38.9	(1.4)	50.7	(1.4)	36.0	(1.3)	66.2	(1.5)
	Jordan	77.9	(1.3)	53.4	(1.7)	49.8	(1.4)	62.8	(1.3)	75.0	(1.0)	77.2	(1.2)	44.2	(1.7)	38.1	(1.2)	48.9	(1.4)	80.0	(0.9)
	Kazakhstan	55.9	(2.0)	37.3	(2.0)	38.9	(1.9)	25.6	(1.3)	60.9	(1.6)	54.5	(1.6)	33.5	(1.5)	39.8	(1.5)	22.9	(1.2)	62.2	(1.5)
	Latvia	54.8	(1.6)	33.9	(1.8)	22.8	(1.5)	23.7	(1.3)	63.7	(1.7)	59.3	(1.5)	33.3	(1.4)	25.0	(1.4)	22.7	(1.3)	71.7	(1.4)
	Liechtenstein	39.4	(4.4)	19.6	(4.0)	14.9	(3.6)	21.6	(4.0)	47.6	(4.5)	62.5	(5.5)	33.6	(5.4)	12.0	(4.4)	30.6	(5.9)	65.6	(5.0)
	Lithuania	53.4	(1.3)	33.7	(1.4)	30.2	(1.4)	27.7	(1.3)	64.0	(1.2)	61.5	(1.5)	36.8	(1.3)	36.3	(1.5)	29.9	(1.4)	74.9	(1.3)
	Macao-China	62.3	(1.1)	28.0	(1.0)	30.8	(1.0)	32.8	(1.2)	57.1	(1.1)	78.8	(1.0)	36.4	(1.1)	41.7	(1.1)	46.6	(1.0)	73.8	(1.1)
	Malaysia	75.3	(1.1)	47.2	(1.4)	54.6	(1.4)	45.4	(1.2)	73.4	(1.2)	77.8	(0.9)	44.7	(1.4)	54.7	(1.2)	42.2	(1.3)	77.1	(1.1)
	Montenegro	64.0	(1.3)	40.2	(1.4)	46.4	(1.6)	34.0	(1.5)	61.4	(1.5)	66.0	(1.2)	38.0	(1.3)	46.6	(1.2)	31.0	(1.4)	67.0	(1.4)
	Peru	69.9	(1.0)	43.7	(1.2)	44.5	(1.2)	35.1	(1.4)	78.7	(1.1)	75.6	(1.0)	47.2	(1.0)	48.0	(1.2)	36.1	(1.1)	83.6	(1.0)
	Qatar	68.1	(0.8)	48.9	(0.9)	49.2	(0.9)	48.5	(0.9)	60.3	(0.9)	69.1	(0.8)	43.0	(0.8)	44.9	(0.9)	43.8	(1.0)	63.6	(0.9)
	Romania	75.3	(1.3)	48.1	(1.5)	49.9	(1.7)	44.8	(1.6)	67.7	(1.5)	78.1	(1.3)	46.2	(1.4)	46.2	(1.4)	43.8	(1.3)	67.4	(1.4)
	Russian Federation	55.4	(1.2)	38.8	(1.4)	32.8	(1.1)	21.2	(1.1)	66.0	(1.2)	60.2	(1.5)	39.2	(1.3)	38.8	(1.5)	27.8	(1.0)	75.8	(1.1)
	Serbia	62.0	(1.6)	37.5	(1.4)	46.5	(1.4)	34.6	(1.4)	72.0	(1.2)	63.1	(1.3)	32.0	(1.3)	40.8	(1.3)	32.0	(1.4)	76.5	(1.3)
	Shanghai-China	43.1	(1.4)	27.4	(1.3)	22.8	(1.2)	22.2	(1.2)	61.6	(1.4)	63.0	(1.3)	35.1	(1.1)	30.9	(1.1)	32.9	(1.3)	80.5	(1.1)
	Singapore	58.4	(1.2)	36.4	(1.2)	36.1	(1.2)	25.0	(1.2)	71.4	(1.0)	62.9	(1.0)	35.1	(1.1)	38.7	(1.1)	28.7	(1.0)	75.6	(1.0)
	Chinese Taipei	65.4	(1.2)	31.2	(1.1)	35.4	(1.1)	37.8	(1.4)	70.1	(1.0)	77.5	(1.0)	39.0	(1.3)	44.3	(1.1)	49.5	(1.4)	82.2	(1.1)
	Thailand	70.8	(1.3)	55.0	(1.5)	66.2	(1.3)	52.8	(1.3)	72.8	(1.1)	74.7	(1.1)	55.2	(1.4)	63.6	(1.2)	51.6	(1.3)	81.6	(0.8)
	Tunisia	77.6	(1.3)	64.0	(1.6)	54.3	(1.5)	50.3	(1.5)	76.1	(1.5)	81.0	(1.2)	73.3	(1.2)	57.2	(1.6)	49.4	(1.5)	80.6	(1.0)
	United Arab Emirates	68.0	(1.1)	41.4	(1.3)	43.3	(1.2)	39.4	(1.3)	64.8	(1.2)	68.3	(1.1)	32.9	(1.2)	38.6	(1.0)	31.3	(1.0)	68.9	(1.0)
	Uruguay	73.4	(1.2)	38.6	(1.2)	37.2	(1.4)	34.8	(1.3)	75.5	(1.1)	79.5	(1.1)	44.8	(1.4)	46.0	(1.3)	40.7	(1.4)	81.0	(1.0)
	Viet Nam	67.1	(1.3)	31.1	(1.4)	40.8	(1.6)	37.6	(1.5)	67.3	(1.3)	76.6	(1.1)	35.3	(1.5)	46.3	(1.4)	39.9	(1.6)	75.3	(0.9)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.4.3b Students and mathematics anxiety, by gender

Percentage of students who reported "agree" or "strongly agree"

		Gender gap in the percentage of students who agreed with the following statements (B - G):									
		I often worry that it will be difficult for me in mathematics classes		I get very tense when I have to do mathematics homework		I get very nervous doing mathematics problems		I feel helpless when doing a mathematics problem		I worry that I will get poor <grades> in mathematics	
		% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.
OECD	Australia	**-14.8**	(1.0)	**-6.3**	(1.3)	**-12.8**	(1.2)	**-9.6**	(0.9)	**-14.0**	(1.1)
	Austria	**-10.4**	(1.8)	**-10.4**	(2.0)	**-6.0**	(1.8)	**-12.1**	(1.7)	**-8.6**	(1.8)
	Belgium	**-14.1**	(1.4)	**-9.0**	(1.2)	**-10.7**	(1.4)	**-15.5**	(1.6)	**-13.9**	(1.3)
	Canada	**-14.7**	(1.2)	**-7.3**	(1.1)	**-11.7**	(1.1)	**-10.0**	(1.0)	**-14.3**	(1.1)
	Chile	**-4.4**	(1.3)	**-11.7**	(1.9)	**-13.6**	(1.7)	**-8.8**	(1.5)	**-3.3**	(0.9)
	Czech Republic	**-8.4**	(2.1)	0.0	(1.8)	**-5.4**	(1.8)	**-11.1**	(2.0)	**-7.9**	(2.1)
	Denmark	**-20.3**	(1.6)	**-8.6**	(1.3)	**-9.5**	(1.4)	**-16.4**	(1.4)	**-22.6**	(1.6)
	Estonia	**-7.1**	(1.8)	**-5.8**	(1.7)	**-5.5**	(1.5)	**-8.8**	(1.7)	**-5.7**	(1.9)
	Finland	**-22.2**	(1.4)	**-3.6**	(1.0)	**-6.1**	(1.2)	**-14.8**	(1.5)	**-22.7**	(1.4)
	France	**-17.5**	(2.1)	**-16.3**	(1.8)	**-12.0**	(1.7)	**-19.2**	(1.7)	**-12.1**	(1.6)
	Germany	**-14.9**	(1.7)	**-8.0**	(1.8)	**-6.9**	(1.5)	**-12.3**	(1.5)	**-14.0**	(1.8)
	Greece	**-9.6**	(1.4)	**-3.9**	(1.7)	**-11.0**	(1.9)	**-6.5**	(1.9)	**-5.1**	(1.7)
	Hungary	**-8.8**	(2.2)	-2.0	(2.2)	**-3.7**	(1.8)	**-8.9**	(2.2)	**-12.7**	(1.8)
	Iceland	**-9.9**	(2.3)	**-8.2**	(1.9)	**-5.3**	(1.7)	**-8.7**	(1.6)	**-10.8**	(2.2)
	Ireland	**-12.5**	(1.8)	**-8.1**	(1.6)	**-12.3**	(1.4)	**-12.6**	(1.7)	**-14.4**	(1.8)
	Israel	**-9.3**	(1.8)	**-7.6**	(1.8)	**-8.8**	(1.8)	**-6.9**	(1.6)	**-9.3**	(1.8)
	Italy	**-7.4**	(0.9)	**-4.4**	(1.0)	**-8.9**	(1.2)	**-10.7**	(1.0)	**-7.7**	(0.7)
	Japan	**-14.4**	(1.6)	**-4.8**	(1.8)	**-6.1**	(1.5)	**-10.0**	(1.8)	**-12.5**	(1.7)
	Korea	**-10.5**	(1.5)	-2.6	(1.8)	**-5.6**	(1.8)	**-4.4**	(1.9)	**-9.4**	(1.3)
	Luxembourg	**-15.5**	(1.8)	**-6.0**	(1.5)	**-11.3**	(1.4)	**-13.4**	(1.7)	**-13.4**	(1.8)
	Mexico	**-6.6**	(0.7)	**-8.0**	(1.0)	**-8.6**	(1.0)	**-3.7**	(0.9)	**-4.5**	(0.6)
	Netherlands	**-12.7**	(1.9)	**-3.3**	(1.2)	**-3.9**	(1.8)	**-7.9**	(2.2)	**-14.7**	(2.1)
	New Zealand	**-15.1**	(1.9)	**-5.2**	(1.9)	**-11.5**	(1.6)	**-11.1**	(1.9)	**-16.5**	(1.9)
	Norway	**-14.5**	(1.9)	**-9.8**	(1.6)	**-7.3**	(1.4)	**-13.0**	(1.6)	**-15.1**	(1.9)
	Poland	**-7.3**	(1.8)	**5.2**	(2.3)	-0.8	(2.1)	**-6.5**	(1.8)	**-8.4**	(1.7)
	Portugal	**-5.4**	(2.2)	0.3	(1.4)	-2.9	(1.6)	**-4.9**	(1.7)	**-8.3**	(1.6)
	Slovak Republic	**-10.7**	(2.0)	-1.4	(1.9)	**-4.4**	(2.0)	**-4.8**	(1.9)	**-10.3**	(1.8)
	Slovenia	**-6.7**	(2.1)	0.6	(2.0)	-2.1	(2.2)	**-5.1**	(2.0)	**-9.2**	(1.9)
	Spain	**-9.8**	(1.1)	**-6.5**	(1.2)	**-11.0**	(1.2)	**-8.7**	(1.4)	**-10.1**	(1.4)
	Sweden	**-12.7**	(1.9)	**-5.8**	(1.6)	**-5.4**	(1.6)	**-7.0**	(1.6)	**-15.8**	(1.9)
	Switzerland	**-16.7**	(1.6)	**-9.0**	(1.4)	**-6.2**	(1.3)	**-17.3**	(1.6)	**-17.5**	(1.5)
	Turkey	-1.9	(1.9)	3.9	(2.2)	3.8	(2.0)	3.5	(1.8)	**-4.4**	(1.8)
	United Kingdom	**-17.0**	(1.6)	**-8.8**	(1.6)	**-12.9**	(1.3)	**-9.5**	(1.4)	**-17.3**	(1.7)
	United States	**-9.9**	(1.8)	-3.0	(1.8)	**-7.3**	(1.8)	-2.7	(1.6)	**-7.6**	(1.9)
	OECD average	**-11.6**	(0.3)	**-5.5**	(0.3)	**-7.5**	(0.3)	**-9.4**	(0.3)	**-11.6**	(0.3)
Partners	Albania	0.8	(1.9)	-0.8	(2.2)	**4.0**	(1.9)	3.2	(2.2)	2.0	(3.0)
	Argentina	-2.4	(1.9)	**-4.0**	(1.8)	**-3.7**	(1.7)	-0.9	(1.9)	**-4.2**	(1.4)
	Brazil	-0.4	(1.4)	**-9.9**	(1.4)	**-10.5**	(1.4)	**-8.9**	(1.4)	**-6.9**	(0.8)
	Bulgaria	**-7.7**	(1.5)	3.3	(1.8)	-2.4	(1.7)	3.0	(2.0)	**-5.7**	(1.7)
	Colombia	**-8.0**	(1.6)	**-5.8**	(1.8)	**-5.3**	(1.9)	-3.2	(1.8)	**-3.7**	(1.4)
	Costa Rica	**-11.3**	(1.7)	**-19.7**	(1.8)	**-18.9**	(2.1)	**-11.1**	(2.0)	**-6.4**	(1.5)
	Croatia	**-6.4**	(1.7)	0.2	(1.8)	-3.0	(1.9)	**-5.0**	(1.7)	**-7.5**	(1.9)
	Cyprus*	**-3.3**	(1.6)	-1.0	(1.7)	-0.4	(1.8)	-1.7	(1.5)	**-4.3**	(1.8)
	Hong Kong-China	**-14.8**	(1.8)	**-6.4**	(1.6)	**-10.6**	(1.6)	**-15.6**	(1.9)	**-11.9**	(1.9)
	Indonesia	**-4.6**	(1.5)	0.3	(1.8)	-0.6	(1.8)	1.3	(1.7)	**-4.2**	(1.6)
	Jordan	0.7	(1.8)	**9.2**	(2.5)	**11.7**	(1.9)	**13.9**	(2.0)	**-5.0**	(1.4)
	Kazakhstan	1.5	(2.1)	3.8	(2.1)	-0.9	(2.3)	2.7	(1.7)	-1.3	(1.9)
	Latvia	**-4.5**	(2.0)	0.6	(2.3)	-2.2	(2.0)	1.0	(1.7)	**-8.0**	(2.1)
	Liechtenstein	**-23.1**	(6.7)	**-14.0**	(6.7)	3.0	(5.7)	-9.0	(6.8)	**-17.9**	(7.2)
	Lithuania	**-8.2**	(1.7)	-3.1	(1.7)	**-6.1**	(1.9)	-2.3	(1.9)	**-10.9**	(1.6)
	Macao-China	**-16.5**	(1.5)	**-8.4**	(1.5)	**-10.9**	(1.4)	**-13.8**	(1.5)	**-16.7**	(1.6)
	Malaysia	-2.5	(1.3)	2.5	(1.9)	-0.1	(1.8)	3.1	(1.7)	**-3.7**	(1.5)
	Montenegro	-2.0	(2.0)	2.2	(2.0)	-0.2	(2.1)	3.0	(1.9)	**-5.7**	(2.1)
	Peru	**-5.7**	(1.5)	**-3.4**	(1.5)	**-3.5**	(1.7)	-1.1	(1.6)	**-4.9**	(1.5)
	Qatar	-0.9	(1.1)	**5.9**	(1.1)	**4.3**	(1.2)	**4.7**	(1.2)	**-3.2**	(1.2)
	Romania	-2.8	(1.6)	1.9	(1.9)	3.7	(2.0)	1.1	(1.9)	0.2	(1.9)
	Russian Federation	**-4.8**	(1.5)	-0.4	(1.7)	**-6.1**	(1.5)	**-6.7**	(1.6)	**-9.8**	(1.5)
	Serbia	-1.1	(1.7)	**5.5**	(1.7)	**5.7**	(1.8)	2.6	(1.7)	**-4.4**	(1.7)
	Shanghai-China	**-19.9**	(1.8)	**-7.7**	(1.7)	**-8.2**	(1.7)	**-10.6**	(1.7)	**-18.9**	(1.9)
	Singapore	**-4.5**	(1.6)	1.3	(1.7)	-2.7	(1.7)	**-3.7**	(1.7)	**-4.2**	(1.3)
	Chinese Taipei	**-12.2**	(1.5)	**-7.8**	(1.6)	**-9.0**	(1.5)	**-11.7**	(2.0)	**-12.1**	(1.5)
	Thailand	**-3.9**	(1.6)	-0.1	(1.7)	2.6	(1.7)	1.2	(1.8)	**-8.8**	(1.2)
	Tunisia	**-3.4**	(1.6)	**-9.4**	(1.9)	-2.9	(1.9)	0.9	(1.8)	**-4.5**	(1.8)
	United Arab Emirates	-0.3	(1.6)	**8.4**	(1.7)	**4.7**	(1.6)	**8.1**	(1.5)	**-4.2**	(1.7)
	Uruguay	**-6.0**	(1.5)	**-6.1**	(1.7)	**-8.9**	(1.8)	**-5.9**	(2.0)	**-5.5**	(1.4)
	Viet Nam	**-9.5**	(1.6)	**-4.2**	(1.7)	**-5.5**	(1.8)	-2.2	(1.7)	**-7.9**	(1.6)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
StatLink http://dx.doi.org/10.1787/888932963958

[Part 1/3]

Table III.4.3c **Students and mathematics anxiety, by socio-economic status**

Percentage of students who reported that they "agree" or "strongly agree"

		The index of mathematics anxiety among socio-economically disadvantaged students[1]		Percentage of socio-economically disadvantaged students who agreed with the following statements:									
				I often worry that it will be difficult for me in mathematics classes		I get very tense when I have to do mathematics homework		I get very nervous doing mathematics problems		I feel helpless when doing a mathematics problem		I worry that I will get poor <grades> in mathematics	
		Mean index	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	0.15	(0.02)	64.2	(1.1)	42.2	(1.3)	33.5	(1.1)	29.6	(1.1)	64.3	(1.1)
	Austria	-0.06	(0.05)	59.6	(2.0)	36.6	(2.0)	30.9	(2.5)	29.6	(1.9)	55.0	(2.2)
	Belgium	0.05	(0.04)	56.4	(1.5)	33.2	(1.3)	35.0	(1.6)	38.4	(1.7)	60.2	(1.7)
	Canada	0.12	(0.03)	64.8	(1.2)	41.3	(1.3)	35.2	(1.2)	30.2	(1.1)	63.9	(1.1)
	Chile	0.52	(0.02)	74.8	(1.4)	54.6	(2.0)	47.7	(1.8)	33.9	(1.9)	89.6	(1.0)
	Czech Republic	0.16	(0.04)	62.0	(2.5)	31.6	(2.1)	40.4	(2.3)	40.0	(2.1)	62.0	(2.2)
	Denmark	-0.11	(0.04)	48.5	(1.9)	34.1	(1.7)	26.0	(1.6)	25.9	(1.6)	52.4	(2.0)
	Estonia	-0.05	(0.04)	57.6	(2.2)	32.0	(2.0)	21.8	(1.6)	26.1	(1.9)	57.7	(2.1)
	Finland	-0.23	(0.03)	53.2	(1.8)	10.4	(0.9)	21.2	(1.4)	32.1	(1.9)	52.8	(1.6)
	France	0.34	(0.04)	68.3	(1.7)	50.7	(1.9)	38.2	(1.9)	49.7	(1.7)	71.6	(2.1)
	Germany	-0.13	(0.04)	58.9	(1.9)	35.6	(1.8)	24.1	(1.6)	27.6	(1.8)	53.8	(1.9)
	Greece	0.37	(0.04)	81.0	(1.9)	45.7	(2.3)	53.5	(2.1)	40.4	(1.8)	67.6	(1.8)
	Hungary	0.16	(0.04)	69.4	(1.7)	29.0	(2.3)	27.2	(1.7)	43.8	(2.3)	69.8	(2.0)
	Iceland	-0.16	(0.04)	54.3	(1.9)	27.4	(2.0)	20.8	(1.9)	27.2	(1.7)	59.8	(2.0)
	Ireland	0.25	(0.03)	73.9	(1.5)	41.9	(2.0)	37.8	(1.8)	34.7	(1.8)	62.4	(1.9)
	Israel	0.02	(0.05)	68.2	(1.9)	39.1	(1.7)	38.7	(1.6)	27.5	(1.6)	51.5	(1.8)
	Italy	0.36	(0.02)	74.3	(0.8)	38.9	(1.0)	46.3	(1.1)	48.8	(1.0)	77.3	(0.8)
	Japan	0.42	(0.03)	70.4	(1.6)	60.3	(1.5)	41.2	(1.6)	36.8	(1.5)	66.9	(1.7)
	Korea	0.41	(0.03)	83.3	(1.2)	39.2	(1.7)	46.0	(1.7)	47.9	(2.0)	79.8	(1.5)
	Luxembourg	0.12	(0.04)	62.3	(1.7)	45.1	(1.9)	34.6	(1.6)	37.1	(1.7)	64.7	(1.6)
	Mexico	0.47	(0.01)	79.4	(0.7)	47.3	(0.9)	52.5	(0.9)	39.0	(0.9)	85.7	(0.8)
	Netherlands	-0.36	(0.05)	37.4	(2.3)	11.5	(1.0)	19.7	(2.2)	19.8	(2.0)	46.3	(2.2)
	New Zealand	0.29	(0.04)	67.1	(1.8)	45.2	(2.2)	42.0	(1.8)	35.8	(2.1)	67.1	(1.6)
	Norway	0.21	(0.05)	61.5	(2.1)	49.7	(2.3)	27.0	(1.7)	40.8	(2.4)	64.4	(2.1)
	Poland	0.22	(0.04)	68.3	(1.7)	35.9	(1.7)	39.6	(1.9)	41.5	(2.0)	67.0	(1.8)
	Portugal	0.15	(0.03)	75.9	(1.7)	24.0	(1.7)	32.1	(2.1)	44.3	(1.9)	69.8	(2.0)
	Slovak Republic	0.20	(0.04)	63.6	(2.5)	43.9	(2.0)	44.9	(2.4)	41.7	(2.2)	56.0	(2.2)
	Slovenia	0.14	(0.04)	63.0	(2.2)	35.8	(1.7)	42.6	(2.4)	32.9	(1.8)	66.3	(2.2)
	Spain	0.32	(0.02)	73.8	(1.3)	42.2	(1.3)	45.5	(1.5)	35.5	(1.3)	78.9	(1.2)
	Sweden	-0.16	(0.03)	50.5	(1.6)	29.3	(1.6)	22.1	(1.4)	28.0	(1.7)	51.3	(2.2)
	Switzerland	-0.25	(0.03)	48.8	(1.8)	28.6	(1.4)	19.4	(1.2)	27.5	(1.4)	52.8	(1.8)
	Turkey	0.32	(0.04)	69.4	(1.8)	55.8	(1.6)	41.8	(1.5)	41.5	(1.6)	69.5	(1.6)
	United Kingdom	0.02	(0.04)	52.3	(1.6)	33.0	(1.8)	32.1	(1.9)	25.1	(1.3)	64.0	(1.7)
	United States	0.07	(0.04)	62.0	(2.1)	40.5	(2.0)	31.4	(1.8)	29.5	(1.7)	55.6	(1.7)
	OECD average	0.13	(0.01)	64.1	(0.3)	38.0	(0.3)	35.1	(0.3)	35.0	(0.3)	64.1	(0.3)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	0.63	(0.04)	83.2	(1.6)	57.1	(1.7)	57.5	(1.7)	49.3	(1.9)	84.3	(1.5)
	Brazil	0.57	(0.02)	76.8	(1.2)	50.0	(1.2)	53.2	(1.4)	51.0	(1.2)	87.3	(0.8)
	Bulgaria	0.57	(0.04)	80.6	(1.7)	59.5	(2.2)	57.8	(1.8)	53.8	(2.1)	68.6	(1.7)
	Colombia	0.41	(0.03)	66.6	(1.7)	53.6	(2.2)	52.7	(2.3)	36.4	(1.9)	82.9	(1.5)
	Costa Rica	0.47	(0.04)	76.1	(1.8)	45.1	(2.2)	49.0	(2.3)	39.3	(2.1)	86.3	(1.4)
	Croatia	0.22	(0.04)	69.1	(1.8)	37.6	(1.9)	44.0	(1.8)	36.7	(2.1)	68.2	(1.9)
	Cyprus*	0.29	(0.04)	79.4	(1.3)	40.3	(1.9)	48.7	(1.7)	40.8	(1.9)	63.5	(1.6)
	Hong Kong-China	0.15	(0.04)	71.5	(1.7)	30.2	(1.8)	25.3	(1.6)	34.2	(1.8)	73.1	(1.7)
	Indonesia	0.26	(0.03)	76.1	(1.7)	42.4	(1.9)	48.9	(1.8)	35.8	(1.7)	58.3	(1.9)
	Jordan	0.53	(0.02)	79.9	(1.7)	54.7	(1.9)	48.7	(1.6)	48.7	(2.1)	76.3	(1.2)
	Kazakhstan	0.15	(0.05)	59.9	(3.1)	45.0	(2.4)	49.5	(2.2)	31.8	(2.0)	63.9	(2.0)
	Latvia	0.13	(0.04)	63.5	(2.4)	38.3	(2.8)	27.9	(2.5)	28.8	(2.5)	68.8	(2.3)
	Liechtenstein	0.04	(0.10)	59.6	(6.8)	42.5	(7.3)	19.1	(5.1)	35.5	(7.2)	66.7	(5.6)
	Lithuania	0.07	(0.04)	61.7	(1.8)	41.9	(1.8)	40.4	(2.0)	35.2	(1.7)	69.7	(1.8)
	Macao-China	0.23	(0.03)	73.3	(1.5)	33.0	(1.6)	35.1	(1.7)	43.2	(1.8)	67.2	(1.6)
	Malaysia	0.40	(0.03)	75.0	(1.7)	45.4	(1.9)	56.3	(1.6)	45.7	(1.8)	68.0	(1.7)
	Montenegro	0.29	(0.03)	69.1	(1.4)	45.1	(1.8)	52.6	(2.1)	39.7	(1.9)	68.0	(1.8)
	Peru	0.35	(0.03)	69.6	(1.7)	48.6	(1.6)	47.5	(2.2)	44.9	(2.1)	77.4	(1.8)
	Qatar	0.41	(0.02)	75.5	(1.0)	52.0	(1.3)	51.6	(1.3)	53.1	(1.4)	65.2	(1.2)
	Romania	0.53	(0.03)	81.8	(1.5)	54.6	(2.0)	58.5	(1.9)	52.9	(1.8)	72.7	(1.6)
	Russian Federation	0.28	(0.03)	63.5	(2.1)	48.5	(2.0)	46.2	(2.1)	33.7	(1.8)	72.0	(1.8)
	Serbia	0.34	(0.03)	70.1	(1.8)	41.3	(1.6)	49.4	(1.7)	40.5	(1.8)	76.9	(1.7)
	Shanghai-China	0.13	(0.03)	59.8	(1.7)	36.1	(1.8)	30.1	(1.6)	33.1	(1.8)	72.9	(1.5)
	Singapore	0.40	(0.03)	70.1	(1.5)	47.0	(1.6)	46.6	(1.6)	36.6	(1.6)	81.1	(1.3)
	Chinese Taipei	0.44	(0.03)	77.0	(1.5)	44.0	(1.5)	44.5	(1.6)	55.5	(1.9)	77.1	(1.4)
	Thailand	0.47	(0.02)	73.7	(1.8)	55.9	(2.3)	65.6	(1.7)	53.0	(1.9)	74.9	(1.4)
	Tunisia	0.65	(0.03)	82.9	(1.7)	66.8	(1.9)	57.0	(2.1)	56.3	(2.1)	79.1	(1.5)
	United Arab Emirates	0.41	(0.02)	76.2	(1.3)	46.5	(1.3)	47.4	(1.4)	43.1	(1.4)	74.4	(1.2)
	Uruguay	0.57	(0.04)	79.6	(1.5)	52.7	(2.1)	49.9	(2.1)	46.5	(2.0)	83.1	(1.6)
	Viet Nam	0.28	(0.02)	75.8	(1.3)	38.1	(1.9)	47.3	(2.1)	44.1	(1.9)	72.6	(1.5)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Socio-economically disadvantaged students are students who are in the bottom quarter in their country with respect to the *PISA index of economic, social and cultural status*.

2. Socio-economically advantaged students are students who are in the top quarter in their country with respect to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/3]

Table III.4.3c Students and mathematics anxiety, by socio-economic status

Percentage of students who reported that they "agree" or "strongly agree"

		The index of mathematics anxiety among socio-economically advantaged students[2]		Percentage of socio-economically advantaged students who agreed with the following statements:									
				I often worry that it will be difficult for me in mathematics classes		I get very tense when I have to do mathematics homework		I get very nervous doing mathematics problems		I feel helpless when doing a mathematics problem		I worry that I will get poor <grades> in mathematics	
		Mean index	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	-0.10	(0.03)	55.5	(1.2)	30.8	(1.2)	25.5	(1.2)	19.4	(1.1)	58.6	(1.4)
	Austria	-0.40	(0.05)	50.1	(2.0)	26.4	(1.7)	17.2	(1.6)	23.6	(1.9)	45.7	(2.3)
	Belgium	-0.02	(0.02)	57.5	(1.4)	22.9	(1.2)	30.0	(1.1)	29.4	(1.2)	67.7	(1.5)
	Canada	-0.17	(0.03)	53.0	(1.4)	32.4	(1.3)	26.2	(1.3)	19.7	(1.1)	56.8	(1.1)
	Chile	0.28	(0.03)	68.5	(1.7)	38.6	(1.8)	35.9	(1.3)	25.2	(1.3)	90.5	(1.0)
	Czech Republic	-0.23	(0.04)	46.9	(1.6)	17.0	(1.6)	30.0	(1.8)	26.5	(1.8)	51.6	(1.9)
	Denmark	-0.67	(0.04)	26.8	(1.7)	19.5	(1.3)	14.3	(1.3)	12.8	(1.1)	35.7	(1.8)
	Estonia	-0.32	(0.04)	47.0	(1.9)	22.7	(1.6)	18.5	(1.4)	20.0	(1.7)	45.2	(1.9)
	Finland	-0.43	(0.03)	48.6	(1.8)	10.0	(1.0)	15.7	(1.2)	21.1	(1.4)	50.9	(1.7)
	France	0.17	(0.04)	57.6	(2.0)	49.9	(2.0)	31.5	(1.9)	29.9	(1.6)	75.5	(1.7)
	Germany	-0.50	(0.04)	46.9	(2.1)	23.8	(1.7)	17.7	(1.5)	23.7	(1.9)	40.3	(1.9)
	Greece	-0.15	(0.03)	62.8	(1.8)	25.4	(1.6)	38.6	(1.7)	21.5	(1.3)	41.5	(1.7)
	Hungary	-0.28	(0.04)	51.5	(1.7)	16.5	(1.4)	15.4	(1.5)	26.3	(1.8)	57.5	(1.8)
	Iceland	-0.59	(0.04)	36.1	(2.0)	14.8	(1.4)	12.1	(1.3)	16.8	(1.5)	46.4	(2.0)
	Ireland	-0.07	(0.03)	64.6	(1.7)	29.0	(1.8)	23.3	(1.6)	20.6	(1.5)	58.4	(1.9)
	Israel	-0.09	(0.04)	66.1	(1.6)	29.9	(1.8)	31.2	(1.9)	21.3	(1.6)	57.6	(1.8)
	Italy	0.24	(0.02)	72.0	(0.8)	30.2	(1.0)	39.3	(1.0)	37.4	(1.1)	80.0	(0.9)
	Japan	0.31	(0.03)	68.9	(1.4)	51.9	(1.7)	36.4	(1.3)	32.3	(1.3)	67.5	(1.5)
	Korea	0.20	(0.03)	68.9	(1.6)	25.6	(1.6)	43.4	(1.7)	36.0	(1.9)	82.8	(1.3)
	Luxembourg	-0.31	(0.04)	49.5	(1.7)	30.7	(1.5)	23.6	(1.5)	22.8	(1.4)	51.3	(1.6)
	Mexico	0.36	(0.01)	72.9	(0.8)	41.4	(0.9)	43.5	(0.7)	31.6	(0.9)	86.8	(0.7)
	Netherlands	-0.44	(0.04)	33.8	(2.2)	10.6	(1.6)	14.6	(1.8)	15.6	(1.8)	44.2	(1.9)
	New Zealand	-0.09	(0.04)	53.7	(2.0)	29.2	(2.1)	25.5	(1.8)	19.3	(1.7)	60.2	(1.6)
	Norway	-0.18	(0.04)	44.0	(1.9)	31.2	(1.8)	18.4	(1.4)	25.2	(1.8)	55.5	(1.9)
	Poland	-0.28	(0.05)	45.6	(2.4)	23.8	(2.0)	23.1	(2.0)	21.2	(2.0)	54.0	(1.8)
	Portugal	-0.22	(0.03)	60.3	(1.8)	11.0	(1.2)	18.9	(1.4)	20.9	(1.4)	66.0	(1.7)
	Slovak Republic	-0.20	(0.05)	50.2	(2.0)	19.7	(1.7)	25.7	(1.8)	26.1	(2.1)	54.3	(2.2)
	Slovenia	-0.02	(0.04)	57.9	(2.1)	28.7	(1.6)	32.2	(1.9)	25.3	(1.8)	63.0	(2.0)
	Spain	0.10	(0.02)	61.2	(1.3)	29.1	(1.1)	36.2	(1.0)	24.7	(1.2)	79.3	(1.1)
	Sweden	-0.52	(0.03)	34.9	(1.9)	19.7	(1.6)	14.9	(1.2)	17.4	(1.6)	40.4	(1.8)
	Switzerland	-0.35	(0.03)	47.6	(1.5)	24.2	(1.4)	17.2	(1.4)	25.0	(1.5)	53.3	(1.6)
	Turkey	0.11	(0.05)	59.8	(1.8)	40.6	(2.3)	33.0	(2.1)	33.1	(1.8)	68.2	(1.5)
	United Kingdom	-0.35	(0.03)	40.6	(1.9)	22.5	(1.4)	20.5	(1.2)	14.7	(1.1)	50.5	(1.7)
	United States	-0.27	(0.04)	51.5	(2.0)	30.9	(1.8)	23.3	(1.8)	16.1	(1.5)	43.2	(1.6)
	OECD average	-0.16	(0.01)	53.3	(0.3)	26.8	(0.3)	25.7	(0.3)	23.6	(0.3)	58.2	(0.3)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	0.38	(0.04)	74.1	(1.4)	43.8	(1.8)	45.0	(2.4)	38.5	(1.9)	79.7	(1.5)
	Brazil	0.42	(0.03)	64.5	(1.7)	40.1	(1.5)	42.4	(1.6)	42.1	(1.5)	89.4	(0.9)
	Bulgaria	-0.10	(0.03)	59.5	(1.6)	31.2	(1.3)	34.8	(1.2)	25.6	(1.6)	50.3	(1.6)
	Colombia	0.25	(0.04)	58.9	(2.1)	45.7	(2.3)	39.4	(1.6)	27.2	(1.4)	82.2	(1.3)
	Costa Rica	0.33	(0.04)	65.9	(1.7)	38.3	(2.0)	43.8	(2.2)	31.4	(1.8)	87.6	(1.5)
	Croatia	-0.02	(0.05)	60.6	(1.9)	27.0	(1.7)	32.4	(2.1)	22.9	(1.5)	63.2	(1.9)
	Cyprus*	-0.28	(0.04)	56.7	(1.7)	26.6	(1.7)	27.6	(1.7)	22.3	(1.5)	44.2	(2.0)
	Hong Kong-China	-0.02	(0.04)	61.5	(2.2)	22.4	(1.7)	23.0	(2.0)	26.2	(1.9)	65.7	(1.9)
	Indonesia	0.29	(0.04)	78.3	(2.0)	36.7	(2.8)	51.3	(2.1)	35.5	(2.3)	69.9	(2.0)
	Jordan	0.43	(0.03)	71.3	(1.7)	40.2	(1.8)	36.7	(1.8)	60.1	(1.6)	78.0	(1.4)
	Kazakhstan	-0.16	(0.04)	50.4	(2.2)	24.6	(2.0)	28.5	(1.9)	15.4	(1.2)	56.9	(2.0)
	Latvia	-0.13	(0.03)	49.4	(2.0)	27.9	(1.8)	20.6	(1.4)	17.1	(1.5)	63.0	(1.9)
	Liechtenstein	-0.66	(0.18)	38.3	(8.0)	12.5	(5.4)	5.4	(3.9)	9.9	(4.2)	40.5	(7.7)
	Lithuania	-0.27	(0.04)	50.2	(2.0)	28.8	(1.7)	26.2	(1.6)	21.9	(1.4)	66.2	(1.9)
	Macao-China	0.20	(0.03)	68.6	(1.5)	33.7	(1.6)	38.3	(1.6)	36.7	(1.7)	65.7	(1.7)
	Malaysia	0.38	(0.03)	74.9	(1.5)	40.5	(1.8)	51.3	(1.7)	37.4	(1.6)	79.5	(1.4)
	Montenegro	0.03	(0.04)	57.8	(1.8)	31.4	(1.6)	40.4	(1.8)	24.3	(2.0)	60.0	(2.0)
	Peru	0.32	(0.03)	72.8	(1.4)	41.2	(1.5)	43.3	(1.6)	29.0	(1.3)	84.6	(1.4)
	Qatar	0.17	(0.03)	64.4	(1.2)	43.2	(1.2)	42.0	(1.2)	40.9	(1.1)	59.7	(1.4)
	Romania	0.10	(0.04)	67.5	(1.9)	35.3	(1.9)	35.2	(1.9)	32.3	(1.9)	58.1	(1.9)
	Russian Federation	-0.07	(0.04)	51.1	(2.1)	31.1	(1.2)	29.0	(1.4)	18.4	(1.7)	67.8	(1.7)
	Serbia	-0.04	(0.04)	53.0	(2.0)	26.6	(1.6)	34.7	(2.1)	23.1	(1.8)	68.7	(1.8)
	Shanghai-China	-0.10	(0.04)	47.4	(2.0)	29.5	(2.1)	24.3	(1.6)	23.0	(1.5)	67.4	(1.8)
	Singapore	-0.10	(0.03)	48.8	(1.7)	23.2	(1.3)	28.1	(1.4)	19.4	(1.2)	64.9	(1.5)
	Chinese Taipei	0.15	(0.04)	64.3	(1.8)	26.3	(1.4)	37.0	(1.5)	32.5	(1.5)	74.6	(1.7)
	Thailand	0.49	(0.03)	72.9	(1.5)	51.7	(1.8)	60.5	(1.4)	49.2	(1.8)	79.3	(1.4)
	Tunisia	0.54	(0.04)	73.4	(2.3)	66.5	(2.5)	48.6	(2.6)	37.7	(3.0)	79.4	(1.9)
	United Arab Emirates	0.01	(0.04)	60.6	(1.4)	29.9	(1.6)	34.3	(1.7)	27.8	(1.7)	61.8	(1.3)
	Uruguay	0.16	(0.04)	71.5	(1.9)	33.9	(1.9)	31.6	(1.3)	28.4	(1.4)	75.2	(1.7)
	Viet Nam	0.17	(0.03)	71.2	(1.9)	25.1	(1.8)	41.2	(2.0)	34.3	(2.1)	72.7	(1.7)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. Socio-economically disadvantaged students are students who are in the bottom quarter in their country with respect to the *PISA index of economic, social and cultural status*.
2. Socio-economically advantaged students are students who are in the top quarter in their country with respect to the *PISA index of economic, social and cultural status*.
* See notes at the beginning of this Annex.

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[Part 3/3]

Table III.4.3c **Students and mathematics anxiety, by socio-economic status**
Percentage of students who reported that they "agree" or "strongly agree"

		Socio-economic disparity in the index of mathematics anxiety		Socio-economic disparity in the percentage of students who agreed with the following statements:									
				I often worry that it will be difficult for me in mathematics classes		I get very tense when I have to do mathematics homework		I get very nervous doing mathematics problems		I feel helpless when doing a mathematics problem		I worry that I will get poor <grades> in mathematics	
		Dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.
OECD	**Australia**	**-0.25**	(0.04)	**-8.6**	(1.6)	**-11.4**	(1.7)	**-7.9**	(1.4)	**-10.2**	(1.5)	**-5.7**	(1.6)
	Austria	**-0.34**	(0.07)	**-9.6**	(2.8)	**-10.2**	(2.5)	**-13.8**	(2.9)	**-5.9**	(2.4)	**-9.3**	(3.2)
	Belgium	-0.06	(0.04)	1.0	(2.0)	**-10.3**	(1.7)	**-5.0**	(1.9)	**-9.0**	(2.0)	**7.4**	(2.3)
	Canada	**-0.30**	(0.04)	**-11.8**	(1.6)	**-8.9**	(1.6)	**-9.0**	(1.9)	**-10.5**	(1.5)	**-7.1**	(1.6)
	Chile	**-0.24**	(0.03)	**-6.2**	(2.1)	**-16.0**	(2.5)	**-11.9**	(2.2)	**-8.7**	(2.3)	1.0	(1.4)
	Czech Republic	**-0.39**	(0.05)	**-15.1**	(2.7)	**-14.6**	(2.6)	**-10.4**	(2.8)	**-13.5**	(2.6)	**-10.4**	(2.7)
	Denmark	**-0.56**	(0.05)	**-21.7**	(2.7)	**-14.6**	(2.1)	**-11.7**	(1.9)	**-13.1**	(1.9)	**-16.7**	(2.8)
	Estonia	**-0.27**	(0.06)	**-10.6**	(3.0)	**-9.3**	(2.6)	-3.3	(2.1)	**-6.1**	(2.3)	**-12.5**	(2.9)
	Finland	**-0.20**	(0.04)	-4.6	(2.4)	-0.4	(1.4)	**-5.5**	(1.9)	**-11.0**	(2.0)	-1.9	(2.4)
	France	**-0.17**	(0.06)	**-10.7**	(2.8)	-0.8	(3.1)	**-6.8**	(2.6)	**-19.8**	(2.3)	3.9	(2.7)
	Germany	**-0.37**	(0.06)	**-11.9**	(2.5)	**-11.9**	(2.3)	**-6.3**	(2.1)	-3.9	(2.5)	**-13.5**	(2.6)
	Greece	**-0.51**	(0.05)	**-18.3**	(2.7)	**-20.3**	(2.8)	**-15.0**	(2.9)	**-18.9**	(2.1)	**-26.1**	(2.4)
	Hungary	**-0.44**	(0.05)	**-17.9**	(2.4)	**-12.4**	(2.6)	**-11.8**	(2.1)	**-17.5**	(2.7)	**-12.4**	(2.7)
	Iceland	**-0.43**	(0.06)	**-18.3**	(2.9)	**-12.6**	(2.3)	**-8.7**	(2.4)	**-10.4**	(2.5)	**-13.4**	(3.0)
	Ireland	**-0.32**	(0.05)	**-9.2**	(2.3)	**-12.9**	(2.7)	**-14.5**	(2.4)	**-14.1**	(2.4)	-4.0	(2.7)
	Israel	-0.11	(0.06)	-2.1	(2.5)	**-9.2**	(2.4)	**-7.5**	(2.4)	**-6.3**	(2.2)	**6.2**	(2.7)
	Italy	**-0.12**	(0.02)	-2.2	(1.2)	**-8.7**	(1.4)	**-6.9**	(1.3)	**-11.4**	(1.4)	**2.8**	(1.3)
	Japan	**-0.11**	(0.05)	-1.5	(2.1)	**-8.4**	(2.1)	**-4.8**	(2.0)	**-4.4**	(2.0)	0.6	(2.4)
	Korea	**-0.21**	(0.04)	**-14.5**	(1.9)	**-13.6**	(2.2)	-2.6	(2.6)	**-11.9**	(2.6)	3.0	(2.1)
	Luxembourg	**-0.43**	(0.05)	**-12.8**	(2.2)	**-14.5**	(2.1)	**-10.9**	(1.8)	**-14.3**	(2.0)	**-13.3**	(2.3)
	Mexico	**-0.10**	(0.02)	**-6.5**	(1.1)	**-5.9**	(1.2)	**-9.0**	(1.2)	**-7.4**	(1.2)	1.2	(1.2)
	Netherlands	-0.08	(0.06)	-3.5	(3.5)	-0.8	(1.9)	**-5.1**	(2.5)	-4.2	(2.6)	-2.1	(3.1)
	New Zealand	**-0.38**	(0.06)	**-13.4**	(2.6)	**-16.0**	(3.4)	**-16.4**	(2.7)	**-16.5**	(2.5)	**-6.9**	(2.5)
	Norway	**-0.39**	(0.06)	**-17.5**	(2.7)	**-18.4**	(2.7)	**-8.6**	(2.1)	**-15.6**	(2.9)	**-9.0**	(2.9)
	Poland	**-0.49**	(0.07)	**-22.7**	(2.8)	**-12.1**	(2.9)	**-16.5**	(2.9)	**-20.3**	(3.1)	**-13.1**	(2.6)
	Portugal	**-0.37**	(0.05)	**-15.6**	(2.5)	**-13.0**	(2.2)	**-13.3**	(2.3)	**-23.4**	(2.5)	-3.8	(2.6)
	Slovak Republic	**-0.39**	(0.06)	**-13.4**	(3.3)	**-24.1**	(2.4)	**-19.2**	(2.5)	**-15.6**	(2.9)	-1.8	(3.1)
	Slovenia	**-0.15**	(0.06)	-5.1	(2.9)	**-7.1**	(2.2)	**-10.4**	(3.2)	**-7.6**	(2.6)	-3.3	(2.9)
	Spain	**-0.22**	(0.03)	**-12.5**	(1.8)	**-13.1**	(1.7)	**-9.2**	(1.9)	**-10.8**	(1.7)	0.4	(1.6)
	Sweden	**-0.36**	(0.04)	**-15.6**	(2.4)	**-9.6**	(2.1)	**-7.2**	(1.8)	**-10.7**	(2.3)	**-10.9**	(2.7)
	Switzerland	**-0.10**	(0.04)	-1.2	(2.2)	**-4.4**	(1.9)	-2.2	(1.7)	-2.5	(2.3)	0.5	(2.0)
	Turkey	**-0.21**	(0.07)	**-9.6**	(2.7)	**-15.1**	(2.9)	**-8.8**	(2.7)	**-8.3**	(2.4)	-1.3	(2.3)
	United Kingdom	**-0.37**	(0.05)	**-11.7**	(2.2)	**-10.5**	(2.1)	**-11.6**	(2.2)	**-10.3**	(1.8)	**-13.5**	(2.4)
	United States	**-0.35**	(0.06)	**-10.5**	(3.0)	**-9.6**	(2.6)	**-8.1**	(2.4)	**-13.4**	(2.3)	**-12.4**	(2.4)
	OECD average	**-0.29**	(0.01)	**-10.8**	(0.4)	**-11.2**	(0.4)	**-9.4**	(0.4)	**-11.4**	(0.4)	**-5.8**	(0.4)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**-0.25**	(0.05)	**-9.1**	(2.1)	**-13.3**	(2.5)	**-12.5**	(2.8)	**-10.8**	(2.6)	**-4.6**	(1.9)
	Brazil	**-0.14**	(0.03)	**-12.3**	(2.1)	**-9.9**	(1.9)	**-10.8**	(2.2)	**-8.9**	(2.0)	2.1	(1.1)
	Bulgaria	**-0.67**	(0.05)	**-21.1**	(2.4)	**-28.2**	(2.6)	**-23.0**	(2.3)	**-28.1**	(2.7)	**-18.3**	(2.2)
	Colombia	**-0.16**	(0.05)	**-7.7**	(2.6)	**-7.9**	(3.4)	**-13.3**	(2.9)	**-9.1**	(2.3)	-0.7	(2.0)
	Costa Rica	**-0.13**	(0.05)	**-10.3**	(2.5)	**-6.8**	(2.5)	-5.2	(2.7)	**-7.9**	(2.4)	1.4	(2.0)
	Croatia	**-0.24**	(0.06)	**-8.5**	(2.6)	**-10.7**	(2.6)	**-11.5**	(3.0)	**-13.9**	(2.6)	-5.0	(2.6)
	Cyprus*	**-0.57**	(0.05)	**-22.7**	(2.4)	**-13.7**	(2.4)	**-21.1**	(2.3)	**-18.5**	(2.6)	**-19.3**	(2.5)
	Hong Kong-China	**-0.17**	(0.05)	**-10.0**	(2.6)	**-7.7**	(2.6)	-2.3	(2.6)	**-8.0**	(2.4)	**-7.4**	(2.6)
	Indonesia	0.02	(0.04)	2.2	(2.6)	-5.7	(3.3)	2.4	(2.7)	-0.3	(2.6)	**11.6**	(2.7)
	Jordan	**-0.10**	(0.03)	**-8.6**	(2.1)	**-14.4**	(2.3)	**-11.9**	(2.3)	**11.4**	(2.4)	1.7	(2.0)
	Kazakhstan	**-0.31**	(0.06)	**-9.5**	(3.6)	**-20.4**	(3.0)	**-21.0**	(2.8)	**-16.4**	(2.3)	**-6.9**	(2.6)
	Latvia	**-0.27**	(0.05)	**-14.1**	(3.3)	**-10.4**	(3.5)	**-7.3**	(2.7)	**-11.7**	(2.8)	**-5.8**	(2.9)
	Liechtenstein	**-0.70**	(0.20)	**-21.3**	(10.5)	**-30.0**	(8.7)	**-13.8**	(6.5)	**-25.6**	(8.2)	**-26.3**	(10.2)
	Lithuania	**-0.34**	(0.05)	**-11.5**	(2.6)	**-13.1**	(2.6)	**-14.2**	(2.5)	**-13.3**	(2.2)	-3.6	(2.5)
	Macao-China	-0.03	(0.05)	**-4.7**	(2.0)	0.7	(2.2)	3.2	(2.3)	**-6.5**	(2.8)	-1.5	(2.4)
	Malaysia	-0.02	(0.04)	-0.1	(1.9)	-4.9	(2.7)	**-5.0**	(2.4)	**-8.3**	(2.5)	**11.5**	(2.1)
	Montenegro	**-0.26**	(0.04)	**-11.3**	(2.3)	**-13.7**	(2.5)	**-12.2**	(2.4)	**-15.4**	(2.5)	**-8.0**	(2.5)
	Peru	-0.03	(0.04)	3.1	(2.0)	**-7.4**	(2.2)	-4.3	(2.6)	**-15.9**	(2.6)	**7.2**	(2.3)
	Qatar	**-0.23**	(0.03)	**-11.1**	(1.5)	**-8.8**	(1.7)	**-9.5**	(1.8)	**-12.3**	(1.7)	**-5.5**	(1.7)
	Romania	**-0.43**	(0.05)	**-14.4**	(2.3)	**-19.3**	(2.9)	**-23.2**	(2.5)	**-20.6**	(2.5)	**-14.7**	(2.2)
	Russian Federation	**-0.34**	(0.05)	**-12.4**	(3.1)	**-17.4**	(2.1)	**-17.3**	(2.4)	**-15.3**	(2.5)	-4.1	(2.5)
	Serbia	**-0.38**	(0.05)	**-17.1**	(2.6)	**-14.7**	(2.2)	**-14.8**	(2.8)	**-17.4**	(2.3)	**-8.2**	(2.5)
	Shanghai-China	**-0.23**	(0.05)	**-12.4**	(2.4)	**-6.7**	(2.9)	**-5.9**	(2.4)	**-10.1**	(2.3)	**-5.5**	(2.3)
	Singapore	**-0.50**	(0.04)	**-21.3**	(2.2)	**-23.8**	(2.1)	**-18.5**	(2.2)	**-17.2**	(2.0)	**-16.2**	(1.9)
	Chinese Taipei	**-0.30**	(0.05)	**-12.7**	(2.3)	**-17.6**	(2.1)	**-7.5**	(2.2)	**-23.0**	(2.5)	-2.4	(2.2)
	Thailand	0.02	(0.04)	-0.8	(2.2)	-4.2	(2.9)	**-5.1**	(2.2)	-3.8	(2.7)	**4.4**	(2.1)
	Tunisia	**-0.11**	(0.06)	**-9.5**	(2.9)	-0.4	(3.2)	**-8.4**	(3.4)	**-18.6**	(3.8)	0.3	(2.4)
	United Arab Emirates	**-0.40**	(0.05)	**-15.6**	(2.0)	**-16.7**	(2.0)	**-13.1**	(2.2)	**-15.2**	(2.0)	**-12.5**	(1.8)
	Uruguay	**-0.40**	(0.05)	**-8.1**	(2.3)	**-18.8**	(2.6)	**-18.3**	(2.4)	**-18.1**	(2.2)	**-7.9**	(2.4)
	Viet Nam	**-0.11**	(0.04)	**-4.7**	(2.2)	**-13.0**	(2.4)	**-6.1**	(2.9)	**-9.8**	(2.7)	0.2	(2.1)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. Socio-economically disadvantaged students are students who are in the bottom quarter in their country with respect to the *PISA index of economic, social and cultural status*.
2. Socio-economically advantaged students are students who are in the top quarter in their country with respect to the *PISA index of economic, social and cultural status*.
* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.4.3d Index of mathematics anxiety and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Index of mathematics anxiety																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	Standard deviation	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	0.03	(0.01)	0.93	(0.01)	-0.14	(0.02)	0.20	(0.02)	**-0.33**	(0.02)	-1.12	(0.02)	-0.23	(0.01)	0.29	(0.01)	1.17	(0.02)
	Austria	-0.23	(0.03)	1.13	(0.01)	-0.40	(0.04)	-0.05	(0.03)	**-0.35**	(0.04)	-1.70	(0.03)	-0.58	(0.03)	0.18	(0.03)	1.20	(0.04)
	Belgium	0.06	(0.02)	0.96	(0.01)	-0.14	(0.02)	0.24	(0.02)	**-0.38**	(0.03)	-1.13	(0.03)	-0.20	(0.02)	0.34	(0.02)	1.22	(0.03)
	Canada	0.01	(0.02)	1.07	(0.01)	-0.19	(0.02)	0.20	(0.02)	**-0.39**	(0.03)	-1.36	(0.03)	-0.25	(0.01)	0.35	(0.02)	1.30	(0.02)
	Chile	0.42	(0.02)	0.77	(0.01)	0.30	(0.02)	0.54	(0.02)	**-0.24**	(0.02)	-0.51	(0.02)	0.20	(0.01)	0.63	(0.02)	1.37	(0.03)
	Czech Republic	-0.02	(0.02)	0.94	(0.02)	-0.12	(0.03)	0.09	(0.03)	**-0.21**	(0.04)	-1.17	(0.04)	-0.29	(0.02)	0.25	(0.02)	1.13	(0.03)
	Denmark	-0.37	(0.02)	1.04	(0.01)	-0.63	(0.03)	-0.12	(0.02)	**-0.51**	(0.04)	-1.74	(0.03)	-0.61	(0.02)	-0.04	(0.02)	0.90	(0.03)
	Estonia	-0.16	(0.02)	0.99	(0.01)	-0.26	(0.03)	-0.06	(0.03)	**-0.20**	(0.04)	-1.43	(0.03)	-0.40	(0.02)	0.13	(0.03)	1.06	(0.02)
	Finland	-0.33	(0.02)	0.90	(0.01)	-0.52	(0.02)	-0.13	(0.02)	**-0.39**	(0.03)	-1.50	(0.03)	-0.53	(0.02)	-0.03	(0.02)	0.75	(0.02)
	France	0.28	(0.02)	0.92	(0.01)	0.05	(0.03)	0.49	(0.02)	**-0.43**	(0.03)	-0.87	(0.03)	0.04	(0.02)	0.57	(0.02)	1.39	(0.03)
	Germany	-0.28	(0.02)	1.14	(0.02)	-0.49	(0.03)	-0.08	(0.03)	**-0.41**	(0.04)	-1.77	(0.03)	-0.63	(0.03)	0.11	(0.03)	1.14	(0.04)
	Greece	0.12	(0.02)	0.97	(0.02)	0.01	(0.02)	0.24	(0.03)	**-0.23**	(0.03)	-1.09	(0.03)	-0.16	(0.02)	0.44	(0.03)	1.31	(0.02)
	Hungary	-0.05	(0.02)	0.95	(0.01)	-0.17	(0.03)	0.05	(0.03)	**-0.22**	(0.05)	-1.27	(0.03)	-0.27	(0.02)	0.24	(0.02)	1.09	(0.03)
	Iceland	-0.33	(0.02)	1.06	(0.02)	-0.48	(0.03)	-0.18	(0.03)	**-0.29**	(0.04)	-1.76	(0.04)	-0.53	(0.03)	0.02	(0.02)	0.95	(0.03)
	Ireland	0.11	(0.02)	0.91	(0.01)	-0.05	(0.03)	0.27	(0.02)	**-0.32**	(0.03)	-1.02	(0.03)	-0.13	(0.02)	0.37	(0.02)	1.21	(0.02)
	Israel	-0.06	(0.02)	1.05	(0.02)	-0.20	(0.03)	0.08	(0.03)	**-0.29**	(0.04)	-1.39	(0.03)	-0.38	(0.03)	0.27	(0.02)	1.26	(0.04)
	Italy	0.30	(0.01)	0.86	(0.01)	0.20	(0.01)	0.42	(0.01)	**-0.22**	(0.02)	-0.77	(0.02)	0.08	(0.01)	0.57	(0.01)	1.33	(0.01)
	Japan	0.36	(0.02)	1.01	(0.01)	0.22	(0.02)	0.52	(0.03)	**-0.30**	(0.04)	-0.88	(0.03)	0.05	(0.02)	0.63	(0.02)	1.63	(0.03)
	Korea	0.31	(0.02)	0.84	(0.01)	0.20	(0.02)	0.42	(0.02)	**-0.21**	(0.03)	-0.72	(0.03)	0.10	(0.02)	0.54	(0.02)	1.29	(0.02)
	Luxembourg	-0.10	(0.02)	1.13	(0.01)	-0.30	(0.03)	0.10	(0.02)	**-0.41**	(0.04)	-1.60	(0.03)	-0.37	(0.02)	0.31	(0.02)	1.26	(0.03)
	Mexico	0.45	(0.01)	0.81	(0.01)	0.35	(0.01)	0.54	(0.01)	**-0.20**	(0.02)	-0.54	(0.01)	0.21	(0.01)	0.68	(0.01)	1.44	(0.01)
	Netherlands	-0.39	(0.02)	0.91	(0.02)	-0.52	(0.03)	-0.26	(0.03)	**-0.26**	(0.04)	-1.57	(0.04)	-0.54	(0.01)	-0.16	(0.02)	0.70	(0.03)
	New Zealand	0.10	(0.02)	0.89	(0.01)	-0.07	(0.03)	0.27	(0.02)	**-0.34**	(0.03)	-0.98	(0.03)	-0.14	(0.02)	0.34	(0.02)	1.17	(0.03)
	Norway	0.02	(0.02)	1.05	(0.01)	-0.16	(0.03)	0.20	(0.03)	**-0.36**	(0.04)	-1.30	(0.04)	-0.25	(0.02)	0.30	(0.02)	1.31	(0.03)
	Poland	-0.03	(0.03)	1.03	(0.02)	-0.09	(0.04)	0.03	(0.03)	**-0.11**	(0.05)	-1.33	(0.05)	-0.28	(0.02)	0.27	(0.02)	1.22	(0.04)
	Portugal	0.01	(0.02)	0.82	(0.01)	-0.05	(0.02)	0.08	(0.02)	**-0.13**	(0.03)	-1.03	(0.02)	-0.17	(0.02)	0.27	(0.02)	0.99	(0.02)
	Slovak Republic	0.01	(0.02)	0.96	(0.02)	-0.10	(0.03)	0.12	(0.02)	**-0.22**	(0.03)	-1.15	(0.04)	-0.28	(0.02)	0.28	(0.02)	1.18	(0.03)
	Slovenia	0.07	(0.02)	0.95	(0.01)	-0.01	(0.02)	0.15	(0.03)	**-0.17**	(0.04)	-1.13	(0.03)	-0.17	(0.02)	0.36	(0.02)	1.22	(0.02)
	Spain	0.21	(0.01)	0.90	(0.01)	0.07	(0.02)	0.36	(0.02)	**-0.29**	(0.02)	-0.92	(0.02)	-0.03	(0.01)	0.49	(0.01)	1.30	(0.02)
	Sweden	-0.35	(0.02)	0.99	(0.01)	-0.51	(0.03)	-0.18	(0.03)	**-0.34**	(0.04)	-1.66	(0.03)	-0.54	(0.02)	-0.02	(0.02)	0.84	(0.02)
	Switzerland	-0.29	(0.02)	1.03	(0.01)	-0.55	(0.03)	-0.04	(0.03)	**-0.51**	(0.03)	-1.65	(0.03)	-0.55	(0.03)	0.06	(0.02)	0.96	(0.03)
	Turkey	0.28	(0.02)	1.04	(0.01)	0.29	(0.03)	0.27	(0.03)	0.02	(0.04)	-1.03	(0.03)	0.01	(0.02)	0.58	(0.02)	1.54	(0.03)
	United Kingdom	-0.14	(0.02)	0.93	(0.01)	-0.35	(0.03)	0.06	(0.02)	**-0.42**	(0.03)	-1.32	(0.03)	-0.36	(0.02)	0.12	(0.02)	1.00	(0.03)
	United States	-0.11	(0.02)	1.06	(0.01)	-0.20	(0.03)	-0.01	(0.03)	**-0.19**	(0.04)	-1.47	(0.03)	-0.37	(0.02)	0.23	(0.03)	1.19	(0.03)
	OECD average	0.00	(0.00)	0.97	(0.00)	-0.15	(0.00)	0.14	(0.00)	**-0.29**	(0.01)	-1.23	(0.01)	-0.25	(0.00)	0.29	(0.00)	1.18	(0.00)
Partners	**Albania**	0.14	(0.02)	0.90	(0.02)	0.16	(0.03)	0.13	(0.02)	0.03	(0.05)	-1.00	(0.03)	-0.09	(0.02)	0.45	(0.03)	1.22	(0.03)
	Argentina	0.54	(0.02)	0.86	(0.01)	0.48	(0.02)	0.61	(0.03)	**-0.13**	(0.03)	-0.50	(0.03)	0.31	(0.02)	0.76	(0.02)	1.60	(0.03)
	Brazil	0.51	(0.01)	0.77	(0.01)	0.41	(0.02)	0.60	(0.01)	**-0.19**	(0.02)	-0.39	(0.02)	0.25	(0.01)	0.69	(0.01)	1.50	(0.02)
	Bulgaria	0.26	(0.02)	1.00	(0.01)	0.24	(0.03)	0.28	(0.02)	-0.04	(0.04)	-0.99	(0.04)	-0.01	(0.02)	0.56	(0.02)	1.47	(0.03)
	Colombia	0.35	(0.02)	0.80	(0.01)	0.27	(0.02)	0.42	(0.02)	**-0.15**	(0.03)	-0.62	(0.03)	0.14	(0.02)	0.58	(0.02)	1.31	(0.03)
	Costa Rica	0.42	(0.02)	0.91	(0.01)	0.20	(0.03)	0.60	(0.03)	**-0.40**	(0.03)	-0.70	(0.03)	0.14	(0.03)	0.70	(0.03)	1.53	(0.03)
	Croatia	0.13	(0.02)	0.98	(0.01)	0.06	(0.03)	0.19	(0.03)	**-0.13**	(0.04)	-1.08	(0.03)	-0.16	(0.02)	0.41	(0.03)	1.33	(0.03)
	Cyprus*	0.03	(0.02)	1.02	(0.01)	0.00	(0.02)	0.07	(0.02)	**-0.08**	(0.03)	-1.29	(0.03)	-0.19	(0.02)	0.37	(0.02)	1.25	(0.03)
	Hong Kong-China	0.11	(0.02)	0.92	(0.02)	-0.05	(0.03)	0.30	(0.02)	**-0.34**	(0.03)	-1.02	(0.03)	-0.13	(0.02)	0.35	(0.03)	1.25	(0.03)
	Indonesia	0.28	(0.02)	0.69	(0.01)	0.26	(0.02)	0.30	(0.02)	-0.04	(0.02)	-0.56	(0.03)	0.09	(0.02)	0.48	(0.02)	1.12	(0.02)
	Jordan	0.51	(0.01)	0.78	(0.02)	0.60	(0.03)	0.42	(0.01)	**0.19**	(0.03)	-0.39	(0.02)	0.26	(0.02)	0.67	(0.01)	1.48	(0.03)
	Kazakhstan	0.03	(0.03)	0.84	(0.02)	0.06	(0.04)	0.01	(0.03)	0.05	(0.04)	-0.99	(0.04)	-0.20	(0.03)	0.29	(0.03)	1.02	(0.03)
	Latvia	0.02	(0.02)	0.81	(0.02)	-0.01	(0.03)	0.06	(0.03)	**-0.07**	(0.04)	-0.95	(0.03)	-0.21	(0.02)	0.26	(0.02)	1.01	(0.03)
	Liechtenstein	-0.29	(0.07)	1.00	(0.06)	-0.49	(0.10)	-0.05	(0.12)	**-0.45**	(0.16)	-1.54	(0.12)	-0.55	(0.07)	0.00	(0.07)	0.95	(0.14)
	Lithuania	-0.07	(0.02)	1.03	(0.01)	-0.17	(0.03)	0.03	(0.03)	**-0.20**	(0.04)	-1.43	(0.03)	-0.33	(0.03)	0.29	(0.02)	1.18	(0.03)
	Macao-China	0.19	(0.02)	0.99	(0.01)	0.00	(0.02)	0.38	(0.02)	**-0.38**	(0.03)	-1.06	(0.03)	-0.08	(0.02)	0.49	(0.02)	1.40	(0.02)
	Malaysia	0.43	(0.01)	0.78	(0.01)	0.43	(0.02)	0.43	(0.02)	-0.01	(0.03)	-0.52	(0.02)	0.22	(0.02)	0.66	(0.01)	1.36	(0.03)
	Montenegro	0.18	(0.02)	0.93	(0.02)	0.17	(0.03)	0.20	(0.03)	-0.03	(0.04)	-0.98	(0.04)	-0.05	(0.02)	0.47	(0.02)	1.29	(0.03)
	Peru	0.34	(0.01)	0.72	(0.01)	0.27	(0.02)	0.40	(0.02)	**-0.12**	(0.03)	-0.55	(0.02)	0.14	(0.02)	0.56	(0.02)	1.20	(0.02)
	Qatar	0.27	(0.01)	1.09	(0.01)	0.31	(0.02)	0.22	(0.02)	**0.09**	(0.03)	-1.14	(0.02)	0.01	(0.02)	0.63	(0.01)	1.57	(0.02)
	Romania	0.39	(0.02)	0.83	(0.02)	0.38	(0.03)	0.39	(0.03)	-0.01	(0.04)	-0.62	(0.04)	0.16	(0.02)	0.63	(0.02)	1.39	(0.03)
	Russian Federation	0.10	(0.02)	0.84	(0.01)	0.04	(0.02)	0.18	(0.02)	**-0.14**	(0.02)	-0.93	(0.03)	-0.10	(0.02)	0.35	(0.02)	1.10	(0.03)
	Serbia	0.19	(0.02)	0.95	(0.02)	0.19	(0.03)	0.18	(0.03)	0.02	(0.03)	-1.00	(0.03)	-0.07	(0.03)	0.49	(0.02)	1.33	(0.03)
	Shanghai-China	0.03	(0.02)	0.94	(0.02)	-0.17	(0.03)	0.22	(0.02)	**-0.39**	(0.04)	-1.11	(0.03)	-0.22	(0.02)	0.29	(0.02)	1.16	(0.03)
	Singapore	0.16	(0.01)	0.92	(0.01)	0.10	(0.02)	0.23	(0.02)	**-0.13**	(0.03)	-1.00	(0.02)	-0.09	(0.02)	0.47	(0.02)	1.27	(0.02)
	Chinese Taipei	0.31	(0.02)	0.94	(0.01)	0.16	(0.02)	0.46	(0.02)	**-0.30**	(0.03)	-0.84	(0.03)	0.05	(0.02)	0.57	(0.02)	1.46	(0.03)
	Thailand	0.51	(0.01)	0.63	(0.01)	0.47	(0.02)	0.54	(0.02)	**-0.07**	(0.02)	-0.26	(0.02)	0.33	(0.02)	0.70	(0.01)	1.27	(0.02)
	Tunisia	0.65	(0.02)	0.86	(0.01)	0.60	(0.03)	0.69	(0.02)	**-0.09**	(0.03)	-0.42	(0.03)	0.43	(0.02)	0.87	(0.02)	1.71	(0.03)
	United Arab Emirates	0.19	(0.02)	0.98	(0.01)	0.24	(0.03)	0.15	(0.02)	**0.08**	(0.03)	-1.06	(0.03)	-0.07	(0.03)	0.52	(0.01)	1.39	(0.02)
	Uruguay	0.37	(0.02)	0.93	(0.01)	0.26	(0.02)	0.47	(0.03)	**-0.21**	(0.03)	-0.80	(0.03)	0.12	(0.02)	0.65	(0.02)	1.51	(0.03)
	Viet Nam	0.22	(0.02)	0.63	(0.01)	0.15	(0.02)	0.27	(0.02)	**-0.11**	(0.02)	-0.57	(0.02)	0.03	(0.02)	0.43	(0.01)	0.97	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 2/2]

Table III.4.3d Index of mathematics anxiety and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	Australia	**555**	(3.3)	514	(2.5)	489	(3.3)	**459**	(2.8)	**-39.3**	(1.2)	0.3	(0.0)	14.9	(0.8)
	Austria	**557**	(4.2)	518	(4.6)	490	(4.1)	**468**	(4.5)	**-30.1**	(1.7)	0.4	(0.1)	14.1	(1.3)
	Belgium	**550**	(3.8)	540	(3.4)	513	(4.0)	**483**	(3.4)	**-26.9**	(1.8)	0.6	(0.1)	6.9	(0.9)
	Canada	**572**	(3.1)	529	(3.1)	501	(3.1)	**478**	(2.2)	**-33.9**	(1.1)	0.3	(0.0)	16.9	(1.0)
	Chile	**464**	(4.7)	428	(4.1)	406	(4.2)	**395**	(3.5)	**-35.2**	(2.1)	0.5	(0.1)	11.2	(1.2)
	Czech Republic	**557**	(4.3)	518	(4.5)	485	(4.9)	**456**	(4.3)	**-40.2**	(1.9)	0.3	(0.0)	17.6	(1.6)
	Denmark	**561**	(3.4)	519	(3.7)	489	(3.6)	**450**	(3.6)	**-40.1**	(1.4)	0.2	(0.0)	26.0	(1.4)
	Estonia	**572**	(4.1)	536	(3.7)	499	(3.7)	**475**	(3.4)	**-38.3**	(1.6)	0.3	(0.0)	22.1	(1.4)
	Finland	**575**	(3.4)	532	(3.1)	505	(3.1)	**479**	(2.5)	**-40.8**	(1.5)	0.3	(0.0)	19.8	(1.3)
	France	**533**	(4.7)	506	(4.1)	489	(4.4)	**462**	(4.0)	**-31.2**	(2.1)	0.6	(0.1)	8.8	(1.2)
	Germany	**570**	(5.0)	533	(4.4)	506	(4.5)	**482**	(4.3)	**-30.1**	(1.6)	0.4	(0.1)	14.2	(1.4)
	Greece	**505**	(4.0)	465	(4.1)	438	(4.7)	**414**	(3.3)	**-35.5**	(1.7)	0.3	(0.0)	15.6	(1.2)
	Hungary	**535**	(6.2)	486	(4.8)	459	(4.6)	**432**	(3.9)	**-40.2**	(2.3)	0.3	(0.1)	17.6	(1.7)
	Iceland	**557**	(4.3)	508	(4.5)	474	(4.5)	**449**	(3.6)	**-38.4**	(1.8)	0.3	(0.0)	20.0	(1.6)
	Ireland	**545**	(4.1)	509	(4.5)	487	(4.5)	**464**	(3.5)	**-35.5**	(1.7)	0.5	(0.1)	14.4	(1.3)
	Israel	**504**	(6.5)	482	(5.7)	467	(6.5)	**444**	(5.7)	**-21.9**	(2.3)	0.6	(0.1)	5.1	(1.0)
	Italy	**523**	(3.0)	498	(2.9)	476	(3.2)	**453**	(2.4)	**-30.7**	(1.2)	0.5	(0.0)	8.2	(0.6)
	Japan	**558**	(5.3)	549	(4.5)	534	(4.6)	**510**	(4.5)	**-18.9**	(1.8)	0.7	(0.1)	4.2	(0.8)
	Korea	**578**	(6.8)	563	(5.1)	550	(5.7)	**527**	(5.1)	**-23.7**	(2.5)	0.8	(0.1)	4.1	(0.8)
	Luxembourg	**535**	(3.1)	506	(3.4)	473	(3.3)	**446**	(2.8)	**-29.0**	(1.3)	0.5	(0.1)	12.3	(1.0)
	Mexico	**451**	(2.1)	420	(1.8)	400	(1.8)	**387**	(1.6)	**-31.3**	(1.1)	0.5	(0.0)	11.7	(0.7)
	Netherlands	**554**	(4.5)	537	(5.3)	524	(4.6)	**503**	(5.4)	**-20.9**	(2.1)	0.6	(0.1)	4.9	(0.9)
	New Zealand	**559**	(4.9)	507	(4.5)	486	(4.5)	**447**	(3.7)	**-49.1**	(1.8)	0.3	(0.0)	19.8	(1.5)
	Norway	**555**	(4.8)	502	(4.8)	473	(4.0)	**432**	(4.1)	**-45.5**	(1.4)	0.3	(0.0)	27.2	(1.5)
	Poland	**588**	(6.6)	535	(5.0)	493	(4.8)	**459**	(3.6)	**-47.5**	(2.2)	0.2	(0.0)	28.6	(2.1)
	Portugal	**534**	(5.3)	498	(4.6)	480	(4.8)	**449**	(4.1)	**-40.3**	(2.3)	0.4	(0.1)	12.9	(1.3)
	Slovak Republic	**537**	(5.4)	507	(5.4)	464	(5.3)	**429**	(5.1)	**-43.4**	(2.5)	0.4	(0.1)	17.4	(1.5)
	Slovenia	**541**	(4.1)	512	(5.3)	495	(4.6)	**470**	(3.3)	**-27.0**	(2.0)	0.5	(0.1)	8.0	(1.1)
	Spain	**522**	(2.9)	494	(3.0)	471	(2.7)	**457**	(2.8)	**-27.9**	(1.2)	0.5	(0.0)	8.4	(0.7)
	Sweden	**536**	(3.7)	494	(4.6)	465	(3.8)	**434**	(3.5)	**-38.1**	(1.7)	0.3	(0.0)	18.0	(1.3)
	Switzerland	**570**	(3.9)	543	(4.2)	521	(4.1)	**493**	(4.2)	**-28.8**	(1.5)	0.5	(0.0)	10.2	(0.9)
	Turkey	**488**	(8.8)	458	(5.6)	431	(5.7)	**420**	(3.9)	**-25.0**	(2.7)	0.4	(0.1)	8.3	(1.4)
	United Kingdom	**551**	(5.1)	503	(4.0)	486	(4.2)	**451**	(3.9)	**-39.9**	(1.6)	0.3	(0.0)	15.9	(1.3)
	United States	**536**	(4.7)	491	(5.3)	471	(4.9)	**438**	(4.4)	**-34.2**	(1.6)	0.3	(0.0)	16.5	(1.3)
	OECD average	**542**	(0.8)	507	(0.7)	482	(0.7)	**456**	(0.7)	**-34.1**	(0.3)	0.4	(0.0)	14.2	(0.2)
Partners	Albania	394	(6.1)	398	(4.6)	392	(4.7)	390	(4.6)	-1.6	(2.5)	1.0	(0.1)	0.0	(0.1)
	Argentina	**423**	(4.8)	398	(4.9)	380	(4.5)	**362**	(4.0)	**-26.8**	(2.1)	0.5	(0.1)	9.5	(1.3)
	Brazil	**431**	(3.3)	400	(3.2)	380	(2.6)	**363**	(2.4)	**-34.4**	(1.7)	0.4	(0.0)	11.9	(1.0)
	Bulgaria	**496**	(6.2)	453	(4.6)	419	(5.0)	**401**	(4.3)	**-37.1**	(2.3)	0.4	(0.0)	16.3	(1.8)
	Colombia	**411**	(4.7)	389	(3.8)	369	(4.0)	**353**	(3.6)	**-29.4**	(2.0)	0.5	(0.1)	10.4	(1.3)
	Costa Rica	**434**	(5.2)	412	(4.1)	398	(4.5)	**382**	(3.6)	**-22.5**	(1.9)	0.5	(0.1)	9.0	(1.3)
	Croatia	**518**	(6.7)	483	(5.1)	458	(4.5)	**432**	(3.5)	**-33.7**	(2.5)	0.4	(0.0)	14.0	(1.6)
	Cyprus*	**500**	(3.5)	453	(3.2)	430	(3.2)	**395**	(2.5)	**-37.0**	(1.7)	0.4	(0.0)	17.2	(1.4)
	Hong Kong-China	**606**	(4.6)	573	(5.6)	551	(4.9)	**524**	(4.6)	**-33.0**	(2.2)	0.4	(0.0)	10.2	(1.3)
	Indonesia	**386**	(5.9)	383	(4.2)	372	(4.8)	**362**	(4.4)	**-14.7**	(2.3)	0.9	(0.1)	2.1	(0.6)
	Jordan	**414**	(3.9)	398	(3.7)	384	(4.6)	**359**	(3.9)	**-24.6**	(2.0)	0.7	(0.1)	6.4	(1.2)
	Kazakhstan	**455**	(4.8)	441	(4.6)	424	(4.4)	**409**	(3.4)	**-21.6**	(1.8)	0.5	(0.1)	6.6	(1.1)
	Latvia	**538**	(4.7)	500	(4.7)	471	(5.3)	**452**	(4.9)	**-41.6**	(2.2)	0.3	(0.1)	16.7	(1.6)
	Liechtenstein	**557**	(15.6)	554	(17.1)	551	(16.3)	**484**	(14.5)	**-28.9**	(6.4)	0.7	(0.3)	9.4	(4.2)
	Lithuania	**533**	(4.4)	488	(4.6)	459	(4.1)	**433**	(3.6)	**-35.5**	(1.7)	0.3	(0.0)	17.1	(1.4)
	Macao-China	**584**	(2.9)	548	(3.5)	524	(3.2)	**503**	(2.8)	**-29.8**	(1.4)	0.4	(0.0)	10.3	(0.9)
	Malaysia	**444**	(4.5)	429	(4.1)	414	(4.3)	**400**	(4.1)	**-22.5**	(2.0)	0.7	(0.1)	4.9	(0.8)
	Montenegro	**449**	(4.5)	418	(3.9)	401	(3.9)	**378**	(3.4)	**-27.8**	(2.0)	0.5	(0.1)	9.9	(1.3)
	Peru	**397**	(5.8)	379	(4.0)	363	(4.6)	**351**	(4.6)	**-26.9**	(2.5)	0.7	(0.1)	5.6	(0.9)
	Qatar	**436**	(2.4)	390	(2.7)	361	(2.4)	**344**	(2.3)	**-29.6**	(1.3)	0.4	(0.0)	10.6	(0.9)
	Romania	**485**	(6.3)	450	(4.6)	429	(4.8)	**416**	(4.0)	**-32.5**	(2.6)	0.4	(0.1)	11.1	(1.6)
	Russian Federation	**531**	(4.0)	491	(4.5)	468	(3.9)	**440**	(4.1)	**-40.4**	(2.3)	0.3	(0.0)	15.9	(1.4)
	Serbia	**496**	(6.1)	460	(5.7)	432	(4.5)	**409**	(4.2)	**-34.1**	(2.5)	0.4	(0.1)	12.7	(1.4)
	Shanghai-China	**652**	(4.8)	624	(4.7)	603	(5.4)	**571**	(5.2)	**-33.4**	(2.4)	0.4	(0.1)	9.7	(1.2)
	Singapore	**625**	(3.5)	602	(4.0)	558	(3.8)	**518**	(3.6)	**-44.6**	(1.5)	0.3	(0.0)	15.9	(1.1)
	Chinese Taipei	**603**	(5.2)	576	(5.2)	542	(4.7)	**519**	(4.8)	**-34.7**	(2.3)	0.5	(0.0)	8.1	(1.1)
	Thailand	450	(5.4)	436	(5.0)	416	(4.5)	408	(3.8)	**-27.3**	(2.8)	0.6	(0.1)	4.5	(0.8)
	Tunisia	**410**	(6.1)	392	(4.7)	379	(5.0)	**374**	(4.2)	**-17.1**	(2.1)	0.7	(0.1)	3.7	(0.8)
	United Arab Emirates	**489**	(3.6)	446	(3.7)	418	(3.7)	**391**	(3.2)	**-37.7**	(1.3)	0.3	(0.0)	17.9	(1.1)
	Uruguay	**459**	(3.6)	423	(3.9)	399	(3.8)	**371**	(4.0)	**-35.5**	(1.8)	0.4	(0.1)	14.5	(1.3)
	Viet Nam	**547**	(6.6)	524	(6.3)	498	(6.1)	**477**	(5.3)	**-43.0**	(3.5)	0.5	(0.1)	10.1	(1.4)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 1/3]

Table III.4.3f Change between 2003 and 2012 in students' mathematics anxiety

Percentage of students who reported that they "agree" or "strongly agree"

		PISA 2003											
				Percentage of students who agreed with the following statements:									
		Index of mathematics anxiety		I often worry that it will be difficult for me in mathematics classes		I get very tense when I have to do mathematics homework		I get very nervous doing mathematics problems		I feel helpless when doing a mathematics problem		I worry that I will get poor <grades> in mathematics	
		Mean index	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	-0.09	(0.01)	52.8	(0.7)	27.7	(0.6)	21.9	(0.6)	20.0	(0.5)	58.1	(0.6)
	Austria	-0.29	(0.02)	56.1	(0.9)	29.7	(1.0)	22.3	(0.8)	23.5	(0.7)	43.7	(0.9)
	Belgium	0.04	(0.02)	56.7	(0.8)	27.9	(0.6)	31.9	(0.7)	28.8	(0.6)	68.5	(0.7)
	Canada	-0.08	(0.01)	53.8	(0.6)	32.4	(0.5)	26.3	(0.4)	23.6	(0.4)	58.2	(0.6)
	Czech Republic	-0.09	(0.02)	52.4	(1.0)	20.0	(0.7)	31.9	(0.7)	29.4	(0.9)	50.9	(1.0)
	Denmark	-0.47	(0.02)	33.8	(0.9)	26.1	(0.7)	14.9	(0.6)	16.7	(0.7)	40.6	(0.9)
	Finland	-0.34	(0.01)	50.4	(0.8)	6.7	(0.4)	15.0	(0.6)	25.5	(0.8)	51.2	(0.9)
	France	0.28	(0.02)	60.7	(1.0)	53.2	(0.9)	38.8	(0.8)	37.4	(0.8)	75.1	(0.7)
	Germany	-0.28	(0.02)	52.6	(0.8)	29.6	(0.8)	24.3	(0.8)	22.8	(0.7)	46.8	(0.8)
	Greece	0.11	(0.02)	69.5	(0.9)	35.2	(1.0)	43.9	(1.0)	37.9	(1.1)	52.5	(1.2)
	Hungary	-0.05	(0.02)	62.5	(0.8)	18.8	(0.7)	22.1	(0.7)	29.2	(0.8)	62.1	(1.0)
	Iceland	-0.23	(0.02)	50.4	(0.8)	18.8	(0.7)	16.7	(0.6)	27.6	(0.8)	59.0	(0.8)
	Ireland	0.02	(0.02)	59.8	(0.9)	30.3	(0.8)	26.2	(0.7)	26.3	(0.8)	60.2	(0.9)
	Italy	0.22	(0.01)	70.3	(0.7)	27.8	(0.9)	44.3	(0.7)	44.1	(0.7)	72.5	(0.7)
	Japan	0.38	(0.02)	68.7	(0.8)	51.5	(1.0)	42.1	(1.0)	35.0	(0.9)	66.0	(0.7)
	Korea	0.34	(0.01)	79.2	(0.6)	33.2	(0.7)	44.3	(0.7)	44.5	(0.8)	78.1	(0.6)
	Luxembourg	-0.05	(0.01)	58.0	(0.8)	29.1	(0.7)	32.4	(0.6)	30.5	(0.7)	61.2	(0.7)
	Mexico	0.40	(0.01)	77.3	(0.7)	45.4	(1.0)	49.5	(0.8)	26.7	(0.9)	86.9	(0.6)
	Netherlands	-0.40	(0.02)	36.3	(1.1)	7.0	(0.5)	15.6	(0.8)	17.0	(0.7)	43.9	(1.3)
	New Zealand	-0.13	(0.02)	52.1	(1.0)	24.4	(0.8)	21.2	(0.7)	21.3	(0.7)	56.2	(0.9)
	Norway	-0.09	(0.02)	46.6	(0.9)	37.3	(1.0)	20.0	(0.8)	30.8	(1.0)	58.0	(1.0)
	Poland	-0.01	(0.02)	61.2	(0.9)	29.7	(0.8)	34.9	(0.8)	30.5	(0.8)	56.9	(1.0)
	Portugal	0.10	(0.02)	75.1	(0.8)	22.0	(0.9)	29.5	(0.9)	35.4	(1.0)	66.6	(0.9)
	Slovak Republic	-0.01	(0.02)	57.6	(0.8)	25.4	(0.7)	39.7	(0.8)	27.9	(0.8)	52.6	(0.8)
	Spain	0.22	(0.01)	65.8	(0.8)	36.3	(1.0)	39.6	(1.0)	30.7	(0.7)	76.9	(0.6)
	Sweden	-0.50	(0.02)	32.2	(0.7)	14.3	(0.6)	10.7	(0.5)	17.0	(0.6)	46.2	(1.0)
	Switzerland	-0.31	(0.02)	47.6	(1.0)	26.1	(0.9)	19.3	(0.7)	25.4	(0.7)	47.1	(0.8)
	Turkey	0.28	(0.03)	64.0	(1.5)	50.1	(1.7)	41.2	(1.4)	45.6	(1.2)	67.7	(1.0)
	United States	-0.13	(0.02)	56.1	(0.9)	33.9	(0.7)	26.4	(0.8)	22.8	(0.6)	47.1	(0.7)
	OECD average 2003	-0.04	(0.00)	57.2	(0.2)	29.3	(0.2)	29.2	(0.1)	28.8	(0.1)	59.0	(0.2)
Partners	**Brazil**	0.49	(0.02)	70.1	(1.0)	44.5	(1.3)	47.5	(1.2)	42.7	(1.3)	90.1	(0.5)
	Hong Kong-China	0.18	(0.02)	68.0	(1.0)	29.0	(0.7)	33.3	(0.9)	34.6	(0.7)	71.9	(0.9)
	Indonesia	0.27	(0.01)	79.3	(0.7)	38.8	(1.0)	47.9	(0.9)	37.3	(1.0)	66.2	(0.9)
	Latvia	0.07	(0.02)	62.2	(1.1)	32.5	(1.2)	25.5	(1.1)	23.9	(0.9)	73.2	(0.8)
	Liechtenstein	-0.37	(0.05)	46.9	(2.7)	19.1	(2.2)	12.8	(2.0)	22.4	(2.6)	51.4	(2.6)
	Macao-China	0.18	(0.03)	68.0	(1.5)	32.0	(1.6)	39.0	(1.7)	37.3	(1.7)	63.1	(1.6)
	Russian Federation	0.09	(0.01)	57.6	(0.8)	38.8	(1.1)	32.0	(0.7)	24.1	(0.8)	71.9	(0.9)
	Thailand	0.41	(0.01)	64.1	(1.0)	54.1	(1.1)	67.4	(1.0)	45.0	(1.0)	75.0	(0.9)
	Tunisia	0.54	(0.02)	80.2	(0.7)	64.7	(0.9)	47.6	(0.9)	39.1	(0.9)	79.3	(0.6)
	Uruguay	0.24	(0.02)	64.4	(1.0)	36.2	(0.9)	37.8	(0.9)	26.0	(0.7)	83.0	(0.5)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
For comparability over time, PISA 2003 values on the *index of mathematics anxiety* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).

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[Part 2/3]

Change between 2003 and 2012 in students' mathematics anxiety

Table III.4.3f *Percentage of students who reported that they "agree" or "strongly agree"*

		PISA 2012												
				Percentage of students who agreed with the following statements:										
		Index of mathematics anxiety		I often worry that it will be difficult for me in mathematics classes		I get very tense when I have to do mathematics homework		I get very nervous doing mathematics problems		I feel helpless when doing a mathematics problem		I worry that I will get poor <grades> in mathematics		
		Mean index	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	0.03	(0.01)	59.7	(0.6)	36.8	(0.6)	28.9	(0.6)	24.6	(0.5)	61.8	(0.7)
	Austria	-0.23	(0.03)	55.4	(1.1)	32.7	(1.1)	24.0	(1.1)	26.8	(1.1)	49.0	(1.2)
	Belgium	0.06	(0.02)	58.2	(0.8)	29.6	(0.7)	33.5	(0.7)	34.5	(0.7)	64.4	(0.8)
	Canada	0.01	(0.02)	59.6	(0.8)	38.0	(0.7)	30.9	(0.6)	26.0	(0.6)	61.2	(0.7)
	Czech Republic	-0.02	(0.02)	55.3	(1.2)	24.3	(0.9)	36.1	(1.2)	33.8	(1.0)	56.4	(1.3)
	Denmark	-0.37	(0.02)	38.6	(1.0)	27.3	(0.7)	19.7	(0.7)	20.3	(0.8)	45.5	(0.9)
	Finland	-0.33	(0.02)	51.7	(0.9)	10.0	(0.5)	18.4	(0.6)	27.3	(1.0)	52.4	(0.9)
	France	0.28	(0.02)	64.5	(1.0)	51.0	(0.9)	36.0	(0.8)	43.1	(0.9)	72.5	(0.9)
	Germany	-0.28	(0.02)	53.2	(1.1)	29.9	(1.0)	21.1	(0.8)	25.1	(1.0)	48.7	(1.0)
	Greece	0.12	(0.02)	72.7	(0.9)	35.0	(1.0)	45.5	(0.9)	32.7	(0.9)	53.3	(1.0)
	Hungary	-0.05	(0.02)	62.0	(1.0)	21.6	(1.1)	20.5	(1.0)	35.3	(1.2)	62.7	(0.9)
	Iceland	-0.33	(0.02)	45.2	(1.0)	22.0	(0.8)	17.9	(0.8)	23.4	(0.7)	52.4	(1.1)
	Ireland	0.11	(0.02)	69.8	(0.9)	36.0	(1.0)	29.7	(0.9)	28.0	(0.9)	62.1	(1.0)
	Italy	0.30	(0.01)	73.2	(0.5)	35.1	(0.5)	43.0	(0.6)	42.9	(0.6)	79.1	(0.4)
	Japan	0.36	(0.02)	70.4	(0.8)	55.5	(0.9)	39.5	(0.9)	34.8	(0.9)	67.0	(0.8)
	Korea	0.31	(0.02)	76.9	(0.7)	31.6	(0.9)	43.5	(0.9)	42.1	(1.0)	82.1	(0.6)
	Luxembourg	-0.10	(0.02)	55.9	(0.9)	36.6	(0.8)	28.7	(0.7)	31.5	(0.8)	57.2	(0.9)
	Mexico	0.45	(0.01)	77.5	(0.4)	45.4	(0.5)	48.7	(0.6)	36.3	(0.5)	87.9	(0.4)
	Netherlands	-0.39	(0.02)	36.9	(1.1)	11.2	(0.6)	18.2	(0.9)	18.8	(0.9)	45.3	(1.0)
	New Zealand	0.10	(0.02)	62.1	(1.1)	38.1	(1.0)	33.0	(1.0)	26.6	(1.0)	63.6	(0.9)
	Norway	0.02	(0.02)	53.5	(1.0)	40.2	(1.1)	23.3	(0.8)	32.7	(1.0)	61.0	(1.0)
	Poland	-0.03	(0.03)	57.4	(1.3)	29.5	(1.1)	31.2	(1.0)	31.0	(1.0)	60.6	(1.1)
	Portugal	0.01	(0.02)	69.7	(0.9)	18.9	(0.7)	27.3	(1.1)	33.8	(0.9)	69.6	(0.9)
	Slovak Republic	0.01	(0.02)	57.6	(1.2)	30.6	(1.0)	34.8	(1.1)	34.1	(1.0)	55.0	(1.0)
	Spain	0.21	(0.01)	68.0	(0.7)	36.0	(0.8)	41.4	(0.7)	30.3	(0.6)	78.4	(0.6)
	Sweden	-0.35	(0.02)	42.3	(0.9)	24.5	(0.9)	17.9	(0.7)	20.9	(0.8)	45.4	(1.0)
	Switzerland	-0.29	(0.02)	49.2	(1.0)	26.1	(0.9)	18.2	(0.6)	25.7	(0.8)	53.4	(0.9)
	Turkey	0.28	(0.02)	66.7	(1.0)	50.7	(1.0)	38.8	(1.0)	40.3	(0.9)	69.4	(0.8)
	United States	-0.11	(0.02)	57.3	(1.0)	36.6	(1.1)	29.0	(0.9)	22.5	(0.9)	48.7	(0.9)
	OECD average 2003	-0.01	(0.00)	59.3	(0.2)	32.4	(0.2)	30.3	(0.2)	30.5	(0.2)	60.9	(0.2)
Partners	**Brazil**	0.51	(0.01)	70.9	(0.7)	46.9	(0.7)	49.0	(0.6)	47.1	(0.6)	88.7	(0.4)
	Hong Kong-China	0.11	(0.02)	68.9	(1.2)	26.8	(0.9)	26.4	(1.0)	32.2	(1.1)	70.8	(0.9)
	Indonesia	0.28	(0.02)	76.7	(1.0)	39.0	(1.2)	50.4	(1.0)	36.6	(1.1)	64.1	(1.1)
	Latvia	0.02	(0.02)	57.1	(1.2)	33.6	(1.1)	23.9	(1.1)	23.2	(1.0)	67.7	(1.1)
	Liechtenstein	-0.29	(0.07)	49.8	(3.7)	26.0	(3.3)	13.6	(2.8)	25.6	(3.6)	55.7	(3.1)
	Macao-China	0.19	(0.02)	70.4	(0.8)	32.1	(0.7)	36.1	(0.8)	39.5	(0.8)	65.3	(0.8)
	Russian Federation	0.10	(0.02)	57.8	(1.1)	39.0	(1.0)	35.7	(1.1)	24.4	(0.8)	70.8	(0.8)
	Thailand	0.51	(0.01)	73.0	(0.9)	55.1	(1.2)	64.7	(1.0)	52.2	(1.0)	77.7	(0.7)
	Tunisia	0.65	(0.02)	79.4	(0.9)	69.0	(1.1)	55.8	(1.3)	49.8	(1.2)	78.5	(0.9)
	Uruguay	0.37	(0.02)	76.7	(0.8)	41.9	(1.0)	41.9	(1.0)	38.0	(0.9)	78.5	(0.7)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.

For comparability over time, PISA 2003 values on the *index of mathematics anxiety* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).

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[Part 3/3]

Table III.4.3f Change between 2003 and 2012 in students' mathematics anxiety

Percentage of students who reported that they "agree" or "strongly agree"

		Change between 2003 and 2012 (PISA 2012 - PISA 2003)											
				Percentage of students who agreed with the following statements:									
		Index of mathematics anxiety		I often worry that it will be difficult for me in mathematics classes		I get very tense when I have to do mathematics homework		I get very nervous doing mathematics problems		I feel helpless when doing a mathematics problem		I worry that I will get poor <grades> in mathematics	
		Dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.
OECD	**Australia**	**0.12**	(0.02)	**6.9**	(0.9)	**9.1**	(0.8)	**6.9**	(0.8)	**4.6**	(0.7)	**3.7**	(0.9)
	Austria	0.06	(0.04)	-0.7	(1.4)	**3.0**	(1.5)	1.7	(1.4)	**3.2**	(1.3)	**5.2**	(1.4)
	Belgium	0.02	(0.02)	1.5	(1.1)	1.7	(0.9)	1.6	(1.0)	**5.7**	(1.0)	**-4.1**	(1.1)
	Canada	**0.09**	(0.02)	**5.8**	(1.0)	**5.6**	(0.9)	**4.6**	(0.8)	**2.3**	(0.8)	**3.0**	(0.9)
	Czech Republic	**0.07**	(0.03)	3.0	(1.6)	**4.2**	(1.1)	**4.1**	(1.4)	**4.4**	(1.4)	**5.5**	(1.6)
	Denmark	**0.10**	(0.03)	**4.7**	(1.3)	1.1	(1.0)	**4.8**	(0.9)	**3.7**	(1.1)	**4.9**	(1.3)
	Finland	0.01	(0.02)	1.3	(1.2)	**3.2**	(0.6)	**3.4**	(0.9)	1.8	(1.2)	1.2	(1.3)
	France	0.00	(0.02)	**3.8**	(1.4)	-2.2	(1.3)	**-2.8**	(1.2)	**5.8**	(1.2)	**-2.6**	(1.2)
	Germany	-0.01	(0.03)	0.5	(1.4)	0.3	(1.3)	**-3.2**	(1.1)	2.3	(1.2)	2.0	(1.3)
	Greece	0.01	(0.03)	**3.2**	(1.3)	-0.2	(1.4)	1.6	(1.3)	**-5.3**	(1.5)	0.9	(1.6)
	Hungary	0.00	(0.03)	-0.5	(1.3)	**2.7**	(1.3)	-1.6	(1.2)	**6.2**	(1.5)	0.6	(1.4)
	Iceland	**-0.10**	(0.03)	**-5.1**	(1.3)	**3.2**	(1.1)	1.1	(1.0)	**-4.2**	(1.1)	**-6.6**	(1.4)
	Ireland	**0.09**	(0.03)	**10.0**	(1.3)	**5.7**	(1.3)	**3.5**	(1.1)	1.7	(1.2)	1.8	(1.4)
	Italy	**0.08**	(0.02)	**2.9**	(0.8)	**7.3**	(1.0)	-1.2	(0.9)	-1.1	(0.9)	**6.6**	(0.9)
	Japan	-0.02	(0.03)	1.8	(1.1)	**4.0**	(1.3)	**-2.7**	(1.3)	-0.2	(1.2)	1.0	(1.1)
	Korea	-0.04	(0.02)	**-2.3**	(1.0)	-1.6	(1.2)	-0.7	(1.1)	-2.4	(1.3)	**4.0**	(0.9)
	Luxembourg	**-0.05**	(0.02)	-2.2	(1.2)	**7.5**	(1.1)	**-3.8**	(1.0)	1.0	(1.1)	**-4.0**	(1.1)
	Mexico	**0.05**	(0.02)	0.2	(0.8)	-0.1	(1.1)	-0.8	(1.0)	**9.5**	(1.0)	1.0	(0.7)
	Netherlands	0.00	(0.03)	0.6	(1.6)	**4.2**	(0.8)	**2.7**	(1.1)	1.8	(1.1)	1.4	(1.6)
	New Zealand	**0.23**	(0.03)	**10.0**	(1.4)	**13.8**	(1.3)	**11.8**	(1.2)	**5.2**	(1.2)	**7.4**	(1.2)
	Norway	**0.11**	(0.03)	**6.9**	(1.4)	**2.9**	(1.5)	**3.3**	(1.1)	1.9	(1.4)	**3.0**	(1.4)
	Poland	-0.02	(0.03)	**-3.9**	(1.6)	-0.3	(1.4)	**-3.7**	(1.3)	0.5	(1.3)	**3.7**	(1.5)
	Portugal	**-0.08**	(0.02)	**-5.4**	(1.2)	**-3.1**	(1.2)	-2.2	(1.4)	-1.6	(1.4)	**3.0**	(1.3)
	Slovak Republic	0.01	(0.03)	0.0	(1.4)	**5.3**	(1.2)	**-4.9**	(1.4)	**6.2**	(1.3)	**2.4**	(1.2)
	Spain	-0.01	(0.02)	**2.1**	(1.0)	-0.3	(1.3)	1.8	(1.2)	-0.4	(0.9)	1.5	(0.8)
	Sweden	**0.16**	(0.02)	**10.1**	(1.2)	**10.1**	(1.1)	**7.2**	(0.8)	**3.9**	(1.0)	-0.7	(1.4)
	Switzerland	0.02	(0.03)	1.7	(1.4)	0.0	(1.3)	-1.0	(1.0)	0.3	(1.1)	**6.3**	(1.2)
	Turkey	0.00	(0.04)	2.7	(1.8)	0.6	(2.0)	-2.4	(1.7)	**-5.3**	(1.5)	1.8	(1.3)
	United States	0.02	(0.03)	1.3	(1.3)	**2.7**	(1.3)	**2.6**	(1.2)	-0.4	(1.1)	1.6	(1.2)
	OECD average 2003	**0.03**	(0.00)	**2.1**	(0.2)	**3.1**	(0.2)	**1.1**	(0.2)	**1.8**	(0.2)	**1.9**	(0.2)
Partners	**Brazil**	0.02	(0.02)	0.8	(1.2)	2.4	(1.5)	1.5	(1.4)	**4.4**	(1.4)	**-1.4**	(0.6)
	Hong Kong-China	**-0.06**	(0.03)	1.0	(1.6)	-2.2	(1.1)	**-6.9**	(1.3)	-2.4	(1.4)	-1.2	(1.2)
	Indonesia	0.01	(0.02)	**-2.6**	(1.2)	0.2	(1.6)	2.4	(1.4)	-0.7	(1.5)	-2.1	(1.4)
	Latvia	-0.04	(0.03)	**-5.2**	(1.6)	1.1	(1.7)	-1.6	(1.5)	-0.7	(1.3)	**-5.4**	(1.4)
	Liechtenstein	0.08	(0.09)	2.9	(4.6)	6.9	(4.0)	0.8	(3.5)	3.2	(4.4)	4.3	(4.0)
	Macao-China	0.01	(0.04)	2.3	(1.7)	0.1	(1.8)	-2.9	(1.8)	2.2	(1.9)	2.1	(1.8)
	Russian Federation	0.02	(0.02)	0.2	(1.4)	0.2	(1.5)	**3.8**	(1.3)	0.3	(1.1)	-1.1	(1.2)
	Thailand	**0.10**	(0.02)	**8.9**	(1.3)	1.0	(1.6)	**-2.7**	(1.4)	**7.2**	(1.4)	**2.7**	(1.1)
	Tunisia	**0.11**	(0.02)	-0.8	(1.1)	**4.3**	(1.4)	**8.3**	(1.6)	**10.7**	(1.5)	-0.8	(1.1)
	Uruguay	**0.13**	(0.02)	**12.3**	(1.3)	**5.8**	(1.3)	**4.2**	(1.3)	**12.0**	(1.2)	**-4.5**	(0.9)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
For comparability over time, PISA 2003 values on the *index of mathematics anxiety* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this table may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004) (see Annex A5 for more details).

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[Part 1/1]

Table III.4.4a **Students and mathematics behaviours**

Percentage of students who reported doing the following activities "always or almost always" or "often"

		Percentage of students who agreed with the following statements:															
		I talk about mathematics problems with my friends		I help my friends with mathematics		I do mathematics as an <extracurricular> activity		I take part in mathematics competitions		I do mathematics more than two hours a day outside of school		I play chess		I programme computers		I participate in a mathematics club	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	16.4	(0.4)	29.3	(0.6)	8.2	(0.4)	9.5	(0.4)	7.2	(0.3)	10.4	(0.3)	10.4	(0.4)	1.8	(0.2)
	Austria	13.0	(0.7)	27.6	(1.0)	18.4	(0.8)	2.2	(0.3)	4.3	(0.4)	13.4	(0.7)	13.8	(0.8)	1.3	(0.2)
	Belgium	17.4	(0.6)	22.6	(0.7)	6.8	(0.4)	4.1	(0.3)	6.0	(0.3)	7.8	(0.4)	10.5	(0.5)	1.5	(0.2)
	Canada	17.4	(0.5)	30.6	(0.6)	6.5	(0.4)	5.1	(0.3)	8.5	(0.4)	14.2	(0.5)	14.0	(0.5)	1.9	(0.2)
	Chile	24.9	(0.9)	30.9	(0.9)	16.9	(0.7)	7.9	(0.6)	10.6	(0.6)	14.3	(0.6)	20.4	(0.6)	2.4	(0.3)
	Czech Republic	11.1	(0.7)	14.2	(0.8)	10.1	(1.1)	10.2	(0.7)	5.2	(0.4)	12.2	(0.8)	23.9	(1.0)	3.5	(0.5)
	Denmark	31.2	(1.2)	29.3	(0.9)	24.2	(0.9)	2.6	(0.3)	3.2	(0.3)	4.1	(0.3)	6.1	(0.4)	1.0	(0.1)
	Estonia	12.0	(0.7)	23.4	(0.8)	19.3	(0.8)	8.6	(0.6)	6.8	(0.5)	12.0	(0.7)	10.4	(0.6)	1.9	(0.3)
	Finland	11.0	(0.5)	21.1	(0.8)	22.5	(0.7)	5.0	(0.3)	2.2	(0.2)	6.6	(0.4)	16.9	(0.6)	1.1	(0.2)
	France	18.0	(0.7)	22.1	(0.8)	8.1	(0.6)	2.4	(0.3)	6.2	(0.5)	10.3	(0.6)	14.1	(0.6)	2.0	(0.3)
	Germany	14.4	(0.6)	27.7	(0.9)	23.4	(0.9)	5.1	(0.5)	5.7	(0.4)	11.2	(0.6)	13.9	(0.7)	2.1	(0.3)
	Greece	17.1	(0.7)	29.9	(0.9)	24.4	(0.9)	11.2	(0.7)	23.5	(0.8)	23.8	(0.8)	34.0	(0.9)	6.4	(0.6)
	Hungary	11.4	(0.7)	23.2	(0.8)	16.1	(0.7)	9.2	(0.7)	12.0	(0.7)	15.3	(0.8)	21.0	(0.8)	6.0	(0.6)
	Iceland	12.7	(0.7)	20.6	(0.7)	23.3	(0.9)	7.3	(0.5)	7.1	(0.6)	10.2	(0.7)	12.0	(0.6)	2.4	(0.2)
	Ireland	10.2	(0.6)	19.1	(0.8)	5.5	(0.4)	2.4	(0.3)	4.2	(0.3)	9.7	(0.6)	12.5	(0.6)	0.9	(0.2)
	Israel	35.7	(1.1)	42.9	(1.2)	20.7	(0.9)	9.7	(0.7)	19.7	(0.8)	14.4	(0.7)	23.1	(0.8)	7.1	(0.7)
	Italy	18.2	(0.4)	22.6	(0.4)	10.7	(0.3)	6.7	(0.3)	16.7	(0.4)	13.0	(0.3)	21.4	(0.4)	3.2	(0.2)
	Japan	20.3	(0.8)	20.4	(0.7)	10.8	(0.9)	1.0	(0.2)	5.7	(0.4)	11.0	(0.5)	6.8	(0.4)	0.6	(0.1)
	Korea	13.8	(0.8)	24.8	(0.8)	34.1	(1.2)	6.0	(0.6)	27.4	(1.2)	7.7	(0.5)	9.3	(0.6)	3.7	(0.4)
	Luxembourg	16.3	(0.7)	26.1	(0.7)	8.0	(0.4)	6.3	(0.4)	7.5	(0.5)	12.4	(0.7)	16.3	(0.7)	4.0	(0.3)
	Mexico	25.3	(0.4)	33.0	(0.5)	21.8	(0.5)	13.2	(0.3)	10.7	(0.4)	18.8	(0.4)	15.6	(0.4)	5.2	(0.3)
	Netherlands	14.5	(0.8)	19.7	(0.8)	5.4	(0.7)	4.0	(0.5)	4.3	(0.6)	5.3	(0.7)	6.1	(0.6)	2.3	(0.3)
	New Zealand	17.1	(0.7)	28.4	(0.9)	10.6	(0.7)	8.4	(0.7)	6.5	(0.5)	11.1	(0.6)	12.2	(0.7)	2.7	(0.4)
	Norway	12.1	(0.6)	17.5	(0.7)	3.6	(0.4)	2.1	(0.3)	3.7	(0.4)	5.7	(0.4)	10.0	(0.5)	1.6	(0.2)
	Poland	27.9	(0.9)	19.7	(0.8)	22.3	(1.0)	13.2	(0.9)	9.4	(0.5)	13.3	(0.7)	9.6	(0.6)	20.5	(1.1)
	Portugal	17.7	(0.9)	23.6	(0.8)	17.6	(0.7)	9.9	(0.6)	15.7	(0.8)	11.5	(0.6)	16.4	(0.8)	3.1	(0.4)
	Slovak Republic	12.5	(0.9)	17.0	(1.0)	8.1	(0.6)	9.9	(0.6)	6.4	(0.7)	16.2	(0.8)	21.6	(1.0)	9.9	(0.8)
	Slovenia	22.6	(0.8)	26.6	(0.9)	12.9	(0.6)	23.3	(0.8)	11.2	(0.6)	15.2	(0.7)	18.2	(0.8)	7.1	(0.5)
	Spain	15.4	(0.6)	22.9	(0.5)	20.5	(0.7)	6.6	(0.5)	12.5	(0.5)	14.9	(0.6)	18.1	(0.7)	3.1	(0.3)
	Sweden	16.6	(0.8)	25.0	(0.8)	17.7	(0.7)	6.0	(0.4)	5.1	(0.5)	7.0	(0.5)	12.0	(0.7)	2.3	(0.4)
	Switzerland	15.7	(0.6)	31.5	(0.7)	14.8	(0.6)	2.2	(0.2)	3.5	(0.3)	10.3	(0.5)	13.2	(0.6)	1.4	(0.2)
	Turkey	26.6	(1.0)	31.9	(1.1)	20.8	(0.9)	10.2	(0.7)	19.6	(0.8)	37.3	(1.1)	21.4	(1.0)	8.6	(0.7)
	United Kingdom	13.8	(0.6)	26.5	(0.9)	12.1	(0.7)	3.8	(0.3)	7.6	(0.5)	8.1	(0.5)	12.0	(0.6)	4.6	(0.5)
	United States	18.6	(0.8)	34.3	(0.9)	8.9	(0.9)	7.5	(0.8)	9.0	(0.8)	13.1	(0.9)	12.3	(0.8)	4.2	(0.5)
	OECD average	17.6	(0.1)	25.5	(0.1)	15.2	(0.1)	7.1	(0.1)	9.3	(0.1)	12.4	(0.1)	15.0	(0.1)	3.9	(0.1)
Partners	Albania	58.7	(1.1)	51.1	(1.1)	28.9	(1.0)	28.2	(0.9)	29.8	(1.2)	29.4	(1.1)	33.1	(1.1)	20.9	(1.0)
	Argentina	24.0	(1.1)	30.0	(1.1)	23.0	(1.0)	11.7	(0.9)	15.0	(0.9)	21.6	(0.9)	22.9	(0.9)	8.4	(0.7)
	Brazil	38.3	(0.7)	38.6	(0.7)	26.8	(0.7)	15.9	(0.5)	16.1	(0.6)	20.9	(0.5)	16.1	(0.5)	7.2	(0.4)
	Bulgaria	21.0	(1.0)	24.6	(1.1)	16.8	(1.0)	16.6	(0.9)	16.8	(0.9)	26.9	(0.9)	26.8	(1.1)	10.8	(0.8)
	Colombia	27.2	(1.1)	35.1	(1.0)	21.5	(0.8)	21.8	(0.9)	14.6	(0.7)	23.3	(0.9)	22.0	(0.8)	5.5	(0.4)
	Costa Rica	29.1	(1.0)	39.6	(1.1)	37.5	(1.2)	13.9	(0.8)	12.6	(0.8)	14.8	(0.7)	13.3	(0.7)	4.0	(0.4)
	Croatia	17.5	(0.7)	21.8	(0.8)	7.3	(0.5)	5.4	(0.5)	7.4	(0.5)	16.3	(0.7)	19.5	(0.8)	2.2	(0.3)
	Cyprus*	25.5	(0.8)	35.8	(0.8)	30.0	(0.9)	14.0	(0.6)	19.1	(0.8)	22.6	(0.8)	36.1	(0.9)	10.7	(0.5)
	Hong Kong-China	26.4	(0.9)	28.1	(0.9)	11.4	(0.8)	4.0	(0.4)	6.3	(0.5)	15.6	(0.8)	5.4	(0.5)	4.3	(0.4)
	Indonesia	48.1	(1.1)	35.5	(1.1)	27.6	(1.1)	14.8	(0.9)	22.5	(1.0)	21.6	(0.8)	14.9	(0.7)	14.0	(1.0)
	Jordan	63.2	(1.1)	65.2	(1.1)	57.0	(1.0)	53.3	(1.1)	48.9	(1.0)	40.6	(1.1)	50.0	(0.9)	33.3	(1.0)
	Kazakhstan	50.0	(1.4)	49.9	(1.1)	41.5	(1.3)	31.0	(1.2)	39.4	(1.4)	40.4	(1.1)	35.1	(0.9)	23.0	(1.2)
	Latvia	13.5	(0.8)	22.0	(0.9)	14.5	(0.8)	9.5	(0.6)	8.4	(0.5)	14.3	(0.8)	12.9	(0.8)	4.8	(0.5)
	Liechtenstein	10.7	(2.2)	30.0	(3.7)	19.1	(2.6)	1.7	(1.0)	3.7	(1.4)	10.3	(2.0)	15.0	(2.8)	0.5	(0.5)
	Lithuania	17.8	(0.9)	17.8	(0.7)	13.3	(0.8)	13.7	(0.7)	7.7	(0.6)	16.1	(0.7)	22.4	(0.8)	6.7	(0.5)
	Macao-China	26.5	(0.7)	30.7	(0.7)	7.4	(0.5)	6.4	(0.4)	7.5	(0.4)	16.5	(0.6)	10.7	(0.6)	3.3	(0.3)
	Malaysia	51.9	(0.9)	44.8	(1.0)	27.0	(0.7)	17.2	(0.9)	25.6	(1.0)	23.8	(0.8)	35.0	(0.9)	16.7	(0.8)
	Montenegro	33.6	(0.9)	36.0	(0.9)	19.6	(0.7)	10.0	(0.6)	18.1	(0.7)	27.7	(0.8)	21.2	(0.7)	8.3	(0.5)
	Peru	33.8	(0.9)	31.3	(0.9)	24.1	(1.0)	18.7	(0.9)	20.4	(0.8)	26.7	(0.9)	20.9	(0.7)	9.6	(0.6)
	Qatar	50.5	(0.6)	61.0	(0.5)	45.3	(0.6)	43.2	(0.6)	41.3	(0.6)	37.3	(0.6)	48.4	(0.6)	29.1	(0.6)
	Romania	38.0	(1.4)	37.1	(1.4)	28.6	(1.3)	31.7	(1.3)	27.0	(1.3)	33.0	(1.2)	33.1	(1.1)	18.4	(1.3)
	Russian Federation	32.1	(1.0)	32.0	(0.9)	24.3	(0.9)	19.7	(0.9)	16.6	(0.9)	20.4	(0.7)	27.8	(0.8)	26.7	(1.2)
	Serbia	24.7	(0.9)	28.6	(0.9)	8.9	(0.7)	8.5	(0.6)	14.4	(0.8)	20.9	(0.8)	30.6	(0.9)	3.9	(0.4)
	Shanghai-China	38.7	(1.0)	29.7	(0.8)	13.9	(0.6)	9.3	(0.6)	28.0	(0.8)	33.6	(0.8)	9.5	(0.6)	7.1	(0.5)
	Singapore	36.1	(0.8)	46.4	(0.9)	13.3	(0.6)	7.8	(0.5)	23.2	(0.7)	13.5	(0.6)	16.3	(0.7)	2.5	(0.2)
	Chinese Taipei	26.1	(1.0)	30.5	(0.8)	12.8	(0.6)	5.2	(0.4)	6.5	(0.4)	18.4	(0.7)	5.2	(0.4)	2.1	(0.2)
	Thailand	49.0	(0.9)	41.1	(1.0)	34.7	(0.8)	22.2	(0.8)	21.7	(0.8)	27.5	(0.9)	28.4	(0.9)	20.3	(0.8)
	Tunisia	47.1	(1.1)	39.0	(1.2)	30.7	(1.0)	20.6	(1.0)	29.9	(1.0)	27.0	(1.0)	48.6	(1.0)	12.3	(0.8)
	United Arab Emirates	43.3	(0.7)	59.6	(0.7)	41.9	(0.7)	30.5	(0.9)	38.4	(0.8)	28.4	(0.8)	42.1	(0.8)	19.2	(0.7)
	Uruguay	29.8	(0.8)	34.5	(0.9)	18.1	(0.8)	9.0	(0.7)	11.9	(0.7)	18.2	(0.8)	18.5	(0.8)	4.0	(0.5)
	Viet Nam	26.8	(0.8)	15.6	(0.8)	23.8	(1.0)	25.4	(1.0)	29.2	(1.1)	17.7	(0.7)	10.9	(0.6)	6.2	(0.5)

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.4.4d **Index of mathematics behaviours and mathematics performance, by national quarters of this index**

Results based on students' self-reports

		Index of mathematics behaviours																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	Standard deviation	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	-0.18	(0.02)	1.04	(0.01)	-0.03	(0.02)	-0.35	(0.02)	**0.31**	(0.02)	-1.58	(0.02)	-0.41	(0.03)	0.21	(0.01)	1.05	(0.02)
	Austria	-0.04	(0.02)	0.92	(0.02)	0.11	(0.03)	-0.18	(0.03)	**0.29**	(0.04)	-1.23	(0.04)	-0.22	(0.02)	0.32	(0.02)	0.99	(0.03)
	Belgium	-0.22	(0.02)	0.93	(0.01)	-0.12	(0.02)	-0.31	(0.02)	**0.19**	(0.03)	-1.46	(0.03)	-0.36	(0.02)	0.09	(0.02)	0.87	(0.02)
	Canada	-0.09	(0.02)	0.98	(0.01)	0.05	(0.02)	-0.22	(0.02)	**0.26**	(0.03)	-1.38	(0.03)	-0.28	(0.01)	0.26	(0.02)	1.05	(0.02)
	Chile	0.16	(0.02)	0.98	(0.02)	0.34	(0.03)	-0.01	(0.02)	**0.34**	(0.03)	-1.13	(0.03)	-0.02	(0.02)	0.52	(0.02)	1.27	(0.03)
	Czech Republic	-0.05	(0.02)	0.91	(0.02)	0.12	(0.03)	-0.22	(0.03)	**0.34**	(0.03)	-1.24	(0.05)	-0.24	(0.02)	0.29	(0.03)	1.01	(0.03)
	Denmark	0.08	(0.02)	0.76	(0.02)	0.12	(0.02)	0.03	(0.02)	**0.09**	(0.03)	-0.91	(0.03)	-0.05	(0.03)	0.35	(0.02)	0.91	(0.02)
	Estonia	0.12	(0.02)	0.86	(0.02)	0.22	(0.03)	0.02	(0.03)	**0.20**	(0.04)	-1.02	(0.03)	0.00	(0.03)	0.44	(0.01)	1.04	(0.03)
	Finland	-0.02	(0.02)	0.87	(0.01)	0.03	(0.02)	-0.07	(0.02)	**0.10**	(0.03)	-1.18	(0.03)	-0.19	(0.02)	0.33	(0.02)	0.95	(0.01)
	France	-0.24	(0.02)	0.98	(0.02)	-0.06	(0.03)	-0.40	(0.03)	**0.34**	(0.04)	-1.53	(0.03)	-0.43	(0.03)	0.11	(0.02)	0.91	(0.03)
	Germany	0.08	(0.02)	0.89	(0.02)	0.19	(0.03)	-0.03	(0.03)	**0.22**	(0.04)	-1.10	(0.04)	-0.06	(0.03)	0.41	(0.02)	1.07	(0.02)
	Greece	0.30	(0.02)	1.06	(0.02)	0.47	(0.03)	0.15	(0.03)	**0.32**	(0.04)	-1.09	(0.04)	0.11	(0.02)	0.69	(0.02)	1.50	(0.03)
	Hungary	0.18	(0.02)	0.93	(0.02)	0.34	(0.04)	0.03	(0.03)	**0.31**	(0.04)	-1.08	(0.05)	0.05	(0.02)	0.54	(0.03)	1.21	(0.02)
	Iceland	-0.07	(0.02)	1.05	(0.02)	0.02	(0.03)	-0.17	(0.03)	**0.18**	(0.04)	-1.42	(0.04)	-0.25	(0.02)	0.26	(0.02)	1.13	(0.03)
	Ireland	-0.43	(0.02)	0.98	(0.01)	-0.41	(0.03)	-0.45	(0.02)	0.03	(0.03)	-1.74	(0.03)	-0.67	(0.02)	-0.03	(0.02)	0.73	(0.02)
	Israel	0.38	(0.02)	0.98	(0.02)	0.46	(0.04)	0.30	(0.03)	**0.16**	(0.05)	-0.82	(0.04)	0.14	(0.02)	0.67	(0.02)	1.53	(0.04)
	Italy	0.06	(0.01)	0.95	(0.01)	0.16	(0.02)	-0.06	(0.01)	**0.22**	(0.02)	-1.16	(0.02)	-0.14	(0.02)	0.39	(0.01)	1.14	(0.02)
	Japan	-0.21	(0.02)	0.93	(0.01)	-0.08	(0.03)	-0.35	(0.03)	**0.27**	(0.03)	-1.50	(0.05)	-0.33	(0.02)	0.15	(0.02)	0.83	(0.02)
	Korea	0.17	(0.03)	0.98	(0.02)	0.28	(0.04)	0.05	(0.04)	**0.23**	(0.05)	-1.20	(0.05)	0.04	(0.04)	0.63	(0.02)	1.21	(0.02)
	Luxembourg	-0.17	(0.02)	1.08	(0.02)	0.02	(0.03)	-0.37	(0.02)	**0.39**	(0.04)	-1.56	(0.03)	-0.42	(0.02)	0.16	(0.02)	1.12	(0.03)
	Mexico	0.33	(0.01)	0.96	(0.01)	0.49	(0.01)	0.18	(0.01)	**0.31**	(0.02)	-0.88	(0.02)	0.12	(0.01)	0.65	(0.01)	1.45	(0.02)
	Netherlands	-0.49	(0.02)	1.04	(0.02)	-0.42	(0.03)	-0.56	(0.03)	**0.15**	(0.04)	-1.82	(0.03)	-0.75	(0.02)	-0.13	(0.03)	0.75	(0.04)
	New Zealand	-0.20	(0.02)	1.10	(0.02)	-0.05	(0.03)	-0.35	(0.03)	**0.29**	(0.04)	-1.65	(0.03)	-0.44	(0.04)	0.19	(0.02)	1.12	(0.04)
	Norway	-0.45	(0.02)	1.00	(0.02)	-0.29	(0.03)	-0.62	(0.02)	**0.33**	(0.04)	-1.75	(0.03)	-0.66	(0.02)	-0.09	(0.02)	0.70	(0.03)
	Poland	0.31	(0.02)	0.94	(0.02)	0.39	(0.03)	0.23	(0.03)	**0.16**	(0.03)	-0.92	(0.05)	0.15	(0.02)	0.65	(0.02)	1.35	(0.03)
	Portugal	0.14	(0.02)	0.95	(0.02)	0.26	(0.03)	0.01	(0.02)	**0.25**	(0.03)	-1.10	(0.03)	-0.01	(0.02)	0.46	(0.02)	1.20	(0.04)
	Slovak Republic	0.11	(0.03)	0.98	(0.02)	0.27	(0.03)	-0.06	(0.03)	**0.33**	(0.04)	-1.17	(0.04)	-0.09	(0.03)	0.45	(0.02)	1.24	(0.04)
	Slovenia	0.29	(0.02)	0.95	(0.02)	0.49	(0.03)	0.08	(0.03)	**0.41**	(0.04)	-0.94	(0.05)	0.12	(0.02)	0.62	(0.02)	1.39	(0.02)
	Spain	0.05	(0.02)	0.97	(0.01)	0.16	(0.02)	-0.05	(0.02)	**0.21**	(0.03)	-1.19	(0.03)	-0.16	(0.02)	0.40	(0.01)	1.16	(0.03)
	Sweden	-0.11	(0.02)	1.01	(0.02)	0.05	(0.03)	-0.25	(0.02)	**0.30**	(0.04)	-1.44	(0.04)	-0.29	(0.01)	0.25	(0.02)	1.06	(0.03)
	Switzerland	-0.04	(0.01)	0.87	(0.01)	0.10	(0.03)	-0.18	(0.02)	**0.28**	(0.03)	-1.17	(0.03)	-0.22	(0.01)	0.28	(0.02)	0.94	(0.02)
	Turkey	0.55	(0.03)	1.01	(0.02)	0.72	(0.03)	0.39	(0.03)	**0.33**	(0.04)	-0.72	(0.04)	0.39	(0.03)	0.86	(0.02)	1.69	(0.04)
	United Kingdom	-0.18	(0.02)	1.00	(0.01)	-0.12	(0.03)	-0.25	(0.03)	**0.13**	(0.03)	-1.51	(0.03)	-0.39	(0.03)	0.17	(0.02)	1.00	(0.03)
	United States	-0.12	(0.03)	1.07	(0.02)	0.01	(0.04)	-0.25	(0.03)	**0.26**	(0.04)	-1.52	(0.03)	-0.37	(0.04)	0.23	(0.03)	1.17	(0.05)
	OECD average	0.00	(0.00)	0.97	(0.00)	0.13	(0.00)	-0.13	(0.00)	**0.25**	(0.01)	-1.27	(0.01)	-0.19	(0.00)	0.35	(0.00)	1.11	(0.01)
Partners	**Albania**	1.00	(0.02)	0.87	(0.02)	0.99	(0.02)	1.00	(0.03)	-0.01	(0.04)	-0.04	(0.03)	0.78	(0.02)	1.23	(0.02)	2.02	(0.03)
	Argentina	0.21	(0.03)	1.16	(0.02)	0.43	(0.05)	-0.01	(0.03)	**0.44**	(0.05)	-1.27	(0.05)	-0.05	(0.03)	0.55	(0.03)	1.59	(0.05)
	Brazil	0.48	(0.02)	1.03	(0.01)	0.65	(0.02)	0.32	(0.02)	**0.33**	(0.02)	-0.78	(0.03)	0.24	(0.01)	0.78	(0.02)	1.69	(0.02)
	Bulgaria	0.33	(0.03)	1.23	(0.03)	0.56	(0.04)	0.07	(0.04)	**0.48**	(0.05)	-1.21	(0.04)	0.03	(0.03)	0.68	(0.02)	1.80	(0.07)
	Colombia	0.59	(0.02)	0.90	(0.02)	0.75	(0.03)	0.45	(0.02)	**0.30**	(0.03)	-0.55	(0.04)	0.41	(0.02)	0.89	(0.02)	1.62	(0.03)
	Costa Rica	0.46	(0.02)	0.86	(0.02)	0.57	(0.03)	0.37	(0.02)	**0.20**	(0.04)	-0.60	(0.04)	0.27	(0.02)	0.73	(0.02)	1.45	(0.03)
	Croatia	-0.03	(0.02)	0.94	(0.02)	0.13	(0.03)	-0.20	(0.03)	**0.33**	(0.04)	-1.26	(0.05)	-0.23	(0.02)	0.30	(0.02)	1.05	(0.03)
	Cyprus*	0.46	(0.02)	1.09	(0.02)	0.59	(0.03)	0.33	(0.02)	**0.26**	(0.04)	-0.94	(0.04)	0.24	(0.02)	0.85	(0.01)	1.70	(0.03)
	Hong Kong-China	0.16	(0.02)	0.88	(0.02)	0.34	(0.03)	-0.03	(0.02)	**0.37**	(0.04)	-0.99	(0.03)	0.03	(0.02)	0.47	(0.02)	1.15	(0.03)
	Indonesia	0.68	(0.02)	0.84	(0.02)	0.78	(0.03)	0.57	(0.02)	**0.21**	(0.03)	-0.32	(0.03)	0.44	(0.02)	0.89	(0.02)	1.70	(0.04)
	Jordan	1.48	(0.03)	1.11	(0.03)	1.74	(0.04)	1.23	(0.03)	**0.51**	(0.05)	0.21	(0.04)	1.19	(0.02)	1.70	(0.02)	2.80	(0.06)
	Kazakhstan	1.13	(0.03)	0.89	(0.02)	1.22	(0.03)	1.04	(0.03)	**0.18**	(0.03)	0.08	(0.04)	0.93	(0.03)	1.36	(0.02)	2.16	(0.05)
	Latvia	0.01	(0.02)	0.96	(0.02)	0.14	(0.04)	-0.12	(0.03)	**0.25**	(0.05)	-1.25	(0.04)	-0.21	(0.03)	0.38	(0.02)	1.12	(0.03)
	Liechtenstein	-0.02	(0.07)	0.92	(0.06)	0.13	(0.10)	-0.16	(0.08)	**0.30**	(0.13)	-1.23	(0.14)	-0.16	(0.09)	0.35	(0.06)	1.00	(0.08)
	Lithuania	0.11	(0.02)	0.98	(0.02)	0.24	(0.03)	-0.01	(0.03)	**0.25**	(0.03)	-1.14	(0.04)	-0.08	(0.02)	0.43	(0.02)	1.24	(0.03)
	Macao-China	0.25	(0.01)	0.83	(0.01)	0.39	(0.02)	0.09	(0.02)	**0.30**	(0.03)	-0.80	(0.02)	0.07	(0.01)	0.53	(0.02)	1.21	(0.02)
	Malaysia	0.93	(0.02)	0.81	(0.02)	1.01	(0.03)	0.86	(0.02)	**0.15**	(0.03)	-0.05	(0.03)	0.75	(0.02)	1.16	(0.01)	1.87	(0.03)
	Montenegro	0.40	(0.02)	1.10	(0.02)	0.57	(0.03)	0.23	(0.03)	**0.33**	(0.04)	-0.98	(0.04)	0.18	(0.02)	0.71	(0.02)	1.68	(0.04)
	Peru	0.71	(0.02)	0.87	(0.02)	0.87	(0.02)	0.55	(0.02)	**0.32**	(0.03)	-0.33	(0.02)	0.46	(0.02)	0.95	(0.02)	1.75	(0.03)
	Qatar	1.21	(0.02)	1.20	(0.02)	1.42	(0.02)	1.01	(0.02)	**0.41**	(0.03)	-0.23	(0.03)	0.94	(0.01)	1.52	(0.01)	2.61	(0.03)
	Romania	0.70	(0.04)	1.23	(0.02)	0.78	(0.04)	0.61	(0.05)	**0.17**	(0.06)	-0.88	(0.04)	0.39	(0.04)	1.08	(0.04)	2.19	(0.05)
	Russian Federation	0.70	(0.02)	0.87	(0.02)	0.85	(0.03)	0.55	(0.02)	**0.30**	(0.03)	-0.40	(0.04)	0.53	(0.02)	1.00	(0.01)	1.66	(0.03)
	Serbia	0.28	(0.02)	0.96	(0.02)	0.49	(0.03)	0.07	(0.03)	**0.41**	(0.04)	-0.97	(0.04)	0.11	(0.02)	0.62	(0.01)	1.36	(0.04)
	Shanghai-China	0.57	(0.02)	0.83	(0.02)	0.71	(0.03)	0.44	(0.02)	**0.26**	(0.04)	-0.47	(0.03)	0.42	(0.02)	0.85	(0.01)	1.50	(0.03)
	Singapore	0.47	(0.01)	0.78	(0.02)	0.58	(0.02)	0.36	(0.01)	**0.22**	(0.03)	-0.48	(0.02)	0.32	(0.01)	0.71	(0.02)	1.35	(0.02)
	Chinese Taipei	0.09	(0.02)	0.96	(0.01)	0.23	(0.03)	-0.04	(0.03)	**0.27**	(0.04)	-1.20	(0.04)	-0.05	(0.02)	0.47	(0.02)	1.15	(0.02)
	Thailand	0.97	(0.02)	0.73	(0.02)	1.11	(0.02)	0.86	(0.02)	**0.25**	(0.03)	0.08	(0.02)	0.79	(0.01)	1.17	(0.02)	1.86	(0.03)
	Tunisia	0.87	(0.02)	0.97	(0.02)	1.13	(0.03)	0.65	(0.03)	**0.48**	(0.04)	-0.30	(0.04)	0.65	(0.02)	1.14	(0.02)	2.02	(0.04)
	United Arab Emirates	1.06	(0.02)	1.01	(0.02)	1.22	(0.03)	0.90	(0.02)	**0.32**	(0.04)	-0.15	(0.03)	0.81	(0.02)	1.31	(0.02)	2.26	(0.04)
	Uruguay	0.17	(0.02)	1.06	(0.02)	0.33	(0.04)	0.02	(0.03)	**0.31**	(0.04)	-1.16	(0.04)	-0.09	(0.02)	0.50	(0.02)	1.41	(0.04)
	Viet Nam	0.68	(0.02)	0.64	(0.01)	0.84	(0.02)	0.55	(0.02)	**0.29**	(0.02)	-0.17	(0.03)	0.57	(0.02)	0.93	(0.01)	1.39	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
StatLink http://dx.doi.org/10.1787/888932963958

[Part 2/2]

Table III.4.4d Index of mathematics behaviours and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	Australia	**469**	(2.6)	503	(2.8)	526	(2.6)	**532**	(3.7)	**22.9**	(1.3)	**1.8**	(0.1)	6.3	(0.7)
	Austria	**491**	(4.6)	514	(3.9)	519	(4.3)	**514**	(5.4)	**9.4**	(2.8)	**1.4**	(0.1)	0.9	(0.6)
	Belgium	**491**	(3.5)	526	(3.5)	538	(3.4)	**529**	(4.8)	**14.6**	(2.2)	**1.6**	(0.1)	1.9	(0.6)
	Canada	**493**	(3.0)	520	(3.2)	536	(2.8)	**536**	(3.8)	**17.1**	(1.3)	**1.7**	(0.1)	3.7	(0.6)
	Chile	**412**	(3.7)	427	(3.7)	433	(4.2)	**425**	(4.6)	**4.8**	(1.9)	1.2	(0.1)	0.3	(0.3)
	Czech Republic	**487**	(4.9)	501	(4.6)	513	(4.8)	**515**	(5.1)	**12.2**	(2.6)	**1.3**	(0.1)	1.5	(0.6)
	Denmark	491	(4.1)	507	(3.9)	509	(3.1)	502	(4.1)	**6.1**	(2.6)	1.2	(0.1)	0.3	(0.3)
	Estonia	**502**	(3.2)	518	(3.8)	530	(4.3)	**539**	(3.8)	**15.6**	(2.2)	**1.5**	(0.1)	2.8	(0.8)
	Finland	**505**	(3.2)	517	(3.1)	532	(2.9)	**539**	(3.5)	**14.0**	(1.6)	**1.4**	(0.1)	2.2	(0.5)
	France	**478**	(3.3)	508	(4.4)	509	(5.2)	**504**	(4.9)	**7.6**	(2.1)	**1.3**	(0.1)	0.6	(0.3)
	Germany	515	(4.7)	526	(5.1)	533	(5.0)	524	(5.0)	**6.0**	(2.5)	1.2	(0.1)	0.3	(0.3)
	Greece	**434**	(4.1)	455	(4.0)	471	(3.9)	**457**	(5.2)	**9.5**	(2.1)	**1.4**	(0.1)	1.3	(0.6)
	Hungary	**462**	(4.2)	474	(5.0)	483	(5.0)	**498**	(5.8)	**13.7**	(2.5)	**1.2**	(0.1)	1.9	(0.7)
	Iceland	**477**	(4.3)	497	(4.5)	505	(4.6)	**501**	(4.8)	**6.2**	(2.1)	**1.4**	(0.1)	0.5	(0.4)
	Ireland	**481**	(3.8)	501	(4.2)	513	(4.1)	**513**	(3.9)	**12.1**	(1.8)	**1.4**	(0.1)	2.0	(0.6)
	Israel	**474**	(5.5)	487	(6.5)	483	(5.9)	**438**	(5.8)	**-12.1**	(2.4)	0.8	(0.1)	1.4	(0.5)
	Italy	476	(2.6)	493	(2.8)	496	(2.8)	479	(3.1)	1.4	(1.4)	1.1	(0.1)	0.0	(0.0)
	Japan	**498**	(5.6)	537	(4.2)	557	(4.2)	**560**	(4.9)	**26.6**	(2.0)	**2.1**	(0.1)	7.1	(1.0)
	Korea	**492**	(5.2)	540	(5.7)	580	(5.6)	**605**	(7.2)	**44.9**	(2.8)	**2.6**	(0.2)	20.1	(1.8)
	Luxembourg	481	(3.8)	500	(3.4)	507	(3.7)	484	(3.7)	0.4	(1.7)	1.1	(0.1)	0.0	(0.0)
	Mexico	408	(1.8)	416	(2.0)	421	(2.0)	412	(2.3)	1.1	(0.8)	1.1	(0.0)	0.0	(0.0)
	Netherlands	512	(4.3)	537	(4.3)	541	(5.0)	523	(6.3)	1.0	(2.5)	**1.3**	(0.1)	0.0	(0.1)
	New Zealand	**479**	(4.1)	510	(4.7)	520	(4.7)	**503**	(6.3)	**7.5**	(2.7)	**1.3**	(0.1)	0.7	(0.5)
	Norway	**469**	(4.1)	497	(4.2)	505	(4.3)	**502**	(5.4)	**10.0**	(2.1)	**1.6**	(0.1)	1.3	(0.5)
	Poland	**500**	(4.6)	512	(4.4)	525	(4.7)	**532**	(5.9)	**13.4**	(2.1)	**1.3**	(0.1)	2.0	(0.6)
	Portugal	**471**	(5.5)	487	(5.7)	504	(5.0)	**494**	(5.5)	**8.8**	(2.2)	**1.3**	(0.1)	0.8	(0.4)
	Slovak Republic	471	(4.5)	491	(4.7)	497	(5.5)	477	(8.3)	0.4	(3.6)	1.1	(0.1)	0.0	(0.1)
	Slovenia	**486**	(3.8)	505	(4.1)	520	(4.2)	**506**	(4.4)	**8.6**	(2.2)	**1.3**	(0.1)	0.8	(0.4)
	Spain	**473**	(3.3)	491	(2.7)	497	(2.6)	**484**	(3.0)	**5.1**	(1.2)	**1.2**	(0.1)	0.3	(0.1)
	Sweden	**463**	(3.7)	486	(3.7)	499	(4.0)	**481**	(5.2)	**4.5**	(2.3)	**1.3**	(0.1)	0.3	(0.3)
	Switzerland	523	(4.6)	542	(4.4)	543	(5.0)	519	(4.2)	-0.9	(2.0)	1.1	(0.1)	0.0	(0.0)
	Turkey	435	(5.3)	459	(5.7)	455	(6.4)	444	(6.4)	1.6	(2.4)	**1.2**	(0.1)	0.0	(0.1)
	United Kingdom	**475**	(4.3)	497	(4.6)	511	(5.1)	**499**	(4.9)	**9.7**	(2.0)	**1.3**	(0.1)	1.1	(0.4)
	United States	**460**	(4.3)	491	(4.5)	499	(4.7)	**484**	(5.8)	**8.1**	(1.9)	**1.4**	(0.1)	0.9	(0.4)
	OECD average	**477**	(0.7)	499	(0.7)	509	(0.8)	**502**	(0.9)	**9.2**	(0.4)	**1.4**	(0.0)	1.9	(0.1)
Partners	Albania	396	(4.4)	395	(4.9)	386	(3.9)	401	(4.8)	1.4	(2.5)	1.0	(0.1)	0.0	(0.1)
	Argentina	**393**	(4.7)	405	(3.9)	402	(5.1)	**371**	(5.2)	**-7.0**	(1.6)	0.9	(0.1)	1.2	(0.6)
	Brazil	**399**	(2.9)	402	(3.0)	403	(3.3)	**375**	(2.7)	**-9.0**	(1.1)	0.8	(0.1)	1.5	(0.4)
	Bulgaria	427	(4.6)	454	(5.7)	464	(4.6)	426	(7.0)	-2.2	(2.2)	1.2	(0.1)	0.1	(0.2)
	Colombia	382	(4.0)	388	(3.8)	387	(3.9)	372	(4.9)	**-5.2**	(2.1)	1.0	(0.1)	0.4	(0.4)
	Costa Rica	405	(4.5)	412	(4.6)	415	(4.1)	400	(4.2)	-1.5	(2.2)	1.0	(0.1)	0.0	(0.1)
	Croatia	**451**	(4.0)	470	(5.4)	478	(5.1)	**486**	(5.5)	**12.9**	(2.3)	**1.4**	(0.1)	1.9	(0.6)
	Cyprus*	429	(3.3)	453	(3.1)	454	(3.9)	433	(3.9)	1.8	(1.6)	**1.3**	(0.1)	0.1	(0.1)
	Hong Kong-China	**525**	(4.6)	562	(4.3)	575	(4.3)	**587**	(5.3)	**27.7**	(2.4)	**1.9**	(0.2)	6.5	(1.1)
	Indonesia	**382**	(5.5)	385	(5.1)	378	(4.0)	**361**	(4.9)	**-9.4**	(2.4)	0.8	(0.1)	1.3	(0.6)
	Jordan	**395**	(3.3)	400	(3.9)	393	(4.5)	**373**	(4.1)	**-6.3**	(1.5)	0.9	(0.1)	0.9	(0.4)
	Kazakhstan	429	(4.2)	435	(4.1)	437	(4.0)	426	(5.2)	-0.9	(2.3)	1.0	(0.1)	0.0	(0.1)
	Latvia	**472**	(5.0)	487	(5.2)	496	(5.3)	**508**	(4.9)	**14.2**	(2.1)	**1.4**	(0.1)	2.8	(0.8)
	Liechtenstein	512	(14.1)	539	(14.3)	545	(16.6)	544	(14.8)	7.4	(6.9)	1.5	(0.5)	0.5	(0.8)
	Lithuania	**463**	(4.2)	485	(4.7)	491	(4.4)	**483**	(4.5)	**6.9**	(2.1)	**1.3**	(0.1)	0.6	(0.3)
	Macao-China	**506**	(3.2)	534	(3.5)	556	(3.3)	**563**	(3.5)	**26.2**	(2.1)	**1.7**	(0.1)	5.4	(0.8)
	Malaysia	411	(4.2)	431	(5.2)	432	(4.4)	413	(4.3)	0.4	(2.2)	**1.2**	(0.1)	0.0	(0.1)
	Montenegro	404	(3.7)	418	(4.4)	422	(4.1)	405	(3.6)	-1.0	(1.7)	1.1	(0.1)	0.0	(0.1)
	Peru	**384**	(4.5)	381	(5.1)	382	(5.0)	**355**	(4.9)	**-12.7**	(2.0)	0.7	(0.1)	1.8	(0.5)
	Qatar	**408**	(2.4)	405	(2.8)	375	(2.5)	**343**	(2.2)	**-16.5**	(1.1)	0.6	(0.0)	4.1	(0.5)
	Romania	433	(5.0)	453	(4.8)	462	(7.2)	438	(5.3)	2.5	(1.8)	1.1	(0.1)	0.1	(0.2)
	Russian Federation	**459**	(3.8)	481	(5.0)	494	(4.2)	**498**	(4.9)	**15.3**	(2.5)	**1.5**	(0.1)	2.4	(0.7)
	Serbia	445	(4.3)	455	(4.4)	456	(4.5)	451	(6.1)	1.3	(2.3)	1.0	(0.1)	0.0	(0.1)
	Shanghai-China	**566**	(5.6)	607	(4.4)	630	(4.3)	**649**	(4.1)	**37.7**	(2.5)	**2.2**	(0.1)	9.8	(1.0)
	Singapore	**575**	(3.5)	580	(4.0)	576	(4.0)	**560**	(4.0)	-4.5	(2.4)	0.9	(0.1)	0.1	(0.1)
	Chinese Taipei	**486**	(5.2)	550	(4.9)	588	(4.9)	**617**	(4.3)	**52.1**	(2.1)	**2.9**	(0.2)	18.7	(1.4)
	Thailand	424	(4.2)	428	(4.3)	438	(4.9)	421	(4.5)	-1.3	(2.1)	1.0	(0.1)	0.0	(0.1)
	Tunisia	**391**	(4.2)	401	(5.1)	395	(5.8)	**376**	(5.6)	**-4.6**	(1.8)	0.9	(0.1)	0.3	(0.3)
	United Arab Emirates	**455**	(3.9)	444	(3.5)	439	(3.9)	**407**	(4.0)	**-16.5**	(1.6)	0.7	(0.1)	3.5	(0.7)
	Uruguay	**420**	(4.1)	427	(4.4)	422	(4.0)	**394**	(4.7)	**-10.2**	(1.7)	0.9	(0.1)	1.6	(0.5)
	Viet Nam	**487**	(5.7)	512	(5.9)	526	(5.4)	**520**	(6.2)	**21.2**	(3.1)	**1.5**	(0.1)	2.5	(0.8)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See notes at the beginning of this Annex.

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[Part 1/1]

Table III.4.5a

Students and their intentions for mathematics

Percentage of students who chose the statement that best describes them out of the following pairs of statements:

		Percentage of students who reported that they:																			
		Additional courses				Major				Study				Course taking				Career			
		Intend to take additional mathematics courses after school finishes		Intend to take additional <test language> courses after school finishes		Major in a subject in <college> that requires mathematics skills		Major in a subject in <college> that requires science skills		Are willing to study harder in mathematics classes than is required		Are willing to study harder in <test language> classes than is required		Plan to <take> as many mathematics classes as possible during my education		Plan to <take> as many science classes as possible during my education		Plan to pursue a career that involves a lot of mathematics		Plan to pursue a career that involves a lot of science	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	51.0	(0.7)	49.0	(0.7)	49.1	(0.7)	50.9	(0.7)	55.5	(0.7)	44.5	(0.7)	56.7	(0.7)	43.3	(0.7)	49.8	(0.7)	50.2	(0.7)
	Austria	54.2	(1.2)	45.8	(1.2)	39.9	(1.2)	60.1	(1.2)	59.4	(0.9)	40.6	(0.9)	55.3	(1.1)	44.7	(1.1)	48.0	(1.4)	52.0	(1.4)
	Belgium	58.9	(0.7)	41.1	(0.7)	42.1	(0.9)	57.9	(0.9)	55.6	(0.8)	44.4	(0.8)	46.8	(0.9)	53.2	(0.9)	42.3	(0.9)	57.7	(0.9)
	Canada	57.4	(0.6)	42.6	(0.6)	38.1	(0.7)	61.9	(0.7)	58.4	(0.7)	41.6	(0.7)	38.5	(0.6)	61.5	(0.6)	37.9	(0.7)	62.1	(0.7)
	Chile	59.6	(0.9)	40.4	(0.9)	42.7	(0.9)	57.3	(0.9)	59.4	(0.9)	40.6	(0.9)	49.0	(0.9)	51.0	(0.9)	45.3	(1.0)	54.7	(1.0)
	Czech Republic	57.7	(1.3)	42.3	(1.3)	43.0	(1.4)	57.0	(1.4)	50.4	(1.2)	49.6	(1.2)	48.7	(1.5)	51.3	(1.5)	45.8	(1.4)	54.2	(1.4)
	Denmark	58.9	(1.0)	41.1	(1.0)	71.5	(0.9)	28.5	(0.9)	63.2	(1.1)	36.8	(1.1)	67.4	(1.0)	32.6	(1.0)	63.7	(1.0)	36.3	(1.0)
	Estonia	60.8	(0.9)	39.2	(0.9)	45.6	(0.9)	54.4	(0.9)	63.1	(1.0)	36.9	(1.0)	54.9	(1.1)	45.1	(1.1)	45.4	(1.0)	54.6	(1.0)
	Finland	55.7	(0.9)	44.3	(0.9)	42.9	(0.8)	57.1	(0.8)	54.9	(0.9)	45.1	(0.9)	43.5	(0.8)	56.5	(0.8)	49.0	(0.9)	51.0	(0.9)
	France	60.1	(1.0)	39.9	(1.0)	45.5	(1.0)	54.5	(1.0)	56.5	(1.2)	43.5	(1.2)	49.7	(1.1)	50.3	(1.1)	45.0	(1.1)	55.0	(1.1)
	Germany	50.9	(1.1)	49.1	(1.1)	40.3	(1.2)	59.7	(1.2)	56.6	(1.2)	43.4	(1.2)	50.5	(1.1)	49.5	(1.1)	43.0	(1.2)	57.0	(1.2)
	Greece	57.0	(1.0)	43.0	(1.0)	43.4	(1.1)	56.6	(1.1)	56.1	(1.1)	43.9	(1.1)	47.6	(1.0)	52.4	(1.0)	41.4	(1.1)	58.6	(1.1)
	Hungary	42.0	(1.4)	58.0	(1.4)	38.4	(1.2)	61.6	(1.2)	40.8	(1.3)	59.2	(1.3)	41.4	(1.1)	58.6	(1.1)	38.5	(1.1)	61.5	(1.1)
	Iceland	70.2	(0.9)	29.8	(0.9)	46.7	(1.0)	53.3	(1.0)	70.5	(0.9)	29.5	(0.9)	55.2	(1.0)	44.8	(1.0)	45.2	(1.0)	54.8	(1.0)
	Ireland	47.3	(1.0)	52.7	(1.0)	38.2	(1.0)	61.8	(1.0)	58.9	(0.8)	41.1	(0.8)	52.4	(1.1)	47.6	(1.1)	39.4	(1.0)	60.6	(1.0)
	Israel	67.0	(1.0)	33.0	(1.0)	51.0	(1.2)	49.0	(1.2)	74.0	(0.9)	26.0	(0.9)	m	m	m	m	53.2	(1.2)	46.8	(1.2)
	Italy	58.4	(0.7)	41.6	(0.7)	36.1	(0.7)	63.9	(0.7)	55.4	(0.8)	44.6	(0.8)	m	m	m	m	39.8	(0.7)	60.2	(0.7)
	Japan	62.8	(1.0)	37.2	(1.0)	43.6	(1.0)	56.4	(1.0)	54.4	(1.1)	45.6	(1.1)	50.3	(1.0)	49.7	(1.0)	42.8	(1.0)	57.2	(1.0)
	Korea	40.6	(1.2)	59.4	(1.2)	41.5	(1.0)	58.5	(1.0)	47.3	(1.2)	52.7	(1.2)	49.6	(1.1)	50.4	(1.1)	41.5	(1.0)	58.5	(1.0)
	Luxembourg	59.0	(0.8)	41.0	(0.8)	44.2	(0.9)	55.8	(0.9)	59.4	(0.8)	40.6	(0.8)	51.3	(0.8)	48.7	(0.8)	46.2	(0.9)	53.8	(0.9)
	Mexico	57.7	(0.6)	42.3	(0.6)	42.9	(0.5)	57.1	(0.5)	68.5	(0.5)	31.5	(0.5)	56.6	(0.6)	43.4	(0.6)	45.1	(0.6)	54.9	(0.6)
	Netherlands	54.0	(1.2)	46.0	(1.2)	56.2	(1.3)	43.8	(1.3)	59.5	(1.2)	40.5	(1.2)	54.7	(1.4)	45.3	(1.4)	51.4	(1.4)	48.6	(1.4)
	New Zealand	48.2	(1.1)	51.8	(1.1)	43.8	(1.2)	56.2	(1.2)	51.9	(1.0)	48.1	(1.0)	49.6	(1.2)	50.4	(1.2)	46.1	(1.3)	53.9	(1.3)
	Norway	66.8	(0.9)	33.2	(0.9)	56.4	(1.1)	43.6	(1.1)	69.4	(1.0)	30.6	(1.0)	55.3	(1.1)	44.7	(1.1)	56.2	(1.1)	43.8	(1.1)
	Poland	59.2	(1.0)	40.8	(1.0)	44.4	(1.1)	55.6	(1.1)	47.8	(1.1)	52.2	(1.1)	45.4	(1.1)	54.6	(1.1)	42.5	(1.1)	57.5	(1.1)
	Portugal	60.5	(1.3)	39.5	(1.3)	42.7	(1.1)	57.3	(1.1)	62.9	(0.9)	37.1	(0.9)	53.2	(1.1)	46.8	(1.1)	42.9	(1.1)	57.1	(1.1)
	Slovak Republic	51.9	(1.2)	48.1	(1.2)	40.1	(1.3)	59.9	(1.3)	46.5	(1.1)	53.5	(1.1)	44.4	(1.2)	55.6	(1.2)	41.2	(1.2)	58.8	(1.2)
	Slovenia	57.7	(1.1)	42.3	(1.1)	34.5	(0.9)	65.5	(0.9)	57.1	(1.0)	42.9	(1.0)	36.6	(1.0)	63.4	(1.0)	35.4	(1.0)	64.6	(1.0)
	Spain	58.9	(0.9)	41.1	(0.9)	35.5	(0.8)	64.5	(0.8)	59.7	(0.7)	40.3	(0.7)	40.2	(1.0)	59.8	(1.0)	35.7	(0.9)	64.3	(0.9)
	Sweden	61.1	(0.9)	38.9	(0.9)	66.5	(0.9)	33.5	(0.9)	67.1	(0.9)	32.9	(0.9)	66.2	(1.0)	33.8	(1.0)	62.3	(1.1)	37.7	(1.1)
	Switzerland	56.7	(1.0)	43.3	(1.0)	48.9	(1.2)	51.1	(1.2)	57.2	(0.9)	42.8	(0.9)	55.8	(1.2)	44.2	(1.2)	53.9	(1.3)	46.1	(1.3)
	Turkey	70.2	(1.0)	29.8	(1.0)	48.8	(0.9)	51.2	(0.9)	65.9	(1.0)	34.1	(1.0)	59.3	(1.1)	40.7	(1.1)	50.7	(0.9)	49.3	(0.9)
	United Kingdom	51.2	(0.8)	48.8	(0.8)	44.4	(1.0)	55.6	(1.0)	58.6	(0.9)	41.4	(0.9)	53.1	(1.0)	46.9	(1.0)	44.8	(1.0)	55.2	(1.0)
	United States	59.0	(0.9)	41.0	(0.9)	43.6	(1.2)	56.4	(1.2)	62.0	(1.1)	38.0	(1.1)	48.4	(1.2)	51.6	(1.2)	44.9	(1.1)	55.1	(1.1)
	OECD average	57.1	(0.2)	42.9	(0.2)	45.1	(0.2)	54.9	(0.2)	58.3	(0.2)	41.7	(0.2)	50.9	(0.2)	49.1	(0.2)	45.8	(0.2)	54.2	(0.2)
Partners	**Albania**	64.4	(1.1)	35.6	(1.1)	43.6	(1.1)	56.4	(1.1)	55.7	(1.0)	44.3	(1.0)	44.8	(1.2)	55.2	(1.2)	42.1	(1.0)	57.9	(1.0)
	Argentina	60.9	(1.3)	39.1	(1.3)	37.1	(1.1)	62.9	(1.1)	62.4	(1.1)	37.6	(1.1)	51.6	(1.1)	48.4	(1.1)	39.3	(1.2)	60.7	(1.2)
	Brazil	47.3	(0.7)	52.7	(0.7)	40.5	(0.7)	59.5	(0.7)	61.7	(0.6)	38.3	(0.6)	53.9	(0.7)	46.1	(0.7)	42.4	(0.7)	57.6	(0.7)
	Bulgaria	51.0	(1.1)	49.0	(1.1)	37.2	(1.2)	62.8	(1.2)	43.7	(1.2)	56.3	(1.2)	45.0	(1.1)	55.0	(1.1)	39.6	(1.1)	60.4	(1.1)
	Colombia	62.8	(1.2)	37.2	(1.2)	42.9	(1.2)	57.1	(1.2)	72.6	(0.9)	27.4	(0.9)	55.5	(1.0)	44.5	(1.0)	43.9	(1.1)	56.1	(1.1)
	Costa Rica	72.7	(1.1)	27.3	(1.1)	43.5	(1.3)	56.5	(1.3)	66.0	(1.0)	34.0	(1.0)	55.1	(1.2)	44.9	(1.2)	42.8	(1.3)	57.2	(1.3)
	Croatia	62.6	(1.0)	37.4	(1.0)	39.5	(1.2)	60.5	(1.2)	54.1	(1.1)	45.9	(1.1)	54.6	(1.1)	45.4	(1.1)	41.2	(1.3)	58.8	(1.3)
	Cyprus*	66.1	(1.0)	33.9	(1.0)	51.2	(1.0)	48.8	(1.0)	62.1	(1.0)	37.9	(1.0)	52.0	(0.9)	48.0	(0.9)	50.8	(1.0)	49.2	(1.0)
	Hong Kong-China	49.5	(1.0)	50.5	(1.0)	29.1	(0.9)	70.9	(0.9)	55.8	(1.0)	44.2	(1.0)	34.1	(1.2)	65.9	(1.2)	31.8	(0.9)	68.2	(0.9)
	Indonesia	59.7	(1.6)	40.3	(1.6)	35.7	(1.0)	64.3	(1.0)	67.1	(1.2)	32.9	(1.2)	43.9	(1.2)	56.1	(1.2)	43.5	(1.1)	56.5	(1.1)
	Jordan	73.9	(1.0)	26.1	(1.0)	45.9	(0.8)	54.1	(0.8)	67.9	(1.0)	32.1	(1.0)	59.6	(0.9)	40.4	(0.9)	47.7	(1.0)	52.3	(1.0)
	Kazakhstan	67.2	(1.3)	32.8	(1.3)	44.9	(1.3)	55.1	(1.3)	63.3	(1.4)	36.7	(1.4)	55.7	(1.1)	44.3	(1.1)	49.1	(1.2)	50.9	(1.2)
	Latvia	61.3	(1.2)	38.7	(1.2)	50.7	(1.0)	49.3	(1.0)	54.0	(1.1)	46.0	(1.1)	51.3	(1.0)	48.7	(1.0)	50.2	(1.0)	49.8	(1.0)
	Liechtenstein	69.7	(3.2)	30.3	(3.2)	47.9	(3.5)	52.1	(3.5)	69.0	(3.2)	31.0	(3.2)	58.0	(3.6)	42.0	(3.6)	52.8	(3.9)	47.2	(3.9)
	Lithuania	52.5	(1.1)	47.5	(1.1)	42.9	(1.2)	57.1	(1.2)	54.1	(1.1)	45.9	(1.1)	m	m	m	m	43.3	(1.1)	56.7	(1.1)
	Macao-China	60.2	(0.9)	39.8	(0.9)	33.2	(0.9)	66.8	(0.9)	58.7	(0.7)	41.3	(0.7)	36.5	(0.9)	63.5	(0.9)	34.9	(0.8)	65.1	(0.8)
	Malaysia	63.2	(1.2)	36.8	(1.2)	48.6	(0.8)	51.4	(0.8)	66.9	(1.3)	33.1	(1.3)	55.8	(0.8)	44.2	(0.8)	53.1	(0.8)	46.9	(0.8)
	Montenegro	46.8	(0.9)	53.2	(0.9)	29.9	(0.8)	70.1	(0.8)	34.4	(1.0)	65.6	(1.0)	35.3	(0.8)	64.7	(0.8)	30.8	(0.8)	69.2	(0.8)
	Peru	61.3	(0.7)	38.7	(0.7)	51.3	(1.1)	48.7	(1.1)	66.8	(0.8)	33.2	(0.8)	69.0	(0.8)	31.0	(0.8)	53.3	(1.0)	46.7	(1.0)
	Qatar	69.2	(0.6)	30.8	(0.6)	45.8	(0.6)	54.2	(0.6)	65.1	(0.5)	34.9	(0.5)	51.5	(0.6)	48.5	(0.6)	50.7	(0.6)	49.3	(0.6)
	Romania	47.8	(1.1)	52.2	(1.1)	33.0	(1.1)	67.0	(1.1)	42.3	(1.0)	57.7	(1.0)	38.6	(1.0)	61.4	(1.0)	34.9	(1.2)	65.1	(1.2)
	Russian Federation	50.5	(1.0)	49.5	(1.0)	40.1	(1.1)	59.9	(1.1)	54.0	(1.1)	46.0	(1.1)	48.3	(0.9)	51.7	(0.9)	40.1	(1.2)	59.9	(1.2)
	Serbia	42.9	(1.3)	57.1	(1.3)	25.9	(1.2)	74.1	(1.2)	41.2	(1.3)	58.8	(1.3)	43.1	(1.2)	56.9	(1.2)	28.9	(1.1)	71.1	(1.1)
	Shanghai-China	65.5	(1.0)	34.5	(1.0)	36.3	(0.9)	63.7	(0.9)	67.0	(0.8)	33.0	(0.8)	52.3	(1.0)	47.7	(1.0)	37.6	(0.9)	62.4	(0.9)
	Singapore	56.7	(0.8)	43.3	(0.8)	47.1	(0.8)	52.9	(0.8)	64.2	(0.7)	35.8	(0.7)	50.0	(0.7)	50.0	(0.7)	47.7	(0.8)	52.3	(0.8)
	Chinese Taipei	54.5	(1.0)	45.5	(1.0)	37.4	(0.9)	62.6	(0.9)	49.6	(1.0)	50.4	(1.0)	43.6	(0.9)	56.4	(0.9)	39.6	(1.0)	60.4	(1.0)
	Thailand	67.0	(1.1)	33.0	(1.1)	42.2	(0.9)	57.8	(0.9)	65.3	(0.8)	34.7	(0.8)	55.2	(1.0)	44.8	(1.0)	49.6	(0.9)	50.4	(0.9)
	Tunisia	59.8	(1.4)	40.2	(1.4)	35.4	(1.1)	64.6	(1.1)	56.1	(1.2)	43.9	(1.2)	44.6	(1.1)	55.4	(1.1)	39.1	(1.2)	60.9	(1.2)
	United Arab Emirates	65.4	(0.6)	34.6	(0.6)	44.6	(0.9)	55.4	(0.9)	70.5	(0.7)	29.5	(0.7)	42.9	(0.8)	57.1	(0.8)	47.1	(0.9)	52.9	(0.9)
	Uruguay	60.9	(1.1)	39.1	(1.1)	46.4	(1.2)	53.6	(1.2)	60.3	(1.1)	39.7	(1.1)	51.5	(1.1)	48.5	(1.1)	47.5	(1.1)	52.5	(1.1)
	Viet Nam	71.0	(1.1)	29.0	(1.1)	50.2	(1.2)	49.8	(1.2)	75.0	(1.1)	25.0	(1.1)	60.7	(1.1)	39.3	(1.1)	53.0	(1.2)	47.0	(1.2)

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.4.5b Index of mathematics intentions and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Index of mathematics intentions																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	Standard deviation	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	0.02	(0.01)	1.01	(0.01)	0.31	(0.02)	-0.28	(0.02)	**0.59**	(0.02)	-1.32	(0.02)	-0.34	(0.02)	0.37	(0.01)	1.36	(0.01)
	Austria	0.01	(0.02)	0.97	(0.01)	0.25	(0.03)	-0.22	(0.03)	**0.47**	(0.04)	-1.24	(0.02)	-0.38	(0.02)	0.35	(0.04)	1.30	(0.03)
	Belgium	-0.06	(0.02)	1.01	(0.01)	0.14	(0.03)	-0.25	(0.02)	**0.39**	(0.03)	-1.36	(0.02)	-0.42	(0.02)	0.23	(0.03)	1.30	(0.02)
	Canada	-0.14	(0.01)	0.98	(0.01)	0.10	(0.02)	-0.37	(0.02)	**0.48**	(0.03)	-1.38	(0.02)	-0.45	(0.01)	0.06	(0.02)	1.22	(0.02)
	Chile	0.00	(0.02)	1.04	(0.01)	0.21	(0.03)	-0.20	(0.02)	**0.41**	(0.04)	-1.34	(0.02)	-0.41	(0.02)	0.34	(0.03)	1.42	(0.02)
	Czech Republic	-0.06	(0.03)	1.00	(0.01)	0.21	(0.04)	-0.34	(0.03)	**0.55**	(0.05)	-1.31	(0.03)	-0.49	(0.02)	0.30	(0.05)	1.26	(0.03)
	Denmark	0.35	(0.02)	0.91	(0.01)	0.50	(0.03)	0.20	(0.02)	**0.30**	(0.03)	-0.87	(0.03)	0.05	(0.02)	0.75	(0.03)	1.45	(0.00)
	Estonia	0.08	(0.02)	0.94	(0.01)	0.16	(0.03)	-0.01	(0.02)	**0.17**	(0.03)	-1.14	(0.02)	-0.23	(0.03)	0.38	(0.01)	1.30	(0.02)
	Finland	-0.06	(0.02)	1.11	(0.01)	0.22	(0.03)	-0.33	(0.02)	**0.55**	(0.04)	-1.52	(0.02)	-0.50	(0.02)	0.35	(0.04)	1.45	(0.01)
	France	-0.01	(0.02)	0.96	(0.01)	0.19	(0.03)	-0.19	(0.03)	**0.38**	(0.04)	-1.25	(0.02)	-0.35	(0.02)	0.28	(0.03)	1.27	(0.02)
	Germany	-0.09	(0.02)	1.00	(0.01)	0.15	(0.03)	-0.32	(0.03)	**0.46**	(0.04)	-1.39	(0.03)	-0.45	(0.02)	0.24	(0.04)	1.25	(0.03)
	Greece	-0.08	(0.02)	0.99	(0.01)	0.10	(0.03)	-0.26	(0.03)	**0.36**	(0.04)	-1.39	(0.03)	-0.35	(0.02)	0.14	(0.04)	1.27	(0.03)
	Hungary	-0.33	(0.03)	1.12	(0.01)	-0.05	(0.04)	-0.58	(0.04)	**0.53**	(0.05)	-1.53	(0.00)	-1.04	(0.06)	0.01	(0.04)	1.26	(0.03)
	Iceland	0.18	(0.02)	0.91	(0.01)	0.29	(0.03)	0.08	(0.03)	**0.21**	(0.04)	-0.96	(0.03)	-0.16	(0.02)	0.44	(0.02)	1.40	(0.03)
	Ireland	-0.12	(0.02)	0.96	(0.01)	0.04	(0.03)	-0.27	(0.03)	**0.32**	(0.04)	-1.34	(0.02)	-0.45	(0.02)	0.15	(0.03)	1.18	(0.02)
	Israel	0.26	(0.02)	0.90	(0.01)	0.39	(0.03)	0.13	(0.03)	**0.26**	(0.04)	-0.93	(0.03)	-0.05	(0.01)	0.67	(0.05)	1.35	(0.00)
	Italy	-0.12	(0.02)	0.92	(0.00)	0.01	(0.01)	-0.25	(0.02)	**0.26**	(0.02)	-1.33	(0.02)	-0.34	(0.02)	0.09	(0.01)	1.12	(0.02)
	Japan	-0.01	(0.02)	0.96	(0.01)	0.04	(0.02)	-0.07	(0.03)	**0.11**	(0.03)	-1.26	(0.02)	-0.32	(0.02)	0.28	(0.03)	1.26	(0.02)
	Korea	-0.21	(0.02)	1.02	(0.01)	-0.16	(0.03)	-0.28	(0.03)	**0.12**	(0.04)	-1.53	(0.00)	-0.55	(0.05)	0.07	(0.02)	1.16	(0.03)
	Luxembourg	0.02	(0.02)	0.96	(0.01)	0.20	(0.02)	-0.16	(0.02)	**0.37**	(0.03)	-1.23	(0.02)	-0.33	(0.02)	0.34	(0.02)	1.30	(0.02)
	Mexico	0.09	(0.01)	0.97	(0.00)	0.18	(0.01)	0.00	(0.01)	**0.17**	(0.01)	-1.17	(0.01)	-0.24	(0.02)	0.39	(0.01)	1.38	(0.02)
	Netherlands	0.10	(0.02)	0.91	(0.01)	0.11	(0.03)	0.10	(0.03)	0.01	(0.03)	-1.10	(0.04)	-0.13	(0.02)	0.36	(0.03)	1.28	(0.04)
	New Zealand	-0.11	(0.02)	0.98	(0.01)	0.12	(0.03)	-0.33	(0.03)	**0.45**	(0.04)	-1.36	(0.03)	-0.45	(0.02)	0.18	(0.04)	1.20	(0.03)
	Norway	0.27	(0.02)	1.00	(0.01)	0.42	(0.03)	0.12	(0.03)	**0.30**	(0.04)	-1.06	(0.03)	-0.10	(0.02)	0.79	(0.05)	1.46	(0.00)
	Poland	-0.09	(0.02)	1.09	(0.01)	0.14	(0.03)	-0.30	(0.03)	**0.43**	(0.04)	-1.49	(0.02)	-0.52	(0.02)	0.22	(0.04)	1.43	(0.03)
	Portugal	0.03	(0.02)	0.98	(0.01)	0.11	(0.03)	-0.05	(0.03)	**0.16**	(0.03)	-1.25	(0.02)	-0.30	(0.03)	0.34	(0.03)	1.35	(0.03)
	Slovak Republic	-0.18	(0.03)	1.03	(0.01)	0.05	(0.03)	-0.41	(0.03)	**0.46**	(0.04)	-1.52	(0.02)	-0.55	(0.04)	0.13	(0.04)	1.22	(0.03)
	Slovenia	-0.19	(0.02)	1.03	(0.01)	0.08	(0.03)	-0.45	(0.03)	**0.53**	(0.04)	-1.49	(0.02)	-0.56	(0.02)	0.04	(0.03)	1.26	(0.03)
	Spain	-0.15	(0.02)	0.98	(0.01)	-0.02	(0.02)	-0.27	(0.03)	**0.26**	(0.03)	-1.39	(0.02)	-0.42	(0.02)	0.01	(0.03)	1.22	(0.02)
	Sweden	0.35	(0.02)	0.93	(0.01)	0.49	(0.03)	0.22	(0.03)	**0.27**	(0.04)	-0.88	(0.03)	0.04	(0.02)	0.80	(0.04)	1.46	(0.00)
	Switzerland	0.09	(0.02)	1.01	(0.01)	0.41	(0.03)	-0.22	(0.03)	**0.63**	(0.05)	-1.27	(0.02)	-0.25	(0.04)	0.45	(0.03)	1.40	(0.02)
	Turkey	0.21	(0.02)	1.00	(0.01)	0.15	(0.03)	0.27	(0.03)	**-0.12**	(0.05)	-1.13	(0.03)	-0.11	(0.02)	0.63	(0.04)	1.46	(0.00)
	United Kingdom	-0.04	(0.02)	0.93	(0.01)	0.08	(0.02)	-0.15	(0.02)	**0.23**	(0.03)	-1.22	(0.02)	-0.36	(0.01)	0.25	(0.03)	1.19	(0.02)
	United States	0.02	(0.02)	1.01	(0.01)	0.17	(0.03)	-0.13	(0.03)	**0.29**	(0.03)	-1.27	(0.03)	-0.36	(0.02)	0.31	(0.04)	1.39	(0.03)
	OECD average	0.00	(0.00)	0.99	(0.00)	0.17	(0.00)	-0.16	(0.00)	**0.33**	(0.01)	-1.27	(0.00)	-0.35	(0.00)	0.32	(0.01)	1.31	(0.00)
Partners	**Albania**	-0.03	(0.02)	1.04	(0.01)	-0.03	(0.04)	-0.03	(0.03)	-0.01	(0.05)	-1.36	(0.03)	-0.42	(0.02)	0.28	(0.04)	1.39	(0.03)
	Argentina	-0.02	(0.02)	1.00	(0.01)	0.13	(0.03)	-0.14	(0.03)	**0.27**	(0.05)	-1.30	(0.03)	-0.39	(0.02)	0.29	(0.04)	1.34	(0.03)
	Brazil	-0.05	(0.01)	1.02	(0.01)	0.10	(0.02)	-0.18	(0.02)	**0.28**	(0.03)	-1.35	(0.01)	-0.44	(0.01)	0.26	(0.02)	1.33	(0.02)
	Bulgaria	-0.23	(0.03)	1.04	(0.01)	-0.08	(0.03)	-0.39	(0.03)	**0.31**	(0.04)	-1.53	(0.00)	-0.65	(0.05)	0.07	(0.04)	1.19	(0.03)
	Colombia	0.13	(0.02)	1.02	(0.01)	0.21	(0.03)	0.06	(0.03)	**0.14**	(0.04)	-1.22	(0.03)	-0.23	(0.03)	0.50	(0.05)	1.46	(0.00)
	Costa Rica	0.15	(0.02)	0.99	(0.01)	0.29	(0.03)	0.02	(0.03)	**0.27**	(0.04)	-1.16	(0.03)	-0.19	(0.03)	0.48	(0.06)	1.46	(0.00)
	Croatia	-0.02	(0.02)	0.98	(0.01)	0.15	(0.03)	-0.19	(0.03)	**0.34**	(0.04)	-1.26	(0.02)	-0.41	(0.02)	0.31	(0.04)	1.28	(0.03)
	Cyprus*	0.14	(0.02)	0.98	(0.01)	0.29	(0.02)	-0.01	(0.03)	**0.30**	(0.03)	-1.13	(0.03)	-0.21	(0.02)	0.45	(0.04)	1.45	(0.01)
	Hong Kong-China	-0.31	(0.02)	0.99	(0.01)	-0.20	(0.02)	-0.44	(0.03)	**0.24**	(0.03)	-1.53	(0.00)	-0.66	(0.04)	-0.10	(0.02)	1.04	(0.04)
	Indonesia	-0.02	(0.02)	1.01	(0.01)	0.00	(0.03)	-0.05	(0.04)	0.05	(0.05)	-1.33	(0.03)	-0.35	(0.02)	0.22	(0.04)	1.37	(0.03)
	Jordan	0.21	(0.02)	0.84	(0.01)	0.27	(0.02)	0.16	(0.03)	**0.11**	(0.04)	-0.81	(0.03)	-0.07	(0.02)	0.42	(0.02)	1.32	(0.02)
	Kazakhstan	0.14	(0.03)	1.05	(0.01)	0.20	(0.03)	0.09	(0.04)	**0.11**	(0.04)	-1.27	(0.03)	-0.22	(0.05)	0.61	(0.06)	1.46	(0.00)
	Latvia	0.06	(0.02)	0.96	(0.01)	0.22	(0.03)	-0.10	(0.03)	**0.32**	(0.04)	-1.19	(0.02)	-0.27	(0.03)	0.41	(0.02)	1.31	(0.03)
	Liechtenstein	0.24	(0.07)	0.99	(0.03)	0.51	(0.09)	-0.03	(0.10)	**0.54**	(0.13)	-1.10	(0.10)	-0.09	(0.08)	0.73	(0.14)	1.45	(0.02)
	Lithuania	-0.09	(0.02)	0.99	(0.01)	0.10	(0.03)	-0.27	(0.03)	**0.36**	(0.04)	-1.40	(0.03)	-0.42	(0.03)	0.21	(0.02)	1.26	(0.03)
	Macao-China	-0.17	(0.02)	0.95	(0.01)	-0.11	(0.03)	-0.24	(0.02)	**0.12**	(0.03)	-1.36	(0.02)	-0.43	(0.02)	-0.04	(0.02)	1.14	(0.03)
	Malaysia	0.18	(0.02)	0.95	(0.01)	0.17	(0.03)	0.19	(0.03)	-0.03	(0.03)	-1.05	(0.04)	-0.14	(0.01)	0.45	(0.04)	1.46	(0.01)
	Montenegro	-0.45	(0.02)	1.07	(0.01)	-0.29	(0.03)	-0.60	(0.03)	**0.31**	(0.04)	-1.53	(0.00)	-1.16	(0.03)	-0.21	(0.03)	1.11	(0.03)
	Peru	0.26	(0.02)	0.98	(0.01)	0.36	(0.02)	0.16	(0.02)	**0.19**	(0.03)	-1.05	(0.03)	-0.05	(0.01)	0.67	(0.04)	1.46	(0.00)
	Qatar	0.14	(0.01)	0.92	(0.01)	0.29	(0.02)	0.00	(0.02)	**0.29**	(0.02)	-1.04	(0.02)	-0.14	(0.01)	0.39	(0.01)	1.36	(0.02)
	Romania	-0.34	(0.03)	1.05	(0.01)	-0.26	(0.03)	-0.42	(0.04)	**0.16**	(0.05)	-1.53	(0.00)	-0.91	(0.06)	-0.04	(0.02)	1.12	(0.04)
	Russian Federation	-0.13	(0.02)	1.11	(0.01)	0.09	(0.03)	-0.35	(0.03)	**0.44**	(0.04)	-1.53	(0.00)	-0.63	(0.05)	0.24	(0.04)	1.39	(0.03)
	Serbia	-0.42	(0.03)	1.04	(0.01)	-0.23	(0.04)	-0.59	(0.03)	**0.36**	(0.04)	-1.53	(0.00)	-1.06	(0.04)	-0.15	(0.04)	1.06	(0.05)
	Shanghai-China	0.03	(0.02)	1.04	(0.01)	0.11	(0.03)	-0.05	(0.03)	**0.17**	(0.05)	-1.31	(0.02)	-0.34	(0.02)	0.31	(0.05)	1.46	(0.01)
	Singapore	0.06	(0.02)	0.97	(0.01)	0.11	(0.02)	0.01	(0.02)	**0.10**	(0.03)	-1.16	(0.02)	-0.32	(0.02)	0.38	(0.02)	1.35	(0.02)
	Chinese Taipei	-0.18	(0.02)	1.03	(0.01)	-0.21	(0.03)	-0.15	(0.03)	-0.06	(0.04)	-1.53	(0.01)	-0.50	(0.04)	0.10	(0.03)	1.20	(0.02)
	Thailand	0.14	(0.02)	0.96	(0.01)	0.14	(0.03)	0.14	(0.02)	0.00	(0.03)	-1.07	(0.04)	-0.20	(0.02)	0.39	(0.02)	1.45	(0.02)
	Tunisia	-0.12	(0.03)	1.04	(0.01)	0.04	(0.04)	-0.26	(0.03)	**0.30**	(0.04)	-1.47	(0.03)	-0.47	(0.02)	0.15	(0.04)	1.31	(0.03)
	United Arab Emirates	0.08	(0.01)	0.88	(0.01)	0.16	(0.02)	0.01	(0.02)	**0.15**	(0.03)	-1.03	(0.02)	-0.23	(0.02)	0.34	(0.02)	1.23	(0.02)
	Uruguay	0.06	(0.02)	1.04	(0.01)	0.15	(0.03)	-0.02	(0.03)	**0.17**	(0.04)	-1.32	(0.02)	-0.33	(0.03)	0.44	(0.03)	1.43	(0.01)
	Viet Nam	0.32	(0.03)	1.09	(0.01)	0.41	(0.03)	0.25	(0.03)	**0.16**	(0.04)	-1.18	(0.05)	-0.09	(0.02)	1.10	(0.06)	1.46	(0.00)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 2/2]

Table III.4.5b Index of mathematics intentions and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	Australia	**501**	(2.7)	529	(3.3)	505	(3.0)	**510**	(2.8)	1.7	(1.1)	1.1	(0.1)	0.0	(0.0)
	Austria	**510**	(4.3)	514	(4.9)	501	(5.7)	**524**	(5.2)	**6.1**	(2.2)	1.0	(0.1)	0.4	(0.3)
	Belgium	**505**	(3.6)	535	(4.0)	517	(3.7)	**543**	(3.5)	**12.8**	(1.5)	1.2	(0.1)	1.7	(0.4)
	Canada	**502**	(2.8)	532	(3.3)	526	(4.4)	**531**	(2.9)	**9.9**	(1.1)	**1.5**	(0.1)	1.3	(0.3)
	Chile	**408**	(4.0)	428	(4.1)	420	(4.2)	**451**	(3.6)	**14.5**	(1.3)	**1.5**	(0.1)	3.6	(0.7)
	Czech Republic	**488**	(4.7)	497	(5.6)	506	(4.9)	**535**	(4.9)	**18.1**	(2.1)	**1.5**	(0.1)	4.1	(1.0)
	Denmark	**494**	(3.8)	501	(3.5)	505	(4.2)	**513**	(3.9)	**7.9**	(1.7)	**1.2**	(0.1)	0.8	(0.3)
	Estonia	**508**	(3.7)	519	(4.3)	522	(3.7)	**544**	(3.3)	**14.5**	(1.9)	**1.4**	(0.1)	2.9	(0.7)
	Finland	**498**	(2.4)	517	(3.4)	535	(3.1)	**559**	(3.5)	**20.5**	(1.1)	**1.7**	(0.1)	7.9	(0.9)
	France	**485**	(4.0)	530	(4.9)	492	(5.9)	**510**	(5.0)	**7.3**	(2.2)	**1.2**	(0.1)	0.5	(0.3)
	Germany	**516**	(4.4)	539	(5.1)	522	(5.4)	**535**	(4.9)	**5.6**	(2.1)	1.1	(0.1)	0.4	(0.3)
	Greece	**426**	(3.6)	471	(5.1)	456	(4.8)	**476**	(4.3)	**18.0**	(1.7)	**1.7**	(0.1)	4.3	(0.8)
	Hungary	**463**	(4.5)	463	(5.8)	480	(5.5)	**520**	(5.6)	**20.3**	(2.0)	1.1	(0.1)	5.9	(1.1)
	Iceland	**489**	(4.4)	507	(5.3)	488	(4.9)	**511**	(4.5)	**8.3**	(2.0)	1.1	(0.1)	0.7	(0.4)
	Ireland	**489**	(3.9)	515	(3.5)	503	(3.9)	**506**	(4.7)	**5.9**	(1.9)	1.2	(0.1)	0.5	(0.3)
	Israel	**467**	(4.9)	470	(5.7)	466	(6.2)	**486**	(5.5)	**7.8**	(2.4)	1.0	(0.1)	0.5	(0.3)
	Italy	**468**	(2.4)	488	(3.3)	495	(3.2)	**502**	(3.0)	**14.5**	(1.2)	**1.3**	(0.1)	2.1	(0.3)
	Japan	**514**	(4.7)	559	(4.8)	535	(5.4)	**546**	(5.1)	**11.1**	(1.7)	**1.5**	(0.1)	1.3	(0.4)
	Korea	**507**	(4.5)	566	(8.3)	568	(5.9)	**579**	(5.8)	**25.7**	(1.8)	**2.0**	(0.2)	7.1	(0.9)
	Luxembourg	**488**	(3.9)	502	(3.5)	475	(4.1)	**513**	(3.4)	**8.2**	(1.6)	1.1	(0.1)	0.7	(0.3)
	Mexico	**403**	(1.8)	415	(2.1)	412	(2.3)	**429**	(2.1)	**9.9**	(0.8)	**1.3**	(0.1)	1.7	(0.3)
	Netherlands	535	(5.0)	530	(5.3)	526	(5.1)	526	(4.5)	-3.6	(2.1)	1.0	(0.1)	0.1	(0.2)
	New Zealand	**496**	(4.3)	526	(5.2)	495	(5.2)	**509**	(4.8)	3.7	(2.3)	1.1	(0.1)	0.1	(0.2)
	Norway	**471**	(3.6)	498	(3.7)	499	(5.0)	**521**	(4.4)	**17.4**	(1.5)	**1.5**	(0.1)	3.9	(0.7)
	Poland	**489**	(4.0)	505	(5.0)	515	(5.1)	**569**	(5.5)	**27.3**	(1.7)	**1.5**	(0.1)	11.1	(1.2)
	Portugal	**460**	(4.7)	510	(5.5)	493	(5.3)	**497**	(5.3)	**13.3**	(2.2)	**1.7**	(0.1)	2.0	(0.6)
	Slovak Republic	**467**	(5.1)	477	(5.2)	475	(5.6)	**527**	(6.1)	**21.0**	(2.6)	**1.2**	(0.1)	4.8	(1.1)
	Slovenia	**486**	(3.7)	512	(4.8)	510	(4.8)	**521**	(4.4)	**11.0**	(1.9)	**1.4**	(0.1)	1.6	(0.5)
	Spain	**457**	(2.9)	500	(3.4)	493	(3.5)	**501**	(3.0)	**15.8**	(1.2)	**1.6**	(0.1)	3.2	(0.5)
	Sweden	**470**	(4.4)	486	(4.6)	481	(4.3)	**506**	(4.1)	**13.6**	(1.8)	**1.3**	(0.1)	2.0	(0.5)
	Switzerland	537	(4.4)	535	(5.2)	525	(4.1)	544	(4.1)	1.6	(1.5)	0.9	(0.1)	0.0	(0.1)
	Turkey	**423**	(5.6)	469	(7.4)	444	(5.5)	**468**	(5.3)	**14.1**	(1.6)	**1.7**	(0.1)	2.4	(0.6)
	United Kingdom	497	(4.1)	516	(3.9)	484	(5.1)	496	(5.1)	-1.0	(1.7)	0.9	(0.1)	0.0	(0.0)
	United States	**472**	(4.6)	494	(4.8)	476	(5.6)	**493**	(5.3)	**6.0**	(1.8)	1.1	(0.1)	0.5	(0.3)
	OECD average	**482**	(0.7)	505	(0.8)	495	(0.8)	**515**	(0.8)	**11.4**	(0.3)	**1.3**	(0.0)	2.4	(0.1)
Partners	Albania	391	(5.0)	398	(5.1)	396	(4.7)	390	(4.2)	-0.1	(1.7)	1.1	(0.1)	0.0	(0.0)
	Argentina	**382**	(4.5)	394	(5.5)	391	(4.7)	**409**	(4.5)	**9.9**	(1.5)	**1.3**	(0.1)	1.8	(0.5)
	Brazil	**384**	(2.7)	394	(3.0)	391	(3.5)	**410**	(3.6)	**9.1**	(1.2)	**1.2**	(0.1)	1.4	(0.4)
	Bulgaria	**432**	(4.0)	439	(5.0)	435	(5.0)	**474**	(6.7)	**15.1**	(1.8)	1.1	(0.1)	3.0	(0.7)
	Colombia	**378**	(3.4)	381	(4.5)	376	(3.9)	**395**	(4.0)	**5.6**	(1.3)	1.1	(0.1)	0.6	(0.3)
	Costa Rica	402	(4.4)	415	(4.7)	409	(3.9)	409	(4.8)	2.2	(1.7)	1.2	(0.1)	0.1	(0.2)
	Croatia	**463**	(3.4)	481	(5.5)	471	(5.2)	**488**	(5.3)	**9.4**	(1.9)	1.1	(0.1)	1.1	(0.4)
	Cyprus*	**431**	(3.5)	460	(4.6)	430	(4.0)	**462**	(3.4)	**9.2**	(1.7)	**1.3**	(0.1)	1.0	(0.4)
	Hong Kong-China	**525**	(4.8)	564	(5.5)	585	(5.6)	**576**	(4.6)	**19.7**	(2.0)	**1.9**	(0.1)	4.1	(0.8)
	Indonesia	**365**	(3.5)	387	(7.0)	375	(5.6)	**391**	(5.1)	**8.2**	(1.6)	1.1	(0.1)	1.4	(0.6)
	Jordan	**400**	(3.7)	397	(4.1)	395	(4.9)	**390**	(4.1)	**-3.5**	(1.6)	0.9	(0.1)	0.2	(0.2)
	Kazakhstan	**422**	(4.1)	433	(4.5)	431	(4.3)	**443**	(4.4)	**6.9**	(1.8)	1.2	(0.1)	1.0	(0.5)
	Latvia	**476**	(4.0)	489	(4.9)	485	(5.6)	**515**	(4.6)	**13.9**	(1.8)	**1.3**	(0.1)	2.7	(0.7)
	Liechtenstein	557	(17.0)	525	(18.1)	514	(16.7)	556	(13.6)	-6.7	(6.7)	0.7	(0.2)	0.5	(1.1)
	Lithuania	**460**	(3.7)	477	(4.1)	489	(4.6)	**513**	(4.6)	**19.9**	(1.7)	**1.4**	(0.1)	5.1	(0.8)
	Macao-China	**520**	(3.8)	556	(3.2)	548	(3.6)	**538**	(3.1)	**6.2**	(1.7)	**1.5**	(0.1)	0.4	(0.2)
	Malaysia	**415**	(4.8)	429	(5.4)	413	(4.7)	**432**	(4.1)	**6.4**	(2.0)	1.2	(0.1)	0.6	(0.4)
	Montenegro	**407**	(3.4)	406	(3.0)	415	(3.9)	**433**	(3.4)	**10.7**	(1.6)	1.1	(0.1)	2.0	(0.6)
	Peru	**371**	(4.6)	371	(5.0)	367	(4.7)	**395**	(4.9)	**7.6**	(1.7)	1.1	(0.1)	0.8	(0.4)
	Qatar	391	(2.9)	395	(2.7)	370	(3.2)	388	(2.5)	-2.2	(1.3)	0.9	(0.1)	0.0	(0.0)
	Romania	**433**	(4.5)	436	(5.4)	445	(4.9)	**475**	(5.9)	**16.1**	(1.8)	1.2	(0.1)	4.3	(0.9)
	Russian Federation	**470**	(3.5)	475	(4.5)	474	(4.4)	**519**	(6.2)	**15.9**	(1.8)	**1.3**	(0.1)	4.2	(0.9)
	Serbia	**436**	(5.0)	444	(5.1)	465	(5.9)	**478**	(6.0)	**16.2**	(2.0)	**1.4**	(0.1)	3.6	(0.9)
	Shanghai-China	**578**	(5.9)	629	(4.9)	617	(4.8)	**628**	(3.4)	**16.6**	(1.6)	**1.9**	(0.1)	2.9	(0.5)
	Singapore	574	(3.9)	601	(3.3)	552	(4.4)	564	(4.4)	**-6.2**	(1.9)	1.0	(0.1)	0.3	(0.2)
	Chinese Taipei	**487**	(4.5)	584	(7.0)	586	(5.7)	**591**	(4.1)	**35.3**	(1.7)	**3.2**	(0.2)	10.0	(0.9)
	Thailand	**405**	(3.7)	438	(5.5)	425	(5.0)	**448**	(4.3)	**14.5**	(1.4)	**1.5**	(0.1)	2.9	(0.6)
	Tunisia	**366**	(3.8)	387	(6.0)	389	(5.7)	**424**	(5.9)	**20.3**	(2.0)	**1.5**	(0.1)	7.4	(1.2)
	United Arab Emirates	437	(3.5)	446	(4.2)	424	(3.9)	442	(3.1)	2.2	(1.3)	1.0	(0.1)	0.0	(0.1)
	Uruguay	**412**	(3.8)	419	(4.1)	413	(4.4)	**441**	(5.1)	**8.9**	(1.7)	1.1	(0.1)	1.1	(0.4)
	Viet Nam	**479**	(6.7)	523	(7.3)	518	(6.4)	**528**	(5.5)	**16.0**	(1.9)	**1.8**	(0.1)	4.2	(1.0)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 1/1]

Table III.4.6a **Students and subjective norms in mathematics**

Percentage of students who reported "agree" or "strongly agree"

		Percentage of students who agreed with the following statements:											
		Most of my friends do well in mathematics		Most of my friends work hard at mathematics		My friends enjoy taking mathematics tests		My parents believe it's important for me to study mathematics		My parents believe that mathematics is important for my career		My parents like mathematics	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	79.7	(0.5)	66.2	(0.6)	13.9	(0.4)	94.2	(0.3)	85.5	(0.4)	65.6	(0.6)
	Austria	52.1	(1.1)	34.4	(1.0)	7.6	(0.5)	86.5	(0.7)	75.5	(1.1)	56.5	(1.0)
	Belgium	58.9	(1.0)	48.8	(0.7)	7.3	(0.5)	87.2	(0.6)	70.4	(0.7)	46.6	(0.8)
	Canada	73.4	(0.6)	67.0	(0.7)	15.1	(0.5)	94.9	(0.3)	87.1	(0.5)	68.4	(0.7)
	Chile	53.7	(1.0)	66.2	(0.9)	17.8	(0.7)	93.3	(0.5)	84.2	(0.7)	70.8	(0.9)
	Czech Republic	51.2	(1.1)	21.2	(1.0)	5.0	(0.5)	86.8	(0.8)	69.5	(1.2)	45.1	(1.0)
	Denmark	87.2	(0.7)	57.4	(1.1)	12.8	(0.8)	97.3	(0.3)	84.3	(0.7)	75.5	(0.9)
	Estonia	65.9	(1.1)	40.7	(1.0)	11.1	(0.7)	90.0	(0.6)	75.9	(0.7)	36.7	(1.0)
	Finland	67.4	(1.0)	52.5	(0.9)	10.5	(0.6)	90.9	(0.5)	72.7	(1.0)	52.6	(0.9)
	France	55.6	(1.1)	40.0	(0.9)	13.3	(0.7)	91.1	(0.6)	78.6	(0.8)	55.0	(0.9)
	Germany	53.1	(1.1)	40.4	(0.9)	7.9	(0.6)	90.5	(0.6)	82.1	(0.8)	60.1	(1.0)
	Greece	53.0	(1.3)	34.2	(0.9)	14.4	(0.7)	87.3	(0.6)	84.0	(0.6)	64.5	(1.0)
	Hungary	48.3	(1.3)	37.9	(1.0)	8.8	(0.7)	86.7	(0.7)	75.3	(1.0)	48.0	(1.1)
	Iceland	80.6	(0.8)	71.3	(1.0)	15.5	(0.8)	96.6	(0.4)	88.6	(0.6)	65.2	(1.0)
	Ireland	67.5	(1.2)	63.1	(1.0)	9.6	(0.5)	94.9	(0.4)	82.7	(0.8)	62.2	(1.0)
	Israel	67.8	(1.0)	74.0	(0.9)	23.5	(1.0)	94.8	(0.5)	85.6	(0.9)	64.0	(1.0)
	Italy	40.5	(0.7)	41.4	(0.6)	9.8	(0.3)	92.6	(0.3)	81.1	(0.4)	60.7	(0.6)
	Japan	34.0	(1.0)	49.7	(1.1)	13.8	(0.8)	68.4	(0.9)	53.5	(1.0)	32.5	(0.9)
	Korea	56.1	(1.2)	72.1	(1.1)	7.1	(0.6)	85.1	(0.9)	74.8	(1.0)	34.9	(1.0)
	Luxembourg	50.9	(0.8)	45.7	(0.9)	13.5	(0.6)	86.7	(0.6)	75.5	(0.7)	57.7	(0.8)
	Mexico	60.9	(0.6)	60.7	(0.5)	26.3	(0.5)	93.9	(0.2)	92.7	(0.3)	75.8	(0.4)
	Netherlands	56.3	(1.1)	47.0	(1.2)	7.4	(0.5)	86.0	(0.8)	71.7	(1.0)	46.2	(1.3)
	New Zealand	81.3	(0.9)	64.4	(0.9)	20.2	(1.1)	94.2	(0.4)	87.7	(0.7)	67.9	(1.1)
	Norway	68.7	(1.0)	53.0	(1.1)	7.4	(0.5)	94.8	(0.4)	91.2	(0.5)	66.5	(1.0)
	Poland	40.4	(1.4)	22.7	(1.0)	13.1	(0.7)	90.2	(0.6)	82.1	(0.7)	57.4	(1.0)
	Portugal	50.5	(1.3)	39.5	(1.1)	14.2	(0.8)	95.3	(0.4)	93.8	(0.5)	67.3	(1.0)
	Slovak Republic	50.4	(1.2)	39.7	(1.0)	9.3	(0.9)	83.2	(0.8)	72.1	(1.0)	50.1	(1.1)
	Slovenia	47.5	(1.1)	44.9	(1.1)	15.5	(0.6)	86.7	(0.6)	75.6	(0.9)	52.6	(1.1)
	Spain	51.8	(0.7)	44.0	(0.8)	10.1	(0.5)	92.8	(0.3)	81.8	(0.5)	62.9	(0.7)
	Sweden	77.5	(0.9)	57.3	(1.1)	11.1	(0.6)	93.6	(0.4)	81.5	(0.9)	62.3	(0.9)
	Switzerland	61.5	(1.0)	40.5	(0.9)	9.8	(0.6)	89.3	(0.7)	80.5	(0.9)	66.2	(0.8)
	Turkey	45.9	(1.3)	54.1	(1.2)	40.0	(1.2)	89.9	(0.6)	84.2	(0.7)	63.7	(1.0)
	United Kingdom	84.6	(0.6)	73.2	(0.9)	12.9	(0.7)	95.0	(0.4)	84.9	(0.6)	58.7	(1.1)
	United States	73.7	(0.9)	69.9	(1.0)	15.2	(0.8)	94.0	(0.4)	86.0	(0.7)	56.9	(1.1)
	OECD average	60.2	(0.2)	51.0	(0.2)	13.3	(0.1)	90.4	(0.1)	80.4	(0.1)	58.2	(0.2)
Partners	Albania	81.8	(1.0)	78.1	(0.9)	54.4	(0.9)	92.4	(0.7)	89.3	(0.5)	87.3	(0.7)
	Argentina	46.4	(1.2)	45.9	(1.4)	18.4	(1.0)	92.0	(0.5)	83.5	(0.8)	67.1	(0.9)
	Brazil	46.1	(0.7)	36.7	(0.7)	23.5	(0.6)	95.4	(0.3)	89.6	(0.4)	67.0	(0.7)
	Bulgaria	56.0	(0.9)	37.8	(1.0)	29.5	(1.0)	83.5	(0.7)	78.4	(0.8)	71.8	(0.8)
	Colombia	59.3	(1.0)	42.3	(1.2)	27.3	(1.2)	91.7	(0.6)	89.6	(0.8)	75.5	(0.8)
	Costa Rica	54.0	(1.3)	72.8	(1.0)	20.0	(1.0)	91.5	(0.7)	84.8	(0.8)	64.5	(1.1)
	Croatia	30.2	(0.9)	24.2	(0.8)	6.3	(0.5)	91.1	(0.5)	78.2	(0.7)	47.0	(1.1)
	Cyprus*	64.5	(0.9)	51.0	(1.0)	23.9	(0.9)	89.9	(0.5)	84.5	(0.6)	69.7	(0.8)
	Hong Kong-China	64.2	(1.0)	70.5	(1.2)	27.3	(1.0)	82.9	(0.8)	74.7	(0.8)	41.1	(1.1)
	Indonesia	80.0	(0.8)	84.5	(0.7)	70.5	(1.2)	93.7	(0.5)	87.1	(0.7)	76.5	(0.8)
	Jordan	78.3	(0.8)	82.1	(0.7)	55.3	(1.0)	86.6	(0.7)	83.9	(0.7)	78.9	(0.7)
	Kazakhstan	80.9	(1.1)	74.4	(1.1)	73.7	(1.4)	91.2	(0.5)	88.9	(0.7)	84.3	(0.7)
	Latvia	59.1	(1.1)	31.6	(1.1)	27.0	(1.2)	83.2	(0.9)	79.1	(1.0)	57.7	(1.1)
	Liechtenstein	67.9	(3.4)	47.5	(3.7)	7.4	(2.0)	90.1	(2.2)	82.0	(2.7)	74.8	(3.1)
	Lithuania	70.1	(0.9)	64.9	(1.1)	16.8	(0.8)	87.9	(0.6)	78.2	(0.9)	63.7	(1.0)
	Macao-China	54.1	(0.8)	40.1	(0.8)	26.5	(0.8)	78.7	(0.7)	67.1	(0.8)	32.5	(0.7)
	Malaysia	85.6	(0.7)	85.0	(0.7)	67.6	(1.0)	93.6	(0.5)	92.1	(0.5)	80.3	(0.7)
	Montenegro	49.1	(0.9)	44.0	(1.0)	23.4	(0.9)	87.6	(0.6)	76.6	(0.8)	63.7	(0.9)
	Peru	65.5	(0.9)	69.8	(1.0)	57.9	(1.1)	96.3	(0.4)	94.2	(0.5)	75.1	(0.9)
	Qatar	77.9	(0.5)	76.0	(0.5)	46.7	(0.6)	86.5	(0.5)	82.9	(0.5)	80.2	(0.6)
	Romania	64.3	(1.0)	44.4	(1.1)	30.9	(1.3)	82.8	(0.9)	77.0	(1.0)	66.7	(1.0)
	Russian Federation	59.6	(1.1)	42.1	(1.1)	20.5	(0.9)	88.2	(0.6)	70.7	(0.9)	68.9	(0.9)
	Serbia	40.2	(1.2)	38.9	(1.1)	12.2	(0.8)	87.0	(0.8)	68.8	(1.2)	49.9	(1.2)
	Shanghai-China	62.2	(0.9)	72.2	(0.9)	21.3	(0.9)	88.9	(0.6)	75.0	(0.9)	46.8	(1.1)
	Singapore	82.4	(0.6)	85.5	(0.6)	44.3	(0.9)	97.1	(0.3)	91.9	(0.5)	71.8	(0.7)
	Chinese Taipei	51.4	(0.8)	55.7	(1.0)	23.2	(0.8)	78.0	(0.8)	65.9	(0.9)	33.3	(0.8)
	Thailand	87.0	(0.7)	85.1	(0.5)	67.5	(1.1)	91.2	(0.5)	89.7	(0.5)	73.0	(0.9)
	Tunisia	61.1	(1.2)	56.0	(1.1)	52.3	(1.1)	86.8	(0.8)	83.9	(0.8)	72.6	(0.9)
	United Arab Emirates	79.7	(0.6)	80.3	(0.7)	45.0	(1.0)	90.9	(0.4)	87.1	(0.5)	81.1	(0.6)
	Uruguay	56.7	(1.0)	39.2	(1.0)	20.8	(1.0)	93.4	(0.4)	84.5	(0.7)	66.4	(1.0)
	Viet Nam	34.7	(1.1)	41.6	(1.1)	37.4	(1.0)	87.2	(0.8)	83.9	(0.8)	51.3	(1.1)

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.4.6b Index of subjective norms in mathematics and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Index of subjective norms in mathematics																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	Standard deviation	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	0.31	(0.01)	0.94	(0.01)	0.39	(0.02)	0.23	(0.02)	**0.15**	(0.02)	-0.79	(0.02)	0.01	(0.02)	0.53	(0.02)	1.51	(0.02)
	Austria	-0.26	(0.02)	1.04	(0.02)	-0.10	(0.03)	-0.43	(0.03)	**0.33**	(0.04)	-1.54	(0.04)	-0.55	(0.02)	0.03	(0.03)	1.01	(0.03)
	Belgium	-0.27	(0.02)	0.90	(0.02)	-0.21	(0.02)	-0.33	(0.02)	**0.11**	(0.03)	-1.36	(0.03)	-0.54	(0.01)	0.00	(0.02)	0.80	(0.03)
	Canada	0.38	(0.02)	0.99	(0.02)	0.41	(0.02)	0.34	(0.02)	**0.07**	(0.03)	-0.79	(0.02)	0.08	(0.02)	0.60	(0.02)	1.62	(0.03)
	Chile	0.31	(0.02)	0.99	(0.02)	0.35	(0.02)	0.27	(0.03)	**0.08**	(0.03)	-0.88	(0.02)	0.00	(0.02)	0.57	(0.03)	1.54	(0.03)
	Czech Republic	-0.50	(0.02)	0.87	(0.03)	-0.41	(0.03)	-0.58	(0.03)	**0.17**	(0.04)	-1.51	(0.03)	-0.76	(0.03)	-0.26	(0.01)	0.55	(0.05)
	Denmark	0.31	(0.02)	0.79	(0.01)	0.36	(0.02)	0.26	(0.02)	**0.10**	(0.03)	-0.66	(0.03)	0.07	(0.02)	0.51	(0.02)	1.30	(0.03)
	Estonia	-0.18	(0.02)	0.88	(0.02)	-0.11	(0.03)	-0.25	(0.03)	**0.15**	(0.04)	-1.17	(0.03)	-0.49	(0.01)	0.02	(0.02)	0.92	(0.04)
	Finland	-0.12	(0.02)	0.89	(0.01)	-0.06	(0.03)	-0.19	(0.02)	**0.13**	(0.03)	-1.16	(0.02)	-0.42	(0.03)	0.10	(0.01)	0.99	(0.03)
	France	-0.11	(0.02)	0.96	(0.02)	-0.04	(0.03)	-0.18	(0.02)	**0.15**	(0.03)	-1.21	(0.03)	-0.44	(0.02)	0.12	(0.01)	1.09	(0.04)
	Germany	-0.10	(0.02)	0.94	(0.02)	0.04	(0.03)	-0.24	(0.02)	**0.28**	(0.04)	-1.21	(0.03)	-0.40	(0.03)	0.14	(0.01)	1.07	(0.04)
	Greece	-0.09	(0.02)	1.02	(0.03)	-0.01	(0.04)	-0.18	(0.02)	**0.17**	(0.05)	-1.24	(0.04)	-0.42	(0.03)	0.13	(0.01)	1.16	(0.04)
	Hungary	-0.29	(0.03)	1.02	(0.02)	-0.11	(0.03)	-0.45	(0.03)	**0.34**	(0.04)	-1.46	(0.04)	-0.60	(0.02)	-0.07	(0.03)	0.97	(0.04)
	Iceland	0.40	(0.02)	0.99	(0.03)	0.40	(0.03)	0.41	(0.02)	-0.02	(0.04)	-0.73	(0.03)	0.11	(0.01)	0.61	(0.03)	1.63	(0.04)
	Ireland	0.13	(0.02)	0.89	(0.01)	0.12	(0.03)	0.14	(0.02)	-0.02	(0.04)	-0.91	(0.03)	-0.17	(0.01)	0.37	(0.03)	1.23	(0.03)
	Israel	0.47	(0.03)	0.98	(0.02)	0.50	(0.04)	0.44	(0.03)	0.06	(0.05)	-0.68	(0.04)	0.14	(0.02)	0.72	(0.03)	1.69	(0.04)
	Italy	-0.22	(0.01)	0.93	(0.01)	-0.18	(0.01)	-0.26	(0.02)	**0.07**	(0.02)	-1.29	(0.02)	-0.52	(0.01)	0.03	(0.01)	0.90	(0.02)
	Japan	-0.58	(0.02)	1.06	(0.03)	-0.51	(0.03)	-0.67	(0.02)	**0.16**	(0.03)	-1.83	(0.04)	-0.89	(0.02)	-0.31	(0.03)	0.69	(0.04)
	Korea	-0.21	(0.03)	0.95	(0.02)	-0.13	(0.04)	-0.29	(0.03)	**0.16**	(0.05)	-1.35	(0.04)	-0.45	(0.03)	0.08	(0.02)	0.89	(0.04)
	Luxembourg	-0.15	(0.02)	1.10	(0.02)	-0.06	(0.03)	-0.25	(0.02)	**0.19**	(0.04)	-1.48	(0.03)	-0.43	(0.02)	0.14	(0.02)	1.15	(0.03)
	Mexico	0.44	(0.01)	1.04	(0.01)	0.50	(0.02)	0.39	(0.02)	**0.12**	(0.02)	-0.75	(0.01)	0.10	(0.01)	0.65	(0.02)	1.78	(0.02)
	Netherlands	-0.34	(0.02)	0.82	(0.02)	-0.29	(0.02)	-0.40	(0.03)	**0.10**	(0.04)	-1.31	(0.03)	-0.54	(0.01)	-0.16	(0.02)	0.63	(0.04)
	New Zealand	0.39	(0.03)	1.00	(0.02)	0.45	(0.03)	0.33	(0.03)	**0.12**	(0.04)	-0.76	(0.02)	0.07	(0.03)	0.62	(0.03)	1.65	(0.04)
	Norway	0.14	(0.02)	0.89	(0.02)	0.13	(0.02)	0.16	(0.02)	-0.03	(0.03)	-0.90	(0.03)	-0.15	(0.02)	0.40	(0.02)	1.22	(0.03)
	Poland	-0.30	(0.02)	0.89	(0.02)	-0.27	(0.03)	-0.32	(0.03)	0.06	(0.04)	-1.32	(0.04)	-0.56	(0.02)	-0.09	(0.03)	0.80	(0.03)
	Portugal	0.12	(0.02)	0.88	(0.02)	0.16	(0.03)	0.08	(0.03)	**0.08**	(0.03)	-0.90	(0.03)	-0.20	(0.01)	0.38	(0.03)	1.20	(0.04)
	Slovak Republic	-0.35	(0.02)	0.98	(0.03)	-0.24	(0.04)	-0.47	(0.03)	**0.23**	(0.04)	-1.49	(0.03)	-0.63	(0.03)	-0.14	(0.03)	0.85	(0.04)
	Slovenia	-0.21	(0.02)	0.99	(0.02)	-0.12	(0.03)	-0.31	(0.03)	**0.19**	(0.04)	-1.36	(0.03)	-0.50	(0.01)	0.07	(0.02)	0.96	(0.04)
	Spain	-0.04	(0.01)	0.91	(0.01)	-0.03	(0.02)	-0.05	(0.01)	0.02	(0.02)	-1.11	(0.02)	-0.31	(0.02)	0.18	(0.02)	1.08	(0.02)
	Sweden	0.17	(0.02)	0.93	(0.02)	0.19	(0.03)	0.14	(0.03)	0.05	(0.04)	-0.89	(0.03)	-0.16	(0.01)	0.39	(0.03)	1.33	(0.04)
	Switzerland	-0.06	(0.02)	0.95	(0.02)	0.05	(0.03)	-0.18	(0.03)	**0.24**	(0.03)	-1.20	(0.03)	-0.35	(0.03)	0.19	(0.02)	1.10	(0.03)
	Turkey	0.28	(0.03)	1.14	(0.02)	0.24	(0.04)	0.32	(0.04)	-0.08	(0.05)	-1.05	(0.04)	-0.10	(0.03)	0.54	(0.03)	1.72	(0.04)
	United Kingdom	0.31	(0.02)	0.90	(0.02)	0.33	(0.03)	0.29	(0.02)	0.04	(0.03)	-0.75	(0.02)	0.03	(0.02)	0.51	(0.02)	1.47	(0.04)
	United States	0.23	(0.02)	0.97	(0.02)	0.28	(0.03)	0.18	(0.02)	**0.10**	(0.04)	-0.91	(0.03)	-0.09	(0.03)	0.47	(0.02)	1.43	(0.04)
	OECD average	0.00	(0.00)	0.95	(0.00)	0.06	(0.00)	-0.06	(0.00)	**0.12**	(0.01)	-1.12	(0.01)	-0.30	(0.00)	0.24	(0.00)	1.17	(0.01)
Partners	**Albania**	1.08	(0.02)	1.20	(0.02)	1.10	(0.04)	1.06	(0.04)	0.04	(0.06)	-0.32	(0.03)	0.61	(0.03)	1.35	(0.03)	2.67	(0.04)
	Argentina	0.05	(0.03)	1.09	(0.02)	0.09	(0.04)	0.02	(0.03)	0.06	(0.04)	-1.17	(0.03)	-0.30	(0.03)	0.27	(0.03)	1.42	(0.04)
	Brazil	0.18	(0.01)	1.03	(0.01)	0.25	(0.02)	0.12	(0.02)	**0.14**	(0.03)	-0.95	(0.02)	-0.20	(0.01)	0.40	(0.02)	1.47	(0.03)
	Bulgaria	0.15	(0.03)	1.25	(0.02)	0.24	(0.03)	0.05	(0.04)	**0.20**	(0.05)	-1.28	(0.03)	-0.28	(0.02)	0.43	(0.03)	1.72	(0.05)
	Colombia	0.31	(0.02)	1.03	(0.02)	0.38	(0.04)	0.26	(0.03)	**0.12**	(0.04)	-0.84	(0.03)	-0.08	(0.03)	0.51	(0.02)	1.66	(0.05)
	Costa Rica	0.26	(0.02)	1.09	(0.03)	0.35	(0.04)	0.18	(0.03)	**0.17**	(0.05)	-0.98	(0.04)	-0.09	(0.03)	0.51	(0.02)	1.62	(0.05)
	Croatia	-0.45	(0.02)	0.93	(0.02)	-0.37	(0.03)	-0.54	(0.03)	**0.17**	(0.04)	-1.54	(0.03)	-0.71	(0.03)	-0.23	(0.01)	0.67	(0.04)
	Cyprus*	0.23	(0.02)	1.08	(0.02)	0.26	(0.03)	0.21	(0.03)	0.06	(0.04)	-0.99	(0.03)	-0.10	(0.02)	0.49	(0.01)	1.54	(0.04)
	Hong Kong-China	-0.02	(0.02)	0.99	(0.02)	0.03	(0.03)	-0.08	(0.03)	**0.11**	(0.03)	-1.17	(0.03)	-0.29	(0.03)	0.19	(0.02)	1.21	(0.03)
	Indonesia	0.83	(0.03)	1.08	(0.02)	0.83	(0.04)	0.82	(0.03)	0.01	(0.04)	-0.38	(0.02)	0.49	(0.02)	0.93	(0.03)	2.27	(0.06)
	Jordan	0.92	(0.03)	1.35	(0.02)	0.98	(0.04)	0.86	(0.03)	**0.12**	(0.05)	-0.69	(0.04)	0.51	(0.02)	1.23	(0.03)	2.62	(0.04)
	Kazakhstan	0.97	(0.05)	1.27	(0.03)	0.99	(0.04)	0.95	(0.06)	0.04	(0.04)	-0.46	(0.05)	0.55	(0.02)	1.13	(0.06)	2.68	(0.08)
	Latvia	-0.08	(0.03)	0.93	(0.03)	0.00	(0.04)	-0.17	(0.03)	**0.17**	(0.04)	-1.11	(0.03)	-0.42	(0.03)	0.11	(0.02)	1.09	(0.06)
	Liechtenstein	0.16	(0.06)	0.88	(0.07)	0.22	(0.10)	0.09	(0.08)	0.14	(0.13)	-0.86	(0.07)	-0.17	(0.07)	0.42	(0.06)	1.26	(0.13)
	Lithuania	0.16	(0.02)	1.10	(0.02)	0.28	(0.03)	0.05	(0.03)	**0.23**	(0.04)	-1.17	(0.04)	-0.18	(0.02)	0.47	(0.02)	1.54	(0.04)
	Macao-China	-0.34	(0.02)	1.01	(0.02)	-0.30	(0.02)	-0.38	(0.02)	**0.08**	(0.03)	-1.53	(0.03)	-0.61	(0.02)	-0.11	(0.02)	0.92	(0.03)
	Malaysia	1.05	(0.02)	1.12	(0.02)	0.97	(0.03)	1.12	(0.03)	**-0.15**	(0.04)	-0.23	(0.03)	0.62	(0.03)	1.31	(0.03)	2.49	(0.04)
	Montenegro	-0.01	(0.02)	1.26	(0.03)	0.10	(0.03)	-0.10	(0.03)	**0.20**	(0.05)	-1.42	(0.04)	-0.42	(0.02)	0.28	(0.03)	1.54	(0.05)
	Peru	0.76	(0.02)	1.02	(0.02)	0.76	(0.03)	0.77	(0.03)	-0.01	(0.04)	-0.41	(0.02)	0.41	(0.02)	0.96	(0.03)	2.09	(0.04)
	Qatar	0.71	(0.02)	1.48	(0.02)	0.80	(0.03)	0.62	(0.02)	**0.18**	(0.03)	-1.04	(0.04)	0.39	(0.02)	1.02	(0.02)	2.47	(0.03)
	Romania	0.15	(0.03)	1.13	(0.02)	0.15	(0.04)	0.15	(0.04)	0.00	(0.05)	-1.13	(0.04)	-0.23	(0.02)	0.41	(0.03)	1.54	(0.05)
	Russian Federation	0.05	(0.02)	1.03	(0.02)	0.20	(0.03)	-0.09	(0.03)	**0.30**	(0.04)	-1.10	(0.02)	-0.32	(0.03)	0.27	(0.03)	1.37	(0.04)
	Serbia	-0.31	(0.03)	1.07	(0.03)	-0.19	(0.04)	-0.43	(0.03)	**0.24**	(0.05)	-1.52	(0.03)	-0.64	(0.03)	-0.09	(0.03)	1.02	(0.06)
	Shanghai-China	0.11	(0.02)	1.03	(0.02)	0.15	(0.03)	0.07	(0.03)	**0.09**	(0.04)	-1.02	(0.03)	-0.25	(0.01)	0.29	(0.03)	1.42	(0.05)
	Singapore	0.80	(0.02)	1.01	(0.02)	0.84	(0.03)	0.76	(0.02)	**0.07**	(0.03)	-0.34	(0.02)	0.45	(0.01)	0.98	(0.02)	2.12	(0.04)
	Chinese Taipei	-0.25	(0.02)	1.04	(0.02)	-0.20	(0.03)	-0.30	(0.03)	**0.10**	(0.05)	-1.42	(0.04)	-0.58	(0.01)	-0.01	(0.02)	1.02	(0.04)
	Thailand	0.83	(0.02)	1.06	(0.02)	0.81	(0.03)	0.84	(0.03)	-0.03	(0.04)	-0.38	(0.03)	0.51	(0.01)	0.97	(0.03)	2.22	(0.04)
	Tunisia	0.57	(0.03)	1.27	(0.02)	0.59	(0.04)	0.55	(0.03)	0.04	(0.05)	-0.91	(0.03)	0.10	(0.03)	0.86	(0.03)	2.21	(0.05)
	United Arab Emirates	0.87	(0.02)	1.21	(0.02)	0.92	(0.03)	0.83	(0.02)	**0.09**	(0.04)	-0.54	(0.03)	0.50	(0.01)	1.14	(0.02)	2.40	(0.04)
	Uruguay	0.12	(0.02)	1.09	(0.02)	0.19	(0.03)	0.07	(0.03)	**0.12**	(0.04)	-1.09	(0.03)	-0.27	(0.02)	0.34	(0.02)	1.51	(0.04)
	Viet Nam	-0.08	(0.02)	0.84	(0.02)	-0.06	(0.03)	-0.11	(0.02)	0.05	(0.03)	-1.01	(0.02)	-0.45	(0.02)	0.10	(0.03)	1.02	(0.04)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.4.6b

Index of subjective norms in mathematics and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Australia**	**488**	(2.3)	503	(2.8)	513	(3.2)	**524**	(3.3)	**12.4**	(1.6)	**1.3**	(0.1)	1.5	(0.4)
	Austria	**515**	(3.8)	519	(4.5)	513	(4.7)	**491**	(4.5)	**-7.4**	(1.8)	0.9	(0.1)	0.7	(0.4)
	Belgium	**501**	(3.4)	525	(3.1)	531	(3.8)	**525**	(4.4)	**7.1**	(2.4)	1.2	(0.1)	0.4	(0.3)
	Canada	**506**	(2.9)	519	(2.8)	527	(3.3)	**531**	(3.5)	**7.9**	(1.5)	**1.3**	(0.1)	0.8	(0.3)
	Chile	**426**	(4.2)	428	(4.1)	426	(4.0)	**417**	(3.9)	**-4.9**	(1.6)	0.8	(0.1)	0.4	(0.2)
	Czech Republic	502	(4.5)	512	(5.1)	508	(4.8)	493	(5.0)	**-7.3**	(2.6)	1.0	(0.1)	0.5	(0.4)
	Denmark	**494**	(3.3)	500	(3.5)	506	(4.3)	**508**	(3.7)	**7.2**	(2.0)	1.2	(0.1)	0.5	(0.3)
	Estonia	519	(3.1)	526	(3.8)	525	(3.7)	518	(4.1)	-2.4	(2.0)	1.0	(0.1)	0.1	(0.1)
	Finland	**508**	(2.5)	520	(3.3)	529	(3.5)	**535**	(3.9)	**11.2**	(1.8)	**1.3**	(0.1)	1.5	(0.5)
	France	492	(4.2)	502	(4.0)	514	(4.8)	488	(5.2)	-3.0	(2.4)	1.0	(0.1)	0.1	(0.1)
	Germany	**534**	(4.5)	535	(4.3)	529	(4.4)	**501**	(4.8)	**-13.3**	(2.3)	0.8	(0.1)	1.8	(0.6)
	Greece	447	(4.1)	459	(4.7)	463	(3.9)	445	(4.5)	-0.5	(2.1)	1.1	(0.1)	0.0	(0.1)
	Hungary	481	(3.8)	480	(4.4)	480	(6.1)	473	(6.7)	-5.0	(2.5)	0.7	(0.1)	0.3	(0.3)
	Iceland	**480**	(4.1)	493	(4.6)	499	(4.6)	**504**	(4.9)	**7.4**	(2.4)	**1.3**	(0.1)	0.7	(0.4)
	Ireland	500	(3.9)	503	(3.6)	503	(3.9)	502	(4.6)	0.3	(2.3)	1.0	(0.1)	0.0	(0.1)
	Israel	**474**	(5.1)	480	(5.1)	473	(6.4)	**450**	(6.5)	**-10.8**	(2.8)	0.9	(0.1)	1.1	(0.6)
	Italy	**488**	(2.8)	493	(2.8)	493	(2.8)	**470**	(3.0)	**-7.9**	(1.3)	0.9	(0.0)	0.6	(0.2)
	Japan	**504**	(5.1)	537	(4.9)	551	(5.2)	**560**	(5.3)	**19.5**	(1.9)	**1.8**	(0.1)	4.9	(0.9)
	Korea	**511**	(5.7)	547	(5.1)	571	(5.7)	**589**	(7.5)	**32.4**	(2.7)	**2.1**	(0.2)	9.8	(1.4)
	Luxembourg	487	(3.1)	497	(3.1)	503	(3.6)	482	(3.6)	-0.9	(1.4)	0.9	(0.1)	0.0	(0.0)
	Mexico	**426**	(1.8)	418	(2.1)	416	(2.0)	**397**	(2.2)	**-11.0**	(0.8)	0.7	(0.0)	2.4	(0.3)
	Netherlands	**514**	(4.7)	531	(5.1)	538	(5.7)	**530**	(5.7)	**8.0**	(2.8)	**1.3**	(0.1)	0.6	(0.4)
	New Zealand	**490**	(3.5)	511	(4.7)	505	(4.0)	**505**	(5.1)	2.5	(2.3)	1.1	(0.1)	0.1	(0.1)
	Norway	**473**	(4.0)	492	(4.1)	499	(4.2)	**506**	(4.3)	**15.7**	(2.4)	**1.3**	(0.1)	2.5	(0.8)
	Poland	518	(4.5)	520	(4.7)	514	(5.0)	517	(5.6)	-1.1	(2.2)	0.9	(0.1)	0.0	(0.1)
	Portugal	**475**	(4.9)	488	(5.0)	499	(5.1)	**491**	(6.1)	**5.1**	(2.5)	**1.2**	(0.1)	0.2	(0.2)
	Slovak Republic	**496**	(4.9)	501	(4.5)	486	(5.1)	**453**	(7.5)	**-18.7**	(3.0)	0.7	(0.1)	3.4	(1.1)
	Slovenia	496	(4.1)	505	(4.3)	511	(4.6)	504	(3.7)	1.5	(2.0)	1.1	(0.1)	0.0	(0.1)
	Spain	**475**	(3.0)	490	(2.2)	493	(3.1)	**486**	(3.3)	3.6	(1.9)	**1.1**	(0.1)	0.1	(0.1)
	Sweden	482	(4.2)	484	(4.3)	485	(4.1)	476	(4.8)	**-5.0**	(2.1)	1.0	(0.1)	0.3	(0.2)
	Switzerland	**537**	(5.0)	541	(3.9)	537	(4.6)	**511**	(4.5)	**-9.9**	(1.9)	0.9	(0.1)	1.0	(0.4)
	Turkey	435	(5.1)	453	(5.6)	457	(6.7)	448	(6.9)	1.5	(2.2)	1.0	(0.1)	0.0	(0.1)
	United Kingdom	490	(5.5)	492	(6.4)	497	(4.6)	500	(4.5)	3.9	(2.6)	1.0	(0.1)	0.1	(0.2)
	United States	**473**	(5.0)	485	(5.0)	482	(5.4)	**490**	(6.0)	**4.4**	(2.2)	1.1	(0.1)	0.2	(0.2)
	OECD average	**489**	(0.7)	500	(0.7)	502	(0.8)	**495**	(0.9)	**1.3**	(0.4)	**1.1**	(0.0)	1.1	(0.1)
Partners	**Albania**	394	(4.7)	391	(4.9)	399	(4.9)	393	(5.1)	-0.7	(1.7)	1.0	(0.1)	0.0	(0.1)
	Argentina	**412**	(4.5)	401	(5.3)	391	(4.4)	**363**	(4.6)	**-17.4**	(1.9)	0.6	(0.1)	6.4	(1.2)
	Brazil	**407**	(3.0)	401	(2.9)	397	(3.2)	**372**	(2.9)	**-14.1**	(1.0)	0.6	(0.0)	3.6	(0.5)
	Bulgaria	**447**	(4.9)	451	(4.9)	446	(5.4)	**424**	(6.0)	**-9.0**	(1.6)	0.8	(0.1)	1.5	(0.5)
	Colombia	**395**	(4.0)	389	(4.3)	377	(4.3)	**356**	(4.4)	**-15.1**	(1.5)	0.7	(0.1)	4.6	(0.9)
	Costa Rica	**416**	(3.6)	415	(4.7)	412	(4.2)	**388**	(4.4)	**-11.3**	(1.3)	0.7	(0.1)	3.2	(0.7)
	Croatia	**476**	(3.7)	474	(4.4)	474	(5.3)	**460**	(6.2)	**-7.7**	(2.3)	0.7	(0.1)	0.7	(0.4)
	Cyprus*	**421**	(3.4)	447	(3.8)	452	(3.4)	**448**	(4.0)	**7.7**	(1.8)	**1.4**	(0.1)	0.8	(0.4)
	Hong Kong-China	**535**	(4.4)	565	(5.1)	577	(4.3)	**571**	(4.9)	**14.2**	(2.2)	**1.6**	(0.1)	2.2	(0.6)
	Indonesia	**394**	(6.6)	380	(5.3)	371	(5.1)	**358**	(4.6)	**-12.5**	(1.9)	0.7	(0.1)	3.6	(0.9)
	Jordan	**387**	(3.4)	396	(4.2)	402	(4.3)	**375**	(4.5)	**-2.5**	(1.2)	1.1	(0.1)	0.2	(0.2)
	Kazakhstan	**441**	(4.2)	429	(4.1)	434	(5.0)	**423**	(4.8)	**-4.4**	(1.6)	0.8	(0.1)	0.6	(0.5)
	Latvia	491	(4.3)	493	(4.5)	493	(4.7)	486	(4.7)	-2.3	(2.0)	0.9	(0.1)	0.1	(0.1)
	Liechtenstein	559	(15.9)	526	(20.7)	527	(19.4)	527	(15.5)	**-16.5**	(6.8)	0.6	(0.2)	2.3	(1.9)
	Lithuania	**482**	(3.8)	491	(5.0)	484	(4.7)	**463**	(4.4)	**-7.2**	(1.8)	0.9	(0.1)	0.8	(0.4)
	Macao-China	536	(3.0)	544	(4.1)	542	(3.7)	537	(3.1)	0.5	(1.8)	1.1	(0.1)	0.0	(0.0)
	Malaysia	415	(4.7)	421	(4.6)	427	(4.3)	421	(4.3)	**3.4**	(1.5)	1.2	(0.1)	0.2	(0.2)
	Montenegro	**425**	(3.5)	425	(3.0)	410	(3.6)	**386**	(3.5)	**-10.8**	(1.5)	0.7	(0.1)	2.7	(0.7)
	Peru	**394**	(4.4)	381	(5.4)	369	(4.4)	**343**	(4.5)	**-19.0**	(1.6)	0.6	(0.1)	5.4	(0.8)
	Qatar	**365**	(2.8)	388	(2.8)	398	(2.8)	**378**	(2.8)	**3.8**	(0.8)	**1.4**	(0.1)	0.3	(0.1)
	Romania	**457**	(4.9)	450	(4.7)	445	(5.3)	**433**	(4.9)	**-8.0**	(1.7)	0.7	(0.1)	1.3	(0.5)
	Russian Federation	**493**	(4.3)	486	(4.4)	476	(5.1)	**474**	(5.4)	**-8.8**	(2.0)	0.7	(0.1)	1.1	(0.5)
	Serbia	**451**	(4.6)	462	(4.7)	459	(4.8)	**434**	(6.0)	**-8.6**	(2.2)	0.9	(0.1)	1.1	(0.6)
	Shanghai-China	605	(5.4)	613	(4.3)	619	(4.6)	614	(5.6)	4.3	(2.4)	**1.2**	(0.1)	0.2	(0.2)
	Singapore	574	(3.9)	579	(4.6)	574	(4.9)	564	(3.8)	**-4.3**	(1.9)	1.0	(0.1)	0.2	(0.1)
	Chinese Taipei	**532**	(5.2)	558	(5.2)	577	(5.7)	**575**	(5.9)	**16.8**	(2.3)	**1.5**	(0.1)	2.3	(0.6)
	Thailand	429	(4.3)	427	(4.7)	430	(4.3)	425	(4.4)	-2.5	(1.5)	0.9	(0.1)	0.1	(0.1)
	Tunisia	**392**	(4.1)	394	(4.7)	395	(6.1)	**380**	(5.3)	**-3.5**	(1.3)	0.9	(0.1)	0.3	(0.3)
	United Arab Emirates	**434**	(3.7)	444	(3.6)	444	(3.4)	**420**	(3.6)	**-3.1**	(1.3)	1.0	(0.1)	0.2	(0.2)
	Uruguay	**431**	(4.0)	427	(3.8)	416	(5.1)	**381**	(5.1)	**-18.9**	(1.8)	0.6	(0.1)	5.5	(1.0)
	Viet Nam	**497**	(5.3)	510	(5.2)	518	(5.9)	**519**	(7.0)	**8.2**	(2.8)	1.2	(0.1)	0.7	(0.4)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 1/1]

Table III.4.7a

Effect sizes for gender differences in mathematics self-beliefs and participation in mathematics activities

Results based on students' self-reports

Effect size in favour of boys:	Effect size in favour of girls:
▨ *from 0.2 to 0.5*	▨ *from -0.2 to -0.5*
▨ *from 0.5 to 0.8*	▨ *from -0.5 to -0.8*
▨ *equal to or greater than 0.8*	▨ *equal to or less than -0.8*

		Index of mathematics self-efficacy		Index of mathematics self-concept		Index of mathematics anxiety		Index of subjective norms in mathematics		Index of self-responsibility for failure in mathematics		Index of mathematics intentions	
		Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.
OECD	Australia	**0.43**	(0.03)	**0.41**	(0.03)	**-0.36**	(0.02)	**0.16**	(0.03)	**-0.28**	(0.03)	**0.61**	(0.02)
	Austria	**0.48**	(0.05)	**0.42**	(0.04)	**-0.31**	(0.04)	**0.32**	(0.04)	**-0.28**	(0.04)	**0.49**	(0.05)
	Belgium	**0.40**	(0.03)	**0.40**	(0.03)	**-0.40**	(0.03)	**0.13**	(0.03)	**-0.10**	(0.03)	**0.39**	(0.04)
	Canada	**0.32**	(0.02)	**0.38**	(0.03)	**-0.38**	(0.03)	**0.07**	(0.03)	**-0.18**	(0.02)	**0.50**	(0.03)
	Chile	**0.32**	(0.04)	**0.43**	(0.04)	**-0.31**	(0.03)	**0.08**	(0.03)	**-0.09**	(0.04)	**0.40**	(0.04)
	Czech Republic	**0.46**	(0.04)	**0.27**	(0.05)	**-0.22**	(0.04)	**0.20**	(0.05)	**-0.17**	(0.05)	**0.58**	(0.05)
	Denmark	**0.48**	(0.04)	**0.57**	(0.04)	**-0.51**	(0.04)	**0.12**	(0.03)	**-0.27**	(0.04)	**0.34**	(0.04)
	Estonia	**0.37**	(0.03)	**0.21**	(0.04)	**-0.20**	(0.04)	**0.17**	(0.04)	**-0.14**	(0.04)	**0.18**	(0.04)
	Finland	**0.45**	(0.03)	**0.39**	(0.03)	**-0.44**	(0.03)	**0.14**	(0.03)	**-0.19**	(0.03)	**0.51**	(0.03)
	France	**0.45**	(0.04)	**0.45**	(0.04)	**-0.49**	(0.04)	**0.15**	(0.04)	**-0.16**	(0.03)	**0.40**	(0.04)
	Germany	**0.53**	(0.04)	**0.52**	(0.04)	**-0.36**	(0.03)	**0.30**	(0.04)	**-0.30**	(0.04)	**0.47**	(0.04)
	Greece	**0.25**	(0.03)	**0.32**	(0.04)	**-0.24**	(0.03)	**0.16**	(0.05)	**-0.24**	(0.03)	**0.37**	(0.04)
	Hungary	**0.25**	(0.04)	**0.32**	(0.04)	**-0.23**	(0.05)	**0.33**	(0.04)	**-0.16**	(0.05)	**0.49**	(0.05)
	Iceland	**0.36**	(0.04)	**0.29**	(0.04)	**-0.28**	(0.04)	-0.02	(0.04)	**-0.16**	(0.04)	**0.23**	(0.05)
	Ireland	**0.34**	(0.04)	**0.28**	(0.04)	**-0.36**	(0.03)	-0.02	(0.04)	**-0.20**	(0.04)	**0.33**	(0.04)
	Israel	**0.34**	(0.05)	**0.29**	(0.04)	**-0.27**	(0.04)	0.06	(0.05)	**-0.19**	(0.04)	**0.30**	(0.05)
	Italy	**0.33**	(0.02)	**0.25**	(0.02)	**-0.25**	(0.02)	**0.08**	(0.02)	**-0.07**	(0.02)	**0.28**	(0.02)
	Japan	**0.36**	(0.04)	**0.46**	(0.03)	**-0.30**	(0.03)	**0.15**	(0.03)	-0.06	(0.04)	**0.12**	(0.03)
	Korea	**0.29**	(0.05)	**0.33**	(0.04)	**-0.26**	(0.04)	**0.17**	(0.05)	0.06	(0.03)	**0.12**	(0.04)
	Luxembourg	**0.42**	(0.03)	**0.48**	(0.04)	**-0.36**	(0.03)	**0.17**	(0.03)	**-0.28**	(0.04)	**0.39**	(0.03)
	Mexico	**0.22**	(0.02)	**0.30**	(0.02)	**-0.25**	(0.02)	**0.11**	(0.02)	**0.06**	(0.02)	**0.18**	(0.02)
	Netherlands	**0.46**	(0.04)	**0.42**	(0.04)	**-0.29**	(0.05)	**0.13**	(0.04)	**-0.26**	(0.04)	0.01	(0.04)
	New Zealand	**0.45**	(0.04)	**0.46**	(0.04)	**-0.39**	(0.04)	**0.12**	(0.04)	**-0.21**	(0.04)	**0.47**	(0.04)
	Norway	**0.28**	(0.04)	**0.32**	(0.04)	**-0.35**	(0.04)	-0.04	(0.03)	**-0.23**	(0.03)	**0.30**	(0.04)
	Poland	**0.14**	(0.04)	**0.22**	(0.04)	**-0.11**	(0.05)	0.06	(0.04)	-0.08	(0.04)	**0.40**	(0.04)
	Portugal	**0.18**	(0.04)	**0.26**	(0.03)	**-0.15**	(0.04)	**0.10**	(0.04)	-0.06	(0.04)	**0.16**	(0.03)
	Slovak Republic	**0.19**	(0.05)	**0.37**	(0.04)	**-0.23**	(0.04)	**0.24**	(0.04)	-0.07	(0.04)	**0.45**	(0.04)
	Slovenia	**0.22**	(0.04)	**0.30**	(0.05)	**-0.17**	(0.04)	**0.20**	(0.04)	**-0.08**	(0.04)	**0.54**	(0.05)
	Spain	**0.28**	(0.03)	**0.31**	(0.02)	**-0.33**	(0.03)	0.02	(0.02)	-0.04	(0.03)	**0.27**	(0.03)
	Sweden	**0.29**	(0.04)	**0.37**	(0.04)	**-0.35**	(0.04)	0.06	(0.04)	**-0.30**	(0.04)	**0.29**	(0.04)
	Switzerland	**0.48**	(0.04)	**0.66**	(0.03)	**-0.51**	(0.03)	**0.25**	(0.03)	**-0.31**	(0.03)	**0.66**	(0.05)
	Turkey	**0.17**	(0.04)	**0.09**	(0.04)	0.02	(0.04)	-0.07	(0.04)	**0.09**	(0.04)	**-0.12**	(0.05)
	United Kingdom	**0.41**	(0.05)	**0.47**	(0.03)	**-0.46**	(0.04)	0.04	(0.03)	**-0.22**	(0.03)	**0.25**	(0.03)
	United States	**0.27**	(0.03)	**0.19**	(0.03)	**-0.18**	(0.04)	**0.10**	(0.04)	**-0.14**	(0.03)	**0.29**	(0.04)
	OECD average	**0.34**	(0.01)	**0.36**	(0.01)	**-0.30**	(0.01)	**0.13**	(0.01)	**-0.16**	(0.01)	**0.34**	(0.01)
Partners	Albania	0.03	(0.05)	-0.02	(0.04)	0.04	(0.05)	0.03	(0.05)	0.06	(0.05)	-0.01	(0.05)
	Argentina	**0.24**	(0.04)	**0.35**	(0.04)	**-0.15**	(0.04)	0.06	(0.04)	-0.05	(0.04)	**0.27**	(0.05)
	Brazil	**0.29**	(0.03)	**0.35**	(0.03)	**-0.25**	(0.03)	**0.13**	(0.03)	-0.03	(0.02)	**0.27**	(0.03)
	Bulgaria	**0.15**	(0.04)	**0.18**	(0.03)	-0.04	(0.04)	**0.16**	(0.04)	0.01	(0.03)	**0.30**	(0.04)
	Colombia	**0.21**	(0.04)	**0.28**	(0.04)	**-0.19**	(0.04)	**0.11**	(0.04)	0.01	(0.04)	**0.14**	(0.04)
	Costa Rica	**0.35**	(0.04)	**0.40**	(0.04)	**-0.45**	(0.04)	**0.15**	(0.05)	-0.08	(0.04)	**0.27**	(0.04)
	Croatia	**0.34**	(0.04)	**0.25**	(0.04)	**-0.14**	(0.04)	**0.18**	(0.04)	**-0.16**	(0.04)	**0.35**	(0.04)
	Cyprus*	**0.16**	(0.04)	**0.14**	(0.04)	**-0.07**	(0.03)	0.05	(0.03)	**-0.15**	(0.04)	**0.31**	(0.04)
	Hong Kong-China	**0.41**	(0.04)	**0.48**	(0.04)	**-0.38**	(0.04)	**0.11**	(0.03)	**-0.10**	(0.04)	**0.25**	(0.03)
	Indonesia	0.06	(0.04)	**0.07**	(0.03)	-0.06	(0.03)	0.01	(0.04)	-0.05	(0.03)	0.05	(0.05)
	Jordan	**0.17**	(0.04)	**0.11**	(0.04)	**0.24**	(0.04)	**0.09**	(0.04)	-0.01	(0.04)	**0.13**	(0.04)
	Kazakhstan	0.04	(0.04)	-0.01	(0.04)	0.06	(0.05)	0.03	(0.03)	**0.11**	(0.04)	**0.11**	(0.04)
	Latvia	**0.29**	(0.05)	**0.11**	(0.05)	**-0.09**	(0.05)	**0.18**	(0.05)	-0.01	(0.04)	**0.34**	(0.04)
	Liechtenstein	**0.66**	(0.14)	**0.55**	(0.16)	**-0.46**	(0.15)	0.15	(0.15)	**-0.45**	(0.13)	**0.56**	(0.14)
	Lithuania	**0.28**	(0.03)	**0.24**	(0.04)	**-0.20**	(0.04)	**0.21**	(0.04)	**-0.07**	(0.03)	**0.37**	(0.04)
	Macao-China	**0.19**	(0.04)	**0.55**	(0.03)	**-0.39**	(0.03)	**0.08**	(0.03)	**-0.09**	(0.03)	**0.13**	(0.03)
	Malaysia	0.00	(0.04)	-0.04	(0.04)	-0.01	(0.03)	**-0.13**	(0.04)	0.04	(0.03)	-0.03	(0.03)
	Montenegro	**0.14**	(0.04)	**0.21**	(0.04)	-0.03	(0.04)	**0.16**	(0.04)	**-0.14**	(0.04)	**0.29**	(0.04)
	Peru	**0.16**	(0.03)	**0.29**	(0.03)	**-0.17**	(0.04)	-0.01	(0.04)	0.03	(0.04)	**0.20**	(0.04)
	Qatar	**0.25**	(0.02)	**0.15**	(0.02)	**0.08**	(0.02)	**0.12**	(0.02)	**0.14**	(0.02)	**0.32**	(0.03)
	Romania	**0.09**	(0.04)	**0.16**	(0.05)	-0.01	(0.04)	0.00	(0.04)	0.02	(0.04)	**0.15**	(0.04)
	Russian Federation	**0.22**	(0.04)	**0.12**	(0.04)	**-0.17**	(0.03)	**0.29**	(0.04)	-0.04	(0.05)	**0.41**	(0.04)
	Serbia	**0.23**	(0.04)	**0.17**	(0.04)	0.02	(0.04)	**0.22**	(0.04)	-0.06	(0.04)	**0.35**	(0.04)
	Shanghai-China	**0.17**	(0.03)	**0.59**	(0.04)	**-0.43**	(0.04)	**0.08**	(0.04)	**-0.18**	(0.03)	**0.16**	(0.04)
	Singapore	**0.21**	(0.03)	**0.26**	(0.03)	**-0.14**	(0.03)	**0.07**	(0.03)	0.01	(0.03)	**0.10**	(0.03)
	Chinese Taipei	**0.22**	(0.06)	**0.39**	(0.04)	**-0.33**	(0.03)	**0.10**	(0.05)	-0.06	(0.03)	-0.06	(0.03)
	Thailand	**0.14**	(0.04)	**0.33**	(0.04)	**-0.11**	(0.03)	-0.03	(0.03)	**0.21**	(0.03)	0.00	(0.04)
	Tunisia	**0.25**	(0.04)	**0.19**	(0.04)	**-0.10**	(0.04)	0.03	(0.04)	-0.03	(0.04)	**0.29**	(0.04)
	United Arab Emirates	**0.22**	(0.03)	**0.10**	(0.03)	**0.08**	(0.03)	**0.07**	(0.03)	**0.10**	(0.04)	**0.17**	(0.03)
	Uruguay	**0.29**	(0.04)	**0.38**	(0.04)	**-0.22**	(0.03)	**0.11**	(0.04)	-0.04	(0.04)	**0.17**	(0.04)
	Viet Nam	**0.22**	(0.04)	**0.32**	(0.04)	**-0.18**	(0.03)	**0.06**	(0.04)	**-0.16**	(0.04)	**0.15**	(0.04)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 1/1]

Table III.4.7b Effect sizes for socio-economic differences in mathematics self-beliefs and participation in mathematics activities

Results based on students' self-reports

Effect size in favour of socio-economically advantaged students:
▨ *from 0.2 to 0.5*
▨ *from 0.5 to 0.8*
▨ *equal to or greater than 0.8*

Effect size in favour of socio-economically disadvantaged students:
▨ *from -0.2 to -0.5*
▨ *from -0.5 to -0.8*
▨ *equal to or less than -0.8*

		Index of mathematics self-efficacy		Index of mathematics self-concept		Index of mathematics anxiety		Index of subjective norms in mathematics		Index of self-responsibility for failure in mathematics		Index of mathematics intentions	
		Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.
OECD	Australia	**0.76**	(0.04)	**0.35**	(0.03)	**-0.28**	(0.04)	**0.28**	(0.03)	**-0.19**	(0.04)	**-0.16**	(0.04)
	Austria	**0.67**	(0.06)	**0.20**	(0.06)	**-0.31**	(0.06)	**-0.13**	(0.05)	-0.02	(0.05)	**-0.21**	(0.06)
	Belgium	**0.62**	(0.05)	**0.14**	(0.04)	-0.07	(0.04)	**0.37**	(0.05)	-0.02	(0.04)	0.04	(0.04)
	Canada	**0.72**	(0.04)	**0.38**	(0.04)	**-0.28**	(0.03)	**0.38**	(0.04)	**-0.18**	(0.04)	-0.01	(0.04)
	Chile	**0.45**	(0.06)	**0.31**	(0.05)	**-0.32**	(0.05)	-0.02	(0.05)	**-0.20**	(0.05)	0.00	(0.06)
	Czech Republic	**0.76**	(0.07)	**0.37**	(0.05)	**-0.41**	(0.06)	-0.04	(0.06)	**-0.21**	(0.06)	0.01	(0.06)
	Denmark	**0.75**	(0.06)	**0.59**	(0.05)	**-0.56**	(0.05)	**0.39**	(0.06)	**-0.20**	(0.05)	**0.16**	(0.06)
	Estonia	**0.68**	(0.06)	**0.41**	(0.06)	**-0.27**	(0.06)	**0.28**	(0.06)	-0.06	(0.06)	**0.22**	(0.06)
	Finland	**0.72**	(0.05)	**0.46**	(0.04)	**-0.22**	(0.04)	**0.67**	(0.05)	**-0.24**	(0.05)	**0.24**	(0.04)
	France	**0.86**	(0.06)	**0.42**	(0.05)	**-0.18**	(0.07)	**0.17**	(0.06)	-0.10	(0.06)	0.10	(0.06)
	Germany	**0.69**	(0.05)	**0.23**	(0.05)	**-0.32**	(0.05)	-0.08	(0.05)	-0.11	(0.06)	**-0.23**	(0.06)
	Greece	**0.85**	(0.05)	**0.73**	(0.05)	**-0.55**	(0.06)	**0.26**	(0.07)	0.06	(0.06)	**0.24**	(0.06)
	Hungary	**1.00**	(0.07)	**0.40**	(0.05)	**-0.48**	(0.06)	-0.03	(0.05)	**-0.22**	(0.06)	0.05	(0.06)
	Iceland	**0.69**	(0.08)	**0.59**	(0.06)	**-0.44**	(0.06)	**0.52**	(0.06)	**-0.22**	(0.06)	0.09	(0.06)
	Ireland	**0.76**	(0.06)	**0.41**	(0.05)	**-0.36**	(0.05)	**0.26**	(0.06)	**-0.14**	(0.05)	-0.06	(0.06)
	Israel	**0.74**	(0.07)	**0.18**	(0.05)	-0.10	(0.06)	-0.05	(0.06)	0.06	(0.06)	-0.09	(0.06)
	Italy	**0.55**	(0.03)	**0.23**	(0.03)	**-0.14**	(0.03)	**0.08**	(0.03)	-0.05	(0.03)	**-0.11**	(0.03)
	Japan	**0.70**	(0.07)	**0.16**	(0.05)	**-0.11**	(0.05)	**0.66**	(0.05)	**-0.16**	(0.05)	0.11	(0.06)
	Korea	**0.84**	(0.07)	**0.59**	(0.06)	**-0.26**	(0.05)	**0.60**	(0.06)	**-0.15**	(0.05)	**0.20**	(0.06)
	Luxembourg	**0.86**	(0.05)	**0.24**	(0.04)	**-0.39**	(0.04)	**0.16**	(0.05)	0.02	(0.04)	0.02	(0.05)
	Mexico	**0.33**	(0.03)	**0.18**	(0.03)	**-0.13**	(0.02)	**-0.10**	(0.03)	-0.02	(0.03)	-0.05	(0.03)
	Netherlands	**0.41**	(0.05)	**0.14**	(0.06)	-0.09	(0.06)	**0.34**	(0.07)	-0.03	(0.06)	**0.15**	(0.06)
	New Zealand	**0.87**	(0.05)	**0.33**	(0.05)	**-0.42**	(0.07)	**0.20**	(0.06)	**-0.20**	(0.06)	**-0.19**	(0.07)
	Norway	**0.68**	(0.06)	**0.51**	(0.06)	**-0.37**	(0.06)	**0.45**	(0.06)	**-0.17**	(0.05)	**0.21**	(0.06)
	Poland	**0.89**	(0.07)	**0.55**	(0.06)	**-0.50**	(0.07)	**0.12**	(0.06)	**-0.28**	(0.06)	**0.29**	(0.06)
	Portugal	**1.02**	(0.07)	**0.60**	(0.07)	**-0.44**	(0.06)	**0.30**	(0.06)	-0.09	(0.06)	0.12	(0.06)
	Slovak Republic	**0.80**	(0.07)	**0.23**	(0.07)	**-0.42**	(0.07)	**-0.26**	(0.06)	**-0.16**	(0.06)	0.06	(0.06)
	Slovenia	**0.70**	(0.05)	**0.29**	(0.06)	**-0.17**	(0.07)	**0.15**	(0.05)	**-0.20**	(0.05)	**-0.16**	(0.06)
	Spain	**0.73**	(0.05)	**0.34**	(0.03)	**-0.25**	(0.04)	**0.28**	(0.04)	0.07	(0.04)	**0.13**	(0.04)
	Sweden	**0.69**	(0.05)	**0.44**	(0.06)	**-0.36**	(0.04)	**0.27**	(0.05)	**-0.30**	(0.06)	**0.17**	(0.05)
	Switzerland	**0.65**	(0.05)	0.01	(0.04)	**-0.10**	(0.04)	**-0.16**	(0.04)	**0.16**	(0.04)	**-0.30**	(0.05)
	Turkey	**0.59**	(0.06)	**0.22**	(0.06)	**-0.21**	(0.06)	**0.32**	(0.06)	-0.02	(0.05)	0.10	(0.06)
	United Kingdom	**0.73**	(0.06)	**0.34**	(0.06)	**-0.39**	(0.05)	**0.26**	(0.06)	**-0.24**	(0.04)	**-0.18**	(0.05)
	United States	**0.81**	(0.05)	**0.31**	(0.05)	**-0.33**	(0.05)	**0.37**	(0.06)	**-0.14**	(0.05)	-0.08	(0.06)
	OECD average	**0.72**	(0.01)	**0.35**	(0.01)	**-0.30**	(0.01)	**0.21**	(0.01)	**-0.12**	(0.01)	**0.03**	(0.01)
Partners	Albania	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**0.29**	(0.05)	**0.17**	(0.05)	**-0.29**	(0.06)	**-0.35**	(0.06)	0.06	(0.06)	0.05	(0.05)
	Brazil	**0.50**	(0.05)	0.00	(0.04)	**-0.19**	(0.04)	**-0.08**	(0.04)	0.00	(0.04)	-0.03	(0.04)
	Bulgaria	**0.53**	(0.06)	**0.29**	(0.06)	**-0.68**	(0.05)	-0.04	(0.06)	**-0.17**	(0.05)	**0.15**	(0.06)
	Colombia	**0.27**	(0.07)	**0.20**	(0.06)	**-0.20**	(0.06)	**-0.13**	(0.06)	0.11	(0.06)	-0.06	(0.06)
	Costa Rica	**0.46**	(0.08)	**0.24**	(0.06)	**-0.15**	(0.06)	-0.02	(0.06)	0.02	(0.07)	-0.02	(0.06)
	Croatia	**0.69**	(0.06)	**0.28**	(0.06)	**-0.25**	(0.06)	0.09	(0.06)	-0.02	(0.06)	0.02	(0.06)
	Cyprus*	**0.79**	(0.05)	**0.62**	(0.05)	**-0.56**	(0.05)	**0.37**	(0.05)	**-0.26**	(0.06)	0.07	(0.05)
	Hong Kong-China	**0.62**	(0.06)	**0.28**	(0.05)	**-0.18**	(0.06)	**0.38**	(0.05)	-0.12	(0.07)	0.08	(0.05)
	Indonesia	**0.33**	(0.06)	-0.11	(0.07)	0.03	(0.06)	-0.04	(0.06)	**0.24**	(0.06)	**-0.17**	(0.06)
	Jordan	**0.61**	(0.05)	**0.49**	(0.05)	**-0.12**	(0.04)	**0.23**	(0.05)	-0.07	(0.06)	0.06	(0.06)
	Kazakhstan	**0.59**	(0.07)	**0.39**	(0.07)	**-0.36**	(0.07)	**0.18**	(0.08)	**-0.29**	(0.06)	**0.21**	(0.07)
	Latvia	**0.82**	(0.06)	**0.37**	(0.07)	**-0.33**	(0.07)	**0.17**	(0.07)	-0.09	(0.06)	0.10	(0.08)
	Liechtenstein	**0.69**	(0.17)	**0.68**	(0.25)	**-0.74**	(0.27)	0.24	(0.18)	0.21	(0.21)	-0.13	(0.21)
	Lithuania	**0.62**	(0.05)	**0.41**	(0.05)	**-0.33**	(0.05)	0.07	(0.06)	**-0.13**	(0.05)	**0.18**	(0.05)
	Macao-China	**0.42**	(0.05)	**0.18**	(0.05)	-0.02	(0.05)	**0.29**	(0.05)	-0.04	(0.05)	-0.02	(0.05)
	Malaysia	**0.59**	(0.05)	**0.17**	(0.05)	-0.03	(0.05)	**0.32**	(0.05)	0.09	(0.06)	-0.02	(0.06)
	Montenegro	**0.38**	(0.05)	**0.33**	(0.05)	**-0.28**	(0.05)	**-0.26**	(0.05)	**-0.13**	(0.05)	**0.16**	(0.06)
	Peru	**0.36**	(0.06)	-0.08	(0.06)	-0.04	(0.05)	**-0.16**	(0.05)	-0.08	(0.05)	**-0.12**	(0.05)
	Qatar	**0.34**	(0.03)	**0.26**	(0.04)	**-0.22**	(0.03)	**0.10**	(0.04)	**-0.19**	(0.03)	**0.11**	(0.04)
	Romania	**0.68**	(0.07)	**0.31**	(0.08)	**-0.52**	(0.06)	**-0.20**	(0.06)	-0.05	(0.06)	**0.21**	(0.06)
	Russian Federation	**0.80**	(0.05)	**0.37**	(0.05)	**-0.41**	(0.06)	**-0.14**	(0.05)	-0.08	(0.06)	0.10	(0.06)
	Serbia	**0.58**	(0.05)	**0.45**	(0.06)	**-0.41**	(0.06)	0.07	(0.04)	-0.07	(0.06)	0.09	(0.05)
	Shanghai-China	**0.89**	(0.07)	**0.28**	(0.05)	**-0.24**	(0.06)	**0.25**	(0.05)	**-0.17**	(0.05)	-0.06	(0.05)
	Singapore	**0.86**	(0.06)	**0.45**	(0.04)	**-0.56**	(0.04)	**0.13**	(0.05)	**-0.18**	(0.04)	**-0.24**	(0.04)
	Chinese Taipei	**1.01**	(0.05)	**0.57**	(0.05)	**-0.32**	(0.05)	**0.57**	(0.05)	**-0.36**	(0.05)	**0.25**	(0.05)
	Thailand	**0.31**	(0.05)	**-0.11**	(0.05)	0.04	(0.06)	0.09	(0.06)	-0.03	(0.06)	0.09	(0.05)
	Tunisia	**0.59**	(0.07)	**0.55**	(0.07)	**-0.13**	(0.06)	**0.22**	(0.06)	-0.06	(0.05)	**0.49**	(0.06)
	United Arab Emirates	**0.56**	(0.05)	**0.26**	(0.04)	**-0.42**	(0.05)	**0.11**	(0.04)	**-0.17**	(0.05)	**0.10**	(0.04)
	Uruguay	**0.45**	(0.06)	**0.24**	(0.06)	**-0.43**	(0.06)	**-0.32**	(0.06)	-0.01	(0.06)	0.05	(0.06)
	Viet Nam	**0.74**	(0.08)	**0.38**	(0.05)	**-0.17**	(0.06)	**0.35**	(0.06)	**0.23**	(0.05)	**0.12**	(0.07)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.

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[Part 1/1]

Table III.4.7c Effect sizes for differences by immigrant background in mathematics self-beliefs and participation in mathematics activities

Results based on students' self-reports

Effect size in favour of students without an immigrant background:
- ▨ *from 0.2 to 0.5*
- ▨ *from 0.5 to 0.8*
- ▨ *equal to or greater than 0.8*

Effect size in favour of students with an immigrant background:
- ▨ *from -0.2 to -0.5*
- ▨ *from -0.5 to -0.8*
- ▨ *equal to or less than -0.8*

		Index of mathematics self-efficacy		Index of mathematics self-concept		Index of mathematics anxiety		Index of subjective norms in mathematics		Index of mathematics intentions	
		Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.
OECD	Australia	**-0.28**	(0.03)	**-0.20**	(0.03)	**0.12**	(0.03)	**-0.39**	(0.03)	-0.01	(0.03)
	Austria	**0.30**	(0.06)	0.08	(0.05)	**-0.26**	(0.06)	**-0.24**	(0.05)	-0.12	(0.06)
	Belgium	0.02	(0.04)	-0.07	(0.04)	**-0.18**	(0.04)	**-0.29**	(0.05)	-0.06	(0.05)
	Canada	**-0.14**	(0.04)	**-0.13**	(0.03)	0.01	(0.03)	**-0.47**	(0.04)	**-0.16**	(0.03)
	Chile	-0.10	(0.12)	**-0.57**	(0.16)	0.04	(0.17)	-0.31	(0.17)	-0.38	(0.21)
	Czech Republic	0.18	(0.10)	-0.22	(0.12)	0.15	(0.15)	-0.13	(0.13)	-0.18	(0.12)
	Denmark	0.02	(0.05)	0.07	(0.04)	**-0.24**	(0.04)	**-0.38**	(0.05)	-0.01	(0.04)
	Estonia	0.02	(0.08)	-0.11	(0.08)	-0.13	(0.07)	-0.13	(0.10)	**-0.17**	(0.06)
	Finland	0.03	(0.05)	0.02	(0.05)	**-0.39**	(0.05)	**-0.62**	(0.06)	**-0.22**	(0.05)
	France	**0.20**	(0.06)	0.06	(0.06)	**-0.27**	(0.05)	**-0.32**	(0.07)	-0.08	(0.06)
	Germany	**0.20**	(0.06)	0.01	(0.05)	**-0.22**	(0.06)	**-0.39**	(0.05)	**-0.18**	(0.06)
	Greece	**0.27**	(0.06)	**0.35**	(0.06)	**-0.33**	(0.07)	**-0.29**	(0.07)	**0.18**	(0.07)
	Hungary	**-0.45**	(0.16)	0.00	(0.13)	-0.06	(0.11)	-0.15	(0.14)	-0.02	(0.20)
	Iceland	0.05	(0.12)	-0.07	(0.10)	**-0.20**	(0.10)	-0.14	(0.12)	-0.18	(0.12)
	Ireland	-0.13	(0.07)	**-0.26**	(0.07)	**0.16**	(0.07)	**-0.29**	(0.07)	-0.03	(0.07)
	Israel	-0.01	(0.05)	**0.13**	(0.04)	0.07	(0.04)	-0.02	(0.05)	**-0.12**	(0.04)
	Italy	**0.18**	(0.05)	**0.09**	(0.04)	**-0.10**	(0.05)	**-0.31**	(0.04)	**-0.18**	(0.04)
	Japan	0.30	(0.34)	-0.10	(0.27)	0.53	(0.30)	-0.13	(0.37)	-0.35	(0.22)
	Korea	**0.16**	(0.05)	**-1.21**	(0.04)	**1.31**	(0.04)	**0.27**	(0.04)	**-1.20**	(0.03)
	Luxembourg	**0.27**	(0.04)	-0.06	(0.03)	**-0.22**	(0.04)	**-0.19**	(0.03)	-0.04	(0.04)
	Mexico	**0.20**	(0.07)	0.18	(0.09)	**-0.34**	(0.08)	**-0.25**	(0.07)	**0.19**	(0.08)
	Netherlands	**-0.15**	(0.06)	**-0.18**	(0.08)	**-0.20**	(0.07)	**-0.49**	(0.06)	-0.08	(0.06)
	New Zealand	**-0.33**	(0.04)	**-0.31**	(0.05)	**0.10**	(0.05)	**-0.54**	(0.06)	**-0.20**	(0.06)
	Norway	-0.06	(0.07)	-0.11	(0.07)	-0.04	(0.07)	**-0.30**	(0.08)	-0.05	(0.06)
	Poland	-0.24	(0.42)	-0.10	(0.57)	-0.24	(0.48)	-0.48	(0.40)	-0.41	(0.34)
	Portugal	**0.24**	(0.08)	**0.16**	(0.07)	-0.06	(0.08)	0.05	(0.10)	0.03	(0.07)
	Slovak Republic	0.04	(0.18)	-0.28	(0.34)	0.01	(0.31)	**-0.81**	(0.17)	-0.28	(0.25)
	Slovenia	**0.32**	(0.07)	0.12	(0.07)	-0.07	(0.07)	-0.09	(0.07)	-0.07	(0.08)
	Spain	**0.20**	(0.05)	**0.10**	(0.05)	**-0.15**	(0.04)	**-0.16**	(0.05)	-0.09	(0.04)
	Sweden	-0.06	(0.05)	-0.08	(0.05)	**-0.20**	(0.05)	**-0.60**	(0.06)	-0.03	(0.05)
	Switzerland	**0.22**	(0.04)	-0.02	(0.04)	**-0.19**	(0.03)	**-0.33**	(0.04)	**-0.21**	(0.03)
	Turkey	0.01	(0.20)	-0.09	(0.21)	-0.13	(0.20)	-0.36	(0.24)	0.26	(0.21)
	United Kingdom	**-0.22**	(0.07)	**-0.26**	(0.06)	0.07	(0.05)	**-0.55**	(0.06)	**-0.21**	(0.06)
	United States	-0.04	(0.05)	**-0.09**	(0.04)	0.02	(0.04)	**-0.28**	(0.05)	**-0.23**	(0.05)
	OECD average	0.04	(0.02)	**-0.09**	(0.02)	**-0.05**	(0.02)	**-0.30**	(0.02)	**-0.14**	(0.02)
Partners	Albania	0.04	(0.42)	0.48	(0.30)	-0.28	(0.26)	0.12	(0.42)	-0.21	(0.40)
	Argentina	0.14	(0.10)	0.06	(0.09)	-0.01	(0.07)	**-0.18**	(0.09)	-0.09	(0.10)
	Brazil	0.12	(0.12)	0.18	(0.15)	-0.23	(0.19)	-0.35	(0.20)	-0.05	(0.12)
	Bulgaria	0.35	(0.41)	-0.14	(0.26)	-0.21	(0.27)	-0.14	(0.49)	0.06	(0.28)
	Colombia	0.29	(0.22)	0.32	(0.40)	-0.12	(0.29)	-0.12	(0.26)	0.43	(0.23)
	Costa Rica	0.05	(0.17)	**0.24**	(0.09)	-0.14	(0.08)	**-0.38**	(0.09)	-0.04	(0.09)
	Croatia	0.08	(0.06)	0.10	(0.06)	**-0.13**	(0.06)	-0.07	(0.06)	0.01	(0.06)
	Cyprus*	**0.23**	(0.07)	**0.40**	(0.07)	**-0.32**	(0.07)	0.04	(0.06)	**0.37**	(0.08)
	Hong Kong-China	0.05	(0.04)	0.00	(0.04)	0.00	(0.04)	-0.01	(0.04)	0.01	(0.04)
	Indonesia	-0.26	(0.45)	-0.24	(0.36)	-0.45	(0.40)	-0.19	(0.36)	-0.26	(0.46)
	Jordan	**-0.11**	(0.05)	-0.06	(0.06)	**0.15**	(0.05)	0.03	(0.05)	0.04	(0.06)
	Kazakhstan	0.05	(0.06)	**-0.11**	(0.06)	0.04	(0.05)	-0.01	(0.06)	0.07	(0.05)
	Latvia	-0.03	(0.08)	0.04	(0.11)	-0.17	(0.10)	-0.16	(0.09)	-0.01	(0.11)
	Liechtenstein	**0.33**	(0.15)	0.06	(0.16)	-0.05	(0.15)	-0.12	(0.14)	-0.06	(0.16)
	Lithuania	-0.09	(0.13)	-0.17	(0.12)	0.06	(0.11)	-0.08	(0.14)	-0.07	(0.15)
	Macao-China	**-0.12**	(0.04)	-0.05	(0.03)	**0.09**	(0.04)	**-0.08**	(0.03)	-0.05	(0.03)
	Malaysia	0.14	(0.09)	-0.05	(0.14)	0.20	(0.15)	0.12	(0.14)	0.07	(0.15)
	Montenegro	0.13	(0.07)	0.09	(0.09)	0.02	(0.10)	**0.25**	(0.07)	0.03	(0.08)
	Peru	**-0.57**	(0.26)	0.08	(0.27)	-0.15	(0.25)	**-0.59**	(0.28)	-0.06	(0.28)
	Qatar	**-0.34**	(0.02)	**-0.19**	(0.02)	**0.29**	(0.03)	**-0.19**	(0.03)	**0.09**	(0.02)
	Romania	0.67	(0.36)	0.56	(0.37)	0.67	(0.50)	-0.17	(0.59)	-0.02	(0.50)
	Russian Federation	0.05	(0.06)	-0.01	(0.05)	-0.04	(0.05)	-0.04	(0.06)	-0.04	(0.05)
	Serbia	0.05	(0.06)	0.02	(0.06)	**0.14**	(0.06)	-0.09	(0.07)	**0.18**	(0.08)
	Shanghai-China	**0.97**	(0.19)	0.17	(0.16)	-0.30	(0.17)	0.16	(0.17)	0.30	(0.18)
	Singapore	**-0.28**	(0.05)	**-0.30**	(0.04)	**0.34**	(0.04)	-0.03	(0.04)	-0.04	(0.05)
	Chinese Taipei	0.29	(0.24)	-0.08	(0.28)	**0.50**	(0.25)	**0.42**	(0.16)	0.11	(0.23)
	Thailand	**0.61**	(0.20)	-0.15	(0.27)	**0.22**	(0.11)	**0.52**	(0.22)	0.25	(0.16)
	Tunisia	0.02	(0.27)	0.10	(0.37)	0.36	(0.29)	-0.03	(0.25)	-0.13	(0.28)
	United Arab Emirates	**-0.31**	(0.03)	-0.01	(0.03)	**0.29**	(0.03)	-0.03	(0.03)	**0.08**	(0.03)
	Uruguay	0.07	(0.29)	-0.01	(0.31)	0.43	(0.28)	0.06	(0.23)	0.45	(0.28)
	Viet Nam	**0.24**	(0.46)	**-1.00**	(0.63)	**0.81**	(0.78)	**-0.01**	(0.61)	**0.07**	(0.58)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 1/1]

Table III.4.9 **Change between 2003 and 2012 in the association between student's mathematics self-beliefs and mathematics performance**

Results based on students' self-reports

		PISA 2003						PISA 2012						Change between 2003 and 2012 (PISA 2012 - PISA 2003)					
		Self-efficacy in mathematics		Mathematics self-concept		Mathematics anxiety		Self-efficacy in mathematics		Mathematics self-concept		Mathematics anxiety		Self-efficacy in mathematics		Mathematics self-concept		Mathematics anxiety	
		Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr. dif.	S.E.	Corr. dif.	S.E.	Corr. dif.	S.E.
OECD	**Australia**	0.52	(0.01)	0.41	(0.01)	-0.35	(0.01)	0.60	(0.01)	0.45	(0.01)	-0.39	(0.01)	**0.07**	(0.01)	**0.04**	(0.02)	**-0.03**	(0.02)
	Austria	0.50	(0.02)	0.30	(0.02)	-0.31	(0.02)	0.53	(0.02)	0.36	(0.02)	-0.38	(0.02)	0.03	(0.03)	**0.06**	(0.03)	**-0.06**	(0.03)
	Belgium	0.42	(0.01)	0.22	(0.01)	-0.24	(0.02)	0.46	(0.02)	0.28	(0.01)	-0.26	(0.02)	0.04	(0.02)	**0.07**	(0.02)	-0.03	(0.02)
	Canada	0.54	(0.01)	0.44	(0.01)	-0.40	(0.01)	0.55	(0.01)	0.46	(0.01)	-0.41	(0.01)	0.02	(0.01)	0.02	(0.01)	-0.01	(0.01)
	Czech Republic	0.56	(0.01)	0.39	(0.01)	-0.41	(0.01)	0.54	(0.02)	0.46	(0.02)	-0.42	(0.02)	-0.02	(0.02)	**0.06**	(0.02)	-0.01	(0.02)
	Denmark	0.52	(0.01)	0.52	(0.01)	-0.51	(0.01)	0.57	(0.02)	0.56	(0.01)	-0.51	(0.01)	**0.05**	(0.02)	0.03	(0.02)	0.00	(0.02)
	Finland	0.52	(0.01)	0.57	(0.01)	-0.44	(0.01)	0.55	(0.01)	0.57	(0.01)	-0.44	(0.01)	0.03	(0.02)	0.00	(0.02)	0.00	(0.02)
	France	0.50	(0.01)	0.32	(0.02)	-0.25	(0.02)	0.53	(0.02)	0.39	(0.02)	-0.30	(0.02)	0.03	(0.02)	**0.08**	(0.03)	-0.04	(0.03)
	Germany	0.51	(0.02)	0.27	(0.02)	-0.34	(0.02)	0.55	(0.02)	0.35	(0.02)	-0.38	(0.02)	0.04	(0.02)	**0.09**	(0.02)	-0.04	(0.02)
	Greece	0.43	(0.02)	0.40	(0.02)	-0.35	(0.02)	0.47	(0.02)	0.43	(0.02)	-0.40	(0.02)	0.04	(0.02)	0.02	(0.02)	**-0.05**	(0.02)
	Hungary	0.56	(0.01)	0.25	(0.02)	-0.32	(0.02)	0.61	(0.02)	0.37	(0.02)	-0.42	(0.02)	**0.05**	(0.02)	**0.12**	(0.03)	**-0.10**	(0.03)
	Iceland	0.50	(0.01)	0.51	(0.01)	-0.40	(0.02)	0.50	(0.02)	0.52	(0.02)	-0.45	(0.02)	0.00	(0.02)	0.01	(0.02)	**-0.05**	(0.02)
	Ireland	0.53	(0.01)	0.37	(0.02)	-0.36	(0.02)	0.55	(0.02)	0.40	(0.02)	-0.38	(0.02)	0.02	(0.02)	0.03	(0.03)	-0.02	(0.02)
	Italy	0.46	(0.02)	0.26	(0.01)	-0.29	(0.01)	0.49	(0.01)	0.34	(0.01)	-0.29	(0.01)	0.03	(0.02)	**0.07**	(0.02)	0.01	(0.02)
	Japan	0.59	(0.02)	0.20	(0.02)	-0.15	(0.02)	0.58	(0.02)	0.28	(0.02)	-0.21	(0.02)	-0.01	(0.03)	**0.07**	(0.03)	**-0.06**	(0.03)
	Korea	0.58	(0.01)	0.46	(0.01)	-0.22	(0.01)	0.62	(0.02)	0.48	(0.02)	-0.20	(0.02)	**0.04**	(0.02)	0.02	(0.02)	0.02	(0.02)
	Luxembourg	0.47	(0.01)	0.23	(0.02)	-0.31	(0.02)	0.51	(0.01)	0.30	(0.02)	-0.35	(0.01)	**0.04**	(0.02)	**0.07**	(0.02)	-0.04	(0.02)
	Mexico	0.31	(0.02)	0.23	(0.02)	-0.29	(0.02)	0.32	(0.01)	0.34	(0.01)	-0.34	(0.01)	0.01	(0.02)	**0.11**	(0.03)	**-0.05**	(0.02)
	Netherlands	0.46	(0.02)	0.25	(0.02)	-0.22	(0.02)	0.46	(0.02)	0.21	(0.02)	-0.22	(0.02)	0.01	(0.02)	-0.04	(0.03)	0.00	(0.03)
	New Zealand	0.52	(0.01)	0.41	(0.01)	-0.44	(0.01)	0.57	(0.02)	0.42	(0.02)	-0.44	(0.02)	**0.05**	(0.02)	0.01	(0.02)	-0.01	(0.02)
	Norway	0.55	(0.01)	0.56	(0.01)	-0.49	(0.01)	0.59	(0.02)	0.62	(0.02)	-0.52	(0.01)	0.04	(0.02)	**0.06**	(0.02)	-0.03	(0.02)
	Poland	0.55	(0.01)	0.46	(0.01)	-0.49	(0.01)	0.63	(0.01)	0.56	(0.02)	-0.53	(0.02)	**0.09**	(0.02)	**0.10**	(0.02)	**-0.05**	(0.02)
	Portugal	0.53	(0.01)	0.39	(0.02)	-0.33	(0.02)	0.64	(0.01)	0.45	(0.02)	-0.36	(0.02)	**0.11**	(0.02)	**0.06**	(0.02)	-0.03	(0.02)
	Slovak Republic	0.59	(0.01)	0.40	(0.02)	-0.41	(0.02)	0.54	(0.02)	0.33	(0.02)	-0.42	(0.02)	**-0.05**	(0.02)	**-0.07**	(0.03)	-0.01	(0.02)
	Spain	0.44	(0.01)	0.36	(0.02)	-0.26	(0.02)	0.51	(0.01)	0.37	(0.01)	-0.29	(0.01)	**0.06**	(0.02)	0.01	(0.02)	-0.03	(0.02)
	Sweden	0.56	(0.01)	0.49	(0.01)	-0.45	(0.01)	0.52	(0.02)	0.49	(0.02)	-0.42	(0.02)	**-0.04**	(0.02)	-0.01	(0.02)	0.02	(0.02)
	Switzerland	0.55	(0.02)	0.26	(0.02)	-0.32	(0.02)	0.57	(0.01)	0.30	(0.02)	-0.32	(0.01)	0.02	(0.02)	**0.04**	(0.02)	0.00	(0.02)
	Turkey	0.51	(0.04)	0.33	(0.03)	-0.34	(0.03)	0.46	(0.03)	0.24	(0.02)	-0.29	(0.02)	-0.04	(0.05)	**-0.08**	(0.04)	0.05	(0.04)
	United States	0.52	(0.01)	0.38	(0.02)	-0.40	(0.02)	0.56	(0.02)	0.40	(0.02)	-0.41	(0.02)	0.03	(0.02)	0.02	(0.02)	-0.01	(0.02)
	OECD average 2003	0.51	(0.00)	0.37	(0.00)	-0.35	(0.00)	0.54	(0.00)	0.41	(0.00)	-0.37	(0.00)	**0.03**	(0.00)	**0.04**	(0.00)	**-0.02**	(0.00)
Partners	**Brazil**	0.31	(0.04)	0.20	(0.02)	-0.35	(0.02)	0.32	(0.02)	0.19	(0.02)	-0.34	(0.01)	0.01	(0.04)	-0.02	(0.03)	0.00	(0.03)
	Hong Kong-China	0.56	(0.02)	0.35	(0.02)	-0.28	(0.02)	0.55	(0.01)	0.35	(0.02)	-0.32	(0.02)	0.00	(0.02)	0.00	(0.03)	-0.04	(0.03)
	Indonesia	0.10	(0.03)	-0.06	(0.03)	-0.11	(0.02)	0.17	(0.03)	-0.08	(0.02)	-0.14	(0.02)	0.07	(0.04)	-0.02	(0.03)	-0.04	(0.03)
	Latvia	0.50	(0.02)	0.40	(0.02)	-0.42	(0.02)	0.50	(0.02)	0.45	(0.02)	-0.41	(0.02)	0.00	(0.03)	0.04	(0.03)	0.01	(0.03)
	Liechtenstein	0.53	(0.05)	0.25	(0.05)	-0.33	(0.05)	0.58	(0.05)	0.33	(0.06)	-0.31	(0.07)	0.06	(0.07)	0.08	(0.08)	0.02	(0.08)
	Macao-China	0.44	(0.03)	0.34	(0.04)	-0.31	(0.04)	0.51	(0.01)	0.32	(0.01)	-0.32	(0.01)	**0.07**	(0.04)	-0.02	(0.04)	-0.01	(0.04)
	Russian Federation	0.44	(0.02)	0.32	(0.02)	-0.38	(0.01)	0.48	(0.02)	0.37	(0.01)	-0.40	(0.02)	0.04	(0.03)	**0.05**	(0.02)	-0.02	(0.02)
	Thailand	0.32	(0.02)	0.13	(0.02)	-0.13	(0.02)	0.24	(0.03)	0.08	(0.02)	-0.21	(0.02)	**-0.08**	(0.03)	**-0.05**	(0.03)	**-0.09**	(0.03)
	Tunisia	0.37	(0.02)	0.27	(0.02)	-0.14	(0.02)	0.32	(0.03)	0.29	(0.02)	-0.19	(0.02)	-0.05	(0.04)	0.02	(0.03)	**-0.06**	(0.03)
	Uruguay	0.40	(0.01)	0.36	(0.02)	-0.35	(0.02)	0.33	(0.02)	0.33	(0.02)	-0.38	(0.02)	**-0.07**	(0.02)	-0.02	(0.03)	-0.03	(0.02)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.

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[Part 1/1]

Table III.4.10 Country-level correlations among the changes, between 2003 and 2012, in students' engagement and dispositions towards mathematics measures

	Anxiety towards mathematics		Mathematics self-concept		Mathematics self-efficacy		Intrinsic motivation to learn mathematics		Instrumental motivation to learn mathematics		Attitudes towards school		Sense of belonging	
	Corr.	p-value	Corr.	p-value	Corr.	p-value	Corr.	p-value	Corr.	p-value	Corr.	p-value	Corr.	p-value
Anxiety towards mathematics			**-0.41**	(0.01)	**-0.40**	(0.01)	-0.05	(0.78)	0.11	(0.49)	-0.23	(0.15)	**-0.35**	(0.03)
Mathematics self-concept	**-0.41**	(0.01)			*0.30*	(0.06)	**0.44**	(0.00)	0.25	(0.12)	*0.29*	(0.06)	0.25	(0.12)
Mathematics self-efficacy	**-0.40**	(0.01)	*0.30*	(0.06)			0.17	(0.30)	0.12	(0.45)	0.08	(0.63)	**0.33**	(0.04)
Intrinsic motivation to learn mathematics	-0.05	(0.78)	**0.44**	(0.00)	0.17	(0.30)			**0.47**	(0.00)	**0.41**	(0.01)	0.15	(0.37)
Instrumental motivation to learn mathematics	0.11	(0.49)	0.25	(0.12)	0.12	(0.45)	**0.47**	(0.00)			**0.49**	(0.00)	0.00	(0.99)
Attitudes towards school	-0.23	(0.15)	*0.29*	(0.06)	0.08	(0.63)	**0.41**	(0.01)	**0.49**	(0.00)			**0.43**	(0.01)
Sense of belonging	**-0.35**	(0.03)	0.25	(0.12)	**0.33**	(0.04)	0.15	(0.37)	0.00	(0.99)	**0.43**	(0.01)		

Notes: All countries and economies with comparable data in each variable in both 2003 and 2012 are used.
Each correlation is computed using the mean value for each respective index and each country/economy as an individual observation.
Correlations that are significant at the 5% level ($p < 0.05$) are marked in bold; correlations that are significant at the 10% level ($p < 0.10$) are marked in italics.

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[Part 1/1]

Table III.5.1a

Concentration of students arriving late for school in the two weeks prior to the PISA test

Results based on students' self-reports

		Percentage of students who arrived late in the two weeks prior to the PISA test		Percentage of students who are in schools where, in the two weeks prior to the PISA test…							
				Over 50% of students arrived late at least once		More than 25% but 50% or fewer of students arrived late at least once		More than 10% but 25% or fewer of students arrived late at least once		At most 10% of students arrived late at least once	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	35.5	(0.6)	17.2	(1.4)	57.0	(1.9)	22.9	(1.7)	2.9	(0.7)
	Austria	20.9	(0.9)	5.4	(1.8)	29.2	(3.3)	34.6	(4.1)	30.8	(3.2)
	Belgium	**27.3**	(0.7)	6.7	(1.3)	46.1	(3.0)	38.9	(3.2)	8.2	(1.7)
	Canada	43.1	(0.7)	31.6	(2.3)	53.7	(2.7)	13.5	(1.3)	1.3	(0.4)
	Chile	53.0	(1.1)	53.4	(3.5)	44.9	(3.4)	1.4	(0.5)	0.3	(0.2)
	Czech Republic	27.0	(0.8)	8.2	(1.6)	39.7	(2.8)	39.2	(3.2)	12.8	(2.2)
	Denmark	38.5	(1.1)	23.0	(2.8)	52.3	(3.3)	20.6	(2.8)	4.1	(1.5)
	Estonia	41.1	(0.9)	27.4	(2.5)	54.7	(3.1)	12.7	(1.8)	5.2	(1.3)
	Finland	43.0	(0.9)	33.3	(3.3)	52.6	(3.7)	13.0	(2.4)	1.0	(0.5)
	France	32.3	(0.9)	13.9	(2.3)	47.5	(3.3)	31.6	(3.0)	6.9	(1.6)
	Germany	22.7	(0.8)	4.2	(1.3)	35.2	(3.4)	42.4	(3.2)	18.2	(2.4)
	Greece	49.3	(1.0)	51.7	(4.0)	44.4	(4.1)	2.3	(1.1)	1.6	(0.9)
	Hungary	24.1	(1.2)	10.2	(1.9)	28.9	(3.5)	34.0	(3.5)	26.9	(2.8)
	Iceland	35.0	(0.8)	12.2	(0.1)	65.9	(0.2)	18.4	(0.2)	3.5	(0.1)
	Ireland	27.4	(1.0)	5.6	(1.7)	43.3	(3.5)	45.5	(3.5)	5.6	(1.8)
	Israel	54.3	(1.1)	59.1	(3.8)	37.6	(3.8)	3.3	(1.4)	0.0	(0.0)
	Italy	35.2	(0.6)	17.7	(1.6)	56.7	(2.0)	22.2	(1.6)	3.3	(0.8)
	Japan	8.9	(0.6)	0.2	(0.2)	6.2	(1.7)	28.4	(3.3)	65.2	(3.7)
	Korea	25.1	(1.0)	5.1	(1.5)	44.9	(3.7)	34.9	(3.7)	15.0	(2.8)
	Luxembourg	29.1	(0.5)	3.5	(0.1)	51.9	(0.1)	44.1	(0.1)	0.5	(0.0)
	Mexico	39.9	(0.6)	27.0	(1.7)	54.4	(1.8)	15.5	(1.4)	3.1	(0.6)
	Netherlands	30.3	(1.0)	11.9	(2.3)	44.4	(3.8)	40.8	(3.9)	3.0	(1.2)
	New Zealand	42.1	(1.3)	30.1	(3.5)	56.2	(4.3)	13.3	(3.0)	0.4	(0.3)
	Norway	29.2	(1.0)	7.4	(1.9)	55.2	(3.6)	30.8	(3.4)	6.6	(1.7)
	Poland	42.4	(1.2)	32.6	(3.5)	45.7	(3.9)	19.2	(3.2)	2.4	(1.2)
	Portugal	55.2	(1.0)	64.8	(4.0)	34.1	(3.9)	1.0	(0.8)	0.1	(0.1)
	Slovak Republic	26.2	(0.9)	6.0	(1.2)	43.1	(3.7)	39.9	(3.8)	11.1	(2.2)
	Slovenia	39.6	(0.8)	23.4	(0.5)	65.9	(0.7)	7.9	(0.2)	2.8	(0.6)
	Spain	35.3	(0.8)	17.5	(2.0)	55.1	(3.2)	24.6	(2.7)	2.7	(0.8)
	Sweden	55.6	(1.0)	65.7	(3.4)	31.9	(3.3)	2.1	(1.1)	0.3	(0.2)
	Switzerland	24.3	(0.8)	5.2	(1.3)	36.1	(2.8)	42.6	(3.4)	16.1	(2.3)
	Turkey	43.8	(1.0)	27.0	(4.2)	66.3	(4.3)	6.6	(1.8)	0.1	(0.0)
	United Kingdom	31.8	(0.8)	7.7	(1.6)	59.5	(3.2)	28.5	(2.8)	4.3	(1.4)
	United States	30.1	(1.2)	9.5	(2.2)	49.2	(4.3)	34.5	(4.3)	6.8	(2.0)
	OECD average	35.3	(0.2)	21.3	(0.4)	46.8	(0.6)	23.9	(0.5)	8.0	(0.3)
Partners	Albania	35.3	(0.7)	7.3	(1.6)	75.8	(3.0)	14.7	(2.6)	2.2	(0.9)
	Argentina	47.0	(1.3)	47.3	(4.0)	41.2	(3.6)	11.3	(2.5)	0.2	(0.2)
	Brazil	33.7	(0.8)	14.8	(1.8)	50.9	(2.7)	32.0	(2.4)	2.3	(0.8)
	Bulgaria	59.0	(1.1)	71.2	(3.6)	28.0	(3.8)	0.7	(0.7)	0.1	(0.1)
	Colombia	35.9	(1.4)	17.3	(2.8)	58.0	(3.7)	18.0	(2.9)	6.7	(2.3)
	Costa Rica	57.5	(1.1)	70.0	(3.0)	25.4	(3.0)	4.5	(1.5)	0.0	c
	Croatia	33.9	(0.9)	13.5	(2.2)	59.3	(3.5)	22.5	(2.8)	4.6	(1.8)
	Cyprus*	47.7	(0.7)	47.0	(0.1)	49.4	(0.1)	3.5	(0.1)	0.1	(0.0)
	Hong Kong-China	14.6	(0.6)	0.1	(0.1)	11.4	(2.4)	54.1	(3.7)	34.4	(3.3)
	Indonesia	27.0	(1.0)	9.0	(1.9)	39.2	(3.5)	41.9	(3.5)	9.9	(2.3)
	Jordan	35.4	(0.8)	15.7	(2.5)	59.9	(3.7)	21.7	(3.0)	2.6	(1.3)
	Kazakhstan	28.2	(1.2)	10.5	(2.3)	44.2	(3.9)	32.5	(3.6)	12.7	(2.1)
	Latvia	56.3	(1.2)	65.9	(3.4)	29.7	(3.2)	3.4	(1.3)	1.0	(0.6)
	Liechtenstein	18.7	(2.3)	1.0	(0.6)	18.8	(0.9)	73.5	(1.0)	6.7	(0.5)
	Lithuania	43.7	(1.2)	35.4	(3.4)	50.7	(3.7)	10.8	(2.0)	3.1	(0.8)
	Macao-China	25.1	(0.5)	8.2	(0.1)	34.0	(0.0)	46.8	(0.1)	10.9	(0.0)
	Malaysia	33.6	(1.0)	10.9	(2.3)	61.5	(3.7)	25.0	(3.3)	2.5	(1.4)
	Montenegro	39.4	(0.9)	10.2	(0.1)	83.1	(0.1)	6.3	(0.1)	0.4	(0.0)
	Peru	52.8	(1.2)	56.8	(3.5)	39.0	(3.3)	4.2	(1.5)	0.0	c
	Qatar	39.5	(0.5)	18.3	(0.1)	68.6	(0.1)	11.5	(0.1)	1.6	(0.0)
	Romania	45.8	(1.1)	40.0	(3.6)	47.6	(3.9)	11.3	(2.5)	1.0	(0.5)
	Russian Federation	46.7	(1.3)	39.6	(4.0)	48.9	(4.6)	9.2	(2.3)	2.3	(0.4)
	Serbia	41.8	(1.0)	31.6	(3.6)	52.5	(4.2)	14.7	(2.8)	1.3	(0.9)
	Shanghai-China	16.6	(0.7)	0.0	c	17.9	(2.5)	55.8	(3.5)	26.2	(3.6)
	Singapore	20.6	(0.5)	1.0	(0.0)	32.0	(0.5)	48.9	(0.5)	18.0	(0.1)
	Chinese Taipei	22.3	(0.8)	1.4	(0.8)	38.8	(3.7)	45.7	(4.4)	14.1	(2.8)
	Thailand	34.1	(1.2)	20.9	(2.6)	43.0	(3.7)	31.0	(3.8)	5.1	(1.7)
	Tunisia	51.8	(0.9)	55.9	(4.0)	43.2	(4.1)	0.9	(0.8)	0.0	c
	United Arab Emirates	31.5	(0.7)	11.5	(1.9)	52.9	(2.7)	31.4	(2.1)	4.2	(0.6)
	Uruguay	59.3	(0.9)	79.1	(2.6)	18.6	(2.5)	1.5	(0.9)	0.8	(0.8)
	Viet Nam	16.2	(0.8)	1.3	(0.6)	18.6	(2.9)	43.8	(4.2)	36.3	(4.0)

* See notes at the beginning of this Annex.

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[Part 1/1]

Table III.5.1b Social comparisons and arriving late for school

Results based on students' self-reports

		Association between arriving late for school and mathematics performance, controlling for student and school characteristics:								
		Relative performance (change per 100 score-point difference from the average in the school)		Individual mathematics performance (change per 100 score-point difference in mathematics)		Boys		ESCS[1]		r-squared
		Change in percentage	S.E.	Change in percentage	S.E.	Change in percentage	S.E.	Change in percentage	S.E.	
OECD	Australia	**-3.8**	(1.3)	**-4.9**	(1.2)	-0.6	(1.0)	-0.5	(0.8)	0.025
	Austria	1.8	(2.1)	**-4.0**	(1.7)	0.2	(1.6)	**2.9**	(1.1)	0.005
	Belgium	1.7	(1.2)	**-10.7**	(1.0)	**2.6**	(1.0)	**2.4**	(0.9)	0.043
	Canada	0.4	(2.0)	**-11.1**	(1.8)	**2.7**	(0.9)	0.7	(0.6)	0.036
	Chile	**12.9**	(2.4)	**-17.5**	(2.1)	-0.6	(1.7)	**2.1**	(1.0)	0.031
	Czech Republic	3.2	(1.9)	**-9.3**	(1.3)	**5.9**	(1.6)	2.2	(1.3)	0.029
	Denmark	0.7	(3.3)	**-8.9**	(3.1)	**7.8**	(1.5)	**1.8**	(0.9)	0.021
	Estonia	5.1	(3.0)	**-11.8**	(2.9)	**7.7**	(1.6)	**2.3**	(0.9)	0.021
	Finland	-0.5	(3.2)	**-8.8**	(3.3)	**6.0**	(1.3)	0.6	(1.0)	0.028
	France	1.2	(1.9)	**-10.2**	(1.6)	**3.0**	(1.3)	1.8	(1.1)	0.036
	Germany	-2.4	(1.6)	-1.8	(1.3)	1.9	(1.4)	0.9	(0.9)	0.005
	Greece	-2.8	(2.5)	-1.5	(1.8)	0.1	(1.5)	**3.8**	(0.9)	0.007
	Hungary	**10.1**	(2.6)	**-15.0**	(2.2)	1.2	(1.7)	1.9	(1.2)	0.063
	Iceland	-2.4	(2.5)	**-6.0**	(2.2)	**7.4**	(1.6)	-0.4	(1.1)	0.031
	Ireland	**6.3**	(2.7)	**-13.9**	(2.5)	**6.4**	(1.6)	0.8	(1.0)	0.031
	Israel	**-5.9**	(2.0)	0.0	(1.7)	-1.4	(1.9)	-1.2	(1.0)	0.010
	Italy	**8.2**	(1.0)	**-12.9**	(0.8)	**3.9**	(0.9)	**2.2**	(0.4)	0.034
	Japan	1.8	(1.2)	**-4.2**	(1.1)	**3.5**	(0.8)	0.1	(0.6)	0.015
	Korea	**6.9**	(1.4)	**-12.8**	(1.2)	**3.3**	(1.4)	0.1	(1.0)	0.046
	Luxembourg	**-4.5**	(1.4)	-1.9	(1.2)	2.0	(1.2)	0.6	(0.6)	0.012
	Mexico	**-3.5**	(1.6)	**-4.3**	(1.4)	0.9	(0.8)	**3.3**	(0.4)	0.013
	Netherlands	0.9	(2.1)	**-9.9**	(1.2)	2.6	(1.7)	**2.7**	(1.2)	0.033
	New Zealand	**4.9**	(2.4)	**-13.8**	(2.4)	-0.5	(1.9)	-1.1	(1.2)	0.048
	Norway	**-7.6**	(2.5)	-3.5	(2.4)	2.2	(1.4)	0.6	(0.9)	0.040
	Poland	**-9.3**	(2.8)	-0.9	(2.8)	**10.6**	(1.5)	**6.6**	(1.1)	0.040
	Portugal	1.0	(2.1)	**-4.5**	(1.9)	-1.4	(1.9)	1.0	(0.8)	0.005
	Slovak Republic	2.4	(1.8)	**-7.6**	(1.6)	**4.8**	(1.5)	1.3	(0.9)	0.022
	Slovenia	-1.4	(2.0)	**-6.6**	(1.4)	-0.3	(1.7)	**2.4**	(1.0)	0.016
	Spain	-1.6	(2.3)	**-7.0**	(2.2)	-0.2	(0.9)	0.2	(0.6)	0.023
	Sweden	-0.8	(2.8)	**-8.5**	(2.5)	**5.1**	(1.6)	-0.2	(1.1)	0.031
	Switzerland	**-7.2**	(1.6)	2.0	(1.4)	1.2	(1.3)	**2.5**	(0.8)	0.010
	Turkey	2.0	(1.8)	**-5.4**	(1.4)	**8.1**	(1.5)	1.1	(0.6)	0.013
	United Kingdom	-2.2	(1.4)	**-8.8**	(1.4)	2.0	(1.2)	0.5	(0.9)	0.041
	United States	**8.0**	(2.4)	**-15.3**	(2.1)	1.9	(1.3)	**-2.3**	(0.9)	0.050
	OECD average	0.7	(0.4)	**-7.7**	(0.3)	**3.0**	(0.2)	**1.3**	(0.2)	0.027
Partners	Albania	m	m	m	m	m	m	m	m	m
	Argentina	**9.9**	(3.1)	**-16.1**	(2.7)	-0.7	(1.7)	1.1	(1.1)	0.029
	Brazil	2.2	(1.9)	**-4.8**	(1.7)	0.5	(0.9)	**3.1**	(0.5)	0.005
	Bulgaria	**4.5**	(1.7)	**-9.1**	(1.3)	0.8	(1.6)	-1.0	(0.8)	0.024
	Colombia	3.9	(2.8)	**-7.5**	(2.6)	**2.8**	(1.3)	**2.0**	(0.9)	0.006
	Costa Rica	**8.7**	(3.3)	**-7.5**	(3.0)	-3.0	(1.6)	**2.8**	(0.9)	0.006
	Croatia	**5.9**	(1.9)	**-11.1**	(1.5)	**7.5**	(1.4)	**4.8**	(0.9)	0.028
	Cyprus*	-2.6	(1.5)	**-4.4**	(1.3)	**4.7**	(1.3)	-0.1	(0.8)	0.015
	Hong Kong-China	1.0	(1.2)	**-6.6**	(0.9)	**2.7**	(0.9)	0.4	(0.6)	0.026
	Indonesia	4.9	(3.1)	**-10.1**	(2.2)	**5.5**	(1.5)	**4.5**	(1.0)	0.023
	Jordan	-0.1	(2.7)	-3.9	(2.4)	**6.6**	(1.8)	1.0	(0.7)	0.009
	Kazakhstan	-0.1	(3.2)	-4.3	(2.8)	**5.3**	(1.4)	**-3.3**	(1.2)	0.013
	Latvia	**8.6**	(3.2)	**-10.3**	(3.1)	**6.6**	(2.1)	2.5	(1.3)	0.013
	Liechtenstein	-1.5	(4.3)	-5.5	(3.0)	8.1	(4.3)	-2.0	(2.5)	0.034
	Lithuania	**7.1**	(2.3)	**-11.9**	(2.1)	**11.0**	(1.5)	**3.8**	(0.8)	0.031
	Macao-China	**13.5**	(1.3)	**-19.6**	(1.2)	1.7	(1.2)	0.8	(0.6)	0.064
	Malaysia	1.7	(2.4)	**-15.8**	(2.1)	**4.9**	(1.5)	**2.2**	(0.9)	0.061
	Montenegro	2.0	(2.3)	**-6.8**	(1.8)	**4.1**	(1.4)	**3.2**	(0.9)	0.010
	Peru	-0.8	(2.6)	**-8.3**	(2.3)	**3.5**	(1.7)	**1.7**	(0.7)	0.018
	Qatar	-1.1	(0.9)	**-10.8**	(0.7)	**2.1**	(0.9)	**4.1**	(0.6)	0.053
	Romania	**5.4**	(2.7)	**-7.1**	(2.2)	**5.3**	(1.5)	0.6	(1.3)	0.009
	Russian Federation	-1.1	(2.3)	**-7.9**	(2.2)	**5.5**	(1.4)	0.6	(1.2)	0.025
	Serbia	**5.6**	(2.2)	**-9.2**	(1.8)	**7.0**	(1.7)	**5.3**	(1.1)	0.022
	Shanghai-China	2.0	(1.1)	**-7.8**	(0.9)	**4.2**	(1.1)	**1.7**	(0.6)	0.032
	Singapore	0.6	(1.2)	**-6.7**	(1.0)	**3.2**	(1.0)	**-1.4**	(0.7)	0.034
	Chinese Taipei	**-2.8**	(1.3)	**-4.7**	(1.1)	**5.9**	(1.2)	1.0	(0.8)	0.034
	Thailand	**6.3**	(1.8)	**-11.2**	(1.8)	**10.0**	(1.5)	**2.7**	(0.7)	0.033
	Tunisia	-4.1	(2.5)	-0.8	(1.9)	**5.6**	(1.8)	1.1	(0.7)	0.005
	United Arab Emirates	**5.8**	(1.1)	**-12.3**	(1.1)	**4.7**	(1.4)	**4.4**	(0.7)	0.034
	Uruguay	**4.9**	(2.4)	**-6.0**	(2.4)	**-3.5**	(1.7)	1.7	(0.9)	0.005
	Viet Nam	2.5	(2.2)	**-7.3**	(1.7)	**3.8**	(1.1)	0.4	(0.5)	0.022

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Students who arrived late for school are students who, in the two weeks prior to the PISA test, arrived late for school at least once.
1. ESCS refers to the *PISA index of economic, social and cultural status*.
* See notes at the beginning of this Annex.
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[Part 1/1]

Table III.5.1c Trends in the concentration of students arriving late for school in the two weeks prior to the PISA test

Results based on students' self-reports

		Percentage of students who are in schools where…																							
		PISA 2003								PISA 2012								Change between 2003 and 2012 (PISA 2012 - PISA 2003)							
		Over 50% of students arrived late at least once		More than 25% but 50% or fewer of students arrived late at least once		More than 10% but 25% or fewer of students arrived late at least once		At most 10% of students arrived late at least once		Over 50% of students arrived late at least once		More than 25% but 50% or fewer of students arrived late at least once		More than 10% but 25% or fewer of students arrived late at least once		At most 10% of students arrived late at least once		Over 50% of students arrived late at least once		More than 25% but 50% or fewer of students arrived late at least once		More than 10% but 25% or fewer of students arrived late at least once		At most 10% of students arrived late at least once	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.
OECD	**Australia**	13.3	(1.9)	71.2	(2.8)	14.9	(2.3)	0.6	(0.4)	17.1	(1.4)	57.1	(1.9)	22.9	(1.7)	2.9	(0.7)	3.8	(2.4)	**-14.1**	(3.4)	**8.0**	(2.8)	**2.3**	(0.8)
	Austria	6.2	(1.7)	33.0	(3.3)	35.6	(3.4)	25.2	(3.6)	6.1	(1.9)	28.5	(3.2)	34.6	(4.1)	30.8	(3.2)	-0.1	(2.6)	-4.5	(4.6)	-1.0	(5.3)	5.7	(4.8)
	Belgium	10.2	(1.7)	41.4	(3.2)	41.2	(3.3)	7.1	(1.5)	6.7	(1.3)	46.1	(3.0)	38.9	(3.2)	8.2	(1.7)	-3.5	(2.2)	4.7	(4.4)	-2.3	(4.6)	1.1	(2.2)
	Canada	32.1	(2.2)	55.4	(2.3)	11.1	(1.3)	1.4	(0.6)	31.5	(2.3)	53.7	(2.7)	13.5	(1.3)	1.3	(0.4)	-0.6	(3.2)	-1.7	(3.5)	2.4	(1.8)	-0.1	(0.7)
	Czech Republic	1.2	(0.6)	38.9	(3.4)	48.2	(3.8)	11.7	(2.1)	8.6	(1.7)	39.3	(2.8)	39.2	(3.2)	12.8	(2.2)	**7.4**	(1.8)	0.5	(4.4)	-9.0	(4.9)	1.2	(3.1)
	Denmark	32.7	(3.0)	51.7	(3.0)	12.8	(2.4)	2.8	(1.2)	23.0	(2.8)	52.0	(3.3)	20.9	(2.8)	4.1	(1.5)	**-9.7**	(4.1)	0.3	(4.5)	**8.1**	(3.7)	1.3	(1.9)
	Finland	38.7	(3.9)	50.9	(4.1)	8.9	(1.9)	1.5	(0.9)	33.3	(3.3)	52.6	(3.7)	13.0	(2.4)	1.0	(0.5)	-5.3	(5.1)	1.7	(5.5)	4.1	(3.1)	-0.4	(1.1)
	France	9.8	(2.4)	56.2	(4.0)	30.0	(3.8)	4.0	(1.5)	13.9	(2.3)	47.5	(3.3)	31.6	(3.0)	6.9	(1.6)	4.1	(3.3)	-8.7	(5.2)	1.6	(4.8)	2.9	(2.2)
	Germany	3.4	(1.3)	28.7	(3.1)	43.8	(3.2)	24.1	(3.1)	4.2	(1.3)	35.2	(3.4)	42.4	(3.2)	18.2	(2.4)	0.8	(1.8)	6.5	(4.6)	-1.4	(4.5)	-5.9	(3.9)
	Greece	44.1	(4.7)	51.3	(4.6)	4.4	(1.2)	0.2	(0.1)	51.1	(4.0)	44.9	(4.1)	2.3	(1.1)	1.6	(0.9)	7.1	(6.1)	-6.4	(6.2)	-2.1	(1.6)	1.4	(0.9)
	Hungary	9.0	(1.9)	43.2	(3.2)	30.6	(3.3)	17.1	(2.8)	10.2	(1.9)	28.9	(3.5)	34.0	(3.5)	26.9	(2.8)	1.2	(2.7)	**-14.4**	(4.8)	3.3	(4.8)	**9.9**	(4.0)
	Iceland	45.3	(0.2)	44.6	(0.2)	7.2	(0.1)	2.9	(0.1)	12.2	(0.1)	65.9	(0.2)	18.4	(0.2)	3.5	(0.1)	**-33.1**	(0.2)	**21.3**	(0.3)	**11.2**	(0.2)	**0.6**	(0.1)
	Ireland	8.9	(2.3)	41.2	(4.5)	47.4	(4.3)	2.4	(1.4)	5.6	(1.7)	43.3	(3.5)	45.5	(3.5)	5.6	(1.8)	-3.3	(2.9)	2.0	(5.6)	-1.9	(5.6)	3.2	(2.2)
	Italy	34.2	(3.4)	55.7	(3.2)	9.5	(1.9)	0.6	(0.5)	17.7	(1.6)	56.8	(2.0)	22.2	(1.6)	3.3	(0.8)	**-16.5**	(3.7)	1.1	(3.7)	**12.7**	(2.5)	**2.7**	(1.0)
	Japan	2.3	(1.2)	20.2	(3.3)	36.2	(4.3)	41.3	(4.1)	0.2	(0.2)	6.2	(1.7)	28.4	(3.3)	65.2	(3.7)	-2.1	(1.2)	**-14.0**	(3.7)	-7.9	(5.4)	**24.0**	(5.6)
	Korea	5.0	(1.9)	48.1	(4.5)	38.0	(4.2)	9.0	(2.2)	5.1	(1.5)	45.5	(3.6)	34.4	(3.6)	15.0	(2.8)	0.1	(2.4)	-2.5	(5.8)	-3.6	(5.6)	6.0	(3.6)
	Luxembourg	10.2	(0.0)	77.6	(0.1)	12.1	(0.1)	0.0	c	3.5	(0.1)	51.9	(0.1)	44.1	(0.1)	0.5	(0.0)	**-6.8**	(0.1)	**-25.7**	(0.1)	**32.0**	(0.1)	0.5	c
	Mexico	36.8	(3.1)	53.5	(3.3)	6.9	(1.5)	2.8	(0.9)	27.1	(1.7)	54.3	(1.8)	15.5	(1.4)	3.1	(0.6)	**-9.7**	(3.5)	0.8	(3.8)	**8.6**	(2.0)	0.3	(1.1)
	Netherlands	40.9	(3.7)	45.2	(4.1)	13.9	(2.8)	0.0	c	11.9	(2.3)	44.4	(3.8)	40.8	(3.9)	3.0	(1.2)	**-29.1**	(4.4)	-0.8	(5.5)	**26.9**	(4.8)	3.0	c
	New Zealand	34.5	(3.0)	56.7	(2.9)	8.1	(1.9)	0.7	(0.6)	30.1	(3.5)	57.2	(4.1)	12.3	(2.7)	0.4	(0.3)	-4.4	(4.6)	0.4	(5.0)	4.3	(3.3)	-0.3	(0.7)
	Norway	12.6	(2.6)	67.3	(3.5)	17.7	(2.8)	2.4	(0.4)	7.6	(2.0)	55.0	(3.6)	30.8	(3.4)	6.6	(1.7)	-4.9	(3.2)	**-12.3**	(5.0)	**13.1**	(4.4)	**4.1**	(1.8)
	Poland	17.6	(3.0)	58.3	(3.6)	20.7	(2.8)	3.4	(1.4)	33.3	(3.5)	45.0	(4.0)	19.2	(3.2)	2.4	(1.2)	**15.7**	(4.6)	**-13.3**	(5.3)	-1.5	(4.2)	-0.9	(1.9)
	Portugal	65.2	(3.5)	31.2	(3.2)	3.2	(1.6)	0.4	(0.4)	64.7	(4.0)	34.2	(4.0)	1.0	(0.8)	0.1	(0.1)	-0.5	(5.3)	3.0	(5.1)	-2.2	(1.8)	-0.3	(0.4)
	Slovak Republic	2.2	(0.9)	38.4	(3.2)	43.7	(3.3)	15.7	(3.1)	6.0	(1.2)	43.1	(3.7)	39.9	(3.8)	11.1	(2.2)	**3.8**	(1.5)	4.6	(4.9)	-3.8	(5.0)	-4.6	(3.8)
	Spain	33.9	(2.9)	51.3	(3.2)	12.4	(2.1)	2.3	(0.9)	17.5	(2.0)	55.2	(3.2)	24.5	(2.7)	2.7	(0.8)	**-16.4**	(3.5)	3.9	(4.6)	**12.1**	(3.4)	0.4	(1.2)
	Sweden	48.2	(3.7)	45.7	(3.7)	5.0	(1.5)	1.0	(0.3)	65.5	(3.4)	32.1	(3.2)	2.1	(1.1)	0.3	(0.2)	**17.2**	(5.0)	**-13.6**	(4.9)	-2.9	(1.9)	**-0.7**	(0.3)
	Switzerland	8.0	(1.3)	38.0	(4.0)	40.9	(4.3)	13.1	(2.3)	5.1	(1.3)	36.1	(2.8)	42.6	(3.4)	16.1	(2.3)	-2.9	(1.8)	-1.9	(4.9)	1.7	(5.5)	3.1	(3.3)
	Turkey	5.6	(1.9)	44.7	(4.6)	40.7	(4.5)	8.9	(2.8)	24.9	(3.8)	68.5	(3.9)	6.6	(1.8)	0.1	(0.0)	**19.3**	(4.3)	**23.7**	(6.1)	**-34.1**	(4.9)	**-8.9**	(2.8)
	United States	19.4	(2.2)	47.8	(3.4)	24.6	(2.3)	8.1	(1.5)	9.5	(2.2)	49.2	(4.3)	34.5	(4.3)	6.8	(2.0)	**-9.9**	(3.1)	1.3	(5.5)	**9.9**	(4.9)	-1.2	(2.5)
	OECD average 2003	21.8	(0.5)	47.8	(0.6)	23.1	(0.5)	7.3	(0.4)	19.1	(0.4)	45.9	(0.6)	26.1	(0.5)	9.0	(0.3)	**-2.7**	(0.6)	**-2.0**	(0.9)	**3.0**	(0.7)	**1.7**	(0.5)
Partners	**Brazil**	19.8	(3.1)	55.1	(3.9)	21.2	(3.3)	3.9	(1.3)	14.8	(1.8)	50.9	(2.7)	32.0	(2.4)	2.3	(0.8)	-5.0	(3.5)	-4.2	(4.7)	**10.8**	(4.0)	-1.5	(1.5)
	Hong Kong-China	0.6	(0.6)	24.8	(3.1)	34.5	(4.2)	40.0	(3.9)	0.2	(0.0)	11.3	(2.4)	54.1	(3.7)	34.4	(3.3)	-0.4	(0.6)	**-13.5**	(3.9)	**19.5**	(5.6)	-5.7	(5.1)
	Indonesia	14.8	(2.4)	65.3	(3.5)	17.7	(2.9)	2.1	(1.0)	9.0	(1.9)	39.2	(3.5)	41.9	(3.5)	9.9	(2.3)	-5.8	(3.0)	**-26.1**	(4.9)	**24.2**	(4.5)	**7.8**	(2.5)
	Latvia	44.3	(4.2)	45.6	(4.5)	8.9	(2.5)	1.2	(0.7)	65.9	(3.4)	29.7	(3.2)	3.4	(1.3)	1.0	(0.6)	**21.6**	(5.4)	**-15.9**	(5.6)	-5.5	(2.8)	-0.2	(1.0)
	Liechtenstein	0.0	c	15.1	(0.5)	84.9	(0.5)	0.0	c	1.0	(0.6)	18.8	(0.9)	73.5	(1.0)	6.7	(0.5)	1.0	c	**3.8**	(1.0)	**-11.5**	(1.2)	6.7	c
	Macao-China	5.1	(0.1)	14.0	(0.2)	47.2	(0.2)	33.7	(0.2)	8.2	(0.1)	34.0	(0.0)	46.8	(0.1)	10.9	(0.0)	**3.1**	(0.2)	**20.0**	(0.2)	-0.3	(0.2)	**-22.8**	(0.2)
	Russian Federation	27.3	(3.6)	60.4	(4.0)	10.9	(2.8)	1.4	(0.5)	39.7	(4.0)	48.6	(4.5)	9.5	(2.4)	2.3	(0.4)	**12.4**	(5.4)	-11.8	(6.1)	-1.4	(3.7)	0.8	(0.6)
	Thailand	17.5	(2.7)	47.7	(4.1)	29.6	(3.5)	5.3	(1.7)	21.1	(2.6)	42.8	(3.7)	31.0	(3.8)	5.1	(1.7)	3.6	(3.8)	-4.9	(5.6)	1.4	(5.2)	-0.1	(2.4)
	Tunisia	19.2	(3.2)	64.9	(3.8)	13.8	(2.7)	2.1	(1.1)	55.9	(4.0)	43.2	(4.1)	0.9	(0.8)	0.0	c	**36.7**	(5.1)	**-21.7**	(5.6)	**-12.9**	(2.8)	-2.1	c
	Uruguay	63.4	(3.7)	35.6	(3.7)	0.3	(0.3)	0.7	(0.3)	79.8	(2.7)	18.0	(2.5)	1.5	(0.9)	0.8	(0.8)	**16.4**	(4.6)	**-17.6**	(4.5)	1.2	(0.9)	0.1	(0.8)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
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[Part 1/7]

Table III.5.1d Trends in the percentage of students arriving late for school in the two weeks prior to the PISA test, by school characteristics

Results based on students' self-reports

		PISA 2003													
		Percentage of students who arrived late for school in the two weeks prior to the PISA test													
		Socio-economically disadvantaged schools		Schools of average socio-economic background		Socio-economically advantaged schools		Public schools		Private schools		ISCED 2 schools		ISCED 3 schools	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	37.5	(1.1)	36.0	(1.5)	36.2	(1.3)	c	c	c	c	36.4	(0.8)	37.2	(1.4)
	Austria	17.9	(1.5)	23.7	(1.8)	29.4	(2.0)	23.3	(1.2)	20.4	(3.2)	32.3	(3.5)	22.6	(1.1)
	Belgium	35.8	(1.6)	27.3	(1.4)	21.7	(1.5)	32.4	(1.4)	25.4	(1.0)	48.8	(5.1)	27.3	(0.8)
	Canada	43.2	(1.4)	43.8	(0.9)	44.3	(1.7)	44.9	(0.6)	33.0	(2.5)	41.6	(1.2)	44.3	(0.6)
	Czech Republic	23.9	(1.3)	22.2	(1.2)	24.0	(1.6)	22.7	(0.8)	28.1	(2.2)	21.8	(1.1)	24.2	(1.0)
	Denmark	46.5	(2.6)	39.6	(1.8)	51.3	(3.1)	41.3	(1.4)	47.2	(3.2)	43.0	(1.3)	c	c
	Finland	37.0	(1.6)	45.1	(1.6)	50.8	(2.1)	44.3	(1.2)	48.3	(5.6)	44.5	(1.1)	c	c
	France	35.0	(2.1)	33.0	(1.9)	29.3	(1.9)	w	w	w	w	36.9	(1.9)	29.5	(1.4)
	Germany	22.5	(1.5)	18.9	(1.8)	23.0	(1.8)	21.6	(0.9)	21.9	(5.9)	21.5	(1.0)	c	c
	Greece	47.3	(2.3)	47.2	(1.7)	50.2	(1.8)	48.5	(1.0)	31.4	(6.0)	49.8	(3.4)	48.0	(1.0)
	Hungary	36.1	(1.8)	28.7	(2.1)	17.9	(1.5)	27.4	(1.0)	24.1	(4.1)	39.2	(3.3)	26.8	(1.1)
	Iceland	35.7	(1.9)	45.2	(1.0)	51.8	(1.6)	45.0	(1.0)	c	c	45.6	(0.9)	c	c
	Ireland	35.1	(2.5)	27.7	(1.5)	24.8	(1.9)	31.6	(1.7)	27.4	(1.5)	28.2	(1.2)	29.7	(1.6)
	Italy	50.3	(2.1)	44.1	(1.6)	38.6	(1.5)	44.5	(1.0)	43.0	(4.4)	60.5	(11.3)	44.3	(1.0)
	Japan	21.1	(2.3)	14.1	(1.7)	13.6	(1.2)	15.3	(1.3)	18.0	(1.2)	c	c	16.3	(1.0)
	Korea	32.3	(1.7)	23.8	(1.6)	24.7	(2.2)	28.6	(1.8)	25.3	(1.2)	c	c	27.0	(1.0)
	Luxembourg	32.5	(0.8)	c	c	39.6	(1.3)	36.2	(0.7)	32.9	(1.9)	35.6	(0.8)	36.1	(1.3)
	Mexico	41.9	(2.0)	49.2	(1.5)	44.1	(1.2)	46.1	(1.1)	41.4	(3.1)	43.2	(1.4)	48.4	(1.2)
	Netherlands	50.6	(1.9)	43.9	(2.0)	39.2	(2.1)	47.5	(3.8)	43.8	(1.2)	47.3	(1.4)	36.8	(2.2)
	New Zealand	51.0	(2.4)	44.9	(1.2)	43.7	(3.0)	46.0	(1.1)	43.2	(7.0)	43.9	(3.9)	45.9	(1.1)
	Norway	33.1	(2.3)	34.9	(1.1)	41.4	(2.7)	35.9	(1.0)	c	c	35.7	(0.9)	c	c
	Poland	27.1	(1.6)	39.4	(1.5)	42.4	(2.1)	36.6	(1.0)	c	c	36.5	(0.9)	c	c
	Portugal	49.4	(2.5)	54.3	(1.6)	58.9	(3.1)	54.7	(1.1)	42.1	(5.5)	50.4	(1.4)	55.8	(1.5)
	Slovak Republic	27.4	(1.6)	20.0	(1.8)	22.7	(1.3)	22.7	(1.2)	23.8	(2.6)	20.2	(1.5)	24.3	(1.2)
	Spain	42.1	(2.5)	42.0	(1.3)	38.9	(1.7)	44.3	(1.4)	35.7	(1.3)	41.2	(0.9)	c	c
	Sweden	50.4	(3.2)	48.6	(1.5)	59.1	(2.6)	50.7	(1.1)	54.5	(8.6)	50.5	(1.2)	57.2	(3.2)
	Switzerland	23.9	(1.9)	26.6	(1.2)	29.5	(2.3)	26.9	(0.9)	18.6	(5.0)	25.7	(1.0)	30.5	(2.0)
	Turkey	29.2	(1.5)	26.1	(1.8)	23.9	(2.6)	25.9	(1.0)	c	c	41.0	(3.9)	25.9	(1.1)
	United States	42.7	(2.3)	32.6	(1.3)	31.5	(1.5)	34.3	(1.1)	24.6	(6.9)	35.0	(1.2)	34.4	(1.2)
	OECD average 2003	36.5	(0.4)	35.1	(0.3)	36.1	(0.4)	36.3	(0.3)	32.8	(0.9)	39.1	(0.6)	35.1	(0.3)
Partners	**Brazil**	36.4	(2.1)	36.7	(1.5)	38.1	(3.4)	37.3	(1.1)	35.6	(4.0)	42.1	(1.6)	33.9	(1.4)
	Hong Kong-China	23.0	(1.8)	14.9	(1.3)	12.7	(1.6)	13.7	(1.0)	17.3	(0.9)	16.9	(1.1)	17.0	(1.1)
	Indonesia	35.4	(1.9)	37.4	(1.7)	34.4	(1.6)	33.5	(0.9)	39.1	(2.0)	35.5	(1.3)	36.9	(1.7)
	Latvia	40.8	(2.9)	48.2	(2.1)	53.1	(2.3)	47.7	(1.4)	c	c	47.9	(1.6)	54.5	(2.5)
	Liechtenstein	c	c	c	c	c	c	20.6	(2.5)	c	c	21.4	(2.6)	c	c
	Macao-China	20.0	(1.9)	19.8	(2.0)	14.3	(2.0)	c	c	18.9	(1.2)	20.4	(1.4)	13.4	(2.0)
	Russian Federation	43.2	(2.8)	39.3	(1.2)	40.1	(2.3)	40.8	(1.2)	c	c	41.0	(1.7)	40.4	(1.4)
	Thailand	35.2	(2.4)	34.6	(1.8)	31.3	(2.7)	33.6	(1.2)	36.5	(5.3)	32.5	(1.4)	35.1	(1.6)
	Tunisia	33.3	(1.7)	39.5	(1.6)	41.2	(2.4)	c	c	c	c	37.4	(1.2)	38.6	(1.9)
	Uruguay	58.9	(1.6)	56.0	(1.6)	54.8	(2.1)	57.5	(1.2)	50.5	(1.9)	65.7	(1.6)	52.0	(1.4)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
Students who arrived late for school are students who, in the two weeks prior to the PISA test, arrived late for school at least once.
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[Part 2/7]

Table III.5.1d

Trends in the percentage of students arriving late for school in the two weeks prior to the PISA test, by school characteristics

Results based on students' self-reports

		PISA 2003											
		Percentage of students who arrived late for school in the two weeks prior to the PISA test											
		Schools located in a village, hamlet or rural area (less than 3 000 people)		Schools located in a small town, or a town (3 000 to 100 0000 people)		Schools located in a city or large city (more than 100 000 people)		Small schools		Average schools		Large schools	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	28.9	(1.8)	35.8	(1.2)	37.8	(0.9)	37.5	(1.2)	34.6	(1.9)	36.0	(1.0)
	Austria	14.8	(2.7)	17.7	(1.1)	36.8	(1.9)	20.9	(1.6)	26.5	(4.7)	24.7	(2.1)
	Belgium	23.6	(3.4)	26.2	(0.9)	34.1	(2.4)	29.6	(1.3)	27.8	(2.6)	25.5	(1.3)
	Canada	36.9	(1.8)	42.4	(1.0)	46.8	(1.0)	40.7	(0.8)	41.8	(2.3)	47.6	(1.1)
	Czech Republic	19.8	(2.2)	22.3	(0.9)	26.6	(1.6)	23.6	(1.2)	21.8	(2.4)	22.9	(1.0)
	Denmark	35.7	(2.1)	40.8	(1.4)	59.5	(3.1)	42.5	(2.3)	37.3	(5.7)	42.8	(1.5)
	Finland	31.7	(2.6)	43.9	(1.4)	53.6	(2.7)	41.9	(1.5)	50.3	(2.7)	45.5	(2.1)
	France	w	w	w	w	w	w	w	w	w	w	w	w
	Germany	c	c	19.7	(1.2)	27.2	(1.7)	21.7	(1.5)	23.6	(4.4)	21.3	(1.4)
	Greece	41.3	(4.2)	47.4	(1.4)	51.5	(1.9)	47.0	(1.4)	47.7	(2.4)	50.4	(2.2)
	Hungary	36.3	(4.8)	26.5	(1.6)	28.1	(1.8)	30.5	(1.7)	26.9	(3.4)	23.8	(1.7)
	Iceland	33.1	(1.6)	50.0	(1.2)	47.2	(2.3)	39.5	(1.3)	c	c	49.8	(1.3)
	Ireland	25.9	(1.9)	28.3	(1.7)	32.9	(2.1)	30.6	(1.8)	30.5	(3.8)	27.0	(1.6)
	Italy	48.1	(7.4)	43.5	(1.2)	46.8	(1.6)	45.6	(1.3)	44.5	(3.5)	42.9	(1.5)
	Japan	c	c	11.8	(1.2)	18.4	(1.3)	19.1	(1.5)	18.5	(4.7)	12.7	(1.2)
	Korea	c	c	26.7	(2.7)	26.8	(1.1)	26.7	(1.6)	30.6	(5.9)	26.4	(1.2)
	Luxembourg	c	c	35.7	(0.6)	c	c	34.8	(0.8)	c	c	37.9	(1.3)
	Mexico	39.1	(2.9)	46.5	(1.4)	47.7	(1.2)	43.2	(1.7)	48.3	(2.0)	47.5	(1.2)
	Netherlands	c	c	44.7	(1.6)	44.9	(2.0)	48.3	(1.9)	41.5	(6.3)	41.5	(1.8)
	New Zealand	41.8	(3.9)	46.7	(1.5)	45.3	(1.8)	46.4	(1.6)	56.4	(4.0)	43.8	(1.2)
	Norway	28.6	(1.4)	38.5	(1.3)	45.5	(2.4)	33.1	(1.4)	41.6	(7.2)	39.4	(1.7)
	Poland	26.9	(1.5)	41.8	(1.6)	43.0	(2.1)	31.0	(1.4)	48.7	(5.2)	42.2	(1.3)
	Portugal	47.0	(5.5)	53.4	(1.3)	58.5	(3.3)	53.4	(1.5)	51.8	(2.7)	55.3	(2.2)
	Slovak Republic	18.3	(2.7)	23.2	(1.3)	24.1	(2.3)	22.3	(1.5)	25.3	(2.6)	23.1	(1.4)
	Spain	25.4	(3.2)	40.2	(1.2)	43.6	(1.7)	39.0	(1.4)	40.0	(3.3)	43.3	(1.7)
	Sweden	37.8	(2.0)	52.1	(1.5)	59.5	(2.6)	48.7	(1.8)	55.3	(4.1)	52.2	(1.8)
	Switzerland	20.2	(1.8)	25.4	(1.0)	40.0	(2.9)	21.6	(0.9)	30.0	(2.8)	31.0	(1.4)
	Turkey	c	c	27.4	(1.5)	26.2	(1.6)	28.0	(1.7)	27.8	(2.3)	25.1	(1.7)
	United States	25.0	(3.6)	31.2	(1.6)	42.7	(2.1)	31.3	(1.5)	29.4	(4.1)	38.1	(2.1)
	OECD average 2003	31.2	(0.7)	35.4	(0.3)	40.6	(0.4)	34.9	(0.3)	36.9	(0.8)	36.4	(0.3)
Partners	**Brazil**	33.7	(4.5)	37.2	(2.0)	38.0	(1.7)	38.1	(1.7)	38.0	(3.7)	35.1	(1.6)
	Hong Kong-China	c	c	c	c	17.0	(0.8)	22.2	(1.4)	15.8	(2.3)	12.6	(1.1)
	Indonesia	33.7	(1.8)	37.3	(1.5)	36.8	(1.8)	37.4	(2.1)	35.7	(1.6)	33.6	(1.6)
	Latvia	34.8	(2.9)	51.9	(1.6)	55.8	(2.0)	43.7	(2.6)	45.6	(4.0)	53.7	(1.7)
	Liechtenstein	c	c	20.7	(2.4)	c	c	19.6	(2.9)	c	c	c	c
	Macao-China	c	c	c	c	18.6	(1.1)	20.6	(1.3)	c	c	15.4	(2.5)
	Russian Federation	34.4	(3.4)	41.8	(1.7)	41.4	(1.5)	41.6	(2.2)	41.1	(2.6)	39.7	(1.6)
	Thailand	34.2	(2.4)	33.1	(1.9)	35.5	(3.1)	33.8	(1.7)	34.4	(3.7)	34.2	(2.0)
	Tunisia	30.2	(3.7)	37.4	(1.3)	41.6	(3.0)	35.2	(1.3)	33.5	(3.4)	42.3	(1.8)
	Uruguay	52.1	(5.2)	57.9	(1.1)	55.6	(1.8)	57.2	(1.4)	54.8	(3.0)	56.3	(2.0)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
Students who arrived late for school are students who, in the two weeks prior to the PISA test, arrived late for school at least once.
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[Part 3/7]

Table III.5.1d Trends in the percentage of students arriving late for school in the two weeks prior to the PISA test, by school characteristics

Results based on students' self-reports

		PISA 2012													
		Percentage of students who arrived late for school in the two weeks prior to the PISA test													
		Socio-economically disadvantaged schools		Schools of average socio-economic background		Socio-economically advantaged schools		Public schools		Private schools		ISCED 2 schools		ISCED 3 schools	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	38.1	(1.3)	35.0	(0.8)	34.2	(1.4)	37.2	(0.7)	33.2	(1.1)	35.9	(0.7)	34.0	(1.1)
	Austria	19.4	(1.7)	19.4	(1.6)	25.3	(2.5)	20.8	(1.0)	22.0	(4.0)	27.7	(4.9)	20.5	(0.9)
	Belgium	34.8	(1.5)	25.3	(1.1)	23.2	(1.2)	33.2	(1.6)	24.4	(0.8)	42.0	(2.1)	25.7	(0.7)
	Canada	45.5	(2.6)	42.9	(0.8)	41.7	(1.3)	44.2	(0.7)	30.8	(2.2)	39.6	(1.4)	43.7	(0.7)
	Czech Republic	35.4	(2.7)	25.1	(1.2)	23.7	(1.1)	27.0	(0.9)	32.5	(3.5)	26.6	(0.9)	27.5	(1.3)
	Denmark	40.2	(2.4)	36.7	(1.5)	40.9	(2.3)	40.0	(1.2)	34.0	(3.6)	38.4	(1.1)	c	c
	Finland	40.2	(2.8)	42.5	(1.3)	47.9	(1.7)	42.5	(1.0)	54.5	(2.3)	43.1	(0.9)	c	c
	France	38.8	(2.4)	32.0	(1.3)	27.3	(1.4)	34.1	(1.1)	26.3	(2.5)	38.7	(2.1)	29.5	(0.9)
	Germany	22.1	(1.8)	21.6	(1.4)	24.7	(1.7)	22.9	(0.9)	20.8	(2.6)	22.8	(0.8)	c	c
	Greece	45.4	(2.1)	51.0	(1.3)	49.6	(2.3)	50.3	(0.9)	c	c	49.7	(4.4)	49.3	(1.0)
	Hungary	31.8	(2.7)	25.0	(2.1)	15.8	(1.7)	23.6	(1.4)	26.9	(3.3)	34.6	(5.4)	22.7	(1.1)
	Iceland	33.1	(2.0)	35.3	(1.2)	35.3	(1.2)	35.0	(0.8)	c	c	35.0	(0.8)	c	c
	Ireland	39.6	(3.0)	24.2	(1.2)	26.1	(1.3)	28.4	(1.6)	26.7	(1.4)	24.9	(1.0)	31.4	(1.6)
	Italy	41.1	(1.3)	34.9	(0.9)	30.0	(1.1)	35.1	(0.7)	31.7	(2.5)	49.3	(3.3)	34.9	(0.6)
	Japan	12.2	(1.6)	7.6	(0.6)	7.6	(0.7)	8.5	(0.7)	9.9	(1.0)	c	c	8.9	(0.6)
	Korea	31.3	(2.0)	25.0	(1.3)	18.5	(2.0)	28.3	(1.5)	21.6	(1.4)	37.4	(2.7)	24.3	(1.1)
	Luxembourg	29.4	(0.8)	27.9	(1.4)	29.3	(0.8)	29.9	(0.6)	24.5	(1.4)	29.9	(0.8)	27.9	(0.9)
	Mexico	34.2	(0.9)	42.5	(1.0)	43.1	(1.1)	39.8	(0.6)	40.3	(2.5)	39.0	(1.0)	40.4	(0.8)
	Netherlands	36.9	(2.0)	28.1	(1.4)	29.0	(1.9)	31.5	(2.3)	30.8	(1.3)	32.7	(1.2)	24.7	(1.1)
	New Zealand	50.3	(2.4)	41.9	(1.9)	35.2	(2.1)	42.6	(1.3)	24.7	(2.6)	41.3	(3.0)	42.1	(1.3)
	Norway	28.1	(3.6)	28.7	(1.2)	31.9	(1.7)	28.9	(1.0)	c	c	29.2	(1.0)	c	c
	Poland	31.2	(2.7)	44.8	(1.7)	50.8	(2.0)	42.1	(1.3)	50.0	(2.7)	42.4	(1.2)	c	c
	Portugal	53.6	(2.3)	56.4	(1.4)	55.2	(1.8)	56.0	(1.1)	48.1	(2.4)	57.2	(1.3)	53.6	(1.4)
	Slovak Republic	31.9	(2.0)	24.5	(1.2)	23.7	(2.2)	26.3	(1.0)	26.0	(3.1)	24.4	(1.3)	27.7	(1.3)
	Spain	37.1	(2.0)	35.6	(0.9)	33.0	(1.7)	37.7	(1.0)	30.5	(1.7)	35.3	(0.8)	c	c
	Sweden	57.1	(3.5)	54.0	(1.4)	58.8	(2.1)	55.3	(1.1)	57.3	(3.5)	55.6	(1.0)	54.5	(4.1)
	Switzerland	19.1	(1.3)	24.0	(1.2)	30.1	(1.8)	24.6	(0.8)	21.5	(3.7)	23.5	(0.9)	27.0	(1.9)
	Turkey	46.3	(1.6)	44.7	(1.3)	39.2	(1.9)	43.8	(1.0)	c	c	57.6	(3.9)	43.4	(1.0)
	United States	41.0	(2.3)	28.1	(1.9)	23.3	(1.3)	29.9	(1.3)	18.6	(4.1)	36.5	(2.6)	29.2	(1.2)
	OECD average 2003	36.0	(0.4)	33.3	(0.2)	32.9	(0.3)	34.5	(0.2)	30.7	(0.5)	37.5	(0.4)	32.9	(0.3)
Partners	Brazil	30.4	(0.8)	36.6	(1.5)	33.2	(1.7)	33.0	(0.8)	38.5	(3.1)	35.1	(1.2)	33.4	(1.0)
	Hong Kong-China	19.1	(1.1)	11.6	(1.0)	13.2	(1.2)	12.7	(1.5)	14.9	(0.7)	16.3	(1.0)	13.8	(0.7)
	Indonesia	22.8	(1.8)	30.9	(1.8)	28.2	(2.5)	26.3	(1.4)	28.1	(1.7)	27.5	(1.4)	26.5	(1.7)
	Latvia	54.4	(3.3)	57.2	(1.5)	56.1	(2.0)	56.9	(1.2)	c	c	56.3	(1.3)	56.2	(4.8)
	Liechtenstein	c	c	c	c	c	c	18.4	(2.4)	c	c	18.6	(2.5)	c	c
	Macao-China	25.5	(0.7)	24.2	(1.3)	25.0	(0.9)	c	c	24.7	(0.5)	29.3	(0.8)	20.1	(0.8)
	Russian Federation	49.6	(2.5)	44.6	(1.7)	48.4	(2.0)	46.8	(1.3)	c	c	46.6	(1.3)	47.1	(2.5)
	Thailand	33.0	(2.0)	38.0	(2.1)	31.2	(2.0)	31.9	(1.4)	44.9	(2.4)	31.3	(1.8)	34.8	(1.3)
	Tunisia	47.2	(1.8)	54.2	(1.5)	52.9	(1.7)	51.6	(1.0)	c	c	52.3	(1.8)	51.5	(1.0)
	Uruguay	60.4	(1.2)	59.7	(1.6)	56.6	(2.4)	60.3	(0.9)	54.5	(3.0)	64.4	(1.1)	55.7	(1.4)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
Students who arrived late for school are students who, in the two weeks prior to the PISA test, arrived late for school at least once.
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[Part 4/7]

Table III.5.1d **Trends in the percentage of students arriving late for school in the two weeks prior to the PISA test, by school characteristics**

Results based on students' self-reports

		PISA 2012											
		Percentage of students who arrived late for school in the two weeks prior to the PISA test											
		Schools located in a village, hamlet or rural area (less than 3 000 people)		Schools located in a small town, or a town (3 000 to 100 0000 people)		Schools located in a city or large city (more than 100 000 people)		Small schools		Average schools		Large schools	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	29.2	(2.3)	32.8	(1.0)	37.4	(0.7)	35.8	(0.8)	32.3	(2.8)	35.9	(0.8)
	Austria	17.9	(5.0)	16.0	(1.1)	29.2	(1.7)	22.0	(1.7)	25.0	(4.1)	19.4	(1.5)
	Belgium	39.2	(5.0)	24.1	(0.6)	36.9	(2.0)	25.4	(1.3)	25.8	(2.6)	29.2	(1.2)
	Canada	33.8	(1.9)	39.8	(0.9)	46.8	(1.0)	45.3	(1.0)	48.6	(3.4)	39.7	(0.8)
	Czech Republic	27.3	(4.2)	25.5	(1.0)	32.1	(2.1)	27.7	(1.4)	22.8	(2.1)	28.2	(1.5)
	Denmark	35.0	(2.5)	37.9	(1.3)	47.5	(2.5)	40.0	(1.5)	36.0	(4.0)	38.1	(2.3)
	Finland	32.5	(5.1)	40.5	(1.2)	51.7	(1.7)	46.3	(1.1)	44.4	(2.1)	39.0	(1.7)
	France	23.7	(3.0)	31.9	(1.3)	36.8	(2.4)	31.0	(1.8)	27.1	(4.2)	34.3	(1.4)
	Germany	c	c	21.1	(0.8)	27.6	(1.9)	23.4	(1.1)	18.7	(3.0)	22.3	(1.2)
	Greece	33.2	(3.7)	49.6	(1.1)	53.0	(1.9)	53.4	(1.6)	51.1	(2.6)	44.9	(1.6)
	Hungary	c	c	22.1	(1.6)	28.1	(2.2)	19.6	(1.6)	22.4	(3.6)	27.6	(2.1)
	Iceland	31.6	(1.9)	36.6	(1.2)	34.7	(1.3)	36.3	(1.1)	c	c	32.2	(1.2)
	Ireland	24.4	(1.4)	25.8	(1.3)	32.7	(2.3)	24.7	(1.1)	23.0	(3.0)	30.1	(1.7)
	Italy	29.8	(2.6)	34.9	(0.8)	35.8	(1.1)	33.0	(1.1)	33.9	(3.4)	37.1	(0.9)
	Japan	c	c	10.7	(1.3)	8.3	(0.6)	7.8	(0.8)	10.1	(2.6)	9.9	(0.9)
	Korea	c	c	25.3	(3.9)	25.0	(1.0)	23.8	(1.3)	25.4	(3.4)	26.5	(1.8)
	Luxembourg	c	c	29.2	(0.5)	c	c	31.8	(0.9)	c	c	26.3	(0.7)
	Mexico	33.4	(1.1)	37.2	(0.9)	44.7	(0.9)	44.3	(0.9)	42.1	(1.7)	37.2	(0.8)
	Netherlands	c	c	30.4	(1.4)	33.9	(2.2)	28.8	(1.4)	27.2	(5.2)	34.6	(2.1)
	New Zealand	33.6	(3.6)	41.6	(2.1)	42.4	(1.6)	40.0	(2.1)	c	c	42.7	(1.5)
	Norway	25.4	(2.4)	27.7	(1.2)	35.5	(1.7)	30.3	(1.6)	32.5	(2.5)	26.8	(1.5)
	Poland	30.2	(2.2)	43.9	(1.7)	57.5	(3.2)	50.9	(1.5)	45.2	(4.3)	35.3	(2.0)
	Portugal	45.0	(5.7)	55.3	(1.1)	57.6	(2.5)	55.7	(1.6)	53.2	(2.2)	55.3	(1.7)
	Slovak Republic	20.5	(2.5)	26.8	(1.0)	28.9	(2.9)	26.5	(1.5)	32.2	(2.7)	24.1	(1.4)
	Spain	24.0	(2.0)	36.0	(1.2)	35.5	(1.1)	33.2	(1.2)	35.1	(2.3)	37.0	(1.2)
	Sweden	46.6	(2.4)	55.2	(1.5)	62.7	(1.7)	58.0	(1.5)	57.4	(3.0)	53.5	(1.4)
	Switzerland	14.2	(1.8)	23.2	(0.9)	33.7	(2.9)	29.8	(1.8)	27.0	(2.2)	20.3	(1.0)
	Turkey	39.0	(7.9)	41.9	(1.4)	45.4	(1.3)	45.5	(1.5)	40.6	(4.4)	43.1	(1.4)
	United States	29.6	(4.6)	25.9	(1.8)	34.7	(2.0)	29.4	(2.1)	32.1	(4.7)	28.7	(1.7)
	OECD average 2003	30.4	(0.8)	32.7	(0.3)	38.4	(0.4)	34.5	(0.3)	33.5	(0.6)	33.1	(0.3)
Partners	**Brazil**	31.9	(5.6)	32.7	(1.2)	34.8	(1.1)	33.9	(1.3)	34.8	(2.2)	33.5	(1.3)
	Hong Kong-China	c	c	c	c	14.6	(0.6)	10.8	(0.8)	18.5	(1.2)	16.3	(1.4)
	Indonesia	26.0	(2.2)	26.4	(1.6)	29.6	(2.8)	25.2	(1.8)	24.3	(3.9)	28.7	(1.3)
	Latvia	54.0	(2.8)	56.2	(1.8)	58.5	(1.7)	57.6	(1.4)	59.9	(4.9)	54.5	(2.1)
	Liechtenstein	c	c	18.7	(2.3)	c	c	c	c	c	c	21.0	(2.9)
	Macao-China	c	c	c	c	25.1	(0.5)	18.6	(0.8)	c	c	29.8	(0.7)
	Russian Federation	39.4	(3.8)	47.9	(1.8)	49.1	(1.7)	47.7	(1.7)	52.7	(3.0)	43.7	(2.2)
	Thailand	32.1	(2.3)	32.8	(1.6)	37.2	(2.5)	32.1	(2.0)	41.1	(6.1)	34.5	(1.8)
	Tunisia	41.1	(3.5)	51.1	(1.1)	55.9	(1.9)	53.6	(1.3)	50.3	(3.8)	51.0	(1.5)
	Uruguay	52.2	(2.8)	60.7	(1.0)	58.4	(1.9)	61.3	(1.4)	63.4	(3.2)	57.7	(1.3)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
Students who arrived late for school are students who, in the two weeks prior to the PISA test, arrived late for school at least once.
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[Part 5/7]

Table III.5.1d Trends in the percentage of students arriving late for school in the two weeks prior to the PISA test, by school characteristics

Results based on students' self-reports

		Change between 2003 and 2012 (PISA 2012 - PISA 2003)													
		Percentage of students who arrived late for school in the two weeks prior to the PISA test													
		Socio-economically disadvantaged schools		Schools of average socio-economic background		Socio-economically advantaged schools		Public schools		Private schools		ISCED 2 schools		ISCED 3 schools	
		% Dif.	S.E.	% Dif.	S.E.	% Dif.	S.E.	% Dif.	S.E.	% Dif.	S.E.	% Dif.	S.E.	% Dif.	S.E.
OECD	**Australia**	0.6	(1.7)	-0.9	(1.7)	-2.0	(1.9)	c	c	c	c	-0.5	(1.0)	-3.1	(1.8)
	Austria	1.5	(2.3)	-4.3	(2.4)	-4.2	(3.2)	-2.5	(1.5)	1.7	(5.1)	-4.5	(6.0)	-2.1	(1.5)
	Belgium	-1.0	(2.2)	-2.0	(1.8)	1.6	(1.9)	0.7	(2.1)	-0.9	(1.3)	-6.9	(5.5)	-1.6	(1.1)
	Canada	2.2	(2.9)	-0.9	(1.2)	-2.6	(2.1)	-0.6	(1.0)	-2.1	(3.3)	-2.0	(1.9)	-0.5	(1.0)
	Czech Republic	**11.6**	(3.0)	2.9	(1.7)	-0.3	(1.9)	**4.3**	(1.2)	4.4	(4.2)	**4.9**	(1.5)	3.3	(1.7)
	Denmark	-6.3	(3.6)	-2.8	(2.3)	**-10.4**	(3.9)	-1.3	(1.8)	**-13.3**	(4.8)	**-4.6**	(1.7)	c	c
	Finland	3.2	(3.2)	-2.7	(2.0)	-2.9	(2.7)	-1.8	(1.5)	6.3	(6.0)	-1.5	(1.5)	c	c
	France	3.9	(3.2)	-1.0	(2.3)	-2.0	(2.4)	m	m	m	m	1.8	(2.8)	0.1	(1.6)
	Germany	-0.4	(2.3)	2.7	(2.3)	1.7	(2.4)	1.2	(1.3)	-1.1	(6.4)	1.3	(1.2)	c	c
	Greece	-1.9	(3.1)	3.9	(2.2)	-0.7	(2.9)	1.8	(1.4)	c	c	-0.1	(5.5)	1.2	(1.4)
	Hungary	-4.3	(3.3)	-3.8	(2.9)	-2.1	(2.2)	**-3.8**	(1.7)	2.8	(5.2)	-4.6	(6.4)	**-4.1**	(1.6)
	Iceland	-2.5	(2.8)	**-9.9**	(1.5)	**-16.5**	(2.0)	**-10.1**	(1.2)	c	c	**-10.6**	(1.2)	c	c
	Ireland	4.5	(3.9)	-3.5	(1.9)	1.3	(2.3)	-3.2	(2.4)	-0.7	(2.0)	**-3.3**	(1.5)	1.8	(2.3)
	Italy	**-9.2**	(2.5)	**-9.3**	(1.9)	**-8.6**	(1.9)	**-9.4**	(1.2)	**-11.3**	(5.0)	-11.3	(11.8)	**-9.4**	(1.2)
	Japan	**-8.9**	(2.8)	**-6.5**	(1.8)	**-6.0**	(1.4)	**-6.7**	(1.4)	**-8.1**	(1.5)	c	c	**-7.4**	(1.1)
	Korea	-1.1	(2.6)	1.2	(2.0)	**-6.2**	(3.0)	-0.3	(2.3)	**-3.7**	(1.8)	c	c	-2.7	(1.5)
	Luxembourg	**-3.1**	(1.2)	c	c	**-10.4**	(1.5)	**-6.3**	(0.9)	**-8.4**	(2.4)	**-5.7**	(1.1)	**-8.1**	(1.6)
	Mexico	**-7.7**	(2.2)	**-6.7**	(1.8)	-1.1	(1.6)	**-6.3**	(1.3)	-1.1	(4.0)	**-4.2**	(1.7)	**-8.0**	(1.4)
	Netherlands	**-13.8**	(2.7)	**-15.8**	(2.4)	**-10.3**	(2.8)	**-16.0**	(4.4)	**-13.0**	(1.8)	**-14.6**	(1.8)	**-12.0**	(2.5)
	New Zealand	-0.8	(3.4)	-3.0	(2.3)	**-8.5**	(3.7)	**-3.4**	(1.7)	**-18.4**	(7.5)	-2.6	(5.0)	**-3.7**	(1.7)
	Norway	-5.0	(4.2)	**-6.2**	(1.6)	**-9.5**	(3.2)	**-7.0**	(1.4)	c	c	**-6.5**	(1.3)	c	c
	Poland	4.1	(3.1)	**5.3**	(2.3)	**8.4**	(2.9)	**5.5**	(1.6)	c	c	**5.9**	(1.5)	c	c
	Portugal	4.3	(3.4)	2.1	(2.1)	-3.7	(3.6)	1.3	(1.5)	6.1	(6.0)	**6.7**	(1.9)	-2.2	(2.0)
	Slovak Republic	4.5	(2.5)	**4.4**	(2.1)	1.0	(2.5)	**3.6**	(1.5)	2.1	(4.1)	**4.2**	(2.0)	3.4	(1.8)
	Spain	-5.0	(3.2)	**-6.5**	(1.6)	**-5.9**	(2.4)	**-6.6**	(1.7)	**-5.2**	(2.1)	**-5.9**	(1.2)	c	c
	Sweden	6.7	(4.7)	**5.3**	(2.1)	-0.3	(3.3)	**4.6**	(1.5)	2.8	(9.3)	**5.1**	(1.6)	-2.8	(5.2)
	Switzerland	**-4.9**	(2.3)	-2.6	(1.7)	0.6	(2.9)	**-2.4**	(1.2)	2.9	(6.2)	-2.1	(1.4)	-3.5	(2.8)
	Turkey	**17.1**	(2.2)	**18.6**	(2.2)	**15.2**	(3.2)	**17.9**	(1.4)	c	c	**16.5**	(5.5)	**17.5**	(1.5)
	United States	-1.7	(3.3)	-4.5	(2.3)	**-8.1**	(2.0)	**-4.4**	(1.7)	-6.0	(8.0)	1.5	(2.9)	**-5.2**	(1.7)
	OECD average 2003	-0.5	(0.6)	**-1.7**	(0.4)	**-3.2**	(0.5)	**-1.9**	(0.3)	**-2.9**	(1.1)	**-1.6**	(0.7)	**-2.2**	(0.4)
Partners	**Brazil**	**-6.0**	(2.3)	-0.1	(2.1)	-4.9	(3.8)	**-4.2**	(1.4)	2.9	(5.1)	**-7.0**	(2.0)	-0.5	(1.7)
	Hong Kong-China	-3.8	(2.1)	**-3.4**	(1.6)	0.6	(2.0)	-1.0	(1.9)	**-2.4**	(1.1)	-0.6	(1.5)	**-3.2**	(1.4)
	Indonesia	**-12.5**	(2.6)	**-6.5**	(2.5)	**-6.2**	(3.0)	**-7.2**	(1.7)	**-11.0**	(2.6)	**-8.0**	(1.9)	**-10.4**	(2.4)
	Latvia	**13.6**	(4.4)	**9.0**	(2.6)	3.0	(3.0)	**9.3**	(1.9)	c	c	**8.3**	(2.1)	1.7	(5.4)
	Liechtenstein	c	c	c	c	c	c	-2.2	(3.4)	c	c	-2.7	(3.6)	c	c
	Macao-China	**5.6**	(2.1)	4.4	(2.4)	**10.7**	(2.1)	c	c	**5.8**	(1.3)	**9.0**	(1.6)	**6.7**	(2.2)
	Russian Federation	6.4	(3.8)	**5.2**	(2.1)	**8.3**	(3.0)	**6.0**	(1.8)	c	c	**5.6**	(2.1)	**6.7**	(2.9)
	Thailand	-2.2	(3.1)	3.4	(2.8)	-0.1	(3.4)	-1.7	(1.8)	8.5	(5.8)	-1.2	(2.3)	-0.3	(2.1)
	Tunisia	**13.9**	(2.5)	**14.7**	(2.2)	**11.6**	(2.9)	c	c	c	c	**14.9**	(2.1)	**12.9**	(2.2)
	Uruguay	1.5	(2.0)	3.7	(2.3)	1.9	(3.2)	2.8	(1.5)	4.0	(3.6)	-1.3	(2.0)	3.7	(1.9)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
Students who arrived late for school are students who, in the two weeks prior to the PISA test, arrived late for school at least once.
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[Part 6/7]

Table III.5.1d Trends in the percentage of students arriving late for school in the two weeks prior to the PISA test, by school characteristics

Results based on students' self-reports

		Change between 2003 and 2012 (PISA 2012 - PISA 2003)											
		Percentage of students who arrived late for school in the two weeks prior to the PISA test											
		Schools located in a village, hamlet or rural area (less than 3 000 people)		Schools located in a small town, or a town (3 000 to 100 0000 people)		Schools located in a city or large city (more than 100 000 people)		Small schools		Average schools		Large schools	
		% Dif.	S.E.	% Dif.	S.E.	% Dif.	S.E.	% Dif.	S.E.	% Dif.	S.E.	% Dif.	S.E.
OECD	**Australia**	0.2	(2.9)	**-3.0**	(1.5)	-0.4	(1.1)	-1.7	(1.4)	-2.4	(3.4)	-0.1	(1.3)
	Austria	3.2	(5.7)	-1.8	(1.5)	**-7.6**	(2.6)	1.1	(2.4)	-1.5	(6.2)	**-5.2**	(2.6)
	Belgium	**15.6**	(6.1)	-2.1	(1.1)	2.9	(3.2)	**-4.2**	(1.9)	-2.0	(3.6)	**3.8**	(1.8)
	Canada	-3.1	(2.6)	-2.6	(1.3)	0.1	(1.4)	**4.6**	(1.3)	6.8	(4.1)	**-8.0**	(1.4)
	Czech Republic	7.5	(4.7)	**3.3**	(1.3)	**5.6**	(2.6)	**4.0**	(1.9)	0.9	(3.1)	**5.3**	(1.8)
	Denmark	-0.7	(3.3)	-2.9	(1.9)	**-11.9**	(4.0)	-2.5	(2.7)	-1.2	(7.0)	-4.7	(2.7)
	Finland	0.8	(5.7)	-3.4	(1.8)	-1.9	(3.1)	**4.4**	(1.9)	-6.0	(3.4)	**-6.5**	(2.6)
	France	m	m	m	m	m	m	m	m	m	m	m	m
	Germany	c	c	1.3	(1.4)	0.3	(2.5)	1.8	(1.8)	-4.8	(5.3)	1.0	(1.8)
	Greece	-8.1	(5.6)	2.2	(1.8)	1.5	(2.7)	**6.4**	(2.2)	3.4	(3.6)	**-5.5**	(2.8)
	Hungary	c	c	-4.3	(2.3)	0.0	(2.9)	**-10.9**	(2.3)	-4.5	(4.9)	3.8	(2.7)
	Iceland	-1.5	(2.5)	**-13.4**	(1.7)	**-12.5**	(2.6)	-3.2	(1.7)	c	c	**-17.5**	(1.8)
	Ireland	-1.4	(2.4)	-2.5	(2.2)	-0.2	(3.1)	**-5.9**	(2.1)	-7.5	(4.8)	3.2	(2.3)
	Italy	**-18.3**	(7.8)	**-8.6**	(1.5)	**-11.1**	(1.9)	**-12.6**	(1.7)	**-10.6**	(4.9)	**-5.8**	(1.7)
	Japan	c	c	-1.2	(1.8)	**-10.1**	(1.4)	**-11.4**	(1.7)	-8.4	(5.4)	-2.8	(1.5)
	Korea	c	c	-1.3	(4.7)	-1.7	(1.5)	-2.9	(2.0)	-5.2	(6.8)	0.1	(2.2)
	Luxembourg	c	c	**-6.5**	(0.8)	c	c	**-3.1**	(1.2)	c	c	**-11.5**	(1.5)
	Mexico	-5.6	(3.1)	**-9.3**	(1.7)	**-3.0**	(1.5)	1.1	(1.9)	**-6.2**	(2.6)	**-10.3**	(1.5)
	Netherlands	c	c	**-14.3**	(2.1)	**-11.0**	(2.9)	**-19.5**	(2.4)	-14.3	(8.1)	**-6.9**	(2.8)
	New Zealand	-8.2	(5.3)	**-5.1**	(2.6)	-2.9	(2.4)	**-6.4**	(2.6)	c	c	-1.1	(2.0)
	Norway	-3.2	(2.8)	**-10.8**	(1.8)	**-9.9**	(3.0)	-2.8	(2.1)	-9.1	(7.6)	**-12.7**	(2.2)
	Poland	3.4	(2.6)	2.2	(2.3)	**14.5**	(3.8)	**19.9**	(2.0)	-3.5	(6.8)	**-6.8**	(2.4)
	Portugal	-1.9	(7.9)	1.9	(1.6)	-0.9	(4.1)	2.3	(2.2)	1.4	(3.5)	0.0	(2.8)
	Slovak Republic	2.2	(3.6)	**3.6**	(1.7)	4.7	(3.7)	**4.2**	(2.1)	6.9	(3.7)	1.1	(2.0)
	Spain	-1.5	(3.7)	**-4.2**	(1.7)	**-8.1**	(2.1)	**-5.8**	(1.9)	-4.9	(4.0)	**-6.3**	(2.1)
	Sweden	**8.8**	(3.1)	3.1	(2.1)	3.2	(3.2)	**9.3**	(2.3)	2.1	(5.0)	1.3	(2.3)
	Switzerland	**-6.0**	(2.6)	-2.1	(1.4)	-6.3	(4.1)	**8.2**	(2.0)	-3.0	(3.6)	**-10.7**	(1.7)
	Turkey	c	c	**14.5**	(2.1)	**19.2**	(2.1)	**17.4**	(2.2)	**12.8**	(5.0)	**18.0**	(2.2)
	United States	4.5	(5.8)	**-5.3**	(2.4)	**-7.9**	(2.9)	-1.9	(2.6)	2.7	(6.3)	**-9.4**	(2.8)
	OECD average 2003	-0.6	(1.0)	**-2.6**	(0.4)	**-2.1**	(0.5)	-0.4	(0.4)	**-2.3**	(1.0)	**-3.4**	(0.4)
Partners	**Brazil**	-1.9	(7.2)	-4.4	(2.3)	-3.3	(2.1)	-4.2	(2.2)	-3.1	(4.3)	-1.6	(2.0)
	Hong Kong-China	c	c	c	c	**-2.3**	(1.0)	**-11.3**	(1.6)	2.7	(2.6)	**3.7**	(1.8)
	Indonesia	**-7.7**	(2.9)	**-10.9**	(2.1)	**-7.3**	(3.3)	**-12.2**	(2.8)	**-11.4**	(4.2)	**-4.8**	(2.1)
	Latvia	**19.2**	(4.0)	4.3	(2.5)	2.6	(2.6)	**13.9**	(3.0)	**14.3**	(6.3)	0.8	(2.7)
	Liechtenstein	c	c	-2.1	(3.3)	c	c	c	c	c	c	c	c
	Macao-China	c	c	c	c	**6.5**	(1.2)	-2.1	(1.6)	c	c	**14.4**	(2.6)
	Russian Federation	5.1	(5.1)	**6.1**	(2.5)	**7.7**	(2.2)	**6.1**	(2.8)	**11.6**	(4.0)	4.0	(2.7)
	Thailand	-2.2	(3.3)	-0.3	(2.5)	1.7	(4.0)	-1.6	(2.6)	6.7	(7.2)	0.3	(2.7)
	Tunisia	**10.9**	(5.1)	**13.6**	(1.7)	**14.3**	(3.5)	**18.4**	(1.9)	**16.8**	(5.1)	**8.6**	(2.3)
	Uruguay	0.1	(5.9)	2.8	(1.5)	2.9	(2.6)	**4.1**	(2.0)	8.6	(4.4)	1.4	(2.4)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
Students who arrived late for school are students who, in the two weeks prior to the PISA test, arrived late for school at least once.

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[Part 7/7]

Table III.5.1d

Trends in the percentage of students arriving late for school in the two weeks prior to the PISA test, by school characteristics

Results based on students' self-reports

		Change between 2003 and 2012 (PISA 2012 - PISA 2003) in:									
		Percentage of students who arrived late for school in the two weeks prior to the PISA test between:									
		Socio-economically advantaged and disadvantaged schools (advantaged - disadvantaged)		Public and private schools (public - private)		Upper and lower secondary schools (students in ISCED 3 - students in ISCED 2)		Schools located in a city or a large city and schools located in a small town, village, hamlet or rural area (city or large city - town, village, rural area)		Large and small schools (large - small)	
		% Dif.	S.E.	% Dif.	S.E.	% Dif.	S.E.	% Dif.	S.E.	% Dif.	S.E.
OECD	**Australia**	-2.6	(2.5)	c	c	-2.6	(1.9)	0.1	(2.5)	1.6	(1.9)
	Austria	-5.7	(3.9)	-4.1	(5.3)	2.4	(5.8)	-5.2	(3.4)	-6.4	(3.9)
	Belgium	2.5	(3.0)	1.7	(2.6)	5.3	(5.6)	0.3	(3.9)	**8.0**	(2.6)
	Canada	-4.8	(3.8)	1.5	(3.7)	1.5	(2.1)	0.6	(2.4)	**-12.6**	(1.9)
	Czech Republic	**-11.8**	(3.8)	-0.1	(4.5)	-1.6	(2.2)	3.4	(2.8)	1.2	(2.8)
	Denmark	-4.1	(5.1)	**12.0**	(5.6)	15.4	(13.8)	**-11.0**	(4.2)	-2.2	(3.8)
	Finland	-6.2	(4.7)	-8.1	(6.3)	c	c	-0.4	(4.1)	**-10.8**	(2.9)
	France	-5.9	(3.7)	m	m	-1.7	(3.0)	m	m	m	m
	Germany	2.1	(3.5)	2.3	(7.0)	-0.9	(8.9)	-2.5	(3.7)	-0.7	(2.6)
	Greece	1.2	(4.2)	c	c	1.3	(5.3)	3.7	(3.6)	**-11.9**	(3.2)
	Hungary	2.2	(3.7)	-6.7	(5.5)	0.5	(6.1)	3.6	(5.6)	**14.7**	(3.6)
	Iceland	**-13.9**	(3.2)	c	c	c	c	**-6.4**	(3.1)	**-14.3**	(2.4)
	Ireland	-3.1	(4.3)	-2.6	(3.3)	**5.1**	(2.3)	2.3	(3.7)	**9.1**	(3.5)
	Italy	0.6	(3.1)	1.9	(4.7)	1.8	(11.9)	-4.2	(4.1)	**6.8**	(2.4)
	Japan	2.9	(3.3)	1.4	(2.3)	c	c	c	c	**8.6**	(2.2)
	Korea	-5.1	(3.8)	3.4	(3.0)	**-11.9**	(5.1)	-2.1	(7.0)	3.0	(3.0)
	Luxembourg	**-7.3**	(1.8)	2.1	(2.5)	-2.4	(2.1)	c	c	**-8.5**	(2.2)
	Mexico	**6.6**	(2.7)	-5.1	(4.2)	-3.8	(2.0)	**4.9**	(2.3)	**-11.4**	(2.5)
	Netherlands	3.5	(3.9)	-2.9	(4.9)	2.5	(3.2)	3.7	(4.8)	**12.6**	(4.0)
	New Zealand	-7.8	(5.3)	15.0	(7.7)	-1.1	(5.1)	2.1	(4.6)	5.3	(3.1)
	Norway	-4.5	(5.3)	c	c	c	c	-3.5	(3.4)	**-9.9**	(2.9)
	Poland	4.3	(3.4)	c	c	c	c	**11.5**	(3.8)	**-26.7**	(3.1)
	Portugal	-7.9	(4.8)	-4.8	(5.6)	**-8.9**	(2.6)	-3.9	(4.5)	-2.3	(3.6)
	Slovak Republic	-3.4	(3.1)	1.4	(4.1)	-0.8	(2.3)	1.5	(4.9)	-3.1	(2.7)
	Spain	-0.9	(3.8)	-1.4	(3.0)	c	c	-4.6	(3.5)	-0.6	(2.8)
	Sweden	-7.1	(5.8)	1.8	(9.9)	-7.9	(5.3)	-2.4	(4.1)	**-8.0**	(2.9)
	Switzerland	5.5	(3.7)	-5.3	(6.4)	-1.4	(3.2)	-3.6	(4.2)	**-18.9**	(2.8)
	Turkey	-1.9	(3.6)	c	c	1.0	(5.8)	4.2	(4.9)	0.6	(3.2)
	United States	-6.4	(3.8)	1.6	(7.1)	**-6.7**	(3.1)	-8.1	(4.7)	**-7.5**	(3.8)
	OECD average 2003	**-2.7**	(0.7)	0.2	(1.1)	-0.7	(1.2)	-0.6	(0.8)	**-3.0**	(0.6)
Partners	**Brazil**	1.1	(4.6)	-7.2	(4.7)	**6.5**	(2.1)	1.4	(3.5)	2.7	(2.7)
	Hong Kong-China	4.4	(2.7)	1.4	(2.1)	-2.6	(2.2)	c	c	**15.0**	(2.3)
	Indonesia	6.3	(4.3)	3.8	(3.6)	-2.4	(3.4)	1.8	(3.3)	**7.4**	(3.5)
	Latvia	**-10.7**	(4.4)	c	c	-6.6	(5.7)	**-10.3**	(3.7)	**-13.1**	(4.0)
	Liechtenstein	c	c	c	c	c	c	c	c	c	c
	Macao-China	5.1	(3.2)	c	c	-2.3	(2.6)	c	c	**16.5**	(3.1)
	Russian Federation	1.9	(4.8)	c	c	1.1	(3.0)	2.8	(3.8)	-2.1	(3.8)
	Thailand	2.1	(5.0)	-10.1	(6.0)	0.9	(2.6)	5.4	(4.7)	1.9	(4.1)
	Tunisia	-2.2	(3.6)	c	c	-2.0	(3.0)	-0.1	(4.2)	**-9.8**	(2.9)
	Uruguay	0.4	(3.8)	-1.2	(4.0)	5.0	(2.7)	0.9	(3.7)	-2.7	(3.2)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
Students who arrived late for school are students who, in the two weeks prior to the PISA test, arrived late for school at least once.

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[Part 1/1]

Table III.5.2a The concentration of students who skipped classes or days of school in the two weeks prior to the PISA test

Results based on students' self-reports

		Percentage of students who skipped classes or days of school at least once		Percentage of students in schools where, in the two weeks prior to the PISA test…							
				Over 50% of students skipped a day or a class at least once		More than 25% but 50% or fewer of students skipped a day or a class at least once		More than 10% but 25% or fewer of students skipped a day or a class at least once		At most 10% of students skipped a day or a class at least once	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	37.9	(0.6)	24.0	(1.6)	53.5	(2.0)	18.8	(1.6)	3.7	(0.7)
	Austria	17.4	(0.9)	1.5	(0.7)	24.3	(3.5)	41.4	(4.1)	32.8	(3.3)
	Belgium	10.7	(0.5)	1.2	(0.4)	9.1	(1.6)	29.3	(2.5)	60.4	(2.3)
	Canada	35.4	(0.6)	15.3	(1.8)	60.0	(2.4)	23.2	(1.6)	1.6	(0.5)
	Chile	19.7	(0.9)	2.2	(1.0)	32.1	(2.9)	36.5	(3.7)	29.2	(3.4)
	Czech Republic	10.6	(0.7)	1.1	(0.6)	9.0	(1.8)	35.3	(3.5)	54.6	(3.5)
	Denmark	21.2	(0.9)	4.1	(1.2)	31.6	(3.1)	42.5	(3.5)	21.9	(3.2)
	Estonia	35.6	(0.9)	18.5	(2.4)	55.2	(2.6)	23.0	(1.9)	3.3	(1.1)
	Finland	20.1	(0.6)	0.3	(0.2)	31.2	(3.2)	54.5	(3.4)	14.0	(2.1)
	France	20.9	(0.9)	4.2	(1.2)	31.6	(3.1)	38.7	(3.8)	25.6	(3.0)
	Germany	12.2	(0.5)	0.5	(0.4)	10.4	(2.1)	45.2	(3.2)	43.9	(3.1)
	Greece	48.1	(1.2)	45.9	(4.2)	43.2	(4.1)	10.0	(1.8)	0.8	(0.4)
	Hungary	12.5	(0.6)	2.0	(0.8)	13.1	(2.2)	26.6	(3.5)	58.3	(3.3)
	Iceland	12.1	(0.5)	0.0	c	6.1	(0.2)	54.7	(0.2)	39.2	(0.2)
	Ireland	14.4	(0.8)	0.0	c	15.9	(2.8)	45.2	(4.1)	38.9	(3.9)
	Israel	47.1	(1.0)	39.1	(3.5)	57.9	(3.6)	2.9	(1.2)	0.0	(0.0)
	Italy	61.1	(0.5)	77.5	(1.6)	21.4	(1.6)	0.8	(0.2)	0.2	(0.1)
	Japan	3.8	(0.5)	0.5	(0.5)	2.6	(1.2)	4.2	(1.5)	92.7	(1.8)
	Korea	3.7	(0.4)	0.0	c	1.6	(1.0)	7.3	(1.8)	91.0	(2.1)
	Luxembourg	10.8	(0.4)	0.0	c	8.3	(0.1)	27.3	(0.1)	64.4	(0.1)
	Mexico	33.5	(0.5)	15.0	(1.2)	54.0	(1.7)	25.4	(1.4)	5.6	(0.7)
	Netherlands	12.1	(0.7)	0.8	(0.7)	9.2	(2.0)	43.0	(4.1)	47.1	(3.7)
	New Zealand	25.7	(0.8)	6.0	(1.1)	43.4	(3.8)	41.2	(3.6)	9.5	(2.0)
	Norway	14.9	(0.6)	0.1	(0.1)	14.9	(2.5)	52.4	(3.6)	32.6	(3.2)
	Poland	27.3	(1.0)	10.0	(2.3)	45.1	(3.8)	29.6	(3.7)	15.3	(2.6)
	Portugal	35.6	(1.0)	14.6	(3.2)	67.4	(4.2)	16.5	(3.2)	1.5	(1.3)
	Slovak Republic	16.5	(0.8)	3.1	(1.1)	18.4	(2.7)	42.6	(3.7)	35.9	(3.5)
	Slovenia	30.4	(0.7)	12.8	(0.4)	47.5	(0.8)	30.4	(0.6)	9.3	(0.8)
	Spain	43.8	(0.9)	37.7	(2.8)	50.9	(2.9)	9.7	(1.4)	1.8	(0.3)
	Sweden	22.7	(0.8)	4.5	(1.6)	32.7	(3.6)	52.9	(3.5)	9.8	(2.0)
	Switzerland	12.5	(0.6)	1.1	(0.5)	8.5	(1.8)	42.2	(3.1)	48.3	(3.2)
	Turkey	65.3	(0.9)	86.3	(2.6)	12.8	(2.4)	0.9	(0.5)	0.1	(0.1)
	United Kingdom	25.0	(0.7)	3.3	(1.0)	41.3	(3.2)	48.8	(3.3)	6.7	(1.8)
	United States	28.0	(0.8)	4.1	(1.5)	53.2	(3.7)	39.8	(3.5)	2.9	(1.4)
	OECD average	24.9	(0.1)	12.9	(0.3)	29.9	(0.5)	30.7	(0.5)	26.6	(0.4)
Partners	Albania	25.0	(0.7)	2.3	(1.0)	47.8	(3.7)	44.5	(3.9)	5.3	(1.3)
	Argentina	66.2	(1.1)	89.4	(2.1)	9.4	(2.0)	1.2	(1.0)	0.0	c
	Brazil	29.8	(0.6)	8.9	(1.1)	51.5	(2.3)	35.1	(2.5)	4.5	(1.0)
	Bulgaria	39.3	(1.3)	31.7	(3.0)	39.3	(3.9)	24.3	(3.3)	4.6	(1.5)
	Colombia	18.0	(0.9)	1.3	(0.7)	23.3	(3.5)	51.4	(4.1)	24.0	(3.5)
	Costa Rica	56.6	(1.3)	67.5	(3.6)	28.5	(3.5)	4.0	(1.6)	0.0	c
	Croatia	28.6	(0.8)	12.1	(1.8)	41.1	(3.3)	39.1	(3.4)	7.7	(2.1)
	Cyprus*	41.4	(0.7)	29.1	(0.1)	56.6	(0.1)	13.7	(0.1)	0.7	(0.0)
	Hong Kong-China	6.1	(0.4)	0.0	c	0.2	(0.0)	19.0	(3.0)	80.7	(3.0)
	Indonesia	30.2	(1.0)	8.7	(2.0)	51.1	(4.0)	35.7	(3.7)	4.4	(1.3)
	Jordan	56.8	(1.0)	71.8	(3.2)	27.3	(3.1)	0.9	(0.7)	0.0	c
	Kazakhstan	27.4	(1.1)	10.8	(2.3)	42.4	(4.1)	31.3	(3.6)	15.5	(2.4)
	Latvia	66.7	(1.0)	87.7	(2.4)	11.0	(2.4)	1.2	(0.7)	0.1	(0.1)
	Liechtenstein	4.7	(1.2)	0.0	c	0.0	c	19.2	(1.1)	80.8	(1.1)
	Lithuania	38.6	(1.2)	23.4	(3.1)	52.8	(3.5)	18.9	(2.9)	4.9	(1.4)
	Macao-China	9.1	(0.5)	0.9	(0.0)	3.2	(0.0)	31.2	(0.1)	64.7	(0.1)
	Malaysia	42.6	(1.2)	33.9	(3.8)	53.6	(4.1)	10.1	(2.2)	2.4	(1.3)
	Montenegro	38.8	(0.8)	20.4	(0.1)	65.6	(0.2)	13.8	(0.1)	0.2	(0.0)
	Peru	20.0	(0.9)	1.9	(0.8)	29.6	(3.1)	48.3	(3.6)	20.2	(3.0)
	Qatar	28.6	(0.5)	9.3	(0.1)	48.6	(0.1)	40.9	(0.1)	1.1	(0.0)
	Romania	57.5	(1.3)	70.4	(3.6)	25.5	(3.4)	3.6	(1.4)	0.5	(0.4)
	Russian Federation	37.8	(1.1)	21.5	(2.8)	57.3	(3.0)	15.7	(2.3)	5.5	(1.2)
	Serbia	29.6	(1.1)	9.9	(2.2)	50.2	(3.9)	31.0	(3.8)	8.9	(2.3)
	Shanghai-China	3.5	(0.4)	0.0	c	0.0	c	5.8	(1.8)	94.2	(1.8)
	Singapore	22.6	(0.6)	1.4	(0.0)	32.3	(0.2)	58.8	(0.2)	7.4	(0.1)
	Chinese Taipei	10.5	(0.7)	0.5	(0.6)	9.3	(1.9)	31.0	(3.9)	59.2	(3.8)
	Thailand	33.2	(0.9)	16.3	(2.0)	48.9	(3.4)	29.4	(3.0)	5.4	(1.7)
	Tunisia	34.3	(1.1)	13.9	(3.0)	59.6	(4.3)	24.4	(3.6)	2.1	(1.3)
	United Arab Emirates	50.3	(0.8)	52.8	(2.3)	41.0	(2.4)	6.1	(1.0)	0.2	(0.1)
	Uruguay	33.7	(1.0)	12.4	(2.3)	64.6	(3.1)	18.1	(2.3)	4.9	(1.4)
	Viet Nam	13.3	(0.8)	1.2	(0.6)	10.2	(2.6)	38.2	(4.0)	50.4	(4.2)

* See notes at the beginning of this Annex.

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[Part 1/1]

Table III.5.2b Social comparisons and skipping classes or days of school

Results based on students' self-reports

		Association between skipping classes or days of school and mathematics performance, controlling for student and school characteristics:								
		Relative performance (change per 100 score-point difference from the average in the school)		Individual mathematics performance (change per 100 score-point difference in mathematics)		Boys		ESCS[1]		
		Change in percentage	S.E.	Change in percentage	S.E.	Change in percentage	S.E.	Change in percentage	S.E.	r-squared
OECD	Australia	1.8	(1.3)	**-10.9**	(1.2)	**-4.2**	(0.8)	**-1.9**	(0.7)	0.045
	Austria	**-3.7**	(1.8)	-1.2	(1.6)	-1.3	(1.6)	1.2	(0.8)	0.008
	Belgium	**4.3**	(0.9)	**-9.1**	(0.8)	**1.8**	(0.7)	**1.2**	(0.6)	0.051
	Canada	1.0	(1.9)	**-9.1**	(1.6)	**-4.5**	(0.9)	-0.4	(0.6)	0.027
	Chile	**6.6**	(2.2)	**-12.0**	(2.2)	2.4	(1.3)	1.5	(0.8)	0.026
	Czech Republic	1.0	(1.6)	**-4.4**	(1.3)	0.2	(1.2)	0.5	(1.0)	0.014
	Denmark	-0.4	(2.7)	**-8.5**	(2.4)	-1.0	(1.3)	-0.1	(0.8)	0.031
	Estonia	2.0	(2.7)	**-15.2**	(2.5)	**7.3**	(1.3)	0.9	(0.9)	0.055
	Finland	-2.7	(3.6)	-5.3	(3.6)	-1.1	(1.1)	**-1.8**	(0.9)	0.030
	France	1.9	(1.4)	**-6.7**	(1.1)	-0.1	(1.4)	0.2	(1.1)	0.020
	Germany	-1.5	(1.2)	**-2.1**	(0.9)	-0.4	(1.0)	0.8	(0.7)	0.007
	Greece	3.7	(2.3)	**-8.1**	(2.1)	**5.7**	(1.6)	**1.8**	(0.9)	0.012
	Hungary	**7.3**	(1.5)	**-11.1**	(1.2)	2.2	(1.2)	0.2	(0.9)	0.067
	Iceland	-2.3	(1.7)	**-3.7**	(1.7)	**2.3**	(1.2)	**-2.5**	(0.7)	0.035
	Ireland	1.4	(2.4)	-3.8	(2.3)	**6.2**	(1.2)	-0.1	(0.8)	0.011
	Israel	**-8.0**	(1.6)	**2.8**	(1.3)	2.0	(2.0)	1.1	(1.0)	0.009
	Italy	**6.9**	(1.0)	**-12.1**	(0.8)	**3.4**	(0.7)	0.2	(0.5)	0.033
	Japan	**2.9**	(1.0)	**-5.0**	(1.0)	0.4	(0.5)	0.1	(0.6)	0.036
	Korea	**2.0**	(0.9)	**-5.6**	(1.0)	**1.9**	(0.7)	0.3	(0.4)	0.052
	Luxembourg	0.9	(1.1)	**-6.3**	(1.0)	0.4	(0.9)	0.1	(0.5)	0.028
	Mexico	-0.7	(1.4)	**-6.1**	(1.3)	**3.2**	(0.7)	**4.1**	(0.4)	0.016
	Netherlands	2.3	(1.6)	**-2.9**	(1.3)	-0.6	(1.0)	**3.2**	(1.0)	0.007
	New Zealand	1.3	(1.8)	**-15.1**	(1.6)	1.4	(1.2)	**-2.6**	(0.8)	0.116
	Norway	**-4.2**	(1.7)	**-5.7**	(1.7)	-2.1	(1.2)	1.2	(1.0)	0.053
	Poland	-3.9	(2.8)	**-5.6**	(2.6)	**7.0**	(1.5)	**2.3**	(1.0)	0.032
	Portugal	4.0	(2.1)	**-11.8**	(1.8)	0.8	(1.7)	1.2	(0.9)	0.028
	Slovak Republic	2.3	(1.3)	**-7.0**	(1.4)	1.6	(1.5)	-1.3	(0.8)	0.033
	Slovenia	1.8	(1.9)	**-11.6**	(1.2)	**5.0**	(1.7)	0.4	(1.1)	0.049
	Spain	2.0	(1.9)	**-12.0**	(1.7)	**-2.1**	(1.0)	**-1.8**	(0.6)	0.042
	Sweden	-1.8	(2.5)	**-8.2**	(2.4)	-0.8	(1.4)	**-1.8**	(0.9)	0.048
	Switzerland	**-4.4**	(1.4)	-1.2	(1.2)	0.0	(0.9)	**2.7**	(0.7)	0.016
	Turkey	-3.4	(2.3)	2.6	(1.6)	**8.9**	(1.7)	**2.4**	(0.7)	0.014
	United Kingdom	**-5.3**	(1.7)	-3.5	(1.9)	-2.6	(1.5)	-1.6	(0.8)	0.031
	United States	2.3	(2.0)	**-6.2**	(1.6)	-2.6	(1.4)	**-3.8**	(0.8)	0.022
	OECD average	0.5	(0.3)	**-6.8**	(0.3)	**1.2**	(0.2)	0.2	(0.1)	0.032
Partners	Albania	m	m	m	m	m	m	m	m	m
	Argentina	**6.7**	(2.9)	**-14.0**	(2.2)	-1.5	(1.8)	2.1	(1.1)	0.026
	Brazil	2.1	(2.0)	**-3.9**	(1.7)	**3.1**	(1.0)	**1.5**	(0.4)	0.003
	Bulgaria	**8.1**	(1.8)	**-16.5**	(1.5)	**5.1**	(1.4)	0.3	(0.9)	0.069
	Colombia	-0.1	(2.1)	-3.4	(1.8)	**8.7**	(1.1)	**1.7**	(0.7)	0.015
	Costa Rica	**8.2**	(3.8)	**-9.3**	(3.4)	0.7	(1.7)	0.9	(0.8)	0.006
	Croatia	**9.9**	(1.9)	**-19.6**	(1.5)	**10.7**	(1.2)	**4.8**	(0.9)	0.088
	Cyprus*	**-5.5**	(1.6)	**-5.3**	(1.3)	**11.9**	(1.4)	0.9	(0.7)	0.042
	Hong Kong-China	-0.7	(0.8)	**-4.2**	(0.6)	0.2	(1.0)	**1.2**	(0.4)	0.031
	Indonesia	1.4	(3.2)	**-9.8**	(2.7)	**6.3**	(1.3)	**3.3**	(0.8)	0.023
	Jordan	-1.3	(2.4)	**-4.6**	(2.2)	0.9	(1.8)	1.0	(0.8)	0.007
	Kazakhstan	-0.8	(2.9)	**-8.0**	(2.7)	**6.7**	(1.6)	**-4.0**	(1.2)	0.033
	Latvia	-0.4	(2.8)	-4.3	(2.5)	-2.2	(1.8)	1.2	(1.2)	0.006
	Liechtenstein	-5.2	(2.8)	-1.2	(1.8)	**6.5**	(2.8)	-2.5	(2.0)	0.054
	Lithuania	3.2	(2.3)	**-14.6**	(2.3)	**9.1**	(1.3)	-0.2	(0.9)	0.063
	Macao-China	**6.1**	(1.0)	**-9.3**	(0.8)	1.2	(0.8)	**1.4**	(0.5)	0.033
	Malaysia	**-11.1**	(2.9)	-1.5	(2.8)	**11.8**	(1.6)	1.0	(1.2)	0.043
	Montenegro	-1.9	(2.1)	**-4.7**	(1.8)	**8.3**	(1.4)	**2.8**	(0.9)	0.017
	Peru	2.3	(1.6)	**-12.2**	(1.2)	**13.2**	(1.1)	1.0	(0.6)	0.067
	Qatar	**-8.8**	(1.0)	1.0	(0.7)	**3.7**	(0.9)	**2.3**	(0.4)	0.019
	Romania	3.9	(2.8)	**-9.8**	(2.4)	2.6	(1.6)	0.0	(1.0)	0.018
	Russian Federation	-1.3	(2.0)	**-7.1**	(1.9)	0.2	(1.3)	-1.7	(1.1)	0.023
	Serbia	2.9	(2.4)	**-8.6**	(2.1)	**11.3**	(1.8)	**2.5**	(1.0)	0.033
	Shanghai-China	-0.3	(0.8)	-1.2	(0.8)	**2.8**	(0.6)	0.7	(0.4)	0.010
	Singapore	**-4.1**	(1.3)	-1.3	(0.9)	1.8	(1.1)	-1.0	(0.6)	0.014
	Chinese Taipei	**2.0**	(0.9)	**-7.8**	(0.8)	**5.1**	(0.9)	-0.1	(0.6)	0.070
	Thailand	**3.8**	(1.9)	**-9.3**	(1.9)	**14.4**	(1.5)	**2.4**	(0.7)	0.042
	Tunisia	2.0	(2.3)	**-8.7**	(2.0)	**18.6**	(1.5)	**1.9**	(0.7)	0.049
	United Arab Emirates	1.2	(1.6)	**-9.8**	(1.3)	**-4.0**	(1.4)	0.8	(0.8)	0.027
	Uruguay	**8.0**	(2.4)	**-9.9**	(2.4)	**5.4**	(1.6)	**-2.0**	(0.8)	0.028
	Viet Nam	**4.3**	(1.8)	**-10.1**	(1.6)	**7.4**	(0.9)	0.6	(0.6)	0.053

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Students who skip classes or days of school are students who, in the two weeks prior to the PISA test, skipped at least a class or a day of school.
1. ESCS refers to the *PISA index of economic, social and cultural status*.
* See notes at the beginning of this Annex.

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[Part 1/1]

Table III.5.3c **Social comparisons and sense of belonging**

Results based on students' self-reports

		Association between sense of belonging and mathematics performance, controlling for student and school characteristics:								
		Relative performance (change per 100 score-point difference from the average in the school)		Individual mathematics performance (change per 100 score-point difference in mathematics)		Boys		ESCS[1]		
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	r-squared
OECD	**Australia**	**-0.10**	(0.03)	**0.15**	(0.02)	**0.07**	(0.03)	**0.11**	(0.02)	0.026
	Austria	-0.11	(0.06)	**0.17**	(0.05)	-0.08	(0.05)	**0.08**	(0.03)	0.020
	Belgium	-0.04	(0.03)	**0.08**	(0.03)	-0.02	(0.03)	**0.05**	(0.02)	0.009
	Canada	0.04	(0.04)	0.00	(0.03)	**0.09**	(0.02)	**0.11**	(0.02)	0.014
	Chile	**-0.23**	(0.06)	**0.17**	(0.05)	0.08	(0.05)	0.02	(0.02)	0.014
	Czech Republic	**0.10**	(0.04)	0.01	(0.03)	-0.04	(0.04)	**0.09**	(0.02)	0.018
	Denmark	-0.09	(0.06)	0.09	(0.05)	**0.07**	(0.03)	**0.13**	(0.02)	0.019
	Estonia	-0.06	(0.07)	0.11	(0.06)	0.02	(0.03)	**0.07**	(0.02)	0.013
	Finland	**-0.14**	(0.05)	**0.15**	(0.05)	**0.08**	(0.03)	**0.10**	(0.02)	0.014
	France	**-0.12**	(0.04)	**0.15**	(0.03)	-0.06	(0.03)	**0.11**	(0.02)	0.036
	Germany	-0.06	(0.06)	**0.07**	(0.04)	0.01	(0.04)	**0.06**	(0.02)	0.007
	Greece	-0.05	(0.05)	0.07	(0.04)	**-0.08**	(0.04)	0.02	(0.02)	0.005
	Hungary	**-0.19**	(0.05)	**0.22**	(0.04)	-0.03	(0.03)	0.00	(0.03)	0.030
	Iceland	**-0.27**	(0.07)	**0.33**	(0.07)	0.10	(0.05)	**0.18**	(0.03)	0.041
	Ireland	0.01	(0.05)	-0.03	(0.04)	0.05	(0.04)	**0.06**	(0.02)	0.003
	Israel	0.00	(0.05)	0.02	(0.05)	-0.02	(0.05)	0.06	(0.04)	0.003
	Italy	-0.02	(0.02)	0.00	(0.02)	**-0.08**	(0.02)	**0.04**	(0.01)	0.004
	Japan	**-0.25**	(0.04)	**0.13**	(0.03)	-0.03	(0.03)	**0.06**	(0.02)	0.019
	Korea	**-0.11**	(0.05)	**0.16**	(0.04)	0.05	(0.04)	**0.09**	(0.02)	0.032
	Luxembourg	-0.05	(0.05)	**0.19**	(0.04)	-0.04	(0.04)	**0.06**	(0.02)	0.026
	Mexico	**-0.12**	(0.04)	**0.16**	(0.03)	**-0.13**	(0.02)	**0.06**	(0.01)	0.021
	Netherlands	**-0.15**	(0.04)	**0.11**	(0.02)	-0.05	(0.05)	**0.08**	(0.03)	0.019
	New Zealand	**0.10**	(0.05)	-0.07	(0.04)	0.05	(0.03)	**0.06**	(0.03)	0.005
	Norway	-0.10	(0.06)	**0.13**	(0.06)	0.00	(0.04)	**0.15**	(0.03)	0.018
	Poland	0.01	(0.07)	-0.03	(0.06)	0.02	(0.03)	0.02	(0.02)	0.001
	Portugal	**-0.10**	(0.04)	**0.14**	(0.04)	0.03	(0.03)	**0.08**	(0.02)	0.028
	Slovak Republic	0.00	(0.04)	**0.09**	(0.03)	**-0.17**	(0.04)	0.02	(0.03)	0.021
	Slovenia	-0.01	(0.05)	0.06	(0.04)	**-0.10**	(0.04)	0.05	(0.03)	0.011
	Spain	-0.03	(0.05)	0.07	(0.05)	**-0.06**	(0.03)	**0.04**	(0.02)	0.005
	Sweden	**-0.16**	(0.06)	**0.18**	(0.06)	**0.16**	(0.04)	**0.12**	(0.02)	0.025
	Switzerland	-0.09	(0.05)	**0.19**	(0.04)	-0.05	(0.04)	-0.01	(0.02)	0.016
	Turkey	0.07	(0.05)	-0.01	(0.03)	**-0.25**	(0.04)	**0.08**	(0.02)	0.020
	United Kingdom	-0.02	(0.05)	0.04	(0.05)	**0.10**	(0.03)	**0.10**	(0.02)	0.013
	United States	**-0.09**	(0.05)	**0.09**	(0.04)	**0.09**	(0.05)	**0.13**	(0.02)	0.022
	OECD average	**-0.07**	(0.01)	**0.10**	(0.01)	-0.01	(0.01)	**0.07**	(0.00)	0.017
Partners	**Albania**	m	m	m	m	m	m	m	m	m
	Argentina	-0.03	(0.06)	**0.11**	(0.05)	-0.04	(0.04)	0.03	(0.02)	0.011
	Brazil	-0.06	(0.03)	0.03	(0.03)	0.01	(0.02)	**0.04**	(0.01)	0.005
	Bulgaria	-0.06	(0.05)	**0.17**	(0.04)	**-0.09**	(0.03)	**0.05**	(0.02)	0.034
	Colombia	-0.12	(0.08)	**0.20**	(0.06)	-0.08	(0.04)	0.04	(0.02)	0.018
	Costa Rica	-0.04	(0.09)	0.03	(0.07)	**0.13**	(0.04)	**0.05**	(0.02)	0.008
	Croatia	-0.04	(0.05)	0.06	(0.04)	0.01	(0.04)	0.01	(0.02)	0.002
	Cyprus*	**-0.10**	(0.04)	**0.13**	(0.03)	**-0.28**	(0.04)	**0.06**	(0.02)	0.033
	Hong Kong-China	-0.02	(0.04)	0.05	(0.03)	**0.07**	(0.03)	**0.07**	(0.01)	0.013
	Indonesia	-0.02	(0.06)	**0.11**	(0.05)	-0.03	(0.03)	**0.05**	(0.02)	0.018
	Jordan	-0.03	(0.05)	**0.26**	(0.04)	**-0.30**	(0.05)	0.00	(0.02)	0.051
	Kazakhstan	0.03	(0.08)	0.06	(0.07)	**-0.16**	(0.04)	**0.17**	(0.03)	0.028
	Latvia	0.09	(0.06)	**-0.11**	(0.05)	0.00	(0.04)	**0.07**	(0.02)	0.005
	Liechtenstein	-0.03	(0.16)	0.13	(0.10)	-0.01	(0.13)	0.13	(0.08)	0.037
	Lithuania	**-0.29**	(0.05)	**0.41**	(0.05)	**-0.16**	(0.04)	**0.07**	(0.03)	0.070
	Macao-China	0.02	(0.03)	-0.03	(0.03)	0.05	(0.03)	**0.10**	(0.02)	0.011
	Malaysia	**0.20**	(0.05)	-0.09	(0.05)	**-0.18**	(0.03)	0.01	(0.02)	0.022
	Montenegro	**0.16**	(0.05)	**-0.20**	(0.04)	**-0.16**	(0.04)	0.03	(0.03)	0.016
	Peru	-0.05	(0.05)	**0.09**	(0.03)	**-0.08**	(0.03)	**0.05**	(0.02)	0.018
	Qatar	0.01	(0.03)	**0.17**	(0.02)	**-0.15**	(0.03)	0.01	(0.02)	0.035
	Romania	**-0.17**	(0.06)	**0.16**	(0.05)	0.01	(0.04)	**0.08**	(0.02)	0.026
	Russian Federation	0.04	(0.05)	-0.01	(0.05)	-0.05	(0.03)	**0.11**	(0.02)	0.011
	Serbia	0.01	(0.04)	-0.02	(0.03)	0.03	(0.05)	**0.05**	(0.02)	0.002
	Shanghai-China	0.01	(0.04)	0.00	(0.03)	0.02	(0.03)	**0.07**	(0.02)	0.005
	Singapore	-0.05	(0.03)	**0.07**	(0.03)	**0.10**	(0.03)	0.02	(0.02)	0.007
	Chinese Taipei	-0.04	(0.03)	-0.01	(0.02)	**0.12**	(0.03)	**0.12**	(0.02)	0.015
	Thailand	-0.02	(0.04)	**0.17**	(0.03)	**-0.16**	(0.03)	**0.05**	(0.01)	0.047
	Tunisia	0.01	(0.06)	**0.10**	(0.04)	**-0.19**	(0.05)	0.01	(0.02)	0.015
	United Arab Emirates	-0.07	(0.04)	**0.19**	(0.03)	**-0.10**	(0.04)	0.01	(0.02)	0.020
	Uruguay	**-0.13**	(0.05)	0.06	(0.04)	**0.09**	(0.03)	0.03	(0.02)	0.007
	Viet Nam	-0.03	(0.04)	0.01	(0.04)	**0.09**	(0.03)	0.02	(0.01)	0.006

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/1]

Table III.5.4b Social comparisons and perseverance

Results based on students' self-reports

		Association between perseverance and mathematics performance, controlling for student and school characteristics:								
		Relative performance (change per 100 score-point difference from the average in the school)		Individual mathematics performance (change per 100 score-point difference in mathematics)		Boys		ESCS[1]		r-squared
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	
OECD	**Australia**	**0.18**	(0.03)	**0.12**	(0.02)	**-0.15**	(0.02)	**0.12**	(0.02)	0.101
	Austria	**0.18**	(0.05)	0.05	(0.03)	**-0.18**	(0.04)	0.01	(0.02)	0.045
	Belgium	**0.11**	(0.04)	**0.11**	(0.02)	**0.16**	(0.03)	**-0.04**	(0.02)	0.037
	Canada	**0.25**	(0.04)	0.04	(0.03)	-0.02	(0.02)	**0.11**	(0.02)	0.074
	Chile	**0.11**	(0.04)	**0.11**	(0.04)	0.05	(0.03)	**0.04**	(0.02)	0.027
	Czech Republic	**0.15**	(0.04)	0.01	(0.03)	**0.11**	(0.04)	**0.09**	(0.03)	0.024
	Denmark	**0.20**	(0.06)	**0.17**	(0.06)	**-0.16**	(0.03)	**0.07**	(0.02)	0.118
	Estonia	**0.22**	(0.06)	**-0.14**	(0.06)	0.06	(0.04)	**0.08**	(0.02)	0.012
	Finland	**0.18**	(0.05)	**0.22**	(0.05)	**-0.13**	(0.02)	**0.11**	(0.02)	0.159
	France	**0.24**	(0.05)	**0.19**	(0.03)	**-0.16**	(0.03)	0.04	(0.03)	0.099
	Germany	**0.38**	(0.04)	-0.03	(0.03)	**-0.12**	(0.03)	**0.05**	(0.02)	0.084
	Greece	**0.10**	(0.04)	**0.24**	(0.03)	-0.03	(0.04)	**0.06**	(0.02)	0.086
	Hungary	**0.12**	(0.04)	**0.07**	(0.03)	0.04	(0.04)	**0.05**	(0.02)	0.027
	Iceland	**0.24**	(0.06)	**0.14**	(0.06)	**-0.15**	(0.04)	**0.08**	(0.03)	0.128
	Ireland	**0.19**	(0.05)	**0.12**	(0.04)	**-0.10**	(0.04)	**0.08**	(0.02)	0.074
	Israel	**0.37**	(0.05)	**-0.21**	(0.04)	**0.11**	(0.05)	0.07	(0.04)	0.027
	Italy	**0.28**	(0.03)	0.03	(0.02)	0.02	(0.02)	**0.04**	(0.01)	0.037
	Japan	0.03	(0.03)	**0.19**	(0.02)	**-0.05**	(0.02)	0.02	(0.02)	0.053
	Korea	0.04	(0.03)	**0.15**	(0.02)	**-0.21**	(0.02)	**0.09**	(0.02)	0.097
	Luxembourg	**0.12**	(0.04)	**0.08**	(0.04)	**-0.13**	(0.03)	0.03	(0.02)	0.041
	Mexico	**0.15**	(0.03)	**0.17**	(0.02)	**0.14**	(0.02)	**0.04**	(0.01)	0.047
	Netherlands	**0.12**	(0.04)	0.02	(0.03)	-0.04	(0.03)	-0.01	(0.02)	0.009
	New Zealand	**0.19**	(0.05)	**0.11**	(0.04)	**-0.12**	(0.03)	**0.08**	(0.03)	0.106
	Norway	**0.24**	(0.06)	**0.29**	(0.06)	**-0.22**	(0.03)	**0.07**	(0.03)	0.184
	Poland	**0.12**	(0.05)	**0.21**	(0.05)	-0.01	(0.04)	0.05	(0.03)	0.086
	Portugal	0.06	(0.04)	**0.28**	(0.04)	**0.16**	(0.04)	0.04	(0.02)	0.096
	Slovak Republic	**0.22**	(0.05)	**0.09**	(0.04)	**-0.09**	(0.05)	**0.05**	(0.03)	0.065
	Slovenia	**0.15**	(0.04)	0.04	(0.03)	0.05	(0.04)	0.04	(0.02)	0.015
	Spain	**0.19**	(0.05)	**0.09**	(0.05)	0.00	(0.03)	**0.06**	(0.02)	0.065
	Sweden	0.09	(0.06)	**0.29**	(0.06)	**-0.25**	(0.04)	0.03	(0.02)	0.129
	Switzerland	**0.18**	(0.03)	0.02	(0.03)	**-0.17**	(0.03)	-0.01	(0.02)	0.040
	Turkey	**0.21**	(0.06)	**0.11**	(0.04)	**0.16**	(0.04)	0.03	(0.02)	0.039
	United Kingdom	**0.20**	(0.03)	**0.13**	(0.03)	**-0.20**	(0.03)	**0.08**	(0.03)	0.096
	United States	**0.22**	(0.05)	0.06	(0.04)	0.00	(0.04)	**0.10**	(0.02)	0.058
	OECD average	**0.18**	(0.01)	**0.10**	(0.01)	-0.05	(0.01)	**0.05**	(0.00)	0.070
Partners	**Albania**	0.04	(0.10)	-0.04	(0.09)	-0.03	(0.05)	**0.09**	(0.03)	0.004
	Argentina	**0.38**	(0.06)	-0.05	(0.04)	0.04	(0.03)	**0.07**	(0.02)	0.044
	Brazil	**0.27**	(0.03)	0.04	(0.03)	**0.19**	(0.02)	**0.02**	(0.01)	0.038
	Bulgaria	0.06	(0.04)	**0.14**	(0.03)	**0.21**	(0.04)	**0.15**	(0.03)	0.058
	Colombia	**0.14**	(0.06)	0.06	(0.06)	**0.19**	(0.03)	**0.04**	(0.02)	0.024
	Costa Rica	**0.25**	(0.09)	0.02	(0.08)	**0.11**	(0.04)	0.02	(0.02)	0.021
	Croatia	**0.16**	(0.05)	-0.01	(0.03)	0.04	(0.03)	0.02	(0.03)	0.009
	Cyprus*	0.00	(0.00)	**0.21**	(0.03)	**-0.24**	(0.03)	**0.09**	(0.02)	0.093
	Hong Kong-China	**0.12**	(0.04)	0.03	(0.03)	**-0.10**	(0.03)	**0.09**	(0.02)	0.041
	Indonesia	0.10	(0.07)	0.05	(0.06)	-0.01	(0.03)	**0.07**	(0.02)	0.018
	Jordan	**0.21**	(0.05)	**0.25**	(0.04)	**0.14**	(0.04)	**0.06**	(0.02)	0.101
	Kazakhstan	0.03	(0.08)	**0.15**	(0.07)	**0.12**	(0.04)	**0.26**	(0.03)	0.058
	Latvia	0.03	(0.06)	**0.15**	(0.05)	0.06	(0.04)	**0.11**	(0.02)	0.054
	Liechtenstein	0.02	(0.11)	0.07	(0.08)	-0.14	(0.11)	**0.18**	(0.07)	0.072
	Lithuania	0.05	(0.04)	**0.08**	(0.03)	**0.15**	(0.03)	**0.08**	(0.02)	0.037
	Macao-China	**0.16**	(0.03)	0.03	(0.03)	**-0.08**	(0.02)	**0.10**	(0.02)	0.054
	Malaysia	**0.11**	(0.04)	0.06	(0.04)	0.02	(0.03)	**0.06**	(0.02)	0.028
	Montenegro	**0.22**	(0.06)	**0.13**	(0.05)	**0.30**	(0.04)	**0.05**	(0.02)	0.065
	Peru	**0.25**	(0.04)	0.01	(0.04)	**0.23**	(0.03)	**0.06**	(0.02)	0.048
	Qatar	**0.19**	(0.02)	**0.18**	(0.02)	**0.08**	(0.02)	**0.06**	(0.01)	0.095
	Romania	0.00	(0.05)	**0.13**	(0.04)	**0.13**	(0.04)	**0.07**	(0.02)	0.029
	Russian Federation	0.09	(0.05)	0.02	(0.04)	**0.06**	(0.03)	**0.16**	(0.02)	0.024
	Serbia	**0.19**	(0.06)	0.02	(0.04)	0.05	(0.04)	**0.11**	(0.02)	0.028
	Shanghai-China	**0.08**	(0.03)	0.03	(0.03)	**-0.14**	(0.03)	**0.09**	(0.02)	0.035
	Singapore	**0.07**	(0.03)	0.02	(0.02)	**-0.13**	(0.03)	**0.06**	(0.02)	0.021
	Chinese Taipei	**0.08**	(0.03)	**0.12**	(0.02)	**-0.07**	(0.03)	**0.07**	(0.02)	0.066
	Thailand	0.04	(0.04)	**0.13**	(0.04)	**0.13**	(0.03)	**0.05**	(0.01)	0.055
	Tunisia	0.05	(0.07)	**0.27**	(0.05)	0.09	(0.05)	0.03	(0.02)	0.047
	United Arab Emirates	**0.22**	(0.03)	**0.17**	(0.03)	**0.07**	(0.03)	**0.07**	(0.02)	0.095
	Uruguay	**0.17**	(0.05)	0.08	(0.04)	-0.02	(0.04)	0.03	(0.02)	0.032
	Viet Nam	0.07	(0.05)	0.04	(0.04)	-0.01	(0.04)	0.02	(0.02)	0.008

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/1]

Table III.5.5c Social comparisons and intrinsic motivation to learn mathematics

Results based on students' self-reports

		Association between intrinsic motivation to learn mathematics and mathematics performance, controlling for student and school characteristics:								
		Relative performance (change per 100 score-point difference from the average in the school)		Individual mathematics performance (change per 100 score-point difference in mathematics)		Boys		ESCS[1]		
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	r-squared
OECD	Australia	**0.17**	(0.03)	**0.14**	(0.03)	**0.28**	(0.02)	-0.01	(0.02)	0.089
	Austria	**0.09**	(0.04)	**0.14**	(0.04)	**0.33**	(0.04)	-0.04	(0.03)	0.063
	Belgium	**0.13**	(0.04)	**0.13**	(0.03)	**0.07**	(0.03)	-0.02	(0.02)	0.050
	Canada	**0.19**	(0.04)	**0.13**	(0.03)	**0.19**	(0.02)	**0.05**	(0.02)	0.078
	Chile	**0.21**	(0.06)	**0.11**	(0.05)	**0.18**	(0.04)	**-0.07**	(0.02)	0.051
	Czech Republic	**0.22**	(0.05)	**0.09**	(0.04)	**0.15**	(0.04)	0.03	(0.02)	0.073
	Denmark	**0.20**	(0.06)	**0.21**	(0.05)	**0.20**	(0.03)	-0.01	(0.02)	0.120
	Estonia	**0.20**	(0.05)	0.08	(0.05)	0.04	(0.04)	**0.06**	(0.03)	0.063
	Finland	0.07	(0.05)	**0.29**	(0.05)	**0.20**	(0.03)	**0.08**	(0.02)	0.129
	France	**0.25**	(0.04)	**0.09**	(0.03)	**0.15**	(0.03)	0.02	(0.02)	0.068
	Germany	**0.52**	(0.05)	-0.05	(0.04)	**0.28**	(0.04)	0.03	(0.02)	0.116
	Greece	**0.24**	(0.05)	**0.17**	(0.05)	**0.26**	(0.04)	**0.07**	(0.02)	0.118
	Hungary	**0.29**	(0.06)	0.05	(0.04)	**0.16**	(0.04)	-0.04	(0.03)	0.053
	Iceland	**0.22**	(0.06)	**0.13**	(0.06)	0.04	(0.04)	**0.06**	(0.03)	0.091
	Ireland	**0.28**	(0.07)	0.05	(0.07)	0.01	(0.04)	0.01	(0.02)	0.066
	Israel	**0.48**	(0.05)	**-0.31**	(0.04)	**0.09**	(0.04)	-0.01	(0.02)	0.060
	Italy	**0.12**	(0.03)	**0.12**	(0.02)	**0.11**	(0.02)	0.00	(0.01)	0.039
	Japan	**0.13**	(0.04)	**0.26**	(0.03)	**0.25**	(0.03)	**0.07**	(0.03)	0.122
	Korea	-0.04	(0.04)	**0.42**	(0.04)	**0.10**	(0.03)	0.03	(0.02)	0.174
	Luxembourg	**0.19**	(0.04)	0.06	(0.04)	**0.38**	(0.04)	-0.03	(0.02)	0.069
	Mexico	**0.27**	(0.03)	**-0.07**	(0.03)	**0.12**	(0.02)	**-0.09**	(0.01)	0.051
	Netherlands	**0.15**	(0.05)	**0.11**	(0.03)	**0.16**	(0.03)	0.01	(0.03)	0.048
	New Zealand	**0.20**	(0.08)	-0.02	(0.08)	**0.28**	(0.04)	-0.02	(0.03)	0.051
	Norway	**0.22**	(0.06)	**0.23**	(0.05)	**0.15**	(0.03)	0.03	(0.03)	0.145
	Poland	**0.21**	(0.04)	**0.14**	(0.04)	0.06	(0.04)	**-0.08**	(0.02)	0.082
	Portugal	**0.16**	(0.04)	**0.09**	(0.04)	0.00	(0.03)	0.01	(0.02)	0.050
	Slovak Republic	**0.24**	(0.05)	-0.05	(0.04)	**0.17**	(0.04)	-0.04	(0.03)	0.038
	Slovenia	**0.17**	(0.05)	**0.13**	(0.03)	**0.19**	(0.04)	0.00	(0.03)	0.053
	Spain	**0.21**	(0.04)	0.05	(0.04)	**0.14**	(0.03)	0.00	(0.02)	0.054
	Sweden	**0.16**	(0.07)	**0.21**	(0.06)	**0.20**	(0.04)	0.03	(0.03)	0.109
	Switzerland	**0.15**	(0.04)	**0.06**	(0.03)	**0.44**	(0.03)	**-0.09**	(0.02)	0.087
	Turkey	**0.17**	(0.05)	**0.10**	(0.04)	0.04	(0.04)	**-0.08**	(0.02)	0.025
	United Kingdom	**0.13**	(0.04)	**0.12**	(0.04)	**0.09**	(0.03)	0.03	(0.02)	0.055
	United States	**0.33**	(0.06)	-0.06	(0.06)	**0.13**	(0.04)	-0.04	(0.02)	0.045
	OECD average	**0.20**	(0.01)	**0.10**	(0.01)	**0.17**	(0.01)	0.00	(0.00)	0.076
Partners	Albania	m	m	m	m	m	m	m	m	m
	Argentina	**0.44**	(0.06)	**-0.28**	(0.05)	**0.19**	(0.04)	**-0.10**	(0.02)	0.065
	Brazil	**0.32**	(0.03)	**-0.23**	(0.02)	**0.16**	(0.02)	**-0.07**	(0.01)	0.049
	Bulgaria	**0.23**	(0.05)	**-0.15**	(0.04)	**0.09**	(0.04)	-0.04	(0.02)	0.023
	Colombia	**0.29**	(0.06)	**-0.21**	(0.06)	**0.10**	(0.03)	**-0.05**	(0.02)	0.033
	Costa Rica	**0.20**	(0.08)	-0.12	(0.07)	**0.22**	(0.04)	**-0.06**	(0.02)	0.025
	Croatia	0.04	(0.06)	**0.13**	(0.05)	**0.11**	(0.04)	-0.04	(0.02)	0.022
	Cyprus*	**0.17**	(0.05)	**0.18**	(0.04)	0.02	(0.04)	**0.11**	(0.02)	0.083
	Hong Kong-China	**0.31**	(0.04)	**0.11**	(0.03)	**0.30**	(0.03)	0.03	(0.02)	0.139
	Indonesia	**0.29**	(0.05)	**-0.19**	(0.05)	0.02	(0.03)	-0.02	(0.01)	0.029
	Jordan	**0.26**	(0.08)	0.02	(0.07)	**0.12**	(0.05)	**0.05**	(0.02)	0.038
	Kazakhstan	**0.20**	(0.07)	-0.11	(0.07)	-0.05	(0.03)	**0.07**	(0.03)	0.011
	Latvia	**0.15**	(0.06)	0.07	(0.05)	0.03	(0.04)	0.02	(0.02)	0.036
	Liechtenstein	**0.51**	(0.17)	-0.03	(0.11)	0.33	(0.17)	0.14	(0.09)	0.135
	Lithuania	**0.23**	(0.06)	0.03	(0.05)	**0.09**	(0.04)	0.01	(0.03)	0.035
	Macao-China	**0.23**	(0.04)	0.05	(0.04)	**0.31**	(0.03)	0.00	(0.02)	0.089
	Malaysia	**0.18**	(0.04)	**0.08**	(0.04)	**-0.09**	(0.03)	0.00	(0.02)	0.049
	Montenegro	**0.22**	(0.06)	-0.07	(0.05)	0.05	(0.04)	-0.03	(0.02)	0.013
	Peru	**0.49**	(0.04)	**-0.36**	(0.03)	**0.08**	(0.03)	**-0.03**	(0.01)	0.100
	Qatar	**0.13**	(0.02)	**0.05**	(0.02)	**0.35**	(0.03)	**-0.03**	(0.01)	0.042
	Romania	-0.01	(0.04)	**-0.08**	(0.04)	0.00	(0.04)	0.00	(0.03)	0.008
	Russian Federation	**0.12**	(0.05)	0.06	(0.04)	**0.13**	(0.03)	-0.02	(0.02)	0.033
	Serbia	**0.16**	(0.05)	-0.01	(0.04)	0.08	(0.04)	**-0.04**	(0.02)	0.014
	Shanghai-China	**0.08**	(0.04)	**0.11**	(0.03)	**0.26**	(0.03)	0.02	(0.02)	0.055
	Singapore	**0.15**	(0.03)	-0.02	(0.02)	**0.08**	(0.03)	**-0.05**	(0.02)	0.016
	Chinese Taipei	**0.14**	(0.03)	**0.19**	(0.03)	**0.29**	(0.03)	0.02	(0.02)	0.141
	Thailand	**0.11**	(0.05)	0.01	(0.03)	**0.07**	(0.02)	**-0.05**	(0.01)	0.017
	Tunisia	**0.19**	(0.06)	0.03	(0.04)	**0.10**	(0.04)	0.01	(0.02)	0.019
	United Arab Emirates	**0.32**	(0.03)	**-0.09**	(0.02)	**0.14**	(0.03)	0.01	(0.02)	0.030
	Uruguay	**0.23**	(0.05)	**-0.11**	(0.04)	**0.11**	(0.03)	**-0.09**	(0.02)	0.031
	Viet Nam	**0.07**	(0.04)	**0.09**	(0.03)	**0.12**	(0.02)	-0.01	(0.02)	0.037

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/1]

Table III.5.6c **Social comparisons and instrumental motivation to learn mathematics**

Results based on students' self-reports

		Association between instrumental motivation to learn mathematics and mathematics performance, controlling for student and school characteristics:								
		Relative performance (change per 100 score-point difference from the average in the school)		Individual mathematics performance (change per 100 score-point difference in mathematics)		Boys		ESCS[1]		
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	r-squared
OECD	**Australia**	**0.18**	(0.03)	**0.07**	(0.02)	**0.27**	(0.02)	0.03	(0.02)	0.071
	Austria	0.04	(0.05)	0.02	(0.04)	**0.49**	(0.05)	**-0.06**	(0.03)	0.064
	Belgium	**0.10**	(0.03)	**0.16**	(0.03)	**0.22**	(0.03)	0.00	(0.02)	0.066
	Canada	**0.14**	(0.04)	**0.15**	(0.03)	**0.10**	(0.03)	**0.08**	(0.02)	0.074
	Chile	**0.21**	(0.05)	0.06	(0.04)	**0.16**	(0.04)	**-0.07**	(0.02)	0.039
	Czech Republic	**0.29**	(0.05)	-0.04	(0.04)	**0.18**	(0.04)	0.01	(0.03)	0.051
	Denmark	**0.15**	(0.05)	**0.14**	(0.05)	**0.23**	(0.03)	**0.07**	(0.02)	0.098
	Estonia	0.10	(0.05)	**0.10**	(0.04)	**0.08**	(0.03)	**0.06**	(0.02)	0.039
	Finland	0.08	(0.06)	**0.24**	(0.05)	**0.05**	(0.03)	**0.13**	(0.02)	0.112
	France	**0.22**	(0.04)	0.04	(0.03)	**0.18**	(0.03)	**0.07**	(0.02)	0.046
	Germany	**0.40**	(0.04)	**-0.07**	(0.03)	**0.27**	(0.04)	0.01	(0.02)	0.081
	Greece	**0.25**	(0.05)	**0.09**	(0.04)	**0.16**	(0.05)	**0.05**	(0.02)	0.074
	Hungary	**0.15**	(0.05)	**0.08**	(0.03)	**0.19**	(0.04)	-0.03	(0.02)	0.039
	Iceland	**0.18**	(0.06)	**0.12**	(0.05)	0.00	(0.04)	**0.09**	(0.02)	0.081
	Ireland	**0.30**	(0.06)	-0.10	(0.06)	**0.14**	(0.04)	0.03	(0.03)	0.036
	Israel	**0.27**	(0.04)	**-0.09**	(0.03)	**0.15**	(0.04)	0.01	(0.02)	0.032
	Italy	0.03	(0.02)	**0.12**	(0.02)	**0.16**	(0.02)	-0.01	(0.01)	0.025
	Japan	-0.02	(0.04)	**0.32**	(0.03)	**0.19**	(0.03)	**0.09**	(0.03)	0.106
	Korea	**-0.10**	(0.04)	**0.50**	(0.03)	**0.07**	(0.03)	0.03	(0.02)	0.183
	Luxembourg	**0.14**	(0.04)	0.06	(0.04)	**0.42**	(0.04)	0.01	(0.02)	0.066
	Mexico	**0.13**	(0.03)	0.03	(0.02)	**0.05**	(0.02)	**-0.05**	(0.01)	0.017
	Netherlands	**0.11**	(0.05)	**0.14**	(0.03)	**0.23**	(0.04)	0.02	(0.02)	0.054
	New Zealand	**0.15**	(0.05)	0.05	(0.05)	**0.19**	(0.04)	0.03	(0.03)	0.048
	Norway	**0.22**	(0.05)	**0.19**	(0.04)	0.03	(0.03)	**0.08**	(0.03)	0.135
	Poland	**0.28**	(0.05)	**0.10**	(0.05)	-0.03	(0.03)	-0.02	(0.02)	0.101
	Portugal	0.09	(0.04)	**0.17**	(0.04)	0.01	(0.03)	**0.05**	(0.02)	0.069
	Slovak Republic	**0.18**	(0.05)	0.00	(0.04)	**0.14**	(0.05)	**-0.06**	(0.02)	0.029
	Slovenia	**0.20**	(0.05)	**0.07**	(0.03)	**0.14**	(0.05)	0.00	(0.03)	0.037
	Spain	**0.18**	(0.04)	**0.13**	(0.04)	**0.11**	(0.03)	0.02	(0.02)	0.064
	Sweden	**0.17**	(0.05)	0.07	(0.05)	**0.16**	(0.04)	**0.08**	(0.03)	0.063
	Switzerland	**0.35**	(0.03)	**-0.15**	(0.03)	**0.50**	(0.03)	**-0.08**	(0.02)	0.106
	Turkey	**0.17**	(0.04)	**0.07**	(0.03)	**-0.09**	(0.04)	**-0.04**	(0.02)	0.021
	United Kingdom	**0.19**	(0.04)	-0.03	(0.04)	**0.13**	(0.03)	**0.05**	(0.02)	0.028
	United States	**0.23**	(0.06)	-0.01	(0.05)	0.05	(0.04)	0.04	(0.02)	0.035
	OECD average	**0.17**	(0.01)	**0.08**	(0.01)	**0.16**	(0.01)	**0.02**	(0.00)	0.065
Partners	**Albania**	m	m	m	m	m	m	m	m	m
	Argentina	**0.32**	(0.06)	**-0.19**	(0.05)	**0.09**	(0.04)	**-0.05**	(0.02)	0.028
	Brazil	**0.23**	(0.03)	**-0.15**	(0.02)	**0.07**	(0.02)	**-0.05**	(0.01)	0.021
	Bulgaria	**0.11**	(0.05)	-0.01	(0.04)	0.07	(0.04)	0.00	(0.02)	0.006
	Colombia	**0.21**	(0.05)	**-0.19**	(0.04)	**0.06**	(0.03)	**-0.04**	(0.02)	0.018
	Costa Rica	**0.19**	(0.08)	**-0.17**	(0.06)	**0.21**	(0.04)	-0.02	(0.02)	0.018
	Croatia	-0.03	(0.06)	**0.18**	(0.05)	**0.16**	(0.04)	**-0.07**	(0.02)	0.028
	Cyprus*	**0.27**	(0.05)	**0.15**	(0.04)	0.06	(0.04)	**0.09**	(0.02)	0.105
	Hong Kong-China	**0.18**	(0.04)	**0.09**	(0.03)	**0.20**	(0.03)	0.02	(0.02)	0.070
	Indonesia	**0.15**	(0.05)	-0.05	(0.04)	-0.05	(0.03)	0.01	(0.01)	0.006
	Jordan	**0.18**	(0.05)	**0.11**	(0.04)	**-0.09**	(0.04)	**0.04**	(0.02)	0.040
	Kazakhstan	**0.23**	(0.06)	**-0.15**	(0.06)	-0.05	(0.03)	**0.07**	(0.03)	0.012
	Latvia	**0.18**	(0.06)	0.01	(0.05)	0.04	(0.04)	0.01	(0.03)	0.025
	Liechtenstein	**0.73**	(0.15)	**-0.46**	(0.08)	**0.38**	(0.14)	**0.19**	(0.08)	0.188
	Lithuania	**0.16**	(0.06)	**0.12**	(0.05)	0.04	(0.04)	0.01	(0.02)	0.041
	Macao-China	**0.20**	(0.04)	-0.03	(0.03)	**0.22**	(0.03)	0.03	(0.02)	0.040
	Malaysia	**0.27**	(0.04)	0.00	(0.04)	**-0.13**	(0.03)	0.03	(0.02)	0.056
	Montenegro	**0.26**	(0.05)	**-0.11**	(0.04)	0.03	(0.04)	-0.04	(0.02)	0.015
	Peru	**0.30**	(0.04)	**-0.16**	(0.03)	-0.05	(0.03)	0.00	(0.01)	0.025
	Qatar	**0.06**	(0.03)	**0.18**	(0.02)	**0.21**	(0.03)	0.01	(0.01)	0.053
	Romania	-0.05	(0.05)	-0.09	(0.05)	0.00	(0.04)	-0.02	(0.03)	0.013
	Russian Federation	**0.27**	(0.05)	-0.07	(0.04)	**0.20**	(0.04)	-0.01	(0.03)	0.036
	Serbia	**0.14**	(0.05)	-0.03	(0.04)	**0.09**	(0.04)	-0.03	(0.02)	0.011
	Shanghai-China	0.07	(0.04)	0.06	(0.04)	**0.06**	(0.03)	0.02	(0.02)	0.017
	Singapore	**0.18**	(0.03)	**-0.13**	(0.03)	**0.13**	(0.03)	**-0.03**	(0.02)	0.021
	Chinese Taipei	0.06	(0.03)	**0.19**	(0.02)	**0.18**	(0.03)	**0.05**	(0.02)	0.106
	Thailand	0.07	(0.04)	**0.09**	(0.03)	**-0.08**	(0.03)	**-0.04**	(0.01)	0.024
	Tunisia	0.07	(0.05)	**0.18**	(0.03)	-0.02	(0.04)	0.01	(0.02)	0.031
	United Arab Emirates	**0.20**	(0.04)	0.01	(0.03)	**0.14**	(0.03)	**0.04**	(0.02)	0.026
	Uruguay	**0.17**	(0.05)	**-0.12**	(0.04)	**0.08**	(0.04)	-0.03	(0.02)	0.013
	Viet Nam	0.05	(0.04)	**0.08**	(0.03)	-0.02	(0.03)	**0.05**	(0.02)	0.029

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/1]

Table III.5.7c

Social comparisons and mathematics self-efficacy

Results based on students' self-reports

		Association between mathematics self-efficacy and mathematics performance, controlling for student and school characteristics:								
		Relative performance (change per 100 score-point difference from the average in the school)		Individual mathematics performance (change per 100 score-point difference in mathematics)		Boys		ESCS[1]		
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	r-squared
OECD	Australia	0.02	(0.02)	**0.59**	(0.02)	**0.35**	(0.02)	**0.11**	(0.01)	0.390
	Austria	**-0.08**	(0.03)	**0.56**	(0.03)	**0.35**	(0.03)	**0.09**	(0.02)	0.315
	Belgium	**0.14**	(0.03)	**0.35**	(0.03)	**0.32**	(0.03)	**0.07**	(0.02)	0.245
	Canada	0.04	(0.03)	**0.58**	(0.03)	**0.25**	(0.02)	**0.10**	(0.02)	0.331
	Chile	**0.12**	(0.04)	**0.27**	(0.04)	**0.19**	(0.03)	**0.05**	(0.02)	0.141
	Czech Republic	0.06	(0.03)	**0.44**	(0.03)	**0.32**	(0.03)	**0.15**	(0.02)	0.332
	Denmark	**0.12**	(0.05)	**0.50**	(0.05)	**0.32**	(0.03)	**0.09**	(0.02)	0.364
	Estonia	0.10	(0.05)	**0.44**	(0.05)	**0.26**	(0.03)	**0.11**	(0.02)	0.309
	Finland	0.06	(0.05)	**0.53**	(0.05)	**0.41**	(0.02)	**0.13**	(0.02)	0.362
	France	**0.15**	(0.04)	**0.43**	(0.03)	**0.35**	(0.03)	**0.12**	(0.02)	0.325
	Germany	**0.17**	(0.03)	**0.43**	(0.03)	**0.39**	(0.04)	**0.08**	(0.02)	0.355
	Greece	**0.14**	(0.04)	**0.39**	(0.04)	**0.19**	(0.03)	**0.15**	(0.02)	0.249
	Hungary	0.05	(0.05)	**0.61**	(0.03)	**0.18**	(0.03)	**0.08**	(0.02)	0.379
	Iceland	0.09	(0.06)	**0.52**	(0.05)	**0.42**	(0.04)	**0.17**	(0.03)	0.308
	Ireland	**0.18**	(0.05)	**0.44**	(0.05)	**0.22**	(0.03)	**0.11**	(0.02)	0.327
	Israel	**0.25**	(0.04)	**0.31**	(0.03)	**0.23**	(0.04)	**0.15**	(0.02)	0.262
	Italy	**0.06**	(0.02)	**0.39**	(0.01)	**0.18**	(0.02)	**0.07**	(0.01)	0.255
	Japan	**-0.12**	(0.03)	**0.63**	(0.03)	**0.24**	(0.02)	**0.11**	(0.02)	0.354
	Korea	**-0.10**	(0.04)	**0.67**	(0.04)	**0.16**	(0.03)	**0.20**	(0.02)	0.416
	Luxembourg	**0.10**	(0.04)	**0.43**	(0.03)	**0.31**	(0.03)	**0.12**	(0.02)	0.287
	Mexico	**0.11**	(0.03)	**0.27**	(0.02)	**0.13**	(0.02)	**0.04**	(0.01)	0.113
	Netherlands	**0.18**	(0.04)	**0.40**	(0.03)	**0.33**	(0.04)	0.04	(0.02)	0.259
	New Zealand	0.07	(0.06)	**0.48**	(0.06)	**0.35**	(0.03)	**0.11**	(0.03)	0.365
	Norway	**0.18**	(0.07)	**0.56**	(0.07)	**0.30**	(0.04)	**0.14**	(0.02)	0.382
	Poland	**0.15**	(0.06)	**0.57**	(0.05)	**0.09**	(0.03)	**0.09**	(0.02)	0.409
	Portugal	0.06	(0.04)	**0.58**	(0.04)	**0.09**	(0.03)	**0.11**	(0.02)	0.422
	Slovak Republic	**0.07**	(0.03)	**0.43**	(0.03)	**0.11**	(0.04)	**0.07**	(0.03)	0.304
	Slovenia	0.03	(0.05)	**0.47**	(0.03)	**0.19**	(0.04)	**0.14**	(0.02)	0.246
	Spain	**0.14**	(0.04)	**0.38**	(0.04)	**0.14**	(0.02)	**0.08**	(0.01)	0.269
	Sweden	0.00	(0.05)	**0.53**	(0.05)	**0.28**	(0.03)	**0.11**	(0.02)	0.301
	Switzerland	-0.03	(0.03)	**0.57**	(0.03)	**0.38**	(0.03)	**0.05**	(0.02)	0.364
	Turkey	-0.07	(0.05)	**0.48**	(0.03)	**0.13**	(0.03)	**0.04**	(0.02)	0.223
	United Kingdom	**0.15**	(0.03)	**0.48**	(0.03)	**0.33**	(0.03)	**0.11**	(0.03)	0.375
	United States	**0.12**	(0.05)	**0.49**	(0.04)	**0.21**	(0.03)	**0.10**	(0.02)	0.331
	OECD average	**0.08**	(0.01)	**0.48**	(0.01)	**0.26**	(0.01)	**0.10**	(0.00)	0.314
Partners	Albania	m	m	m	m	m	m	m	m	m
	Argentina	**0.30**	(0.06)	0.06	(0.05)	**0.16**	(0.04)	**0.06**	(0.02)	0.076
	Brazil	0.01	(0.04)	**0.30**	(0.03)	**0.19**	(0.02)	**0.07**	(0.01)	0.119
	Bulgaria	0.03	(0.05)	**0.25**	(0.04)	**0.14**	(0.04)	**0.09**	(0.02)	0.095
	Colombia	0.03	(0.05)	**0.11**	(0.04)	**0.13**	(0.03)	**0.05**	(0.02)	0.034
	Costa Rica	-0.04	(0.08)	**0.24**	(0.07)	**0.23**	(0.04)	**0.06**	(0.02)	0.081
	Croatia	-0.03	(0.04)	**0.58**	(0.04)	**0.25**	(0.03)	**0.10**	(0.02)	0.330
	Cyprus*	**0.10**	(0.04)	**0.46**	(0.04)	**0.12**	(0.03)	**0.17**	(0.02)	0.262
	Hong Kong-China	**0.14**	(0.03)	**0.49**	(0.03)	**0.31**	(0.03)	**0.10**	(0.02)	0.338
	Indonesia	**0.09**	(0.04)	**0.10**	(0.04)	0.03	(0.03)	**0.07**	(0.01)	0.040
	Jordan	**0.15**	(0.07)	**0.25**	(0.06)	**0.18**	(0.04)	**0.16**	(0.02)	0.115
	Kazakhstan	0.01	(0.07)	**0.26**	(0.07)	0.04	(0.03)	**0.18**	(0.03)	0.094
	Latvia	**0.13**	(0.04)	**0.36**	(0.04)	**0.27**	(0.03)	**0.13**	(0.02)	0.289
	Liechtenstein	0.07	(0.12)	**0.46**	(0.08)	**0.38**	(0.10)	**0.19**	(0.07)	0.416
	Lithuania	**0.14**	(0.05)	**0.45**	(0.04)	**0.24**	(0.03)	**0.09**	(0.02)	0.303
	Macao-China	**0.09**	(0.03)	**0.45**	(0.03)	**0.18**	(0.03)	**0.11**	(0.02)	0.281
	Malaysia	**0.15**	(0.04)	**0.23**	(0.03)	0.02	(0.03)	**0.09**	(0.02)	0.160
	Montenegro	**0.17**	(0.05)	**0.25**	(0.04)	**0.11**	(0.04)	**0.08**	(0.02)	0.107
	Peru	**0.25**	(0.04)	-0.01	(0.04)	**0.06**	(0.02)	**0.08**	(0.01)	0.065
	Qatar	0.01	(0.03)	**0.32**	(0.02)	**0.32**	(0.03)	**0.08**	(0.02)	0.100
	Romania	-0.06	(0.04)	**0.36**	(0.04)	**0.08**	(0.03)	**0.12**	(0.02)	0.151
	Russian Federation	**0.13**	(0.04)	**0.34**	(0.04)	**0.20**	(0.03)	**0.21**	(0.02)	0.271
	Serbia	**0.09**	(0.04)	**0.36**	(0.04)	**0.16**	(0.03)	**0.10**	(0.02)	0.183
	Shanghai-China	**-0.12**	(0.04)	**0.66**	(0.03)	**0.16**	(0.03)	**0.10**	(0.02)	0.359
	Singapore	0.00	(0.03)	**0.51**	(0.02)	**0.22**	(0.03)	**0.12**	(0.02)	0.337
	Chinese Taipei	0.00	(0.04)	**0.63**	(0.03)	**0.21**	(0.03)	**0.15**	(0.02)	0.451
	Thailand	0.07	(0.05)	**0.15**	(0.04)	**0.11**	(0.03)	**0.05**	(0.01)	0.069
	Tunisia	0.00	(0.06)	**0.31**	(0.05)	**0.15**	(0.04)	**0.09**	(0.02)	0.122
	United Arab Emirates	**0.17**	(0.03)	**0.28**	(0.03)	**0.22**	(0.03)	**0.13**	(0.02)	0.163
	Uruguay	**0.10**	(0.04)	**0.24**	(0.04)	**0.20**	(0.03)	**0.04**	(0.02)	0.124
	Viet Nam	**0.10**	(0.03)	**0.29**	(0.03)	**0.08**	(0.02)	**0.07**	(0.01)	0.264

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/1]

Table III.5.8c

Social comparisons and mathematics self-concept

Results based on students' self-reports

		Association between mathematics self-concept and mathematics performance, controlling for student and school characteristics:								
		Relative performance (change per 100 score-point difference from the average in the school)		Individual mathematics performance (change per 100 score-point difference in mathematics)		Boys		ESCS[1]		
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	r-squared
OECD	Australia	**0.30**	(0.03)	**0.23**	(0.02)	**0.32**	(0.02)	0.00	(0.02)	0.250
	Austria	**0.54**	(0.04)	**0.15**	(0.03)	**0.30**	(0.04)	-0.02	(0.02)	0.212
	Belgium	**0.34**	(0.03)	**0.12**	(0.02)	**0.28**	(0.02)	**-0.05**	(0.02)	0.148
	Canada	**0.41**	(0.03)	**0.23**	(0.03)	**0.31**	(0.03)	0.03	(0.01)	0.260
	Chile	**0.54**	(0.05)	**0.15**	(0.04)	**0.27**	(0.04)	0.03	(0.02)	0.204
	Czech Republic	**0.48**	(0.05)	**0.25**	(0.04)	**0.16**	(0.04)	0.02	(0.02)	0.271
	Denmark	**0.43**	(0.06)	**0.32**	(0.05)	**0.42**	(0.04)	0.03	(0.02)	0.377
	Estonia	**0.43**	(0.06)	**0.20**	(0.05)	**0.14**	(0.03)	**0.05**	(0.02)	0.252
	Finland	**0.36**	(0.06)	**0.40**	(0.06)	**0.39**	(0.03)	0.02	(0.02)	0.370
	France	**0.52**	(0.04)	**0.21**	(0.03)	**0.34**	(0.04)	0.00	(0.03)	0.253
	Germany	**0.68**	(0.04)	**0.07**	(0.03)	**0.36**	(0.04)	0.04	(0.02)	0.250
	Greece	**0.30**	(0.04)	**0.20**	(0.04)	**0.22**	(0.03)	**0.15**	(0.02)	0.227
	Hungary	**0.42**	(0.04)	**0.19**	(0.03)	**0.16**	(0.03)	0.03	(0.02)	0.200
	Iceland	**0.43**	(0.06)	**0.20**	(0.06)	**0.28**	(0.04)	**0.14**	(0.02)	0.317
	Ireland	**0.36**	(0.05)	**0.14**	(0.05)	**0.18**	(0.03)	0.04	(0.02)	0.190
	Israel	**0.38**	(0.04)	0.01	(0.03)	**0.22**	(0.03)	-0.02	(0.02)	0.116
	Italy	**0.37**	(0.02)	**0.17**	(0.02)	**0.13**	(0.02)	**0.02**	(0.01)	0.153
	Japan	**0.35**	(0.04)	**0.09**	(0.03)	**0.37**	(0.03)	0.05	(0.02)	0.142
	Korea	**0.19**	(0.04)	**0.30**	(0.03)	**0.22**	(0.03)	**0.14**	(0.02)	0.264
	Luxembourg	**0.22**	(0.04)	**0.18**	(0.03)	**0.44**	(0.04)	-0.02	(0.02)	0.137
	Mexico	**0.36**	(0.02)	**0.15**	(0.02)	**0.16**	(0.01)	0.01	(0.01)	0.153
	Netherlands	**0.45**	(0.07)	0.06	(0.04)	**0.31**	(0.04)	0.01	(0.03)	0.122
	New Zealand	**0.32**	(0.05)	**0.15**	(0.04)	**0.32**	(0.03)	-0.04	(0.02)	0.245
	Norway	**0.42**	(0.06)	**0.39**	(0.06)	**0.29**	(0.03)	**0.06**	(0.03)	0.422
	Poland	**0.37**	(0.07)	**0.35**	(0.07)	**0.16**	(0.03)	0.00	(0.02)	0.340
	Portugal	**0.35**	(0.04)	**0.18**	(0.03)	**0.15**	(0.03)	**0.07**	(0.02)	0.240
	Slovak Republic	**0.40**	(0.04)	**0.10**	(0.04)	**0.21**	(0.03)	-0.03	(0.02)	0.197
	Slovenia	**0.54**	(0.04)	**0.15**	(0.03)	**0.18**	(0.03)	**0.05**	(0.03)	0.221
	Spain	**0.35**	(0.04)	**0.14**	(0.03)	**0.24**	(0.02)	**0.03**	(0.01)	0.167
	Sweden	**0.44**	(0.06)	**0.16**	(0.05)	**0.34**	(0.03)	**0.05**	(0.02)	0.294
	Switzerland	**0.33**	(0.04)	**0.15**	(0.03)	**0.57**	(0.03)	**-0.09**	(0.02)	0.207
	Turkey	**0.20**	(0.04)	**0.18**	(0.03)	0.03	(0.03)	0.01	(0.01)	0.068
	United Kingdom	**0.27**	(0.05)	**0.23**	(0.04)	**0.34**	(0.03)	0.00	(0.02)	0.247
	United States	**0.40**	(0.06)	**0.16**	(0.05)	**0.15**	(0.03)	0.02	(0.02)	0.194
	OECD average	**0.39**	(0.01)	**0.19**	(0.01)	**0.26**	(0.01)	**0.02**	(0.00)	0.227
Partners	Albania	m	m	m	m	m	m	m	m	m
	Argentina	**0.51**	(0.06)	-0.04	(0.05)	**0.25**	(0.04)	0.03	(0.02)	0.110
	Brazil	**0.41**	(0.03)	-0.01	(0.03)	**0.22**	(0.02)	-0.02	(0.01)	0.094
	Bulgaria	**0.30**	(0.05)	0.03	(0.04)	**0.12**	(0.03)	**0.06**	(0.02)	0.071
	Colombia	**0.37**	(0.05)	0.04	(0.04)	**0.13**	(0.03)	0.03	(0.02)	0.104
	Costa Rica	**0.19**	(0.06)	**0.31**	(0.05)	**0.26**	(0.04)	-0.02	(0.02)	0.115
	Croatia	**0.22**	(0.06)	**0.27**	(0.05)	**0.15**	(0.04)	0.01	(0.02)	0.158
	Cyprus*	**0.27**	(0.04)	**0.25**	(0.03)	**0.09**	(0.03)	**0.11**	(0.02)	0.223
	Hong Kong-China	**0.31**	(0.04)	**0.14**	(0.03)	**0.36**	(0.03)	**0.05**	(0.02)	0.188
	Indonesia	**0.17**	(0.04)	**-0.14**	(0.03)	**0.04**	(0.02)	0.00	(0.01)	0.017
	Jordan	**0.35**	(0.04)	**0.14**	(0.04)	**0.09**	(0.04)	**0.11**	(0.02)	0.146
	Kazakhstan	**0.37**	(0.06)	-0.04	(0.05)	-0.02	(0.03)	**0.12**	(0.02)	0.081
	Latvia	**0.35**	(0.05)	**0.22**	(0.04)	0.07	(0.04)	0.02	(0.02)	0.231
	Liechtenstein	**0.65**	(0.14)	0.04	(0.09)	**0.40**	(0.14)	0.17	(0.10)	0.265
	Lithuania	**0.42**	(0.05)	**0.23**	(0.04)	**0.20**	(0.04)	0.02	(0.02)	0.239
	Macao-China	**0.36**	(0.03)	**0.07**	(0.03)	**0.45**	(0.03)	**0.06**	(0.02)	0.197
	Malaysia	**0.29**	(0.04)	-0.01	(0.03)	-0.03	(0.03)	**0.03**	(0.01)	0.058
	Montenegro	**0.26**	(0.05)	**0.13**	(0.04)	**0.16**	(0.04)	**0.06**	(0.02)	0.091
	Peru	**0.50**	(0.04)	**-0.09**	(0.03)	**0.12**	(0.03)	0.00	(0.01)	0.127
	Qatar	**0.31**	(0.03)	0.02	(0.02)	**0.12**	(0.02)	**0.06**	(0.01)	0.089
	Romania	0.08	(0.05)	**0.12**	(0.05)	**0.09**	(0.04)	**0.06**	(0.02)	0.054
	Russian Federation	**0.35**	(0.03)	**0.10**	(0.03)	**0.09**	(0.03)	**0.05**	(0.02)	0.166
	Serbia	**0.26**	(0.05)	**0.23**	(0.05)	**0.08**	(0.04)	**0.10**	(0.02)	0.147
	Shanghai-China	**0.22**	(0.02)	**0.15**	(0.02)	**0.44**	(0.03)	0.03	(0.02)	0.196
	Singapore	**0.13**	(0.03)	**0.18**	(0.03)	**0.24**	(0.03)	**0.08**	(0.02)	0.132
	Chinese Taipei	**0.21**	(0.03)	**0.28**	(0.02)	**0.36**	(0.03)	**0.05**	(0.02)	0.268
	Thailand	**0.20**	(0.04)	-0.02	(0.03)	**0.22**	(0.02)	-0.02	(0.01)	0.051
	Tunisia	**0.19**	(0.06)	**0.21**	(0.04)	**0.10**	(0.04)	**0.11**	(0.02)	0.106
	United Arab Emirates	**0.47**	(0.03)	0.00	(0.02)	**0.08**	(0.03)	**0.06**	(0.02)	0.125
	Uruguay	**0.35**	(0.04)	**0.19**	(0.04)	**0.26**	(0.04)	-0.02	(0.02)	0.158
	Viet Nam	**0.08**	(0.03)	**0.16**	(0.02)	**0.15**	(0.02)	**0.03**	(0.01)	0.124

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status*.
* See notes at the beginning of this Annex.
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[Part 1/1]

Table III.5.9c Social comparisons and mathematics anxiety

Results based on students' self-reports

		Association between mathematics anxiety and mathematics performance, controlling for student and school characteristics:								
		Relative performance (change per 100 score-point difference from the average in the school)		Individual mathematics performance (change per 100 score-point difference in mathematics)		Boys		ESCS[1]		
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	r-squared
OECD	Australia	**-0.15**	(0.03)	**-0.28**	(0.02)	**-0.28**	(0.02)	0.02	(0.02)	0.180
	Austria	**-0.41**	(0.05)	**-0.25**	(0.04)	**-0.22**	(0.04)	-0.01	(0.03)	0.181
	Belgium	**-0.17**	(0.03)	**-0.19**	(0.02)	**-0.31**	(0.03)	**0.09**	(0.02)	0.117
	Canada	**-0.35**	(0.04)	**-0.23**	(0.03)	**-0.32**	(0.03)	0.02	(0.02)	0.211
	Chile	**-0.13**	(0.04)	**-0.24**	(0.03)	**-0.14**	(0.03)	0.00	(0.01)	0.128
	Czech Republic	**-0.38**	(0.04)	**-0.24**	(0.03)	**-0.11**	(0.04)	-0.04	(0.03)	0.220
	Denmark	**-0.25**	(0.06)	**-0.41**	(0.05)	**-0.39**	(0.04)	-0.04	(0.02)	0.303
	Estonia	**-0.29**	(0.06)	**-0.36**	(0.05)	**-0.15**	(0.04)	0.02	(0.03)	0.238
	Finland	**-0.21**	(0.05)	**-0.31**	(0.05)	**-0.38**	(0.03)	**0.04**	(0.02)	0.249
	France	**-0.34**	(0.04)	**-0.16**	(0.03)	**-0.34**	(0.03)	**0.06**	(0.03)	0.176
	Germany	**-0.56**	(0.05)	**-0.17**	(0.04)	**-0.24**	(0.04)	-0.03	(0.03)	0.214
	Greece	**-0.19**	(0.05)	**-0.28**	(0.04)	**-0.16**	(0.03)	**-0.08**	(0.02)	0.176
	Hungary	**-0.23**	(0.04)	**-0.35**	(0.03)	**-0.12**	(0.04)	0.00	(0.02)	0.194
	Iceland	**-0.14**	(0.07)	**-0.38**	(0.07)	**-0.28**	(0.04)	**-0.07**	(0.03)	0.222
	Ireland	**-0.21**	(0.04)	**-0.22**	(0.04)	**-0.25**	(0.03)	0.00	(0.02)	0.170
	Israel	-0.10	(0.05)	**-0.20**	(0.05)	**-0.24**	(0.04)	**0.08**	(0.03)	0.073
	Italy	**-0.33**	(0.02)	**-0.11**	(0.02)	**-0.13**	(0.02)	0.00	(0.01)	0.121
	Japan	**-0.39**	(0.04)	-0.02	(0.03)	**-0.24**	(0.03)	**-0.05**	(0.03)	0.091
	Korea	**-0.14**	(0.03)	**-0.06**	(0.03)	**-0.19**	(0.03)	**-0.08**	(0.02)	0.062
	Luxembourg	**-0.16**	(0.05)	**-0.29**	(0.04)	**-0.31**	(0.04)	-0.02	(0.02)	0.146
	Mexico	**-0.23**	(0.02)	**-0.23**	(0.02)	**-0.12**	(0.01)	**0.02**	(0.01)	0.138
	Netherlands	**-0.35**	(0.07)	**-0.11**	(0.03)	**-0.19**	(0.04)	0.00	(0.03)	0.091
	New Zealand	-0.08	(0.05)	**-0.34**	(0.05)	**-0.28**	(0.03)	0.04	(0.03)	0.224
	Norway	**-0.32**	(0.05)	**-0.33**	(0.05)	**-0.31**	(0.03)	-0.03	(0.02)	0.309
	Poland	**-0.29**	(0.08)	**-0.40**	(0.08)	-0.05	(0.03)	0.03	(0.02)	0.302
	Portugal	**-0.20**	(0.03)	**-0.15**	(0.03)	**-0.07**	(0.03)	**-0.04**	(0.01)	0.142
	Slovak Republic	**-0.21**	(0.04)	**-0.30**	(0.03)	**-0.14**	(0.03)	0.02	(0.03)	0.196
	Slovenia	**-0.46**	(0.04)	**-0.11**	(0.04)	**-0.08**	(0.04)	-0.01	(0.03)	0.130
	Spain	**-0.14**	(0.03)	**-0.18**	(0.03)	**-0.24**	(0.02)	0.00	(0.01)	0.105
	Sweden	**-0.23**	(0.05)	**-0.27**	(0.05)	**-0.33**	(0.03)	-0.04	(0.02)	0.216
	Switzerland	**-0.26**	(0.04)	**-0.20**	(0.03)	**-0.43**	(0.03)	**0.06**	(0.02)	0.171
	Turkey	**-0.14**	(0.05)	**-0.29**	(0.03)	0.07	(0.04)	0.01	(0.02)	0.088
	United Kingdom	-0.13	(0.07)	**-0.30**	(0.05)	**-0.35**	(0.03)	-0.02	(0.02)	0.202
	United States	**-0.32**	(0.05)	**-0.24**	(0.05)	**-0.15**	(0.04)	-0.01	(0.02)	0.185
	OECD average	**-0.25**	(0.01)	**-0.24**	(0.01)	**-0.22**	(0.01)	0.00	(0.00)	0.176
Partners	Albania	m	m	m	m	m	m	m	m	m
	Argentina	**-0.17**	(0.05)	**-0.26**	(0.04)	-0.07	(0.04)	-0.01	(0.02)	0.104
	Brazil	**-0.19**	(0.02)	**-0.25**	(0.02)	**-0.11**	(0.02)	**0.02**	(0.01)	0.137
	Bulgaria	**-0.20**	(0.05)	**-0.30**	(0.03)	-0.02	(0.03)	**-0.09**	(0.02)	0.173
	Colombia	**-0.25**	(0.05)	**-0.20**	(0.04)	-0.04	(0.03)	0.00	(0.02)	0.119
	Costa Rica	-0.08	(0.06)	**-0.36**	(0.05)	**-0.29**	(0.04)	**0.05**	(0.02)	0.124
	Croatia	**-0.26**	(0.05)	**-0.28**	(0.04)	-0.05	(0.04)	0.02	(0.02)	0.156
	Cyprus*	**-0.17**	(0.04)	**-0.32**	(0.03)	-0.04	(0.03)	**-0.08**	(0.02)	0.181
	Hong Kong-China	**-0.22**	(0.04)	**-0.18**	(0.03)	**-0.28**	(0.03)	-0.01	(0.02)	0.141
	Indonesia	**-0.13**	(0.03)	**-0.10**	(0.03)	-0.04	(0.02)	**0.03**	(0.01)	0.029
	Jordan	-0.08	(0.05)	**-0.21**	(0.05)	**0.16**	(0.03)	0.02	(0.01)	0.077
	Kazakhstan	**-0.26**	(0.07)	-0.12	(0.06)	0.05	(0.04)	**-0.11**	(0.03)	0.085
	Latvia	**-0.21**	(0.04)	**-0.25**	(0.04)	-0.07	(0.04)	0.00	(0.02)	0.183
	Liechtenstein	**-0.59**	(0.15)	-0.04	(0.10)	**-0.32**	(0.13)	-0.16	(0.09)	0.218
	Lithuania	**-0.20**	(0.05)	**-0.36**	(0.04)	**-0.18**	(0.03)	0.03	(0.02)	0.189
	Macao-China	**-0.28**	(0.04)	**-0.15**	(0.03)	**-0.33**	(0.03)	0.02	(0.02)	0.156
	Malaysia	**-0.21**	(0.04)	**-0.10**	(0.04)	-0.02	(0.03)	**0.04**	(0.02)	0.064
	Montenegro	**-0.17**	(0.05)	**-0.23**	(0.04)	0.00	(0.04)	-0.03	(0.02)	0.103
	Peru	**-0.26**	(0.03)	**-0.09**	(0.03)	**-0.05**	(0.03)	0.03	(0.02)	0.089
	Qatar	**-0.20**	(0.03)	**-0.25**	(0.02)	**0.08**	(0.02)	-0.01	(0.01)	0.116
	Romania	-0.01	(0.04)	**-0.29**	(0.04)	0.02	(0.03)	**-0.08**	(0.02)	0.115
	Russian Federation	**-0.19**	(0.05)	**-0.25**	(0.04)	**-0.13**	(0.02)	**-0.05**	(0.02)	0.177
	Serbia	**-0.21**	(0.04)	**-0.24**	(0.03)	**0.09**	(0.03)	**-0.08**	(0.02)	0.137
	Shanghai-China	**-0.22**	(0.03)	**-0.17**	(0.03)	**-0.35**	(0.03)	-0.01	(0.02)	0.151
	Singapore	**-0.06**	(0.03)	**-0.30**	(0.02)	**-0.14**	(0.03)	**-0.08**	(0.02)	0.171
	Chinese Taipei	**-0.15**	(0.03)	**-0.14**	(0.03)	**-0.29**	(0.03)	-0.02	(0.02)	0.115
	Thailand	**-0.13**	(0.03)	**-0.11**	(0.03)	**-0.08**	(0.02)	**0.03**	(0.01)	0.062
	Tunisia	-0.07	(0.05)	**-0.18**	(0.03)	-0.04	(0.03)	0.00	(0.02)	0.039
	United Arab Emirates	**-0.12**	(0.03)	**-0.40**	(0.03)	**0.07**	(0.03)	-0.03	(0.02)	0.184
	Uruguay	**-0.19**	(0.04)	**-0.29**	(0.03)	**-0.11**	(0.03)	0.00	(0.02)	0.158
	Viet Nam	**-0.07**	(0.03)	**-0.21**	(0.03)	**-0.08**	(0.02)	0.02	(0.01)	0.110

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.5.10a Index of experience with applied mathematics tasks and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Index of experience with applied mathematics tasks																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	Standard deviation	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	-0.10	(0.01)	0.92	(0.01)	-0.04	(0.02)	-0.17	(0.02)	**0.13**	(0.02)	-1.21	(0.02)	-0.30	(0.00)	0.15	(0.00)	0.96	(0.02)
	Austria	-0.03	(0.02)	0.88	(0.02)	0.00	(0.03)	-0.07	(0.03)	**0.06**	(0.03)	-1.08	(0.02)	-0.25	(0.01)	0.19	(0.01)	1.01	(0.03)
	Belgium	-0.23	(0.01)	0.95	(0.02)	-0.21	(0.02)	-0.26	(0.02)	0.04	(0.03)	-1.40	(0.02)	-0.44	(0.00)	0.06	(0.00)	0.84	(0.02)
	Canada	-0.10	(0.01)	1.02	(0.01)	-0.08	(0.02)	-0.13	(0.02)	0.04	(0.02)	-1.35	(0.02)	-0.31	(0.00)	0.18	(0.00)	1.07	(0.02)
	Chile	-0.03	(0.02)	1.04	(0.02)	-0.01	(0.03)	-0.05	(0.03)	0.04	(0.04)	-1.30	(0.03)	-0.29	(0.01)	0.28	(0.01)	1.19	(0.02)
	Czech Republic	-0.25	(0.02)	0.87	(0.02)	-0.18	(0.03)	-0.33	(0.03)	**0.15**	(0.04)	-1.31	(0.03)	-0.43	(0.00)	-0.01	(0.01)	0.75	(0.02)
	Denmark	0.27	(0.02)	0.98	(0.02)	0.18	(0.03)	0.35	(0.03)	**-0.17**	(0.04)	-0.90	(0.03)	0.02	(0.01)	0.49	(0.00)	1.45	(0.02)
	Estonia	0.07	(0.02)	0.82	(0.02)	0.09	(0.02)	0.05	(0.02)	0.04	(0.03)	-0.87	(0.02)	-0.16	(0.00)	0.26	(0.01)	1.06	(0.03)
	Finland	0.23	(0.02)	0.85	(0.02)	0.24	(0.02)	0.21	(0.02)	0.03	(0.03)	-0.76	(0.02)	0.01	(0.00)	0.42	(0.00)	1.22	(0.02)
	France	-0.05	(0.02)	0.92	(0.02)	-0.06	(0.03)	-0.03	(0.02)	-0.02	(0.03)	-1.18	(0.03)	-0.23	(0.01)	0.23	(0.01)	1.00	(0.02)
	Germany	0.06	(0.02)	0.88	(0.02)	0.10	(0.03)	0.03	(0.02)	0.07	(0.04)	-0.96	(0.03)	-0.15	(0.01)	0.28	(0.01)	1.08	(0.03)
	Greece	-0.41	(0.02)	1.08	(0.02)	-0.29	(0.03)	-0.51	(0.02)	**0.23**	(0.03)	-1.73	(0.03)	-0.63	(0.01)	-0.12	(0.01)	0.86	(0.03)
	Hungary	0.11	(0.02)	0.98	(0.03)	0.11	(0.03)	0.11	(0.03)	-0.01	(0.04)	-1.01	(0.04)	-0.18	(0.01)	0.32	(0.01)	1.31	(0.04)
	Iceland	0.20	(0.02)	1.19	(0.03)	0.25	(0.04)	0.15	(0.04)	0.10	(0.06)	-1.18	(0.04)	-0.10	(0.01)	0.42	(0.01)	1.66	(0.04)
	Ireland	0.14	(0.02)	0.86	(0.02)	0.15	(0.03)	0.14	(0.02)	0.01	(0.03)	-0.87	(0.02)	-0.06	(0.00)	0.36	(0.01)	1.15	(0.02)
	Israel	-0.39	(0.02)	1.13	(0.02)	-0.32	(0.03)	-0.45	(0.03)	**0.13**	(0.04)	-1.76	(0.03)	-0.66	(0.01)	-0.09	(0.01)	0.97	(0.03)
	Italy	-0.42	(0.01)	0.92	(0.01)	-0.36	(0.01)	-0.48	(0.02)	**0.12**	(0.02)	-1.58	(0.02)	-0.61	(0.00)	-0.14	(0.00)	0.64	(0.01)
	Japan	-0.18	(0.02)	1.05	(0.02)	-0.14	(0.03)	-0.23	(0.03)	**0.09**	(0.04)	-1.45	(0.02)	-0.39	(0.01)	0.12	(0.00)	0.99	(0.02)
	Korea	0.40	(0.02)	1.00	(0.03)	0.39	(0.03)	0.41	(0.02)	-0.02	(0.04)	-0.70	(0.03)	0.14	(0.00)	0.57	(0.00)	1.60	(0.04)
	Luxembourg	-0.28	(0.02)	1.04	(0.02)	-0.21	(0.03)	-0.35	(0.02)	**0.14**	(0.04)	-1.57	(0.02)	-0.49	(0.01)	0.02	(0.01)	0.90	(0.02)
	Mexico	0.18	(0.01)	0.98	(0.01)	0.23	(0.01)	0.13	(0.01)	**0.10**	(0.02)	-0.99	(0.01)	-0.07	(0.00)	0.42	(0.00)	1.34	(0.01)
	Netherlands	0.22	(0.02)	0.94	(0.02)	0.24	(0.02)	0.21	(0.03)	0.02	(0.03)	-0.89	(0.03)	0.07	(0.01)	0.45	(0.00)	1.27	(0.03)
	New Zealand	-0.05	(0.02)	1.02	(0.02)	-0.01	(0.03)	-0.09	(0.03)	0.08	(0.04)	-1.30	(0.03)	-0.25	(0.01)	0.26	(0.01)	1.08	(0.03)
	Norway	0.18	(0.02)	0.89	(0.02)	0.20	(0.03)	0.16	(0.02)	0.04	(0.03)	-0.80	(0.02)	-0.05	(0.01)	0.38	(0.00)	1.21	(0.03)
	Poland	0.48	(0.02)	0.86	(0.02)	0.45	(0.03)	0.52	(0.02)	**-0.07**	(0.03)	-0.43	(0.02)	0.19	(0.00)	0.60	(0.01)	1.57	(0.03)
	Portugal	-0.37	(0.02)	1.11	(0.03)	-0.33	(0.04)	-0.42	(0.04)	0.09	(0.06)	-1.79	(0.04)	-0.54	(0.01)	-0.03	(0.01)	0.87	(0.03)
	Slovak Republic	0.05	(0.02)	0.93	(0.02)	0.08	(0.03)	0.02	(0.03)	0.06	(0.04)	-1.06	(0.03)	-0.16	(0.01)	0.32	(0.01)	1.12	(0.03)
	Slovenia	0.04	(0.02)	0.97	(0.02)	0.09	(0.03)	0.00	(0.03)	**0.09**	(0.04)	-1.07	(0.02)	-0.22	(0.01)	0.28	(0.01)	1.19	(0.04)
	Spain	0.17	(0.01)	0.87	(0.02)	0.17	(0.02)	0.16	(0.01)	0.01	(0.02)	-0.82	(0.02)	-0.06	(0.00)	0.36	(0.00)	1.20	(0.02)
	Sweden	0.33	(0.02)	1.01	(0.02)	0.36	(0.03)	0.29	(0.02)	0.06	(0.03)	-0.78	(0.02)	0.06	(0.01)	0.47	(0.00)	1.56	(0.04)
	Switzerland	-0.02	(0.01)	0.84	(0.02)	-0.01	(0.02)	-0.04	(0.02)	0.03	(0.02)	-1.00	(0.02)	-0.22	(0.00)	0.18	(0.00)	0.96	(0.02)
	Turkey	-0.17	(0.03)	1.15	(0.02)	-0.11	(0.04)	-0.24	(0.03)	**0.13**	(0.04)	-1.59	(0.03)	-0.43	(0.01)	0.16	(0.01)	1.19	(0.02)
	United Kingdom	0.03	(0.02)	0.94	(0.02)	0.09	(0.03)	-0.03	(0.02)	**0.11**	(0.04)	-1.09	(0.02)	-0.19	(0.01)	0.28	(0.01)	1.11	(0.03)
	United States	-0.08	(0.02)	1.04	(0.02)	-0.03	(0.03)	-0.13	(0.02)	**0.10**	(0.04)	-1.33	(0.03)	-0.31	(0.01)	0.22	(0.01)	1.10	(0.03)
	OECD average	0.00	(0.00)	0.97	(0.00)	0.03	(0.00)	-0.03	(0.00)	**0.06**	(0.01)	-1.15	(0.00)	-0.23	(0.00)	0.24	(0.00)	1.13	(0.00)
Partners	**Albania**	0.22	(0.03)	0.97	(0.02)	0.20	(0.04)	0.23	(0.03)	-0.03	(0.05)	-0.92	(0.03)	-0.07	(0.01)	0.44	(0.01)	1.41	(0.03)
	Argentina	-0.16	(0.02)	1.12	(0.02)	-0.04	(0.03)	-0.28	(0.03)	**0.24**	(0.04)	-1.56	(0.04)	-0.37	(0.01)	0.17	(0.01)	1.10	(0.03)
	Brazil	0.05	(0.02)	1.04	(0.01)	0.06	(0.02)	0.04	(0.02)	0.02	(0.03)	-1.19	(0.02)	-0.23	(0.00)	0.33	(0.00)	1.30	(0.02)
	Bulgaria	0.00	(0.02)	1.07	(0.02)	0.05	(0.02)	-0.05	(0.02)	**0.10**	(0.03)	-1.22	(0.03)	-0.26	(0.00)	0.23	(0.01)	1.25	(0.02)
	Colombia	-0.16	(0.02)	1.04	(0.02)	-0.13	(0.03)	-0.19	(0.03)	0.06	(0.04)	-1.43	(0.03)	-0.43	(0.01)	0.13	(0.01)	1.08	(0.03)
	Costa Rica	-0.37	(0.02)	1.04	(0.02)	-0.28	(0.03)	-0.45	(0.03)	**0.17**	(0.04)	-1.66	(0.03)	-0.59	(0.01)	-0.08	(0.01)	0.86	(0.02)
	Croatia	-0.04	(0.02)	0.96	(0.02)	0.00	(0.03)	-0.08	(0.03)	**0.08**	(0.04)	-1.14	(0.03)	-0.30	(0.01)	0.16	(0.01)	1.12	(0.03)
	Cyprus*	-0.17	(0.02)	1.17	(0.02)	-0.02	(0.03)	-0.31	(0.03)	**0.28**	(0.05)	-1.57	(0.03)	-0.47	(0.01)	0.12	(0.01)	1.26	(0.03)
	Hong Kong-China	-0.14	(0.02)	0.80	(0.02)	-0.14	(0.02)	-0.14	(0.02)	0.01	(0.03)	-1.02	(0.03)	-0.36	(0.00)	0.05	(0.01)	0.78	(0.02)
	Indonesia	0.05	(0.03)	1.10	(0.02)	0.04	(0.03)	0.05	(0.04)	-0.01	(0.04)	-1.28	(0.03)	-0.24	(0.01)	0.35	(0.01)	1.36	(0.03)
	Jordan	0.30	(0.02)	1.17	(0.02)	0.46	(0.04)	0.14	(0.03)	**0.33**	(0.05)	-1.05	(0.02)	-0.07	(0.01)	0.52	(0.00)	1.79	(0.03)
	Kazakhstan	0.51	(0.03)	1.00	(0.02)	0.55	(0.03)	0.46	(0.04)	**0.09**	(0.04)	-0.61	(0.02)	0.14	(0.01)	0.69	(0.01)	1.80	(0.03)
	Latvia	0.02	(0.02)	0.84	(0.02)	0.10	(0.03)	-0.06	(0.03)	**0.16**	(0.04)	-0.91	(0.03)	-0.21	(0.00)	0.19	(0.01)	1.01	(0.03)
	Liechtenstein	0.01	(0.06)	0.79	(0.07)	0.13	(0.07)	-0.14	(0.08)	**0.28**	(0.10)	-0.89	(0.06)	-0.21	(0.01)	0.18	(0.02)	0.96	(0.11)
	Lithuania	0.19	(0.02)	0.87	(0.02)	0.22	(0.03)	0.17	(0.02)	0.05	(0.03)	-0.77	(0.02)	-0.07	(0.01)	0.37	(0.01)	1.26	(0.03)
	Macao-China	-0.11	(0.01)	0.79	(0.02)	-0.09	(0.02)	-0.13	(0.02)	0.04	(0.02)	-0.97	(0.02)	-0.33	(0.00)	0.05	(0.00)	0.83	(0.02)
	Malaysia	0.00	(0.02)	0.96	(0.02)	-0.04	(0.03)	0.03	(0.02)	-0.07	(0.04)	-1.19	(0.03)	-0.25	(0.00)	0.29	(0.01)	1.13	(0.02)
	Montenegro	0.06	(0.02)	1.13	(0.02)	0.09	(0.03)	0.04	(0.03)	0.05	(0.04)	-1.25	(0.03)	-0.21	(0.01)	0.32	(0.01)	1.39	(0.03)
	Peru	0.13	(0.02)	1.00	(0.02)	0.17	(0.03)	0.10	(0.03)	0.07	(0.04)	-1.08	(0.02)	-0.14	(0.01)	0.41	(0.01)	1.36	(0.02)
	Qatar	0.09	(0.01)	1.27	(0.01)	0.27	(0.02)	-0.09	(0.02)	**0.36**	(0.03)	-1.45	(0.02)	-0.21	(0.00)	0.39	(0.00)	1.63	(0.02)
	Romania	0.10	(0.02)	1.02	(0.02)	0.12	(0.03)	0.08	(0.03)	0.04	(0.04)	-1.10	(0.02)	-0.19	(0.01)	0.35	(0.01)	1.34	(0.03)
	Russian Federation	0.18	(0.02)	0.97	(0.02)	0.21	(0.03)	0.15	(0.02)	0.06	(0.04)	-0.90	(0.02)	-0.13	(0.00)	0.37	(0.00)	1.37	(0.04)
	Serbia	-0.24	(0.02)	1.07	(0.02)	-0.18	(0.03)	-0.29	(0.03)	**0.12**	(0.04)	-1.51	(0.03)	-0.48	(0.01)	0.03	(0.01)	1.02	(0.03)
	Shanghai-China	0.18	(0.02)	1.06	(0.02)	0.12	(0.03)	0.24	(0.02)	**-0.13**	(0.04)	-1.01	(0.03)	-0.11	(0.01)	0.38	(0.01)	1.46	(0.03)
	Singapore	0.31	(0.01)	0.85	(0.02)	0.31	(0.02)	0.30	(0.02)	0.01	(0.03)	-0.67	(0.01)	0.08	(0.00)	0.47	(0.00)	1.34	(0.02)
	Chinese Taipei	-0.11	(0.02)	1.00	(0.02)	-0.09	(0.03)	-0.13	(0.02)	0.04	(0.03)	-1.31	(0.03)	-0.29	(0.00)	0.15	(0.00)	0.99	(0.02)
	Thailand	0.40	(0.02)	0.88	(0.02)	0.34	(0.03)	0.44	(0.02)	**-0.11**	(0.03)	-0.67	(0.03)	0.26	(0.01)	0.62	(0.00)	1.38	(0.02)
	Tunisia	-0.20	(0.02)	0.99	(0.02)	-0.09	(0.03)	-0.30	(0.02)	**0.21**	(0.03)	-1.42	(0.02)	-0.43	(0.01)	0.10	(0.01)	0.95	(0.02)
	United Arab Emirates	0.07	(0.02)	1.12	(0.01)	0.23	(0.03)	-0.09	(0.02)	**0.32**	(0.03)	-1.28	(0.02)	-0.21	(0.00)	0.36	(0.01)	1.41	(0.02)
	Uruguay	-0.51	(0.03)	1.11	(0.02)	-0.39	(0.03)	-0.62	(0.03)	**0.23**	(0.04)	-1.91	(0.02)	-0.74	(0.01)	-0.18	(0.01)	0.78	(0.03)
	Viet Nam	-0.23	(0.02)	0.77	(0.02)	-0.24	(0.02)	-0.23	(0.02)	0.00	(0.03)	-1.18	(0.02)	-0.41	(0.00)	-0.01	(0.00)	0.66	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.5.10a

Index of experience with applied mathematics tasks and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	Australia	**478**	(2.4)	510	(2.6)	520	(2.9)	**524**	(2.9)	**21.4**	(1.5)	**1.7**	(0.1)	4.2	(0.6)
	Austria	494	(4.5)	519	(4.7)	516	(4.5)	506	(4.8)	**8.1**	(2.3)	**1.4**	(0.1)	0.6	(0.3)
	Belgium	**477**	(4.9)	504	(5.2)	510	(5.6)	**506**	(5.2)	**10.1**	(2.5)	**1.5**	(0.2)	1.2	(0.6)
	Canada	**496**	(2.7)	520	(2.5)	535	(2.6)	**531**	(2.5)	**15.2**	(1.2)	**1.6**	(0.1)	3.2	(0.5)
	Chile	**403**	(3.7)	422	(4.0)	436	(4.6)	**429**	(4.9)	**10.4**	(1.4)	**1.4**	(0.1)	1.8	(0.5)
	Czech Republic	**504**	(4.3)	523	(4.3)	506	(5.5)	**490**	(4.9)	-4.2	(2.8)	1.1	(0.1)	0.2	(0.2)
	Denmark	**500**	(3.0)	499	(3.7)	500	(2.9)	**514**	(3.9)	2.2	(1.6)	1.0	(0.1)	0.1	(0.1)
	Estonia	**507**	(3.3)	528	(4.2)	528	(3.9)	**525**	(4.0)	**6.8**	(1.9)	**1.4**	(0.1)	0.5	(0.3)
	Finland	**488**	(2.8)	522	(2.5)	529	(3.1)	**545**	(3.2)	**23.6**	(1.6)	**2.0**	(0.1)	6.0	(0.8)
	France	**469**	(3.6)	503	(4.2)	514	(4.7)	**509**	(4.1)	**19.6**	(2.0)	**1.6**	(0.1)	3.5	(0.7)
	Germany	514	(5.0)	536	(5.2)	532	(4.8)	515	(4.1)	3.1	(2.2)	**1.3**	(0.1)	0.1	(0.1)
	Greece	**460**	(4.0)	463	(3.8)	456	(4.5)	**431**	(4.3)	**-9.5**	(1.5)	0.8	(0.1)	1.4	(0.4)
	Hungary	472	(5.8)	487	(4.7)	474	(4.5)	479	(4.6)	2.1	(2.2)	1.1	(0.1)	0.0	(0.1)
	Iceland	**465**	(4.0)	506	(4.1)	507	(3.5)	**512**	(3.8)	**11.8**	(1.7)	**1.9**	(0.2)	2.5	(0.7)
	Ireland	**480**	(4.3)	508	(3.3)	512	(4.0)	**512**	(3.7)	**15.6**	(2.3)	**1.6**	(0.1)	2.6	(0.7)
	Israel	464	(6.4)	487	(6.2)	477	(5.1)	453	(6.0)	-4.1	(2.2)	1.1	(0.1)	0.2	(0.2)
	Italy	480	(2.8)	493	(2.8)	493	(2.6)	479	(2.7)	1.0	(1.2)	**1.1**	(0.0)	0.0	(0.0)
	Japan	**498**	(5.4)	535	(3.9)	558	(3.9)	**565**	(4.3)	**24.1**	(2.2)	**2.1**	(0.2)	7.5	(1.2)
	Korea	**517**	(5.8)	552	(4.3)	559	(5.8)	**585**	(5.8)	**27.8**	(1.8)	**1.9**	(0.1)	7.7	(0.9)
	Luxembourg	**471**	(3.3)	499	(3.7)	500	(3.6)	**498**	(3.1)	**10.0**	(1.6)	**1.4**	(0.1)	1.2	(0.4)
	Mexico	**408**	(1.9)	418	(1.6)	415	(2.2)	**417**	(1.8)	**4.7**	(0.7)	**1.2**	(0.1)	0.4	(0.1)
	Netherlands	530	(5.6)	539	(4.3)	531	(5.9)	518	(5.1)	1.9	(2.0)	**1.3**	(0.1)	0.0	(0.1)
	New Zealand	**462**	(3.8)	511	(4.6)	514	(4.4)	**528**	(5.7)	**25.9**	(2.2)	**2.0**	(0.2)	7.0	(1.1)
	Norway	**464**	(4.3)	503	(4.1)	503	(4.6)	**500**	(3.9)	**15.3**	(2.2)	**1.8**	(0.1)	2.4	(0.7)
	Poland	**503**	(5.4)	515	(4.3)	524	(4.8)	**528**	(4.9)	**11.6**	(2.3)	**1.3**	(0.1)	1.2	(0.5)
	Portugal	473	(5.7)	496	(5.0)	505	(4.9)	487	(5.8)	**7.8**	(1.9)	**1.3**	(0.1)	0.9	(0.4)
	Slovak Republic	**493**	(5.8)	498	(5.9)	480	(5.1)	**468**	(4.9)	**-10.1**	(2.8)	1.0	(0.1)	0.9	(0.5)
	Slovenia	492	(3.9)	510	(4.7)	507	(4.3)	503	(4.6)	4.3	(2.4)	1.2	(0.1)	0.2	(0.2)
	Spain	**487**	(2.7)	494	(3.2)	489	(2.8)	**474**	(2.8)	**-3.8**	(1.7)	1.0	(0.1)	0.1	(0.1)
	Sweden	**459**	(3.5)	485	(3.9)	488	(3.4)	**491**	(4.1)	**10.0**	(1.9)	**1.5**	(0.1)	1.3	(0.5)
	Switzerland	**516**	(4.5)	542	(4.3)	541	(4.7)	**533**	(3.6)	**9.8**	(2.0)	**1.4**	(0.1)	0.7	(0.3)
	Turkey	**460**	(6.6)	450	(5.8)	441	(5.3)	**442**	(5.0)	**-4.3**	(1.6)	0.9	(0.1)	0.3	(0.2)
	United Kingdom	**465**	(5.0)	500	(3.9)	509	(4.0)	**511**	(3.8)	**20.1**	(2.2)	**1.7**	(0.1)	4.1	(0.8)
	United States	**460**	(5.3)	484	(5.6)	492	(4.9)	**490**	(5.2)	**13.1**	(2.0)	**1.5**	(0.1)	2.3	(0.7)
	OECD average	**480**	(0.8)	502	(0.7)	503	(0.7)	**500**	(0.7)	**8.9**	(0.3)	**1.4**	(0.0)	2.0	(0.1)
Partners	Albania	394	(4.1)	392	(5.0)	391	(4.4)	393	(4.3)	-1.5	(2.2)	1.0	(0.1)	0.0	(0.1)
	Argentina	387	(4.0)	406	(4.4)	401	(5.3)	389	(4.6)	2.1	(1.4)	**1.2**	(0.1)	0.1	(0.1)
	Brazil	**384**	(2.3)	401	(2.9)	401	(3.0)	**395**	(2.9)	**4.4**	(1.0)	**1.2**	(0.1)	0.4	(0.2)
	Bulgaria	**440**	(5.4)	461	(4.8)	443	(5.3)	**426**	(5.0)	-2.8	(2.2)	1.0	(0.1)	0.1	(0.2)
	Colombia	**369**	(2.9)	383	(4.0)	389	(4.9)	**389**	(3.5)	**7.0**	(1.2)	**1.3**	(0.1)	1.0	(0.3)
	Costa Rica	409	(4.1)	417	(4.5)	413	(4.3)	400	(4.4)	-3.1	(1.6)	0.9	(0.1)	0.2	(0.2)
	Croatia	**450**	(4.4)	475	(5.2)	485	(4.5)	**474**	(4.7)	**10.3**	(2.1)	**1.4**	(0.1)	1.3	(0.5)
	Cyprus*	**432**	(3.8)	444	(3.7)	449	(3.5)	**451**	(4.0)	**7.8**	(1.7)	1.1	(0.1)	1.0	(0.4)
	Hong Kong-China	557	(6.0)	569	(4.8)	573	(4.2)	553	(5.1)	5.5	(2.9)	1.2	(0.1)	0.2	(0.2)
	Indonesia	**363**	(4.3)	380	(4.4)	385	(5.4)	**381**	(4.9)	**5.9**	(1.6)	**1.4**	(0.1)	0.8	(0.4)
	Jordan	**376**	(3.4)	388	(3.8)	388	(3.6)	**400**	(5.4)	**7.7**	(1.8)	**1.2**	(0.1)	1.4	(0.6)
	Kazakhstan	435	(4.5)	433	(3.3)	433	(4.2)	432	(4.8)	-2.1	(1.8)	1.0	(0.1)	0.1	(0.2)
	Latvia	**482**	(4.3)	496	(5.0)	496	(5.7)	**496**	(4.9)	**7.5**	(2.7)	1.2	(0.1)	0.6	(0.4)
	Liechtenstein	516	(15.3)	538	(14.4)	548	(12.7)	538	(11.7)	14.6	(9.5)	2.0	(0.6)	1.5	(2.0)
	Lithuania	**468**	(4.0)	485	(4.2)	479	(4.3)	**485**	(4.6)	**8.1**	(2.2)	**1.3**	(0.1)	0.6	(0.3)
	Macao-China	**544**	(3.3)	543	(3.0)	537	(3.6)	**530**	(3.3)	-3.5	(2.5)	0.9	(0.1)	0.1	(0.1)
	Malaysia	**400**	(4.0)	424	(4.2)	431	(4.5)	**434**	(4.1)	**16.1**	(1.6)	**1.6**	(0.1)	3.5	(0.7)
	Montenegro	**400**	(3.5)	419	(3.1)	419	(3.5)	**414**	(3.4)	**5.3**	(1.4)	**1.3**	(0.1)	0.5	(0.3)
	Peru	**364**	(4.6)	376	(4.5)	377	(4.5)	**378**	(4.6)	**5.4**	(1.6)	**1.2**	(0.1)	0.4	(0.2)
	Qatar	375	(2.4)	390	(2.6)	383	(2.7)	381	(3.0)	1.6	(1.2)	**0.9**	(0.0)	0.0	(0.1)
	Romania	435	(5.0)	450	(4.1)	450	(4.6)	446	(4.9)	**4.2**	(1.6)	**1.3**	(0.1)	0.3	(0.2)
	Russian Federation	480	(3.8)	485	(4.1)	485	(5.0)	484	(5.1)	**3.8**	(1.5)	1.1	(0.1)	0.2	(0.2)
	Serbia	447	(4.6)	463	(4.4)	457	(4.5)	442	(4.8)	-3.0	(1.8)	1.1	(0.1)	0.1	(0.2)
	Shanghai-China	**625**	(5.0)	615	(4.8)	609	(4.8)	**604**	(4.4)	**-4.8**	(1.7)	1.0	(0.1)	0.3	(0.2)
	Singapore	**560**	(3.7)	583	(3.3)	572	(4.1)	**581**	(3.5)	**8.2**	(2.3)	**1.4**	(0.1)	0.4	(0.3)
	Chinese Taipei	**510**	(5.3)	570	(4.5)	589	(4.7)	**572**	(4.9)	**27.0**	(2.2)	**2.2**	(0.2)	5.4	(0.9)
	Thailand	**414**	(4.8)	422	(4.6)	428	(4.1)	**440**	(4.7)	**11.5**	(2.1)	**1.2**	(0.1)	1.5	(0.5)
	Tunisia	384	(3.9)	399	(5.3)	390	(5.6)	388	(5.2)	1.4	(1.7)	1.0	(0.1)	0.0	(0.1)
	United Arab Emirates	**413**	(2.6)	439	(2.8)	443	(3.2)	**451**	(4.0)	**10.3**	(1.3)	**1.4**	(0.1)	1.7	(0.4)
	Uruguay	**418**	(4.0)	427	(4.2)	423	(4.7)	**397**	(4.6)	**-7.6**	(1.9)	1.1	(0.1)	1.0	(0.5)
	Viet Nam	512	(5.8)	519	(6.7)	512	(6.1)	506	(5.7)	-2.4	(2.9)	1.0	(0.1)	0.0	(0.1)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.5.10c Index of experience with pure mathematics tasks and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Index of experience with pure mathematics tasks																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	Standard deviation	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	-0.17	(0.01)	1.02	(0.01)	-0.20	(0.02)	-0.13	(0.02)	**-0.08**	(0.03)	-1.55	(0.02)	-0.50	(0.01)	0.59	(0.01)	0.80	(0.00)
	Austria	-0.03	(0.02)	1.10	(0.02)	-0.13	(0.04)	0.06	(0.03)	**-0.20**	(0.05)	-1.67	(0.03)	-0.06	(0.02)	0.80	(0.00)	0.80	(0.00)
	Belgium	-0.09	(0.02)	1.15	(0.01)	-0.17	(0.02)	-0.01	(0.03)	**-0.16**	(0.04)	-1.80	(0.02)	-0.16	(0.01)	0.80	(0.00)	0.80	(0.00)
	Canada	-0.09	(0.02)	1.09	(0.01)	-0.20	(0.02)	0.02	(0.02)	**-0.22**	(0.03)	-1.65	(0.02)	-0.30	(0.01)	0.79	(0.00)	0.80	(0.00)
	Chile	-0.10	(0.02)	1.04	(0.01)	-0.19	(0.03)	-0.02	(0.03)	**-0.16**	(0.04)	-1.57	(0.02)	-0.37	(0.01)	0.74	(0.01)	0.80	(0.00)
	Czech Republic	-0.09	(0.03)	0.97	(0.02)	-0.20	(0.04)	0.03	(0.04)	**-0.24**	(0.05)	-1.41	(0.04)	-0.40	(0.01)	0.67	(0.01)	0.80	(0.00)
	Denmark	-0.37	(0.02)	1.04	(0.01)	-0.46	(0.03)	-0.28	(0.03)	**-0.18**	(0.04)	-1.80	(0.02)	-0.70	(0.01)	0.23	(0.01)	0.80	(0.00)
	Estonia	0.03	(0.02)	0.94	(0.02)	-0.14	(0.03)	0.20	(0.02)	**-0.34**	(0.03)	-1.29	(0.03)	-0.17	(0.01)	0.80	(0.00)	0.80	(0.00)
	Finland	0.00	(0.02)	0.90	(0.01)	-0.15	(0.03)	0.16	(0.02)	**-0.31**	(0.03)	-1.22	(0.02)	-0.26	(0.01)	0.69	(0.01)	0.80	(0.00)
	France	0.02	(0.02)	1.05	(0.02)	-0.07	(0.03)	0.10	(0.03)	**-0.18**	(0.04)	-1.52	(0.03)	0.00	(0.02)	0.80	(0.00)	0.80	(0.00)
	Germany	0.13	(0.02)	0.92	(0.02)	0.01	(0.03)	0.23	(0.03)	**-0.22**	(0.03)	-1.24	(0.03)	0.15	(0.02)	0.80	(0.00)	0.80	(0.00)
	Greece	0.05	(0.02)	1.04	(0.02)	-0.13	(0.03)	0.23	(0.03)	**-0.36**	(0.04)	-1.52	(0.03)	0.14	(0.02)	0.80	(0.00)	0.80	(0.00)
	Hungary	0.14	(0.02)	0.90	(0.02)	-0.04	(0.03)	0.31	(0.03)	**-0.35**	(0.04)	-1.21	(0.03)	0.18	(0.02)	0.80	(0.00)	0.80	(0.00)
	Iceland	0.23	(0.02)	0.96	(0.02)	0.11	(0.03)	0.34	(0.03)	**-0.23**	(0.04)	-1.24	(0.03)	0.55	(0.01)	0.80	(0.00)	0.80	(0.00)
	Ireland	0.14	(0.02)	0.95	(0.02)	0.06	(0.03)	0.22	(0.03)	**-0.16**	(0.04)	-1.27	(0.03)	0.25	(0.02)	0.80	(0.00)	0.80	(0.00)
	Israel	0.03	(0.03)	0.98	(0.02)	-0.14	(0.04)	0.20	(0.03)	**-0.34**	(0.05)	-1.37	(0.03)	-0.10	(0.01)	0.80	(0.00)	0.80	(0.00)
	Italy	0.22	(0.01)	0.92	(0.01)	0.12	(0.02)	0.32	(0.02)	**-0.20**	(0.02)	-1.18	(0.02)	0.47	(0.01)	0.80	(0.00)	0.80	(0.00)
	Japan	0.19	(0.02)	0.96	(0.02)	0.09	(0.03)	0.30	(0.03)	**-0.21**	(0.03)	-1.27	(0.03)	0.45	(0.02)	0.80	(0.00)	0.80	(0.00)
	Korea	0.43	(0.02)	0.76	(0.03)	0.33	(0.03)	0.54	(0.02)	**-0.21**	(0.03)	-0.67	(0.03)	0.80	(0.00)	0.80	(0.00)	0.80	(0.00)
	Luxembourg	-0.25	(0.02)	1.15	(0.01)	-0.33	(0.03)	-0.16	(0.02)	**-0.17**	(0.04)	-1.91	(0.02)	-0.54	(0.01)	0.66	(0.01)	0.80	(0.00)
	Mexico	-0.03	(0.01)	0.94	(0.01)	-0.11	(0.02)	0.04	(0.01)	**-0.16**	(0.02)	-1.30	(0.01)	-0.37	(0.01)	0.74	(0.00)	0.80	(0.00)
	Netherlands	-0.01	(0.03)	1.04	(0.02)	-0.09	(0.04)	0.07	(0.04)	**-0.16**	(0.04)	-1.50	(0.03)	-0.13	(0.02)	0.80	(0.00)	0.80	(0.00)
	New Zealand	-0.27	(0.02)	1.08	(0.01)	-0.32	(0.04)	-0.22	(0.03)	-0.09	(0.05)	-1.77	(0.02)	-0.60	(0.01)	0.49	(0.01)	0.80	(0.00)
	Norway	0.00	(0.02)	0.90	(0.01)	-0.11	(0.03)	0.13	(0.02)	**-0.24**	(0.03)	-1.18	(0.03)	-0.30	(0.01)	0.71	(0.01)	0.80	(0.00)
	Poland	0.09	(0.02)	0.81	(0.01)	-0.07	(0.03)	0.24	(0.02)	**-0.30**	(0.03)	-1.02	(0.02)	-0.15	(0.01)	0.75	(0.01)	0.80	(0.00)
	Portugal	-0.35	(0.03)	1.15	(0.02)	-0.42	(0.04)	-0.28	(0.03)	**-0.14**	(0.05)	-1.99	(0.03)	-0.65	(0.01)	0.44	(0.02)	0.80	(0.00)
	Slovak Republic	-0.11	(0.02)	0.91	(0.02)	-0.23	(0.03)	0.01	(0.03)	**-0.24**	(0.03)	-1.38	(0.03)	-0.38	(0.01)	0.65	(0.00)	0.65	(0.00)
	Slovenia	0.20	(0.02)	0.87	(0.01)	0.03	(0.02)	0.38	(0.02)	**-0.35**	(0.03)	-1.11	(0.02)	0.31	(0.02)	0.80	(0.00)	0.80	(0.00)
	Spain	0.27	(0.01)	0.83	(0.01)	0.18	(0.02)	0.36	(0.01)	**-0.19**	(0.02)	-0.98	(0.02)	0.47	(0.01)	0.80	(0.00)	0.80	(0.00)
	Sweden	-0.25	(0.02)	0.96	(0.01)	-0.33	(0.03)	-0.17	(0.03)	**-0.16**	(0.03)	-1.49	(0.03)	-0.61	(0.00)	0.30	(0.01)	0.80	(0.00)
	Switzerland	0.01	(0.02)	1.01	(0.01)	-0.09	(0.03)	0.12	(0.02)	**-0.21**	(0.03)	-1.44	(0.02)	-0.10	(0.02)	0.80	(0.00)	0.80	(0.00)
	Turkey	-0.10	(0.03)	1.09	(0.01)	-0.28	(0.04)	0.08	(0.04)	**-0.36**	(0.05)	-1.70	(0.02)	-0.30	(0.01)	0.80	(0.00)	0.80	(0.00)
	United Kingdom	0.02	(0.02)	0.99	(0.01)	-0.05	(0.02)	0.10	(0.02)	**-0.15**	(0.03)	-1.38	(0.02)	-0.12	(0.01)	0.80	(0.00)	0.80	(0.00)
	United States	0.09	(0.02)	0.93	(0.02)	-0.01	(0.03)	0.20	(0.03)	**-0.21**	(0.04)	-1.23	(0.03)	0.01	(0.02)	0.80	(0.00)	0.80	(0.00)
	OECD average	0.00	(0.00)	0.98	(0.00)	-0.11	(0.01)	0.11	(0.00)	**-0.22**	(0.01)	-1.41	(0.00)	-0.10	(0.00)	0.72	(0.00)	0.79	(0.00)
Partners	**Albania**	0.15	(0.02)	0.91	(0.02)	0.16	(0.03)	0.15	(0.03)	0.00	(0.04)	-1.23	(0.02)	0.26	(0.02)	0.80	(0.00)	0.80	(0.00)
	Argentina	-0.25	(0.02)	1.06	(0.01)	-0.36	(0.03)	-0.14	(0.03)	**-0.22**	(0.04)	-1.70	(0.02)	-0.57	(0.01)	0.48	(0.01)	0.80	(0.00)
	Brazil	-0.55	(0.02)	1.04	(0.01)	-0.60	(0.03)	-0.50	(0.02)	**-0.10**	(0.03)	-1.91	(0.01)	-0.85	(0.01)	-0.23	(0.01)	0.79	(0.00)
	Bulgaria	0.06	(0.03)	0.95	(0.02)	-0.13	(0.03)	0.25	(0.03)	**-0.39**	(0.03)	-1.31	(0.03)	-0.05	(0.02)	0.80	(0.00)	0.80	(0.00)
	Colombia	-0.39	(0.02)	1.03	(0.01)	-0.45	(0.03)	-0.34	(0.03)	**-0.11**	(0.04)	-1.76	(0.02)	-0.75	(0.01)	0.15	(0.02)	0.80	(0.00)
	Costa Rica	-0.06	(0.03)	1.00	(0.01)	-0.12	(0.04)	-0.01	(0.03)	**-0.12**	(0.04)	-1.44	(0.03)	-0.36	(0.02)	0.77	(0.01)	0.80	(0.00)
	Croatia	0.19	(0.02)	0.87	(0.02)	0.02	(0.03)	0.37	(0.02)	**-0.34**	(0.03)	-1.13	(0.03)	0.30	(0.01)	0.80	(0.00)	0.80	(0.00)
	Cyprus*	-0.04	(0.02)	1.06	(0.01)	-0.24	(0.03)	0.15	(0.02)	**-0.39**	(0.04)	-1.58	(0.02)	-0.18	(0.02)	0.80	(0.00)	0.80	(0.00)
	Hong Kong-China	0.15	(0.02)	0.84	(0.02)	0.06	(0.03)	0.25	(0.02)	**-0.19**	(0.03)	-1.03	(0.03)	0.04	(0.02)	0.80	(0.00)	0.80	(0.00)
	Indonesia	-0.15	(0.03)	0.97	(0.01)	-0.29	(0.03)	-0.02	(0.03)	**-0.27**	(0.04)	-1.47	(0.02)	-0.52	(0.01)	0.59	(0.01)	0.80	(0.00)
	Jordan	-0.22	(0.02)	0.97	(0.01)	-0.37	(0.03)	-0.07	(0.03)	**-0.29**	(0.04)	-1.55	(0.02)	-0.53	(0.01)	0.41	(0.01)	0.80	(0.00)
	Kazakhstan	0.16	(0.03)	0.85	(0.02)	0.04	(0.03)	0.28	(0.03)	**-0.24**	(0.04)	-1.11	(0.02)	0.17	(0.02)	0.80	(0.00)	0.80	(0.00)
	Latvia	-0.01	(0.02)	0.87	(0.02)	-0.19	(0.03)	0.18	(0.03)	**-0.37**	(0.04)	-1.18	(0.03)	-0.31	(0.01)	0.66	(0.01)	0.80	(0.00)
	Liechtenstein	0.22	(0.07)	0.98	(0.07)	0.08	(0.10)	0.39	(0.09)	**-0.31**	(0.13)	-1.26	(0.12)	0.56	(0.05)	0.80	(0.00)	0.80	(0.00)
	Lithuania	0.13	(0.02)	0.84	(0.01)	-0.06	(0.03)	0.32	(0.02)	**-0.38**	(0.03)	-1.07	(0.02)	0.02	(0.01)	0.80	(0.00)	0.80	(0.00)
	Macao-China	0.21	(0.01)	0.80	(0.01)	0.13	(0.02)	0.29	(0.02)	**-0.17**	(0.03)	-0.97	(0.02)	0.22	(0.02)	0.80	(0.00)	0.80	(0.00)
	Malaysia	-0.02	(0.03)	1.01	(0.02)	-0.20	(0.04)	0.15	(0.03)	**-0.35**	(0.04)	-1.47	(0.02)	-0.19	(0.02)	0.80	(0.00)	0.80	(0.00)
	Montenegro	-0.09	(0.02)	1.00	(0.01)	-0.30	(0.03)	0.12	(0.02)	**-0.42**	(0.03)	-1.49	(0.03)	-0.34	(0.01)	0.68	(0.01)	0.80	(0.00)
	Peru	0.11	(0.02)	0.83	(0.01)	0.03	(0.03)	0.19	(0.03)	**-0.17**	(0.03)	-1.05	(0.02)	-0.09	(0.02)	0.80	(0.00)	0.80	(0.00)
	Qatar	-0.28	(0.01)	1.07	(0.01)	-0.36	(0.02)	-0.20	(0.02)	**-0.16**	(0.02)	-1.76	(0.02)	-0.64	(0.01)	0.48	(0.01)	0.80	(0.00)
	Romania	-0.07	(0.03)	0.95	(0.01)	-0.19	(0.03)	0.05	(0.03)	**-0.25**	(0.04)	-1.39	(0.02)	-0.35	(0.01)	0.68	(0.01)	0.80	(0.00)
	Russian Federation	0.29	(0.02)	0.79	(0.02)	0.13	(0.03)	0.44	(0.02)	**-0.31**	(0.03)	-0.92	(0.02)	0.47	(0.01)	0.80	(0.00)	0.80	(0.00)
	Serbia	-0.08	(0.02)	1.03	(0.02)	-0.29	(0.03)	0.13	(0.03)	**-0.42**	(0.04)	-1.55	(0.03)	-0.29	(0.01)	0.74	(0.01)	0.80	(0.00)
	Shanghai-China	0.06	(0.02)	0.97	(0.01)	-0.04	(0.03)	0.15	(0.02)	**-0.20**	(0.04)	-1.35	(0.02)	-0.01	(0.02)	0.80	(0.00)	0.80	(0.00)
	Singapore	0.33	(0.01)	0.77	(0.01)	0.27	(0.02)	0.40	(0.02)	**-0.13**	(0.03)	-0.87	(0.02)	0.61	(0.01)	0.80	(0.00)	0.80	(0.00)
	Chinese Taipei	-0.04	(0.03)	1.06	(0.02)	-0.15	(0.04)	0.06	(0.03)	**-0.21**	(0.04)	-1.53	(0.03)	-0.22	(0.02)	0.80	(0.00)	0.80	(0.00)
	Thailand	-0.09	(0.02)	0.93	(0.01)	-0.32	(0.03)	0.09	(0.03)	**-0.41**	(0.04)	-1.30	(0.02)	-0.49	(0.01)	0.64	(0.01)	0.80	(0.00)
	Tunisia	-0.30	(0.03)	1.03	(0.01)	-0.43	(0.04)	-0.19	(0.03)	**-0.24**	(0.04)	-1.70	(0.02)	-0.64	(0.01)	0.34	(0.02)	0.80	(0.00)
	United Arab Emirates	-0.10	(0.02)	1.01	(0.01)	-0.20	(0.03)	0.00	(0.03)	**-0.20**	(0.04)	-1.52	(0.02)	-0.36	(0.01)	0.70	(0.01)	0.80	(0.00)
	Uruguay	-0.06	(0.02)	1.01	(0.01)	-0.20	(0.03)	0.06	(0.03)	**-0.26**	(0.03)	-1.46	(0.03)	-0.32	(0.01)	0.74	(0.01)	0.80	(0.00)
	Viet Nam	0.17	(0.02)	0.81	(0.02)	0.05	(0.03)	0.27	(0.03)	**-0.22**	(0.03)	-1.02	(0.02)	0.09	(0.01)	0.80	(0.00)	0.80	(0.00)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 2/2]

Table III.5.10c Index of experience with pure mathematics tasks and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Australia**	**458**	(2.4)	486	(2.6)	541	(3.2)	**547**	(3.2)	**37.0**	(1.3)	**2.4**	(0.1)	15.5	(0.8)
	Austria	**455**	(3.8)	509	(5.0)	537	(4.6)	**536**	(4.4)	**31.2**	(1.6)	**2.6**	(0.2)	14.0	(1.3)
	Belgium	**444**	(5.6)	502	(5.5)	528	(6.7)	**526**	(5.7)	**32.0**	(2.0)	**2.9**	(0.3)	14.6	(1.7)
	Canada	**477**	(2.9)	514	(2.8)	546	(2.5)	**544**	(3.3)	**27.6**	(1.0)	**2.2**	(0.1)	11.7	(0.9)
	Chile	**388**	(3.2)	411	(4.2)	445	(4.3)	**447**	(4.0)	**24.2**	(1.4)	**1.9**	(0.2)	9.6	(0.9)
	Czech Republic	**470**	(4.5)	504	(4.7)	525	(4.7)	**525**	(5.4)	**25.6**	(2.1)	**2.1**	(0.2)	7.7	(1.3)
	Denmark	**496**	(3.2)	492	(3.6)	513	(4.1)	**512**	(3.6)	**7.1**	(1.6)	1.1	(0.1)	0.9	(0.4)
	Estonia	**499**	(4.0)	518	(4.6)	537	(3.8)	**533**	(3.8)	**16.0**	(1.6)	**1.7**	(0.2)	3.5	(0.7)
	Finland	**481**	(3.8)	516	(3.4)	542	(3.2)	**545**	(3.2)	**31.3**	(1.6)	**2.2**	(0.1)	11.9	(1.2)
	France	**447**	(4.3)	501	(4.1)	523	(4.3)	**525**	(4.6)	**32.7**	(1.9)	**2.5**	(0.2)	12.8	(1.4)
	Germany	**474**	(3.9)	524	(4.4)	548	(5.2)	**550**	(4.6)	**34.7**	(1.9)	**2.6**	(0.2)	11.7	(1.1)
	Greece	**411**	(4.0)	453	(4.7)	473	(3.8)	**474**	(3.8)	**25.1**	(1.6)	**2.3**	(0.2)	9.0	(1.1)
	Hungary	**439**	(4.4)	481	(6.5)	497	(4.5)	**497**	(4.8)	**28.3**	(2.3)	**2.1**	(0.2)	7.5	(1.2)
	Iceland	**449**	(4.1)	512	(4.9)	515	(4.2)	**514**	(5.5)	**31.4**	(2.1)	**2.6**	(0.2)	11.4	(1.5)
	Ireland	**460**	(3.9)	506	(3.7)	523	(3.8)	**524**	(4.5)	**28.1**	(1.8)	**2.4**	(0.2)	10.1	(1.2)
	Israel	**428**	(6.2)	471	(6.3)	491	(5.5)	**494**	(5.9)	**28.9**	(2.2)	**2.1**	(0.2)	7.2	(1.1)
	Italy	**441**	(2.9)	494	(3.2)	506	(2.8)	**506**	(2.9)	**30.9**	(1.5)	**2.3**	(0.1)	9.4	(0.7)
	Japan	**491**	(5.3)	546	(4.4)	559	(4.8)	**560**	(4.6)	**33.5**	(2.7)	**2.4**	(0.2)	12.1	(1.7)
	Korea	**480**	(5.5)	578	(5.0)	578	(5.9)	**578**	(5.6)	**61.2**	(2.7)	**3.6**	(0.3)	21.5	(1.7)
	Luxembourg	**447**	(2.8)	479	(3.3)	519	(5.6)	**524**	(4.2)	**27.2**	(1.3)	**2.3**	(0.2)	10.9	(1.0)
	Mexico	**389**	(2.0)	399	(2.1)	434	(2.0)	**436**	(2.0)	**21.2**	(1.0)	**1.7**	(0.1)	7.2	(0.6)
	Netherlands	**462**	(5.1)	518	(4.5)	570	(5.3)	**567**	(5.4)	**44.1**	(2.1)	**3.7**	(0.3)	25.9	(1.9)
	New Zealand	**439**	(3.7)	487	(4.6)	540	(4.9)	**549**	(5.1)	**41.9**	(1.9)	**2.9**	(0.2)	20.4	(1.8)
	Norway	**456**	(4.5)	493	(4.7)	511	(3.7)	**512**	(3.6)	**30.0**	(2.0)	**2.1**	(0.2)	9.4	(1.2)
	Poland	**488**	(4.4)	516	(4.7)	533	(5.5)	**532**	(5.4)	**25.5**	(2.1)	**1.7**	(0.1)	5.3	(0.9)
	Portugal	**442**	(5.0)	472	(4.5)	527	(6.3)	**521**	(6.2)	**29.1**	(1.5)	**2.0**	(0.1)	12.8	(1.2)
	Slovak Republic	**448**	(6.2)	480	(6.0)	511	(4.4)	**508**	(4.6)	**30.0**	(2.7)	**2.0**	(0.2)	7.5	(1.3)
	Slovenia	**464**	(3.2)	508	(5.2)	520	(5.6)	**520**	(5.4)	**27.6**	(2.1)	**2.0**	(0.1)	6.9	(1.0)
	Spain	**455**	(3.1)	492	(3.7)	498	(3.0)	**499**	(2.9)	**24.2**	(1.9)	**1.9**	(0.1)	5.3	(0.8)
	Sweden	**450**	(3.7)	480	(3.0)	498	(3.8)	**496**	(4.8)	**20.0**	(1.7)	**1.8**	(0.1)	4.7	(0.8)
	Switzerland	**479**	(4.5)	526	(5.1)	562	(4.4)	**566**	(4.1)	**35.8**	(2.0)	**2.5**	(0.2)	14.5	(1.5)
	Turkey	**402**	(3.8)	434	(4.8)	478	(6.7)	**479**	(7.7)	**29.1**	(2.1)	**2.3**	(0.2)	12.0	(1.2)
	United Kingdom	**449**	(4.4)	488	(4.4)	526	(4.6)	**522**	(4.4)	**31.8**	(1.8)	**2.4**	(0.2)	11.4	(1.2)
	United States	**438**	(4.8)	481	(5.2)	504	(5.3)	**506**	(4.2)	**31.4**	(2.0)	**2.3**	(0.2)	10.4	(1.3)
	OECD average	**453**	(0.7)	493	(0.8)	519	(0.8)	**520**	(0.8)	**29.9**	(0.3)	**2.3**	(0.0)	10.8	(0.2)
Partners	**Albania**	397	(3.9)	393	(5.0)	391	(7.2)	391	(6.5)	-3.4	(2.5)	0.9	(0.1)	0.1	(0.2)
	Argentina	**371**	(4.3)	388	(4.6)	405	(4.3)	**417**	(4.5)	**17.2**	(1.6)	**1.7**	(0.1)	6.1	(1.0)
	Brazil	**386**	(2.6)	387	(2.6)	398	(3.0)	**412**	(3.3)	**9.2**	(1.0)	**1.1**	(0.1)	1.5	(0.3)
	Bulgaria	**404**	(5.1)	439	(5.2)	466	(5.0)	**464**	(5.3)	**28.5**	(2.2)	**2.0**	(0.1)	8.6	(1.1)
	Colombia	**366**	(2.9)	369	(3.9)	392	(5.0)	**405**	(5.1)	**15.4**	(1.7)	**1.4**	(0.1)	4.6	(0.9)
	Costa Rica	**389**	(3.8)	399	(4.2)	424	(4.9)	**426**	(4.5)	**15.6**	(2.0)	**1.5**	(0.2)	5.2	(1.2)
	Croatia	**437**	(4.6)	478	(4.3)	486	(5.1)	**484**	(5.6)	**25.6**	(2.2)	**2.0**	(0.1)	6.4	(1.0)
	Cyprus*	**393**	(4.1)	437	(3.7)	474	(4.4)	**473**	(4.4)	**31.8**	(1.8)	**2.6**	(0.2)	13.7	(1.5)
	Hong Kong-China	**515**	(5.8)	568	(5.8)	585	(4.0)	**585**	(4.0)	**38.4**	(2.5)	**2.3**	(0.2)	11.2	(1.4)
	Indonesia	**360**	(3.6)	371	(4.9)	386	(5.2)	**392**	(5.7)	**13.4**	(1.8)	**1.4**	(0.1)	3.4	(0.8)
	Jordan	**354**	(3.2)	373	(3.5)	410	(5.1)	**419**	(5.8)	**28.3**	(2.4)	**2.0**	(0.1)	13.2	(1.5)
	Kazakhstan	**410**	(4.2)	431	(3.6)	447	(4.7)	**446**	(4.9)	**19.4**	(2.3)	**1.8**	(0.2)	5.5	(1.2)
	Latvia	**460**	(4.4)	482	(4.2)	511	(6.2)	**516**	(5.6)	**28.8**	(2.3)	**2.0**	(0.2)	9.4	(1.4)
	Liechtenstein	**487**	(13.3)	546	(14.0)	551	(21.6)	**555**	(14.9)	**33.5**	(6.3)	**2.5**	(0.6)	11.9	(4.5)
	Lithuania	**441**	(3.9)	479	(4.4)	498	(3.5)	**500**	(3.6)	**32.6**	(1.8)	**2.2**	(0.1)	9.4	(1.0)
	Macao-China	**520**	(3.4)	535	(3.3)	550	(3.4)	**548**	(3.2)	**17.2**	(2.2)	**1.5**	(0.1)	2.2	(0.6)
	Malaysia	**366**	(3.4)	407	(3.8)	457	(4.6)	**459**	(5.2)	**39.9**	(1.8)	**3.0**	(0.2)	24.1	(1.5)
	Montenegro	**378**	(3.7)	410	(3.3)	434	(3.3)	**433**	(3.6)	**23.8**	(1.4)	**2.0**	(0.1)	8.6	(0.9)
	Peru	**337**	(4.0)	360	(4.3)	401	(5.3)	**401**	(5.3)	**32.6**	(2.5)	**1.9**	(0.1)	10.7	(1.2)
	Qatar	**332**	(2.1)	354	(2.3)	415	(3.2)	**432**	(3.6)	**37.8**	(1.2)	**2.0**	(0.1)	16.5	(1.0)
	Romania	**419**	(4.2)	436	(4.3)	461	(5.1)	**466**	(5.1)	**21.1**	(2.1)	**1.7**	(0.2)	6.2	(1.1)
	Russian Federation	**449**	(4.0)	491	(5.0)	498	(4.5)	**497**	(5.0)	**29.2**	(1.7)	**2.0**	(0.1)	7.2	(0.9)
	Serbia	**423**	(4.5)	456	(5.2)	465	(5.0)	**465**	(4.6)	**17.4**	(1.6)	**1.8**	(0.2)	4.1	(0.8)
	Shanghai-China	607	(5.8)	623	(5.8)	612	(4.4)	612	(6.3)	2.2	(2.2)	**1.3**	(0.1)	0.0	(0.1)
	Singapore	**518**	(3.3)	587	(3.7)	596	(5.2)	**595**	(4.6)	**43.9**	(2.4)	**2.6**	(0.1)	10.1	(1.1)
	Chinese Taipei	**488**	(5.6)	569	(5.2)	593	(4.1)	**591**	(4.8)	**46.8**	(1.9)	**3.3**	(0.2)	18.1	(1.5)
	Thailand	**391**	(4.5)	407	(3.5)	448	(5.5)	**457**	(5.7)	**29.6**	(2.5)	**2.0**	(0.2)	11.0	(1.5)
	Tunisia	**356**	(3.9)	374	(4.8)	406	(4.8)	**427**	(5.8)	**26.2**	(2.1)	**1.9**	(0.2)	11.8	(1.3)
	United Arab Emirates	**387**	(2.6)	417	(3.0)	468	(3.4)	**474**	(3.1)	**35.8**	(1.4)	**2.3**	(0.1)	16.4	(1.1)
	Uruguay	**386**	(4.1)	414	(4.4)	430	(4.5)	**436**	(4.2)	**20.2**	(1.7)	**1.8**	(0.1)	5.5	(0.9)
	Viet Nam	**484**	(5.4)	507	(5.7)	530	(6.5)	**527**	(6.2)	**25.3**	(3.1)	**1.7**	(0.2)	5.7	(1.3)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 1/2]

Table III.5.10e Index of teachers’ use of cognitive-activation strategies and mathematics performance, by national quarters of this index

Results based on students’ self-reports

		Index of teachers’ use of cognitive-activation strategies																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	Standard deviation	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	0.14	(0.02)	1.08	(0.01)	0.23	(0.02)	0.04	(0.02)	**0.19**	(0.03)	-1.13	(0.02)	-0.17	(0.00)	0.39	(0.00)	1.47	(0.02)
	Austria	-0.10	(0.02)	0.90	(0.02)	0.01	(0.03)	-0.21	(0.03)	**0.22**	(0.04)	-1.17	(0.02)	-0.35	(0.01)	0.14	(0.01)	0.97	(0.02)
	Belgium	-0.19	(0.02)	0.98	(0.02)	-0.15	(0.02)	-0.23	(0.03)	**0.08**	(0.03)	-1.35	(0.03)	-0.41	(0.00)	0.07	(0.00)	0.92	(0.02)
	Canada	0.31	(0.02)	1.06	(0.01)	0.40	(0.02)	0.23	(0.02)	**0.17**	(0.03)	-0.88	(0.02)	0.00	(0.00)	0.48	(0.00)	1.66	(0.02)
	Chile	0.22	(0.02)	0.98	(0.02)	0.30	(0.03)	0.13	(0.03)	**0.17**	(0.04)	-0.96	(0.02)	-0.10	(0.01)	0.47	(0.01)	1.46	(0.02)
	Czech Republic	0.15	(0.02)	0.89	(0.02)	0.23	(0.03)	0.06	(0.03)	**0.17**	(0.04)	-0.88	(0.03)	-0.11	(0.01)	0.34	(0.01)	1.24	(0.03)
	Denmark	-0.03	(0.02)	0.77	(0.01)	0.06	(0.02)	-0.11	(0.03)	**0.16**	(0.03)	-0.95	(0.02)	-0.25	(0.00)	0.17	(0.01)	0.92	(0.02)
	Estonia	-0.06	(0.02)	0.82	(0.02)	-0.01	(0.03)	-0.12	(0.02)	**0.11**	(0.03)	-1.02	(0.02)	-0.29	(0.00)	0.14	(0.00)	0.92	(0.03)
	Finland	-0.06	(0.02)	0.89	(0.02)	-0.02	(0.02)	-0.09	(0.02)	**0.07**	(0.02)	-1.06	(0.02)	-0.32	(0.00)	0.14	(0.01)	1.01	(0.02)
	France	-0.07	(0.02)	0.87	(0.02)	-0.01	(0.03)	-0.13	(0.02)	**0.13**	(0.03)	-1.12	(0.02)	-0.28	(0.00)	0.16	(0.00)	0.95	(0.02)
	Germany	0.02	(0.02)	0.83	(0.02)	0.11	(0.03)	-0.07	(0.03)	**0.17**	(0.03)	-0.95	(0.03)	-0.20	(0.00)	0.22	(0.01)	1.01	(0.03)
	Greece	0.08	(0.02)	0.98	(0.03)	0.17	(0.03)	-0.01	(0.03)	**0.17**	(0.05)	-1.04	(0.03)	-0.16	(0.01)	0.30	(0.01)	1.22	(0.03)
	Hungary	-0.08	(0.03)	0.88	(0.03)	0.02	(0.03)	-0.18	(0.03)	**0.20**	(0.03)	-1.11	(0.04)	-0.29	(0.00)	0.14	(0.01)	0.94	(0.03)
	Iceland	-0.17	(0.02)	1.16	(0.02)	-0.04	(0.03)	-0.30	(0.03)	**0.27**	(0.05)	-1.46	(0.03)	-0.50	(0.01)	0.08	(0.01)	1.21	(0.04)
	Ireland	0.13	(0.02)	1.00	(0.02)	0.14	(0.02)	0.12	(0.03)	0.02	(0.03)	-1.06	(0.03)	-0.14	(0.01)	0.38	(0.01)	1.34	(0.02)
	Israel	0.27	(0.02)	0.98	(0.02)	0.34	(0.03)	0.21	(0.03)	**0.12**	(0.04)	-0.86	(0.03)	-0.03	(0.01)	0.49	(0.01)	1.49	(0.03)
	Italy	-0.10	(0.02)	0.90	(0.01)	-0.03	(0.02)	-0.18	(0.02)	**0.15**	(0.02)	-1.20	(0.02)	-0.31	(0.00)	0.15	(0.00)	0.94	(0.01)
	Japan	-0.50	(0.03)	0.96	(0.02)	-0.41	(0.03)	-0.61	(0.03)	**0.20**	(0.04)	-1.66	(0.02)	-0.73	(0.00)	-0.24	(0.00)	0.63	(0.02)
	Korea	-0.73	(0.03)	0.98	(0.02)	-0.65	(0.03)	-0.81	(0.03)	**0.16**	(0.04)	-1.94	(0.03)	-0.92	(0.00)	-0.43	(0.01)	0.38	(0.03)
	Luxembourg	-0.09	(0.02)	1.05	(0.02)	0.01	(0.03)	-0.21	(0.02)	**0.22**	(0.03)	-1.32	(0.03)	-0.33	(0.01)	0.17	(0.01)	1.10	(0.02)
	Mexico	0.23	(0.01)	1.02	(0.01)	0.34	(0.02)	0.13	(0.02)	**0.21**	(0.02)	-0.96	(0.01)	-0.11	(0.00)	0.46	(0.00)	1.54	(0.02)
	Netherlands	-0.21	(0.03)	0.98	(0.02)	-0.16	(0.04)	-0.27	(0.03)	**0.12**	(0.04)	-1.36	(0.03)	-0.43	(0.01)	0.02	(0.01)	0.92	(0.03)
	New Zealand	0.22	(0.03)	1.10	(0.02)	0.31	(0.03)	0.12	(0.04)	**0.19**	(0.04)	-1.04	(0.02)	-0.15	(0.00)	0.43	(0.01)	1.62	(0.04)
	Norway	-0.21	(0.02)	0.99	(0.02)	-0.11	(0.03)	-0.31	(0.03)	**0.20**	(0.04)	-1.35	(0.03)	-0.48	(0.01)	0.02	(0.01)	0.97	(0.03)
	Poland	0.05	(0.02)	0.91	(0.02)	0.08	(0.03)	0.02	(0.03)	0.06	(0.03)	-0.99	(0.02)	-0.21	(0.01)	0.26	(0.01)	1.16	(0.03)
	Portugal	0.38	(0.03)	1.14	(0.02)	0.46	(0.04)	0.31	(0.03)	**0.15**	(0.04)	-0.92	(0.03)	0.03	(0.01)	0.58	(0.01)	1.84	(0.03)
	Slovak Republic	-0.18	(0.02)	0.85	(0.02)	-0.09	(0.03)	-0.29	(0.03)	**0.20**	(0.04)	-1.16	(0.02)	-0.43	(0.01)	0.01	(0.01)	0.84	(0.03)
	Slovenia	-0.03	(0.02)	0.84	(0.02)	0.02	(0.03)	-0.07	(0.02)	**0.09**	(0.03)	-0.99	(0.02)	-0.27	(0.01)	0.18	(0.01)	0.98	(0.02)
	Spain	0.10	(0.02)	1.00	(0.02)	0.16	(0.03)	0.04	(0.02)	**0.12**	(0.03)	-1.08	(0.02)	-0.18	(0.00)	0.33	(0.00)	1.32	(0.02)
	Sweden	-0.22	(0.02)	1.04	(0.02)	-0.07	(0.03)	-0.37	(0.03)	**0.30**	(0.04)	-1.41	(0.03)	-0.50	(0.01)	0.02	(0.01)	1.02	(0.03)
	Switzerland	0.07	(0.01)	0.85	(0.02)	0.13	(0.02)	0.01	(0.02)	**0.11**	(0.03)	-0.90	(0.02)	-0.17	(0.00)	0.27	(0.00)	1.09	(0.02)
	Turkey	-0.04	(0.03)	1.01	(0.02)	0.03	(0.03)	-0.12	(0.04)	**0.14**	(0.04)	-1.21	(0.03)	-0.31	(0.01)	0.19	(0.00)	1.15	(0.03)
	United Kingdom	0.34	(0.02)	1.00	(0.02)	0.37	(0.03)	0.31	(0.03)	0.06	(0.04)	-0.80	(0.03)	0.03	(0.00)	0.53	(0.01)	1.59	(0.02)
	United States	0.39	(0.03)	1.12	(0.02)	0.42	(0.03)	0.36	(0.03)	0.06	(0.04)	-0.86	(0.03)	0.04	(0.01)	0.56	(0.01)	1.84	(0.03)
	OECD average	0.00	(0.00)	0.97	(0.00)	0.08	(0.00)	-0.08	(0.00)	**0.15**	(0.01)	-1.12	(0.00)	-0.27	(0.00)	0.22	(0.00)	1.17	(0.00)
Partners	**Albania**	0.34	(0.02)	0.78	(0.02)	0.34	(0.02)	0.34	(0.02)	0.00	(0.03)	-0.50	(0.01)	0.07	(0.01)	0.46	(0.01)	1.34	(0.03)
	Argentina	0.35	(0.03)	1.06	(0.02)	0.40	(0.03)	0.30	(0.04)	**0.10**	(0.05)	-0.87	(0.02)	0.02	(0.01)	0.55	(0.01)	1.72	(0.03)
	Brazil	0.05	(0.02)	1.08	(0.02)	0.16	(0.02)	-0.05	(0.02)	**0.22**	(0.03)	-1.20	(0.02)	-0.27	(0.00)	0.28	(0.00)	1.39	(0.02)
	Bulgaria	0.53	(0.03)	1.13	(0.03)	0.54	(0.04)	0.52	(0.03)	0.02	(0.05)	-0.70	(0.04)	0.15	(0.01)	0.68	(0.01)	2.00	(0.03)
	Colombia	0.27	(0.03)	0.96	(0.03)	0.29	(0.03)	0.25	(0.03)	0.05	(0.04)	-0.82	(0.02)	-0.05	(0.01)	0.46	(0.01)	1.50	(0.04)
	Costa Rica	-0.16	(0.03)	0.98	(0.02)	-0.03	(0.03)	-0.27	(0.03)	**0.25**	(0.03)	-1.31	(0.02)	-0.47	(0.01)	0.08	(0.01)	1.05	(0.04)
	Croatia	-0.14	(0.02)	0.91	(0.02)	-0.05	(0.03)	-0.23	(0.03)	**0.18**	(0.03)	-1.15	(0.02)	-0.41	(0.01)	0.04	(0.01)	0.97	(0.03)
	Cyprus*	0.07	(0.02)	1.05	(0.02)	0.12	(0.03)	0.02	(0.02)	**0.09**	(0.03)	-1.10	(0.03)	-0.19	(0.00)	0.28	(0.01)	1.29	(0.03)
	Hong Kong-China	-0.21	(0.02)	0.94	(0.02)	-0.16	(0.03)	-0.27	(0.03)	**0.11**	(0.03)	-1.26	(0.02)	-0.46	(0.01)	0.00	(0.01)	0.89	(0.03)
	Indonesia	0.12	(0.02)	0.81	(0.02)	0.15	(0.02)	0.09	(0.03)	**0.06**	(0.03)	-0.78	(0.02)	-0.08	(0.00)	0.27	(0.00)	1.09	(0.03)
	Jordan	0.69	(0.02)	1.19	(0.02)	0.67	(0.04)	0.71	(0.03)	-0.04	(0.05)	-0.67	(0.03)	0.33	(0.01)	0.92	(0.01)	2.18	(0.03)
	Kazakhstan	0.36	(0.02)	0.85	(0.02)	0.43	(0.03)	0.29	(0.03)	**0.14**	(0.03)	-0.57	(0.02)	0.05	(0.00)	0.49	(0.01)	1.47	(0.03)
	Latvia	0.07	(0.02)	0.74	(0.02)	0.13	(0.02)	0.02	(0.02)	**0.10**	(0.03)	-0.77	(0.03)	-0.16	(0.01)	0.24	(0.01)	0.99	(0.02)
	Liechtenstein	0.16	(0.05)	0.76	(0.06)	0.24	(0.08)	0.05	(0.07)	0.18	(0.10)	-0.73	(0.08)	-0.05	(0.02)	0.36	(0.02)	1.06	(0.06)
	Lithuania	0.08	(0.02)	0.87	(0.02)	0.13	(0.02)	0.03	(0.02)	**0.10**	(0.03)	-0.88	(0.02)	-0.20	(0.01)	0.25	(0.00)	1.16	(0.02)
	Macao-China	-0.23	(0.02)	0.88	(0.02)	-0.15	(0.02)	-0.31	(0.02)	**0.17**	(0.03)	-1.20	(0.02)	-0.50	(0.00)	-0.05	(0.01)	0.84	(0.02)
	Malaysia	0.00	(0.02)	0.90	(0.02)	0.00	(0.03)	0.00	(0.02)	0.00	(0.03)	-1.02	(0.02)	-0.26	(0.01)	0.18	(0.00)	1.11	(0.02)
	Montenegro	0.02	(0.02)	1.04	(0.02)	0.08	(0.03)	-0.03	(0.03)	**0.12**	(0.05)	-1.16	(0.03)	-0.27	(0.01)	0.23	(0.01)	1.29	(0.03)
	Peru	0.39	(0.02)	0.98	(0.02)	0.49	(0.03)	0.30	(0.03)	**0.19**	(0.03)	-0.74	(0.02)	0.05	(0.01)	0.60	(0.01)	1.66	(0.03)
	Qatar	0.50	(0.02)	1.29	(0.02)	0.58	(0.02)	0.42	(0.02)	**0.16**	(0.03)	-0.95	(0.02)	0.10	(0.00)	0.69	(0.01)	2.16	(0.02)
	Romania	0.24	(0.02)	0.94	(0.02)	0.31	(0.03)	0.17	(0.03)	**0.14**	(0.04)	-0.84	(0.02)	-0.02	(0.01)	0.43	(0.00)	1.40	(0.03)
	Russian Federation	0.20	(0.02)	0.89	(0.02)	0.29	(0.03)	0.12	(0.02)	**0.17**	(0.03)	-0.72	(0.02)	-0.10	(0.00)	0.32	(0.01)	1.32	(0.04)
	Serbia	-0.02	(0.02)	1.00	(0.03)	0.11	(0.03)	-0.15	(0.02)	**0.26**	(0.03)	-1.15	(0.03)	-0.28	(0.01)	0.19	(0.01)	1.17	(0.04)
	Shanghai-China	0.16	(0.02)	0.98	(0.02)	0.23	(0.03)	0.10	(0.03)	**0.13**	(0.04)	-0.92	(0.02)	-0.15	(0.01)	0.32	(0.00)	1.41	(0.03)
	Singapore	0.29	(0.02)	1.03	(0.02)	0.36	(0.03)	0.22	(0.02)	**0.13**	(0.03)	-0.85	(0.02)	-0.04	(0.01)	0.43	(0.00)	1.62	(0.03)
	Chinese Taipei	-0.18	(0.02)	0.99	(0.02)	-0.12	(0.03)	-0.25	(0.02)	**0.14**	(0.03)	-1.30	(0.02)	-0.47	(0.01)	0.05	(0.00)	0.98	(0.03)
	Thailand	0.11	(0.02)	0.83	(0.02)	0.14	(0.02)	0.09	(0.03)	0.05	(0.03)	-0.80	(0.01)	-0.19	(0.00)	0.26	(0.01)	1.16	(0.03)
	Tunisia	0.09	(0.02)	0.97	(0.02)	0.11	(0.03)	0.07	(0.03)	0.05	(0.04)	-1.06	(0.03)	-0.14	(0.01)	0.32	(0.01)	1.25	(0.03)
	United Arab Emirates	0.47	(0.02)	1.06	(0.02)	0.51	(0.02)	0.43	(0.02)	**0.08**	(0.03)	-0.75	(0.02)	0.16	(0.00)	0.68	(0.00)	1.78	(0.02)
	Uruguay	0.23	(0.02)	1.01	(0.03)	0.32	(0.03)	0.15	(0.03)	**0.17**	(0.03)	-0.93	(0.03)	-0.06	(0.00)	0.43	(0.01)	1.47	(0.03)
	Viet Nam	-0.32	(0.02)	0.67	(0.01)	-0.25	(0.02)	-0.38	(0.02)	**0.13**	(0.02)	-1.12	(0.02)	-0.48	(0.00)	-0.14	(0.00)	0.47	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 2/2]

Table III.5.10e

Index of teachers' use of cognitive-activation strategies and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	Australia	**483**	(2.3)	503	(2.8)	511	(2.9)	**521**	(3.1)	**11.4**	(1.1)	**1.4**	(0.1)	1.7	(0.3)
	Austria	505	(4.2)	508	(4.1)	509	(4.2)	510	(4.8)	1.2	(2.2)	1.1	(0.1)	0.0	(0.1)
	Belgium	492	(5.8)	508	(5.5)	512	(4.7)	496	(5.9)	**2.1**	(3.0)	**1.2**	(0.1)	0.1	(0.2)
	Canada	**508**	(3.0)	526	(2.6)	524	(3.0)	**524**	(2.6)	**5.4**	(1.1)	**1.3**	(0.1)	0.4	(0.2)
	Chile	415	(4.0)	426	(4.2)	427	(3.7)	424	(4.3)	2.8	(1.6)	1.1	(0.1)	0.1	(0.2)
	Czech Republic	504	(4.2)	505	(4.6)	510	(4.5)	500	(4.9)	-1.8	(2.1)	1.0	(0.1)	0.0	(0.1)
	Denmark	**494**	(3.6)	506	(3.4)	510	(3.8)	**510**	(3.8)	**7.4**	(2.2)	**1.3**	(0.1)	0.5	(0.3)
	Estonia	517	(3.3)	522	(3.9)	518	(4.6)	525	(4.1)	1.6	(2.1)	1.0	(0.1)	0.0	(0.1)
	Finland	**515**	(2.9)	521	(3.0)	527	(3.5)	**529**	(3.0)	**5.4**	(1.6)	**1.3**	(0.1)	0.3	(0.2)
	France	494	(4.1)	501	(4.2)	504	(4.8)	492	(4.9)	-1.5	(2.4)	0.9	(0.1)	0.0	(0.1)
	Germany	**513**	(5.0)	521	(4.4)	528	(4.4)	**529**	(4.7)	**5.9**	(2.7)	1.2	(0.1)	0.3	(0.3)
	Greece	448	(4.0)	455	(3.9)	460	(3.5)	458	(4.6)	2.2	(1.9)	1.0	(0.1)	0.1	(0.1)
	Hungary	470	(3.9)	478	(4.4)	480	(4.5)	484	(6.2)	3.4	(3.1)	1.0	(0.1)	0.1	(0.2)
	Iceland	489	(4.2)	502	(4.1)	502	(4.5)	493	(3.9)	-0.7	(1.7)	1.1	(0.1)	0.0	(0.1)
	Ireland	**495**	(3.4)	499	(3.9)	505	(4.2)	**507**	(4.0)	**4.2**	(1.6)	1.0	(0.1)	0.2	(0.2)
	Israel	**461**	(5.6)	473	(6.0)	478	(5.4)	**481**	(6.1)	**7.5**	(2.1)	1.1	(0.1)	0.5	(0.3)
	Italy	**471**	(2.5)	486	(2.7)	494	(2.6)	**499**	(3.0)	**11.3**	(1.4)	**1.2**	(0.1)	1.2	(0.3)
	Japan	**517**	(4.9)	533	(4.1)	547	(4.2)	**551**	(5.5)	**14.7**	(2.4)	**1.4**	(0.1)	2.3	(0.7)
	Korea	546	(5.7)	549	(4.8)	560	(4.7)	562	(8.1)	**8.2**	(3.6)	1.1	(0.1)	0.7	(0.6)
	Luxembourg	486	(3.6)	492	(3.5)	494	(3.5)	489	(3.4)	0.4	(1.7)	1.1	(0.1)	0.0	(0.0)
	Mexico	412	(1.5)	415	(1.9)	419	(1.8)	413	(2.1)	-0.8	(0.8)	1.0	(0.0)	0.0	(0.0)
	Netherlands	**516**	(4.4)	532	(5.8)	538	(5.3)	**532**	(5.3)	**5.3**	(2.4)	1.3	(0.1)	0.4	(0.3)
	New Zealand	**485**	(3.9)	497	(3.8)	512	(3.9)	**506**	(4.9)	**6.2**	(2.2)	1.1	(0.1)	0.5	(0.3)
	Norway	**477**	(4.5)	493	(4.8)	498	(4.1)	**496**	(4.1)	**6.6**	(2.0)	1.2	(0.1)	0.5	(0.3)
	Poland	**503**	(4.5)	513	(4.9)	523	(4.3)	**537**	(6.2)	**13.6**	(2.6)	**1.4**	(0.1)	1.8	(0.7)
	Portugal	480	(4.9)	501	(4.6)	490	(4.9)	488	(5.3)	0.6	(1.8)	1.1	(0.1)	0.0	(0.0)
	Slovak Republic	**489**	(4.4)	491	(4.1)	486	(5.2)	**473**	(6.6)	**-9.1**	(3.0)	**0.8**	(0.1)	0.6	(0.4)
	Slovenia	**484**	(3.6)	505	(3.5)	512	(4.5)	**518**	(4.3)	**14.7**	(2.1)	**1.4**	(0.1)	1.9	(0.5)
	Spain	480	(3.1)	489	(3.2)	489	(3.5)	487	(2.6)	1.9	(1.4)	1.0	(0.1)	0.0	(0.1)
	Sweden	**471**	(3.6)	481	(3.3)	491	(4.0)	**486**	(4.3)	**5.5**	(1.9)	**1.2**	(0.1)	0.4	(0.3)
	Switzerland	528	(4.7)	531	(3.8)	537	(3.9)	530	(4.1)	1.0	(1.8)	1.0	(0.1)	0.0	(0.0)
	Turkey	440	(5.4)	451	(5.9)	453	(5.5)	454	(7.1)	2.9	(2.2)	1.2	(0.1)	0.1	(0.2)
	United Kingdom	**477**	(4.9)	500	(4.0)	507	(5.2)	**506**	(4.2)	**10.2**	(1.9)	**1.5**	(0.1)	1.2	(0.4)
	United States	**472**	(4.5)	489	(4.4)	486	(4.8)	**489**	(5.3)	**3.2**	(1.5)	**1.2**	(0.1)	0.2	(0.1)
	OECD average	**486**	(0.7)	497	(0.7)	501	(0.7)	**500**	(0.8)	**4.5**	(0.4)	**1.2**	(0.0)	0.5	(0.1)
Partners	Albania	398	(3.9)	395	(4.5)	393	(4.9)	388	(3.8)	**-7.8**	(2.7)	0.9	(0.1)	0.5	(0.3)
	Argentina	**395**	(5.3)	397	(4.4)	393	(4.2)	**379**	(4.6)	**-5.8**	(1.9)	1.0	(0.1)	0.7	(0.4)
	Brazil	**395**	(2.5)	401	(3.0)	395	(2.7)	**383**	(3.0)	**-5.0**	(1.1)	**0.9**	(0.1)	0.5	(0.2)
	Bulgaria	435	(4.4)	442	(4.8)	455	(5.1)	438	(5.6)	-0.8	(2.1)	1.0	(0.1)	0.0	(0.1)
	Colombia	373	(3.3)	379	(3.8)	386	(3.5)	384	(5.1)	3.7	(2.0)	1.1	(0.1)	0.2	(0.2)
	Costa Rica	**399**	(4.5)	403	(4.3)	412	(3.9)	**412**	(4.7)	3.5	(2.1)	1.1	(0.1)	0.3	(0.3)
	Croatia	465	(3.6)	470	(4.6)	476	(4.3)	480	(8.0)	4.5	(3.2)	1.1	(0.1)	0.2	(0.3)
	Cyprus*	**432**	(3.2)	439	(3.3)	450	(3.5)	**456**	(3.0)	**7.4**	(1.7)	**1.2**	(0.1)	0.7	(0.3)
	Hong Kong-China	**549**	(4.9)	557	(4.2)	579	(4.5)	**569**	(5.5)	**8.6**	(2.6)	**1.4**	(0.1)	0.7	(0.5)
	Indonesia	**362**	(4.3)	378	(4.1)	379	(5.3)	**385**	(5.6)	**9.3**	(2.2)	**1.3**	(0.1)	1.1	(0.5)
	Jordan	**374**	(3.7)	391	(4.0)	393	(3.6)	**397**	(4.2)	**6.1**	(1.3)	**1.4**	(0.1)	0.9	(0.4)
	Kazakhstan	430	(4.3)	434	(4.0)	433	(3.3)	435	(4.5)	2.2	(2.4)	1.1	(0.1)	0.1	(0.2)
	Latvia	**484**	(4.3)	493	(4.8)	490	(5.2)	**495**	(3.9)	4.6	(2.5)	1.1	(0.1)	0.2	(0.2)
	Liechtenstein	**517**	(11.4)	530	(13.8)	532	(13.3)	**561**	(12.3)	**28.1**	(7.3)	1.3	(0.4)	5.1	(2.9)
	Lithuania	**466**	(3.6)	480	(4.1)	485	(4.1)	**482**	(4.2)	3.5	(1.9)	**1.2**	(0.1)	0.1	(0.1)
	Macao-China	535	(3.2)	540	(2.8)	543	(3.8)	540	(4.0)	0.6	(2.3)	1.1	(0.1)	0.0	(0.0)
	Malaysia	**408**	(4.2)	417	(4.0)	425	(4.1)	**435**	(4.6)	**10.1**	(1.9)	**1.4**	(0.1)	1.3	(0.5)
	Montenegro	412	(3.5)	414	(3.5)	418	(3.9)	404	(3.6)	-3.5	(1.9)	1.0	(0.1)	0.2	(0.2)
	Peru	**376**	(4.9)	375	(4.8)	372	(5.0)	**363**	(4.3)	**-5.5**	(1.4)	0.9	(0.1)	0.4	(0.2)
	Qatar	376	(2.6)	382	(2.4)	389	(2.4)	382	(2.5)	1.8	(1.0)	1.1	(0.1)	0.1	(0.1)
	Romania	**450**	(4.9)	453	(4.5)	445	(5.6)	**433**	(4.6)	**-8.4**	(1.8)	0.9	(0.1)	1.0	(0.4)
	Russian Federation	478	(4.5)	482	(5.0)	487	(3.6)	486	(4.5)	0.1	(2.3)	1.0	(0.1)	0.0	(0.1)
	Serbia	448	(4.8)	455	(3.9)	452	(4.4)	444	(5.7)	-3.4	(2.2)	1.0	(0.1)	0.1	(0.2)
	Shanghai-China	**586**	(4.8)	611	(5.3)	619	(4.8)	**634**	(4.3)	**15.9**	(2.2)	**1.5**	(0.1)	2.4	(0.6)
	Singapore	**563**	(4.0)	584	(4.2)	576	(4.2)	**580**	(3.3)	**4.6**	(2.0)	**1.2**	(0.1)	0.2	(0.2)
	Chinese Taipei	**534**	(4.9)	560	(4.1)	578	(4.4)	**568**	(4.7)	**13.3**	(1.9)	**1.5**	(0.1)	1.3	(0.4)
	Thailand	421	(4.7)	430	(4.7)	429	(4.1)	429	(4.9)	0.1	(2.0)	**1.2**	(0.1)	0.0	(0.0)
	Tunisia	392	(4.6)	384	(4.4)	390	(5.3)	389	(5.0)	-2.0	(1.6)	0.9	(0.1)	0.1	(0.1)
	United Arab Emirates	432	(3.3)	436	(3.7)	436	(3.9)	438	(3.8)	1.1	(1.3)	1.0	(0.1)	0.0	(0.0)
	Uruguay	**412**	(4.4)	420	(3.8)	421	(4.1)	**397**	(5.0)	**-6.1**	(2.4)	0.9	(0.1)	0.5	(0.4)
	Viet Nam	**493**	(6.4)	511	(5.1)	517	(5.7)	**526**	(6.0)	**14.9**	(3.3)	**1.3**	(0.1)	1.3	(0.6)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
StatLink `http://dx.doi.org/10.1787/888932963977`

[Part 1/2]

Table III.5.10g Index of teachers’ use of formative assessment and mathematics performance, by national quarters of this index

Results based on students’ self-reports

		Index of teachers’ use of formative assessment at school																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	Standard deviation	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	Australia	0.17	(0.02)	0.99	(0.01)	0.30	(0.02)	0.02	(0.02)	**0.28**	(0.02)	-1.07	(0.01)	-0.10	(0.00)	0.47	(0.00)	1.37	(0.01)
	Austria	0.05	(0.02)	0.93	(0.02)	0.22	(0.03)	-0.11	(0.03)	**0.33**	(0.04)	-1.11	(0.02)	-0.19	(0.01)	0.32	(0.01)	1.19	(0.02)
	Belgium	-0.11	(0.02)	0.93	(0.01)	-0.01	(0.02)	-0.21	(0.02)	**0.20**	(0.03)	-1.26	(0.02)	-0.38	(0.01)	0.17	(0.01)	1.03	(0.02)
	Canada	0.28	(0.02)	0.99	(0.01)	0.41	(0.02)	0.16	(0.02)	**0.25**	(0.02)	-0.91	(0.02)	0.00	(0.00)	0.53	(0.00)	1.51	(0.02)
	Chile	0.22	(0.03)	1.08	(0.02)	0.33	(0.04)	0.12	(0.04)	**0.22**	(0.04)	-1.14	(0.02)	-0.08	(0.01)	0.54	(0.01)	1.57	(0.02)
	Czech Republic	-0.14	(0.02)	0.88	(0.02)	-0.02	(0.03)	-0.27	(0.03)	**0.24**	(0.04)	-1.26	(0.02)	-0.37	(0.01)	0.14	(0.01)	0.91	(0.02)
	Denmark	-0.10	(0.02)	0.87	(0.01)	-0.02	(0.03)	-0.19	(0.03)	**0.17**	(0.04)	-1.17	(0.02)	-0.31	(0.01)	0.13	(0.00)	0.95	(0.02)
	Estonia	-0.07	(0.02)	0.84	(0.02)	0.06	(0.03)	-0.19	(0.03)	**0.26**	(0.04)	-1.08	(0.02)	-0.33	(0.01)	0.14	(0.01)	1.00	(0.03)
	Finland	-0.17	(0.02)	0.91	(0.01)	-0.02	(0.02)	-0.33	(0.03)	**0.31**	(0.03)	-1.34	(0.02)	-0.39	(0.01)	0.11	(0.00)	0.92	(0.02)
	France	-0.10	(0.02)	0.93	(0.01)	0.01	(0.03)	-0.21	(0.03)	**0.22**	(0.03)	-1.23	(0.02)	-0.39	(0.01)	0.15	(0.01)	1.06	(0.02)
	Germany	-0.09	(0.02)	0.91	(0.01)	0.11	(0.03)	-0.28	(0.03)	**0.39**	(0.04)	-1.23	(0.02)	-0.32	(0.01)	0.20	(0.01)	1.01	(0.02)
	Greece	-0.05	(0.02)	1.06	(0.02)	0.17	(0.03)	-0.26	(0.03)	**0.42**	(0.05)	-1.38	(0.02)	-0.32	(0.01)	0.27	(0.01)	1.24	(0.02)
	Hungary	0.01	(0.03)	0.94	(0.02)	0.15	(0.03)	-0.12	(0.03)	**0.26**	(0.04)	-1.14	(0.03)	-0.24	(0.01)	0.27	(0.01)	1.15	(0.03)
	Iceland	-0.11	(0.02)	1.02	(0.02)	0.01	(0.03)	-0.23	(0.03)	**0.24**	(0.04)	-1.37	(0.02)	-0.39	(0.01)	0.20	(0.01)	1.13	(0.03)
	Ireland	-0.07	(0.02)	0.93	(0.01)	0.03	(0.03)	-0.18	(0.03)	**0.21**	(0.04)	-1.25	(0.02)	-0.31	(0.01)	0.21	(0.01)	1.06	(0.02)
	Israel	0.17	(0.03)	1.03	(0.02)	0.24	(0.04)	0.10	(0.03)	**0.15**	(0.05)	-1.09	(0.02)	-0.15	(0.01)	0.46	(0.01)	1.46	(0.02)
	Italy	0.16	(0.01)	0.96	(0.01)	0.27	(0.02)	0.04	(0.02)	**0.22**	(0.02)	-1.02	(0.01)	-0.11	(0.00)	0.42	(0.00)	1.34	(0.01)
	Japan	-0.63	(0.02)	0.94	(0.01)	-0.53	(0.03)	-0.74	(0.02)	**0.21**	(0.03)	-1.86	(0.02)	-0.84	(0.01)	-0.32	(0.01)	0.50	(0.02)
	Korea	-0.77	(0.02)	1.04	(0.02)	-0.62	(0.03)	-0.94	(0.03)	**0.32**	(0.04)	-2.07	(0.02)	-1.09	(0.01)	-0.43	(0.01)	0.53	(0.02)
	Luxembourg	-0.15	(0.02)	1.03	(0.02)	-0.01	(0.03)	-0.30	(0.02)	**0.29**	(0.03)	-1.44	(0.02)	-0.42	(0.01)	0.16	(0.01)	1.11	(0.02)
	Mexico	0.12	(0.02)	1.08	(0.01)	0.26	(0.02)	-0.02	(0.02)	**0.28**	(0.02)	-1.22	(0.01)	-0.20	(0.00)	0.43	(0.00)	1.45	(0.01)
	Netherlands	-0.07	(0.03)	0.88	(0.02)	0.03	(0.03)	-0.17	(0.03)	**0.20**	(0.03)	-1.13	(0.02)	-0.32	(0.01)	0.18	(0.01)	1.00	(0.03)
	New Zealand	0.21	(0.02)	1.00	(0.02)	0.31	(0.03)	0.09	(0.03)	**0.22**	(0.04)	-1.02	(0.02)	-0.08	(0.01)	0.48	(0.01)	1.45	(0.03)
	Norway	0.07	(0.03)	0.93	(0.02)	0.21	(0.03)	-0.08	(0.03)	**0.29**	(0.04)	-1.08	(0.03)	-0.16	(0.00)	0.30	(0.01)	1.21	(0.02)
	Poland	-0.05	(0.02)	0.92	(0.02)	0.07	(0.03)	-0.18	(0.03)	**0.25**	(0.04)	-1.17	(0.02)	-0.32	(0.01)	0.19	(0.01)	1.09	(0.02)
	Portugal	0.31	(0.03)	1.13	(0.02)	0.48	(0.03)	0.14	(0.04)	**0.34**	(0.04)	-1.09	(0.03)	-0.01	(0.01)	0.60	(0.01)	1.74	(0.03)
	Slovak Republic	0.16	(0.02)	0.93	(0.01)	0.29	(0.03)	0.02	(0.03)	**0.27**	(0.04)	-0.97	(0.02)	-0.12	(0.01)	0.41	(0.01)	1.32	(0.02)
	Slovenia	0.01	(0.02)	0.90	(0.02)	0.14	(0.03)	-0.13	(0.03)	**0.27**	(0.04)	-1.10	(0.02)	-0.23	(0.01)	0.26	(0.01)	1.10	(0.02)
	Spain	-0.06	(0.02)	1.07	(0.01)	0.04	(0.02)	-0.17	(0.02)	**0.21**	(0.03)	-1.42	(0.02)	-0.34	(0.01)	0.26	(0.01)	1.26	(0.02)
	Sweden	0.07	(0.02)	0.98	(0.02)	0.27	(0.03)	-0.13	(0.03)	**0.40**	(0.04)	-1.14	(0.02)	-0.20	(0.01)	0.32	(0.01)	1.29	(0.02)
	Switzerland	-0.06	(0.02)	0.92	(0.01)	0.07	(0.03)	-0.19	(0.02)	**0.27**	(0.03)	-1.18	(0.02)	-0.33	(0.01)	0.20	(0.01)	1.07	(0.02)
	Turkey	0.17	(0.03)	1.03	(0.02)	0.25	(0.03)	0.10	(0.03)	**0.15**	(0.03)	-1.13	(0.03)	-0.07	(0.01)	0.49	(0.01)	1.41	(0.02)
	United Kingdom	0.33	(0.02)	0.95	(0.01)	0.42	(0.03)	0.25	(0.03)	**0.18**	(0.03)	-0.83	(0.02)	0.08	(0.01)	0.58	(0.01)	1.51	(0.02)
	United States	0.31	(0.03)	1.05	(0.02)	0.42	(0.04)	0.20	(0.04)	**0.22**	(0.04)	-0.96	(0.03)	-0.02	(0.01)	0.56	(0.01)	1.67	(0.03)
	OECD average	0.00	(0.00)	0.97	(0.00)	0.13	(0.00)	-0.13	(0.00)	**0.26**	(0.01)	-1.20	(0.00)	-0.27	(0.00)	0.28	(0.00)	1.19	(0.00)
Partners	Albania	0.69	(0.02)	0.94	(0.02)	0.69	(0.02)	0.70	(0.03)	-0.02	(0.04)	-0.42	(0.03)	0.39	(0.01)	0.89	(0.01)	1.92	(0.02)
	Argentina	0.09	(0.02)	1.06	(0.02)	0.21	(0.04)	-0.01	(0.03)	**0.22**	(0.05)	-1.18	(0.02)	-0.22	(0.01)	0.35	(0.01)	1.43	(0.03)
	Brazil	0.28	(0.02)	1.07	(0.01)	0.40	(0.02)	0.17	(0.02)	**0.23**	(0.03)	-1.05	(0.02)	-0.02	(0.01)	0.57	(0.01)	1.63	(0.01)
	Bulgaria	0.75	(0.02)	1.01	(0.02)	0.76	(0.03)	0.74	(0.03)	0.03	(0.04)	-0.47	(0.02)	0.42	(0.01)	0.98	(0.01)	2.06	(0.02)
	Colombia	0.47	(0.03)	0.99	(0.02)	0.51	(0.03)	0.44	(0.04)	0.07	(0.04)	-0.74	(0.03)	0.18	(0.01)	0.74	(0.01)	1.71	(0.02)
	Costa Rica	-0.03	(0.03)	1.12	(0.02)	0.10	(0.04)	-0.14	(0.04)	**0.24**	(0.04)	-1.45	(0.03)	-0.34	(0.01)	0.32	(0.01)	1.36	(0.02)
	Croatia	0.07	(0.02)	0.85	(0.02)	0.17	(0.03)	-0.04	(0.03)	**0.21**	(0.04)	-0.98	(0.02)	-0.17	(0.01)	0.29	(0.01)	1.12	(0.02)
	Cyprus*	0.01	(0.02)	1.05	(0.01)	0.15	(0.03)	-0.13	(0.02)	**0.27**	(0.04)	-1.32	(0.02)	-0.24	(0.01)	0.31	(0.01)	1.30	(0.02)
	Hong Kong-China	-0.17	(0.02)	0.93	(0.02)	-0.07	(0.02)	-0.28	(0.03)	**0.21**	(0.03)	-1.32	(0.02)	-0.40	(0.01)	0.12	(0.01)	0.95	(0.03)
	Indonesia	0.31	(0.02)	0.82	(0.02)	0.36	(0.02)	0.26	(0.02)	**0.10**	(0.02)	-0.66	(0.02)	0.09	(0.01)	0.49	(0.01)	1.32	(0.02)
	Jordan	0.67	(0.03)	1.16	(0.02)	0.86	(0.04)	0.50	(0.04)	**0.36**	(0.05)	-0.77	(0.03)	0.31	(0.01)	0.98	(0.01)	2.16	(0.02)
	Kazakhstan	0.77	(0.02)	0.88	(0.01)	0.81	(0.03)	0.73	(0.03)	**0.08**	(0.03)	-0.26	(0.02)	0.47	(0.01)	0.93	(0.01)	1.93	(0.02)
	Latvia	0.11	(0.02)	0.84	(0.02)	0.25	(0.03)	-0.02	(0.03)	**0.27**	(0.03)	-0.92	(0.02)	-0.12	(0.01)	0.34	(0.01)	1.15	(0.03)
	Liechtenstein	0.07	(0.07)	0.91	(0.05)	0.14	(0.10)	-0.02	(0.10)	0.16	(0.15)	-1.07	(0.08)	-0.18	(0.03)	0.36	(0.02)	1.18	(0.07)
	Lithuania	0.01	(0.03)	1.00	(0.02)	0.18	(0.03)	-0.17	(0.04)	**0.35**	(0.04)	-1.25	(0.02)	-0.25	(0.01)	0.32	(0.01)	1.21	(0.02)
	Macao-China	-0.38	(0.02)	1.00	(0.01)	-0.19	(0.02)	-0.57	(0.02)	**0.38**	(0.03)	-1.64	(0.02)	-0.62	(0.01)	-0.07	(0.01)	0.83	(0.02)
	Malaysia	0.46	(0.03)	0.97	(0.02)	0.47	(0.03)	0.45	(0.04)	0.03	(0.04)	-0.74	(0.02)	0.18	(0.01)	0.74	(0.01)	1.65	(0.02)
	Montenegro	0.18	(0.02)	1.02	(0.02)	0.29	(0.03)	0.07	(0.02)	**0.21**	(0.04)	-1.09	(0.02)	-0.09	(0.01)	0.45	(0.01)	1.45	(0.02)
	Peru	0.36	(0.02)	0.90	(0.01)	0.47	(0.03)	0.26	(0.02)	**0.22**	(0.04)	-0.73	(0.02)	0.10	(0.00)	0.58	(0.01)	1.49	(0.02)
	Qatar	0.67	(0.01)	1.14	(0.01)	0.75	(0.02)	0.60	(0.02)	**0.16**	(0.03)	-0.74	(0.02)	0.35	(0.01)	0.95	(0.00)	2.13	(0.02)
	Romania	0.36	(0.03)	1.02	(0.02)	0.44	(0.03)	0.29	(0.03)	**0.15**	(0.04)	-0.88	(0.02)	0.05	(0.01)	0.63	(0.01)	1.64	(0.03)
	Russian Federation	0.54	(0.03)	0.89	(0.02)	0.63	(0.03)	0.44	(0.04)	**0.18**	(0.04)	-0.50	(0.02)	0.25	(0.01)	0.72	(0.01)	1.68	(0.02)
	Serbia	0.21	(0.03)	1.02	(0.02)	0.39	(0.03)	0.03	(0.03)	**0.37**	(0.04)	-1.03	(0.02)	-0.10	(0.01)	0.46	(0.01)	1.51	(0.02)
	Shanghai-China	0.20	(0.02)	0.89	(0.02)	0.35	(0.02)	0.06	(0.03)	**0.30**	(0.03)	-0.84	(0.02)	-0.07	(0.01)	0.41	(0.01)	1.32	(0.02)
	Singapore	0.29	(0.02)	0.94	(0.01)	0.45	(0.02)	0.13	(0.02)	**0.31**	(0.03)	-0.84	(0.02)	0.02	(0.01)	0.52	(0.01)	1.47	(0.02)
	Chinese Taipei	-0.11	(0.02)	0.94	(0.01)	-0.03	(0.03)	-0.19	(0.02)	**0.17**	(0.03)	-1.28	(0.02)	-0.36	(0.01)	0.17	(0.01)	1.02	(0.02)
	Thailand	0.57	(0.02)	0.90	(0.01)	0.72	(0.03)	0.46	(0.03)	**0.26**	(0.03)	-0.46	(0.02)	0.25	(0.01)	0.74	(0.01)	1.75	(0.02)
	Tunisia	0.16	(0.03)	1.07	(0.02)	0.28	(0.04)	0.07	(0.03)	**0.21**	(0.04)	-1.21	(0.03)	-0.10	(0.01)	0.51	(0.01)	1.47	(0.02)
	United Arab Emirates	0.59	(0.02)	1.07	(0.01)	0.71	(0.03)	0.48	(0.03)	**0.23**	(0.04)	-0.72	(0.02)	0.27	(0.01)	0.86	(0.01)	1.95	(0.02)
	Uruguay	-0.09	(0.02)	0.98	(0.01)	0.02	(0.03)	-0.18	(0.03)	**0.20**	(0.04)	-1.28	(0.02)	-0.36	(0.01)	0.18	(0.01)	1.11	(0.02)
	Viet Nam	0.01	(0.02)	0.79	(0.01)	0.13	(0.03)	-0.10	(0.02)	**0.24**	(0.03)	-0.94	(0.02)	-0.19	(0.01)	0.20	(0.01)	0.97	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 2/2]

Table III.5.10g

Index of teachers' use of formative assessment and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Australia**	498	(2.4)	509	(2.8)	510	(2.9)	498	(3.0)	0.9	(1.2)	1.1	(0.1)	0.0	(0.0)
	Austria	**522**	(4.0)	512	(4.2)	505	(4.4)	**495**	(5.0)	**-10.7**	(2.2)	**0.7**	(0.1)	1.2	(0.5)
	Belgium	**510**	(5.0)	511	(4.3)	509	(6.0)	**477**	(6.2)	**-11.2**	(2.3)	**0.8**	(0.1)	1.4	(0.6)
	Canada	**527**	(3.2)	528	(3.1)	520	(3.4)	**506**	(2.7)	**-7.8**	(1.3)	**0.9**	(0.1)	0.8	(0.2)
	Chile	**429**	(4.5)	429	(3.9)	424	(4.1)	**411**	(4.2)	**-6.7**	(1.7)	0.9	(0.1)	0.8	(0.4)
	Czech Republic	**508**	(4.4)	514	(4.9)	505	(4.9)	**491**	(4.7)	**-5.9**	(2.5)	0.9	(0.1)	0.3	(0.3)
	Denmark	**512**	(3.7)	509	(3.6)	507	(3.9)	**492**	(4.8)	**-10.4**	(2.2)	**0.8**	(0.1)	1.2	(0.5)
	Estonia	**534**	(3.6)	522	(4.3)	517	(3.5)	**508**	(3.7)	**-10.6**	(2.1)	**0.7**	(0.1)	1.2	(0.5)
	Finland	**532**	(3.4)	526	(3.2)	525	(3.0)	**508**	(3.4)	**-8.5**	(1.4)	**0.8**	(0.1)	0.9	(0.3)
	France	**506**	(4.1)	506	(4.4)	501	(4.8)	**478**	(4.8)	**-12.5**	(2.2)	**0.8**	(0.1)	1.5	(0.5)
	Germany	**533**	(4.7)	535	(4.5)	522	(4.9)	**502**	(4.2)	**-13.1**	(2.6)	**0.8**	(0.1)	1.7	(0.6)
	Greece	**464**	(3.6)	463	(4.6)	457	(3.6)	**439**	(4.4)	**-9.1**	(1.5)	**0.8**	(0.1)	1.2	(0.4)
	Hungary	**488**	(4.7)	493	(5.5)	477	(5.0)	**453**	(5.2)	**-14.9**	(2.5)	**0.7**	(0.1)	2.3	(0.8)
	Iceland	**511**	(4.2)	506	(4.4)	492	(4.8)	**474**	(4.4)	**-12.9**	(2.1)	**0.8**	(0.1)	2.0	(0.6)
	Ireland	**514**	(3.3)	511	(3.5)	500	(4.1)	**482**	(5.0)	**-12.9**	(2.2)	**0.7**	(0.1)	2.0	(0.6)
	Israel	**508**	(6.2)	489	(5.9)	465	(4.9)	**432**	(4.9)	**-26.3**	(2.4)	**0.5**	(0.1)	6.9	(1.2)
	Italy	**500**	(2.6)	497	(2.8)	487	(3.0)	**466**	(2.6)	**-13.0**	(1.1)	**0.7**	(0.0)	1.8	(0.3)
	Japan	529	(4.5)	545	(4.4)	542	(4.9)	532	(4.7)	-0.7	(2.0)	1.1	(0.1)	0.0	(0.0)
	Korea	553	(4.5)	565	(5.2)	556	(5.5)	543	(8.2)	**-6.0**	(2.8)	**0.9**	(0.1)	0.4	(0.4)
	Luxembourg	**504**	(2.8)	501	(3.8)	495	(3.7)	**463**	(3.4)	**-13.7**	(1.6)	**0.7**	(0.1)	2.3	(0.5)
	Mexico	**425**	(1.8)	419	(1.7)	412	(1.9)	**403**	(2.1)	**-7.7**	(0.9)	**0.7**	(0.0)	1.3	(0.3)
	Netherlands	**534**	(4.7)	534	(5.0)	536	(4.5)	**515**	(5.6)	**-7.2**	(2.8)	0.9	(0.1)	0.5	(0.5)
	New Zealand	**508**	(3.6)	510	(4.0)	499	(4.2)	**483**	(4.6)	**-11.4**	(2.0)	**0.7**	(0.1)	1.4	(0.5)
	Norway	485	(5.0)	494	(4.4)	496	(4.6)	487	(3.9)	0.8	(2.2)	1.0	(0.1)	0.0	(0.1)
	Poland	**526**	(5.9)	523	(4.6)	520	(5.6)	**505**	(5.0)	**-8.2**	(2.1)	**0.8**	(0.1)	0.7	(0.3)
	Portugal	**508**	(4.6)	501	(5.0)	488	(4.9)	**463**	(5.4)	**-14.8**	(1.9)	**0.6**	(0.1)	3.3	(0.9)
	Slovak Republic	**509**	(4.9)	496	(4.1)	484	(5.4)	**450**	(6.1)	**-24.2**	(2.6)	**0.6**	(0.1)	5.2	(1.0)
	Slovenia	**518**	(3.7)	511	(5.0)	506	(4.5)	**484**	(4.8)	**-14.1**	(2.7)	**0.8**	(0.1)	2.0	(0.7)
	Spain	**497**	(3.0)	493	(3.2)	487	(3.1)	**467**	(2.8)	**-10.4**	(1.1)	**0.7**	(0.1)	1.7	(0.4)
	Sweden	**487**	(3.5)	496	(3.8)	481	(4.2)	**464**	(4.3)	**-9.1**	(2.0)	**0.8**	(0.1)	1.0	(0.4)
	Switzerland	**552**	(4.1)	542	(4.3)	532	(4.4)	**500**	(4.3)	**-21.2**	(1.9)	**0.6**	(0.1)	4.3	(0.7)
	Turkey	450	(5.9)	451	(6.0)	448	(6.0)	448	(6.0)	-2.2	(2.1)	1.0	(0.1)	0.1	(0.1)
	United Kingdom	493	(4.1)	506	(4.1)	501	(5.1)	490	(4.5)	-1.3	(2.1)	1.0	(0.1)	0.0	(0.1)
	United States	**494**	(4.4)	492	(4.8)	484	(4.6)	**466**	(5.2)	**-10.2**	(1.7)	**0.8**	(0.1)	1.4	(0.5)
	OECD average	**505**	(0.7)	504	(0.7)	497	(0.8)	**479**	(0.8)	**-10.2**	(0.4)	**0.8**	(0.0)	1.6	(0.1)
Partners	**Albania**	400	(3.7)	389	(4.0)	393	(3.9)	391	(4.5)	-3.4	(2.1)	0.9	(0.1)	0.1	(0.2)
	Argentina	**407**	(5.7)	398	(4.1)	390	(5.3)	**370**	(4.1)	**-12.9**	(1.8)	**0.7**	(0.1)	3.4	(0.9)
	Brazil	**407**	(3.1)	404	(3.2)	394	(2.5)	**370**	(2.6)	**-13.2**	(1.4)	**0.7**	(0.1)	3.4	(0.7)
	Bulgaria	**460**	(5.9)	448	(4.8)	438	(4.6)	**426**	(5.2)	**-13.6**	(2.4)	**0.7**	(0.1)	2.2	(0.8)
	Colombia	**386**	(3.7)	384	(3.3)	378	(4.1)	**372**	(4.6)	**-6.8**	(1.8)	0.9	(0.1)	0.9	(0.5)
	Costa Rica	410	(4.6)	408	(4.3)	410	(3.8)	400	(3.9)	**-3.5**	(1.5)	**0.8**	(0.1)	0.3	(0.3)
	Croatia	**480**	(4.0)	482	(4.6)	471	(5.2)	**457**	(5.3)	**-11.1**	(2.2)	**0.7**	(0.1)	1.2	(0.4)
	Cyprus*	**452**	(3.7)	452	(3.4)	443	(3.4)	**428**	(3.3)	**-8.6**	(1.8)	**0.8**	(0.1)	1.0	(0.4)
	Hong Kong-China	**575**	(4.1)	563	(4.1)	573	(4.9)	**543**	(5.5)	**-10.8**	(2.8)	**0.7**	(0.1)	1.1	(0.6)
	Indonesia	379	(6.6)	375	(4.8)	377	(5.2)	372	(4.0)	-2.6	(2.5)	1.0	(0.1)	0.1	(0.2)
	Jordan	391	(4.1)	392	(3.5)	393	(3.5)	380	(4.2)	**-3.4**	(1.5)	1.0	(0.1)	0.3	(0.3)
	Kazakhstan	435	(4.3)	433	(4.4)	434	(4.1)	430	(4.4)	-1.5	(2.1)	1.0	(0.1)	0.0	(0.1)
	Latvia	**511**	(4.2)	497	(4.5)	488	(3.8)	**466**	(5.2)	**-18.8**	(2.5)	**0.6**	(0.1)	3.7	(0.9)
	Liechtenstein	537	(14.6)	541	(13.6)	520	(13.4)	537	(15.7)	-3.7	(7.7)	0.9	(0.4)	0.1	(0.7)
	Lithuania	**497**	(4.5)	482	(5.2)	481	(4.0)	**452**	(4.2)	**-16.3**	(1.6)	**0.6**	(0.1)	3.4	(0.7)
	Macao-China	**551**	(3.5)	548	(3.5)	540	(3.3)	**520**	(3.6)	**-12.6**	(1.9)	**0.8**	(0.1)	1.9	(0.6)
	Malaysia	**443**	(5.9)	424	(3.8)	415	(3.4)	**404**	(3.6)	**-15.9**	(2.3)	**0.7**	(0.1)	3.7	(1.0)
	Montenegro	**429**	(3.1)	417	(3.1)	408	(3.5)	**392**	(3.6)	**-14.5**	(1.7)	**0.6**	(0.1)	3.3	(0.8)
	Peru	**387**	(5.0)	374	(5.2)	371	(4.4)	**356**	(4.3)	**-11.8**	(1.8)	**0.7**	(0.1)	1.7	(0.5)
	Qatar	**393**	(2.8)	386	(2.8)	379	(2.3)	**371**	(2.6)	**-6.0**	(1.2)	**0.8**	(0.0)	0.5	(0.2)
	Romania	**463**	(4.7)	452	(5.1)	443	(4.7)	**424**	(4.7)	**-13.3**	(1.8)	**0.6**	(0.1)	2.8	(0.7)
	Russian Federation	**496**	(4.4)	489	(3.7)	480	(4.4)	**468**	(3.9)	**-12.4**	(1.6)	**0.8**	(0.1)	1.7	(0.4)
	Serbia	**469**	(4.6)	462	(4.4)	448	(4.4)	**420**	(5.1)	**-17.9**	(2.2)	**0.6**	(0.1)	4.1	(0.9)
	Shanghai-China	**619**	(5.3)	618	(5.4)	616	(4.9)	**598**	(4.8)	**-8.8**	(2.4)	0.9	(0.1)	0.6	(0.3)
	Singapore	**585**	(3.6)	586	(3.8)	572	(4.2)	**560**	(3.4)	**-10.9**	(1.9)	**0.9**	(0.1)	1.0	(0.3)
	Chinese Taipei	560	(4.9)	564	(4.5)	567	(4.8)	549	(5.2)	-3.4	(2.0)	1.0	(0.1)	0.1	(0.1)
	Thailand	**443**	(5.3)	436	(4.6)	422	(4.2)	**408**	(3.9)	**-16.1**	(1.8)	**0.8**	(0.1)	3.2	(0.7)
	Tunisia	**404**	(5.6)	391	(4.6)	385	(5.1)	**376**	(4.7)	**-9.8**	(2.0)	**0.7**	(0.1)	1.9	(0.7)
	United Arab Emirates	**450**	(3.7)	440	(3.7)	432	(3.6)	**421**	(3.5)	**-9.2**	(1.4)	**0.7**	(0.0)	1.2	(0.4)
	Uruguay	**426**	(3.6)	425	(3.5)	417	(4.4)	**385**	(3.9)	**-16.3**	(1.9)	**0.7**	(0.1)	3.4	(0.7)
	Viet Nam	520	(6.3)	513	(5.3)	511	(6.2)	503	(6.2)	**-8.1**	(2.8)	**0.8**	(0.1)	0.6	(0.4)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 1/2]

Table III.5.10j Index of teachers' student orientation at school and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Index of teachers' student orientation at school																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	Standard deviation	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	Australia	-0.04	(0.01)	0.95	(0.01)	0.07	(0.02)	-0.16	(0.02)	**0.23**	(0.02)	-1.25	(0.01)	-0.31	(0.01)	0.29	(0.00)	1.11	(0.01)
	Austria	-0.27	(0.02)	1.00	(0.01)	-0.13	(0.03)	-0.42	(0.03)	**0.29**	(0.05)	-1.60	(0.00)	-0.56	(0.01)	0.09	(0.01)	0.98	(0.02)
	Belgium	-0.26	(0.02)	0.98	(0.01)	-0.16	(0.03)	-0.35	(0.02)	**0.19**	(0.03)	-1.57	(0.00)	-0.49	(0.01)	0.07	(0.00)	0.96	(0.02)
	Canada	0.05	(0.02)	0.97	(0.01)	0.17	(0.03)	-0.06	(0.02)	**0.23**	(0.03)	-1.16	(0.01)	-0.22	(0.01)	0.35	(0.00)	1.24	(0.02)
	Chile	0.36	(0.03)	0.96	(0.02)	0.46	(0.03)	0.27	(0.03)	**0.18**	(0.03)	-0.83	(0.02)	0.11	(0.01)	0.64	(0.01)	1.53	(0.03)
	Czech Republic	0.05	(0.02)	0.84	(0.02)	0.16	(0.03)	-0.07	(0.03)	**0.23**	(0.04)	-1.06	(0.02)	-0.08	(0.01)	0.34	(0.01)	1.00	(0.02)
	Denmark	0.19	(0.02)	0.78	(0.01)	0.29	(0.03)	0.09	(0.02)	**0.20**	(0.03)	-0.83	(0.02)	0.05	(0.01)	0.47	(0.01)	1.07	(0.02)
	Estonia	-0.14	(0.02)	0.86	(0.01)	0.02	(0.03)	-0.30	(0.03)	**0.33**	(0.03)	-1.26	(0.02)	-0.34	(0.01)	0.17	(0.01)	0.87	(0.02)
	Finland	-0.06	(0.02)	0.81	(0.01)	0.08	(0.03)	-0.20	(0.02)	**0.28**	(0.02)	-1.12	(0.02)	-0.22	(0.01)	0.24	(0.00)	0.86	(0.02)
	France	-0.40	(0.02)	0.94	(0.01)	-0.29	(0.03)	-0.51	(0.03)	**0.23**	(0.04)	-1.60	(0.00)	-0.69	(0.01)	-0.09	(0.01)	0.77	(0.02)
	Germany	-0.05	(0.02)	0.94	(0.01)	0.08	(0.04)	-0.18	(0.03)	**0.26**	(0.04)	-1.24	(0.02)	-0.30	(0.01)	0.27	(0.01)	1.08	(0.02)
	Greece	-0.16	(0.03)	1.14	(0.02)	0.06	(0.04)	-0.38	(0.04)	**0.44**	(0.05)	-1.60	(0.00)	-0.51	(0.01)	0.17	(0.01)	1.29	(0.03)
	Hungary	-0.41	(0.03)	1.01	(0.02)	-0.24	(0.04)	-0.57	(0.03)	**0.33**	(0.04)	-1.60	(0.00)	-0.85	(0.02)	-0.04	(0.01)	0.86	(0.03)
	Iceland	0.31	(0.02)	0.93	(0.02)	0.39	(0.03)	0.22	(0.02)	**0.16**	(0.04)	-0.86	(0.02)	0.10	(0.01)	0.58	(0.00)	1.41	(0.02)
	Ireland	-0.58	(0.03)	0.94	(0.01)	-0.56	(0.04)	-0.60	(0.03)	0.04	(0.04)	-1.60	(0.00)	-1.10	(0.02)	-0.26	(0.01)	0.65	(0.02)
	Israel	0.22	(0.03)	0.98	(0.02)	0.29	(0.04)	0.15	(0.03)	**0.14**	(0.04)	-1.02	(0.02)	0.00	(0.01)	0.50	(0.01)	1.40	(0.02)
	Italy	-0.03	(0.01)	0.90	(0.01)	0.08	(0.02)	-0.14	(0.02)	**0.21**	(0.02)	-1.15	(0.01)	-0.26	(0.00)	0.25	(0.00)	1.05	(0.01)
	Japan	-0.13	(0.03)	0.92	(0.01)	-0.04	(0.03)	-0.24	(0.03)	**0.20**	(0.03)	-1.35	(0.01)	-0.34	(0.01)	0.21	(0.01)	0.95	(0.02)
	Korea	-0.17	(0.02)	0.97	(0.01)	-0.03	(0.03)	-0.33	(0.03)	**0.30**	(0.04)	-1.46	(0.01)	-0.38	(0.01)	0.18	(0.01)	0.99	(0.02)
	Luxembourg	-0.24	(0.02)	1.11	(0.01)	-0.08	(0.03)	-0.41	(0.02)	**0.33**	(0.04)	-1.60	(0.00)	-0.66	(0.01)	0.13	(0.01)	1.17	(0.02)
	Mexico	0.55	(0.01)	0.98	(0.01)	0.69	(0.02)	0.41	(0.02)	**0.28**	(0.02)	-0.63	(0.01)	0.29	(0.00)	0.78	(0.00)	1.76	(0.01)
	Netherlands	-0.07	(0.03)	1.04	(0.02)	0.03	(0.03)	-0.17	(0.04)	**0.20**	(0.05)	-1.43	(0.02)	-0.35	(0.01)	0.30	(0.01)	1.20	(0.02)
	New Zealand	0.07	(0.03)	1.01	(0.02)	0.15	(0.04)	-0.02	(0.03)	**0.16**	(0.04)	-1.25	(0.02)	-0.18	(0.01)	0.41	(0.01)	1.28	(0.04)
	Norway	0.24	(0.02)	0.82	(0.01)	0.34	(0.03)	0.13	(0.02)	**0.21**	(0.03)	-0.79	(0.02)	0.09	(0.01)	0.50	(0.01)	1.15	(0.02)
	Poland	-0.10	(0.03)	0.98	(0.02)	0.04	(0.04)	-0.24	(0.03)	**0.29**	(0.03)	-1.37	(0.02)	-0.33	(0.01)	0.23	(0.01)	1.07	(0.03)
	Portugal	0.24	(0.04)	1.15	(0.02)	0.42	(0.04)	0.07	(0.04)	**0.35**	(0.04)	-1.22	(0.02)	-0.07	(0.01)	0.60	(0.01)	1.67	(0.03)
	Slovak Republic	0.07	(0.03)	0.99	(0.02)	0.23	(0.04)	-0.11	(0.03)	**0.34**	(0.04)	-1.19	(0.02)	-0.17	(0.01)	0.39	(0.01)	1.26	(0.03)
	Slovenia	-0.30	(0.02)	1.08	(0.01)	-0.03	(0.03)	-0.58	(0.03)	**0.55**	(0.04)	-1.60	(0.00)	-0.78	(0.02)	0.08	(0.01)	1.11	(0.02)
	Spain	-0.14	(0.02)	1.05	(0.01)	-0.01	(0.02)	-0.28	(0.02)	**0.28**	(0.03)	-1.54	(0.01)	-0.41	(0.01)	0.23	(0.01)	1.15	(0.02)
	Sweden	0.44	(0.02)	0.85	(0.02)	0.59	(0.03)	0.29	(0.02)	**0.30**	(0.03)	-0.59	(0.02)	0.26	(0.01)	0.66	(0.01)	1.43	(0.03)
	Switzerland	0.15	(0.02)	0.98	(0.01)	0.24	(0.03)	0.06	(0.03)	**0.18**	(0.04)	-1.14	(0.02)	-0.06	(0.01)	0.50	(0.01)	1.31	(0.02)
	Turkey	0.32	(0.03)	1.04	(0.02)	0.50	(0.04)	0.13	(0.03)	**0.37**	(0.03)	-1.03	(0.02)	0.07	(0.01)	0.65	(0.01)	1.58	(0.03)
	United Kingdom	0.02	(0.02)	0.91	(0.01)	0.07	(0.03)	-0.02	(0.03)	**0.09**	(0.04)	-1.16	(0.01)	-0.18	(0.01)	0.35	(0.01)	1.09	(0.02)
	United States	0.30	(0.03)	0.93	(0.02)	0.40	(0.04)	0.19	(0.03)	**0.20**	(0.04)	-0.86	(0.02)	0.09	(0.01)	0.55	(0.01)	1.41	(0.02)
	OECD average	0.00	(0.00)	0.96	(0.00)	0.13	(0.01)	-0.13	(0.00)	**0.25**	(0.01)	-1.22	(0.00)	-0.26	(0.00)	0.32	(0.00)	1.17	(0.00)
Partners	Albania	0.96	(0.02)	0.91	(0.02)	0.96	(0.03)	0.96	(0.03)	0.00	(0.04)	-0.08	(0.02)	0.69	(0.01)	1.15	(0.01)	2.11	(0.03)
	Argentina	0.44	(0.03)	1.04	(0.02)	0.57	(0.04)	0.32	(0.03)	**0.26**	(0.04)	-0.80	(0.03)	0.13	(0.01)	0.68	(0.01)	1.74	(0.03)
	Brazil	0.41	(0.02)	0.99	(0.01)	0.57	(0.02)	0.25	(0.02)	**0.32**	(0.03)	-0.81	(0.02)	0.14	(0.00)	0.67	(0.00)	1.61	(0.02)
	Bulgaria	0.70	(0.03)	1.06	(0.02)	0.83	(0.04)	0.56	(0.04)	**0.27**	(0.04)	-0.61	(0.03)	0.46	(0.01)	0.95	(0.01)	1.99	(0.02)
	Colombia	0.78	(0.02)	0.82	(0.02)	0.84	(0.03)	0.72	(0.03)	**0.12**	(0.03)	-0.15	(0.02)	0.51	(0.01)	0.95	(0.01)	1.82	(0.03)
	Costa Rica	0.38	(0.03)	0.97	(0.02)	0.50	(0.04)	0.28	(0.04)	**0.22**	(0.04)	-0.80	(0.02)	0.13	(0.01)	0.63	(0.01)	1.55	(0.03)
	Croatia	-0.37	(0.03)	1.00	(0.02)	-0.15	(0.04)	-0.59	(0.03)	**0.43**	(0.04)	-1.60	(0.00)	-0.77	(0.01)	0.01	(0.01)	0.88	(0.03)
	Cyprus*	0.03	(0.02)	1.05	(0.01)	0.21	(0.03)	-0.15	(0.02)	**0.37**	(0.03)	-1.30	(0.02)	-0.26	(0.01)	0.36	(0.01)	1.34	(0.02)
	Hong Kong-China	-0.35	(0.03)	1.03	(0.02)	-0.23	(0.04)	-0.50	(0.03)	**0.27**	(0.04)	-1.60	(0.00)	-0.78	(0.02)	0.03	(0.01)	0.94	(0.03)
	Indonesia	0.70	(0.02)	0.75	(0.02)	0.75	(0.02)	0.65	(0.02)	**0.09**	(0.02)	-0.18	(0.02)	0.50	(0.01)	0.87	(0.00)	1.61	(0.02)
	Jordan	1.01	(0.03)	1.18	(0.02)	1.18	(0.05)	0.86	(0.04)	**0.32**	(0.06)	-0.43	(0.02)	0.70	(0.01)	1.26	(0.01)	2.53	(0.02)
	Kazakhstan	0.93	(0.02)	0.84	(0.02)	1.04	(0.03)	0.81	(0.03)	**0.23**	(0.03)	-0.08	(0.02)	0.69	(0.01)	1.13	(0.01)	1.96	(0.02)
	Latvia	0.24	(0.03)	0.85	(0.02)	0.34	(0.03)	0.14	(0.03)	**0.20**	(0.03)	-0.84	(0.03)	0.05	(0.01)	0.50	(0.01)	1.23	(0.03)
	Liechtenstein	0.15	(0.06)	0.93	(0.05)	0.21	(0.08)	0.08	(0.10)	0.13	(0.13)	-1.12	(0.07)	0.01	(0.04)	0.55	(0.02)	1.20	(0.06)
	Lithuania	0.19	(0.03)	0.94	(0.02)	0.36	(0.03)	0.01	(0.03)	**0.35**	(0.03)	-1.05	(0.02)	0.03	(0.01)	0.47	(0.01)	1.29	(0.03)
	Macao-China	0.12	(0.02)	0.87	(0.01)	0.21	(0.02)	0.03	(0.02)	**0.18**	(0.03)	-1.04	(0.02)	0.01	(0.01)	0.41	(0.00)	1.11	(0.02)
	Malaysia	0.63	(0.03)	0.94	(0.02)	0.68	(0.03)	0.57	(0.03)	**0.11**	(0.04)	-0.53	(0.03)	0.42	(0.01)	0.89	(0.01)	1.73	(0.02)
	Montenegro	0.17	(0.02)	1.11	(0.01)	0.39	(0.03)	-0.03	(0.03)	**0.42**	(0.04)	-1.23	(0.02)	-0.11	(0.01)	0.49	(0.01)	1.56	(0.02)
	Peru	0.60	(0.02)	0.88	(0.02)	0.71	(0.03)	0.49	(0.03)	**0.22**	(0.04)	-0.44	(0.02)	0.35	(0.00)	0.79	(0.01)	1.69	(0.03)
	Qatar	1.08	(0.01)	1.16	(0.01)	1.15	(0.02)	1.02	(0.02)	**0.13**	(0.02)	-0.33	(0.02)	0.76	(0.00)	1.34	(0.00)	2.56	(0.02)
	Romania	0.41	(0.04)	1.15	(0.02)	0.53	(0.04)	0.29	(0.05)	**0.24**	(0.05)	-1.09	(0.02)	0.15	(0.01)	0.76	(0.01)	1.81	(0.02)
	Russian Federation	0.56	(0.02)	0.86	(0.02)	0.69	(0.02)	0.42	(0.03)	**0.27**	(0.03)	-0.46	(0.02)	0.35	(0.00)	0.76	(0.01)	1.58	(0.02)
	Serbia	0.28	(0.03)	1.05	(0.02)	0.51	(0.04)	0.06	(0.03)	**0.45**	(0.04)	-1.06	(0.02)	0.05	(0.01)	0.58	(0.01)	1.54	(0.03)
	Shanghai-China	-0.20	(0.03)	1.09	(0.02)	-0.02	(0.03)	-0.38	(0.03)	**0.36**	(0.04)	-1.60	(0.00)	-0.48	(0.01)	0.10	(0.01)	1.17	(0.03)
	Singapore	0.08	(0.02)	1.02	(0.01)	0.21	(0.03)	-0.05	(0.02)	**0.26**	(0.04)	-1.22	(0.02)	-0.19	(0.01)	0.43	(0.01)	1.30	(0.02)
	Chinese Taipei	-0.02	(0.02)	0.97	(0.01)	0.06	(0.03)	-0.09	(0.02)	**0.15**	(0.03)	-1.29	(0.02)	-0.24	(0.01)	0.33	(0.00)	1.13	(0.02)
	Thailand	0.94	(0.03)	0.98	(0.02)	1.13	(0.04)	0.79	(0.03)	**0.35**	(0.04)	-0.17	(0.02)	0.63	(0.00)	1.12	(0.01)	2.18	(0.02)
	Tunisia	0.59	(0.03)	1.04	(0.02)	0.73	(0.04)	0.47	(0.03)	**0.26**	(0.03)	-0.75	(0.03)	0.37	(0.01)	0.91	(0.01)	1.84	(0.03)
	United Arab Emirates	0.87	(0.02)	1.06	(0.01)	0.96	(0.04)	0.79	(0.03)	**0.16**	(0.04)	-0.41	(0.02)	0.58	(0.00)	1.13	(0.01)	2.19	(0.02)
	Uruguay	0.24	(0.03)	0.97	(0.02)	0.40	(0.03)	0.10	(0.04)	**0.30**	(0.04)	-0.96	(0.02)	0.02	(0.01)	0.47	(0.01)	1.42	(0.03)
	Viet Nam	0.30	(0.02)	0.82	(0.01)	0.44	(0.02)	0.18	(0.02)	**0.26**	(0.03)	-0.74	(0.02)	0.14	(0.01)	0.57	(0.00)	1.22	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.5.10j Index of teachers' student orientation at school and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Australia**	**521**	(3.3)	514	(2.3)	504	(2.6)	**477**	(2.7)	**-17.8**	(1.4)	**0.7**	(0.0)	3.2	(0.5)
	Austria	**535**	(3.8)	530	(4.5)	507	(4.2)	**462**	(4.9)	**-28.6**	(2.1)	**0.5**	(0.1)	9.8	(1.3)
	Belgium	**514**	(4.1)	517	(5.0)	508	(5.4)	**467**	(6.1)	**-21.3**	(2.3)	**0.7**	(0.1)	5.4	(1.1)
	Canada	**539**	(3.1)	536	(3.1)	519	(2.4)	**487**	(3.1)	**-21.1**	(1.4)	**0.7**	(0.0)	5.4	(0.7)
	Chile	**441**	(4.4)	438	(3.4)	420	(4.3)	**393**	(4.1)	**-19.7**	(2.0)	**0.6**	(0.1)	5.6	(1.0)
	Czech Republic	**532**	(4.6)	513	(4.7)	501	(4.6)	**472**	(5.2)	**-28.2**	(2.4)	**0.6**	(0.1)	6.8	(1.1)
	Denmark	**509**	(3.6)	510	(3.8)	509	(4.1)	**491**	(5.0)	**-9.4**	(2.7)	**0.8**	(0.1)	0.8	(0.5)
	Estonia	**532**	(3.6)	531	(4.6)	527	(4.1)	**493**	(4.6)	**-16.6**	(2.1)	**0.7**	(0.1)	3.1	(0.8)
	Finland	**530**	(2.8)	535	(2.7)	530	(3.7)	**496**	(3.2)	**-15.1**	(1.7)	**0.8**	(0.1)	2.2	(0.5)
	France	**518**	(4.5)	511	(3.9)	501	(4.4)	**458**	(5.7)	**-25.6**	(2.2)	**0.6**	(0.1)	6.2	(1.0)
	Germany	**545**	(5.3)	537	(4.7)	522	(4.7)	**488**	(4.3)	**-24.6**	(2.4)	**0.6**	(0.1)	6.3	(1.2)
	Greece	**489**	(3.1)	477	(3.4)	451	(4.3)	**407**	(4.1)	**-27.3**	(1.5)	**0.4**	(0.1)	12.8	(1.3)
	Hungary	**499**	(4.5)	499	(4.9)	481	(5.1)	**433**	(4.7)	**-27.0**	(2.2)	**0.5**	(0.1)	8.9	(1.6)
	Iceland	**511**	(4.4)	510	(3.9)	495	(4.0)	**467**	(4.2)	**-19.6**	(2.4)	**0.8**	(0.1)	3.9	(1.0)
	Ireland	**516**	(3.5)	513	(4.2)	505	(3.7)	**471**	(4.3)	**-19.2**	(2.0)	**0.7**	(0.1)	4.6	(0.9)
	Israel	**508**	(6.4)	495	(4.9)	473	(5.4)	**418**	(5.1)	**-34.9**	(2.2)	**0.5**	(0.1)	11.1	(1.2)
	Italy	**512**	(2.7)	502	(2.8)	489	(2.6)	**447**	(2.7)	**-27.2**	(1.3)	**0.6**	(0.0)	7.1	(0.6)
	Japan	**543**	(4.6)	545	(4.7)	540	(4.4)	**521**	(6.3)	**-10.8**	(2.4)	**0.8**	(0.1)	1.2	(0.5)
	Korea	**575**	(5.2)	566	(5.3)	555	(5.7)	**521**	(7.1)	**-21.6**	(2.7)	**0.6**	(0.1)	4.6	(1.2)
	Luxembourg	**519**	(3.2)	506	(3.0)	489	(3.1)	**446**	(3.2)	**-24.8**	(1.4)	**0.5**	(0.1)	8.6	(0.9)
	Mexico	**432**	(1.8)	424	(1.9)	411	(1.9)	**391**	(1.9)	**-16.0**	(0.9)	**0.6**	(0.0)	4.5	(0.4)
	Netherlands	**554**	(4.6)	550	(4.0)	524	(4.7)	**490**	(5.8)	**-25.1**	(2.0)	**0.5**	(0.1)	9.0	(1.4)
	New Zealand	**519**	(4.0)	516	(3.9)	503	(4.2)	**461**	(4.4)	**-22.3**	(1.9)	**0.6**	(0.1)	5.3	(0.9)
	Norway	**492**	(5.4)	502	(4.5)	495	(4.8)	**473**	(4.6)	**-10.0**	(2.7)	0.9	(0.1)	0.8	(0.4)
	Poland	**533**	(6.4)	528	(5.6)	524	(4.8)	**491**	(4.6)	**-16.1**	(2.2)	**0.7**	(0.1)	3.0	(0.8)
	Portugal	**525**	(4.8)	509	(4.8)	486	(4.4)	**441**	(4.5)	**-28.2**	(1.7)	**0.5**	(0.1)	12.5	(1.5)
	Slovak Republic	**519**	(4.6)	503	(4.9)	486	(5.4)	**432**	(6.1)	**-34.0**	(2.4)	**0.4**	(0.1)	11.5	(1.5)
	Slovenia	**527**	(4.0)	528	(4.0)	504	(4.0)	**459**	(4.5)	**-25.9**	(2.0)	**0.5**	(0.1)	9.4	(1.5)
	Spain	**506**	(3.2)	501	(3.0)	487	(2.8)	**449**	(3.0)	**-21.1**	(1.3)	**0.6**	(0.0)	6.5	(0.8)
	Sweden	**495**	(3.5)	494	(3.9)	484	(4.1)	**456**	(4.4)	**-15.2**	(2.2)	**0.7**	(0.1)	2.1	(0.6)
	Switzerland	**558**	(4.4)	551	(4.1)	528	(4.5)	**489**	(4.5)	**-26.2**	(2.0)	**0.5**	(0.1)	7.6	(1.1)
	Turkey	**480**	(6.3)	463	(7.3)	441	(5.6)	**413**	(4.3)	**-23.8**	(2.4)	**0.5**	(0.1)	7.6	(1.3)
	United Kingdom	**507**	(4.1)	510	(4.5)	500	(4.0)	**474**	(4.7)	**-14.1**	(2.5)	**0.8**	(0.1)	1.9	(0.6)
	United States	**509**	(4.1)	499	(4.9)	484	(4.6)	**445**	(5.3)	**-25.5**	(2.2)	**0.5**	(0.1)	7.0	(1.2)
	OECD average	**516**	(0.7)	511	(0.7)	497	(0.7)	**461**	(0.8)	**-21.9**	(0.4)	**0.6**	(0.0)	6.1	(0.2)
Partners	**Albania**	394	(4.0)	398	(4.9)	393	(4.7)	389	(4.3)	-3.3	(2.2)	1.0	(0.1)	0.1	(0.1)
	Argentina	**415**	(4.8)	402	(4.4)	388	(4.0)	**359**	(3.6)	**-19.8**	(1.5)	**0.5**	(0.1)	7.6	(1.2)
	Brazil	**420**	(3.5)	404	(2.3)	390	(2.6)	**360**	(2.3)	**-22.7**	(1.2)	**0.5**	(0.1)	8.6	(0.8)
	Bulgaria	**491**	(5.2)	455	(4.5)	432	(4.4)	**393**	(4.1)	**-33.3**	(2.0)	**0.3**	(0.1)	14.7	(1.6)
	Colombia	**392**	(4.1)	388	(3.6)	379	(4.0)	**361**	(3.9)	**-15.0**	(1.9)	**0.7**	(0.1)	2.8	(0.8)
	Costa Rica	**419**	(3.9)	418	(4.5)	410	(5.3)	**380**	(3.7)	**-15.3**	(1.7)	**0.6**	(0.1)	4.7	(1.0)
	Croatia	**490**	(4.3)	486	(4.6)	477	(5.0)	**438**	(5.4)	**-21.2**	(2.3)	**0.5**	(0.1)	5.8	(1.4)
	Cyprus*	**475**	(4.0)	461	(3.2)	438	(3.2)	**401**	(3.1)	**-26.9**	(1.6)	**0.5**	(0.1)	9.7	(1.1)
	Hong Kong-China	**585**	(4.1)	582	(4.8)	566	(4.4)	**521**	(5.9)	**-23.4**	(2.4)	**0.6**	(0.1)	6.4	(1.2)
	Indonesia	**386**	(5.8)	383	(4.9)	374	(4.6)	**360**	(4.2)	**-13.0**	(2.2)	**0.8**	(0.1)	1.9	(0.7)
	Jordan	**409**	(3.4)	396	(3.9)	382	(4.4)	**368**	(3.6)	**-12.5**	(1.3)	**0.6**	(0.1)	3.9	(0.9)
	Kazakhstan	**451**	(4.4)	438	(4.3)	428	(4.4)	**415**	(4.6)	**-15.9**	(2.5)	**0.6**	(0.1)	3.6	(1.1)
	Latvia	**506**	(4.5)	506	(3.8)	489	(5.0)	**461**	(4.2)	**-20.8**	(2.3)	**0.6**	(0.1)	4.7	(1.0)
	Liechtenstein	**565**	(14.0)	537	(11.7)	533	(13.5)	**499**	(14.2)	**-23.3**	(7.4)	0.8	(0.3)	5.3	(3.2)
	Lithuania	**507**	(4.0)	491	(4.2)	477	(4.8)	**438**	(4.3)	**-26.3**	(1.8)	**0.5**	(0.1)	7.7	(1.0)
	Macao-China	**564**	(3.1)	547	(2.8)	535	(3.5)	**512**	(3.2)	**-23.3**	(2.1)	**0.6**	(0.1)	4.8	(0.9)
	Malaysia	**453**	(5.5)	431	(3.2)	415	(3.5)	**386**	(3.7)	**-27.5**	(2.1)	**0.5**	(0.1)	10.5	(1.5)
	Montenegro	**436**	(3.4)	424	(3.6)	412	(3.0)	**373**	(3.3)	**-20.8**	(1.6)	**0.6**	(0.1)	7.9	(1.1)
	Peru	**393**	(5.1)	385	(4.5)	368	(4.0)	**340**	(4.8)	**-23.9**	(2.0)	**0.6**	(0.1)	6.6	(0.9)
	Qatar	**426**	(2.3)	392	(2.6)	359	(2.2)	**352**	(2.4)	**-23.0**	(1.0)	**0.5**	(0.0)	7.3	(0.7)
	Romania	**478**	(5.1)	451	(5.6)	439	(4.9)	**413**	(4.5)	**-20.0**	(1.8)	**0.5**	(0.1)	8.1	(1.4)
	Russian Federation	**506**	(4.1)	495	(4.1)	478	(4.9)	**454**	(4.2)	**-22.2**	(2.3)	**0.6**	(0.1)	5.0	(1.0)
	Serbia	**484**	(5.9)	466	(3.7)	443	(4.2)	**407**	(4.8)	**-27.2**	(2.2)	**0.5**	(0.1)	9.9	(1.3)
	Shanghai-China	**641**	(3.9)	622	(4.8)	611	(4.8)	**575**	(5.7)	**-22.2**	(1.8)	**0.5**	(0.1)	5.8	(0.9)
	Singapore	**597**	(3.5)	590	(4.2)	570	(3.3)	**546**	(4.1)	**-20.8**	(1.6)	**0.6**	(0.1)	4.2	(0.7)
	Chinese Taipei	**595**	(4.9)	580	(5.4)	556	(5.0)	**508**	(4.3)	**-34.4**	(2.1)	**0.5**	(0.1)	8.6	(0.9)
	Thailand	**461**	(4.8)	433	(4.5)	418	(4.2)	**398**	(4.0)	**-23.9**	(1.9)	**0.4**	(0.1)	8.3	(1.1)
	Tunisia	**420**	(5.4)	402	(5.2)	380	(4.6)	**353**	(4.0)	**-23.7**	(2.1)	**0.4**	(0.1)	10.5	(1.4)
	United Arab Emirates	**472**	(4.0)	448	(3.4)	422	(3.4)	**399**	(2.7)	**-25.3**	(1.4)	**0.4**	(0.0)	9.3	(0.9)
	Uruguay	**435**	(4.1)	431	(3.8)	413	(3.7)	**374**	(4.4)	**-24.7**	(2.1)	**0.6**	(0.1)	7.6	(1.2)
	Viet Nam	**523**	(6.0)	516	(5.4)	510	(6.8)	**499**	(5.6)	**-13.3**	(2.2)	**0.7**	(0.1)	1.6	(0.5)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
StatLink `http://dx.doi.org/10.1787/888932963977`

[Part 1/2]

Table III.5.10l Index of teacher-directed instruction at school and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Index of teacher-directed instruction at school																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	Standard deviation	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	0.04	(0.01)	1.02	(0.01)	0.13	(0.02)	-0.06	(0.02)	**0.19**	(0.02)	-1.21	(0.02)	-0.26	(0.00)	0.31	(0.00)	1.31	(0.02)
	Austria	-0.10	(0.02)	0.93	(0.02)	0.00	(0.03)	-0.19	(0.03)	**0.19**	(0.04)	-1.26	(0.02)	-0.35	(0.01)	0.18	(0.01)	1.04	(0.02)
	Belgium	-0.10	(0.02)	0.95	(0.02)	-0.07	(0.02)	-0.14	(0.03)	**0.07**	(0.03)	-1.26	(0.02)	-0.37	(0.00)	0.16	(0.01)	1.07	(0.02)
	Canada	0.20	(0.02)	1.06	(0.01)	0.29	(0.02)	0.12	(0.02)	**0.17**	(0.03)	-1.09	(0.02)	-0.09	(0.00)	0.47	(0.01)	1.52	(0.02)
	Chile	0.37	(0.03)	1.07	(0.02)	0.40	(0.03)	0.33	(0.04)	0.07	(0.04)	-0.94	(0.02)	0.02	(0.01)	0.66	(0.01)	1.73	(0.02)
	Czech Republic	0.13	(0.03)	0.90	(0.02)	0.20	(0.03)	0.06	(0.04)	**0.14**	(0.05)	-0.96	(0.03)	-0.12	(0.01)	0.38	(0.01)	1.24	(0.02)
	Denmark	-0.29	(0.02)	0.86	(0.02)	-0.20	(0.03)	-0.37	(0.03)	**0.17**	(0.04)	-1.34	(0.02)	-0.52	(0.01)	-0.04	(0.01)	0.74	(0.02)
	Estonia	-0.16	(0.02)	0.86	(0.02)	-0.11	(0.03)	-0.21	(0.03)	**0.10**	(0.04)	-1.17	(0.02)	-0.42	(0.00)	0.04	(0.01)	0.92	(0.03)
	Finland	-0.12	(0.02)	0.88	(0.01)	-0.06	(0.02)	-0.19	(0.02)	**0.12**	(0.02)	-1.18	(0.02)	-0.37	(0.01)	0.10	(0.01)	0.95	(0.02)
	France	-0.05	(0.03)	1.07	(0.02)	0.06	(0.03)	-0.14	(0.03)	**0.20**	(0.04)	-1.38	(0.03)	-0.34	(0.01)	0.25	(0.01)	1.28	(0.02)
	Germany	-0.05	(0.02)	0.88	(0.02)	0.05	(0.03)	-0.15	(0.03)	**0.20**	(0.04)	-1.11	(0.02)	-0.28	(0.01)	0.19	(0.01)	1.01	(0.02)
	Greece	0.21	(0.02)	1.04	(0.02)	0.26	(0.04)	0.16	(0.03)	0.10	(0.05)	-1.04	(0.03)	-0.08	(0.01)	0.46	(0.01)	1.50	(0.02)
	Hungary	-0.01	(0.03)	0.97	(0.03)	0.08	(0.04)	-0.09	(0.04)	**0.17**	(0.04)	-1.18	(0.04)	-0.28	(0.01)	0.26	(0.01)	1.16	(0.03)
	Iceland	-0.07	(0.02)	0.93	(0.02)	0.05	(0.03)	-0.19	(0.03)	**0.24**	(0.04)	-1.14	(0.03)	-0.33	(0.01)	0.13	(0.01)	1.08	(0.03)
	Ireland	-0.08	(0.02)	0.98	(0.02)	-0.05	(0.03)	-0.12	(0.03)	**0.08**	(0.04)	-1.31	(0.02)	-0.34	(0.01)	0.19	(0.01)	1.13	(0.02)
	Israel	0.23	(0.03)	1.02	(0.02)	0.21	(0.04)	0.24	(0.03)	-0.03	(0.04)	-0.99	(0.03)	-0.09	(0.01)	0.48	(0.01)	1.51	(0.03)
	Italy	-0.16	(0.02)	0.98	(0.01)	-0.11	(0.02)	-0.21	(0.02)	**0.11**	(0.02)	-1.37	(0.02)	-0.42	(0.00)	0.12	(0.00)	1.03	(0.01)
	Japan	-0.26	(0.02)	0.90	(0.02)	-0.23	(0.03)	-0.29	(0.03)	0.05	(0.03)	-1.32	(0.02)	-0.52	(0.01)	-0.01	(0.01)	0.82	(0.02)
	Korea	-0.31	(0.02)	0.89	(0.02)	-0.30	(0.03)	-0.32	(0.02)	0.02	(0.04)	-1.36	(0.02)	-0.56	(0.01)	-0.07	(0.01)	0.75	(0.03)
	Luxembourg	-0.12	(0.02)	1.07	(0.02)	-0.05	(0.03)	-0.19	(0.02)	**0.14**	(0.03)	-1.42	(0.03)	-0.39	(0.01)	0.18	(0.01)	1.16	(0.02)
	Mexico	0.34	(0.02)	1.07	(0.01)	0.41	(0.02)	0.27	(0.02)	**0.13**	(0.02)	-0.93	(0.01)	-0.02	(0.00)	0.59	(0.00)	1.73	(0.01)
	Netherlands	-0.12	(0.03)	0.97	(0.02)	-0.05	(0.04)	-0.18	(0.03)	**0.12**	(0.04)	-1.28	(0.02)	-0.35	(0.01)	0.12	(0.01)	1.05	(0.04)
	New Zealand	-0.06	(0.03)	1.03	(0.02)	0.04	(0.04)	-0.16	(0.03)	**0.20**	(0.05)	-1.30	(0.03)	-0.37	(0.01)	0.19	(0.01)	1.25	(0.03)
	Norway	-0.21	(0.03)	0.94	(0.02)	-0.11	(0.03)	-0.31	(0.03)	**0.20**	(0.04)	-1.33	(0.03)	-0.48	(0.01)	0.02	(0.01)	0.95	(0.02)
	Poland	-0.22	(0.02)	0.94	(0.02)	-0.18	(0.03)	-0.25	(0.03)	**0.07**	(0.03)	-1.33	(0.02)	-0.52	(0.01)	0.02	(0.01)	0.96	(0.03)
	Portugal	0.27	(0.03)	1.06	(0.02)	0.32	(0.03)	0.21	(0.04)	**0.11**	(0.03)	-1.00	(0.02)	-0.05	(0.01)	0.51	(0.01)	1.61	(0.02)
	Slovak Republic	-0.04	(0.02)	0.94	(0.02)	0.01	(0.03)	-0.10	(0.03)	**0.11**	(0.03)	-1.16	(0.02)	-0.32	(0.01)	0.20	(0.01)	1.12	(0.03)
	Slovenia	0.10	(0.02)	0.99	(0.01)	0.16	(0.03)	0.04	(0.03)	**0.12**	(0.04)	-1.08	(0.02)	-0.20	(0.01)	0.35	(0.01)	1.35	(0.03)
	Spain	-0.13	(0.02)	0.99	(0.01)	-0.09	(0.03)	-0.17	(0.02)	**0.08**	(0.03)	-1.33	(0.01)	-0.39	(0.01)	0.14	(0.00)	1.08	(0.02)
	Sweden	-0.04	(0.02)	0.99	(0.02)	0.10	(0.03)	-0.19	(0.03)	**0.29**	(0.04)	-1.21	(0.02)	-0.32	(0.01)	0.17	(0.01)	1.19	(0.03)
	Switzerland	-0.04	(0.02)	0.90	(0.01)	0.03	(0.02)	-0.11	(0.02)	**0.14**	(0.03)	-1.14	(0.02)	-0.28	(0.01)	0.22	(0.01)	1.06	(0.02)
	Turkey	0.39	(0.03)	1.17	(0.02)	0.40	(0.04)	0.38	(0.04)	0.02	(0.04)	-1.00	(0.03)	0.00	(0.01)	0.67	(0.01)	1.88	(0.02)
	United Kingdom	0.15	(0.02)	0.94	(0.01)	0.20	(0.03)	0.09	(0.03)	**0.11**	(0.03)	-0.99	(0.02)	-0.11	(0.01)	0.39	(0.01)	1.30	(0.02)
	United States	0.29	(0.03)	1.07	(0.02)	0.35	(0.03)	0.23	(0.04)	**0.12**	(0.04)	-0.99	(0.02)	-0.04	(0.01)	0.50	(0.01)	1.71	(0.03)
	OECD average	0.00	(0.00)	0.98	(0.00)	0.06	(0.01)	-0.06	(0.01)	**0.13**	(0.01)	-1.18	(0.00)	-0.28	(0.00)	0.25	(0.00)	1.21	(0.00)
Partners	**Albania**	1.01	(0.02)	1.00	(0.01)	0.98	(0.03)	1.05	(0.03)	-0.07	(0.04)	-0.20	(0.02)	0.62	(0.01)	1.28	(0.01)	2.36	(0.02)
	Argentina	0.28	(0.02)	1.05	(0.02)	0.31	(0.03)	0.25	(0.03)	0.06	(0.04)	-0.97	(0.03)	-0.04	(0.01)	0.51	(0.01)	1.63	(0.03)
	Brazil	0.29	(0.02)	1.08	(0.01)	0.34	(0.02)	0.25	(0.03)	**0.10**	(0.03)	-1.01	(0.02)	-0.05	(0.01)	0.53	(0.00)	1.70	(0.02)
	Bulgaria	0.55	(0.03)	1.05	(0.02)	0.52	(0.04)	0.58	(0.03)	-0.07	(0.04)	-0.70	(0.03)	0.22	(0.01)	0.80	(0.01)	1.88	(0.02)
	Colombia	0.43	(0.03)	1.04	(0.01)	0.45	(0.03)	0.42	(0.03)	0.03	(0.04)	-0.81	(0.02)	0.07	(0.01)	0.66	(0.01)	1.80	(0.03)
	Costa Rica	0.15	(0.03)	1.06	(0.02)	0.22	(0.04)	0.10	(0.04)	**0.12**	(0.04)	-1.14	(0.02)	-0.17	(0.01)	0.41	(0.01)	1.51	(0.03)
	Croatia	0.06	(0.02)	0.98	(0.02)	0.15	(0.03)	-0.03	(0.03)	**0.17**	(0.04)	-1.12	(0.02)	-0.25	(0.01)	0.32	(0.01)	1.30	(0.02)
	Cyprus*	0.22	(0.02)	1.10	(0.02)	0.20	(0.03)	0.25	(0.03)	-0.05	(0.04)	-1.08	(0.03)	-0.08	(0.01)	0.47	(0.01)	1.59	(0.02)
	Hong Kong-China	-0.32	(0.02)	0.97	(0.02)	-0.27	(0.03)	-0.38	(0.03)	**0.11**	(0.04)	-1.46	(0.03)	-0.58	(0.01)	-0.07	(0.01)	0.84	(0.03)
	Indonesia	0.38	(0.02)	0.88	(0.02)	0.38	(0.03)	0.38	(0.03)	-0.01	(0.03)	-0.56	(0.02)	0.06	(0.00)	0.44	(0.01)	1.58	(0.03)
	Jordan	0.70	(0.03)	1.25	(0.02)	0.66	(0.05)	0.74	(0.04)	-0.09	(0.06)	-0.86	(0.03)	0.32	(0.01)	1.07	(0.01)	2.28	(0.01)
	Kazakhstan	0.93	(0.03)	0.98	(0.01)	0.89	(0.03)	0.97	(0.03)	**-0.08**	(0.04)	-0.23	(0.02)	0.53	(0.01)	1.18	(0.01)	2.25	(0.02)
	Latvia	0.25	(0.03)	0.89	(0.03)	0.27	(0.03)	0.22	(0.04)	0.05	(0.04)	-0.81	(0.04)	-0.03	(0.01)	0.46	(0.01)	1.37	(0.03)
	Liechtenstein	0.18	(0.07)	0.93	(0.07)	0.18	(0.10)	0.19	(0.11)	-0.01	(0.15)	-0.97	(0.09)	0.01	(0.02)	0.44	(0.03)	1.27	(0.08)
	Lithuania	0.15	(0.02)	0.90	(0.02)	0.21	(0.03)	0.09	(0.03)	**0.11**	(0.03)	-0.92	(0.02)	-0.11	(0.01)	0.37	(0.01)	1.27	(0.02)
	Macao-China	-0.05	(0.02)	0.92	(0.01)	0.02	(0.03)	-0.11	(0.02)	**0.13**	(0.03)	-1.12	(0.02)	-0.34	(0.01)	0.15	(0.01)	1.12	(0.02)
	Malaysia	0.20	(0.02)	0.93	(0.02)	0.16	(0.03)	0.23	(0.03)	**-0.06**	(0.03)	-0.90	(0.02)	-0.10	(0.01)	0.42	(0.01)	1.37	(0.02)
	Montenegro	0.25	(0.02)	1.13	(0.01)	0.29	(0.03)	0.20	(0.03)	**0.10**	(0.04)	-1.13	(0.03)	-0.06	(0.01)	0.49	(0.01)	1.69	(0.02)
	Peru	0.30	(0.02)	1.02	(0.02)	0.38	(0.03)	0.22	(0.02)	**0.16**	(0.04)	-0.89	(0.02)	-0.07	(0.01)	0.49	(0.01)	1.65	(0.02)
	Qatar	0.48	(0.01)	1.23	(0.01)	0.49	(0.02)	0.48	(0.02)	0.01	(0.03)	-1.01	(0.02)	0.11	(0.00)	0.76	(0.01)	2.08	(0.01)
	Romania	0.26	(0.03)	1.08	(0.02)	0.28	(0.03)	0.23	(0.04)	0.05	(0.04)	-1.03	(0.02)	-0.07	(0.01)	0.48	(0.01)	1.65	(0.03)
	Russian Federation	0.78	(0.03)	1.00	(0.01)	0.81	(0.04)	0.75	(0.04)	0.06	(0.06)	-0.40	(0.02)	0.42	(0.01)	1.00	(0.01)	2.12	(0.02)
	Serbia	0.26	(0.03)	1.08	(0.02)	0.35	(0.04)	0.17	(0.04)	**0.18**	(0.05)	-1.04	(0.02)	-0.07	(0.01)	0.50	(0.01)	1.64	(0.03)
	Shanghai-China	0.54	(0.03)	1.05	(0.02)	0.59	(0.03)	0.49	(0.04)	**0.10**	(0.04)	-0.68	(0.02)	0.16	(0.01)	0.75	(0.01)	1.95	(0.02)
	Singapore	0.20	(0.02)	0.96	(0.02)	0.23	(0.02)	0.17	(0.02)	**0.06**	(0.03)	-0.91	(0.02)	-0.10	(0.01)	0.39	(0.01)	1.44	(0.02)
	Chinese Taipei	-0.09	(0.02)	1.04	(0.02)	-0.07	(0.03)	-0.11	(0.03)	0.04	(0.04)	-1.31	(0.03)	-0.36	(0.01)	0.12	(0.01)	1.21	(0.02)
	Thailand	0.58	(0.02)	0.99	(0.01)	0.57	(0.03)	0.59	(0.03)	-0.01	(0.04)	-0.56	(0.02)	0.19	(0.01)	0.76	(0.01)	1.93	(0.02)
	Tunisia	0.20	(0.03)	1.19	(0.02)	0.23	(0.04)	0.18	(0.03)	0.05	(0.04)	-1.26	(0.03)	-0.15	(0.01)	0.49	(0.01)	1.72	(0.02)
	United Arab Emirates	0.55	(0.02)	1.14	(0.01)	0.52	(0.03)	0.59	(0.03)	-0.07	(0.04)	-0.84	(0.02)	0.18	(0.01)	0.85	(0.01)	2.03	(0.02)
	Uruguay	0.10	(0.03)	1.02	(0.02)	0.16	(0.03)	0.06	(0.03)	**0.10**	(0.04)	-1.10	(0.03)	-0.24	(0.01)	0.35	(0.01)	1.41	(0.02)
	Viet Nam	0.29	(0.02)	0.81	(0.01)	0.34	(0.03)	0.25	(0.02)	**0.08**	(0.03)	-0.63	(0.02)	0.02	(0.00)	0.44	(0.01)	1.34	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 2/2]

Table III.5.10l **Index of teacher-directed instruction at school and mathematics performance, by national quarters of this index**

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	Australia	**487**	(2.2)	504	(2.7)	509	(2.7)	**517**	(3.1)	**10.3**	(1.1)	**1.3**	(0.1)	1.2	(0.3)
	Austria	**514**	(4.4)	516	(4.2)	508	(4.7)	**495**	(6.0)	**-7.8**	(2.0)	0.9	(0.1)	0.7	(0.3)
	Belgium	**511**	(6.3)	512	(5.0)	495	(5.6)	**487**	(5.7)	**-8.3**	(3.2)	0.9	(0.1)	0.8	(0.6)
	Canada	**510**	(3.1)	524	(2.8)	526	(3.0)	**521**	(2.8)	**3.6**	(1.1)	**1.2**	(0.1)	0.2	(0.1)
	Chile	**432**	(4.5)	435	(4.2)	425	(4.3)	**400**	(4.1)	**-10.5**	(1.7)	**0.8**	(0.1)	1.9	(0.6)
	Czech Republic	**509**	(4.4)	513	(4.5)	505	(4.4)	**491**	(4.6)	**-7.9**	(2.4)	0.9	(0.1)	0.6	(0.4)
	Denmark	**508**	(3.6)	508	(3.8)	508	(4.1)	**495**	(3.6)	**-6.7**	(1.9)	0.9	(0.1)	0.5	(0.3)
	Estonia	**526**	(2.9)	524	(3.5)	523	(3.0)	**509**	(4.4)	**-7.6**	(2.1)	**0.8**	(0.1)	0.7	(0.3)
	Finland	**517**	(2.8)	521	(3.2)	525	(3.5)	**528**	(3.2)	3.3	(1.8)	1.1	(0.1)	0.1	(0.1)
	France	**509**	(4.7)	507	(4.5)	501	(4.3)	**471**	(4.3)	**-13.6**	(2.0)	**0.7**	(0.1)	2.3	(0.7)
	Germany	524	(4.6)	529	(4.9)	527	(5.0)	512	(4.1)	**-6.1**	(2.6)	1.0	(0.1)	0.3	(0.3)
	Greece	455	(3.9)	459	(3.8)	459	(3.9)	449	(4.6)	-1.6	(1.9)	0.9	(0.1)	0.0	(0.1)
	Hungary	472	(5.0)	488	(4.7)	481	(4.8)	470	(4.8)	-1.8	(2.3)	0.9	(0.1)	0.0	(0.1)
	Iceland	493	(4.3)	506	(4.3)	495	(4.0)	489	(4.1)	-2.4	(2.2)	1.1	(0.1)	0.1	(0.1)
	Ireland	502	(3.4)	508	(4.2)	503	(4.9)	492	(4.5)	**-4.7**	(2.0)	0.9	(0.1)	0.3	(0.3)
	Israel	**478**	(6.4)	481	(6.3)	478	(5.8)	**455**	(4.9)	**-6.6**	(2.5)	0.9	(0.1)	0.4	(0.3)
	Italy	**492**	(2.5)	495	(2.9)	489	(3.1)	**473**	(2.4)	**-7.2**	(1.1)	**0.8**	(0.0)	0.6	(0.2)
	Japan	**524**	(5.1)	542	(4.6)	542	(4.8)	**540**	(4.8)	**7.5**	(2.3)	**1.2**	(0.1)	0.5	(0.3)
	Korea	542	(5.2)	560	(5.1)	557	(6.5)	558	(6.9)	**6.2**	(2.9)	**1.2**	(0.1)	0.3	(0.3)
	Luxembourg	**500**	(3.3)	503	(3.5)	486	(4.5)	**472**	(3.0)	**-8.3**	(1.4)	**0.8**	(0.1)	0.9	(0.3)
	Mexico	**420**	(1.9)	418	(1.7)	414	(2.0)	**406**	(2.2)	**-5.8**	(0.9)	**0.9**	(0.0)	0.7	(0.2)
	Netherlands	**518**	(4.2)	533	(5.2)	535	(6.5)	**532**	(5.0)	3.7	(2.3)	1.2	(0.1)	0.2	(0.2)
	New Zealand	497	(3.7)	502	(4.1)	503	(4.2)	497	(4.7)	-2.6	(1.8)	1.0	(0.1)	0.1	(0.1)
	Norway	480	(4.1)	499	(4.5)	498	(4.7)	486	(4.3)	0.6	(2.1)	1.1	(0.1)	0.0	(0.1)
	Poland	518	(4.8)	522	(5.1)	521	(5.7)	514	(4.6)	-0.8	(2.2)	1.0	(0.1)	0.0	(0.1)
	Portugal	493	(4.6)	492	(5.0)	496	(5.4)	479	(6.2)	**-5.8**	(2.3)	**0.8**	(0.1)	0.5	(0.4)
	Slovak Republic	**499**	(5.4)	498	(5.0)	481	(5.8)	**461**	(5.0)	**-16.9**	(2.6)	**0.7**	(0.1)	2.6	(0.8)
	Slovenia	500	(3.3)	514	(4.5)	506	(4.7)	498	(5.4)	-2.4	(2.2)	1.0	(0.1)	0.1	(0.1)
	Spain	**488**	(3.2)	493	(2.7)	488	(3.1)	**474**	(2.9)	**-5.4**	(1.5)	0.9	(0.1)	0.4	(0.2)
	Sweden	481	(3.9)	492	(4.0)	483	(4.5)	473	(4.3)	-3.8	(2.0)	1.0	(0.1)	0.2	(0.2)
	Switzerland	**547**	(4.5)	543	(3.7)	527	(4.7)	**508**	(4.3)	**-16.8**	(1.8)	**0.7**	(0.1)	2.6	(0.5)
	Turkey	448	(6.1)	453	(6.9)	452	(5.7)	444	(5.5)	-1.4	(1.7)	1.0	(0.1)	0.0	(0.1)
	United Kingdom	488	(4.6)	503	(5.4)	509	(4.4)	489	(5.1)	0.5	(2.1)	1.2	(0.1)	0.0	(0.0)
	United States	475	(4.3)	487	(4.3)	491	(4.8)	482	(5.0)	0.9	(1.5)	1.1	(0.1)	0.0	(0.1)
	OECD average	**496**	(0.7)	503	(0.8)	498	(0.8)	**487**	(0.8)	**-3.7**	(0.4)	**1.0**	(0.0)	0.6	(0.1)
Partners	Albania	396	(4.4)	386	(4.0)	399	(4.0)	393	(4.8)	-0.7	(2.3)	1.0	(0.1)	0.0	(0.1)
	Argentina	**401**	(5.2)	402	(4.8)	390	(4.2)	**371**	(4.3)	**-11.0**	(1.8)	**0.7**	(0.1)	2.4	(0.8)
	Brazil	**407**	(3.3)	402	(2.7)	394	(2.8)	**371**	(2.7)	**-12.2**	(1.2)	**0.7**	(0.0)	3.0	(0.6)
	Bulgaria	443	(4.6)	444	(5.1)	449	(5.4)	433	(5.1)	-3.9	(2.3)	0.9	(0.1)	0.2	(0.2)
	Colombia	**388**	(3.5)	381	(4.1)	382	(3.9)	**369**	(4.2)	**-7.7**	(1.6)	0.8	(0.1)	1.2	(0.5)
	Costa Rica	**415**	(3.9)	415	(4.6)	406	(4.4)	**391**	(4.6)	**-9.9**	(1.7)	**0.7**	(0.1)	2.4	(0.8)
	Croatia	**479**	(4.0)	479	(4.7)	472	(4.2)	**460**	(5.5)	**-8.3**	(1.9)	**0.8**	(0.1)	0.9	(0.4)
	Cyprus*	438	(3.1)	451	(3.4)	444	(3.1)	443	(3.5)	2.4	(1.7)	1.1	(0.1)	0.1	(0.1)
	Hong Kong-China	548	(4.7)	571	(5.0)	572	(5.3)	562	(5.4)	2.1	(2.7)	**1.3**	(0.1)	0.0	(0.1)
	Indonesia	**366**	(5.4)	370	(4.7)	380	(5.7)	**386**	(5.0)	**7.1**	(1.9)	**1.2**	(0.1)	0.8	(0.4)
	Jordan	379	(4.1)	393	(3.8)	395	(3.7)	387	(4.3)	**3.1**	(1.3)	**1.2**	(0.1)	0.3	(0.2)
	Kazakhstan	425	(4.8)	429	(4.4)	439	(4.4)	437	(4.2)	**4.4**	(1.8)	**1.2**	(0.1)	0.4	(0.3)
	Latvia	**499**	(3.4)	492	(4.3)	489	(6.0)	**482**	(4.7)	**-7.5**	(2.4)	**0.8**	(0.1)	0.7	(0.4)
	Liechtenstein	538	(11.3)	547	(14.2)	503	(15.7)	548	(14.9)	-0.7	(7.6)	0.8	(0.3)	0.0	(0.5)
	Lithuania	**483**	(4.7)	486	(4.2)	478	(4.3)	**467**	(4.6)	**-8.1**	(2.1)	0.9	(0.1)	0.7	(0.4)
	Macao-China	535	(3.3)	543	(3.7)	541	(3.2)	541	(3.4)	0.3	(2.2)	1.1	(0.1)	0.0	(0.0)
	Malaysia	**427**	(5.0)	428	(4.3)	419	(3.7)	**411**	(3.7)	**-6.6**	(1.8)	1.0	(0.1)	0.6	(0.3)
	Montenegro	**435**	(3.7)	415	(3.5)	411	(3.7)	**383**	(3.2)	**-17.0**	(1.6)	**0.6**	(0.1)	5.4	(1.0)
	Peru	**386**	(5.2)	383	(4.9)	366	(5.0)	**350**	(3.7)	**-13.6**	(1.3)	**0.7**	(0.1)	2.8	(0.5)
	Qatar	378	(2.2)	382	(2.7)	392	(2.9)	376	(2.5)	0.4	(1.1)	1.1	(0.1)	0.0	(0.0)
	Romania	**452**	(5.0)	452	(5.0)	451	(5.3)	**426**	(4.1)	**-9.6**	(1.5)	**0.8**	(0.1)	1.6	(0.5)
	Russian Federation	**490**	(4.2)	491	(4.7)	485	(4.8)	**467**	(3.8)	**-9.8**	(1.5)	**0.9**	(0.1)	1.3	(0.4)
	Serbia	**464**	(4.5)	456	(5.1)	449	(4.6)	**429**	(5.1)	**-11.8**	(1.9)	**0.7**	(0.1)	2.0	(0.6)
	Shanghai-China	614	(5.5)	613	(4.4)	616	(4.6)	608	(4.5)	-1.3	(2.0)	1.0	(0.1)	0.0	(0.1)
	Singapore	572	(4.2)	577	(4.0)	579	(4.6)	574	(3.9)	1.4	(1.9)	1.1	(0.1)	0.0	(0.1)
	Chinese Taipei	550	(4.9)	574	(4.6)	559	(5.7)	557	(4.3)	-1.0	(1.9)	**1.2**	(0.1)	0.0	(0.0)
	Thailand	427	(5.0)	432	(4.7)	430	(4.6)	421	(4.2)	**-3.6**	(1.7)	1.1	(0.1)	0.2	(0.2)
	Tunisia	**405**	(5.0)	393	(5.4)	385	(5.0)	**372**	(4.5)	**-9.7**	(1.5)	**0.6**	(0.1)	2.3	(0.7)
	United Arab Emirates	**439**	(3.5)	441	(3.7)	437	(3.9)	**425**	(3.4)	**-3.4**	(1.3)	0.9	(0.1)	0.2	(0.2)
	Uruguay	**430**	(4.1)	422	(3.5)	413	(3.9)	**385**	(4.9)	**-16.9**	(2.3)	**0.6**	(0.1)	4.0	(1.0)
	Viet Nam	**503**	(6.5)	507	(6.0)	514	(5.4)	**522**	(5.3)	**7.3**	(2.7)	1.2	(0.1)	0.5	(0.3)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 1/2]

Table III.5.10n Index of disciplinary climate at school and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Index of disciplinary climate																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	Standard deviation	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	Australia	-0.14	(0.02)	1.03	(0.01)	-0.14	(0.02)	-0.13	(0.02)	-0.01	(0.03)	-1.45	(0.02)	-0.45	(0.02)	0.18	(0.02)	1.17	(0.02)
	Austria	0.21	(0.03)	1.08	(0.02)	0.20	(0.04)	0.22	(0.04)	-0.02	(0.05)	-1.22	(0.04)	-0.15	(0.04)	0.65	(0.04)	1.55	(0.02)
	Belgium	0.04	(0.03)	1.04	(0.01)	-0.01	(0.03)	0.09	(0.03)	**-0.09**	(0.03)	-1.27	(0.03)	-0.31	(0.02)	0.37	(0.04)	1.37	(0.03)
	Canada	0.01	(0.01)	0.97	(0.01)	-0.05	(0.02)	0.07	(0.02)	**-0.12**	(0.03)	-1.21	(0.02)	-0.28	(0.01)	0.28	(0.02)	1.25	(0.02)
	Chile	-0.25	(0.03)	0.90	(0.01)	-0.27	(0.03)	-0.23	(0.03)	-0.04	(0.04)	-1.35	(0.03)	-0.56	(0.03)	0.00	(0.03)	0.91	(0.03)
	Czech Republic	0.10	(0.04)	1.09	(0.02)	0.03	(0.04)	0.17	(0.05)	**-0.14**	(0.06)	-1.30	(0.04)	-0.27	(0.05)	0.48	(0.04)	1.48	(0.04)
	Denmark	-0.01	(0.03)	0.89	(0.02)	0.01	(0.03)	-0.03	(0.04)	0.04	(0.03)	-1.13	(0.04)	-0.27	(0.02)	0.25	(0.03)	1.11	(0.05)
	Estonia	0.20	(0.03)	0.96	(0.01)	0.14	(0.03)	0.25	(0.03)	**-0.11**	(0.03)	-1.02	(0.03)	-0.13	(0.04)	0.52	(0.03)	1.43	(0.03)
	Finland	-0.33	(0.02)	0.86	(0.01)	-0.31	(0.02)	-0.34	(0.03)	0.02	(0.03)	-1.38	(0.03)	-0.59	(0.02)	-0.09	(0.02)	0.76	(0.03)
	France	-0.29	(0.03)	1.05	(0.01)	-0.29	(0.03)	-0.29	(0.04)	0.00	(0.04)	-1.59	(0.03)	-0.69	(0.03)	0.03	(0.04)	1.08	(0.03)
	Germany	-0.02	(0.02)	1.02	(0.01)	-0.10	(0.03)	0.05	(0.03)	**-0.15**	(0.04)	-1.30	(0.03)	-0.38	(0.03)	0.30	(0.04)	1.29	(0.03)
	Greece	-0.24	(0.03)	0.90	(0.02)	-0.27	(0.03)	-0.22	(0.03)	-0.05	(0.04)	-1.33	(0.03)	-0.54	(0.03)	-0.03	(0.03)	0.92	(0.04)
	Hungary	0.05	(0.04)	1.02	(0.02)	-0.01	(0.04)	0.11	(0.05)	**-0.11**	(0.05)	-1.26	(0.04)	-0.26	(0.03)	0.41	(0.05)	1.33	(0.03)
	Iceland	-0.03	(0.02)	0.91	(0.02)	0.00	(0.03)	-0.06	(0.02)	0.07	(0.04)	-1.14	(0.03)	-0.25	(0.01)	0.15	(0.02)	1.13	(0.03)
	Ireland	0.13	(0.03)	1.10	(0.02)	0.08	(0.05)	0.18	(0.03)	-0.10	(0.05)	-1.31	(0.04)	-0.23	(0.04)	0.55	(0.03)	1.50	(0.03)
	Israel	0.26	(0.03)	1.07	(0.01)	0.21	(0.04)	0.31	(0.04)	**-0.10**	(0.05)	-1.12	(0.04)	-0.11	(0.03)	0.66	(0.04)	1.61	(0.02)
	Italy	-0.04	(0.02)	0.99	(0.01)	-0.12	(0.02)	0.04	(0.02)	**-0.16**	(0.02)	-1.30	(0.02)	-0.39	(0.02)	0.30	(0.02)	1.22	(0.01)
	Japan	0.67	(0.03)	0.90	(0.02)	0.58	(0.03)	0.76	(0.03)	**-0.18**	(0.03)	-0.52	(0.04)	0.41	(0.04)	1.02	(0.02)	1.75	(0.02)
	Korea	0.19	(0.03)	0.87	(0.01)	0.10	(0.04)	0.29	(0.03)	**-0.18**	(0.04)	-0.88	(0.03)	-0.13	(0.03)	0.44	(0.03)	1.33	(0.04)
	Luxembourg	-0.02	(0.02)	1.09	(0.01)	-0.09	(0.03)	0.04	(0.02)	**-0.13**	(0.03)	-1.40	(0.03)	-0.39	(0.02)	0.32	(0.02)	1.38	(0.02)
	Mexico	0.06	(0.01)	0.91	(0.01)	-0.01	(0.01)	0.12	(0.01)	**-0.13**	(0.02)	-1.08	(0.01)	-0.24	(0.01)	0.33	(0.02)	1.22	(0.02)
	Netherlands	-0.16	(0.03)	0.92	(0.02)	-0.15	(0.04)	-0.18	(0.04)	0.03	(0.04)	-1.27	(0.03)	-0.49	(0.03)	0.08	(0.03)	1.04	(0.04)
	New Zealand	-0.25	(0.03)	1.00	(0.02)	-0.25	(0.03)	-0.24	(0.04)	-0.01	(0.05)	-1.49	(0.04)	-0.56	(0.02)	0.04	(0.04)	1.03	(0.03)
	Norway	-0.08	(0.03)	0.87	(0.02)	-0.04	(0.03)	-0.11	(0.03)	**0.07**	(0.03)	-1.14	(0.04)	-0.29	(0.02)	0.12	(0.03)	1.02	(0.04)
	Poland	0.08	(0.04)	1.05	(0.02)	0.01	(0.04)	0.14	(0.05)	**-0.13**	(0.04)	-1.30	(0.06)	-0.23	(0.04)	0.48	(0.04)	1.36	(0.03)
	Portugal	0.00	(0.03)	0.97	(0.01)	-0.06	(0.04)	0.07	(0.03)	**-0.13**	(0.04)	-1.22	(0.04)	-0.30	(0.03)	0.28	(0.04)	1.25	(0.03)
	Slovak Republic	-0.13	(0.03)	0.93	(0.02)	-0.22	(0.03)	-0.03	(0.04)	**-0.19**	(0.04)	-1.29	(0.04)	-0.44	(0.03)	0.14	(0.03)	1.05	(0.04)
	Slovenia	0.06	(0.02)	1.04	(0.01)	-0.03	(0.03)	0.16	(0.03)	**-0.19**	(0.05)	-1.26	(0.02)	-0.30	(0.02)	0.43	(0.04)	1.39	(0.03)
	Spain	-0.04	(0.02)	1.03	(0.01)	-0.12	(0.03)	0.03	(0.03)	**-0.15**	(0.03)	-1.35	(0.03)	-0.37	(0.02)	0.29	(0.03)	1.26	(0.02)
	Sweden	-0.20	(0.03)	0.89	(0.01)	-0.18	(0.03)	-0.23	(0.03)	0.05	(0.04)	-1.29	(0.03)	-0.49	(0.03)	0.02	(0.02)	0.96	(0.04)
	Switzerland	0.07	(0.03)	0.98	(0.01)	0.06	(0.03)	0.09	(0.03)	-0.03	(0.03)	-1.17	(0.04)	-0.27	(0.02)	0.41	(0.04)	1.32	(0.03)
	Turkey	-0.09	(0.02)	0.91	(0.01)	-0.17	(0.03)	0.00	(0.03)	**-0.17**	(0.04)	-1.22	(0.03)	-0.35	(0.02)	0.13	(0.02)	1.08	(0.03)
	United Kingdom	0.15	(0.02)	1.07	(0.01)	0.14	(0.04)	0.16	(0.02)	-0.02	(0.04)	-1.24	(0.03)	-0.17	(0.03)	0.55	(0.02)	1.45	(0.03)
	United States	0.06	(0.03)	1.00	(0.02)	0.05	(0.03)	0.08	(0.04)	-0.02	(0.05)	-1.19	(0.04)	-0.25	(0.02)	0.36	(0.05)	1.35	(0.03)
	OECD average	0.00	(0.00)	0.98	(0.00)	-0.04	(0.01)	0.04	(0.01)	**-0.08**	(0.01)	-1.24	(0.01)	-0.32	(0.00)	0.31	(0.01)	1.25	(0.01)
Partners	Albania	0.39	(0.03)	0.96	(0.01)	0.38	(0.04)	0.40	(0.03)	-0.02	(0.04)	-0.86	(0.03)	0.09	(0.04)	0.76	(0.04)	1.58	(0.02)
	Argentina	-0.51	(0.03)	0.88	(0.02)	-0.48	(0.04)	-0.53	(0.03)	0.05	(0.04)	-1.57	(0.03)	-0.80	(0.03)	-0.28	(0.03)	0.63	(0.05)
	Brazil	-0.34	(0.02)	0.94	(0.01)	-0.38	(0.02)	-0.31	(0.02)	**-0.07**	(0.02)	-1.49	(0.02)	-0.66	(0.02)	-0.10	(0.02)	0.86	(0.03)
	Bulgaria	-0.20	(0.03)	0.91	(0.01)	-0.28	(0.04)	-0.12	(0.03)	**-0.16**	(0.04)	-1.36	(0.04)	-0.45	(0.04)	0.11	(0.03)	0.90	(0.03)
	Colombia	-0.05	(0.02)	0.85	(0.02)	-0.08	(0.03)	-0.02	(0.03)	-0.06	(0.04)	-1.12	(0.03)	-0.28	(0.02)	0.19	(0.03)	1.01	(0.03)
	Costa Rica	0.04	(0.03)	0.88	(0.02)	-0.01	(0.03)	0.08	(0.04)	**-0.10**	(0.04)	-1.04	(0.03)	-0.25	(0.02)	0.28	(0.03)	1.17	(0.05)
	Croatia	-0.12	(0.03)	1.02	(0.01)	-0.18	(0.04)	-0.06	(0.05)	**-0.11**	(0.05)	-1.43	(0.04)	-0.43	(0.04)	0.21	(0.03)	1.17	(0.04)
	Cyprus*	-0.19	(0.02)	0.92	(0.01)	-0.28	(0.03)	-0.09	(0.02)	**-0.19**	(0.03)	-1.32	(0.03)	-0.46	(0.02)	0.03	(0.01)	0.99	(0.03)
	Hong Kong-China	0.29	(0.02)	0.97	(0.01)	0.20	(0.03)	0.38	(0.03)	**-0.18**	(0.04)	-0.93	(0.04)	-0.02	(0.02)	0.55	(0.03)	1.55	(0.03)
	Indonesia	0.12	(0.02)	0.88	(0.01)	0.08	(0.03)	0.17	(0.03)	**-0.10**	(0.04)	-0.96	(0.03)	-0.17	(0.02)	0.36	(0.03)	1.27	(0.03)
	Jordan	-0.23	(0.03)	1.07	(0.01)	-0.33	(0.05)	-0.14	(0.04)	**-0.19**	(0.06)	-1.51	(0.03)	-0.64	(0.03)	0.03	(0.04)	1.20	(0.04)
	Kazakhstan	0.72	(0.03)	0.99	(0.01)	0.65	(0.04)	0.78	(0.04)	**-0.14**	(0.04)	-0.64	(0.04)	0.45	(0.05)	1.20	(0.06)	1.85	(0.00)
	Latvia	0.08	(0.04)	0.95	(0.02)	0.02	(0.04)	0.14	(0.04)	**-0.12**	(0.04)	-1.11	(0.05)	-0.24	(0.03)	0.38	(0.06)	1.30	(0.04)
	Liechtenstein	0.25	(0.07)	1.01	(0.05)	0.25	(0.10)	0.23	(0.12)	0.02	(0.16)	-1.03	(0.12)	-0.07	(0.08)	0.59	(0.11)	1.53	(0.08)
	Lithuania	0.28	(0.03)	1.06	(0.01)	0.22	(0.03)	0.33	(0.04)	**-0.11**	(0.04)	-1.09	(0.03)	-0.09	(0.03)	0.66	(0.04)	1.63	(0.03)
	Macao-China	0.10	(0.01)	0.79	(0.01)	0.01	(0.02)	0.20	(0.02)	**-0.19**	(0.02)	-0.86	(0.02)	-0.14	(0.01)	0.29	(0.02)	1.11	(0.02)
	Malaysia	-0.21	(0.02)	0.83	(0.01)	-0.27	(0.03)	-0.15	(0.02)	**-0.12**	(0.03)	-1.21	(0.03)	-0.49	(0.02)	0.00	(0.02)	0.85	(0.03)
	Montenegro	-0.02	(0.02)	1.01	(0.01)	-0.12	(0.03)	0.08	(0.03)	**-0.19**	(0.04)	-1.31	(0.03)	-0.34	(0.02)	0.35	(0.03)	1.23	(0.02)
	Peru	-0.04	(0.02)	0.78	(0.01)	-0.08	(0.03)	0.00	(0.03)	**-0.08**	(0.03)	-1.01	(0.03)	-0.26	(0.02)	0.20	(0.03)	0.93	(0.03)
	Qatar	-0.32	(0.01)	1.12	(0.01)	-0.37	(0.02)	-0.28	(0.02)	**-0.09**	(0.02)	-1.67	(0.02)	-0.77	(0.02)	-0.01	(0.02)	1.17	(0.02)
	Romania	0.01	(0.04)	1.00	(0.01)	-0.05	(0.05)	0.07	(0.04)	**-0.12**	(0.04)	-1.22	(0.04)	-0.36	(0.04)	0.30	(0.05)	1.34	(0.04)
	Russian Federation	0.35	(0.03)	1.02	(0.02)	0.32	(0.04)	0.38	(0.04)	-0.06	(0.04)	-0.98	(0.04)	0.01	(0.04)	0.74	(0.04)	1.62	(0.03)
	Serbia	-0.16	(0.03)	1.02	(0.02)	-0.24	(0.04)	-0.07	(0.04)	**-0.17**	(0.04)	-1.45	(0.04)	-0.46	(0.04)	0.16	(0.03)	1.13	(0.04)
	Shanghai-China	0.57	(0.03)	0.95	(0.01)	0.47	(0.03)	0.67	(0.03)	**-0.20**	(0.03)	-0.64	(0.03)	0.25	(0.03)	0.94	(0.03)	1.75	(0.03)
	Singapore	0.21	(0.02)	1.00	(0.01)	0.06	(0.03)	0.36	(0.02)	**-0.30**	(0.03)	-1.09	(0.03)	-0.09	(0.02)	0.56	(0.02)	1.46	(0.02)
	Chinese Taipei	-0.01	(0.03)	0.98	(0.01)	-0.10	(0.03)	0.08	(0.04)	**-0.18**	(0.05)	-1.23	(0.03)	-0.28	(0.02)	0.19	(0.03)	1.28	(0.04)
	Thailand	0.07	(0.02)	0.77	(0.01)	-0.08	(0.02)	0.18	(0.02)	**-0.26**	(0.03)	-0.88	(0.03)	-0.14	(0.01)	0.26	(0.02)	1.02	(0.03)
	Tunisia	-0.43	(0.02)	0.87	(0.01)	-0.45	(0.03)	-0.42	(0.03)	-0.03	(0.04)	-1.47	(0.03)	-0.74	(0.02)	-0.23	(0.03)	0.71	(0.03)
	United Arab Emirates	0.02	(0.02)	1.04	(0.01)	-0.10	(0.03)	0.13	(0.03)	**-0.23**	(0.05)	-1.29	(0.02)	-0.36	(0.02)	0.37	(0.03)	1.37	(0.02)
	Uruguay	-0.16	(0.03)	0.98	(0.01)	-0.20	(0.03)	-0.13	(0.03)	-0.07	(0.04)	-1.40	(0.03)	-0.48	(0.04)	0.15	(0.03)	1.07	(0.03)
	Viet Nam	0.36	(0.02)	0.70	(0.01)	0.37	(0.02)	0.36	(0.02)	0.01	(0.02)	-0.49	(0.03)	0.11	(0.02)	0.58	(0.02)	1.25	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.5.10n

Index of disciplinary climate at school and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Australia**	**465**	(2.6)	491	(2.7)	515	(2.9)	**546**	(3.1)	**29.7**	(1.4)	**1.89**	(0.1)	10.4	(0.9)
	Austria	**487**	(5.4)	502	(4.2)	513	(4.8)	**531**	(4.9)	**14.6**	(2.3)	**1.53**	(0.1)	3.0	(0.9)
	Belgium	**492**	(4.1)	516	(4.1)	528	(3.8)	**550**	(3.5)	**58.0**	(5.3)	**20.57**	(1.7)	1.6	(0.1)
	Canada	**496**	(2.9)	514	(3.5)	528	(3.1)	**545**	(2.9)	**18.0**	(1.2)	**1.59**	(0.1)	4.0	(0.5)
	Chile	**412**	(5.0)	424	(4.1)	423	(4.0)	**432**	(4.1)	**8.2**	(2.1)	**1.30**	(0.1)	0.8	(0.5)
	Czech Republic	**474**	(5.5)	494	(4.8)	516	(5.2)	**534**	(5.4)	**20.3**	(2.3)	**1.81**	(0.2)	6.0	(1.3)
	Denmark	**489**	(3.7)	500	(4.1)	507	(4.2)	**524**	(3.4)	**13.8**	(2.0)	**1.40**	(0.1)	2.2	(0.6)
	Estonia	**498**	(3.6)	515	(4.5)	529	(3.8)	**540**	(3.7)	**16.8**	(1.9)	**1.55**	(0.1)	4.0	(0.9)
	Finland	**509**	(3.7)	523	(4.0)	523	(3.4)	**534**	(3.6)	**8.6**	(2.0)	**1.32**	(0.1)	0.8	(0.4)
	France	**482**	(4.2)	482	(4.9)	503	(4.5)	**526**	(4.3)	**16.4**	(1.8)	**1.25**	(0.1)	3.2	(0.7)
	Germany	**499**	(5.4)	515	(4.8)	530	(5.8)	**548**	(4.3)	**17.5**	(2.1)	**1.65**	(0.2)	3.8	(0.9)
	Greece	**430**	(4.1)	446	(4.5)	459	(3.8)	**486**	(3.9)	**21.6**	(2.0)	**1.75**	(0.1)	5.0	(0.9)
	Hungary	**451**	(4.6)	461	(4.8)	484	(5.6)	**517**	(6.7)	**25.2**	(2.7)	**1.60**	(0.2)	8.0	(1.5)
	Iceland	**481**	(4.8)	496	(5.0)	501	(4.8)	**507**	(4.3)	**12.4**	(2.6)	**1.32**	(0.1)	1.5	(0.6)
	Ireland	**472**	(4.6)	493	(4.7)	514	(4.0)	**526**	(4.2)	**19.6**	(1.8)	**1.82**	(0.2)	6.5	(1.1)
	Israel	**426**	(6.5)	470	(5.8)	497	(6.1)	**502**	(6.1)	**26.2**	(2.2)	**2.07**	(0.1)	7.4	(1.1)
	Italy	**464**	(2.6)	477	(2.6)	497	(3.0)	**511**	(3.1)	**17.9**	(1.3)	**1.50**	(0.1)	3.7	(0.5)
	Japan	**504**	(5.6)	539	(5.1)	548	(4.5)	**557**	(5.1)	**22.7**	(2.6)	**1.84**	(0.1)	4.9	(1.0)
	Korea	**531**	(6.1)	541	(5.0)	563	(6.2)	**581**	(7.3)	**22.2**	(3.2)	**1.50**	(0.1)	3.9	(1.1)
	Luxembourg	**469**	(3.6)	480	(4.0)	499	(3.3)	**513**	(3.1)	**15.2**	(1.4)	**1.41**	(0.1)	3.1	(0.6)
	Mexico	**401**	(2.1)	411	(1.6)	417	(1.8)	**428**	(2.0)	**11.3**	(1.0)	**1.41**	(0.1)	1.9	(0.3)
	Netherlands	**507**	(5.5)	529	(5.6)	534	(5.5)	**548**	(5.6)	**15.5**	(2.9)	**1.44**	(0.1)	2.7	(0.9)
	New Zealand	**463**	(3.6)	486	(4.9)	507	(4.7)	**543**	(4.8)	**29.8**	(2.3)	**1.80**	(0.2)	9.2	(1.4)
	Norway	**470**	(4.7)	490	(4.3)	497	(4.9)	**507**	(4.8)	**15.5**	(2.2)	**1.44**	(0.1)	2.2	(0.6)
	Poland	**502**	(5.2)	513	(4.3)	525	(5.3)	**534**	(6.7)	**11.8**	(2.3)	**1.35**	(0.1)	1.9	(0.7)
	Portugal	**475**	(5.6)	483	(5.9)	488	(5.4)	**513**	(4.5)	**14.5**	(2.3)	**1.34**	(0.1)	2.3	(0.7)
	Slovak Republic	**453**	(6.0)	479	(5.7)	495	(5.2)	**510**	(4.8)	**22.7**	(2.8)	**1.82**	(0.1)	4.5	(1.1)
	Slovenia	**474**	(3.3)	487	(3.7)	519	(5.3)	**536**	(4.8)	**23.5**	(1.8)	**1.61**	(0.1)	7.3	(1.1)
	Spain	**467**	(3.6)	480	(3.4)	492	(2.6)	**505**	(3.2)	**13.6**	(1.6)	**1.51**	(0.1)	2.6	(0.6)
	Sweden	**464**	(4.0)	483	(4.5)	484	(4.3)	**497**	(4.1)	**11.5**	(2.3)	**1.37**	(0.1)	1.3	(0.5)
	Switzerland	**512**	(4.4)	528	(4.0)	539	(4.5)	**546**	(5.0)	**12.6**	(2.2)	**1.40**	(0.1)	1.8	(0.6)
	Turkey	**425**	(4.9)	435	(5.2)	458	(7.3)	**479**	(7.7)	**21.8**	(2.8)	**1.45**	(0.1)	4.9	(1.1)
	United Kingdom	**466**	(4.2)	485	(4.6)	513	(4.7)	**526**	(5.1)	**23.0**	(1.9)	**1.80**	(0.1)	6.9	(1.1)
	United States	**447**	(4.9)	477	(4.8)	499	(5.5)	**515**	(4.7)	**25.3**	(1.9)	**1.91**	(0.1)	8.1	(1.1)
	OECD average	**472**	(0.8)	490	(0.8)	504	(0.8)	**521**	(0.8)	**19.3**	(0.4)	**2.13**	(0.1)	4.2	(0.2)
Partners	**Albania**	389	(4.6)	399	(4.6)	395	(5.3)	392	(4.9)	0.8	(2.6)	1.09	(0.1)	0.0	(0.1)
	Argentina	**380**	(4.9)	386	(4.9)	393	(4.5)	**403**	(5.2)	**9.2**	(2.5)	**1.35**	(0.1)	1.2	(0.6)
	Brazil	**376**	(2.9)	391	(3.0)	397	(2.9)	**407**	(3.0)	**11.6**	(1.4)	**1.43**	(0.1)	2.0	(0.5)
	Bulgaria	**407**	(5.6)	438	(5.1)	452	(5.5)	**469**	(6.0)	**25.8**	(3.1)	**1.92**	(0.2)	6.4	(1.4)
	Colombia	**368**	(4.2)	378	(4.3)	381	(4.1)	**394**	(3.9)	**11.6**	(1.9)	**1.44**	(0.1)	1.8	(0.6)
	Costa Rica	**400**	(3.4)	406	(3.8)	404	(5.9)	**416**	(5.2)	**7.1**	(2.6)	1.09	(0.1)	0.8	(0.6)
	Croatia	**438**	(3.9)	460	(4.6)	480	(5.3)	**513**	(7.4)	**26.7**	(2.8)	**1.83**	(0.1)	9.6	(1.7)
	Cyprus*	**423**	(3.4)	438	(3.4)	450	(3.3)	**465**	(3.4)	**15.3**	(1.9)	**1.58**	(0.1)	2.4	(0.6)
	Hong Kong-China	**542**	(5.7)	559	(4.4)	575	(4.4)	**578**	(4.5)	**14.1**	(2.3)	**1.49**	(0.1)	2.1	(0.7)
	Indonesia	360	(5.9)	386	(4.9)	387	(5.5)	369	(4.1)	3.8	(2.1)	**1.54**	(0.1)	0.2	(0.2)
	Jordan	**367**	(4.3)	378	(3.9)	400	(4.1)	**407**	(5.9)	**14.4**	(2.2)	**1.55**	(0.1)	4.1	(1.1)
	Kazakhstan	**411**	(3.8)	429	(4.9)	442	(4.8)	**446**	(4.5)	**14.7**	(1.7)	**1.65**	(0.1)	4.3	(0.9)
	Latvia	**478**	(4.6)	485	(4.8)	494	(5.5)	**503**	(5.3)	**10.6**	(2.1)	**1.41**	(0.1)	1.5	(0.6)
	Liechtenstein	520	(14.1)	536	(18.5)	536	(15.0)	554	(15.4)	**14.4**	(6.7)	1.14	(0.4)	2.4	(2.2)
	Lithuania	**445**	(3.8)	471	(5.1)	491	(4.0)	**506**	(4.5)	**21.1**	(2.0)	**1.99**	(0.1)	6.3	(1.1)
	Macao-China	**524**	(3.3)	533	(3.5)	544	(3.2)	**559**	(3.1)	**16.2**	(2.1)	**1.38**	(0.1)	1.9	(0.5)
	Malaysia	**388**	(4.7)	415	(4.5)	432	(4.1)	**452**	(4.6)	**29.4**	(2.1)	**2.06**	(0.2)	9.3	(1.4)
	Montenegro	**390**	(3.5)	406	(3.2)	420	(3.7)	**428**	(4.2)	**13.3**	(1.7)	**1.54**	(0.1)	2.6	(0.7)
	Peru	**359**	(5.2)	369	(5.5)	376	(4.7)	**382**	(4.7)	**11.1**	(2.7)	**1.50**	(0.1)	1.1	(0.5)
	Qatar	**353**	(2.9)	353	(2.3)	399	(2.8)	**422**	(2.8)	**23.1**	(1.2)	**1.56**	(0.1)	6.8	(0.7)
	Romania	**424**	(5.1)	431	(4.8)	452	(4.9)	**474**	(5.8)	**20.5**	(2.2)	**1.56**	(0.1)	6.5	(1.3)
	Russian Federation	**462**	(3.6)	478	(5.0)	491	(4.4)	**500**	(4.7)	**14.6**	(1.7)	**1.52**	(0.1)	3.1	(0.7)
	Serbia	**422**	(5.6)	444	(4.4)	457	(5.6)	**475**	(5.6)	**19.7**	(2.3)	**1.65**	(0.1)	4.8	(1.1)
	Shanghai-China	**572**	(5.4)	598	(5.8)	631	(4.5)	**649**	(4.4)	**33.4**	(2.5)	**1.96**	(0.1)	9.9	(1.2)
	Singapore	**527**	(3.6)	564	(3.7)	598	(3.6)	**614**	(3.3)	**33.7**	(1.9)	**2.38**	(0.1)	10.7	(1.1)
	Chinese Taipei	**527**	(4.9)	551	(5.5)	564	(5.4)	**598**	(5.9)	**26.7**	(2.6)	**1.61**	(0.1)	5.3	(1.0)
	Thailand	**404**	(4.6)	425	(4.7)	441	(4.3)	**440**	(4.7)	**17.6**	(2.2)	**1.60**	(0.2)	2.8	(0.7)
	Tunisia	**382**	(4.4)	383	(5.0)	391	(5.3)	**400**	(5.1)	**6.4**	(1.9)	1.13	(0.1)	0.5	(0.3)
	United Arab Emirates	**402**	(3.2)	432	(3.6)	451	(4.3)	**458**	(4.6)	**19.7**	(1.8)	**1.85**	(0.1)	5.5	(0.9)
	Uruguay	**386**	(3.8)	405	(4.7)	422	(5.1)	**435**	(4.2)	**19.0**	(2.2)	**1.64**	(0.1)	4.5	(1.0)
	Viet Nam	**499**	(6.4)	513	(5.6)	519	(5.9)	**516**	(7.2)	**8.4**	(3.3)	**1.25**	(0.1)	0.5	(0.4)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.
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[Part 1/2]

Table III.5.10o Index of teacher-student relations at school and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Index of teacher-student relations																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	Standard deviation	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	Australia	0.15	(0.01)	0.95	(0.01)	0.14	(0.02)	0.16	(0.02)	-0.02	(0.03)	-0.96	(0.01)	-0.12	(0.01)	0.23	(0.02)	1.45	(0.02)
	Austria	-0.14	(0.03)	1.05	(0.01)	-0.09	(0.03)	-0.19	(0.04)	**0.10**	(0.05)	-1.40	(0.03)	-0.59	(0.04)	0.17	(0.02)	1.27	(0.03)
	Belgium	-0.11	(0.02)	0.91	(0.01)	-0.11	(0.02)	-0.10	(0.02)	-0.01	(0.03)	-1.16	(0.02)	-0.37	(0.02)	0.01	(0.01)	1.09	(0.02)
	Canada	0.28	(0.01)	1.00	(0.01)	0.29	(0.02)	0.27	(0.02)	0.02	(0.02)	-0.90	(0.02)	-0.06	(0.01)	0.45	(0.02)	1.64	(0.02)
	Chile	0.19	(0.02)	1.06	(0.01)	0.23	(0.03)	0.16	(0.03)	0.08	(0.04)	-1.10	(0.03)	-0.21	(0.02)	0.48	(0.03)	1.60	(0.03)
	Czech Republic	-0.16	(0.03)	0.92	(0.01)	-0.17	(0.04)	-0.15	(0.03)	-0.02	(0.04)	-1.23	(0.03)	-0.46	(0.04)	0.01	(0.02)	1.05	(0.04)
	Denmark	0.15	(0.02)	0.92	(0.01)	0.14	(0.02)	0.15	(0.03)	-0.01	(0.04)	-0.95	(0.02)	-0.12	(0.02)	0.27	(0.04)	1.40	(0.03)
	Estonia	-0.08	(0.02)	0.89	(0.02)	-0.05	(0.03)	-0.11	(0.03)	0.06	(0.04)	-1.13	(0.02)	-0.33	(0.03)	0.05	(0.02)	1.10	(0.04)
	Finland	-0.09	(0.02)	0.90	(0.01)	-0.11	(0.02)	-0.08	(0.03)	-0.03	(0.03)	-1.17	(0.02)	-0.31	(0.03)	0.01	(0.02)	1.10	(0.03)
	France	-0.17	(0.02)	0.96	(0.02)	-0.20	(0.03)	-0.15	(0.02)	-0.05	(0.04)	-1.29	(0.03)	-0.55	(0.03)	0.03	(0.02)	1.11	(0.04)
	Germany	-0.22	(0.02)	1.02	(0.01)	-0.19	(0.03)	-0.24	(0.03)	0.05	(0.04)	-1.44	(0.03)	-0.62	(0.02)	0.06	(0.04)	1.13	(0.04)
	Greece	-0.13	(0.02)	1.00	(0.01)	-0.12	(0.03)	-0.15	(0.03)	0.02	(0.04)	-1.30	(0.02)	-0.54	(0.04)	0.09	(0.02)	1.22	(0.03)
	Hungary	-0.02	(0.02)	0.99	(0.02)	0.02	(0.03)	-0.05	(0.03)	0.07	(0.04)	-1.19	(0.03)	-0.33	(0.03)	0.15	(0.02)	1.32	(0.04)
	Iceland	0.21	(0.02)	1.06	(0.02)	0.18	(0.03)	0.24	(0.03)	-0.06	(0.04)	-1.03	(0.03)	-0.11	(0.02)	0.28	(0.03)	1.71	(0.04)
	Ireland	0.03	(0.02)	0.95	(0.01)	-0.03	(0.03)	0.09	(0.03)	**-0.11**	(0.04)	-1.08	(0.03)	-0.26	(0.02)	0.13	(0.02)	1.33	(0.04)
	Israel	0.08	(0.03)	1.13	(0.02)	0.09	(0.04)	0.07	(0.03)	0.02	(0.04)	-1.28	(0.03)	-0.33	(0.03)	0.34	(0.04)	1.60	(0.05)
	Italy	-0.16	(0.01)	1.00	(0.01)	-0.17	(0.02)	-0.15	(0.02)	-0.01	(0.02)	-1.34	(0.01)	-0.55	(0.02)	0.09	(0.01)	1.16	(0.02)
	Japan	-0.17	(0.02)	1.02	(0.02)	-0.15	(0.03)	-0.20	(0.03)	0.05	(0.04)	-1.38	(0.03)	-0.51	(0.03)	0.01	(0.02)	1.19	(0.04)
	Korea	-0.12	(0.03)	0.89	(0.02)	-0.10	(0.03)	-0.13	(0.03)	0.03	(0.04)	-1.16	(0.02)	-0.35	(0.04)	-0.02	(0.00)	1.06	(0.06)
	Luxembourg	-0.05	(0.02)	1.10	(0.01)	-0.06	(0.03)	-0.05	(0.02)	-0.01	(0.03)	-1.38	(0.03)	-0.44	(0.03)	0.21	(0.02)	1.41	(0.03)
	Mexico	0.47	(0.01)	1.03	(0.01)	0.48	(0.02)	0.47	(0.01)	0.00	(0.02)	-0.79	(0.02)	0.04	(0.01)	0.79	(0.01)	1.85	(0.02)
	Netherlands	-0.15	(0.02)	0.78	(0.01)	-0.16	(0.03)	-0.15	(0.03)	-0.01	(0.03)	-1.08	(0.03)	-0.32	(0.03)	-0.02	(0.00)	0.81	(0.04)
	New Zealand	0.11	(0.02)	0.93	(0.01)	0.11	(0.03)	0.10	(0.03)	0.00	(0.04)	-0.97	(0.03)	-0.16	(0.02)	0.16	(0.03)	1.40	(0.04)
	Norway	-0.14	(0.02)	1.01	(0.02)	-0.11	(0.03)	-0.17	(0.03)	0.06	(0.04)	-1.33	(0.03)	-0.44	(0.03)	0.03	(0.02)	1.20	(0.04)
	Poland	-0.42	(0.02)	0.97	(0.02)	-0.41	(0.03)	-0.43	(0.03)	0.02	(0.04)	-1.53	(0.03)	-0.79	(0.02)	-0.19	(0.02)	0.82	(0.04)
	Portugal	0.32	(0.02)	0.96	(0.01)	0.33	(0.03)	0.31	(0.03)	0.02	(0.04)	-0.80	(0.04)	-0.02	(0.00)	0.44	(0.04)	1.67	(0.03)
	Slovak Republic	-0.18	(0.02)	0.91	(0.01)	-0.17	(0.03)	-0.19	(0.03)	0.01	(0.03)	-1.23	(0.03)	-0.48	(0.04)	-0.02	(0.00)	1.01	(0.05)
	Slovenia	-0.24	(0.02)	0.93	(0.02)	-0.20	(0.03)	-0.29	(0.02)	**0.09**	(0.05)	-1.30	(0.03)	-0.61	(0.01)	-0.06	(0.02)	1.01	(0.04)
	Spain	0.00	(0.02)	1.01	(0.01)	-0.03	(0.02)	0.03	(0.02)	-0.06	(0.03)	-1.20	(0.02)	-0.37	(0.02)	0.19	(0.02)	1.37	(0.02)
	Sweden	0.08	(0.03)	1.03	(0.02)	0.12	(0.03)	0.05	(0.03)	**0.07**	(0.04)	-1.12	(0.04)	-0.23	(0.02)	0.18	(0.03)	1.51	(0.04)
	Switzerland	0.11	(0.02)	1.02	(0.01)	0.08	(0.03)	0.15	(0.03)	-0.07	(0.04)	-1.15	(0.03)	-0.22	(0.02)	0.39	(0.03)	1.44	(0.03)
	Turkey	0.19	(0.02)	1.08	(0.01)	0.14	(0.03)	0.24	(0.03)	**-0.11**	(0.03)	-1.12	(0.03)	-0.24	(0.02)	0.50	(0.03)	1.62	(0.03)
	United Kingdom	0.15	(0.02)	0.97	(0.01)	0.16	(0.03)	0.14	(0.02)	0.03	(0.03)	-0.99	(0.03)	-0.15	(0.02)	0.27	(0.02)	1.47	(0.03)
	United States	0.21	(0.03)	0.98	(0.02)	0.20	(0.03)	0.21	(0.04)	0.00	(0.04)	-0.94	(0.03)	-0.12	(0.02)	0.34	(0.04)	1.55	(0.04)
	OECD average	0.00	(0.00)	0.98	(0.00)	0.00	(0.00)	0.00	(0.00)	0.01	(0.01)	-1.16	(0.00)	-0.33	(0.00)	0.18	(0.00)	1.31	(0.01)
Partners	Albania	0.71	(0.02)	0.96	(0.01)	0.69	(0.03)	0.73	(0.03)	-0.04	(0.04)	-0.51	(0.03)	0.35	(0.03)	1.05	(0.03)	1.95	(0.02)
	Argentina	0.18	(0.03)	1.06	(0.01)	0.22	(0.03)	0.14	(0.03)	0.08	(0.04)	-1.10	(0.03)	-0.21	(0.03)	0.42	(0.03)	1.60	(0.03)
	Brazil	0.25	(0.02)	1.05	(0.01)	0.29	(0.02)	0.21	(0.02)	**0.08**	(0.03)	-1.00	(0.02)	-0.17	(0.01)	0.47	(0.03)	1.69	(0.03)
	Bulgaria	0.24	(0.02)	1.09	(0.01)	0.26	(0.03)	0.22	(0.04)	0.03	(0.05)	-1.07	(0.03)	-0.17	(0.02)	0.47	(0.04)	1.74	(0.03)
	Colombia	0.45	(0.02)	1.03	(0.01)	0.44	(0.03)	0.46	(0.03)	-0.03	(0.04)	-0.82	(0.03)	0.03	(0.02)	0.78	(0.03)	1.82	(0.03)
	Costa Rica	0.47	(0.02)	1.06	(0.02)	0.54	(0.03)	0.41	(0.03)	**0.13**	(0.04)	-0.86	(0.02)	0.03	(0.04)	0.83	(0.03)	1.88	(0.03)
	Croatia	-0.15	(0.02)	1.00	(0.01)	-0.08	(0.03)	-0.21	(0.03)	**0.13**	(0.04)	-1.31	(0.02)	-0.50	(0.03)	0.03	(0.02)	1.20	(0.04)
	Cyprus*	-0.22	(0.02)	1.03	(0.02)	-0.24	(0.03)	-0.20	(0.02)	-0.03	(0.04)	-1.43	(0.03)	-0.59	(0.03)	-0.01	(0.01)	1.16	(0.03)
	Hong Kong-China	0.03	(0.02)	0.94	(0.01)	0.05	(0.03)	0.01	(0.03)	0.04	(0.04)	-1.06	(0.03)	-0.21	(0.02)	0.11	(0.02)	1.29	(0.04)
	Indonesia	0.42	(0.02)	0.87	(0.01)	0.44	(0.02)	0.40	(0.03)	0.04	(0.04)	-0.58	(0.03)	0.00	(0.02)	0.67	(0.02)	1.61	(0.03)
	Jordan	0.39	(0.02)	1.13	(0.01)	0.47	(0.03)	0.31	(0.03)	**0.17**	(0.04)	-1.08	(0.03)	0.01	(0.03)	0.82	(0.02)	1.81	(0.02)
	Kazakhstan	0.75	(0.03)	0.96	(0.01)	0.75	(0.03)	0.74	(0.03)	0.01	(0.04)	-0.41	(0.03)	0.30	(0.04)	1.09	(0.03)	2.01	(0.02)
	Latvia	0.16	(0.02)	0.89	(0.01)	0.15	(0.03)	0.16	(0.03)	-0.01	(0.04)	-0.87	(0.02)	-0.15	(0.02)	0.29	(0.04)	1.36	(0.04)
	Liechtenstein	0.05	(0.07)	1.09	(0.06)	0.02	(0.10)	0.09	(0.11)	-0.06	(0.16)	-1.24	(0.11)	-0.37	(0.08)	0.36	(0.10)	1.49	(0.11)
	Lithuania	0.43	(0.03)	1.05	(0.01)	0.37	(0.03)	0.49	(0.03)	**-0.12**	(0.04)	-0.92	(0.03)	0.05	(0.03)	0.81	(0.03)	1.79	(0.03)
	Macao-China	-0.04	(0.02)	0.95	(0.01)	-0.01	(0.02)	-0.08	(0.02)	**0.07**	(0.03)	-1.15	(0.02)	-0.31	(0.03)	0.06	(0.01)	1.22	(0.03)
	Malaysia	0.23	(0.02)	0.91	(0.01)	0.19	(0.03)	0.26	(0.03)	**-0.07**	(0.03)	-0.88	(0.02)	-0.14	(0.02)	0.51	(0.04)	1.42	(0.03)
	Montenegro	0.12	(0.02)	1.11	(0.01)	0.18	(0.04)	0.07	(0.03)	**0.10**	(0.04)	-1.22	(0.03)	-0.23	(0.02)	0.32	(0.03)	1.63	(0.04)
	Peru	0.38	(0.02)	0.98	(0.01)	0.44	(0.03)	0.33	(0.03)	**0.11**	(0.04)	-0.82	(0.02)	-0.02	(0.03)	0.66	(0.03)	1.71	(0.03)
	Qatar	0.08	(0.01)	1.13	(0.01)	0.15	(0.02)	0.02	(0.02)	**0.13**	(0.03)	-1.28	(0.02)	-0.33	(0.02)	0.36	(0.02)	1.58	(0.02)
	Romania	0.37	(0.02)	1.03	(0.01)	0.39	(0.03)	0.36	(0.03)	0.03	(0.04)	-0.89	(0.03)	-0.04	(0.03)	0.67	(0.04)	1.76	(0.03)
	Russian Federation	0.14	(0.03)	1.01	(0.02)	0.17	(0.04)	0.12	(0.04)	0.06	(0.05)	-1.03	(0.03)	-0.25	(0.02)	0.32	(0.03)	1.53	(0.05)
	Serbia	0.08	(0.03)	1.02	(0.02)	0.17	(0.03)	0.00	(0.03)	**0.17**	(0.04)	-1.12	(0.03)	-0.26	(0.02)	0.24	(0.03)	1.48	(0.04)
	Shanghai-China	0.46	(0.03)	1.04	(0.01)	0.46	(0.03)	0.46	(0.03)	0.00	(0.04)	-0.73	(0.03)	-0.02	(0.00)	0.67	(0.05)	1.92	(0.04)
	Singapore	0.36	(0.02)	0.96	(0.01)	0.42	(0.02)	0.30	(0.02)	**0.12**	(0.03)	-0.74	(0.03)	-0.02	(0.00)	0.50	(0.03)	1.72	(0.02)
	Chinese Taipei	0.03	(0.02)	1.06	(0.01)	0.03	(0.03)	0.02	(0.02)	0.00	(0.04)	-1.19	(0.02)	-0.35	(0.03)	0.13	(0.03)	1.51	(0.03)
	Thailand	0.30	(0.02)	0.92	(0.01)	0.35	(0.02)	0.26	(0.02)	**0.08**	(0.03)	-0.76	(0.03)	-0.02	(0.00)	0.41	(0.03)	1.57	(0.03)
	Tunisia	-0.02	(0.03)	1.11	(0.01)	-0.05	(0.04)	0.00	(0.03)	-0.05	(0.05)	-1.37	(0.03)	-0.49	(0.03)	0.32	(0.03)	1.45	(0.03)
	United Arab Emirates	0.35	(0.02)	1.08	(0.01)	0.39	(0.03)	0.32	(0.03)	0.06	(0.04)	-0.99	(0.02)	-0.08	(0.03)	0.71	(0.02)	1.78	(0.02)
	Uruguay	0.19	(0.03)	1.02	(0.01)	0.23	(0.03)	0.15	(0.03)	**0.08**	(0.04)	-1.03	(0.03)	-0.19	(0.02)	0.41	(0.03)	1.57	(0.04)
	Viet Nam	0.02	(0.02)	0.89	(0.01)	0.13	(0.03)	-0.08	(0.03)	**0.21**	(0.03)	-1.04	(0.02)	-0.30	(0.03)	0.19	(0.02)	1.22	(0.03)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.5.10o Index of teacher-student relations at school and mathematics performance, by national quarters of this index

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Australia**	**471**	(2.6)	506	(2.8)	513	(3.3)	**527**	(3.0)	**21.8**	(1.3)	**1.74**	(0.1)	4.8	(0.5)
	Austria	503	(4.3)	514	(4.1)	513	(4.6)	503	(4.2)	-0.9	(1.5)	1.06	(0.1)	0.0	(0.0)
	Belgium	506	(3.7)	530	(3.2)	539	(3.9)	510	(3.7)	3.6	(4.7)	**2.15**	(2.0)	1.2	(0.1)
	Canada	**503**	(3.4)	521	(2.8)	528	(2.9)	**530**	(2.9)	**10.8**	(1.2)	**1.43**	(0.1)	1.5	(0.4)
	Chile	422	(4.0)	427	(4.3)	426	(4.6)	417	(4.5)	-1.2	(1.5)	0.98	(0.1)	0.0	(0.1)
	Czech Republic	496	(4.8)	503	(5.1)	521	(4.2)	498	(4.4)	1.4	(2.2)	1.21	(0.1)	0.0	(0.1)
	Denmark	**480**	(3.5)	505	(3.9)	516	(3.8)	**520**	(4.1)	**16.3**	(2.0)	**1.60**	(0.1)	3.4	(0.8)
	Estonia	511	(3.2)	524	(3.4)	527	(4.2)	519	(4.7)	3.5	(2.3)	1.15	(0.1)	0.2	(0.2)
	Finland	**505**	(2.8)	526	(3.6)	531	(4.3)	**529**	(3.3)	**9.2**	(1.5)	**1.44**	(0.1)	1.0	(0.3)
	France	491	(4.4)	503	(4.1)	508	(5.2)	489	(4.7)	-1.2	(2.1)	1.06	(0.1)	0.0	(0.1)
	Germany	514	(3.9)	529	(4.8)	532	(5.1)	515	(5.1)	-0.1	(2.1)	1.12	(0.1)	0.0	(0.1)
	Greece	**457**	(4.3)	461	(4.5)	458	(4.2)	**445**	(4.1)	**-4.9**	(1.7)	0.88	(0.1)	0.3	(0.2)
	Hungary	473	(6.1)	481	(5.2)	486	(4.9)	472	(4.9)	-2.2	(2.7)	1.03	(0.1)	0.1	(0.2)
	Iceland	**474**	(4.7)	496	(4.9)	504	(5.2)	**512**	(4.1)	**13.5**	(2.2)	**1.52**	(0.1)	2.4	(0.8)
	Ireland	**488**	(3.9)	505	(4.3)	507	(4.0)	**504**	(4.1)	**6.2**	(1.9)	**1.32**	(0.1)	0.5	(0.3)
	Israel	473	(5.7)	481	(6.9)	478	(6.6)	463	(7.6)	-4.1	(2.3)	0.94	(0.1)	0.2	(0.3)
	Italy	**494**	(2.8)	497	(3.1)	488	(3.0)	**469**	(2.9)	**-9.1**	(1.3)	**0.84**	(0.0)	1.0	(0.3)
	Japan	**520**	(5.2)	543	(4.6)	544	(5.1)	**542**	(4.3)	**8.4**	(2.0)	**1.39**	(0.1)	0.9	(0.4)
	Korea	**538**	(5.7)	552	(5.0)	546	(6.1)	**580**	(7.7)	**16.4**	(3.0)	**1.28**	(0.1)	2.2	(0.8)
	Luxembourg	484	(3.2)	494	(4.2)	500	(3.8)	482	(3.2)	0.4	(1.5)	1.12	(0.1)	0.0	(0.0)
	Mexico	**422**	(1.9)	417	(1.9)	411	(2.0)	**407**	(2.1)	**-5.6**	(0.8)	**0.83**	(0.0)	0.6	(0.2)
	Netherlands	**512**	(4.3)	530	(5.3)	544	(5.2)	**526**	(6.6)	5.7	(2.9)	**1.31**	(0.1)	0.3	(0.3)
	New Zealand	**475**	(4.1)	501	(5.0)	511	(5.4)	**511**	(4.3)	**13.9**	(2.4)	**1.43**	(0.1)	1.7	(0.6)
	Norway	**465**	(5.5)	496	(4.3)	504	(5.2)	**498**	(5.1)	**13.2**	(2.4)	**1.56**	(0.1)	2.1	(0.8)
	Poland	517	(5.6)	524	(4.7)	526	(6.0)	508	(5.6)	**-4.4**	(2.0)	1.00	(0.1)	0.2	(0.2)
	Portugal	**480**	(5.2)	487	(4.7)	497	(5.5)	**494**	(5.8)	**6.2**	(2.5)	1.17	(0.1)	0.4	(0.3)
	Slovak Republic	**487**	(6.4)	492	(5.0)	498	(4.8)	**459**	(6.4)	**-11.7**	(3.4)	0.93	(0.1)	1.1	(0.6)
	Slovenia	498	(4.1)	509	(4.8)	511	(4.4)	498	(4.2)	-0.3	(2.1)	1.10	(0.1)	0.0	(0.0)
	Spain	477	(3.0)	492	(3.2)	492	(3.0)	483	(3.0)	1.5	(1.3)	**1.23**	(0.1)	0.0	(0.1)
	Sweden	**465**	(3.8)	484	(4.1)	489	(5.0)	**492**	(4.4)	**9.9**	(2.1)	**1.30**	(0.1)	1.3	(0.5)
	Switzerland	521	(4.3)	541	(4.3)	538	(5.0)	527	(4.7)	1.7	(1.6)	1.12	(0.1)	0.0	(0.1)
	Turkey	449	(6.2)	456	(6.5)	449	(5.7)	443	(5.7)	-3.3	(1.8)	1.09	(0.1)	0.2	(0.2)
	United Kingdom	**472**	(4.6)	504	(4.6)	506	(4.6)	**509**	(5.2)	**13.3**	(1.9)	**1.51**	(0.1)	1.9	(0.5)
	United States	**466**	(4.1)	479	(4.9)	492	(6.4)	**499**	(5.1)	**13.9**	(1.9)	**1.41**	(0.1)	2.3	(0.6)
	OECD average	**485**	(0.8)	500	(0.8)	504	(0.8)	**496**	(0.8)	**4.2**	(0.4)	**1.24**	(0.1)	0.9	(0.1)
Partners	**Albania**	395	(4.6)	392	(5.0)	397	(4.9)	391	(4.5)	-1.0	(2.0)	0.97	(0.1)	0.0	(0.1)
	Argentina	**401**	(4.6)	395	(4.6)	390	(4.5)	**374**	(5.2)	**-9.6**	(1.7)	**0.78**	(0.1)	1.8	(0.6)
	Brazil	**397**	(3.0)	399	(3.1)	393	(3.2)	**383**	(3.1)	**-4.6**	(1.2)	**0.84**	(0.1)	0.4	(0.2)
	Bulgaria	**456**	(4.5)	440	(5.4)	445	(5.1)	**424**	(5.9)	**-10.3**	(2.0)	**0.68**	(0.1)	1.5	(0.6)
	Colombia	**390**	(4.1)	383	(3.9)	379	(4.2)	**372**	(4.1)	**-7.0**	(1.5)	**0.81**	(0.1)	1.0	(0.4)
	Costa Rica	**415**	(4.5)	413	(4.2)	406	(4.4)	**393**	(4.1)	**-7.2**	(1.4)	**0.80**	(0.1)	1.3	(0.5)
	Croatia	**475**	(3.9)	480	(4.6)	475	(4.8)	**460**	(7.2)	**-7.2**	(2.6)	0.90	(0.1)	0.7	(0.5)
	Cyprus*	**432**	(3.3)	446	(3.5)	452	(3.9)	**445**	(3.1)	**5.5**	(1.6)	1.15	(0.1)	0.4	(0.2)
	Hong Kong-China	**553**	(5.1)	565	(4.5)	570	(5.5)	**567**	(4.9)	4.1	(2.6)	1.16	(0.1)	0.2	(0.2)
	Indonesia	372	(5.7)	372	(4.4)	378	(4.7)	380	(4.7)	2.7	(1.8)	1.13	(0.1)	0.1	(0.1)
	Jordan	387	(4.3)	392	(3.9)	392	(3.8)	383	(4.9)	-0.5	(1.5)	1.07	(0.1)	0.0	(0.1)
	Kazakhstan	430	(4.3)	432	(4.4)	433	(4.2)	434	(4.2)	1.7	(1.8)	1.07	(0.1)	0.1	(0.1)
	Latvia	485	(4.5)	496	(4.8)	496	(4.8)	484	(4.6)	-1.6	(2.7)	1.06	(0.1)	0.0	(0.1)
	Liechtenstein	555	(13.7)	536	(17.6)	533	(18.6)	526	(16.2)	-5.6	(6.5)	0.59	(0.3)	0.5	(1.1)
	Lithuania	**469**	(3.9)	480	(4.4)	479	(5.0)	**485**	(4.8)	**5.7**	(1.8)	1.15	(0.1)	0.5	(0.3)
	Macao-China	**533**	(2.9)	542	(4.8)	538	(4.4)	**546**	(3.6)	**4.0**	(1.8)	1.12	(0.1)	0.2	(0.1)
	Malaysia	423	(4.8)	428	(4.7)	422	(4.0)	414	(4.0)	-3.3	(1.8)	1.10	(0.1)	0.1	(0.2)
	Montenegro	**431**	(3.9)	420	(3.9)	410	(3.6)	**386**	(3.2)	**-15.5**	(1.5)	**0.66**	(0.1)	4.4	(0.8)
	Peru	**379**	(5.8)	378	(4.5)	373	(4.6)	**364**	(5.0)	**-6.2**	(1.8)	0.91	(0.1)	0.5	(0.3)
	Qatar	**371**	(2.6)	383	(2.6)	389	(2.9)	**385**	(2.6)	**4.7**	(1.2)	**1.16**	(0.1)	0.3	(0.1)
	Romania	**453**	(5.7)	446	(4.5)	445	(4.8)	**435**	(4.3)	**-5.8**	(1.7)	0.89	(0.1)	0.6	(0.3)
	Russian Federation	479	(3.7)	485	(5.0)	488	(4.9)	479	(4.5)	-0.5	(2.0)	1.01	(0.1)	0.0	(0.1)
	Serbia	**457**	(4.2)	459	(5.2)	452	(4.9)	**429**	(5.3)	**-10.4**	(2.0)	**0.79**	(0.1)	1.3	(0.5)
	Shanghai-China	**585**	(5.1)	613	(4.9)	618	(5.2)	**635**	(5.2)	**16.9**	(2.2)	**1.53**	(0.1)	3.0	(0.8)
	Singapore	**556**	(3.6)	581	(4.3)	587	(4.4)	**579**	(3.4)	**8.3**	(1.6)	**1.36**	(0.1)	0.6	(0.2)
	Chinese Taipei	**554**	(4.8)	563	(5.7)	555	(5.8)	**567**	(4.5)	**3.9**	(1.9)	0.98	(0.1)	0.1	(0.1)
	Thailand	432	(5.2)	425	(4.1)	429	(4.5)	424	(4.4)	-2.8	(1.9)	0.94	(0.1)	0.1	(0.1)
	Tunisia	**403**	(5.5)	396	(5.3)	383	(5.4)	**373**	(4.3)	**-10.2**	(1.6)	**0.76**	(0.1)	2.2	(0.6)
	United Arab Emirates	432	(3.6)	439	(3.7)	432	(3.7)	439	(3.9)	2.2	(1.3)	1.03	(0.1)	0.1	(0.1)
	Uruguay	**426**	(3.7)	423	(3.7)	412	(5.0)	**387**	(4.6)	**-13.1**	(1.9)	**0.71**	(0.1)	2.3	(0.7)
	Viet Nam	**530**	(5.3)	508	(6.6)	507	(6.0)	**501**	(6.0)	**-10.7**	(2.0)	**0.58**	(0.1)	1.2	(0.5)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See notes at the beginning of this Annex.

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[Part 1/6]

Table III.5.11 The relationship between experience with pure and applied mathematics problems and student engagement, drive, motivation and self-beliefs

Results based on students' self-reports

		The relationship between the following indicators and experience with pure and applied mathematics problems:															
		Arriving late								Skipping classes or days of school							
		Unadjusted[1]				Adjusted for mathematics performance[2]				Unadjusted[1]				Adjusted for mathematics performance[2]			
		Applied mathematics problems		Pure mathematics problems		Applied mathematics problems		Pure mathematics problems		Applied mathematics problems		Pure mathematics problems		Applied mathematics problems		Pure mathematics problems	
		% Dif.	S.E.	% Dif.	S.E.	% Dif.	S.E.	% Dif.	S.E.	% Dif.	S.E.	% Dif.	S.E.	% Dif.	S.E.	% Dif.	S.E.
OECD	**Australia**	0.5	(0.8)	**-4.1**	(0.6)	0.6	(0.8)	**-2.1**	(0.7)	0.3	(0.9)	**-4.4**	(0.6)	0.3	(0.9)	**-1.8**	(0.7)
	Austria	-0.3	(0.9)	-0.6	(0.9)	-0.6	(0.9)	0.3	(0.9)	0.1	(1.0)	-1.2	(0.9)	-0.2	(1.0)	-0.3	(1.0)
	Belgium	0.2	(0.8)	**-2.7**	(0.8)	-0.2	(0.8)	0.4	(0.8)	0.4	(0.5)	**-1.9**	(0.5)	0.0	(0.5)	0.4	(0.5)
	Canada	1.3	(0.8)	**-4.9**	(0.8)	1.2	(0.8)	**-2.4**	(0.8)	0.7	(0.7)	**-4.8**	(0.7)	0.6	(0.7)	**-2.8**	(0.7)
	Chile	0.2	(0.8)	**-3.2**	(0.9)	0.1	(0.8)	-1.5	(0.9)	0.7	(0.7)	**-4.2**	(0.8)	0.6	(0.7)	**-3.1**	(0.9)
	Czech Republic	1.0	(1.1)	**-3.2**	(1.0)	0.0	(1.1)	-1.5	(1.0)	-0.3	(0.9)	**-1.9**	(0.9)	-0.7	(0.9)	-1.2	(1.0)
	Denmark	0.7	(1.0)	-0.2	(1.0)	0.3	(1.0)	0.5	(1.0)	1.7	(1.1)	-1.5	(1.1)	1.4	(1.1)	-0.8	(1.0)
	Estonia	**-3.9**	(1.3)	-2.1	(1.2)	**-4.0**	(1.3)	-1.2	(1.2)	0.4	(1.3)	**-3.9**	(1.1)	0.1	(1.2)	-1.8	(1.2)
	Finland	**-2.5**	(1.0)	**-4.0**	(1.2)	-1.8	(1.0)	-1.8	(1.2)	1.2	(0.8)	**-3.5**	(0.8)	**1.7**	(0.8)	**-1.7**	(0.8)
	France	0.1	(1.0)	**-4.5**	(1.2)	0.3	(1.0)	-2.1	(1.2)	-0.1	(1.0)	**-2.5**	(0.9)	-0.1	(1.0)	-1.2	(0.9)
	Germany	0.8	(1.3)	**-2.0**	(0.9)	0.6	(1.4)	-1.4	(1.0)	1.1	(0.9)	-1.5	(0.9)	0.9	(0.9)	-0.9	(0.9)
	Greece	**1.7**	(0.9)	**-5.2**	(0.9)	1.5	(0.9)	**-4.7**	(0.9)	-0.2	(0.8)	**-4.6**	(0.9)	-0.9	(0.7)	**-3.4**	(1.0)
	Hungary	0.4	(0.9)	**-5.9**	(1.2)	-0.2	(0.9)	**-3.5**	(1.2)	**2.8**	(0.5)	**-4.6**	(1.0)	**2.3**	(0.5)	**-2.8**	(1.0)
	Iceland	1.8	(1.0)	**-5.4**	(1.4)	1.7	(1.0)	**-3.3**	(1.5)	1.1	(0.7)	**-3.9**	(1.0)	1.0	(0.7)	**-2.4**	(1.1)
	Ireland	1.1	(1.2)	**-4.2**	(1.0)	1.1	(1.2)	**-2.5**	(1.0)	0.5	(0.8)	**-2.9**	(0.7)	0.5	(0.8)	**-2.5**	(0.8)
	Israel	**-1.6**	(0.7)	-1.1	(1.3)	**-1.9**	(0.7)	-0.2	(1.3)	-1.7	(0.9)	-1.6	(1.1)	**-1.9**	(0.9)	-1.1	(1.2)
	Italy	**1.0**	(0.5)	**-3.4**	(0.5)	0.8	(0.5)	**-1.1**	(0.5)	**1.2**	(0.5)	**-3.2**	(0.7)	1.0	(0.5)	-0.8	(0.7)
	Japan	0.1	(0.5)	**-2.7**	(0.6)	0.3	(0.5)	**-2.2**	(0.6)	-0.1	(0.4)	**-2.6**	(0.6)	0.3	(0.4)	**-1.9**	(0.5)
	Korea	-1.5	(0.8)	**-8.3**	(1.1)	-1.2	(0.8)	**-5.0**	(1.3)	0.1	(0.3)	**-4.9**	(0.9)	0.2	(0.3)	**-3.3**	(0.9)
	Luxembourg	1.8	(1.0)	**-2.5**	(0.8)	1.5	(1.0)	-1.3	(0.8)	**2.1**	(0.7)	**-3.1**	(0.6)	**1.7**	(0.7)	**-1.7**	(0.6)
	Mexico	-0.4	(0.5)	**-2.3**	(0.5)	-0.7	(0.5)	-1.1	(0.6)	0.3	(0.7)	**-3.4**	(0.7)	0.0	(0.7)	**-2.2**	(0.6)
	Netherlands	1.1	(1.2)	**-6.6**	(1.2)	-0.4	(1.2)	**-3.2**	(1.5)	-1.2	(0.8)	-1.2	(0.7)	-1.5	(0.9)	-0.7	(0.9)
	New Zealand	-0.5	(1.1)	**-4.5**	(1.0)	-0.4	(1.1)	-0.8	(1.1)	1.3	(1.0)	**-6.3**	(0.8)	1.4	(0.9)	-1.5	(0.8)
	Norway	0.5	(1.0)	**-2.7**	(1.2)	0.4	(1.0)	0.2	(1.1)	0.3	(1.0)	**-2.9**	(0.9)	0.3	(0.9)	-0.4	(1.0)
	Poland	-1.1	(1.1)	-1.3	(1.4)	-1.0	(1.1)	0.4	(1.4)	-0.1	(1.1)	**-3.0**	(1.0)	0.0	(1.1)	-1.3	(1.0)
	Portugal	-1.4	(1.0)	**-4.1**	(1.0)	-1.6	(1.0)	**-3.4**	(1.0)	-0.1	(1.0)	**-5.2**	(0.9)	-0.8	(1.0)	**-3.1**	(0.9)
	Slovak Republic	1.6	(0.9)	**-2.5**	(0.9)	0.6	(1.0)	-0.9	(0.9)	1.3	(0.8)	**-2.2**	(0.8)	0.5	(0.8)	-0.9	(0.9)
	Slovenia	-1.0	(1.2)	**-2.3**	(1.2)	-1.4	(1.2)	-0.8	(1.3)	-1.2	(1.2)	**-4.1**	(1.2)	-1.8	(1.1)	-1.5	(1.3)
	Spain	1.0	(0.9)	**-4.4**	(0.8)	0.2	(0.8)	**-2.8**	(0.8)	**2.2**	(0.8)	**-3.0**	(1.0)	1.1	(0.8)	-0.7	(1.1)
	Sweden	-1.0	(1.1)	-0.7	(1.1)	-1.3	(1.0)	1.0	(1.1)	-0.9	(1.0)	**-2.8**	(1.2)	-1.2	(1.0)	-1.1	(1.3)
	Switzerland	-0.6	(0.9)	-0.2	(0.9)	-0.8	(1.0)	0.6	(1.0)	-0.5	(0.8)	**-1.3**	(0.7)	-0.7	(0.8)	-0.3	(0.6)
	Turkey	1.3	(0.8)	**-2.0**	(0.9)	1.0	(0.8)	-1.0	(0.9)	-0.6	(0.8)	**-2.3**	(0.8)	-0.4	(0.8)	**-3.0**	(0.9)
	United Kingdom	-0.8	(1.0)	**-3.8**	(0.9)	-0.5	(1.0)	-1.4	(1.0)	-0.2	(0.9)	**-4.0**	(1.0)	0.0	(0.9)	**-2.3**	(1.0)
	United States	0.3	(1.0)	**-4.0**	(1.2)	0.3	(1.0)	-1.8	(1.3)	-0.2	(0.9)	-2.0	(1.1)	-0.2	(0.9)	-1.0	(1.1)
	OECD average	0.1	(0.2)	**-3.3**	(0.2)	-0.2	(0.2)	**-1.5**	(0.2)	**0.4**	(0.1)	**-3.1**	(0.2)	0.2	(0.1)	**-1.6**	(0.2)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**2.5**	(1.0)	**-3.3**	(1.1)	1.7	(1.0)	-1.5	(1.2)	**2.4**	(1.0)	**-4.6**	(0.9)	1.8	(1.0)	**-3.2**	(0.9)
	Brazil	-0.9	(0.6)	-0.7	(0.7)	-1.0	(0.6)	-0.4	(0.7)	-0.5	(0.6)	-0.8	(0.7)	-0.5	(0.6)	-0.6	(0.7)
	Bulgaria	0.7	(0.9)	**-4.9**	(1.0)	-0.1	(0.9)	**-3.3**	(1.0)	**3.1**	(0.9)	**-7.5**	(1.0)	1.8	(0.9)	**-4.8**	(1.1)
	Colombia	0.1	(0.8)	-1.9	(1.1)	0.0	(0.8)	-1.1	(1.0)	0.3	(0.8)	**-1.9**	(0.9)	0.3	(0.9)	-1.4	(0.9)
	Costa Rica	0.0	(1.1)	0.1	(1.1)	-0.3	(1.0)	0.6	(1.1)	**2.8**	(1.0)	**-3.7**	(1.3)	**2.5**	(1.0)	**-3.1**	(1.4)
	Croatia	0.8	(0.9)	**-4.6**	(1.2)	1.0	(0.9)	**-3.2**	(1.2)	1.5	(1.0)	**-4.9**	(1.0)	1.8	(0.9)	**-2.1**	(1.0)
	Cyprus*	0.5	(0.9)	**-4.5**	(1.0)	0.2	(0.9)	**-2.8**	(1.1)	0.3	(0.9)	**-5.1**	(0.9)	-0.1	(0.9)	**-2.6**	(0.9)
	Hong Kong-China	-0.3	(0.9)	**-3.7**	(0.8)	-0.9	(0.9)	**-1.7**	(0.9)	-0.7	(0.9)	**-1.9**	(0.7)	-1.2	(0.8)	-0.1	(0.8)
	Indonesia	0.2	(1.0)	**-3.0**	(0.8)	0.0	(1.0)	**-2.0**	(0.8)	0.1	(0.9)	**-5.1**	(1.1)	-0.1	(0.9)	**-4.0**	(1.1)
	Jordan	-1.1	(0.8)	**-4.0**	(1.1)	-1.2	(0.8)	**-3.4**	(1.0)	-0.9	(0.9)	**-4.6**	(1.1)	-1.0	(0.9)	**-3.8**	(1.2)
	Kazakhstan	**-2.7**	(0.9)	**-5.3**	(1.2)	**-3.0**	(0.9)	**-4.6**	(1.2)	-0.9	(0.9)	**-6.1**	(1.3)	-1.5	(0.9)	**-4.7**	(1.3)
	Latvia	**-2.7**	(1.3)	-2.1	(1.2)	**-2.9**	(1.3)	-1.4	(1.2)	2.1	(1.3)	-1.7	(1.3)	1.9	(1.2)	-0.5	(1.3)
	Liechtenstein	-7.3	(4.3)	-0.3	(3.8)	-7.6	(4.3)	2.2	(3.9)	2.1	(3.8)	-1.1	(2.5)	2.0	(3.7)	-0.1	(2.7)
	Lithuania	1.5	(1.2)	**-3.0**	(1.3)	1.2	(1.2)	-0.8	(1.4)	0.0	(1.0)	**-7.1**	(1.3)	-0.6	(1.0)	**-3.5**	(1.2)
	Macao-China	0.5	(1.1)	**-3.5**	(1.0)	-0.5	(1.0)	-1.5	(1.0)	-0.7	(0.7)	**-2.3**	(0.6)	-1.2	(0.7)	**-1.3**	(0.6)
	Malaysia	1.1	(0.8)	**-6.2**	(1.1)	0.2	(0.8)	-0.6	(1.1)	1.9	(1.2)	**-8.2**	(1.2)	1.4	(1.1)	**-5.7**	(1.1)
	Montenegro	-0.2	(0.9)	**-3.2**	(0.9)	-0.3	(0.9)	**-2.4**	(0.9)	-0.7	(0.8)	**-2.4**	(1.0)	-0.9	(0.8)	-1.6	(1.1)
	Peru	-1.0	(1.1)	**-2.5**	(1.1)	-1.7	(1.1)	-0.1	(1.2)	1.3	(0.7)	**-4.3**	(0.9)	0.6	(0.7)	-1.7	(0.9)
	Qatar	**1.8**	(0.5)	**-7.8**	(0.6)	0.2	(0.5)	**-3.3**	(0.7)	**1.2**	(0.5)	**-3.3**	(0.6)	0.7	(0.5)	**-2.1**	(0.6)
	Romania	-0.2	(0.8)	**-3.5**	(1.0)	-0.2	(0.8)	**-3.1**	(1.1)	**2.0**	(0.8)	**-3.4**	(0.9)	**1.8**	(0.8)	**-2.2**	(0.9)
	Russian Federation	**-2.4**	(0.7)	**-4.8**	(1.4)	**-2.9**	(0.7)	-2.7	(1.5)	-1.2	(1.0)	**-5.4**	(1.0)	-1.6	(1.0)	**-3.6**	(1.1)
	Serbia	-0.5	(0.8)	**-5.5**	(1.1)	-0.8	(0.7)	**-4.8**	(1.1)	0.5	(0.9)	**-4.5**	(1.0)	-0.1	(0.9)	**-3.3**	(1.0)
	Shanghai-China	0.5	(0.7)	-0.9	(0.8)	-0.2	(0.8)	-0.4	(0.8)	0.1	(0.4)	**-1.4**	(0.4)	0.0	(0.4)	**-1.3**	(0.4)
	Singapore	-0.7	(0.9)	**-3.3**	(1.1)	-1.0	(0.9)	-0.9	(1.1)	0.6	(0.8)	**-5.3**	(1.0)	0.5	(0.8)	**-4.4**	(1.0)
	Chinese Taipei	0.4	(0.7)	**-5.0**	(0.8)	0.2	(0.7)	**-2.7**	(0.8)	-1.0	(0.8)	**-3.7**	(0.8)	-1.1	(0.8)	-1.3	(0.8)
	Thailand	1.1	(1.1)	**-3.6**	(1.1)	0.7	(1.1)	-1.8	(1.2)	0.8	(1.2)	**-6.9**	(1.0)	0.4	(1.2)	**-5.3**	(1.0)
	Tunisia	0.3	(1.0)	-1.9	(1.1)	0.0	(1.0)	-1.1	(1.2)	-0.5	(1.0)	**-4.2**	(1.2)	-1.1	(1.0)	**-2.5**	(1.2)
	United Arab Emirates	0.4	(0.6)	**-6.2**	(0.7)	0.0	(0.6)	**-3.7**	(0.8)	0.2	(0.7)	**-6.1**	(0.7)	-0.2	(0.7)	**-3.5**	(0.8)
	Uruguay	**2.9**	(0.8)	**-2.3**	(1.0)	**2.7**	(0.8)	-1.9	(1.1)	1.6	(0.9)	-1.6	(0.9)	1.1	(0.9)	-0.7	(0.9)
	Viet Nam	1.0	(1.0)	**-2.1**	(1.0)	0.6	(1.0)	-0.8	(1.0)	1.0	(1.0)	**-2.5**	(1.0)	0.4	(1.0)	-0.9	(1.0)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. The unadjusted results are based on a regression controlling for student gender and the *PISA index of economic, social and cultural status* (ESCS).

2. The adjusted results are based on a regression controlling for student gender and the *PISA index of economic, social and cultural status* (ESCS) and student performance in mathematics.

* See notes at the beginning of this Annex.

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[Part 2/6]

Table III.5.11 The relationship between experience with pure and applied mathematics problems and student engagement, drive, motivation and self-beliefs

Results based on students' self-reports

		The relationship between the following indicators and experience with pure and applied mathematics problems:															
		Sense of belonging								Attitudes towards school							
		Unadjusted[1]				Adjusted for mathematics performance[2]				Unadjusted[1]				Adjusted for mathematics performance[2]			
		Applied mathematics problems		Pure mathematics problems		Applied mathematics problems		Pure mathematics problems		Applied mathematics problems		Pure mathematics problems		Applied mathematics problems		Pure mathematics problems	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	0.03	(0.02)	**0.11**	(0.02)	0.03	(0.02)	**0.11**	(0.02)	**0.06**	(0.02)	**0.17**	(0.02)	**0.06**	(0.02)	**0.12**	(0.02)
	Austria	0.08	(0.05)	**0.10**	(0.03)	0.09	(0.05)	**0.07**	(0.03)	**0.18**	(0.04)	0.03	(0.03)	**0.20**	(0.04)	-0.01	(0.03)
	Belgium	**0.05**	(0.02)	**0.04**	(0.02)	**0.05**	(0.02)	0.02	(0.02)	**0.07**	(0.02)	0.03	(0.02)	**0.07**	(0.02)	0.02	(0.02)
	Canada	0.02	(0.02)	**0.05**	(0.02)	0.02	(0.02)	**0.05**	(0.02)	**0.05**	(0.02)	**0.09**	(0.02)	**0.05**	(0.02)	**0.06**	(0.02)
	Chile	0.00	(0.03)	**0.09**	(0.03)	0.00	(0.03)	**0.09**	(0.03)	0.05	(0.03)	**0.10**	(0.02)	0.05	(0.03)	**0.09**	(0.02)
	Czech Republic	0.04	(0.04)	**0.07**	(0.03)	0.05	(0.04)	**0.06**	(0.03)	**0.11**	(0.04)	**0.07**	(0.03)	**0.13**	(0.04)	0.05	(0.03)
	Denmark	-0.06	(0.03)	**0.06**	(0.03)	-0.07	(0.03)	**0.06**	(0.03)	0.04	(0.04)	0.01	(0.03)	0.05	(0.04)	0.00	(0.03)
	Estonia	0.05	(0.03)	**0.06**	(0.02)	0.05	(0.03)	**0.06**	(0.02)	**0.11**	(0.03)	**0.07**	(0.03)	**0.11**	(0.03)	**0.06**	(0.03)
	Finland	0.03	(0.03)	**0.08**	(0.03)	0.03	(0.03)	**0.07**	(0.03)	0.06	(0.03)	**0.18**	(0.03)	0.05	(0.03)	**0.13**	(0.03)
	France	**0.12**	(0.04)	**0.07**	(0.02)	**0.12**	(0.04)	**0.06**	(0.02)	0.08	(0.04)	**0.09**	(0.03)	0.07	(0.04)	**0.08**	(0.03)
	Germany	-0.02	(0.04)	**0.13**	(0.04)	-0.02	(0.04)	**0.12**	(0.04)	0.02	(0.04)	**0.09**	(0.04)	0.01	(0.04)	**0.10**	(0.04)
	Greece	0.00	(0.03)	**0.07**	(0.03)	0.00	(0.03)	**0.06**	(0.03)	**0.07**	(0.03)	**0.08**	(0.02)	**0.07**	(0.03)	**0.08**	(0.02)
	Hungary	**0.06**	(0.03)	**0.11**	(0.04)	**0.07**	(0.03)	**0.09**	(0.03)	**0.08**	(0.03)	**0.11**	(0.04)	**0.10**	(0.03)	**0.08**	(0.04)
	Iceland	**0.10**	(0.04)	**0.12**	(0.04)	**0.10**	(0.04)	**0.11**	(0.04)	**0.11**	(0.03)	**0.12**	(0.04)	**0.11**	(0.03)	0.07	(0.04)
	Ireland	**0.07**	(0.03)	-0.02	(0.04)	**0.07**	(0.03)	0.00	(0.04)	**0.10**	(0.04)	0.02	(0.03)	**0.10**	(0.04)	0.00	(0.03)
	Israel	-0.01	(0.03)	**0.15**	(0.03)	0.01	(0.03)	**0.13**	(0.03)	0.04	(0.03)	**0.16**	(0.03)	0.05	(0.03)	**0.14**	(0.03)
	Italy	**0.03**	(0.02)	**0.05**	(0.02)	**0.03**	(0.02)	**0.05**	(0.02)	**0.07**	(0.02)	**0.11**	(0.02)	**0.07**	(0.02)	**0.09**	(0.02)
	Japan	**0.08**	(0.02)	**0.06**	(0.03)	**0.08**	(0.02)	**0.07**	(0.03)	**0.08**	(0.03)	**0.07**	(0.03)	**0.08**	(0.03)	**0.07**	(0.03)
	Korea	**0.12**	(0.02)	0.06	(0.03)	**0.12**	(0.02)	0.04	(0.03)	**0.10**	(0.03)	**0.08**	(0.03)	**0.10**	(0.03)	0.06	(0.04)
	Luxembourg	0.03	(0.04)	0.02	(0.03)	0.04	(0.03)	-0.01	(0.03)	0.03	(0.03)	**0.14**	(0.02)	0.04	(0.03)	**0.10**	(0.03)
	Mexico	0.00	(0.02)	**0.15**	(0.01)	0.00	(0.02)	**0.13**	(0.01)	-0.01	(0.02)	**0.21**	(0.01)	0.01	(0.02)	**0.15**	(0.01)
	Netherlands	**0.09**	(0.03)	0.06	(0.03)	**0.11**	(0.03)	0.01	(0.03)	0.05	(0.03)	**0.05**	(0.02)	**0.08**	(0.03)	0.00	(0.03)
	New Zealand	0.05	(0.03)	**0.07**	(0.03)	0.05	(0.03)	**0.09**	(0.04)	0.01	(0.03)	**0.19**	(0.03)	0.01	(0.03)	**0.16**	(0.03)
	Norway	**0.09**	(0.04)	**0.18**	(0.03)	**0.09**	(0.04)	**0.19**	(0.03)	**0.14**	(0.04)	**0.12**	(0.03)	**0.14**	(0.03)	**0.09**	(0.04)
	Poland	**0.09**	(0.03)	0.05	(0.03)	**0.09**	(0.03)	0.05	(0.03)	0.05	(0.04)	**0.07**	(0.04)	0.05	(0.04)	0.07	(0.04)
	Portugal	0.05	(0.03)	0.03	(0.03)	0.06	(0.03)	0.02	(0.02)	**0.08**	(0.03)	**0.09**	(0.03)	**0.09**	(0.03)	**0.06**	(0.03)
	Slovak Republic	0.02	(0.03)	**0.07**	(0.03)	0.03	(0.03)	0.05	(0.03)	0.02	(0.03)	0.07	(0.03)	0.03	(0.03)	0.04	(0.04)
	Slovenia	**0.07**	(0.03)	**0.11**	(0.03)	**0.07**	(0.03)	**0.10**	(0.03)	0.04	(0.04)	**0.10**	(0.03)	0.03	(0.04)	**0.11**	(0.03)
	Spain	**0.12**	(0.03)	**0.14**	(0.03)	**0.12**	(0.03)	**0.15**	(0.03)	0.04	(0.03)	**0.18**	(0.03)	**0.06**	(0.03)	**0.16**	(0.02)
	Sweden	0.01	(0.04)	0.02	(0.03)	0.01	(0.04)	0.01	(0.04)	0.05	(0.03)	**0.11**	(0.03)	0.05	(0.04)	**0.08**	(0.03)
	Switzerland	**0.09**	(0.03)	**0.06**	(0.03)	**0.10**	(0.03)	0.03	(0.03)	**0.09**	(0.03)	**0.07**	(0.02)	**0.10**	(0.03)	0.04	(0.02)
	Turkey	0.05	(0.03)	**0.11**	(0.03)	0.06	(0.03)	**0.10**	(0.03)	0.00	(0.03)	**0.09**	(0.02)	-0.01	(0.03)	**0.10**	(0.02)
	United Kingdom	**0.06**	(0.03)	**0.06**	(0.02)	**0.06**	(0.03)	**0.06**	(0.02)	**0.13**	(0.04)	**0.11**	(0.03)	**0.13**	(0.04)	**0.09**	(0.03)
	United States	-0.01	(0.03)	0.07	(0.04)	-0.01	(0.03)	0.07	(0.04)	0.04	(0.04)	**0.09**	(0.04)	0.04	(0.04)	0.05	(0.05)
	OECD average	**0.05**	(0.01)	**0.08**	(0.01)	**0.05**	(0.01)	**0.07**	(0.01)	**0.07**	(0.01)	**0.10**	(0.00)	**0.07**	(0.01)	**0.08**	(0.01)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	-0.01	(0.02)	**0.06**	(0.03)	0.00	(0.02)	0.04	(0.03)	-0.03	(0.03)	**0.15**	(0.03)	-0.02	(0.03)	**0.11**	(0.03)
	Brazil	-0.01	(0.02)	**0.04**	(0.02)	-0.01	(0.02)	**0.04**	(0.02)	0.03	(0.02)	**0.06**	(0.02)	0.03	(0.02)	**0.05**	(0.02)
	Bulgaria	-0.03	(0.03)	**0.21**	(0.03)	-0.02	(0.03)	**0.19**	(0.03)	-0.04	(0.03)	**0.22**	(0.03)	-0.02	(0.03)	**0.19**	(0.03)
	Colombia	0.01	(0.03)	**0.13**	(0.03)	0.01	(0.03)	**0.11**	(0.03)	0.05	(0.04)	**0.14**	(0.04)	0.05	(0.04)	**0.10**	(0.03)
	Costa Rica	**0.09**	(0.03)	**0.07**	(0.03)	**0.09**	(0.03)	**0.07**	(0.03)	0.08	(0.05)	**0.08**	(0.04)	0.09	(0.05)	0.06	(0.04)
	Croatia	**0.06**	(0.03)	0.06	(0.03)	**0.06**	(0.03)	0.05	(0.03)	**0.10**	(0.03)	**0.10**	(0.03)	**0.10**	(0.03)	**0.09**	(0.03)
	Cyprus*	0.01	(0.03)	**0.11**	(0.03)	0.01	(0.03)	**0.10**	(0.03)	0.01	(0.02)	**0.15**	(0.02)	0.01	(0.02)	**0.12**	(0.02)
	Hong Kong-China	0.04	(0.03)	0.03	(0.03)	0.04	(0.03)	0.03	(0.03)	**0.05**	(0.02)	**0.07**	(0.02)	**0.05**	(0.02)	**0.05**	(0.02)
	Indonesia	0.01	(0.02)	**0.11**	(0.02)	0.02	(0.02)	**0.10**	(0.02)	0.03	(0.03)	**0.13**	(0.03)	0.03	(0.03)	**0.11**	(0.03)
	Jordan	0.04	(0.03)	**0.18**	(0.03)	**0.06**	(0.03)	**0.12**	(0.03)	-0.01	(0.02)	**0.14**	(0.02)	0.01	(0.02)	**0.10**	(0.02)
	Kazakhstan	**0.19**	(0.04)	**0.17**	(0.04)	**0.20**	(0.04)	**0.16**	(0.04)	**0.09**	(0.03)	**0.21**	(0.04)	**0.11**	(0.03)	**0.16**	(0.04)
	Latvia	**0.09**	(0.04)	0.01	(0.03)	**0.09**	(0.04)	0.02	(0.03)	**0.09**	(0.04)	**0.13**	(0.03)	**0.09**	(0.04)	**0.11**	(0.03)
	Liechtenstein	0.00	(0.21)	-0.13	(0.11)	-0.01	(0.20)	-0.23	(0.12)	0.15	(0.17)	-0.09	(0.10)	0.15	(0.17)	-0.11	(0.10)
	Lithuania	0.06	(0.04)	**0.19**	(0.03)	0.07	(0.04)	**0.15**	(0.03)	0.07	(0.04)	**0.27**	(0.04)	**0.09**	(0.04)	**0.22**	(0.04)
	Macao-China	**0.11**	(0.03)	0.01	(0.03)	**0.11**	(0.03)	0.01	(0.03)	**0.06**	(0.03)	**0.05**	(0.02)	**0.06**	(0.03)	**0.05**	(0.02)
	Malaysia	**0.12**	(0.02)	**0.12**	(0.02)	**0.12**	(0.02)	**0.12**	(0.03)	**0.07**	(0.02)	**0.19**	(0.03)	**0.07**	(0.02)	**0.18**	(0.03)
	Montenegro	0.03	(0.03)	0.06	(0.03)	0.02	(0.03)	**0.09**	(0.03)	-0.01	(0.03)	**0.12**	(0.04)	-0.01	(0.03)	**0.12**	(0.04)
	Peru	**0.07**	(0.03)	**0.11**	(0.03)	**0.07**	(0.03)	**0.10**	(0.03)	0.01	(0.03)	**0.17**	(0.03)	0.02	(0.03)	**0.12**	(0.03)
	Qatar	**-0.06**	(0.02)	**0.17**	(0.02)	-0.04	(0.02)	**0.11**	(0.02)	**-0.06**	(0.01)	**0.23**	(0.02)	-0.02	(0.01)	**0.13**	(0.02)
	Romania	0.01	(0.03)	**0.11**	(0.03)	0.01	(0.03)	**0.11**	(0.03)	-0.02	(0.03)	**0.17**	(0.03)	-0.02	(0.03)	**0.17**	(0.03)
	Russian Federation	**0.11**	(0.02)	0.04	(0.03)	**0.11**	(0.02)	0.04	(0.03)	**0.09**	(0.03)	**0.11**	(0.03)	**0.10**	(0.04)	**0.10**	(0.04)
	Serbia	-0.02	(0.03)	0.06	(0.03)	-0.02	(0.03)	0.06	(0.03)	0.02	(0.02)	**0.07**	(0.02)	0.03	(0.02)	**0.05**	(0.02)
	Shanghai-China	**0.07**	(0.03)	0.05	(0.03)	**0.07**	(0.03)	0.05	(0.03)	**0.07**	(0.03)	0.04	(0.03)	**0.07**	(0.03)	0.05	(0.03)
	Singapore	**0.10**	(0.04)	**0.10**	(0.03)	**0.10**	(0.04)	**0.08**	(0.03)	**0.10**	(0.03)	**0.12**	(0.03)	**0.10**	(0.03)	**0.09**	(0.03)
	Chinese Taipei	0.06	(0.03)	-0.03	(0.02)	0.06	(0.03)	-0.02	(0.03)	**0.08**	(0.03)	0.03	(0.02)	**0.08**	(0.03)	0.04	(0.02)
	Thailand	0.02	(0.02)	**0.12**	(0.03)	0.03	(0.02)	**0.09**	(0.03)	0.01	(0.03)	**0.16**	(0.02)	0.02	(0.03)	**0.12**	(0.03)
	Tunisia	0.00	(0.04)	**0.10**	(0.03)	0.01	(0.04)	**0.09**	(0.03)	0.00	(0.04)	**0.18**	(0.03)	0.01	(0.04)	**0.15**	(0.03)
	United Arab Emirates	**-0.07**	(0.03)	**0.20**	(0.03)	**-0.07**	(0.03)	**0.16**	(0.03)	-0.04	(0.03)	**0.20**	(0.03)	-0.03	(0.03)	**0.14**	(0.03)
	Uruguay	0.00	(0.03)	**0.10**	(0.03)	0.00	(0.03)	**0.10**	(0.03)	-0.01	(0.03)	**0.10**	(0.03)	0.00	(0.03)	**0.09**	(0.03)
	Viet Nam	**0.10**	(0.03)	0.02	(0.03)	**0.10**	(0.03)	0.02	(0.03)	0.06	(0.04)	0.02	(0.03)	0.06	(0.04)	0.03	(0.03)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. The unadjusted results are based on a regression controlling for student gender and the *PISA index of economic, social and cultural status* (ESCS).

2. The adjusted results are based on a regression controlling for student gender and the *PISA index of economic, social and cultural status* (ESCS) and student performance in mathematics.

* See notes at the beginning of this Annex.

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[Part 3/6]

Table III.5.11 The relationship between experience with pure and applied mathematics problems and student engagement, drive, motivation and self-beliefs

Results based on students' self-reports

		The relationship between the following indicators and experience with pure and applied mathematics problems:															
		Perseverance								Openness to problem solving							
		Unadjusted[1]				Adjusted for mathematics performance[2]				Unadjusted[1]				Adjusted for mathematics performance[2]			
		Applied mathematics problems		Pure mathematics problems		Applied mathematics problems		Pure mathematics problems		Applied mathematics problems		Pure mathematics problems		Applied mathematics problems		Pure mathematics problems	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	**0.16**	(0.02)	**0.12**	(0.02)	**0.16**	(0.02)	**0.06**	(0.02)	**0.19**	(0.02)	**0.17**	(0.02)	**0.19**	(0.02)	**0.06**	(0.02)
	Austria	**0.11**	(0.04)	0.02	(0.03)	**0.12**	(0.04)	-0.02	(0.03)	**0.15**	(0.03)	**0.06**	(0.03)	**0.17**	(0.03)	-0.03	(0.03)
	Belgium	**0.08**	(0.02)	**0.07**	(0.02)	**0.09**	(0.02)	0.02	(0.03)	**0.09**	(0.02)	**0.11**	(0.02)	**0.10**	(0.02)	**0.03**	(0.02)
	Canada	**0.13**	(0.02)	**0.14**	(0.02)	**0.13**	(0.02)	**0.09**	(0.02)	**0.18**	(0.02)	**0.17**	(0.02)	**0.18**	(0.02)	**0.06**	(0.02)
	Chile	**0.08**	(0.03)	**0.11**	(0.03)	**0.08**	(0.03)	**0.08**	(0.03)	**0.18**	(0.03)	**0.11**	(0.03)	**0.20**	(0.03)	0.04	(0.03)
	Czech Republic	**0.13**	(0.03)	**0.09**	(0.03)	**0.15**	(0.03)	**0.06**	(0.03)	**0.11**	(0.03)	**0.11**	(0.02)	**0.16**	(0.03)	0.04	(0.03)
	Denmark	0.02	(0.03)	0.04	(0.03)	0.02	(0.03)	0.02	(0.03)	0.06	(0.04)	0.03	(0.03)	0.06	(0.03)	0.01	(0.03)
	Estonia	**0.11**	(0.04)	0.02	(0.03)	**0.11**	(0.04)	0.02	(0.03)	**0.23**	(0.04)	0.05	(0.03)	**0.22**	(0.04)	-0.01	(0.03)
	Finland	**0.25**	(0.03)	**0.11**	(0.02)	**0.23**	(0.03)	0.02	(0.02)	**0.31**	(0.03)	**0.15**	(0.03)	**0.29**	(0.03)	0.02	(0.03)
	France	**0.11**	(0.03)	**0.16**	(0.03)	**0.11**	(0.03)	**0.09**	(0.03)	**0.16**	(0.04)	**0.12**	(0.03)	**0.16**	(0.04)	0.04	(0.03)
	Germany	**0.09**	(0.03)	0.04	(0.03)	**0.11**	(0.03)	-0.02	(0.03)	**0.17**	(0.03)	0.04	(0.03)	**0.20**	(0.03)	-0.05	(0.03)
	Greece	**0.05**	(0.02)	**0.19**	(0.03)	**0.08**	(0.02)	**0.13**	(0.03)	**0.11**	(0.03)	**0.16**	(0.03)	**0.14**	(0.03)	**0.08**	(0.03)
	Hungary	**0.10**	(0.03)	0.04	(0.03)	**0.11**	(0.03)	0.00	(0.03)	**0.09**	(0.04)	**0.10**	(0.05)	**0.11**	(0.04)	0.04	(0.04)
	Iceland	**0.09**	(0.03)	**0.08**	(0.04)	**0.10**	(0.03)	-0.03	(0.04)	**0.24**	(0.04)	**0.12**	(0.04)	**0.25**	(0.04)	-0.01	(0.04)
	Ireland	**0.19**	(0.04)	**0.09**	(0.03)	**0.19**	(0.04)	0.02	(0.03)	**0.14**	(0.04)	**0.16**	(0.03)	**0.14**	(0.03)	0.05	(0.03)
	Israel	**0.14**	(0.03)	**0.13**	(0.03)	**0.14**	(0.03)	**0.13**	(0.04)	**0.23**	(0.03)	**0.14**	(0.03)	**0.25**	(0.03)	**0.08**	(0.03)
	Italy	**0.15**	(0.02)	**0.13**	(0.02)	**0.15**	(0.02)	**0.09**	(0.02)	**0.17**	(0.01)	**0.12**	(0.02)	**0.18**	(0.01)	**0.07**	(0.02)
	Japan	**0.13**	(0.03)	**0.10**	(0.03)	**0.11**	(0.03)	**0.07**	(0.03)	**0.20**	(0.03)	0.04	(0.02)	**0.16**	(0.03)	-0.02	(0.02)
	Korea	**0.15**	(0.02)	**0.09**	(0.03)	**0.14**	(0.02)	0.02	(0.03)	**0.23**	(0.03)	**0.18**	(0.03)	**0.21**	(0.03)	0.06	(0.03)
	Luxembourg	**0.13**	(0.03)	**0.08**	(0.03)	**0.14**	(0.03)	0.05	(0.03)	**0.20**	(0.03)	**0.10**	(0.02)	**0.22**	(0.03)	0.04	(0.02)
	Mexico	**0.12**	(0.02)	**0.14**	(0.02)	**0.13**	(0.02)	**0.09**	(0.02)	**0.20**	(0.02)	**0.16**	(0.02)	**0.21**	(0.02)	**0.09**	(0.02)
	Netherlands	**0.11**	(0.03)	**0.06**	(0.02)	**0.11**	(0.03)	0.05	(0.03)	**0.09**	(0.03)	**0.16**	(0.03)	**0.13**	(0.03)	0.07	(0.04)
	New Zealand	**0.10**	(0.03)	**0.17**	(0.02)	**0.10**	(0.03)	**0.11**	(0.03)	**0.20**	(0.03)	**0.17**	(0.02)	**0.20**	(0.03)	**0.07**	(0.03)
	Norway	**0.08**	(0.04)	**0.16**	(0.04)	**0.10**	(0.04)	0.04	(0.04)	0.04	(0.03)	**0.23**	(0.04)	0.06	(0.03)	**0.10**	(0.03)
	Poland	**0.08**	(0.03)	**0.16**	(0.04)	**0.08**	(0.03)	**0.10**	(0.03)	**0.13**	(0.04)	**0.14**	(0.04)	**0.13**	(0.04)	0.08	(0.04)
	Portugal	0.04	(0.03)	**0.17**	(0.03)	**0.07**	(0.03)	**0.09**	(0.03)	**0.13**	(0.03)	**0.13**	(0.02)	**0.16**	(0.03)	**0.05**	(0.02)
	Slovak Republic	0.06	(0.04)	**0.12**	(0.03)	**0.11**	(0.04)	0.05	(0.03)	**0.13**	(0.03)	**0.08**	(0.03)	**0.18**	(0.03)	0.01	(0.03)
	Slovenia	**0.13**	(0.03)	**0.10**	(0.03)	**0.13**	(0.03)	**0.07**	(0.03)	**0.22**	(0.03)	**0.12**	(0.03)	**0.23**	(0.02)	0.04	(0.03)
	Spain	**0.11**	(0.02)	**0.15**	(0.02)	**0.13**	(0.02)	**0.10**	(0.02)	**0.13**	(0.03)	**0.09**	(0.03)	**0.16**	(0.02)	-0.01	(0.02)
	Sweden	**0.10**	(0.03)	**0.12**	(0.03)	**0.12**	(0.03)	0.05	(0.03)	**0.15**	(0.04)	**0.15**	(0.04)	**0.17**	(0.04)	0.06	(0.04)
	Switzerland	**0.13**	(0.03)	**0.03**	(0.02)	**0.13**	(0.03)	-0.01	(0.02)	**0.18**	(0.03)	**0.08**	(0.02)	**0.19**	(0.02)	0.00	(0.02)
	Turkey	**0.14**	(0.02)	**0.13**	(0.03)	**0.16**	(0.02)	**0.06**	(0.03)	**0.19**	(0.02)	**0.15**	(0.02)	**0.21**	(0.02)	**0.09**	(0.03)
	United Kingdom	**0.12**	(0.03)	**0.14**	(0.02)	**0.11**	(0.03)	**0.07**	(0.02)	**0.23**	(0.02)	**0.09**	(0.02)	**0.21**	(0.02)	-0.01	(0.02)
	United States	**0.19**	(0.03)	**0.14**	(0.04)	**0.18**	(0.03)	**0.11**	(0.04)	**0.20**	(0.03)	**0.18**	(0.04)	**0.19**	(0.03)	**0.09**	(0.04)
	OECD average	**0.11**	(0.01)	**0.11**	(0.00)	**0.12**	(0.01)	**0.06**	(0.00)	**0.17**	(0.01)	**0.12**	(0.01)	**0.18**	(0.01)	**0.04**	(0.01)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**0.07**	(0.03)	**0.10**	(0.03)	**0.08**	(0.03)	**0.07**	(0.04)	**0.19**	(0.03)	**0.11**	(0.04)	**0.20**	(0.03)	0.07	(0.04)
	Brazil	**0.12**	(0.02)	**0.09**	(0.02)	**0.13**	(0.02)	**0.07**	(0.02)	**0.20**	(0.02)	**0.07**	(0.02)	**0.21**	(0.02)	**0.05**	(0.02)
	Bulgaria	**0.08**	(0.03)	**0.20**	(0.03)	**0.09**	(0.03)	**0.16**	(0.03)	**0.19**	(0.03)	0.05	(0.03)	**0.20**	(0.03)	0.02	(0.03)
	Colombia	0.03	(0.03)	**0.18**	(0.03)	0.03	(0.03)	**0.17**	(0.03)	**0.17**	(0.03)	**0.13**	(0.03)	**0.17**	(0.03)	**0.13**	(0.03)
	Costa Rica	**0.10**	(0.03)	**0.10**	(0.03)	**0.12**	(0.03)	**0.07**	(0.03)	**0.18**	(0.02)	**0.19**	(0.03)	**0.22**	(0.02)	**0.11**	(0.03)
	Croatia	**0.19**	(0.03)	**0.09**	(0.03)	**0.19**	(0.03)	**0.09**	(0.03)	**0.19**	(0.03)	**0.06**	(0.03)	**0.19**	(0.02)	0.02	(0.03)
	Cyprus*	**0.10**	(0.03)	**0.15**	(0.02)	**0.11**	(0.03)	**0.10**	(0.03)	**0.21**	(0.02)	**0.18**	(0.02)	**0.22**	(0.02)	**0.10**	(0.02)
	Hong Kong-China	**0.07**	(0.03)	**0.05**	(0.02)	**0.08**	(0.03)	0.02	(0.03)	**0.13**	(0.04)	**0.10**	(0.03)	**0.15**	(0.04)	-0.01	(0.03)
	Indonesia	**0.08**	(0.03)	**0.10**	(0.03)	**0.08**	(0.03)	**0.10**	(0.03)	**0.18**	(0.03)	**0.07**	(0.03)	**0.18**	(0.03)	0.06	(0.03)
	Jordan	0.03	(0.02)	**0.28**	(0.03)	0.04	(0.02)	**0.21**	(0.03)	**0.26**	(0.02)	**0.22**	(0.03)	**0.26**	(0.02)	**0.19**	(0.03)
	Kazakhstan	**0.16**	(0.03)	**0.16**	(0.03)	**0.17**	(0.03)	**0.14**	(0.03)	**0.23**	(0.03)	**0.13**	(0.03)	**0.24**	(0.03)	**0.11**	(0.03)
	Latvia	**0.16**	(0.04)	**0.14**	(0.03)	**0.17**	(0.04)	**0.11**	(0.03)	**0.22**	(0.04)	**0.14**	(0.03)	**0.23**	(0.04)	**0.07**	(0.03)
	Liechtenstein	**0.40**	(0.10)	0.09	(0.07)	**0.40**	(0.10)	0.07	(0.08)	**0.23**	(0.11)	0.10	(0.10)	**0.24**	(0.11)	0.08	(0.11)
	Lithuania	**0.13**	(0.03)	**0.14**	(0.03)	**0.13**	(0.03)	**0.12**	(0.03)	**0.18**	(0.03)	**0.20**	(0.03)	**0.19**	(0.03)	**0.10**	(0.03)
	Macao-China	**0.08**	(0.03)	**0.07**	(0.03)	**0.10**	(0.03)	0.04	(0.03)	**0.16**	(0.03)	**0.10**	(0.03)	**0.19**	(0.03)	0.04	(0.03)
	Malaysia	**0.14**	(0.03)	**0.09**	(0.02)	**0.15**	(0.03)	**0.05**	(0.03)	**0.29**	(0.03)	**0.06**	(0.02)	**0.30**	(0.03)	0.03	(0.03)
	Montenegro	**0.13**	(0.04)	**0.11**	(0.04)	**0.14**	(0.04)	0.03	(0.04)	**0.14**	(0.03)	0.00	(0.03)	**0.14**	(0.03)	0.00	(0.03)
	Peru	0.04	(0.02)	**0.15**	(0.03)	0.05	(0.02)	**0.12**	(0.03)	**0.16**	(0.03)	**0.12**	(0.03)	**0.17**	(0.03)	**0.08**	(0.03)
	Qatar	0.00	(0.02)	**0.24**	(0.02)	**0.04**	(0.02)	**0.13**	(0.02)	**0.20**	(0.02)	**0.13**	(0.02)	**0.21**	(0.02)	**0.10**	(0.02)
	Romania	**0.06**	(0.02)	**0.12**	(0.03)	**0.06**	(0.02)	**0.10**	(0.03)	**0.16**	(0.02)	**0.09**	(0.02)	**0.17**	(0.02)	**0.06**	(0.02)
	Russian Federation	**0.11**	(0.03)	**0.09**	(0.03)	**0.11**	(0.03)	**0.09**	(0.03)	**0.22**	(0.04)	**0.11**	(0.02)	**0.23**	(0.04)	0.03	(0.03)
	Serbia	0.05	(0.03)	**0.12**	(0.03)	0.05	(0.03)	**0.10**	(0.03)	**0.17**	(0.03)	**0.08**	(0.03)	**0.19**	(0.03)	0.04	(0.03)
	Shanghai-China	0.06	(0.03)	0.00	(0.03)	**0.07**	(0.03)	-0.01	(0.03)	**0.13**	(0.02)	-0.01	(0.03)	**0.15**	(0.02)	-0.01	(0.03)
	Singapore	**0.12**	(0.03)	**0.10**	(0.02)	**0.12**	(0.03)	**0.09**	(0.03)	**0.20**	(0.04)	**0.12**	(0.03)	**0.21**	(0.04)	**0.08**	(0.03)
	Chinese Taipei	**0.12**	(0.02)	**0.05**	(0.02)	**0.13**	(0.02)	-0.01	(0.02)	**0.21**	(0.03)	0.04	(0.02)	**0.22**	(0.03)	-0.03	(0.03)
	Thailand	0.02	(0.03)	**0.13**	(0.02)	0.03	(0.03)	**0.10**	(0.02)	**0.20**	(0.04)	0.01	(0.03)	**0.21**	(0.04)	-0.01	(0.03)
	Tunisia	**0.07**	(0.03)	**0.27**	(0.03)	**0.09**	(0.03)	**0.22**	(0.03)	**0.14**	(0.03)	**0.23**	(0.03)	**0.15**	(0.03)	**0.18**	(0.03)
	United Arab Emirates	**0.06**	(0.02)	**0.22**	(0.02)	**0.07**	(0.02)	**0.15**	(0.02)	**0.26**	(0.02)	**0.17**	(0.02)	**0.26**	(0.02)	**0.14**	(0.03)
	Uruguay	0.02	(0.03)	**0.11**	(0.03)	0.04	(0.03)	**0.08**	(0.03)	**0.15**	(0.03)	**0.08**	(0.03)	**0.19**	(0.03)	0.03	(0.03)
	Viet Nam	**0.15**	(0.04)	**0.12**	(0.03)	**0.16**	(0.04)	**0.10**	(0.03)	**0.29**	(0.03)	**0.08**	(0.03)	**0.31**	(0.03)	0.03	(0.03)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. The unadjusted results are based on a regression controlling for student gender and the *PISA index of economic, social and cultural status* (ESCS).

2. The adjusted results are based on a regression controlling for student gender and the *PISA index of economic, social and cultural status* (ESCS) and student performance in mathematics.

* See notes at the beginning of this Annex.

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[Part 4/6]

Table III.5.11 The relationship between experience with pure and applied mathematics problems and student engagement, drive, motivation and self-beliefs

Results based on students' self-reports

		The relationship between the following indicators and experience with pure and applied mathematics problems:															
		Intrinsic motivation to learn mathematics								Instrumental motivation to learn mathematics							
		Unadjusted[1]				Adjusted for mathematics performance[2]				Unadjusted[1]				Adjusted for mathematics performance[2]			
		Applied mathematics problems		Pure mathematics problems		Applied mathematics problems		Pure mathematics problems		Applied mathematics problems		Pure mathematics problems		Applied mathematics problems		Pure mathematics problems	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	**0.11**	(0.02)	**0.21**	(0.02)	**0.11**	(0.02)	**0.15**	(0.02)	**0.07**	(0.02)	**0.19**	(0.02)	**0.07**	(0.02)	**0.16**	(0.02)
	Austria	**0.10**	(0.03)	**0.08**	(0.03)	**0.11**	(0.03)	0.02	(0.03)	**0.11**	(0.03)	0.03	(0.03)	**0.11**	(0.03)	0.02	(0.03)
	Belgium	**0.09**	(0.02)	**0.14**	(0.02)	**0.10**	(0.02)	**0.08**	(0.02)	**0.08**	(0.02)	**0.15**	(0.02)	**0.10**	(0.02)	**0.08**	(0.02)
	Canada	**0.14**	(0.02)	**0.19**	(0.02)	**0.14**	(0.02)	**0.14**	(0.02)	**0.12**	(0.02)	**0.18**	(0.02)	**0.12**	(0.02)	**0.13**	(0.02)
	Chile	**0.10**	(0.02)	**0.18**	(0.02)	**0.10**	(0.02)	**0.14**	(0.03)	**0.08**	(0.03)	**0.18**	(0.03)	**0.09**	(0.03)	**0.15**	(0.03)
	Czech Republic	**0.15**	(0.03)	**0.12**	(0.03)	**0.18**	(0.03)	**0.07**	(0.03)	**0.19**	(0.03)	**0.12**	(0.03)	**0.21**	(0.03)	**0.09**	(0.03)
	Denmark	-0.02	(0.03)	0.04	(0.03)	-0.02	(0.03)	0.01	(0.03)	-0.03	(0.03)	0.05	(0.03)	-0.03	(0.03)	0.03	(0.03)
	Estonia	**0.12**	(0.03)	**0.13**	(0.02)	**0.12**	(0.03)	**0.09**	(0.02)	**0.12**	(0.04)	**0.13**	(0.03)	**0.12**	(0.04)	**0.10**	(0.03)
	Finland	**0.20**	(0.03)	**0.13**	(0.02)	**0.19**	(0.03)	**0.05**	(0.03)	**0.17**	(0.02)	**0.15**	(0.02)	**0.15**	(0.02)	**0.08**	(0.02)
	France	**0.09**	(0.03)	**0.11**	(0.03)	**0.09**	(0.03)	0.06	(0.03)	**0.09**	(0.03)	0.05	(0.03)	**0.09**	(0.03)	0.03	(0.03)
	Germany	**0.10**	(0.04)	0.06	(0.04)	**0.13**	(0.04)	-0.03	(0.04)	0.07	(0.04)	**0.08**	(0.03)	**0.09**	(0.04)	0.03	(0.04)
	Greece	**0.09**	(0.03)	**0.32**	(0.03)	**0.12**	(0.03)	**0.25**	(0.03)	**0.11**	(0.03)	**0.25**	(0.03)	**0.13**	(0.02)	**0.19**	(0.03)
	Hungary	**0.16**	(0.03)	0.01	(0.03)	**0.17**	(0.03)	-0.03	(0.04)	**0.15**	(0.03)	0.03	(0.03)	**0.15**	(0.03)	0.00	(0.03)
	Iceland	**0.10**	(0.04)	**0.10**	(0.04)	**0.11**	(0.04)	0.00	(0.04)	0.06	(0.03)	**0.19**	(0.03)	0.06	(0.03)	**0.12**	(0.04)
	Ireland	0.04	(0.03)	**0.18**	(0.03)	0.04	(0.03)	**0.12**	(0.03)	0.05	(0.03)	**0.15**	(0.03)	0.05	(0.03)	**0.12**	(0.03)
	Israel	**0.18**	(0.03)	**0.11**	(0.03)	**0.18**	(0.03)	**0.11**	(0.03)	**0.09**	(0.03)	**0.15**	(0.03)	**0.09**	(0.03)	**0.14**	(0.04)
	Italy	**0.16**	(0.02)	**0.17**	(0.02)	**0.17**	(0.01)	**0.12**	(0.02)	**0.14**	(0.01)	**0.14**	(0.02)	**0.15**	(0.01)	**0.11**	(0.02)
	Japan	**0.17**	(0.03)	**0.17**	(0.02)	**0.13**	(0.03)	**0.10**	(0.02)	**0.17**	(0.03)	**0.16**	(0.03)	**0.13**	(0.03)	**0.10**	(0.03)
	Korea	**0.15**	(0.03)	**0.29**	(0.03)	**0.13**	(0.03)	**0.13**	(0.04)	**0.14**	(0.03)	**0.35**	(0.03)	**0.11**	(0.03)	**0.17**	(0.04)
	Luxembourg	**0.15**	(0.03)	**0.10**	(0.03)	**0.16**	(0.03)	**0.06**	(0.03)	**0.15**	(0.03)	**0.10**	(0.03)	**0.15**	(0.03)	**0.07**	(0.03)
	Mexico	**0.15**	(0.01)	**0.12**	(0.01)	**0.15**	(0.01)	**0.10**	(0.01)	**0.10**	(0.01)	**0.13**	(0.01)	**0.11**	(0.01)	**0.11**	(0.02)
	Netherlands	0.03	(0.02)	**0.14**	(0.02)	**0.08**	(0.02)	0.04	(0.03)	**0.07**	(0.03)	**0.14**	(0.03)	**0.12**	(0.03)	0.04	(0.03)
	New Zealand	**0.13**	(0.03)	**0.15**	(0.02)	**0.13**	(0.03)	**0.15**	(0.03)	**0.07**	(0.03)	**0.19**	(0.02)	**0.07**	(0.03)	**0.17**	(0.02)
	Norway	0.03	(0.04)	**0.23**	(0.04)	0.05	(0.03)	**0.12**	(0.03)	-0.03	(0.03)	**0.27**	(0.03)	-0.02	(0.03)	**0.19**	(0.03)
	Poland	0.06	(0.03)	**0.09**	(0.04)	0.06	(0.03)	0.02	(0.04)	**0.10**	(0.03)	**0.14**	(0.04)	**0.10**	(0.03)	0.07	(0.04)
	Portugal	**0.06**	(0.02)	**0.26**	(0.02)	**0.07**	(0.02)	**0.23**	(0.02)	0.01	(0.03)	**0.30**	(0.03)	0.03	(0.03)	**0.25**	(0.03)
	Slovak Republic	**0.13**	(0.03)	**0.07**	(0.03)	**0.15**	(0.03)	0.03	(0.03)	**0.12**	(0.03)	**0.06**	(0.03)	**0.15**	(0.03)	0.02	(0.03)
	Slovenia	**0.12**	(0.04)	**0.16**	(0.03)	**0.13**	(0.03)	**0.10**	(0.04)	**0.09**	(0.03)	**0.09**	(0.03)	**0.10**	(0.03)	0.04	(0.04)
	Spain	**0.08**	(0.02)	**0.13**	(0.02)	**0.10**	(0.02)	**0.07**	(0.02)	**0.06**	(0.02)	**0.15**	(0.03)	**0.08**	(0.02)	**0.08**	(0.03)
	Sweden	**0.08**	(0.04)	**0.11**	(0.04)	**0.09**	(0.03)	0.03	(0.03)	**0.07**	(0.03)	**0.10**	(0.03)	**0.08**	(0.03)	**0.06**	(0.03)
	Switzerland	**0.14**	(0.04)	**0.07**	(0.03)	**0.15**	(0.03)	0.02	(0.02)	**0.13**	(0.03)	0.01	(0.02)	**0.14**	(0.03)	-0.01	(0.02)
	Turkey	**0.15**	(0.02)	**0.25**	(0.02)	**0.16**	(0.02)	**0.22**	(0.03)	**0.11**	(0.02)	**0.21**	(0.02)	**0.12**	(0.02)	**0.18**	(0.02)
	United Kingdom	**0.11**	(0.03)	**0.13**	(0.03)	**0.10**	(0.03)	**0.07**	(0.03)	**0.10**	(0.03)	**0.11**	(0.02)	**0.10**	(0.03)	**0.09**	(0.02)
	United States	**0.18**	(0.03)	**0.12**	(0.04)	**0.18**	(0.03)	0.08	(0.04)	**0.15**	(0.03)	**0.12**	(0.03)	**0.15**	(0.03)	**0.08**	(0.03)
	OECD average	**0.11**	(0.00)	**0.14**	(0.00)	**0.12**	(0.00)	**0.09**	(0.01)	**0.10**	(0.00)	**0.14**	(0.00)	**0.10**	(0.00)	**0.10**	(0.00)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**0.12**	(0.03)	**0.15**	(0.04)	**0.12**	(0.03)	**0.16**	(0.04)	**0.10**	(0.04)	**0.17**	(0.03)	**0.10**	(0.04)	**0.18**	(0.03)
	Brazil	**0.08**	(0.02)	**0.13**	(0.02)	**0.08**	(0.02)	**0.13**	(0.02)	**0.10**	(0.02)	**0.10**	(0.02)	**0.10**	(0.02)	**0.10**	(0.02)
	Bulgaria	**0.15**	(0.03)	**0.11**	(0.03)	**0.15**	(0.03)	**0.10**	(0.03)	**0.12**	(0.03)	**0.16**	(0.03)	**0.13**	(0.03)	**0.14**	(0.03)
	Colombia	**0.09**	(0.03)	**0.18**	(0.03)	**0.08**	(0.03)	**0.19**	(0.03)	**0.06**	(0.03)	**0.14**	(0.03)	0.05	(0.03)	**0.15**	(0.03)
	Costa Rica	**0.15**	(0.03)	**0.12**	(0.03)	**0.15**	(0.03)	**0.13**	(0.03)	**0.16**	(0.03)	**0.07**	(0.03)	**0.15**	(0.03)	**0.09**	(0.03)
	Croatia	**0.15**	(0.03)	**0.08**	(0.03)	**0.15**	(0.03)	**0.06**	(0.03)	**0.17**	(0.03)	**0.13**	(0.03)	**0.16**	(0.03)	**0.09**	(0.03)
	Cyprus*	**0.13**	(0.02)	**0.28**	(0.03)	**0.14**	(0.02)	**0.21**	(0.03)	**0.09**	(0.03)	**0.31**	(0.03)	**0.10**	(0.03)	**0.22**	(0.03)
	Hong Kong-China	**0.14**	(0.04)	**0.14**	(0.03)	**0.18**	(0.04)	0.01	(0.03)	**0.17**	(0.04)	**0.12**	(0.03)	**0.19**	(0.04)	0.04	(0.03)
	Indonesia	**0.06**	(0.02)	**0.11**	(0.02)	**0.06**	(0.02)	**0.11**	(0.02)	**0.06**	(0.02)	**0.08**	(0.02)	**0.06**	(0.02)	**0.08**	(0.02)
	Jordan	**0.14**	(0.02)	**0.28**	(0.03)	**0.15**	(0.02)	**0.25**	(0.03)	**0.10**	(0.03)	**0.25**	(0.03)	**0.10**	(0.03)	**0.22**	(0.03)
	Kazakhstan	**0.19**	(0.02)	**0.12**	(0.02)	**0.19**	(0.02)	**0.11**	(0.02)	**0.18**	(0.02)	**0.10**	(0.03)	**0.17**	(0.02)	**0.10**	(0.03)
	Latvia	**0.15**	(0.03)	**0.14**	(0.03)	**0.15**	(0.03)	**0.10**	(0.04)	**0.09**	(0.03)	**0.16**	(0.03)	**0.10**	(0.03)	**0.13**	(0.03)
	Liechtenstein	**0.34**	(0.16)	-0.03	(0.14)	**0.34**	(0.16)	-0.07	(0.14)	**0.38**	(0.13)	-0.13	(0.13)	**0.37**	(0.13)	-0.09	(0.12)
	Lithuania	**0.17**	(0.03)	**0.15**	(0.03)	**0.18**	(0.03)	**0.09**	(0.03)	**0.17**	(0.03)	**0.16**	(0.04)	**0.18**	(0.03)	**0.09**	(0.04)
	Macao-China	**0.11**	(0.03)	**0.07**	(0.03)	**0.13**	(0.03)	0.02	(0.03)	**0.13**	(0.03)	**0.06**	(0.03)	**0.15**	(0.03)	0.03	(0.03)
	Malaysia	**0.08**	(0.03)	**0.25**	(0.02)	**0.09**	(0.03)	**0.21**	(0.03)	**0.10**	(0.03)	**0.26**	(0.02)	**0.10**	(0.03)	**0.22**	(0.03)
	Montenegro	**0.09**	(0.03)	**0.19**	(0.03)	**0.10**	(0.03)	**0.17**	(0.03)	**0.10**	(0.03)	**0.14**	(0.03)	**0.10**	(0.03)	**0.13**	(0.03)
	Peru	**0.11**	(0.02)	**0.17**	(0.02)	**0.10**	(0.02)	**0.19**	(0.03)	**0.08**	(0.02)	**0.19**	(0.03)	**0.08**	(0.02)	**0.19**	(0.03)
	Qatar	**0.15**	(0.02)	**0.27**	(0.02)	**0.17**	(0.02)	**0.23**	(0.02)	**0.06**	(0.02)	**0.31**	(0.02)	**0.09**	(0.02)	**0.23**	(0.02)
	Romania	0.02	(0.02)	**-0.14**	(0.02)	0.01	(0.02)	**-0.12**	(0.02)	0.02	(0.03)	**-0.15**	(0.03)	0.02	(0.03)	**-0.14**	(0.03)
	Russian Federation	**0.12**	(0.02)	**0.13**	(0.03)	**0.13**	(0.02)	**0.10**	(0.03)	**0.08**	(0.03)	**0.17**	(0.03)	**0.09**	(0.03)	**0.15**	(0.03)
	Serbia	**0.08**	(0.02)	**0.16**	(0.02)	**0.09**	(0.02)	**0.15**	(0.02)	**0.09**	(0.03)	**0.14**	(0.02)	**0.09**	(0.03)	**0.14**	(0.02)
	Shanghai-China	**0.08**	(0.03)	**0.13**	(0.03)	**0.09**	(0.02)	**0.12**	(0.03)	**0.09**	(0.02)	**0.10**	(0.03)	**0.10**	(0.02)	**0.09**	(0.03)
	Singapore	**0.13**	(0.03)	**0.16**	(0.03)	**0.13**	(0.03)	**0.14**	(0.03)	**0.12**	(0.03)	**0.12**	(0.03)	**0.12**	(0.03)	**0.13**	(0.03)
	Chinese Taipei	**0.17**	(0.02)	**0.12**	(0.02)	**0.18**	(0.02)	0.01	(0.02)	**0.14**	(0.02)	**0.14**	(0.02)	**0.15**	(0.02)	**0.05**	(0.02)
	Thailand	**0.09**	(0.02)	**0.09**	(0.02)	**0.09**	(0.02)	**0.08**	(0.03)	**0.06**	(0.03)	**0.17**	(0.03)	**0.07**	(0.02)	**0.14**	(0.03)
	Tunisia	0.05	(0.03)	**0.34**	(0.03)	0.06	(0.03)	**0.32**	(0.03)	0.01	(0.04)	**0.29**	(0.03)	0.03	(0.03)	**0.25**	(0.03)
	United Arab Emirates	**0.18**	(0.03)	**0.27**	(0.02)	**0.18**	(0.03)	**0.27**	(0.02)	**0.15**	(0.02)	**0.24**	(0.02)	**0.15**	(0.02)	**0.22**	(0.02)
	Uruguay	**0.12**	(0.02)	**0.06**	(0.02)	**0.13**	(0.03)	**0.05**	(0.02)	**0.11**	(0.02)	**0.07**	(0.03)	**0.12**	(0.03)	**0.06**	(0.03)
	Viet Nam	**0.14**	(0.02)	**0.14**	(0.02)	**0.15**	(0.02)	**0.10**	(0.02)	**0.09**	(0.02)	**0.14**	(0.03)	**0.11**	(0.02)	**0.11**	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. The unadjusted results are based on a regression controlling for student gender and the *PISA index of economic, social and cultural status* (ESCS).

2. The adjusted results are based on a regression controlling for student gender and the *PISA index of economic, social and cultural status* (ESCS) and student performance in mathematics.

* See notes at the beginning of this Annex.

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[Part 5/6]

Table III.5.11 The relationship between experience with pure and applied mathematics problems and student engagement, drive, motivation and self-beliefs

Results based on students' self-reports

		The relationship between the following indicators and experience with pure and applied mathematics problems:															
		Mathematics self-efficacy								Mathematics self-concept							
		Unadjusted[1]				Adjusted for mathematics performance[2]				Unadjusted[1]				Adjusted for mathematics performance[2]			
		Applied mathematics problems		Pure mathematics problems		Applied mathematics problems		Pure mathematics problems		Applied mathematics problems		Pure mathematics problems		Applied mathematics problems		Pure mathematics problems	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	Australia	**0.23**	(0.02)	**0.26**	(0.02)	**0.22**	(0.02)	**0.08**	(0.02)	-0.02	(0.02)	**0.24**	(0.02)	-0.01	(0.02)	**0.11**	(0.02)
	Austria	**0.18**	(0.03)	**0.25**	(0.03)	**0.21**	(0.03)	**0.10**	(0.03)	**0.19**	(0.03)	0.03	(0.03)	**0.25**	(0.04)	**-0.10**	(0.03)
	Belgium	**0.12**	(0.02)	**0.25**	(0.02)	**0.14**	(0.02)	**0.11**	(0.02)	**0.05**	(0.02)	**0.06**	(0.02)	**0.06**	(0.02)	**-0.04**	(0.02)
	Canada	**0.25**	(0.02)	**0.23**	(0.02)	**0.25**	(0.02)	**0.09**	(0.02)	-0.01	(0.02)	**0.19**	(0.02)	0.00	(0.02)	**0.06**	(0.02)
	Chile	**0.22**	(0.02)	**0.17**	(0.02)	**0.23**	(0.02)	**0.10**	(0.02)	**0.07**	(0.03)	**0.19**	(0.02)	**0.06**	(0.03)	**0.11**	(0.02)
	Czech Republic	**0.10**	(0.03)	**0.21**	(0.03)	**0.18**	(0.02)	**0.07**	(0.03)	0.02	(0.04)	**0.17**	(0.03)	**0.10**	(0.03)	0.03	(0.03)
	Denmark	0.05	(0.03)	**0.06**	(0.03)	0.04	(0.03)	0.03	(0.02)	**-0.12**	(0.03)	0.03	(0.03)	-0.07	(0.03)	-0.04	(0.02)
	Estonia	**0.25**	(0.03)	**0.12**	(0.02)	**0.24**	(0.03)	**0.04**	(0.02)	-0.05	(0.04)	**0.12**	(0.03)	-0.01	(0.04)	0.04	(0.02)
	Finland	**0.27**	(0.03)	**0.22**	(0.02)	**0.24**	(0.03)	**0.09**	(0.02)	**0.12**	(0.04)	**0.22**	(0.03)	**0.07**	(0.03)	0.04	(0.03)
	France	**0.22**	(0.03)	**0.17**	(0.02)	**0.21**	(0.03)	**0.06**	(0.02)	0.02	(0.04)	**0.11**	(0.03)	0.01	(0.04)	0.02	(0.03)
	Germany	**0.17**	(0.04)	**0.17**	(0.03)	**0.23**	(0.03)	-0.02	(0.03)	0.03	(0.04)	**0.13**	(0.04)	**0.09**	(0.04)	-0.01	(0.04)
	Greece	**0.15**	(0.03)	**0.30**	(0.03)	**0.20**	(0.03)	**0.18**	(0.03)	**-0.04**	(0.02)	**0.16**	(0.02)	0.02	(0.02)	**0.09**	(0.02)
	Hungary	**0.13**	(0.04)	**0.27**	(0.04)	**0.16**	(0.04)	**0.08**	(0.03)	**0.06**	(0.03)	0.04	(0.03)	**0.09**	(0.03)	-0.03	(0.03)
	Iceland	**0.21**	(0.04)	**0.18**	(0.04)	**0.23**	(0.03)	0.01	(0.04)	0.03	(0.03)	**0.17**	(0.03)	0.03	(0.03)	0.02	(0.03)
	Ireland	**0.11**	(0.03)	**0.25**	(0.03)	**0.11**	(0.03)	**0.11**	(0.02)	0.06	(0.03)	**0.12**	(0.03)	0.07	(0.03)	0.03	(0.03)
	Israel	**0.22**	(0.03)	**0.29**	(0.03)	**0.27**	(0.03)	**0.16**	(0.03)	**0.06**	(0.03)	**0.07**	(0.03)	**0.09**	(0.03)	0.01	(0.03)
	Italy	**0.18**	(0.01)	**0.28**	(0.01)	**0.19**	(0.01)	**0.17**	(0.01)	**0.06**	(0.01)	**0.13**	(0.02)	**0.06**	(0.01)	**0.04**	(0.02)
	Japan	**0.28**	(0.03)	**0.28**	(0.03)	**0.21**	(0.03)	**0.15**	(0.03)	**0.11**	(0.02)	**0.12**	(0.02)	**0.09**	(0.02)	**0.06**	(0.02)
	Korea	**0.31**	(0.03)	**0.36**	(0.03)	**0.28**	(0.03)	**0.12**	(0.03)	**0.10**	(0.02)	**0.31**	(0.03)	**0.09**	(0.02)	**0.10**	(0.04)
	Luxembourg	**0.21**	(0.03)	**0.19**	(0.02)	**0.24**	(0.03)	**0.08**	(0.02)	0.05	(0.04)	**0.07**	(0.03)	**0.09**	(0.04)	-0.02	(0.03)
	Mexico	**0.20**	(0.02)	**0.20**	(0.01)	**0.21**	(0.01)	**0.13**	(0.01)	0.01	(0.01)	**0.13**	(0.01)	**0.03**	(0.01)	**0.05**	(0.02)
	Netherlands	0.03	(0.04)	**0.29**	(0.03)	**0.12**	(0.04)	**0.07**	(0.03)	0.06	(0.04)	0.02	(0.03)	**0.14**	(0.04)	**-0.14**	(0.03)
	New Zealand	**0.21**	(0.03)	**0.28**	(0.03)	**0.20**	(0.03)	**0.13**	(0.03)	**0.09**	(0.03)	**0.16**	(0.03)	**0.08**	(0.03)	0.04	(0.03)
	Norway	**0.11**	(0.04)	**0.26**	(0.04)	**0.14**	(0.04)	0.07	(0.04)	**0.10**	(0.04)	**0.16**	(0.04)	**0.09**	(0.03)	-0.04	(0.03)
	Poland	**0.10**	(0.04)	**0.23**	(0.04)	**0.10**	(0.03)	0.07	(0.04)	**0.08**	(0.04)	**0.08**	(0.03)	**0.06**	(0.03)	-0.02	(0.03)
	Portugal	**0.09**	(0.03)	**0.33**	(0.02)	**0.16**	(0.02)	**0.16**	(0.02)	**0.06**	(0.03)	**0.18**	(0.03)	**0.07**	(0.02)	**0.09**	(0.03)
	Slovak Republic	-0.02	(0.03)	**0.22**	(0.04)	**0.08**	(0.03)	**0.07**	(0.03)	0.02	(0.04)	**0.09**	(0.03)	0.08	(0.04)	-0.01	(0.04)
	Slovenia	**0.18**	(0.03)	**0.28**	(0.03)	**0.20**	(0.03)	**0.15**	(0.03)	0.02	(0.03)	0.04	(0.03)	**0.06**	(0.03)	-0.05	(0.03)
	Spain	**0.11**	(0.02)	**0.18**	(0.03)	**0.16**	(0.02)	**0.05**	(0.03)	0.00	(0.03)	**0.07**	(0.02)	**0.07**	(0.03)	-0.03	(0.02)
	Sweden	**0.16**	(0.03)	**0.13**	(0.03)	**0.19**	(0.03)	0.02	(0.03)	**0.08**	(0.04)	**0.16**	(0.04)	**0.09**	(0.03)	**0.08**	(0.03)
	Switzerland	**0.13**	(0.03)	**0.24**	(0.03)	**0.16**	(0.03)	**0.06**	(0.03)	0.05	(0.03)	**0.07**	(0.02)	**0.08**	(0.03)	**-0.05**	(0.02)
	Turkey	**0.17**	(0.02)	**0.29**	(0.02)	**0.21**	(0.02)	**0.16**	(0.02)	0.04	(0.03)	**0.23**	(0.03)	**0.08**	(0.03)	**0.16**	(0.02)
	United Kingdom	**0.27**	(0.02)	**0.21**	(0.03)	**0.24**	(0.02)	**0.05**	(0.02)	**0.10**	(0.03)	**0.11**	(0.02)	**0.08**	(0.02)	0.00	(0.02)
	United States	**0.19**	(0.02)	**0.21**	(0.02)	**0.18**	(0.02)	**0.07**	(0.02)	0.03	(0.03)	**0.15**	(0.03)	0.04	(0.03)	0.03	(0.03)
	OECD average	**0.17**	(0.01)	**0.23**	(0.00)	**0.19**	(0.00)	**0.09**	(0.00)	**0.04**	(0.01)	**0.13**	(0.00)	**0.07**	(0.00)	**0.02**	(0.00)
Partners	Albania	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**0.20**	(0.02)	**0.18**	(0.03)	**0.21**	(0.02)	**0.14**	(0.02)	0.05	(0.03)	**0.11**	(0.03)	**0.08**	(0.03)	**0.06**	(0.03)
	Brazil	**0.18**	(0.02)	**0.18**	(0.02)	**0.19**	(0.02)	**0.14**	(0.02)	0.00	(0.02)	**0.06**	(0.01)	0.00	(0.02)	**0.05**	(0.01)
	Bulgaria	**0.16**	(0.04)	**0.18**	(0.03)	**0.20**	(0.03)	**0.08**	(0.03)	**0.06**	(0.02)	0.05	(0.03)	**0.08**	(0.02)	0.01	(0.03)
	Colombia	**0.22**	(0.02)	**0.16**	(0.02)	**0.22**	(0.02)	**0.14**	(0.02)	**0.05**	(0.02)	**0.14**	(0.02)	**0.05**	(0.02)	**0.10**	(0.02)
	Costa Rica	**0.25**	(0.03)	**0.21**	(0.02)	**0.27**	(0.03)	**0.18**	(0.02)	**0.06**	(0.03)	**0.13**	(0.02)	**0.10**	(0.03)	**0.08**	(0.03)
	Croatia	**0.23**	(0.03)	**0.18**	(0.02)	**0.21**	(0.02)	**0.05**	(0.03)	**0.10**	(0.03)	**0.11**	(0.03)	**0.10**	(0.03)	0.03	(0.03)
	Cyprus*	**0.28**	(0.03)	**0.28**	(0.03)	**0.30**	(0.03)	**0.12**	(0.03)	**0.06**	(0.03)	**0.25**	(0.03)	**0.08**	(0.03)	**0.13**	(0.03)
	Hong Kong-China	**0.15**	(0.04)	**0.26**	(0.04)	**0.21**	(0.03)	0.02	(0.03)	0.01	(0.04)	**0.14**	(0.03)	0.05	(0.04)	0.01	(0.03)
	Indonesia	**0.15**	(0.03)	**0.12**	(0.02)	**0.16**	(0.03)	**0.11**	(0.02)	**0.05**	(0.02)	**0.07**	(0.02)	**0.05**	(0.02)	**0.07**	(0.02)
	Jordan	**0.29**	(0.03)	**0.27**	(0.02)	**0.29**	(0.02)	**0.20**	(0.02)	**0.07**	(0.02)	**0.38**	(0.03)	**0.09**	(0.02)	**0.30**	(0.03)
	Kazakhstan	**0.27**	(0.02)	**0.19**	(0.02)	**0.30**	(0.02)	**0.13**	(0.02)	**0.14**	(0.02)	**0.18**	(0.03)	**0.16**	(0.02)	**0.15**	(0.03)
	Latvia	**0.21**	(0.03)	**0.21**	(0.03)	**0.23**	(0.03)	**0.09**	(0.03)	0.06	(0.03)	**0.19**	(0.03)	**0.07**	(0.03)	**0.09**	(0.03)
	Liechtenstein	0.16	(0.11)	0.20	(0.11)	0.18	(0.10)	0.09	(0.09)	0.15	(0.17)	0.01	(0.11)	0.15	(0.17)	-0.06	(0.13)
	Lithuania	**0.19**	(0.03)	**0.25**	(0.03)	**0.21**	(0.03)	**0.07**	(0.03)	**0.08**	(0.03)	**0.17**	(0.03)	**0.13**	(0.03)	0.02	(0.03)
	Macao-China	**0.13**	(0.03)	**0.14**	(0.03)	**0.18**	(0.03)	0.02	(0.03)	0.03	(0.03)	0.02	(0.03)	0.06	(0.03)	-0.04	(0.03)
	Malaysia	**0.22**	(0.02)	**0.21**	(0.02)	**0.24**	(0.02)	**0.11**	(0.02)	**0.04**	(0.02)	**0.14**	(0.02)	**0.06**	(0.02)	**0.08**	(0.02)
	Montenegro	**0.22**	(0.03)	**0.19**	(0.03)	**0.23**	(0.03)	**0.11**	(0.03)	**0.09**	(0.03)	**0.19**	(0.03)	**0.12**	(0.03)	**0.10**	(0.03)
	Peru	**0.20**	(0.02)	**0.20**	(0.02)	**0.22**	(0.02)	**0.16**	(0.02)	**0.06**	(0.02)	**0.11**	(0.02)	**0.08**	(0.02)	**0.06**	(0.02)
	Qatar	**0.20**	(0.02)	**0.33**	(0.02)	**0.24**	(0.02)	**0.22**	(0.02)	-0.01	(0.01)	**0.21**	(0.01)	0.01	(0.01)	**0.16**	(0.02)
	Romania	**0.15**	(0.02)	**0.15**	(0.03)	**0.16**	(0.02)	**0.09**	(0.03)	**0.07**	(0.02)	**0.05**	(0.02)	**0.07**	(0.02)	0.02	(0.02)
	Russian Federation	**0.17**	(0.03)	**0.21**	(0.02)	**0.19**	(0.03)	**0.09**	(0.02)	**0.07**	(0.02)	**0.18**	(0.02)	**0.09**	(0.02)	**0.09**	(0.02)
	Serbia	**0.12**	(0.03)	**0.22**	(0.02)	**0.15**	(0.03)	**0.13**	(0.02)	0.05	(0.03)	**0.12**	(0.03)	**0.09**	(0.03)	**0.06**	(0.03)
	Shanghai-China	0.05	(0.03)	0.07	(0.04)	**0.10**	(0.02)	0.04	(0.03)	0.00	(0.03)	**0.06**	(0.02)	0.03	(0.03)	0.03	(0.02)
	Singapore	**0.20**	(0.03)	**0.29**	(0.04)	**0.24**	(0.03)	**0.09**	(0.03)	0.04	(0.03)	**0.14**	(0.03)	0.04	(0.03)	0.04	(0.03)
	Chinese Taipei	**0.16**	(0.03)	**0.34**	(0.03)	**0.19**	(0.03)	**0.11**	(0.02)	**0.09**	(0.03)	**0.20**	(0.03)	**0.09**	(0.03)	0.05	(0.03)
	Thailand	**0.17**	(0.03)	**0.14**	(0.02)	**0.19**	(0.03)	**0.08**	(0.02)	**0.07**	(0.02)	0.02	(0.02)	**0.08**	(0.02)	0.00	(0.02)
	Tunisia	**0.20**	(0.03)	**0.30**	(0.03)	**0.23**	(0.03)	**0.22**	(0.03)	0.02	(0.03)	**0.28**	(0.02)	0.05	(0.03)	**0.22**	(0.03)
	United Arab Emirates	**0.34**	(0.02)	**0.27**	(0.01)	**0.35**	(0.02)	**0.16**	(0.02)	0.03	(0.02)	**0.25**	(0.02)	0.04	(0.02)	**0.17**	(0.02)
	Uruguay	**0.10**	(0.03)	**0.15**	(0.03)	**0.14**	(0.03)	**0.09**	(0.02)	0.04	(0.03)	**0.12**	(0.03)	**0.10**	(0.03)	0.03	(0.03)
	Viet Nam	**0.15**	(0.03)	**0.18**	(0.02)	**0.18**	(0.02)	**0.09**	(0.02)	**0.05**	(0.02)	**0.09**	(0.02)	**0.07**	(0.02)	**0.05**	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. The unadjusted results are based on a regression controlling for student gender and the *PISA index of economic, social and cultural status* (ESCS).

2. The adjusted results are based on a regression controlling for student gender and the *PISA index of economic, social and cultural status* (ESCS) and student performance in mathematics.

* See notes at the beginning of this Annex.

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[Part 6/6]

Table III.5.11

The relationship between experience with pure and applied mathematics problems and student engagement, drive, motivation and self-beliefs

Results based on students' self-reports

		The relationship between the following indicators and experience with pure and applied mathematics problems:							
		Mathematics anxiety							
		Unadjusted[1]				Adjusted for mathematics performance[2]			
		Applied mathematics problems		Pure mathematics problems		Applied mathematics problems		Pure mathematics problems	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	0.03	(0.02)	**-0.19**	(0.02)	0.03	(0.02)	**-0.07**	(0.02)
	Austria	-0.04	(0.04)	-0.05	(0.03)	**-0.11**	(0.04)	**0.09**	(0.03)
	Belgium	-0.01	(0.02)	-0.01	(0.02)	-0.02	(0.02)	**0.10**	(0.02)
	Canada	**0.07**	(0.02)	**-0.19**	(0.02)	**0.06**	(0.03)	**-0.06**	(0.02)
	Chile	0.01	(0.02)	**-0.07**	(0.02)	0.01	(0.02)	-0.03	(0.02)
	Czech Republic	**0.07**	(0.03)	**-0.15**	(0.03)	0.01	(0.03)	-0.02	(0.03)
	Denmark	**0.14**	(0.04)	-0.04	(0.03)	**0.09**	(0.04)	0.03	(0.03)
	Estonia	**0.10**	(0.04)	**-0.12**	(0.03)	0.06	(0.04)	-0.04	(0.03)
	Finland	-0.02	(0.03)	**-0.15**	(0.03)	0.02	(0.02)	-0.01	(0.03)
	France	-0.02	(0.04)	-0.01	(0.03)	-0.01	(0.04)	**0.07**	(0.03)
	Germany	**0.11**	(0.04)	**-0.15**	(0.04)	0.04	(0.04)	0.00	(0.04)
	Greece	**0.14**	(0.02)	**-0.13**	(0.03)	**0.07**	(0.02)	-0.05	(0.03)
	Hungary	0.05	(0.03)	**-0.08**	(0.04)	0.01	(0.03)	0.01	(0.03)
	Iceland	0.01	(0.03)	**-0.17**	(0.03)	0.00	(0.03)	-0.02	(0.04)
	Ireland	-0.02	(0.04)	**-0.12**	(0.02)	-0.03	(0.04)	-0.04	(0.03)
	Israel	0.01	(0.03)	-0.03	(0.03)	-0.03	(0.03)	0.04	(0.03)
	Italy	**0.04**	(0.02)	-0.01	(0.02)	**0.04**	(0.02)	**0.07**	(0.02)
	Japan	-0.06	(0.03)	**-0.13**	(0.02)	-0.04	(0.03)	**-0.08**	(0.02)
	Korea	-0.05	(0.03)	**-0.09**	(0.04)	-0.04	(0.02)	0.01	(0.04)
	Luxembourg	**0.10**	(0.03)	**-0.07**	(0.03)	0.05	(0.03)	0.05	(0.03)
	Mexico	**0.05**	(0.01)	**-0.10**	(0.01)	0.03	(0.01)	-0.02	(0.01)
	Netherlands	**0.09**	(0.04)	-0.01	(0.03)	0.01	(0.04)	**0.15**	(0.03)
	New Zealand	**-0.07**	(0.03)	**-0.12**	(0.03)	**-0.06**	(0.03)	0.03	(0.03)
	Norway	-0.06	(0.05)	**-0.13**	(0.04)	-0.06	(0.05)	0.03	(0.04)
	Poland	-0.02	(0.04)	**-0.09**	(0.04)	0.00	(0.03)	0.02	(0.04)
	Portugal	0.02	(0.02)	**-0.08**	(0.02)	0.01	(0.02)	-0.01	(0.02)
	Slovak Republic	0.06	(0.04)	**-0.08**	(0.03)	-0.01	(0.04)	0.04	(0.04)
	Slovenia	0.04	(0.03)	0.00	(0.04)	0.01	(0.03)	**0.08**	(0.04)
	Spain	**0.08**	(0.02)	-0.01	(0.02)	0.04	(0.02)	**0.05**	(0.02)
	Sweden	-0.01	(0.04)	**-0.16**	(0.04)	-0.02	(0.04)	**-0.08**	(0.03)
	Switzerland	0.00	(0.03)	**-0.06**	(0.02)	-0.04	(0.02)	**0.07**	(0.02)
	Turkey	-0.01	(0.03)	**-0.23**	(0.03)	**-0.07**	(0.03)	**-0.13**	(0.03)
	United Kingdom	-0.07	(0.04)	**-0.08**	(0.03)	-0.05	(0.03)	0.02	(0.03)
	United States	0.04	(0.03)	**-0.19**	(0.03)	0.03	(0.03)	-0.06	(0.03)
	OECD average	**0.02**	(0.01)	**-0.10**	(0.01)	0.00	(0.01)	0.01	(0.00)
Partners	**Albania**	m	m	m	m	m	m	m	m
	Argentina	**0.12**	(0.02)	**-0.11**	(0.03)	**0.08**	(0.02)	-0.05	(0.03)
	Brazil	**0.05**	(0.02)	**-0.04**	(0.02)	**0.05**	(0.02)	-0.03	(0.02)
	Bulgaria	**0.15**	(0.03)	**-0.12**	(0.04)	**0.10**	(0.03)	-0.04	(0.03)
	Colombia	0.00	(0.02)	**-0.11**	(0.02)	-0.01	(0.02)	**-0.06**	(0.02)
	Costa Rica	0.00	(0.03)	**-0.05**	(0.03)	-0.04	(0.03)	-0.01	(0.03)
	Croatia	0.02	(0.03)	**-0.08**	(0.04)	0.03	(0.03)	0.01	(0.04)
	Cyprus*	0.05	(0.03)	**-0.22**	(0.03)	0.02	(0.03)	**-0.09**	(0.03)
	Hong Kong-China	**0.11**	(0.04)	**-0.12**	(0.04)	**0.07**	(0.04)	0.00	(0.04)
	Indonesia	0.00	(0.02)	**-0.07**	(0.02)	0.00	(0.02)	**-0.05**	(0.02)
	Jordan	**0.11**	(0.03)	**-0.15**	(0.03)	**0.09**	(0.03)	**-0.09**	(0.02)
	Kazakhstan	**-0.08**	(0.03)	**-0.19**	(0.03)	**-0.10**	(0.03)	**-0.14**	(0.03)
	Latvia	0.05	(0.04)	**-0.13**	(0.03)	0.03	(0.03)	-0.04	(0.03)
	Liechtenstein	-0.13	(0.16)	0.03	(0.12)	-0.12	(0.16)	0.12	(0.13)
	Lithuania	**0.14**	(0.04)	**-0.15**	(0.03)	**0.09**	(0.03)	-0.02	(0.03)
	Macao-China	0.05	(0.04)	-0.05	(0.03)	0.01	(0.04)	0.01	(0.03)
	Malaysia	0.02	(0.03)	**-0.12**	(0.02)	0.00	(0.03)	-0.02	(0.02)
	Montenegro	**0.06**	(0.03)	**-0.21**	(0.03)	0.03	(0.03)	**-0.11**	(0.03)
	Peru	0.00	(0.02)	**-0.15**	(0.02)	-0.02	(0.02)	**-0.08**	(0.02)
	Qatar	**0.17**	(0.02)	**-0.25**	(0.02)	**0.12**	(0.01)	**-0.11**	(0.02)
	Romania	**0.06**	(0.02)	**-0.06**	(0.03)	**0.05**	(0.02)	-0.02	(0.03)
	Russian Federation	0.00	(0.02)	**-0.14**	(0.03)	-0.02	(0.02)	**-0.05**	(0.02)
	Serbia	**0.09**	(0.03)	**-0.12**	(0.03)	0.04	(0.03)	**-0.06**	(0.03)
	Shanghai-China	**0.07**	(0.03)	**-0.06**	(0.03)	0.03	(0.03)	-0.03	(0.03)
	Singapore	0.02	(0.03)	**-0.16**	(0.03)	0.02	(0.03)	-0.05	(0.03)
	Chinese Taipei	0.05	(0.03)	**-0.07**	(0.03)	0.05	(0.03)	0.04	(0.03)
	Thailand	0.05	(0.03)	**-0.05**	(0.02)	0.04	(0.03)	-0.01	(0.02)
	Tunisia	0.02	(0.03)	**-0.14**	(0.03)	0.00	(0.03)	**-0.09**	(0.03)
	United Arab Emirates	0.05	(0.03)	**-0.27**	(0.02)	0.03	(0.03)	**-0.12**	(0.03)
	Uruguay	**0.07**	(0.03)	**-0.10**	(0.03)	0.02	(0.03)	-0.01	(0.03)
	Viet Nam	-0.04	(0.02)	**-0.05**	(0.02)	**-0.06**	(0.02)	-0.01	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. The unadjusted results are based on a regression controlling for student gender and the *PISA index of economic, social and cultural status* (ESCS).

2. The adjusted results are based on a regression controlling for student gender and the *PISA index of economic, social and cultural status* (ESCS) and student performance in mathematics.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.5.14 Relationship between teachers' use of cognitive-activation strategies and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with teachers' use of cognitive-activation strategies:																			
		Arriving late for school				Skipping classes or days of school				Sense of belonging				Perseverance				Openness to problem solving			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	Australia	**-1.7**	(0.5)	**-1.1**	(0.5)	**-3.0**	-0.6	**-2.2**	-0.5	**0.21**	(0.01)	**0.20**	(0.01)	**0.21**	(0.02)	**0.19**	(0.02)	**0.20**	(0.02)	**0.17**	(0.02)
	Austria	**-3.0**	(0.9)	**-3.0**	(0.9)	-0.7	-0.8	-0.7	-0.8	**0.25**	(0.03)	**0.25**	(0.03)	**0.17**	(0.03)	**0.17**	(0.03)	**0.25**	(0.03)	**0.26**	(0.03)
	Belgium	-0.1	(0.7)	0.5	(0.7)	0.2	0.6	0.6	0.5	**0.17**	(0.02)	**0.16**	(0.01)	**0.11**	(0.03)	**0.10**	(0.03)	**0.22**	(0.03)	**0.21**	(0.03)
	Canada	**-2.4**	(0.7)	**-2.1**	(0.6)	**-3.5**	-0.4	**-3.3**	-0.4	**0.20**	(0.02)	**0.20**	(0.02)	**0.17**	(0.03)	**0.16**	(0.03)	**0.21**	(0.02)	**0.20**	(0.02)
	Chile	**-1.9**	(0.9)	**-1.8**	(0.9)	-0.6	-0.6	-0.6	-0.6	**0.27**	(0.02)	**0.27**	(0.02)	**0.16**	(0.02)	**0.16**	(0.02)	**0.19**	(0.02)	**0.19**	(0.02)
	Czech Republic	1.0	(0.9)	0.9	(0.9)	-1.0	-0.8	-1.0	-0.7	**0.11**	(0.02)	**0.11**	(0.02)	**0.15**	(0.03)	**0.14**	(0.03)	**0.25**	(0.03)	**0.25**	(0.03)
	Denmark	**-3.8**	(1.1)	**-3.5**	(1.1)	**-2.3**	-1.1	-1.9	-1.0	**0.26**	(0.03)	**0.26**	(0.03)	**0.24**	(0.03)	**0.22**	(0.03)	**0.32**	(0.03)	**0.29**	(0.03)
	Estonia	0.6	(1.3)	0.7	(1.2)	-0.3	-1.1	-0.1	-1.2	**0.21**	(0.02)	**0.21**	(0.02)	**0.22**	(0.04)	**0.22**	(0.04)	**0.22**	(0.04)	**0.21**	(0.04)
	Finland	**-2.2**	(0.8)	**-1.9**	(0.8)	-0.5	-0.8	-0.2	-0.8	**0.19**	(0.02)	**0.19**	(0.02)	**0.18**	(0.02)	**0.17**	(0.02)	**0.22**	(0.03)	**0.21**	(0.03)
	France	-1.0	(1.0)	-1.1	(1.0)	**-3.5**	-1.0	**-3.6**	-1.0	**0.16**	(0.02)	**0.17**	(0.02)	**0.20**	(0.04)	**0.21**	(0.04)	**0.24**	(0.04)	**0.24**	(0.04)
	Germany	-1.0	(1.1)	-0.9	(1.1)	**-1.8**	-0.8	**-1.6**	-0.8	**0.21**	(0.03)	**0.21**	(0.03)	**0.18**	(0.04)	**0.17**	(0.05)	**0.19**	(0.04)	**0.17**	(0.04)
	Greece	**-2.8**	(1.0)	**-2.8**	(1.0)	**-2.6**	-0.9	**-2.6**	-0.9	**0.14**	(0.02)	**0.14**	(0.02)	**0.09**	(0.03)	**0.08**	(0.03)	**0.10**	(0.03)	**0.09**	(0.03)
	Hungary	0.7	(0.9)	1.0	(1.0)	0.9	-1.0	1.1	-0.9	**0.19**	(0.02)	**0.19**	(0.02)	**0.07**	(0.03)	**0.07**	(0.03)	**0.21**	(0.04)	**0.21**	(0.04)
	Iceland	-1.1	(0.9)	-1.2	(0.9)	-0.8	-0.6	-0.9	-0.6	**0.21**	(0.02)	**0.21**	(0.02)	**0.13**	(0.03)	**0.13**	(0.03)	**0.23**	(0.03)	**0.24**	(0.03)
	Ireland	**-2.2**	(0.9)	**-1.9**	(0.9)	-1.7	-0.9	-1.6	-0.9	**0.21**	(0.02)	**0.21**	(0.02)	**0.19**	(0.04)	**0.18**	(0.04)	**0.18**	(0.03)	**0.16**	(0.02)
	Israel	**-4.4**	(1.0)	**-4.2**	(1.0)	**-3.9**	-0.9	**-3.8**	-0.9	**0.23**	(0.02)	**0.23**	(0.02)	**0.23**	(0.04)	**0.23**	(0.04)	**0.30**	(0.03)	**0.29**	(0.03)
	Italy	-0.6	(0.5)	0.2	(0.5)	**-1.0**	-0.5	-0.3	-0.5	**0.16**	(0.01)	**0.16**	(0.01)	**0.17**	(0.02)	**0.15**	(0.02)	**0.21**	(0.02)	**0.19**	(0.02)
	Japan	-0.5	(0.5)	-0.2	(0.5)	**-1.0**	-0.5	-0.6	-0.4	**0.17**	(0.02)	**0.17**	(0.02)	**0.10**	(0.03)	**0.08**	(0.03)	**0.19**	(0.03)	**0.17**	(0.03)
	Korea	-1.7	(0.9)	-1.2	(0.9)	**-1.0**	-0.4	**-0.8**	-0.4	**0.17**	(0.02)	**0.16**	(0.02)	**0.06**	(0.02)	**0.05**	(0.02)	**0.15**	(0.02)	**0.12**	(0.02)
	Luxembourg	-1.4	(0.8)	-1.3	(0.8)	-1.1	-0.6	-1.1	-0.6	**0.13**	(0.02)	**0.13**	(0.02)	**0.19**	(0.02)	**0.18**	(0.02)	**0.27**	(0.03)	**0.26**	(0.03)
	Mexico	**-1.3**	(0.4)	**-1.4**	(0.4)	**-1.1**	-0.5	**-1.1**	-0.5	**0.18**	(0.01)	**0.18**	(0.01)	**0.12**	(0.01)	**0.12**	(0.01)	**0.23**	(0.02)	**0.23**	(0.02)
	Netherlands	0.0	(0.9)	0.5	(0.8)	0.1	-0.6	0.2	-0.6	**0.12**	(0.02)	**0.12**	(0.02)	**0.09**	(0.02)	**0.09**	(0.02)	**0.15**	(0.04)	**0.14**	(0.04)
	New Zealand	-1.1	(1.1)	-0.7	(1.0)	-1.1	-0.9	-0.6	-0.8	**0.20**	(0.02)	**0.20**	(0.02)	**0.19**	(0.03)	**0.17**	(0.03)	**0.26**	(0.02)	**0.25**	(0.02)
	Norway	0.3	(0.8)	0.8	(0.8)	**-2.0**	-0.6	**-1.6**	-0.6	**0.25**	(0.02)	**0.25**	(0.02)	**0.21**	(0.04)	**0.19**	(0.03)	**0.28**	(0.03)	**0.26**	(0.03)
	Poland	**-2.5**	(1.1)	-1.7	(1.1)	**-3.2**	-1.0	**-2.4**	-1.0	**0.18**	(0.03)	**0.19**	(0.03)	**0.17**	(0.04)	**0.14**	(0.04)	**0.20**	(0.04)	**0.18**	(0.04)
	Portugal	**-2.6**	(0.8)	**-2.6**	(0.8)	**-2.0**	-0.7	**-2.0**	-0.7	**0.18**	(0.02)	**0.18**	(0.01)	**0.14**	(0.03)	**0.15**	(0.02)	**0.18**	(0.02)	**0.19**	(0.02)
	Slovak Republic	2.1	(1.1)	1.6	(1.1)	0.4	-0.8	0.0	-0.8	**0.13**	(0.02)	**0.14**	(0.02)	**0.11**	(0.04)	**0.13**	(0.05)	**0.23**	(0.05)	**0.24**	(0.05)
	Slovenia	-2.5	(1.3)	-1.9	(1.3)	-0.3	-1.1	0.6	-1.1	**0.25**	(0.03)	**0.25**	(0.03)	**0.18**	(0.03)	**0.17**	(0.03)	**0.27**	(0.04)	**0.24**	(0.04)
	Spain	-1.3	(0.7)	-1.1	(0.7)	-0.3	-0.6	-0.1	-0.6	**0.22**	(0.02)	**0.22**	(0.02)	**0.16**	(0.02)	**0.15**	(0.02)	**0.20**	(0.02)	**0.18**	(0.02)
	Sweden	0.8	(0.9)	1.1	(0.9)	**-1.5**	-0.7	-1.3	-0.7	**0.20**	(0.02)	**0.20**	(0.02)	**0.17**	(0.03)	**0.15**	(0.03)	**0.22**	(0.03)	**0.20**	(0.03)
	Switzerland	-1.2	(0.7)	-1.2	(0.7)	**-2.0**	-0.6	**-2.0**	-0.6	**0.20**	(0.02)	**0.20**	(0.02)	**0.13**	(0.03)	**0.13**	(0.03)	**0.22**	(0.04)	**0.22**	(0.04)
	Turkey	0.2	(1.0)	0.2	(1.0)	-0.6	-0.9	-0.6	-0.9	**0.18**	(0.02)	**0.18**	(0.02)	**0.13**	(0.03)	**0.13**	(0.03)	**0.24**	(0.03)	**0.24**	(0.03)
	United Kingdom	**-2.2**	(0.7)	**-1.4**	(0.7)	-1.0	-0.7	-0.5	-0.7	**0.24**	(0.02)	**0.24**	(0.02)	**0.26**	(0.04)	**0.24**	(0.04)	**0.26**	(0.03)	**0.23**	(0.03)
	United States	-1.4	(0.8)	-1.3	(0.8)	-1.1	-0.9	-1.1	-0.9	**0.24**	(0.02)	**0.24**	(0.02)	**0.20**	(0.03)	**0.20**	(0.03)	**0.26**	(0.03)	**0.25**	(0.03)
	OECD average	**-1.2**	(0.2)	**-1.0**	(0.2)	**-1.3**	0.1	**-1.1**	0.1	**0.19**	(0.00)	**0.19**	(0.00)	**0.16**	(0.01)	**0.15**	(0.01)	**0.22**	(0.01)	**0.21**	(0.01)
Partners	Albania	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	0.3	(0.9)	-0.4	(0.9)	0.5	-1.0	-0.1	-1.0	**0.12**	(0.02)	**0.13**	(0.02)	0.04	(0.03)	0.05	(0.03)	**0.21**	(0.03)	**0.22**	(0.03)
	Brazil	-1.1	(0.6)	**-1.3**	(0.6)	**-1.2**	-0.5	**-1.3**	-0.5	**0.15**	(0.01)	**0.15**	(0.01)	**0.11**	(0.02)	**0.11**	(0.02)	**0.23**	(0.02)	**0.24**	(0.02)
	Bulgaria	**-1.4**	(0.7)	**-1.6**	(0.7)	-1.6	-1.0	**-1.9**	-0.9	**0.16**	(0.01)	**0.16**	(0.01)	**0.06**	(0.03)	**0.07**	(0.03)	**0.24**	(0.03)	**0.24**	(0.03)
	Colombia	**-2.1**	(0.8)	**-2.1**	(0.8)	-0.5	-0.8	-0.5	-0.8	**0.17**	(0.03)	**0.17**	(0.02)	**0.15**	(0.04)	**0.15**	(0.04)	**0.19**	(0.03)	**0.19**	(0.03)
	Costa Rica	-0.3	(1.2)	-0.3	(1.2)	-1.9	-1.2	-1.9	-1.2	**0.23**	(0.03)	**0.23**	(0.03)	**0.14**	(0.04)	**0.14**	(0.04)	**0.30**	(0.04)	**0.30**	(0.04)
	Croatia	-0.5	(0.9)	-0.2	(0.8)	0.8	-1.1	1.3	-0.9	**0.18**	(0.02)	**0.17**	(0.02)	**0.13**	(0.04)	**0.13**	(0.04)	**0.19**	(0.03)	**0.19**	(0.03)
	Cyprus*	**-3.3**	(0.8)	**-3.2**	(0.8)	**-2.5**	-0.8	**-2.2**	-0.8	**0.16**	(0.02)	**0.16**	(0.02)	**0.14**	(0.02)	**0.12**	(0.02)	**0.26**	(0.04)	**0.25**	(0.03)
	Hong Kong-China	0.7	(0.9)	1.1	(0.9)	0.2	-0.6	0.4	-0.6	**0.22**	(0.02)	**0.22**	(0.02)	**0.10**	(0.03)	**0.09**	(0.03)	**0.17**	(0.04)	**0.16**	(0.03)
	Indonesia	-0.2	(1.0)	0.4	(1.0)	0.0	-1.1	0.7	-1.0	**0.17**	(0.02)	**0.16**	(0.02)	**0.17**	(0.03)	**0.17**	(0.03)	**0.24**	(0.03)	**0.25**	(0.03)
	Jordan	-0.9	(0.7)	-0.7	(0.7)	-1.5	-0.8	-1.3	-0.8	**0.23**	(0.01)	**0.22**	(0.01)	**0.15**	(0.02)	**0.13**	(0.02)	**0.27**	(0.03)	**0.27**	(0.03)
	Kazakhstan	**-2.4**	(1.0)	**-2.4**	(1.0)	-2.3	-1.2	-2.3	-1.2	**0.33**	(0.02)	**0.33**	(0.02)	**0.19**	(0.04)	**0.20**	(0.04)	**0.32**	(0.04)	**0.32**	(0.04)
	Latvia	-1.6	(1.5)	-1.5	(1.5)	-1.8	-1.4	-1.7	-1.5	**0.23**	(0.03)	**0.23**	(0.03)	**0.15**	(0.04)	**0.15**	(0.04)	**0.18**	(0.05)	**0.17**	(0.04)
	Liechtenstein	**-7.9**	(3.7)	-6.7	(4.1)	-5.1	-2.7	-5.0	-3.0	**0.42**	(0.09)	**0.41**	(0.09)	0.09	(0.19)	0.07	(0.17)	0.26	(0.14)	0.18	(0.14)
	Lithuania	0.9	(1.0)	0.9	(1.0)	0.0	-1.0	0.1	-1.0	**0.21**	(0.03)	**0.21**	(0.03)	**0.16**	(0.02)	**0.16**	(0.03)	**0.25**	(0.04)	**0.24**	(0.04)
	Macao-China	-0.6	(0.9)	-0.8	(0.9)	-0.7	-0.6	-0.8	-0.6	**0.21**	(0.02)	**0.21**	(0.02)	**0.16**	(0.03)	**0.16**	(0.03)	**0.23**	(0.03)	**0.24**	(0.03)
	Malaysia	-1.5	(1.0)	-0.5	(1.0)	-1.1	-1.1	-0.6	-1.1	**0.13**	(0.02)	**0.12**	(0.02)	0.05	(0.03)	0.04	(0.03)	**0.29**	(0.04)	**0.29**	(0.04)
	Montenegro	-1.6	(1.0)	-1.8	(1.0)	**-2.0**	-1.0	**-2.3**	-0.9	**0.16**	(0.02)	**0.16**	(0.02)	**0.13**	(0.03)	**0.13**	(0.03)	**0.26**	(0.03)	**0.26**	(0.03)
	Peru	-0.8	(0.9)	-1.4	(0.9)	**1.7**	-0.8	1.1	-0.8	**0.18**	(0.02)	**0.19**	(0.02)	**0.12**	(0.02)	**0.13**	(0.02)	**0.23**	(0.03)	**0.23**	(0.03)
	Qatar	**-1.4**	(0.4)	**-1.3**	(0.4)	**-2.0**	-0.4	**-2.0**	-0.4	**0.15**	(0.01)	**0.15**	(0.01)	**0.09**	(0.01)	**0.09**	(0.01)	**0.24**	(0.02)	**0.25**	(0.02)
	Romania	1.4	(1.1)	1.1	(1.1)	1.5	-1.0	0.9	-1.0	**0.18**	(0.02)	**0.18**	(0.02)	**0.16**	(0.03)	**0.17**	(0.03)	**0.24**	(0.03)	**0.24**	(0.03)
	Russian Federation	**-3.0**	(1.0)	**-3.2**	(1.0)	**-3.6**	-1.0	**-3.8**	-0.9	**0.24**	(0.02)	**0.24**	(0.02)	**0.22**	(0.04)	**0.22**	(0.04)	**0.33**	(0.04)	**0.32**	(0.04)
	Serbia	0.2	(1.2)	0.0	(1.1)	1.2	-1.1	1.0	-1.0	**0.14**	(0.02)	**0.14**	(0.02)	**0.16**	(0.03)	**0.16**	(0.03)	**0.26**	(0.03)	**0.26**	(0.04)
	Shanghai-China	-0.8	(0.6)	-0.2	(0.6)	-0.1	-0.4	0.0	-0.4	**0.30**	(0.02)	**0.30**	(0.02)	**0.20**	(0.03)	**0.20**	(0.03)	**0.24**	(0.03)	**0.23**	(0.03)
	Singapore	**-2.1**	(0.6)	**-1.9**	(0.6)	**-2.5**	-0.6	**-2.4**	-0.7	**0.22**	(0.02)	**0.22**	(0.02)	**0.18**	(0.02)	**0.18**	(0.02)	**0.19**	(0.02)	**0.18**	(0.02)
	Chinese Taipei	-1.2	(0.8)	-0.7	(0.8)	**-1.9**	-0.7	**-1.4**	-0.7	**0.18**	(0.02)	**0.19**	(0.02)	**0.14**	(0.03)	**0.13**	(0.03)	**0.17**	(0.03)	**0.15**	(0.03)
	Thailand	0.6	(1.0)	0.4	(1.0)	1.4	-1.0	1.3	-1.0	**0.16**	(0.02)	**0.16**	(0.02)	**0.10**	(0.02)	**0.10**	(0.02)	**0.22**	(0.03)	**0.22**	(0.03)
	Tunisia	-0.3	(0.9)	-0.3	(0.9)	0.6	-1.0	0.5	-1.0	**0.18**	(0.02)	**0.19**	(0.02)	**0.23**	(0.03)	**0.23**	(0.03)	**0.20**	(0.05)	**0.20**	(0.05)
	United Arab Emirates	-0.7	(0.7)	-0.6	(0.7)	-1.0	-0.6	-1.0	-0.6	**0.20**	(0.01)	**0.20**	(0.01)	**0.12**	(0.02)	**0.12**	(0.02)	**0.24**	(0.02)	**0.24**	(0.02)
	Uruguay	-1.0	(1.1)	-1.2	(1.1)	-1.6	-0.9	**-1.8**	-0.9	**0.18**	(0.02)	**0.18**	(0.02)	**0.19**	(0.04)	**0.21**	(0.04)	**0.22**	(0.04)	**0.24**	(0.04)
	Viet Nam	**1.9**	(0.9)	**2.4**	(0.9)	0.6	-1.0	1.3	-1.0	**0.23**	(0.02)	**0.23**	(0.02)	**0.20**	(0.03)	**0.19**	(0.03)	**0.29**	(0.04)	**0.26**	(0.04)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.5.14 **Relationship between teachers' use of cognitive-activation strategies and student dispositions**
Results based on students' self-reports

		Change in the following student dispositions that is associated with teachers' use of cognitive-activation strategies:																			
		Intrinsic motivation to learn mathematics				Mathematics self-efficacy				Mathematics self-concept				Mathematics anxiety				Mathematics intentions			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	**0.31**	(0.02)	**0.29**	(0.02)	**0.25**	(0.02)	**0.20**	(0.02)	**0.22**	(0.01)	**0.19**	(0.01)	**-0.14**	(0.01)	**-0.10**	(0.01)	**0.15**	(0.02)	**0.15**	(0.02)
	Austria	**0.32**	(0.03)	**0.33**	(0.03)	**0.23**	(0.03)	**0.24**	(0.03)	**0.21**	(0.02)	**0.21**	(0.02)	**-0.07**	(0.03)	**-0.07**	(0.03)	**0.15**	(0.03)	**0.15**	(0.03)
	Belgium	**0.22**	(0.02)	**0.21**	(0.02)	**0.21**	(0.03)	**0.20**	(0.03)	**0.11**	(0.02)	**0.09**	(0.02)	**0.06**	(0.02)	**0.08**	(0.02)	**0.06**	(0.02)	**0.06**	(0.02)
	Canada	**0.27**	(0.02)	**0.26**	(0.02)	**0.17**	(0.02)	**0.16**	(0.02)	**0.19**	(0.01)	**0.17**	(0.01)	**-0.08**	(0.02)	**-0.07**	(0.01)	**0.09**	(0.02)	**0.09**	(0.02)
	Chile	**0.31**	(0.02)	**0.31**	(0.02)	**0.27**	(0.03)	**0.27**	(0.03)	**0.20**	(0.02)	**0.19**	(0.02)	-0.01	(0.02)	-0.01	(0.01)	**0.19**	(0.03)	**0.19**	(0.02)
	Czech Republic	**0.28**	(0.03)	**0.28**	(0.03)	**0.21**	(0.03)	**0.21**	(0.03)	**0.12**	(0.03)	**0.14**	(0.03)	**-0.05**	(0.02)	**-0.06**	(0.02)	**0.13**	(0.04)	**0.13**	(0.04)
	Denmark	**0.33**	(0.04)	**0.30**	(0.04)	**0.27**	(0.02)	**0.22**	(0.02)	**0.23**	(0.03)	**0.20**	(0.02)	**-0.17**	(0.03)	**-0.14**	(0.02)	**0.09**	(0.04)	**0.08**	(0.04)
	Estonia	**0.41**	(0.04)	**0.40**	(0.04)	**0.24**	(0.03)	**0.23**	(0.03)	**0.22**	(0.02)	**0.22**	(0.02)	-0.04	(0.04)	-0.04	(0.03)	**0.14**	(0.03)	**0.13**	(0.03)
	Finland	**0.26**	(0.02)	**0.26**	(0.02)	**0.21**	(0.02)	**0.21**	(0.02)	**0.22**	(0.02)	**0.19**	(0.02)	**-0.05**	(0.02)	-0.03	(0.02)	**0.13**	(0.03)	**0.13**	(0.03)
	France	**0.26**	(0.03)	**0.26**	(0.03)	**0.23**	(0.04)	**0.24**	(0.03)	**0.17**	(0.02)	**0.18**	(0.02)	0.04	(0.03)	0.04	(0.03)	0.03	(0.04)	0.03	(0.04)
	Germany	**0.33**	(0.04)	**0.31**	(0.04)	**0.17**	(0.03)	**0.13**	(0.03)	**0.27**	(0.03)	**0.25**	(0.03)	**-0.11**	(0.03)	**-0.09**	(0.03)	**0.15**	(0.04)	**0.14**	(0.04)
	Greece	**0.18**	(0.03)	**0.17**	(0.03)	**0.14**	(0.03)	**0.12**	(0.03)	**0.07**	(0.02)	**0.07**	(0.02)	**0.04**	(0.02)	**0.05**	(0.02)	0.04	(0.03)	0.03	(0.02)
	Hungary	**0.32**	(0.04)	**0.32**	(0.04)	**0.18**	(0.05)	**0.18**	(0.04)	**0.15**	(0.02)	**0.14**	(0.02)	0.07	(0.04)	**0.08**	(0.03)	**0.10**	(0.04)	**0.09**	(0.04)
	Iceland	**0.15**	(0.03)	**0.16**	(0.03)	**0.12**	(0.04)	**0.14**	(0.04)	**0.09**	(0.02)	**0.10**	(0.02)	**-0.04**	(0.02)	**-0.05**	(0.02)	**0.08**	(0.02)	**0.08**	(0.02)
	Ireland	**0.30**	(0.03)	**0.29**	(0.03)	**0.20**	(0.03)	**0.17**	(0.02)	**0.18**	(0.02)	**0.17**	(0.01)	**-0.11**	(0.02)	**-0.10**	(0.02)	**0.15**	(0.02)	**0.14**	(0.02)
	Israel	**0.26**	(0.04)	**0.26**	(0.04)	**0.30**	(0.04)	**0.27**	(0.03)	**0.18**	(0.02)	**0.17**	(0.02)	**-0.07**	(0.03)	-0.05	(0.03)	**0.09**	(0.03)	**0.09**	(0.03)
	Italy	**0.32**	(0.02)	**0.31**	(0.02)	**0.22**	(0.02)	**0.19**	(0.02)	**0.18**	(0.01)	**0.15**	(0.01)	0.01	(0.01)	**0.03**	(0.01)	**0.11**	(0.01)	**0.10**	(0.01)
	Japan	**0.24**	(0.03)	**0.21**	(0.03)	**0.17**	(0.03)	**0.13**	(0.03)	**0.11**	(0.02)	**0.08**	(0.02)	**-0.04**	(0.02)	-0.01	(0.02)	**0.06**	(0.02)	**0.05**	(0.02)
	Korea	**0.24**	(0.03)	**0.20**	(0.03)	**0.18**	(0.04)	**0.12**	(0.03)	**0.11**	(0.02)	**0.08**	(0.02)	0.03	(0.02)	**0.04**	(0.02)	**0.09**	(0.03)	**0.07**	(0.03)
	Luxembourg	**0.31**	(0.03)	**0.31**	(0.03)	**0.26**	(0.03)	**0.24**	(0.03)	**0.18**	(0.02)	**0.17**	(0.02)	0.02	(0.02)	0.03	(0.02)	**0.14**	(0.02)	**0.13**	(0.02)
	Mexico	**0.23**	(0.01)	**0.23**	(0.01)	**0.24**	(0.01)	**0.24**	(0.01)	**0.13**	(0.01)	**0.13**	(0.01)	**0.03**	(0.01)	**0.02**	(0.01)	**0.06**	(0.01)	**0.06**	(0.01)
	Netherlands	**0.22**	(0.03)	**0.22**	(0.03)	**0.15**	(0.03)	**0.13**	(0.03)	**0.09**	(0.02)	**0.08**	(0.02)	**0.04**	(0.02)	**0.05**	(0.02)	0.03	(0.03)	0.03	(0.03)
	New Zealand	**0.28**	(0.03)	**0.27**	(0.03)	**0.25**	(0.03)	**0.23**	(0.02)	**0.18**	(0.02)	**0.17**	(0.02)	**-0.10**	(0.03)	**-0.08**	(0.02)	**0.11**	(0.03)	**0.10**	(0.03)
	Norway	**0.27**	(0.03)	**0.25**	(0.03)	**0.25**	(0.03)	**0.22**	(0.03)	**0.22**	(0.02)	**0.18**	(0.02)	**-0.14**	(0.02)	**-0.10**	(0.02)	0.04	(0.03)	0.03	(0.03)
	Poland	**0.29**	(0.03)	**0.26**	(0.03)	**0.25**	(0.04)	**0.19**	(0.03)	**0.20**	(0.02)	**0.13**	(0.02)	**-0.12**	(0.03)	**-0.05**	(0.02)	**0.15**	(0.03)	**0.11**	(0.03)
	Portugal	**0.25**	(0.02)	**0.26**	(0.02)	**0.12**	(0.03)	**0.13**	(0.02)	**0.12**	(0.01)	**0.12**	(0.01)	-0.01	(0.02)	-0.01	(0.02)	**0.10**	(0.02)	**0.10**	(0.02)
	Slovak Republic	**0.28**	(0.04)	**0.29**	(0.04)	**0.15**	(0.03)	**0.19**	(0.04)	**0.18**	(0.02)	**0.21**	(0.02)	0.04	(0.03)	0.01	(0.03)	**0.06**	(0.03)	**0.09**	(0.04)
	Slovenia	**0.28**	(0.05)	**0.26**	(0.05)	**0.27**	(0.04)	**0.21**	(0.04)	**0.13**	(0.02)	**0.10**	(0.02)	0.00	(0.03)	0.03	(0.03)	**0.07**	(0.03)	0.04	(0.03)
	Spain	**0.27**	(0.02)	**0.26**	(0.02)	**0.20**	(0.02)	**0.18**	(0.02)	**0.17**	(0.01)	**0.17**	(0.01)	0.00	(0.02)	0.00	(0.02)	**0.10**	(0.02)	**0.09**	(0.02)
	Sweden	**0.28**	(0.03)	**0.26**	(0.03)	**0.20**	(0.03)	**0.18**	(0.03)	**0.18**	(0.02)	**0.17**	(0.02)	**-0.08**	(0.02)	**-0.07**	(0.02)	**0.07**	(0.03)	**0.06**	(0.03)
	Switzerland	**0.26**	(0.03)	**0.26**	(0.03)	**0.17**	(0.04)	**0.16**	(0.03)	**0.15**	(0.02)	**0.15**	(0.02)	-0.02	(0.02)	-0.02	(0.02)	**0.11**	(0.03)	**0.11**	(0.03)
	Turkey	**0.33**	(0.03)	**0.32**	(0.03)	**0.24**	(0.02)	**0.23**	(0.02)	**0.19**	(0.02)	**0.19**	(0.02)	-0.01	(0.02)	-0.01	(0.02)	**0.09**	(0.03)	**0.08**	(0.03)
	United Kingdom	**0.33**	(0.03)	**0.32**	(0.03)	**0.30**	(0.05)	**0.25**	(0.04)	**0.23**	(0.02)	**0.20**	(0.02)	**-0.13**	(0.02)	**-0.10**	(0.02)	**0.13**	(0.03)	**0.12**	(0.03)
	United States	**0.24**	(0.02)	**0.23**	(0.02)	**0.19**	(0.03)	**0.18**	(0.02)	**0.17**	(0.02)	**0.17**	(0.02)	**-0.12**	(0.02)	**-0.11**	(0.02)	**0.07**	(0.02)	**0.07**	(0.02)
	OECD average	**0.28**	(0.01)	**0.27**	(0.01)	**0.21**	(0.01)	**0.19**	(0.00)	**0.17**	(0.00)	**0.16**	(0.00)	**-0.04**	(0.00)	**-0.03**	(0.00)	**0.10**	(0.00)	**0.09**	(0.00)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**0.21**	(0.03)	**0.21**	(0.03)	**0.23**	(0.03)	**0.24**	(0.03)	**0.12**	(0.02)	**0.13**	(0.02)	**0.12**	(0.02)	**0.10**	(0.02)	0.04	(0.03)	0.05	(0.03)
	Brazil	**0.25**	(0.02)	**0.25**	(0.02)	**0.22**	(0.02)	**0.23**	(0.02)	**0.12**	(0.01)	**0.14**	(0.01)	**0.05**	(0.01)	**0.02**	(0.01)	**0.10**	(0.02)	**0.11**	(0.02)
	Bulgaria	**0.29**	(0.02)	**0.28**	(0.02)	**0.27**	(0.03)	**0.27**	(0.03)	**0.15**	(0.02)	**0.15**	(0.02)	**0.07**	(0.02)	**0.06**	(0.02)	**0.08**	(0.03)	**0.08**	(0.02)
	Colombia	**0.17**	(0.03)	**0.17**	(0.03)	**0.24**	(0.03)	**0.24**	(0.03)	**0.13**	(0.02)	**0.13**	(0.02)	**0.04**	(0.02)	**0.04**	(0.02)	0.05	(0.03)	0.05	(0.03)
	Costa Rica	**0.31**	(0.03)	**0.31**	(0.03)	**0.23**	(0.03)	**0.23**	(0.03)	**0.17**	(0.02)	**0.17**	(0.02)	-0.03	(0.02)	-0.03	(0.02)	**0.06**	(0.03)	0.05	(0.03)
	Croatia	**0.23**	(0.03)	**0.22**	(0.03)	**0.23**	(0.04)	**0.20**	(0.03)	**0.13**	(0.02)	**0.12**	(0.02)	0.02	(0.02)	**0.04**	(0.02)	**0.08**	(0.03)	**0.07**	(0.03)
	Cyprus*	**0.34**	(0.03)	**0.33**	(0.03)	**0.26**	(0.04)	**0.24**	(0.03)	**0.16**	(0.02)	**0.15**	(0.02)	-0.01	(0.02)	0.01	(0.02)	0.02	(0.03)	0.01	(0.03)
	Hong Kong-China	**0.27**	(0.03)	**0.26**	(0.03)	**0.18**	(0.04)	**0.15**	(0.03)	**0.16**	(0.02)	**0.14**	(0.02)	-0.03	(0.02)	-0.01	(0.02)	**0.07**	(0.03)	**0.06**	(0.03)
	Indonesia	**0.19**	(0.02)	**0.20**	(0.02)	**0.23**	(0.03)	**0.22**	(0.03)	**0.08**	(0.01)	**0.09**	(0.01)	**0.07**	(0.02)	**0.08**	(0.02)	**0.06**	(0.03)	0.04	(0.03)
	Jordan	**0.26**	(0.02)	**0.25**	(0.02)	**0.28**	(0.03)	**0.27**	(0.03)	**0.19**	(0.01)	**0.17**	(0.01)	**0.06**	(0.02)	**0.07**	(0.01)	**0.05**	(0.02)	**0.05**	(0.02)
	Kazakhstan	**0.33**	(0.03)	**0.33**	(0.03)	**0.34**	(0.04)	**0.35**	(0.03)	**0.25**	(0.02)	**0.25**	(0.02)	**-0.12**	(0.03)	**-0.12**	(0.02)	**0.14**	(0.03)	**0.14**	(0.03)
	Latvia	**0.23**	(0.04)	**0.22**	(0.04)	**0.23**	(0.03)	**0.22**	(0.03)	**0.14**	(0.02)	**0.14**	(0.02)	0.03	(0.03)	0.03	(0.03)	0.07	(0.04)	0.06	(0.04)
	Liechtenstein	0.37	(0.22)	0.31	(0.21)	**0.43**	(0.14)	**0.25**	(0.12)	**0.31**	(0.11)	**0.24**	(0.11)	**-0.26**	(0.09)	**-0.20**	(0.09)	0.15	(0.18)	0.15	(0.19)
	Lithuania	**0.28**	(0.04)	**0.27**	(0.04)	**0.24**	(0.04)	**0.23**	(0.04)	**0.17**	(0.02)	**0.17**	(0.02)	0.00	(0.03)	0.00	(0.03)	**0.07**	(0.03)	**0.06**	(0.03)
	Macao-China	**0.27**	(0.03)	**0.27**	(0.03)	**0.17**	(0.03)	**0.17**	(0.02)	**0.14**	(0.02)	**0.15**	(0.02)	-0.03	(0.02)	-0.03	(0.02)	**0.10**	(0.03)	**0.10**	(0.03)
	Malaysia	**0.20**	(0.03)	**0.19**	(0.03)	**0.22**	(0.03)	**0.21**	(0.03)	**0.12**	(0.02)	**0.11**	(0.02)	**0.05**	(0.02)	**0.06**	(0.02)	0.01	(0.03)	0.01	(0.03)
	Montenegro	**0.34**	(0.03)	**0.34**	(0.03)	**0.26**	(0.04)	**0.25**	(0.04)	**0.15**	(0.02)	**0.16**	(0.02)	**0.06**	(0.02)	**0.04**	(0.02)	**0.09**	(0.03)	**0.08**	(0.03)
	Peru	**0.26**	(0.02)	**0.25**	(0.02)	**0.24**	(0.02)	**0.25**	(0.02)	**0.14**	(0.02)	**0.16**	(0.01)	0.01	(0.02)	-0.01	(0.02)	**0.06**	(0.03)	**0.07**	(0.02)
	Qatar	**0.32**	(0.02)	**0.32**	(0.02)	**0.33**	(0.02)	**0.34**	(0.02)	**0.18**	(0.01)	**0.18**	(0.01)	**0.12**	(0.01)	**0.12**	(0.01)	**0.11**	(0.01)	**0.11**	(0.01)
	Romania	0.02	(0.03)	0.02	(0.03)	**0.24**	(0.03)	**0.25**	(0.03)	**0.13**	(0.02)	**0.14**	(0.02)	**0.11**	(0.02)	**0.09**	(0.02)	**0.08**	(0.03)	**0.09**	(0.04)
	Russian Federation	**0.27**	(0.02)	**0.27**	(0.02)	**0.25**	(0.04)	**0.24**	(0.03)	**0.16**	(0.02)	**0.17**	(0.02)	0.01	(0.02)	0.00	(0.02)	**0.11**	(0.03)	**0.10**	(0.03)
	Serbia	**0.23**	(0.04)	**0.23**	(0.04)	**0.27**	(0.03)	**0.28**	(0.03)	**0.13**	(0.02)	**0.14**	(0.02)	**0.07**	(0.02)	**0.06**	(0.02)	0.04	(0.03)	0.04	(0.03)
	Shanghai-China	**0.31**	(0.03)	**0.30**	(0.03)	**0.21**	(0.03)	**0.17**	(0.02)	**0.16**	(0.02)	**0.13**	(0.02)	**-0.08**	(0.02)	**-0.05**	(0.02)	**0.12**	(0.03)	**0.11**	(0.03)
	Singapore	**0.25**	(0.02)	**0.25**	(0.02)	**0.19**	(0.02)	**0.19**	(0.02)	**0.14**	(0.02)	**0.14**	(0.02)	**-0.06**	(0.02)	**-0.05**	(0.02)	**0.05**	(0.02)	**0.05**	(0.02)
	Chinese Taipei	**0.24**	(0.02)	**0.22**	(0.02)	**0.20**	(0.03)	**0.15**	(0.03)	**0.10**	(0.02)	**0.08**	(0.02)	**0.06**	(0.02)	**0.08**	(0.02)	**0.08**	(0.02)	**0.05**	(0.02)
	Thailand	**0.20**	(0.03)	**0.20**	(0.03)	**0.18**	(0.02)	**0.18**	(0.02)	**0.07**	(0.02)	**0.07**	(0.02)	**0.12**	(0.01)	**0.11**	(0.01)	0.05	(0.03)	0.05	(0.03)
	Tunisia	**0.28**	(0.04)	**0.29**	(0.04)	**0.17**	(0.03)	**0.18**	(0.03)	**0.16**	(0.02)	**0.17**	(0.02)	0.02	(0.02)	0.01	(0.02)	**0.08**	(0.03)	**0.08**	(0.03)
	United Arab Emirates	**0.26**	(0.02)	**0.26**	(0.02)	**0.24**	(0.03)	**0.25**	(0.03)	**0.16**	(0.01)	**0.16**	(0.01)	-0.01	(0.01)	-0.01	(0.01)	**0.09**	(0.02)	**0.09**	(0.02)
	Uruguay	**0.32**	(0.03)	**0.32**	(0.03)	**0.24**	(0.03)	**0.26**	(0.04)	**0.14**	(0.02)	**0.16**	(0.02)	**0.07**	(0.02)	**0.05**	(0.02)	**0.10**	(0.03)	**0.11**	(0.03)
	Viet Nam	**0.22**	(0.03)	**0.21**	(0.03)	**0.20**	(0.03)	**0.16**	(0.03)	**0.11**	(0.02)	**0.09**	(0.02)	**-0.05**	(0.02)	-0.02	(0.02)	**0.15**	(0.04)	**0.11**	(0.04)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status*.
* See notes at the beginning of this Annex.
StatLink `http://dx.doi.org/10.1787/888932963996`

[Part 1/2]

Table III.5.15

Relationship between teachers' use of teacher-directed instruction and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with teachers' use of teacher-directed instruction:																			
		Arriving late for school				Skipping classes or days of school				Sense of belonging				Perseverance				Openness to problem solving			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	Australia	**-2.2**	(0.6)	**-1.6**	(0.6)	**-3.0**	-0.5	**-2.2**	-0.5	**0.24**	(0.01)	**0.23**	(0.01)	**0.21**	(0.02)	**0.19**	(0.02)	**0.22**	(0.02)	**0.19**	(0.02)
	Austria	**-3.6**	(0.9)	**-3.7**	(0.9)	**-2.1**	-0.8	**-2.3**	-0.8	**0.22**	(0.02)	**0.23**	(0.02)	**0.18**	(0.03)	**0.20**	(0.03)	**0.19**	(0.03)	**0.22**	(0.03)
	Belgium	-0.9	(0.7)	**-1.4**	(0.7)	0.1	0.7	-0.3	0.7	**0.18**	(0.02)	**0.19**	(0.02)	**0.12**	(0.03)	**0.13**	(0.03)	**0.14**	(0.03)	**0.16**	(0.03)
	Canada	**-2.6**	(0.7)	**-2.3**	(0.6)	**-3.5**	-0.5	**-3.4**	-0.5	**0.21**	(0.01)	**0.21**	(0.01)	**0.17**	(0.02)	**0.16**	(0.02)	**0.17**	(0.02)	**0.16**	(0.02)
	Chile	**-1.6**	(0.7)	**-2.4**	(0.7)	-0.8	-0.7	**-1.4**	-0.7	**0.22**	(0.02)	**0.23**	(0.02)	**0.11**	(0.02)	**0.13**	(0.02)	**0.11**	(0.02)	**0.14**	(0.02)
	Czech Republic	1.1	(1.1)	0.6	(1.1)	-0.7	-0.8	-0.9	-0.8	**0.10**	(0.02)	**0.11**	(0.02)	**0.12**	(0.03)	**0.12**	(0.03)	**0.17**	(0.03)	**0.17**	(0.03)
	Denmark	**-2.6**	(0.9)	**-3.1**	(0.9)	-1.5	-0.9	**-2.2**	-0.9	**0.22**	(0.03)	**0.22**	(0.03)	**0.18**	(0.03)	**0.21**	(0.03)	**0.16**	(0.03)	**0.19**	(0.03)
	Estonia	0.5	(1.2)	0.0	(1.2)	0.2	-1.1	-0.6	-1.1	**0.20**	(0.02)	**0.20**	(0.02)	**0.21**	(0.04)	**0.21**	(0.04)	**0.10**	(0.03)	**0.12**	(0.03)
	Finland	**-3.2**	(1.2)	**-3.0**	(1.1)	**-1.8**	-0.7	**-1.6**	-0.7	**0.22**	(0.02)	**0.22**	(0.02)	**0.20**	(0.03)	**0.20**	(0.02)	**0.25**	(0.03)	**0.24**	(0.03)
	France	0.3	(0.8)	-0.6	(0.8)	**-2.0**	-0.8	**-2.6**	-0.8	**0.12**	(0.02)	**0.13**	(0.02)	**0.17**	(0.03)	**0.21**	(0.03)	**0.14**	(0.03)	**0.18**	(0.03)
	Germany	-0.5	(1.1)	-0.6	(1.1)	-0.8	-0.7	-0.9	-0.7	**0.25**	(0.03)	**0.26**	(0.03)	**0.12**	(0.04)	**0.13**	(0.04)	**0.12**	(0.04)	**0.13**	(0.04)
	Greece	**-2.9**	(1.0)	**-3.0**	(1.0)	**-2.2**	-0.9	**-2.2**	-0.9	**0.19**	(0.02)	**0.19**	(0.02)	**0.08**	(0.03)	**0.07**	(0.03)	**0.10**	(0.03)	**0.09**	(0.03)
	Hungary	0.5	(1.0)	0.5	(1.0)	-1.1	-0.9	-1.2	-0.9	**0.19**	(0.02)	**0.19**	(0.02)	**0.08**	(0.03)	**0.08**	(0.03)	**0.15**	(0.03)	**0.15**	(0.03)
	Iceland	-1.6	(1.0)	-1.9	(1.0)	0.0	-0.8	-0.2	-0.8	**0.28**	(0.03)	**0.28**	(0.03)	**0.17**	(0.04)	**0.19**	(0.04)	**0.26**	(0.05)	**0.28**	(0.05)
	Ireland	-1.5	(0.9)	**-1.8**	(0.9)	**-2.8**	-0.8	**-2.9**	-0.8	**0.20**	(0.02)	**0.20**	(0.02)	**0.16**	(0.03)	**0.18**	(0.03)	**0.13**	(0.02)	**0.15**	(0.02)
	Israel	**-4.2**	(0.8)	**-4.3**	(0.8)	**-4.0**	-0.8	**-4.1**	-0.8	**0.31**	(0.02)	**0.31**	(0.02)	**0.23**	(0.03)	**0.23**	(0.03)	**0.23**	(0.04)	**0.25**	(0.04)
	Italy	0.2	(0.5)	-0.4	(0.5)	-0.2	-0.6	-0.7	-0.6	**0.17**	(0.01)	**0.17**	(0.01)	**0.19**	(0.02)	**0.20**	(0.02)	**0.16**	(0.02)	**0.17**	(0.02)
	Japan	**-2.2**	(0.6)	**-2.0**	(0.6)	**-1.5**	-0.5	**-1.3**	-0.5	**0.23**	(0.02)	**0.23**	(0.02)	**0.14**	(0.03)	**0.13**	(0.03)	**0.18**	(0.03)	**0.17**	(0.03)
	Korea	**-2.7**	(1.1)	**-2.3**	(1.0)	**-1.6**	-0.5	**-1.4**	-0.5	**0.20**	(0.02)	**0.20**	(0.02)	**0.08**	(0.03)	**0.07**	(0.03)	**0.15**	(0.03)	**0.13**	(0.03)
	Luxembourg	-1.2	(0.8)	-1.5	(0.8)	-0.8	-0.6	-1.1	-0.6	**0.10**	(0.02)	**0.11**	(0.02)	**0.14**	(0.02)	**0.14**	(0.02)	**0.17**	(0.03)	**0.18**	(0.03)
	Mexico	-0.9	(0.5)	**-1.2**	(0.5)	**-1.7**	-0.4	**-2.0**	-0.4	**0.20**	(0.01)	**0.20**	(0.01)	**0.09**	(0.01)	**0.11**	(0.01)	**0.17**	(0.02)	**0.18**	(0.02)
	Netherlands	-0.5	(0.9)	-0.2	(0.9)	**-1.6**	-0.7	**-1.5**	-0.7	**0.14**	(0.02)	**0.14**	(0.02)	**0.10**	(0.02)	**0.10**	(0.02)	**0.13**	(0.03)	**0.13**	(0.04)
	New Zealand	-0.9	(1.2)	-1.0	(1.1)	-0.8	-1.1	-0.9	-1.0	**0.20**	(0.02)	**0.20**	(0.02)	**0.21**	(0.03)	**0.21**	(0.03)	**0.26**	(0.03)	**0.25**	(0.03)
	Norway	0.3	(0.9)	0.2	(0.9)	**-2.3**	-0.7	**-2.4**	-0.7	**0.26**	(0.02)	**0.26**	(0.02)	**0.23**	(0.04)	**0.23**	(0.03)	**0.22**	(0.03)	**0.23**	(0.03)
	Poland	**-1.8**	(0.9)	-1.7	(0.9)	**-3.3**	-0.9	**-3.2**	-0.9	**0.20**	(0.02)	**0.20**	(0.02)	**0.17**	(0.03)	**0.17**	(0.03)	**0.20**	(0.04)	**0.20**	(0.04)
	Portugal	**-4.1**	(0.8)	**-4.2**	(0.8)	**-2.4**	-0.8	**-2.7**	-0.8	**0.19**	(0.02)	**0.19**	(0.02)	**0.14**	(0.03)	**0.16**	(0.02)	**0.17**	(0.03)	**0.19**	(0.03)
	Slovak Republic	0.0	(1.0)	-0.6	(0.9)	-1.5	-0.8	**-2.1**	-0.8	**0.17**	(0.02)	**0.18**	(0.02)	**0.11**	(0.03)	**0.13**	(0.03)	**0.15**	(0.04)	**0.18**	(0.04)
	Slovenia	**-3.8**	(1.0)	**-4.0**	(1.0)	-1.5	-1.0	-1.7	-1.1	**0.24**	(0.02)	**0.24**	(0.02)	**0.20**	(0.04)	**0.20**	(0.04)	**0.19**	(0.03)	**0.19**	(0.03)
	Spain	-0.7	(0.7)	-1.1	(0.6)	**-1.6**	-0.7	**-2.1**	-0.7	**0.22**	(0.02)	**0.22**	(0.02)	**0.14**	(0.02)	**0.14**	(0.02)	**0.16**	(0.02)	**0.16**	(0.02)
	Sweden	1.6	(0.9)	1.2	(0.9)	**-1.6**	-0.8	**-2.0**	-0.8	**0.25**	(0.02)	**0.26**	(0.02)	**0.13**	(0.03)	**0.14**	(0.03)	**0.15**	(0.04)	**0.17**	(0.04)
	Switzerland	**-1.6**	(0.7)	**-1.9**	(0.7)	**-2.1**	-0.6	**-2.8**	-0.6	**0.17**	(0.02)	**0.19**	(0.02)	**0.12**	(0.03)	**0.14**	(0.03)	**0.13**	(0.03)	**0.15**	(0.03)
	Turkey	-1.4	(0.9)	-1.4	(0.9)	**-2.4**	-0.8	**-2.4**	-0.8	**0.27**	(0.02)	**0.27**	(0.02)	**0.14**	(0.03)	**0.14**	(0.03)	**0.18**	(0.03)	**0.18**	(0.03)
	United Kingdom	**-2.4**	(0.8)	**-2.4**	(0.8)	**-1.4**	-0.7	**-1.4**	-0.7	**0.22**	(0.02)	**0.22**	(0.02)	**0.24**	(0.04)	**0.24**	(0.03)	**0.19**	(0.03)	**0.19**	(0.03)
	United States	**-1.9**	(0.8)	**-1.9**	(0.8)	**-3.3**	-0.9	**-3.4**	-0.9	**0.25**	(0.02)	**0.25**	(0.02)	**0.24**	(0.03)	**0.24**	(0.03)	**0.23**	(0.03)	**0.23**	(0.03)
	OECD average	**-1.4**	(0.2)	**-1.6**	(0.1)	**-1.7**	0.1	**-1.9**	0.1	**0.21**	(0.00)	**0.21**	(0.00)	**0.16**	(0.01)	**0.16**	(0.00)	**0.17**	(0.01)	**0.18**	(0.01)
Partners	Albania	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	-0.5	(1.2)	-1.6	(1.2)	-0.1	-0.9	-1.1	-0.9	**0.14**	(0.02)	**0.15**	(0.02)	**0.08**	(0.03)	**0.10**	(0.03)	**0.19**	(0.03)	**0.20**	(0.03)
	Brazil	**-2.0**	(0.6)	**-2.5**	(0.6)	**-2.2**	-0.5	**-2.5**	-0.5	**0.21**	(0.01)	**0.21**	(0.01)	**0.13**	(0.02)	**0.15**	(0.02)	**0.21**	(0.02)	**0.23**	(0.02)
	Bulgaria	**-2.5**	(0.9)	**-2.7**	(0.9)	**-3.4**	-0.9	**-3.7**	-0.9	**0.23**	(0.01)	**0.23**	(0.01)	**0.09**	(0.03)	**0.09**	(0.03)	**0.18**	(0.03)	**0.18**	(0.03)
	Colombia	**-1.9**	(0.8)	**-2.2**	(0.8)	**-1.4**	-0.7	**-1.6**	-0.7	**0.19**	(0.02)	**0.20**	(0.02)	**0.12**	(0.03)	**0.14**	(0.03)	**0.16**	(0.03)	**0.16**	(0.03)
	Costa Rica	-1.4	(1.1)	-1.6	(1.1)	**-2.3**	-1.0	**-2.7**	-1.0	**0.25**	(0.02)	**0.26**	(0.02)	**0.16**	(0.04)	**0.17**	(0.04)	**0.21**	(0.03)	**0.24**	(0.03)
	Croatia	-1.2	(0.9)	-1.7	(0.9)	1.6	-0.9	0.8	-0.8	**0.21**	(0.02)	**0.21**	(0.02)	**0.15**	(0.02)	**0.16**	(0.02)	**0.15**	(0.03)	**0.16**	(0.03)
	Cyprus*	**-3.5**	(0.8)	**-3.5**	(0.8)	**-3.1**	-0.7	**-3.1**	-0.7	**0.23**	(0.02)	**0.23**	(0.02)	**0.15**	(0.02)	**0.14**	(0.02)	**0.21**	(0.03)	**0.20**	(0.03)
	Hong Kong-China	0.9	(0.7)	0.9	(0.7)	0.4	-0.4	0.4	-0.5	**0.22**	(0.02)	**0.22**	(0.02)	**0.08**	(0.03)	**0.08**	(0.03)	**0.12**	(0.03)	**0.12**	(0.03)
	Indonesia	0.7	(0.9)	1.1	(0.9)	-0.1	-0.9	0.4	-0.9	**0.23**	(0.02)	**0.23**	(0.02)	**0.21**	(0.03)	**0.20**	(0.03)	**0.21**	(0.03)	**0.21**	(0.03)
	Jordan	**-2.5**	(0.6)	**-2.4**	(0.6)	**-2.0**	-0.7	**-1.9**	-0.7	**0.24**	(0.01)	**0.23**	(0.01)	**0.12**	(0.02)	**0.12**	(0.02)	**0.22**	(0.02)	**0.22**	(0.02)
	Kazakhstan	**-5.3**	(0.8)	**-5.2**	(0.8)	**-5.0**	-1.0	**-4.7**	-1.0	**0.33**	(0.02)	**0.33**	(0.02)	**0.26**	(0.03)	**0.25**	(0.03)	**0.25**	(0.03)	**0.24**	(0.03)
	Latvia	**-3.5**	(1.4)	**-3.8**	(1.4)	-0.8	-1.3	-1.1	-1.3	**0.26**	(0.03)	**0.26**	(0.03)	**0.13**	(0.03)	**0.14**	(0.03)	**0.13**	(0.04)	**0.14**	(0.04)
	Liechtenstein	-1.7	(3.3)	-1.7	(3.3)	-2.5	-1.6	-2.5	-1.6	0.16	(0.09)	0.15	(0.09)	0.10	(0.10)	0.10	(0.09)	**0.20**	(0.08)	0.17	(0.09)
	Lithuania	-1.4	(1.1)	-1.9	(1.0)	**-2.5**	-1.0	**-3.5**	-0.9	**0.20**	(0.03)	**0.22**	(0.03)	**0.13**	(0.02)	**0.13**	(0.02)	**0.17**	(0.03)	**0.18**	(0.03)
	Macao-China	**-2.2**	(0.9)	**-2.3**	(0.9)	**-1.6**	-0.6	**-1.6**	-0.6	**0.24**	(0.02)	**0.24**	(0.02)	**0.16**	(0.02)	**0.16**	(0.02)	**0.18**	(0.03)	**0.18**	(0.03)
	Malaysia	0.7	(1.0)	-0.1	(0.9)	**-2.7**	-1.0	**-3.2**	-0.9	**0.24**	(0.02)	**0.24**	(0.02)	**0.14**	(0.03)	**0.15**	(0.03)	**0.21**	(0.04)	**0.21**	(0.04)
	Montenegro	-1.3	(0.8)	**-2.1**	(0.9)	**-2.7**	-0.8	**-3.8**	-0.8	**0.22**	(0.02)	**0.21**	(0.02)	**0.10**	(0.03)	**0.13**	(0.03)	**0.19**	(0.03)	**0.20**	(0.03)
	Peru	-0.7	(0.9)	**-1.8**	(0.9)	**1.4**	-0.7	0.3	-0.7	**0.20**	(0.02)	**0.21**	(0.02)	**0.08**	(0.02)	**0.11**	(0.02)	**0.18**	(0.03)	**0.20**	(0.03)
	Qatar	**-2.5**	(0.5)	**-2.4**	(0.5)	**-3.8**	-0.5	**-3.8**	-0.5	**0.21**	(0.01)	**0.21**	(0.01)	**0.12**	(0.01)	**0.12**	(0.02)	**0.26**	(0.02)	**0.26**	(0.02)
	Romania	0.6	(0.8)	0.3	(0.8)	0.2	-0.8	-0.3	-0.8	**0.19**	(0.02)	**0.20**	(0.02)	**0.14**	(0.02)	**0.16**	(0.02)	**0.18**	(0.03)	**0.19**	(0.03)
	Russian Federation	**-3.7**	(0.8)	**-4.4**	(0.8)	**-4.1**	-1.0	**-4.8**	-1.0	**0.26**	(0.02)	**0.27**	(0.02)	**0.19**	(0.03)	**0.20**	(0.03)	**0.18**	(0.04)	**0.20**	(0.04)
	Serbia	-1.8	(1.0)	**-2.4**	(1.0)	-0.6	-0.9	-1.2	-0.9	**0.16**	(0.02)	**0.16**	(0.02)	**0.16**	(0.03)	**0.17**	(0.03)	**0.18**	(0.02)	**0.19**	(0.02)
	Shanghai-China	-0.5	(0.6)	-0.7	(0.6)	**-0.7**	-0.3	**-0.7**	-0.3	**0.28**	(0.02)	**0.28**	(0.02)	**0.15**	(0.02)	**0.15**	(0.02)	**0.14**	(0.03)	**0.14**	(0.03)
	Singapore	**-2.2**	(0.8)	**-2.2**	(0.8)	**-3.0**	-0.7	**-3.0**	-0.7	**0.23**	(0.02)	**0.23**	(0.02)	**0.17**	(0.02)	**0.17**	(0.02)	**0.20**	(0.03)	**0.20**	(0.02)
	Chinese Taipei	**-1.5**	(0.7)	**-1.7**	(0.7)	-0.9	-0.6	-1.1	-0.6	**0.21**	(0.02)	**0.21**	(0.02)	**0.13**	(0.02)	**0.13**	(0.02)	**0.11**	(0.03)	**0.11**	(0.03)
	Thailand	-1.0	(1.0)	-1.3	(1.0)	**-3.6**	-0.7	**-3.9**	-0.7	**0.18**	(0.02)	**0.18**	(0.02)	**0.09**	(0.02)	**0.10**	(0.02)	**0.17**	(0.02)	**0.18**	(0.02)
	Tunisia	-1.1	(0.8)	-1.3	(0.8)	**-1.6**	-0.8	**-2.1**	-0.8	**0.18**	(0.02)	**0.19**	(0.02)	**0.19**	(0.03)	**0.21**	(0.03)	**0.16**	(0.03)	**0.17**	(0.03)
	United Arab Emirates	-0.7	(0.6)	-1.0	(0.6)	**-1.6**	-0.8	**-1.9**	-0.8	**0.23**	(0.01)	**0.23**	(0.01)	**0.14**	(0.02)	**0.15**	(0.02)	**0.20**	(0.02)	**0.20**	(0.02)
	Uruguay	-1.0	(0.9)	-1.3	(0.9)	-1.0	-1.0	-1.5	-1.0	**0.16**	(0.02)	**0.17**	(0.02)	**0.14**	(0.03)	**0.16**	(0.03)	**0.17**	(0.04)	**0.20**	(0.04)
	Viet Nam	-0.1	(0.8)	0.2	(0.8)	**-2.0**	-0.7	**-1.6**	-0.7	**0.17**	(0.02)	**0.17**	(0.02)	**0.17**	(0.03)	**0.17**	(0.03)	**0.15**	(0.03)	**0.13**	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.5.15 Relationship between teachers' use of teacher-directed instruction and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with teachers' use of teacher-directed instruction:																			
		Intrinsic motivation to learn mathematics				Mathematics self-efficacy				Mathematics self-concept				Mathematics anxiety				Mathematics intentions			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	**0.36**	(0.02)	**0.34**	(0.02)	**0.26**	(0.02)	**0.22**	(0.02)	**0.24**	(0.01)	**0.21**	(0.01)	**-0.16**	(0.01)	**-0.13**	(0.01)	**0.15**	(0.02)	**0.15**	(0.02)
	Austria	**0.30**	(0.03)	**0.32**	(0.03)	**0.13**	(0.03)	**0.17**	(0.03)	**0.20**	(0.02)	**0.24**	(0.02)	**-0.09**	(0.03)	**-0.12**	(0.03)	**0.15**	(0.03)	**0.16**	(0.03)
	Belgium	**0.24**	(0.02)	**0.25**	(0.02)	**0.15**	(0.03)	**0.18**	(0.03)	**0.15**	(0.02)	**0.17**	(0.02)	0.00	(0.02)	-0.02	(0.02)	**0.08**	(0.03)	**0.09**	(0.03)
	Canada	**0.30**	(0.02)	**0.29**	(0.02)	**0.16**	(0.02)	**0.15**	(0.02)	**0.22**	(0.01)	**0.21**	(0.01)	**-0.14**	(0.01)	**-0.13**	(0.01)	**0.13**	(0.02)	**0.13**	(0.02)
	Chile	**0.27**	(0.02)	**0.30**	(0.02)	**0.20**	(0.02)	**0.23**	(0.02)	**0.15**	(0.02)	**0.20**	(0.02)	0.00	(0.01)	**-0.03**	(0.01)	**0.13**	(0.02)	**0.16**	(0.02)
	Czech Republic	**0.30**	(0.03)	**0.31**	(0.03)	**0.19**	(0.03)	**0.21**	(0.03)	**0.14**	(0.02)	**0.17**	(0.02)	**-0.06**	(0.02)	**-0.09**	(0.02)	**0.12**	(0.03)	**0.13**	(0.03)
	Denmark	**0.30**	(0.04)	**0.33**	(0.04)	**0.15**	(0.03)	**0.18**	(0.03)	**0.13**	(0.02)	**0.18**	(0.02)	**-0.09**	(0.02)	**-0.14**	(0.02)	**0.09**	(0.03)	**0.10**	(0.03)
	Estonia	**0.40**	(0.03)	**0.41**	(0.03)	**0.18**	(0.03)	**0.20**	(0.03)	**0.23**	(0.02)	**0.27**	(0.02)	**-0.07**	(0.03)	**-0.10**	(0.03)	**0.17**	(0.03)	**0.18**	(0.03)
	Finland	**0.30**	(0.03)	**0.30**	(0.02)	**0.22**	(0.03)	**0.21**	(0.02)	**0.28**	(0.02)	**0.26**	(0.02)	**-0.10**	(0.02)	**-0.09**	(0.02)	**0.15**	(0.03)	**0.16**	(0.03)
	France	**0.24**	(0.02)	**0.26**	(0.02)	**0.12**	(0.03)	**0.17**	(0.02)	**0.14**	(0.02)	**0.19**	(0.02)	0.02	(0.02)	-0.02	(0.02)	**0.07**	(0.03)	**0.08**	(0.03)
	Germany	**0.27**	(0.03)	**0.28**	(0.03)	**0.09**	(0.03)	**0.12**	(0.03)	**0.21**	(0.02)	**0.23**	(0.02)	**-0.09**	(0.03)	**-0.12**	(0.03)	**0.15**	(0.03)	**0.16**	(0.03)
	Greece	**0.18**	(0.03)	**0.17**	(0.03)	**0.11**	(0.03)	**0.10**	(0.03)	**0.07**	(0.02)	**0.07**	(0.02)	0.01	(0.02)	0.00	(0.02)	0.03	(0.02)	0.03	(0.02)
	Hungary	**0.33**	(0.04)	**0.33**	(0.04)	**0.18**	(0.03)	**0.18**	(0.03)	**0.18**	(0.02)	**0.18**	(0.02)	-0.04	(0.03)	-0.04	(0.03)	**0.12**	(0.03)	**0.13**	(0.03)
	Iceland	**0.26**	(0.03)	**0.27**	(0.03)	**0.17**	(0.05)	**0.19**	(0.04)	**0.15**	(0.03)	**0.17**	(0.02)	**-0.09**	(0.02)	**-0.11**	(0.02)	**0.11**	(0.03)	**0.11**	(0.03)
	Ireland	**0.34**	(0.02)	**0.36**	(0.02)	**0.12**	(0.02)	**0.15**	(0.02)	**0.18**	(0.02)	**0.20**	(0.02)	**-0.12**	(0.02)	**-0.14**	(0.02)	**0.15**	(0.02)	**0.15**	(0.02)
	Israel	**0.32**	(0.03)	**0.32**	(0.03)	**0.19**	(0.04)	**0.22**	(0.03)	**0.22**	(0.02)	**0.23**	(0.02)	**-0.15**	(0.03)	**-0.17**	(0.03)	0.04	(0.03)	0.05	(0.03)
	Italy	**0.33**	(0.02)	**0.34**	(0.02)	**0.11**	(0.02)	**0.13**	(0.01)	**0.17**	(0.01)	**0.20**	(0.01)	**-0.03**	(0.01)	**-0.04**	(0.01)	**0.10**	(0.01)	**0.11**	(0.01)
	Japan	**0.32**	(0.03)	**0.31**	(0.03)	**0.14**	(0.03)	**0.13**	(0.03)	**0.12**	(0.02)	**0.11**	(0.02)	**-0.06**	(0.02)	**-0.05**	(0.02)	**0.11**	(0.02)	**0.10**	(0.02)
	Korea	**0.26**	(0.03)	**0.23**	(0.03)	**0.20**	(0.04)	**0.15**	(0.03)	**0.11**	(0.02)	**0.09**	(0.02)	0.00	(0.02)	0.01	(0.02)	**0.12**	(0.03)	**0.10**	(0.03)
	Luxembourg	**0.28**	(0.03)	**0.29**	(0.03)	**0.15**	(0.03)	**0.17**	(0.03)	**0.18**	(0.02)	**0.20**	(0.02)	0.01	(0.02)	-0.01	(0.02)	**0.13**	(0.02)	**0.14**	(0.03)
	Mexico	**0.24**	(0.01)	**0.24**	(0.01)	**0.21**	(0.01)	**0.22**	(0.01)	**0.13**	(0.01)	**0.15**	(0.01)	0.01	(0.01)	-0.01	(0.01)	**0.05**	(0.01)	**0.06**	(0.01)
	Netherlands	**0.24**	(0.03)	**0.24**	(0.03)	**0.13**	(0.03)	**0.11**	(0.03)	**0.13**	(0.02)	**0.12**	(0.02)	-0.02	(0.02)	-0.01	(0.02)	0.03	(0.03)	0.03	(0.03)
	New Zealand	**0.35**	(0.03)	**0.35**	(0.03)	**0.24**	(0.03)	**0.23**	(0.02)	**0.19**	(0.02)	**0.20**	(0.02)	**-0.11**	(0.03)	**-0.11**	(0.02)	**0.15**	(0.03)	**0.14**	(0.03)
	Norway	**0.28**	(0.03)	**0.28**	(0.03)	**0.22**	(0.03)	**0.23**	(0.03)	**0.19**	(0.03)	**0.19**	(0.02)	**-0.11**	(0.03)	**-0.11**	(0.02)	**0.08**	(0.03)	**0.08**	(0.03)
	Poland	**0.32**	(0.03)	**0.32**	(0.03)	**0.19**	(0.04)	**0.19**	(0.03)	**0.22**	(0.02)	**0.21**	(0.02)	**-0.13**	(0.02)	**-0.12**	(0.02)	**0.15**	(0.03)	**0.15**	(0.03)
	Portugal	**0.29**	(0.02)	**0.30**	(0.02)	**0.12**	(0.03)	**0.15**	(0.02)	**0.16**	(0.02)	**0.18**	(0.02)	-0.03	(0.02)	**-0.04**	(0.02)	**0.12**	(0.02)	**0.12**	(0.02)
	Slovak Republic	**0.27**	(0.03)	**0.28**	(0.03)	**0.08**	(0.03)	**0.13**	(0.03)	**0.14**	(0.02)	**0.18**	(0.02)	0.01	(0.03)	**-0.04**	(0.02)	**0.09**	(0.03)	**0.13**	(0.03)
	Slovenia	**0.27**	(0.03)	**0.27**	(0.03)	**0.17**	(0.03)	**0.18**	(0.03)	**0.15**	(0.02)	**0.16**	(0.02)	**-0.08**	(0.03)	**-0.09**	(0.03)	**0.12**	(0.04)	**0.13**	(0.04)
	Spain	**0.27**	(0.02)	**0.27**	(0.02)	**0.17**	(0.03)	**0.17**	(0.02)	**0.17**	(0.01)	**0.19**	(0.01)	-0.01	(0.01)	**-0.02**	(0.01)	**0.10**	(0.02)	**0.10**	(0.02)
	Sweden	**0.24**	(0.03)	**0.25**	(0.03)	**0.13**	(0.03)	**0.16**	(0.03)	**0.12**	(0.02)	**0.15**	(0.02)	**-0.06**	(0.02)	**-0.08**	(0.02)	**0.12**	(0.02)	**0.13**	(0.02)
	Switzerland	**0.30**	(0.02)	**0.33**	(0.02)	**0.10**	(0.03)	**0.18**	(0.02)	**0.14**	(0.02)	**0.20**	(0.02)	**-0.02**	(0.01)	**-0.08**	(0.02)	**0.13**	(0.03)	**0.15**	(0.03)
	Turkey	**0.29**	(0.03)	**0.28**	(0.03)	**0.16**	(0.02)	**0.16**	(0.02)	**0.18**	(0.02)	**0.18**	(0.02)	**-0.08**	(0.02)	**-0.08**	(0.02)	**0.07**	(0.02)	**0.07**	(0.02)
	United Kingdom	**0.33**	(0.03)	**0.33**	(0.03)	**0.25**	(0.04)	**0.24**	(0.03)	**0.20**	(0.02)	**0.20**	(0.02)	**-0.14**	(0.02)	**-0.14**	(0.02)	**0.15**	(0.03)	**0.15**	(0.03)
	United States	**0.29**	(0.03)	**0.29**	(0.03)	**0.20**	(0.02)	**0.19**	(0.02)	**0.19**	(0.02)	**0.19**	(0.02)	**-0.15**	(0.02)	**-0.16**	(0.02)	**0.10**	(0.03)	**0.10**	(0.03)
	OECD average	**0.29**	(0.00)	**0.30**	(0.00)	**0.16**	(0.01)	**0.18**	(0.00)	**0.17**	(0.00)	0.18	(0.00)	-0.06	(0.00)	-0.08	(0.00)	**0.11**	(0.00)	**0.12**	(0.00)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**0.23**	(0.03)	**0.23**	(0.03)	**0.19**	(0.03)	**0.21**	(0.03)	**0.13**	(0.02)	**0.16**	(0.02)	**0.09**	(0.02)	**0.05**	(0.02)	0.02	(0.03)	0.04	(0.03)
	Brazil	**0.29**	(0.02)	**0.29**	(0.02)	**0.18**	(0.02)	**0.22**	(0.02)	**0.12**	(0.01)	**0.15**	(0.01)	**0.04**	(0.01)	0.00	(0.01)	**0.10**	(0.02)	**0.12**	(0.02)
	Bulgaria	**0.33**	(0.02)	**0.33**	(0.02)	**0.29**	(0.03)	**0.29**	(0.03)	**0.17**	(0.02)	**0.17**	(0.02)	0.03	(0.02)	0.02	(0.02)	**0.08**	(0.03)	**0.09**	(0.03)
	Colombia	**0.20**	(0.02)	**0.20**	(0.02)	**0.14**	(0.02)	**0.16**	(0.02)	**0.12**	(0.01)	**0.14**	(0.01)	0.01	(0.01)	**-0.02**	(0.01)	**0.07**	(0.03)	**0.09**	(0.03)
	Costa Rica	**0.36**	(0.03)	**0.37**	(0.03)	**0.22**	(0.03)	**0.25**	(0.03)	**0.16**	(0.02)	**0.20**	(0.02)	**-0.04**	(0.02)	**-0.08**	(0.02)	**0.07**	(0.03)	**0.08**	(0.03)
	Croatia	**0.28**	(0.03)	**0.30**	(0.03)	**0.12**	(0.03)	**0.17**	(0.03)	**0.18**	(0.02)	**0.20**	(0.02)	**-0.09**	(0.02)	**-0.11**	(0.02)	**0.14**	(0.02)	**0.16**	(0.02)
	Cyprus*	**0.32**	(0.03)	**0.32**	(0.03)	**0.21**	(0.04)	**0.20**	(0.03)	**0.15**	(0.02)	**0.15**	(0.02)	**-0.04**	(0.02)	**-0.04**	(0.02)	0.02	(0.03)	0.02	(0.03)
	Hong Kong-China	**0.27**	(0.03)	**0.27**	(0.03)	**0.15**	(0.03)	**0.15**	(0.03)	**0.15**	(0.02)	**0.15**	(0.02)	**-0.06**	(0.02)	**-0.06**	(0.02)	**0.07**	(0.03)	**0.07**	(0.03)
	Indonesia	**0.20**	(0.03)	**0.21**	(0.03)	**0.18**	(0.02)	**0.18**	(0.02)	**0.09**	(0.01)	**0.10**	(0.01)	-0.01	(0.02)	0.00	(0.02)	**0.11**	(0.03)	**0.10**	(0.03)
	Jordan	**0.25**	(0.02)	**0.25**	(0.02)	**0.23**	(0.02)	**0.22**	(0.02)	**0.18**	(0.01)	**0.17**	(0.01)	**0.04**	(0.01)	**0.04**	(0.01)	**0.05**	(0.02)	**0.05**	(0.02)
	Kazakhstan	**0.28**	(0.02)	**0.28**	(0.02)	**0.26**	(0.02)	**0.25**	(0.02)	**0.18**	(0.02)	**0.18**	(0.02)	**-0.13**	(0.02)	**-0.12**	(0.02)	**0.07**	(0.03)	**0.07**	(0.02)
	Latvia	**0.26**	(0.04)	**0.27**	(0.04)	**0.19**	(0.03)	**0.21**	(0.03)	**0.12**	(0.02)	**0.15**	(0.02)	0.00	(0.02)	-0.02	(0.02)	**0.09**	(0.03)	**0.10**	(0.03)
	Liechtenstein	**0.34**	(0.15)	**0.31**	(0.15)	**0.27**	(0.09)	**0.20**	(0.09)	**0.31**	(0.08)	**0.31**	(0.08)	**-0.16**	(0.07)	**-0.15**	(0.07)	**0.44**	(0.11)	**0.44**	(0.11)
	Lithuania	**0.28**	(0.03)	**0.29**	(0.03)	**0.14**	(0.04)	**0.17**	(0.03)	**0.13**	(0.02)	**0.17**	(0.02)	**0.05**	(0.02)	0.01	(0.02)	**0.10**	(0.03)	**0.12**	(0.03)
	Macao-China	**0.28**	(0.02)	**0.29**	(0.02)	**0.15**	(0.03)	**0.17**	(0.02)	**0.16**	(0.02)	**0.17**	(0.02)	**-0.10**	(0.02)	**-0.11**	(0.02)	**0.10**	(0.02)	**0.11**	(0.02)
	Malaysia	**0.21**	(0.03)	**0.22**	(0.03)	**0.16**	(0.03)	**0.18**	(0.03)	**0.13**	(0.02)	**0.14**	(0.02)	0.02	(0.02)	0.01	(0.02)	0.03	(0.03)	0.04	(0.03)
	Montenegro	**0.36**	(0.03)	**0.38**	(0.03)	**0.21**	(0.03)	**0.25**	(0.03)	**0.14**	(0.02)	**0.19**	(0.02)	0.01	(0.02)	**-0.04**	(0.02)	**0.09**	(0.03)	**0.11**	(0.03)
	Peru	**0.26**	(0.02)	**0.26**	(0.02)	**0.18**	(0.02)	**0.20**	(0.02)	**0.12**	(0.01)	**0.15**	(0.01)	0.00	(0.01)	**-0.03**	(0.01)	**0.06**	(0.03)	**0.08**	(0.02)
	Qatar	**0.33**	(0.02)	**0.33**	(0.02)	**0.31**	(0.02)	**0.31**	(0.02)	**0.20**	(0.01)	**0.20**	(0.01)	**0.05**	(0.02)	**0.05**	(0.02)	**0.09**	(0.01)	**0.09**	(0.01)
	Romania	-0.03	(0.02)	-0.03	(0.02)	**0.17**	(0.02)	**0.19**	(0.02)	**0.11**	(0.01)	**0.12**	(0.01)	**0.05**	(0.01)	**0.02**	(0.01)	0.03	(0.03)	0.05	(0.03)
	Russian Federation	**0.24**	(0.02)	**0.25**	(0.02)	**0.15**	(0.03)	**0.18**	(0.02)	**0.13**	(0.02)	**0.16**	(0.02)	-0.01	(0.02)	**-0.04**	(0.01)	**0.08**	(0.03)	**0.10**	(0.03)
	Serbia	**0.28**	(0.03)	**0.29**	(0.03)	**0.21**	(0.03)	**0.25**	(0.03)	**0.16**	(0.02)	**0.20**	(0.02)	-0.01	(0.02)	**-0.04**	(0.02)	0.05	(0.03)	**0.08**	(0.03)
	Shanghai-China	**0.28**	(0.02)	**0.28**	(0.02)	**0.11**	(0.03)	**0.11**	(0.03)	**0.12**	(0.02)	**0.13**	(0.01)	**-0.08**	(0.02)	**-0.09**	(0.02)	**0.12**	(0.03)	**0.12**	(0.03)
	Singapore	**0.29**	(0.03)	**0.29**	(0.03)	**0.16**	(0.03)	**0.17**	(0.02)	**0.16**	(0.02)	**0.16**	(0.02)	**-0.09**	(0.02)	**-0.09**	(0.02)	**0.09**	(0.03)	**0.09**	(0.03)
	Chinese Taipei	**0.23**	(0.02)	**0.23**	(0.02)	**0.11**	(0.02)	**0.11**	(0.02)	**0.08**	(0.02)	**0.09**	(0.01)	**0.04**	(0.02)	0.03	(0.02)	**0.09**	(0.02)	**0.08**	(0.02)
	Thailand	**0.23**	(0.02)	**0.23**	(0.02)	**0.15**	(0.02)	**0.16**	(0.02)	**0.09**	(0.01)	**0.09**	(0.01)	**0.03**	(0.01)	**0.02**	(0.01)	**0.08**	(0.02)	**0.09**	(0.02)
	Tunisia	**0.28**	(0.03)	**0.29**	(0.03)	**0.10**	(0.03)	**0.12**	(0.03)	**0.15**	(0.02)	**0.18**	(0.02)	-0.01	(0.01)	**-0.03**	(0.01)	**0.10**	(0.03)	**0.12**	(0.03)
	United Arab Emirates	**0.32**	(0.02)	**0.32**	(0.02)	**0.20**	(0.02)	**0.21**	(0.02)	**0.21**	(0.01)	**0.21**	(0.01)	**-0.07**	(0.01)	**-0.09**	(0.01)	**0.08**	(0.02)	**0.08**	(0.02)
	Uruguay	**0.34**	(0.03)	**0.35**	(0.03)	**0.21**	(0.03)	**0.24**	(0.04)	**0.15**	(0.02)	**0.21**	(0.02)	0.03	(0.02)	-0.03	(0.02)	**0.12**	(0.03)	**0.15**	(0.03)
	Viet Nam	**0.17**	(0.02)	**0.16**	(0.02)	**0.15**	(0.03)	**0.12**	(0.02)	**0.08**	(0.01)	**0.07**	(0.01)	**-0.07**	(0.01)	**-0.06**	(0.01)	**0.14**	(0.03)	**0.11**	(0.03)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.5.16 Relationship between teachers' use of formative assessments and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with teachers' use of formative assessments:																			
		Arriving late for school				Skipping classes or days of school				Sense of belonging				Perseverance				Openness to problem solving			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	**-1.3**	(0.6)	**-1.3**	(0.6)	**-1.9**	-0.6	**-2.0**	-0.5	**0.22**	(0.01)	**0.22**	(0.01)	**0.23**	(0.02)	**0.23**	(0.02)	**0.23**	(0.02)	**0.23**	(0.02)
	Austria	-0.7	(0.9)	-0.9	(0.9)	0.3	-0.6	0.0	-0.7	**0.19**	(0.03)	**0.20**	(0.02)	**0.16**	(0.03)	**0.18**	(0.03)	**0.18**	(0.03)	**0.21**	(0.03)
	Belgium	0.3	(0.7)	-0.6	(0.7)	0.8	-0.6	0.2	-0.6	**0.15**	(0.02)	**0.16**	(0.02)	**0.11**	(0.02)	**0.13**	(0.02)	**0.18**	(0.03)	**0.21**	(0.03)
	Canada	-0.2	(0.7)	-1.1	(0.6)	**-2.1**	-0.6	**-2.8**	-0.6	**0.18**	(0.01)	**0.18**	(0.01)	**0.16**	(0.02)	**0.18**	(0.02)	**0.17**	(0.02)	**0.20**	(0.02)
	Chile	-0.2	(0.7)	-0.6	(0.7)	-0.4	-0.5	-0.7	-0.5	**0.19**	(0.02)	**0.19**	(0.02)	**0.10**	(0.02)	**0.11**	(0.02)	**0.13**	(0.02)	**0.15**	(0.02)
	Czech Republic	**2.4**	(1.0)	**2.1**	(1.0)	-0.5	-0.7	-0.6	-0.7	**0.14**	(0.02)	**0.14**	(0.02)	**0.13**	(0.03)	**0.13**	(0.03)	**0.24**	(0.04)	**0.23**	(0.04)
	Denmark	-0.8	(1.0)	-1.4	(0.9)	1.4	-0.9	0.6	-0.9	**0.12**	(0.02)	**0.12**	(0.02)	**0.13**	(0.02)	**0.16**	(0.03)	**0.16**	(0.03)	**0.20**	(0.02)
	Estonia	1.2	(1.1)	0.4	(1.2)	1.1	-1.3	-0.2	-1.3	**0.18**	(0.02)	**0.19**	(0.02)	**0.16**	(0.03)	**0.17**	(0.03)	**0.11**	(0.04)	**0.15**	(0.04)
	Finland	**4.1**	(0.9)	**3.3**	(0.9)	**3.3**	-0.6	**2.7**	-0.6	**0.12**	(0.02)	**0.13**	(0.02)	**0.11**	(0.02)	**0.14**	(0.02)	**0.14**	(0.02)	**0.19**	(0.02)
	France	1.0	(1.0)	0.2	(0.9)	-0.6	-0.9	-1.1	-0.9	**0.09**	(0.02)	**0.10**	(0.02)	**0.20**	(0.03)	**0.22**	(0.03)	**0.19**	(0.03)	**0.22**	(0.03)
	Germany	0.2	(0.9)	-0.1	(0.9)	0.0	-0.8	-0.3	-0.8	**0.16**	(0.02)	**0.16**	(0.02)	0.07	(0.04)	**0.10**	(0.04)	**0.12**	(0.03)	**0.14**	(0.03)
	Greece	-0.1	(1.0)	-0.4	(1.0)	**1.8**	-0.9	1.4	-0.9	**0.12**	(0.02)	**0.13**	(0.02)	0.05	(0.03)	**0.07**	(0.03)	**0.07**	(0.03)	**0.09**	(0.03)
	Hungary	**3.0**	(0.9)	**2.0**	(0.9)	1.5	-0.9	0.7	-0.9	**0.15**	(0.02)	**0.17**	(0.02)	**0.10**	(0.04)	**0.11**	(0.04)	**0.16**	(0.04)	**0.18**	(0.04)
	Iceland	1.1	(1.1)	0.1	(1.1)	1.2	-0.7	0.7	-0.7	**0.14**	(0.03)	**0.16**	(0.03)	**0.06**	(0.03)	**0.11**	(0.03)	**0.15**	(0.04)	**0.21**	(0.04)
	Ireland	1.3	(0.9)	0.3	(0.9)	-0.2	-0.8	-0.5	-0.7	**0.19**	(0.02)	**0.19**	(0.02)	**0.19**	(0.03)	**0.22**	(0.03)	**0.17**	(0.03)	**0.22**	(0.03)
	Israel	-1.1	(0.8)	**-2.0**	(0.8)	-1.1	-0.9	-1.6	-0.9	**0.22**	(0.02)	**0.23**	(0.02)	**0.17**	(0.03)	**0.19**	(0.03)	**0.21**	(0.03)	**0.26**	(0.03)
	Italy	**1.6**	(0.5)	0.5	(0.5)	**2.5**	-0.6	**1.5**	-0.6	**0.14**	(0.01)	**0.14**	(0.01)	**0.16**	(0.02)	**0.18**	(0.02)	**0.17**	(0.02)	**0.19**	(0.01)
	Japan	-0.3	(0.5)	-0.4	(0.5)	0.0	-0.4	-0.1	-0.4	**0.16**	(0.02)	**0.16**	(0.02)	**0.10**	(0.02)	**0.11**	(0.02)	**0.14**	(0.02)	**0.16**	(0.02)
	Korea	0.4	(0.8)	-0.2	(0.8)	0.2	-0.4	-0.1	-0.4	**0.13**	(0.02)	**0.14**	(0.02)	**0.10**	(0.02)	**0.11**	(0.02)	**0.12**	(0.02)	**0.13**	(0.02)
	Luxembourg	0.3	(0.8)	-0.3	(0.8)	0.6	-0.6	0.1	-0.6	**0.05**	(0.02)	**0.07**	(0.02)	**0.12**	(0.03)	**0.14**	(0.03)	**0.19**	(0.03)	**0.22**	(0.03)
	Mexico	-0.4	(0.6)	-0.9	(0.6)	-0.8	-0.5	**-1.2**	-0.5	**0.14**	(0.01)	**0.14**	(0.01)	**0.08**	(0.01)	**0.10**	(0.01)	**0.20**	(0.02)	**0.22**	(0.02)
	Netherlands	1.8	(1.0)	1.1	(1.0)	-0.8	-0.8	-0.9	-0.7	**0.12**	(0.02)	**0.13**	(0.02)	**0.13**	(0.03)	**0.13**	(0.03)	**0.18**	(0.03)	**0.19**	(0.04)
	New Zealand	-0.2	(1.1)	-1.0	(1.0)	0.2	-1.2	-1.0	-1.0	**0.20**	(0.02)	**0.20**	(0.02)	**0.18**	(0.03)	**0.20**	(0.03)	**0.21**	(0.03)	**0.24**	(0.03)
	Norway	1.7	(0.9)	1.7	(0.9)	**-1.6**	-0.6	**-1.6**	-0.6	**0.22**	(0.03)	**0.22**	(0.03)	**0.22**	(0.03)	**0.22**	(0.03)	**0.24**	(0.04)	**0.25**	(0.04)
	Poland	0.1	(1.0)	-0.2	(1.0)	-0.6	-0.9	-0.9	-0.9	**0.18**	(0.02)	**0.18**	(0.02)	**0.14**	(0.04)	**0.15**	(0.03)	**0.15**	(0.03)	**0.16**	(0.03)
	Portugal	-1.7	(0.9)	**-2.1**	(0.9)	0.0	-0.7	-0.9	-0.6	**0.14**	(0.02)	**0.15**	(0.02)	**0.10**	(0.03)	**0.14**	(0.03)	**0.15**	(0.02)	**0.19**	(0.02)
	Slovak Republic	**2.9**	(1.0)	2.1	(1.1)	0.9	-0.9	0.1	-1.0	**0.10**	(0.02)	**0.11**	(0.02)	**0.09**	(0.03)	**0.12**	(0.03)	**0.17**	(0.03)	**0.21**	(0.03)
	Slovenia	-1.0	(1.1)	-2.0	(1.1)	0.5	-1.2	-0.9	-1.2	**0.15**	(0.02)	**0.16**	(0.03)	**0.21**	(0.03)	**0.22**	(0.03)	**0.25**	(0.04)	**0.28**	(0.04)
	Spain	0.0	(0.5)	-0.8	(0.5)	0.7	-0.6	-0.3	-0.6	**0.16**	(0.02)	**0.17**	(0.02)	**0.11**	(0.02)	**0.12**	(0.02)	**0.13**	(0.02)	**0.15**	(0.02)
	Sweden	**3.0**	(1.0)	**2.1**	(0.9)	0.4	-0.8	-0.4	-0.8	**0.21**	(0.02)	**0.22**	(0.02)	**0.14**	(0.03)	**0.18**	(0.03)	**0.17**	(0.03)	**0.21**	(0.03)
	Switzerland	-1.5	(0.9)	**-2.0**	(1.0)	**-2.1**	-0.7	**-3.0**	-0.7	**0.13**	(0.02)	**0.16**	(0.02)	**0.17**	(0.03)	**0.20**	(0.03)	**0.16**	(0.03)	**0.20**	(0.03)
	Turkey	0.2	(0.9)	0.1	(0.9)	**-2.2**	-0.8	**-2.2**	-0.8	**0.21**	(0.02)	**0.21**	(0.02)	**0.16**	(0.03)	**0.16**	(0.03)	**0.25**	(0.03)	**0.25**	(0.03)
	United Kingdom	**-1.8**	(0.7)	**-1.9**	(0.8)	-0.3	-0.6	-0.5	-0.6	**0.22**	(0.02)	**0.23**	(0.02)	**0.28**	(0.04)	**0.28**	(0.04)	**0.21**	(0.03)	**0.21**	(0.03)
	United States	0.3	(0.9)	-0.6	(0.9)	-0.1	-0.8	-0.6	-0.8	**0.22**	(0.02)	**0.23**	(0.02)	**0.18**	(0.03)	**0.19**	(0.03)	**0.19**	(0.03)	**0.22**	(0.03)
	OECD average	**0.5**	(0.2)	-0.1	(0.2)	0.1	0.1	**-0.5**	0.1	**0.16**	(0.00)	**0.17**	(0.00)	**0.14**	(0.00)	**0.16**	(0.00)	**0.17**	(0.01)	**0.20**	(0.01)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	1.0	(1.2)	-0.4	(1.2)	1.2	-0.9	0.0	-0.9	**0.11**	(0.02)	**0.13**	(0.02)	**0.07**	(0.03)	**0.09**	(0.03)	**0.23**	(0.03)	**0.25**	(0.03)
	Brazil	-0.8	(0.6)	**-1.3**	(0.6)	**-1.4**	-0.6	**-1.7**	-0.6	**0.18**	(0.01)	**0.18**	(0.01)	**0.10**	(0.02)	**0.13**	(0.02)	**0.22**	(0.02)	**0.24**	(0.02)
	Bulgaria	-0.4	(0.8)	-1.0	(0.8)	-0.8	-1.0	**-2.0**	-0.9	**0.22**	(0.02)	**0.23**	(0.02)	**0.08**	(0.03)	**0.10**	(0.03)	**0.22**	(0.03)	**0.22**	(0.03)
	Colombia	0.1	(0.9)	-0.1	(0.9)	-0.2	-0.8	-0.3	-0.8	**0.16**	(0.02)	**0.17**	(0.02)	**0.12**	(0.04)	**0.13**	(0.04)	**0.18**	(0.03)	**0.18**	(0.03)
	Costa Rica	-0.8	(1.1)	-0.9	(1.1)	-0.9	-1.0	-1.0	-1.0	**0.18**	(0.02)	**0.18**	(0.02)	**0.12**	(0.03)	**0.12**	(0.03)	**0.19**	(0.03)	**0.20**	(0.03)
	Croatia	1.6	(1.1)	0.8	(1.0)	**4.4**	-1.0	**3.0**	-0.9	**0.17**	(0.02)	**0.18**	(0.02)	**0.16**	(0.03)	**0.18**	(0.03)	**0.19**	(0.03)	**0.21**	(0.03)
	Cyprus*	**-2.0**	(0.7)	**-2.8**	(0.7)	1.2	-0.8	0.2	-0.8	**0.11**	(0.02)	**0.12**	(0.02)	**0.08**	(0.02)	**0.11**	(0.02)	**0.14**	(0.03)	**0.18**	(0.03)
	Hong Kong-China	**2.3**	(0.8)	1.6	(0.9)	0.8	-0.5	0.3	-0.6	**0.18**	(0.02)	**0.19**	(0.02)	**0.06**	(0.02)	**0.08**	(0.03)	**0.13**	(0.03)	**0.16**	(0.03)
	Indonesia	**3.0**	(1.0)	**2.7**	(1.0)	2.1	-1.1	1.8	-1.1	**0.14**	(0.02)	**0.15**	(0.02)	**0.15**	(0.03)	**0.15**	(0.03)	**0.24**	(0.03)	**0.24**	(0.03)
	Jordan	-0.9	(0.7)	-1.1	(0.7)	-1.0	-0.7	-1.1	-0.7	**0.16**	(0.01)	**0.17**	(0.01)	**0.09**	(0.02)	**0.11**	(0.02)	**0.23**	(0.02)	**0.24**	(0.02)
	Kazakhstan	**-3.9**	(0.9)	**-4.1**	(0.9)	**-2.9**	-1.1	**-3.1**	-1.1	**0.32**	(0.02)	**0.32**	(0.02)	**0.21**	(0.03)	**0.22**	(0.03)	**0.31**	(0.04)	**0.32**	(0.04)
	Latvia	1.2	(1.4)	0.3	(1.4)	0.3	-1.1	-0.6	-1.1	**0.22**	(0.02)	**0.22**	(0.03)	**0.09**	(0.03)	**0.13**	(0.03)	**0.11**	(0.03)	**0.15**	(0.03)
	Liechtenstein	1.2	(3.3)	1.0	(3.4)	-1.1	-2.6	-1.1	-2.7	0.07	(0.09)	0.07	(0.09)	0.01	(0.09)	0.01	(0.09)	0.17	(0.11)	0.15	(0.11)
	Lithuania	**2.5**	(0.8)	1.7	(0.9)	**2.2**	-1.0	0.5	-1.0	**0.11**	(0.02)	**0.14**	(0.02)	**0.07**	(0.02)	**0.08**	(0.02)	**0.16**	(0.03)	**0.19**	(0.02)
	Macao-China	**2.6**	(0.8)	1.2	(0.7)	0.9	-0.5	0.3	-0.5	**0.16**	(0.01)	**0.16**	(0.01)	**0.09**	(0.02)	**0.11**	(0.02)	**0.12**	(0.03)	**0.16**	(0.03)
	Malaysia	**2.2**	(0.9)	0.3	(0.8)	**-2.5**	-1.0	**-3.7**	-0.9	**0.21**	(0.02)	**0.23**	(0.01)	**0.12**	(0.02)	**0.14**	(0.02)	**0.21**	(0.03)	**0.22**	(0.03)
	Montenegro	0.6	(0.8)	-0.1	(0.8)	-0.5	-1.1	-1.4	-1.0	**0.16**	(0.02)	**0.15**	(0.02)	**0.07**	(0.03)	**0.10**	(0.03)	**0.20**	(0.03)	**0.21**	(0.03)
	Peru	-1.1	(1.1)	**-2.1**	(1.0)	**2.3**	-0.8	1.3	-0.8	**0.18**	(0.02)	**0.19**	(0.02)	**0.11**	(0.02)	**0.13**	(0.02)	**0.22**	(0.03)	**0.24**	(0.03)
	Qatar	**-1.5**	(0.5)	**-2.1**	(0.5)	**-3.3**	-0.5	**-3.5**	-0.5	**0.18**	(0.01)	**0.19**	(0.01)	**0.08**	(0.02)	**0.11**	(0.02)	**0.28**	(0.02)	**0.29**	(0.02)
	Romania	**2.1**	(0.9)	1.7	(0.9)	1.4	-0.9	0.7	-0.9	**0.11**	(0.02)	**0.12**	(0.02)	**0.10**	(0.03)	**0.12**	(0.03)	**0.20**	(0.03)	**0.21**	(0.03)
	Russian Federation	-0.4	(1.0)	-1.4	(0.9)	-0.2	-1.0	-1.1	-1.0	**0.24**	(0.02)	**0.25**	(0.02)	**0.16**	(0.03)	**0.17**	(0.03)	**0.22**	(0.04)	**0.25**	(0.04)
	Serbia	1.5	(1.0)	0.6	(1.0)	**2.3**	-0.8	1.4	-0.9	**0.13**	(0.02)	**0.13**	(0.02)	**0.10**	(0.03)	**0.12**	(0.03)	**0.16**	(0.03)	**0.19**	(0.03)
	Shanghai-China	0.1	(0.7)	-0.6	(0.7)	0.2	-0.3	0.1	-0.3	**0.30**	(0.02)	**0.31**	(0.02)	**0.20**	(0.03)	**0.21**	(0.03)	**0.21**	(0.03)	**0.23**	(0.03)
	Singapore	-0.6	(0.7)	-1.2	(0.7)	-1.0	-0.7	**-1.5**	-0.7	**0.21**	(0.02)	**0.22**	(0.02)	**0.16**	(0.02)	**0.18**	(0.02)	**0.17**	(0.03)	**0.19**	(0.03)
	Chinese Taipei	0.1	(0.8)	-0.3	(0.8)	-0.5	-0.7	-0.9	-0.7	**0.21**	(0.02)	**0.21**	(0.02)	**0.13**	(0.02)	**0.14**	(0.02)	**0.15**	(0.03)	**0.16**	(0.03)
	Thailand	**2.8**	(1.0)	1.8	(1.0)	0.1	-0.9	-1.1	-1.0	**0.13**	(0.02)	**0.16**	(0.02)	**0.05**	(0.02)	**0.07**	(0.02)	**0.23**	(0.03)	**0.23**	(0.03)
	Tunisia	-1.0	(0.8)	-1.2	(0.9)	1.1	-0.9	0.6	-0.9	**0.12**	(0.02)	**0.13**	(0.02)	**0.20**	(0.03)	**0.24**	(0.03)	**0.22**	(0.03)	**0.24**	(0.03)
	United Arab Emirates	0.4	(0.7)	-0.3	(0.7)	**-1.9**	-0.7	**-2.7**	-0.7	**0.21**	(0.01)	**0.23**	(0.01)	**0.12**	(0.02)	**0.15**	(0.02)	**0.22**	(0.02)	**0.23**	(0.02)
	Uruguay	0.5	(0.8)	0.2	(0.8)	0.8	-1.0	0.3	-1.0	**0.12**	(0.02)	**0.12**	(0.02)	**0.11**	(0.04)	**0.14**	(0.04)	**0.18**	(0.03)	**0.21**	(0.03)
	Viet Nam	**1.5**	(0.7)	1.1	(0.7)	1.3	-0.9	0.7	-0.8	**0.21**	(0.02)	**0.21**	(0.02)	**0.17**	(0.03)	**0.17**	(0.03)	**0.17**	(0.03)	**0.18**	(0.03)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.5.16 **Relationship between teachers' use of formative assessments and student dispositions**

Results based on students' self-reports

		Change in the following student dispositions that is associated with teachers' use of formative assessments:																			
		Intrinsic motivation to learn mathematics				Mathematics self-efficacy				Mathematics self-concept				Mathematics anxiety				Mathematics intentions			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	Australia	**0.36**	(0.02)	**0.36**	(0.02)	**0.25**	(0.02)	**0.24**	(0.02)	**0.23**	(0.01)	**0.23**	(0.01)	**-0.13**	(0.01)	**-0.13**	(0.01)	**0.17**	(0.02)	**0.17**	(0.02)
	Austria	**0.27**	(0.03)	**0.29**	(0.03)	**0.18**	(0.03)	**0.22**	(0.03)	**0.21**	(0.02)	**0.26**	(0.02)	**-0.10**	(0.03)	**-0.15**	(0.02)	**0.12**	(0.03)	**0.14**	(0.03)
	Belgium	**0.25**	(0.03)	**0.28**	(0.02)	**0.09**	(0.02)	**0.14**	(0.03)	**0.14**	(0.02)	**0.17**	(0.02)	0.01	(0.02)	-0.02	(0.02)	**0.10**	(0.02)	**0.12**	(0.02)
	Canada	**0.29**	(0.02)	**0.31**	(0.02)	**0.10**	(0.02)	**0.14**	(0.02)	**0.18**	(0.01)	**0.23**	(0.01)	**-0.09**	(0.02)	**-0.13**	(0.01)	**0.12**	(0.02)	**0.14**	(0.02)
	Chile	**0.32**	(0.02)	**0.33**	(0.02)	**0.18**	(0.02)	**0.19**	(0.02)	**0.21**	(0.02)	**0.24**	(0.02)	**-0.02**	(0.01)	**-0.03**	(0.01)	**0.19**	(0.02)	**0.20**	(0.02)
	Czech Republic	**0.42**	(0.03)	**0.42**	(0.03)	**0.23**	(0.03)	**0.22**	(0.03)	**0.29**	(0.03)	**0.32**	(0.03)	**-0.13**	(0.02)	**-0.15**	(0.02)	**0.17**	(0.04)	**0.17**	(0.04)
	Denmark	**0.25**	(0.03)	**0.29**	(0.03)	**0.11**	(0.03)	**0.16**	(0.02)	**0.11**	(0.02)	**0.18**	(0.02)	-0.03	(0.02)	**-0.09**	(0.02)	0.01	(0.03)	0.02	(0.03)
	Estonia	**0.40**	(0.04)	**0.43**	(0.03)	**0.18**	(0.03)	**0.23**	(0.03)	**0.18**	(0.02)	**0.24**	(0.02)	-0.04	(0.03)	**-0.10**	(0.02)	**0.16**	(0.03)	**0.17**	(0.03)
	Finland	**0.23**	(0.02)	**0.26**	(0.02)	**0.12**	(0.02)	**0.17**	(0.02)	**0.14**	(0.02)	**0.20**	(0.01)	0.00	(0.02)	**-0.05**	(0.01)	**0.12**	(0.03)	**0.16**	(0.02)
	France	**0.25**	(0.03)	**0.27**	(0.03)	**0.12**	(0.03)	**0.15**	(0.03)	**0.17**	(0.02)	**0.22**	(0.02)	0.00	(0.02)	-0.03	(0.02)	**0.09**	(0.03)	**0.10**	(0.03)
	Germany	**0.24**	(0.04)	**0.28**	(0.04)	**0.08**	(0.04)	**0.15**	(0.03)	**0.23**	(0.03)	**0.28**	(0.03)	**-0.10**	(0.03)	**-0.15**	(0.03)	**0.13**	(0.03)	**0.15**	(0.04)
	Greece	**0.13**	(0.03)	**0.16**	(0.03)	**0.06**	(0.02)	**0.10**	(0.02)	**0.10**	(0.02)	**0.13**	(0.02)	0.03	(0.02)	0.00	(0.02)	0.05	(0.03)	**0.06**	(0.03)
	Hungary	**0.35**	(0.03)	**0.37**	(0.03)	**0.15**	(0.04)	**0.21**	(0.04)	**0.16**	(0.02)	**0.20**	(0.02)	-0.01	(0.02)	**-0.06**	(0.02)	**0.12**	(0.04)	**0.16**	(0.04)
	Iceland	**0.13**	(0.03)	**0.17**	(0.03)	0.05	(0.04)	**0.12**	(0.04)	0.03	(0.02)	**0.11**	(0.02)	0.02	(0.02)	**-0.05**	(0.02)	**0.07**	(0.03)	**0.08**	(0.03)
	Ireland	**0.31**	(0.03)	**0.34**	(0.03)	**0.12**	(0.03)	**0.18**	(0.03)	**0.15**	(0.02)	**0.20**	(0.02)	**-0.08**	(0.02)	**-0.13**	(0.02)	**0.14**	(0.03)	**0.16**	(0.03)
	Israel	**0.32**	(0.03)	**0.33**	(0.03)	**0.11**	(0.04)	**0.23**	(0.03)	**0.14**	(0.02)	**0.21**	(0.02)	**-0.04**	(0.02)	**-0.11**	(0.02)	**0.05**	(0.02)	**0.08**	(0.02)
	Italy	**0.27**	(0.01)	**0.29**	(0.01)	**0.09**	(0.01)	**0.14**	(0.01)	**0.13**	(0.01)	**0.18**	(0.01)	0.01	(0.01)	**-0.03**	(0.01)	**0.09**	(0.01)	**0.11**	(0.01)
	Japan	**0.26**	(0.03)	**0.28**	(0.02)	**0.08**	(0.03)	**0.10**	(0.02)	**0.15**	(0.02)	**0.16**	(0.02)	**-0.08**	(0.02)	**-0.09**	(0.02)	**0.07**	(0.02)	**0.08**	(0.02)
	Korea	**0.21**	(0.03)	**0.22**	(0.02)	**0.11**	(0.03)	**0.14**	(0.02)	**0.10**	(0.02)	**0.13**	(0.01)	-0.02	(0.02)	-0.03	(0.02)	**0.08**	(0.02)	**0.09**	(0.02)
	Luxembourg	**0.30**	(0.03)	**0.33**	(0.03)	**0.11**	(0.03)	**0.16**	(0.03)	**0.18**	(0.02)	**0.23**	(0.02)	0.01	(0.02)	-0.03	(0.02)	**0.13**	(0.03)	**0.14**	(0.03)
	Mexico	**0.23**	(0.01)	**0.24**	(0.01)	**0.21**	(0.01)	**0.23**	(0.01)	**0.15**	(0.01)	**0.18**	(0.01)	0.01	(0.01)	**-0.02**	(0.01)	**0.05**	(0.01)	**0.06**	(0.01)
	Netherlands	**0.24**	(0.03)	**0.25**	(0.03)	**0.08**	(0.04)	**0.11**	(0.03)	**0.11**	(0.02)	**0.13**	(0.02)	0.01	(0.02)	-0.01	(0.02)	0.00	(0.03)	0.00	(0.03)
	New Zealand	**0.32**	(0.03)	**0.34**	(0.03)	**0.18**	(0.03)	**0.22**	(0.02)	**0.18**	(0.02)	**0.22**	(0.02)	**-0.08**	(0.03)	**-0.12**	(0.02)	**0.15**	(0.03)	**0.16**	(0.03)
	Norway	**0.27**	(0.03)	**0.27**	(0.03)	**0.23**	(0.03)	**0.24**	(0.03)	**0.20**	(0.03)	**0.20**	(0.02)	**-0.13**	(0.03)	**-0.13**	(0.02)	**0.07**	(0.03)	**0.08**	(0.03)
	Poland	**0.31**	(0.03)	**0.32**	(0.02)	**0.15**	(0.03)	**0.17**	(0.03)	**0.20**	(0.02)	**0.23**	(0.02)	**-0.08**	(0.02)	**-0.10**	(0.02)	**0.14**	(0.03)	**0.15**	(0.03)
	Portugal	**0.23**	(0.02)	**0.26**	(0.02)	**0.06**	(0.03)	**0.13**	(0.02)	**0.11**	(0.02)	**0.16**	(0.01)	0.00	(0.02)	**-0.03**	(0.01)	**0.13**	(0.02)	**0.15**	(0.02)
	Slovak Republic	**0.24**	(0.03)	**0.27**	(0.03)	**0.08**	(0.03)	**0.15**	(0.03)	**0.11**	(0.02)	**0.18**	(0.02)	**0.05**	(0.02)	-0.02	(0.02)	**0.09**	(0.03)	**0.13**	(0.03)
	Slovenia	**0.34**	(0.03)	**0.37**	(0.03)	**0.18**	(0.03)	**0.24**	(0.03)	**0.15**	(0.02)	**0.21**	(0.02)	-0.02	(0.03)	**-0.07**	(0.03)	**0.15**	(0.03)	**0.17**	(0.04)
	Spain	**0.22**	(0.02)	**0.24**	(0.02)	**0.10**	(0.02)	**0.13**	(0.02)	**0.14**	(0.01)	**0.18**	(0.01)	0.01	(0.01)	**-0.02**	(0.01)	**0.08**	(0.02)	**0.10**	(0.02)
	Sweden	**0.21**	(0.03)	**0.24**	(0.03)	**0.14**	(0.03)	**0.18**	(0.03)	**0.13**	(0.02)	**0.19**	(0.02)	**-0.05**	(0.02)	**-0.09**	(0.02)	**0.08**	(0.02)	**0.09**	(0.02)
	Switzerland	**0.28**	(0.02)	**0.32**	(0.02)	**0.07**	(0.03)	**0.17**	(0.03)	**0.18**	(0.02)	**0.26**	(0.02)	**-0.06**	(0.02)	**-0.13**	(0.02)	**0.13**	(0.03)	**0.15**	(0.03)
	Turkey	**0.41**	(0.03)	**0.41**	(0.03)	**0.22**	(0.03)	**0.23**	(0.03)	**0.28**	(0.02)	**0.29**	(0.02)	**-0.13**	(0.02)	**-0.14**	(0.02)	**0.11**	(0.03)	**0.11**	(0.03)
	United Kingdom	**0.34**	(0.03)	**0.34**	(0.02)	**0.27**	(0.04)	**0.27**	(0.03)	**0.21**	(0.02)	**0.22**	(0.02)	**-0.13**	(0.02)	**-0.14**	(0.02)	**0.17**	(0.03)	**0.17**	(0.03)
	United States	**0.28**	(0.03)	**0.30**	(0.03)	**0.14**	(0.02)	**0.18**	(0.02)	**0.15**	(0.02)	**0.20**	(0.02)	**-0.12**	(0.02)	**-0.17**	(0.02)	**0.10**	(0.03)	**0.11**	(0.03)
	OECD average	**0.28**	(0.00)	**0.30**	(0.00)	**0.14**	(0.01)	**0.18**	(0.00)	**0.16**	(0.00)	**0.21**	(0.00)	**-0.04**	(0.00)	**-0.08**	(0.00)	**0.11**	(0.00)	**0.12**	(0.00)
Partners	Albania	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**0.30**	(0.03)	**0.30**	(0.03)	**0.21**	(0.04)	**0.24**	(0.04)	**0.17**	(0.02)	**0.21**	(0.02)	**0.08**	(0.02)	**0.04**	(0.02)	0.03	(0.03)	0.05	(0.03)
	Brazil	**0.30**	(0.02)	**0.30**	(0.02)	**0.17**	(0.02)	**0.21**	(0.02)	**0.14**	(0.01)	**0.18**	(0.01)	**0.04**	(0.01)	0.00	(0.01)	**0.12**	(0.02)	**0.14**	(0.02)
	Bulgaria	**0.35**	(0.03)	**0.35**	(0.03)	**0.24**	(0.04)	**0.26**	(0.04)	**0.17**	(0.02)	**0.19**	(0.02)	**0.06**	(0.02)	0.02	(0.02)	**0.07**	(0.03)	**0.10**	(0.03)
	Colombia	**0.24**	(0.03)	**0.24**	(0.03)	**0.20**	(0.03)	**0.21**	(0.03)	**0.17**	(0.02)	**0.19**	(0.02)	0.01	(0.02)	-0.01	(0.02)	**0.07**	(0.02)	**0.08**	(0.02)
	Costa Rica	**0.34**	(0.03)	**0.34**	(0.03)	**0.23**	(0.03)	**0.24**	(0.03)	**0.20**	(0.02)	**0.22**	(0.02)	**-0.05**	(0.02)	**-0.07**	(0.02)	**0.10**	(0.02)	**0.10**	(0.02)
	Croatia	**0.31**	(0.04)	**0.33**	(0.04)	**0.11**	(0.03)	**0.18**	(0.03)	**0.17**	(0.02)	**0.22**	(0.02)	**-0.05**	(0.02)	**-0.09**	(0.02)	**0.11**	(0.03)	**0.13**	(0.03)
	Cyprus*	**0.33**	(0.03)	**0.36**	(0.03)	**0.14**	(0.03)	**0.19**	(0.03)	**0.13**	(0.02)	**0.19**	(0.02)	0.01	(0.02)	**-0.04**	(0.02)	0.04	(0.03)	0.05	(0.03)
	Hong Kong-China	**0.21**	(0.03)	**0.25**	(0.03)	**0.07**	(0.03)	**0.15**	(0.03)	**0.10**	(0.02)	**0.15**	(0.02)	0.01	(0.02)	-0.03	(0.02)	0.04	(0.03)	**0.07**	(0.03)
	Indonesia	**0.22**	(0.03)	**0.22**	(0.03)	**0.20**	(0.03)	**0.20**	(0.02)	**0.13**	(0.02)	**0.13**	(0.02)	**0.05**	(0.02)	**0.04**	(0.02)	**0.08**	(0.03)	**0.09**	(0.03)
	Jordan	**0.27**	(0.02)	**0.27**	(0.02)	**0.22**	(0.02)	**0.24**	(0.02)	**0.18**	(0.01)	**0.19**	(0.01)	**0.08**	(0.01)	**0.07**	(0.01)	**0.06**	(0.02)	**0.06**	(0.02)
	Kazakhstan	**0.35**	(0.02)	**0.35**	(0.02)	**0.28**	(0.03)	**0.29**	(0.03)	**0.24**	(0.02)	**0.25**	(0.02)	**-0.10**	(0.02)	**-0.11**	(0.02)	**0.14**	(0.03)	**0.14**	(0.03)
	Latvia	**0.22**	(0.03)	**0.25**	(0.03)	**0.11**	(0.03)	**0.19**	(0.03)	**0.10**	(0.02)	**0.18**	(0.02)	**0.06**	(0.02)	0.00	(0.02)	**0.06**	(0.03)	**0.09**	(0.03)
	Liechtenstein	**0.25**	(0.12)	**0.24**	(0.12)	0.13	(0.09)	0.10	(0.08)	**0.30**	(0.07)	**0.31**	(0.07)	**-0.20**	(0.07)	**-0.21**	(0.08)	0.06	(0.14)	0.05	(0.14)
	Lithuania	**0.31**	(0.03)	**0.33**	(0.03)	**0.11**	(0.03)	**0.18**	(0.02)	**0.16**	(0.02)	**0.24**	(0.02)	**0.04**	(0.02)	-0.03	(0.02)	**0.11**	(0.03)	**0.14**	(0.03)
	Macao-China	**0.23**	(0.03)	**0.27**	(0.02)	**0.06**	(0.03)	**0.14**	(0.02)	**0.11**	(0.02)	**0.17**	(0.02)	-0.01	(0.02)	**-0.07**	(0.02)	**0.08**	(0.02)	**0.09**	(0.02)
	Malaysia	**0.20**	(0.03)	**0.24**	(0.03)	**0.14**	(0.03)	**0.19**	(0.03)	**0.16**	(0.02)	**0.19**	(0.02)	0.00	(0.02)	-0.03	(0.02)	**0.06**	(0.02)	**0.07**	(0.03)
	Montenegro	**0.43**	(0.03)	**0.44**	(0.03)	**0.22**	(0.03)	**0.26**	(0.03)	**0.21**	(0.02)	**0.26**	(0.02)	-0.01	(0.02)	**-0.06**	(0.02)	**0.17**	(0.03)	**0.19**	(0.03)
	Peru	**0.31**	(0.02)	**0.31**	(0.02)	**0.25**	(0.02)	**0.26**	(0.02)	**0.20**	(0.02)	**0.23**	(0.02)	-0.01	(0.02)	**-0.04**	(0.02)	**0.09**	(0.03)	**0.11**	(0.03)
	Qatar	**0.37**	(0.02)	**0.37**	(0.02)	**0.28**	(0.02)	**0.31**	(0.02)	**0.22**	(0.01)	**0.23**	(0.01)	**0.07**	(0.02)	**0.05**	(0.02)	**0.10**	(0.01)	**0.09**	(0.01)
	Romania	-0.01	(0.02)	-0.02	(0.02)	**0.14**	(0.02)	**0.17**	(0.02)	**0.15**	(0.01)	**0.18**	(0.02)	**0.05**	(0.02)	0.02	(0.02)	**0.07**	(0.03)	**0.09**	(0.03)
	Russian Federation	**0.25**	(0.02)	**0.27**	(0.02)	**0.17**	(0.03)	**0.22**	(0.02)	**0.16**	(0.02)	**0.20**	(0.02)	0.02	(0.02)	-0.02	(0.02)	**0.12**	(0.03)	**0.15**	(0.03)
	Serbia	**0.27**	(0.02)	**0.29**	(0.02)	**0.19**	(0.03)	**0.25**	(0.03)	**0.14**	(0.02)	**0.21**	(0.02)	**0.05**	(0.02)	0.00	(0.02)	0.02	(0.03)	**0.06**	(0.03)
	Shanghai-China	**0.34**	(0.03)	**0.36**	(0.03)	**0.09**	(0.04)	**0.17**	(0.03)	**0.17**	(0.02)	**0.21**	(0.02)	**-0.09**	(0.02)	**-0.12**	(0.02)	**0.14**	(0.03)	**0.17**	(0.03)
	Singapore	**0.25**	(0.03)	**0.26**	(0.03)	**0.10**	(0.02)	**0.17**	(0.02)	**0.13**	(0.02)	**0.16**	(0.02)	-0.03	(0.02)	**-0.07**	(0.02)	**0.08**	(0.03)	**0.08**	(0.03)
	Chinese Taipei	**0.30**	(0.02)	**0.31**	(0.02)	**0.12**	(0.03)	**0.13**	(0.03)	**0.18**	(0.02)	**0.21**	(0.02)	-0.01	(0.02)	-0.02	(0.02)	**0.12**	(0.02)	**0.12**	(0.02)
	Thailand	**0.27**	(0.02)	**0.28**	(0.02)	**0.19**	(0.02)	**0.21**	(0.02)	**0.14**	(0.01)	**0.16**	(0.01)	**0.06**	(0.01)	**0.03**	(0.01)	**0.07**	(0.02)	**0.10**	(0.02)
	Tunisia	**0.35**	(0.03)	**0.37**	(0.03)	**0.15**	(0.03)	**0.18**	(0.03)	**0.23**	(0.02)	**0.27**	(0.02)	**-0.04**	(0.02)	**-0.06**	(0.02)	**0.14**	(0.03)	**0.17**	(0.03)
	United Arab Emirates	**0.34**	(0.02)	**0.34**	(0.02)	**0.21**	(0.02)	**0.24**	(0.02)	**0.19**	(0.01)	**0.21**	(0.01)	-0.02	(0.02)	**-0.06**	(0.01)	**0.10**	(0.02)	**0.10**	(0.02)
	Uruguay	**0.29**	(0.03)	**0.30**	(0.03)	**0.18**	(0.03)	**0.22**	(0.03)	**0.11**	(0.02)	**0.17**	(0.02)	**0.08**	(0.02)	0.02	(0.02)	**0.06**	(0.03)	**0.09**	(0.03)
	Viet Nam	**0.18**	(0.02)	**0.19**	(0.02)	**0.11**	(0.03)	**0.13**	(0.03)	**0.10**	(0.01)	**0.12**	(0.01)	**-0.05**	(0.02)	**-0.07**	(0.02)	**0.08**	(0.03)	**0.10**	(0.03)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.5.17

Relationship between teachers' student orientation and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with teachers' student orientation:																			
		Arriving late for school				Skipping classes or days of school				Sense of belonging				Perseverance				Openness to problem solving			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	**1.3**	(0.6)	0.1	(0.6)	0.9	-0.6	-0.8	-0.6	**0.09**	(0.01)	**0.10**	(0.01)	**0.10**	(0.02)	**0.14**	(0.02)	**0.10**	(0.02)	**0.16**	(0.02)
	Austria	-1.0	(0.9)	**-1.6**	(0.8)	0.0	-0.6	-0.6	-0.6	**0.04**	(0.02)	**0.07**	(0.02)	**0.07**	(0.03)	**0.11**	(0.03)	**0.08**	(0.03)	**0.16**	(0.03)
	Belgium	0.7	(0.8)	-0.5	(0.8)	0.6	0.4	-0.2	0.4	0.02	(0.02)	**0.03**	(0.02)	**0.09**	(0.02)	**0.12**	(0.02)	**0.11**	(0.02)	**0.15**	(0.03)
	Canada	**2.6**	(0.6)	0.4	(0.6)	**1.5**	-0.6	-0.1	-0.6	**0.09**	(0.01)	**0.10**	(0.02)	**0.07**	(0.02)	**0.13**	(0.02)	**0.07**	(0.02)	**0.16**	(0.02)
	Chile	1.9	(1.0)	0.7	(1.0)	1.1	-0.6	0.0	-0.7	**0.11**	(0.02)	**0.12**	(0.02)	**0.09**	(0.03)	**0.13**	(0.03)	**0.12**	(0.02)	**0.18**	(0.03)
	Czech Republic	**3.8**	(1.1)	2.2	(1.2)	**2.0**	-0.8	1.2	-0.8	**0.04**	(0.02)	0.05	(0.03)	**0.07**	(0.03)	**0.10**	(0.04)	**0.12**	(0.04)	**0.20**	(0.04)
	Denmark	-0.8	(1.2)	-1.5	(1.1)	0.7	-0.8	-0.3	-0.8	**0.15**	(0.02)	**0.16**	(0.02)	**0.15**	(0.03)	**0.19**	(0.03)	**0.18**	(0.03)	**0.23**	(0.03)
	Estonia	**3.0**	(1.1)	1.8	(1.1)	1.9	-1.3	-0.1	-1.2	**0.11**	(0.02)	**0.12**	(0.02)	**0.13**	(0.04)	**0.15**	(0.04)	**0.11**	(0.03)	**0.16**	(0.03)
	Finland	1.5	(0.9)	0.0	(0.9)	0.6	-0.8	-0.6	-0.8	**0.11**	(0.02)	**0.12**	(0.02)	**0.11**	(0.02)	**0.18**	(0.02)	**0.12**	(0.03)	**0.22**	(0.03)
	France	**3.5**	(0.9)	1.8	(1.0)	1.6	-0.9	0.5	-0.9	0.00	(0.02)	0.02	(0.02)	**0.07**	(0.03)	**0.13**	(0.03)	**0.08**	(0.03)	**0.14**	(0.03)
	Germany	1.2	(0.9)	0.6	(0.9)	0.0	-0.6	-0.7	-0.7	**0.09**	(0.02)	**0.10**	(0.02)	0.03	(0.03)	**0.07**	(0.03)	**0.06**	(0.03)	**0.11**	(0.03)
	Greece	1.3	(0.8)	0.6	(0.9)	**2.6**	-0.9	1.6	-0.9	-0.01	(0.02)	0.00	(0.02)	**-0.04**	(0.02)	0.04	(0.03)	-0.02	(0.03)	**0.06**	(0.03)
	Hungary	**5.7**	(1.0)	**3.9**	(1.1)	**3.9**	-0.8	**2.4**	-0.8	**-0.04**	(0.02)	-0.01	(0.02)	0.01	(0.02)	0.03	(0.02)	**0.06**	(0.03)	**0.10**	(0.03)
	Iceland	**3.0**	(1.2)	1.6	(1.2)	1.5	-0.8	0.7	-0.8	**0.07**	(0.03)	**0.10**	(0.03)	**0.12**	(0.04)	**0.18**	(0.04)	**0.19**	(0.04)	**0.28**	(0.04)
	Ireland	**2.0**	(0.9)	0.7	(1.0)	**1.5**	-0.7	1.1	-0.7	**0.08**	(0.02)	**0.08**	(0.02)	**0.11**	(0.03)	**0.16**	(0.03)	**0.08**	(0.03)	**0.14**	(0.03)
	Israel	-1.3	(0.8)	**-2.6**	(0.9)	-1.1	-0.8	**-1.8**	-0.9	**0.09**	(0.03)	**0.10**	(0.03)	**0.13**	(0.03)	**0.15**	(0.03)	**0.19**	(0.04)	**0.26**	(0.04)
	Italy	**3.6**	(0.5)	**1.5**	(0.5)	**2.8**	-0.6	0.9	-0.6	**0.08**	(0.01)	**0.08**	(0.01)	**0.09**	(0.02)	**0.15**	(0.02)	**0.10**	(0.02)	**0.16**	(0.02)
	Japan	0.5	(0.5)	0.1	(0.5)	0.7	-0.4	0.2	-0.4	**0.08**	(0.02)	**0.09**	(0.02)	**0.07**	(0.02)	**0.10**	(0.03)	**0.11**	(0.03)	**0.14**	(0.03)
	Korea	**2.3**	(0.8)	0.5	(0.8)	**1.3**	-0.5	0.3	-0.4	**0.08**	(0.02)	**0.10**	(0.02)	**0.04**	(0.02)	**0.08**	(0.02)	**0.05**	(0.02)	**0.11**	(0.02)
	Luxembourg	**1.4**	(0.7)	0.2	(0.7)	**1.8**	-0.4	**0.8**	-0.4	**-0.04**	(0.02)	-0.01	(0.02)	**0.08**	(0.02)	**0.12**	(0.02)	**0.10**	(0.03)	**0.16**	(0.02)
	Mexico	**1.3**	(0.6)	0.4	(0.6)	0.6	-0.5	-0.3	-0.5	**0.06**	(0.01)	**0.07**	(0.01)	0.01	(0.01)	**0.05**	(0.02)	**0.15**	(0.02)	**0.20**	(0.02)
	Netherlands	**4.8**	(1.0)	**2.6**	(1.0)	0.7	-0.6	0.1	-0.6	0.02	(0.02)	0.03	(0.02)	**0.07**	(0.02)	**0.09**	(0.02)	**0.12**	(0.03)	**0.16**	(0.03)
	New Zealand	1.9	(1.2)	0.3	(1.1)	**2.9**	-1.3	0.6	-1.2	**0.08**	(0.02)	**0.09**	(0.02)	**0.08**	(0.03)	**0.13**	(0.03)	**0.13**	(0.03)	**0.19**	(0.03)
	Norway	**2.3**	(0.9)	1.3	(1.0)	-0.2	-0.8	-1.1	-0.8	**0.16**	(0.03)	**0.17**	(0.03)	**0.15**	(0.04)	**0.22**	(0.04)	**0.15**	(0.04)	**0.21**	(0.04)
	Poland	0.6	(0.6)	-0.2	(1.1)	0.6	-0.6	-1.0	-0.9	**0.07**	(0.01)	**0.10**	(0.02)	0.02	(0.02)	**0.11**	(0.04)	**0.20**	(0.02)	**0.11**	(0.03)
	Portugal	-0.8	(1.1)	-1.6	(1.2)	**1.7**	-0.8	0.1	-0.8	**0.05**	(0.02)	**0.07**	(0.02)	-0.02	(0.02)	**0.06**	(0.03)	**0.09**	(0.02)	**0.15**	(0.02)
	Slovak Republic	**3.9**	(0.9)	**2.8**	(0.9)	**2.7**	-0.9	1.6	-0.9	-0.01	(0.02)	0.01	(0.02)	**0.10**	(0.03)	**0.16**	(0.03)	**0.13**	(0.03)	**0.20**	(0.03)
	Slovenia	1.9	(1.1)	0.3	(1.1)	**3.3**	-0.9	1.0	-1.0	0.00	(0.02)	0.01	(0.02)	**0.05**	(0.02)	**0.08**	(0.02)	**0.15**	(0.02)	**0.22**	(0.02)
	Spain	**2.6**	(0.6)	0.9	(0.6)	**2.0**	-0.8	-0.1	-0.8	0.02	(0.02)	0.03	(0.02)	**0.06**	(0.02)	**0.10**	(0.02)	**0.09**	(0.02)	**0.15**	(0.02)
	Sweden	**2.7**	(1.1)	1.3	(1.1)	-0.7	-0.9	**-2.1**	-0.9	**0.20**	(0.02)	**0.21**	(0.02)	**0.14**	(0.04)	**0.19**	(0.04)	**0.13**	(0.04)	**0.19**	(0.04)
	Switzerland	**-2.3**	(0.7)	**-3.1**	(0.7)	**-2.7**	-0.7	**-3.9**	-0.7	**0.11**	(0.02)	**0.15**	(0.02)	**0.13**	(0.03)	**0.17**	(0.03)	**0.12**	(0.03)	**0.17**	(0.03)
	Turkey	**1.9**	(0.8)	0.9	(0.8)	-0.4	-0.8	-0.1	-0.8	**0.09**	(0.02)	**0.10**	(0.03)	0.04	(0.03)	**0.06**	(0.03)	**0.18**	(0.02)	**0.21**	(0.02)
	United Kingdom	-0.5	(0.9)	-1.7	(1.0)	0.4	-0.6	-0.5	-0.6	**0.09**	(0.02)	**0.10**	(0.02)	**0.18**	(0.03)	**0.20**	(0.03)	**0.12**	(0.03)	**0.16**	(0.03)
	United States	1.9	(1.1)	-0.2	(1.0)	0.4	-1.0	-0.9	-1.1	**0.12**	(0.02)	**0.14**	(0.02)	**0.15**	(0.03)	**0.20**	(0.03)	**0.16**	(0.03)	**0.24**	(0.03)
	OECD average	**1.7**	(0.2)	**0.4**	(0.2)	**1.1**	0.1	-0.1	0.1	**0.07**	(0.00)	**0.08**	(0.00)	**0.08**	(0.00)	**0.13**	(0.00)	**0.12**	(0.00)	**0.17**	(0.00)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**2.4**	(1.0)	0.4	(1.1)	1.6	-0.9	-0.3	-1.0	**0.04**	(0.02)	**0.06**	(0.02)	-0.02	(0.03)	0.01	(0.03)	**0.17**	(0.04)	**0.21**	(0.03)
	Brazil	0.5	(0.6)	-0.2	(0.6)	0.7	-0.6	0.2	-0.6	**0.07**	(0.01)	**0.08**	(0.01)	0.01	(0.02)	**0.06**	(0.02)	**0.21**	(0.02)	**0.24**	(0.02)
	Bulgaria	0.8	(0.8)	-1.0	(0.9)	**3.4**	-0.8	0.6	-0.9	**0.07**	(0.01)	**0.12**	(0.01)	0.02	(0.02)	**0.06**	(0.03)	**0.18**	(0.03)	**0.21**	(0.03)
	Colombia	0.5	(1.2)	0.0	(1.2)	1.6	-0.9	1.3	-0.8	0.04	(0.03)	0.06	(0.04)	0.06	(0.05)	0.09	(0.05)	**0.18**	(0.04)	**0.18**	(0.04)
	Costa Rica	-0.3	(1.2)	-0.7	(1.3)	-1.0	-1.2	-1.6	-1.2	**0.13**	(0.03)	**0.14**	(0.03)	0.06	(0.05)	**0.09**	(0.04)	**0.16**	(0.04)	**0.21**	(0.04)
	Croatia	1.6	(1.0)	0.2	(0.9)	**5.5**	-1.0	**3.0**	-1.0	**0.04**	(0.02)	**0.05**	(0.02)	**0.07**	(0.03)	**0.09**	(0.03)	**0.17**	(0.02)	**0.19**	(0.02)
	Cyprus*	**1.6**	(0.8)	0.0	(0.8)	**3.5**	-0.9	1.5	-1.0	-0.01	(0.02)	0.00	(0.02)	**-0.04**	(0.02)	0.03	(0.02)	0.03	(0.03)	**0.12**	(0.03)
	Hong Kong-China	**3.7**	(0.7)	**2.4**	(0.8)	**1.9**	-0.4	0.9	-0.5	**0.06**	(0.02)	**0.08**	(0.02)	0.00	(0.02)	0.03	(0.02)	0.04	(0.03)	**0.10**	(0.03)
	Indonesia	**3.1**	(1.1)	2.1	(1.2)	**3.1**	-1.2	1.8	-1.2	**0.06**	(0.02)	**0.07**	(0.02)	**0.12**	(0.03)	**0.14**	(0.03)	**0.25**	(0.03)	**0.26**	(0.03)
	Jordan	-0.4	(0.7)	-1.0	(0.7)	0.5	-0.7	-0.1	-0.7	**0.08**	(0.02)	**0.12**	(0.02)	-0.01	(0.02)	**0.05**	(0.02)	**0.17**	(0.02)	**0.21**	(0.02)
	Kazakhstan	**-2.1**	(1.0)	**-3.0**	(1.0)	0.1	-1.0	-1.3	-1.1	**0.13**	(0.02)	**0.15**	(0.02)	**0.09**	(0.03)	**0.13**	(0.03)	**0.24**	(0.03)	**0.27**	(0.03)
	Latvia	-0.5	(1.4)	-1.6	(1.5)	0.6	-1.2	-0.5	-1.2	**0.14**	(0.03)	**0.14**	(0.03)	**0.06**	(0.03)	**0.09**	(0.03)	**0.08**	(0.03)	**0.12**	(0.03)
	Liechtenstein	1.3	(2.9)	0.3	(2.8)	2.1	-1.7	1.9	-1.6	0.04	(0.09)	0.06	(0.09)	-0.05	(0.09)	-0.04	(0.10)	0.15	(0.10)	0.18	(0.10)
	Lithuania	**4.2**	(1.1)	**3.0**	(1.1)	**4.9**	-1.1	**2.2**	-1.0	**-0.04**	(0.02)	0.01	(0.02)	0.02	(0.02)	**0.04**	(0.02)	0.05	(0.03)	**0.11**	(0.03)
	Macao-China	**4.3**	(0.9)	**2.0**	(0.8)	0.9	-0.5	-0.1	-0.6	**0.14**	(0.02)	**0.15**	(0.02)	**0.04**	(0.02)	**0.07**	(0.02)	0.05	(0.03)	**0.11**	(0.03)
	Malaysia	**6.2**	(0.9)	**2.9**	(0.9)	-0.2	-1.1	**-2.5**	-1.0	**0.09**	(0.02)	**0.12**	(0.02)	**0.04**	(0.02)	**0.09**	(0.02)	**0.20**	(0.03)	**0.23**	(0.03)
	Montenegro	**2.4**	(0.9)	1.6	(0.9)	1.2	-0.9	0.0	-0.9	**0.05**	(0.02)	**0.04**	(0.02)	-0.01	(0.03)	0.03	(0.03)	**0.14**	(0.03)	**0.15**	(0.03)
	Peru	1.7	(1.0)	-0.3	(0.9)	**4.1**	-0.7	**2.2**	-0.7	**0.08**	(0.02)	**0.09**	(0.02)	0.00	(0.03)	0.04	(0.03)	**0.20**	(0.03)	**0.23**	(0.03)
	Qatar	0.6	(0.5)	**-2.0**	(0.5)	**-2.1**	-0.5	**-3.0**	-0.5	**0.09**	(0.01)	**0.13**	(0.01)	0.00	(0.02)	**0.06**	(0.02)	**0.25**	(0.02)	**0.28**	(0.02)
	Romania	**1.8**	(0.8)	1.2	(0.8)	**3.6**	-0.7	**2.5**	-0.8	**-0.06**	(0.01)	**-0.05**	(0.01)	0.01	(0.02)	0.03	(0.02)	**0.14**	(0.03)	**0.16**	(0.03)
	Russian Federation	-0.6	(0.9)	**-2.3**	(0.9)	-1.2	-1.2	**-2.8**	-1.2	**0.18**	(0.02)	**0.19**	(0.02)	**0.08**	(0.03)	**0.11**	(0.03)	**0.17**	(0.03)	**0.21**	(0.03)
	Serbia	**2.0**	(1.0)	0.6	(1.0)	**2.8**	-1.0	1.4	-1.0	**0.05**	(0.02)	**0.05**	(0.02)	**0.07**	(0.02)	**0.11**	(0.03)	**0.15**	(0.02)	**0.19**	(0.02)
	Shanghai-China	**2.2**	(0.6)	0.8	(0.6)	0.2	-0.4	0.0	-0.4	**0.15**	(0.02)	**0.17**	(0.02)	**0.10**	(0.03)	**0.12**	(0.03)	**0.08**	(0.03)	**0.13**	(0.03)
	Singapore	1.2	(0.7)	0.0	(0.7)	-0.4	-0.6	**-1.3**	-0.6	**0.09**	(0.02)	**0.10**	(0.02)	**0.08**	(0.02)	**0.11**	(0.02)	**0.12**	(0.03)	**0.15**	(0.03)
	Chinese Taipei	**2.1**	(0.9)	0.2	(0.9)	**2.9**	-0.6	1.0	-0.6	**0.09**	(0.02)	**0.09**	(0.02)	0.04	(0.03)	**0.10**	(0.03)	**0.08**	(0.03)	**0.15**	(0.03)
	Thailand	**4.1**	(0.9)	**2.9**	(0.9)	**2.5**	-0.9	0.9	-1.0	0.00	(0.02)	**0.04**	(0.02)	-0.02	(0.02)	0.02	(0.02)	**0.20**	(0.03)	**0.21**	(0.03)
	Tunisia	-0.6	(0.8)	-1.1	(0.8)	**2.3**	-1.0	1.3	-1.0	0.03	(0.02)	**0.06**	(0.02)	**0.08**	(0.03)	**0.16**	(0.03)	**0.17**	(0.03)	**0.21**	(0.03)
	United Arab Emirates	**1.9**	(0.6)	-0.1	(0.6)	0.5	-0.7	**-1.7**	-0.8	**0.12**	(0.01)	**0.16**	(0.01)	**0.04**	(0.02)	**0.11**	(0.02)	**0.18**	(0.02)	**0.23**	(0.02)
	Uruguay	**-2.6**	(0.9)	**-3.2**	(0.9)	0.4	-1.0	-0.3	-0.9	**0.04**	(0.02)	**0.04**	(0.02)	**0.08**	(0.03)	**0.13**	(0.03)	**0.17**	(0.03)	**0.22**	(0.03)
	Viet Nam	**3.2**	(0.8)	**2.6**	(0.8)	**2.5**	-0.8	**1.6**	-0.7	**0.12**	(0.02)	**0.12**	(0.02)	**0.14**	(0.03)	**0.15**	(0.03)	**0.18**	(0.03)	**0.21**	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.5.17 Relationship between teachers' student orientation and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with teachers' student orientation:																			
		Intrinsic motivation to learn mathematics				Mathematics self-efficacy				Mathematics self-concept				Mathematics anxiety				Mathematics intentions			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	Australia	**0.24**	(0.02)	**0.28**	(0.02)	**0.09**	(0.02)	**0.18**	(0.02)	**0.11**	(0.01)	**0.19**	(0.01)	-0.01	(0.01)	**-0.08**	(0.01)	**0.11**	(0.02)	**0.12**	(0.02)
	Austria	**0.20**	(0.03)	**0.27**	(0.03)	0.01	(0.03)	**0.13**	(0.03)	**0.09**	(0.02)	**0.22**	(0.02)	0.00	(0.03)	**-0.12**	(0.03)	**0.09**	(0.03)	**0.13**	(0.03)
	Belgium	**0.16**	(0.03)	**0.19**	(0.03)	-0.01	(0.03)	**0.05**	(0.02)	**0.07**	(0.02)	**0.12**	(0.02)	0.00	(0.02)	**-0.04**	(0.02)	**0.07**	(0.02)	**0.09**	(0.02)
	Canada	**0.18**	(0.02)	**0.25**	(0.02)	0.02	(0.02)	**0.13**	(0.02)	**0.06**	(0.01)	**0.19**	(0.01)	**0.04**	(0.02)	**-0.07**	(0.02)	**0.08**	(0.02)	**0.12**	(0.02)
	Chile	**0.23**	(0.03)	**0.27**	(0.03)	**0.16**	(0.03)	**0.22**	(0.03)	**0.12**	(0.02)	**0.20**	(0.02)	**0.04**	(0.01)	-0.01	(0.01)	**0.09**	(0.02)	**0.14**	(0.02)
	Czech Republic	**0.20**	(0.04)	**0.29**	(0.04)	0.05	(0.04)	**0.19**	(0.03)	0.05	(0.03)	**0.18**	(0.03)	**0.06**	(0.02)	**-0.05**	(0.02)	**0.11**	(0.04)	**0.20**	(0.04)
	Denmark	**0.21**	(0.04)	**0.26**	(0.03)	**0.12**	(0.03)	**0.18**	(0.03)	**0.08**	(0.03)	**0.16**	(0.02)	-0.04	(0.03)	**-0.10**	(0.02)	0.01	(0.03)	0.02	(0.03)
	Estonia	**0.30**	(0.03)	**0.33**	(0.03)	**0.15**	(0.03)	**0.22**	(0.03)	**0.12**	(0.02)	**0.21**	(0.02)	0.03	(0.03)	**-0.06**	(0.02)	**0.11**	(0.03)	**0.14**	(0.03)
	Finland	**0.30**	(0.03)	**0.38**	(0.03)	**0.13**	(0.02)	**0.24**	(0.02)	**0.19**	(0.02)	**0.31**	(0.02)	**-0.06**	(0.02)	**-0.14**	(0.02)	**0.17**	(0.03)	**0.25**	(0.03)
	France	**0.14**	(0.03)	**0.18**	(0.03)	0.02	(0.03)	**0.12**	(0.03)	**0.07**	(0.02)	**0.17**	(0.02)	0.03	(0.02)	**-0.04**	(0.02)	0.01	(0.03)	0.03	(0.03)
	Germany	**0.17**	(0.03)	**0.24**	(0.03)	0.00	(0.03)	**0.13**	(0.03)	**0.11**	(0.02)	**0.22**	(0.02)	0.01	(0.03)	**-0.11**	(0.03)	**0.12**	(0.03)	**0.16**	(0.04)
	Greece	**0.09**	(0.03)	**0.19**	(0.03)	-0.05	(0.03)	**0.08**	(0.03)	0.00	(0.02)	**0.11**	(0.02)	**0.12**	(0.02)	0.02	(0.02)	0.00	(0.02)	**0.07**	(0.02)
	Hungary	**0.26**	(0.03)	**0.31**	(0.03)	0.00	(0.03)	**0.12**	(0.03)	**0.07**	(0.01)	**0.17**	(0.02)	**0.09**	(0.02)	-0.01	(0.02)	**0.08**	(0.03)	**0.16**	(0.03)
	Iceland	**0.16**	(0.04)	**0.22**	(0.04)	**0.11**	(0.04)	**0.21**	(0.03)	**0.04**	(0.02)	**0.16**	(0.02)	**0.07**	(0.02)	-0.03	(0.02)	0.05	(0.03)	**0.06**	(0.03)
	Ireland	**0.19**	(0.03)	**0.23**	(0.03)	0.03	(0.03)	**0.12**	(0.02)	**0.08**	(0.02)	**0.17**	(0.02)	-0.01	(0.02)	**-0.08**	(0.02)	**0.07**	(0.03)	**0.09**	(0.03)
	Israel	**0.26**	(0.03)	**0.28**	(0.03)	0.02	(0.03)	**0.18**	(0.03)	**0.09**	(0.02)	**0.18**	(0.02)	0.03	(0.02)	-0.05	(0.03)	**0.08**	(0.03)	**0.12**	(0.03)
	Italy	**0.24**	(0.02)	**0.30**	(0.02)	0.01	(0.02)	**0.12**	(0.01)	**0.09**	(0.01)	**0.19**	(0.01)	0.00	(0.01)	**-0.07**	(0.01)	**0.08**	(0.01)	**0.13**	(0.01)
	Japan	**0.16**	(0.03)	**0.20**	(0.03)	0.03	(0.03)	**0.10**	(0.02)	**0.11**	(0.02)	**0.14**	(0.02)	-0.03	(0.02)	**-0.07**	(0.02)	**0.07**	(0.02)	**0.09**	(0.02)
	Korea	**0.08**	(0.03)	**0.17**	(0.02)	-0.01	(0.03)	**0.12**	(0.02)	0.02	(0.02)	**0.11**	(0.02)	0.03	(0.02)	-0.01	(0.02)	0.01	(0.03)	**0.06**	(0.03)
	Luxembourg	**0.20**	(0.03)	**0.27**	(0.02)	0.02	(0.03)	**0.13**	(0.03)	**0.09**	(0.02)	**0.19**	(0.02)	**0.06**	(0.02)	**-0.04**	(0.02)	**0.08**	(0.02)	**0.11**	(0.02)
	Mexico	**0.20**	(0.01)	**0.22**	(0.01)	**0.17**	(0.01)	**0.22**	(0.01)	**0.08**	(0.01)	**0.14**	(0.01)	**0.06**	(0.01)	0.01	(0.01)	0.01	(0.01)	**0.04**	(0.01)
	Netherlands	**0.18**	(0.03)	**0.21**	(0.03)	0.01	(0.03)	**0.11**	(0.03)	**0.08**	(0.02)	**0.15**	(0.02)	**0.05**	(0.02)	-0.01	(0.02)	0.00	(0.03)	-0.01	(0.03)
	New Zealand	**0.24**	(0.03)	**0.27**	(0.03)	**0.09**	(0.03)	**0.18**	(0.02)	**0.10**	(0.02)	**0.18**	(0.02)	0.02	(0.03)	**-0.06**	(0.02)	**0.09**	(0.03)	**0.11**	(0.03)
	Norway	**0.24**	(0.04)	**0.29**	(0.03)	**0.16**	(0.04)	**0.25**	(0.03)	**0.14**	(0.03)	**0.23**	(0.02)	**-0.06**	(0.03)	**-0.13**	(0.02)	0.03	(0.04)	0.06	(0.04)
	Poland	**0.24**	(0.02)	**0.28**	(0.02)	**0.14**	(0.02)	**0.13**	(0.03)	**0.09**	(0.01)	**0.18**	(0.02)	**0.09**	(0.01)	**-0.08**	(0.02)	**0.05**	(0.02)	**0.12**	(0.03)
	Portugal	**0.14**	(0.02)	**0.20**	(0.02)	**-0.04**	(0.02)	**0.10**	(0.02)	**0.04**	(0.01)	**0.16**	(0.01)	**0.04**	(0.01)	-0.03	(0.02)	**0.05**	(0.02)	**0.09**	(0.02)
	Slovak Republic	**0.20**	(0.03)	**0.25**	(0.03)	-0.02	(0.03)	**0.10**	(0.03)	**0.10**	(0.02)	**0.20**	(0.02)	**0.08**	(0.02)	-0.03	(0.02)	0.03	(0.03)	**0.11**	(0.03)
	Slovenia	**0.22**	(0.02)	**0.28**	(0.02)	0.00	(0.03)	**0.11**	(0.03)	**0.10**	(0.02)	**0.22**	(0.02)	0.00	(0.02)	**-0.08**	(0.02)	**0.11**	(0.03)	**0.16**	(0.03)
	Spain	**0.17**	(0.02)	**0.21**	(0.02)	**0.04**	(0.02)	**0.13**	(0.01)	**0.09**	(0.01)	**0.18**	(0.01)	**0.05**	(0.01)	-0.01	(0.01)	**0.06**	(0.02)	**0.10**	(0.02)
	Sweden	**0.27**	(0.03)	**0.32**	(0.03)	**0.11**	(0.04)	**0.18**	(0.04)	**0.13**	(0.02)	**0.22**	(0.02)	-0.02	(0.03)	**-0.09**	(0.03)	**0.13**	(0.03)	**0.15**	(0.03)
	Switzerland	**0.19**	(0.02)	**0.24**	(0.02)	0.00	(0.02)	**0.12**	(0.02)	**0.08**	(0.02)	**0.18**	(0.02)	-0.03	(0.02)	**-0.12**	(0.02)	**0.08**	(0.03)	**0.10**	(0.03)
	Turkey	**0.25**	(0.03)	**0.29**	(0.03)	**0.13**	(0.03)	**0.21**	(0.03)	**0.10**	(0.02)	**0.16**	(0.02)	**0.07**	(0.02)	0.00	(0.02)	0.01	(0.03)	0.04	(0.03)
	United Kingdom	**0.26**	(0.02)	**0.29**	(0.02)	**0.18**	(0.02)	**0.24**	(0.02)	**0.13**	(0.02)	**0.18**	(0.02)	-0.03	(0.02)	**-0.08**	(0.02)	**0.13**	(0.03)	**0.14**	(0.03)
	United States	**0.27**	(0.03)	**0.32**	(0.03)	**0.09**	(0.03)	**0.21**	(0.02)	**0.08**	(0.02)	**0.20**	(0.02)	0.01	(0.02)	**-0.12**	(0.02)	**0.08**	(0.03)	**0.11**	(0.03)
	OECD average	**0.21**	(0.00)	**0.26**	(0.00)	**0.06**	(0.00)	**0.15**	(0.00)	**0.09**	(0.00)	**0.18**	(0.00)	**0.02**	(0.00)	**-0.06**	(0.00)	**0.07**	(0.00)	**0.11**	(0.00)
Partners	Albania	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**0.26**	(0.03)	**0.27**	(0.03)	**0.16**	(0.03)	**0.21**	(0.04)	**0.11**	(0.02)	**0.17**	(0.02)	**0.14**	(0.02)	**0.08**	(0.02)	-0.01	(0.03)	0.02	(0.03)
	Brazil	**0.25**	(0.02)	**0.25**	(0.02)	**0.16**	(0.02)	**0.22**	(0.02)	**0.10**	(0.01)	**0.16**	(0.01)	**0.09**	(0.01)	**0.02**	(0.01)	**0.06**	(0.02)	**0.10**	(0.02)
	Bulgaria	**0.36**	(0.02)	**0.39**	(0.03)	**0.21**	(0.03)	**0.30**	(0.03)	**0.14**	(0.02)	**0.22**	(0.02)	**0.12**	(0.02)	0.02	(0.02)	**0.07**	(0.02)	**0.13**	(0.03)
	Colombia	**0.15**	(0.03)	**0.15**	(0.03)	**0.21**	(0.04)	**0.24**	(0.04)	**0.09**	(0.02)	**0.14**	(0.02)	**0.10**	(0.02)	**0.04**	(0.02)	0.00	(0.03)	0.03	(0.03)
	Costa Rica	**0.26**	(0.04)	**0.28**	(0.04)	**0.16**	(0.04)	**0.20**	(0.04)	**0.07**	(0.03)	**0.14**	(0.02)	0.03	(0.02)	-0.03	(0.02)	**0.08**	(0.03)	**0.10**	(0.03)
	Croatia	**0.25**	(0.03)	**0.30**	(0.03)	0.02	(0.03)	**0.12**	(0.03)	**0.09**	(0.02)	**0.18**	(0.02)	0.03	(0.02)	**-0.05**	(0.02)	**0.11**	(0.03)	**0.14**	(0.03)
	Cyprus*	**0.19**	(0.03)	**0.29**	(0.03)	0.02	(0.03)	**0.15**	(0.03)	0.01	(0.02)	**0.14**	(0.02)	**0.14**	(0.02)	0.03	(0.02)	0.03	(0.02)	**0.05**	(0.02)
	Hong Kong-China	**0.10**	(0.02)	**0.18**	(0.03)	-0.02	(0.03)	**0.12**	(0.03)	**0.04**	(0.02)	**0.13**	(0.02)	**0.06**	(0.02)	-0.02	(0.02)	-0.01	(0.02)	0.04	(0.03)
	Indonesia	**0.22**	(0.03)	**0.22**	(0.03)	**0.17**	(0.03)	**0.19**	(0.03)	**0.13**	(0.01)	**0.13**	(0.01)	**0.05**	(0.02)	0.03	(0.02)	**0.08**	(0.04)	**0.10**	(0.04)
	Jordan	**0.23**	(0.02)	**0.25**	(0.02)	**0.16**	(0.02)	**0.21**	(0.02)	**0.09**	(0.01)	**0.14**	(0.01)	**0.13**	(0.01)	**0.10**	(0.01)	**0.05**	(0.02)	**0.05**	(0.02)
	Kazakhstan	**0.32**	(0.02)	**0.34**	(0.02)	**0.17**	(0.03)	**0.23**	(0.03)	**0.18**	(0.02)	**0.21**	(0.02)	-0.01	(0.03)	**-0.06**	(0.03)	**0.12**	(0.04)	**0.15**	(0.04)
	Latvia	**0.19**	(0.04)	**0.23**	(0.04)	0.05	(0.03)	**0.13**	(0.03)	**0.07**	(0.02)	**0.17**	(0.02)	**0.08**	(0.02)	0.00	(0.02)	0.04	(0.03)	**0.08**	(0.03)
	Liechtenstein	0.10	(0.12)	0.13	(0.13)	0.10	(0.10)	**0.16**	(0.08)	**0.18**	(0.08)	**0.25**	(0.08)	**-0.14**	(0.06)	**-0.19**	(0.07)	0.06	(0.11)	0.07	(0.11)
	Lithuania	**0.23**	(0.03)	**0.28**	(0.02)	**0.06**	(0.02)	**0.18**	(0.02)	**0.07**	(0.02)	**0.20**	(0.02)	**0.11**	(0.02)	-0.01	(0.02)	0.03	(0.02)	**0.09**	(0.02)
	Macao-China	**0.15**	(0.03)	**0.22**	(0.03)	-0.01	(0.03)	**0.12**	(0.03)	**0.07**	(0.02)	**0.15**	(0.02)	**0.04**	(0.02)	**-0.05**	(0.02)	**0.09**	(0.02)	**0.11**	(0.02)
	Malaysia	**0.14**	(0.03)	**0.21**	(0.03)	**0.10**	(0.03)	**0.19**	(0.03)	**0.11**	(0.02)	**0.17**	(0.02)	**0.05**	(0.02)	-0.01	(0.02)	**0.04**	(0.02)	**0.07**	(0.03)
	Montenegro	**0.34**	(0.02)	**0.36**	(0.02)	**0.19**	(0.03)	**0.26**	(0.03)	**0.15**	(0.02)	**0.22**	(0.02)	**0.05**	(0.02)	-0.02	(0.02)	**0.12**	(0.03)	**0.16**	(0.03)
	Peru	**0.24**	(0.02)	**0.24**	(0.02)	**0.19**	(0.03)	**0.23**	(0.03)	**0.09**	(0.02)	**0.15**	(0.02)	**0.07**	(0.02)	0.02	(0.02)	0.03	(0.03)	**0.08**	(0.03)
	Qatar	**0.34**	(0.02)	**0.38**	(0.02)	**0.20**	(0.02)	**0.29**	(0.02)	**0.15**	(0.01)	**0.21**	(0.01)	**0.18**	(0.01)	**0.11**	(0.02)	**0.10**	(0.02)	**0.10**	(0.02)
	Romania	**0.06**	(0.02)	**0.05**	(0.02)	0.03	(0.02)	**0.08**	(0.02)	**0.11**	(0.01)	**0.14**	(0.01)	**0.10**	(0.01)	**0.06**	(0.01)	0.01	(0.03)	0.05	(0.03)
	Russian Federation	**0.26**	(0.03)	**0.29**	(0.03)	**0.11**	(0.04)	**0.19**	(0.04)	**0.10**	(0.02)	**0.17**	(0.02)	**0.07**	(0.02)	-0.01	(0.02)	**0.14**	(0.02)	**0.19**	(0.02)
	Serbia	**0.30**	(0.02)	**0.34**	(0.03)	**0.10**	(0.03)	**0.21**	(0.03)	**0.13**	(0.02)	**0.24**	(0.02)	**0.10**	(0.02)	0.01	(0.02)	**0.06**	(0.03)	**0.13**	(0.03)
	Shanghai-China	**0.19**	(0.02)	**0.24**	(0.02)	**-0.06**	(0.03)	**0.07**	(0.02)	**0.09**	(0.02)	**0.16**	(0.02)	-0.03	(0.02)	**-0.10**	(0.02)	**0.05**	(0.02)	**0.11**	(0.02)
	Singapore	**0.18**	(0.02)	**0.21**	(0.02)	0.01	(0.02)	**0.12**	(0.02)	**0.07**	(0.02)	**0.13**	(0.02)	0.02	(0.02)	**-0.05**	(0.02)	**0.06**	(0.02)	**0.06**	(0.02)
	Chinese Taipei	**0.13**	(0.03)	**0.22**	(0.03)	**-0.08**	(0.03)	**0.10**	(0.03)	0.00	(0.02)	**0.14**	(0.02)	**0.07**	(0.02)	0.00	(0.02)	-0.03	(0.02)	**0.06**	(0.02)
	Thailand	**0.21**	(0.02)	**0.23**	(0.02)	**0.12**	(0.02)	**0.16**	(0.02)	**0.11**	(0.01)	**0.13**	(0.01)	**0.06**	(0.01)	**0.02**	(0.01)	0.01	(0.02)	**0.06**	(0.02)
	Tunisia	**0.26**	(0.03)	**0.31**	(0.03)	**0.09**	(0.03)	**0.16**	(0.03)	**0.13**	(0.02)	**0.22**	(0.02)	0.01	(0.02)	**-0.04**	(0.02)	**0.07**	(0.03)	**0.15**	(0.03)
	United Arab Emirates	**0.31**	(0.02)	**0.34**	(0.02)	**0.16**	(0.02)	**0.25**	(0.02)	**0.13**	(0.02)	**0.21**	(0.02)	**0.07**	(0.02)	**-0.04**	(0.01)	**0.08**	(0.02)	**0.09**	(0.02)
	Uruguay	**0.31**	(0.03)	**0.33**	(0.03)	**0.19**	(0.03)	**0.26**	(0.03)	**0.09**	(0.02)	**0.19**	(0.02)	**0.11**	(0.02)	0.03	(0.02)	**0.06**	(0.03)	**0.11**	(0.03)
	Viet Nam	**0.14**	(0.02)	**0.16**	(0.02)	**0.07**	(0.02)	**0.11**	(0.02)	**0.08**	(0.01)	**0.11**	(0.01)	**-0.03**	(0.01)	**-0.06**	(0.01)	0.03	(0.03)	**0.07**	(0.03)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.5.18

Relationship between disciplinary climate and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with disciplinary climate:																			
		Arriving late for school				Skipping classes or days of school				Sense of belonging				Perseverance				Openness to problem solving			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	Australia	**-4.1**	(0.5)	**-2.4**	(0.6)	**-4.7**	0.7	**-2.3**	0.7	**0.17**	(0.01)	**0.16**	(0.01)	**0.14**	(0.02)	**0.09**	(0.02)	**0.11**	(0.02)	0.01	(0.02)
	Austria	**-4.8**	(0.8)	**-4.7**	(0.8)	**-4.3**	0.6	**-4.0**	0.6	**0.17**	(0.02)	**0.17**	(0.02)	**0.10**	(0.02)	**0.08**	(0.02)	0.02	(0.03)	-0.02	(0.03)
	Belgium	**-4.7**	(0.6)	**-3.2**	(0.6)	**-2.9**	0.5	**-2.0**	0.4	**0.11**	(0.02)	**0.11**	(0.02)	**0.11**	(0.03)	**0.09**	(0.03)	0.04	(0.03)	0.00	(0.03)
	Canada	**-4.7**	(0.6)	**-3.0**	(0.6)	**-3.8**	0.7	**-2.6**	0.7	**0.13**	(0.01)	**0.13**	(0.01)	**0.12**	(0.02)	**0.08**	(0.02)	**0.10**	(0.02)	0.02	(0.02)
	Chile	**-3.1**	(1.1)	**-2.5**	(1.1)	**-4.3**	0.8	**-3.8**	0.8	**0.20**	(0.02)	**0.20**	(0.02)	**0.10**	(0.03)	**0.09**	(0.02)	0.01	(0.03)	-0.01	(0.03)
	Czech Republic	**-6.4**	(0.9)	**-5.3**	(0.9)	**-3.2**	0.6	**-2.7**	0.6	**0.13**	(0.02)	**0.13**	(0.02)	**0.08**	(0.03)	**0.07**	(0.03)	0.00	(0.02)	**-0.05**	(0.02)
	Denmark	**-5.5**	(1.2)	**-4.8**	(1.1)	**-5.5**	0.9	**-4.6**	0.9	**0.22**	(0.02)	**0.22**	(0.02)	**0.16**	(0.03)	**0.11**	(0.03)	**0.07**	(0.03)	0.01	(0.03)
	Estonia	**-2.8**	(1.1)	-1.5	(1.0)	**-5.8**	1.0	**-3.8**	1.1	**0.11**	(0.02)	**0.10**	(0.02)	**0.06**	(0.02)	0.05	(0.03)	0.01	(0.03)	-0.05	(0.03)
	Finland	**-7.3**	(1.1)	**-6.6**	(1.1)	**-5.6**	0.8	**-5.0**	0.8	**0.19**	(0.02)	**0.18**	(0.02)	**0.11**	(0.03)	**0.09**	(0.03)	**0.06**	(0.03)	0.02	(0.03)
	France	**-4.6**	(0.7)	**-3.6**	(0.7)	**-4.8**	0.7	**-4.2**	0.7	**0.08**	(0.02)	**0.07**	(0.02)	**0.13**	(0.03)	**0.09**	(0.03)	0.01	(0.03)	-0.04	(0.03)
	Germany	**-3.3**	(0.8)	**-2.9**	(0.8)	**-2.5**	0.6	**-2.1**	0.6	**0.16**	(0.02)	**0.16**	(0.02)	**0.07**	(0.03)	0.04	(0.03)	-0.01	(0.03)	-0.04	(0.03)
	Greece	**-5.1**	(1.1)	**-4.7**	(1.2)	**-6.2**	1.1	**-5.5**	1.1	**0.16**	(0.02)	**0.16**	(0.02)	**0.17**	(0.03)	**0.12**	(0.03)	0.05	(0.03)	-0.01	(0.03)
	Hungary	**-5.7**	(1.0)	**-4.0**	(1.0)	**-5.5**	0.8	**-4.3**	0.7	**0.18**	(0.02)	**0.16**	(0.02)	0.04	(0.03)	0.02	(0.03)	-0.03	(0.03)	-0.07	(0.03)
	Iceland	**-5.9**	(1.1)	**-5.1**	(1.1)	**-3.0**	0.7	**-2.5**	0.7	**0.27**	(0.02)	**0.26**	(0.02)	**0.18**	(0.03)	**0.15**	(0.03)	**0.08**	(0.04)	0.03	(0.04)
	Ireland	**-4.3**	(0.7)	**-3.1**	(0.7)	**-5.5**	0.7	**-5.4**	0.7	**0.13**	(0.02)	**0.14**	(0.02)	**0.09**	(0.03)	0.04	(0.03)	0.05	(0.02)	-0.03	(0.02)
	Israel	**-5.4**	(0.8)	**-5.0**	(0.9)	**-6.1**	0.9	**-6.1**	1.0	**0.24**	(0.02)	**0.26**	(0.03)	**0.11**	(0.03)	**0.11**	(0.04)	**0.10**	(0.03)	**0.07**	(0.03)
	Italy	**-3.5**	(0.5)	**-2.3**	(0.5)	**-3.4**	0.5	**-2.2**	0.5	**0.10**	(0.01)	**0.11**	(0.01)	**0.12**	(0.02)	**0.10**	(0.02)	**0.03**	(0.01)	0.00	(0.01)
	Japan	**-3.6**	(0.6)	**-3.1**	(0.6)	**-1.4**	0.5	-0.7	0.5	**0.23**	(0.03)	**0.24**	(0.03)	**0.10**	(0.03)	0.06	(0.03)	-0.03	(0.03)	**-0.08**	(0.03)
	Korea	**-6.1**	(1.1)	**-4.6**	(1.1)	**-2.5**	0.6	**-1.7**	0.5	**0.16**	(0.02)	**0.15**	(0.02)	0.03	(0.02)	0.00	(0.02)	0.02	(0.02)	-0.03	(0.02)
	Luxembourg	**-3.7**	(0.7)	**-3.0**	(0.7)	**-1.6**	0.4	**-1.0**	0.4	**0.14**	(0.02)	**0.12**	(0.02)	**0.08**	(0.03)	**0.06**	(0.03)	0.01	(0.03)	-0.03	(0.03)
	Mexico	**-3.5**	(0.5)	**-2.8**	(0.4)	**-5.5**	0.5	**-4.8**	0.5	**0.19**	(0.01)	**0.19**	(0.01)	**0.14**	(0.02)	**0.11**	(0.02)	-0.01	(0.02)	**-0.04**	(0.02)
	Netherlands	**-5.1**	(1.2)	**-3.5**	(1.1)	**-2.5**	0.7	**-2.2**	0.6	**0.11**	(0.02)	**0.11**	(0.02)	**0.09**	(0.03)	**0.08**	(0.03)	0.05	(0.03)	0.02	(0.03)
	New Zealand	**-3.5**	(1.0)	-1.5	(1.1)	**-5.8**	1.0	**-2.8**	1.0	**0.13**	(0.02)	**0.13**	(0.02)	**0.19**	(0.03)	**0.13**	(0.03)	**0.13**	(0.03)	0.04	(0.03)
	Norway	**-4.2**	(1.0)	**-2.9**	(1.0)	**-6.9**	0.7	**-5.7**	0.7	**0.19**	(0.03)	**0.19**	(0.03)	**0.14**	(0.04)	**0.08**	(0.04)	0.03	(0.04)	-0.03	(0.04)
	Poland	**-5.3**	(1.1)	**-4.6**	(1.0)	**-7.6**	1.0	**-6.8**	1.0	**0.10**	(0.02)	**0.11**	(0.02)	**0.12**	(0.02)	**0.07**	(0.02)	0.02	(0.02)	-0.01	(0.03)
	Portugal	**-3.7**	(1.0)	**-3.4**	(1.0)	**-4.9**	0.8	**-4.0**	0.9	**0.17**	(0.02)	**0.17**	(0.02)	**0.13**	(0.03)	**0.08**	(0.03)	0.04	(0.03)	0.01	(0.03)
	Slovak Republic	**-7.2**	(0.9)	**-6.5**	(0.9)	**-6.7**	0.7	**-6.0**	0.7	**0.16**	(0.02)	**0.15**	(0.02)	**0.12**	(0.04)	**0.09**	(0.04)	-0.03	(0.05)	-0.07	(0.04)
	Slovenia	**-5.5**	(0.8)	**-4.4**	(0.9)	**-5.7**	0.8	**-4.0**	0.9	**0.15**	(0.02)	**0.14**	(0.02)	**0.10**	(0.03)	**0.08**	(0.03)	0.03	(0.03)	-0.01	(0.03)
	Spain	**-4.2**	(0.6)	**-3.2**	(0.6)	**-3.8**	0.7	**-2.6**	0.8	**0.14**	(0.01)	**0.14**	(0.01)	**0.10**	(0.02)	**0.08**	(0.03)	-0.02	(0.02)	**-0.05**	(0.02)
	Sweden	**-4.1**	(1.2)	**-3.3**	(1.2)	**-4.5**	1.0	**-3.7**	1.0	**0.18**	(0.03)	**0.18**	(0.03)	**0.18**	(0.03)	**0.14**	(0.03)	**0.08**	(0.03)	0.04	(0.03)
	Switzerland	**-5.4**	(0.9)	**-5.2**	(0.9)	**-4.3**	0.6	**-3.8**	0.6	**0.14**	(0.02)	**0.13**	(0.02)	**0.11**	(0.03)	**0.10**	(0.03)	-0.01	(0.03)	-0.03	(0.03)
	Turkey	**-4.7**	(1.0)	**-3.9**	(1.0)	**-4.5**	1.0	**-5.0**	1.0	**0.19**	(0.02)	**0.20**	(0.02)	**0.11**	(0.04)	**0.09**	(0.04)	0.02	(0.03)	0.00	(0.03)
	United Kingdom	**-4.3**	(0.7)	**-2.4**	(0.7)	**-4.0**	0.7	**-2.7**	0.6	**0.15**	(0.02)	**0.15**	(0.02)	**0.19**	(0.02)	**0.15**	(0.02)	**0.10**	(0.02)	0.04	(0.02)
	United States	**-5.4**	(0.8)	**-3.7**	(0.9)	**-4.8**	0.9	**-3.9**	0.9	**0.19**	(0.03)	**0.20**	(0.03)	**0.16**	(0.03)	**0.11**	(0.03)	**0.12**	(0.03)	0.04	(0.03)
	OECD average	**-4.7**	(0.2)	**-3.7**	(0.2)	**-4.5**	0.1	**-3.7**	0.1	**0.16**	(0.00)	**0.16**	(0.00)	**0.12**	(0.00)	**0.09**	(0.00)	**0.04**	(0.00)	**-0.01**	(0.00)
Partners	Albania	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	-1.2	(1.3)	0.0	(1.2)	**-3.9**	1.4	**-2.9**	1.3	**0.13**	(0.03)	**0.13**	(0.03)	**0.09**	(0.04)	0.07	(0.04)	-0.03	(0.04)	-0.05	(0.04)
	Brazil	**-2.5**	(0.6)	**-2.1**	(0.6)	**-3.3**	0.6	**-3.1**	0.6	**0.14**	(0.01)	**0.14**	(0.01)	**0.05**	(0.03)	0.04	(0.03)	-0.01	(0.03)	-0.02	(0.03)
	Bulgaria	**-5.8**	(1.1)	**-4.7**	(1.1)	**-9.3**	1.0	**-7.3**	0.9	**0.23**	(0.02)	**0.22**	(0.02)	**0.16**	(0.04)	**0.14**	(0.04)	-0.06	(0.04)	-0.07	(0.04)
	Colombia	**-3.9**	(1.2)	**-3.6**	(1.2)	**-5.6**	1.0	**-5.4**	1.0	**0.19**	(0.02)	**0.18**	(0.02)	**0.16**	(0.04)	**0.14**	(0.04)	-0.01	(0.03)	-0.01	(0.04)
	Costa Rica	**-4.2**	(1.4)	**-4.2**	(1.4)	**-6.0**	1.2	**-5.8**	1.2	**0.11**	(0.03)	**0.11**	(0.03)	0.08	(0.04)	0.07	(0.05)	-0.04	(0.04)	-0.06	(0.04)
	Croatia	**-7.6**	(0.9)	**-6.3**	(1.0)	**-10.0**	0.7	**-7.4**	0.8	**0.08**	(0.02)	**0.08**	(0.02)	**0.06**	(0.03)	0.04	(0.03)	-0.02	(0.02)	**-0.05**	(0.02)
	Cyprus*	**-7.8**	(1.0)	**-7.0**	(1.1)	**-5.5**	1.0	**-4.3**	1.1	**0.17**	(0.02)	**0.16**	(0.02)	0.05	(0.03)	0.02	(0.03)	0.01	(0.04)	-0.02	(0.04)
	Hong Kong-China	**-2.4**	(0.7)	**-1.7**	(0.7)	**-1.3**	0.4	-0.7	0.4	**0.13**	(0.02)	**0.13**	(0.02)	**0.07**	(0.02)	**0.05**	(0.02)	0.00	(0.03)	-0.02	(0.03)
	Indonesia	**-5.2**	(0.9)	**-4.7**	(0.9)	**-6.0**	0.9	**-5.4**	0.9	**0.14**	(0.02)	**0.13**	(0.02)	**0.11**	(0.04)	**0.11**	(0.04)	0.05	(0.03)	0.05	(0.03)
	Jordan	**-3.8**	(0.9)	**-3.4**	(0.9)	**-4.3**	0.9	**-3.8**	0.9	**0.27**	(0.02)	**0.25**	(0.02)	**0.15**	(0.02)	**0.10**	(0.02)	0.03	(0.03)	0.00	(0.03)
	Kazakhstan	**-8.9**	(0.8)	**-8.6**	(0.8)	**-9.9**	1.0	**-9.1**	1.0	**0.30**	(0.02)	**0.30**	(0.02)	**0.25**	(0.04)	**0.22**	(0.04)	**0.11**	(0.03)	**0.10**	(0.03)
	Latvia	**-6.5**	(1.1)	**-6.1**	(1.0)	**-2.9**	1.3	-2.4	1.4	**0.18**	(0.03)	**0.19**	(0.02)	**0.12**	(0.03)	**0.11**	(0.03)	0.04	(0.03)	0.01	(0.03)
	Liechtenstein	-2.0	(2.6)	-1.2	(2.7)	-1.4	1.3	-1.3	1.3	**0.20**	(0.08)	**0.18**	(0.08)	0.12	(0.07)	0.12	(0.07)	0.09	(0.08)	0.06	(0.07)
	Lithuania	**-5.5**	(0.9)	**-4.6**	(0.9)	**-7.9**	0.9	**-6.0**	0.9	**0.23**	(0.02)	**0.21**	(0.02)	**0.11**	(0.02)	**0.09**	(0.02)	0.05	(0.03)	0.00	(0.03)
	Macao-China	**-6.6**	(0.9)	**-5.2**	(0.9)	**-3.3**	0.7	**-2.7**	0.6	**0.20**	(0.02)	**0.21**	(0.02)	0.05	(0.03)	0.03	(0.03)	0.01	(0.03)	-0.03	(0.03)
	Malaysia	**-7.0**	(1.0)	**-3.3**	(1.1)	**-7.6**	1.1	**-5.9**	1.1	**0.19**	(0.02)	**0.19**	(0.02)	**0.16**	(0.02)	**0.14**	(0.03)	0.00	(0.04)	-0.02	(0.04)
	Montenegro	**-4.6**	(0.8)	**-4.0**	(0.8)	**-5.9**	0.9	**-5.2**	1.0	**0.16**	(0.02)	**0.18**	(0.02)	**0.22**	(0.03)	**0.20**	(0.03)	0.02	(0.03)	0.02	(0.03)
	Peru	-1.1	(1.1)	-0.2	(1.0)	**-6.0**	0.8	**-5.0**	0.9	**0.22**	(0.02)	**0.22**	(0.02)	**0.07**	(0.04)	0.06	(0.03)	-0.03	(0.03)	-0.04	(0.03)
	Qatar	**-3.9**	(0.5)	**-1.6**	(0.5)	**-3.6**	0.5	**-3.0**	0.5	**0.22**	(0.01)	**0.20**	(0.01)	**0.13**	(0.02)	**0.08**	(0.02)	**-0.07**	(0.02)	**-0.09**	(0.02)
	Romania	**-4.0**	(0.9)	**-3.5**	(1.0)	**-6.3**	1.0	**-5.3**	1.1	**0.21**	(0.02)	**0.21**	(0.02)	**0.20**	(0.03)	**0.19**	(0.03)	0.00	(0.03)	-0.02	(0.03)
	Russian Federation	**-6.8**	(0.9)	**-5.9**	(0.9)	**-6.1**	0.9	**-5.2**	0.8	**0.20**	(0.01)	**0.21**	(0.01)	**0.08**	(0.03)	**0.07**	(0.03)	0.05	(0.03)	0.01	(0.03)
	Serbia	**-7.0**	(1.0)	**-6.2**	(1.0)	**-8.1**	0.9	**-7.4**	0.9	**0.10**	(0.02)	**0.11**	(0.02)	**0.08**	(0.03)	0.06	(0.03)	-0.04	(0.03)	**-0.07**	(0.03)
	Shanghai-China	**-5.0**	(0.9)	**-3.5**	(0.8)	**-1.9**	0.4	**-1.8**	0.4	**0.25**	(0.02)	**0.27**	(0.02)	**0.12**	(0.03)	**0.11**	(0.03)	**0.10**	(0.03)	0.04	(0.03)
	Singapore	**-4.2**	(0.6)	**-2.8**	(0.7)	**-2.8**	0.7	**-1.9**	0.7	**0.17**	(0.01)	**0.17**	(0.02)	**0.07**	(0.02)	**0.05**	(0.02)	0.04	(0.02)	0.02	(0.02)
	Chinese Taipei	**-3.8**	(0.6)	**-2.6**	(0.6)	**-3.8**	0.5	**-2.5**	0.5	**0.13**	(0.01)	**0.14**	(0.01)	**0.12**	(0.02)	**0.09**	(0.02)	0.04	(0.03)	-0.01	(0.03)
	Thailand	**-9.3**	(1.1)	**-8.3**	(1.1)	**-15.0**	1.1	**-14.1**	1.1	**0.26**	(0.02)	**0.24**	(0.02)	**0.23**	(0.03)	**0.19**	(0.03)	0.05	(0.03)	0.05	(0.03)
	Tunisia	**-4.6**	(1.1)	**-4.4**	(1.1)	**-6.9**	1.1	**-6.5**	1.1	**0.16**	(0.03)	**0.16**	(0.03)	**0.16**	(0.04)	**0.14**	(0.04)	**0.09**	(0.03)	**0.08**	(0.03)
	United Arab Emirates	**-4.3**	(0.6)	**-2.8**	(0.7)	**-6.6**	0.7	**-5.4**	0.7	**0.25**	(0.02)	**0.23**	(0.02)	**0.18**	(0.02)	**0.14**	(0.02)	**0.05**	(0.02)	0.03	(0.02)
	Uruguay	**-3.1**	(1.1)	**-2.9**	(1.1)	**-4.3**	0.9	**-3.9**	0.9	**0.09**	(0.02)	**0.09**	(0.02)	**0.10**	(0.03)	0.07	(0.04)	-0.06	(0.03)	**-0.09**	(0.03)
	Viet Nam	**-4.1**	(1.2)	**-3.5**	(1.2)	**-4.8**	1.1	**-4.0**	1.0	**0.21**	(0.02)	**0.21**	(0.02)	**0.26**	(0.03)	**0.26**	(0.03)	0.04	(0.04)	0.03	(0.04)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.5.18 Relationship between disciplinary climate and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with disciplinary climate:																			
		Intrinsic motivation to learn mathematics				Mathematics self-efficacy				Mathematics self-concept				Mathematics anxiety				Mathematics intentions			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	**0.22**	(0.02)	**0.16**	(0.02)	**0.20**	(0.02)	**0.05**	(0.02)	**0.22**	(0.01)	**0.11**	(0.01)	**-0.23**	(0.01)	**-0.14**	(0.01)	**0.09**	(0.02)	**0.08**	(0.02)
	Austria	**0.17**	(0.03)	**0.15**	(0.03)	**0.10**	(0.03)	0.05	(0.02)	**0.10**	(0.02)	**0.04**	(0.02)	**-0.16**	(0.02)	**-0.10**	(0.02)	**0.08**	(0.03)	**0.07**	(0.03)
	Belgium	**0.12**	(0.03)	**0.09**	(0.03)	**0.11**	(0.02)	0.03	(0.02)	**0.08**	(0.02)	0.03	(0.02)	**-0.09**	(0.01)	**-0.04**	(0.02)	**0.08**	(0.02)	**0.05**	(0.02)
	Canada	**0.19**	(0.02)	**0.14**	(0.02)	**0.15**	(0.02)	**0.04**	(0.02)	**0.15**	(0.02)	**0.06**	(0.01)	**-0.19**	(0.02)	**-0.11**	(0.02)	**0.06**	(0.02)	0.03	(0.02)
	Chile	**0.19**	(0.03)	**0.18**	(0.02)	**0.08**	(0.03)	**0.06**	(0.03)	**0.13**	(0.02)	**0.09**	(0.02)	**-0.10**	(0.02)	**-0.08**	(0.02)	**0.11**	(0.03)	**0.09**	(0.03)
	Czech Republic	**0.18**	(0.03)	**0.14**	(0.03)	**0.09**	(0.03)	0.01	(0.03)	**0.16**	(0.02)	**0.07**	(0.02)	**-0.15**	(0.02)	**-0.07**	(0.02)	**0.14**	(0.03)	**0.10**	(0.03)
	Denmark	**0.26**	(0.04)	**0.21**	(0.04)	**0.13**	(0.03)	0.05	(0.03)	**0.15**	(0.02)	**0.08**	(0.02)	**-0.21**	(0.02)	**-0.14**	(0.02)	**0.08**	(0.03)	**0.07**	(0.03)
	Estonia	**0.13**	(0.03)	**0.10**	(0.03)	0.05	(0.03)	-0.03	(0.03)	**0.14**	(0.02)	**0.05**	(0.02)	**-0.19**	(0.03)	**-0.10**	(0.02)	**0.11**	(0.02)	**0.08**	(0.02)
	Finland	**0.17**	(0.02)	**0.14**	(0.02)	**0.10**	(0.03)	**0.06**	(0.02)	**0.21**	(0.02)	**0.16**	(0.02)	**-0.19**	(0.02)	**-0.15**	(0.02)	**0.13**	(0.03)	**0.10**	(0.03)
	France	**0.19**	(0.03)	**0.16**	(0.03)	**0.11**	(0.03)	0.04	(0.02)	**0.09**	(0.02)	**0.04**	(0.02)	**-0.07**	(0.02)	-0.03	(0.02)	**0.06**	(0.03)	0.05	(0.03)
	Germany	**0.15**	(0.03)	**0.12**	(0.03)	**0.10**	(0.03)	0.02	(0.02)	**0.15**	(0.02)	**0.08**	(0.02)	**-0.19**	(0.03)	**-0.12**	(0.03)	**0.05**	(0.03)	0.03	(0.03)
	Greece	**0.17**	(0.03)	**0.11**	(0.03)	**0.13**	(0.03)	0.04	(0.04)	**0.10**	(0.02)	0.03	(0.02)	**-0.17**	(0.03)	**-0.10**	(0.03)	**0.11**	(0.03)	**0.07**	(0.03)
	Hungary	**0.15**	(0.03)	**0.13**	(0.03)	**0.10**	(0.03)	0.00	(0.03)	**0.08**	(0.02)	0.01	(0.02)	**-0.15**	(0.02)	**-0.07**	(0.02)	0.05	(0.03)	-0.02	(0.03)
	Iceland	**0.16**	(0.03)	**0.13**	(0.03)	**0.15**	(0.04)	**0.10**	(0.03)	**0.15**	(0.02)	**0.08**	(0.02)	**-0.21**	(0.03)	**-0.15**	(0.03)	0.04	(0.03)	0.03	(0.03)
	Ireland	**0.25**	(0.03)	**0.22**	(0.03)	**0.17**	(0.03)	**0.07**	(0.03)	**0.19**	(0.02)	**0.12**	(0.02)	**-0.17**	(0.02)	**-0.11**	(0.02)	**0.12**	(0.02)	**0.11**	(0.02)
	Israel	**0.20**	(0.03)	**0.22**	(0.03)	**0.20**	(0.03)	**0.11**	(0.03)	**0.18**	(0.02)	**0.13**	(0.02)	**-0.24**	(0.02)	**-0.19**	(0.02)	**0.06**	(0.02)	0.04	(0.02)
	Italy	**0.20**	(0.01)	**0.17**	(0.02)	**0.09**	(0.01)	**0.02**	(0.01)	**0.12**	(0.01)	**0.07**	(0.01)	**-0.08**	(0.01)	**-0.04**	(0.01)	**0.08**	(0.01)	**0.06**	(0.02)
	Japan	**0.10**	(0.03)	0.04	(0.03)	**0.09**	(0.03)	-0.01	(0.03)	**0.06**	(0.02)	0.00	(0.02)	**-0.14**	(0.02)	**-0.09**	(0.02)	**0.06**	(0.02)	0.04	(0.02)
	Korea	**0.14**	(0.03)	**0.07**	(0.03)	**0.15**	(0.03)	0.04	(0.02)	**0.07**	(0.02)	-0.01	(0.02)	**-0.09**	(0.02)	**-0.06**	(0.02)	**0.13**	(0.03)	**0.08**	(0.03)
	Luxembourg	**0.12**	(0.03)	**0.08**	(0.03)	**0.07**	(0.03)	-0.02	(0.03)	**0.05**	(0.02)	0.00	(0.02)	**-0.12**	(0.02)	**-0.06**	(0.02)	**0.06**	(0.03)	0.04	(0.03)
	Mexico	**0.08**	(0.01)	**0.07**	(0.01)	**0.06**	(0.01)	0.02	(0.01)	**0.10**	(0.01)	**0.05**	(0.01)	**-0.17**	(0.01)	**-0.12**	(0.01)	**0.06**	(0.01)	**0.04**	(0.01)
	Netherlands	**0.15**	(0.04)	**0.14**	(0.04)	**0.10**	(0.03)	0.04	(0.03)	**0.07**	(0.02)	0.04	(0.02)	**-0.11**	(0.02)	**-0.07**	(0.02)	0.03	(0.03)	0.03	(0.03)
	New Zealand	**0.21**	(0.03)	**0.19**	(0.03)	**0.23**	(0.03)	**0.10**	(0.03)	**0.15**	(0.02)	**0.06**	(0.02)	**-0.18**	(0.02)	**-0.09**	(0.02)	**0.12**	(0.03)	**0.10**	(0.03)
	Norway	**0.17**	(0.03)	**0.11**	(0.03)	**0.14**	(0.04)	0.05	(0.03)	**0.18**	(0.02)	**0.06**	(0.02)	**-0.24**	(0.02)	**-0.15**	(0.02)	0.01	(0.03)	-0.02	(0.03)
	Poland	**0.17**	(0.03)	**0.13**	(0.03)	**0.16**	(0.03)	**0.07**	(0.02)	**0.13**	(0.02)	**0.06**	(0.02)	**-0.16**	(0.02)	**-0.09**	(0.02)	**0.13**	(0.03)	**0.07**	(0.03)
	Portugal	**0.13**	(0.03)	**0.10**	(0.03)	**0.11**	(0.03)	0.03	(0.02)	**0.09**	(0.02)	**0.03**	(0.02)	**-0.11**	(0.02)	**-0.08**	(0.02)	**0.07**	(0.02)	**0.05**	(0.03)
	Slovak Republic	**0.10**	(0.04)	**0.08**	(0.04)	**0.13**	(0.03)	0.05	(0.03)	**0.07**	(0.02)	0.01	(0.02)	**-0.17**	(0.02)	**-0.10**	(0.02)	0.05	(0.03)	0.00	(0.03)
	Slovenia	**0.11**	(0.03)	**0.08**	(0.03)	**0.14**	(0.03)	**0.07**	(0.03)	**0.06**	(0.02)	-0.01	(0.02)	**-0.14**	(0.02)	**-0.08**	(0.02)	**0.07**	(0.03)	0.03	(0.03)
	Spain	**0.17**	(0.02)	**0.15**	(0.02)	**0.08**	(0.02)	**0.04**	(0.02)	**0.12**	(0.01)	**0.07**	(0.01)	**-0.10**	(0.01)	**-0.07**	(0.02)	**0.09**	(0.02)	**0.07**	(0.02)
	Sweden	**0.20**	(0.03)	**0.16**	(0.03)	**0.12**	(0.03)	**0.06**	(0.03)	**0.14**	(0.02)	**0.09**	(0.02)	**-0.19**	(0.02)	**-0.14**	(0.02)	**0.14**	(0.03)	**0.13**	(0.03)
	Switzerland	**0.19**	(0.02)	**0.17**	(0.02)	**0.06**	(0.02)	-0.01	(0.02)	**0.10**	(0.02)	**0.06**	(0.02)	**-0.13**	(0.02)	**-0.09**	(0.02)	**0.09**	(0.02)	**0.08**	(0.02)
	Turkey	**0.13**	(0.04)	**0.11**	(0.04)	**0.09**	(0.03)	0.02	(0.03)	**0.12**	(0.02)	**0.07**	(0.02)	**-0.26**	(0.02)	**-0.20**	(0.02)	**0.08**	(0.03)	0.05	(0.03)
	United Kingdom	**0.22**	(0.02)	**0.19**	(0.02)	**0.18**	(0.03)	**0.08**	(0.02)	**0.19**	(0.02)	**0.11**	(0.02)	**-0.22**	(0.02)	**-0.15**	(0.02)	**0.09**	(0.02)	**0.08**	(0.02)
	United States	**0.18**	(0.03)	**0.15**	(0.04)	**0.17**	(0.02)	0.04	(0.02)	**0.18**	(0.02)	**0.09**	(0.02)	**-0.26**	(0.03)	**-0.17**	(0.02)	**0.11**	(0.03)	**0.08**	(0.03)
	OECD average	**0.17**	(0.00)	**0.14**	(0.00)	**0.12**	(0.00)	**0.04**	(0.00)	**0.13**	(0.00)	**0.06**	(0.00)	**-0.16**	(0.00)	**-0.10**	(0.00)	**0.08**	(0.00)	**0.06**	(0.00)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**0.17**	(0.04)	**0.18**	(0.04)	0.04	(0.04)	0.01	(0.03)	**0.09**	(0.02)	**0.07**	(0.02)	**-0.16**	(0.02)	**-0.12**	(0.02)	**0.10**	(0.03)	**0.09**	(0.03)
	Brazil	**0.07**	(0.02)	**0.08**	(0.02)	**0.06**	(0.02)	**0.04**	(0.02)	**0.09**	(0.01)	**0.06**	(0.01)	**-0.16**	(0.01)	**-0.12**	(0.01)	**0.04**	(0.02)	0.02	(0.02)
	Bulgaria	**0.14**	(0.04)	**0.16**	(0.04)	0.08	(0.04)	0.04	(0.04)	**0.08**	(0.02)	0.04	(0.03)	**-0.26**	(0.02)	**-0.18**	(0.02)	0.05	(0.04)	0.01	(0.04)
	Colombia	**0.08**	(0.03)	**0.08**	(0.03)	**0.06**	(0.03)	0.05	(0.03)	**0.09**	(0.02)	**0.06**	(0.02)	**-0.15**	(0.02)	**-0.11**	(0.02)	**0.08**	(0.03)	0.06	(0.03)
	Costa Rica	**0.20**	(0.05)	**0.20**	(0.05)	**0.12**	(0.03)	**0.11**	(0.04)	**0.11**	(0.02)	**0.08**	(0.02)	**-0.17**	(0.02)	**-0.14**	(0.02)	**0.09**	(0.04)	**0.09**	(0.04)
	Croatia	**0.21**	(0.03)	**0.19**	(0.03)	**0.19**	(0.03)	**0.06**	(0.02)	**0.16**	(0.02)	**0.07**	(0.02)	**-0.19**	(0.02)	**-0.09**	(0.02)	**0.11**	(0.03)	**0.08**	(0.03)
	Cyprus*	**0.11**	(0.04)	**0.08**	(0.04)	0.00	(0.04)	-0.05	(0.04)	**0.10**	(0.02)	0.04	(0.02)	**-0.21**	(0.02)	**-0.15**	(0.02)	0.02	(0.03)	0.01	(0.03)
	Hong Kong-China	**0.12**	(0.03)	**0.09**	(0.03)	**0.09**	(0.03)	0.01	(0.03)	**0.12**	(0.02)	**0.07**	(0.02)	**-0.15**	(0.02)	**-0.11**	(0.02)	0.05	(0.03)	0.03	(0.03)
	Indonesia	**0.12**	(0.02)	**0.13**	(0.02)	**0.06**	(0.03)	**0.05**	(0.03)	**0.04**	(0.01)	**0.05**	(0.01)	**-0.15**	(0.01)	**-0.15**	(0.01)	0.05	(0.03)	0.05	(0.03)
	Jordan	**0.10**	(0.02)	**0.09**	(0.02)	**0.08**	(0.03)	0.04	(0.02)	**0.11**	(0.02)	**0.06**	(0.02)	**-0.14**	(0.01)	**-0.11**	(0.01)	0.01	(0.02)	0.01	(0.02)
	Kazakhstan	**0.19**	(0.03)	**0.20**	(0.03)	**0.17**	(0.03)	**0.14**	(0.03)	**0.18**	(0.02)	**0.17**	(0.02)	**-0.26**	(0.02)	**-0.23**	(0.02)	**0.20**	(0.03)	**0.19**	(0.03)
	Latvia	**0.17**	(0.03)	**0.15**	(0.03)	**0.08**	(0.03)	0.03	(0.03)	**0.12**	(0.02)	**0.07**	(0.02)	**-0.10**	(0.02)	**-0.06**	(0.02)	0.03	(0.03)	0.02	(0.03)
	Liechtenstein	**0.31**	(0.12)	**0.29**	(0.12)	0.12	(0.10)	0.07	(0.09)	**0.28**	(0.08)	**0.24**	(0.08)	**-0.28**	(0.09)	**-0.25**	(0.08)	0.05	(0.13)	0.05	(0.13)
	Lithuania	**0.14**	(0.03)	**0.12**	(0.03)	**0.14**	(0.03)	0.05	(0.03)	**0.12**	(0.02)	0.02	(0.02)	**-0.16**	(0.02)	**-0.07**	(0.02)	0.04	(0.03)	0.00	(0.03)
	Macao-China	**0.11**	(0.03)	**0.08**	(0.03)	**0.09**	(0.03)	0.02	(0.03)	**0.05**	(0.02)	0.00	(0.02)	**-0.13**	(0.03)	**-0.08**	(0.03)	0.00	(0.03)	-0.01	(0.03)
	Malaysia	**0.14**	(0.04)	**0.10**	(0.04)	**0.11**	(0.03)	0.04	(0.03)	**0.14**	(0.02)	**0.10**	(0.02)	**-0.21**	(0.02)	**-0.16**	(0.02)	**0.06**	(0.03)	0.03	(0.03)
	Montenegro	**0.20**	(0.03)	**0.20**	(0.03)	**0.12**	(0.04)	**0.09**	(0.04)	**0.12**	(0.02)	**0.09**	(0.02)	**-0.16**	(0.02)	**-0.12**	(0.02)	0.03	(0.03)	0.01	(0.03)
	Peru	**0.10**	(0.03)	**0.10**	(0.03)	0.00	(0.03)	-0.01	(0.03)	**0.05**	(0.02)	0.02	(0.02)	**-0.14**	(0.03)	**-0.11**	(0.02)	**0.10**	(0.03)	**0.08**	(0.03)
	Qatar	-0.02	(0.02)	-0.03	(0.02)	-0.03	(0.02)	**-0.10**	(0.03)	**0.06**	(0.01)	0.02	(0.01)	**-0.32**	(0.01)	**-0.25**	(0.01)	**-0.05**	(0.01)	**-0.04**	(0.01)
	Romania	**-0.13**	(0.02)	**-0.12**	(0.02)	**0.13**	(0.03)	**0.08**	(0.03)	0.02	(0.02)	0.00	(0.02)	**-0.15**	(0.02)	**-0.10**	(0.02)	0.05	(0.03)	0.00	(0.03)
	Russian Federation	**0.15**	(0.03)	**0.13**	(0.03)	**0.09**	(0.03)	0.03	(0.03)	**0.11**	(0.02)	**0.07**	(0.02)	**-0.15**	(0.02)	**-0.10**	(0.02)	**0.07**	(0.03)	0.03	(0.03)
	Serbia	**0.11**	(0.03)	**0.11**	(0.03)	0.05	(0.03)	-0.01	(0.03)	**0.12**	(0.02)	**0.06**	(0.02)	**-0.17**	(0.02)	**-0.12**	(0.02)	**0.09**	(0.03)	0.05	(0.03)
	Shanghai-China	**0.23**	(0.03)	**0.21**	(0.03)	**0.27**	(0.03)	**0.13**	(0.03)	**0.13**	(0.02)	**0.06**	(0.02)	**-0.20**	(0.02)	**-0.12**	(0.02)	**0.14**	(0.03)	**0.09**	(0.03)
	Singapore	**0.14**	(0.03)	**0.13**	(0.03)	**0.19**	(0.02)	**0.07**	(0.02)	**0.14**	(0.02)	**0.07**	(0.02)	**-0.23**	(0.02)	**-0.15**	(0.02)	0.03	(0.02)	0.04	(0.02)
	Chinese Taipei	**0.13**	(0.02)	**0.08**	(0.02)	**0.17**	(0.03)	0.04	(0.02)	**0.11**	(0.02)	0.02	(0.02)	**-0.10**	(0.02)	**-0.05**	(0.02)	**0.13**	(0.02)	**0.08**	(0.02)
	Thailand	**0.21**	(0.03)	**0.21**	(0.03)	**0.11**	(0.03)	**0.08**	(0.03)	**0.11**	(0.02)	**0.10**	(0.02)	**-0.22**	(0.02)	**-0.19**	(0.02)	**0.15**	(0.03)	**0.11**	(0.03)
	Tunisia	**0.22**	(0.03)	**0.22**	(0.03)	**0.08**	(0.03)	0.06	(0.03)	**0.12**	(0.02)	**0.10**	(0.02)	**-0.15**	(0.02)	**-0.13**	(0.02)	**0.07**	(0.03)	0.04	(0.03)
	United Arab Emirates	**0.16**	(0.02)	**0.16**	(0.02)	**0.12**	(0.03)	**0.07**	(0.03)	**0.13**	(0.01)	**0.09**	(0.01)	**-0.26**	(0.01)	**-0.19**	(0.01)	**0.05**	(0.02)	**0.05**	(0.02)
	Uruguay	**0.08**	(0.04)	**0.08**	(0.04)	0.04	(0.03)	0.00	(0.03)	**0.15**	(0.02)	**0.08**	(0.02)	**-0.20**	(0.02)	**-0.14**	(0.02)	**0.08**	(0.03)	0.05	(0.03)
	Viet Nam	**0.16**	(0.02)	**0.15**	(0.02)	**0.14**	(0.02)	**0.12**	(0.02)	**0.11**	(0.02)	**0.09**	(0.02)	**-0.20**	(0.02)	**-0.17**	(0.02)	**0.13**	(0.04)	**0.11**	(0.04)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.5.19

Relationship between teacher-student relations and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with teacher-student relations:																			
		Arriving late for school				Skipping classes or days of school				Sense of belonging				Perseverance				Openness to problem solving			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	Australia	**-4.5**	(0.7)	**-3.2**	(0.7)	**-6.8**	0.6	**-5.2**	0.6	**0.46**	(0.01)	**0.46**	(0.01)	**0.27**	(0.02)	**0.24**	(0.02)	**0.27**	(0.02)	**0.21**	(0.02)
	Austria	**-4.4**	(0.8)	**-4.4**	(0.8)	**-5.4**	0.6	**-5.5**	0.6	**0.41**	(0.02)	**0.41**	(0.02)	**0.18**	(0.02)	**0.18**	(0.02)	**0.17**	(0.03)	**0.17**	(0.03)
	Belgium	**-3.8**	(0.9)	**-3.6**	(0.9)	-1.1	0.6	-1.0	0.6	**0.38**	(0.02)	**0.38**	(0.02)	**0.15**	(0.02)	**0.15**	(0.02)	**0.13**	(0.03)	**0.12**	(0.03)
	Canada	**-7.5**	(0.6)	**-6.6**	(0.6)	**-7.3**	0.6	**-6.7**	0.6	**0.37**	(0.01)	**0.38**	(0.01)	**0.22**	(0.02)	**0.19**	(0.02)	**0.25**	(0.02)	**0.21**	(0.02)
	Chile	**-4.7**	(0.7)	**-4.8**	(0.7)	**-4.0**	0.7	**-4.1**	0.7	**0.39**	(0.02)	**0.39**	(0.02)	**0.15**	(0.02)	**0.16**	(0.02)	**0.17**	(0.03)	**0.17**	(0.03)
	Czech Republic	**-4.0**	(1.2)	**-3.9**	(1.1)	**-4.9**	0.7	**-4.8**	0.7	**0.34**	(0.02)	**0.34**	(0.02)	**0.20**	(0.03)	**0.20**	(0.03)	**0.17**	(0.04)	**0.16**	(0.04)
	Denmark	**-6.3**	(1.1)	**-5.6**	(1.1)	**-5.3**	0.9	**-4.4**	0.9	**0.40**	(0.02)	**0.41**	(0.02)	**0.21**	(0.03)	**0.16**	(0.03)	**0.23**	(0.03)	**0.18**	(0.03)
	Estonia	**-4.7**	(1.2)	**-4.4**	(1.1)	**-4.1**	1.1	**-3.7**	1.0	**0.37**	(0.02)	**0.37**	(0.02)	**0.21**	(0.03)	**0.21**	(0.03)	**0.21**	(0.03)	**0.19**	(0.03)
	Finland	**-8.0**	(0.9)	**-7.4**	(0.9)	**-7.4**	0.8	**-6.9**	0.8	**0.38**	(0.02)	**0.39**	(0.02)	**0.18**	(0.02)	**0.16**	(0.02)	**0.23**	(0.03)	**0.20**	(0.02)
	France	**-4.4**	(1.0)	**-4.4**	(1.0)	**-5.5**	0.7	**-5.5**	0.7	**0.29**	(0.02)	**0.29**	(0.02)	**0.16**	(0.03)	**0.16**	(0.04)	**0.18**	(0.04)	**0.18**	(0.04)
	Germany	**-4.8**	(0.9)	**-4.8**	(0.9)	**-2.6**	0.6	**-2.6**	0.6	**0.41**	(0.02)	**0.41**	(0.02)	**0.09**	(0.03)	**0.09**	(0.03)	**0.08**	(0.03)	**0.08**	(0.03)
	Greece	**-6.6**	(0.8)	**-6.7**	(0.8)	**-5.9**	0.9	**-6.0**	0.9	**0.35**	(0.02)	**0.35**	(0.02)	**0.11**	(0.03)	**0.12**	(0.03)	**0.11**	(0.03)	**0.12**	(0.03)
	Hungary	**-3.0**	(0.9)	**-3.0**	(0.9)	**-2.0**	0.9	**-2.0**	0.9	**0.38**	(0.02)	**0.38**	(0.02)	**0.15**	(0.03)	**0.15**	(0.03)	**0.11**	(0.03)	**0.11**	(0.03)
	Iceland	**-5.8**	(0.8)	**-5.1**	(0.8)	**-3.4**	0.7	**-2.9**	0.7	**0.46**	(0.02)	**0.45**	(0.02)	**0.19**	(0.03)	**0.16**	(0.03)	**0.21**	(0.03)	**0.16**	(0.03)
	Ireland	**-5.2**	(0.9)	**-4.8**	(0.9)	**-3.9**	0.7	**-3.7**	0.7	**0.43**	(0.02)	**0.43**	(0.02)	**0.17**	(0.03)	**0.15**	(0.03)	**0.19**	(0.03)	**0.17**	(0.03)
	Israel	**-4.7**	(1.0)	**-4.8**	(1.0)	**-5.9**	0.9	**-6.0**	0.9	**0.44**	(0.02)	**0.44**	(0.02)	**0.18**	(0.03)	**0.18**	(0.04)	**0.15**	(0.03)	**0.16**	(0.03)
	Italy	**-2.2**	(0.5)	**-2.8**	(0.5)	**-2.3**	0.6	**-2.9**	0.6	**0.32**	(0.01)	**0.32**	(0.01)	**0.13**	(0.02)	**0.15**	(0.02)	**0.10**	(0.01)	**0.12**	(0.01)
	Japan	**-1.6**	(0.6)	**-1.4**	(0.6)	**-1.6**	0.6	**-1.4**	0.6	**0.37**	(0.02)	**0.37**	(0.02)	**0.12**	(0.02)	**0.11**	(0.02)	**0.13**	(0.03)	**0.12**	(0.03)
	Korea	**-6.8**	(0.9)	**-5.7**	(0.9)	**-1.9**	0.4	**-1.3**	0.4	**0.37**	(0.02)	**0.36**	(0.02)	**0.14**	(0.03)	**0.11**	(0.03)	**0.16**	(0.03)	**0.11**	(0.03)
	Luxembourg	**-4.9**	(0.7)	**-4.8**	(0.7)	**-3.2**	0.6	**-3.2**	0.6	**0.32**	(0.02)	**0.32**	(0.02)	**0.19**	(0.03)	**0.18**	(0.03)	**0.22**	(0.03)	**0.20**	(0.03)
	Mexico	**-3.4**	(0.4)	**-3.7**	(0.4)	**-3.5**	0.4	**-3.9**	0.4	**0.39**	(0.01)	**0.39**	(0.01)	**0.15**	(0.02)	**0.16**	(0.02)	**0.18**	(0.02)	**0.20**	(0.02)
	Netherlands	**-4.1**	(1.1)	**-3.6**	(1.1)	**-5.6**	0.8	**-5.5**	0.8	**0.36**	(0.03)	**0.36**	(0.03)	**0.21**	(0.03)	**0.20**	(0.03)	**0.23**	(0.04)	**0.22**	(0.04)
	New Zealand	**-5.1**	(1.0)	**-4.2**	(0.9)	**-5.8**	1.2	**-4.5**	1.1	**0.44**	(0.02)	**0.45**	(0.02)	**0.25**	(0.03)	**0.22**	(0.03)	**0.30**	(0.03)	**0.27**	(0.03)
	Norway	**-3.4**	(0.9)	**-2.4**	(0.9)	**-5.3**	0.6	**-4.5**	0.6	**0.41**	(0.02)	**0.41**	(0.02)	**0.22**	(0.03)	**0.16**	(0.03)	**0.22**	(0.03)	**0.16**	(0.03)
	Poland	**-6.2**	(1.0)	**-6.3**	(1.0)	**-5.4**	0.9	**-5.6**	0.9	**0.37**	(0.02)	**0.37**	(0.02)	**0.18**	(0.03)	**0.19**	(0.03)	**0.19**	(0.03)	**0.19**	(0.03)
	Portugal	**-6.4**	(1.0)	**-6.3**	(1.0)	**-5.4**	0.9	**-5.1**	0.9	**0.34**	(0.02)	**0.34**	(0.02)	**0.28**	(0.04)	**0.27**	(0.03)	**0.18**	(0.03)	**0.18**	(0.03)
	Slovak Republic	**-3.3**	(1.0)	**-3.7**	(1.0)	**-4.4**	0.8	**-4.8**	0.8	**0.35**	(0.02)	**0.36**	(0.02)	**0.18**	(0.03)	**0.19**	(0.03)	**0.23**	(0.03)	**0.24**	(0.03)
	Slovenia	**-7.7**	(1.1)	**-7.8**	(1.1)	**-7.1**	1.0	**-7.1**	1.1	**0.40**	(0.02)	**0.40**	(0.02)	**0.19**	(0.04)	**0.19**	(0.04)	**0.21**	(0.03)	**0.21**	(0.03)
	Spain	**-5.3**	(0.6)	**-5.1**	(0.6)	**-4.0**	0.7	**-3.8**	0.7	**0.39**	(0.02)	**0.39**	(0.02)	**0.19**	(0.02)	**0.18**	(0.02)	**0.12**	(0.03)	**0.11**	(0.02)
	Sweden	**-4.0**	(1.0)	**-3.2**	(0.9)	**-5.7**	0.8	**-5.0**	0.8	**0.42**	(0.02)	**0.42**	(0.02)	**0.18**	(0.03)	**0.15**	(0.03)	**0.21**	(0.03)	**0.19**	(0.03)
	Switzerland	**-6.0**	(0.6)	**-6.0**	(0.6)	**-4.7**	0.5	**-4.6**	0.5	**0.38**	(0.02)	**0.38**	(0.02)	**0.14**	(0.02)	**0.13**	(0.02)	**0.13**	(0.03)	**0.12**	(0.03)
	Turkey	-1.6	(0.9)	-1.7	(0.9)	-1.4	0.8	-1.4	0.7	**0.42**	(0.02)	**0.42**	(0.02)	**0.15**	(0.03)	**0.16**	(0.03)	**0.19**	(0.03)	**0.19**	(0.03)
	United Kingdom	**-5.6**	(0.9)	**-4.6**	(0.9)	**-3.9**	0.8	**-3.2**	0.8	**0.46**	(0.02)	**0.46**	(0.02)	**0.26**	(0.04)	**0.23**	(0.04)	**0.25**	(0.03)	**0.20**	(0.03)
	United States	**-3.8**	(0.9)	**-2.9**	(0.9)	**-3.8**	0.9	**-3.3**	0.9	**0.43**	(0.02)	**0.44**	(0.02)	**0.27**	(0.03)	**0.25**	(0.03)	**0.29**	(0.03)	**0.26**	(0.03)
	OECD average	**-4.8**	(0.2)	**-4.5**	(0.2)	**-4.4**	0.1	**-4.2**	0.1	**0.39**	(0.00)	**0.39**	(0.00)	**0.18**	(0.00)	**0.17**	(0.00)	**0.19**	(0.01)	**0.17**	(0.00)
Partners	Albania	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**-2.0**	(1.0)	**-2.8**	(1.0)	-1.1	0.8	**-1.9**	0.8	**0.29**	(0.02)	**0.30**	(0.02)	**0.15**	(0.04)	**0.17**	(0.04)	**0.19**	(0.03)	**0.20**	(0.03)
	Brazil	**-3.3**	(0.5)	**-3.5**	(0.6)	**-3.2**	0.6	**-3.2**	0.6	**0.36**	(0.01)	**0.36**	(0.01)	**0.14**	(0.02)	**0.15**	(0.02)	**0.22**	(0.02)	**0.22**	(0.02)
	Bulgaria	**-4.6**	(0.9)	**-5.0**	(0.9)	**-5.3**	0.9	**-6.0**	0.9	**0.35**	(0.02)	**0.36**	(0.02)	**0.12**	(0.03)	**0.13**	(0.03)	**0.22**	(0.03)	**0.22**	(0.03)
	Colombia	**-3.5**	(1.0)	**-3.7**	(1.0)	**-2.3**	0.7	**-2.4**	0.7	**0.45**	(0.02)	**0.46**	(0.02)	**0.13**	(0.03)	**0.14**	(0.03)	**0.16**	(0.03)	**0.16**	(0.03)
	Costa Rica	**-2.4**	(0.8)	**-2.5**	(0.8)	**-2.9**	1.2	**-3.2**	1.2	**0.42**	(0.02)	**0.42**	(0.02)	**0.19**	(0.04)	**0.20**	(0.04)	**0.23**	(0.03)	**0.26**	(0.03)
	Croatia	**-4.8**	(0.9)	**-5.2**	(0.9)	**-3.9**	0.9	**-4.6**	0.8	**0.35**	(0.02)	**0.35**	(0.02)	**0.19**	(0.03)	**0.20**	(0.03)	**0.14**	(0.03)	**0.15**	(0.03)
	Cyprus*	**-7.4**	(0.8)	**-7.2**	(0.8)	**-6.4**	0.7	**-6.2**	0.7	**0.35**	(0.02)	**0.35**	(0.02)	**0.17**	(0.02)	**0.16**	(0.02)	**0.22**	(0.03)	**0.21**	(0.03)
	Hong Kong-China	-1.2	(0.9)	-1.0	(0.9)	**-0.8**	0.4	-0.7	0.4	**0.42**	(0.02)	**0.42**	(0.02)	**0.14**	(0.03)	**0.14**	(0.03)	**0.20**	(0.04)	**0.20**	(0.04)
	Indonesia	-1.2	(1.1)	-1.1	(1.2)	-1.6	1.0	-1.4	1.0	**0.38**	(0.02)	**0.38**	(0.02)	**0.23**	(0.03)	**0.22**	(0.03)	**0.27**	(0.03)	**0.27**	(0.02)
	Jordan	**-3.6**	(0.8)	**-3.6**	(0.7)	**-2.6**	0.7	**-2.6**	0.7	**0.37**	(0.02)	**0.38**	(0.02)	**0.13**	(0.02)	**0.14**	(0.02)	**0.26**	(0.03)	**0.27**	(0.03)
	Kazakhstan	**-5.5**	(0.9)	**-5.5**	(0.9)	**-5.7**	1.0	**-5.6**	1.0	**0.56**	(0.02)	**0.56**	(0.02)	**0.27**	(0.04)	**0.27**	(0.04)	**0.35**	(0.03)	**0.35**	(0.03)
	Latvia	**-4.0**	(1.4)	**-4.0**	(1.4)	**-3.4**	1.1	**-3.4**	1.0	**0.42**	(0.03)	**0.42**	(0.03)	**0.23**	(0.03)	**0.23**	(0.03)	**0.18**	(0.04)	**0.18**	(0.04)
	Liechtenstein	-0.7	(2.7)	-1.1	(2.7)	-2.4	2.0	-2.5	2.0	**0.25**	(0.07)	**0.25**	(0.07)	0.05	(0.08)	0.06	(0.09)	0.07	(0.08)	0.10	(0.08)
	Lithuania	**-5.2**	(0.9)	**-4.9**	(0.9)	**-6.2**	0.8	**-5.6**	0.8	**0.43**	(0.01)	**0.42**	(0.01)	**0.14**	(0.02)	**0.13**	(0.02)	**0.16**	(0.03)	**0.15**	(0.02)
	Macao-China	**-2.4**	(0.7)	**-2.1**	(0.7)	**-1.4**	0.5	**-1.3**	0.5	**0.39**	(0.02)	**0.39**	(0.02)	**0.19**	(0.03)	**0.19**	(0.03)	**0.18**	(0.03)	**0.17**	(0.03)
	Malaysia	-0.1	(1.0)	-0.6	(1.0)	**-4.0**	0.9	**-4.2**	0.9	**0.44**	(0.02)	**0.44**	(0.02)	**0.21**	(0.03)	**0.21**	(0.03)	**0.23**	(0.03)	**0.23**	(0.03)
	Montenegro	**-2.5**	(0.8)	**-3.2**	(0.8)	**-4.3**	0.9	**-5.2**	0.9	**0.39**	(0.02)	**0.39**	(0.02)	**0.18**	(0.03)	**0.21**	(0.03)	**0.23**	(0.04)	**0.23**	(0.04)
	Peru	-1.5	(0.9)	**-1.9**	(0.9)	-0.7	0.8	-1.3	0.8	**0.35**	(0.02)	**0.36**	(0.01)	**0.11**	(0.03)	**0.12**	(0.02)	**0.16**	(0.02)	**0.16**	(0.03)
	Qatar	**-3.8**	(0.5)	**-3.3**	(0.5)	**-3.7**	0.5	**-3.5**	0.5	**0.34**	(0.01)	**0.33**	(0.01)	**0.15**	(0.02)	**0.14**	(0.01)	**0.28**	(0.02)	**0.28**	(0.02)
	Romania	**-2.4**	(0.9)	**-2.5**	(0.9)	**-4.4**	0.9	**-4.7**	1.0	**0.35**	(0.02)	**0.36**	(0.02)	**0.21**	(0.02)	**0.21**	(0.02)	**0.21**	(0.03)	**0.21**	(0.03)
	Russian Federation	**-5.4**	(1.0)	**-5.4**	(1.0)	**-4.7**	1.0	**-4.8**	0.9	**0.44**	(0.02)	**0.44**	(0.02)	**0.26**	(0.03)	**0.26**	(0.03)	**0.25**	(0.03)	**0.24**	(0.03)
	Serbia	**-4.3**	(0.9)	**-4.9**	(0.9)	**-4.7**	0.8	**-5.3**	0.8	**0.35**	(0.02)	**0.35**	(0.02)	**0.19**	(0.04)	**0.20**	(0.04)	**0.15**	(0.03)	**0.16**	(0.02)
	Shanghai-China	**-2.6**	(0.6)	**-1.9**	(0.7)	**-1.8**	0.3	**-1.7**	0.3	**0.47**	(0.01)	**0.47**	(0.01)	**0.16**	(0.02)	**0.15**	(0.02)	**0.21**	(0.03)	**0.19**	(0.03)
	Singapore	**-4.0**	(0.8)	**-3.6**	(0.8)	**-4.6**	0.7	**-4.3**	0.7	**0.46**	(0.02)	**0.46**	(0.02)	**0.19**	(0.02)	**0.19**	(0.02)	**0.19**	(0.02)	**0.19**	(0.02)
	Chinese Taipei	**-3.8**	(0.6)	**-3.7**	(0.6)	**-3.4**	0.5	**-3.3**	0.5	**0.36**	(0.01)	**0.36**	(0.01)	**0.20**	(0.03)	**0.20**	(0.03)	**0.15**	(0.02)	**0.15**	(0.02)
	Thailand	-1.7	(0.9)	**-1.9**	(0.9)	**-3.5**	0.6	**-3.7**	0.6	**0.35**	(0.02)	**0.35**	(0.02)	**0.10**	(0.02)	**0.11**	(0.02)	**0.21**	(0.03)	**0.21**	(0.03)
	Tunisia	**-2.5**	(0.8)	**-2.7**	(0.8)	**-2.4**	0.8	**-2.8**	0.8	**0.33**	(0.02)	**0.34**	(0.02)	**0.15**	(0.03)	**0.19**	(0.03)	**0.17**	(0.03)	**0.19**	(0.03)
	United Arab Emirates	**-2.8**	(0.8)	**-2.6**	(0.8)	**-4.6**	0.6	**-4.4**	0.6	**0.40**	(0.01)	**0.40**	(0.01)	**0.15**	(0.02)	**0.16**	(0.02)	**0.22**	(0.02)	**0.22**	(0.02)
	Uruguay	**-4.4**	(0.9)	**-4.6**	(0.9)	**-3.9**	0.9	**-4.3**	0.9	**0.36**	(0.02)	**0.36**	(0.02)	**0.12**	(0.03)	**0.14**	(0.03)	**0.19**	(0.03)	**0.21**	(0.03)
	Viet Nam	-1.2	(0.8)	**-1.7**	(0.8)	-1.3	0.7	**-2.0**	0.7	**0.36**	(0.01)	**0.36**	(0.02)	**0.19**	(0.03)	**0.20**	(0.03)	**0.11**	(0.03)	**0.13**	(0.03)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.5.19 **Relationship between teacher-student relations and student dispositions**

Results based on students' self-reports

		Change in the following student dispositions that is associated with teacher-student relations:																			
		Intrinsic motivation to learn mathematics				Mathematics self-efficacy				Mathematics self-concept				Mathematics anxiety				Mathematics intentions			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	Australia	**0.31**	(0.02)	**0.27**	(0.02)	**0.27**	(0.02)	**0.17**	(0.02)	**0.20**	(0.01)	**0.12**	(0.01)	**-0.16**	(0.01)	**-0.09**	(0.01)	**0.04**	(0.02)	0.03	(0.02)
	Austria	**0.24**	(0.02)	**0.24**	(0.02)	**0.18**	(0.03)	**0.17**	(0.02)	**0.17**	(0.02)	**0.18**	(0.02)	**-0.16**	(0.02)	**-0.17**	(0.02)	0.05	(0.03)	0.05	(0.03)
	Belgium	**0.22**	(0.03)	**0.21**	(0.03)	**0.10**	(0.03)	**0.09**	(0.03)	**0.12**	(0.02)	**0.11**	(0.02)	0.01	(0.02)	0.02	(0.02)	0.04	(0.03)	0.03	(0.03)
	Canada	**0.28**	(0.02)	**0.26**	(0.02)	**0.24**	(0.02)	**0.18**	(0.02)	**0.20**	(0.01)	**0.15**	(0.01)	**-0.13**	(0.01)	**-0.09**	(0.01)	**0.06**	(0.02)	**0.05**	(0.02)
	Chile	**0.20**	(0.02)	**0.21**	(0.02)	**0.20**	(0.02)	**0.20**	(0.02)	**0.14**	(0.02)	**0.14**	(0.02)	-0.01	(0.02)	-0.01	(0.01)	**0.08**	(0.03)	**0.09**	(0.02)
	Czech Republic	**0.31**	(0.03)	**0.31**	(0.03)	**0.18**	(0.03)	**0.17**	(0.03)	**0.18**	(0.03)	**0.17**	(0.02)	**-0.13**	(0.03)	**-0.12**	(0.03)	**0.10**	(0.03)	**0.09**	(0.03)
	Denmark	**0.30**	(0.03)	**0.26**	(0.04)	**0.16**	(0.02)	**0.08**	(0.02)	**0.18**	(0.03)	**0.10**	(0.02)	**-0.21**	(0.02)	**-0.14**	(0.02)	0.03	(0.03)	0.01	(0.03)
	Estonia	**0.34**	(0.03)	**0.33**	(0.03)	**0.20**	(0.03)	**0.18**	(0.03)	**0.16**	(0.02)	**0.15**	(0.02)	**-0.12**	(0.03)	**-0.10**	(0.03)	**0.09**	(0.03)	**0.08**	(0.03)
	Finland	**0.24**	(0.03)	**0.22**	(0.03)	**0.20**	(0.02)	**0.16**	(0.02)	**0.22**	(0.02)	**0.17**	(0.02)	**-0.17**	(0.02)	**-0.14**	(0.02)	0.04	(0.03)	0.02	(0.03)
	France	**0.19**	(0.04)	**0.19**	(0.04)	**0.08**	(0.03)	**0.08**	(0.03)	**0.09**	(0.02)	**0.09**	(0.02)	**0.05**	(0.02)	**0.05**	(0.02)	-0.03	(0.03)	-0.03	(0.03)
	Germany	**0.24**	(0.03)	**0.23**	(0.03)	**0.07**	(0.02)	**0.07**	(0.02)	**0.21**	(0.02)	**0.21**	(0.02)	**-0.17**	(0.03)	**-0.17**	(0.02)	0.06	(0.03)	0.06	(0.03)
	Greece	**0.14**	(0.03)	**0.14**	(0.03)	**0.15**	(0.03)	**0.15**	(0.03)	**0.09**	(0.02)	**0.10**	(0.02)	0.03	(0.02)	0.02	(0.02)	-0.04	(0.03)	-0.04	(0.03)
	Hungary	**0.24**	(0.03)	**0.25**	(0.03)	**0.09**	(0.03)	**0.11**	(0.03)	**0.13**	(0.02)	**0.13**	(0.02)	-0.03	(0.02)	-0.03	(0.02)	0.03	(0.03)	0.04	(0.03)
	Iceland	**0.25**	(0.03)	**0.22**	(0.03)	**0.23**	(0.04)	**0.17**	(0.04)	**0.14**	(0.02)	**0.08**	(0.02)	**-0.18**	(0.02)	**-0.12**	(0.02)	0.01	(0.03)	0.00	(0.03)
	Ireland	**0.31**	(0.03)	**0.29**	(0.03)	**0.23**	(0.03)	**0.18**	(0.03)	**0.13**	(0.02)	**0.11**	(0.02)	**-0.10**	(0.02)	**-0.07**	(0.02)	**0.06**	(0.03)	0.05	(0.03)
	Israel	**0.20**	(0.03)	**0.20**	(0.03)	**0.08**	(0.04)	**0.12**	(0.03)	**0.11**	(0.02)	**0.12**	(0.02)	**-0.11**	(0.02)	**-0.12**	(0.02)	0.01	(0.02)	0.01	(0.02)
	Italy	**0.23**	(0.02)	**0.25**	(0.02)	**0.06**	(0.01)	**0.09**	(0.01)	**0.11**	(0.01)	**0.14**	(0.01)	**0.02**	(0.01)	0.00	(0.01)	**0.03**	(0.01)	**0.05**	(0.01)
	Japan	**0.24**	(0.03)	**0.22**	(0.03)	**0.15**	(0.03)	**0.11**	(0.02)	**0.10**	(0.02)	**0.08**	(0.02)	**-0.12**	(0.02)	**-0.10**	(0.02)	0.04	(0.02)	0.03	(0.02)
	Korea	**0.29**	(0.03)	**0.23**	(0.03)	**0.23**	(0.04)	**0.13**	(0.03)	**0.13**	(0.02)	**0.07**	(0.02)	**-0.04**	(0.02)	-0.02	(0.02)	**0.07**	(0.03)	0.02	(0.03)
	Luxembourg	**0.28**	(0.03)	**0.27**	(0.03)	**0.24**	(0.03)	**0.21**	(0.03)	**0.19**	(0.02)	**0.18**	(0.02)	**-0.06**	(0.02)	**-0.05**	(0.02)	**0.05**	(0.02)	0.05	(0.02)
	Mexico	**0.24**	(0.01)	**0.25**	(0.01)	**0.20**	(0.02)	**0.22**	(0.02)	**0.11**	(0.01)	**0.13**	(0.01)	0.02	(0.01)	0.00	(0.01)	**0.04**	(0.01)	**0.05**	(0.01)
	Netherlands	**0.23**	(0.04)	**0.23**	(0.04)	**0.18**	(0.04)	**0.16**	(0.04)	**0.11**	(0.02)	**0.10**	(0.02)	**-0.06**	(0.02)	-0.05	(0.02)	-0.01	(0.03)	-0.01	(0.03)
	New Zealand	**0.32**	(0.03)	**0.31**	(0.03)	**0.31**	(0.03)	**0.25**	(0.03)	**0.21**	(0.02)	**0.17**	(0.02)	**-0.15**	(0.03)	**-0.10**	(0.02)	**0.06**	(0.03)	0.05	(0.03)
	Norway	**0.32**	(0.03)	**0.27**	(0.03)	**0.28**	(0.03)	**0.19**	(0.02)	**0.21**	(0.02)	**0.13**	(0.02)	**-0.20**	(0.02)	**-0.13**	(0.02)	**0.07**	(0.03)	0.05	(0.03)
	Poland	**0.28**	(0.02)	**0.29**	(0.02)	**0.13**	(0.03)	**0.15**	(0.03)	**0.13**	(0.02)	**0.14**	(0.02)	**-0.11**	(0.02)	**-0.12**	(0.02)	**0.10**	(0.03)	**0.12**	(0.03)
	Portugal	**0.29**	(0.03)	**0.29**	(0.03)	**0.19**	(0.03)	**0.17**	(0.03)	**0.14**	(0.02)	**0.12**	(0.01)	**-0.04**	(0.02)	-0.02	(0.02)	**0.06**	(0.03)	0.06	(0.03)
	Slovak Republic	**0.34**	(0.03)	**0.35**	(0.03)	**0.15**	(0.03)	**0.18**	(0.03)	**0.15**	(0.02)	**0.17**	(0.02)	-0.01	(0.02)	-0.04	(0.02)	0.06	(0.03)	**0.08**	(0.03)
	Slovenia	**0.27**	(0.03)	**0.27**	(0.03)	**0.18**	(0.03)	**0.18**	(0.03)	**0.15**	(0.02)	**0.15**	(0.02)	**-0.07**	(0.02)	**-0.07**	(0.02)	**0.09**	(0.04)	**0.10**	(0.04)
	Spain	**0.25**	(0.02)	**0.25**	(0.02)	**0.17**	(0.02)	**0.16**	(0.02)	**0.14**	(0.02)	**0.13**	(0.02)	0.00	(0.01)	0.01	(0.01)	**0.06**	(0.02)	**0.05**	(0.02)
	Sweden	**0.22**	(0.04)	**0.20**	(0.03)	**0.19**	(0.03)	**0.16**	(0.03)	**0.15**	(0.02)	**0.10**	(0.02)	**-0.13**	(0.02)	**-0.10**	(0.02)	0.05	(0.03)	0.04	(0.03)
	Switzerland	**0.23**	(0.02)	**0.22**	(0.02)	**0.09**	(0.02)	**0.08**	(0.02)	**0.11**	(0.02)	**0.10**	(0.02)	**-0.07**	(0.02)	**-0.06**	(0.02)	0.01	(0.03)	0.01	(0.03)
	Turkey	**0.23**	(0.03)	**0.23**	(0.03)	**0.14**	(0.03)	**0.15**	(0.02)	**0.10**	(0.02)	**0.11**	(0.02)	-0.02	(0.02)	-0.02	(0.02)	0.05	(0.03)	0.05	(0.03)
	United Kingdom	**0.35**	(0.03)	**0.33**	(0.02)	**0.28**	(0.04)	**0.22**	(0.03)	**0.18**	(0.02)	**0.14**	(0.02)	**-0.12**	(0.02)	**-0.08**	(0.02)	**0.08**	(0.03)	**0.07**	(0.03)
	United States	**0.31**	(0.03)	**0.30**	(0.03)	**0.24**	(0.03)	**0.20**	(0.03)	**0.24**	(0.03)	**0.19**	(0.02)	**-0.22**	(0.02)	**-0.17**	(0.02)	0.05	(0.03)	0.04	(0.03)
	OECD average	**0.26**	(0.00)	**0.25**	(0.00)	**0.18**	(0.00)	**0.16**	(0.00)	**0.15**	(0.00)	**0.13**	(0.00)	**-0.09**	(0.00)	**-0.07**	(0.00)	**0.05**	(0.00)	**0.04**	(0.00)
Partners	Albania	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**0.33**	(0.03)	**0.33**	(0.03)	**0.26**	(0.03)	**0.27**	(0.03)	**0.16**	(0.02)	**0.18**	(0.02)	**0.07**	(0.02)	**0.04**	(0.02)	0.05	(0.03)	**0.06**	(0.03)
	Brazil	**0.29**	(0.02)	**0.29**	(0.02)	**0.22**	(0.02)	**0.23**	(0.02)	**0.11**	(0.01)	**0.12**	(0.01)	**0.06**	(0.01)	**0.04**	(0.01)	**0.05**	(0.02)	**0.06**	(0.02)
	Bulgaria	**0.40**	(0.02)	**0.40**	(0.02)	**0.31**	(0.03)	**0.33**	(0.03)	**0.19**	(0.02)	**0.20**	(0.02)	0.01	(0.02)	-0.01	(0.02)	**0.10**	(0.02)	**0.12**	(0.02)
	Colombia	**0.24**	(0.03)	**0.24**	(0.03)	**0.21**	(0.02)	**0.21**	(0.02)	**0.14**	(0.02)	**0.16**	(0.02)	0.02	(0.02)	0.00	(0.02)	**0.06**	(0.03)	**0.06**	(0.03)
	Costa Rica	**0.33**	(0.03)	**0.34**	(0.03)	**0.23**	(0.02)	**0.25**	(0.02)	**0.14**	(0.02)	**0.16**	(0.02)	-0.03	(0.02)	**-0.05**	(0.02)	0.03	(0.03)	0.04	(0.03)
	Croatia	**0.27**	(0.03)	**0.28**	(0.03)	**0.14**	(0.03)	**0.18**	(0.03)	**0.13**	(0.02)	**0.15**	(0.02)	**-0.06**	(0.03)	**-0.08**	(0.02)	0.04	(0.02)	**0.05**	(0.02)
	Cyprus*	**0.32**	(0.03)	**0.31**	(0.03)	**0.19**	(0.03)	**0.18**	(0.03)	**0.13**	(0.02)	**0.12**	(0.02)	-0.02	(0.02)	-0.01	(0.02)	0.00	(0.03)	0.00	(0.03)
	Hong Kong-China	**0.24**	(0.03)	**0.24**	(0.03)	**0.15**	(0.03)	**0.14**	(0.03)	**0.13**	(0.02)	**0.12**	(0.02)	**-0.09**	(0.02)	**-0.08**	(0.02)	0.03	(0.02)	0.03	(0.03)
	Indonesia	**0.26**	(0.02)	**0.26**	(0.02)	**0.23**	(0.02)	**0.23**	(0.02)	**0.15**	(0.01)	**0.15**	(0.01)	-0.01	(0.02)	-0.01	(0.02)	**0.07**	(0.03)	**0.06**	(0.03)
	Jordan	**0.29**	(0.03)	**0.29**	(0.02)	**0.24**	(0.03)	**0.25**	(0.02)	**0.17**	(0.01)	**0.18**	(0.01)	**0.10**	(0.01)	**0.09**	(0.01)	**0.06**	(0.02)	**0.05**	(0.02)
	Kazakhstan	**0.42**	(0.03)	**0.42**	(0.03)	**0.36**	(0.03)	**0.36**	(0.03)	**0.23**	(0.02)	**0.23**	(0.02)	**-0.11**	(0.02)	**-0.11**	(0.02)	**0.14**	(0.03)	**0.14**	(0.03)
	Latvia	**0.25**	(0.03)	**0.25**	(0.03)	**0.19**	(0.03)	**0.19**	(0.03)	**0.15**	(0.02)	**0.14**	(0.03)	**-0.06**	(0.02)	**-0.06**	(0.02)	-0.02	(0.03)	-0.02	(0.03)
	Liechtenstein	0.15	(0.12)	0.17	(0.12)	-0.16	(0.09)	-0.09	(0.07)	0.15	(0.08)	**0.17**	(0.08)	**-0.19**	(0.08)	**-0.21**	(0.08)	0.11	(0.10)	0.12	(0.11)
	Lithuania	**0.28**	(0.03)	**0.28**	(0.03)	**0.20**	(0.03)	**0.18**	(0.02)	**0.12**	(0.02)	**0.10**	(0.02)	**-0.08**	(0.02)	**-0.06**	(0.02)	0.05	(0.03)	0.04	(0.03)
	Macao-China	**0.26**	(0.03)	**0.25**	(0.02)	**0.19**	(0.03)	**0.18**	(0.02)	**0.13**	(0.02)	**0.12**	(0.02)	**-0.12**	(0.02)	**-0.11**	(0.02)	**0.10**	(0.03)	**0.10**	(0.03)
	Malaysia	**0.29**	(0.03)	**0.30**	(0.03)	**0.22**	(0.03)	**0.23**	(0.03)	**0.16**	(0.02)	**0.17**	(0.02)	0.00	(0.02)	0.00	(0.02)	0.03	(0.03)	0.03	(0.03)
	Montenegro	**0.37**	(0.03)	**0.37**	(0.03)	**0.21**	(0.04)	**0.25**	(0.04)	**0.11**	(0.02)	**0.15**	(0.02)	0.03	(0.02)	-0.01	(0.02)	**0.07**	(0.03)	**0.09**	(0.03)
	Peru	**0.28**	(0.02)	**0.28**	(0.02)	**0.22**	(0.02)	**0.23**	(0.02)	**0.12**	(0.02)	**0.14**	(0.02)	0.00	(0.01)	-0.01	(0.01)	**0.07**	(0.03)	**0.08**	(0.03)
	Qatar	**0.37**	(0.02)	**0.37**	(0.02)	**0.40**	(0.02)	**0.38**	(0.02)	**0.19**	(0.01)	**0.18**	(0.01)	**0.03**	(0.01)	**0.05**	(0.01)	**0.08**	(0.01)	**0.08**	(0.01)
	Romania	-0.04	(0.02)	-0.04	(0.02)	**0.25**	(0.02)	**0.26**	(0.02)	**0.08**	(0.01)	**0.09**	(0.01)	**0.06**	(0.01)	**0.04**	(0.01)	-0.02	(0.03)	-0.01	(0.03)
	Russian Federation	**0.30**	(0.02)	**0.30**	(0.02)	**0.24**	(0.02)	**0.23**	(0.02)	**0.17**	(0.01)	**0.18**	(0.01)	**-0.05**	(0.01)	**-0.06**	(0.01)	**0.09**	(0.02)	**0.08**	(0.02)
	Serbia	**0.28**	(0.03)	**0.29**	(0.03)	**0.23**	(0.03)	**0.27**	(0.03)	**0.14**	(0.02)	**0.17**	(0.02)	0.01	(0.02)	-0.02	(0.02)	0.06	(0.03)	**0.08**	(0.03)
	Shanghai-China	**0.30**	(0.02)	**0.29**	(0.02)	**0.27**	(0.03)	**0.21**	(0.03)	**0.15**	(0.01)	**0.11**	(0.01)	**-0.14**	(0.02)	**-0.11**	(0.02)	**0.13**	(0.03)	**0.10**	(0.03)
	Singapore	**0.27**	(0.03)	**0.27**	(0.03)	**0.23**	(0.02)	**0.22**	(0.02)	**0.18**	(0.02)	**0.16**	(0.02)	**-0.12**	(0.02)	**-0.10**	(0.02)	0.01	(0.02)	0.01	(0.02)
	Chinese Taipei	**0.23**	(0.02)	**0.22**	(0.02)	**0.15**	(0.03)	**0.14**	(0.02)	**0.06**	(0.02)	**0.05**	(0.01)	0.01	(0.02)	0.02	(0.02)	**0.07**	(0.02)	**0.07**	(0.02)
	Thailand	**0.29**	(0.02)	**0.29**	(0.02)	**0.24**	(0.02)	**0.25**	(0.02)	**0.12**	(0.02)	**0.13**	(0.02)	**0.03**	(0.01)	0.03	(0.01)	**0.06**	(0.02)	**0.07**	(0.02)
	Tunisia	**0.24**	(0.03)	**0.26**	(0.03)	**0.11**	(0.02)	**0.13**	(0.02)	**0.10**	(0.02)	**0.13**	(0.02)	0.02	(0.02)	0.00	(0.02)	0.05	(0.03)	**0.08**	(0.03)
	United Arab Emirates	**0.31**	(0.02)	**0.32**	(0.02)	**0.23**	(0.02)	**0.24**	(0.02)	**0.18**	(0.01)	**0.18**	(0.01)	**-0.06**	(0.01)	**-0.05**	(0.01)	**0.08**	(0.02)	**0.08**	(0.02)
	Uruguay	**0.35**	(0.02)	**0.36**	(0.02)	**0.22**	(0.03)	**0.25**	(0.03)	**0.12**	(0.02)	**0.15**	(0.02)	0.05	(0.02)	0.01	(0.02)	0.02	(0.03)	0.04	(0.03)
	Viet Nam	**0.25**	(0.02)	**0.26**	(0.02)	**0.14**	(0.02)	**0.16**	(0.02)	**0.08**	(0.01)	**0.10**	(0.01)	**-0.07**	(0.02)	**-0.09**	(0.02)	**0.11**	(0.03)	**0.14**	(0.03)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.5.22

Relationship between learning time in mathematics and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with learning time in mathematics (per 100 minutes):																			
		Arriving late for school				Skipping classes or days of school				Sense of belonging				Perseverance				Openness to problem solving			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	-1.7	(0.9)	-0.7	(0.9)	**-1.8**	0.8	-0.7	0.9	**0.06**	(0.03)	0.05	(0.03)	**0.06**	(0.02)	0.03	(0.02)	**0.09**	(0.03)	0.04	(0.02)
	Austria	-1.7	(1.3)	-1.7	(1.3)	**-3.5**	1.0	**-3.4**	1.0	-0.09	(0.05)	**-0.09**	(0.04)	**0.13**	(0.04)	**0.12**	(0.04)	0.06	(0.04)	0.05	(0.04)
	Belgium	-1.0	(1.2)	1.2	(1.1)	-0.3	0.7	**1.3**	0.6	0.03	(0.03)	0.01	(0.03)	0.06	(0.03)	0.02	(0.03)	**0.08**	(0.03)	0.01	(0.03)
	Canada	0.8	(0.7)	0.8	(0.6)	1.0	0.5	1.0	0.5	0.02	(0.02)	0.02	(0.02)	0.01	(0.02)	0.01	(0.02)	-0.01	(0.02)	-0.01	(0.02)
	Chile	0.4	(0.5)	0.2	(0.5)	0.1	0.3	-0.1	0.3	-0.03	(0.01)	-0.03	(0.01)	0.00	(0.01)	0.01	(0.01)	0.01	(0.01)	0.02	(0.01)
	Czech Republic	**-5.4**	(2.6)	-4.9	(2.6)	**-3.3**	1.7	-3.1	1.7	0.05	(0.07)	0.05	(0.07)	0.04	(0.06)	0.03	(0.06)	**0.13**	(0.05)	0.10	(0.05)
	Denmark	**2.7**	(1.2)	**2.2**	(1.1)	1.9	1.1	1.3	1.0	-0.01	(0.03)	-0.01	(0.03)	-0.01	(0.02)	0.02	(0.02)	-0.01	(0.03)	0.02	(0.03)
	Estonia	-3.4	(3.2)	-1.9	(3.2)	-0.2	3.5	2.9	3.2	-0.04	(0.06)	-0.05	(0.06)	0.04	(0.08)	0.04	(0.08)	0.13	(0.12)	0.01	(0.12)
	Finland	-0.7	(3.1)	-0.3	(3.0)	3.4	1.8	**3.7**	1.8	0.05	(0.05)	0.05	(0.05)	-0.02	(0.07)	-0.05	(0.06)	0.02	(0.07)	-0.02	(0.06)
	France	**-4.0**	(0.9)	**-2.6**	(0.9)	-1.2	1.1	-0.4	1.1	0.06	(0.03)	0.05	(0.03)	0.03	(0.03)	0.00	(0.03)	0.06	(0.03)	0.02	(0.03)
	Germany	2.2	(1.6)	2.0	(1.6)	-0.5	0.9	-0.7	0.9	-0.03	(0.04)	-0.02	(0.04)	0.08	(0.04)	**0.10**	(0.04)	**0.08**	(0.03)	**0.12**	(0.04)
	Greece	-5.9	(5.2)	-5.1	(5.2)	-6.3	5.8	-2.4	5.6	0.08	(0.14)	0.10	(0.15)	-0.03	(0.12)	-0.18	(0.12)	0.23	(0.12)	0.03	(0.11)
	Hungary	-1.2	(3.0)	0.2	(3.0)	-3.4	2.3	-2.4	2.1	0.05	(0.08)	0.02	(0.08)	0.05	(0.05)	0.04	(0.05)	**0.19**	(0.07)	**0.17**	(0.07)
	Iceland	**-2.6**	(1.3)	**-2.8**	(1.3)	0.2	0.9	0.0	0.9	0.01	(0.04)	0.01	(0.04)	-0.03	(0.04)	-0.02	(0.04)	-0.05	(0.04)	-0.03	(0.03)
	Ireland	-2.1	(2.6)	-1.8	(2.5)	**-9.1**	2.4	**-9.1**	2.4	-0.09	(0.08)	-0.08	(0.08)	-0.02	(0.09)	-0.03	(0.09)	-0.03	(0.08)	-0.05	(0.08)
	Israel	-0.1	(1.2)	0.2	(1.2)	**-2.4**	1.0	**-2.3**	1.0	0.05	(0.04)	0.05	(0.04)	-0.04	(0.04)	-0.03	(0.04)	-0.05	(0.03)	**-0.06**	(0.03)
	Italy	0.7	(1.0)	**2.4**	(1.0)	**2.1**	0.9	**4.0**	0.8	0.01	(0.02)	0.02	(0.02)	**0.10**	(0.03)	**0.07**	(0.03)	**0.10**	(0.03)	**0.06**	(0.03)
	Japan	**-1.9**	(0.7)	-0.9	(0.8)	**-1.6**	0.7	0.1	0.6	0.04	(0.03)	0.05	(0.03)	**0.09**	(0.03)	-0.01	(0.03)	**0.14**	(0.04)	-0.01	(0.04)
	Korea	**-5.7**	(1.4)	**-3.1**	(1.4)	-1.1	0.6	0.1	0.6	-0.02	(0.05)	-0.05	(0.05)	0.01	(0.04)	-0.04	(0.03)	**0.07**	(0.04)	-0.02	(0.03)
	Luxembourg	**3.6**	(1.5)	**3.3**	(1.5)	**3.6**	1.1	**3.2**	1.1	**-0.11**	(0.05)	**-0.09**	(0.05)	0.01	(0.04)	0.01	(0.04)	0.06	(0.04)	0.06	(0.04)
	Mexico	0.1	(0.4)	0.3	(0.4)	-0.8	0.4	-0.5	0.4	**0.03**	(0.01)	**0.02**	(0.01)	0.02	(0.01)	0.01	(0.01)	**0.02**	(0.01)	0.00	(0.01)
	Netherlands	0.3	(0.8)	-0.2	(0.8)	1.0	1.2	0.9	1.2	0.02	(0.03)	0.03	(0.03)	0.02	(0.02)	0.02	(0.02)	**0.09**	(0.02)	**0.10**	(0.02)
	New Zealand	-3.5	(2.8)	-2.3	(2.4)	-2.6	2.6	-1.1	2.2	0.05	(0.05)	0.05	(0.05)	-0.02	(0.05)	-0.06	(0.05)	0.02	(0.04)	-0.03	(0.05)
	Norway	-0.6	(0.9)	-1.0	(0.9)	0.8	0.7	0.5	0.7	-0.04	(0.02)	-0.04	(0.03)	**-0.08**	(0.04)	-0.05	(0.04)	-0.04	(0.04)	-0.01	(0.03)
	Poland	**14.0**	(4.5)	**15.6**	(4.4)	5.4	4.0	7.1	3.9	-0.19	(0.10)	-0.19	(0.10)	-0.09	(0.11)	-0.10	(0.10)	-0.04	(0.11)	-0.05	(0.10)
	Portugal	-0.4	(1.1)	-0.2	(1.0)	-0.9	1.0	-0.4	0.9	0.00	(0.03)	-0.01	(0.02)	0.01	(0.04)	0.01	(0.03)	0.02	(0.03)	0.02	(0.02)
	Slovak Republic	**-5.1**	(1.5)	**-4.7**	(1.5)	**-3.0**	1.5	-2.7	1.4	-0.06	(0.04)	-0.07	(0.04)	0.06	(0.05)	0.05	(0.05)	0.03	(0.04)	0.02	(0.05)
	Slovenia	**-13.3**	(3.8)	-8.0	(4.5)	**-14.8**	4.1	-4.5	4.8	**0.40**	(0.08)	**0.39**	(0.10)	0.15	(0.12)	0.07	(0.12)	0.04	(0.11)	**-0.28**	(0.12)
	Spain	**-3.2**	(1.6)	**-4.0**	(1.6)	3.0	1.6	1.9	1.5	**0.17**	(0.06)	**0.17**	(0.06)	**0.16**	(0.04)	**0.19**	(0.04)	-0.03	(0.03)	0.02	(0.03)
	Sweden	-1.6	(1.8)	-1.9	(1.9)	-1.1	1.5	-1.4	1.6	-0.03	(0.05)	-0.02	(0.05)	0.05	(0.04)	0.06	(0.03)	0.07	(0.09)	0.08	(0.10)
	Switzerland	0.3	(0.8)	0.1	(0.8)	-0.2	0.6	-0.5	0.7	-0.05	(0.02)	-0.03	(0.03)	0.01	(0.02)	0.02	(0.02)	0.01	(0.03)	0.04	(0.03)
	Turkey	-1.4	(1.6)	-0.2	(1.6)	0.1	1.4	-0.9	1.5	0.05	(0.05)	0.02	(0.05)	0.05	(0.05)	-0.05	(0.05)	**0.09**	(0.04)	0.03	(0.03)
	United Kingdom	**1.8**	(0.8)	1.2	(0.9)	-0.5	0.7	-1.0	0.8	0.03	(0.03)	0.03	(0.03)	0.06	(0.03)	**0.07**	(0.03)	0.01	(0.03)	0.03	(0.02)
	United States	-1.1	(0.7)	-0.4	(0.7)	-0.7	0.6	-0.3	0.6	0.00	(0.02)	0.00	(0.02)	0.05	(0.03)	0.03	(0.03)	**0.05**	(0.03)	0.01	(0.02)
	OECD average	**-1.2**	(0.4)	-0.6	(0.4)	**-1.1**	0.3	-0.3	0.3	0.01	(0.01)	0.01	(0.01)	**0.03**	(0.01)	0.01	(0.01)	**0.05**	(0.01)	0.01	(0.01)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**-2.0**	(0.8)	-0.6	(0.9)	-1.5	1.0	-0.4	1.0	-0.01	(0.03)	-0.02	(0.03)	0.03	(0.02)	0.01	(0.03)	0.02	(0.02)	-0.01	(0.02)
	Brazil	1.2	(0.7)	1.2	(0.7)	**-1.5**	0.6	**-1.5**	0.6	0.03	(0.02)	0.03	(0.02)	-0.01	(0.02)	-0.01	(0.02)	0.01	(0.02)	0.01	(0.02)
	Bulgaria	-3.2	(1.8)	-2.1	(1.6)	-2.4	1.9	-0.6	1.7	0.04	(0.05)	0.01	(0.05)	-0.03	(0.06)	-0.05	(0.06)	0.02	(0.04)	0.00	(0.04)
	Colombia	0.6	(0.7)	0.7	(0.7)	0.2	0.5	0.3	0.5	0.03	(0.02)	0.03	(0.02)	0.02	(0.02)	0.02	(0.02)	0.04	(0.02)	0.04	(0.02)
	Costa Rica	0.1	(1.8)	0.3	(1.8)	1.0	2.6	1.2	2.7	0.02	(0.06)	0.02	(0.06)	**-0.17**	(0.05)	**-0.18**	(0.05)	0.00	(0.04)	-0.03	(0.04)
	Croatia	**-7.3**	(2.1)	-2.5	(2.4)	**-13.0**	2.3	-4.3	2.4	0.06	(0.07)	0.02	(0.06)	0.04	(0.06)	0.00	(0.06)	0.06	(0.05)	-0.09	(0.05)
	Cyprus*	2.0	(4.8)	1.6	(4.6)	**10.3**	4.0	**9.6**	4.0	0.04	(0.16)	0.04	(0.16)	0.10	(0.14)	0.10	(0.13)	0.00	(0.12)	0.00	(0.11)
	Hong Kong-China	-0.8	(1.0)	-0.8	(1.0)	0.2	0.8	0.2	0.8	-0.02	(0.03)	-0.01	(0.03)	0.03	(0.03)	0.03	(0.03)	0.02	(0.03)	0.02	(0.03)
	Indonesia	-0.7	(0.6)	-0.3	(0.6)	-1.3	0.7	-0.8	0.7	0.00	(0.02)	0.00	(0.02)	**0.05**	(0.02)	**0.05**	(0.02)	**0.04**	(0.01)	**0.04**	(0.01)
	Jordan	0.9	(1.1)	0.9	(1.1)	-0.1	1.2	-0.1	1.2	0.01	(0.02)	0.01	(0.02)	0.04	(0.02)	0.04	(0.02)	0.00	(0.03)	0.00	(0.03)
	Kazakhstan	-1.0	(1.3)	-0.3	(1.3)	**-3.5**	1.6	-2.2	1.6	0.08	(0.05)	0.06	(0.05)	0.05	(0.04)	0.04	(0.04)	-0.01	(0.06)	-0.02	(0.06)
	Latvia	-1.2	(2.9)	-0.8	(3.0)	3.0	3.0	3.7	3.0	-0.03	(0.06)	-0.02	(0.06)	0.08	(0.06)	0.06	(0.06)	**0.11**	(0.05)	0.08	(0.05)
	Liechtenstein	-0.9	(8.0)	-1.9	(7.7)	5.0	8.4	4.5	8.4	-0.22	(0.18)	-0.20	(0.18)	0.31	(0.18)	0.31	(0.18)	0.17	(0.18)	0.18	(0.18)
	Lithuania	**9.7**	(2.8)	**10.0**	(2.8)	4.8	2.8	**5.4**	2.5	-0.01	(0.10)	-0.03	(0.10)	**0.10**	(0.05)	**0.10**	(0.05)	**0.15**	(0.05)	**0.14**	(0.05)
	Macao-China	**-3.4**	(1.1)	-0.7	(1.1)	**-3.6**	0.9	**-2.4**	0.9	0.03	(0.04)	0.03	(0.04)	-0.01	(0.03)	**-0.06**	(0.03)	0.01	(0.04)	-0.06	(0.04)
	Malaysia	**-4.1**	(1.1)	-0.9	(1.1)	**-2.4**	0.9	-0.2	0.9	**0.05**	(0.02)	0.04	(0.02)	0.01	(0.03)	-0.01	(0.03)	0.04	(0.03)	0.00	(0.03)
	Montenegro	**-4.9**	(2.1)	-3.8	(2.0)	1.4	1.8	2.6	1.9	-0.09	(0.05)	-0.06	(0.05)	0.06	(0.07)	-0.03	(0.06)	**-0.10**	(0.05)	**-0.12**	(0.05)
	Peru	-1.0	(0.8)	-0.5	(0.8)	-0.2	0.5	0.1	0.5	0.01	(0.02)	0.01	(0.02)	0.01	(0.02)	0.01	(0.02)	**0.03**	(0.01)	0.02	(0.01)
	Qatar	**-7.7**	(1.7)	**-5.8**	(1.6)	**-2.9**	1.1	**-2.9**	1.1	**0.10**	(0.04)	0.08	(0.04)	0.06	(0.05)	0.02	(0.05)	-0.05	(0.05)	-0.07	(0.05)
	Romania	-2.0	(1.7)	-1.4	(1.7)	-2.0	1.6	0.0	1.6	0.05	(0.06)	0.03	(0.06)	0.07	(0.04)	0.05	(0.04)	0.02	(0.04)	-0.02	(0.04)
	Russian Federation	-0.8	(1.5)	1.3	(1.5)	-1.8	1.6	-0.1	1.6	0.05	(0.06)	0.05	(0.06)	0.05	(0.04)	0.05	(0.04)	0.04	(0.04)	-0.02	(0.04)
	Serbia	1.1	(2.9)	2.5	(3.0)	2.1	2.7	3.8	2.8	-0.02	(0.08)	-0.02	(0.09)	-0.08	(0.09)	-0.09	(0.09)	0.03	(0.07)	0.00	(0.07)
	Shanghai-China	0.8	(0.9)	1.5	(0.8)	-0.5	0.4	-0.4	0.3	0.01	(0.03)	0.01	(0.03)	0.00	(0.02)	-0.01	(0.02)	**0.06**	(0.03)	0.03	(0.03)
	Singapore	**-4.3**	(0.8)	**-1.8**	(0.9)	**-3.9**	0.8	**-2.7**	1.0	0.04	(0.02)	0.02	(0.03)	0.00	(0.02)	-0.02	(0.03)	0.00	(0.03)	**-0.07**	(0.03)
	Chinese Taipei	-2.2	(1.2)	0.1	(1.1)	**-5.7**	1.1	**-3.7**	1.0	0.01	(0.02)	0.02	(0.03)	0.04	(0.03)	-0.02	(0.03)	**0.11**	(0.04)	0.05	(0.04)
	Thailand	**-7.3**	(1.2)	**-5.5**	(1.3)	**-9.5**	1.0	**-7.7**	1.1	**0.10**	(0.03)	0.04	(0.03)	**0.08**	(0.03)	0.04	(0.02)	0.03	(0.02)	-0.01	(0.02)
	Tunisia	0.3	(1.0)	0.4	(1.0)	-0.6	0.9	-0.4	0.8	**0.04**	(0.02)	**0.04**	(0.02)	0.01	(0.03)	0.00	(0.03)	0.01	(0.02)	0.00	(0.02)
	United Arab Emirates	-0.8	(0.5)	-0.6	(0.4)	0.5	0.5	0.7	0.5	0.02	(0.02)	0.01	(0.02)	**0.06**	(0.02)	**0.05**	(0.01)	**0.05**	(0.02)	**0.05**	(0.02)
	Uruguay	0.8	(1.7)	1.2	(1.7)	-1.0	1.4	-0.7	1.4	-0.03	(0.05)	-0.02	(0.05)	0.01	(0.05)	-0.01	(0.05)	0.05	(0.05)	0.03	(0.05)
	Viet Nam	1.1	(0.9)	1.0	(0.9)	0.7	1.0	0.6	0.9	-0.01	(0.02)	-0.01	(0.02)	0.03	(0.03)	0.03	(0.03)	0.04	(0.02)	**0.04**	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.5.22 Relationship between learning time in mathematics and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with learning time in mathematics (per 100 minutes):																			
		Intrinsic motivation to learn mathematics				Mathematics self-efficacy				Mathematics self-concept				Mathematics anxiety				Mathematics intentions			
		Before accounting for mathematics performance, accounting for ESCS¹		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	**0.09**	(0.03)	**0.06**	(0.03)	**0.12**	(0.03)	**0.05**	(0.02)	**0.16**	(0.02)	**0.09**	(0.02)	**-0.13**	(0.02)	**-0.06**	(0.02)	**0.06**	(0.03)	**0.06**	(0.03)
	Austria	**0.14**	(0.04)	**0.13**	(0.04)	0.06	(0.04)	0.05	(0.03)	**0.13**	(0.04)	**0.11**	(0.04)	-0.05	(0.06)	-0.03	(0.05)	**0.19**	(0.04)	**0.19**	(0.04)
	Belgium	**0.21**	(0.03)	**0.16**	(0.03)	**0.27**	(0.04)	**0.16**	(0.03)	**0.06**	(0.03)	-0.03	(0.03)	**0.08**	(0.03)	**0.17**	(0.04)	**0.08**	(0.03)	0.04	(0.03)
	Canada	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.01	(0.02)	0.01	(0.02)	0.00	(0.02)	0.00	(0.02)	0.02	(0.01)	0.02	(0.01)
	Chile	0.01	(0.01)	0.02	(0.01)	0.01	(0.01)	0.02	(0.01)	-0.01	(0.01)	0.00	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.01	(0.02)	0.02	(0.02)
	Czech Republic	0.05	(0.06)	0.03	(0.06)	**0.24**	(0.05)	**0.18**	(0.05)	0.11	(0.07)	0.09	(0.07)	-0.07	(0.07)	-0.05	(0.06)	**0.19**	(0.08)	**0.16**	(0.08)
	Denmark	-0.01	(0.02)	0.01	(0.02)	-0.02	(0.02)	0.02	(0.02)	-0.04	(0.03)	0.01	(0.02)	**0.06**	(0.03)	0.02	(0.03)	0.03	(0.03)	0.03	(0.03)
	Estonia	0.10	(0.08)	0.03	(0.08)	**0.20**	(0.10)	0.06	(0.09)	-0.03	(0.07)	-0.13	(0.08)	0.09	(0.08)	**0.20**	(0.08)	0.04	(0.09)	-0.02	(0.09)
	Finland	0.03	(0.06)	0.01	(0.05)	0.10	(0.06)	0.06	(0.05)	0.07	(0.08)	0.05	(0.07)	-0.06	(0.07)	-0.05	(0.06)	0.04	(0.07)	0.02	(0.07)
	France	0.02	(0.03)	-0.01	(0.03)	0.05	(0.03)	-0.01	(0.03)	**0.07**	(0.03)	0.01	(0.03)	-0.02	(0.03)	0.03	(0.02)	-0.01	(0.03)	-0.02	(0.04)
	Germany	0.07	(0.05)	**0.12**	(0.05)	0.03	(0.03)	**0.09**	(0.04)	0.07	(0.05)	**0.14**	(0.05)	0.04	(0.06)	-0.04	(0.05)	0.05	(0.04)	0.06	(0.04)
	Greece	0.12	(0.13)	-0.12	(0.13)	**0.27**	(0.13)	-0.04	(0.12)	**0.26**	(0.12)	-0.12	(0.12)	**-0.35**	(0.13)	0.03	(0.12)	0.12	(0.15)	0.00	(0.15)
	Hungary	**0.16**	(0.07)	**0.14**	(0.07)	0.10	(0.09)	0.05	(0.07)	0.11	(0.07)	0.04	(0.06)	-0.08	(0.06)	0.01	(0.06)	0.09	(0.09)	0.07	(0.08)
	Iceland	-0.01	(0.03)	0.00	(0.03)	-0.02	(0.05)	0.00	(0.04)	0.02	(0.04)	0.04	(0.04)	0.04	(0.05)	0.02	(0.04)	-0.05	(0.04)	-0.05	(0.04)
	Ireland	**0.19**	(0.08)	**0.18**	(0.07)	**0.31**	(0.08)	**0.28**	(0.07)	0.07	(0.08)	0.05	(0.07)	-0.07	(0.08)	-0.05	(0.07)	**0.26**	(0.08)	**0.26**	(0.08)
	Israel	0.05	(0.04)	0.05	(0.04)	0.04	(0.03)	-0.01	(0.02)	-0.02	(0.03)	-0.04	(0.03)	0.01	(0.04)	0.04	(0.03)	**0.10**	(0.03)	**0.09**	(0.03)
	Italy	**0.31**	(0.03)	**0.28**	(0.03)	**0.25**	(0.03)	**0.17**	(0.03)	**0.23**	(0.03)	**0.14**	(0.02)	**-0.11**	(0.02)	-0.03	(0.02)	**0.24**	(0.02)	**0.21**	(0.02)
	Japan	**0.14**	(0.04)	-0.04	(0.04)	**0.38**	(0.04)	**0.09**	(0.03)	0.03	(0.03)	**-0.14**	(0.03)	0.01	(0.03)	**0.16**	(0.04)	0.04	(0.03)	-0.02	(0.03)
	Korea	0.12	(0.06)	0.01	(0.04)	**0.24**	(0.06)	0.06	(0.04)	**0.15**	(0.04)	-0.03	(0.04)	-0.01	(0.04)	0.08	(0.04)	**0.09**	(0.04)	0.02	(0.03)
	Luxembourg	**0.17**	(0.05)	**0.17**	(0.05)	**0.14**	(0.05)	**0.14**	(0.04)	0.08	(0.04)	**0.13**	(0.04)	0.05	(0.04)	-0.01	(0.04)	**0.14**	(0.04)	**0.14**	(0.04)
	Mexico	**0.03**	(0.01)	**0.02**	(0.01)	**0.03**	(0.01)	0.02	(0.01)	**0.04**	(0.01)	0.02	(0.01)	**-0.03**	(0.01)	-0.01	(0.01)	0.02	(0.01)	0.01	(0.01)
	Netherlands	**0.08**	(0.04)	**0.09**	(0.03)	0.07	(0.05)	**0.09**	(0.03)	**0.12**	(0.04)	**0.14**	(0.04)	-0.06	(0.03)	**-0.08**	(0.03)	**0.05**	(0.02)	**0.05**	(0.02)
	New Zealand	0.09	(0.05)	0.07	(0.05)	0.11	(0.06)	0.02	(0.06)	0.01	(0.06)	0.00	(0.05)	-0.05	(0.07)	-0.03	(0.06)	0.09	(0.06)	0.08	(0.06)
	Norway	-0.03	(0.04)	-0.01	(0.03)	-0.01	(0.04)	0.03	(0.03)	0.02	(0.02)	**0.04**	(0.02)	0.04	(0.02)	0.02	(0.02)	-0.06	(0.04)	-0.05	(0.04)
	Poland	-0.11	(0.12)	-0.12	(0.12)	0.06	(0.12)	0.04	(0.10)	0.16	(0.12)	-0.06	(0.10)	-0.16	(0.13)	0.08	(0.09)	-0.11	(0.11)	-0.12	(0.11)
	Portugal	0.01	(0.02)	0.01	(0.02)	0.00	(0.04)	-0.01	(0.03)	0.01	(0.03)	-0.03	(0.02)	0.00	(0.02)	0.03	(0.02)	0.01	(0.02)	0.01	(0.02)
	Slovak Republic	**0.09**	(0.04)	0.08	(0.04)	**0.14**	(0.05)	**0.10**	(0.04)	0.10	(0.05)	0.07	(0.05)	-0.02	(0.05)	0.01	(0.04)	0.02	(0.06)	0.00	(0.06)
	Slovenia	0.17	(0.10)	-0.06	(0.12)	**0.59**	(0.09)	0.13	(0.11)	0.11	(0.11)	**-0.38**	(0.11)	-0.02	(0.11)	**0.38**	(0.13)	**-0.28**	(0.13)	**-0.53**	(0.15)
	Spain	0.01	(0.04)	0.04	(0.04)	-0.02	(0.03)	0.05	(0.03)	0.06	(0.05)	**0.11**	(0.05)	-0.04	(0.05)	-0.07	(0.04)	0.02	(0.04)	0.04	(0.04)
	Sweden	0.00	(0.06)	0.01	(0.05)	0.03	(0.04)	0.04	(0.04)	0.01	(0.03)	0.02	(0.04)	0.07	(0.06)	0.06	(0.06)	-0.02	(0.04)	-0.02	(0.04)
	Switzerland	0.04	(0.03)	**0.06**	(0.03)	-0.01	(0.03)	**0.04**	(0.02)	0.00	(0.02)	**0.06**	(0.02)	0.02	(0.02)	-0.04	(0.02)	**0.05**	(0.02)	**0.05**	(0.02)
	Turkey	**0.22**	(0.04)	**0.17**	(0.04)	**0.32**	(0.04)	**0.14**	(0.03)	**0.24**	(0.03)	**0.12**	(0.03)	**-0.24**	(0.05)	-0.07	(0.05)	**0.16**	(0.04)	**0.10**	(0.04)
	United Kingdom	0.05	(0.03)	**0.06**	(0.03)	0.02	(0.03)	**0.06**	(0.02)	0.02	(0.02)	0.05	(0.03)	0.01	(0.02)	-0.02	(0.02)	**0.06**	(0.03)	**0.06**	(0.03)
	United States	0.02	(0.02)	0.00	(0.02)	**0.07**	(0.02)	0.01	(0.02)	**0.09**	(0.02)	**0.06**	(0.02)	**-0.06**	(0.02)	-0.02	(0.02)	-0.03	(0.02)	-0.04	(0.02)
	OECD average	**0.08**	(0.01)	**0.05**	(0.01)	**0.12**	(0.01)	**0.06**	(0.01)	**0.07**	(0.01)	**0.02**	(0.01)	**-0.03**	(0.01)	0.02	(0.01)	**0.05**	(0.01)	**0.03**	(0.01)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	-0.01	(0.03)	-0.02	(0.02)	**0.04**	(0.02)	0.00	(0.02)	**0.05**	(0.02)	0.00	(0.02)	**-0.07**	(0.02)	-0.02	(0.02)	**0.06**	(0.02)	0.04	(0.02)
	Brazil	0.01	(0.02)	0.01	(0.02)	0.02	(0.02)	0.02	(0.02)	0.01	(0.02)	0.01	(0.02)	-0.01	(0.02)	-0.01	(0.02)	0.00	(0.02)	0.00	(0.02)
	Bulgaria	**0.18**	(0.05)	**0.17**	(0.05)	**0.16**	(0.05)	**0.12**	(0.04)	**0.08**	(0.04)	0.04	(0.04)	**-0.14**	(0.05)	-0.06	(0.06)	**0.17**	(0.06)	**0.13**	(0.06)
	Colombia	**0.04**	(0.02)	**0.04**	(0.02)	**0.04**	(0.02)	0.03	(0.01)	0.00	(0.02)	-0.01	(0.02)	-0.01	(0.01)	0.00	(0.02)	0.01	(0.03)	0.01	(0.03)
	Costa Rica	0.00	(0.07)	0.00	(0.07)	0.05	(0.06)	0.04	(0.05)	0.08	(0.05)	0.05	(0.04)	-0.04	(0.06)	-0.02	(0.06)	0.06	(0.05)	0.05	(0.05)
	Croatia	**0.16**	(0.07)	0.08	(0.07)	**0.59**	(0.07)	**0.16**	(0.05)	**0.32**	(0.08)	-0.03	(0.06)	**-0.27**	(0.07)	0.10	(0.06)	**0.17**	(0.06)	0.11	(0.07)
	Cyprus*	0.00	(0.14)	-0.01	(0.13)	-0.17	(0.12)	-0.18	(0.11)	**-0.25**	(0.11)	-0.12	(0.10)	**0.23**	(0.10)	0.11	(0.09)	-0.04	(0.14)	-0.04	(0.14)
	Hong Kong-China	0.06	(0.04)	0.06	(0.04)	0.08	(0.04)	**0.08**	(0.03)	-0.01	(0.03)	0.00	(0.03)	-0.01	(0.03)	-0.01	(0.03)	0.04	(0.04)	0.04	(0.04)
	Indonesia	**0.03**	(0.02)	**0.03**	(0.01)	**0.05**	(0.02)	**0.04**	(0.02)	**0.03**	(0.01)	**0.03**	(0.01)	-0.02	(0.01)	-0.01	(0.01)	**0.06**	(0.02)	**0.05**	(0.02)
	Jordan	-0.02	(0.04)	-0.01	(0.04)	-0.02	(0.03)	-0.01	(0.02)	-0.02	(0.03)	-0.02	(0.03)	0.03	(0.02)	0.03	(0.02)	-0.01	(0.03)	-0.01	(0.03)
	Kazakhstan	**0.08**	(0.03)	**0.08**	(0.03)	**0.08**	(0.03)	0.05	(0.03)	**0.10**	(0.03)	**0.06**	(0.03)	**-0.09**	(0.03)	-0.03	(0.03)	0.05	(0.04)	0.03	(0.04)
	Latvia	0.03	(0.06)	0.01	(0.06)	**0.11**	(0.05)	0.05	(0.05)	0.08	(0.07)	0.02	(0.07)	-0.06	(0.07)	-0.01	(0.06)	0.05	(0.05)	0.02	(0.06)
	Liechtenstein	0.22	(0.21)	0.22	(0.21)	-0.03	(0.20)	0.00	(0.20)	0.07	(0.14)	0.09	(0.15)	-0.16	(0.10)	**-0.19**	(0.09)	**0.36**	(0.16)	**0.35**	(0.16)
	Lithuania	0.05	(0.06)	0.05	(0.05)	0.08	(0.07)	0.08	(0.05)	0.14	(0.08)	0.09	(0.08)	-0.07	(0.09)	-0.02	(0.08)	0.04	(0.07)	0.02	(0.07)
	Macao-China	-0.06	(0.04)	**-0.12**	(0.04)	**0.13**	(0.04)	0.00	(0.04)	0.01	(0.04)	**-0.09**	(0.04)	-0.04	(0.05)	0.07	(0.05)	-0.06	(0.04)	**-0.08**	(0.04)
	Malaysia	**0.09**	(0.02)	**0.05**	(0.02)	**0.13**	(0.02)	**0.06**	(0.02)	0.05	(0.02)	-0.01	(0.03)	-0.04	(0.02)	0.04	(0.02)	0.06	(0.03)	0.04	(0.03)
	Montenegro	**0.18**	(0.06)	**0.14**	(0.05)	0.15	(0.09)	0.04	(0.06)	**0.15**	(0.05)	0.03	(0.05)	-0.04	(0.07)	**0.09**	(0.05)	0.12	(0.07)	0.01	(0.08)
	Peru	-0.03	(0.02)	-0.03	(0.02)	-0.01	(0.02)	-0.02	(0.02)	0.01	(0.02)	0.00	(0.02)	-0.02	(0.02)	0.00	(0.02)	0.00	(0.02)	-0.01	(0.02)
	Qatar	**0.10**	(0.04)	0.06	(0.04)	0.08	(0.05)	0.01	(0.05)	0.02	(0.04)	-0.02	(0.04)	**-0.17**	(0.04)	**-0.10**	(0.04)	0.05	(0.04)	0.05	(0.04)
	Romania	**-0.23**	(0.04)	**-0.22**	(0.04)	**0.20**	(0.04)	**0.12**	(0.04)	**0.16**	(0.04)	**0.13**	(0.04)	**-0.18**	(0.05)	**-0.11**	(0.04)	**0.44**	(0.06)	**0.39**	(0.06)
	Russian Federation	**0.10**	(0.03)	**0.07**	(0.03)	**0.15**	(0.04)	0.04	(0.03)	**0.08**	(0.04)	0.00	(0.04)	**-0.12**	(0.03)	-0.03	(0.03)	**0.19**	(0.05)	**0.14**	(0.04)
	Serbia	0.11	(0.07)	0.10	(0.06)	0.14	(0.08)	0.09	(0.08)	**0.17**	(0.08)	0.04	(0.08)	-0.05	(0.08)	0.10	(0.08)	**0.41**	(0.07)	**0.38**	(0.07)
	Shanghai-China	**0.05**	(0.02)	0.03	(0.02)	**0.17**	(0.03)	**0.10**	(0.02)	**0.05**	(0.02)	0.02	(0.02)	**-0.06**	(0.02)	-0.03	(0.02)	0.03	(0.03)	0.01	(0.03)
	Singapore	**0.09**	(0.03)	**0.07**	(0.03)	**0.26**	(0.03)	0.04	(0.03)	**0.19**	(0.02)	**0.08**	(0.02)	**-0.17**	(0.02)	-0.03	(0.03)	**0.08**	(0.03)	**0.10**	(0.03)
	Chinese Taipei	**0.12**	(0.03)	0.02	(0.03)	**0.27**	(0.03)	0.05	(0.03)	**0.16**	(0.03)	-0.02	(0.03)	**-0.10**	(0.03)	0.01	(0.04)	**0.17**	(0.03)	**0.06**	(0.03)
	Thailand	**0.11**	(0.02)	**0.09**	(0.02)	**0.15**	(0.02)	**0.08**	(0.02)	**0.06**	(0.02)	0.03	(0.02)	**-0.09**	(0.02)	-0.04	(0.02)	**0.16**	(0.03)	**0.11**	(0.03)
	Tunisia	0.04	(0.03)	0.04	(0.02)	0.03	(0.02)	0.02	(0.02)	**0.06**	(0.03)	0.04	(0.02)	-0.03	(0.02)	-0.02	(0.02)	**0.06**	(0.02)	**0.05**	(0.02)
	United Arab Emirates	**0.04**	(0.02)	**0.03**	(0.02)	**0.03**	(0.02)	0.02	(0.01)	**0.04**	(0.01)	**0.04**	(0.01)	-0.01	(0.01)	-0.01	(0.01)	0.01	(0.01)	0.01	(0.01)
	Uruguay	-0.03	(0.04)	-0.03	(0.04)	0.02	(0.05)	-0.02	(0.04)	**0.16**	(0.06)	**0.12**	(0.05)	**-0.13**	(0.05)	**-0.09**	(0.04)	-0.02	(0.05)	-0.04	(0.05)
	Viet Nam	0.03	(0.02)	0.04	(0.02)	0.03	(0.02)	**0.03**	(0.02)	0.03	(0.03)	0.03	(0.03)	-0.03	(0.02)	-0.03	(0.02)	**0.09**	(0.04)	**0.10**	(0.04)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.5.23 Relationship between learning time in school and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with learning time in school (per 100 minutes):																			
		Arriving late for school				Skipping classes or days of school				Sense of belonging				Perseverance				Openness to problem solving			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	**-0.7**	(0.3)	-0.4	(0.3)	**-0.9**	0.3	-0.5	0.3	**0.02**	(0.01)	0.02	(0.01)	**0.02**	(0.01)	0.01	(0.01)	**0.03**	(0.01)	0.01	(0.01)
	Austria	-0.8	(0.4)	-0.6	(0.4)	-0.6	0.4	-0.4	0.4	-0.03	(0.02)	-0.03	(0.02)	**0.06**	(0.01)	**0.05**	(0.01)	**0.06**	(0.01)	**0.04**	(0.01)
	Belgium	-0.7	(0.4)	0.2	(0.4)	-0.2	0.3	0.5	0.3	0.00	(0.01)	-0.01	(0.01)	0.01	(0.01)	-0.01	(0.01)	**0.04**	(0.01)	**0.02**	(0.01)
	Canada	0.1	(0.2)	0.2	(0.2)	0.2	0.2	0.3	0.2	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	0.00	(0.01)	-0.01	(0.01)
	Chile	0.2	(0.2)	0.2	(0.2)	0.1	0.1	0.1	0.1	-0.01	(0.01)	-0.01	(0.01)	0.00	(0.00)	0.01	(0.00)	0.01	(0.00)	0.01	(0.00)
	Czech Republic	**-2.1**	(0.5)	**-1.5**	(0.5)	**-1.2**	0.4	**-0.9**	0.4	**0.04**	(0.02)	0.03	(0.02)	0.02	(0.02)	0.02	(0.02)	**0.05**	(0.02)	0.02	(0.02)
	Denmark	0.5	(0.4)	0.5	(0.4)	0.6	0.3	0.5	0.3	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)
	Estonia	-0.2	(0.7)	0.4	(0.7)	-0.8	0.7	0.5	0.7	**0.03**	(0.02)	**0.03**	(0.02)	0.00	(0.02)	0.00	(0.02)	**0.07**	(0.02)	0.04	(0.02)
	Finland	-1.1	(0.8)	0.0	(0.8)	0.3	0.6	1.1	0.6	0.01	(0.02)	0.01	(0.02)	**0.06**	(0.02)	0.02	(0.02)	**0.05**	(0.02)	0.00	(0.02)
	France	**-2.1**	(0.3)	**-1.3**	(0.3)	-0.6	0.4	-0.2	0.4	**0.02**	(0.01)	0.02	(0.01)	0.02	(0.01)	-0.01	(0.01)	**0.04**	(0.01)	0.01	(0.01)
	Germany	1.1	(0.6)	1.1	(0.6)	-0.1	0.3	-0.1	0.3	0.01	(0.01)	0.01	(0.01)	**0.03**	(0.01)	**0.03**	(0.01)	**0.03**	(0.01)	**0.03**	(0.01)
	Greece	-0.7	(0.6)	-0.5	(0.7)	**-2.4**	0.6	**-1.8**	0.7	-0.03	(0.02)	-0.03	(0.02)	0.00	(0.02)	**-0.04**	(0.02)	**0.03**	(0.02)	-0.02	(0.01)
	Hungary	-0.5	(0.8)	0.1	(0.8)	-0.6	0.5	-0.1	0.5	0.01	(0.02)	0.00	(0.02)	0.01	(0.01)	0.00	(0.01)	**0.06**	(0.02)	**0.05**	(0.02)
	Iceland	-0.8	(0.5)	-0.9	(0.5)	0.2	0.4	0.2	0.4	0.00	(0.02)	0.00	(0.02)	-0.01	(0.01)	-0.01	(0.01)	-0.01	(0.02)	-0.01	(0.01)
	Ireland	-0.6	(0.9)	-0.1	(0.9)	**-2.4**	0.7	**-2.3**	0.7	-0.04	(0.02)	-0.03	(0.03)	0.04	(0.02)	0.02	(0.02)	0.04	(0.02)	0.01	(0.02)
	Israel	**-1.0**	(0.5)	-0.9	(0.5)	**-2.1**	0.5	**-2.1**	0.5	0.02	(0.02)	0.02	(0.02)	0.02	(0.02)	0.02	(0.02)	**0.04**	(0.01)	**0.03**	(0.01)
	Italy	**0.7**	(0.3)	**0.9**	(0.3)	**1.3**	0.4	**1.5**	0.4	0.00	(0.01)	0.00	(0.01)	**0.03**	(0.01)	**0.03**	(0.01)	**0.03**	(0.01)	**0.02**	(0.01)
	Japan	**-0.7**	(0.3)	-0.2	(0.4)	**-0.6**	0.3	0.1	0.3	0.02	(0.01)	0.02	(0.02)	**0.05**	(0.01)	0.01	(0.01)	**0.06**	(0.02)	-0.01	(0.02)
	Korea	**-2.0**	(0.5)	-0.8	(0.5)	-0.2	0.2	0.4	0.3	0.01	(0.02)	0.00	(0.02)	0.02	(0.01)	-0.01	(0.01)	0.03	(0.02)	-0.01	(0.01)
	Luxembourg	0.8	(0.6)	0.9	(0.6)	**1.1**	0.4	**1.3**	0.4	**-0.05**	(0.02)	**-0.05**	(0.02)	0.01	(0.02)	0.00	(0.01)	**0.03**	(0.02)	0.02	(0.02)
	Mexico	0.0	(0.2)	0.2	(0.2)	**-0.4**	0.2	-0.2	0.2	**0.01**	(0.00)	**0.01**	(0.00)	0.01	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)
	Netherlands	0.0	(0.4)	0.0	(0.4)	0.1	0.3	0.1	0.3	0.00	(0.01)	0.00	(0.01)	0.01	(0.01)	0.01	(0.01)	**0.03**	(0.01)	**0.03**	(0.01)
	New Zealand	**-2.5**	(0.7)	**-1.3**	(0.6)	**-1.7**	0.7	-0.1	0.6	0.00	(0.02)	0.00	(0.02)	**0.03**	(0.01)	0.00	(0.01)	**0.05**	(0.02)	0.01	(0.02)
	Norway	-0.6	(0.5)	-0.7	(0.5)	0.1	0.4	-0.1	0.4	-0.02	(0.01)	-0.02	(0.01)	-0.02	(0.02)	-0.02	(0.01)	0.00	(0.02)	0.01	(0.02)
	Poland	0.9	(1.8)	1.7	(1.9)	0.6	1.9	1.4	1.9	0.01	(0.04)	0.01	(0.04)	-0.04	(0.05)	-0.05	(0.04)	-0.03	(0.06)	-0.04	(0.06)
	Portugal	-0.4	(0.4)	-0.2	(0.3)	**-0.9**	0.3	-0.4	0.3	0.01	(0.01)	0.00	(0.01)	0.02	(0.01)	0.00	(0.01)	**0.03**	(0.01)	0.01	(0.01)
	Slovak Republic	**-1.8**	(0.4)	**-1.3**	(0.5)	**-1.2**	0.4	**-0.8**	0.4	0.00	(0.01)	-0.01	(0.01)	**0.04**	(0.02)	0.02	(0.02)	0.02	(0.02)	0.00	(0.02)
	Slovenia	**-4.2**	(0.8)	**-3.2**	(0.9)	**-4.1**	0.8	**-2.2**	0.9	**0.07**	(0.02)	**0.07**	(0.02)	0.02	(0.02)	0.00	(0.02)	0.03	(0.02)	-0.03	(0.02)
	Spain	**-1.3**	(0.4)	**-0.9**	(0.4)	-0.2	0.5	0.4	0.5	**0.04**	(0.01)	**0.05**	(0.01)	**0.07**	(0.01)	**0.06**	(0.01)	**0.05**	(0.01)	**0.03**	(0.01)
	Sweden	-0.6	(0.7)	-0.7	(0.8)	-0.7	0.6	-0.7	0.6	0.01	(0.02)	0.01	(0.02)	0.01	(0.01)	0.01	(0.01)	0.04	(0.03)	0.04	(0.04)
	Switzerland	0.4	(0.3)	0.3	(0.3)	0.3	0.3	0.2	0.3	-0.01	(0.01)	-0.01	(0.01)	0.00	(0.01)	0.00	(0.01)	0.01	(0.01)	0.01	(0.01)
	Turkey	**-1.5**	(0.5)	**-1.3**	(0.6)	-0.2	0.5	-0.8	0.6	0.02	(0.01)	0.02	(0.02)	**0.05**	(0.02)	0.01	(0.02)	**0.06**	(0.01)	**0.04**	(0.01)
	United Kingdom	-0.1	(0.4)	0.1	(0.4)	**-0.7**	0.3	-0.5	0.3	**0.02**	(0.01)	0.02	(0.01)	**0.05**	(0.01)	**0.04**	(0.01)	**0.03**	(0.01)	0.02	(0.01)
	United States	**-0.6**	(0.3)	-0.2	(0.3)	-0.3	0.2	-0.2	0.2	0.00	(0.01)	0.00	(0.01)	0.01	(0.01)	0.00	(0.01)	**0.02**	(0.01)	0.00	(0.01)
	OECD average	**-0.7**	(0.1)	**-0.3**	(0.1)	**-0.5**	0.1	-0.2	0.1	**0.01**	(0.00)	0.00	(0.00)	**0.02**	(0.00)	**0.01**	(0.00)	**0.03**	(0.00)	**0.01**	(0.00)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	-0.6	(0.3)	-0.1	(0.3)	-0.5	0.3	-0.2	0.3	0.00	(0.01)	0.00	(0.01)	0.01	(0.01)	0.00	(0.01)	0.01	(0.01)	0.00	(0.01)
	Brazil	0.5	(0.3)	**0.6**	(0.3)	**-0.7**	0.3	**-0.6**	0.3	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	0.02	(0.01)	0.01	(0.01)
	Bulgaria	-0.5	(0.7)	-0.6	(0.7)	0.0	0.7	-0.2	0.7	-0.03	(0.02)	-0.03	(0.02)	-0.02	(0.02)	-0.02	(0.02)	0.02	(0.01)	0.02	(0.01)
	Colombia	-0.1	(0.3)	0.0	(0.3)	-0.1	0.3	-0.1	0.3	**0.02**	(0.01)	0.02	(0.01)	0.01	(0.01)	0.00	(0.01)	0.01	(0.01)	0.01	(0.01)
	Costa Rica	-0.4	(0.7)	-0.2	(0.7)	-0.8	0.8	-0.6	0.9	0.02	(0.03)	0.02	(0.03)	-0.03	(0.02)	**-0.05**	(0.02)	0.03	(0.02)	0.00	(0.02)
	Croatia	**-3.7**	(0.6)	**-2.5**	(0.8)	**-6.5**	0.6	**-4.2**	0.6	0.03	(0.02)	0.02	(0.02)	0.02	(0.01)	0.00	(0.01)	**0.03**	(0.01)	-0.02	(0.01)
	Cyprus*	-0.2	(0.7)	0.6	(0.8)	-1.4	0.7	-0.6	0.8	0.03	(0.02)	0.03	(0.02)	**0.06**	(0.02)	0.04	(0.03)	**0.08**	(0.02)	**0.04**	(0.02)
	Hong Kong-China	-0.3	(0.3)	0.1	(0.3)	-0.3	0.2	0.0	0.2	0.00	(0.01)	0.00	(0.01)	0.02	(0.01)	0.01	(0.01)	**0.03**	(0.01)	0.02	(0.01)
	Indonesia	-0.4	(0.2)	-0.3	(0.2)	**-0.6**	0.2	-0.4	0.2	0.00	(0.01)	0.00	(0.01)	**0.02**	(0.01)	**0.02**	(0.01)	**0.02**	(0.00)	**0.02**	(0.00)
	Jordan	-0.2	(0.4)	-0.1	(0.4)	-0.5	0.4	-0.3	0.4	**0.03**	(0.01)	0.02	(0.01)	**0.03**	(0.01)	**0.02**	(0.01)	0.00	(0.01)	-0.01	(0.01)
	Kazakhstan	**-0.7**	(0.3)	-0.6	(0.3)	**-1.4**	0.4	**-1.1**	0.4	**0.05**	(0.01)	**0.04**	(0.01)	**0.03**	(0.01)	**0.03**	(0.01)	0.02	(0.01)	0.02	(0.01)
	Latvia	-1.5	(0.8)	-1.3	(0.8)	-1.1	0.7	-0.5	0.7	-0.01	(0.01)	0.00	(0.02)	**0.04**	(0.02)	0.02	(0.02)	**0.07**	(0.02)	**0.04**	(0.02)
	Liechtenstein	-0.1	(1.2)	-0.1	(1.3)	**2.8**	1.4	**2.8**	1.3	0.01	(0.10)	0.01	(0.09)	**0.08**	(0.02)	**0.08**	(0.02)	**0.07**	(0.02)	**0.06**	(0.02)
	Lithuania	**-2.3**	(1.0)	-1.5	(1.0)	**-2.0**	0.9	-0.5	0.9	**0.07**	(0.03)	0.05	(0.03)	0.05	(0.02)	0.03	(0.02)	**0.06**	(0.02)	0.02	(0.02)
	Macao-China	**-1.5**	(0.4)	0.0	(0.4)	**-0.7**	0.2	0.0	0.2	0.00	(0.01)	0.00	(0.01)	**0.03**	(0.01)	0.00	(0.01)	**0.05**	(0.01)	0.00	(0.01)
	Malaysia	**-1.1**	(0.4)	-0.5	(0.4)	**-1.3**	0.4	**-0.9**	0.4	0.02	(0.01)	0.01	(0.01)	0.00	(0.01)	0.00	(0.01)	0.01	(0.01)	0.00	(0.01)
	Montenegro	**-2.8**	(1.0)	**-2.4**	(0.9)	-0.3	0.8	0.2	0.8	-0.01	(0.02)	0.00	(0.02)	**0.07**	(0.03)	0.02	(0.03)	-0.02	(0.03)	-0.03	(0.03)
	Peru	-0.4	(0.3)	-0.3	(0.3)	0.0	0.2	0.2	0.2	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	0.00	(0.01)	**0.01**	(0.01)	0.01	(0.01)
	Qatar	-0.7	(0.4)	-0.3	(0.4)	**-0.9**	0.3	**-0.9**	0.3	0.00	(0.01)	0.00	(0.01)	0.02	(0.01)	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)
	Romania	**-2.5**	(0.6)	**-2.4**	(0.6)	**-1.7**	0.5	-0.6	0.5	0.03	(0.01)	0.02	(0.02)	**0.03**	(0.01)	0.02	(0.02)	**0.04**	(0.01)	0.02	(0.01)
	Russian Federation	-0.6	(0.5)	0.2	(0.5)	-0.4	0.5	0.2	0.5	0.02	(0.01)	0.02	(0.01)	0.01	(0.01)	0.00	(0.01)	0.01	(0.01)	-0.02	(0.01)
	Serbia	-0.5	(0.7)	-0.2	(0.7)	-0.2	0.7	0.2	0.7	0.02	(0.02)	0.02	(0.02)	0.02	(0.02)	0.02	(0.02)	0.03	(0.02)	0.02	(0.02)
	Shanghai-China	-0.3	(0.3)	0.2	(0.3)	**-0.4**	0.1	**-0.3**	0.1	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	**0.03**	(0.01)	0.01	(0.01)
	Singapore	**-2.5**	(0.5)	-0.9	(0.5)	**-1.9**	0.3	**-1.3**	0.4	0.02	(0.01)	0.01	(0.01)	0.02	(0.01)	0.01	(0.01)	**0.02**	(0.01)	-0.02	(0.01)
	Chinese Taipei	-0.5	(0.4)	0.4	(0.4)	**-2.2**	0.3	**-1.6**	0.3	0.00	(0.01)	0.01	(0.01)	**0.02**	(0.01)	0.00	(0.01)	**0.05**	(0.01)	**0.02**	(0.01)
	Thailand	**-2.8**	(0.4)	**-2.2**	(0.4)	**-3.6**	0.4	**-3.0**	0.4	**0.03**	(0.01)	0.01	(0.01)	**0.04**	(0.01)	**0.02**	(0.01)	**0.02**	(0.01)	0.00	(0.01)
	Tunisia	-0.1	(0.3)	0.0	(0.3)	-0.3	0.3	-0.2	0.3	**0.03**	(0.01)	**0.03**	(0.01)	0.00	(0.01)	0.00	(0.01)	0.01	(0.01)	0.00	(0.01)
	United Arab Emirates	**-0.5**	(0.2)	-0.2	(0.2)	**-0.5**	0.2	-0.2	0.2	0.00	(0.01)	0.00	(0.01)	**0.02**	(0.01)	**0.01**	(0.01)	**0.02**	(0.01)	**0.02**	(0.01)
	Uruguay	0.1	(0.5)	0.2	(0.5)	-0.5	0.4	-0.4	0.4	0.00	(0.02)	0.00	(0.02)	0.00	(0.02)	0.00	(0.02)	0.01	(0.02)	0.00	(0.01)
	Viet Nam	-0.5	(0.4)	-0.3	(0.4)	-0.5	0.3	-0.2	0.3	0.00	(0.01)	0.00	(0.01)	0.01	(0.01)	0.01	(0.01)	0.02	(0.01)	0.01	(0.01)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.5.23 Relationship between learning time in school and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with learning time in school (per 100 minutes):																			
		Intrinsic motivation to learn mathematics				Mathematics self-efficacy				Mathematics self-concept				Mathematics anxiety				Mathematics intentions			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	Australia	**0.02**	(0.01)	0.01	(0.01)	**0.03**	(0.01)	0.01	(0.01)	**0.05**	(0.01)	**0.02**	(0.01)	**-0.04**	(0.01)	-0.01	(0.01)	0.00	(0.01)	0.00	(0.01)
	Austria	**0.05**	(0.02)	**0.04**	(0.02)	**0.07**	(0.02)	**0.03**	(0.01)	**0.04**	(0.01)	0.02	(0.01)	-0.02	(0.02)	0.00	(0.01)	-0.02	(0.02)	-0.02	(0.02)
	Belgium	**0.07**	(0.01)	**0.06**	(0.01)	**0.11**	(0.01)	**0.06**	(0.01)	**0.03**	(0.01)	-0.01	(0.01)	0.02	(0.01)	**0.06**	(0.01)	-0.02	(0.01)	**-0.03**	(0.01)
	Canada	0.00	(0.00)	0.00	(0.00)	0.01	(0.01)	0.00	(0.00)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.00)	-0.01	(0.00)
	Chile	0.01	(0.00)	0.01	(0.00)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.01)	0.00	(0.01)
	Czech Republic	0.03	(0.02)	0.01	(0.02)	**0.07**	(0.01)	0.02	(0.01)	**0.08**	(0.02)	0.01	(0.02)	**-0.07**	(0.02)	-0.01	(0.02)	0.04	(0.02)	0.01	(0.02)
	Denmark	0.00	(0.01)	0.01	(0.01)	0.01	(0.01)	**0.01**	(0.01)	0.00	(0.01)	0.00	(0.01)	0.01	(0.01)	0.00	(0.01)	0.01	(0.01)	0.01	(0.01)
	Estonia	**0.04**	(0.02)	0.02	(0.02)	**0.07**	(0.02)	0.03	(0.02)	**0.07**	(0.02)	0.00	(0.02)	**-0.06**	(0.02)	0.01	(0.02)	0.01	(0.02)	0.00	(0.02)
	Finland	0.01	(0.02)	-0.02	(0.02)	**0.06**	(0.02)	0.00	(0.02)	**0.07**	(0.03)	-0.03	(0.02)	**-0.06**	(0.02)	0.02	(0.02)	-0.03	(0.02)	**-0.06**	(0.02)
	France	0.01	(0.01)	-0.01	(0.01)	**0.04**	(0.01)	0.00	(0.01)	**0.04**	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.02	(0.01)	-0.01	(0.01)	-0.01	(0.01)
	Germany	**0.03**	(0.01)	**0.03**	(0.01)	**0.04**	(0.01)	**0.04**	(0.01)	0.02	(0.02)	0.02	(0.02)	0.01	(0.02)	0.01	(0.02)	0.00	(0.02)	0.00	(0.02)
	Greece	0.03	(0.02)	-0.03	(0.02)	**0.05**	(0.02)	-0.03	(0.02)	0.03	(0.02)	**-0.04**	(0.02)	-0.02	(0.02)	**0.05**	(0.02)	0.03	(0.02)	0.00	(0.02)
	Hungary	**0.04**	(0.02)	0.03	(0.02)	0.05	(0.03)	0.01	(0.02)	0.01	(0.02)	-0.02	(0.02)	-0.02	(0.02)	0.01	(0.02)	-0.01	(0.02)	-0.03	(0.02)
	Iceland	-0.01	(0.01)	-0.01	(0.01)	0.01	(0.02)	0.01	(0.02)	-0.01	(0.02)	0.00	(0.02)	0.02	(0.02)	0.01	(0.02)	-0.03	(0.02)	-0.03	(0.02)
	Ireland	**0.08**	(0.02)	**0.06**	(0.02)	**0.16**	(0.02)	**0.12**	(0.02)	**0.05**	(0.02)	0.02	(0.02)	-0.04	(0.02)	-0.01	(0.02)	0.01	(0.03)	0.01	(0.03)
	Israel	**0.04**	(0.02)	**0.04**	(0.02)	**0.05**	(0.01)	**0.03**	(0.01)	0.02	(0.01)	0.00	(0.01)	-0.01	(0.02)	0.01	(0.02)	0.02	(0.01)	0.01	(0.01)
	Italy	**0.07**	(0.01)	**0.07**	(0.01)	**0.05**	(0.01)	**0.04**	(0.01)	**0.05**	(0.01)	**0.04**	(0.01)	-0.01	(0.01)	-0.01	(0.01)	**0.05**	(0.01)	**0.05**	(0.01)
	Japan	**0.08**	(0.02)	0.00	(0.02)	**0.16**	(0.02)	**0.03**	(0.01)	0.02	(0.01)	**-0.06**	(0.02)	0.00	(0.02)	**0.06**	(0.02)	0.01	(0.01)	-0.02	(0.02)
	Korea	**0.07**	(0.02)	0.02	(0.02)	**0.12**	(0.02)	**0.04**	(0.01)	**0.07**	(0.01)	-0.01	(0.01)	-0.02	(0.02)	0.01	(0.02)	**0.04**	(0.01)	0.00	(0.01)
	Luxembourg	**0.08**	(0.02)	**0.07**	(0.02)	**0.08**	(0.02)	**0.05**	(0.02)	**0.04**	(0.02)	**0.04**	(0.02)	0.01	(0.02)	0.01	(0.02)	0.03	(0.02)	0.03	(0.02)
	Mexico	**0.01**	(0.00)	**0.01**	(0.00)	**0.02**	(0.00)	0.01	(0.00)	**0.02**	(0.00)	0.01	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.01)	0.00	(0.01)
	Netherlands	**0.04**	(0.01)	**0.04**	(0.01)	**0.03**	(0.01)	**0.03**	(0.01)	**0.03**	(0.01)	**0.03**	(0.01)	**-0.03**	(0.01)	**-0.03**	(0.01)	**-0.05**	(0.01)	**-0.05**	(0.01)
	New Zealand	**0.04**	(0.01)	**0.03**	(0.01)	**0.08**	(0.02)	0.01	(0.02)	**0.04**	(0.02)	-0.01	(0.02)	**-0.05**	(0.02)	0.01	(0.01)	0.00	(0.02)	-0.01	(0.02)
	Norway	0.00	(0.02)	0.01	(0.02)	0.00	(0.02)	0.01	(0.01)	0.01	(0.01)	0.02	(0.01)	0.00	(0.01)	0.00	(0.01)	-0.02	(0.02)	-0.02	(0.02)
	Poland	0.02	(0.05)	0.00	(0.05)	0.08	(0.06)	0.04	(0.04)	0.10	(0.07)	0.01	(0.04)	-0.13	(0.07)	-0.04	(0.04)	0.03	(0.05)	0.01	(0.05)
	Portugal	**0.03**	(0.01)	**0.02**	(0.00)	**0.05**	(0.01)	0.01	(0.01)	**0.03**	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)
	Slovak Republic	**0.04**	(0.01)	**0.03**	(0.01)	**0.07**	(0.02)	**0.03**	(0.01)	**0.05**	(0.01)	0.01	(0.01)	-0.03	(0.01)	0.01	(0.01)	-0.02	(0.02)	**-0.04**	(0.02)
	Slovenia	0.01	(0.02)	-0.04	(0.02)	**0.07**	(0.02)	-0.02	(0.02)	**0.07**	(0.02)	-0.02	(0.02)	-0.02	(0.02)	**0.06**	(0.02)	**-0.07**	(0.03)	**-0.12**	(0.03)
	Spain	**0.06**	(0.01)	**0.05**	(0.01)	**0.04**	(0.01)	**0.02**	(0.01)	**0.09**	(0.01)	**0.06**	(0.01)	**-0.06**	(0.01)	**-0.04**	(0.01)	0.00	(0.01)	-0.01	(0.01)
	Sweden	-0.02	(0.02)	-0.02	(0.02)	0.02	(0.01)	0.02	(0.02)	0.01	(0.01)	0.02	(0.02)	0.02	(0.02)	0.01	(0.02)	-0.02	(0.02)	-0.02	(0.01)
	Switzerland	0.00	(0.01)	0.01	(0.01)	0.00	(0.01)	**0.01**	(0.01)	0.01	(0.01)	0.02	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.00	(0.01)	0.00	(0.01)
	Turkey	**0.11**	(0.01)	**0.09**	(0.02)	**0.14**	(0.01)	**0.07**	(0.01)	**0.13**	(0.01)	**0.09**	(0.01)	**-0.14**	(0.01)	**-0.08**	(0.02)	0.03	(0.02)	0.00	(0.02)
	United Kingdom	**0.03**	(0.01)	**0.02**	(0.01)	**0.04**	(0.01)	**0.02**	(0.01)	**0.03**	(0.01)	**0.02**	(0.01)	**-0.02**	(0.01)	-0.01	(0.01)	0.00	(0.01)	0.00	(0.01)
	United States	0.01	(0.01)	0.00	(0.01)	**0.03**	(0.01)	0.00	(0.01)	**0.04**	(0.01)	**0.02**	(0.01)	**-0.03**	(0.01)	0.00	(0.01)	-0.01	(0.01)	-0.02	(0.01)
	OECD average	**0.03**	(0.00)	**0.02**	(0.00)	**0.06**	(0.00)	**0.02**	(0.00)	**0.04**	(0.00)	**0.01**	(0.00)	**-0.02**	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)
Partners	Albania	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	-0.01	(0.01)	-0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)	**-0.02**	(0.01)	-0.01	(0.01)	0.01	(0.01)	0.00	(0.01)
	Brazil	**0.01**	(0.01)	0.01	(0.01)	**0.03**	(0.01)	0.01	(0.01)	**0.02**	(0.01)	0.00	(0.01)	**-0.01**	(0.01)	0.00	(0.01)	-0.01	(0.01)	**-0.02**	(0.01)
	Bulgaria	0.01	(0.02)	0.01	(0.02)	0.02	(0.01)	**0.03**	(0.01)	0.02	(0.02)	0.02	(0.02)	-0.03	(0.03)	-0.04	(0.02)	-0.03	(0.02)	-0.03	(0.02)
	Colombia	0.02	(0.01)	0.02	(0.01)	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	-0.01	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)
	Costa Rica	0.02	(0.02)	0.02	(0.03)	0.03	(0.02)	0.02	(0.02)	**0.08**	(0.02)	**0.05**	(0.02)	**-0.06**	(0.03)	-0.03	(0.02)	0.03	(0.02)	0.03	(0.02)
	Croatia	0.03	(0.02)	-0.01	(0.02)	**0.18**	(0.02)	**0.03**	(0.02)	**0.06**	(0.02)	**-0.07**	(0.02)	**-0.07**	(0.02)	**0.06**	(0.02)	**-0.05**	(0.02)	**-0.10**	(0.02)
	Cyprus*	**0.05**	(0.02)	0.01	(0.02)	**0.11**	(0.02)	0.03	(0.02)	**0.06**	(0.02)	0.00	(0.02)	**-0.07**	(0.02)	-0.01	(0.02)	-0.03	(0.02)	**-0.06**	(0.02)
	Hong Kong-China	**0.07**	(0.01)	**0.05**	(0.01)	**0.07**	(0.01)	**0.03**	(0.01)	**0.03**	(0.01)	0.02	(0.01)	**-0.04**	(0.01)	**-0.03**	(0.01)	-0.01	(0.01)	**-0.03**	(0.01)
	Indonesia	0.01	(0.01)	0.01	(0.01)	**0.02**	(0.01)	**0.02**	(0.01)	**0.01**	(0.00)	**0.01**	(0.00)	-0.01	(0.00)	-0.01	(0.00)	0.00	(0.01)	0.00	(0.01)
	Jordan	0.01	(0.01)	0.00	(0.01)	0.01	(0.01)	0.00	(0.01)	0.02	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.00	(0.01)	**-0.02**	(0.01)	-0.02	(0.01)
	Kazakhstan	**0.03**	(0.01)	**0.03**	(0.01)	**0.03**	(0.01)	**0.03**	(0.01)	**0.06**	(0.01)	**0.05**	(0.01)	**-0.05**	(0.01)	**-0.04**	(0.01)	-0.02	(0.01)	-0.02	(0.01)
	Latvia	0.02	(0.02)	0.00	(0.02)	**0.06**	(0.01)	0.00	(0.01)	0.03	(0.01)	**-0.04**	(0.01)	**-0.04**	(0.02)	0.02	(0.02)	-0.01	(0.02)	-0.04	(0.02)
	Liechtenstein	**0.10**	(0.03)	**0.10**	(0.03)	**0.06**	(0.02)	0.05	(0.03)	0.08	(0.08)	0.08	(0.08)	**-0.16**	(0.07)	**-0.16**	(0.07)	0.04	(0.03)	0.05	(0.03)
	Lithuania	**0.08**	(0.03)	0.05	(0.03)	**0.09**	(0.02)	0.03	(0.02)	0.05	(0.03)	-0.02	(0.03)	**-0.07**	(0.03)	0.00	(0.03)	0.05	(0.03)	0.02	(0.03)
	Macao-China	**0.06**	(0.01)	0.03	(0.01)	**0.10**	(0.01)	0.02	(0.01)	**0.05**	(0.01)	0.00	(0.01)	**-0.05**	(0.01)	0.01	(0.01)	**-0.04**	(0.01)	**-0.05**	(0.01)
	Malaysia	**0.02**	(0.01)	0.01	(0.01)	**0.02**	(0.01)	0.00	(0.01)	-0.01	(0.01)	-0.02	(0.01)	0.01	(0.01)	**0.02**	(0.01)	**0.03**	(0.01)	**0.03**	(0.01)
	Montenegro	**0.09**	(0.02)	**0.07**	(0.02)	**0.08**	(0.03)	0.03	(0.03)	**0.04**	(0.02)	0.00	(0.02)	-0.01	(0.03)	**0.04**	(0.02)	0.05	(0.03)	0.02	(0.03)
	Peru	-0.01	(0.01)	-0.01	(0.01)	-0.01	(0.01)	-0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.00	(0.01)	0.00	(0.01)	-0.01	(0.01)
	Qatar	0.01	(0.01)	0.00	(0.01)	0.01	(0.01)	0.00	(0.01)	**0.03**	(0.01)	**0.02**	(0.01)	**-0.03**	(0.01)	-0.02	(0.01)	0.01	(0.01)	0.01	(0.01)
	Romania	**-0.04**	(0.01)	**-0.03**	(0.01)	**0.08**	(0.01)	**0.03**	(0.01)	**0.04**	(0.01)	0.02	(0.01)	**-0.07**	(0.01)	**-0.03**	(0.01)	**0.05**	(0.02)	0.02	(0.02)
	Russian Federation	0.02	(0.01)	0.01	(0.01)	**0.05**	(0.01)	0.01	(0.01)	**0.02**	(0.01)	-0.01	(0.01)	**-0.05**	(0.01)	-0.01	(0.01)	0.01	(0.02)	-0.01	(0.01)
	Serbia	**0.04**	(0.01)	**0.03**	(0.01)	**0.06**	(0.02)	**0.04**	(0.02)	0.03	(0.02)	0.00	(0.02)	**-0.04**	(0.02)	0.00	(0.01)	0.01	(0.02)	0.00	(0.02)
	Shanghai-China	**0.03**	(0.01)	**0.02**	(0.01)	**0.08**	(0.01)	**0.04**	(0.01)	**0.04**	(0.01)	**0.02**	(0.01)	**-0.04**	(0.01)	**-0.02**	(0.01)	**0.03**	(0.01)	0.01	(0.01)
	Singapore	**0.05**	(0.01)	**0.03**	(0.01)	**0.17**	(0.02)	**0.03**	(0.01)	**0.10**	(0.01)	**0.03**	(0.01)	**-0.10**	(0.01)	-0.02	(0.01)	-0.02	(0.01)	-0.02	(0.02)
	Chinese Taipei	**0.05**	(0.01)	0.01	(0.01)	**0.10**	(0.01)	**0.03**	(0.01)	**0.05**	(0.01)	0.00	(0.01)	**-0.04**	(0.01)	0.00	(0.01)	**0.03**	(0.01)	-0.01	(0.01)
	Thailand	**0.05**	(0.01)	**0.04**	(0.01)	**0.06**	(0.01)	**0.04**	(0.01)	**0.02**	(0.01)	0.01	(0.01)	**-0.04**	(0.01)	**-0.02**	(0.01)	**0.03**	(0.01)	0.01	(0.01)
	Tunisia	0.01	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	0.01	(0.01)	0.01	(0.01)	-0.01	(0.01)	-0.01	(0.01)	0.01	(0.01)	0.00	(0.01)
	United Arab Emirates	0.01	(0.01)	0.01	(0.01)	**0.02**	(0.01)	0.01	(0.01)	**0.03**	(0.01)	**0.02**	(0.01)	**-0.02**	(0.01)	-0.01	(0.01)	**-0.01**	(0.01)	**-0.01**	(0.01)
	Uruguay	-0.01	(0.01)	-0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	**0.05**	(0.02)	0.03	(0.02)	**-0.06**	(0.01)	**-0.04**	(0.01)	-0.03	(0.02)	-0.03	(0.02)
	Viet Nam	0.00	(0.01)	0.00	(0.01)	0.01	(0.01)	0.00	(0.01)	0.01	(0.01)	0.00	(0.01)	**-0.02**	(0.01)	-0.01	(0.01)	**0.02**	(0.01)	0.02	(0.01)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.5.24 Relationship between the presence of ability grouping in school and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with ability grouping:																			
		Arriving late for school				Skipping classes or days of school				Sense of belonging				Perseverance				Openness to problem solving			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	-1.3	(1.1)	-1.3	(1.1)	-1.5	1.1	-1.4	1.0	-0.02	(0.03)	-0.02	(0.03)	-0.02	(0.02)	-0.03	(0.02)	-0.04	(0.02)	**-0.05**	(0.02)
	Austria	0.5	(4.3)	-1.2	(3.9)	5.3	3.3	4.2	2.9	0.04	(0.14)	0.06	(0.13)	-0.02	(0.08)	0.04	(0.08)	-0.13	(0.08)	-0.06	(0.09)
	Belgium	1.1	(1.1)	0.8	(1.0)	0.9	1.1	0.7	1.0	-0.02	(0.03)	-0.02	(0.03)	0.04	(0.04)	0.04	(0.03)	0.02	(0.03)	0.01	(0.03)
	Canada	**3.7**	(1.4)	**3.6**	(1.3)	0.0	1.1	-0.2	1.0	0.01	(0.02)	0.01	(0.02)	0.03	(0.02)	0.03	(0.02)	0.00	(0.02)	0.00	(0.02)
	Chile	-0.4	(1.4)	-0.9	(1.3)	0.3	1.0	-0.1	0.9	-0.02	(0.02)	-0.01	(0.02)	0.02	(0.02)	0.03	(0.02)	0.00	(0.02)	0.02	(0.02)
	Czech Republic	**4.1**	(1.7)	3.0	(1.6)	0.4	1.4	-0.2	1.3	0.07	(0.03)	**0.07**	(0.03)	-0.01	(0.03)	0.00	(0.03)	0.01	(0.04)	0.04	(0.03)
	Denmark	2.2	(2.1)	2.3	(2.1)	1.8	1.6	1.8	1.6	-0.03	(0.03)	-0.03	(0.03)	-0.04	(0.03)	-0.05	(0.03)	**-0.06**	(0.03)	**-0.07**	(0.02)
	Estonia	**4.8**	(1.6)	**4.6**	(1.5)	1.8	1.6	1.5	1.5	-0.08	(0.04)	-0.08	(0.04)	0.05	(0.03)	0.05	(0.03)	0.02	(0.03)	0.02	(0.03)
	Finland	-2.2	(1.6)	-2.7	(1.5)	0.9	0.9	0.5	0.9	-0.01	(0.03)	-0.01	(0.03)	-0.02	(0.02)	-0.01	(0.02)	-0.02	(0.02)	0.00	(0.02)
	France	**3.2**	(1.5)	**2.7**	(1.3)	1.3	1.1	1.0	1.1	0.02	(0.03)	0.03	(0.02)	0.00	(0.03)	0.01	(0.03)	0.02	(0.03)	0.03	(0.03)
	Germany	-0.5	(1.2)	-1.2	(1.2)	-0.6	0.8	-1.5	0.8	0.03	(0.03)	0.04	(0.03)	0.01	(0.02)	0.04	(0.03)	-0.02	(0.03)	0.02	(0.03)
	Greece	-1.8	(2.2)	-2.3	(2.3)	0.4	2.9	-0.4	2.9	0.02	(0.04)	0.02	(0.03)	-0.06	(0.04)	-0.02	(0.03)	-0.01	(0.03)	0.03	(0.03)
	Hungary	1.9	(1.7)	1.3	(1.6)	-0.5	1.1	-0.8	1.0	0.03	(0.02)	0.03	(0.02)	0.01	(0.02)	0.01	(0.02)	0.03	(0.03)	0.04	(0.03)
	Iceland	0.3	(1.2)	0.1	(1.1)	0.0	0.8	-0.1	0.8	0.03	(0.03)	0.03	(0.03)	-0.03	(0.03)	-0.02	(0.03)	-0.02	(0.04)	-0.01	(0.04)
	Ireland	**4.3**	(2.1)	**4.7**	(1.9)	**3.7**	1.6	**3.8**	1.6	**-0.11**	(0.04)	**-0.10**	(0.04)	-0.03	(0.04)	-0.04	(0.04)	-0.01	(0.04)	-0.03	(0.04)
	Israel	-1.5	(2.3)	-0.9	(2.3)	-0.1	1.8	0.1	1.9	-0.04	(0.06)	-0.04	(0.06)	**-0.15**	(0.06)	**-0.15**	(0.06)	-0.07	(0.05)	-0.10	(0.06)
	Italy	**2.4**	(1.0)	1.3	(0.9)	0.5	0.9	-0.5	0.8	0.01	(0.01)	0.00	(0.01)	0.01	(0.03)	0.03	(0.03)	-0.01	(0.02)	0.02	(0.02)
	Japan	0.8	(0.9)	0.5	(0.8)	**1.4**	0.6	**1.1**	0.5	0.00	(0.03)	0.00	(0.03)	-0.02	(0.02)	0.00	(0.02)	-0.05	(0.03)	-0.02	(0.03)
	Korea	1.8	(1.9)	2.4	(1.6)	-0.5	0.7	-0.2	0.6	0.00	(0.03)	0.00	(0.03)	-0.02	(0.03)	-0.03	(0.02)	0.02	(0.04)	0.00	(0.02)
	Luxembourg	**4.5**	(0.9)	**4.0**	(0.8)	**2.3**	0.6	**1.7**	0.6	**-0.12**	(0.03)	**-0.10**	(0.03)	0.01	(0.02)	0.03	(0.02)	**0.06**	(0.02)	**0.09**	(0.02)
	Mexico	-0.5	(0.7)	-0.7	(0.7)	0.0	0.7	-0.1	0.7	0.00	(0.01)	0.00	(0.01)	-0.02	(0.01)	-0.01	(0.01)	0.02	(0.01)	**0.03**	(0.01)
	Netherlands	1.9	(2.0)	0.9	(1.9)	0.1	1.1	-0.2	1.0	-0.05	(0.03)	-0.05	(0.03)	0.03	(0.03)	0.03	(0.03)	0.03	(0.03)	0.04	(0.03)
	New Zealand	-1.5	(2.4)	-2.6	(2.4)	1.7	1.9	0.1	1.8	-0.02	(0.04)	-0.02	(0.04)	-0.08	(0.05)	-0.05	(0.05)	-0.09	(0.05)	-0.04	(0.05)
	Norway	-0.4	(1.2)	-0.7	(1.2)	-0.8	0.8	-1.0	0.8	0.00	(0.03)	0.00	(0.03)	-0.03	(0.03)	-0.02	(0.02)	-0.04	(0.03)	-0.03	(0.03)
	Poland	1.7	(1.4)	1.9	(1.4)	**3.6**	1.4	**3.7**	1.4	0.01	(0.02)	0.01	(0.02)	0.03	(0.03)	0.02	(0.03)	**0.06**	(0.02)	**0.05**	(0.02)
	Portugal	0.7	(1.5)	0.2	(1.5)	1.9	1.6	0.8	1.4	0.02	(0.03)	0.03	(0.03)	-0.04	(0.03)	0.00	(0.03)	-0.01	(0.02)	0.02	(0.02)
	Slovak Republic	1.0	(1.2)	0.4	(1.3)	-0.8	1.1	-1.2	1.1	0.00	(0.03)	0.01	(0.03)	0.03	(0.04)	0.06	(0.04)	0.03	(0.03)	0.06	(0.04)
	Slovenia	**-3.7**	(1.4)	**-3.6**	(1.4)	**-3.5**	1.5	**-3.3**	1.5	0.05	(0.03)	0.05	(0.03)	0.00	(0.04)	-0.01	(0.04)	-0.06	(0.03)	**-0.07**	(0.03)
	Spain	1.6	(1.4)	1.3	(1.3)	1.8	1.4	1.4	1.4	**0.06**	(0.03)	**0.06**	(0.03)	0.03	(0.03)	0.03	(0.03)	0.01	(0.02)	0.02	(0.02)
	Sweden	**-4.6**	(1.3)	**-4.5**	(1.4)	-1.9	1.3	-1.7	1.2	0.03	(0.03)	0.03	(0.03)	-0.01	(0.03)	-0.02	(0.03)	0.01	(0.03)	-0.02	(0.03)
	Switzerland	-2.4	(1.4)	**-3.3**	(1.5)	-0.8	1.0	**-2.0**	1.0	-0.02	(0.03)	0.02	(0.03)	0.01	(0.02)	**0.06**	(0.03)	**-0.05**	(0.02)	0.02	(0.02)
	Turkey	-0.4	(1.3)	-1.3	(1.3)	**-3.8**	1.2	**-3.5**	1.2	-0.01	(0.04)	0.00	(0.04)	**-0.09**	(0.03)	-0.06	(0.03)	**-0.06**	(0.03)	-0.03	(0.02)
	United Kingdom	2.1	(1.6)	1.9	(1.6)	-1.7	1.6	-1.9	1.8	0.03	(0.04)	0.03	(0.04)	0.01	(0.03)	0.02	(0.04)	0.01	(0.03)	0.02	(0.03)
	United States	-2.9	(2.5)	-2.0	(2.3)	-1.1	1.5	-0.6	1.5	-0.04	(0.03)	-0.05	(0.03)	0.03	(0.04)	0.00	(0.05)	0.07	(0.04)	0.03	(0.05)
	OECD average	**0.6**	(0.3)	0.3	(0.3)	0.4	0.2	0.0	0.2	0.00	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.00	(0.01)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	-1.0	(1.9)	-1.8	(1.8)	1.4	1.9	0.6	1.8	0.01	(0.04)	0.02	(0.04)	0.01	(0.03)	0.02	(0.03)	0.02	(0.03)	0.03	(0.04)
	Brazil	0.6	(1.1)	0.5	(1.1)	0.5	1.0	0.4	1.0	-0.01	(0.02)	-0.01	(0.02)	-0.02	(0.02)	-0.02	(0.02)	-0.02	(0.02)	-0.01	(0.02)
	Bulgaria	-0.7	(2.1)	-0.5	(2.0)	-4.0	2.7	-3.5	2.5	0.01	(0.04)	0.00	(0.04)	0.05	(0.04)	0.04	(0.04)	0.00	(0.03)	-0.01	(0.03)
	Colombia	-0.7	(2.1)	-0.3	(2.1)	-0.7	1.3	-0.5	1.3	0.03	(0.04)	0.03	(0.04)	0.03	(0.05)	0.02	(0.04)	-0.05	(0.03)	-0.05	(0.03)
	Costa Rica	3.3	(1.8)	3.4	(1.8)	-1.4	1.6	-1.3	1.6	-0.01	(0.04)	-0.01	(0.04)	-0.01	(0.03)	-0.02	(0.03)	0.00	(0.03)	-0.01	(0.03)
	Croatia	-1.0	(2.5)	-1.6	(2.2)	2.1	1.6	1.0	1.2	0.00	(0.03)	0.00	(0.03)	0.02	(0.03)	0.02	(0.03)	0.01	(0.02)	0.02	(0.02)
	Cyprus*	-0.1	(0.7)	-1.0	(0.7)	**3.2**	0.9	**2.0**	0.8	**-0.04**	(0.02)	-0.03	(0.02)	**-0.05**	(0.02)	-0.02	(0.02)	-0.03	(0.02)	0.01	(0.02)
	Hong Kong-China	**2.8**	(1.1)	1.7	(1.0)	0.1	0.7	-0.8	0.7	0.02	(0.03)	0.03	(0.03)	0.01	(0.02)	0.03	(0.03)	-0.03	(0.03)	0.02	(0.03)
	Indonesia	1.5	(1.3)	1.1	(1.2)	1.2	1.4	0.8	1.3	-0.01	(0.02)	0.00	(0.02)	-0.03	(0.03)	-0.02	(0.03)	-0.02	(0.03)	-0.02	(0.03)
	Jordan	0.5	(1.3)	0.4	(1.2)	-0.7	1.4	-0.8	1.4	0.01	(0.04)	0.01	(0.04)	-0.01	(0.03)	-0.01	(0.03)	-0.04	(0.02)	-0.03	(0.03)
	Kazakhstan	3.2	(2.6)	3.8	(2.6)	-0.5	2.7	0.7	2.8	0.00	(0.06)	-0.01	(0.06)	**0.15**	(0.06)	**0.13**	(0.06)	0.06	(0.05)	0.04	(0.05)
	Latvia	-1.0	(1.8)	-1.0	(1.8)	1.2	1.4	1.2	1.4	0.01	(0.03)	0.02	(0.03)	**0.07**	(0.03)	**0.07**	(0.03)	0.01	(0.03)	0.02	(0.03)
	Liechtenstein	-1.5	(2.4)	-4.9	(2.9)	0.0	1.4	-1.4	1.3	-0.01	(0.08)	0.04	(0.09)	0.03	(0.06)	0.09	(0.06)	-0.05	(0.08)	0.06	(0.07)
	Lithuania	1.8	(1.5)	1.6	(1.5)	1.0	1.6	0.7	1.4	0.01	(0.04)	0.02	(0.04)	-0.01	(0.02)	-0.01	(0.02)	0.00	(0.03)	0.01	(0.02)
	Macao-China	**2.7**	(0.8)	-0.1	(0.8)	0.9	0.6	-0.4	0.6	-0.03	(0.02)	**-0.04**	(0.02)	-0.04	(0.02)	0.00	(0.02)	**-0.05**	(0.02)	0.02	(0.03)
	Malaysia	1.3	(2.1)	0.7	(1.7)	1.9	2.1	1.5	2.2	-0.04	(0.03)	-0.04	(0.03)	0.05	(0.03)	0.05	(0.03)	0.05	(0.03)	**0.05**	(0.03)
	Montenegro	**-2.1**	(1.1)	**-2.6**	(1.1)	-0.4	1.2	-1.0	1.1	0.05	(0.03)	0.04	(0.03)	-0.04	(0.03)	-0.01	(0.03)	0.05	(0.03)	0.06	(0.03)
	Peru	0.4	(1.9)	0.3	(1.8)	-1.9	1.1	**-1.9**	1.0	0.02	(0.03)	0.02	(0.03)	-0.03	(0.02)	-0.03	(0.02)	**0.05**	(0.02)	**0.05**	(0.02)
	Qatar	1.2	(0.6)	1.2	(0.6)	**-4.3**	0.7	**-4.2**	0.7	0.04	(0.02)	**0.04**	(0.02)	**0.08**	(0.02)	**0.08**	(0.02)	0.00	(0.02)	0.00	(0.02)
	Romania	**-3.8**	(1.7)	**-3.9**	(1.7)	-0.3	1.8	-0.5	1.8	0.00	(0.04)	0.00	(0.03)	-0.03	(0.03)	-0.03	(0.03)	-0.03	(0.03)	-0.02	(0.03)
	Russian Federation	-1.3	(1.8)	-0.8	(1.7)	-3.0	1.8	-2.5	1.7	-0.02	(0.03)	-0.02	(0.03)	0.00	(0.03)	-0.01	(0.03)	-0.02	(0.05)	-0.03	(0.05)
	Serbia	**-6.9**	(2.0)	**-6.6**	(2.0)	**-5.1**	2.5	-4.8	2.5	0.00	(0.03)	0.01	(0.03)	0.02	(0.04)	0.01	(0.04)	0.05	(0.03)	0.04	(0.03)
	Shanghai-China	-0.4	(1.2)	-0.3	(0.9)	**-1.4**	0.7	**-1.4**	0.7	0.02	(0.04)	0.02	(0.04)	0.01	(0.03)	0.01	(0.04)	-0.07	(0.03)	-0.07	(0.04)
	Singapore	1.2	(1.1)	1.7	(1.1)	0.4	1.1	0.7	1.1	0.05	(0.03)	0.05	(0.03)	0.01	(0.03)	0.00	(0.03)	0.02	(0.03)	0.02	(0.03)
	Chinese Taipei	**-5.0**	(1.3)	**-5.4**	(1.2)	1.5	1.3	1.1	1.2	0.02	(0.03)	0.02	(0.03)	-0.03	(0.02)	-0.02	(0.02)	-0.03	(0.02)	-0.02	(0.02)
	Thailand	-2.7	(2.7)	-2.2	(2.6)	**-3.8**	1.9	-3.4	1.8	-0.01	(0.04)	-0.02	(0.04)	0.02	(0.03)	0.01	(0.03)	-0.03	(0.03)	-0.03	(0.03)
	Tunisia	-1.5	(1.2)	-1.8	(1.2)	2.2	1.6	1.7	1.5	-0.03	(0.03)	-0.03	(0.03)	0.01	(0.04)	0.03	(0.04)	-0.01	(0.03)	0.01	(0.03)
	United Arab Emirates	-0.7	(1.4)	-0.8	(1.2)	0.9	1.1	0.8	1.2	0.03	(0.03)	0.03	(0.03)	0.00	(0.02)	0.00	(0.03)	0.01	(0.02)	0.01	(0.02)
	Uruguay	0.5	(1.8)	0.5	(1.7)	-2.1	1.7	-2.1	1.7	0.04	(0.03)	0.04	(0.03)	-0.03	(0.04)	-0.03	(0.04)	-0.01	(0.03)	-0.01	(0.03)
	Viet Nam	2.4	(1.7)	2.5	(1.5)	-0.1	1.5	-0.1	1.3	0.00	(0.02)	0.00	(0.02)	-0.04	(0.03)	-0.04	(0.03)	-0.04	(0.03)	-0.04	(0.03)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.5.24 **Relationship between the presence of ability grouping in school and student dispositions**
Results based on students' self-reports

		Change in the following student dispositions that is associated with ability grouping:																			
		Intrinsic motivation to learn mathematics				Mathematics self-efficacy				Mathematics self-concept				Mathematics anxiety				Mathematics intentions			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	-0.05	(0.03)	**-0.05**	(0.02)	0.02	(0.04)	0.01	(0.03)	-0.01	(0.02)	-0.01	(0.02)	0.03	(0.02)	0.03	(0.02)	0.02	(0.02)	0.02	(0.02)
	Austria	-0.06	(0.10)	-0.01	(0.10)	-0.09	(0.10)	0.02	(0.09)	0.02	(0.08)	0.15	(0.08)	-0.10	(0.11)	**-0.25**	(0.08)	-0.18	(0.12)	-0.12	(0.12)
	Belgium	0.02	(0.03)	0.01	(0.03)	-0.01	(0.04)	-0.02	(0.03)	0.01	(0.03)	0.00	(0.03)	-0.06	(0.03)	-0.05	(0.03)	**0.08**	(0.03)	**0.07**	(0.03)
	Canada	-0.03	(0.02)	-0.03	(0.02)	-0.02	(0.03)	-0.02	(0.02)	-0.03	(0.02)	-0.02	(0.03)	0.00	(0.02)	-0.01	(0.03)	**-0.05**	(0.02)	**-0.05**	(0.02)
	Chile	**0.06**	(0.02)	**0.07**	(0.02)	0.00	(0.02)	0.01	(0.02)	**0.06**	(0.02)	**0.09**	(0.03)	**-0.03**	(0.02)	**-0.05**	(0.02)	0.03	(0.03)	0.05	(0.02)
	Czech Republic	0.04	(0.04)	0.06	(0.03)	-0.05	(0.04)	0.01	(0.03)	0.05	(0.04)	**0.11**	(0.03)	0.01	(0.04)	-0.03	(0.03)	-0.02	(0.04)	0.01	(0.04)
	Denmark	0.00	(0.03)	-0.01	(0.03)	-0.04	(0.03)	**-0.05**	(0.03)	0.02	(0.03)	0.02	(0.03)	-0.01	(0.04)	0.00	(0.03)	-0.03	(0.03)	-0.04	(0.03)
	Estonia	**0.11**	(0.04)	**0.11**	(0.04)	**0.09**	(0.03)	**0.08**	(0.03)	0.05	(0.03)	**0.07**	(0.04)	-0.02	(0.03)	-0.04	(0.03)	0.04	(0.03)	0.04	(0.03)
	Finland	-0.01	(0.03)	0.00	(0.03)	**-0.04**	(0.02)	-0.02	(0.02)	0.02	(0.03)	0.04	(0.03)	-0.02	(0.02)	-0.03	(0.02)	-0.03	(0.03)	-0.01	(0.03)
	France	-0.01	(0.03)	-0.01	(0.03)	0.00	(0.03)	0.02	(0.03)	-0.01	(0.03)	0.01	(0.03)	0.00	(0.02)	-0.02	(0.02)	-0.02	(0.03)	-0.01	(0.03)
	Germany	0.01	(0.03)	0.06	(0.03)	**-0.14**	(0.03)	-0.04	(0.03)	0.03	(0.03)	**0.12**	(0.03)	0.01	(0.03)	**-0.09**	(0.03)	0.03	(0.03)	0.05	(0.04)
	Greece	0.01	(0.04)	0.06	(0.04)	0.00	(0.04)	**0.07**	(0.03)	-0.05	(0.03)	0.02	(0.04)	0.04	(0.05)	-0.03	(0.04)	-0.02	(0.05)	0.01	(0.05)
	Hungary	-0.03	(0.03)	-0.02	(0.03)	-0.05	(0.04)	-0.02	(0.03)	-0.05	(0.03)	-0.04	(0.03)	0.02	(0.03)	0.00	(0.02)	-0.06	(0.04)	-0.04	(0.04)
	Iceland	-0.02	(0.03)	-0.02	(0.03)	-0.02	(0.03)	-0.01	(0.03)	0.04	(0.03)	0.05	(0.03)	0.00	(0.03)	-0.01	(0.03)	0.03	(0.03)	0.03	(0.03)
	Ireland	0.00	(0.04)	-0.01	(0.04)	0.02	(0.05)	0.00	(0.04)	0.02	(0.04)	-0.01	(0.04)	0.00	(0.04)	0.02	(0.04)	0.07	(0.04)	0.07	(0.04)
	Israel	**-0.12**	(0.06)	-0.12	(0.06)	-0.02	(0.05)	**-0.11**	(0.04)	0.01	(0.04)	-0.03	(0.04)	-0.03	(0.05)	0.02	(0.05)	0.01	(0.04)	-0.01	(0.04)
	Italy	-0.01	(0.02)	0.02	(0.02)	**-0.07**	(0.02)	-0.01	(0.01)	-0.03	(0.02)	0.01	(0.02)	**0.04**	(0.02)	0.01	(0.02)	**-0.04**	(0.02)	-0.02	(0.02)
	Japan	-0.02	(0.03)	0.02	(0.03)	-0.05	(0.04)	0.00	(0.02)	-0.01	(0.02)	0.02	(0.03)	0.02	(0.03)	0.00	(0.03)	-0.01	(0.02)	0.00	(0.02)
	Korea	0.02	(0.05)	-0.01	(0.03)	0.03	(0.07)	-0.01	(0.03)	0.02	(0.04)	-0.01	(0.03)	-0.02	(0.03)	-0.01	(0.03)	**0.09**	(0.04)	**0.08**	(0.03)
	Luxembourg	**0.06**	(0.02)	**0.09**	(0.02)	0.01	(0.02)	**0.06**	(0.02)	0.04	(0.02)	**0.08**	(0.02)	0.04	(0.03)	-0.01	(0.02)	0.02	(0.02)	0.03	(0.02)
	Mexico	**0.03**	(0.01)	**0.03**	(0.01)	0.01	(0.01)	0.02	(0.01)	0.02	(0.01)	**0.03**	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.01	(0.01)	0.01	(0.01)
	Netherlands	0.02	(0.04)	0.04	(0.04)	-0.03	(0.04)	0.01	(0.03)	-0.05	(0.05)	-0.04	(0.05)	**0.09**	(0.04)	0.07	(0.04)	**0.08**	(0.04)	**0.08**	(0.04)
	New Zealand	-0.03	(0.07)	-0.01	(0.07)	**-0.13**	(0.05)	-0.06	(0.05)	-0.04	(0.04)	0.01	(0.04)	0.00	(0.04)	-0.05	(0.04)	-0.04	(0.05)	-0.02	(0.05)
	Norway	0.00	(0.02)	0.01	(0.02)	-0.03	(0.03)	-0.01	(0.02)	0.00	(0.03)	0.02	(0.03)	-0.02	(0.02)	-0.04	(0.02)	-0.02	(0.03)	-0.01	(0.03)
	Poland	-0.02	(0.03)	-0.02	(0.02)	0.04	(0.03)	0.03	(0.02)	-0.01	(0.03)	-0.02	(0.02)	-0.01	(0.03)	0.00	(0.02)	-0.02	(0.03)	-0.02	(0.03)
	Portugal	0.02	(0.03)	0.05	(0.03)	-0.06	(0.04)	0.03	(0.02)	-0.01	(0.02)	0.04	(0.03)	0.01	(0.02)	-0.03	(0.02)	0.01	(0.04)	0.03	(0.04)
	Slovak Republic	**0.08**	(0.03)	**0.10**	(0.03)	-0.02	(0.04)	0.03	(0.03)	0.06	(0.03)	**0.09**	(0.04)	0.01	(0.03)	-0.02	(0.04)	-0.01	(0.04)	0.03	(0.04)
	Slovenia	-0.02	(0.04)	-0.02	(0.04)	**0.09**	(0.04)	0.07	(0.04)	-0.04	(0.03)	-0.04	(0.03)	-0.03	(0.03)	-0.02	(0.03)	**-0.09**	(0.04)	**-0.10**	(0.04)
	Spain	0.03	(0.02)	0.04	(0.02)	0.00	(0.02)	0.01	(0.02)	0.00	(0.03)	0.01	(0.03)	-0.01	(0.02)	-0.02	(0.02)	0.01	(0.02)	0.02	(0.02)
	Sweden	0.02	(0.03)	0.00	(0.03)	0.02	(0.03)	0.00	(0.02)	-0.02	(0.03)	-0.02	(0.03)	-0.04	(0.02)	-0.03	(0.02)	0.04	(0.03)	0.04	(0.03)
	Switzerland	0.01	(0.03)	**0.07**	(0.03)	**-0.16**	(0.03)	0.00	(0.02)	0.02	(0.03)	**0.12**	(0.03)	-0.02	(0.03)	**-0.13**	(0.03)	**0.08**	(0.04)	**0.10**	(0.04)
	Turkey	-0.01	(0.04)	0.03	(0.03)	**-0.11**	(0.05)	-0.02	(0.03)	-0.01	(0.03)	**0.05**	(0.03)	0.05	(0.03)	-0.02	(0.02)	0.00	(0.03)	0.04	(0.03)
	United Kingdom	-0.02	(0.04)	-0.01	(0.04)	-0.02	(0.04)	-0.01	(0.04)	-0.05	(0.05)	-0.06	(0.04)	0.02	(0.06)	0.03	(0.05)	-0.05	(0.03)	-0.05	(0.03)
	United States	0.05	(0.07)	0.02	(0.07)	**0.12**	(0.05)	0.05	(0.04)	-0.07	(0.04)	**-0.10**	(0.04)	0.05	(0.03)	**0.09**	(0.04)	**-0.09**	(0.04)	**-0.10**	(0.04)
	OECD average	0.00	(0.01)	**0.02**	(0.01)	**-0.02**	(0.01)	0.00	(0.01)	0.00	(0.01)	**0.02**	(0.01)	0.00	(0.01)	**-0.02**	(0.01)	0.00	(0.01)	0.01	(0.01)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	0.06	(0.04)	0.06	(0.04)	0.01	(0.03)	0.03	(0.03)	-0.06	(0.03)	-0.03	(0.04)	**0.10**	(0.02)	**0.07**	(0.02)	0.00	(0.03)	0.02	(0.03)
	Brazil	0.01	(0.02)	0.01	(0.02)	-0.01	(0.02)	0.00	(0.02)	-0.02	(0.02)	-0.01	(0.02)	0.00	(0.02)	-0.01	(0.01)	0.02	(0.02)	0.03	(0.02)
	Bulgaria	-0.04	(0.04)	-0.04	(0.04)	-0.01	(0.04)	-0.02	(0.04)	-0.02	(0.04)	-0.02	(0.04)	0.06	(0.04)	0.07	(0.04)	-0.04	(0.05)	-0.05	(0.05)
	Colombia	-0.03	(0.03)	-0.03	(0.03)	0.00	(0.03)	-0.01	(0.03)	-0.01	(0.03)	-0.03	(0.03)	-0.04	(0.02)	-0.02	(0.03)	-0.01	(0.04)	-0.02	(0.04)
	Costa Rica	0.02	(0.03)	0.02	(0.03)	0.05	(0.03)	0.04	(0.03)	-0.03	(0.03)	-0.04	(0.03)	0.03	(0.03)	0.04	(0.03)	0.01	(0.03)	0.01	(0.03)
	Croatia	-0.02	(0.04)	0.00	(0.04)	-0.08	(0.05)	-0.04	(0.03)	-0.01	(0.04)	0.02	(0.03)	0.01	(0.04)	-0.03	(0.03)	-0.07	(0.05)	-0.06	(0.05)
	Cyprus*	**-0.08**	(0.02)	**-0.04**	(0.02)	**-0.07**	(0.02)	0.00	(0.02)	**-0.05**	(0.02)	0.01	(0.02)	**0.05**	(0.02)	-0.01	(0.02)	0.01	(0.02)	0.02	(0.02)
	Hong Kong-China	-0.05	(0.04)	0.01	(0.04)	-0.10	(0.05)	0.01	(0.04)	**-0.06**	(0.03)	0.00	(0.04)	0.05	(0.03)	-0.01	(0.03)	-0.07	(0.04)	-0.03	(0.04)
	Indonesia	0.03	(0.03)	0.03	(0.03)	0.01	(0.03)	0.02	(0.03)	0.01	(0.02)	0.01	(0.02)	-0.01	(0.02)	-0.01	(0.02)	0.01	(0.03)	0.02	(0.03)
	Jordan	-0.01	(0.03)	0.00	(0.03)	-0.03	(0.03)	-0.03	(0.03)	0.00	(0.02)	0.00	(0.03)	0.03	(0.02)	0.02	(0.02)	0.00	(0.02)	-0.01	(0.02)
	Kazakhstan	-0.05	(0.07)	-0.05	(0.07)	0.05	(0.06)	0.02	(0.06)	-0.07	(0.05)	-0.10	(0.06)	0.05	(0.05)	0.09	(0.05)	0.07	(0.05)	0.06	(0.05)
	Latvia	0.03	(0.03)	0.04	(0.03)	0.03	(0.02)	0.04	(0.02)	0.01	(0.03)	0.01	(0.03)	0.03	(0.03)	0.03	(0.03)	0.02	(0.03)	0.03	(0.03)
	Liechtenstein	0.07	(0.09)	**0.21**	(0.09)	**-0.21**	(0.07)	0.04	(0.06)	0.01	(0.09)	**0.16**	(0.08)	0.01	(0.09)	-0.12	(0.08)	**0.30**	(0.07)	**0.34**	(0.08)
	Lithuania	-0.01	(0.03)	0.00	(0.03)	0.00	(0.03)	0.02	(0.03)	0.05	(0.03)	0.05	(0.03)	-0.01	(0.03)	-0.01	(0.03)	-0.03	(0.03)	-0.02	(0.03)
	Macao-China	**-0.08**	(0.03)	-0.02	(0.03)	**-0.14**	(0.02)	0.01	(0.02)	**-0.06**	(0.03)	0.03	(0.03)	0.04	(0.03)	**-0.06**	(0.03)	0.01	(0.03)	0.03	(0.03)
	Malaysia	-0.03	(0.03)	-0.03	(0.03)	0.02	(0.03)	0.03	(0.02)	-0.02	(0.03)	-0.01	(0.03)	0.01	(0.03)	0.01	(0.03)	-0.03	(0.04)	-0.02	(0.04)
	Montenegro	-0.01	(0.03)	0.00	(0.03)	-0.04	(0.03)	0.00	(0.03)	0.04	(0.04)	0.07	(0.03)	-0.06	(0.03)	**-0.09**	(0.03)	-0.04	(0.04)	-0.02	(0.04)
	Peru	0.03	(0.03)	0.03	(0.03)	0.02	(0.02)	0.02	(0.02)	0.03	(0.02)	0.03	(0.02)	0.01	(0.02)	0.00	(0.02)	-0.03	(0.03)	-0.03	(0.03)
	Qatar	**-0.08**	(0.02)	**-0.08**	(0.02)	-0.03	(0.02)	-0.03	(0.02)	0.02	(0.02)	0.02	(0.02)	-0.03	(0.02)	-0.04	(0.02)	**0.05**	(0.02)	**0.05**	(0.02)
	Romania	0.03	(0.03)	0.03	(0.03)	0.00	(0.03)	0.02	(0.03)	0.00	(0.03)	0.01	(0.03)	-0.01	(0.03)	-0.02	(0.03)	0.02	(0.04)	0.03	(0.04)
	Russian Federation	0.02	(0.03)	0.02	(0.03)	0.04	(0.03)	0.01	(0.02)	-0.01	(0.03)	-0.03	(0.03)	-0.01	(0.03)	0.01	(0.02)	0.06	(0.04)	0.04	(0.04)
	Serbia	0.08	(0.04)	0.07	(0.04)	**0.09**	(0.04)	0.06	(0.04)	0.08	(0.05)	0.06	(0.04)	-0.06	(0.04)	-0.04	(0.04)	-0.01	(0.05)	-0.03	(0.05)
	Shanghai-China	0.03	(0.04)	0.03	(0.04)	0.05	(0.07)	0.05	(0.03)	0.01	(0.02)	0.00	(0.03)	-0.02	(0.04)	-0.01	(0.04)	0.03	(0.03)	0.03	(0.03)
	Singapore	0.00	(0.03)	-0.01	(0.03)	0.03	(0.03)	0.00	(0.03)	0.02	(0.04)	0.00	(0.03)	-0.01	(0.04)	0.01	(0.03)	-0.06	(0.04)	-0.06	(0.04)
	Chinese Taipei	**-0.09**	(0.03)	**-0.07**	(0.03)	-0.07	(0.04)	-0.02	(0.02)	-0.04	(0.03)	-0.03	(0.03)	0.03	(0.03)	0.02	(0.02)	**-0.06**	(0.03)	-0.04	(0.02)
	Thailand	0.04	(0.03)	0.03	(0.03)	0.02	(0.03)	0.02	(0.03)	0.06	(0.03)	0.05	(0.03)	-0.04	(0.02)	-0.03	(0.02)	**0.08**	(0.04)	0.07	(0.04)
	Tunisia	0.01	(0.04)	0.02	(0.03)	-0.02	(0.04)	0.00	(0.03)	-0.05	(0.04)	-0.02	(0.03)	-0.01	(0.03)	-0.02	(0.02)	-0.01	(0.04)	0.02	(0.03)
	United Arab Emirates	**0.05**	(0.02)	**0.05**	(0.02)	**0.07**	(0.03)	**0.07**	(0.02)	-0.03	(0.02)	-0.02	(0.02)	**0.06**	(0.02)	**0.05**	(0.02)	0.01	(0.02)	0.01	(0.02)
	Uruguay	-0.03	(0.03)	-0.03	(0.04)	-0.03	(0.03)	-0.02	(0.03)	-0.02	(0.04)	-0.02	(0.03)	-0.01	(0.04)	-0.01	(0.04)	0.03	(0.04)	0.04	(0.04)
	Viet Nam	-0.05	(0.03)	**-0.05**	(0.03)	-0.03	(0.03)	-0.03	(0.02)	**-0.05**	(0.02)	**-0.05**	(0.02)	0.02	(0.03)	0.02	(0.02)	**-0.11**	(0.05)	**-0.10**	(0.04)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.5.25 Relationship between the presence of creative extracurricular activities at school and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with the presence of creative extracurricular activities:																							
		Arriving late for school				Skipping classes or days of school				Sense of belonging				Perseverance				Openness to problem solving							
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS							
		Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.				
OECD	Australia	-0.5	(0.7)	0.2	(0.7)	**-2.0**	0.8	-1.2	0.8	0.03	(0.02)	0.02	(0.02)	-0.01	(0.01)	**-0.03**	(0.01)	0.00	(0.01)	**-0.03**	(0.01)				
	Austria	2.0	(1.2)	**2.5**	(1.3)	1.2	1.0	1.7	1.0	0.02	(0.03)	0.00	(0.03)	-0.01	(0.02)	-0.04	(0.02)	-0.01	(0.02)	**-0.06**	(0.02)				
	Belgium	**-1.9**	(0.9)	-0.7	(0.8)	-0.5	0.6	0.3	0.6	0.01	(0.02)	0.00	(0.02)	0.02	(0.02)	0.00	(0.02)	0.02	(0.02)	-0.01	(0.02)				
	Canada	1.1	(1.1)	1.7	(1.1)	-0.3	1.0	0.1	1.0	-0.04	(0.02)	-0.04	(0.02)	**0.05**	(0.02)	0.04	(0.02)	0.00	(0.02)	-0.03	(0.02)				
	Chile	-2.6	(1.4)	-1.6	(1.3)	-0.5	1.1	0.4	1.0	**0.06**	(0.02)	**0.06**	(0.02)	-0.02	(0.02)	**-0.05**	(0.02)	0.01	(0.02)	-0.04	(0.02)				
	Czech Republic	-0.5	(1.1)	0.3	(1.1)	-1.2	0.6	-0.8	0.6	-0.01	(0.02)	-0.02	(0.02)	-0.01	(0.02)	-0.01	(0.02)	0.03	(0.02)	0.00	(0.02)				
	Denmark	0.6	(1.6)	0.6	(1.5)	0.4	1.1	0.3	1.1	0.02	(0.02)	0.02	(0.02)	**-0.04**	(0.02)	**-0.04**	(0.02)	-0.03	(0.02)	-0.02	(0.02)				
	Estonia	-1.9	(1.2)	-1.3	(1.2)	-0.8	1.0	0.4	1.0	-0.02	(0.02)	-0.02	(0.02)	**-0.07**	(0.02)	**-0.08**	(0.02)	0.01	(0.02)	-0.02	(0.02)				
	Finland	-1.0	(1.1)	-0.8	(1.1)	-0.1	0.7	0.0	0.7	0.01	(0.02)	0.01	(0.02)	-0.01	(0.02)	0.00	(0.02)	-0.03	(0.02)	-0.03	(0.02)				
	France	1.9	(1.3)	1.4	(1.2)	1.7	1.0	1.5	0.9	-0.02	(0.03)	-0.01	(0.03)	0.01	(0.03)	0.02	(0.02)	0.01	(0.02)	0.02	(0.02)				
	Germany	-0.7	(1.0)	0.1	(1.0)	-0.8	0.8	0.1	0.9	0.05	(0.03)	0.05	(0.03)	-0.05	(0.02)	**-0.09**	(0.02)	-0.05	(0.03)	**-0.12**	(0.03)				
	Greece	-0.1	(0.9)	0.0	(0.9)	-0.7	1.0	-0.6	1.0	0.01	(0.02)	0.01	(0.02)	0.02	(0.02)	0.01	(0.02)	0.02	(0.02)	0.02	(0.02)				
	Hungary	-0.5	(1.2)	1.0	(1.2)	**-3.2**	0.8	**-2.3**	0.8	0.03	(0.02)	0.01	(0.02)	0.00	(0.02)	-0.02	(0.02)	0.00	(0.02)	-0.02	(0.02)				
	Iceland	1.7	(1.0)	**1.9**	(1.0)	0.2	0.6	0.4	0.6	0.05	(0.03)	0.04	(0.03)	-0.01	(0.03)	-0.03	(0.02)	0.04	(0.02)	0.02	(0.02)				
	Ireland	2.0	(1.1)	2.0	(1.0)	0.0	0.9	0.0	0.9	0.01	(0.03)	0.01	(0.03)	**-0.05**	(0.02)	**-0.05**	(0.02)	0.00	(0.02)	0.00	(0.02)				
	Israel	0.1	(1.2)	0.9	(1.3)	0.2	0.8	0.6	0.8	-0.02	(0.03)	-0.02	(0.03)	**-0.10**	(0.03)	**-0.11**	(0.03)	**-0.07**	(0.02)	**-0.12**	(0.03)				
	Italy	0.0	(0.7)	0.6	(0.6)	-0.5	0.6	0.1	0.5	0.00	(0.01)	0.00	(0.01)	-0.01	(0.01)	-0.02	(0.01)	-0.02	(0.01)	**-0.03**	(0.01)				
	Japan	-1.5	(0.8)	-0.6	(0.9)	**-1.7**	0.7	-0.7	0.6	**0.08**	(0.02)	**0.09**	(0.02)	**0.06**	(0.02)	0.00	(0.02)	0.05	(0.03)	-0.03	(0.03)				
	Korea	-0.8	(1.3)	0.3	(1.1)	**-1.5**	0.5	**-1.0**	0.4	0.04	(0.02)	0.03	(0.02)	0.00	(0.02)	-0.03	(0.02)	**0.05**	(0.02)	0.01	(0.02)				
	Luxembourg	-0.6	(0.6)	0.0	(0.7)	**-2.0**	0.5	**-1.5**	0.5	0.01	(0.02)	-0.01	(0.02)	0.02	(0.02)	0.00	(0.02)	0.03	(0.02)	0.00	(0.02)				
	Mexico	0.0	(0.5)	0.5	(0.5)	-0.8	0.6	-0.4	0.5	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	0.01	(0.01)	-0.01	(0.01)				
	Netherlands	-1.5	(1.3)	0.2	(1.1)	0.3	0.9	0.9	1.0	0.02	(0.03)	0.01	(0.02)	0.01	(0.02)	-0.01	(0.02)	0.03	(0.02)	0.00	(0.02)				
	New Zealand	**-4.1**	(1.9)	-2.3	(1.8)	**-3.8**	1.6	-1.2	1.5	**-0.10**	(0.04)	**-0.11**	(0.04)	0.03	(0.04)	-0.01	(0.04)	-0.01	(0.04)	-0.07	(0.05)				
	Norway	1.9	(1.0)	**2.3**	(1.1)	0.3	0.9	0.5	0.9	0.00	(0.03)	0.00	(0.03)	-0.03	(0.03)	-0.04	(0.03)	0.00	(0.03)	-0.01	(0.03)				
	Poland	**5.7**	(2.0)	**5.5**	(2.0)	**5.3**	1.9	**5.0**	1.8	-0.05	(0.03)	-0.05	(0.03)	0.03	(0.04)	0.03	(0.03)	0.03	(0.03)	0.03	(0.04)				
	Portugal	0.4	(1.3)	0.3	(1.3)	0.3	1.0	0.1	0.9	0.02	(0.02)	0.02	(0.02)	**-0.06**	(0.03)	**-0.05**	(0.03)	**0.05**	(0.02)	**0.06**	(0.02)				
	Slovak Republic	-0.5	(0.9)	-0.4	(0.9)	0.1	0.9	0.2	0.9	0.00	(0.02)	0.00	(0.02)	-0.01	(0.02)	-0.02	(0.02)	-0.01	(0.02)	-0.02	(0.02)				
	Slovenia	**-1.9**	(0.7)	0.0	(0.8)	**-4.1**	0.8	-1.4	0.8	**0.10**	(0.02)	**0.09**	(0.02)	0.01	(0.02)	-0.01	(0.02)	-0.02	(0.02)	**-0.09**	(0.02)				
	Spain	-1.3	(1.0)	-1.4	(1.0)	-1.7	1.0	-1.9	1.0	0.03	(0.02)	0.03	(0.02)	**0.04**	(0.02)	**0.05**	(0.02)	0.02	(0.01)	0.02	(0.01)				
	Sweden	-1.5	(1.1)	-1.3	(1.1)	0.3	0.8	0.5	0.8	0.00	(0.03)	0.00	(0.03)	0.00	(0.03)	-0.01	(0.02)	0.04	(0.03)	0.04	(0.03)				
	Switzerland	1.8	(0.9)	**1.9**	(0.9)	1.0	0.6	**1.2**	0.5	0.03	(0.03)	0.02	(0.03)	-0.02	(0.02)	-0.03	(0.02)	-0.01	(0.01)	-0.02	(0.02)				
	Turkey	**-2.3**	(0.8)	**-1.8**	(0.8)	-0.5	0.9	-0.8	1.0	0.02	(0.02)	0.02	(0.02)	0.02	(0.02)	0.00	(0.02)	0.01	(0.02)	-0.02	(0.02)				
	United Kingdom	1.9	(1.4)	**3.3**	(1.4)	0.2	0.9	1.2	0.9	0.04	(0.04)	0.03	(0.04)	0.03	(0.03)	-0.01	(0.03)	0.03	(0.03)	-0.03	(0.03)				
	United States	**-5.6**	(1.8)	-3.4	(1.8)	**-3.5**	1.4	-2.5	1.5	0.01	(0.03)	0.00	(0.03)	0.00	(0.04)	-0.06	(0.04)	0.02	(0.04)	**-0.09**	(0.05)				
	OECD average	-0.3	(0.2)	0.4	(0.2)	**-0.6**	0.2	0.0	0.2	**0.01**	(0.00)	**0.01**	(0.00)	0.00	(0.00)	**-0.02**	(0.00)	0.01	(0.00)	**-0.02**	(0.00)				
Partners	Albania	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m				
	Argentina	1.1	(1.3)	1.0	(1.2)	**-2.8**	1.0	**-2.9**	1.0	0.04	(0.02)	0.04	(0.02)	0.02	(0.02)	0.02	(0.02)	0.03	(0.02)	0.03	(0.02)				
	Brazil	0.7	(1.0)	0.8	(1.0)	1.3	0.7	1.3	0.7	0.00	(0.02)	0.00	(0.02)	0.00	(0.01)	0.00	(0.01)	0.01	(0.02)	0.00	(0.01)				
	Bulgaria	-1.1	(1.0)	-0.4	(1.0)	**-2.3**	1.1	-1.2	1.0	**0.04**	(0.02)	0.03	(0.02)	0.01	(0.02)	0.00	(0.02)	0.00	(0.02)	-0.01	(0.02)				
	Colombia	0.9	(1.5)	1.2	(1.5)	-0.2	0.9	0.0	0.9	**0.05**	(0.02)	**0.05**	(0.02)	0.02	(0.03)	0.01	(0.03)	-0.01	(0.02)	-0.02	(0.02)				
	Costa Rica	0.5	(1.3)	0.6	(1.3)	1.3	1.4	1.5	1.3	-0.03	(0.04)	-0.03	(0.04)	-0.02	(0.03)	-0.02	(0.03)	-0.01	(0.02)	-0.02	(0.02)				
	Croatia	**-5.3**	(0.8)	**-4.1**	(0.8)	**-5.4**	1.0	**-3.1**	0.9	0.00	(0.02)	-0.01	(0.02)	-0.03	(0.02)	**-0.05**	(0.02)	-0.02	(0.01)	**-0.05**	(0.01)				
	Cyprus*	-1.0	(1.5)	0.8	(1.5)	**-12.4**	1.6	**-10.2**	1.6	**0.18**	(0.04)	**0.17**	(0.04)	**0.12**	(0.03)	0.05	(0.03)	**0.12**	(0.03)	0.03	(0.03)				
	Hong Kong-China	-2.4	(1.4)	-0.9	(1.4)	-0.7	0.9	0.4	0.9	0.03	(0.03)	0.02	(0.03)	0.00	(0.03)	-0.03	(0.03)	0.01	(0.03)	-0.06	(0.03)				
	Indonesia	-1.4	(0.9)	0.0	(0.9)	-1.5	0.9	0.2	0.9	0.03	(0.02)	0.01	(0.02)	0.01	(0.02)	0.00	(0.02)	0.01	(0.02)	0.00	(0.02)				
	Jordan	-1.4	(0.8)	-0.9	(0.8)	-0.8	0.9	-0.3	0.9	**0.09**	(0.03)	**0.06**	(0.03)	0.04	(0.02)	-0.01	(0.02)	-0.02	(0.02)	**-0.05**	(0.02)				
	Kazakhstan	0.7	(1.0)	0.4	(1.1)	1.5	1.2	1.0	1.2	0.01	(0.03)	0.01	(0.03)	-0.04	(0.03)	-0.03	(0.03)	0.01	(0.03)	0.02	(0.03)				
	Latvia	-0.1	(1.8)	0.2	(1.8)	-0.5	1.4	-0.1	1.4	**-0.11**	(0.03)	**-0.11**	(0.03)	0.02	(0.03)	0.01	(0.03)	0.01	(0.03)	-0.01	(0.03)				
	Liechtenstein	1.6	(1.9)	4.0	(2.2)	-0.6	1.4	0.3	1.6	-0.04	(0.06)	-0.09	(0.07)	-0.06	(0.05)	**-0.12**	(0.05)	0.01	(0.05)	-0.08	(0.05)				
	Lithuania	-0.2	(1.6)	0.8	(1.5)	-2.6	1.8	-0.9	1.7	0.07	(0.04)	0.04	(0.04)	0.04	(0.02)	0.02	(0.02)	0.04	(0.03)	0.00	(0.03)				
	Macao-China	**-6.2**	(1.0)	**-3.4**	(1.1)	**-2.3**	0.7	-1.0	0.7	0.00	(0.02)	0.01	(0.02)	0.00	(0.02)	**-0.05**	(0.02)	0.01	(0.02)	**-0.06**	(0.02)				
	Malaysia	-1.5	(1.2)	-0.1	(1.0)	1.1	1.2	2.1	1.1	**-0.09**	(0.02)	**-0.09**	(0.02)	-0.01	(0.02)	-0.02	(0.02)	0.00	(0.02)	-0.01	(0.02)				
	Montenegro	0.7	(0.8)	1.4	(0.8)	**4.5**	0.7	**5.4**	0.7	**-0.05**	(0.02)	**-0.04**	(0.02)	0.01	(0.02)	-0.03	(0.02)	**-0.04**	(0.02)	**-0.05**	(0.02)				
	Peru	-1.2	(1.3)	-0.3	(1.2)	-0.8	0.8	0.2	0.8	**0.04**	(0.02)	0.04	(0.02)	0.00	(0.02)	-0.01	(0.02)	-0.01	(0.02)	-0.03	(0.02)				
	Qatar	**-5.8**	(0.5)	**-1.9**	(0.5)	0.8	0.5	**2.3**	0.5	**0.07**	(0.01)	0.01	(0.02)	**0.03**	(0.01)	**-0.08**	(0.01)	**-0.05**	(0.02)	**-0.10**	(0.02)				
	Romania	-0.9	(1.4)	-0.7	(1.3)	1.1	1.5	1.4	1.4	-0.03	(0.02)	-0.03	(0.03)	-0.03	(0.02)	-0.04	(0.02)	**-0.05**	(0.02)	**-0.05**	(0.02)				
	Russian Federation	0.1	(1.3)	0.9	(1.3)	0.8	1.1	1.6	1.2	0.01	(0.02)	0.01	(0.02)	0.03	(0.02)	0.02	(0.02)	0.03	(0.02)	0.00	(0.02)				
	Serbia	0.9	(1.4)	1.6	(1.3)	0.2	1.3	1.0	1.2	-0.04	(0.02)	-0.04	(0.02)	-0.01	(0.03)	-0.03	(0.03)	-0.02	(0.02)	-0.04	(0.02)				
	Shanghai-China	**-2.1**	(0.9)	-0.6	(0.8)	-0.2	0.4	0.1	0.4	-0.02	(0.02)	-0.02	(0.02)	0.03	(0.02)	0.02	(0.02)	0.03	(0.02)	-0.02	(0.02)				
	Singapore	-0.9	(0.8)	0.2	(0.7)	-0.7	0.9	0.1	0.9	0.01	(0.02)	0.00	(0.03)	-0.01	(0.02)	-0.02	(0.02)	-0.01	(0.02)	-0.04	(0.02)				
	Chinese Taipei	**-4.2**	(0.8)	**-3.4**	(0.9)	-0.3	0.6	0.6	0.6	-0.02	(0.02)	-0.02	(0.02)	0.01	(0.02)	-0.01	(0.02)	-0.01	(0.02)	**-0.04**	(0.02)				
	Thailand	**-6.3**	(1.3)	**-5.3**	(1.3)	**-8.1**	1.1	**-7.2**	1.1	0.02	(0.02)	-0.01	(0.02)	**0.05**	(0.01)	0.02	(0.02)	0.01	(0.01)	0.00	(0.01)				
	Tunisia	0.6	(0.8)	0.6	(0.9)	1.4	1.1	1.5	1.1	0.03	(0.02)	0.02	(0.02)	-0.04	(0.03)	-0.04	(0.03)	-0.02	(0.02)	-0.02	(0.02)				
	United Arab Emirates	**-3.4**	(0.8)	-1.5	(0.8)	**-2.6**	0.8	-0.7	0.8	**0.06**	(0.02)	0.03	(0.02)	-0.01	(0.02)	**-0.09**	(0.02)	**-0.04**	(0.02)	**-0.10**	(0.02)				
	Uruguay	**2.9**	(1.1)	**3.0**	(1.1)	**2.2**	1.0	**2.4**	1.0	0.00	(0.02)	0.00	(0.02)	-0.01	(0.02)	-0.02	(0.02)	-0.02	(0.03)	-0.02	(0.03)				
	Viet Nam	0.3	(1.1)	0.9	(1.0)	**-2.1**	1.0	-1.3	0.9	-0.03	(0.02)	-0.03	(0.02)	-0.01	(0.02)	-0.02	(0.02)	0.01	(0.02)	-0.01	(0.03)				

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.5.25 **Relationship between the presence of creative extracurricular activities at school and student dispositions**

Results based on students' self-reports

		Change in the following student dispositions that is associated with the presence of creative extracurricular activities:																			
		Intrinsic motivation to learn mathematics				Mathematics self-efficacy				Mathematics self-concept				Mathematics anxiety				Mathematics intentions			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	-0.03	(0.02)	**-0.05**	(0.02)	0.03	(0.02)	-0.02	(0.01)	-0.01	(0.01)	**-0.06**	(0.02)	-0.01	(0.02)	0.03	(0.02)	**-0.05**	(0.02)	**-0.05**	(0.02)
	Austria	**-0.06**	(0.02)	**-0.09**	(0.02)	**0.05**	(0.03)	-0.03	(0.02)	-0.04	(0.03)	**-0.12**	(0.03)	0.00	(0.03)	**0.08**	(0.03)	**-0.12**	(0.03)	**-0.13**	(0.03)
	Belgium	**0.06**	(0.02)	0.03	(0.02)	**0.05**	(0.02)	0.00	(0.02)	-0.02	(0.02)	**-0.05**	(0.02)	0.02	(0.02)	**0.05**	(0.02)	-0.02	(0.02)	-0.04	(0.02)
	Canada	0.00	(0.02)	-0.02	(0.02)	0.03	(0.02)	-0.01	(0.02)	**-0.08**	(0.02)	**-0.10**	(0.02)	**0.05**	(0.02)	**0.07**	(0.02)	-0.04	(0.02)	**-0.05**	(0.02)
	Chile	-0.01	(0.02)	**-0.05**	(0.02)	**0.04**	(0.02)	0.00	(0.02)	0.01	(0.02)	**-0.05**	(0.02)	**-0.03**	(0.01)	0.00	(0.01)	0.03	(0.02)	-0.01	(0.02)
	Czech Republic	0.01	(0.02)	-0.01	(0.02)	**0.05**	(0.02)	0.00	(0.02)	0.03	(0.03)	-0.04	(0.02)	-0.01	(0.02)	**0.05**	(0.02)	-0.03	(0.03)	-0.05	(0.03)
	Denmark	-0.01	(0.02)	-0.01	(0.02)	**-0.05**	(0.02)	**-0.05**	(0.02)	0.00	(0.02)	0.00	(0.02)	0.00	(0.02)	0.00	(0.02)	-0.01	(0.02)	-0.01	(0.02)
	Estonia	**-0.06**	(0.02)	**-0.08**	(0.03)	0.00	(0.03)	**-0.04**	(0.02)	-0.04	(0.02)	**-0.09**	(0.02)	-0.02	(0.02)	0.03	(0.02)	**-0.05**	(0.02)	**-0.07**	(0.02)
	Finland	0.03	(0.02)	**0.03**	(0.02)	-0.01	(0.02)	-0.01	(0.01)	-0.03	(0.02)	-0.03	(0.02)	0.03	(0.02)	**0.03**	(0.01)	0.00	(0.02)	0.01	(0.02)
	France	**0.06**	(0.02)	**0.06**	(0.02)	0.01	(0.03)	0.02	(0.02)	0.02	(0.02)	0.04	(0.03)	0.03	(0.02)	0.01	(0.02)	0.01	(0.02)	0.01	(0.02)
	Germany	**-0.07**	(0.03)	**-0.13**	(0.03)	**0.08**	(0.03)	**-0.06**	(0.02)	**-0.07**	(0.03)	**-0.19**	(0.04)	0.02	(0.04)	**0.15**	(0.04)	**-0.07**	(0.03)	**-0.10**	(0.03)
	Greece	**0.05**	(0.02)	0.04	(0.02)	0.01	(0.02)	0.00	(0.02)	0.03	(0.02)	0.03	(0.02)	-0.03	(0.02)	-0.02	(0.02)	**0.06**	(0.02)	**0.06**	(0.02)
	Hungary	-0.04	(0.03)	**-0.06**	(0.03)	0.04	(0.03)	-0.04	(0.03)	-0.01	(0.02)	**-0.07**	(0.02)	**-0.07**	(0.02)	0.00	(0.02)	-0.05	(0.03)	**-0.10**	(0.03)
	Iceland	0.02	(0.03)	0.00	(0.03)	0.02	(0.02)	-0.01	(0.02)	0.02	(0.02)	0.00	(0.02)	-0.02	(0.02)	0.00	(0.02)	-0.01	(0.02)	-0.01	(0.02)
	Ireland	0.02	(0.03)	0.02	(0.03)	-0.01	(0.03)	0.00	(0.02)	-0.01	(0.02)	-0.01	(0.02)	0.03	(0.02)	0.03	(0.02)	0.01	(0.03)	0.01	(0.03)
	Israel	**-0.14**	(0.03)	**-0.14**	(0.03)	0.03	(0.02)	**-0.08**	(0.03)	**-0.04**	(0.02)	**-0.10**	(0.02)	**-0.05**	(0.02)	0.02	(0.02)	-0.03	(0.02)	**-0.05**	(0.02)
	Italy	**-0.03**	(0.01)	**-0.05**	(0.01)	-0.02	(0.02)	**-0.04**	(0.01)	**-0.04**	(0.01)	**-0.07**	(0.02)	**0.03**	(0.01)	**0.05**	(0.01)	**-0.06**	(0.02)	**-0.08**	(0.01)
	Japan	0.01	(0.03)	**-0.09**	(0.03)	**0.19**	(0.04)	0.02	(0.02)	-0.04	(0.03)	**-0.14**	(0.03)	0.05	(0.03)	**0.12**	(0.03)	-0.04	(0.02)	**-0.07**	(0.02)
	Korea	0.04	(0.03)	-0.02	(0.02)	0.04	(0.03)	**-0.04**	(0.02)	0.03	(0.02)	-0.02	(0.02)	-0.02	(0.02)	0.00	(0.02)	0.03	(0.03)	-0.01	(0.02)
	Luxembourg	0.02	(0.02)	-0.01	(0.02)	**0.06**	(0.02)	0.01	(0.02)	0.03	(0.02)	-0.02	(0.02)	-0.01	(0.02)	0.04	(0.02)	0.01	(0.02)	0.00	(0.02)
	Mexico	-0.01	(0.01)	-0.02	(0.01)	0.02	(0.01)	0.00	(0.01)	0.00	(0.01)	**-0.03**	(0.01)	**-0.03**	(0.01)	0.00	(0.01)	0.02	(0.01)	0.01	(0.01)
	Netherlands	-0.02	(0.03)	-0.05	(0.03)	**0.05**	(0.02)	-0.03	(0.02)	-0.02	(0.03)	-0.05	(0.03)	0.00	(0.02)	0.04	(0.03)	**0.08**	(0.02)	**0.09**	(0.02)
	New Zealand	-0.07	(0.07)	-0.09	(0.07)	0.02	(0.05)	-0.07	(0.06)	-0.02	(0.04)	**-0.10**	(0.05)	-0.03	(0.03)	0.05	(0.03)	0.02	(0.06)	0.01	(0.06)
	Norway	0.01	(0.03)	0.00	(0.03)	0.01	(0.03)	-0.01	(0.02)	0.05	(0.03)	0.02	(0.03)	-0.04	(0.03)	-0.01	(0.02)	-0.01	(0.03)	-0.02	(0.03)
	Poland	-0.06	(0.04)	-0.06	(0.04)	0.01	(0.04)	0.02	(0.03)	-0.04	(0.03)	0.00	(0.03)	0.04	(0.04)	0.00	(0.04)	0.00	(0.03)	0.01	(0.03)
	Portugal	-0.03	(0.02)	-0.02	(0.02)	0.00	(0.03)	0.01	(0.02)	0.00	(0.02)	0.01	(0.02)	0.02	(0.01)	0.02	(0.02)	0.00	(0.02)	0.00	(0.02)
	Slovak Republic	-0.02	(0.03)	-0.02	(0.03)	0.00	(0.03)	-0.01	(0.02)	-0.03	(0.03)	-0.03	(0.03)	0.03	(0.02)	0.03	(0.02)	**-0.07**	(0.03)	**-0.08**	(0.03)
	Slovenia	**0.05**	(0.02)	0.00	(0.02)	**0.13**	(0.02)	0.01	(0.02)	0.03	(0.02)	**-0.08**	(0.02)	-0.04	(0.02)	**0.05**	(0.02)	**-0.11**	(0.02)	**-0.17**	(0.02)
	Spain	0.03	(0.02)	0.03	(0.02)	0.02	(0.02)	0.02	(0.02)	-0.01	(0.02)	0.00	(0.02)	0.01	(0.01)	0.00	(0.01)	0.00	(0.01)	0.01	(0.01)
	Sweden	-0.03	(0.02)	-0.04	(0.02)	0.02	(0.03)	0.01	(0.02)	0.01	(0.02)	-0.01	(0.02)	-0.02	(0.02)	-0.01	(0.02)	-0.03	(0.02)	-0.03	(0.02)
	Switzerland	-0.03	(0.02)	**-0.04**	(0.02)	0.03	(0.02)	0.01	(0.02)	-0.03	(0.02)	**-0.04**	(0.02)	-0.02	(0.02)	-0.01	(0.02)	**-0.11**	(0.02)	**-0.11**	(0.02)
	Turkey	0.02	(0.03)	-0.01	(0.03)	**0.06**	(0.03)	0.00	(0.02)	0.02	(0.02)	-0.01	(0.02)	**-0.05**	(0.02)	0.00	(0.02)	0.04	(0.02)	0.01	(0.02)
	United Kingdom	0.01	(0.04)	-0.02	(0.04)	0.05	(0.03)	-0.04	(0.03)	0.02	(0.04)	-0.04	(0.04)	**-0.07**	(0.03)	-0.01	(0.02)	-0.01	(0.03)	-0.01	(0.03)
	United States	0.03	(0.07)	-0.02	(0.07)	**0.17**	(0.04)	0.01	(0.04)	0.00	(0.03)	**-0.13**	(0.03)	-0.05	(0.03)	**0.08**	(0.03)	-0.02	(0.04)	-0.06	(0.04)
	OECD average	-0.01	(0.01)	**-0.03**	(0.01)	**0.04**	(0.00)	**-0.01**	(0.00)	-0.01	(0.00)	**-0.05**	(0.00)	-0.01	(0.00)	**0.03**	(0.00)	**-0.02**	(0.00)	**-0.03**	(0.00)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**0.07**	(0.03)	**0.07**	(0.03)	0.03	(0.02)	0.03	(0.02)	0.04	(0.02)	0.04	(0.02)	-0.02	(0.02)	-0.02	(0.02)	0.03	(0.02)	0.03	(0.02)
	Brazil	-0.01	(0.02)	-0.01	(0.02)	0.02	(0.02)	0.00	(0.01)	0.00	(0.02)	-0.01	(0.01)	0.00	(0.02)	0.01	(0.01)	-0.01	(0.02)	-0.02	(0.01)
	Bulgaria	**-0.06**	(0.02)	**-0.06**	(0.02)	0.02	(0.02)	-0.01	(0.02)	-0.03	(0.02)	**-0.05**	(0.02)	-0.03	(0.02)	0.01	(0.02)	-0.01	(0.03)	-0.04	(0.02)
	Colombia	-0.01	(0.02)	-0.01	(0.02)	-0.01	(0.02)	-0.01	(0.02)	0.01	(0.02)	-0.01	(0.02)	-0.01	(0.02)	0.01	(0.02)	0.02	(0.02)	0.01	(0.02)
	Costa Rica	**-0.09**	(0.03)	**-0.09**	(0.03)	-0.04	(0.03)	-0.05	(0.03)	-0.05	(0.03)	**-0.06**	(0.03)	0.01	(0.03)	0.02	(0.03)	0.02	(0.03)	0.02	(0.03)
	Croatia	0.01	(0.02)	-0.01	(0.02)	**0.09**	(0.02)	-0.02	(0.01)	**0.04**	(0.02)	-0.03	(0.02)	**-0.05**	(0.02)	0.03	(0.02)	**-0.05**	(0.02)	**-0.08**	(0.03)
	Cyprus*	0.06	(0.04)	-0.02	(0.04)	**0.15**	(0.04)	0.01	(0.04)	-0.03	(0.04)	**-0.15**	(0.04)	-0.01	(0.04)	**0.11**	(0.04)	**-0.10**	(0.04)	**-0.13**	(0.04)
	Hong Kong-China	0.03	(0.04)	-0.05	(0.04)	0.10	(0.06)	-0.05	(0.04)	0.00	(0.04)	**-0.09**	(0.04)	0.03	(0.04)	**0.11**	(0.04)	0.01	(0.05)	-0.05	(0.04)
	Indonesia	**-0.06**	(0.01)	**-0.05**	(0.02)	0.01	(0.02)	-0.02	(0.02)	**-0.05**	(0.01)	**-0.04**	(0.01)	-0.01	(0.01)	0.02	(0.01)	0.01	(0.02)	-0.04	(0.02)
	Jordan	**-0.04**	(0.02)	**-0.07**	(0.02)	0.01	(0.02)	-0.03	(0.02)	-0.03	(0.02)	**-0.07**	(0.02)	**-0.05**	(0.02)	-0.02	(0.02)	**-0.03**	(0.01)	-0.03	(0.02)
	Kazakhstan	0.02	(0.03)	0.03	(0.03)	-0.03	(0.03)	-0.01	(0.03)	0.01	(0.02)	0.03	(0.02)	-0.01	(0.03)	-0.03	(0.03)	0.02	(0.03)	0.03	(0.03)
	Latvia	**-0.09**	(0.03)	**-0.11**	(0.03)	-0.06	(0.03)	**-0.09**	(0.03)	**-0.05**	(0.02)	**-0.10**	(0.03)	0.02	(0.03)	0.05	(0.03)	0.00	(0.03)	-0.01	(0.03)
	Liechtenstein	-0.07	(0.06)	**-0.17**	(0.06)	**0.17**	(0.05)	-0.01	(0.05)	**-0.12**	(0.06)	**-0.25**	(0.06)	0.09	(0.06)	**0.21**	(0.07)	**-0.16**	(0.06)	**-0.17**	(0.06)
	Lithuania	-0.01	(0.03)	-0.03	(0.03)	0.04	(0.03)	-0.03	(0.02)	0.04	(0.03)	-0.03	(0.03)	-0.01	(0.03)	**0.06**	(0.03)	0.05	(0.03)	0.01	(0.03)
	Macao-China	-0.01	(0.03)	**-0.08**	(0.03)	**0.09**	(0.03)	**-0.06**	(0.02)	-0.02	(0.02)	**-0.12**	(0.02)	-0.01	(0.03)	**0.10**	(0.03)	-0.05	(0.03)	**-0.07**	(0.03)
	Malaysia	**-0.05**	(0.02)	**-0.07**	(0.02)	-0.02	(0.02)	**-0.05**	(0.02)	**-0.04**	(0.02)	**-0.06**	(0.02)	-0.01	(0.02)	0.01	(0.02)	-0.03	(0.03)	-0.04	(0.03)
	Montenegro	-0.01	(0.02)	-0.02	(0.02)	0.03	(0.02)	-0.02	(0.02)	0.00	(0.02)	-0.04	(0.02)	-0.02	(0.02)	0.02	(0.02)	0.03	(0.02)	0.00	(0.02)
	Peru	**-0.07**	(0.02)	**-0.07**	(0.02)	0.00	(0.02)	-0.01	(0.02)	**-0.04**	(0.02)	**-0.07**	(0.02)	0.01	(0.02)	**0.03**	(0.02)	-0.01	(0.02)	-0.03	(0.02)
	Qatar	**0.07**	(0.01)	**0.03**	(0.01)	**0.10**	(0.02)	-0.01	(0.02)	**-0.07**	(0.01)	**-0.15**	(0.01)	**-0.03**	(0.02)	**0.10**	(0.01)	**-0.06**	(0.01)	**-0.06**	(0.01)
	Romania	0.03	(0.02)	0.04	(0.02)	-0.01	(0.02)	-0.02	(0.02)	-0.03	(0.02)	-0.03	(0.02)	-0.01	(0.02)	0.01	(0.02)	-0.05	(0.03)	**-0.05**	(0.03)
	Russian Federation	-0.02	(0.02)	**-0.04**	(0.02)	**0.07**	(0.02)	0.02	(0.02)	-0.02	(0.02)	**-0.05**	(0.02)	-0.03	(0.02)	0.01	(0.02)	-0.01	(0.02)	**-0.04**	(0.02)
	Serbia	-0.03	(0.03)	-0.04	(0.03)	0.01	(0.03)	-0.03	(0.02)	-0.01	(0.03)	-0.06	(0.03)	-0.04	(0.02)	0.01	(0.02)	0.00	(0.03)	-0.03	(0.03)
	Shanghai-China	-0.01	(0.02)	**-0.05**	(0.02)	**0.14**	(0.03)	0.01	(0.02)	0.00	(0.02)	**-0.07**	(0.02)	0.02	(0.02)	**0.09**	(0.02)	-0.01	(0.02)	**-0.06**	(0.02)
	Singapore	**-0.05**	(0.02)	**-0.07**	(0.02)	**0.10**	(0.03)	0.00	(0.02)	0.02	(0.02)	-0.03	(0.02)	-0.04	(0.02)	0.03	(0.02)	-0.03	(0.02)	-0.03	(0.02)
	Chinese Taipei	0.02	(0.02)	-0.01	(0.02)	0.04	(0.03)	**-0.05**	(0.02)	0.00	(0.02)	**-0.06**	(0.02)	0.03	(0.02)	**0.06**	(0.02)	**0.06**	(0.03)	0.03	(0.03)
	Thailand	0.01	(0.01)	0.00	(0.02)	0.02	(0.01)	-0.01	(0.01)	-0.03	(0.01)	**-0.04**	(0.01)	-0.01	(0.01)	0.02	(0.01)	0.03	(0.02)	0.00	(0.02)
	Tunisia	**-0.05**	(0.02)	**-0.05**	(0.02)	-0.01	(0.02)	-0.01	(0.02)	-0.03	(0.02)	-0.04	(0.02)	0.02	(0.02)	0.02	(0.02)	-0.03	(0.03)	-0.04	(0.02)
	United Arab Emirates	**-0.05**	(0.02)	**-0.08**	(0.02)	**0.06**	(0.02)	**-0.04**	(0.02)	**-0.05**	(0.02)	**-0.12**	(0.02)	**-0.07**	(0.02)	**0.04**	(0.02)	-0.02	(0.02)	-0.02	(0.02)
	Uruguay	-0.01	(0.03)	-0.01	(0.03)	0.01	(0.02)	0.00	(0.02)	-0.01	(0.03)	-0.02	(0.03)	-0.01	(0.02)	0.00	(0.02)	-0.01	(0.02)	-0.01	(0.02)
	Viet Nam	-0.03	(0.02)	**-0.04**	(0.02)	0.02	(0.02)	-0.02	(0.02)	0.01	(0.02)	-0.02	(0.01)	-0.02	(0.02)	0.01	(0.02)	0.05	(0.03)	0.02	(0.03)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.5.26 Relationship between the presence of extracurricular mathematics activities at school and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with the presence of extracurricular mathematics activities:																			
		Arriving late for school				Skipping classes or days of school				Sense of belonging				Perseverance				Openness to problem solving			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	0.2	(0.4)	0.5	(0.4)	-0.4	0.5	-0.1	0.5	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	0.01	(0.01)	0.00	(0.01)
	Austria	2.0	(1.2)	**2.5**	(1.2)	0.1	0.9	0.5	0.9	0.03	(0.03)	0.02	(0.03)	0.00	(0.02)	-0.02	(0.02)	0.04	(0.02)	0.00	(0.02)
	Belgium	-0.8	(0.8)	0.7	(0.8)	-0.9	0.7	0.1	0.6	0.00	(0.02)	-0.01	(0.02)	**0.05**	(0.01)	0.03	(0.02)	**0.05**	(0.01)	0.02	(0.01)
	Canada	**1.7**	(0.5)	**2.0**	(0.5)	0.0	0.4	0.3	0.4	0.00	(0.01)	0.00	(0.01)	**0.03**	(0.01)	**0.03**	(0.01)	0.02	(0.01)	0.00	(0.01)
	Chile	-0.7	(1.0)	0.1	(0.9)	-0.6	0.8	0.1	0.7	**0.04**	(0.01)	**0.04**	(0.01)	0.01	(0.02)	0.00	(0.02)	**0.03**	(0.01)	0.00	(0.01)
	Czech Republic	-0.4	(0.7)	-0.1	(0.6)	-0.6	0.5	-0.4	0.5	0.00	(0.02)	0.00	(0.02)	0.00	(0.01)	0.00	(0.01)	0.01	(0.01)	0.01	(0.01)
	Denmark	**2.5**	(1.2)	**2.5**	(1.2)	1.5	0.9	1.5	0.9	-0.01	(0.02)	-0.01	(0.02)	-0.01	(0.02)	-0.01	(0.02)	-0.01	(0.02)	-0.01	(0.02)
	Estonia	0.6	(0.8)	0.6	(0.8)	-0.4	0.7	-0.4	0.7	-0.01	(0.01)	-0.01	(0.01)	0.01	(0.02)	0.01	(0.02)	-0.01	(0.02)	-0.02	(0.01)
	Finland	1.3	(1.0)	1.4	(0.9)	-0.2	0.7	-0.1	0.7	-0.02	(0.02)	-0.02	(0.02)	0.01	(0.01)	0.01	(0.01)	-0.02	(0.01)	-0.02	(0.01)
	France	1.6	(0.9)	**1.9**	(0.8)	**1.7**	0.8	**1.9**	0.7	0.02	(0.02)	0.02	(0.02)	**0.04**	(0.02)	0.03	(0.02)	**0.07**	(0.02)	**0.05**	(0.02)
	Germany	-0.4	(0.7)	0.0	(0.8)	-0.4	0.5	0.1	0.5	0.00	(0.02)	0.00	(0.02)	-0.01	(0.01)	**-0.04**	(0.02)	-0.02	(0.02)	**-0.04**	(0.02)
	Greece	-1.7	(1.0)	-1.6	(1.0)	-1.7	1.1	-1.5	1.0	0.03	(0.02)	0.03	(0.02)	0.02	(0.02)	0.01	(0.02)	0.02	(0.02)	0.01	(0.02)
	Hungary	-1.6	(1.0)	-0.8	(0.9)	**-1.7**	0.7	-1.1	0.6	**0.04**	(0.02)	**0.03**	(0.01)	0.00	(0.01)	0.00	(0.01)	-0.01	(0.01)	**-0.03**	(0.01)
	Iceland	-0.4	(0.7)	-0.1	(0.7)	-0.4	0.5	-0.2	0.5	**0.05**	(0.02)	**0.05**	(0.02)	-0.01	(0.02)	-0.02	(0.02)	**0.05**	(0.02)	0.03	(0.02)
	Ireland	1.1	(0.7)	1.3	(0.7)	0.3	0.6	0.3	0.6	0.00	(0.02)	0.00	(0.02)	-0.01	(0.01)	-0.01	(0.01)	0.02	(0.01)	0.01	(0.01)
	Israel	-1.8	(1.2)	-1.6	(1.2)	-1.2	0.8	-1.1	0.8	-0.01	(0.02)	-0.01	(0.02)	0.01	(0.02)	0.01	(0.02)	0.02	(0.02)	0.01	(0.02)
	Italy	**-1.3**	(0.6)	0.0	(0.6)	-0.7	0.6	0.6	0.5	0.01	(0.01)	0.02	(0.01)	0.03	(0.02)	0.01	(0.02)	**0.03**	(0.01)	0.00	(0.01)
	Japan	-0.1	(0.5)	0.3	(0.5)	-0.3	0.3	0.2	0.3	0.01	(0.02)	0.01	(0.02)	**0.04**	(0.01)	0.01	(0.01)	**0.05**	(0.02)	0.01	(0.02)
	Korea	**-2.3**	(1.0)	-0.5	(0.9)	**-1.4**	0.4	-0.5	0.4	0.02	(0.02)	0.00	(0.02)	0.00	(0.01)	**-0.05**	(0.01)	**0.05**	(0.02)	-0.02	(0.01)
	Luxembourg	**1.3**	(0.5)	**1.9**	(0.5)	-0.6	0.3	-0.1	0.3	-0.03	(0.02)	**-0.05**	(0.02)	0.01	(0.01)	-0.01	(0.01)	**0.03**	(0.01)	0.00	(0.01)
	Mexico	**-1.2**	(0.5)	-0.7	(0.5)	**-1.5**	0.4	**-1.0**	0.4	**0.02**	(0.01)	0.02	(0.01)	**0.02**	(0.01)	0.00	(0.01)	**0.02**	(0.01)	-0.01	(0.01)
	Netherlands	**-3.3**	(1.3)	-0.8	(1.2)	-0.2	0.7	0.6	0.8	-0.01	(0.02)	-0.02	(0.02)	0.00	(0.02)	-0.01	(0.02)	0.02	(0.02)	-0.03	(0.02)
	New Zealand	0.4	(0.8)	1.0	(0.8)	**-2.4**	0.7	**-1.6**	0.6	-0.01	(0.02)	-0.01	(0.02)	0.02	(0.02)	0.00	(0.02)	0.01	(0.02)	-0.01	(0.02)
	Norway	1.0	(0.9)	1.4	(1.0)	**1.7**	0.7	**2.0**	0.7	0.02	(0.02)	0.02	(0.02)	0.01	(0.02)	0.00	(0.02)	0.00	(0.02)	-0.01	(0.02)
	Poland	**3.8**	(1.3)	**3.8**	(1.3)	0.9	1.2	0.9	1.1	-0.02	(0.03)	-0.02	(0.03)	0.00	(0.02)	0.00	(0.02)	0.00	(0.02)	0.00	(0.02)
	Portugal	-0.7	(1.4)	-0.6	(1.4)	-0.2	1.1	0.0	0.9	-0.01	(0.02)	-0.01	(0.02)	0.00	(0.03)	-0.01	(0.03)	-0.01	(0.02)	-0.02	(0.02)
	Slovak Republic	-1.5	(0.9)	-1.2	(0.9)	0.1	0.6	0.4	0.5	0.01	(0.02)	0.01	(0.02)	0.03	(0.02)	0.02	(0.02)	0.00	(0.02)	-0.01	(0.02)
	Slovenia	**-3.1**	(0.8)	**-1.9**	(0.8)	**-3.7**	0.9	-1.8	1.0	**0.07**	(0.02)	**0.06**	(0.02)	0.01	(0.02)	-0.01	(0.02)	**0.05**	(0.02)	0.00	(0.02)
	Spain	**1.4**	(0.7)	1.3	(0.7)	0.1	0.8	0.0	0.9	-0.01	(0.02)	-0.01	(0.02)	0.02	(0.01)	0.02	(0.01)	0.02	(0.01)	0.02	(0.01)
	Sweden	0.7	(1.3)	1.1	(1.2)	-0.5	1.0	-0.1	1.0	0.02	(0.02)	0.02	(0.02)	0.01	(0.02)	0.00	(0.01)	0.00	(0.02)	-0.02	(0.02)
	Switzerland	**2.3**	(0.9)	**2.4**	(1.0)	0.2	0.5	0.5	0.5	-0.02	(0.02)	-0.03	(0.02)	-0.02	(0.02)	-0.03	(0.02)	-0.01	(0.02)	-0.03	(0.02)
	Turkey	-0.2	(0.7)	0.5	(0.6)	1.3	0.9	1.1	0.9	0.00	(0.02)	-0.01	(0.02)	0.01	(0.02)	-0.02	(0.02)	0.03	(0.02)	0.00	(0.02)
	United Kingdom	0.4	(0.8)	-0.3	(0.8)	**-1.3**	0.6	**-1.8**	0.7	0.02	(0.02)	0.02	(0.02)	0.02	(0.02)	**0.03**	(0.01)	0.01	(0.02)	**0.04**	(0.01)
	United States	-1.3	(0.9)	-0.7	(0.8)	0.6	0.5	0.9	0.5	0.01	(0.01)	0.01	(0.01)	0.00	(0.02)	-0.02	(0.02)	0.01	(0.02)	-0.02	(0.02)
	OECD average	0.0	(0.2)	**0.5**	(0.2)	**-0.4**	0.1	0.0	0.1	**0.01**	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)	**0.02**	(0.00)	0.00	(0.00)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**2.0**	(1.0)	**1.7**	(0.9)	-1.0	0.9	-1.2	0.8	**0.03**	(0.01)	**0.03**	(0.01)	**0.03**	(0.01)	**0.04**	(0.02)	0.03	(0.02)	0.03	(0.02)
	Brazil	0.8	(0.9)	1.0	(0.9)	0.8	0.6	0.9	0.6	-0.02	(0.01)	-0.02	(0.01)	-0.01	(0.01)	-0.02	(0.01)	0.00	(0.01)	-0.01	(0.01)
	Bulgaria	-0.9	(0.6)	-0.1	(0.6)	**-2.7**	0.7	-1.3	0.7	0.03	(0.01)	0.01	(0.02)	0.03	(0.02)	0.01	(0.02)	0.01	(0.01)	0.00	(0.01)
	Colombia	**-2.6**	(0.9)	**-2.4**	(0.9)	-0.5	0.6	-0.3	0.6	0.01	(0.01)	0.00	(0.01)	0.02	(0.02)	0.01	(0.02)	0.00	(0.01)	0.00	(0.01)
	Costa Rica	**-2.6**	(1.0)	**-2.6**	(1.0)	-1.7	1.0	-1.7	1.0	0.00	(0.02)	0.00	(0.02)	-0.02	(0.02)	-0.02	(0.02)	0.01	(0.02)	0.01	(0.02)
	Croatia	**-3.1**	(0.7)	**-2.0**	(0.8)	**-4.8**	0.7	**-2.8**	0.6	**0.03**	(0.02)	0.03	(0.02)	0.00	(0.02)	-0.02	(0.02)	-0.01	(0.01)	**-0.03**	(0.01)
	Cyprus*	**-1.9**	(0.6)	**-1.4**	(0.6)	**-3.8**	0.6	**-3.1**	0.6	**0.05**	(0.02)	**0.05**	(0.02)	0.03	(0.02)	0.01	(0.02)	**0.05**	(0.02)	0.03	(0.02)
	Hong Kong-China	-1.3	(0.8)	-1.2	(0.7)	-0.5	0.6	-0.4	0.5	0.02	(0.02)	0.02	(0.02)	-0.01	(0.02)	-0.02	(0.02)	-0.01	(0.02)	-0.02	(0.02)
	Indonesia	-0.4	(0.8)	0.4	(0.8)	0.1	0.7	1.0	0.7	**0.03**	(0.01)	0.02	(0.01)	0.00	(0.02)	-0.01	(0.02)	-0.01	(0.02)	-0.02	(0.02)
	Jordan	0.1	(0.7)	0.4	(0.7)	-0.7	0.7	-0.5	0.7	0.02	(0.02)	0.01	(0.02)	0.02	(0.02)	-0.01	(0.01)	0.01	(0.01)	-0.01	(0.02)
	Kazakhstan	-1.9	(1.0)	**-2.1**	(1.0)	-1.4	1.2	-1.9	1.1	0.04	(0.03)	0.05	(0.03)	0.00	(0.03)	0.01	(0.03)	0.04	(0.02)	0.04	(0.02)
	Latvia	1.0	(0.9)	1.1	(0.9)	-0.9	0.7	-0.7	0.7	-0.01	(0.02)	0.00	(0.02)	0.03	(0.02)	0.03	(0.02)	-0.01	(0.02)	-0.01	(0.02)
	Liechtenstein	2.7	(2.9)	1.4	(2.9)	-1.3	0.7	-2.0	1.0	0.05	(0.07)	0.09	(0.08)	0.00	(0.04)	0.02	(0.04)	0.04	(0.06)	0.08	(0.06)
	Lithuania	-1.2	(1.1)	-0.8	(1.1)	-1.6	1.1	-0.9	1.1	0.02	(0.03)	0.01	(0.02)	0.02	(0.01)	0.01	(0.01)	**0.03**	(0.01)	0.01	(0.02)
	Macao-China	-0.5	(0.4)	0.1	(0.4)	-0.4	0.3	-0.2	0.3	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)	**-0.02**	(0.01)
	Malaysia	-0.8	(1.1)	-1.3	(1.0)	-1.8	1.4	-2.1	1.3	0.05	(0.03)	0.05	(0.03)	0.03	(0.02)	0.03	(0.02)	0.02	(0.02)	0.03	(0.02)
	Montenegro	**-1.2**	(0.5)	**-1.1**	(0.5)	0.1	0.5	0.2	0.5	-0.01	(0.01)	-0.01	(0.01)	-0.01	(0.02)	-0.02	(0.02)	0.01	(0.01)	0.01	(0.01)
	Peru	0.4	(0.9)	0.8	(0.8)	0.0	0.6	0.4	0.5	0.01	(0.02)	0.01	(0.02)	0.00	(0.01)	0.00	(0.01)	-0.02	(0.01)	-0.02	(0.01)
	Qatar	**0.8**	(0.3)	**0.7**	(0.3)	**-1.2**	0.3	**-1.2**	0.3	-0.01	(0.01)	-0.01	(0.01)	-0.02	(0.01)	-0.01	(0.01)	0.00	(0.01)	0.00	(0.01)
	Romania	-1.1	(1.0)	-0.8	(1.0)	-1.8	1.1	-1.3	1.1	-0.01	(0.02)	-0.02	(0.02)	-0.01	(0.02)	-0.01	(0.02)	0.00	(0.02)	-0.01	(0.02)
	Russian Federation	0.6	(1.2)	1.0	(1.1)	0.8	1.1	1.2	1.1	0.02	(0.02)	0.02	(0.02)	0.01	(0.02)	0.01	(0.02)	0.03	(0.01)	0.02	(0.02)
	Serbia	0.8	(1.0)	1.3	(1.0)	-0.8	1.2	-0.2	1.2	-0.02	(0.02)	-0.02	(0.02)	0.01	(0.02)	0.00	(0.02)	0.00	(0.02)	-0.01	(0.02)
	Shanghai-China	**-1.7**	(0.5)	-0.2	(0.5)	**-0.6**	0.3	-0.4	0.2	0.01	(0.01)	0.01	(0.02)	0.00	(0.01)	-0.02	(0.01)	**0.04**	(0.01)	-0.01	(0.01)
	Singapore	**-1.2**	(0.6)	-0.4	(0.6)	0.5	0.6	1.0	0.6	0.02	(0.02)	0.02	(0.02)	-0.01	(0.02)	-0.02	(0.02)	0.01	(0.02)	-0.01	(0.02)
	Chinese Taipei	**-2.4**	(0.9)	-1.6	(0.9)	-0.5	0.6	0.4	0.6	-0.01	(0.01)	-0.01	(0.01)	0.00	(0.02)	-0.02	(0.02)	0.01	(0.01)	-0.02	(0.01)
	Thailand	**-5.1**	(0.9)	**-4.2**	(0.9)	**-4.4**	0.8	**-3.5**	0.8	**0.03**	(0.01)	0.01	(0.01)	**0.05**	(0.01)	**0.03**	(0.01)	-0.02	(0.01)	**-0.02**	(0.01)
	Tunisia	-1.1	(0.6)	-1.0	(0.6)	-0.5	0.7	-0.4	0.7	0.03	(0.01)	0.03	(0.01)	0.00	(0.02)	0.00	(0.02)	-0.02	(0.01)	-0.02	(0.01)
	United Arab Emirates	**-1.9**	(0.8)	**-1.4**	(0.7)	-0.9	0.5	-0.4	0.5	0.02	(0.01)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	**-0.03**	(0.01)	**-0.04**	(0.01)
	Uruguay	-0.4	(1.1)	-0.2	(1.0)	-0.4	1.1	-0.1	1.1	0.02	(0.02)	0.02	(0.02)	-0.01	(0.02)	-0.02	(0.02)	0.04	(0.02)	0.02	(0.02)
	Viet Nam	-0.7	(0.6)	-0.1	(0.6)	**-1.7**	0.6	-1.0	0.5	0.01	(0.01)	0.01	(0.01)	-0.03	(0.02)	**-0.04**	(0.02)	0.00	(0.02)	-0.02	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.5.26

Relationship between the presence of extracurricular mathematics activities at school and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with the presence of extracurricular mathematics activities:																			
		Intrinsic motivation to learn mathematics				Mathematics self-efficacy				Mathematics self-concept				Mathematics anxiety				Mathematics intentions			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	0.00	(0.01)	-0.01	(0.01)	**0.02**	(0.01)	0.00	(0.01)	-0.01	(0.01)	**-0.03**	(0.01)	0.01	(0.01)	**0.02**	(0.01)	-0.02	(0.01)	-0.02	(0.01)
	Austria	0.01	(0.03)	-0.01	(0.02)	**0.13**	(0.03)	**0.06**	(0.02)	0.02	(0.02)	**-0.05**	(0.02)	-0.03	(0.03)	0.04	(0.03)	**-0.07**	(0.03)	**-0.08**	(0.03)
	Belgium	**0.04**	(0.02)	0.01	(0.02)	**0.08**	(0.02)	0.03	(0.02)	0.01	(0.02)	-0.02	(0.02)	-0.01	(0.02)	0.03	(0.02)	0.00	(0.02)	-0.02	(0.02)
	Canada	**0.02**	(0.01)	0.01	(0.01)	0.02	(0.01)	0.00	(0.01)	-0.01	(0.01)	**-0.03**	(0.01)	0.00	(0.01)	0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)
	Chile	**0.05**	(0.02)	0.02	(0.02)	**0.05**	(0.01)	0.02	(0.01)	0.02	(0.01)	-0.03	(0.02)	**-0.02**	(0.01)	0.01	(0.01)	0.02	(0.02)	-0.01	(0.01)
	Czech Republic	-0.02	(0.02)	-0.02	(0.02)	0.00	(0.02)	-0.01	(0.01)	-0.02	(0.02)	-0.02	(0.02)	0.00	(0.02)	0.00	(0.02)	0.00	(0.02)	0.00	(0.02)
	Denmark	-0.01	(0.03)	-0.01	(0.02)	0.00	(0.02)	0.00	(0.02)	-0.03	(0.02)	-0.02	(0.02)	0.04	(0.02)	0.03	(0.02)	0.02	(0.03)	0.02	(0.03)
	Estonia	-0.02	(0.02)	-0.02	(0.02)	-0.01	(0.01)	-0.01	(0.01)	**-0.03**	(0.02)	-0.02	(0.02)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	0.00	(0.01)
	Finland	-0.02	(0.02)	-0.02	(0.02)	**-0.03**	(0.01)	-0.03	(0.01)	-0.03	(0.02)	-0.03	(0.02)	**0.03**	(0.02)	0.03	(0.02)	0.00	(0.02)	0.00	(0.02)
	France	**0.04**	(0.02)	0.03	(0.02)	**0.07**	(0.02)	**0.04**	(0.02)	0.02	(0.02)	0.00	(0.02)	0.01	(0.01)	0.03	(0.01)	-0.01	(0.02)	-0.01	(0.02)
	Germany	-0.01	(0.02)	**-0.04**	(0.02)	**0.05**	(0.02)	-0.02	(0.02)	-0.02	(0.02)	**-0.08**	(0.02)	0.01	(0.02)	**0.07**	(0.02)	**-0.05**	(0.02)	**-0.06**	(0.02)
	Greece	**0.04**	(0.02)	0.02	(0.02)	**0.04**	(0.02)	0.02	(0.01)	0.02	(0.01)	0.00	(0.02)	-0.03	(0.02)	-0.01	(0.02)	**0.03**	(0.02)	0.02	(0.02)
	Hungary	0.00	(0.02)	-0.01	(0.02)	0.03	(0.02)	-0.02	(0.02)	-0.01	(0.02)	**-0.05**	(0.02)	-0.01	(0.01)	**0.03**	(0.01)	-0.03	(0.02)	**-0.06**	(0.02)
	Iceland	**0.05**	(0.02)	0.03	(0.02)	**0.07**	(0.02)	**0.04**	(0.02)	0.02	(0.02)	0.00	(0.02)	-0.01	(0.02)	0.01	(0.02)	0.02	(0.01)	0.02	(0.01)
	Ireland	0.00	(0.02)	-0.01	(0.02)	0.02	(0.02)	0.00	(0.02)	0.01	(0.01)	0.00	(0.01)	-0.01	(0.02)	0.00	(0.01)	0.02	(0.02)	0.02	(0.02)
	Israel	0.00	(0.02)	0.00	(0.02)	0.04	(0.02)	0.02	(0.02)	0.00	(0.02)	-0.01	(0.02)	-0.01	(0.02)	0.00	(0.02)	-0.01	(0.02)	-0.02	(0.02)
	Italy	**0.06**	(0.01)	**0.04**	(0.01)	**0.08**	(0.01)	0.02	(0.01)	**0.05**	(0.01)	0.00	(0.02)	-0.01	(0.01)	**0.03**	(0.01)	0.02	(0.01)	0.00	(0.01)
	Japan	0.02	(0.02)	-0.03	(0.02)	**0.10**	(0.03)	0.02	(0.01)	0.00	(0.02)	**-0.05**	(0.02)	**0.03**	(0.02)	**0.07**	(0.02)	0.00	(0.02)	-0.02	(0.02)
	Korea	**0.09**	(0.02)	0.01	(0.02)	**0.13**	(0.02)	-0.01	(0.02)	**0.07**	(0.02)	-0.03	(0.02)	0.01	(0.01)	**0.05**	(0.01)	**0.10**	(0.02)	**0.04**	(0.02)
	Luxembourg	**0.06**	(0.02)	0.03	(0.02)	**0.09**	(0.01)	**0.03**	(0.01)	0.03	(0.02)	-0.01	(0.02)	-0.01	(0.02)	**0.03**	(0.02)	**0.05**	(0.02)	**0.04**	(0.02)
	Mexico	-0.01	(0.01)	-0.02	(0.01)	**0.03**	(0.01)	0.01	(0.01)	0.01	(0.01)	**-0.03**	(0.01)	**-0.02**	(0.01)	0.01	(0.01)	**0.03**	(0.01)	0.01	(0.01)
	Netherlands	0.01	(0.02)	-0.04	(0.02)	**0.08**	(0.03)	**-0.05**	(0.02)	-0.03	(0.03)	**-0.10**	(0.03)	0.00	(0.03)	**0.06**	(0.03)	0.04	(0.03)	0.06	(0.03)
	New Zealand	0.00	(0.02)	-0.01	(0.02)	0.03	(0.02)	0.00	(0.02)	-0.01	(0.02)	**-0.04**	(0.02)	0.01	(0.02)	**0.03**	(0.02)	0.00	(0.02)	-0.01	(0.02)
	Norway	0.01	(0.02)	0.00	(0.02)	0.03	(0.02)	0.01	(0.02)	0.04	(0.03)	0.00	(0.03)	-0.03	(0.03)	0.00	(0.02)	0.03	(0.02)	0.02	(0.02)
	Poland	-0.04	(0.02)	-0.04	(0.02)	0.00	(0.03)	0.01	(0.02)	-0.01	(0.02)	0.00	(0.02)	0.00	(0.02)	0.00	(0.02)	-0.02	(0.03)	-0.02	(0.02)
	Portugal	-0.02	(0.02)	-0.02	(0.02)	-0.02	(0.03)	-0.03	(0.02)	-0.02	(0.03)	-0.03	(0.02)	0.00	(0.02)	0.01	(0.02)	0.00	(0.02)	0.00	(0.02)
	Slovak Republic	0.02	(0.02)	0.01	(0.02)	**0.04**	(0.02)	0.02	(0.02)	0.01	(0.02)	-0.01	(0.02)	0.00	(0.02)	0.02	(0.02)	0.02	(0.02)	0.01	(0.02)
	Slovenia	**0.09**	(0.02)	**0.05**	(0.02)	**0.13**	(0.02)	**0.05**	(0.02)	**0.06**	(0.02)	-0.01	(0.02)	**-0.05**	(0.02)	0.00	(0.02)	0.01	(0.03)	-0.02	(0.03)
	Spain	0.02	(0.01)	0.02	(0.01)	0.00	(0.01)	0.01	(0.01)	-0.02	(0.02)	-0.02	(0.02)	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)
	Sweden	0.01	(0.02)	-0.01	(0.02)	0.03	(0.02)	0.02	(0.02)	0.00	(0.02)	-0.02	(0.02)	0.00	(0.02)	0.02	(0.02)	-0.02	(0.02)	-0.02	(0.02)
	Switzerland	0.02	(0.02)	0.01	(0.02)	**0.06**	(0.02)	0.02	(0.01)	-0.03	(0.02)	**-0.05**	(0.02)	**0.05**	(0.02)	**0.07**	(0.02)	0.00	(0.02)	-0.01	(0.02)
	Turkey	**0.04**	(0.02)	0.02	(0.02)	**0.10**	(0.02)	0.03	(0.02)	**0.07**	(0.02)	0.03	(0.02)	**-0.09**	(0.02)	**-0.04**	(0.02)	0.02	(0.02)	-0.01	(0.02)
	United Kingdom	0.01	(0.02)	0.03	(0.02)	-0.01	(0.02)	**0.03**	(0.01)	0.01	(0.02)	**0.04**	(0.02)	0.00	(0.02)	-0.03	(0.02)	0.03	(0.02)	0.03	(0.02)
	United States	-0.01	(0.02)	-0.03	(0.02)	**0.04**	(0.02)	-0.01	(0.01)	-0.03	(0.02)	**-0.06**	(0.02)	0.01	(0.01)	**0.05**	(0.01)	-0.03	(0.02)	**-0.04**	(0.02)
	OECD average	**0.02**	(0.00)	0.00	(0.00)	**0.04**	(0.00)	**0.01**	(0.00)	0.00	(0.00)	**-0.02**	(0.00)	0.00	(0.00)	**0.02**	(0.00)	0.01	(0.00)	0.00	(0.00)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**0.06**	(0.02)	**0.06**	(0.02)	0.02	(0.01)	0.02	(0.01)	0.01	(0.02)	0.02	(0.02)	**0.03**	(0.01)	0.02	(0.01)	0.01	(0.01)	0.01	(0.01)
	Brazil	-0.02	(0.01)	-0.02	(0.01)	0.03	(0.02)	0.01	(0.01)	0.00	(0.01)	-0.02	(0.01)	-0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)
	Bulgaria	-0.02	(0.02)	-0.01	(0.02)	**0.04**	(0.02)	0.01	(0.02)	0.00	(0.01)	-0.02	(0.01)	**-0.03**	(0.01)	0.02	(0.01)	**0.04**	(0.02)	0.02	(0.02)
	Colombia	**-0.03**	(0.02)	**-0.03**	(0.02)	0.00	(0.01)	-0.01	(0.01)	**-0.03**	(0.01)	**-0.04**	(0.01)	0.02	(0.01)	**0.04**	(0.01)	-0.02	(0.01)	-0.03	(0.01)
	Costa Rica	0.02	(0.02)	0.02	(0.02)	0.02	(0.02)	0.02	(0.02)	0.00	(0.02)	0.00	(0.02)	0.01	(0.02)	0.02	(0.02)	0.00	(0.02)	-0.01	(0.02)
	Croatia	0.03	(0.02)	0.01	(0.02)	**0.11**	(0.02)	0.01	(0.01)	**0.05**	(0.02)	-0.02	(0.02)	**-0.05**	(0.02)	0.03	(0.02)	0.01	(0.02)	-0.01	(0.02)
	Cyprus*	0.01	(0.02)	-0.01	(0.02)	**0.05**	(0.02)	0.01	(0.02)	-0.01	(0.02)	**-0.05**	(0.02)	0.00	(0.02)	**0.03**	(0.02)	**-0.05**	(0.02)	**-0.06**	(0.02)
	Hong Kong-China	-0.02	(0.02)	-0.03	(0.03)	-0.01	(0.04)	-0.02	(0.02)	-0.03	(0.03)	-0.04	(0.03)	0.02	(0.02)	0.02	(0.03)	-0.03	(0.03)	-0.04	(0.03)
	Indonesia	-0.03	(0.02)	-0.02	(0.01)	0.01	(0.02)	-0.01	(0.02)	-0.02	(0.01)	-0.01	(0.01)	**-0.03**	(0.01)	-0.02	(0.01)	0.02	(0.02)	0.00	(0.02)
	Jordan	-0.01	(0.02)	-0.02	(0.02)	**0.04**	(0.02)	0.01	(0.02)	0.00	(0.01)	**-0.03**	(0.01)	**-0.03**	(0.01)	-0.01	(0.01)	-0.01	(0.01)	-0.01	(0.01)
	Kazakhstan	**0.08**	(0.02)	**0.08**	(0.03)	0.02	(0.02)	0.03	(0.02)	**0.07**	(0.02)	**0.08**	(0.02)	**-0.05**	(0.02)	**-0.07**	(0.02)	-0.01	(0.03)	-0.01	(0.03)
	Latvia	0.01	(0.02)	0.00	(0.02)	0.02	(0.01)	0.01	(0.01)	0.00	(0.02)	-0.01	(0.02)	-0.01	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.02)
	Liechtenstein	0.04	(0.07)	0.08	(0.07)	-0.10	(0.06)	0.01	(0.05)	-0.04	(0.08)	0.06	(0.08)	-0.04	(0.08)	-0.13	(0.09)	0.10	(0.06)	0.09	(0.06)
	Lithuania	0.00	(0.02)	-0.01	(0.02)	**0.04**	(0.01)	0.01	(0.02)	0.00	(0.02)	-0.02	(0.02)	0.00	(0.02)	0.02	(0.01)	0.01	(0.02)	-0.01	(0.02)
	Macao-China	0.02	(0.01)	0.01	(0.01)	**0.03**	(0.01)	0.00	(0.01)	**0.03**	(0.01)	0.01	(0.01)	**-0.04**	(0.01)	-0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)
	Malaysia	0.00	(0.02)	0.01	(0.02)	0.01	(0.02)	0.02	(0.02)	0.00	(0.02)	0.01	(0.02)	0.00	(0.02)	0.00	(0.02)	0.03	(0.02)	0.03	(0.02)
	Montenegro	**0.08**	(0.01)	**0.08**	(0.01)	**0.03**	(0.01)	**0.03**	(0.01)	**0.05**	(0.01)	**0.04**	(0.01)	-0.01	(0.02)	0.00	(0.02)	0.03	(0.02)	0.03	(0.02)
	Peru	**-0.03**	(0.01)	**-0.03**	(0.01)	-0.02	(0.01)	**-0.02**	(0.01)	**-0.03**	(0.01)	**-0.04**	(0.01)	0.01	(0.01)	0.02	(0.01)	**-0.03**	(0.01)	**-0.04**	(0.02)
	Qatar	0.02	(0.01)	0.02	(0.01)	**0.06**	(0.01)	**0.06**	(0.01)	0.02	(0.01)	**0.02**	(0.01)	**0.05**	(0.01)	**0.05**	(0.01)	**0.04**	(0.01)	**0.04**	(0.01)
	Romania	0.00	(0.02)	0.01	(0.02)	0.01	(0.02)	-0.01	(0.01)	0.00	(0.02)	-0.01	(0.02)	-0.02	(0.02)	0.01	(0.01)	-0.03	(0.02)	**-0.05**	(0.02)
	Russian Federation	**0.04**	(0.02)	**0.03**	(0.01)	**0.04**	(0.02)	0.02	(0.02)	**0.05**	(0.02)	0.03	(0.02)	**-0.04**	(0.01)	-0.02	(0.02)	0.02	(0.02)	0.00	(0.02)
	Serbia	-0.02	(0.02)	-0.03	(0.02)	0.01	(0.02)	-0.03	(0.02)	0.01	(0.02)	-0.03	(0.02)	-0.01	(0.02)	0.03	(0.02)	0.03	(0.03)	0.01	(0.03)
	Shanghai-China	0.02	(0.02)	-0.02	(0.02)	**0.16**	(0.02)	0.03	(0.02)	0.02	(0.01)	**-0.05**	(0.01)	-0.02	(0.01)	**0.05**	(0.01)	**0.05**	(0.02)	0.01	(0.02)
	Singapore	-0.03	(0.02)	-0.04	(0.02)	**0.09**	(0.02)	0.01	(0.02)	0.01	(0.02)	-0.03	(0.02)	-0.03	(0.02)	0.01	(0.02)	-0.01	(0.02)	-0.01	(0.02)
	Chinese Taipei	0.02	(0.02)	-0.02	(0.02)	**0.07**	(0.03)	-0.01	(0.02)	0.03	(0.02)	-0.02	(0.02)	0.00	(0.01)	**0.03**	(0.01)	0.01	(0.02)	-0.03	(0.02)
	Thailand	0.01	(0.01)	0.00	(0.01)	0.02	(0.01)	-0.01	(0.01)	-0.02	(0.01)	**-0.03**	(0.01)	**-0.04**	(0.01)	-0.01	(0.01)	**0.05**	(0.01)	0.02	(0.01)
	Tunisia	-0.02	(0.02)	-0.02	(0.02)	-0.02	(0.01)	**-0.03**	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.00	(0.01)	0.00	(0.01)	0.02	(0.02)	0.01	(0.02)
	United Arab Emirates	-0.02	(0.01)	-0.03	(0.01)	0.00	(0.02)	-0.03	(0.01)	0.01	(0.01)	-0.01	(0.01)	**-0.03**	(0.01)	-0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)
	Uruguay	0.01	(0.02)	0.00	(0.02)	0.03	(0.02)	0.01	(0.01)	-0.01	(0.02)	-0.04	(0.02)	-0.02	(0.02)	0.00	(0.02)	0.02	(0.02)	0.01	(0.02)
	Viet Nam	**-0.03**	(0.01)	**-0.04**	(0.01)	0.01	(0.01)	**-0.03**	(0.01)	-0.01	(0.01)	**-0.03**	(0.01)	0.00	(0.01)	0.02	(0.01)	**-0.06**	(0.03)	**-0.09**	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.5.27 Relationship between class size and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with class size:																			
		Arriving late for school				Skipping classes or days of school				Sense of belonging				Perseverance				Openness to problem solving			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	Australia	0.0	(0.2)	0.1	(0.1)	0.0	0.2	0.1	0.2	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Austria	0.0	(0.1)	0.1	(0.1)	0.0	0.1	0.0	0.1	0.00	(0.00)	0.00	(0.00)	**0.00**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Belgium	-0.3	(0.2)	0.3	(0.2)	-0.1	0.2	**0.3**	0.2	0.00	(0.00)	0.00	(0.00)	0.00	(0.01)	**-0.01**	(0.01)	0.00	(0.00)	-0.01	(0.00)
	Canada	**-0.3**	(0.1)	-0.1	(0.1)	**-0.5**	0.1	**-0.3**	0.1	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**-0.01**	(0.00)
	Chile	-0.2	(0.2)	-0.2	(0.1)	**-0.2**	0.1	-0.2	0.1	0.00	(0.00)	0.00	(0.00)	**0.01**	(0.00)	**0.01**	(0.00)	**0.01**	(0.00)	0.00	(0.00)
	Czech Republic	-0.3	(0.3)	0.2	(0.2)	-0.2	0.2	0.1	0.2	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	**-0.01**	(0.00)
	Denmark	0.0	(0.4)	0.1	(0.4)	-0.2	0.3	0.0	0.3	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	0.01	(0.01)	0.00	(0.01)
	Estonia	**0.3**	(0.1)	**0.3**	(0.1)	**0.1**	0.1	**0.2**	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Finland	0.1	(0.4)	0.3	(0.4)	0.0	0.2	0.2	0.2	0.01	(0.01)	0.01	(0.01)	0.00	(0.00)	0.00	(0.00)	-0.01	(0.01)	**-0.01**	(0.01)
	France	**-0.7**	(0.3)	0.0	(0.2)	-0.3	0.2	0.2	0.2	**0.01**	(0.00)	0.01	(0.00)	0.01	(0.00)	**-0.02**	(0.00)	**0.02**	(0.00)	**-0.02**	(0.01)
	Germany	0.1	(0.2)	0.3	(0.2)	-0.2	0.1	0.0	0.1	**0.01**	(0.01)	0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)
	Greece	**0.2**	(0.1)	0.2	(0.1)	0.1	0.1	0.1	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Hungary	**-0.6**	(0.1)	**-0.4**	(0.1)	**-0.3**	0.1	**-0.2**	0.1	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Iceland	0.1	(0.1)	0.1	(0.1)	0.1	0.1	0.1	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Ireland	**-0.8**	(0.3)	**-0.7**	(0.3)	-0.1	0.3	0.0	0.3	-0.01	(0.01)	-0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)	**-0.01**	(0.00)	**-0.02**	(0.01)
	Israel	**-0.5**	(0.2)	**-0.4**	(0.2)	**-0.3**	0.1	**-0.3**	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Italy	-0.1	(0.1)	-0.1	(0.1)	0.0	0.1	0.0	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Japan	**-0.2**	(0.1)	-0.1	(0.1)	**-0.4**	0.1	**-0.3**	0.1	**0.01**	(0.00)	**0.01**	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)
	Korea	0.1	(0.2)	0.2	(0.2)	0.0	0.1	0.0	0.1	-0.01	(0.00)	-0.01	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Luxembourg	-0.3	(0.3)	0.0	(0.3)	0.3	0.2	**0.5**	0.2	0.01	(0.01)	0.00	(0.01)	**-0.01**	(0.01)	**-0.02**	(0.01)	0.00	(0.01)	**-0.02**	(0.01)
	Mexico	0.0	(0.0)	0.0	(0.0)	0.0	0.0	0.0	0.0	0.00	(0.00)	0.00	(0.00)	**0.01**	(0.00)	**0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Netherlands	**-1.1**	(0.3)	0.0	(0.3)	-0.3	0.2	0.1	0.3	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.01	(0.01)	-0.01	(0.01)
	New Zealand	0.4	(0.3)	**0.5**	(0.2)	-0.3	0.2	-0.2	0.2	**-0.01**	(0.00)	**-0.01**	(0.00)	0.01	(0.00)	0.00	(0.01)	0.00	(0.01)	-0.01	(0.01)
	Norway	**0.7**	(0.2)	**0.7**	(0.2)	**0.4**	0.2	**0.4**	0.2	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.00)	0.00	(0.01)
	Poland	0.2	(0.3)	0.2	(0.3)	0.0	0.2	0.1	0.2	0.00	(0.01)	0.00	(0.01)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Portugal	0.1	(0.2)	0.2	(0.2)	-0.2	0.2	0.0	0.2	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Slovak Republic	0.1	(0.2)	0.3	(0.2)	0.1	0.2	0.3	0.2	0.00	(0.01)	0.00	(0.00)	-0.01	(0.01)	**-0.02**	(0.01)	-0.01	(0.01)	**-0.01**	(0.00)
	Slovenia	-0.3	(0.2)	0.3	(0.2)	**-0.9**	0.2	0.0	0.2	**0.02**	(0.01)	**0.02**	(0.01)	0.01	(0.01)	0.00	(0.00)	0.01	(0.01)	**-0.01**	(0.01)
	Spain	-0.1	(0.2)	-0.1	(0.2)	0.1	0.2	0.2	0.2	0.00	(0.00)	0.00	(0.00)	**0.01**	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Sweden	0.3	(0.3)	0.4	(0.3)	0.1	0.2	0.3	0.2	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	0.01	(0.01)	0.00	(0.01)
	Switzerland	0.0	(0.1)	0.0	(0.1)	0.0	0.1	0.1	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Turkey	0.0	(0.1)	0.0	(0.1)	0.0	0.1	0.1	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	United Kingdom	**-0.5**	(0.2)	**-0.5**	(0.2)	-0.2	0.2	-0.2	0.2	**-0.02**	(0.00)	**-0.02**	(0.00)	0.00	(0.01)	0.00	(0.01)	-0.01	(0.00)	0.00	(0.00)
	United States	0.3	(0.2)	0.3	(0.2)	0.0	0.2	0.0	0.2	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	OECD average	**-0.1**	(0.0)	**0.1**	(0.0)	**-0.1**	0.0	0.0	0.0	**0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)	**0.00**	(0.00)	0.00	(0.00)	**-0.01**	(0.00)
Partners	Albania	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	0.0	(0.1)	0.1	(0.1)	0.1	0.1	0.1	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Brazil	-0.2	(0.1)	-0.2	(0.1)	0.1	0.1	0.1	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Bulgaria	-0.3	(0.3)	-0.2	(0.2)	-0.5	0.3	-0.2	0.2	0.00	(0.01)	-0.01	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Colombia	-0.2	(0.1)	-0.2	(0.1)	-0.1	0.1	-0.1	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Costa Rica	0.1	(0.2)	0.1	(0.2)	0.2	0.2	0.2	0.2	**0.01**	(0.00)	**0.01**	(0.00)	0.01	(0.00)	0.01	(0.00)	0.00	(0.00)	0.00	(0.00)
	Croatia	-0.3	(0.3)	0.0	(0.3)	**-1.0**	0.3	-0.5	0.3	0.00	(0.01)	0.00	(0.01)	0.01	(0.00)	0.00	(0.01)	0.00	(0.00)	0.00	(0.00)
	Cyprus*	-0.2	(0.1)	**-0.3**	(0.1)	**0.4**	0.1	**0.2**	0.1	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	-0.01	(0.00)
	Hong Kong-China	**-0.5**	(0.1)	**-0.3**	(0.1)	**-0.4**	0.1	**-0.2**	0.1	0.01	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.01	(0.00)	-0.01	(0.00)
	Indonesia	-0.2	(0.1)	-0.2	(0.1)	-0.2	0.1	-0.2	0.1	0.00	(0.00)	0.00	(0.00)	0.01	(0.00)	0.01	(0.00)	0.00	(0.00)	0.00	(0.00)
	Jordan	**0.2**	(0.1)	**0.2**	(0.1)	0.0	0.1	-0.1	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Kazakhstan	0.1	(0.1)	0.1	(0.1)	0.1	0.1	0.1	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Latvia	0.2	(0.2)	0.3	(0.2)	-0.1	0.2	0.0	0.2	**-0.01**	(0.00)	-0.01	(0.00)	**0.01**	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Liechtenstein	-1.2	(0.6)	-0.6	(0.9)	-0.1	0.3	0.7	0.5	0.01	(0.02)	-0.01	(0.03)	0.02	(0.01)	0.00	(0.02)	0.01	(0.01)	**-0.05**	(0.02)
	Lithuania	0.0	(0.2)	0.2	(0.2)	-0.3	0.2	0.1	0.2	**0.02**	(0.00)	**0.02**	(0.00)	**0.01**	(0.00)	0.01	(0.00)	0.00	(0.00)	0.00	(0.00)
	Macao-China	**-0.7**	(0.1)	**-0.4**	(0.1)	**-0.4**	0.1	**-0.3**	0.1	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	**0.00**	(0.00)	**-0.01**	(0.00)
	Malaysia	0.1	(0.1)	0.1	(0.1)	0.1	0.2	0.1	0.2	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Montenegro	0.1	(0.2)	**0.4**	(0.2)	-0.4	0.2	-0.1	0.2	**-0.01**	(0.00)	-0.01	(0.01)	0.01	(0.01)	-0.01	(0.01)	-0.01	(0.00)	**-0.01**	(0.01)
	Peru	**-0.3**	(0.2)	-0.2	(0.2)	-0.2	0.1	-0.1	0.1	**0.01**	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)
	Qatar	**-0.2**	(0.1)	**-0.2**	(0.1)	**0.1**	0.1	**0.1**	0.1	0.00	(0.00)	0.00	(0.00)	**0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Romania	-0.1	(0.2)	-0.1	(0.2)	-0.3	0.2	-0.2	0.2	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Russian Federation	**1.0**	(0.3)	**1.1**	(0.3)	**0.4**	0.2	**0.5**	0.2	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.01)	0.00	(0.01)	0.00	(0.00)	0.00	(0.00)
	Serbia	-0.1	(0.2)	0.0	(0.2)	-0.2	0.2	-0.1	0.2	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.01	(0.00)	0.00	(0.00)
	Shanghai-China	0.2	(0.1)	0.1	(0.1)	0.0	0.0	0.0	0.0	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Singapore	-0.2	(0.2)	-0.3	(0.1)	-0.2	0.1	-0.2	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Chinese Taipei	**-0.6**	(0.1)	**-0.5**	(0.1)	0.0	0.1	0.1	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)
	Thailand	**-0.4**	(0.1)	**-0.4**	(0.1)	**-0.6**	0.1	**-0.5**	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)
	Tunisia	-0.1	(0.1)	-0.1	(0.1)	0.0	0.1	0.0	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	United Arab Emirates	**-0.1**	(0.1)	**-0.2**	(0.0)	0.1	0.1	0.1	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**0.00**	(0.00)	0.00	(0.00)	**0.00**	(0.00)
	Uruguay	0.2	(0.1)	0.2	(0.1)	0.3	0.2	0.3	0.2	0.00	(0.00)	0.00	(0.00)	**0.01**	(0.00)	**0.01**	(0.00)	0.01	(0.00)	0.00	(0.00)
	Viet Nam	**-0.3**	(0.1)	**-0.2**	(0.1)	**-0.5**	0.1	**-0.4**	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**0.00**	(0.00)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.5.27

Relationship between class size and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with class size:																			
		Intrinsic motivation to learn mathematics				Mathematics self-efficacy				Mathematics self-concept				Mathematics anxiety				Mathematics intentions			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	-0.01	(0.00)	-0.01	(0.00)	0.01	(0.00)	0.00	(0.00)	0.00	(0.00)	-0.01	(0.00)	0.00	(0.00)	0.01	(0.00)	0.00	(0.00)	0.00	(0.00)
	Austria	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)	0.01	(0.00)	**0.01**	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)
	Belgium	**0.02**	(0.00)	0.01	(0.00)	**0.03**	(0.01)	**0.01**	(0.01)	0.00	(0.01)	**-0.01**	(0.01)	**0.02**	(0.01)	**0.03**	(0.00)	**-0.01**	(0.00)	**-0.02**	(0.01)
	Canada	0.00	(0.00)	0.00	(0.00)	**0.02**	(0.00)	**0.01**	(0.00)	0.01	(0.00)	-0.01	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.01	(0.00)	0.00	(0.00)
	Chile	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Czech Republic	**-0.01**	(0.01)	**-0.03**	(0.01)	**0.01**	(0.01)	**-0.01**	(0.00)	0.00	(0.01)	**-0.03**	(0.01)	0.00	(0.01)	**0.02**	(0.01)	-0.01	(0.01)	**-0.02**	(0.01)
	Denmark	0.00	(0.01)	0.00	(0.01)	**0.01**	(0.01)	0.00	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.00	(0.01)	**0.01**	(0.01)	0.00	(0.01)	0.00	(0.01)
	Estonia	**0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**0.00**	(0.00)	**0.00**	(0.00)
	Finland	0.00	(0.01)	0.00	(0.00)	0.00	(0.01)	-0.01	(0.00)	0.00	(0.01)	0.00	(0.01)	0.00	(0.00)	0.00	(0.00)	0.00	(0.01)	0.00	(0.01)
	France	0.00	(0.00)	**-0.02**	(0.01)	**0.03**	(0.01)	-0.01	(0.00)	0.01	(0.00)	**-0.03**	(0.01)	0.00	(0.00)	**0.03**	(0.01)	0.00	(0.00)	-0.01	(0.01)
	Germany	0.00	(0.01)	-0.01	(0.01)	0.01	(0.01)	**-0.01**	(0.00)	0.00	(0.01)	**-0.02**	(0.01)	0.00	(0.01)	**0.02**	(0.01)	-0.01	(0.01)	**-0.02**	(0.01)
	Greece	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.01	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Hungary	0.00	(0.00)	0.00	(0.00)	**0.02**	(0.00)	0.00	(0.00)	0.00	(0.00)	-0.01	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Iceland	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Ireland	0.00	(0.01)	-0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	0.00	(0.01)	**-0.01**	(0.01)	0.00	(0.01)	0.01	(0.01)	-0.01	(0.01)	-0.01	(0.01)
	Israel	0.00	(0.00)	0.00	(0.00)	**0.01**	(0.01)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**0.01**	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)
	Italy	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Japan	0.00	(0.00)	**-0.01**	(0.00)	**0.03**	(0.01)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	0.01	(0.00)	**0.01**	(0.00)	0.01	(0.00)	0.00	(0.00)
	Korea	-0.01	(0.01)	**-0.01**	(0.00)	0.00	(0.01)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.01	(0.00)	0.00	(0.00)	0.00	(0.00)
	Luxembourg	-0.01	(0.01)	**-0.02**	(0.01)	**0.02**	(0.01)	0.00	(0.01)	-0.01	(0.01)	**-0.03**	(0.01)	0.00	(0.01)	**0.02**	(0.01)	0.00	(0.01)	0.00	(0.01)
	Mexico	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**0.00**	(0.00)	0.00	(0.00)	**0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Netherlands	0.00	(0.01)	-0.02	(0.01)	**0.04**	(0.01)	-0.01	(0.01)	0.00	(0.01)	**-0.03**	(0.01)	-0.01	(0.01)	0.02	(0.01)	0.01	(0.01)	0.02	(0.01)
	New Zealand	-0.01	(0.01)	-0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)	-0.01	(0.00)	-0.01	(0.01)	0.01	(0.00)	**0.01**	(0.00)	0.00	(0.01)	0.00	(0.01)
	Norway	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.00)	0.00	(0.01)	0.00	(0.00)	0.00	(0.01)	0.00	(0.00)	0.01	(0.01)	0.01	(0.01)
	Poland	0.00	(0.00)	0.00	(0.00)	0.01	(0.00)	0.00	(0.00)	0.00	(0.00)	-0.01	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)
	Portugal	0.00	(0.00)	-0.01	(0.00)	0.01	(0.01)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.01	(0.00)	0.00	(0.01)	0.00	(0.01)
	Slovak Republic	-0.01	(0.01)	**-0.01**	(0.01)	0.01	(0.01)	0.00	(0.00)	-0.01	(0.01)	**-0.02**	(0.01)	0.00	(0.01)	**0.01**	(0.00)	0.00	(0.01)	-0.01	(0.01)
	Slovenia	0.00	(0.01)	**-0.02**	(0.01)	**0.03**	(0.00)	-0.01	(0.00)	0.00	(0.01)	**-0.04**	(0.01)	0.00	(0.01)	**0.02**	(0.01)	**-0.02**	(0.01)	**-0.04**	(0.01)
	Spain	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Sweden	-0.01	(0.01)	-0.01	(0.01)	0.01	(0.01)	0.00	(0.00)	0.00	(0.01)	-0.01	(0.01)	-0.01	(0.00)	0.00	(0.00)	0.01	(0.01)	0.01	(0.00)
	Switzerland	**0.01**	(0.00)	**0.00**	(0.00)	**0.01**	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Turkey	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	**0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	United Kingdom	0.00	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.00	(0.00)	-0.01	(0.01)	-0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	0.00	(0.01)
	United States	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	OECD average	0.00	(0.00)	**-0.01**	(0.00)	**0.01**	(0.00)	**0.00**	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)	**0.00**	(0.00)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**0.00**	(0.00)	**0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)	**0.00**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Brazil	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Bulgaria	**-0.01**	(0.01)	**-0.01**	(0.01)	0.00	(0.01)	**-0.01**	(0.00)	-0.01	(0.00)	**-0.01**	(0.01)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.01)	-0.01	(0.01)
	Colombia	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**0.00**	(0.00)	**-0.01**	(0.00)
	Costa Rica	-0.01	(0.01)	-0.01	(0.01)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Croatia	-0.01	(0.01)	**-0.02**	(0.01)	**0.02**	(0.01)	-0.01	(0.00)	0.01	(0.01)	-0.01	(0.01)	0.00	(0.01)	0.01	(0.01)	-0.01	(0.01)	**-0.02**	(0.01)
	Cyprus*	-0.01	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**0.01**	(0.00)
	Hong Kong-China	0.00	(0.00)	**-0.01**	(0.00)	**0.02**	(0.01)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)	**-0.01**	(0.01)
	Indonesia	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Jordan	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Kazakhstan	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Latvia	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	-0.01	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Liechtenstein	-0.01	(0.02)	**-0.09**	(0.03)	**0.07**	(0.02)	-0.03	(0.02)	0.00	(0.02)	**-0.10**	(0.03)	0.01	(0.02)	**0.10**	(0.03)	**-0.04**	(0.02)	**-0.06**	(0.03)
	Lithuania	**-0.01**	(0.01)	**-0.02**	(0.01)	**0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	0.00	(0.01)	**0.01**	(0.00)	0.00	(0.00)	**-0.01**	(0.00)
	Macao-China	0.00	(0.00)	**-0.01**	(0.00)	**0.02**	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.02**	(0.00)	0.00	(0.00)	**0.02**	(0.00)	0.00	(0.00)	**-0.01**	(0.00)
	Malaysia	**-0.01**	(0.00)	**-0.01**	(0.00)	**0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Montenegro	**-0.02**	(0.01)	**-0.02**	(0.01)	0.01	(0.01)	**-0.01**	(0.01)	-0.01	(0.00)	**-0.03**	(0.00)	-0.01	(0.00)	**0.01**	(0.00)	0.00	(0.01)	**-0.01**	(0.01)
	Peru	**-0.01**	(0.00)	**-0.01**	(0.00)	**0.00**	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Qatar	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)	**0.00**	(0.00)	0.00	(0.00)	**0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Romania	0.00	(0.00)	0.00	(0.00)	**0.01**	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.01	(0.00)	0.00	(0.00)
	Russian Federation	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	-0.01	(0.00)	-0.01	(0.01)
	Serbia	0.00	(0.00)	0.00	(0.00)	0.01	(0.00)	0.00	(0.00)	0.00	(0.00)	-0.01	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Shanghai-China	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Singapore	**0.01**	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.01	(0.00)	0.01	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	**0.01**	(0.00)	**0.01**	(0.00)
	Chinese Taipei	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	**0.01**	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Thailand	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**0.00**	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)	**0.00**	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Tunisia	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	United Arab Emirates	**0.00**	(0.00)	**0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Uruguay	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Viet Nam	0.00	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.5.28 Relationship between school size and student dispositions (per 100 students)

Results based on students' self-reports

		Change in the following student dispositions that is associated with school size:																			
		Arriving late for school				Skipping classes or days of school				Sense of belonging				Perseverance				Openness to problem solving			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	Australia	0.1	(0.1)	**0.3**	(0.1)	**-0.3**	0.1	-0.1	0.1	**0.01**	(0.00)	0.01	(0.00)	**0.01**	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)
	Austria	0.1	(0.2)	0.3	(0.2)	-0.1	0.2	0.0	0.2	0.00	(0.01)	-0.01	(0.01)	0.01	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)
	Belgium	**-0.6**	(0.2)	0.0	(0.2)	**-0.5**	0.2	-0.1	0.2	0.00	(0.00)	0.00	(0.00)	0.00	(0.01)	-0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)
	Canada	**0.4**	(0.1)	**0.6**	(0.1)	0.0	0.2	0.2	0.2	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)
	Chile	-0.4	(0.2)	-0.2	(0.2)	-0.2	0.1	-0.1	0.1	0.01	(0.00)	0.01	(0.00)	0.01	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)
	Czech Republic	-0.2	(0.5)	0.4	(0.4)	-0.3	0.3	-0.1	0.3	0.00	(0.01)	-0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	**0.02**	(0.01)	0.01	(0.01)
	Denmark	0.0	(0.5)	0.1	(0.5)	-0.2	0.4	-0.1	0.4	**-0.02**	(0.01)	**-0.02**	(0.01)	0.01	(0.01)	0.00	(0.01)	**0.02**	(0.01)	**0.01**	(0.01)
	Estonia	**0.9**	(0.3)	**1.0**	(0.3)	**0.7**	0.3	**0.9**	0.3	-0.01	(0.01)	-0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.00	(0.01)	0.00	(0.01)
	Finland	**2.4**	(0.5)	**2.6**	(0.5)	**0.7**	0.3	**0.9**	0.3	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	-0.01	(0.01)
	France	0.0	(0.2)	**0.5**	(0.2)	**0.5**	0.2	**0.9**	0.2	**0.01**	(0.00)	0.01	(0.00)	0.01	(0.00)	**-0.01**	(0.00)	0.01	(0.01)	-0.01	(0.01)
	Germany	0.1	(0.2)	0.3	(0.2)	-0.2	0.2	0.1	0.2	0.01	(0.01)	0.01	(0.01)	0.00	(0.00)	-0.01	(0.01)	**0.02**	(0.01)	0.00	(0.01)
	Greece	**2.8**	(0.7)	**2.9**	(0.8)	**1.8**	0.9	**2.0**	0.8	-0.02	(0.01)	**-0.02**	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.01	(0.01)	-0.01	(0.01)
	Hungary	-0.4	(0.4)	-0.1	(0.3)	-0.5	0.3	-0.2	0.3	0.00	(0.01)	0.00	(0.01)	0.01	(0.01)	0.00	(0.01)	0.01	(0.01)	0.00	(0.01)
	Iceland	**1.3**	(0.5)	**1.2**	(0.5)	**1.0**	0.4	**1.0**	0.3	0.00	(0.01)	0.00	(0.01)	-0.03	(0.01)	-0.02	(0.01)	0.00	(0.02)	0.01	(0.02)
	Ireland	-0.6	(0.3)	-0.4	(0.3)	-0.3	0.3	-0.2	0.3	0.00	(0.01)	0.00	(0.01)	-0.01	(0.01)	**-0.01**	(0.01)	0.00	(0.01)	-0.01	(0.01)
	Israel	**-0.8**	(0.2)	**-0.7**	(0.2)	-0.1	0.2	0.0	0.2	0.00	(0.01)	0.00	(0.01)	-0.01	(0.00)	-0.01	(0.00)	**-0.01**	(0.00)	**-0.02**	(0.01)
	Italy	**-0.4**	(0.2)	0.0	(0.1)	**-0.3**	0.1	0.1	0.1	0.00	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.01	(0.00)	0.00	(0.00)
	Japan	-0.2	(0.1)	0.0	(0.1)	**-0.4**	0.1	-0.2	0.1	**0.01**	(0.00)	**0.01**	(0.00)	**0.02**	(0.00)	0.01	(0.00)	**0.01**	(0.01)	0.00	(0.00)
	Korea	-0.1	(0.3)	0.1	(0.3)	**-0.2**	0.1	-0.1	0.1	0.00	(0.01)	0.00	(0.01)	0.00	(0.00)	-0.01	(0.00)	0.01	(0.01)	0.00	(0.00)
	Luxembourg	**0.8**	(0.1)	**0.8**	(0.1)	**0.4**	0.1	**0.4**	0.1	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Mexico	**0.4**	(0.0)	**0.5**	(0.0)	**0.3**	0.1	**0.4**	0.1	**0.00**	(0.00)	**0.00**	(0.00)	**0.01**	(0.00)	**0.00**	(0.00)	0.00	(0.00)	**0.00**	(0.00)
	Netherlands	**-0.5**	(0.2)	0.3	(0.2)	-0.1	0.1	0.1	0.2	0.01	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.01	(0.00)	**-0.01**	(0.00)
	New Zealand	0.1	(0.1)	**0.3**	(0.1)	**-0.3**	0.1	0.0	0.1	**-0.01**	(0.00)	**-0.01**	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.01	(0.00)	0.00	(0.00)
	Norway	**1.5**	(0.6)	**1.6**	(0.6)	0.4	0.5	0.5	0.5	0.03	(0.02)	0.03	(0.02)	0.01	(0.02)	0.01	(0.02)	**0.03**	(0.01)	**0.03**	(0.01)
	Poland	**3.5**	(0.8)	**3.8**	(0.8)	**2.5**	0.6	**2.9**	0.6	**-0.02**	(0.01)	**-0.02**	(0.01)	0.01	(0.01)	0.00	(0.01)	0.02	(0.01)	0.01	(0.01)
	Portugal	-0.1	(0.2)	0.0	(0.2)	**-0.5**	0.2	-0.2	0.2	**0.01**	(0.00)	0.01	(0.00)	0.01	(0.00)	0.00	(0.00)	0.00	(0.00)	-0.01	(0.00)
	Slovak Republic	0.9	(0.5)	**1.1**	(0.4)	0.5	0.4	0.8	0.4	0.01	(0.01)	0.00	(0.01)	-0.02	(0.01)	**-0.03**	(0.01)	0.00	(0.01)	-0.01	(0.01)
	Slovenia	-0.3	(0.3)	0.3	(0.3)	**-0.9**	0.2	0.0	0.3	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	0.01	(0.01)	-0.01	(0.01)
	Spain	-0.2	(0.2)	-0.1	(0.2)	0.2	0.2	0.3	0.2	0.00	(0.01)	0.00	(0.01)	0.01	(0.00)	0.01	(0.00)	0.00	(0.00)	0.00	(0.00)
	Sweden	**1.2**	(0.4)	**1.6**	(0.3)	0.4	0.3	**0.7**	0.3	**0.02**	(0.01)	**0.02**	(0.01)	**0.03**	(0.01)	**0.02**	(0.01)	**0.02**	(0.01)	0.01	(0.01)
	Switzerland	0.3	(0.2)	0.5	(0.3)	0.0	0.1	0.2	0.1	0.01	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)
	Turkey	0.1	(0.1)	0.0	(0.1)	-0.2	0.2	-0.1	0.2	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.01	(0.00)
	United Kingdom	-0.1	(0.2)	-0.1	(0.2)	**-0.6**	0.2	**-0.5**	0.2	-0.01	(0.01)	-0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.00	(0.00)	0.00	(0.01)
	United States	0.1	(0.1)	0.2	(0.1)	-0.1	0.1	-0.1	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	OECD average	**0.4**	(0.1)	**0.6**	(0.1)	**0.1**	0.1	**0.3**	0.0	0.00	(0.00)	0.00	(0.00)	**0.00**	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)
Partners	Albania	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**0.7**	(0.4)	**0.7**	(0.3)	-0.2	0.3	-0.2	0.3	0.01	(0.01)	0.01	(0.01)	**0.01**	(0.00)	**0.01**	(0.00)	**0.01**	(0.00)	**0.01**	(0.00)
	Brazil	-0.2	(0.1)	-0.1	(0.1)	0.0	0.1	0.0	0.1	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Bulgaria	**-0.6**	(0.3)	0.0	(0.3)	**-1.8**	0.3	**-1.0**	0.3	**0.02**	(0.01)	0.01	(0.01)	**0.02**	(0.01)	0.01	(0.01)	0.00	(0.01)	0.00	(0.01)
	Colombia	-0.1	(0.1)	0.0	(0.1)	0.0	0.1	0.0	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Costa Rica	**0.6**	(0.2)	**0.6**	(0.2)	0.2	0.2	0.3	0.2	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)
	Croatia	-0.5	(0.4)	-0.1	(0.4)	**-1.3**	0.4	-0.6	0.3	0.00	(0.01)	-0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	0.01	(0.01)	0.00	(0.01)
	Cyprus*	-0.2	(0.4)	0.4	(0.4)	-0.4	0.4	0.3	0.4	**0.02**	(0.01)	0.02	(0.01)	**0.03**	(0.01)	0.01	(0.01)	0.01	(0.01)	-0.02	(0.01)
	Hong Kong-China	-0.6	(0.4)	-0.1	(0.3)	-0.5	0.4	-0.1	0.3	0.02	(0.01)	0.01	(0.01)	0.00	(0.01)	**-0.02**	(0.01)	-0.01	(0.01)	**-0.03**	(0.01)
	Indonesia	**-0.8**	(0.2)	**-0.5**	(0.2)	**-1.0**	0.3	**-0.6**	0.3	**0.01**	(0.00)	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	0.00	(0.01)
	Jordan	0.3	(0.3)	0.4	(0.2)	-0.1	0.4	0.0	0.4	**0.01**	(0.01)	0.01	(0.01)	**0.01**	(0.00)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)
	Kazakhstan	**0.5**	(0.2)	**0.4**	(0.2)	**0.6**	0.2	**0.4**	0.2	-0.01	(0.00)	-0.01	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)	-0.01	(0.00)	0.00	(0.00)
	Latvia	0.7	(0.5)	0.9	(0.4)	-0.2	0.3	-0.1	0.3	**-0.02**	(0.01)	**-0.02**	(0.01)	**0.03**	(0.01)	**0.03**	(0.01)	**0.01**	(0.01)	0.01	(0.01)
	Liechtenstein	-1.0	(0.7)	0.3	(0.9)	0.0	0.4	0.8	0.5	0.03	(0.02)	0.00	(0.03)	0.01	(0.02)	-0.02	(0.02)	0.02	(0.02)	-0.03	(0.03)
	Lithuania	0.0	(0.4)	0.4	(0.5)	-0.8	0.5	-0.1	0.4	**0.02**	(0.01)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	0.00	(0.01)	**-0.02**	(0.01)
	Macao-China	**-0.8**	(0.1)	**-0.5**	(0.1)	**-0.4**	0.0	**-0.3**	0.0	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**0.00**	(0.00)	0.00	(0.00)	**-0.01**	(0.00)
	Malaysia	-0.3	(0.2)	-0.2	(0.1)	0.1	0.2	0.2	0.2	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Montenegro	**0.5**	(0.2)	**0.7**	(0.2)	0.1	0.2	0.3	0.2	**-0.01**	(0.00)	-0.01	(0.00)	0.00	(0.01)	-0.01	(0.01)	-0.01	(0.01)	-0.01	(0.01)
	Peru	-0.1	(0.2)	0.0	(0.2)	-0.2	0.2	-0.1	0.2	**0.01**	(0.00)	**0.01**	(0.00)	**0.01**	(0.00)	**0.01**	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)
	Qatar	**-0.6**	(0.0)	**-0.3**	(0.0)	**0.2**	0.0	**0.3**	0.0	**0.01**	(0.00)	**0.00**	(0.00)	**0.00**	(0.00)	**-0.01**	(0.00)	**0.00**	(0.00)	**-0.01**	(0.00)
	Romania	0.0	(0.2)	0.1	(0.2)	0.3	0.3	0.4	0.3	-0.01	(0.00)	-0.01	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Russian Federation	**1.3**	(0.3)	**1.4**	(0.3)	**0.8**	0.3	**0.9**	0.3	**-0.01**	(0.01)	**-0.01**	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)
	Serbia	-0.1	(0.4)	0.1	(0.3)	0.0	0.3	0.2	0.3	-0.01	(0.00)	-0.01	(0.00)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	-0.01	(0.01)
	Shanghai-China	0.1	(0.1)	0.1	(0.1)	0.0	0.0	0.0	0.0	**0.00**	(0.00)	**0.00**	(0.00)	**0.00**	(0.00)	**0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Singapore	**-0.6**	(0.1)	-0.2	(0.1)	0.0	0.1	**0.3**	0.1	0.00	(0.00)	0.00	(0.00)	0.01	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)
	Chinese Taipei	**-0.1**	(0.0)	**-0.1**	(0.0)	0.0	0.0	0.0	0.0	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Thailand	-0.1	(0.1)	0.0	(0.1)	0.0	0.1	0.1	0.1	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)
	Tunisia	0.5	(0.3)	**0.6**	(0.3)	0.4	0.3	**0.6**	0.3	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.00	(0.00)	**-0.01**	(0.00)
	United Arab Emirates	**-0.3**	(0.1)	-0.1	(0.1)	0.0	0.1	**0.2**	0.1	**0.00**	(0.00)	0.00	(0.00)	**0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)	**0.00**	(0.00)
	Uruguay	0.3	(0.2)	0.3	(0.2)	**0.4**	0.1	**0.5**	0.1	0.00	(0.00)	0.00	(0.00)	**0.01**	(0.00)	**0.01**	(0.00)	0.01	(0.00)	0.00	(0.00)
	Viet Nam	-0.3	(0.2)	-0.2	(0.2)	**-0.5**	0.2	**-0.3**	0.1	0.00	(0.00)	0.00	(0.00)	0.01	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.5.28 **Relationship between school size and student dispositions (per 100 students)**

Results based on students' self-reports

		Change in the following student dispositions that is associated with school size:																			
		Intrinsic motivation to learn mathematics				Mathematics self-efficacy				Mathematics self-concept				Mathematics anxiety				Mathematics intentions			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	0.00	(0.00)	-0.01	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Austria	**0.02**	(0.01)	0.01	(0.01)	**0.03**	(0.01)	**0.01**	(0.00)	**0.01**	(0.00)	**-0.01**	(0.01)	-0.01	(0.01)	**0.02**	(0.01)	**0.03**	(0.01)	**0.02**	(0.01)
	Belgium	**0.01**	(0.01)	0.00	(0.01)	**0.03**	(0.01)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)
	Canada	**0.00**	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Chile	0.00	(0.00)	**-0.01**	(0.00)	0.01	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Czech Republic	**-0.03**	(0.01)	**-0.04**	(0.01)	0.01	(0.01)	-0.01	(0.01)	0.00	(0.01)	**-0.02**	(0.01)	0.00	(0.01)	**0.02**	(0.01)	**-0.03**	(0.01)	**-0.04**	(0.01)
	Denmark	0.00	(0.01)	0.00	(0.01)	**0.02**	(0.01)	**0.02**	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	**0.02**	(0.01)	**0.02**	(0.01)
	Estonia	0.01	(0.01)	0.00	(0.01)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.00	(0.01)	0.01	(0.01)	**0.02**	(0.01)	**0.02**	(0.01)
	Finland	-0.01	(0.01)	-0.02	(0.01)	-0.01	(0.01)	-0.01	(0.01)	-0.01	(0.01)	-0.02	(0.01)	**0.02**	(0.01)	**0.02**	(0.01)	0.00	(0.01)	0.00	(0.01)
	France	0.00	(0.00)	**-0.01**	(0.00)	**0.02**	(0.01)	0.00	(0.00)	0.01	(0.00)	**-0.02**	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)	-0.01	(0.00)
	Germany	-0.01	(0.01)	**-0.03**	(0.01)	**0.04**	(0.01)	0.00	(0.01)	0.00	(0.01)	**-0.03**	(0.01)	-0.01	(0.01)	**0.02**	(0.01)	-0.01	(0.01)	**-0.02**	(0.01)
	Greece	-0.01	(0.02)	-0.02	(0.01)	0.02	(0.01)	0.00	(0.01)	-0.01	(0.01)	-0.02	(0.01)	-0.01	(0.01)	0.00	(0.01)	0.00	(0.01)	-0.01	(0.01)
	Hungary	0.00	(0.01)	0.00	(0.01)	0.02	(0.01)	0.00	(0.01)	0.01	(0.01)	0.00	(0.01)	**-0.02**	(0.01)	0.00	(0.01)	0.01	(0.01)	-0.01	(0.01)
	Iceland	**-0.03**	(0.01)	**-0.03**	(0.01)	-0.01	(0.01)	-0.01	(0.01)	-0.02	(0.02)	-0.01	(0.01)	0.01	(0.02)	0.01	(0.01)	-0.01	(0.01)	-0.01	(0.01)
	Ireland	0.01	(0.01)	0.00	(0.01)	0.01	(0.01)	0.00	(0.01)	0.00	(0.01)	-0.01	(0.01)	-0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)	-0.01	(0.01)
	Israel	**-0.01**	(0.01)	**-0.01**	(0.01)	**0.02**	(0.01)	0.01	(0.01)	0.00	(0.00)	**-0.01**	(0.00)	-0.01	(0.01)	0.01	(0.01)	0.00	(0.00)	0.00	(0.00)
	Italy	**0.01**	(0.00)	0.00	(0.00)	**0.02**	(0.00)	0.00	(0.00)	**0.01**	(0.00)	-0.01	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Japan	**0.01**	(0.00)	-0.01	(0.01)	**0.04**	(0.01)	**0.01**	(0.00)	**0.01**	(0.00)	-0.01	(0.00)	0.00	(0.00)	**0.02**	(0.01)	0.00	(0.00)	0.00	(0.00)
	Korea	0.00	(0.01)	**-0.01**	(0.00)	0.01	(0.01)	0.00	(0.00)	0.01	(0.01)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.01)	0.00	(0.01)
	Luxembourg	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**0.01**	(0.00)	**0.01**	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)
	Mexico	0.00	(0.00)	**0.00**	(0.00)	0.00	(0.00)	**0.00**	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Netherlands	0.00	(0.00)	**-0.01**	(0.01)	**0.02**	(0.00)	**-0.01**	(0.00)	-0.01	(0.01)	**-0.02**	(0.01)	0.00	(0.00)	**0.01**	(0.01)	**0.01**	(0.00)	**0.01**	(0.00)
	New Zealand	0.00	(0.00)	0.00	(0.00)	**0.02**	(0.00)	0.00	(0.00)	0.00	(0.00)	-0.01	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Norway	0.01	(0.02)	0.01	(0.02)	0.02	(0.02)	0.02	(0.01)	0.01	(0.02)	0.00	(0.02)	-0.01	(0.01)	0.00	(0.01)	0.03	(0.02)	0.03	(0.02)
	Poland	-0.02	(0.01)	**-0.03**	(0.01)	0.01	(0.01)	-0.01	(0.01)	0.01	(0.01)	-0.01	(0.01)	-0.02	(0.02)	0.01	(0.01)	-0.03	(0.01)	**-0.04**	(0.01)
	Portugal	0.00	(0.00)	**-0.01**	(0.00)	**0.02**	(0.01)	0.00	(0.00)	-0.01	(0.00)	**-0.02**	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Slovak Republic	0.00	(0.01)	0.00	(0.01)	0.02	(0.02)	0.00	(0.01)	0.00	(0.02)	-0.01	(0.01)	0.00	(0.01)	0.02	(0.01)	0.00	(0.01)	-0.01	(0.01)
	Slovenia	-0.01	(0.01)	**-0.02**	(0.01)	**0.03**	(0.01)	0.00	(0.01)	0.01	(0.01)	**-0.02**	(0.01)	-0.01	(0.01)	0.02	(0.01)	**-0.03**	(0.01)	**-0.05**	(0.01)
	Spain	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Sweden	0.02	(0.01)	0.01	(0.01)	**0.05**	(0.01)	**0.03**	(0.01)	0.01	(0.01)	-0.01	(0.01)	0.00	(0.01)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)
	Switzerland	**0.01**	(0.00)	0.00	(0.00)	**0.02**	(0.01)	0.00	(0.00)	0.01	(0.01)	-0.01	(0.01)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Turkey	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.01	(0.00)	0.01	(0.00)	0.00	(0.00)	-0.01	(0.00)	0.00	(0.00)
	United Kingdom	0.01	(0.00)	0.00	(0.01)	0.01	(0.01)	0.01	(0.00)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	0.01	(0.00)	0.01	(0.00)
	United States	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	OECD average	0.00	(0.00)	**-0.01**	(0.00)	**0.02**	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)	**0.00**	(0.00)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.00)	0.00	(0.01)	0.00	(0.01)
	Brazil	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Bulgaria	**-0.03**	(0.01)	**-0.03**	(0.01)	0.01	(0.01)	**-0.02**	(0.01)	**-0.02**	(0.01)	**-0.04**	(0.01)	**-0.02**	(0.01)	**0.02**	(0.01)	0.01	(0.01)	0.00	(0.01)
	Colombia	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Costa Rica	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	-0.01	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.01	(0.00)	0.00	(0.00)	0.00	(0.00)
	Croatia	0.01	(0.01)	0.00	(0.01)	**0.03**	(0.01)	0.00	(0.01)	**0.03**	(0.01)	0.01	(0.01)	0.00	(0.01)	**0.02**	(0.01)	0.02	(0.01)	0.01	(0.01)
	Cyprus*	**0.02**	(0.01)	0.00	(0.01)	**0.05**	(0.01)	0.00	(0.01)	**0.03**	(0.01)	0.00	(0.01)	**-0.03**	(0.01)	0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)
	Hong Kong-China	0.01	(0.01)	-0.01	(0.02)	**0.05**	(0.02)	-0.01	(0.01)	0.01	(0.01)	-0.02	(0.01)	**-0.02**	(0.01)	0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)
	Indonesia	-0.01	(0.01)	-0.01	(0.01)	0.01	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.01	(0.01)	0.00	(0.01)
	Jordan	-0.01	(0.01)	-0.01	(0.01)	**0.01**	(0.01)	0.00	(0.00)	0.00	(0.00)	0.00	(0.01)	**-0.02**	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)	-0.01	(0.00)
	Kazakhstan	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	-0.01	(0.00)	0.00	(0.00)	0.00	(0.00)	0.01	(0.00)	0.00	(0.00)	0.01	(0.00)	0.01	(0.00)
	Latvia	0.00	(0.01)	0.00	(0.01)	0.01	(0.01)	-0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.01	(0.01)	**0.02**	(0.01)	**0.01**	(0.01)	0.01	(0.01)
	Liechtenstein	-0.03	(0.03)	**-0.12**	(0.03)	**0.10**	(0.02)	-0.02	(0.03)	-0.01	(0.03)	**-0.11**	(0.03)	0.02	(0.03)	**0.11**	(0.03)	**-0.12**	(0.02)	**-0.17**	(0.03)
	Lithuania	-0.01	(0.01)	**-0.02**	(0.01)	**0.02**	(0.01)	-0.01	(0.01)	0.01	(0.01)	**-0.03**	(0.01)	-0.01	(0.01)	0.02	(0.01)	0.01	(0.01)	0.00	(0.01)
	Macao-China	0.00	(0.00)	**-0.01**	(0.00)	**0.02**	(0.00)	0.00	(0.00)	**0.00**	(0.00)	**-0.02**	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)	**-0.01**	(0.00)
	Malaysia	**-0.01**	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)	**0.00**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Montenegro	**-0.02**	(0.01)	**-0.02**	(0.01)	0.00	(0.01)	**-0.01**	(0.01)	-0.01	(0.01)	**-0.02**	(0.00)	-0.01	(0.00)	**0.01**	(0.00)	0.00	(0.01)	-0.01	(0.01)
	Peru	**-0.01**	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)	**-0.02**	(0.00)	**0.01**	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Qatar	**0.01**	(0.00)	**0.00**	(0.00)	**0.01**	(0.00)	**0.00**	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	**0.00**	(0.00)	**0.01**	(0.00)	**0.00**	(0.00)	0.00	(0.00)
	Romania	0.00	(0.00)	0.01	(0.00)	0.01	(0.00)	0.00	(0.00)	0.01	(0.00)	0.00	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.01	(0.00)	0.00	(0.00)
	Russian Federation	**-0.02**	(0.01)	**-0.02**	(0.01)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	**-0.02**	(0.00)	-0.01	(0.00)	0.00	(0.00)	-0.01	(0.01)	-0.01	(0.01)
	Serbia	-0.01	(0.01)	**-0.01**	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.00	(0.01)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)
	Shanghai-China	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Singapore	0.00	(0.00)	-0.01	(0.00)	**0.05**	(0.00)	**0.01**	(0.00)	**0.01**	(0.00)	-0.01	(0.00)	**-0.02**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
	Chinese Taipei	**0.00**	(0.00)	**0.00**	(0.00)	**0.00**	(0.00)	**0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)	**0.00**	(0.00)	**0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Thailand	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**0.00**	(0.00)	**-0.01**	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Tunisia	**-0.02**	(0.01)	**-0.02**	(0.01)	0.00	(0.01)	**-0.01**	(0.01)	0.00	(0.00)	**-0.02**	(0.01)	0.00	(0.00)	**0.01**	(0.00)	0.01	(0.01)	0.00	(0.01)
	United Arab Emirates	0.00	(0.00)	0.00	(0.00)	**0.00**	(0.00)	**0.00**	(0.00)	**0.00**	(0.00)	**-0.01**	(0.00)	**0.00**	(0.00)	**0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)
	Uruguay	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.01	(0.00)
	Viet Nam	0.00	(0.00)	0.00	(0.00)	**0.01**	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	**-0.01**	(0.00)	0.00	(0.00)	**0.01**	(0.01)	0.01	(0.00)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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Table III.5.29

[Part 1/2]

Relationship between school's socio-economic composition and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with school's socio-economic composition:																			
		Arriving late for school				Skipping classes or days of school				Sense of belonging				Perseverance				Openness to problem solving			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	-0.2	(1.6)	**5.0**	(1.8)	**-9.5**	1.6	**-3.6**	1.6	**0.18**	(0.04)	**0.14**	(0.04)	-0.04	(0.03)	**-0.21**	(0.03)	0.00	(0.03)	**-0.26**	(0.03)
	Austria	4.4	(2.8)	**8.4**	(3.3)	**4.7**	2.1	**8.8**	2.4	0.01	(0.08)	-0.08	(0.09)	-0.04	(0.05)	**-0.20**	(0.05)	0.04	(0.05)	**-0.24**	(0.05)
	Belgium	**-9.0**	(1.8)	1.1	(2.3)	**-8.3**	1.3	-1.8	1.6	0.05	(0.04)	-0.01	(0.04)	-0.02	(0.04)	**-0.23**	(0.05)	0.07	(0.04)	**-0.25**	(0.05)
	Canada	-0.5	(2.8)	4.0	(2.6)	-0.9	2.2	2.6	2.3	-0.03	(0.04)	-0.04	(0.04)	0.05	(0.04)	-0.04	(0.05)	0.00	(0.03)	**-0.17**	(0.04)
	Chile	**-5.7**	(1.4)	-1.7	(1.6)	**-4.6**	1.3	-1.3	1.3	0.06	(0.03)	0.05	(0.03)	-0.01	(0.03)	**-0.10**	(0.03)	0.01	(0.03)	**-0.17**	(0.03)
	Czech Republic	**-11.8**	(2.7)	-3.1	(3.2)	**-4.7**	2.2	0.1	2.2	-0.06	(0.06)	**-0.16**	(0.07)	-0.09	(0.06)	**-0.23**	(0.07)	0.04	(0.07)	**-0.33**	(0.07)
	Denmark	1.0	(3.1)	4.3	(3.0)	-0.1	2.3	3.5	2.3	0.06	(0.05)	0.05	(0.05)	-0.02	(0.05)	**-0.16**	(0.05)	0.05	(0.05)	**-0.11**	(0.05)
	Estonia	5.8	(3.1)	**9.1**	(3.2)	3.8	2.8	**9.4**	2.6	-0.02	(0.05)	-0.04	(0.05)	**-0.20**	(0.05)	**-0.23**	(0.05)	0.03	(0.05)	**-0.13**	(0.05)
	Finland	**13.7**	(2.9)	**16.4**	(2.9)	1.9	2.3	4.1	2.3	**0.18**	(0.06)	**0.18**	(0.06)	**-0.12**	(0.05)	**-0.19**	(0.05)	0.02	(0.05)	-0.08	(0.05)
	France	**-9.2**	(2.6)	2.4	(2.8)	**-6.2**	1.8	0.1	2.3	**0.14**	(0.05)	0.04	(0.06)	**0.17**	(0.05)	**-0.25**	(0.06)	**0.14**	(0.06)	**-0.37**	(0.06)
	Germany	1.5	(2.1)	**6.2**	(2.2)	-0.3	1.3	**3.5**	1.4	0.08	(0.06)	0.05	(0.06)	-0.06	(0.05)	**-0.31**	(0.05)	-0.04	(0.04)	**-0.35**	(0.05)
	Greece	1.7	(2.3)	3.9	(2.5)	**-5.4**	2.0	-2.8	2.1	-0.04	(0.04)	-0.06	(0.04)	**0.09**	(0.04)	-0.08	(0.04)	**0.10**	(0.04)	-0.08	(0.04)
	Hungary	**-13.2**	(2.8)	-4.4	(3.6)	**-13.4**	1.4	**-8.9**	1.8	**0.18**	(0.05)	0.08	(0.06)	0.06	(0.04)	-0.08	(0.05)	**0.13**	(0.05)	**-0.11**	(0.05)
	Iceland	4.5	(2.5)	**7.7**	(2.4)	-1.4	1.9	0.6	1.9	**0.18**	(0.07)	**0.15**	(0.07)	0.09	(0.07)	-0.05	(0.07)	**0.17**	(0.08)	-0.02	(0.07)
	Ireland	**-7.5**	(2.6)	-3.4	(2.6)	0.3	1.9	1.5	1.9	-0.04	(0.05)	-0.03	(0.05)	-0.06	(0.04)	**-0.22**	(0.04)	**-0.12**	(0.05)	**-0.36**	(0.05)
	Israel	-1.5	(2.7)	2.3	(3.1)	**6.6**	2.2	**9.8**	2.5	0.01	(0.07)	-0.01	(0.07)	**-0.31**	(0.07)	**-0.37**	(0.07)	**-0.30**	(0.05)	**-0.54**	(0.06)
	Italy	**-10.0**	(1.3)	**-3.5**	(1.3)	**-10.1**	1.1	**-3.7**	1.2	-0.01	(0.03)	0.00	(0.03)	0.05	(0.03)	**-0.11**	(0.03)	0.02	(0.02)	**-0.17**	(0.03)
	Japan	**-4.8**	(2.0)	-0.2	(1.8)	**-8.9**	2.5	**-5.1**	2.5	**0.28**	(0.06)	**0.38**	(0.07)	**0.27**	(0.05)	-0.06	(0.06)	**0.39**	(0.07)	-0.07	(0.07)
	Korea	**-10.9**	(2.8)	-1.7	(2.8)	**-3.6**	1.2	1.3	1.2	0.13	(0.07)	0.04	(0.06)	**0.13**	(0.05)	**-0.10**	(0.04)	**0.37**	(0.06)	0.00	(0.05)
	Luxembourg	0.8	(1.1)	**5.1**	(1.3)	**-3.0**	0.9	0.7	1.0	**0.10**	(0.04)	0.00	(0.04)	0.00	(0.04)	**-0.14**	(0.03)	0.03	(0.03)	**-0.19**	(0.03)
	Mexico	1.5	(0.9)	**3.6**	(0.9)	**3.4**	0.8	**5.5**	0.8	**0.05**	(0.02)	0.03	(0.02)	**0.05**	(0.02)	-0.02	(0.02)	**0.06**	(0.02)	**-0.04**	(0.02)
	Netherlands	**-9.7**	(3.0)	5.9	(3.4)	1.2	2.3	6.1	3.6	**0.14**	(0.06)	0.09	(0.07)	-0.06	(0.06)	**-0.20**	(0.06)	**0.16**	(0.06)	**-0.19**	(0.07)
	New Zealand	**-8.8**	(2.6)	-2.3	(2.8)	**-11.2**	2.1	-2.5	2.1	-0.09	(0.05)	**-0.11**	(0.06)	0.00	(0.04)	**-0.19**	(0.04)	-0.04	(0.05)	**-0.30**	(0.05)
	Norway	**9.1**	(3.5)	**13.8**	(3.6)	**6.9**	2.4	**11.2**	2.3	-0.02	(0.09)	-0.04	(0.09)	0.03	(0.08)	**-0.20**	(0.08)	-0.06	(0.09)	**-0.30**	(0.09)
	Poland	**18.0**	(2.1)	**21.7**	(1.8)	**8.8**	2.1	**12.3**	2.1	**-0.14**	(0.05)	**-0.13**	(0.05)	0.04	(0.06)	-0.08	(0.05)	-0.01	(0.05)	**-0.11**	(0.05)
	Portugal	0.0	(1.4)	1.4	(1.4)	-1.7	1.8	1.2	1.8	0.05	(0.03)	0.03	(0.03)	0.02	(0.04)	**-0.10**	(0.04)	0.05	(0.03)	-0.04	(0.03)
	Slovak Republic	-4.3	(2.5)	0.8	(2.6)	**-6.1**	1.4	-2.2	1.6	0.07	(0.06)	0.00	(0.06)	-0.02	(0.05)	**-0.26**	(0.06)	-0.02	(0.05)	**-0.25**	(0.06)
	Slovenia	**-6.2**	(2.2)	3.9	(2.7)	**-12.6**	1.8	0.3	2.3	0.05	(0.06)	-0.02	(0.07)	0.01	(0.04)	**-0.17**	(0.05)	**0.11**	(0.05)	**-0.33**	(0.06)
	Spain	-0.8	(1.8)	1.5	(1.8)	**-3.3**	1.4	-0.5	1.4	-0.02	(0.04)	-0.03	(0.04)	**-0.08**	(0.03)	**-0.14**	(0.04)	**-0.07**	(0.03)	**-0.16**	(0.03)
	Sweden	4.1	(3.7)	**8.2**	(3.7)	0.3	2.7	4.4	2.5	**0.17**	(0.08)	0.15	(0.08)	0.08	(0.05)	-0.08	(0.05)	0.07	(0.07)	-0.13	(0.07)
	Switzerland	**12.2**	(2.1)	**14.9**	(2.4)	**5.6**	1.7	**8.8**	1.6	0.08	(0.06)	0.00	(0.06)	-0.09	(0.05)	**-0.20**	(0.05)	0.00	(0.05)	**-0.17**	(0.05)
	Turkey	**-5.8**	(1.5)	-3.0	(1.6)	**3.2**	1.6	2.4	1.7	0.01	(0.04)	0.00	(0.06)	**0.10**	(0.04)	-0.07	(0.04)	**0.08**	(0.03)	**-0.08**	(0.04)
	United Kingdom	**-3.4**	(1.7)	**4.4**	(1.8)	-0.6	1.9	**5.2**	1.7	-0.07	(0.06)	-0.10	(0.06)	-0.09	(0.06)	**-0.31**	(0.06)	0.03	(0.05)	**-0.27**	(0.05)
	United States	**-9.9**	(2.3)	**-6.6**	(2.1)	**-5.1**	1.9	-3.5	2.0	0.01	(0.05)	0.00	(0.05)	**-0.14**	(0.04)	**-0.23**	(0.04)	**-0.15**	(0.04)	**-0.31**	(0.05)
	OECD average	**-1.6**	(0.4)	**3.7**	(0.4)	**-2.2**	0.3	**2.0**	0.3	**0.05**	(0.01)	0.02	(0.01)	-0.01	(0.01)	**-0.16**	(0.01)	**0.04**	(0.01)	**-0.20**	(0.01)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**-5.5**	(2.2)	-0.6	(2.0)	-4.7	2.4	0.3	2.5	0.03	(0.04)	-0.02	(0.04)	-0.06	(0.03)	**-0.16**	(0.04)	-0.07	(0.04)	**-0.18**	(0.06)
	Brazil	0.3	(1.3)	2.2	(1.4)	-1.5	1.2	-0.7	1.2	-0.02	(0.02)	-0.02	(0.02)	**-0.04**	(0.02)	**-0.14**	(0.02)	**-0.10**	(0.02)	**-0.19**	(0.02)
	Bulgaria	**-4.3**	(1.8)	0.6	(1.9)	**-10.7**	1.9	-2.9	1.9	**0.12**	(0.04)	0.04	(0.04)	**0.16**	(0.04)	0.05	(0.05)	-0.03	(0.04)	-0.09	(0.05)
	Colombia	-1.8	(1.9)	-0.2	(2.0)	-0.3	1.2	0.5	1.3	**0.11**	(0.03)	**0.08**	(0.04)	**0.08**	(0.03)	0.04	(0.04)	-0.04	(0.03)	-0.06	(0.03)
	Costa Rica	-3.5	(2.0)	-3.0	(2.1)	**-6.2**	1.9	**-5.4**	1.9	-0.04	(0.05)	-0.05	(0.05)	0.04	(0.04)	-0.02	(0.04)	0.05	(0.03)	**-0.08**	(0.03)
	Croatia	-0.5	(2.4)	**7.3**	(2.8)	**-17.5**	2.0	**-6.7**	2.3	0.02	(0.06)	-0.01	(0.05)	**-0.11**	(0.05)	**-0.22**	(0.05)	-0.02	(0.04)	**-0.18**	(0.04)
	Cyprus*	**-4.2**	(1.7)	0.1	(1.8)	1.5	1.8	**8.9**	1.9	0.00	(0.04)	-0.04	(0.05)	**0.12**	(0.03)	-0.05	(0.04)	0.00	(0.04)	**-0.25**	(0.04)
	Hong Kong-China	**-3.2**	(1.4)	0.7	(1.3)	-1.1	0.9	**2.0**	0.8	0.03	(0.04)	0.01	(0.04)	0.00	(0.03)	**-0.08**	(0.03)	**0.09**	(0.04)	-0.08	(0.04)
	Indonesia	-0.4	(2.1)	2.6	(2.2)	-0.1	1.6	3.4	1.7	0.02	(0.04)	-0.02	(0.04)	0.05	(0.05)	0.01	(0.05)	0.04	(0.05)	0.03	(0.05)
	Jordan	3.1	(1.9)	**5.5**	(1.9)	0.1	1.9	2.1	2.1	0.04	(0.04)	-0.08	(0.05)	0.03	(0.05)	**-0.17**	(0.05)	0.02	(0.06)	-0.10	(0.06)
	Kazakhstan	-1.7	(3.9)	0.2	(3.8)	-6.1	3.7	-2.5	3.6	0.11	(0.10)	0.08	(0.10)	**0.23**	(0.07)	**0.16**	(0.07)	0.05	(0.08)	0.01	(0.08)
	Latvia	0.3	(2.9)	2.1	(3.0)	1.5	2.3	3.7	2.4	**-0.21**	(0.05)	**-0.20**	(0.06)	**0.10**	(0.05)	0.02	(0.05)	0.05	(0.05)	-0.07	(0.05)
	Liechtenstein	-5.7	(7.1)	2.0	(8.3)	4.8	4.3	10.6	5.5	-0.11	(0.21)	-0.31	(0.23)	-0.09	(0.16)	-0.28	(0.17)	-0.06	(0.18)	-0.44	(0.23)
	Lithuania	-1.7	(2.7)	3.1	(2.7)	-4.8	2.9	3.6	2.6	**0.25**	(0.05)	**0.12**	(0.06)	0.06	(0.04)	-0.01	(0.04)	0.10	(0.05)	**-0.11**	(0.05)
	Macao-China	1.2	(1.6)	**5.1**	(1.6)	**2.3**	1.0	**4.2**	1.0	-0.03	(0.04)	-0.02	(0.04)	**-0.09**	(0.03)	**-0.15**	(0.03)	0.04	(0.04)	-0.06	(0.04)
	Malaysia	**-7.5**	(1.8)	-0.3	(1.6)	4.4	2.5	**10.1**	2.5	**-0.19**	(0.04)	**-0.24**	(0.04)	-0.03	(0.04)	**-0.11**	(0.04)	-0.06	(0.03)	**-0.12**	(0.04)
	Montenegro	**-6.3**	(2.4)	-1.2	(2.7)	**-4.9**	2.1	1.4	2.3	**-0.25**	(0.05)	**-0.19**	(0.06)	**0.15**	(0.07)	**-0.17**	(0.07)	**-0.21**	(0.04)	**-0.30**	(0.05)
	Peru	**-3.3**	(1.6)	0.9	(1.7)	**-5.9**	1.0	-1.6	1.2	**0.06**	(0.03)	0.04	(0.03)	-0.03	(0.03)	**-0.12**	(0.03)	**-0.05**	(0.02)	**-0.15**	(0.03)
	Qatar	1.1	(1.2)	**10.7**	(1.2)	**7.3**	1.1	**10.9**	1.2	-0.04	(0.03)	**-0.19**	(0.03)	**0.07**	(0.03)	**-0.15**	(0.03)	**-0.24**	(0.03)	**-0.35**	(0.03)
	Romania	-3.9	(2.5)	-1.9	(2.7)	**-6.5**	2.3	-2.6	2.3	**0.13**	(0.05)	**0.10**	(0.05)	0.06	(0.05)	-0.01	(0.05)	0.00	(0.05)	-0.08	(0.05)
	Russian Federation	6.2	(3.4)	**10.2**	(3.4)	5.9	3.4	**9.6**	3.3	-0.10	(0.06)	-0.11	(0.06)	0.01	(0.06)	-0.03	(0.06)	**0.16**	(0.06)	0.04	(0.07)
	Serbia	-2.1	(2.9)	4.9	(3.3)	**-7.6**	3.5	-1.5	3.7	-0.07	(0.05)	-0.07	(0.06)	-0.04	(0.05)	**-0.22**	(0.06)	-0.06	(0.05)	**-0.27**	(0.05)
	Shanghai-China	**-5.3**	(1.5)	0.6	(1.5)	-1.2	0.8	0.0	0.8	-0.01	(0.04)	-0.02	(0.04)	0.03	(0.04)	-0.05	(0.04)	**0.20**	(0.04)	0.02	(0.05)
	Singapore	**-4.1**	(1.5)	1.5	(1.4)	-0.5	1.2	**3.3**	1.4	0.03	(0.03)	0.00	(0.03)	**-0.08**	(0.03)	**-0.16**	(0.03)	0.01	(0.04)	**-0.10**	(0.04)
	Chinese Taipei	-4.4	(2.3)	4.3	(2.6)	**-11.2**	1.5	**-4.0**	1.6	-0.01	(0.04)	0.03	(0.05)	**0.09**	(0.04)	**-0.15**	(0.05)	**0.22**	(0.05)	-0.05	(0.06)
	Thailand	**-3.0**	(1.5)	-0.3	(1.5)	**-4.5**	1.5	-2.0	1.5	0.04	(0.03)	-0.01	(0.03)	**0.06**	(0.02)	0.00	(0.03)	**-0.10**	(0.02)	**-0.12**	(0.02)
	Tunisia	2.9	(1.6)	**4.7**	(1.6)	-2.5	1.6	0.1	1.6	0.04	(0.03)	0.00	(0.04)	0.08	(0.05)	-0.06	(0.04)	0.04	(0.03)	-0.05	(0.03)
	United Arab Emirates	0.5	(1.9)	**7.8**	(2.0)	**-8.5**	1.9	-2.7	1.9	-0.03	(0.04)	**-0.16**	(0.04)	0.04	(0.04)	**-0.19**	(0.04)	**-0.19**	(0.04)	**-0.35**	(0.04)
	Uruguay	-3.5	(1.9)	-2.3	(1.9)	**-6.6**	1.5	**-5.2**	1.5	0.01	(0.04)	0.02	(0.04)	**-0.07**	(0.03)	**-0.19**	(0.04)	**-0.10**	(0.03)	**-0.26**	(0.03)
	Viet Nam	**-4.0**	(1.1)	-1.2	(1.1)	**-6.7**	1.2	**-3.3**	0.9	0.00	(0.03)	0.01	(0.03)	0.01	(0.03)	-0.03	(0.03)	**0.13**	(0.03)	0.04	(0.03)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.5.29 Relationship between school's socio-economic composition and student dispositions

Results based on students' self-reports

		Change in the following student dispositions that is associated with school's socio-economic composition:																			
		Intrinsic motivation to learn mathematics				Mathematics self-efficacy				Mathematics self-concept				Mathematics anxiety				Mathematics intentions			
		Before accounting for mathematics performance, accounting for ESCS[1]		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS		Before accounting for mathematics performance, accounting for ESCS		After accounting for mathematics performance and ESCS	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	-0.03	(0.04)	**-0.21**	(0.04)	**0.31**	(0.04)	**-0.08**	(0.03)	0.02	(0.04)	**-0.29**	(0.04)	**-0.11**	(0.04)	**0.15**	(0.04)	-0.06	(0.04)	**-0.10**	(0.04)
	Austria	-0.09	(0.06)	**-0.31**	(0.06)	**0.40**	(0.06)	-0.03	(0.05)	-0.06	(0.06)	**-0.51**	(0.06)	-0.13	(0.07)	**0.31**	(0.07)	**-0.35**	(0.08)	**-0.51**	(0.08)
	Belgium	**0.10**	(0.04)	**-0.13**	(0.05)	**0.39**	(0.04)	-0.05	(0.05)	0.01	(0.04)	**-0.37**	(0.04)	-0.06	(0.04)	**0.29**	(0.04)	0.04	(0.04)	-0.14	(0.05)
	Canada	0.01	(0.04)	**-0.09**	(0.04)	**0.18**	(0.04)	-0.04	(0.03)	-0.05	(0.04)	**-0.29**	(0.04)	-0.07	(0.04)	**0.15**	(0.05)	0.00	(0.04)	-0.05	(0.04)
	Chile	-0.02	(0.03)	**-0.17**	(0.03)	**0.08**	(0.02)	**-0.10**	(0.02)	0.02	(0.03)	**-0.26**	(0.03)	**-0.10**	(0.02)	**0.06**	(0.03)	**0.09**	(0.03)	-0.06	(0.04)
	Czech Republic	-0.03	(0.07)	**-0.36**	(0.07)	**0.45**	(0.06)	**-0.14**	(0.06)	**0.19**	(0.07)	**-0.53**	(0.09)	**-0.23**	(0.06)	**0.38**	(0.07)	0.00	(0.07)	**-0.36**	(0.08)
	Denmark	-0.05	(0.05)	**-0.21**	(0.05)	**0.21**	(0.06)	-0.02	(0.05)	-0.05	(0.05)	**-0.33**	(0.05)	-0.04	(0.05)	**0.22**	(0.05)	**0.11**	(0.05)	0.08	(0.05)
	Estonia	-0.01	(0.06)	-0.11	(0.06)	**0.21**	(0.05)	0.01	(0.05)	-0.05	(0.06)	**-0.27**	(0.05)	-0.03	(0.06)	**0.21**	(0.06)	-0.03	(0.05)	**-0.11**	(0.05)
	Finland	**0.14**	(0.07)	0.07	(0.07)	0.11	(0.06)	0.00	(0.05)	-0.04	(0.06)	**-0.16**	(0.06)	0.10	(0.06)	**0.18**	(0.05)	0.06	(0.07)	0.00	(0.07)
	France	0.05	(0.05)	**-0.27**	(0.06)	**0.49**	(0.06)	**-0.14**	(0.05)	0.09	(0.05)	**-0.57**	(0.06)	-0.03	(0.05)	**0.45**	(0.07)	0.09	(0.06)	0.00	(0.07)
	Germany	**-0.15**	(0.07)	**-0.52**	(0.08)	**0.38**	(0.04)	**-0.20**	(0.04)	-0.05	(0.05)	**-0.62**	(0.07)	**-0.14**	(0.06)	**0.41**	(0.07)	**-0.24**	(0.06)	**-0.47**	(0.07)
	Greece	0.04	(0.04)	**-0.16**	(0.04)	**0.19**	(0.04)	**-0.09**	(0.04)	0.05	(0.04)	**-0.20**	(0.05)	**-0.11**	(0.04)	**0.13**	(0.05)	**0.14**	(0.04)	0.02	(0.05)
	Hungary	-0.05	(0.05)	**-0.32**	(0.06)	**0.58**	(0.05)	-0.06	(0.06)	0.07	(0.04)	**-0.43**	(0.05)	**-0.32**	(0.05)	**0.15**	(0.06)	0.07	(0.05)	**-0.40**	(0.07)
	Iceland	0.07	(0.06)	-0.06	(0.07)	**0.39**	(0.06)	**0.16**	(0.06)	0.05	(0.07)	**-0.13**	(0.06)	**-0.20**	(0.07)	-0.05	(0.07)	-0.02	(0.06)	-0.05	(0.06)
	Ireland	**-0.12**	(0.06)	**-0.28**	(0.05)	**0.16**	(0.06)	**-0.15**	(0.05)	-0.06	(0.05)	**-0.33**	(0.04)	-0.03	(0.05)	**0.21**	(0.05)	**-0.13**	(0.07)	**-0.19**	(0.07)
	Israel	**-0.46**	(0.06)	**-0.53**	(0.07)	**0.21**	(0.05)	**-0.26**	(0.06)	-0.06	(0.04)	**-0.36**	(0.05)	**-0.14**	(0.07)	**0.13**	(0.06)	-0.02	(0.05)	**-0.12**	(0.06)
	Italy	0.02	(0.03)	**-0.17**	(0.03)	**0.28**	(0.03)	**-0.10**	(0.02)	**0.07**	(0.03)	**-0.27**	(0.03)	-0.04	(0.03)	**0.23**	(0.03)	**-0.08**	(0.03)	**-0.28**	(0.03)
	Japan	**0.42**	(0.06)	-0.13	(0.07)	**1.04**	(0.08)	**0.21**	(0.06)	**0.15**	(0.06)	**-0.38**	(0.07)	-0.03	(0.07)	**0.43**	(0.08)	**0.21**	(0.05)	0.05	(0.06)
	Korea	**0.44**	(0.09)	-0.03	(0.07)	**0.83**	(0.10)	**0.14**	(0.06)	**0.28**	(0.07)	**-0.22**	(0.06)	-0.05	(0.05)	**0.15**	(0.06)	**0.41**	(0.07)	0.10	(0.08)
	Luxembourg	0.05	(0.04)	**-0.13**	(0.04)	**0.28**	(0.03)	**-0.10**	(0.03)	**0.11**	(0.03)	**-0.18**	(0.03)	**-0.18**	(0.04)	**0.14**	(0.04)	0.00	(0.03)	**-0.07**	(0.03)
	Mexico	**-0.13**	(0.01)	**-0.18**	(0.01)	**0.05**	(0.01)	**-0.06**	(0.01)	0.02	(0.01)	**-0.10**	(0.01)	**-0.06**	(0.01)	**0.06**	(0.01)	**0.05**	(0.02)	-0.01	(0.02)
	Netherlands	0.12	(0.07)	-0.16	(0.08)	**0.61**	(0.06)	-0.07	(0.07)	-0.03	(0.09)	**-0.49**	(0.11)	-0.09	(0.09)	**0.34**	(0.11)	**0.17**	(0.07)	**0.35**	(0.07)
	New Zealand	-0.02	(0.08)	-0.13	(0.08)	**0.31**	(0.06)	-0.06	(0.05)	0.00	(0.05)	**-0.27**	(0.05)	**-0.20**	(0.05)	0.06	(0.05)	0.03	(0.06)	-0.04	(0.06)
	Norway	-0.04	(0.09)	**-0.24**	(0.09)	**0.22**	(0.09)	-0.11	(0.09)	0.10	(0.09)	**-0.26**	(0.06)	-0.07	(0.09)	**0.22**	(0.07)	0.16	(0.10)	0.05	(0.09)
	Poland	**-0.12**	(0.05)	**-0.24**	(0.04)	0.14	(0.08)	**-0.12**	(0.05)	0.00	(0.08)	**-0.26**	(0.05)	-0.05	(0.08)	**0.20**	(0.06)	-0.08	(0.06)	**-0.24**	(0.05)
	Portugal	-0.05	(0.04)	**-0.13**	(0.04)	**0.18**	(0.04)	-0.05	(0.04)	-0.05	(0.03)	**-0.20**	(0.03)	-0.01	(0.02)	**0.09**	(0.02)	0.05	(0.04)	0.00	(0.04)
	Slovak Republic	**-0.19**	(0.06)	**-0.33**	(0.07)	**0.36**	(0.05)	-0.06	(0.05)	-0.08	(0.05)	**-0.44**	(0.05)	**-0.21**	(0.05)	**0.17**	(0.04)	0.03	(0.07)	**-0.25**	(0.07)
	Slovenia	0.06	(0.06)	**-0.28**	(0.10)	**0.56**	(0.05)	-0.02	(0.06)	0.06	(0.05)	**-0.61**	(0.07)	-0.04	(0.06)	**0.50**	(0.08)	**-0.13**	(0.05)	**-0.54**	(0.08)
	Spain	**-0.10**	(0.03)	**-0.16**	(0.03)	0.04	(0.03)	**-0.08**	(0.03)	**-0.06**	(0.03)	**-0.18**	(0.03)	-0.02	(0.03)	**0.06**	(0.03)	0.06	(0.04)	0.00	(0.03)
	Sweden	0.09	(0.07)	-0.07	(0.07)	**0.35**	(0.08)	0.13	(0.07)	0.09	(0.07)	**-0.15**	(0.07)	-0.12	(0.07)	0.09	(0.07)	0.10	(0.05)	0.04	(0.06)
	Switzerland	-0.08	(0.05)	**-0.21**	(0.05)	**0.38**	(0.05)	0.01	(0.04)	-0.08	(0.05)	**-0.36**	(0.04)	0.01	(0.05)	**0.30**	(0.05)	**-0.34**	(0.05)	**-0.41**	(0.06)
	Turkey	-0.03	(0.05)	**-0.23**	(0.04)	**0.35**	(0.05)	-0.03	(0.04)	**0.13**	(0.04)	**-0.12**	(0.04)	**-0.26**	(0.04)	0.03	(0.04)	**0.07**	(0.03)	**-0.11**	(0.03)
	United Kingdom	-0.01	(0.06)	**-0.18**	(0.05)	**0.30**	(0.06)	**-0.15**	(0.05)	0.03	(0.07)	**-0.29**	(0.07)	**-0.15**	(0.07)	0.14	(0.07)	-0.06	(0.05)	-0.07	(0.05)
	United States	**-0.23**	(0.05)	**-0.32**	(0.05)	**0.10**	(0.04)	**-0.14**	(0.04)	-0.05	(0.05)	**-0.27**	(0.05)	-0.05	(0.05)	**0.18**	(0.05)	-0.08	(0.04)	**-0.13**	(0.04)
	OECD average	-0.01	(0.01)	**-0.20**	(0.01)	**0.33**	(0.01)	**-0.05**	(0.01)	**0.02**	(0.01)	**-0.32**	(0.01)	**-0.10**	(0.01)	**0.20**	(0.01)	0.01	(0.01)	**-0.12**	(0.01)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**-0.28**	(0.04)	**-0.32**	(0.04)	0.00	(0.04)	**-0.14**	(0.05)	**-0.08**	(0.03)	**-0.25**	(0.05)	**-0.18**	(0.04)	0.00	(0.04)	**0.14**	(0.05)	0.06	(0.04)
	Brazil	**-0.19**	(0.02)	**-0.21**	(0.02)	**0.10**	(0.03)	-0.04	(0.02)	**-0.10**	(0.03)	**-0.25**	(0.02)	**-0.08**	(0.02)	**0.10**	(0.02)	-0.03	(0.03)	**-0.13**	(0.03)
	Bulgaria	**-0.22**	(0.05)	**-0.25**	(0.05)	**0.13**	(0.04)	-0.06	(0.04)	-0.06	(0.05)	**-0.23**	(0.06)	**-0.21**	(0.04)	0.08	(0.04)	0.09	(0.05)	-0.08	(0.06)
	Colombia	**-0.14**	(0.03)	**-0.15**	(0.03)	0.02	(0.03)	-0.03	(0.03)	-0.04	(0.03)	**-0.15**	(0.03)	**-0.07**	(0.03)	**0.06**	(0.03)	0.01	(0.03)	-0.04	(0.03)
	Costa Rica	-0.07	(0.04)	**-0.09**	(0.04)	**0.12**	(0.04)	0.05	(0.04)	**0.12**	(0.04)	-0.03	(0.04)	**-0.13**	(0.04)	0.01	(0.04)	0.03	(0.04)	0.01	(0.04)
	Croatia	-0.01	(0.08)	**-0.17**	(0.08)	**0.52**	(0.07)	0.01	(0.05)	0.12	(0.09)	**-0.29**	(0.07)	**-0.20**	(0.07)	**0.21**	(0.06)	**-0.11**	(0.05)	**-0.27**	(0.07)
	Cyprus*	0.09	(0.05)	**-0.14**	(0.05)	**0.32**	(0.05)	-0.07	(0.05)	**0.13**	(0.04)	**-0.20**	(0.04)	**-0.22**	(0.05)	**0.10**	(0.05)	-0.08	(0.04)	**-0.18**	(0.05)
	Hong Kong-China	0.06	(0.04)	**-0.15**	(0.05)	**0.32**	(0.05)	-0.05	(0.04)	**0.10**	(0.04)	**-0.13**	(0.04)	**-0.13**	(0.04)	0.08	(0.04)	0.08	(0.04)	-0.06	(0.05)
	Indonesia	**-0.17**	(0.03)	**-0.17**	(0.02)	0.02	(0.03)	-0.03	(0.03)	**-0.10**	(0.02)	**-0.09**	(0.03)	0.03	(0.03)	**0.10**	(0.03)	-0.06	(0.04)	**-0.15**	(0.04)
	Jordan	-0.09	(0.07)	**-0.19**	(0.06)	**0.13**	(0.06)	-0.03	(0.05)	0.02	(0.04)	**-0.15**	(0.04)	-0.06	(0.04)	0.07	(0.04)	-0.05	(0.03)	-0.03	(0.03)
	Kazakhstan	-0.17	(0.09)	**-0.18**	(0.09)	**0.29**	(0.09)	**0.19**	(0.08)	-0.11	(0.07)	**-0.20**	(0.07)	-0.12	(0.07)	0.00	(0.07)	**0.28**	(0.07)	**0.23**	(0.08)
	Latvia	-0.05	(0.06)	**-0.14**	(0.06)	**0.13**	(0.04)	-0.08	(0.04)	0.01	(0.04)	**-0.18**	(0.05)	**-0.08**	(0.04)	0.08	(0.04)	0.04	(0.06)	-0.05	(0.06)
	Liechtenstein	**-0.50**	(0.22)	**-1.03**	(0.31)	**0.56**	(0.17)	-0.23	(0.19)	-0.14	(0.20)	**-0.65**	(0.24)	0.14	(0.18)	**0.60**	(0.26)	**-0.73**	(0.20)	**-0.85**	(0.25)
	Lithuania	-0.05	(0.06)	**-0.19**	(0.07)	**0.24**	(0.05)	**-0.12**	(0.04)	**0.11**	(0.05)	**-0.27**	(0.05)	**-0.21**	(0.06)	**0.15**	(0.06)	0.07	(0.05)	-0.10	(0.05)
	Macao-China	**-0.08**	(0.04)	**-0.17**	(0.04)	**0.09**	(0.04)	**-0.11**	(0.04)	-0.05	(0.03)	**-0.17**	(0.04)	0.05	(0.04)	**0.18**	(0.04)	0.06	(0.04)	0.04	(0.04)
	Malaysia	-0.04	(0.04)	**-0.15**	(0.04)	0.04	(0.03)	**-0.13**	(0.03)	**-0.12**	(0.03)	**-0.24**	(0.03)	0.04	(0.04)	**0.17**	(0.04)	-0.03	(0.05)	-0.09	(0.04)
	Montenegro	**-0.20**	(0.05)	**-0.36**	(0.06)	**0.14**	(0.05)	**-0.28**	(0.05)	0.03	(0.06)	**-0.35**	(0.06)	**-0.20**	(0.06)	**0.20**	(0.06)	0.02	(0.06)	**-0.20**	(0.08)
	Peru	**-0.28**	(0.03)	**-0.31**	(0.03)	-0.04	(0.03)	**-0.13**	(0.03)	**-0.13**	(0.02)	**-0.29**	(0.03)	0.00	(0.02)	**0.15**	(0.02)	-0.04	(0.03)	**-0.14**	(0.03)
	Qatar	**-0.26**	(0.03)	**-0.37**	(0.03)	**0.14**	(0.04)	**-0.11**	(0.04)	-0.05	(0.03)	**-0.20**	(0.03)	**-0.18**	(0.04)	**0.10**	(0.04)	0.00	(0.03)	0.02	(0.03)
	Romania	-0.06	(0.05)	-0.01	(0.06)	**0.22**	(0.05)	0.05	(0.04)	-0.03	(0.05)	**-0.15**	(0.05)	**-0.24**	(0.04)	-0.08	(0.05)	0.05	(0.06)	-0.11	(0.06)
	Russian Federation	**-0.14**	(0.05)	**-0.21**	(0.06)	**0.27**	(0.06)	0.08	(0.06)	**-0.14**	(0.05)	**-0.28**	(0.06)	**-0.16**	(0.05)	-0.01	(0.05)	-0.04	(0.08)	**-0.17**	(0.08)
	Serbia	-0.09	(0.06)	**-0.21**	(0.07)	**0.31**	(0.06)	**-0.14**	(0.05)	0.12	(0.07)	**-0.34**	(0.06)	**-0.22**	(0.05)	**0.19**	(0.05)	**0.12**	(0.06)	**-0.15**	(0.07)
	Shanghai-China	0.05	(0.05)	**-0.11**	(0.05)	**0.60**	(0.05)	0.09	(0.05)	**0.08**	(0.03)	**-0.20**	(0.04)	**-0.10**	(0.04)	**0.20**	(0.04)	**0.10**	(0.04)	**-0.11**	(0.05)
	Singapore	**-0.18**	(0.04)	**-0.27**	(0.04)	**0.41**	(0.05)	-0.03	(0.03)	**0.09**	(0.04)	**-0.15**	(0.04)	**-0.24**	(0.04)	0.04	(0.04)	**-0.13**	(0.04)	**-0.12**	(0.04)
	Chinese Taipei	**0.17**	(0.04)	**-0.22**	(0.05)	**0.79**	(0.06)	0.00	(0.06)	**0.29**	(0.06)	**-0.24**	(0.06)	**-0.13**	(0.05)	**0.18**	(0.06)	**0.28**	(0.05)	-0.11	(0.06)
	Thailand	**-0.12**	(0.03)	**-0.15**	(0.03)	0.04	(0.02)	-0.02	(0.03)	**-0.12**	(0.02)	**-0.15**	(0.03)	0.03	(0.02)	**0.09**	(0.02)	0.04	(0.03)	-0.02	(0.04)
	Tunisia	-0.06	(0.04)	**-0.15**	(0.05)	**0.14**	(0.05)	-0.01	(0.04)	**0.08**	(0.03)	**-0.07**	(0.03)	-0.04	(0.03)	**0.06**	(0.03)	**0.14**	(0.04)	0.00	(0.05)
	United Arab Emirates	**-0.31**	(0.04)	**-0.41**	(0.04)	0.04	(0.05)	**-0.26**	(0.05)	**-0.08**	(0.03)	**-0.29**	(0.04)	**-0.26**	(0.04)	0.08	(0.05)	-0.01	(0.04)	-0.03	(0.04)
	Uruguay	**-0.17**	(0.03)	**-0.22**	(0.03)	0.05	(0.04)	**-0.13**	(0.03)	-0.06	(0.03)	**-0.31**	(0.04)	**-0.06**	(0.03)	**0.17**	(0.03)	**0.13**	(0.03)	0.06	(0.03)
	Viet Nam	-0.04	(0.03)	**-0.12**	(0.03)	**0.14**	(0.03)	-0.03	(0.03)	**0.07**	(0.02)	-0.04	(0.02)	**-0.07**	(0.03)	**0.06**	(0.03)	0.01	(0.04)	**-0.14**	(0.04)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/3]

Table III.6.1a **Students' mathematics performance, by parents' activities at home**

Results based on students' and parents' self-reports

		Percentage of students, by parents' activities at home:																			
		Parents discuss how the child is doing at school "once or twice a week" or "every day or almost every day"		Parents discuss how the child is doing at school "once or twice a month" or less often		Parents eat the <main meal> with the child around a table "every day or almost every day"		Parents eat the <main meal> with the child around a table "once or twice a week" or less often		Parents spend time just talking to the child "every day or almost every day"		Parents spend time just talking to the child "once or twice a week" or less often		Parents obtain mathematics materials for the child "once or twice a week" or "every day or almost every day"		Parents obtain mathematics materials for the child "once or twice a month" or less often		Parents discuss with the child how mathematics can be applied to everyday life "once or twice a week" or "every day or almost every day"		Parents discuss with the child how mathematics can be applied to everyday life "once or twice a month" or less often	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Belgium (Flemish Community)**	71.9	(0.7)	28.1	(0.7)	91.4	(0.6)	8.6	(0.6)	75.2	(0.7)	24.8	(0.7)	12.7	(0.7)	87.3	(0.7)	12.3	(0.6)	87.7	(0.6)
	Chile	86.0	(0.6)	14.0	(0.6)	62.4	(0.9)	37.6	(0.9)	47.4	(0.8)	52.6	(0.8)	36.9	(0.7)	63.1	(0.7)	45.5	(0.8)	54.5	(0.8)
	Germany	78.9	(0.8)	21.1	(0.8)	82.2	(0.8)	17.8	(0.8)	92.2	(0.5)	7.8	(0.5)	10.3	(0.6)	89.7	(0.6)	24.7	(0.8)	75.3	(0.8)
	Hungary	96.8	(0.3)	3.2	(0.3)	67.0	(0.9)	33.0	(0.9)	72.8	(0.7)	27.2	(0.7)	21.0	(0.9)	79.0	(0.9)	35.8	(1.0)	64.2	(1.0)
	Italy	91.9	(0.3)	8.1	(0.3)	93.7	(0.2)	6.3	(0.2)	76.3	(0.4)	23.7	(0.4)	18.1	(0.3)	81.9	(0.3)	39.9	(0.4)	60.1	(0.4)
	Korea	70.5	(0.8)	29.5	(0.8)	59.8	(0.9)	40.2	(0.9)	45.7	(0.9)	54.3	(0.9)	11.1	(0.5)	88.9	(0.5)	12.8	(0.5)	87.2	(0.5)
	Mexico	86.9	(0.3)	13.1	(0.3)	73.9	(0.4)	26.1	(0.4)	44.4	(0.4)	55.6	(0.4)	23.6	(0.4)	76.4	(0.4)	46.8	(0.4)	53.2	(0.4)
	Portugal	95.2	(0.3)	4.8	(0.3)	92.9	(0.4)	7.1	(0.4)	89.2	(0.5)	10.8	(0.5)	29.8	(0.7)	70.2	(0.7)	53.3	(0.9)	46.7	(0.9)
Partners	**Croatia**	91.3	(0.4)	8.7	(0.4)	74.4	(0.7)	25.6	(0.7)	64.7	(0.7)	35.3	(0.7)	17.3	(0.7)	82.7	(0.7)	36.2	(0.9)	63.8	(0.9)
	Hong Kong-China	68.7	(1.1)	31.3	(1.1)	85.1	(0.5)	14.9	(0.5)	66.3	(0.7)	33.7	(0.7)	10.2	(0.5)	89.8	(0.5)	17.8	(0.6)	82.2	(0.6)
	Macao-China	48.7	(0.7)	51.3	(0.7)	80.7	(0.6)	19.3	(0.6)	39.2	(0.6)	60.8	(0.6)	15.3	(0.6)	84.7	(0.6)	23.6	(0.6)	76.4	(0.6)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
1. ESCS refers to the *PISA index of economic, social and cultural status*.
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[Part 2/3]

Table III.6.1a **Students' mathematics performance, by parents' activities at home**

Results based on students' and parents' self-reports

		Mathematics performance, by parents' activities at home:																			
		Parents discuss how the child is doing at school "once or twice a week" or "every day or almost every day"		Parents discuss how the child is doing at school "once or twice a month" or less often		Parents eat the <main meal> with the child around a table "every day or almost every day"		Parents eat the <main meal> with the child around a table "once or twice a week" or less often		Parents spend time just talking to the child "every day or almost every day"		Parents spend time just talking to the child "once or twice a week" or less often		Parents obtain mathematics materials for the child "once or twice a week" or "every day or almost every day"		Parents obtain mathematics materials for the child "once or twice a month" or less often		Parents discuss with the child how mathematics can be applied to everyday life "once or twice a week" or "every day or almost every day"		Parents discuss with the child how mathematics can be applied to everyday life "once or twice a month" or less often	
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	**Belgium (Flemish Community)**	543	(3.3)	551	(4.1)	547	(3.1)	527	(6.4)	547	(2.9)	539	(4.5)	495	(5.7)	553	(2.8)	497	(6.2)	552	(2.8)
	Chile	427	(3.0)	413	(4.8)	424	(3.2)	429	(3.6)	425	(3.3)	426	(3.5)	413	(3.6)	433	(3.3)	416	(3.2)	434	(3.4)
	Germany	530	(3.2)	538	(6.0)	534	(3.3)	521	(5.7)	532	(3.3)	521	(8.5)	459	(6.7)	541	(3.2)	488	(5.0)	546	(3.2)
	Hungary	480	(3.2)	449	(8.8)	477	(3.5)	482	(3.6)	478	(3.6)	482	(3.2)	444	(4.2)	490	(3.4)	446	(3.4)	497	(3.8)
	Italy	494	(2.2)	455	(3.4)	492	(2.2)	475	(3.8)	491	(2.2)	489	(2.6)	450	(2.7)	500	(2.2)	468	(2.4)	506	(2.3)
	Korea	562	(4.7)	536	(4.8)	550	(3.8)	560	(6.7)	554	(3.8)	555	(5.9)	557	(6.4)	554	(4.6)	553	(5.8)	555	(4.7)
	Mexico	416	(1.4)	397	(2.2)	413	(1.4)	415	(1.8)	416	(1.5)	412	(1.6)	408	(1.7)	416	(1.5)	407	(1.5)	420	(1.6)
	Portugal	497	(3.9)	463	(6.9)	496	(4.0)	484	(6.3)	497	(3.8)	480	(7.1)	479	(4.6)	503	(4.0)	483	(4.2)	509	(4.3)
Partners	**Croatia**	475	(3.5)	461	(6.6)	471	(3.8)	485	(4.4)	472	(3.6)	479	(4.2)	443	(3.7)	482	(3.9)	455	(3.4)	486	(4.2)
	Hong Kong-China	570	(3.5)	546	(3.4)	565	(3.0)	547	(4.9)	568	(3.3)	552	(3.8)	537	(6.0)	566	(3.1)	543	(5.0)	567	(3.0)
	Macao-China	546	(1.6)	535	(1.7)	544	(1.2)	526	(2.6)	543	(1.9)	538	(1.5)	523	(3.1)	544	(1.3)	529	(2.5)	544	(1.3)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
1. ESCS refers to the *PISA index of economic, social and cultural status*.
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[Part 3/3]

Table III.6.1a **Students' mathematics performance, by parents' activities at home**

Results based on students' and parents' self-reports

		Change in mathematics performance that is associated with:																			
		Discussing how the child is doing at school "once or twice a week" or "every day or almost every day"				Eating the <main meal> with the child around a table "once or twice a week" or "every day or almost every day"				Spending time just talking to the child "once or twice a week" or "every day or almost every day"				Obtaining mathematics materials for the child "once or twice a week" or "every day or almost every day"				Discussing with the child how mathematics can be applied to everyday life "once or twice a week" or "every day or almost every day"			
		Before accounting for ESCS[1]		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	**Belgium (Flemish Community)**	**-8**	(4.0)	**-12**	(3.3)	**20**	(6.4)	**16**	(5.7)	**9**	(3.6)	4	(3.4)	**-58**	(5.1)	**-45**	(5.0)	**-55**	(5.2)	**-43**	(5.2)
	Chile	**14**	(3.9)	1	(3.4)	**-5**	(2.4)	**-7**	(2.3)	-1	(2.8)	**-5**	(2.3)	**-20**	(2.8)	**-18**	(2.4)	**-17**	(2.4)	**-17**	(2.2)
	Germany	-9	(5.3)	-8	(4.9)	**12**	(4.9)	4	(4.4)	11	(8.0)	1	(7.0)	**-82**	(6.9)	**-61**	(6.0)	**-58**	(4.8)	**-47**	(4.2)
	Hungary	**31**	(9.1)	9	(8.7)	-5	(3.6)	**-7**	(3.2)	-5	(3.4)	**-9**	(2.8)	**-46**	(4.5)	**-37**	(3.3)	**-51**	(4.4)	**-34**	(3.5)
	Italy	**38**	(3.2)	**23**	(2.8)	**16**	(3.3)	**12**	(3.2)	2	(1.9)	-1	(1.7)	**-50**	(2.5)	**-44**	(2.4)	**-38**	(1.8)	**-33**	(1.7)
	Korea	**26**	(3.4)	**17**	(2.9)	-9	(5.0)	**-11**	(4.3)	-2	(4.4)	-6	(3.9)	3	(4.6)	-5	(4.5)	-2	(4.7)	-2	(4.4)
	Mexico	**19**	(2.0)	**10**	(1.9)	-2	(1.4)	**-3**	(1.3)	**3**	(1.3)	-1	(1.2)	**-9**	(1.4)	**-14**	(1.3)	**-13**	(1.5)	**-14**	(1.5)
	Portugal	**34**	(6.3)	10	(6.5)	**12**	(5.4)	7	(4.7)	**17**	(5.6)	8	(4.9)	**-24**	(3.3)	**-27**	(3.0)	**-26**	(3.3)	**-20**	(3.2)
Partners	**Croatia**	**15**	(5.0)	7	(4.5)	**-15**	(3.6)	**-9**	(3.2)	**-7**	(2.9)	**-9**	(2.8)	**-39**	(4.4)	**-35**	(3.8)	**-31**	(3.8)	**-25**	(3.3)
	Hong Kong-China	**24**	(3.9)	**10**	(3.1)	**19**	(3.6)	**16**	(3.8)	**16**	(3.2)	**10**	(3.1)	**-29**	(5.3)	**-33**	(5.4)	**-23**	(3.9)	**-26**	(4.0)
	Macao-China	**11**	(2.6)	4	(2.7)	**17**	(2.9)	**14**	(2.9)	5	(2.8)	1	(2.8)	**-20**	(3.8)	**-23**	(3.8)	**-14**	(3.2)	**-17**	(3.2)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.

[1] ESCS refers to the *PISA index of economic, social and cultural status*.

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[Part 1/3]

Table III.6.1b Students' mathematics performance, by family structure and labour-market situation

Results based on students' and parents' self-reports

		Percentage of students, by family structure and labour-market situation:															
		Either the father or the mother works in a STEM occupation[1]		Neither parent works in a STEM occupation[1]		Father is employed		Father is not employed		Mother is employed		Mother is not employed		Single-parent family[2]		Two-parent family[2]	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	9.5	(0.3)	90.5	(0.3)	90.7	(0.3)	9.3	(0.3)	74.7	(0.6)	25.3	(0.6)	13.6	(0.4)	86.4	(0.4)
	Austria	13.0	(0.6)	87.0	(0.6)	92.6	(0.5)	7.4	(0.5)	79.9	(0.6)	20.1	(0.6)	13.6	(0.7)	86.4	(0.7)
	Belgium	14.0	(0.4)	86.0	(0.4)	88.6	(0.5)	11.4	(0.5)	76.3	(0.7)	23.7	(0.7)	13.7	(0.5)	86.3	(0.5)
	Canada	17.8	(0.5)	82.2	(0.5)	91.7	(0.3)	8.3	(0.3)	78.3	(0.5)	21.7	(0.5)	12.8	(0.3)	87.2	(0.3)
	Chile	14.4	(0.8)	85.6	(0.8)	90.0	(0.5)	10.0	(0.5)	53.5	(0.9)	46.5	(0.9)	23.7	(0.7)	76.3	(0.7)
	Czech Republic	17.8	(0.8)	82.2	(0.8)	93.4	(0.5)	6.6	(0.5)	82.7	(0.8)	17.3	(0.8)	17.8	(0.6)	82.2	(0.6)
	Denmark	15.6	(0.8)	84.4	(0.8)	89.1	(0.5)	10.9	(0.5)	82.3	(0.8)	17.7	(0.8)	15.2	(0.6)	84.8	(0.6)
	Estonia	12.1	(0.5)	87.9	(0.5)	91.0	(0.5)	9.0	(0.5)	82.0	(0.6)	18.0	(0.6)	19.6	(0.7)	80.4	(0.7)
	Finland	15.5	(0.6)	84.5	(0.6)	87.5	(0.5)	12.5	(0.5)	85.2	(0.6)	14.8	(0.6)	16.1	(0.6)	83.9	(0.6)
	France	13.3	(0.6)	86.7	(0.6)	90.1	(0.5)	9.9	(0.5)	78.1	(0.8)	21.9	(0.8)	15.2	(0.6)	84.8	(0.6)
	Germany	16.0	(0.8)	84.0	(0.8)	93.2	(0.4)	6.8	(0.4)	76.8	(0.8)	23.2	(0.8)	13.7	(0.5)	86.3	(0.5)
	Greece	10.7	(0.5)	89.3	(0.5)	81.3	(0.6)	18.7	(0.6)	56.8	(1.1)	43.2	(1.1)	8.8	(0.5)	91.2	(0.5)
	Hungary	10.4	(0.7)	89.6	(0.7)	85.5	(0.7)	14.5	(0.7)	74.3	(0.8)	25.7	(0.8)	20.8	(0.8)	79.2	(0.8)
	Iceland	18.5	(0.6)	81.5	(0.6)	93.9	(0.4)	6.1	(0.4)	84.2	(0.6)	15.8	(0.6)	10.7	(0.5)	89.3	(0.5)
	Ireland	10.4	(0.6)	89.6	(0.6)	81.6	(0.6)	18.4	(0.6)	62.6	(0.8)	37.4	(0.8)	11.0	(0.6)	89.0	(0.6)
	Israel	17.0	(0.7)	83.0	(0.7)	88.3	(0.7)	11.7	(0.7)	71.8	(1.1)	28.2	(1.1)	m	m	m	m
	Italy	13.0	(0.4)	87.0	(0.4)	91.7	(0.3)	8.3	(0.3)	62.8	(0.5)	37.2	(0.5)	9.5	(0.3)	90.5	(0.3)
	Japan	12.1	(0.6)	87.9	(0.6)	96.9	(0.2)	3.1	(0.2)	77.9	(0.8)	22.1	(0.8)	12.3	(0.6)	87.7	(0.6)
	Korea	13.7	(0.7)	86.3	(0.7)	90.4	(0.6)	9.6	(0.6)	59.4	(0.9)	40.6	(0.9)	8.9	(0.5)	91.1	(0.5)
	Luxembourg	12.2	(0.5)	87.8	(0.5)	90.2	(0.5)	9.8	(0.5)	71.8	(0.7)	28.2	(0.7)	12.3	(0.5)	87.7	(0.5)
	Mexico	10.9	(0.4)	89.1	(0.4)	84.8	(0.4)	15.2	(0.4)	40.7	(0.5)	59.3	(0.5)	15.7	(0.4)	84.3	(0.4)
	Netherlands	15.0	(0.7)	85.0	(0.7)	91.8	(0.4)	8.2	(0.4)	77.5	(0.7)	22.5	(0.7)	11.3	(0.5)	88.7	(0.5)
	New Zealand	13.5	(0.6)	86.5	(0.6)	91.2	(0.5)	8.8	(0.5)	75.8	(0.7)	24.2	(0.7)	20.4	(0.8)	79.6	(0.8)
	Norway	14.4	(0.9)	85.6	(0.9)	92.2	(0.5)	7.8	(0.5)	85.9	(0.7)	14.1	(0.7)	10.8	(0.6)	89.2	(0.6)
	Poland	10.0	(0.5)	90.0	(0.5)	87.4	(0.7)	12.6	(0.7)	69.9	(0.8)	30.1	(0.8)	16.9	(0.7)	83.1	(0.7)
	Portugal	10.9	(1.0)	89.1	(1.0)	85.8	(0.6)	14.2	(0.6)	74.2	(0.9)	25.8	(0.9)	12.5	(0.5)	87.5	(0.5)
	Slovak Republic	12.3	(0.8)	87.7	(0.8)	85.8	(0.8)	14.2	(0.8)	75.8	(0.8)	24.2	(0.8)	15.2	(0.7)	84.8	(0.7)
	Slovenia	22.0	(0.8)	78.0	(0.8)	88.6	(0.6)	11.4	(0.6)	84.3	(0.6)	15.7	(0.6)	10.9	(0.5)	89.1	(0.5)
	Spain	8.8	(0.3)	91.2	(0.3)	84.5	(0.5)	15.5	(0.5)	66.7	(0.6)	33.3	(0.6)	10.3	(0.3)	89.7	(0.3)
	Sweden	14.1	(0.7)	85.9	(0.7)	92.9	(0.5)	7.1	(0.5)	88.5	(0.5)	11.5	(0.5)	9.6	(0.5)	90.4	(0.5)
	Switzerland	16.8	(0.6)	83.2	(0.6)	94.1	(0.3)	5.9	(0.3)	75.9	(0.6)	24.1	(0.6)	13.6	(0.4)	86.4	(0.4)
	Turkey	16.9	(1.5)	83.1	(1.5)	71.0	(0.9)	29.0	(0.9)	14.5	(0.8)	85.5	(0.8)	4.5	(0.3)	95.5	(0.3)
	United Kingdom	13.7	(0.5)	86.3	(0.5)	89.2	(0.5)	10.8	(0.5)	75.9	(1.0)	24.1	(1.0)	16.7	(0.6)	83.3	(0.6)
	United States	12.7	(0.7)	87.3	(0.7)	85.9	(0.8)	14.1	(0.8)	73.7	(0.9)	26.3	(0.9)	20.7	(0.9)	79.3	(0.9)
	OECD average	13.8	(0.1)	86.2	(0.1)	88.9	(0.1)	11.1	(0.1)	72.1	(0.1)	27.9	(0.1)	13.9	(0.1)	86.1	(0.1)
Partners	Albania	15.4	(1.1)	84.6	(1.1)	80.8	(0.8)	19.2	(0.8)	39.9	(1.1)	60.1	(1.1)	5.7	(0.4)	94.3	(0.4)
	Argentina	8.8	(0.6)	91.2	(0.6)	88.7	(0.6)	11.3	(0.6)	53.6	(1.2)	46.4	(1.2)	20.4	(0.7)	79.6	(0.7)
	Brazil	3.8	(0.3)	96.2	(0.3)	80.7	(0.4)	19.3	(0.4)	56.5	(0.5)	43.5	(0.5)	22.3	(0.6)	77.7	(0.6)
	Bulgaria	12.4	(0.7)	87.6	(0.7)	86.4	(0.7)	13.6	(0.7)	79.2	(0.9)	20.8	(0.9)	13.2	(0.6)	86.8	(0.6)
	Colombia	6.6	(0.5)	93.4	(0.5)	84.3	(0.9)	15.7	(0.9)	53.4	(1.0)	46.6	(1.0)	13.2	(0.5)	86.8	(0.5)
	Costa Rica	13.6	(1.0)	86.4	(1.0)	87.9	(0.8)	12.1	(0.8)	44.7	(1.1)	55.3	(1.1)	26.9	(0.9)	73.1	(0.9)
	Croatia	19.2	(0.7)	80.8	(0.7)	71.5	(0.8)	28.5	(0.8)	62.1	(1.0)	37.9	(1.0)	23.3	(0.7)	76.7	(0.7)
	Cyprus*	13.0	(0.6)	87.0	(0.6)	90.3	(0.5)	9.7	(0.5)	72.7	(0.6)	27.3	(0.6)	8.2	(0.5)	91.8	(0.5)
	Hong Kong-China	10.7	(0.6)	89.3	(0.6)	88.1	(0.5)	11.9	(0.5)	62.5	(0.9)	37.5	(0.9)	8.9	(0.4)	91.1	(0.4)
	Indonesia	5.4	(1.0)	94.6	(1.0)	80.1	(1.0)	19.9	(1.0)	38.9	(1.1)	61.1	(1.1)	13.7	(0.5)	86.3	(0.5)
	Jordan	34.9	(1.7)	65.1	(1.7)	74.9	(0.8)	25.1	(0.8)	17.3	(0.7)	82.7	(0.7)	8.9	(0.6)	91.1	(0.6)
	Kazakhstan	16.4	(0.7)	83.6	(0.7)	76.5	(1.1)	23.5	(1.1)	61.6	(1.3)	38.4	(1.3)	10.2	(0.6)	89.8	(0.6)
	Latvia	10.0	(0.7)	90.0	(0.7)	86.3	(0.7)	13.7	(0.7)	78.8	(0.8)	21.2	(0.8)	14.5	(0.7)	85.5	(0.7)
	Liechtenstein	19.9	(2.5)	80.1	(2.5)	91.2	(1.9)	8.8	(1.9)	66.0	(2.7)	34.0	(2.7)	20.6	(0.8)	79.4	(0.8)
	Lithuania	8.5	(0.6)	91.5	(0.6)	82.4	(0.6)	17.6	(0.6)	74.7	(0.8)	25.3	(0.8)	15.2	(2.2)	84.8	(2.2)
	Macao-China	6.4	(0.4)	93.6	(0.4)	88.7	(0.4)	11.3	(0.4)	76.2	(0.6)	23.8	(0.6)	15.8	(0.6)	84.2	(0.6)
	Malaysia	12.9	(0.8)	87.1	(0.8)	86.0	(0.6)	14.0	(0.6)	39.6	(1.0)	60.4	(1.0)	14.1	(0.5)	85.9	(0.5)
	Montenegro	20.2	(0.9)	79.8	(0.9)	73.7	(0.7)	26.3	(0.7)	50.4	(0.8)	49.6	(0.8)	12.9	(0.6)	87.1	(0.6)
	Peru	6.2	(0.6)	93.8	(0.6)	84.0	(0.8)	16.0	(0.8)	51.4	(0.8)	48.6	(0.8)	6.4	(0.4)	93.6	(0.4)
	Qatar	34.2	(0.7)	65.8	(0.7)	86.4	(0.3)	13.6	(0.3)	38.0	(0.5)	62.0	(0.5)	17.6	(0.5)	82.4	(0.5)
	Romania	19.3	(1.2)	80.7	(1.2)	74.1	(1.0)	25.9	(1.0)	60.4	(1.2)	39.6	(1.2)	11.7	(0.4)	88.3	(0.4)
	Russian Federation	16.0	(0.8)	84.0	(0.8)	86.3	(0.6)	13.7	(0.6)	76.2	(0.9)	23.8	(0.9)	14.5	(0.7)	85.5	(0.7)
	Serbia	17.3	(0.7)	82.7	(0.7)	77.2	(0.8)	22.8	(0.8)	59.4	(1.1)	40.6	(1.1)	22.9	(0.7)	77.1	(0.7)
	Shanghai-China	12.0	(0.6)	88.0	(0.6)	87.3	(0.5)	12.7	(0.5)	75.0	(0.9)	25.0	(0.9)	9.0	(0.4)	91.0	(0.4)
	Singapore	20.2	(0.6)	79.8	(0.6)	92.6	(0.4)	7.4	(0.4)	63.3	(0.7)	36.7	(0.7)	9.6	(0.4)	90.4	(0.4)
	Chinese Taipei	10.0	(0.5)	90.0	(0.5)	87.8	(0.5)	12.2	(0.5)	69.6	(0.6)	30.4	(0.6)	9.4	(0.4)	90.6	(0.4)
	Thailand	4.2	(0.4)	95.8	(0.4)	81.8	(0.6)	18.2	(0.6)	70.9	(0.6)	29.1	(0.6)	17.4	(0.7)	82.6	(0.7)
	Tunisia	16.3	(1.1)	83.7	(1.1)	83.9	(0.7)	16.1	(0.7)	23.9	(1.1)	76.1	(1.1)	6.7	(0.5)	93.3	(0.5)
	United Arab Emirates	28.6	(1.0)	71.4	(1.0)	80.8	(0.6)	19.2	(0.6)	26.9	(0.6)	73.1	(0.6)	10.2	(0.4)	89.8	(0.4)
	Uruguay	7.3	(0.5)	92.7	(0.5)	89.5	(0.5)	10.5	(0.5)	65.5	(0.8)	34.5	(0.8)	18.9	(0.7)	81.1	(0.7)
	Viet Nam	1.7	(0.3)	98.3	(0.3)	53.2	(1.6)	46.8	(1.6)	36.3	(1.7)	63.7	(1.7)	8.3	(0.4)	91.7	(0.4)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. STEM occupations refer to occupations in science, technology, engineering and mathematics. Refer to Annex A1 for a detailed description of which ISCO-08 codings were considered to be STEM occupations.
2. Analyses consider only students who live with at least one parent, including step or foster parent.
3. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/3]

Table III.6.1b Students' mathematics performance, by family structure and labour-market situation

Results based on students' and parents' self-reports

		Mathematics performance, by family structure and labour-market situation:															
		Either the father or the mother works in a STEM occupation[1]		Neither parent works in a STEM occupation[1]		Father is employed		Father is not employed		Mother is employed		Mother is not employed		Two-parent family[2]		Single-parent family[2]	
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	**Australia**	544	(4.3)	513	(1.7)	511	(1.7)	485	(3.5)	511	(1.8)	496	(2.4)	513	(1.8)	495	(2.5)
	Austria	532	(5.4)	510	(2.6)	509	(2.6)	488	(7.8)	511	(2.6)	493	(4.4)	510	(2.7)	502	(4.8)
	Belgium	557	(3.8)	525	(2.3)	526	(2.1)	480	(4.6)	530	(2.0)	479	(3.6)	525	(2.2)	485	(4.5)
	Canada	559	(3.3)	523	(1.9)	523	(1.8)	515	(4.2)	523	(1.9)	515	(2.6)	525	(1.9)	511	(3.3)
	Chile	467	(4.9)	428	(3.3)	426	(3.1)	415	(5.1)	430	(3.3)	418	(3.2)	433	(3.1)	426	(3.7)
	Czech Republic	544	(4.8)	502	(2.9)	504	(2.8)	468	(9.3)	506	(2.6)	472	(5.9)	506	(2.9)	486	(4.3)
	Denmark	537	(4.2)	504	(2.1)	507	(2.2)	473	(3.0)	509	(2.1)	471	(3.2)	508	(2.1)	485	(4.0)
	Estonia	551	(4.1)	522	(2.3)	523	(2.1)	508	(5.3)	525	(2.1)	509	(3.8)	525	(2.3)	525	(3.4)
	Finland	544	(3.6)	522	(1.9)	525	(1.8)	504	(4.1)	524	(1.8)	508	(4.3)	528	(1.8)	506	(3.3)
	France	538	(4.6)	507	(2.8)	503	(2.5)	477	(5.2)	509	(2.7)	464	(4.1)	505	(2.6)	484	(4.4)
	Germany	569	(5.0)	522	(3.3)	523	(3.0)	500	(7.3)	526	(3.3)	498	(4.6)	524	(3.1)	516	(4.8)
	Greece	495	(4.8)	459	(2.7)	459	(2.5)	440	(4.2)	466	(2.6)	440	(2.8)	459	(2.5)	444	(6.8)
	Hungary	535	(8.5)	486	(3.1)	485	(3.4)	446	(6.2)	490	(3.4)	447	(4.5)	486	(3.2)	474	(4.8)
	Iceland	526	(3.7)	497	(2.1)	498	(1.8)	471	(6.5)	500	(1.9)	471	(3.4)	500	(1.9)	480	(5.9)
	Ireland	531	(3.9)	508	(2.1)	510	(2.1)	479	(4.1)	509	(2.1)	491	(3.1)	510	(2.1)	485	(4.1)
	Israel	533	(6.1)	486	(5.1)	476	(4.6)	441	(7.0)	490	(4.7)	423	(5.0)	m	m	m	m
	Italy	520	(3.4)	497	(2.1)	489	(2.0)	471	(3.5)	497	(2.2)	468	(2.3)	489	(2.1)	482	(3.1)
	Japan	568	(5.3)	544	(3.6)	542	(3.6)	525	(9.2)	538	(3.4)	546	(5.0)	544	(3.5)	515	(5.7)
	Korea	564	(6.5)	559	(4.4)	558	(4.7)	541	(6.5)	557	(4.3)	554	(5.7)	561	(4.6)	549	(6.8)
	Luxembourg	532	(3.5)	493	(1.4)	496	(1.2)	473	(4.6)	494	(1.3)	491	(2.8)	494	(1.3)	484	(3.8)
	Mexico	448	(2.9)	423	(1.5)	417	(1.3)	405	(2.4)	418	(1.6)	412	(1.4)	423	(1.3)	423	(2.2)
	Netherlands	558	(5.5)	531	(3.4)	528	(3.5)	514	(5.7)	529	(3.4)	517	(4.8)	530	(3.4)	502	(6.3)
	New Zealand	543	(4.0)	511	(2.7)	508	(2.2)	468	(6.2)	507	(2.2)	489	(4.8)	509	(2.4)	487	(3.8)
	Norway	528	(4.3)	493	(2.7)	495	(2.7)	472	(6.7)	496	(2.6)	466	(4.4)	495	(2.8)	481	(5.4)
	Poland	553	(7.1)	522	(3.5)	522	(3.7)	503	(4.8)	528	(3.8)	496	(3.7)	527	(3.2)	499	(5.5)
	Portugal	534	(6.0)	495	(3.3)	496	(3.5)	467	(5.2)	497	(3.8)	470	(4.3)	495	(3.6)	488	(5.8)
	Slovak Republic	546	(7.2)	494	(3.3)	493	(3.3)	431	(6.5)	497	(3.2)	440	(5.8)	493	(3.5)	480	(5.3)
	Slovenia	534	(3.6)	501	(1.6)	504	(1.4)	496	(4.4)	507	(1.3)	481	(4.0)	507	(1.3)	494	(4.9)
	Spain	521	(4.1)	485	(1.9)	492	(2.0)	461	(2.9)	492	(2.0)	474	(2.2)	489	(1.8)	478	(3.0)
	Sweden	518	(3.9)	484	(2.0)	486	(2.2)	446	(6.2)	486	(2.2)	450	(5.3)	487	(2.1)	465	(5.4)
	Switzerland	561	(4.7)	535	(3.0)	535	(3.2)	508	(6.0)	535	(3.0)	523	(4.1)	536	(3.3)	526	(3.9)
	Turkey	501	(11.0)	471	(6.7)	455	(5.0)	441	(5.6)	469	(7.6)	450	(4.6)	459	(5.0)	455	(8.3)
	United Kingdom	529	(4.6)	504	(2.7)	503	(3.0)	477	(5.3)	502	(2.9)	483	(5.1)	506	(3.0)	480	(4.8)
	United States	525	(5.5)	490	(3.7)	488	(3.7)	467	(5.3)	485	(3.6)	477	(4.5)	493	(3.7)	468	(5.0)
	OECD average	534	(0.9)	501	(0.5)	500	(0.5)	475	(1.0)	503	(0.5)	479	(0.7)	503	(0.5)	487	(0.8)
Partners	**Albania**	389	(7.8)	392	(3.7)	393	(2.3)	396	(4.0)	396	(2.6)	393	(2.6)	394	(2.2)	396	(7.5)
	Argentina	431	(7.1)	405	(3.7)	395	(3.5)	372	(5.1)	401	(3.4)	381	(3.8)	400	(3.7)	393	(4.5)
	Brazil	454	(8.9)	400	(2.4)	397	(2.3)	384	(2.4)	402	(2.4)	382	(2.1)	405	(2.4)	396	(2.7)
	Bulgaria	502	(6.8)	447	(3.5)	445	(3.7)	418	(6.1)	450	(3.9)	409	(5.4)	452	(3.8)	442	(5.3)
	Colombia	423	(6.5)	385	(3.3)	378	(3.1)	378	(4.4)	379	(3.0)	376	(3.3)	569	(3.4)	531	(5.3)
	Costa Rica	448	(6.3)	418	(3.8)	410	(3.1)	403	(5.2)	415	(3.8)	403	(3.1)	395	(3.4)	387	(3.4)
	Croatia	511	(6.0)	475	(3.5)	478	(3.9)	459	(3.7)	484	(4.1)	453	(3.4)	415	(3.0)	408	(3.5)
	Cyprus*	484	(4.2)	450	(1.6)	448	(1.3)	410	(4.1)	451	(1.6)	426	(2.4)	473	(3.7)	478	(5.4)
	Hong Kong-China	591	(6.6)	571	(3.1)	565	(3.4)	557	(4.7)	563	(3.7)	563	(3.6)	448	(1.3)	424	(4.7)
	Indonesia	428	(18.1)	387	(4.8)	381	(4.1)	365	(4.5)	377	(4.9)	377	(3.8)	567	(3.4)	555	(4.3)
	Jordan	418	(6.0)	421	(4.4)	395	(2.9)	378	(4.0)	401	(5.8)	389	(2.6)	391	(4.7)	383	(5.8)
	Kazakhstan	444	(5.1)	437	(3.5)	437	(3.5)	416	(4.1)	437	(3.4)	424	(3.3)	402	(3.1)	366	(5.6)
	Latvia	528	(6.1)	496	(3.0)	493	(3.0)	489	(5.7)	494	(3.1)	483	(3.5)	433	(3.1)	435	(4.3)
	Liechtenstein	536	(13.0)	545	(5.9)	537	(4.2)	c	c	531	(6.0)	545	(8.7)	497	(2.9)	497	(4.0)
	Lithuania	516	(5.3)	490	(2.5)	486	(2.5)	465	(4.3)	488	(2.6)	458	(3.6)	541	(4.9)	514	(14.6)
	Macao-China	560	(5.7)	543	(1.2)	540	(1.1)	540	(4.2)	539	(1.2)	539	(2.7)	486	(2.8)	474	(4.1)
	Malaysia	457	(5.5)	436	(3.8)	425	(3.3)	402	(4.2)	431	(4.1)	415	(2.9)	543	(1.1)	533	(3.5)
	Montenegro	453	(4.4)	427	(1.6)	416	(1.5)	398	(2.4)	428	(1.7)	395	(1.6)	432	(3.3)	411	(3.9)
	Peru	420	(11.6)	366	(3.8)	373	(3.9)	352	(4.6)	368	(4.1)	370	(3.7)	416	(1.3)	423	(6.1)
	Qatar	446	(2.5)	404	(1.6)	389	(1.0)	331	(2.0)	386	(1.6)	378	(1.1)	372	(4.0)	381	(4.4)
	Romania	500	(6.9)	455	(3.7)	454	(4.1)	424	(4.0)	458	(4.2)	426	(3.7)	404	(1.0)	339	(2.9)
	Russian Federation	516	(5.2)	486	(2.9)	487	(3.0)	468	(6.1)	488	(2.9)	470	(4.4)	453	(4.0)	443	(4.5)
	Serbia	484	(4.6)	446	(3.4)	455	(3.6)	439	(4.1)	462	(3.8)	433	(3.8)	490	(3.1)	487	(3.8)
	Shanghai-China	638	(5.5)	615	(3.2)	617	(3.1)	586	(6.7)	622	(3.0)	588	(5.3)	456	(3.3)	447	(5.2)
	Singapore	592	(3.4)	582	(1.7)	576	(1.4)	568	(5.7)	578	(1.7)	568	(2.8)	616	(3.1)	615	(4.8)
	Chinese Taipei	595	(7.2)	574	(3.1)	565	(3.3)	538	(6.1)	563	(3.5)	558	(4.5)	579	(1.6)	564	(5.5)
	Thailand	467	(8.4)	432	(3.8)	428	(3.6)	429	(4.5)	425	(3.6)	433	(4.0)	442	(3.9)	429	(4.8)
	Tunisia	428	(8.8)	412	(6.7)	391	(4.3)	385	(4.9)	411	(7.9)	384	(3.3)	400	(4.4)	379	(6.8)
	United Arab Emirates	481	(4.0)	464	(2.9)	446	(2.5)	398	(2.7)	455	(3.0)	429	(2.6)	449	(2.4)	410	(4.3)
	Uruguay	474	(6.9)	421	(2.8)	416	(2.8)	397	(4.3)	422	(2.8)	393	(3.2)	423	(2.6)	416	(4.1)
	Viet Nam	588	(10.9)	510	(5.1)	519	(5.9)	505	(4.7)	526	(6.4)	504	(4.5)	517	(4.8)	525	(6.2)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. STEM occupations refer to occupations in science, technology, engineering and mathematics. Refer to Annex A1 for a detailed description of which ISCO-08 codings were considered to be STEM occupations.
2. Analyses consider only students who live with at least one parent, including step or foster parent.
3. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 3/3]

Table III.6.1b Students' mathematics performance, by family structure and labour-market situation

Results based on students' and parents' self-reports

		Change in mathematics performance that is associated with:															
		Having a father or a mother who works in a STEM occupation[1]				Having a father who is currently employed				Having a mother who is currently employed				Coming from a single-parent family[2]			
		Before accounting for ESCS[3]		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	**31**	(4.1)	**8**	(4.1)	**25**	(3.3)	**9**	(3.2)	**15**	(2.3)	1	(2.2)	**-18**	(2.5)	-2	(2.5)
	Austria	**22**	(5.2)	0	(4.8)	**21**	(7.5)	2	(5.9)	**18**	(4.1)	6	(3.6)	-8	(4.9)	-1	(4.8)
	Belgium	**32**	(4.1)	6	(4.0)	**46**	(4.4)	**16**	(4.0)	**51**	(3.4)	**24**	(2.6)	**-40**	(4.4)	**-22**	(3.9)
	Canada	**36**	(3.2)	**21**	(3.0)	**9**	(4.0)	-1	(3.8)	**7**	(2.4)	-1	(2.1)	**-15**	(3.2)	-3	(3.0)
	Chile	**39**	(4.8)	3	(4.1)	**12**	(4.6)	-7	(3.9)	**12**	(2.5)	-4	(2.1)	**-7**	(3.5)	-3	(3.2)
	Czech Republic	**42**	(5.0)	**18**	(4.9)	**36**	(8.9)	**15**	(7.2)	**34**	(5.6)	**17**	(4.9)	**-20**	(4.2)	-6	(4.4)
	Denmark	**33**	(4.2)	**9**	(3.9)	**34**	(3.4)	**12**	(3.5)	**39**	(3.2)	**16**	(3.0)	**-23**	(3.9)	**-8**	(3.6)
	Estonia	**28**	(4.1)	**15**	(4.4)	**15**	(4.9)	4	(4.8)	**15**	(3.8)	7	(3.7)	0	(3.8)	**10**	(3.7)
	Finland	**23**	(3.4)	7	(3.5)	**21**	(4.0)	6	(3.7)	**15**	(4.1)	1	(3.5)	**-22**	(3.1)	**-8**	(3.0)
	France	**31**	(4.4)	6	(4.1)	**26**	(5.1)	-2	(5.1)	**45**	(4.5)	**18**	(4.2)	**-21**	(4.6)	-5	(4.2)
	Germany	**47**	(5.0)	**13**	(5.2)	**23**	(6.9)	3	(5.9)	**28**	(4.8)	**14**	(4.1)	-8	(4.6)	4	(4.0)
	Greece	**37**	(5.1)	4	(4.8)	**19**	(4.1)	5	(3.5)	**27**	(2.5)	**7**	(2.3)	**-14**	(6.5)	**-13**	(6.0)
	Hungary	**49**	(7.1)	10	(5.9)	**39**	(6.8)	**12**	(4.2)	**42**	(4.6)	**12**	(3.7)	**-11**	(3.9)	-2	(3.8)
	Iceland	**29**	(4.3)	**17**	(4.3)	**27**	(6.6)	**14**	(6.2)	**29**	(3.8)	**16**	(3.8)	**-19**	(6.2)	-10	(6.1)
	Ireland	**23**	(4.2)	2	(4.3)	**30**	(3.5)	**13**	(3.0)	**18**	(2.7)	2	(2.5)	**-25**	(3.8)	**-10**	(3.4)
	Israel	**47**	(5.1)	**26**	(5.0)	**35**	(6.5)	2	(5.9)	**67**	(5.3)	**41**	(4.8)	m	m	m	m
	Italy	**23**	(2.7)	**7**	(2.5)	**17**	(3.2)	4	(2.9)	**29**	(2.2)	**12**	(2.0)	**-6**	(2.7)	-3	(2.7)
	Japan	**24**	(4.3)	5	(4.1)	17	(9.3)	6	(7.9)	**-8**	(3.6)	-4	(3.2)	**-29**	(5.1)	**-10**	(4.1)
	Korea	5	(5.5)	-6	(5.4)	**17**	(6.2)	3	(5.6)	2	(3.4)	2	(3.0)	**-12**	(5.4)	8	(5.5)
	Luxembourg	**39**	(3.9)	**10**	(3.6)	**23**	(4.8)	5	(4.6)	3	(3.2)	-2	(2.7)	**-10**	(4.3)	-3	(3.8)
	Mexico	**26**	(2.9)	5	(2.6)	**12**	(2.2)	-3	(1.9)	**6**	(1.3)	**-7**	(1.2)	0	(2.1)	-1	(2.0)
	Netherlands	**28**	(5.0)	**13**	(4.8)	**13**	(5.2)	-5	(5.2)	**12**	(3.5)	-2	(3.3)	**-29**	(5.4)	**-19**	(5.3)
	New Zealand	**33**	(4.8)	7	(4.1)	**41**	(5.8)	**19**	(5.1)	**18**	(4.6)	1	(4.2)	**-22**	(4.1)	-3	(3.9)
	Norway	**35**	(4.3)	**18**	(4.2)	**23**	(6.5)	9	(6.3)	**31**	(4.0)	**18**	(3.8)	**-14**	(5.4)	-2	(5.1)
	Poland	**31**	(5.8)	1	(5.2)	**19**	(4.3)	0	(4.2)	**32**	(3.2)	**8**	(3.0)	**-28**	(4.1)	**-18**	(4.1)
	Portugal	**39**	(5.7)	2	(4.7)	**28**	(4.1)	**10**	(3.7)	**27**	(3.7)	5	(3.1)	-6	(4.9)	0	(4.4)
	Slovak Republic	**52**	(6.4)	**12**	(5.2)	**62**	(6.4)	**22**	(4.8)	**57**	(5.1)	**22**	(4.1)	**-13**	(5.4)	-4	(5.0)
	Slovenia	**33**	(4.3)	**9**	(4.2)	8	(4.8)	**-10**	(4.5)	**26**	(4.3)	2	(4.1)	**-13**	(5.1)	-7	(4.7)
	Spain	**35**	(4.3)	2	(3.8)	**31**	(3.1)	**10**	(3.1)	**18**	(2.2)	3	(1.9)	**-11**	(2.5)	-1	(2.3)
	Sweden	**34**	(4.1)	**17**	(3.8)	**40**	(6.4)	**18**	(6.2)	**36**	(5.4)	**17**	(5.1)	**-22**	(5.4)	-5	(5.5)
	Switzerland	**27**	(3.8)	**8**	(3.8)	**27**	(6.0)	11	(5.8)	**12**	(3.0)	3	(2.9)	**-9**	(3.7)	-6	(3.6)
	Turkey	**30**	(9.3)	-3	(8.2)	**14**	(4.1)	-5	(3.7)	**19**	(5.5)	-2	(3.5)	-4	(6.8)	-5	(6.5)
	United Kingdom	**25**	(3.6)	3	(4.1)	**26**	(4.2)	4	(3.8)	**19**	(4.5)	6	(3.6)	**-26**	(4.7)	**-12**	(3.8)
	United States	**36**	(4.5)	**12**	(4.5)	**21**	(4.7)	7	(4.3)	**8**	(3.6)	-2	(3.0)	**-25**	(4.3)	**-8**	(3.6)
	OECD average	**32**	(0.8)	**8**	(0.8)	**25**	(0.9)	**6**	(0.8)	**24**	(0.7)	**8**	(0.6)	**-16**	(0.8)	**-5**	(0.7)
Partners	Albania	-3	(8.4)	m	m	-3	(4.2)	m	m	3	(3.3)	m	m	2	(7.4)	m	m
	Argentina	**26**	(6.4)	6	(5.6)	**23**	(4.2)	7	(4.5)	**20**	(2.3)	2	(2.3)	**-7**	(3.6)	-1	(3.6)
	Brazil	**54**	(8.5)	**20**	(7.6)	**14**	(2.5)	-2	(2.0)	**19**	(1.9)	3	(1.7)	**-9**	(2.7)	**-6**	(2.6)
	Bulgaria	**55**	(5.7)	**24**	(4.5)	**28**	(5.0)	-2	(4.4)	**40**	(5.3)	**9**	(3.7)	**-10**	(4.2)	0	(4.0)
	Colombia	**38**	(5.6)	8	(5.5)	0	(3.4)	**-15**	(3.1)	3	(2.5)	**-7**	(2.6)	**-39**	(5.4)	**-17**	(4.6)
	Costa Rica	**30**	(6.1)	5	(5.5)	7	(4.6)	-5	(3.9)	**12**	(3.2)	-3	(2.8)	**-8**	(3.6)	-6	(3.4)
	Croatia	**36**	(4.8)	**10**	(4.3)	**19**	(3.2)	3	(3.0)	**31**	(3.6)	**11**	(3.2)	**-7**	(3.1)	-2	(2.8)
	Cyprus*	**35**	(4.5)	9	(4.5)	**37**	(4.3)	**12**	(4.3)	**25**	(3.1)	5	(3.0)	4	(5.6)	7	(5.1)
	Hong Kong-China	**20**	(5.8)	-1	(5.3)	8	(4.6)	-3	(4.1)	1	(3.6)	-2	(3.2)	**-24**	(5.1)	-8	(4.9)
	Indonesia	**41**	(16.3)	18	(12.1)	**16**	(3.5)	**9**	(3.3)	-1	(3.0)	-5	(2.7)	**-12**	(4.3)	-5	(4.3)
	Jordan	-4	(6.0)	-2	(5.8)	**18**	(3.2)	**7**	(3.3)	**12**	(4.6)	-2	(3.9)	**-8**	(4.2)	-4	(4.2)
	Kazakhstan	8	(4.5)	-2	(4.2)	**20**	(4.5)	**8**	(3.9)	**13**	(3.1)	1	(2.8)	**-36**	(4.7)	**-30**	(4.9)
	Latvia	**32**	(6.0)	9	(5.7)	5	(6.0)	**-11**	(5.2)	**11**	(3.9)	-1	(3.4)	2	(3.6)	7	(3.5)
	Liechtenstein	-9	(15.3)	-19	(15.4)	c	c	c	c	-14	(12.1)	-20	(10.9)	0	(4.0)	**9**	(3.8)
	Lithuania	**26**	(5.4)	7	(5.0)	**21**	(3.6)	3	(3.4)	**30**	(3.0)	**9**	(2.9)	-27	(16.3)	-20	(15.8)
	Macao-China	**17**	(5.9)	6	(6.1)	0	(4.6)	-4	(4.4)	0	(3.1)	-2	(3.1)	**-12**	(4.2)	-1	(3.9)
	Malaysia	**20**	(4.9)	7	(4.8)	**23**	(4.0)	**15**	(4.0)	**16**	(2.9)	-1	(2.5)	**-10**	(3.9)	-7	(4.0)
	Montenegro	**26**	(4.9)	**10**	(5.0)	**18**	(3.1)	1	(3.0)	**32**	(2.5)	**16**	(2.6)	**-21**	(3.6)	**-15**	(3.5)
	Peru	**54**	(10.8)	-6	(8.1)	**21**	(3.7)	-4	(2.7)	-2	(2.6)	**-11**	(2.3)	7	(6.2)	8	(6.0)
	Qatar	**41**	(3.3)	**40**	(3.2)	**57**	(2.3)	**46**	(2.4)	**8**	(2.1)	-2	(2.1)	**9**	(3.1)	**8**	(2.6)
	Romania	**45**	(5.5)	**11**	(3.8)	**30**	(3.8)	5	(2.9)	**33**	(3.8)	**8**	(2.7)	**-64**	(3.1)	**-56**	(3.1)
	Russian Federation	**30**	(4.4)	**10**	(3.4)	**19**	(5.6)	5	(5.4)	**18**	(3.5)	**7**	(3.3)	**-10**	(3.8)	-5	(3.5)
	Serbia	**37**	(4.3)	**12**	(3.8)	**15**	(3.6)	1	(3.1)	**29**	(3.8)	**12**	(3.2)	-2	(3.7)	**7**	(3.0)
	Shanghai-China	**23**	(5.2)	3	(4.8)	**31**	(5.6)	7	(4.8)	**33**	(4.3)	**16**	(3.7)	**-9**	(4.5)	-3	(4.3)
	Singapore	**10**	(4.1)	-4	(4.0)	8	(6.2)	-1	(5.7)	**9**	(3.6)	4	(3.2)	0	(4.2)	3	(3.7)
	Chinese Taipei	**21**	(6.7)	**-13**	(6.5)	**27**	(5.7)	7	(5.2)	5	(4.3)	-1	(3.6)	**-15**	(6.0)	-5	(5.5)
	Thailand	**35**	(8.1)	6	(7.6)	-1	(3.7)	**-7**	(3.5)	**-8**	(2.9)	**-10**	(2.7)	**-13**	(3.9)	**-9**	(4.0)
	Tunisia	**16**	(7.8)	-2	(7.7)	7	(4.5)	**-7**	(3.7)	**28**	(6.7)	**9**	(4.5)	**-21**	(6.2)	**-17**	(6.2)
	United Arab Emirates	**17**	(3.6)	**16**	(3.5)	**47**	(3.0)	**31**	(2.7)	**26**	(2.9)	**12**	(2.9)	**-39**	(3.9)	**-27**	(3.9)
	Uruguay	**53**	(6.5)	**12**	(4.8)	**19**	(4.5)	1	(4.2)	**30**	(3.0)	**6**	(2.6)	-7	(3.9)	2	(3.2)
	Viet Nam	**78**	(10.2)	**19**	(8.9)	**14**	(5.1)	-7	(3.8)	**22**	(4.9)	1	(3.7)	8	(4.7)	**13**	(4.3)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. STEM occupations refer to occupations in science, technology, engineering and mathematics. Refer to Annex A1 for a detailed description of which ISCO-08 codings were considered to be STEM occupations.

2. Analyses consider only students who live with at least one parent, including step or foster parent.

3. ESCS refers to the *PISA index of economic, social and cultural status.*

* See notes at the beginning of this Annex.

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[Part 1/3]

Table III.6.1c **Students' mathematics performance, by parents' attitudes towards the child's future**

Results based on students' and parents' self-reports

Percentage of students, by parents' attitudes towards the child's future:

		Parents expect the child to work as a manager or a professional at age 30[1]		Parents do not expect the child to work as a manager or a professional at age 30[1]		Parents expect the child to complete a university degree[2]		Parents do not expect the child to complete a university degree[2]		Parents expect the child to go into a <mathematics-related career>		Parents do not expect the child to go into a <mathematics-related career>		Parents expect the child to study mathematics after completing <secondary school>		Parents do not expect the child to study mathematics after completing <secondary school>		Parents "agree" or "strongly agree" that it is important to have good mathematics knowledge and skills in order to get any good job in today's world		Parents "disagree" or "strongly disagree" that it is important to have good mathematics knowledge and skills in order to get any good job in today's world	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Belgium (Flemish Community)**	m	m	m	m	38.7	(1.4)	61.3	(1.4)	29.4	(1.0)	70.6	(1.0)	20.9	(0.9)	79.1	(0.9)	74.1	(0.7)	25.9	(0.7)
	Chile	79.6	(1.1)	20.4	(1.1)	69.6	(1.3)	30.4	(1.3)	55.2	(0.8)	44.8	(0.8)	53.7	(0.8)	46.3	(0.8)	95.3	(0.3)	4.7	(0.3)
	Germany	60.6	(1.8)	39.4	(1.8)	32.3	(1.3)	67.7	(1.3)	15.4	(0.7)	84.6	(0.7)	3.9	(0.4)	96.1	(0.4)	93.1	(0.5)	6.9	(0.5)
	Hungary	49.3	(1.7)	50.7	(1.7)	49.8	(1.3)	50.2	(1.3)	37.9	(1.3)	62.1	(1.3)	45.4	(1.1)	54.6	(1.1)	77.7	(0.9)	22.3	(0.9)
	Italy	61.3	(1.0)	38.7	(1.0)	48.9	(0.8)	51.1	(0.8)	45.4	(0.8)	54.6	(0.8)	31.6	(0.8)	68.4	(0.8)	92.0	(0.2)	8.0	(0.2)
	Korea	61.6	(1.1)	38.4	(1.1)	87.2	(0.8)	12.8	(0.8)	44.8	(1.0)	55.2	(1.0)	41.2	(0.9)	58.8	(0.9)	80.7	(0.6)	19.3	(0.6)
	Mexico	85.8	(0.3)	14.2	(0.3)	74.3	(0.5)	25.7	(0.5)	68.0	(0.4)	32.0	(0.4)	63.2	(0.4)	36.8	(0.4)	95.7	(0.2)	4.3	(0.2)
	Portugal	79.6	(1.1)	20.4	(1.1)	64.1	(1.7)	35.9	(1.7)	63.4	(1.1)	36.6	(1.1)	60.6	(1.2)	39.4	(1.2)	95.6	(0.4)	4.4	(0.4)
Partners	**Croatia**	61.0	(1.4)	39.0	(1.4)	46.6	(1.4)	53.4	(1.4)	35.1	(1.2)	64.9	(1.2)	6.9	(0.5)	93.1	(0.5)	86.2	(0.6)	13.8	(0.6)
	Hong Kong-China	83.5	(0.7)	16.5	(0.7)	61.6	(1.4)	38.4	(1.4)	52.3	(0.9)	47.7	(0.9)	43.5	(0.8)	56.5	(0.8)	87.9	(0.6)	12.1	(0.6)
	Macao-China	67.8	(0.8)	32.2	(0.8)	60.2	(0.7)	39.8	(0.7)	63.6	(0.6)	36.4	(0.6)	65.6	(0.6)	34.4	(0.6)	91.6	(0.4)	8.4	(0.4)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
1. Managerial and professional occupations were derived using open-ended responses from parents about the occupation in which they expected their child to work by the age of 30, recoded into ISCO-08. Groups 1 and 2 represent managerial and professional occupations.
2. A university degree covers ISCED levels 5A and 6.
3. ESCS refers to the *PISA index of economic, social and cultural status.*
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[Part 2/3]

Table III.6.1c **Students' mathematics performance, by parents' attitudes towards the child's future**

Results based on students' and parents' self-reports

Mathematics performance, by parents' attitudes towards their child's future:

		Parents expect the child to work as a manager or a professional at age 30[1]		Parents do not expect the child to work as a manager or a professional at age 30[1]		Parents expect the child to complete a university degree[2]		Parents do not expect the child to complete a university degree[2]		Parents expect the child to go into a <mathematics-related career>		Parents do not expect the child to go into a <mathematics-related career>		Parents expect the child to study mathematics after completing <secondary school>		Parents do not expect the child to study mathematics after completing <secondary school>		Parents "agree" or "strongly agree" that it is important to have good mathematics knowledge and skills in order to get any good job in today's world		Parents "disagree" or "strongly disagree" that it is important to have good mathematics knowledge and skills in order to get any good job in today's world	
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	**Belgium (Flemish Community)**	m	m	m	m	607	(3.9)	506	(2.8)	596	(4.9)	523	(2.8)	596	(5.6)	531	(2.9)	548	(3.2)	540	(4.0)
	Chile	438	(3.3)	383	(3.2)	443	(3.3)	384	(3.8)	439	(3.2)	410	(3.3)	437	(3.5)	412	(3.1)	425	(3.1)	441	(5.8)
	Germany	564	(3.8)	479	(4.8)	591	(3.1)	502	(3.6)	555	(6.1)	528	(3.3)	553	(12.7)	531	(3.3)	531	(3.5)	539	(8.0)
	Hungary	534	(5.1)	437	(3.3)	533	(4.3)	424	(2.9)	506	(4.8)	463	(2.8)	516	(4.8)	448	(2.6)	475	(3.1)	494	(5.0)
	Italy	515	(2.5)	454	(2.5)	527	(2.3)	455	(2.1)	521	(2.7)	465	(1.9)	529	(3.0)	472	(1.9)	491	(2.2)	486	(3.3)
	Korea	572	(5.0)	532	(4.5)	566	(4.5)	471	(5.5)	580	(5.5)	533	(4.2)	577	(5.6)	538	(4.2)	558	(4.9)	537	(4.9)
	Mexico	420	(1.4)	392	(2.1)	425	(1.4)	379	(1.8)	417	(1.6)	407	(1.6)	417	(1.6)	408	(1.6)	414	(1.4)	400	(3.6)
	Portugal	513	(3.3)	444	(5.0)	528	(2.9)	435	(4.2)	512	(4.1)	467	(4.3)	511	(4.1)	471	(4.2)	495	(3.9)	491	(8.5)
Partners	**Croatia**	510	(4.0)	425	(2.9)	523	(4.7)	431	(2.7)	511	(5.7)	454	(2.8)	528	(7.3)	470	(3.4)	476	(3.6)	461	(5.2)
	Hong Kong-China	578	(3.1)	526	(5.1)	593	(3.1)	513	(3.7)	570	(3.5)	554	(3.5)	568	(3.5)	558	(3.6)	564	(3.2)	555	(5.1)
	Macao-China	555	(1.5)	521	(2.5)	559	(1.3)	509	(1.7)	547	(1.4)	528	(1.7)	544	(1.4)	533	(1.9)	540	(1.0)	540	(4.1)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
1. Managerial and professional occupations were derived using open-ended responses from parents about the occupation in which they expected their child to work by the age of 30, recoded into ISCO-08. Groups 1 and 2 represent managerial and professional occupations.
2. A university degree covers ISCED levels 5A and 6.
3. ESCS refers to the *PISA index of economic, social and cultural status.*
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[Part 3/3]

Table III.6.1c Students' mathematics performance, by parents' attitudes towards the child's future

Results based on students' and parents' self-reports

Change in mathematics performance that is associated with:

		Expecting the child to work as a manager or a professional at age 30[1]				Expecting the child to complete a university degree[2]				Expecting the child to go into a <mathematics-related career>				Expecting the child to study mathematics after completing <secondary school>				Agreeing or strongly agreeing that it is important to have good mathematics knowledge and skills in order to get any good job in today's world			
		Before accounting for ESCS[3]		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	**Belgium (Flemish Community)**	m	m	m	m	**101**	(4.5)	**82**	(4.0)	**72**	(4.8)	**64**	(4.0)	**64**	(5.3)	**59**	(4.4)	7	(3.7)	**13**	(3.2)
	Chile	**55**	(3.7)	**34**	(3.4)	**58**	(4.3)	**35**	(3.2)	**29**	(2.4)	**30**	(2.1)	**26**	(2.5)	**26**	(2.0)	**-17**	(5.6)	3	(4.6)
	Germany	**85**	(5.9)	**68**	(5.8)	**88**	(4.3)	**70**	(4.1)	**27**	(5.7)	**25**	(5.0)	21	(12.6)	**30**	(11.0)	-8	(8.5)	6	(8.1)
	Hungary	**96**	(5.6)	**73**	(5.0)	**109**	(5.3)	**85**	(4.3)	**44**	(4.7)	**40**	(3.5)	**68**	(5.0)	**53**	(3.9)	**-19**	(4.2)	0	(3.2)
	Italy	**61**	(3.0)	**49**	(2.9)	**72**	(2.5)	**59**	(2.2)	**56**	(2.5)	**51**	(2.2)	**57**	(2.5)	**51**	(2.3)	5	(2.8)	**10**	(2.6)
	Korea	**40**	(3.9)	**29**	(3.5)	**95**	(5.8)	**74**	(5.1)	**47**	(4.1)	**44**	(3.7)	**39**	(3.9)	**37**	(3.7)	**21**	(4.5)	**21**	(4.0)
	Mexico	**28**	(2.1)	**22**	(1.9)	**46**	(2.0)	**33**	(1.7)	**11**	(1.6)	**15**	(1.5)	**9**	(1.5)	**14**	(1.5)	**14**	(3.3)	**15**	(2.9)
	Portugal	**69**	(4.6)	**49**	(4.1)	**93**	(4.2)	**67**	(3.9)	**45**	(3.4)	**38**	(2.8)	**39**	(3.0)	**34**	(2.7)	5	(7.7)	**20**	(6.4)
Partners	**Croatia**	**85**	(4.5)	**73**	(3.9)	**91**	(5.3)	**79**	(4.7)	**57**	(5.1)	**52**	(4.3)	**58**	(6.2)	**56**	(6.0)	**15**	(4.5)	**18**	(4.1)
	Hong Kong-China	**52**	(4.8)	**43**	(4.4)	**80**	(4.6)	**69**	(3.7)	**16**	(3.1)	**20**	(3.0)	**10**	(3.2)	**13**	(3.1)	9	(4.6)	**16**	(4.5)
	Macao-China	**33**	(3.3)	**28**	(3.3)	**50**	(2.3)	**45**	(2.5)	**19**	(2.5)	**21**	(2.5)	**10**	(2.6)	**11**	(2.6)	0	(4.4)	2	(4.4)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Only countries and economies with data from the parent questionnaire are shown.

1. Managerial and professional occupations were derived using open-ended responses from parents about the occupation in which they expected their child to work by the age of 30, recoded into ISCO-08. Groups 1 and 2 represent managerial and professional occupations.

2. A university degree covers ISCED levels 5A and 6.

3. ESCS refers to the *PISA index of economic, social and cultural status*.

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[Part 1/2]

Table III.6.2a Students who arrived late for school in the two weeks prior to the PISA test, by parents' activities at home

Results based on students' and parents' self-reports

Percentage of students who arrived late for school in the two weeks prior to the PISA test[1]

		Parents discuss how the child is doing at school "once or twice a week" or "every day or almost every day"		Parents discuss how the child is doing at school "once or twice a month" or less often		Parents eat the <main meal> with the child around a table "every day or almost every day"		Parents eat the <main meal> with the child around a table "once or twice a week" or less often		Parents spend time just talking to the child "every day or almost every day"		Parents spend time just talking to the child "once or twice a week" or less often		Parents obtain mathematics materials for the child "once or twice a week" or "every day or almost every day"		Parents obtain mathematics materials for the child "once or twice a month" or less often		Parents discuss with the child how mathematics can be applied to everyday life "once or twice a week" or "every day or almost every day"		Parents discuss with the child how mathematics can be applied to everyday life "once or twice a month" or less often	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Belgium (Flemish Community)**	22.6	(0.9)	19.6	(1.3)	21.0	(0.8)	30.5	(2.5)	21.3	(0.8)	23.3	(1.1)	25.2	(2.0)	21.4	(0.8)	23.6	(2.0)	21.6	(0.8)
	Chile	51.4	(1.0)	54.3	(1.9)	50.7	(1.2)	53.5	(1.3)	49.7	(1.3)	53.5	(1.2)	50.6	(1.3)	52.3	(1.3)	50.9	(1.5)	52.5	(1.2)
	Germany	18.5	(1.0)	19.8	(1.8)	17.8	(0.9)	22.3	(1.8)	18.1	(0.8)	25.7	(2.8)	18.2	(2.3)	18.8	(0.8)	17.4	(1.6)	19.2	(0.9)
	Hungary	23.2	(1.2)	32.7	(4.9)	22.8	(1.5)	24.6	(1.4)	22.6	(1.4)	25.4	(1.5)	25.2	(2.3)	23.0	(1.2)	27.1	(2.2)	21.3	(1.3)
	Italy	38.4	(0.6)	41.3	(1.2)	37.7	(0.6)	42.0	(1.0)	37.4	(0.8)	40.0	(0.7)	39.8	(1.1)	38.4	(0.6)	38.3	(0.8)	39.3	(0.7)
	Korea	23.6	(1.0)	28.4	(1.5)	24.0	(0.9)	26.6	(1.5)	22.8	(1.1)	26.8	(1.4)	19.8	(1.6)	25.6	(1.1)	21.7	(1.9)	25.4	(1.1)
	Mexico	33.5	(0.6)	40.5	(1.3)	33.5	(0.6)	42.0	(1.6)	32.8	(0.7)	38.0	(1.0)	37.9	(0.9)	33.2	(0.7)	35.9	(0.8)	32.9	(0.7)
	Portugal	53.2	(1.0)	60.2	(3.8)	52.6	(1.0)	66.9	(2.9)	53.4	(1.0)	54.9	(3.0)	48.7	(1.5)	55.5	(1.1)	50.1	(1.2)	57.2	(1.2)
Partners	**Croatia**	32.6	(0.9)	35.3	(2.0)	31.8	(1.0)	35.8	(1.6)	33.0	(1.0)	32.5	(1.3)	36.3	(1.8)	32.0	(1.0)	35.8	(1.4)	31.0	(1.1)
	Hong Kong-China	13.2	(0.6)	17.1	(1.1)	13.4	(0.6)	21.0	(1.6)	12.3	(0.8)	18.9	(1.2)	14.4	(1.8)	14.5	(0.7)	13.1	(1.3)	14.7	(0.7)
	Macao-China	24.1	(0.7)	25.6	(0.8)	23.6	(0.6)	29.6	(1.4)	22.6	(1.0)	26.1	(0.6)	22.8	(1.4)	25.1	(0.6)	23.4	(1.2)	25.2	(0.5)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
1. Students who arrived late for school at least once in the two weeks prior to the PISA test.
2. ESCS refers to the *PISA index of economic, social and cultural status*.
StatLink http://dx.doi.org/10.1787/888932964034

[Part 2/2]

Table III.6.2a Students who arrived late for school in the two weeks prior to the PISA test, by parents' activities at home

Results based on students' and parents' self-reports

Change in the percentage of students who arrived late for school that is associated with:

		Discussing how the child is doing at school "once or twice a week" or "every day or almost every day"				Eating the <main meal> with the child around a table "once or twice a week" or "every day or almost every day"				Spending time just talking to the child "once or twice a week" or "every day or almost every day"				Obtaining mathematics materials for the child "once or twice a week" or "every day or almost every day"				Discussing with the child how mathematics can be applied to everyday life "once or twice a week" or "every day or almost every day"			
		Before accounting for ESCS[2]		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS	
		Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.
OECD	**Belgium (Flemish Community)**	**3.0**	(1.5)	**2.9**	(1.5)	**-9.5**	(2.5)	**-8.9**	(2.6)	-2.0	(1.1)	-1.9	(1.1)	3.8	(2.2)	3.4	(2.1)	2.0	(2.1)	2.2	(2.1)
	Chile	-2.9	(1.8)	-1.6	(1.8)	-2.7	(1.5)	-2.7	(1.4)	**-3.7**	(1.4)	**-3.4**	(1.4)	-1.7	(1.6)	-1.9	(1.6)	-1.6	(1.8)	-1.5	(1.8)
	Germany	-1.2	(2.2)	-1.5	(2.2)	**-4.5**	(2.0)	**-4.8**	(2.1)	**-7.5**	(2.7)	**-8.2**	(2.9)	-0.6	(2.4)	0.0	(2.4)	-1.8	(1.9)	-1.7	(2.0)
	Hungary	-9.6	(5.0)	-8.5	(5.2)	-1.8	(1.7)	-1.8	(1.7)	-2.8	(1.6)	-2.4	(1.6)	2.2	(2.2)	1.4	(2.1)	**5.8**	(2.4)	**4.2**	(2.1)
	Italy	**-2.9**	(1.1)	**-4.2**	(1.1)	**-4.3**	(1.0)	**-4.2**	(1.0)	**-2.6**	(0.8)	**-3.2**	(0.9)	1.4	(1.0)	0.7	(1.0)	-0.9	(0.8)	-1.1	(0.8)
	Korea	**-4.8**	(1.2)	**-3.7**	(1.2)	**-2.6**	(1.2)	-2.4	(1.2)	**-3.9**	(1.4)	**-3.5**	(1.4)	**-5.8**	(1.7)	**-5.0**	(1.7)	-3.6	(1.9)	**-3.7**	(1.9)
	Mexico	**-7.0**	(1.3)	**-6.5**	(1.4)	**-8.4**	(1.6)	**-8.4**	(1.6)	**-5.2**	(0.9)	**-5.3**	(0.9)	**4.7**	(1.0)	**4.5**	(1.0)	**3.1**	(0.9)	**2.9**	(0.9)
	Portugal	-7.0	(3.9)	-6.7	(4.0)	**-14.2**	(3.0)	**-14.0**	(3.1)	-1.5	(3.3)	-1.4	(3.2)	**-6.9**	(1.8)	**-6.8**	(1.8)	**-7.1**	(1.5)	**-7.0**	(1.5)
Partners	**Croatia**	-2.6	(2.0)	-3.1	(2.0)	**-4.0**	(1.8)	**-3.9**	(1.8)	0.5	(1.5)	0.4	(1.5)	**4.3**	(1.9)	**4.4**	(1.9)	**4.8**	(1.7)	**4.9**	(1.8)
	Hong Kong-China	**-3.8**	(1.0)	**-3.2**	(1.1)	**-7.6**	(1.7)	**-7.5**	(1.7)	**-6.5**	(1.5)	**-6.1**	(1.5)	0.0	(2.0)	0.3	(2.0)	-1.6	(1.5)	-1.5	(1.5)
	Macao-China	-1.5	(1.0)	-0.9	(1.1)	**-6.0**	(1.6)	**-5.5**	(1.6)	**-3.5**	(1.2)	**-3.0**	(1.3)	-2.3	(1.5)	-2.1	(1.6)	-1.9	(1.3)	-1.6	(1.3)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
1. Students who arrived late for school at least once in the two weeks prior to the PISA test.
2. ESCS refers to the *PISA index of economic, social and cultural status*.
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[Part 1/2]

Table III.6.2b Students who arrived late for school in the two weeks prior to the PISA test, by family structure and labour-market situation

Results based on students' and parents' self-reports

		Percentage of students who arrived late for school in the two weeks prior to the PISA test[1]															
		Either the father or the mother works in a STEM occupation[2]		Neither parent works in a STEM occupation[2]		Father is employed		Father is not employed		Mother is employed		Mother is not employed		Two-parent family[3]		Single-parent family[3]	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	29.7	(1.4)	35.0	(0.6)	34.8	(0.6)	38.5	(1.7)	34.9	(0.6)	37.1	(1.1)	33.7	(0.6)	42.6	(1.4)
	Austria	19.3	(2.1)	19.9	(1.1)	19.6	(0.9)	30.9	(3.3)	20.9	(1.0)	21.1	(1.7)	19.4	(0.9)	24.9	(2.1)
	Belgium	22.4	(1.2)	26.1	(0.8)	25.4	(0.6)	34.3	(2.1)	25.8	(0.7)	30.4	(1.5)	25.2	(0.7)	33.4	(1.8)
	Canada	39.6	(1.4)	41.9	(0.8)	42.4	(0.7)	42.9	(1.7)	42.3	(0.7)	45.2	(1.4)	40.8	(0.7)	51.0	(1.7)
	Chile	47.7	(2.3)	53.4	(1.2)	52.8	(1.1)	55.7	(2.4)	54.1	(1.2)	51.7	(1.3)	50.4	(1.1)	57.9	(1.7)
	Czech Republic	25.7	(2.0)	24.9	(1.0)	26.1	(0.8)	36.9	(3.3)	25.9	(0.9)	31.9	(2.4)	25.1	(0.8)	33.0	(1.9)
	Denmark	38.3	(2.1)	36.5	(1.1)	37.7	(1.2)	40.0	(1.8)	37.2	(1.1)	44.0	(2.3)	36.8	(1.1)	44.3	(2.4)
	Estonia	37.3	(2.2)	40.3	(1.1)	40.6	(1.0)	41.5	(2.9)	40.9	(1.0)	41.7	(2.0)	39.4	(1.0)	43.6	(1.9)
	Finland	39.9	(1.8)	42.0	(1.0)	42.3	(0.9)	43.2	(2.2)	43.0	(1.0)	42.7	(1.8)	40.2	(1.0)	53.9	(1.7)
	France	27.8	(2.4)	31.1	(1.0)	30.9	(0.9)	38.7	(1.9)	30.8	(1.0)	35.8	(1.5)	30.7	(0.8)	35.0	(2.2)
	Germany	25.4	(1.7)	20.1	(0.9)	22.0	(0.8)	26.7	(3.3)	22.5	(0.9)	23.4	(1.3)	21.2	(0.8)	27.2	(1.9)
	Greece	50.8	(2.8)	50.6	(1.0)	49.4	(0.9)	48.2	(2.1)	51.3	(1.1)	46.8	(1.3)	48.3	(1.0)	56.6	(2.6)
	Hungary	19.8	(3.0)	21.7	(1.1)	22.6	(1.0)	30.7	(3.6)	21.4	(1.2)	30.4	(2.3)	22.4	(1.1)	25.4	(2.0)
	Iceland	36.5	(2.2)	32.6	(1.0)	34.9	(0.8)	31.5	(3.2)	34.4	(0.9)	36.0	(2.0)	33.4	(0.8)	42.7	(2.4)
	Ireland	21.9	(2.2)	26.6	(1.1)	26.0	(1.0)	30.5	(1.8)	25.8	(1.1)	29.7	(1.4)	24.9	(1.0)	38.1	(2.5)
	Israel	52.2	(2.0)	54.9	(1.4)	54.4	(1.2)	54.0	(2.4)	54.1	(1.3)	54.3	(1.8)	m	m	m	m
	Italy	34.8	(1.3)	34.3	(0.6)	34.5	(0.6)	40.1	(1.5)	34.9	(0.6)	35.4	(0.8)	33.8	(0.6)	42.3	(1.5)
	Japan	7.2	(1.3)	8.0	(0.6)	8.3	(0.5)	13.5	(3.0)	8.7	(0.6)	9.7	(1.0)	8.2	(0.5)	12.3	(1.5)
	Korea	26.0	(2.2)	25.3	(1.2)	24.4	(1.1)	28.2	(2.5)	25.8	(1.2)	24.0	(1.3)	23.7	(0.9)	30.0	(2.4)
	Luxembourg	28.0	(1.7)	28.4	(0.7)	28.8	(0.6)	29.2	(1.8)	29.6	(0.7)	27.2	(1.1)	28.5	(0.6)	32.3	(1.9)
	Mexico	39.8	(1.7)	43.7	(0.7)	40.4	(0.7)	36.1	(0.9)	43.9	(0.8)	37.3	(0.7)	38.1	(0.6)	42.8	(1.3)
	Netherlands	25.7	(2.2)	28.6	(1.1)	29.7	(1.0)	31.2	(2.7)	29.0	(1.0)	33.7	(1.8)	29.1	(1.0)	35.5	(2.3)
	New Zealand	36.1	(2.4)	40.1	(1.3)	40.2	(1.3)	52.4	(2.7)	41.2	(1.2)	43.4	(2.3)	39.4	(1.3)	47.1	(2.1)
	Norway	26.8	(2.0)	28.1	(1.0)	28.1	(1.0)	35.7	(3.0)	28.5	(1.0)	33.4	(2.6)	27.4	(1.0)	38.6	(2.2)
	Poland	50.9	(2.8)	40.8	(1.2)	41.9	(1.2)	39.1	(2.5)	44.7	(1.3)	36.3	(1.7)	40.4	(1.2)	50.6	(2.0)
	Portugal	57.4	(2.9)	54.7	(1.1)	54.6	(1.1)	57.0	(1.9)	55.0	(1.1)	55.2	(1.7)	53.6	(1.0)	61.6	(1.9)
	Slovak Republic	25.5	(2.3)	24.2	(1.1)	25.0	(1.0)	32.6	(2.5)	25.3	(1.0)	29.3	(1.7)	24.5	(1.1)	27.9	(1.8)
	Slovenia	35.9	(2.3)	40.0	(1.0)	39.9	(0.9)	36.1	(1.9)	39.7	(0.9)	39.4	(2.2)	38.1	(0.8)	52.4	(2.9)
	Spain	34.8	(1.8)	34.5	(0.9)	34.1	(0.9)	39.2	(1.4)	35.7	(1.0)	34.1	(1.2)	33.6	(0.9)	42.6	(1.7)
	Sweden	55.1	(2.1)	53.5	(1.2)	54.4	(1.1)	64.0	(2.9)	54.7	(1.1)	60.8	(2.3)	53.9	(1.1)	63.3	(2.5)
	Switzerland	23.3	(1.5)	24.1	(0.9)	23.9	(0.8)	28.6	(2.1)	24.3	(0.8)	24.7	(1.4)	23.0	(0.8)	29.8	(1.7)
	Turkey	39.7	(4.3)	43.9	(2.0)	42.8	(1.1)	45.4	(1.5)	44.1	(2.2)	43.4	(1.0)	43.2	(1.0)	45.0	(3.7)
	United Kingdom	25.2	(1.9)	30.2	(0.9)	30.1	(0.9)	36.8	(2.0)	30.6	(0.9)	34.2	(1.2)	28.7	(0.9)	38.1	(1.6)
	United States	23.3	(2.3)	28.7	(1.2)	28.6	(1.2)	35.7	(2.5)	29.7	(1.2)	31.2	(1.8)	26.9	(1.3)	36.1	(1.8)
	OECD average	33.2	(0.4)	34.4	(0.2)	34.5	(0.2)	38.4	(0.4)	35.0	(0.2)	36.3	(0.3)	32.9	(0.2)	40.5	(0.4)
Partners	Albania	36.5	(3.0)	35.9	(1.5)	35.7	(0.8)	32.2	(1.8)	36.5	(1.2)	34.4	(0.9)	33.3	(0.8)	44.2	(3.8)
	Argentina	39.1	(3.5)	49.0	(1.7)	46.5	(1.4)	47.1	(2.4)	48.7	(1.6)	45.0	(1.8)	44.7	(1.5)	51.6	(2.1)
	Brazil	33.3	(3.4)	33.2	(1.0)	33.7	(0.9)	32.1	(1.3)	35.3	(1.1)	31.8	(0.8)	32.0	(1.0)	37.8	(1.4)
	Bulgaria	54.6	(2.5)	58.0	(1.2)	58.6	(1.1)	57.9	(2.2)	57.5	(1.1)	63.4	(1.9)	56.8	(1.2)	60.5	(2.0)
	Colombia	32.5	(3.2)	37.4	(1.6)	36.0	(1.5)	33.7	(2.5)	37.3	(1.6)	34.1	(1.5)	36.0	(1.6)	37.3	(2.0)
	Costa Rica	58.1	(3.2)	60.2	(1.4)	57.8	(1.2)	55.1	(2.5)	60.5	(1.5)	55.3	(1.4)	56.5	(1.3)	60.5	(2.0)
	Croatia	35.1	(2.0)	33.3	(1.1)	33.4	(1.0)	34.3	(1.5)	34.8	(1.0)	32.2	(1.5)	33.4	(0.9)	39.5	(2.2)
	Cyprus*	49.3	(2.4)	47.5	(0.9)	47.3	(0.7)	49.4	(2.3)	48.1	(0.8)	46.7	(1.4)	46.5	(0.7)	54.7	(2.5)
	Hong Kong-China	10.3	(1.7)	14.1	(0.8)	14.4	(0.7)	16.1	(1.6)	15.2	(0.7)	13.5	(0.9)	13.7	(0.6)	19.6	(1.8)
	Indonesia	39.1	(6.1)	25.4	(1.2)	27.1	(1.1)	27.7	(1.7)	26.7	(1.3)	27.1	(1.2)	26.4	(1.4)	28.2	(2.9)
	Jordan	35.4	(2.1)	34.2	(1.9)	35.4	(1.0)	34.1	(1.5)	36.4	(2.2)	35.1	(0.9)	34.2	(1.0)	43.3	(2.7)
	Kazakhstan	24.9	(1.9)	27.1	(1.2)	27.4	(1.1)	27.7	(2.1)	28.6	(1.2)	27.1	(1.7)	26.8	(1.2)	33.1	(2.2)
	Latvia	54.2	(3.3)	55.3	(1.4)	55.5	(1.2)	57.7	(3.2)	56.4	(1.4)	56.4	(2.3)	54.2	(1.2)	61.2	(2.4)
	Liechtenstein	19.3	(5.7)	16.7	(2.5)	18.7	(2.3)	c	c	20.8	(2.8)	15.9	(3.7)	17.9	(2.5)	17.3	(5.8)
	Lithuania	44.1	(3.2)	41.8	(1.2)	43.3	(1.3)	43.4	(2.1)	43.0	(1.3)	44.6	(1.9)	42.4	(1.3)	48.3	(2.5)
	Macao-China	24.2	(2.7)	23.6	(0.6)	24.4	(0.6)	27.2	(1.5)	24.9	(0.7)	25.5	(1.0)	23.5	(0.7)	30.9	(1.5)
	Malaysia	26.8	(2.5)	34.1	(1.3)	32.8	(1.0)	37.5	(2.3)	34.2	(1.5)	32.9	(1.1)	31.8	(1.0)	34.7	(2.2)
	Montenegro	41.7	(2.2)	39.3	(1.2)	39.9	(1.0)	37.3	(1.5)	41.5	(1.2)	36.7	(1.1)	38.2	(1.0)	51.3	(3.3)
	Peru	56.6	(3.8)	52.6	(1.3)	53.2	(1.3)	49.3	(1.8)	53.0	(1.4)	52.5	(1.2)	52.7	(1.3)	50.8	(2.1)
	Qatar	30.4	(1.1)	37.8	(0.9)	37.4	(0.5)	48.0	(1.3)	39.8	(0.7)	38.3	(0.5)	35.9	(0.5)	47.2	(1.7)
	Romania	46.2	(2.5)	44.9	(1.4)	45.1	(1.3)	46.6	(1.7)	45.3	(1.4)	46.1	(1.3)	44.9	(1.3)	47.2	(2.0)
	Russian Federation	45.7	(2.5)	45.0	(1.5)	46.0	(1.3)	46.8	(2.9)	46.3	(1.5)	46.7	(1.5)	43.6	(1.2)	50.8	(2.1)
	Serbia	41.0	(2.1)	41.0	(1.0)	41.9	(1.1)	39.3	(1.9)	42.8	(1.3)	39.5	(1.4)	40.4	(1.1)	50.9	(2.6)
	Shanghai-China	14.7	(1.4)	15.8	(0.7)	16.0	(0.7)	20.5	(1.5)	15.4	(0.7)	19.8	(1.2)	15.9	(0.7)	19.0	(1.8)
	Singapore	20.8	(1.4)	20.2	(0.7)	20.3	(0.6)	22.3	(2.3)	21.3	(0.7)	19.3	(0.8)	19.4	(0.7)	26.0	(2.0)
	Chinese Taipei	19.7	(2.1)	21.3	(0.8)	21.7	(0.8)	24.6	(1.5)	23.3	(0.9)	19.4	(1.0)	20.3	(0.8)	29.8	(1.9)
	Thailand	34.8	(4.2)	32.8	(1.3)	34.6	(1.2)	31.5	(1.7)	34.7	(1.3)	32.3	(1.5)	32.4	(1.4)	34.5	(1.4)
	Tunisia	51.8	(3.3)	55.0	(1.6)	51.9	(1.1)	51.6	(2.0)	52.9	(1.6)	51.3	(1.1)	51.7	(1.1)	53.9	(3.6)
	United Arab Emirates	25.9	(1.7)	28.6	(0.9)	29.9	(0.7)	37.5	(1.5)	30.1	(1.2)	31.8	(0.7)	30.0	(0.6)	35.0	(1.9)
	Uruguay	56.6	(3.3)	59.1	(1.2)	59.8	(1.1)	57.2	(2.4)	59.2	(1.2)	58.8	(1.4)	58.3	(1.1)	62.1	(2.0)
	Viet Nam	5.4	(2.9)	16.5	(0.9)	16.6	(1.0)	15.7	(1.0)	16.6	(1.1)	15.9	(1.0)	15.4	(0.8)	16.9	(2.4)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Students who arrived late for school at least once in the two weeks prior to the PISA test.
2. STEM occupations refers to occupations in science, technology, engineering and mathematics. Refer to Annex A1 for a detailed description of which ISCO-08 codings were considered to be STEM occupations.
3. Analyses consider only students who live with at least one parent, including step or foster parent.
4. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.6.2b

Students who arrived late for school in the two weeks prior to the PISA test, by family structure and labour-market situation

Results based on students' and parents' self-reports

		Change in the percentage of students who arrived late for school that is associated with:															
		Having a father or a mother who works in a STEM occupation[2]				Having a father who is currently employed				Having a mother who is currently employed				Coming from a single-parent family[3]			
		Before accounting for ESCS[4]		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS	
		Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.
OECD	**Australia**	**-5.3**	(1.5)	**-4.0**	(1.5)	**-3.7**	(1.6)	-2.4	(1.6)	-2.1	(1.2)	-0.9	(1.3)	**8.8**	(1.4)	**7.8**	(1.5)
	Austria	-0.6	(2.1)	-2.5	(2.2)	**-11.3**	(3.0)	**-12.3**	(3.0)	-0.2	(1.6)	-0.7	(1.6)	**5.5**	(2.2)	**5.8**	(2.2)
	Belgium	**-3.7**	(1.5)	**-3.4**	(1.5)	**-8.9**	(2.1)	**-8.4**	(2.0)	**-4.6**	(1.6)	**-3.4**	(1.5)	**8.1**	(1.8)	**7.7**	(1.8)
	Canada	-2.3	(1.8)	-1.3	(1.9)	-0.5	(1.8)	0.1	(1.8)	**-2.9**	(1.4)	-2.3	(1.4)	**10.2**	(1.7)	**9.3**	(1.7)
	Chile	**-5.7**	(2.5)	-1.2	(2.6)	-2.9	(2.4)	-1.0	(2.4)	2.4	(1.3)	**4.1**	(1.4)	**7.5**	(1.7)	**7.0**	(1.6)
	Czech Republic	0.8	(2.2)	0.4	(2.2)	**-10.8**	(3.3)	**-9.6**	(3.2)	**-6.0**	(2.6)	**-5.0**	(2.5)	**7.9**	(2.0)	**7.5**	(2.1)
	Denmark	1.7	(1.9)	1.8	(2.0)	-2.4	(2.3)	-1.8	(2.5)	**-6.8**	(2.4)	**-6.0**	(2.3)	**7.5**	(2.4)	**7.2**	(2.4)
	Estonia	-3.0	(2.5)	-3.1	(2.6)	-0.9	(3.0)	-1.0	(3.0)	-0.9	(2.2)	-0.9	(2.2)	**4.2**	(1.8)	**4.4**	(1.8)
	Finland	-2.1	(2.0)	-1.7	(2.0)	-0.9	(2.1)	0.1	(2.0)	0.3	(1.8)	1.1	(1.8)	**13.7**	(1.9)	**13.5**	(2.0)
	France	-3.3	(2.4)	-2.0	(2.5)	**-7.8**	(1.9)	**-6.2**	(2.1)	**-5.0**	(1.5)	-3.2	(1.7)	**4.3**	(2.2)	3.5	(2.2)
	Germany	**5.3**	(1.9)	**4.1**	(1.9)	-4.7	(3.4)	-3.9	(3.5)	-0.9	(1.5)	-0.7	(1.5)	**6.0**	(2.1)	**6.2**	(2.1)
	Greece	0.2	(2.7)	-1.0	(2.9)	1.2	(2.0)	-0.1	(2.1)	**4.5**	(1.5)	3.0	(1.7)	**8.2**	(2.6)	**8.5**	(2.7)
	Hungary	-2.0	(2.9)	0.2	(2.7)	**-8.0**	(3.4)	-5.4	(3.0)	**-9.1**	(2.3)	**-6.5**	(2.1)	3.0	(1.9)	2.1	(1.9)
	Iceland	3.8	(2.5)	5.0	(2.6)	3.4	(3.3)	4.0	(3.3)	-1.6	(2.2)	-0.7	(2.2)	**9.3**	(2.6)	**8.5**	(2.6)
	Ireland	**-4.6**	(2.3)	-3.6	(2.3)	**-4.5**	(1.7)	**-3.5**	(1.7)	**-4.0**	(1.5)	-2.6	(1.4)	**13.2**	(2.5)	**11.9**	(2.4)
	Israel	-2.7	(2.2)	-1.1	(2.1)	0.4	(2.6)	1.4	(2.6)	-0.2	(2.0)	0.8	(2.1)	c	c	c	c
	Italy	0.4	(1.3)	1.0	(1.2)	**-5.7**	(1.4)	**-5.3**	(1.4)	-0.5	(0.8)	0.3	(0.8)	**8.5**	(1.5)	**8.3**	(1.5)
	Japan	-0.8	(1.4)	-0.8	(1.3)	-5.1	(3.0)	-4.3	(3.0)	-1.1	(1.0)	-1.2	(1.0)	**4.1**	(1.4)	**3.5**	(1.3)
	Korea	0.7	(2.3)	1.9	(2.3)	-3.9	(2.5)	-2.4	(2.5)	1.8	(1.4)	1.8	(1.3)	**6.4**	(2.1)	4.2	(2.2)
	Luxembourg	-0.4	(1.9)	0.4	(1.9)	-0.4	(1.9)	-0.4	(2.1)	2.5	(1.4)	2.2	(1.4)	3.8	(2.1)	3.9	(2.1)
	Mexico	**-3.9**	(1.7)	**-4.6**	(1.7)	**4.3**	(1.0)	**2.6**	(1.0)	**6.5**	(0.8)	**5.3**	(0.8)	**4.6**	(1.3)	**4.6**	(1.2)
	Netherlands	-2.9	(2.5)	-2.9	(2.5)	-1.4	(2.8)	-1.2	(2.8)	**-4.7**	(1.8)	**-4.6**	(1.9)	**6.4**	(2.5)	**6.5**	(2.6)
	New Zealand	-4.0	(2.3)	-1.5	(2.5)	**-12.3**	(2.5)	**-9.7**	(2.7)	-2.2	(2.1)	0.5	(2.1)	**7.6**	(2.1)	**5.5**	(2.0)
	Norway	-1.3	(2.0)	-0.4	(2.2)	**-7.6**	(3.1)	**-7.2**	(3.1)	**-4.9**	(2.5)	-3.7	(2.6)	**11.2**	(2.3)	**11.1**	(2.4)
	Poland	**10.1**	(2.9)	**6.5**	(3.0)	2.8	(2.5)	0.6	(2.5)	**8.4**	(1.8)	**6.4**	(1.8)	**10.2**	(1.9)	**11.2**	(1.9)
	Portugal	2.8	(2.9)	3.5	(3.0)	-2.4	(2.2)	-2.3	(2.3)	-0.2	(1.7)	0.0	(1.7)	**8.0**	(1.8)	**7.9**	(1.8)
	Slovak Republic	1.4	(2.4)	1.8	(2.4)	**-7.6**	(2.5)	**-6.5**	(2.4)	**-4.0**	(1.8)	-2.7	(1.8)	3.4	(2.1)	3.4	(2.1)
	Slovenia	-4.2	(2.5)	-4.6	(2.6)	3.8	(2.1)	4.1	(2.1)	0.3	(2.6)	0.6	(2.7)	**14.3**	(3.1)	**13.9**	(3.1)
	Spain	0.3	(1.7)	2.7	(1.8)	**-5.2**	(1.5)	**-3.8**	(1.6)	1.6	(1.4)	**2.8**	(1.4)	**9.0**	(1.7)	**8.4**	(1.7)
	Sweden	1.6	(2.3)	2.9	(2.4)	**-9.6**	(2.8)	**-8.4**	(2.9)	**-6.0**	(2.2)	**-4.4**	(2.3)	**9.4**	(2.6)	**7.8**	(2.8)
	Switzerland	-0.8	(1.5)	-2.2	(1.5)	**-4.7**	(2.0)	**-5.6**	(2.0)	-0.4	(1.3)	-0.8	(1.3)	**6.8**	(1.5)	**7.0**	(1.5)
	Turkey	-4.2	(4.9)	-3.4	(4.8)	-2.6	(1.5)	-2.3	(1.6)	0.7	(2.1)	0.9	(2.1)	1.8	(3.7)	1.0	(3.6)
	United Kingdom	**-5.0**	(2.0)	-3.7	(2.0)	**-6.8**	(2.2)	**-5.5**	(2.5)	**-3.6**	(1.3)	**-2.9**	(1.4)	**9.3**	(1.8)	**8.2**	(1.9)
	United States	**-5.4**	(2.3)	-1.5	(2.4)	**-7.1**	(2.4)	**-4.9**	(2.3)	-1.6	(1.7)	0.3	(1.7)	**9.2**	(2.0)	**6.2**	(2.1)
	OECD average	**-1.1**	(0.4)	-0.5	(0.4)	**-3.9**	(0.4)	**-3.3**	(0.4)	**-1.3**	(0.3)	**-0.7**	(0.3)	**7.6**	(0.4)	**7.1**	(0.4)
Partners	**Albania**	0.6	(3.3)	m	m	3.5	(2.0)	m	m	2.1	(1.6)	m	m	**10.9**	(3.9)	m	m
	Argentina	**-9.9**	(3.9)	-6.9	(4.0)	-0.6	(2.3)	1.5	(2.3)	**3.7**	(1.8)	**5.8**	(2.1)	**6.9**	(1.9)	**6.1**	(2.0)
	Brazil	0.1	(3.4)	-2.5	(3.5)	1.6	(1.2)	0.4	(1.2)	**3.5**	(0.9)	**2.4**	(1.0)	**5.8**	(1.5)	**6.0**	(1.5)
	Bulgaria	-3.4	(2.5)	0.2	(2.4)	0.7	(2.0)	3.7	(2.1)	**-5.9**	(1.9)	-3.0	(1.8)	**3.7**	(1.9)	2.7	(1.9)
	Colombia	-4.9	(3.2)	-5.7	(3.3)	2.3	(2.6)	1.9	(2.6)	3.3	(1.7)	3.1	(1.6)	1.3	(2.2)	1.3	(2.2)
	Costa Rica	-2.1	(3.1)	-0.9	(3.2)	2.7	(2.5)	2.1	(2.5)	**5.1**	(1.8)	**4.7**	(1.8)	4.0	(2.1)	**4.1**	(2.1)
	Croatia	1.8	(2.2)	0.6	(2.2)	-0.9	(1.7)	-1.5	(1.8)	2.6	(1.7)	2.2	(1.7)	**6.1**	(2.3)	**6.0**	(2.3)
	Cyprus*	1.8	(2.6)	4.5	(2.7)	-2.1	(2.4)	-0.8	(2.5)	1.4	(1.6)	2.8	(1.7)	**8.1**	(2.6)	**7.2**	(2.6)
	Hong Kong-China	**-3.8**	(1.9)	-3.0	(2.3)	-1.7	(1.7)	-1.3	(1.7)	1.7	(1.1)	1.6	(1.1)	**5.9**	(1.8)	**5.3**	(1.8)
	Indonesia	**13.8**	(5.7)	**11.1**	(5.2)	-0.6	(1.7)	-1.4	(1.8)	-0.4	(1.5)	-1.0	(1.5)	1.8	(3.1)	2.3	(3.0)
	Jordan	1.2	(2.5)	1.1	(2.5)	1.3	(1.6)	1.4	(1.6)	1.3	(2.2)	1.5	(2.1)	**9.0**	(2.8)	**9.3**	(2.8)
	Kazakhstan	-2.2	(2.0)	-0.7	(2.1)	-0.3	(2.0)	1.9	(1.9)	1.5	(1.7)	**3.8**	(1.6)	**6.4**	(1.9)	**5.5**	(1.9)
	Latvia	-1.1	(3.3)	-1.5	(3.4)	-2.2	(3.1)	-2.1	(3.2)	0.0	(2.6)	0.2	(2.6)	**7.0**	(2.3)	**7.1**	(2.3)
	Liechtenstein	2.5	(5.9)	3.3	(6.1)	c	c	c	c	4.9	(4.4)	6.1	(4.4)	-0.6	(6.2)	-0.2	(6.4)
	Lithuania	2.3	(3.0)	1.9	(3.0)	-0.1	(2.2)	-0.3	(2.3)	-1.6	(1.9)	-1.9	(1.9)	**5.9**	(2.4)	**5.9**	(2.4)
	Macao-China	0.6	(2.7)	1.5	(2.8)	-2.9	(1.8)	-2.5	(1.8)	-0.6	(1.3)	-0.3	(1.3)	**7.4**	(1.8)	**7.0**	(1.8)
	Malaysia	**-7.4**	(2.3)	**-5.6**	(2.3)	**-4.7**	(2.3)	-4.1	(2.3)	1.3	(1.7)	2.9	(1.6)	2.8	(2.2)	2.4	(2.3)
	Montenegro	2.4	(2.2)	2.1	(2.5)	2.6	(1.5)	1.8	(1.6)	**4.8**	(1.4)	**4.3**	(1.5)	**13.1**	(3.4)	**13.1**	(3.4)
	Peru	3.9	(3.7)	6.5	(3.6)	**3.9**	(1.9)	**4.9**	(1.9)	0.5	(1.3)	0.8	(1.3)	-1.9	(2.2)	-1.8	(2.2)
	Qatar	**-7.4**	(1.5)	**-7.3**	(1.5)	**-10.6**	(1.4)	**-11.4**	(1.4)	1.5	(0.9)	1.1	(0.9)	**11.2**	(1.8)	**11.6**	(1.8)
	Romania	1.3	(2.3)	1.4	(2.4)	-1.5	(1.8)	-0.5	(1.7)	-0.9	(1.6)	0.2	(1.6)	2.3	(2.1)	2.1	(2.1)
	Russian Federation	0.7	(2.2)	2.4	(2.3)	-0.8	(2.7)	0.0	(2.7)	-0.3	(1.9)	0.3	(2.0)	**7.2**	(1.7)	**6.8**	(1.9)
	Serbia	0.0	(2.0)	-2.3	(2.3)	2.6	(2.0)	1.5	(2.0)	3.3	(1.8)	2.1	(1.7)	**10.5**	(2.6)	**10.8**	(2.6)
	Shanghai-China	-1.1	(1.5)	-0.5	(1.5)	**-4.6**	(1.6)	**-3.9**	(1.7)	**-4.4**	(1.3)	**-4.0**	(1.4)	3.1	(1.8)	3.0	(1.8)
	Singapore	0.7	(1.4)	2.2	(1.4)	-2.0	(2.3)	-1.2	(2.3)	**2.0**	(1.0)	**2.6**	(1.0)	**6.6**	(2.2)	**5.8**	(2.2)
	Chinese Taipei	-1.7	(2.1)	-0.8	(2.1)	-3.0	(1.6)	-2.2	(1.6)	**3.9**	(0.9)	**4.2**	(1.0)	**9.5**	(1.9)	**8.8**	(1.9)
	Thailand	1.9	(4.2)	1.3	(4.0)	3.1	(1.7)	3.0	(1.7)	2.4	(1.5)	2.4	(1.5)	2.1	(1.7)	2.2	(1.7)
	Tunisia	-3.2	(3.8)	-2.5	(3.9)	0.4	(2.3)	0.2	(2.3)	1.6	(1.9)	1.1	(2.0)	2.2	(3.8)	2.5	(3.8)
	United Arab Emirates	-2.7	(1.9)	-2.7	(1.9)	**-7.6**	(1.5)	**-8.6**	(1.4)	-1.7	(1.2)	-2.2	(1.2)	**5.0**	(2.1)	**5.4**	(2.1)
	Uruguay	-2.5	(3.2)	-1.5	(3.0)	2.6	(2.6)	2.8	(2.6)	0.4	(1.7)	0.5	(1.7)	3.8	(2.1)	3.7	(2.0)
	Viet Nam	**-11.1**	(3.0)	**-7.9**	(3.3)	0.9	(1.2)	2.1	(1.4)	0.8	(1.3)	2.0	(1.5)	1.5	(2.4)	1.3	(2.4)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Students who arrived late for school at least once in the two weeks prior to the PISA test.

2. STEM occupations refers to occupations in science, technology, engineering and mathematics. Refer to Annex A1 for a detailed description of which ISCO-08 codings were considered to be STEM occupations.

3. Analyses consider only students who live with at least one parent, including step or foster parent.

4. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.6.2c Students who arrived late for school in the two weeks prior to the PISA test, by parents' attitudes towards the child's future

Results based on students' and parents' self-reports

		Percentage of students who arrived late for school in the two weeks prior to the PISA test[1]																			
		Parents expect the child to work as a manager or a professional at age 30[2]		Parents do not expect the child to work as a manager or a professional at age 30[2]		Parents expect the child to complete a university degree[3]		Parents do not expect the child to complete a university degree[3]		Parents expect the child to go into a <mathematics-related career>		Parents do not expect the child to go into a <mathematics-related career>		Parents expect the child to study mathematics after completing <secondary school>		Parents do not expect the child to study mathematics after completing <secondary school>		Parents "agree" or "strongly agree" that it is important to have good mathematics knowledge and skills in order to get any good job in today's world		Parents "disagree" or "strongly disagree" that it is important to have good mathematics knowledge and skills in order to get any good job in today's world	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Belgium (Flemish Community)	m	m	m	m	20.4	(1.2)	22.7	(0.9)	18.0	(1.2)	23.2	(0.8)	19.4	(1.5)	22.2	(0.8)	21.4	(0.9)	22.7	(1.3)
	Chile	50.3	(1.3)	57.2	(2.3)	50.1	(1.1)	56.1	(1.7)	50.1	(1.2)	53.8	(1.2)	50.9	(1.3)	52.8	(1.2)	51.8	(1.1)	50.6	(2.9)
	Germany	18.5	(1.2)	16.5	(1.7)	20.1	(1.2)	18.0	(1.0)	19.5	(1.8)	18.7	(0.8)	21.0	(3.9)	18.8	(0.8)	18.6	(0.8)	21.8	(2.9)
	Hungary	15.6	(1.6)	27.6	(2.0)	16.1	(1.3)	31.2	(1.8)	21.4	(1.6)	25.1	(1.4)	18.0	(1.6)	28.2	(1.3)	24.1	(1.4)	21.2	(1.8)
	Italy	31.7	(0.9)	36.4	(0.9)	31.0	(0.8)	37.3	(0.7)	32.1	(0.7)	35.8	(0.8)	32.0	(0.8)	35.0	(0.7)	34.3	(0.7)	31.5	(1.4)
	Korea	22.5	(1.1)	27.5	(1.4)	23.3	(1.0)	37.0	(2.9)	22.6	(1.1)	26.9	(1.3)	21.8	(1.2)	27.3	(1.2)	24.4	(1.1)	27.9	(1.6)
	Mexico	38.3	(0.7)	40.4	(1.0)	38.5	(0.7)	40.2	(0.9)	37.2	(0.7)	42.3	(0.8)	37.3	(0.7)	41.5	(0.7)	38.8	(0.6)	38.8	(2.1)
	Portugal	52.6	(1.2)	53.0	(2.3)	51.8	(1.1)	56.8	(1.7)	51.8	(1.2)	57.2	(1.5)	51.4	(1.3)	57.4	(1.4)	53.2	(1.0)	60.3	(3.3)
Partners	Croatia	27.3	(1.0)	38.2	(1.7)	28.7	(1.1)	36.6	(1.1)	29.7	(1.3)	34.4	(1.0)	27.4	(2.7)	33.2	(0.9)	32.6	(1.0)	34.3	(1.9)
	Hong Kong-China	12.7	(0.7)	15.7	(1.6)	11.8	(0.7)	18.9	(1.0)	14.4	(0.7)	14.7	(0.8)	14.7	(0.8)	14.4	(0.8)	14.0	(0.6)	17.9	(1.6)
	Macao-China	22.6	(0.8)	26.3	(1.1)	22.2	(0.6)	29.4	(1.0)	24.4	(0.7)	25.2	(0.8)	24.7	(0.7)	24.7	(0.9)	25.0	(0.6)	23.1	(1.7)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
1. Students who arrived late for school at least once in the two weeks prior to the PISA test.
2. Managerial and professional occupations were derived using open-ended responses from parents about the occupation in which they expected their child to work by the age of 30, recoded into ISCO-08. Groups 1 and 2 represent managerial and professional occupations.
3. A university degree covers ISCED levels 5A and 6.
4. ESCS refers to the *PISA index of economic, social and cultural status.*

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[Part 2/2]

Table III.6.2c Students who arrived late for school in the two weeks prior to the PISA test, by parents' attitudes towards the child's future

Results based on students' and parents' self-reports

		Change in the percentage of students who arrived late for school that is associated with:																			
		Expecting the child to work as a manager or a professional at age 30[2]				Expecting the child to complete a university degree[3]				Expecting the child to go into a <mathematics-related career>				Expecting the child to study mathematics after completing <secondary school>				Agreeing or strongly agreeing that it is important to have good mathematics knowledge and skills in order to get any good job in today's world			
		Before accounting for ESCS[4]		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS	
		Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.
OECD	Belgium (Flemish Community)	m	m	m	m	-2.3	(1.5)	-2.7	(1.5)	**-5.2**	(1.3)	**-5.0**	(1.4)	-2.8	(1.5)	-2.8	(1.5)	-1.3	(1.6)	-1.3	(1.6)
	Chile	**-6.9**	(2.5)	-4.9	(2.5)	**-6.0**	(1.7)	**-4.0**	(1.6)	**-3.7**	(1.4)	**-3.8**	(1.4)	-1.9	(1.3)	-1.9	(1.3)	1.2	(3.1)	-0.6	(3.1)
	Germany	2.0	(2.0)	1.9	(2.0)	2.1	(1.6)	1.3	(1.7)	0.8	(2.0)	0.2	(1.9)	2.2	(4.0)	1.7	(4.1)	-3.2	(2.9)	-3.2	(3.0)
	Hungary	**-12.0**	(2.3)	**-11.0**	(2.3)	**-15.0**	(2.0)	**-14.0**	(1.8)	**-3.8**	(1.6)	**-3.3**	(1.6)	**-10.2**	(1.6)	**-8.8**	(1.7)	2.8	(1.9)	0.8	(1.9)
	Italy	**-4.7**	(1.2)	**-4.8**	(1.1)	**-6.3**	(0.9)	**-6.4**	(1.0)	**-3.7**	(0.9)	**-3.7**	(0.9)	**-3.1**	(0.9)	**-2.9**	(0.9)	2.8	(1.5)	2.6	(1.5)
	Korea	**-5.0**	(1.4)	**-4.0**	(1.4)	**-13.7**	(2.7)	**-12.0**	(2.8)	**-4.3**	(1.3)	**-3.9**	(1.3)	**-5.5**	(1.2)	**-5.3**	(1.1)	**-3.5**	(1.5)	**-3.6**	(1.5)
	Mexico	**-2.1**	(1.1)	**-3.0**	(1.1)	-1.7	(0.9)	**-3.9**	(0.9)	**-5.1**	(0.7)	**-4.5**	(0.8)	**-4.3**	(0.7)	**-3.7**	(0.7)	0.0	(2.2)	0.2	(2.2)
	Portugal	-0.4	(2.4)	-0.1	(2.6)	**-5.0**	(1.9)	**-5.8**	(2.0)	**-5.4**	(1.8)	**-5.4**	(1.8)	**-6.0**	(1.7)	**-6.1**	(1.8)	**-7.1**	(3.1)	**-7.5**	(3.2)
Partners	Croatia	**-10.9**	(1.9)	**-12.6**	(2.0)	**-7.9**	(1.4)	**-10.4**	(1.4)	**-4.7**	(1.3)	**-4.9**	(1.3)	**-5.8**	(2.7)	**-5.7**	(2.7)	-1.7	(2.0)	-1.7	(2.0)
	Hong Kong-China	-3.0	(1.7)	-2.3	(1.7)	**-7.1**	(1.1)	**-7.1**	(1.1)	-0.3	(0.9)	-0.4	(0.9)	0.3	(1.1)	0.2	(1.1)	**-3.9**	(1.6)	**-4.0**	(1.6)
	Macao-China	**-3.8**	(1.5)	**-3.6**	(1.6)	**-7.3**	(1.3)	**-6.7**	(1.3)	-0.8	(1.1)	-1.0	(1.1)	0.0	(1.2)	-0.3	(1.2)	2.0	(1.9)	1.9	(1.9)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
1. Students who arrived late for school at least once in the two weeks prior to the PISA test.
2. Managerial and professional occupations were derived using open-ended responses from parents about the occupation in which they expected their child to work by the age of 30, recoded into ISCO-08. Groups 1 and 2 represent managerial and professional occupations.
3. A university degree covers ISCED levels 5A and 6.
4. ESCS refers to the *PISA index of economic, social and cultural status.*

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[Part 1/2]

Table III.6.6a

Students' perseverance, by parents' activities at home

Results based on students' and parents' self-reports

		Index of perseverance																			
		Parents discuss how the child is doing at school "once or twice a week" or "every day or almost every day"		Parents discuss how the child is doing at school "once or twice a month" or less often		Parents eat the <main meal> with the child around a table "every day or almost every day"		Parents eat the <main meal> with the child around a table "once or twice a week" or less often		Parents spend time just talking to the child "every day or almost every day"		Parents spend time just talking to the child "once or twice a week" or less often		Parents obtain mathematics materials for the child "once or twice a week" or "every day or almost every day"		Parents obtain mathematics materials for the child "once or twice a month" or less often		Discuss with the child how mathematics can be applied to everyday life "once or twice a week" or "every day or almost every day"		Discuss with the child how mathematics can be applied to everyday life "once or twice a month" or less often	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Belgium (Flemish Community)**	-0.23	(0.02)	-0.29	(0.03)	-0.24	(0.02)	-0.25	(0.06)	-0.24	(0.02)	-0.27	(0.04)	-0.15	(0.05)	-0.26	(0.02)	-0.23	(0.05)	-0.25	(0.02)
	Chile	0.30	(0.02)	0.21	(0.04)	0.28	(0.02)	0.29	(0.03)	0.34	(0.02)	0.24	(0.03)	0.31	(0.03)	0.28	(0.02)	0.29	(0.03)	0.29	(0.03)
	Germany	0.02	(0.02)	0.06	(0.04)	0.04	(0.02)	-0.03	(0.04)	0.03	(0.02)	0.02	(0.08)	0.10	(0.08)	0.02	(0.02)	0.05	(0.05)	0.02	(0.03)
	Hungary	-0.01	(0.02)	-0.22	(0.06)	0.04	(0.03)	-0.11	(0.03)	0.01	(0.02)	-0.09	(0.03)	0.03	(0.04)	-0.02	(0.02)	0.05	(0.03)	-0.05	(0.02)
	Italy	0.06	(0.01)	-0.04	(0.03)	0.05	(0.01)	0.04	(0.03)	0.08	(0.01)	-0.04	(0.02)	0.10	(0.03)	0.04	(0.01)	0.09	(0.02)	0.02	(0.01)
	Korea	-0.05	(0.02)	-0.19	(0.03)	-0.09	(0.02)	-0.09	(0.03)	-0.06	(0.02)	-0.11	(0.02)	0.00	(0.04)	-0.10	(0.02)	0.02	(0.04)	-0.11	(0.02)
	Mexico	0.34	(0.01)	0.11	(0.02)	0.34	(0.01)	0.23	(0.02)	0.42	(0.02)	0.23	(0.01)	0.36	(0.02)	0.30	(0.01)	0.36	(0.02)	0.27	(0.01)
	Portugal	0.38	(0.03)	0.36	(0.10)	0.39	(0.03)	0.20	(0.09)	0.39	(0.03)	0.25	(0.06)	0.36	(0.04)	0.39	(0.03)	0.35	(0.03)	0.42	(0.04)
Partners	**Croatia**	0.11	(0.02)	0.04	(0.07)	0.15	(0.02)	-0.05	(0.04)	0.14	(0.02)	0.03	(0.04)	0.14	(0.05)	0.09	(0.02)	0.11	(0.03)	0.10	(0.02)
	Hong Kong-China	0.16	(0.02)	0.04	(0.03)	0.13	(0.02)	0.12	(0.04)	0.15	(0.02)	0.08	(0.02)	0.22	(0.05)	0.11	(0.02)	0.22	(0.04)	0.10	(0.02)
	Macao-China	0.19	(0.02)	0.12	(0.02)	0.17	(0.02)	0.11	(0.03)	0.20	(0.02)	0.13	(0.02)	0.17	(0.04)	0.15	(0.02)	0.19	(0.03)	0.14	(0.02)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
1. ESCS refers to the *PISA index of economic, social and cultural status*.
StatLink http://dx.doi.org/10.1787/888932964034

[Part 2/2]

Table III.6.6a

Students' perseverance, by parents' activities at home

Results based on students' and parents' self-reports

		Change in the index of perseverance that is associated with:																			
		Discussing how the child is doing at school "once or twice a week" or "every day or almost every day"				Eating the <main meal> with the child around a table "once or twice a week" or "every day or almost every day"				Spending time just talking to the child "once or twice a week" or "every day or almost every day"				Obtaining mathematics materials for the child "once or twice a week" or "every day or almost every day"				Discussing with the child how mathematics can be applied to everyday life "once or twice a week" or "every day or almost every day"			
		Before accounting for ESCS[1]		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS	
		Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.
OECD	**Belgium (Flemish Community)**	0.06	(0.04)	0.06	(0.04)	0.01	(0.06)	0.02	(0.06)	0.04	(0.04)	0.04	(0.04)	**0.11**	(0.05)	**0.11**	(0.05)	0.02	(0.06)	0.02	(0.06)
	Chile	**0.09**	(0.04)	0.06	(0.04)	-0.01	(0.04)	-0.02	(0.04)	**0.10**	(0.03)	**0.09**	(0.03)	0.03	(0.03)	0.04	(0.03)	0.00	(0.04)	0.00	(0.04)
	Germany	-0.04	(0.04)	-0.03	(0.04)	0.07	(0.05)	0.08	(0.05)	0.01	(0.07)	0.00	(0.08)	0.08	(0.09)	0.12	(0.09)	0.03	(0.06)	0.04	(0.06)
	Hungary	**0.21**	(0.06)	**0.17**	(0.06)	**0.14**	(0.04)	**0.14**	(0.04)	**0.10**	(0.04)	**0.09**	(0.04)	0.05	(0.04)	0.06	(0.04)	**0.10**	(0.04)	**0.14**	(0.04)
	Italy	**0.10**	(0.03)	**0.07**	(0.03)	0.01	(0.04)	0.00	(0.04)	**0.12**	(0.02)	**0.11**	(0.02)	0.06	(0.03)	**0.07**	(0.03)	**0.07**	(0.02)	**0.08**	(0.02)
	Korea	**0.14**	(0.03)	**0.11**	(0.03)	0.00	(0.03)	-0.01	(0.03)	0.05	(0.03)	0.04	(0.03)	**0.10**	(0.04)	0.07	(0.04)	**0.13**	(0.04)	**0.14**	(0.04)
	Mexico	**0.23**	(0.02)	**0.20**	(0.02)	**0.11**	(0.02)	**0.11**	(0.02)	**0.19**	(0.02)	**0.17**	(0.02)	**0.05**	(0.02)	0.03	(0.02)	**0.10**	(0.02)	**0.09**	(0.02)
	Portugal	0.03	(0.10)	-0.07	(0.10)	**0.19**	(0.09)	0.17	(0.09)	**0.15**	(0.07)	0.11	(0.07)	-0.02	(0.05)	-0.03	(0.05)	-0.08	(0.04)	-0.03	(0.04)
Partners	**Croatia**	0.06	(0.07)	0.05	(0.07)	**0.20**	(0.04)	**0.20**	(0.04)	**0.11**	(0.04)	**0.11**	(0.04)	0.05	(0.05)	0.05	(0.05)	0.01	(0.03)	0.02	(0.04)
	Hong Kong-China	**0.12**	(0.03)	**0.07**	(0.03)	0.01	(0.04)	0.00	(0.04)	**0.07**	(0.03)	0.04	(0.03)	**0.11**	(0.05)	0.08	(0.05)	**0.12**	(0.04)	**0.11**	(0.04)
	Macao-China	**0.07**	(0.03)	0.02	(0.03)	0.06	(0.03)	0.04	(0.03)	**0.07**	(0.03)	0.03	(0.03)	0.03	(0.04)	0.01	(0.04)	0.05	(0.03)	0.03	(0.03)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
1. ESCS refers to the *PISA index of economic, social and cultural status*.
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[Part 1/2]

Table III.6.6b Students' perseverance, by family structure and labour-market situation

Results based on students' and parents' self-reports

		Index of perseverance															
		Either the father or the mother works in a STEM occupation[1]		Neither parent works in a STEM occupation[1]		Father is employed		Father is not employed		Mother is employed		Mother is not employed		Two-parent family[2]		Single-parent family[2]	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	Australia	0.20	(0.05)	0.13	(0.02)	0.12	(0.01)	0.04	(0.04)	0.10	(0.02)	0.11	(0.02)	0.14	(0.01)	0.03	(0.03)
	Austria	0.02	(0.06)	-0.02	(0.03)	-0.03	(0.02)	-0.04	(0.08)	-0.04	(0.02)	0.03	(0.04)	-0.02	(0.02)	0.00	(0.05)
	Belgium	-0.32	(0.05)	-0.35	(0.02)	-0.34	(0.02)	-0.25	(0.05)	-0.36	(0.02)	-0.29	(0.04)	-0.30	(0.02)	-0.51	(0.05)
	Canada	0.36	(0.03)	0.22	(0.02)	0.23	(0.01)	0.24	(0.04)	0.22	(0.01)	0.25	(0.03)	0.24	(0.01)	0.17	(0.04)
	Chile	0.37	(0.06)	0.28	(0.03)	0.27	(0.02)	0.32	(0.05)	0.30	(0.03)	0.26	(0.03)	0.29	(0.02)	0.30	(0.04)
	Czech Republic	0.04	(0.05)	-0.14	(0.02)	-0.11	(0.02)	0.00	(0.09)	-0.11	(0.02)	-0.08	(0.05)	-0.10	(0.02)	-0.14	(0.05)
	Denmark	0.11	(0.05)	-0.10	(0.02)	-0.07	(0.02)	-0.14	(0.06)	-0.07	(0.02)	-0.17	(0.04)	-0.05	(0.02)	-0.20	(0.04)
	Estonia	0.37	(0.05)	0.33	(0.02)	0.31	(0.02)	0.27	(0.06)	0.30	(0.02)	0.36	(0.05)	0.33	(0.02)	0.26	(0.06)
	Finland	0.08	(0.04)	0.02	(0.02)	0.03	(0.02)	-0.07	(0.05)	0.01	(0.02)	-0.03	(0.04)	0.03	(0.02)	-0.10	(0.04)
	France	-0.33	(0.06)	-0.45	(0.03)	-0.44	(0.02)	-0.46	(0.08)	-0.45	(0.03)	-0.46	(0.04)	-0.42	(0.02)	-0.55	(0.07)
	Germany	0.07	(0.06)	-0.01	(0.02)	0.01	(0.02)	-0.07	(0.06)	-0.01	(0.02)	0.00	(0.04)	0.01	(0.02)	-0.05	(0.05)
	Greece	0.12	(0.07)	-0.07	(0.02)	-0.07	(0.02)	-0.14	(0.05)	-0.04	(0.02)	-0.16	(0.03)	-0.08	(0.02)	-0.14	(0.07)
	Hungary	0.01	(0.05)	-0.01	(0.02)	-0.01	(0.02)	-0.09	(0.04)	-0.01	(0.02)	-0.05	(0.03)	-0.01	(0.02)	0.02	(0.04)
	Iceland	0.08	(0.06)	-0.09	(0.02)	-0.08	(0.02)	-0.29	(0.08)	-0.07	(0.02)	-0.27	(0.04)	-0.08	(0.02)	-0.13	(0.07)
	Ireland	0.29	(0.07)	0.14	(0.02)	0.16	(0.02)	0.12	(0.05)	0.15	(0.02)	0.13	(0.03)	0.16	(0.02)	0.11	(0.06)
	Israel	0.20	(0.06)	0.31	(0.03)	0.37	(0.02)	0.39	(0.08)	0.31	(0.02)	0.51	(0.04)	m	m	m	m
	Italy	0.12	(0.04)	0.04	(0.01)	0.05	(0.01)	0.04	(0.03)	0.03	(0.01)	0.08	(0.02)	0.06	(0.01)	-0.05	(0.03)
	Japan	-0.51	(0.04)	-0.58	(0.02)	-0.58	(0.02)	-0.57	(0.07)	-0.59	(0.02)	-0.59	(0.03)	-0.59	(0.02)	-0.60	(0.04)
	Korea	-0.03	(0.05)	-0.10	(0.02)	-0.08	(0.02)	-0.14	(0.05)	-0.11	(0.02)	-0.05	(0.02)	-0.08	(0.02)	-0.14	(0.05)
	Luxembourg	0.00	(0.06)	-0.06	(0.02)	-0.06	(0.02)	-0.07	(0.06)	-0.08	(0.02)	-0.04	(0.03)	-0.05	(0.02)	-0.12	(0.05)
	Mexico	0.45	(0.04)	0.34	(0.01)	0.33	(0.01)	0.28	(0.03)	0.32	(0.02)	0.32	(0.01)	0.35	(0.01)	0.33	(0.03)
	Netherlands	-0.13	(0.04)	-0.14	(0.02)	-0.14	(0.02)	-0.07	(0.06)	-0.15	(0.02)	-0.07	(0.04)	-0.13	(0.02)	-0.14	(0.05)
	New Zealand	0.17	(0.05)	0.01	(0.02)	0.01	(0.02)	-0.05	(0.05)	0.02	(0.02)	-0.06	(0.05)	0.03	(0.02)	-0.13	(0.04)
	Norway	-0.07	(0.06)	-0.36	(0.02)	-0.33	(0.02)	-0.39	(0.09)	-0.32	(0.02)	-0.45	(0.05)	-0.31	(0.02)	-0.50	(0.07)
	Poland	0.18	(0.08)	0.06	(0.03)	0.04	(0.03)	0.05	(0.05)	0.05	(0.03)	-0.01	(0.04)	0.04	(0.02)	0.03	(0.05)
	Portugal	0.57	(0.08)	0.38	(0.03)	0.41	(0.03)	0.15	(0.06)	0.39	(0.03)	0.29	(0.04)	0.38	(0.02)	0.30	(0.06)
	Slovak Republic	-0.41	(0.07)	-0.48	(0.03)	-0.48	(0.03)	-0.53	(0.05)	-0.46	(0.03)	-0.54	(0.04)	-0.48	(0.02)	-0.48	(0.06)
	Slovenia	0.22	(0.06)	0.06	(0.02)	0.10	(0.02)	0.04	(0.07)	0.09	(0.02)	0.08	(0.05)	0.09	(0.02)	0.11	(0.09)
	Spain	0.22	(0.05)	0.10	(0.02)	0.12	(0.01)	0.03	(0.04)	0.10	(0.02)	0.12	(0.02)	0.11	(0.01)	0.08	(0.04)
	Sweden	-0.02	(0.05)	-0.27	(0.02)	-0.25	(0.02)	-0.22	(0.09)	-0.25	(0.02)	-0.28	(0.06)	-0.23	(0.02)	-0.31	(0.07)
	Switzerland	0.00	(0.04)	-0.16	(0.02)	-0.13	(0.02)	-0.16	(0.07)	-0.15	(0.02)	-0.10	(0.03)	-0.12	(0.02)	-0.21	(0.03)
	Turkey	0.44	(0.10)	0.49	(0.04)	0.45	(0.03)	0.47	(0.04)	0.42	(0.05)	0.47	(0.02)	0.48	(0.02)	0.55	(0.13)
	United Kingdom	0.26	(0.05)	0.12	(0.02)	0.12	(0.02)	0.18	(0.05)	0.11	(0.02)	0.14	(0.04)	0.14	(0.02)	0.11	(0.05)
	United States	0.48	(0.06)	0.39	(0.03)	0.38	(0.02)	0.37	(0.06)	0.39	(0.02)	0.34	(0.04)	0.41	(0.02)	0.32	(0.05)
	OECD average	0.11	(0.01)	0.00	(0.00)	0.01	(0.00)	-0.02	(0.01)	0.00	(0.00)	-0.01	(0.01)	0.01	(0.00)	-0.05	(0.01)
Partners	Albania	0.59	(0.10)	0.69	(0.05)	0.68	(0.02)	0.60	(0.05)	0.77	(0.03)	0.59	(0.03)	0.70	(0.03)	0.64	(0.12)
	Argentina	0.12	(0.06)	0.08	(0.03)	0.04	(0.02)	0.11	(0.06)	0.05	(0.02)	0.00	(0.03)	0.06	(0.02)	-0.05	(0.06)
	Brazil	0.35	(0.08)	0.15	(0.02)	0.16	(0.02)	0.12	(0.03)	0.16	(0.02)	0.14	(0.02)	0.17	(0.02)	0.18	(0.04)
	Bulgaria	0.63	(0.06)	0.63	(0.03)	0.59	(0.03)	0.39	(0.07)	0.61	(0.03)	0.37	(0.05)	0.62	(0.03)	0.46	(0.06)
	Colombia	0.59	(0.10)	0.44	(0.03)	0.41	(0.03)	0.37	(0.05)	0.39	(0.03)	0.42	(0.04)	0.42	(0.03)	0.45	(0.05)
	Costa Rica	0.52	(0.08)	0.48	(0.03)	0.48	(0.03)	0.41	(0.09)	0.46	(0.03)	0.49	(0.03)	0.46	(0.03)	0.53	(0.04)
	Croatia	0.10	(0.04)	0.11	(0.03)	0.10	(0.02)	0.10	(0.04)	0.10	(0.02)	0.10	(0.03)	0.10	(0.02)	0.02	(0.06)
	Cyprus*	0.28	(0.05)	0.19	(0.02)	0.18	(0.02)	-0.01	(0.04)	0.17	(0.02)	0.12	(0.03)	0.17	(0.02)	0.04	(0.06)
	Hong Kong-China	0.25	(0.07)	0.11	(0.02)	0.14	(0.02)	0.03	(0.05)	0.10	(0.02)	0.16	(0.02)	0.12	(0.02)	0.09	(0.04)
	Indonesia	0.32	(0.14)	0.27	(0.03)	0.28	(0.03)	0.22	(0.03)	0.25	(0.03)	0.27	(0.03)	0.30	(0.03)	0.23	(0.07)
	Jordan	0.54	(0.05)	0.49	(0.04)	0.39	(0.02)	0.28	(0.04)	0.36	(0.04)	0.37	(0.02)	0.44	(0.02)	0.08	(0.07)
	Kazakhstan	0.84	(0.06)	0.80	(0.04)	0.79	(0.04)	0.69	(0.05)	0.83	(0.03)	0.68	(0.04)	0.76	(0.03)	0.80	(0.07)
	Latvia	0.40	(0.05)	0.19	(0.02)	0.19	(0.02)	0.11	(0.06)	0.14	(0.02)	0.23	(0.05)	0.18	(0.02)	0.12	(0.04)
	Liechtenstein	-0.02	(0.12)	-0.14	(0.07)	-0.15	(0.06)	c	c	-0.17	(0.08)	-0.01	(0.08)	-0.16	(0.06)	c	c
	Lithuania	0.23	(0.05)	0.18	(0.02)	0.17	(0.02)	0.09	(0.04)	0.17	(0.02)	0.11	(0.03)	0.16	(0.02)	0.11	(0.04)
	Macao-China	0.31	(0.07)	0.15	(0.02)	0.15	(0.01)	0.16	(0.04)	0.15	(0.02)	0.17	(0.03)	0.15	(0.01)	0.19	(0.04)
	Malaysia	0.29	(0.07)	0.28	(0.02)	0.24	(0.02)	0.12	(0.04)	0.23	(0.02)	0.22	(0.02)	0.23	(0.02)	0.16	(0.04)
	Montenegro	0.50	(0.07)	0.42	(0.03)	0.37	(0.03)	0.32	(0.04)	0.40	(0.03)	0.31	(0.03)	0.37	(0.03)	0.40	(0.10)
	Peru	0.41	(0.07)	0.36	(0.02)	0.36	(0.01)	0.31	(0.04)	0.33	(0.02)	0.39	(0.02)	0.38	(0.02)	0.35	(0.04)
	Qatar	0.47	(0.03)	0.38	(0.02)	0.30	(0.01)	0.12	(0.03)	0.25	(0.02)	0.29	(0.02)	0.35	(0.02)	0.04	(0.03)
	Romania	0.17	(0.05)	0.05	(0.03)	0.06	(0.02)	0.00	(0.03)	0.08	(0.03)	-0.02	(0.03)	0.07	(0.02)	0.01	(0.06)
	Russian Federation	0.58	(0.04)	0.52	(0.03)	0.52	(0.02)	0.40	(0.06)	0.50	(0.02)	0.50	(0.04)	0.50	(0.02)	0.47	(0.03)
	Serbia	0.27	(0.05)	0.20	(0.03)	0.23	(0.03)	0.14	(0.04)	0.24	(0.03)	0.14	(0.03)	0.23	(0.03)	0.10	(0.08)
	Shanghai-China	0.30	(0.05)	0.24	(0.02)	0.26	(0.02)	0.13	(0.04)	0.26	(0.02)	0.22	(0.03)	0.26	(0.02)	0.15	(0.04)
	Singapore	0.27	(0.04)	0.31	(0.02)	0.30	(0.02)	0.26	(0.04)	0.29	(0.02)	0.31	(0.03)	0.30	(0.02)	0.29	(0.05)
	Chinese Taipei	-0.04	(0.05)	-0.04	(0.02)	-0.06	(0.02)	-0.16	(0.04)	-0.08	(0.02)	-0.07	(0.03)	-0.06	(0.02)	-0.17	(0.04)
	Thailand	0.35	(0.06)	0.24	(0.02)	0.23	(0.01)	0.18	(0.03)	0.22	(0.02)	0.23	(0.03)	0.25	(0.02)	0.25	(0.04)
	Tunisia	0.50	(0.12)	0.15	(0.05)	0.16	(0.03)	0.07	(0.06)	0.15	(0.06)	0.14	(0.03)	0.17	(0.03)	-0.15	(0.08)
	United Arab Emirates	0.55	(0.04)	0.54	(0.03)	0.45	(0.02)	0.31	(0.03)	0.49	(0.03)	0.40	(0.01)	0.47	(0.02)	0.23	(0.05)
	Uruguay	0.30	(0.07)	0.28	(0.02)	0.28	(0.02)	0.24	(0.07)	0.27	(0.02)	0.26	(0.04)	0.30	(0.02)	0.26	(0.04)
	Viet Nam	0.49	(0.11)	0.44	(0.02)	0.44	(0.02)	0.44	(0.03)	0.45	(0.03)	0.44	(0.02)	0.45	(0.02)	0.49	(0.05)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. STEM occupations refer to occupations in science, technology, engineering and mathematics. Refer to Annex A1 for a detailed description of which ISCO-08 codings were considered to be STEM occupations.
2. Analyses consider only students who live with at least one parent, including step or foster parent.
3. ESCS refers to the *PISA index of economic, social and cultural status.*

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.6.6b Students' perseverance, by family structure and labour-market situation

Results based on students' and parents' self-reports

		Change in the index of perseverance that is associated with:															
		Having a father or a mother who works in a STEM occupation[1]				Having a father who is currently employed				Having a mother who is currently employed				Coming from a single-parent family[2]			
		Before accounting for ESCS[3]		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS	
		Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.
OECD	**Australia**	0.07	(0.05)	-0.05	(0.05)	0.08	(0.05)	0.01	(0.04)	-0.02	(0.03)	**-0.10**	(0.03)	**-0.10**	(0.04)	-0.03	(0.04)
	Austria	0.04	(0.06)	0.01	(0.07)	0.01	(0.08)	-0.01	(0.08)	-0.06	(0.05)	-0.07	(0.05)	0.02	(0.05)	0.03	(0.06)
	Belgium	0.04	(0.05)	0.00	(0.05)	-0.09	(0.05)	**-0.11**	(0.05)	-0.07	(0.04)	**-0.09**	(0.04)	**-0.21**	(0.04)	**-0.21**	(0.04)
	Canada	**0.15**	(0.03)	0.03	(0.04)	-0.01	(0.04)	-0.07	(0.04)	-0.03	(0.03)	**-0.07**	(0.03)	-0.08	(0.04)	-0.02	(0.04)
	Chile	0.09	(0.06)	0.04	(0.07)	-0.05	(0.06)	-0.09	(0.06)	0.04	(0.04)	0.00	(0.04)	0.00	(0.05)	0.01	(0.05)
	Czech Republic	**0.18**	(0.06)	**0.13**	(0.06)	-0.11	(0.09)	-0.14	(0.09)	-0.03	(0.06)	-0.06	(0.05)	-0.04	(0.05)	0.00	(0.06)
	Denmark	**0.20**	(0.06)	0.08	(0.06)	0.07	(0.06)	-0.04	(0.06)	**0.10**	(0.04)	-0.01	(0.04)	**-0.15**	(0.05)	**-0.09**	(0.05)
	Estonia	0.04	(0.05)	0.01	(0.05)	0.04	(0.06)	0.01	(0.07)	-0.06	(0.06)	-0.09	(0.06)	-0.06	(0.06)	-0.04	(0.06)
	Finland	0.06	(0.04)	-0.06	(0.04)	**0.10**	(0.05)	0.00	(0.05)	0.04	(0.04)	-0.06	(0.04)	**-0.13**	(0.04)	-0.04	(0.04)
	France	**0.12**	(0.06)	0.03	(0.06)	0.02	(0.08)	-0.06	(0.08)	0.01	(0.05)	-0.09	(0.05)	**-0.13**	(0.07)	-0.08	(0.07)
	Germany	0.08	(0.06)	0.03	(0.06)	0.07	(0.07)	0.05	(0.07)	-0.01	(0.05)	-0.03	(0.05)	-0.06	(0.05)	-0.04	(0.05)
	Greece	**0.19**	(0.07)	0.06	(0.07)	0.06	(0.05)	0.00	(0.05)	**0.11**	(0.04)	0.03	(0.04)	-0.06	(0.07)	-0.05	(0.07)
	Hungary	0.02	(0.05)	-0.08	(0.06)	0.08	(0.05)	0.03	(0.05)	0.04	(0.03)	-0.02	(0.03)	0.03	(0.04)	0.06	(0.05)
	Iceland	**0.17**	(0.06)	0.09	(0.06)	**0.21**	(0.09)	0.14	(0.09)	**0.21**	(0.05)	**0.14**	(0.05)	-0.05	(0.07)	-0.01	(0.07)
	Ireland	**0.16**	(0.08)	0.06	(0.08)	0.05	(0.05)	-0.03	(0.05)	0.02	(0.03)	-0.05	(0.03)	-0.05	(0.06)	0.00	(0.06)
	Israel	-0.11	(0.06)	**-0.17**	(0.07)	-0.02	(0.09)	-0.03	(0.09)	**-0.20**	(0.04)	**-0.22**	(0.05)	m	m	m	m
	Italy	**0.09**	(0.04)	0.04	(0.04)	0.01	(0.04)	-0.02	(0.04)	**-0.05**	(0.02)	**-0.10**	(0.03)	**-0.11**	(0.03)	**-0.10**	(0.03)
	Japan	0.07	(0.05)	0.04	(0.05)	-0.01	(0.07)	-0.05	(0.07)	0.00	(0.03)	0.01	(0.03)	-0.01	(0.04)	0.03	(0.04)
	Korea	0.07	(0.05)	0.02	(0.04)	0.06	(0.05)	0.01	(0.05)	**-0.06**	(0.02)	**-0.06**	(0.02)	-0.06	(0.06)	0.02	(0.05)
	Luxembourg	0.06	(0.06)	-0.01	(0.06)	0.01	(0.06)	-0.04	(0.06)	-0.04	(0.04)	-0.05	(0.04)	-0.07	(0.05)	-0.06	(0.05)
	Mexico	**0.10**	(0.04)	0.02	(0.04)	0.05	(0.03)	-0.01	(0.03)	0.00	(0.02)	**-0.05**	(0.02)	-0.01	(0.03)	-0.01	(0.03)
	Netherlands	0.00	(0.05)	0.01	(0.05)	-0.07	(0.06)	-0.07	(0.06)	-0.08	(0.04)	**-0.08**	(0.04)	-0.01	(0.06)	-0.02	(0.05)
	New Zealand	**0.16**	(0.05)	0.06	(0.05)	0.06	(0.06)	-0.04	(0.06)	0.08	(0.05)	0.02	(0.05)	**-0.17**	(0.04)	**-0.11**	(0.04)
	Norway	**0.29**	(0.06)	**0.14**	(0.06)	0.06	(0.09)	-0.04	(0.09)	**0.13**	(0.06)	0.04	(0.06)	**-0.19**	(0.08)	-0.11	(0.08)
	Poland	0.11	(0.08)	-0.01	(0.08)	-0.01	(0.06)	-0.10	(0.06)	0.07	(0.04)	-0.04	(0.04)	-0.01	(0.05)	0.03	(0.05)
	Portugal	**0.19**	(0.09)	0.02	(0.09)	**0.26**	(0.06)	**0.17**	(0.06)	**0.10**	(0.05)	0.01	(0.05)	-0.08	(0.06)	-0.04	(0.06)
	Slovak Republic	0.07	(0.07)	-0.03	(0.07)	0.05	(0.05)	-0.05	(0.05)	0.08	(0.04)	0.00	(0.04)	0.01	(0.06)	0.04	(0.06)
	Slovenia	**0.16**	(0.06)	**0.15**	(0.07)	0.06	(0.07)	0.03	(0.07)	0.01	(0.06)	-0.02	(0.06)	0.02	(0.09)	0.03	(0.10)
	Spain	**0.12**	(0.05)	-0.01	(0.05)	**0.08**	(0.04)	0.00	(0.04)	-0.03	(0.03)	**-0.09**	(0.03)	-0.03	(0.04)	0.01	(0.04)
	Sweden	**0.25**	(0.05)	**0.17**	(0.06)	-0.04	(0.09)	-0.13	(0.09)	0.03	(0.06)	-0.05	(0.07)	-0.08	(0.08)	-0.04	(0.08)
	Switzerland	**0.16**	(0.04)	**0.16**	(0.04)	0.03	(0.07)	0.02	(0.07)	-0.05	(0.03)	**-0.06**	(0.03)	**-0.10**	(0.04)	**-0.09**	(0.04)
	Turkey	-0.05	(0.10)	-0.12	(0.11)	-0.02	(0.05)	-0.05	(0.06)	-0.05	(0.05)	**-0.10**	(0.05)	0.07	(0.14)	0.05	(0.13)
	United Kingdom	**0.14**	(0.05)	0.04	(0.05)	-0.06	(0.06)	**-0.13**	(0.06)	-0.03	(0.04)	-0.07	(0.04)	-0.03	(0.06)	0.01	(0.06)
	United States	0.09	(0.07)	-0.04	(0.07)	0.00	(0.07)	-0.05	(0.07)	0.04	(0.04)	-0.01	(0.04)	-0.09	(0.05)	-0.01	(0.05)
	OECD average	**0.11**	(0.01)	**0.03**	(0.01)	**0.03**	(0.01)	**-0.03**	(0.01)	0.01	(0.01)	**-0.04**	(0.01)	**-0.06**	(0.01)	**-0.03**	(0.01)
Partners	**Albania**	-0.10	(0.12)	m	m	0.08	(0.05)	m	m	**0.19**	(0.04)	m	m	-0.06	(0.12)	m	m
	Argentina	0.04	(0.08)	-0.03	(0.08)	-0.07	(0.07)	-0.12	(0.07)	0.05	(0.04)	0.00	(0.04)	-0.11	(0.07)	-0.10	(0.07)
	Brazil	**0.20**	(0.08)	0.15	(0.08)	0.04	(0.03)	0.02	(0.04)	0.02	(0.02)	-0.01	(0.02)	0.02	(0.04)	0.02	(0.04)
	Bulgaria	0.00	(0.06)	**-0.16**	(0.07)	**0.20**	(0.07)	0.07	(0.07)	**0.24**	(0.05)	0.10	(0.06)	**-0.16**	(0.07)	-0.12	(0.06)
	Colombia	0.15	(0.11)	0.05	(0.11)	0.04	(0.06)	0.00	(0.06)	-0.03	(0.04)	-0.05	(0.04)	0.03	(0.04)	0.04	(0.04)
	Costa Rica	0.04	(0.09)	0.00	(0.09)	0.07	(0.09)	0.05	(0.09)	-0.02	(0.04)	-0.05	(0.04)	0.06	(0.05)	0.07	(0.05)
	Croatia	-0.01	(0.05)	-0.03	(0.05)	0.00	(0.04)	-0.01	(0.04)	-0.01	(0.04)	-0.03	(0.04)	-0.08	(0.07)	-0.07	(0.07)
	Cyprus*	0.09	(0.06)	-0.03	(0.06)	**0.19**	(0.05)	0.08	(0.05)	0.05	(0.04)	-0.03	(0.04)	-0.13	(0.07)	-0.07	(0.07)
	Hong Kong-China	0.14	(0.07)	0.06	(0.08)	**0.11**	(0.05)	0.06	(0.05)	**-0.07**	(0.03)	**-0.08**	(0.03)	-0.03	(0.04)	-0.01	(0.04)
	Indonesia	0.04	(0.14)	-0.05	(0.13)	0.06	(0.03)	0.03	(0.04)	-0.02	(0.03)	-0.04	(0.03)	-0.08	(0.07)	-0.06	(0.07)
	Jordan	0.05	(0.06)	0.05	(0.05)	**0.12**	(0.04)	0.05	(0.04)	-0.02	(0.05)	**-0.11**	(0.05)	**-0.36**	(0.07)	**-0.33**	(0.07)
	Kazakhstan	0.05	(0.07)	-0.08	(0.07)	0.09	(0.06)	-0.06	(0.06)	**0.15**	(0.04)	0.01	(0.04)	0.04	(0.07)	0.10	(0.07)
	Latvia	**0.21**	(0.05)	**0.11**	(0.06)	0.08	(0.06)	0.01	(0.05)	-0.09	(0.05)	**-0.15**	(0.05)	-0.07	(0.05)	-0.02	(0.04)
	Liechtenstein	0.13	(0.13)	0.07	(0.12)	c	c	c	c	-0.15	(0.11)	-0.17	(0.11)	c	c	c	c
	Lithuania	0.04	(0.05)	-0.01	(0.05)	**0.09**	(0.04)	0.03	(0.04)	0.06	(0.03)	-0.01	(0.03)	-0.05	(0.05)	-0.01	(0.05)
	Macao-China	**0.16**	(0.07)	0.09	(0.07)	-0.01	(0.04)	-0.05	(0.04)	-0.02	(0.03)	-0.04	(0.03)	0.05	(0.04)	0.07	(0.04)
	Malaysia	0.01	(0.07)	-0.03	(0.07)	**0.12**	(0.04)	**0.09**	(0.04)	0.02	(0.03)	-0.04	(0.03)	-0.08	(0.05)	-0.06	(0.05)
	Montenegro	0.09	(0.08)	0.04	(0.09)	0.04	(0.05)	-0.01	(0.05)	0.09	(0.05)	0.04	(0.05)	0.04	(0.10)	0.04	(0.10)
	Peru	0.05	(0.07)	-0.10	(0.08)	0.06	(0.04)	0.01	(0.04)	-0.06	(0.03)	**-0.08**	(0.03)	-0.04	(0.04)	-0.04	(0.04)
	Qatar	**0.09**	(0.04)	0.07	(0.04)	**0.18**	(0.03)	**0.13**	(0.03)	-0.04	(0.03)	**-0.07**	(0.02)	**-0.32**	(0.04)	**-0.28**	(0.04)
	Romania	**0.11**	(0.05)	-0.03	(0.05)	0.06	(0.04)	-0.02	(0.04)	**0.09**	(0.03)	0.01	(0.04)	-0.06	(0.06)	-0.04	(0.06)
	Russian Federation	0.05	(0.05)	-0.03	(0.06)	0.12	(0.06)	0.07	(0.06)	0.00	(0.04)	-0.06	(0.04)	-0.03	(0.04)	0.01	(0.04)
	Serbia	0.07	(0.06)	-0.02	(0.06)	0.09	(0.05)	0.03	(0.05)	**0.10**	(0.04)	0.03	(0.04)	-0.13	(0.08)	-0.11	(0.08)
	Shanghai-China	0.05	(0.05)	-0.01	(0.05)	**0.14**	(0.04)	0.07	(0.04)	0.04	(0.03)	0.00	(0.03)	**-0.11**	(0.04)	**-0.11**	(0.04)
	Singapore	-0.04	(0.04)	-0.06	(0.04)	0.04	(0.04)	0.02	(0.04)	-0.02	(0.03)	-0.03	(0.03)	-0.01	(0.05)	0.01	(0.05)
	Chinese Taipei	0.00	(0.06)	-0.09	(0.06)	**0.09**	(0.04)	0.02	(0.04)	-0.01	(0.03)	-0.03	(0.03)	**-0.12**	(0.04)	-0.06	(0.04)
	Thailand	0.11	(0.06)	0.00	(0.07)	**0.05**	(0.03)	0.03	(0.02)	-0.01	(0.03)	-0.02	(0.03)	0.01	(0.04)	0.02	(0.04)
	Tunisia	**0.35**	(0.13)	0.28	(0.14)	0.09	(0.05)	0.03	(0.06)	0.00	(0.06)	-0.09	(0.05)	**-0.31**	(0.09)	**-0.29**	(0.08)
	United Arab Emirates	0.01	(0.05)	0.01	(0.05)	**0.14**	(0.04)	0.06	(0.04)	**0.09**	(0.03)	0.03	(0.03)	**-0.24**	(0.05)	**-0.19**	(0.05)
	Uruguay	0.02	(0.08)	-0.06	(0.08)	0.04	(0.07)	0.01	(0.07)	0.02	(0.04)	-0.04	(0.04)	-0.04	(0.04)	-0.03	(0.04)
	Viet Nam	0.05	(0.11)	-0.01	(0.11)	0.00	(0.03)	-0.03	(0.04)	0.00	(0.03)	-0.02	(0.04)	0.04	(0.06)	0.04	(0.06)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. STEM occupations refer to occupations in science, technology, engineering and mathematics. Refer to Annex A1 for a detailed description of which ISCO-08 codings were considered to be STEM occupations.

2. Analyses consider only students who live with at least one parent, including step or foster parent.

3. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.6.6c Students' perseverance, by parents' attitudes towards the child's future

Results based on students' and parents' self-reports

		Index of perseverance																			
		Parents expect the child to work as a manager or a professional at age 30[1]		Parents do not expect the child to work as a manager or a professional at age 30[1]		Parents expect the child to complete a university degree[2]		Parents do not expect the child to complete a university degree[2]		Parents expect the child to go into a <mathematics-related career>		Parents do not expect the child to go into a <mathematics-related career>		Parents expect the child to study mathematics after completing <secondary school>		Parents do not expect the child to study mathematics after completing <secondary school>		Parents "agree" or "strongly agree" that it is important to have good mathematics knowledge and skills in order to get any good job in today's world		Parents "disagree" or "strongly disagree" that it is important to have good mathematics knowledge and skills in order to get any good job in today's world	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Belgium (Flemish Community)**	m	m	m	m	-0.13	(0.03)	-0.32	(0.02)	0.04	(0.03)	-0.36	(0.02)	0.01	(0.03)	-0.32	(0.02)	-0.21	(0.02)	-0.34	(0.03)
	Chile	0.34	(0.02)	0.13	(0.04)	0.35	(0.02)	0.13	(0.04)	0.38	(0.03)	0.17	(0.03)	0.36	(0.03)	0.20	(0.03)	0.29	(0.02)	0.19	(0.08)
	Germany	0.15	(0.04)	-0.03	(0.05)	0.14	(0.03)	-0.03	(0.03)	0.29	(0.05)	-0.02	(0.03)	0.47	(0.11)	0.00	(0.02)	0.04	(0.02)	-0.17	(0.08)
	Hungary	0.13	(0.03)	-0.08	(0.04)	0.11	(0.03)	-0.13	(0.03)	0.08	(0.03)	-0.07	(0.02)	0.10	(0.02)	-0.10	(0.02)	-0.01	(0.02)	-0.03	(0.04)
	Italy	0.18	(0.01)	-0.06	(0.02)	0.20	(0.01)	-0.09	(0.02)	0.24	(0.01)	-0.11	(0.01)	0.30	(0.02)	-0.07	(0.01)	0.07	(0.01)	-0.13	(0.04)
	Korea	-0.07	(0.02)	-0.12	(0.02)	-0.07	(0.02)	-0.26	(0.04)	0.02	(0.03)	-0.18	(0.02)	0.01	(0.03)	-0.17	(0.02)	-0.07	(0.02)	-0.19	(0.04)
	Mexico	0.37	(0.01)	0.10	(0.02)	0.39	(0.01)	0.09	(0.02)	0.36	(0.01)	0.20	(0.02)	0.36	(0.02)	0.22	(0.02)	0.32	(0.01)	0.22	(0.05)
	Portugal	0.48	(0.03)	0.22	(0.07)	0.53	(0.03)	0.11	(0.04)	0.47	(0.03)	0.23	(0.04)	0.46	(0.03)	0.26	(0.04)	0.38	(0.03)	0.20	(0.08)
Partners	**Croatia**	0.16	(0.03)	0.11	(0.04)	0.16	(0.03)	0.04	(0.03)	0.22	(0.03)	0.03	(0.03)	0.40	(0.08)	0.08	(0.02)	0.11	(0.02)	0.06	(0.05)
	Hong Kong-China	0.14	(0.02)	0.14	(0.04)	0.21	(0.02)	-0.02	(0.02)	0.15	(0.02)	0.09	(0.02)	0.15	(0.03)	0.10	(0.02)	0.12	(0.02)	0.15	(0.04)
	Macao-China	0.19	(0.02)	0.10	(0.03)	0.22	(0.02)	0.06	(0.02)	0.18	(0.02)	0.11	(0.02)	0.17	(0.02)	0.12	(0.02)	0.16	(0.02)	0.11	(0.06)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
1. Managerial and professional occupations were derived using open-ended responses from parents about the occupation in which they expected their child to work by the age of 30, recoded into ISCO-08. Groups 1 and 2 represent managerial and professional occupations.
2. A university degree covers ISCED levels 5A and 6.
3. ESCS refers to the *PISA index of economic, social and cultural status.*
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[Part 2/2]

Table III.6.6c Students' perseverance, by parents' attitudes towards the child's future

Results based on students' and parents' self-reports

		Change in the index of perseverance that is associated with:																			
		Expecting the child to work as a manager or a professional at age 30[1]				Expecting the child to complete a university degree[2]				Expecting the child to go into a <mathematics-related career>				Expecting the child to study mathematics after completing <secondary school>				Agreeing or strongly agreeing that it is important to have good mathematics knowledge and skills in order to get any good job in today's world			
		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS	
		Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.
OECD	**Belgium (Flemish Community)**	m	m	m	m	**0.20**	(0.03)	**0.24**	(0.04)	**0.41**	(0.03)	**0.41**	(0.03)	**0.34**	(0.04)	**0.34**	(0.04)	**0.13**	(0.03)	**0.12**	(0.03)
	Chile	**0.21**	(0.05)	**0.16**	(0.05)	**0.22**	(0.04)	**0.17**	(0.04)	**0.21**	(0.03)	**0.21**	(0.03)	**0.16**	(0.04)	**0.16**	(0.03)	0.10	(0.08)	0.14	(0.09)
	Germany	**0.18**	(0.05)	**0.13**	(0.06)	**0.18**	(0.04)	**0.15**	(0.04)	**0.31**	(0.06)	**0.30**	(0.06)	**0.47**	(0.11)	**0.47**	(0.11)	**0.22**	(0.08)	**0.24**	(0.08)
	Hungary	**0.21**	(0.05)	**0.16**	(0.05)	**0.24**	(0.04)	**0.20**	(0.04)	**0.15**	(0.03)	**0.14**	(0.03)	**0.20**	(0.03)	**0.17**	(0.03)	0.02	(0.04)	0.05	(0.04)
	Italy	**0.24**	(0.03)	**0.23**	(0.03)	**0.29**	(0.02)	**0.28**	(0.02)	**0.35**	(0.02)	**0.35**	(0.02)	**0.37**	(0.02)	**0.37**	(0.02)	**0.20**	(0.04)	**0.21**	(0.04)
	Korea	0.05	(0.03)	0.01	(0.03)	**0.19**	(0.04)	**0.10**	(0.05)	**0.19**	(0.03)	**0.19**	(0.03)	**0.18**	(0.03)	**0.17**	(0.03)	**0.12**	(0.04)	**0.12**	(0.04)
	Mexico	**0.27**	(0.03)	**0.25**	(0.03)	**0.30**	(0.02)	**0.26**	(0.02)	**0.16**	(0.02)	**0.18**	(0.02)	**0.15**	(0.02)	**0.16**	(0.02)	0.09	(0.05)	**0.10**	(0.05)
	Portugal	**0.26**	(0.07)	**0.18**	(0.07)	**0.42**	(0.04)	**0.32**	(0.05)	**0.24**	(0.03)	**0.21**	(0.03)	**0.20**	(0.04)	**0.18**	(0.04)	**0.19**	(0.08)	**0.27**	(0.08)
Partners	**Croatia**	0.05	(0.05)	0.03	(0.05)	**0.12**	(0.04)	**0.12**	(0.04)	**0.19**	(0.04)	**0.19**	(0.04)	**0.33**	(0.08)	**0.33**	(0.08)	0.05	(0.06)	0.05	(0.06)
	Hong Kong-China	0.00	(0.05)	-0.03	(0.05)	**0.23**	(0.03)	**0.17**	(0.03)	**0.06**	(0.03)	**0.08**	(0.03)	0.05	(0.03)	0.06	(0.03)	-0.03	(0.04)	-0.01	(0.04)
	Macao-China	**0.10**	(0.03)	0.05	(0.03)	**0.16**	(0.03)	**0.10**	(0.03)	**0.07**	(0.03)	**0.07**	(0.03)	0.05	(0.03)	**0.06**	(0.03)	0.05	(0.06)	0.05	(0.06)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
1. Managerial and professional occupations were derived using open-ended responses from parents about the occupation in which they expected their child to work by the age of 30, recoded into ISCO-08. Groups 1 and 2 represent managerial and professional occupations.
2. A university degree covers ISCED levels 5A and 6.
3. ESCS refers to the *PISA index of economic, social and cultural status.*
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[Part 1/2]

Table III.6.8a **Students' intrinsic motivation to learn mathematics, by parents' activities at home**

Results based on students' and parents' self-reports

		Index of intrinsic motivation to learn mathematics																			
		Parents discuss how the child is doing at school "once or twice a week" or "every day or almost every day"		Parents discuss how the child is doing at school "once or twice a month" or less often		Parents eat the <main meal> with the child around a table "every day or almost every day"		Parents eat the <main meal> with the child around a table "once or twice a week" or less often		Parents spend time just talking to the child "every day or almost every day"		Parents spend time just talking to the child "once or twice a week" or less often		Parents obtain mathematics materials for the child "once or twice a week" or "every day or almost every day"		Parents obtain mathematics materials for the child "once or twice a month" or less often		Parents discuss with the child how mathematics can be applied to everyday life "once or twice a week" or "every day or almost every day"		Parents discuss with the child how mathematics can be applied to everyday life "once or twice a month" or less often	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Belgium (Flemish Community)**	-0.25	(0.02)	-0.25	(0.03)	-0.25	(0.02)	-0.25	(0.07)	-0.25	(0.02)	-0.23	(0.03)	-0.21	(0.06)	-0.25	(0.02)	-0.25	(0.05)	-0.25	(0.02)
	Chile	0.29	(0.02)	0.28	(0.04)	0.29	(0.02)	0.29	(0.03)	0.33	(0.03)	0.25	(0.03)	0.34	(0.03)	0.26	(0.02)	0.36	(0.03)	0.23	(0.03)
	Germany	-0.07	(0.03)	0.08	(0.05)	-0.01	(0.03)	-0.17	(0.05)	-0.04	(0.03)	0.00	(0.09)	0.02	(0.08)	-0.04	(0.03)	-0.04	(0.06)	-0.04	(0.03)
	Hungary	-0.18	(0.02)	0.14	(0.11)	-0.11	(0.03)	-0.28	(0.04)	-0.17	(0.03)	-0.18	(0.04)	-0.16	(0.05)	-0.17	(0.03)	-0.08	(0.03)	-0.21	(0.03)
	Italy	0.03	(0.02)	-0.03	(0.04)	0.03	(0.02)	-0.01	(0.04)	0.03	(0.02)	-0.01	(0.02)	0.07	(0.03)	0.02	(0.02)	0.06	(0.02)	0.00	(0.02)
	Korea	-0.17	(0.03)	-0.28	(0.03)	-0.23	(0.02)	-0.17	(0.04)	-0.20	(0.03)	-0.21	(0.04)	-0.02	(0.05)	-0.22	(0.03)	-0.05	(0.05)	-0.22	(0.03)
	Mexico	0.69	(0.01)	0.64	(0.03)	0.70	(0.01)	0.63	(0.02)	0.70	(0.01)	0.66	(0.01)	0.75	(0.02)	0.66	(0.01)	0.75	(0.01)	0.61	(0.01)
	Portugal	0.14	(0.02)	0.05	(0.07)	0.14	(0.02)	0.01	(0.08)	0.14	(0.02)	0.07	(0.05)	0.24	(0.03)	0.09	(0.02)	0.18	(0.02)	0.08	(0.03)
Partners	**Croatia**	-0.25	(0.03)	-0.25	(0.07)	-0.21	(0.02)	-0.38	(0.04)	-0.22	(0.03)	-0.30	(0.04)	-0.26	(0.04)	-0.24	(0.03)	-0.18	(0.03)	-0.29	(0.03)
	Hong Kong-China	0.33	(0.02)	0.23	(0.03)	0.31	(0.02)	0.26	(0.05)	0.32	(0.03)	0.26	(0.03)	0.33	(0.06)	0.30	(0.02)	0.44	(0.04)	0.27	(0.02)
	Macao-China	0.18	(0.02)	0.12	(0.02)	0.16	(0.02)	0.11	(0.04)	0.20	(0.02)	0.12	(0.02)	0.16	(0.04)	0.15	(0.02)	0.20	(0.03)	0.14	(0.02)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
1. ESCS refers to the *PISA index of economic, social and cultural status.*
StatLink http://dx.doi.org/10.1787/888932964034

[Part 2/2]

Table III.6.8a **Students' intrinsic motivation to learn mathematics, by parents' activities at home**

Results based on students' and parents' self-reports

		Change in the index of intrinsic motivation to learn mathematics that is associated with:																			
		Discussing how the child is doing at school "once or twice a week" or "every day or almost every day"				Eating the <main meal> with the child around a table "once or twice a week" or "every day or almost every day"				Spending time just talking to the child "once or twice a week" or "every day or almost every day"				Obtaining mathematics materials for the child "once or twice a week" or "every day or almost every day"				Discussing with the child how mathematics can be applied to everyday life "once or twice a week" or "every day or almost every day"			
		Before accounting for ESCS[1]		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS	
		Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.
OECD	**Belgium (Flemish Community)**	0.00	(0.04)	-0.01	(0.04)	0.00	(0.07)	-0.01	(0.07)	-0.02	(0.04)	-0.03	(0.04)	0.03	(0.06)	0.07	(0.06)	-0.01	(0.05)	0.03	(0.05)
	Chile	0.01	(0.04)	0.01	(0.04)	0.00	(0.03)	0.00	(0.03)	**0.08**	(0.03)	**0.08**	(0.03)	**0.08**	(0.04)	0.07	(0.04)	**0.13**	(0.03)	**0.13**	(0.03)
	Germany	**-0.15**	(0.05)	**-0.14**	(0.06)	**0.16**	(0.06)	**0.17**	(0.06)	-0.04	(0.10)	-0.05	(0.10)	0.06	(0.09)	0.08	(0.09)	0.00	(0.07)	0.01	(0.07)
	Hungary	**-0.32**	(0.11)	**-0.32**	(0.11)	**0.17**	(0.05)	**0.17**	(0.05)	0.02	(0.05)	0.01	(0.05)	0.01	(0.05)	0.01	(0.05)	**0.13**	(0.04)	**0.13**	(0.04)
	Italy	0.07	(0.04)	0.04	(0.04)	0.04	(0.04)	0.03	(0.04)	0.04	(0.02)	0.04	(0.02)	0.05	(0.03)	**0.06**	(0.03)	**0.06**	(0.02)	**0.07**	(0.02)
	Korea	**0.11**	(0.04)	0.06	(0.04)	-0.06	(0.04)	-0.07	(0.04)	0.01	(0.05)	-0.01	(0.04)	**0.20**	(0.06)	**0.17**	(0.06)	**0.18**	(0.05)	**0.19**	(0.05)
	Mexico	0.05	(0.03)	**0.10**	(0.03)	**0.06**	(0.02)	**0.06**	(0.02)	0.03	(0.02)	**0.06**	(0.02)	**0.09**	(0.02)	**0.11**	(0.02)	**0.14**	(0.02)	**0.15**	(0.02)
	Portugal	0.09	(0.07)	0.05	(0.07)	0.13	(0.08)	0.13	(0.07)	0.07	(0.05)	0.06	(0.05)	**0.15**	(0.04)	**0.15**	(0.04)	**0.10**	(0.03)	**0.12**	(0.03)
Partners	**Croatia**	0.00	(0.06)	0.00	(0.06)	**0.17**	(0.03)	**0.18**	(0.03)	**0.09**	(0.04)	**0.09**	(0.04)	-0.01	(0.04)	-0.01	(0.04)	**0.11**	(0.03)	**0.12**	(0.03)
	Hong Kong-China	**0.10**	(0.04)	0.06	(0.04)	0.05	(0.05)	0.04	(0.05)	0.07	(0.04)	0.05	(0.04)	0.03	(0.06)	0.01	(0.06)	**0.17**	(0.04)	**0.16**	(0.04)
	Macao-China	**0.05**	(0.03)	0.05	(0.03)	0.05	(0.04)	0.05	(0.04)	**0.08**	(0.03)	**0.08**	(0.03)	0.01	(0.05)	0.01	(0.05)	0.06	(0.04)	0.06	(0.04)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
1. ESCS refers to the *PISA index of economic, social and cultural status.*
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[Part 1/2]

Table III.6.8b Students' intrinsic motivation to learn mathematics, by family structure and labour-market situation

Results based on students' and parents' self-reports

		Index of intrinsic motivation to learn mathematics															
		Either the father or the mother works in a STEM occupation[1]		Neither parent works in a STEM occupation[1]		Father is employed		Father is not employed		Mother is employed		Mother is not employed		Two-parent family[2]		Single-parent family[2]	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	0.26	(0.04)	0.09	(0.01)	0.11	(0.01)	0.08	(0.04)	0.09	(0.01)	0.16	(0.02)	0.13	(0.01)	0.00	(0.03)
	Austria	-0.30	(0.05)	-0.35	(0.03)	-0.34	(0.02)	-0.46	(0.07)	-0.37	(0.03)	-0.24	(0.04)	-0.34	(0.03)	-0.34	(0.06)
	Belgium	-0.17	(0.05)	-0.24	(0.02)	-0.24	(0.02)	-0.13	(0.04)	-0.26	(0.02)	-0.15	(0.03)	-0.21	(0.02)	-0.36	(0.05)
	Canada	0.23	(0.04)	0.04	(0.02)	0.05	(0.01)	0.11	(0.05)	0.05	(0.01)	0.08	(0.03)	0.07	(0.01)	-0.05	(0.04)
	Chile	0.22	(0.05)	0.27	(0.02)	0.27	(0.02)	0.38	(0.06)	0.26	(0.02)	0.31	(0.03)	0.28	(0.02)	0.28	(0.03)
	Czech Republic	-0.05	(0.05)	-0.16	(0.03)	-0.15	(0.02)	-0.24	(0.09)	-0.18	(0.02)	-0.12	(0.05)	-0.12	(0.02)	-0.32	(0.05)
	Denmark	0.55	(0.05)	0.35	(0.02)	0.37	(0.02)	0.32	(0.05)	0.36	(0.02)	0.31	(0.04)	0.39	(0.02)	0.24	(0.04)
	Estonia	0.09	(0.05)	-0.01	(0.02)	-0.01	(0.02)	-0.01	(0.06)	0.00	(0.02)	-0.06	(0.04)	0.03	(0.02)	-0.10	(0.05)
	Finland	-0.08	(0.03)	-0.23	(0.02)	-0.21	(0.02)	-0.24	(0.05)	-0.22	(0.02)	-0.22	(0.05)	-0.19	(0.02)	-0.35	(0.04)
	France	0.10	(0.06)	-0.03	(0.02)	-0.02	(0.02)	0.04	(0.05)	-0.03	(0.02)	0.01	(0.04)	0.01	(0.02)	-0.13	(0.06)
	Germany	0.07	(0.06)	-0.17	(0.03)	-0.10	(0.03)	-0.22	(0.07)	-0.13	(0.03)	-0.03	(0.06)	-0.09	(0.03)	-0.23	(0.06)
	Greece	0.40	(0.06)	0.23	(0.02)	0.22	(0.02)	0.16	(0.05)	0.27	(0.03)	0.13	(0.03)	0.23	(0.02)	0.13	(0.06)
	Hungary	-0.03	(0.08)	-0.20	(0.03)	-0.18	(0.03)	-0.07	(0.06)	-0.22	(0.03)	-0.07	(0.04)	-0.17	(0.02)	-0.20	(0.05)
	Iceland	0.38	(0.05)	0.14	(0.03)	0.17	(0.02)	-0.11	(0.09)	0.19	(0.02)	-0.01	(0.05)	0.17	(0.02)	0.14	(0.08)
	Ireland	0.10	(0.07)	0.03	(0.03)	0.06	(0.02)	0.09	(0.04)	0.05	(0.02)	0.06	(0.03)	0.07	(0.02)	0.02	(0.06)
	Israel	0.20	(0.07)	0.06	(0.03)	0.15	(0.03)	0.22	(0.07)	0.07	(0.02)	0.41	(0.05)	m	m	m	m
	Italy	0.10	(0.04)	-0.03	(0.02)	0.00	(0.02)	0.09	(0.04)	-0.03	(0.02)	0.07	(0.02)	0.03	(0.02)	-0.14	(0.03)
	Japan	-0.11	(0.06)	-0.22	(0.03)	-0.22	(0.02)	-0.14	(0.09)	-0.24	(0.02)	-0.20	(0.04)	-0.21	(0.02)	-0.31	(0.05)
	Korea	-0.12	(0.07)	-0.20	(0.03)	-0.19	(0.03)	-0.26	(0.07)	-0.21	(0.03)	-0.17	(0.03)	-0.17	(0.03)	-0.24	(0.06)
	Luxembourg	-0.01	(0.06)	-0.18	(0.02)	-0.15	(0.02)	-0.22	(0.06)	-0.18	(0.02)	-0.14	(0.04)	-0.14	(0.02)	-0.22	(0.05)
	Mexico	0.63	(0.03)	0.61	(0.01)	0.65	(0.01)	0.76	(0.02)	0.61	(0.01)	0.71	(0.01)	0.68	(0.01)	0.62	(0.02)
	Netherlands	-0.24	(0.06)	-0.36	(0.02)	-0.33	(0.02)	-0.43	(0.08)	-0.36	(0.02)	-0.26	(0.05)	-0.31	(0.02)	-0.46	(0.05)
	New Zealand	0.12	(0.05)	0.09	(0.03)	0.10	(0.03)	0.31	(0.06)	0.09	(0.03)	0.21	(0.05)	0.13	(0.02)	0.01	(0.04)
	Norway	0.11	(0.06)	-0.17	(0.03)	-0.14	(0.02)	-0.14	(0.08)	-0.14	(0.02)	-0.17	(0.06)	-0.12	(0.03)	-0.33	(0.06)
	Poland	-0.22	(0.06)	-0.15	(0.02)	-0.15	(0.02)	-0.15	(0.05)	-0.17	(0.02)	-0.12	(0.03)	-0.14	(0.02)	-0.28	(0.05)
	Portugal	0.25	(0.05)	0.12	(0.02)	0.14	(0.02)	0.06	(0.04)	0.13	(0.02)	0.12	(0.03)	0.14	(0.02)	0.05	(0.05)
	Slovak Republic	-0.20	(0.08)	-0.23	(0.03)	-0.21	(0.02)	-0.06	(0.06)	-0.22	(0.03)	-0.14	(0.05)	-0.21	(0.03)	-0.22	(0.05)
	Slovenia	-0.11	(0.05)	-0.27	(0.02)	-0.24	(0.02)	-0.24	(0.08)	-0.24	(0.02)	-0.21	(0.05)	-0.22	(0.02)	-0.37	(0.06)
	Spain	-0.01	(0.04)	-0.14	(0.01)	-0.14	(0.01)	-0.12	(0.04)	-0.14	(0.01)	-0.14	(0.02)	-0.12	(0.01)	-0.20	(0.04)
	Sweden	0.32	(0.05)	0.08	(0.02)	0.12	(0.02)	0.21	(0.09)	0.11	(0.02)	0.18	(0.06)	0.14	(0.02)	0.07	(0.09)
	Switzerland	0.07	(0.04)	-0.04	(0.02)	-0.02	(0.02)	0.08	(0.06)	-0.04	(0.02)	0.05	(0.03)	0.01	(0.02)	-0.14	(0.03)
	Turkey	0.54	(0.10)	0.34	(0.05)	0.41	(0.03)	0.50	(0.03)	0.36	(0.06)	0.45	(0.02)	0.44	(0.03)	0.44	(0.10)
	United Kingdom	0.26	(0.05)	0.19	(0.02)	0.19	(0.02)	0.23	(0.07)	0.17	(0.02)	0.27	(0.04)	0.22	(0.02)	0.11	(0.04)
	United States	0.11	(0.07)	0.07	(0.03)	0.08	(0.03)	0.12	(0.05)	0.08	(0.03)	0.09	(0.05)	0.09	(0.03)	0.12	(0.04)
	OECD average	0.10	(0.01)	-0.02	(0.00)	0.00	(0.00)	0.02	(0.01)	-0.01	(0.00)	0.03	(0.01)	0.02	(0.00)	-0.08	(0.01)
Partners	**Albania**	0.98	(0.09)	0.93	(0.03)	0.96	(0.02)	1.01	(0.04)	0.93	(0.03)	0.97	(0.03)	0.97	(0.02)	0.84	(0.07)
	Argentina	-0.16	(0.07)	0.11	(0.03)	0.15	(0.03)	0.31	(0.08)	0.10	(0.02)	0.26	(0.04)	0.17	(0.03)	0.19	(0.04)
	Brazil	0.41	(0.06)	0.39	(0.02)	0.41	(0.02)	0.49	(0.02)	0.39	(0.02)	0.46	(0.02)	0.39	(0.02)	0.41	(0.03)
	Bulgaria	0.13	(0.04)	0.18	(0.03)	0.19	(0.02)	0.41	(0.06)	0.17	(0.03)	0.36	(0.04)	0.19	(0.02)	0.17	(0.05)
	Colombia	0.50	(0.06)	0.56	(0.03)	0.57	(0.03)	0.66	(0.04)	0.54	(0.03)	0.63	(0.02)	0.56	(0.03)	0.56	(0.04)
	Costa Rica	0.25	(0.10)	0.29	(0.04)	0.30	(0.03)	0.36	(0.05)	0.29	(0.04)	0.34	(0.03)	0.30	(0.03)	0.33	(0.05)
	Croatia	-0.16	(0.05)	-0.29	(0.03)	-0.27	(0.03)	-0.20	(0.04)	-0.30	(0.03)	-0.19	(0.04)	-0.25	(0.03)	-0.33	(0.06)
	Cyprus*	0.47	(0.07)	0.27	(0.03)	0.30	(0.03)	0.08	(0.06)	0.30	(0.03)	0.17	(0.04)	0.30	(0.02)	0.04	(0.07)
	Hong Kong-China	0.39	(0.07)	0.29	(0.02)	0.31	(0.02)	0.23	(0.05)	0.27	(0.03)	0.33	(0.03)	0.31	(0.02)	0.22	(0.05)
	Indonesia	0.49	(0.09)	0.78	(0.03)	0.79	(0.02)	0.82	(0.03)	0.80	(0.03)	0.79	(0.02)	0.77	(0.02)	0.79	(0.06)
	Jordan	0.92	(0.05)	0.84	(0.05)	0.83	(0.03)	0.77	(0.03)	0.89	(0.05)	0.80	(0.02)	0.84	(0.02)	0.74	(0.06)
	Kazakhstan	0.93	(0.04)	0.89	(0.04)	0.87	(0.03)	1.04	(0.04)	0.88	(0.03)	0.90	(0.03)	0.91	(0.03)	0.74	(0.06)
	Latvia	0.05	(0.05)	-0.04	(0.03)	-0.04	(0.02)	-0.05	(0.06)	-0.06	(0.02)	-0.01	(0.05)	-0.01	(0.03)	-0.14	(0.05)
	Liechtenstein	0.13	(0.16)	0.00	(0.10)	0.07	(0.09)	c	c	0.01	(0.11)	0.27	(0.12)	0.13	(0.09)	c	c
	Lithuania	0.12	(0.07)	0.12	(0.03)	0.12	(0.03)	0.09	(0.05)	0.10	(0.03)	0.10	(0.04)	0.13	(0.03)	-0.05	(0.05)
	Macao-China	0.24	(0.08)	0.14	(0.02)	0.14	(0.02)	0.12	(0.05)	0.14	(0.02)	0.18	(0.03)	0.15	(0.02)	0.21	(0.04)
	Malaysia	0.88	(0.07)	0.93	(0.02)	0.92	(0.02)	0.88	(0.04)	0.89	(0.02)	0.92	(0.02)	0.94	(0.02)	0.81	(0.04)
	Montenegro	0.11	(0.06)	-0.10	(0.03)	-0.06	(0.02)	0.13	(0.05)	-0.10	(0.03)	0.09	(0.03)	0.00	(0.02)	-0.15	(0.09)
	Peru	0.42	(0.06)	0.77	(0.02)	0.72	(0.02)	0.85	(0.04)	0.76	(0.03)	0.70	(0.02)	0.76	(0.03)	0.63	(0.04)
	Qatar	0.79	(0.03)	0.58	(0.02)	0.63	(0.01)	0.46	(0.04)	0.63	(0.02)	0.59	(0.02)	0.63	(0.01)	0.62	(0.04)
	Romania	0.48	(0.04)	0.47	(0.02)	0.48	(0.02)	0.49	(0.04)	0.49	(0.02)	0.48	(0.03)	0.46	(0.02)	0.58	(0.05)
	Russian Federation	0.29	(0.05)	0.30	(0.02)	0.29	(0.02)	0.26	(0.05)	0.29	(0.03)	0.31	(0.04)	0.32	(0.02)	0.22	(0.04)
	Serbia	-0.16	(0.04)	-0.17	(0.02)	-0.19	(0.03)	-0.08	(0.04)	-0.24	(0.03)	-0.06	(0.04)	-0.15	(0.02)	-0.33	(0.06)
	Shanghai-China	0.46	(0.05)	0.44	(0.02)	0.45	(0.02)	0.32	(0.04)	0.45	(0.02)	0.37	(0.03)	0.45	(0.02)	0.34	(0.05)
	Singapore	0.85	(0.04)	0.82	(0.02)	0.85	(0.02)	0.75	(0.06)	0.83	(0.02)	0.85	(0.03)	0.86	(0.02)	0.69	(0.06)
	Chinese Taipei	0.18	(0.06)	0.09	(0.02)	0.08	(0.02)	0.03	(0.05)	0.06	(0.02)	0.09	(0.03)	0.09	(0.02)	-0.02	(0.05)
	Thailand	0.69	(0.08)	0.78	(0.02)	0.77	(0.02)	0.80	(0.03)	0.77	(0.02)	0.77	(0.03)	0.77	(0.02)	0.72	(0.04)
	Tunisia	0.74	(0.09)	0.52	(0.04)	0.58	(0.02)	0.68	(0.06)	0.59	(0.04)	0.59	(0.03)	0.62	(0.03)	0.48	(0.09)
	United Arab Emirates	0.83	(0.04)	0.68	(0.03)	0.73	(0.02)	0.78	(0.04)	0.71	(0.03)	0.74	(0.02)	0.74	(0.02)	0.71	(0.05)
	Uruguay	0.12	(0.08)	0.24	(0.03)	0.28	(0.02)	0.23	(0.05)	0.24	(0.02)	0.34	(0.03)	0.27	(0.02)	0.27	(0.04)
	Viet Nam	0.57	(0.12)	0.71	(0.02)	0.68	(0.02)	0.70	(0.02)	0.67	(0.03)	0.70	(0.02)	0.69	(0.02)	0.67	(0.05)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. STEM occupations refer to occupations in science, technology, engineering and mathematics. Refer to Annex A1 for a detailed description of which ISCO-08 codings were considered to be STEM occupations.

2. Analyses consider only students who live with at least one parent, including step or foster parent.

3. ESCS refers to the *PISA index of economic, social and cultural status.*

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.6.8b **Students' intrinsic motivation to learn mathematics, by family structure and labour-market situation**

Results based on students' and parents' self-reports

		Change in the index of intrinsic motivation to learn mathematics that is associated with:															
		Having a father or a mother who works in a STEM occupation[1]				Having a father who is currently employed				Having a mother who is currently employed				Coming from a single-parent family[2]			
		Before accounting for ESCS[3]		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS	
		Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.
OECD	**Australia**	**0.17**	(0.04)	**0.12**	(0.05)	0.03	(0.04)	0.01	(0.04)	**-0.08**	(0.03)	**-0.11**	(0.03)	**-0.13**	(0.03)	**-0.10**	(0.04)
	Austria	0.05	(0.06)	0.02	(0.06)	0.12	(0.07)	0.12	(0.07)	**-0.13**	(0.05)	**-0.14**	(0.05)	0.00	(0.06)	0.00	(0.06)
	Belgium	0.07	(0.05)	0.02	(0.05)	**-0.11**	(0.04)	**-0.15**	(0.05)	**-0.11**	(0.03)	**-0.15**	(0.04)	**-0.15**	(0.05)	**-0.13**	(0.05)
	Canada	**0.19**	(0.04)	**0.13**	(0.04)	-0.06	(0.05)	-0.10	(0.05)	-0.03	(0.03)	**-0.06**	(0.03)	**-0.11**	(0.04)	-0.07	(0.04)
	Chile	-0.05	(0.05)	-0.04	(0.05)	-0.11	(0.07)	-0.10	(0.07)	-0.06	(0.03)	-0.05	(0.03)	-0.01	(0.04)	0.00	(0.04)
	Czech Republic	**0.11**	(0.06)	0.07	(0.06)	0.09	(0.09)	0.08	(0.09)	-0.06	(0.06)	-0.08	(0.06)	**-0.21**	(0.05)	**-0.18**	(0.06)
	Denmark	**0.21**	(0.05)	**0.13**	(0.05)	0.04	(0.05)	-0.04	(0.05)	0.05	(0.05)	-0.02	(0.05)	**-0.15**	(0.05)	**-0.10**	(0.05)
	Estonia	0.10	(0.06)	0.05	(0.06)	0.00	(0.07)	-0.03	(0.07)	0.06	(0.04)	0.02	(0.04)	**-0.13**	(0.04)	**-0.10**	(0.04)
	Finland	**0.15**	(0.04)	0.05	(0.04)	0.03	(0.05)	-0.05	(0.05)	0.00	(0.04)	-0.08	(0.04)	**-0.16**	(0.04)	-0.08	(0.04)
	France	**0.13**	(0.06)	0.07	(0.06)	-0.05	(0.06)	-0.10	(0.06)	-0.04	(0.04)	**-0.10**	(0.04)	**-0.15**	(0.06)	**-0.12**	(0.06)
	Germany	**0.23**	(0.07)	**0.19**	(0.07)	0.12	(0.08)	0.11	(0.08)	-0.10	(0.06)	-0.11	(0.06)	**-0.14**	(0.06)	-0.11	(0.06)
	Greece	**0.17**	(0.06)	0.04	(0.06)	0.06	(0.05)	-0.01	(0.05)	**0.14**	(0.04)	0.05	(0.04)	-0.10	(0.06)	-0.09	(0.06)
	Hungary	**0.18**	(0.08)	0.14	(0.07)	-0.11	(0.06)	-0.12	(0.06)	**-0.15**	(0.05)	**-0.17**	(0.05)	-0.03	(0.05)	-0.03	(0.05)
	Iceland	**0.23**	(0.06)	**0.17**	(0.06)	**0.28**	(0.09)	**0.24**	(0.09)	**0.19**	(0.06)	**0.15**	(0.06)	-0.03	(0.08)	0.01	(0.08)
	Ireland	0.07	(0.07)	0.01	(0.08)	-0.03	(0.04)	-0.08	(0.05)	-0.01	(0.03)	-0.04	(0.04)	-0.05	(0.06)	-0.02	(0.06)
	Israel	0.14	(0.07)	**0.17**	(0.08)	-0.07	(0.07)	-0.01	(0.08)	**-0.34**	(0.05)	**-0.32**	(0.05)	m	m	m	m
	Italy	**0.13**	(0.04)	0.08	(0.04)	**-0.09**	(0.04)	**-0.11**	(0.04)	**-0.10**	(0.02)	**-0.14**	(0.02)	**-0.18**	(0.03)	**-0.17**	(0.03)
	Japan	0.10	(0.06)	0.01	(0.06)	-0.09	(0.09)	-0.16	(0.09)	-0.03	(0.04)	-0.01	(0.04)	-0.10	(0.05)	-0.02	(0.05)
	Korea	0.07	(0.06)	0.01	(0.06)	0.08	(0.07)	0.01	(0.07)	-0.05	(0.04)	-0.04	(0.04)	-0.08	(0.06)	0.02	(0.06)
	Luxembourg	**0.17**	(0.07)	**0.16**	(0.07)	0.07	(0.06)	0.05	(0.06)	-0.05	(0.05)	-0.06	(0.05)	-0.08	(0.06)	-0.10	(0.05)
	Mexico	0.02	(0.04)	**0.11**	(0.04)	**-0.10**	(0.02)	-0.03	(0.02)	**-0.10**	(0.01)	**-0.04**	(0.01)	**-0.05**	(0.02)	**-0.05**	(0.02)
	Netherlands	0.12	(0.06)	0.09	(0.06)	0.10	(0.07)	0.07	(0.08)	**-0.10**	(0.05)	**-0.12**	(0.04)	**-0.16**	(0.05)	**-0.16**	(0.06)
	New Zealand	0.03	(0.05)	0.02	(0.06)	**-0.21**	(0.07)	**-0.22**	(0.07)	**-0.12**	(0.05)	**-0.13**	(0.05)	**-0.12**	(0.04)	**-0.12**	(0.04)
	Norway	**0.27**	(0.06)	**0.19**	(0.06)	0.01	(0.08)	-0.06	(0.08)	0.04	(0.06)	-0.02	(0.06)	**-0.21**	(0.07)	**-0.16**	(0.07)
	Poland	-0.07	(0.06)	-0.10	(0.06)	0.00	(0.05)	-0.01	(0.05)	-0.05	(0.03)	**-0.07**	(0.03)	**-0.14**	(0.05)	**-0.13**	(0.05)
	Portugal	**0.12**	(0.05)	0.04	(0.05)	0.08	(0.05)	0.05	(0.05)	0.01	(0.03)	-0.03	(0.04)	-0.08	(0.05)	-0.07	(0.05)
	Slovak Republic	0.03	(0.08)	0.02	(0.08)	**-0.15**	(0.07)	**-0.14**	(0.06)	-0.08	(0.05)	-0.07	(0.05)	0.00	(0.05)	-0.01	(0.05)
	Slovenia	**0.17**	(0.05)	**0.15**	(0.05)	0.00	(0.09)	-0.02	(0.08)	-0.03	(0.05)	-0.07	(0.05)	**-0.16**	(0.06)	**-0.15**	(0.06)
	Spain	**0.13**	(0.04)	0.08	(0.04)	-0.02	(0.04)	-0.07	(0.04)	0.00	(0.03)	-0.03	(0.03)	**-0.08**	(0.03)	-0.06	(0.03)
	Sweden	**0.24**	(0.05)	**0.15**	(0.05)	-0.09	(0.09)	**-0.18**	(0.09)	-0.07	(0.06)	**-0.15**	(0.06)	-0.07	(0.09)	-0.01	(0.09)
	Switzerland	**0.11**	(0.05)	**0.14**	(0.05)	-0.10	(0.06)	-0.08	(0.06)	**-0.09**	(0.03)	**-0.08**	(0.03)	**-0.15**	(0.04)	**-0.15**	(0.04)
	Turkey	0.20	(0.10)	0.17	(0.10)	**-0.09**	(0.05)	-0.07	(0.04)	-0.09	(0.06)	-0.07	(0.06)	0.00	(0.11)	0.00	(0.11)
	United Kingdom	0.07	(0.05)	0.01	(0.05)	-0.04	(0.08)	-0.09	(0.08)	**-0.11**	(0.04)	**-0.15**	(0.05)	**-0.11**	(0.04)	**-0.09**	(0.04)
	United States	0.04	(0.08)	0.03	(0.08)	-0.05	(0.06)	-0.04	(0.06)	-0.01	(0.05)	-0.01	(0.05)	0.03	(0.05)	0.04	(0.05)
	OECD average	**0.12**	(0.01)	**0.08**	(0.01)	-0.01	(0.01)	**-0.04**	(0.01)	**-0.05**	(0.01)	**-0.07**	(0.01)	**-0.10**	(0.01)	**-0.08**	(0.01)
Partners	**Albania**	0.05	(0.09)	m	m	-0.06	(0.05)	m	m	-0.04	(0.04)	m	m	-0.13	(0.08)	m	m
	Argentina	**-0.26**	(0.08)	-0.16	(0.09)	**-0.16**	(0.07)	-0.06	(0.07)	**-0.16**	(0.04)	-0.06	(0.04)	0.02	(0.05)	-0.02	(0.05)
	Brazil	0.02	(0.07)	**0.15**	(0.07)	**-0.08**	(0.02)	-0.01	(0.02)	**-0.07**	(0.02)	-0.01	(0.03)	0.02	(0.03)	0.00	(0.03)
	Bulgaria	-0.05	(0.04)	-0.01	(0.05)	**-0.22**	(0.06)	**-0.17**	(0.05)	**-0.19**	(0.04)	**-0.13**	(0.04)	-0.02	(0.06)	-0.03	(0.06)
	Colombia	-0.06	(0.06)	0.01	(0.06)	-0.09	(0.05)	-0.04	(0.05)	**-0.09**	(0.03)	-0.05	(0.03)	0.00	(0.04)	0.00	(0.04)
	Costa Rica	-0.03	(0.11)	0.03	(0.11)	-0.06	(0.06)	-0.04	(0.06)	-0.05	(0.05)	-0.01	(0.05)	0.03	(0.05)	0.01	(0.05)
	Croatia	**0.13**	(0.04)	**0.13**	(0.05)	-0.07	(0.04)	**-0.08**	(0.04)	**-0.10**	(0.04)	**-0.12**	(0.04)	-0.08	(0.06)	-0.07	(0.06)
	Cyprus*	**0.20**	(0.07)	0.07	(0.08)	**0.21**	(0.07)	0.09	(0.06)	**0.14**	(0.04)	0.05	(0.04)	**-0.26**	(0.08)	**-0.19**	(0.08)
	Hong Kong-China	0.11	(0.07)	0.04	(0.07)	0.09	(0.05)	0.06	(0.06)	-0.06	(0.04)	-0.07	(0.04)	-0.09	(0.05)	-0.09	(0.05)
	Indonesia	**-0.29**	(0.10)	**-0.24**	(0.10)	-0.03	(0.03)	-0.02	(0.03)	0.01	(0.02)	0.02	(0.02)	0.02	(0.06)	0.00	(0.06)
	Jordan	0.07	(0.06)	0.08	(0.06)	0.06	(0.04)	0.02	(0.04)	**0.09**	(0.04)	0.05	(0.05)	-0.10	(0.06)	-0.09	(0.06)
	Kazakhstan	0.04	(0.04)	0.00	(0.04)	**-0.17**	(0.04)	**-0.21**	(0.04)	-0.01	(0.03)	-0.05	(0.03)	**-0.17**	(0.05)	**-0.16**	(0.05)
	Latvia	0.09	(0.06)	0.05	(0.06)	0.01	(0.06)	-0.02	(0.06)	-0.05	(0.05)	-0.08	(0.05)	**-0.13**	(0.05)	**-0.12**	(0.06)
	Liechtenstein	0.13	(0.17)	0.09	(0.16)	c	c	c	c	-0.26	(0.16)	-0.27	(0.15)	c	c	c	c
	Lithuania	0.00	(0.07)	-0.03	(0.07)	0.03	(0.05)	-0.01	(0.06)	0.00	(0.04)	-0.04	(0.04)	**-0.18**	(0.05)	**-0.17**	(0.05)
	Macao-China	0.11	(0.08)	0.09	(0.09)	0.02	(0.05)	0.01	(0.05)	-0.05	(0.03)	-0.05	(0.03)	0.06	(0.05)	0.06	(0.05)
	Malaysia	-0.05	(0.07)	-0.07	(0.07)	0.03	(0.04)	0.02	(0.04)	-0.03	(0.03)	**-0.07**	(0.03)	**-0.13**	(0.05)	**-0.12**	(0.05)
	Montenegro	**0.21**	(0.07)	**0.22**	(0.07)	**-0.19**	(0.05)	**-0.19**	(0.06)	**-0.19**	(0.04)	**-0.20**	(0.04)	-0.15	(0.09)	-0.15	(0.09)
	Peru	**-0.35**	(0.07)	**-0.15**	(0.07)	**-0.13**	(0.04)	-0.04	(0.04)	**0.06**	(0.03)	**0.10**	(0.03)	**-0.13**	(0.04)	**-0.12**	(0.04)
	Qatar	**0.20**	(0.04)	**0.21**	(0.04)	**0.17**	(0.04)	**0.18**	(0.04)	0.03	(0.03)	0.04	(0.03)	-0.01	(0.04)	-0.02	(0.04)
	Romania	0.01	(0.04)	0.07	(0.04)	-0.01	(0.04)	0.01	(0.04)	0.01	(0.03)	0.04	(0.03)	**0.12**	(0.05)	**0.11**	(0.05)
	Russian Federation	-0.01	(0.04)	-0.03	(0.04)	0.04	(0.05)	0.03	(0.05)	-0.02	(0.04)	-0.03	(0.04)	**-0.10**	(0.04)	**-0.10**	(0.04)
	Serbia	0.01	(0.04)	0.03	(0.04)	**-0.11**	(0.04)	**-0.10**	(0.04)	**-0.19**	(0.04)	**-0.19**	(0.04)	**-0.18**	(0.07)	**-0.18**	(0.07)
	Shanghai-China	0.02	(0.05)	-0.02	(0.05)	**0.13**	(0.05)	0.09	(0.05)	**0.08**	(0.03)	0.05	(0.03)	**-0.11**	(0.05)	**-0.11**	(0.05)
	Singapore	0.03	(0.04)	0.04	(0.04)	0.10	(0.06)	0.11	(0.06)	-0.03	(0.03)	-0.02	(0.04)	**-0.17**	(0.06)	**-0.18**	(0.06)
	Chinese Taipei	0.09	(0.07)	0.00	(0.07)	0.05	(0.05)	-0.01	(0.05)	-0.03	(0.03)	-0.05	(0.03)	**-0.12**	(0.05)	-0.06	(0.05)
	Thailand	-0.09	(0.08)	-0.04	(0.09)	-0.03	(0.03)	-0.02	(0.03)	0.01	(0.03)	0.01	(0.03)	-0.05	(0.04)	-0.06	(0.04)
	Tunisia	**0.22**	(0.09)	0.19	(0.10)	-0.10	(0.06)	-0.12	(0.06)	0.00	(0.05)	-0.02	(0.05)	-0.13	(0.09)	-0.13	(0.09)
	United Arab Emirates	**0.15**	(0.05)	**0.15**	(0.05)	-0.05	(0.04)	-0.06	(0.04)	-0.03	(0.03)	-0.03	(0.03)	-0.03	(0.05)	-0.04	(0.05)
	Uruguay	-0.12	(0.08)	-0.03	(0.08)	0.05	(0.06)	0.10	(0.06)	**-0.10**	(0.04)	-0.04	(0.04)	0.00	(0.05)	-0.02	(0.05)
	Viet Nam	-0.13	(0.12)	-0.18	(0.13)	-0.02	(0.03)	-0.04	(0.03)	-0.02	(0.03)	-0.04	(0.03)	-0.02	(0.05)	-0.01	(0.05)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. STEM occupations refer to occupations in science, technology, engineering and mathematics. Refer to Annex A1 for a detailed description of which ISCO-08 codings were considered to be STEM occupations.

2. Analyses consider only students who live with at least one parent, including step or foster parent.

3. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

StatLink http://dx.doi.org/10.1787/888932964034

[Part 1/2]

Table III.6.8c Students' intrinsic motivation to learn mathematics, by parents' attitudes towards the child's future

Results based on students' and parents' self-reports

Index of intrinsic motivation to learn mathematics

		Parents expect the child to work as a manager or a professional at age 30[1]		Parents do not expect the child to work as a manager or a professional at age 30[1]		Parents expect the child to complete a university degree[2]		Parents do not expect the child to complete a university degree[2]		Parents expect the child to go into a <mathematics-related career>		Parents do not expect the child to go into a <mathematics-related career>		Parents expect the child to study mathematics after completing <secondary school>		Parents do not expect the child to study mathematics after completing <secondary school>		Parents "agree" or "strongly agree" that it is important to have good mathematics knowledge and skills in order to get any good job in today's world		Parents "disagree" or "strongly disagree" that it is important to have good mathematics knowledge and skills in order to get any good job in today's world	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	Belgium (Flemish Community)	m	m	m	m	0.02	(0.03)	-0.42	(0.02)	0.33	(0.03)	-0.49	(0.02)	0.33	(0.04)	-0.41	(0.02)	-0.17	(0.02)	-0.45	(0.04)
	Chile	0.37	(0.02)	0.17	(0.04)	0.33	(0.02)	0.18	(0.03)	0.60	(0.03)	-0.11	(0.02)	0.58	(0.03)	-0.06	(0.02)	0.30	(0.02)	-0.04	(0.09)
	Germany	0.02	(0.04)	0.07	(0.05)	0.01	(0.05)	-0.07	(0.03)	0.48	(0.05)	-0.14	(0.03)	0.62	(0.12)	-0.07	(0.03)	-0.01	(0.03)	-0.36	(0.10)
	Hungary	-0.10	(0.04)	-0.22	(0.03)	-0.11	(0.03)	-0.22	(0.03)	0.18	(0.03)	-0.39	(0.03)	0.09	(0.03)	-0.39	(0.03)	-0.09	(0.02)	-0.44	(0.04)
	Italy	0.12	(0.02)	-0.07	(0.02)	0.16	(0.02)	-0.10	(0.02)	0.38	(0.02)	-0.27	(0.01)	0.49	(0.02)	-0.20	(0.01)	0.05	(0.02)	-0.31	(0.04)
	Korea	-0.10	(0.03)	-0.32	(0.04)	-0.15	(0.03)	-0.65	(0.04)	0.14	(0.04)	-0.48	(0.02)	0.12	(0.04)	-0.44	(0.02)	-0.15	(0.03)	-0.41	(0.04)
	Mexico	0.70	(0.01)	0.58	(0.02)	0.68	(0.01)	0.67	(0.02)	0.79	(0.01)	0.44	(0.02)	0.80	(0.01)	0.47	(0.01)	0.69	(0.01)	0.53	(0.04)
	Portugal	0.22	(0.03)	0.04	(0.04)	0.21	(0.03)	-0.01	(0.03)	0.31	(0.02)	-0.19	(0.03)	0.30	(0.02)	-0.13	(0.03)	0.16	(0.02)	-0.34	(0.08)
Partners	Croatia	-0.22	(0.04)	-0.29	(0.04)	-0.20	(0.04)	-0.30	(0.03)	0.06	(0.04)	-0.42	(0.03)	0.64	(0.08)	-0.32	(0.02)	-0.19	(0.03)	-0.58	(0.05)
	Hong Kong-China	0.35	(0.03)	0.19	(0.05)	0.40	(0.03)	0.14	(0.03)	0.48	(0.02)	0.11	(0.03)	0.52	(0.03)	0.13	(0.03)	0.33	(0.02)	0.07	(0.06)
	Macao-China	0.19	(0.02)	0.09	(0.03)	0.20	(0.02)	0.07	(0.02)	0.28	(0.02)	-0.09	(0.02)	0.25	(0.02)	-0.06	(0.02)	0.17	(0.01)	-0.13	(0.07)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Only countries and economies with data from the parent questionnaire are shown.

1. Managerial and professional occupations were derived using open-ended responses from parents about the occupation in which they expected their child to work by the age of 30, recoded into ISCO-08. Groups 1 and 2 represent managerial and professional occupations.
2. A university degree covers ISCED levels 5A and 6.
3. ESCS refers to the *PISA index of economic, social and cultural status.*

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[Part 2/2]

Table III.6.8c Students' intrinsic motivation to learn mathematics, by parents' attitudes towards the child's future

Results based on students' and parents' self-reports

Change in the index of intrinsic motivation to learn mathematics that is associated with:

		Expecting the child to work as a manager or a professional at age 30[1]				Expecting the child to complete a university degree[2]				Expecting the child to go into a <mathematics-related career>				Expecting the child to study mathematics after completing <secondary school>				Agreeing or strongly agreeing that it is important to have good mathematics knowledge and skills in order to get any good job in today's world			
		Before accounting for ESCS[3]		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS	
		Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.
OECD	Belgium (Flemish Community)	m	m	m	m	**0.44**	(0.04)	**0.42**	(0.04)	**0.81**	(0.03)	**0.80**	(0.04)	**0.75**	(0.04)	**0.74**	(0.04)	**0.27**	(0.05)	**0.28**	(0.04)
	Chile	**0.20**	(0.05)	**0.21**	(0.05)	**0.16**	(0.04)	**0.18**	(0.04)	**0.71**	(0.04)	**0.71**	(0.04)	**0.64**	(0.03)	**0.64**	(0.03)	**0.34**	(0.09)	**0.33**	(0.09)
	Germany	-0.05	(0.07)	-0.10	(0.07)	0.08	(0.06)	0.06	(0.06)	**0.62**	(0.06)	**0.62**	(0.06)	**0.69**	(0.12)	**0.66**	(0.12)	**0.35**	(0.10)	**0.36**	(0.10)
	Hungary	**0.12**	(0.05)	0.11	(0.06)	**0.11**	(0.04)	**0.14**	(0.05)	**0.57**	(0.03)	**0.58**	(0.03)	**0.48**	(0.04)	**0.50**	(0.04)	**0.35**	(0.04)	**0.36**	(0.04)
	Italy	**0.18**	(0.03)	**0.18**	(0.03)	**0.26**	(0.02)	**0.27**	(0.02)	**0.65**	(0.02)	**0.65**	(0.02)	**0.68**	(0.02)	**0.68**	(0.02)	**0.36**	(0.04)	**0.37**	(0.04)
	Korea	**0.21**	(0.05)	**0.15**	(0.04)	**0.50**	(0.05)	**0.40**	(0.05)	**0.62**	(0.04)	**0.61**	(0.04)	**0.56**	(0.04)	**0.55**	(0.04)	**0.26**	(0.05)	**0.26**	(0.05)
	Mexico	**0.13**	(0.02)	**0.16**	(0.02)	0.02	(0.02)	**0.10**	(0.02)	**0.36**	(0.02)	**0.34**	(0.02)	**0.33**	(0.02)	**0.31**	(0.01)	**0.16**	(0.04)	**0.14**	(0.04)
	Portugal	**0.18**	(0.05)	**0.14**	(0.05)	**0.22**	(0.04)	**0.19**	(0.05)	**0.50**	(0.03)	**0.49**	(0.03)	**0.44**	(0.04)	**0.43**	(0.04)	**0.50**	(0.08)	**0.51**	(0.09)
Partners	Croatia	0.07	(0.05)	0.05	(0.05)	**0.10**	(0.05)	**0.12**	(0.05)	**0.47**	(0.04)	**0.48**	(0.04)	**0.97**	(0.08)	**0.97**	(0.08)	**0.38**	(0.05)	**0.38**	(0.05)
	Hong Kong-China	**0.17**	(0.06)	**0.14**	(0.06)	**0.26**	(0.04)	**0.24**	(0.04)	**0.37**	(0.04)	**0.39**	(0.04)	**0.38**	(0.04)	**0.39**	(0.04)	**0.26**	(0.06)	**0.28**	(0.06)
	Macao-China	**0.10**	(0.04)	**0.09**	(0.04)	**0.14**	(0.03)	**0.14**	(0.03)	**0.37**	(0.03)	**0.37**	(0.03)	**0.31**	(0.03)	**0.32**	(0.03)	**0.30**	(0.07)	**0.30**	(0.07)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Only countries and economies with data from the parent questionnaire are shown.

1. Managerial and professional occupations were derived using open-ended responses from parents about the occupation in which they expected their child to work by the age of 30, recoded into ISCO-08. Groups 1 and 2 represent managerial and professional occupations.
2. A university degree covers ISCED levels 5A and 6.
3. ESCS refers to the *PISA index of economic, social and cultural status.*

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[Part 1/2]

Table III.6.10a

Students' self-efficacy in mathematics, by parents' activities at home

Results based on students' and parents' self-reports

		Index of mathematics self-efficacy																			
		Parents discuss how the child is doing at school "once or twice a week" or "every day or almost every day"		Parents discuss how the child is doing at school "once or twice a month" or less often		Parents eat the <main meal> with the child around a table "every day or almost every day"		Parents eat the <main meal> with the child around a table "once or twice a week" or less often		Parents spend time just talking to the child "every day or almost every day"		Parents spend time just talking to the child "once or twice a week" or less often		Parents obtain mathematics materials for the child "once or twice a week" or "every day or almost every day"		Parents obtain mathematics materials for the child "once or twice a month" or less often		Parents discuss with the child how mathematics can be applied to everyday life "once or twice a week" or "every day or almost every day"		Parents discuss with the child how mathematics can be applied to everyday life "once or twice a month" or less often	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Belgium (Flemish Community)**	-0.17	(0.02)	-0.21	(0.03)	-0.17	(0.02)	-0.30	(0.06)	-0.17	(0.02)	-0.22	(0.04)	-0.29	(0.06)	-0.16	(0.02)	-0.36	(0.06)	-0.15	(0.02)
	Chile	-0.18	(0.02)	-0.25	(0.04)	-0.17	(0.03)	-0.22	(0.02)	-0.15	(0.03)	-0.23	(0.02)	-0.17	(0.03)	-0.20	(0.02)	-0.17	(0.03)	-0.21	(0.02)
	Germany	0.35	(0.02)	0.51	(0.06)	0.42	(0.03)	0.25	(0.05)	0.39	(0.03)	0.37	(0.07)	0.06	(0.08)	0.43	(0.03)	0.23	(0.05)	0.44	(0.03)
	Hungary	0.15	(0.03)	-0.02	(0.09)	0.18	(0.03)	0.08	(0.05)	0.14	(0.03)	0.16	(0.04)	-0.03	(0.05)	0.20	(0.03)	-0.03	(0.04)	0.24	(0.03)
	Italy	-0.07	(0.02)	-0.22	(0.03)	-0.08	(0.02)	-0.12	(0.03)	-0.08	(0.02)	-0.11	(0.02)	-0.20	(0.02)	-0.06	(0.02)	-0.13	(0.02)	-0.06	(0.02)
	Korea	-0.29	(0.04)	-0.51	(0.04)	-0.38	(0.04)	-0.32	(0.06)	-0.35	(0.04)	-0.36	(0.05)	-0.17	(0.06)	-0.38	(0.04)	-0.30	(0.06)	-0.36	(0.04)
	Mexico	-0.17	(0.01)	-0.31	(0.02)	-0.18	(0.01)	-0.21	(0.02)	-0.14	(0.02)	-0.22	(0.01)	-0.13	(0.02)	-0.20	(0.01)	-0.16	(0.01)	-0.21	(0.01)
	Portugal	0.32	(0.03)	-0.08	(0.08)	0.31	(0.03)	0.13	(0.08)	0.32	(0.03)	0.18	(0.07)	0.30	(0.05)	0.32	(0.03)	0.26	(0.04)	0.36	(0.04)
Partners	**Croatia**	0.11	(0.03)	0.01	(0.07)	0.10	(0.03)	0.13	(0.05)	0.12	(0.03)	0.08	(0.04)	-0.02	(0.04)	0.14	(0.03)	0.01	(0.03)	0.17	(0.04)
	Hong Kong-China	0.27	(0.03)	0.12	(0.03)	0.24	(0.03)	0.12	(0.05)	0.27	(0.03)	0.14	(0.03)	0.15	(0.08)	0.23	(0.02)	0.26	(0.05)	0.22	(0.03)
	Macao-China	0.22	(0.02)	0.06	(0.02)	0.17	(0.02)	0.04	(0.04)	0.18	(0.02)	0.12	(0.02)	0.16	(0.04)	0.14	(0.02)	0.16	(0.03)	0.14	(0.02)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
1. ESCS refers to the *PISA index of economic, social and cultural status*.
StatLink http://dx.doi.org/10.1787/888932964034

[Part 2/2]

Table III.6.10a

Students' self-efficacy in mathematics, by parents' activities at home

Results based on students' and parents' self-reports

		Change in the index of mathematics self-efficacy that is associated with:																			
		Discussing how the child is doing at school "once or twice a week" or "every day or almost every day"				Eating the <main meal> with the child around a table "once or twice a week" or "every day or almost every day"				Spending time just talking to the child "once or twice a week" or "every day or almost every day"				Obtaining mathematics materials for the child "once or twice a week" or "every day or almost every day"				Discussing with the child how mathematics can be applied to everyday life "once or twice a week" or "every day or almost every day"			
		Before accounting for ESCS[1]		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS	
		Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.
OECD	**Belgium (Flemish Community)**	0.03	(0.04)	0.02	(0.04)	**0.13**	(0.06)	0.10	(0.06)	0.05	(0.04)	0.03	(0.04)	**-0.13**	(0.06)	-0.06	(0.06)	**-0.20**	(0.06)	**-0.14**	(0.06)
	Chile	0.07	(0.05)	0.01	(0.05)	0.05	(0.03)	0.04	(0.03)	**0.07**	(0.03)	0.06	(0.03)	0.03	(0.03)	0.04	(0.03)	0.05	(0.03)	0.05	(0.03)
	Germany	**-0.16**	(0.06)	**-0.14**	(0.05)	**0.17**	(0.06)	**0.13**	(0.06)	0.02	(0.07)	-0.01	(0.07)	**-0.36**	(0.09)	**-0.24**	(0.08)	**-0.21**	(0.05)	**-0.16**	(0.05)
	Hungary	**0.18**	(0.09)	-0.01	(0.09)	0.10	(0.06)	0.08	(0.06)	-0.02	(0.04)	-0.04	(0.04)	**-0.23**	(0.05)	**-0.18**	(0.05)	**-0.27**	(0.05)	**-0.14**	(0.05)
	Italy	**0.15**	(0.03)	0.05	(0.03)	0.04	(0.03)	0.02	(0.03)	0.04	(0.02)	0.02	(0.02)	**-0.14**	(0.02)	**-0.10**	(0.02)	**-0.07**	(0.02)	**-0.03**	(0.02)
	Korea	**0.22**	(0.04)	**0.11**	(0.04)	-0.06	(0.05)	-0.08	(0.04)	0.02	(0.05)	-0.02	(0.04)	**0.21**	(0.05)	**0.12**	(0.05)	0.06	(0.06)	0.08	(0.05)
	Mexico	**0.14**	(0.02)	**0.09**	(0.02)	0.03	(0.02)	0.03	(0.02)	**0.08**	(0.02)	**0.05**	(0.02)	**0.07**	(0.02)	**0.05**	(0.02)	**0.05**	(0.02)	**0.04**	(0.02)
	Portugal	**0.40**	(0.07)	**0.18**	(0.07)	**0.18**	(0.08)	0.13	(0.07)	**0.14**	(0.06)	0.06	(0.06)	-0.02	(0.05)	-0.03	(0.05)	**-0.11**	(0.04)	-0.03	(0.04)
Partners	**Croatia**	0.10	(0.07)	0.04	(0.06)	-0.03	(0.04)	0.02	(0.04)	0.04	(0.04)	0.03	(0.04)	**-0.16**	(0.05)	**-0.13**	(0.05)	**-0.16**	(0.04)	**-0.11**	(0.04)
	Hong Kong-China	**0.15**	(0.04)	0.03	(0.04)	**0.12**	(0.06)	0.10	(0.06)	**0.13**	(0.05)	0.06	(0.05)	-0.08	(0.08)	-0.14	(0.08)	0.04	(0.05)	0.02	(0.05)
	Macao-China	**0.16**	(0.03)	**0.10**	(0.03)	**0.13**	(0.04)	**0.10**	(0.04)	**0.06**	(0.03)	0.01	(0.03)	0.02	(0.05)	-0.01	(0.05)	0.02	(0.04)	-0.02	(0.04)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
1. ESCS refers to the *PISA index of economic, social and cultural status*.
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[Part 1/2]

Table III.6.10b

Students' self-efficacy in mathematics, by family structure and labour-market situation

Results based on students' and parents' self-reports

		Index of mathematics self-efficacy															
		Either the father or the mother works in a STEM occupation[1]		Neither parent works in a STEM occupation[1]		Father is employed		Father is not employed		Mother is employed		Mother is not employed		Two-parent family[2]		Single-parent family[2]	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	0.37	(0.05)	0.09	(0.02)	0.09	(0.02)	-0.06	(0.04)	0.08	(0.02)	0.01	(0.03)	0.10	(0.02)	-0.04	(0.03)
	Austria	0.25	(0.06)	0.08	(0.02)	0.08	(0.02)	-0.01	(0.06)	0.07	(0.03)	0.06	(0.04)	0.07	(0.02)	0.12	(0.06)
	Belgium	0.11	(0.04)	-0.10	(0.02)	-0.09	(0.02)	-0.15	(0.04)	-0.08	(0.02)	-0.21	(0.03)	-0.09	(0.02)	-0.17	(0.05)
	Canada	0.43	(0.04)	0.10	(0.02)	0.13	(0.02)	0.06	(0.05)	0.13	(0.02)	0.10	(0.03)	0.15	(0.02)	0.03	(0.04)
	Chile	0.03	(0.04)	-0.19	(0.02)	-0.19	(0.02)	-0.17	(0.05)	-0.19	(0.02)	-0.21	(0.02)	-0.19	(0.02)	-0.16	(0.03)
	Czech Republic	0.31	(0.04)	0.02	(0.03)	0.06	(0.02)	-0.08	(0.08)	0.06	(0.02)	-0.05	(0.06)	0.09	(0.02)	-0.11	(0.04)
	Denmark	0.13	(0.05)	-0.11	(0.03)	-0.07	(0.02)	-0.29	(0.06)	-0.06	(0.02)	-0.32	(0.04)	-0.07	(0.03)	-0.28	(0.05)
	Estonia	0.16	(0.05)	-0.03	(0.02)	-0.02	(0.02)	-0.06	(0.06)	-0.02	(0.02)	-0.08	(0.04)	0.01	(0.02)	-0.07	(0.04)
	Finland	-0.08	(0.04)	-0.26	(0.02)	-0.25	(0.02)	-0.27	(0.04)	-0.25	(0.02)	-0.33	(0.04)	-0.22	(0.02)	-0.44	(0.04)
	France	0.22	(0.06)	0.02	(0.02)	0.02	(0.02)	-0.10	(0.07)	0.04	(0.02)	-0.15	(0.04)	0.02	(0.02)	-0.08	(0.05)
	Germany	0.70	(0.05)	0.30	(0.03)	0.36	(0.02)	0.11	(0.08)	0.37	(0.02)	0.25	(0.04)	0.37	(0.03)	0.18	(0.06)
	Greece	0.28	(0.07)	-0.14	(0.02)	-0.13	(0.03)	-0.28	(0.05)	-0.04	(0.03)	-0.30	(0.03)	-0.12	(0.03)	-0.28	(0.06)
	Hungary	0.68	(0.11)	0.18	(0.03)	0.19	(0.03)	-0.09	(0.05)	0.19	(0.03)	-0.01	(0.04)	0.19	(0.03)	0.10	(0.06)
	Iceland	0.35	(0.05)	0.05	(0.03)	0.08	(0.02)	-0.22	(0.10)	0.11	(0.03)	-0.21	(0.06)	0.09	(0.02)	-0.03	(0.07)
	Ireland	0.27	(0.06)	0.04	(0.02)	0.06	(0.02)	-0.09	(0.04)	0.08	(0.03)	-0.10	(0.03)	0.05	(0.02)	-0.08	(0.05)
	Israel	0.54	(0.06)	0.15	(0.04)	0.16	(0.03)	-0.05	(0.07)	0.20	(0.03)	-0.02	(0.04)	m	m	m	m
	Italy	0.10	(0.03)	-0.09	(0.02)	-0.09	(0.01)	-0.19	(0.03)	-0.08	(0.02)	-0.15	(0.02)	-0.08	(0.01)	-0.18	(0.03)
	Japan	-0.22	(0.05)	-0.38	(0.03)	-0.37	(0.03)	-0.51	(0.10)	-0.40	(0.03)	-0.37	(0.05)	-0.37	(0.03)	-0.55	(0.07)
	Korea	-0.18	(0.08)	-0.35	(0.04)	-0.32	(0.04)	-0.54	(0.07)	-0.38	(0.04)	-0.29	(0.05)	-0.30	(0.04)	-0.51	(0.07)
	Luxembourg	0.43	(0.06)	0.13	(0.02)	0.17	(0.02)	0.00	(0.06)	0.15	(0.02)	0.14	(0.03)	0.16	(0.02)	0.08	(0.06)
	Mexico	-0.01	(0.03)	-0.17	(0.01)	-0.16	(0.01)	-0.23	(0.02)	-0.17	(0.01)	-0.19	(0.01)	-0.15	(0.01)	-0.19	(0.03)
	Netherlands	-0.08	(0.06)	-0.16	(0.02)	-0.15	(0.02)	-0.26	(0.06)	-0.17	(0.02)	-0.15	(0.04)	-0.14	(0.02)	-0.25	(0.05)
	New Zealand	0.11	(0.06)	-0.12	(0.03)	-0.12	(0.02)	-0.26	(0.06)	-0.12	(0.03)	-0.23	(0.04)	-0.10	(0.02)	-0.31	(0.05)
	Norway	0.44	(0.06)	-0.01	(0.03)	0.02	(0.02)	-0.20	(0.09)	0.04	(0.03)	-0.24	(0.06)	0.04	(0.03)	-0.20	(0.07)
	Poland	0.34	(0.08)	0.15	(0.03)	0.15	(0.03)	-0.01	(0.06)	0.18	(0.03)	-0.06	(0.04)	0.17	(0.03)	-0.05	(0.05)
	Portugal	0.76	(0.08)	0.32	(0.03)	0.34	(0.03)	0.06	(0.05)	0.34	(0.04)	0.11	(0.04)	0.33	(0.03)	0.10	(0.06)
	Slovak Republic	0.37	(0.07)	0.11	(0.03)	0.13	(0.03)	-0.16	(0.05)	0.15	(0.02)	-0.14	(0.05)	0.13	(0.03)	0.03	(0.05)
	Slovenia	0.60	(0.04)	0.28	(0.02)	0.34	(0.02)	0.24	(0.07)	0.36	(0.02)	0.11	(0.05)	0.33	(0.02)	0.33	(0.06)
	Spain	0.32	(0.04)	0.10	(0.01)	0.13	(0.01)	-0.02	(0.03)	0.15	(0.01)	0.02	(0.03)	0.12	(0.02)	0.03	(0.03)
	Sweden	0.36	(0.04)	-0.01	(0.03)	0.04	(0.03)	0.00	(0.07)	0.04	(0.02)	-0.05	(0.06)	0.06	(0.03)	-0.12	(0.07)
	Switzerland	0.47	(0.04)	0.24	(0.03)	0.26	(0.03)	0.10	(0.06)	0.25	(0.03)	0.25	(0.03)	0.28	(0.03)	0.17	(0.04)
	Turkey	0.39	(0.09)	0.12	(0.06)	0.01	(0.03)	-0.03	(0.04)	0.06	(0.06)	-0.01	(0.03)	0.02	(0.03)	0.00	(0.07)
	United Kingdom	0.34	(0.06)	0.04	(0.02)	0.06	(0.02)	-0.02	(0.05)	0.06	(0.02)	-0.02	(0.03)	0.10	(0.02)	-0.04	(0.04)
	United States	0.40	(0.07)	0.18	(0.03)	0.16	(0.03)	0.04	(0.05)	0.15	(0.03)	0.07	(0.04)	0.20	(0.03)	0.04	(0.05)
	OECD average	0.29	(0.01)	0.02	(0.00)	0.03	(0.00)	-0.11	(0.01)	0.04	(0.00)	-0.08	(0.01)	0.04	(0.00)	-0.09	(0.01)
Partners	**Albania**	-0.02	(0.07)	0.00	(0.04)	0.06	(0.03)	-0.07	(0.05)	0.15	(0.03)	-0.04	(0.03)	0.06	(0.03)	0.04	(0.08)
	Argentina	-0.28	(0.09)	-0.34	(0.03)	-0.35	(0.02)	-0.41	(0.07)	-0.36	(0.02)	-0.37	(0.03)	-0.34	(0.03)	-0.38	(0.04)
	Brazil	-0.09	(0.07)	-0.42	(0.02)	-0.41	(0.02)	-0.52	(0.02)	-0.40	(0.02)	-0.50	(0.02)	-0.41	(0.02)	-0.45	(0.02)
	Bulgaria	0.12	(0.07)	-0.09	(0.03)	-0.07	(0.03)	-0.18	(0.06)	-0.07	(0.03)	-0.15	(0.04)	-0.06	(0.03)	-0.17	(0.06)
	Colombia	-0.29	(0.05)	-0.41	(0.02)	-0.42	(0.02)	-0.46	(0.04)	-0.44	(0.02)	-0.43	(0.02)	-0.40	(0.03)	-0.45	(0.02)
	Costa Rica	-0.06	(0.11)	-0.29	(0.03)	-0.31	(0.03)	-0.36	(0.06)	-0.32	(0.03)	-0.34	(0.03)	-0.30	(0.03)	-0.38	(0.05)
	Croatia	0.39	(0.05)	0.11	(0.03)	0.15	(0.03)	-0.04	(0.04)	0.19	(0.04)	-0.08	(0.03)	0.11	(0.03)	0.03	(0.06)
	Cyprus*	0.37	(0.06)	-0.01	(0.02)	0.01	(0.02)	-0.28	(0.07)	0.03	(0.02)	-0.16	(0.03)	0.01	(0.02)	-0.28	(0.06)
	Hong Kong-China	0.40	(0.07)	0.24	(0.03)	0.25	(0.03)	0.10	(0.06)	0.20	(0.03)	0.24	(0.04)	0.25	(0.03)	0.12	(0.05)
	Indonesia	-0.15	(0.09)	-0.21	(0.03)	-0.25	(0.02)	-0.27	(0.03)	-0.22	(0.03)	-0.29	(0.02)	-0.22	(0.02)	-0.32	(0.05)
	Jordan	0.24	(0.05)	0.13	(0.04)	0.03	(0.02)	-0.10	(0.05)	0.15	(0.04)	-0.04	(0.02)	0.03	(0.02)	0.03	(0.07)
	Kazakhstan	0.20	(0.06)	0.19	(0.03)	0.17	(0.03)	0.06	(0.04)	0.19	(0.04)	0.05	(0.03)	0.14	(0.03)	0.08	(0.06)
	Latvia	0.17	(0.06)	-0.08	(0.02)	-0.11	(0.02)	-0.03	(0.07)	-0.10	(0.02)	-0.16	(0.04)	-0.08	(0.02)	-0.11	(0.04)
	Liechtenstein	0.51	(0.16)	0.51	(0.08)	0.50	(0.06)	c	c	0.48	(0.09)	0.52	(0.09)	0.50	(0.07)	c	c
	Lithuania	0.24	(0.08)	0.09	(0.03)	0.08	(0.02)	0.01	(0.05)	0.10	(0.03)	-0.11	(0.03)	0.09	(0.03)	-0.09	(0.04)
	Macao-China	0.39	(0.07)	0.14	(0.02)	0.14	(0.02)	0.09	(0.05)	0.14	(0.02)	0.14	(0.04)	0.16	(0.02)	0.12	(0.04)
	Malaysia	-0.11	(0.06)	-0.20	(0.02)	-0.22	(0.02)	-0.39	(0.04)	-0.20	(0.02)	-0.28	(0.02)	-0.21	(0.02)	-0.39	(0.04)
	Montenegro	-0.06	(0.06)	-0.28	(0.03)	-0.27	(0.03)	-0.32	(0.03)	-0.24	(0.03)	-0.32	(0.03)	-0.27	(0.02)	-0.29	(0.07)
	Peru	-0.11	(0.07)	-0.22	(0.02)	-0.19	(0.02)	-0.28	(0.03)	-0.19	(0.02)	-0.23	(0.02)	-0.19	(0.02)	-0.26	(0.03)
	Qatar	0.15	(0.04)	-0.08	(0.02)	-0.11	(0.02)	-0.34	(0.04)	-0.13	(0.03)	-0.15	(0.02)	-0.06	(0.02)	-0.33	(0.05)
	Romania	0.21	(0.06)	-0.10	(0.03)	-0.09	(0.03)	-0.24	(0.03)	-0.05	(0.03)	-0.26	(0.03)	-0.10	(0.03)	-0.17	(0.06)
	Russian Federation	0.15	(0.05)	-0.09	(0.03)	-0.06	(0.03)	-0.25	(0.05)	-0.06	(0.03)	-0.22	(0.04)	-0.04	(0.02)	-0.18	(0.04)
	Serbia	0.00	(0.05)	-0.22	(0.03)	-0.16	(0.03)	-0.30	(0.04)	-0.17	(0.03)	-0.24	(0.03)	-0.17	(0.03)	-0.30	(0.08)
	Shanghai-China	1.11	(0.06)	0.94	(0.03)	0.98	(0.03)	0.68	(0.07)	0.99	(0.03)	0.79	(0.05)	0.98	(0.03)	0.83	(0.07)
	Singapore	0.60	(0.04)	0.52	(0.02)	0.49	(0.02)	0.35	(0.06)	0.48	(0.02)	0.47	(0.04)	0.51	(0.02)	0.31	(0.06)
	Chinese Taipei	0.40	(0.07)	0.28	(0.02)	0.22	(0.03)	-0.01	(0.05)	0.20	(0.03)	0.17	(0.04)	0.26	(0.03)	-0.13	(0.06)
	Thailand	-0.09	(0.10)	-0.31	(0.02)	-0.30	(0.02)	-0.32	(0.03)	-0.31	(0.02)	-0.29	(0.03)	-0.28	(0.02)	-0.34	(0.04)
	Tunisia	-0.03	(0.11)	-0.20	(0.05)	-0.30	(0.03)	-0.32	(0.04)	-0.16	(0.06)	-0.36	(0.02)	-0.25	(0.03)	-0.39	(0.10)
	United Arab Emirates	0.30	(0.05)	0.13	(0.03)	0.06	(0.02)	-0.15	(0.04)	0.08	(0.03)	-0.01	(0.02)	0.08	(0.02)	-0.16	(0.05)
	Uruguay	-0.12	(0.10)	-0.26	(0.02)	-0.26	(0.02)	-0.27	(0.05)	-0.25	(0.02)	-0.29	(0.03)	-0.22	(0.02)	-0.31	(0.03)
	Viet Nam	0.05	(0.09)	-0.27	(0.02)	-0.21	(0.03)	-0.31	(0.03)	-0.18	(0.03)	-0.30	(0.02)	-0.25	(0.02)	-0.23	(0.05)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. STEM occupations refer to occupations in science, technology, engineering and mathematics. Refer to Annex A1 for a detailed description of which ISCO-08 codings were considered to be STEM occupations.
2. Analyses consider only students who live with at least one parent, including step or foster parent.
3. ESCS refers to the *PISA index of economic, social and cultural status.*

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.6.10b **Students' self-efficacy in mathematics, by family structure and labour-market situation**

Results based on students' and parents' self-reports

		Change in the index of mathematics self-efficacy that is associated with:															
		Having a father or a mother who works in a STEM occupation[1]				Having a father who is currently employed				Having a mother who is currently employed				Coming from a single-parent family[2]			
		Before accounting for ESCS[3]		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS	
		Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.
OECD	**Australia**	**0.28**	(0.05)	0.06	(0.05)	**0.15**	(0.04)	0.02	(0.04)	**0.07**	(0.03)	**-0.05**	(0.03)	**-0.15**	(0.04)	0.00	(0.04)
	Austria	**0.17**	(0.06)	0.00	(0.06)	0.09	(0.07)	0.01	(0.07)	0.01	(0.04)	-0.07	(0.04)	0.05	(0.06)	0.09	(0.06)
	Belgium	**0.21**	(0.05)	0.05	(0.05)	0.06	(0.04)	**-0.11**	(0.04)	**0.13**	(0.04)	-0.02	(0.03)	-0.08	(0.05)	0.00	(0.04)
	Canada	**0.33**	(0.04)	**0.17**	(0.04)	0.07	(0.04)	-0.01	(0.04)	0.03	(0.03)	-0.04	(0.03)	**-0.11**	(0.03)	0.00	(0.04)
	Chile	**0.22**	(0.04)	0.05	(0.05)	-0.02	(0.05)	-0.10	(0.05)	0.03	(0.03)	-0.05	(0.03)	0.02	(0.04)	0.05	(0.04)
	Czech Republic	**0.30**	(0.05)	**0.12**	(0.05)	0.15	(0.08)	0.00	(0.08)	0.11	(0.06)	0.00	(0.06)	**-0.20**	(0.04)	-0.08	(0.04)
	Denmark	**0.24**	(0.05)	0.03	(0.05)	**0.21**	(0.07)	0.04	(0.06)	**0.26**	(0.05)	0.07	(0.04)	**-0.21**	(0.05)	**-0.10**	(0.04)
	Estonia	**0.19**	(0.05)	0.06	(0.05)	0.04	(0.06)	-0.05	(0.06)	0.06	(0.04)	-0.02	(0.04)	-0.08	(0.04)	0.00	(0.04)
	Finland	**0.18**	(0.04)	0.02	(0.04)	0.02	(0.05)	**-0.11**	(0.04)	0.08	(0.04)	-0.05	(0.04)	**-0.22**	(0.04)	**-0.09**	(0.04)
	France	**0.20**	(0.06)	0.01	(0.06)	0.12	(0.07)	-0.07	(0.07)	**0.19**	(0.05)	-0.01	(0.04)	**-0.10**	(0.05)	0.02	(0.05)
	Germany	**0.40**	(0.06)	**0.16**	(0.06)	**0.25**	(0.08)	0.14	(0.09)	**0.12**	(0.04)	0.04	(0.04)	**-0.20**	(0.07)	-0.13	(0.07)
	Greece	**0.41**	(0.07)	**0.13**	(0.07)	**0.15**	(0.05)	0.02	(0.05)	**0.26**	(0.04)	**0.10**	(0.04)	**-0.15**	(0.06)	**-0.13**	(0.06)
	Hungary	**0.50**	(0.11)	0.15	(0.09)	**0.28**	(0.06)	0.05	(0.06)	**0.21**	(0.05)	-0.06	(0.05)	-0.09	(0.05)	0.01	(0.06)
	Iceland	**0.30**	(0.06)	**0.15**	(0.06)	**0.29**	(0.10)	0.16	(0.10)	**0.32**	(0.06)	**0.19**	(0.06)	-0.12	(0.08)	-0.03	(0.07)
	Ireland	**0.23**	(0.07)	0.06	(0.07)	**0.15**	(0.05)	0.00	(0.04)	**0.19**	(0.04)	0.05	(0.03)	**-0.13**	(0.05)	-0.02	(0.05)
	Israel	**0.39**	(0.06)	**0.21**	(0.06)	**0.22**	(0.07)	-0.03	(0.06)	**0.22**	(0.05)	0.01	(0.05)	m	m	m	m
	Italy	**0.19**	(0.03)	**0.07**	(0.02)	**0.10**	(0.03)	0.02	(0.03)	**0.07**	(0.02)	**-0.05**	(0.02)	**-0.09**	(0.03)	**-0.07**	(0.03)
	Japan	**0.16**	(0.05)	-0.02	(0.05)	0.14	(0.10)	0.03	(0.09)	-0.03	(0.04)	0.00	(0.04)	**-0.18**	(0.06)	-0.02	(0.06)
	Korea	**0.17**	(0.08)	0.03	(0.07)	**0.22**	(0.07)	0.07	(0.06)	**-0.09**	(0.04)	**-0.09**	(0.03)	**-0.21**	(0.07)	0.02	(0.07)
	Luxembourg	**0.30**	(0.06)	0.06	(0.06)	**0.17**	(0.06)	0.03	(0.06)	0.01	(0.04)	-0.03	(0.04)	-0.09	(0.06)	-0.06	(0.06)
	Mexico	**0.17**	(0.04)	0.05	(0.04)	**0.07**	(0.03)	0.00	(0.03)	0.03	(0.01)	**-0.04**	(0.01)	-0.04	(0.03)	-0.04	(0.03)
	Netherlands	0.08	(0.06)	0.00	(0.06)	0.11	(0.06)	0.02	(0.06)	-0.01	(0.05)	-0.08	(0.04)	**-0.11**	(0.04)	-0.05	(0.04)
	New Zealand	**0.23**	(0.06)	0.01	(0.06)	**0.14**	(0.06)	-0.04	(0.07)	**0.11**	(0.05)	0.00	(0.05)	**-0.21**	(0.05)	-0.07	(0.05)
	Norway	**0.45**	(0.06)	**0.24**	(0.06)	**0.22**	(0.09)	0.05	(0.09)	**0.27**	(0.06)	**0.15**	(0.06)	**-0.24**	(0.07)	-0.13	(0.08)
	Poland	**0.18**	(0.08)	-0.08	(0.08)	**0.16**	(0.06)	-0.01	(0.06)	**0.24**	(0.04)	0.02	(0.04)	**-0.22**	(0.05)	**-0.13**	(0.05)
	Portugal	**0.45**	(0.09)	0.08	(0.08)	**0.28**	(0.05)	**0.10**	(0.05)	**0.22**	(0.04)	0.02	(0.04)	**-0.22**	(0.05)	**-0.14**	(0.05)
	Slovak Republic	**0.27**	(0.06)	0.04	(0.06)	**0.28**	(0.05)	0.05	(0.05)	**0.30**	(0.04)	**0.11**	(0.04)	-0.10	(0.05)	-0.03	(0.05)
	Slovenia	**0.32**	(0.04)	**0.13**	(0.04)	0.10	(0.07)	-0.04	(0.07)	**0.25**	(0.06)	0.07	(0.06)	0.00	(0.07)	0.04	(0.07)
	Spain	**0.22**	(0.04)	-0.04	(0.04)	**0.16**	(0.03)	-0.01	(0.03)	**0.13**	(0.03)	0.01	(0.03)	**-0.09**	(0.03)	-0.02	(0.03)
	Sweden	**0.37**	(0.05)	**0.18**	(0.05)	0.04	(0.07)	-0.13	(0.07)	0.09	(0.06)	-0.07	(0.06)	**-0.18**	(0.07)	-0.05	(0.07)
	Switzerland	**0.23**	(0.04)	**0.09**	(0.04)	**0.16**	(0.07)	0.04	(0.06)	0.00	(0.03)	-0.06	(0.03)	**-0.12**	(0.04)	**-0.10**	(0.04)
	Turkey	**0.27**	(0.09)	0.04	(0.09)	0.04	(0.04)	-0.07	(0.04)	0.07	(0.06)	-0.06	(0.05)	-0.02	(0.07)	-0.01	(0.07)
	United Kingdom	**0.29**	(0.06)	0.11	(0.06)	0.07	(0.06)	-0.10	(0.06)	**0.08**	(0.04)	-0.02	(0.04)	**-0.14**	(0.05)	-0.03	(0.05)
	United States	**0.23**	(0.07)	0.02	(0.07)	**0.11**	(0.05)	0.00	(0.06)	**0.08**	(0.04)	-0.01	(0.04)	**-0.16**	(0.05)	-0.01	(0.05)
	OECD average	**0.27**	(0.01)	**0.07**	(0.01)	**0.14**	(0.01)	0.00	(0.01)	**0.12**	(0.01)	0.00	(0.01)	**-0.13**	(0.01)	**-0.04**	(0.01)
Partners	**Albania**	-0.02	(0.08)	m	m	**0.14**	(0.05)	m	m	**0.19**	(0.03)	m	m	-0.02	(0.08)	m	m
	Argentina	0.06	(0.10)	-0.02	(0.10)	0.06	(0.07)	0.00	(0.07)	0.01	(0.04)	-0.06	(0.04)	-0.03	(0.04)	-0.02	(0.04)
	Brazil	**0.33**	(0.06)	0.11	(0.06)	**0.11**	(0.03)	0.02	(0.03)	**0.10**	(0.02)	0.01	(0.02)	-0.04	(0.03)	-0.01	(0.03)
	Bulgaria	**0.21**	(0.06)	0.03	(0.06)	0.11	(0.06)	-0.03	(0.06)	0.08	(0.04)	-0.07	(0.04)	-0.11	(0.06)	-0.06	(0.06)
	Colombia	**0.12**	(0.05)	0.03	(0.05)	0.04	(0.04)	0.00	(0.05)	0.00	(0.03)	-0.03	(0.03)	-0.05	(0.03)	-0.04	(0.03)
	Costa Rica	**0.22**	(0.11)	0.14	(0.11)	0.05	(0.06)	0.00	(0.05)	0.02	(0.04)	-0.06	(0.03)	-0.08	(0.05)	-0.06	(0.05)
	Croatia	**0.29**	(0.05)	0.08	(0.06)	**0.18**	(0.04)	0.05	(0.04)	**0.27**	(0.05)	**0.11**	(0.04)	-0.07	(0.06)	-0.04	(0.06)
	Cyprus*	**0.38**	(0.07)	0.14	(0.07)	**0.29**	(0.08)	0.07	(0.07)	**0.19**	(0.04)	0.03	(0.04)	**-0.29**	(0.07)	**-0.16**	(0.06)
	Hong Kong-China	**0.17**	(0.07)	-0.06	(0.07)	**0.15**	(0.05)	0.05	(0.05)	-0.04	(0.04)	-0.07	(0.04)	**-0.12**	(0.05)	-0.06	(0.05)
	Indonesia	0.06	(0.09)	-0.04	(0.10)	0.03	(0.03)	-0.01	(0.04)	**0.07**	(0.02)	**0.05**	(0.02)	**-0.10**	(0.05)	-0.07	(0.05)
	Jordan	0.10	(0.06)	0.11	(0.06)	**0.13**	(0.05)	0.02	(0.05)	**0.19**	(0.04)	0.04	(0.04)	0.00	(0.07)	0.03	(0.07)
	Kazakhstan	0.01	(0.06)	-0.08	(0.06)	**0.10**	(0.04)	-0.02	(0.04)	**0.13**	(0.04)	0.02	(0.04)	-0.06	(0.05)	0.00	(0.05)
	Latvia	**0.24**	(0.07)	0.07	(0.07)	-0.08	(0.07)	**-0.18**	(0.07)	0.06	(0.04)	-0.04	(0.04)	-0.03	(0.04)	0.05	(0.04)
	Liechtenstein	0.00	(0.19)	-0.06	(0.18)	c	c	c	c	-0.04	(0.13)	-0.07	(0.13)	c	c	c	c
	Lithuania	**0.14**	(0.07)	-0.01	(0.07)	0.07	(0.05)	-0.08	(0.05)	**0.21**	(0.04)	0.05	(0.04)	**-0.18**	(0.05)	**-0.09**	(0.05)
	Macao-China	**0.25**	(0.08)	0.12	(0.08)	0.06	(0.05)	0.00	(0.05)	0.00	(0.04)	-0.03	(0.04)	-0.03	(0.05)	0.00	(0.05)
	Malaysia	0.09	(0.07)	-0.01	(0.06)	**0.17**	(0.04)	**0.12**	(0.04)	**0.08**	(0.03)	-0.04	(0.03)	**-0.18**	(0.04)	**-0.14**	(0.04)
	Montenegro	**0.22**	(0.07)	0.10	(0.07)	0.04	(0.04)	-0.05	(0.05)	0.07	(0.04)	-0.02	(0.04)	-0.02	(0.07)	-0.01	(0.07)
	Peru	0.10	(0.07)	-0.04	(0.06)	**0.09**	(0.04)	0.03	(0.03)	0.04	(0.02)	0.02	(0.02)	**-0.08**	(0.03)	**-0.08**	(0.03)
	Qatar	**0.23**	(0.04)	**0.21**	(0.04)	**0.23**	(0.04)	**0.16**	(0.04)	0.02	(0.03)	-0.04	(0.03)	**-0.27**	(0.06)	**-0.22**	(0.05)
	Romania	**0.31**	(0.05)	0.08	(0.05)	**0.16**	(0.04)	-0.02	(0.04)	**0.21**	(0.04)	0.04	(0.03)	-0.07	(0.05)	-0.02	(0.05)
	Russian Federation	**0.24**	(0.05)	0.05	(0.05)	**0.20**	(0.05)	0.09	(0.06)	**0.16**	(0.05)	0.03	(0.05)	**-0.14**	(0.04)	-0.05	(0.03)
	Serbia	**0.22**	(0.05)	0.07	(0.05)	**0.14**	(0.04)	0.03	(0.04)	**0.07**	(0.03)	-0.06	(0.04)	-0.13	(0.08)	-0.10	(0.08)
	Shanghai-China	**0.16**	(0.07)	-0.01	(0.06)	**0.31**	(0.07)	0.09	(0.06)	**0.20**	(0.05)	0.05	(0.05)	**-0.14**	(0.06)	**-0.12**	(0.06)
	Singapore	0.07	(0.05)	-0.01	(0.05)	**0.14**	(0.07)	0.06	(0.06)	0.01	(0.04)	-0.03	(0.04)	**-0.21**	(0.06)	**-0.13**	(0.06)
	Chinese Taipei	0.13	(0.07)	**-0.16**	(0.08)	**0.23**	(0.05)	0.04	(0.05)	0.03	(0.05)	-0.04	(0.04)	**-0.38**	(0.07)	**-0.19**	(0.06)
	Thailand	**0.22**	(0.10)	0.10	(0.10)	0.01	(0.03)	-0.01	(0.03)	-0.02	(0.03)	-0.03	(0.03)	-0.07	(0.04)	-0.06	(0.04)
	Tunisia	0.17	(0.11)	0.04	(0.11)	0.02	(0.05)	**-0.09**	(0.04)	**0.20**	(0.05)	0.05	(0.04)	-0.14	(0.10)	-0.10	(0.10)
	United Arab Emirates	**0.17**	(0.05)	**0.17**	(0.05)	**0.21**	(0.05)	**0.09**	(0.04)	**0.09**	(0.03)	-0.02	(0.03)	**-0.24**	(0.05)	**-0.16**	(0.05)
	Uruguay	0.13	(0.09)	-0.04	(0.09)	0.01	(0.05)	-0.05	(0.06)	0.03	(0.03)	-0.06	(0.03)	**-0.09**	(0.04)	**-0.07**	(0.04)
	Viet Nam	**0.32**	(0.09)	0.01	(0.08)	**0.10**	(0.03)	-0.01	(0.03)	**0.12**	(0.03)	0.00	(0.03)	0.02	(0.05)	0.04	(0.05)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. STEM occupations refer to occupations in science, technology, engineering and mathematics. Refer to Annex A1 for a detailed description of which ISCO-08 codings were considered to be STEM occupations.
2. Analyses consider only students who live with at least one parent, including step or foster parent.
3. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.6.10c Students' self-efficacy in mathematics, by parents' attitudes towards the child's future

Results based on students' and parents' self-reports

		Index of mathematics self-efficacy																			
		Parents expect the child to work as a manager or a professional at age 30[1]		Parents do not expect the child to work as a manager or a professional at age 30[1]		Parents expect the child to complete a university degree[2]		Parents do not expect the child to complete a university degree[2]		Parents expect the child to go into a <mathematics-related career>		Parents do not expect the child to go into a <mathematics-related career>		Parents expect the child to study mathematics after completing <secondary school>		Parents do not expect the child to study mathematics after completing <secondary school>		Parents "agree" or "strongly agree" that it is important to have good mathematics knowledge and skills in order to get any good job in today's world		Parents "disagree" or "strongly disagree" that it is important to have good mathematics knowledge and skills in order to get any good job in today's world	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	Belgium (Flemish Community)	m	m	m	m	0.20	(0.03)	-0.43	(0.02)	0.27	(0.04)	-0.38	(0.02)	0.26	(0.04)	-0.31	(0.02)	-0.13	(0.02)	-0.33	(0.04)
	Chile	-0.12	(0.02)	-0.33	(0.04)	-0.11	(0.02)	-0.38	(0.03)	-0.04	(0.03)	-0.38	(0.02)	-0.04	(0.02)	-0.37	(0.02)	-0.19	(0.02)	-0.25	(0.06)
	Germany	0.54	(0.04)	0.20	(0.05)	0.71	(0.04)	0.22	(0.03)	0.71	(0.06)	0.33	(0.03)	0.75	(0.12)	0.37	(0.03)	0.40	(0.03)	0.30	(0.09)
	Hungary	0.54	(0.04)	-0.15	(0.04)	0.55	(0.03)	-0.27	(0.04)	0.46	(0.04)	-0.05	(0.03)	0.51	(0.04)	-0.16	(0.04)	0.14	(0.03)	0.18	(0.05)
	Italy	0.05	(0.02)	-0.28	(0.02)	0.13	(0.02)	-0.29	(0.01)	0.17	(0.02)	-0.30	(0.01)	0.24	(0.02)	-0.25	(0.01)	-0.07	(0.01)	-0.25	(0.03)
	Korea	-0.19	(0.05)	-0.57	(0.04)	-0.27	(0.04)	-1.05	(0.06)	-0.06	(0.05)	-0.59	(0.04)	-0.08	(0.05)	-0.56	(0.04)	-0.30	(0.04)	-0.58	(0.05)
	Mexico	-0.14	(0.01)	-0.37	(0.02)	-0.13	(0.01)	-0.35	(0.02)	-0.11	(0.01)	-0.34	(0.02)	-0.11	(0.01)	-0.31	(0.01)	-0.18	(0.01)	-0.29	(0.04)
	Portugal	0.45	(0.03)	-0.06	(0.06)	0.58	(0.03)	-0.21	(0.04)	0.48	(0.04)	-0.02	(0.04)	0.47	(0.04)	0.04	(0.04)	0.31	(0.03)	0.12	(0.10)
Partners	Croatia	0.32	(0.04)	-0.19	(0.03)	0.45	(0.04)	-0.19	(0.03)	0.47	(0.05)	-0.09	(0.02)	0.70	(0.06)	0.06	(0.03)	0.13	(0.03)	-0.07	(0.06)
	Hong Kong-China	0.30	(0.02)	-0.02	(0.06)	0.45	(0.03)	-0.15	(0.04)	0.32	(0.03)	0.12	(0.03)	0.34	(0.03)	0.13	(0.03)	0.24	(0.03)	0.11	(0.07)
	Macao-China	0.22	(0.02)	0.05	(0.03)	0.27	(0.02)	-0.05	(0.03)	0.23	(0.02)	-0.01	(0.02)	0.19	(0.02)	0.06	(0.03)	0.16	(0.02)	-0.03	(0.05)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Only countries and economies with data from the parent questionnaire are shown.

1. Managerial and professional occupations were derived using open-ended responses from parents about the occupation in which they expected their child to work by the age of 30, recoded into ISCO-08. Groups 1 and 2 represent managerial and professional occupations.
2. A university degree covers ISCED levels 5A and 6.
3. ESCS refers to the *PISA index of economic, social and cultural status.*

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[Part 2/2]

Table III.6.10c Students' self-efficacy in mathematics, by parents' attitudes towards the child's future

Results based on students' and parents' self-reports

		Change in the index of mathematics self-efficacy that is associated with:																			
		Expecting the child to work as a manager or a professional at age 30[1]				Expecting the child to complete a university degree[2]				Expecting the child to go into a <mathematics-related career>				Expecting the child to study mathematics after completing <secondary school>				Agreeing or strongly agreeing that it is important to have good mathematics knowledge and skills in order to get any good job in today's world			
		Before accounting for ESCS[3]		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS		Before accounting for ESCS		After accounting for ESCS	
		Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.
OECD	Belgium (Flemish Community)	m	m	m	m	**0.63**	(0.04)	**0.56**	(0.04)	**0.65**	(0.04)	**0.63**	(0.04)	**0.58**	(0.04)	**0.56**	(0.04)	**0.20**	(0.04)	**0.23**	(0.04)
	Chile	**0.21**	(0.04)	**0.11**	(0.04)	**0.27**	(0.04)	**0.17**	(0.04)	**0.34**	(0.03)	**0.35**	(0.03)	**0.33**	(0.03)	**0.34**	(0.03)	0.06	(0.06)	**0.14**	(0.06)
	Germany	**0.33**	(0.07)	**0.21**	(0.07)	**0.49**	(0.05)	**0.36**	(0.05)	**0.38**	(0.06)	**0.35**	(0.06)	**0.38**	(0.12)	**0.40**	(0.13)	0.10	(0.09)	**0.20**	(0.09)
	Hungary	**0.69**	(0.06)	**0.49**	(0.07)	**0.83**	(0.05)	**0.62**	(0.06)	**0.51**	(0.05)	**0.47**	(0.04)	**0.67**	(0.05)	**0.55**	(0.05)	-0.04	(0.05)	**0.11**	(0.05)
	Italy	**0.33**	(0.03)	**0.24**	(0.03)	**0.42**	(0.02)	**0.33**	(0.02)	**0.47**	(0.02)	**0.45**	(0.02)	**0.49**	(0.02)	**0.45**	(0.02)	**0.17**	(0.03)	**0.21**	(0.03)
	Korea	**0.38**	(0.05)	**0.24**	(0.04)	**0.78**	(0.07)	**0.51**	(0.07)	**0.53**	(0.05)	**0.50**	(0.05)	**0.48**	(0.04)	**0.46**	(0.04)	**0.28**	(0.05)	**0.29**	(0.04)
	Mexico	**0.23**	(0.02)	**0.20**	(0.02)	**0.22**	(0.02)	**0.16**	(0.02)	**0.23**	(0.02)	**0.25**	(0.02)	**0.21**	(0.02)	**0.23**	(0.02)	**0.11**	(0.04)	**0.12**	(0.04)
	Portugal	**0.51**	(0.05)	**0.33**	(0.05)	**0.80**	(0.04)	**0.55**	(0.04)	**0.51**	(0.04)	**0.45**	(0.04)	**0.43**	(0.04)	**0.39**	(0.04)	**0.19**	(0.10)	**0.30**	(0.08)
Partners	Croatia	**0.51**	(0.05)	**0.40**	(0.05)	**0.64**	(0.05)	**0.50**	(0.05)	**0.56**	(0.06)	**0.52**	(0.05)	**0.64**	(0.07)	**0.62**	(0.07)	**0.20**	(0.06)	**0.22**	(0.06)
	Hong Kong-China	**0.33**	(0.06)	**0.25**	(0.06)	**0.60**	(0.05)	**0.48**	(0.04)	**0.20**	(0.04)	**0.23**	(0.04)	**0.21**	(0.03)	**0.23**	(0.03)	0.13	(0.07)	**0.18**	(0.06)
	Macao-China	**0.18**	(0.04)	**0.10**	(0.04)	**0.32**	(0.03)	**0.25**	(0.04)	**0.24**	(0.03)	**0.24**	(0.03)	**0.13**	(0.03)	**0.13**	(0.03)	**0.19**	(0.05)	**0.20**	(0.06)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Only countries and economies with data from the parent questionnaire are shown.

1. Managerial and professional occupations were derived using open-ended responses from parents about the occupation in which they expected their child to work by the age of 30, recoded into ISCO-08. Groups 1 and 2 represent managerial and professional occupations.
2. A university degree covers ISCED levels 5A and 6.
3. ESCS refers to the *PISA index of economic, social and cultural status.*

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[Part 1/1]

Table III.6.13a The relationship between arriving late and parental attitudes towards the child's future

Results based on students' and parents' self-reports; students with similar performance in mathematics

		Percentage-point change in arriving late for school that is associated with:							
		Expecting the child to work as a manager or a professional at age 30[1] (Unadjusted)		Expecting the child to work as a manager or a professional at age 30 (Adjusted)[1, 2]		Expecting the child to complete a university degree[3] (Unadjusted)		Expecting the child to complete a university degree (Adjusted)[2, 3]	
		Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.
OECD	Belgium (Flemish Community)	m	m	m	m	-2.7	(1.5)	**3.4**	(1.6)
	Chile	**-5.4**	(2.5)	-1.6	(2.5)	**-4.2**	(1.6)	-0.4	(1.6)
	Germany	1.9	(2.1)	3.2	(2.3)	1.3	(1.7)	2.9	(1.7)
	Hungary	**-10.6**	(2.2)	-4.5	(2.4)	**-13.9**	(1.8)	**-5.8**	(2.2)
	Italy	**-4.3**	(1.2)	0.6	(1.2)	**-6.1**	(1.0)	-0.6	(1.0)
	Korea	**-3.8**	(1.4)	-1.5	(1.4)	**-11.9**	(2.8)	**-5.6**	(2.6)
	Mexico	**-3.0**	(1.1)	-1.5	(1.1)	**-4.0**	(0.9)	**-1.9**	(0.9)
	Portugal	-0.7	(2.5)	1.2	(2.6)	**-6.1**	(2.0)	**-4.3**	(2.2)
Partners	Croatia	**-11.5**	(2.0)	**-6.8**	(2.2)	**-9.4**	(1.4)	**-4.3**	(1.6)
	Hong Kong-China	-2.3	(1.7)	-0.4	(1.7)	**-7.1**	(1.1)	**-3.6**	(1.2)
	Macao-China	**-3.5**	(1.6)	-0.8	(1.6)	**-6.7**	(1.3)	-2.3	(1.3)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
1. Managerial and professional occupations were derived using open-ended responses from parents about the occupation in which they expected their child to work by the age of 30, recoded into ISCO-08. Groups 1 and 2 represent managerial and professional occupations.
2. Adjusted refers to a regression of arriving late for school on parental attitudes as well as reading performance, mathematics performance, whether the student is a girl, and student's socio-economic status.
3. A university degree covers ISCED levels 5A and 6.

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[Part 1/1]

Table III.6.13b The relationship between perseverance and parental attitudes towards the child's future

Results based on students' and parents' self-reports; students with similar performance in mathematics

		Change in the index of perseverance that is associated with:							
		Expecting the child to work as a manager or a professional at age 30[1] (Unadjusted)		Expecting the child to work as a manager or a professional at age 30 (Adjusted)[1, 2]		Expecting the child to complete a university degree[3] (Unadjusted)		Expecting the child to complete a university degree (Adjusted)[2, 3]	
		Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.
OECD	Belgium (Flemish Community)	m	m	m	m	**0.25**	(0.04)	**0.22**	(0.04)
	Chile	**0.16**	(0.05)	0.07	(0.05)	**0.18**	(0.04)	**0.09**	(0.04)
	Germany	**0.19**	(0.07)	0.05	(0.07)	**0.16**	(0.04)	0.04	(0.04)
	Hungary	**0.16**	(0.05)	0.06	(0.05)	**0.20**	(0.04)	**0.13**	(0.05)
	Italy	**0.25**	(0.03)	**0.18**	(0.03)	**0.29**	(0.02)	**0.22**	(0.02)
	Korea	0.05	(0.03)	-0.01	(0.03)	**0.11**	(0.05)	-0.02	(0.05)
	Mexico	**0.24**	(0.03)	**0.17**	(0.03)	**0.24**	(0.02)	**0.15**	(0.02)
	Portugal	**0.16**	(0.07)	-0.02	(0.08)	**0.31**	(0.05)	0.09	(0.05)
Partners	Croatia	0.03	(0.05)	-0.03	(0.06)	**0.12**	(0.04)	0.07	(0.05)
	Hong Kong-China	-0.03	(0.05)	-0.08	(0.05)	**0.17**	(0.03)	**0.12**	(0.03)
	Macao-China	0.06	(0.03)	0.02	(0.03)	**0.10**	(0.03)	0.04	(0.03)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
1. Managerial and professional occupations were derived using open-ended responses from parents about the occupation in which they expected their child to work by the age of 30, recoded into ISCO-08. Groups 1 and 2 represent managerial and professional occupations.
2. Adjusted refers to a regression of arriving late for school on parental attitudes as well as reading performance, mathematics performance, whether the student is a girl, and student's socio-economic status.
3. A university degree covers ISCED levels 5A and 6.

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[Part 1/1]

Table III.6.13c

The relationship between intrinsic motivation to learn mathematics and parental attitudes towards the child's future

Results based on students' and parents' self-reports; students with similar performance in mathematics

		Change in the index of intrinsic motivation to learn mathematics that is associated with:							
		Expecting the child to work as a manager or a professional at age 30[1] (Unadjusted)		Expecting the child to work as a manager or a professional at age 30 (Adjusted)[1, 2]		Expecting the child to complete a university degree[3] (Unadjusted)		Expecting the child to complete a university degree (Adjusted)[2, 3]	
		Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.
OECD	**Belgium (Flemish Community)**	m	m	m	m	**0.43**	(0.04)	**0.29**	(0.05)
	Chile	**0.25**	(0.05)	**0.16**	(0.05)	**0.20**	(0.05)	**0.15**	(0.05)
	Germany	0.00	(0.07)	-0.12	(0.08)	0.08	(0.06)	-0.07	(0.06)
	Hungary	**0.15**	(0.06)	0.04	(0.06)	**0.18**	(0.05)	0.09	(0.05)
	Italy	**0.22**	(0.03)	**0.16**	(0.03)	**0.29**	(0.02)	**0.24**	(0.02)
	Korea	**0.18**	(0.04)	0.04	(0.04)	**0.41**	(0.05)	**0.14**	(0.05)
	Mexico	**0.17**	(0.02)	**0.15**	(0.02)	**0.12**	(0.02)	**0.10**	(0.02)
	Portugal	**0.16**	(0.05)	0.09	(0.05)	**0.19**	(0.05)	0.09	(0.05)
Partners	**Croatia**	0.08	(0.05)	0.01	(0.06)	**0.14**	(0.05)	0.06	(0.05)
	Hong Kong-China	**0.16**	(0.06)	0.05	(0.06)	**0.24**	(0.04)	0.06	(0.04)
	Macao-China	**0.10**	(0.04)	0.05	(0.04)	**0.14**	(0.03)	0.05	(0.03)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
1. Managerial and professional occupations were derived using open-ended responses from parents about the occupation in which they expected their child to work by the age of 30, recoded into ISCO-08. Groups 1 and 2 represent managerial and professional occupations.
2. Adjusted refers to a regression of arriving late for school on parental attitudes as well as reading performance, mathematics performance, whether the student is a girl, and student's socio-economic status.
3. A university degree covers ISCED levels 5A and 6.
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[Part 1/1]

Table III.6.13d

The relationship between mathematics self-efficacy and parental attitudes towards the child's future

Results based on students' and parents' self-reports; students with similar performance in mathematics

		Change in the index of mathematics self-efficacy that is associated with:							
		Expecting the child to work as a manager or a professional at age 30[1] (Unadjusted)		Expecting the child to work as a manager or a professional at age 30 (Adjusted)[1, 2]		Expecting the child to complete a university degree[3] (Unadjusted)		Expecting the child to complete a university degree (Adjusted)[2, 3]	
		Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.
OECD	**Belgium (Flemish Community)**	m	m	m	m	**0.60**	(0.04)	**0.27**	(0.04)
	Chile	**0.15**	(0.04)	0.00	(0.04)	**0.19**	(0.04)	0.07	(0.04)
	Germany	**0.33**	(0.07)	0.03	(0.07)	**0.39**	(0.05)	0.06	(0.04)
	Hungary	**0.53**	(0.07)	0.07	(0.06)	**0.67**	(0.06)	**0.15**	(0.05)
	Italy	**0.31**	(0.02)	**0.09**	(0.02)	**0.37**	(0.02)	**0.14**	(0.02)
	Korea	**0.29**	(0.04)	**0.09**	(0.04)	**0.53**	(0.07)	0.09	(0.06)
	Mexico	**0.22**	(0.02)	**0.15**	(0.02)	**0.18**	(0.02)	**0.08**	(0.02)
	Portugal	**0.38**	(0.05)	0.08	(0.05)	**0.58**	(0.04)	**0.17**	(0.04)
Partners	**Croatia**	**0.47**	(0.05)	0.04	(0.04)	**0.56**	(0.05)	**0.13**	(0.04)
	Hong Kong-China	**0.28**	(0.06)	0.04	(0.05)	**0.48**	(0.04)	**0.10**	(0.04)
	Macao-China	**0.11**	(0.04)	-0.04	(0.04)	**0.25**	(0.04)	0.03	(0.03)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
1. Managerial and professional occupations were derived using open-ended responses from parents about the occupation in which they expected their child to work by the age of 30, recoded into ISCO-08. Groups 1 and 2 represent managerial and professional occupations.
2. Adjusted refers to a regression of arriving late for school on parental attitudes as well as reading performance, mathematics performance, whether the student is a girl, and student's socio-economic status.
3. A university degree covers ISCED levels 5A and 6.
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[Part 1/2]

Table III.7.1a **The gender gap in engagement with and at school**

Results based on students' self-reports

		The gender gap (boys - girls) in the:											
		Likelihood of arriving late for school						Likelihood of skipping classes or days of school					
		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)	
		Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.
OECD	Australia	-2.0	(1.0)	-1.0	(1.0)	**-7.64**	(0.60)	**-5.5**	(0.8)	**-4.2**	(0.8)	**-10.15**	(0.51)
	Austria	-0.3	(1.5)	0.1	(1.6)	**-2.01**	(0.60)	-2.4	(1.6)	-1.9	(1.6)	**-2.29**	(0.91)
	Belgium	**2.0**	(1.0)	**3.1**	(0.9)	**-9.07**	(0.64)	**1.6**	(0.7)	**2.4**	(0.7)	**-6.78**	(0.42)
	Canada	1.5	(0.9)	**2.7**	(0.9)	**-10.70**	(0.60)	**-5.9**	(1.0)	**-4.9**	(1.0)	**-8.51**	(0.67)
	Chile	-2.1	(1.7)	0.2	(1.7)	**-9.21**	(0.60)	0.8	(1.4)	**2.7**	(1.4)	**-7.46**	(0.96)
	Czech Republic	**5.3**	(1.6)	**6.1**	(1.5)	**-7.24**	(0.60)	-0.2	(1.2)	0.3	(1.2)	**-3.65**	(0.71)
	Denmark	**6.8**	(1.5)	**7.8**	(1.5)	**-7.70**	(0.60)	**-2.7**	(1.3)	-1.5	(1.3)	**-8.82**	(0.73)
	Estonia	**7.6**	(1.6)	**8.0**	(1.6)	**-7.16**	(0.60)	**6.4**	(1.3)	**7.2**	(1.3)	**-13.43**	(0.99)
	Finland	**6.2**	(1.3)	**6.1**	(1.3)	**-9.20**	(0.60)	-1.4	(1.1)	-1.5	(1.0)	**-8.05**	(0.85)
	France	2.4	(1.3)	**3.3**	(1.3)	**-9.14**	(0.60)	-0.4	(1.5)	0.2	(1.5)	**-5.63**	(0.67)
	Germany	0.6	(1.3)	1.0	(1.3)	**-2.78**	(0.60)	-1.5	(1.0)	-1.1	(1.0)	**-2.55**	(0.69)
	Greece	-0.4	(1.5)	-0.3	(1.4)	**-1.49**	(0.60)	**5.8**	(1.6)	**6.2**	(1.6)	**-4.80**	(1.01)
	Hungary	2.3	(1.8)	3.2	(1.7)	**-10.46**	(0.60)	2.4	(1.3)	**3.2**	(1.2)	**-8.25**	(0.80)
	Iceland	**7.9**	(1.6)	**7.5**	(1.6)	**-8.08**	(0.60)	**2.6**	(1.2)	**2.3**	(1.1)	**-5.97**	(0.72)
	Ireland	**5.0**	(1.8)	**6.4**	(1.6)	**-8.68**	(0.60)	**5.7**	(1.2)	**6.1**	(1.2)	**-2.77**	(0.86)
	Israel	-2.5	(1.9)	-2.0	(1.9)	**-3.52**	(0.60)	1.2	(2.0)	1.3	(2.0)	-0.95	(0.75)
	Italy	**3.3**	(0.9)	**4.8**	(0.9)	**-8.39**	(0.60)	**2.4**	(0.8)	**4.1**	(0.8)	**-8.88**	(0.49)
	Japan	**3.0**	(0.8)	**3.6**	(0.8)	**-3.46**	(0.60)	-0.1	(0.4)	0.6	(0.4)	**-3.74**	(0.74)
	Korea	1.4	(1.6)	**3.0**	(1.4)	**-8.75**	(0.60)	1.1	(0.6)	**1.8**	(0.6)	**-4.31**	(0.63)
	Luxembourg	0.7	(1.2)	1.9	(1.2)	**-4.57**	(0.60)	-1.0	(0.8)	0.3	(0.8)	**-5.27**	(0.44)
	Mexico	0.0	(0.8)	0.7	(0.8)	**-4.58**	(0.60)	**2.8**	(0.7)	**3.3**	(0.7)	**-4.07**	(0.68)
	Netherlands	1.8	(1.7)	2.7	(1.6)	**-8.91**	(0.60)	-0.6	(0.9)	-0.4	(0.9)	-1.16	(1.01)
	New Zealand	-2.4	(2.0)	-0.6	(1.9)	**-10.85**	(0.60)	-1.9	(1.5)	0.6	(1.3)	**-14.92**	(0.69)
	Norway	2.0	(1.4)	2.3	(1.4)	**-9.60**	(0.60)	-2.3	(1.3)	-2.1	(1.2)	**-8.62**	(0.67)
	Poland	**10.1**	(1.5)	**10.3**	(1.5)	**-5.14**	(0.60)	**6.7**	(1.6)	**7.0**	(1.6)	**-7.56**	(0.91)
	Portugal	-1.6	(1.8)	-1.2	(1.8)	**-3.23**	(0.60)	0.2	(1.6)	1.2	(1.6)	**-8.41**	(0.80)
	Slovak Republic	**4.5**	(1.5)	**5.1**	(1.5)	**-5.87**	(0.60)	1.4	(1.4)	2.0	(1.5)	**-6.17**	(0.86)
	Slovenia	-0.7	(1.6)	-0.5	(1.6)	**-6.27**	(0.60)	**4.9**	(1.6)	**5.3**	(1.6)	**-10.60**	(0.98)
	Spain	-1.6	(0.9)	-0.2	(0.9)	**-8.16**	(0.60)	**-4.0**	(1.0)	**-2.1**	(1.0)	**-11.29**	(0.56)
	Sweden	**5.5**	(1.6)	**5.3**	(1.6)	**-9.05**	(0.60)	-1.1	(1.4)	-1.3	(1.4)	**-9.98**	(0.83)
	Switzerland	0.1	(1.3)	0.3	(1.3)	**-1.53**	(0.60)	-1.6	(0.9)	-1.2	(0.9)	**-2.91**	(0.63)
	Turkey	**8.1**	(1.5)	**8.5**	(1.5)	**-4.16**	(0.60)	**8.6**	(1.7)	**8.3**	(1.7)	**2.61**	(1.05)
	United Kingdom	0.8	(1.3)	2.0	(1.2)	**-10.16**	(0.60)	**-3.4**	(1.4)	-2.6	(1.5)	**-7.38**	(1.01)
	United States	1.9	(1.4)	2.4	(1.3)	**-10.32**	(0.60)	-2.5	(1.3)	-2.2	(1.3)	**-5.90**	(0.76)
	OECD average	**2.3**	(0.2)	**3.0**	(0.2)	**-6.97**	(0.10)	**0.5**	(0.2)	**1.2**	(0.2)	**-6.43**	(0.13)
Partners	Albania	1.0	(1.5)	1.1	(1.5)	**1.19**	(0.01)	-0.1	(1.3)	-0.1	(1.3)	**2.20**	(0.93)
	Argentina	-1.5	(1.7)	0.0	(1.7)	**-10.33**	(0.01)	-2.3	(1.7)	-1.1	(1.8)	**-9.34**	(1.02)
	Brazil	0.5	(0.9)	0.8	(0.9)	**-1.90**	(0.01)	**2.8**	(1.0)	**3.1**	(1.0)	-1.59	(0.98)
	Bulgaria	1.6	(1.6)	1.5	(1.6)	**-7.65**	(0.01)	**5.9**	(1.6)	**5.7**	(1.5)	**-12.56**	(1.03)
	Colombia	2.1	(1.3)	**3.1**	(1.3)	**-3.94**	(0.01)	**8.2**	(1.1)	**8.7**	(1.1)	**-2.27**	(0.80)
	Costa Rica	-2.0	(1.7)	-1.8	(1.7)	**-0.49**	(0.01)	0.5	(1.6)	1.4	(1.8)	**-4.04**	(1.92)
	Croatia	**7.4**	(1.5)	**8.2**	(1.4)	**-6.39**	(0.01)	**10.4**	(1.3)	**12.0**	(1.2)	**-12.74**	(0.61)
	Cyprus*	**4.2**	(1.3)	**4.2**	(1.2)	**-6.13**	(0.01)	**10.8**	(1.5)	**10.9**	(1.4)	**-8.55**	(0.68)
	Hong Kong-China	**2.0**	(1.0)	**3.0**	(0.9)	**-5.98**	(0.01)	-0.5	(1.0)	0.2	(1.0)	**-4.16**	(0.43)
	Indonesia	**5.5**	(1.5)	**5.8**	(1.5)	**-5.64**	(0.01)	**6.1**	(1.4)	**6.5**	(1.4)	**-7.28**	(1.69)
	Jordan	**7.5**	(1.7)	**6.9**	(1.7)	**-3.64**	(0.01)	1.3	(1.9)	0.6	(1.9)	**-4.19**	(1.12)
	Kazakhstan	**5.3**	(1.4)	**5.3**	(1.4)	**-5.26**	(0.01)	**6.7**	(1.6)	**6.7**	(1.6)	**-9.62**	(1.24)
	Latvia	**6.9**	(2.1)	**6.8**	(2.1)	**-3.19**	(0.01)	-2.7	(1.8)	-2.9	(1.8)	**-4.00**	(1.16)
	Liechtenstein	6.7	(4.5)	8.0	(4.4)	**-6.08**	(0.01)	3.6	(2.3)	4.3	(2.4)	**-3.08**	(1.41)
	Lithuania	**11.6**	(1.4)	**11.6**	(1.4)	**-5.78**	(0.01)	**9.5**	(1.3)	**9.5**	(1.3)	**-12.49**	(1.14)
	Macao-China	**2.9**	(1.2)	**3.2**	(1.2)	**-10.09**	(0.01)	1.5	(0.8)	**1.7**	(0.8)	**-4.57**	(0.44)
	Malaysia	**6.1**	(1.6)	**5.0**	(1.5)	**-13.68**	(0.01)	**12.2**	(1.7)	**11.5**	(1.7)	**-8.27**	(1.44)
	Montenegro	**4.7**	(1.4)	**4.7**	(1.3)	**-4.25**	(0.01)	**8.2**	(1.3)	**8.3**	(1.3)	**-4.80**	(0.99)
	Peru	1.8	(1.8)	3.2	(1.7)	**-7.40**	(0.01)	**11.2**	(1.1)	**13.2**	(1.0)	**-10.14**	(0.72)
	Qatar	**4.1**	(0.9)	**2.6**	(0.9)	**-10.63**	(0.01)	**3.6**	(0.9)	**3.2**	(0.9)	**-3.04**	(0.50)
	Romania	**5.7**	(1.5)	**5.8**	(1.5)	**-3.92**	(0.01)	2.9	(1.6)	**3.2**	(1.6)	**-7.62**	(1.18)
	Russian Federation	**5.6**	(1.4)	**5.5**	(1.4)	**-8.55**	(0.01)	0.3	(1.3)	0.2	(1.3)	**-8.52**	(0.93)
	Serbia	**7.8**	(1.7)	**8.2**	(1.7)	**-4.53**	(0.01)	**11.3**	(1.7)	**11.9**	(1.7)	**-6.10**	(1.15)
	Shanghai-China	**4.0**	(1.1)	**4.3**	(1.1)	**-6.15**	(0.01)	**2.6**	(0.6)	**2.7**	(0.6)	**-1.15**	(0.45)
	Singapore	**3.4**	(1.0)	**3.2**	(1.0)	**-6.78**	(0.01)	2.0	(1.1)	1.8	(1.1)	**-4.20**	(0.52)
	Chinese Taipei	**5.6**	(1.4)	**5.9**	(1.2)	**-6.11**	(0.01)	**4.7**	(1.1)	**5.1**	(0.9)	**-6.65**	(0.47)
	Thailand	**11.6**	(1.4)	**10.7**	(1.4)	**-6.43**	(0.01)	**15.9**	(1.4)	**15.1**	(1.4)	**-6.16**	(1.14)
	Tunisia	**4.6**	(1.7)	**4.9**	(1.7)	**-2.23**	(0.01)	**18.0**	(1.6)	**19.0**	(1.6)	**-6.19**	(1.15)
	United Arab Emirates	**5.5**	(1.7)	**5.2**	(1.6)	**-7.91**	(0.01)	**-3.7**	(1.4)	**-4.0**	(1.4)	**-8.73**	(0.64)
	Uruguay	-2.9	(1.7)	-2.6	(1.7)	**-2.36**	(0.01)	**5.5**	(1.6)	**6.3**	(1.6)	**-6.54**	(1.07)
	Viet Nam	**3.7**	(1.0)	**4.3**	(1.0)	**-5.96**	(0.01)	**7.6**	(0.9)	**8.4**	(0.9)	**-7.87**	(0.84)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Unadjusted refers to the coefficient for whether the student is a boy in a regression where boy is the only independent variable.
2. Adjusted refers to the coefficient for whether the student is a boy in a regression with boy and mathematics performance divided by 100 as independent variables.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.7.1a The gender gap in engagement with and at school

Results based on students' self-reports

		The gender gap (boys - girls) in the:											
		Index of sense of belonging						Index of attitudes towards school (learning outcomes)					
		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	Australia	**0.08**	(0.03)	**0.06**	(0.03)	**0.12**	(0.01)	-0.02	(0.03)	**-0.05**	(0.03)	**0.24**	(0.01)
	Austria	-0.07	(0.05)	**-0.10**	(0.05)	**0.14**	(0.03)	-0.03	(0.05)	-0.05	(0.05)	**0.08**	(0.03)
	Belgium	-0.02	(0.03)	-0.03	(0.03)	**0.09**	(0.02)	**-0.12**	(0.03)	**-0.13**	(0.03)	**0.09**	(0.01)
	Canada	**0.09**	(0.02)	**0.08**	(0.02)	**0.06**	(0.01)	**-0.13**	(0.02)	**-0.15**	(0.02)	**0.17**	(0.02)
	Chile	0.07	(0.04)	0.05	(0.05)	**0.06**	(0.03)	-0.01	(0.05)	-0.03	(0.05)	**0.08**	(0.03)
	Czech Republic	-0.03	(0.04)	-0.04	(0.04)	**0.09**	(0.02)	**-0.11**	(0.04)	**-0.12**	(0.04)	**0.09**	(0.02)
	Denmark	**0.08**	(0.03)	0.07	(0.03)	**0.08**	(0.02)	**-0.07**	(0.03)	**-0.10**	(0.03)	**0.18**	(0.03)
	Estonia	0.02	(0.03)	0.02	(0.04)	**0.08**	(0.02)	**-0.10**	(0.03)	**-0.11**	(0.03)	**0.11**	(0.03)
	Finland	**0.07**	(0.03)	**0.07**	(0.03)	**0.06**	(0.02)	**-0.31**	(0.03)	**-0.32**	(0.03)	**0.24**	(0.02)
	France	**-0.07**	(0.03)	**-0.09**	(0.03)	**0.15**	(0.02)	**-0.24**	(0.04)	**-0.25**	(0.04)	**0.11**	(0.02)
	Germany	-0.01	(0.04)	-0.02	(0.04)	**0.07**	(0.03)	**-0.09**	(0.03)	**-0.09**	(0.03)	-0.01	(0.03)
	Greece	**-0.08**	(0.04)	**-0.09**	(0.04)	**0.04**	(0.02)	**-0.21**	(0.04)	**-0.21**	(0.04)	-0.02	(0.03)
	Hungary	-0.06	(0.03)	**-0.08**	(0.03)	**0.15**	(0.02)	**-0.18**	(0.04)	**-0.21**	(0.04)	**0.18**	(0.03)
	Iceland	**0.11**	(0.05)	**0.11**	(0.05)	**0.15**	(0.03)	**-0.14**	(0.04)	**-0.14**	(0.04)	**0.26**	(0.02)
	Ireland	0.05	(0.04)	0.04	(0.04)	0.01	(0.02)	**-0.08**	(0.04)	**-0.10**	(0.04)	**0.10**	(0.02)
	Israel	-0.02	(0.05)	-0.02	(0.05)	0.03	(0.03)	**-0.15**	(0.04)	**-0.15**	(0.04)	-0.02	(0.02)
	Italy	**-0.08**	(0.02)	**-0.08**	(0.02)	0.00	(0.01)	**-0.13**	(0.02)	**-0.15**	(0.02)	**0.08**	(0.01)
	Japan	-0.04	(0.03)	-0.05	(0.03)	0.04	(0.02)	**-0.15**	(0.03)	**-0.16**	(0.03)	0.03	(0.02)
	Korea	0.08	(0.04)	0.06	(0.04)	**0.11**	(0.02)	0.05	(0.05)	0.03	(0.05)	**0.07**	(0.02)
	Luxembourg	0.00	(0.04)	-0.04	(0.04)	**0.18**	(0.02)	**-0.16**	(0.03)	**-0.18**	(0.03)	**0.11**	(0.02)
	Mexico	**-0.12**	(0.02)	**-0.14**	(0.02)	**0.12**	(0.01)	**-0.19**	(0.02)	**-0.24**	(0.02)	**0.29**	(0.01)
	Netherlands	-0.06	(0.05)	-0.07	(0.05)	**0.08**	(0.02)	-0.05	(0.03)	**-0.06**	(0.03)	**0.10**	(0.02)
	New Zealand	0.04	(0.03)	0.04	(0.03)	0.03	(0.02)	0.02	(0.04)	-0.01	(0.04)	**0.20**	(0.02)
	Norway	0.01	(0.04)	0.01	(0.04)	**0.09**	(0.03)	-0.07	(0.04)	**-0.08**	(0.03)	**0.18**	(0.02)
	Poland	0.02	(0.03)	0.02	(0.03)	-0.01	(0.02)	**-0.17**	(0.04)	**-0.17**	(0.04)	-0.02	(0.02)
	Portugal	0.03	(0.03)	0.02	(0.03)	**0.12**	(0.02)	**-0.17**	(0.04)	**-0.20**	(0.04)	**0.21**	(0.02)
	Slovak Republic	**-0.17**	(0.04)	**-0.18**	(0.04)	**0.09**	(0.02)	**-0.22**	(0.04)	**-0.23**	(0.04)	**0.07**	(0.03)
	Slovenia	**-0.11**	(0.04)	**-0.11**	(0.04)	**0.08**	(0.02)	**-0.14**	(0.04)	**-0.14**	(0.04)	-0.01	(0.02)
	Spain	**-0.06**	(0.03)	**-0.07**	(0.03)	**0.06**	(0.02)	**-0.27**	(0.03)	**-0.29**	(0.03)	**0.15**	(0.02)
	Sweden	**0.16**	(0.04)	**0.16**	(0.04)	**0.08**	(0.02)	**-0.12**	(0.04)	**-0.12**	(0.04)	**0.20**	(0.02)
	Switzerland	-0.05	(0.04)	-0.07	(0.04)	**0.14**	(0.02)	**-0.20**	(0.04)	**-0.21**	(0.04)	**0.07**	(0.02)
	Turkey	**-0.24**	(0.04)	**-0.25**	(0.04)	**0.06**	(0.03)	**-0.36**	(0.03)	**-0.36**	(0.03)	-0.05	(0.03)
	United Kingdom	**0.11**	(0.03)	**0.10**	(0.03)	**0.06**	(0.02)	0.01	(0.03)	-0.02	(0.03)	**0.16**	(0.02)
	United States	0.09	(0.05)	0.08	(0.05)	**0.08**	(0.02)	**-0.18**	(0.05)	**-0.19**	(0.05)	**0.17**	(0.02)
	OECD average	-0.01	(0.01)	**-0.02**	(0.01)	**0.08**	(0.00)	**-0.13**	(0.01)	**-0.15**	(0.01)	**0.12**	(0.00)
Partners	Albania	-0.06	(0.04)	-0.06	(0.04)	-0.04	(0.03)	-0.02	(0.04)	-0.02	(0.04)	-0.04	(0.03)
	Argentina	-0.03	(0.04)	-0.04	(0.04)	**0.11**	(0.03)	**-0.17**	(0.04)	**-0.20**	(0.04)	**0.25**	(0.03)
	Brazil	0.00	(0.02)	0.00	(0.02)	0.03	(0.02)	**-0.15**	(0.03)	**-0.18**	(0.03)	**0.18**	(0.02)
	Bulgaria	**-0.10**	(0.04)	**-0.10**	(0.03)	**0.17**	(0.02)	**-0.25**	(0.03)	**-0.25**	(0.03)	**0.19**	(0.02)
	Colombia	-0.05	(0.05)	-0.09	(0.05)	**0.15**	(0.03)	**-0.18**	(0.05)	**-0.25**	(0.04)	**0.28**	(0.03)
	Costa Rica	**0.14**	(0.04)	**0.13**	(0.04)	0.05	(0.05)	-0.01	(0.05)	-0.04	(0.05)	**0.10**	(0.04)
	Croatia	0.01	(0.04)	0.00	(0.04)	0.04	(0.03)	**-0.08**	(0.04)	**-0.08**	(0.04)	0.02	(0.02)
	Cyprus*	**-0.30**	(0.04)	**-0.30**	(0.04)	**0.08**	(0.02)	**-0.33**	(0.03)	**-0.34**	(0.03)	**0.17**	(0.02)
	Hong Kong-China	**0.07**	(0.03)	**0.07**	(0.03)	**0.06**	(0.02)	0.00	(0.03)	0.00	(0.03)	**0.04**	(0.02)
	Indonesia	-0.03	(0.03)	-0.03	(0.03)	**0.12**	(0.03)	-0.07	(0.04)	**-0.08**	(0.03)	**0.20**	(0.04)
	Jordan	**-0.34**	(0.05)	**-0.29**	(0.05)	**0.24**	(0.02)	**-0.41**	(0.03)	**-0.38**	(0.03)	**0.17**	(0.02)
	Kazakhstan	**-0.16**	(0.04)	**-0.16**	(0.04)	**0.13**	(0.03)	**-0.25**	(0.05)	**-0.25**	(0.04)	**0.33**	(0.04)
	Latvia	0.01	(0.04)	0.01	(0.04)	-0.02	(0.03)	**-0.23**	(0.04)	**-0.23**	(0.04)	**0.16**	(0.03)
	Liechtenstein	0.00	(0.13)	-0.03	(0.13)	**0.16**	(0.07)	-0.03	(0.15)	-0.03	(0.15)	0.01	(0.08)
	Lithuania	**-0.19**	(0.04)	**-0.19**	(0.04)	**0.25**	(0.02)	**-0.39**	(0.04)	**-0.39**	(0.04)	**0.21**	(0.03)
	Macao-China	0.04	(0.03)	0.04	(0.03)	0.00	(0.02)	-0.01	(0.02)	-0.01	(0.02)	**0.04**	(0.01)
	Malaysia	**-0.18**	(0.03)	**-0.17**	(0.03)	**0.05**	(0.02)	**-0.20**	(0.04)	**-0.19**	(0.04)	**0.09**	(0.03)
	Montenegro	**-0.14**	(0.04)	**-0.14**	(0.04)	**-0.09**	(0.02)	**-0.30**	(0.04)	**-0.30**	(0.04)	0.02	(0.02)
	Peru	**-0.07**	(0.03)	**-0.09**	(0.03)	**0.10**	(0.02)	**-0.09**	(0.04)	**-0.12**	(0.04)	**0.16**	(0.02)
	Qatar	**-0.17**	(0.03)	**-0.15**	(0.03)	**0.18**	(0.01)	**-0.16**	(0.02)	**-0.14**	(0.02)	**0.30**	(0.01)
	Romania	-0.01	(0.04)	-0.01	(0.04)	**0.11**	(0.02)	**-0.10**	(0.04)	**-0.11**	(0.04)	**0.11**	(0.03)
	Russian Federation	-0.04	(0.03)	-0.04	(0.03)	0.05	(0.02)	-0.05	(0.04)	-0.05	(0.04)	**0.10**	(0.03)
	Serbia	0.03	(0.05)	0.03	(0.05)	0.00	(0.02)	**-0.15**	(0.03)	**-0.16**	(0.03)	**0.07**	(0.02)
	Shanghai-China	0.02	(0.03)	0.01	(0.03)	0.03	(0.02)	**-0.08**	(0.04)	**-0.08**	(0.04)	-0.03	(0.02)
	Singapore	**0.10**	(0.03)	**0.10**	(0.03)	**0.05**	(0.01)	-0.04	(0.03)	-0.04	(0.03)	**0.11**	(0.02)
	Chinese Taipei	**0.11**	(0.03)	**0.11**	(0.03)	0.00	(0.01)	-0.03	(0.03)	-0.03	(0.03)	0.02	(0.01)
	Thailand	**-0.18**	(0.03)	**-0.16**	(0.03)	**0.17**	(0.02)	**-0.22**	(0.03)	**-0.20**	(0.03)	**0.19**	(0.02)
	Tunisia	**-0.17**	(0.04)	**-0.18**	(0.04)	**0.11**	(0.02)	**-0.48**	(0.05)	**-0.49**	(0.05)	**0.12**	(0.03)
	United Arab Emirates	**-0.11**	(0.04)	**-0.10**	(0.04)	**0.15**	(0.02)	**-0.30**	(0.04)	**-0.30**	(0.04)	**0.22**	(0.02)
	Uruguay	**0.08**	(0.03)	**0.08**	(0.03)	0.01	(0.03)	**-0.12**	(0.03)	**-0.12**	(0.03)	0.03	(0.02)
	Viet Nam	**0.09**	(0.03)	**0.09**	(0.03)	0.00	(0.02)	0.01	(0.03)	0.01	(0.03)	**-0.05**	(0.03)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Unadjusted refers to the coefficient for whether the student is a boy in a regression where boy is the only independent variable.

2. Adjusted refers to the coefficient for whether the student is a boy in a regression with boy and mathematics performance divided by 100 as independent variables.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.7.1b

Socio-economic disparities in engagement with and at school

Results based on students' self-reports

		Socio-economic disparities in the:											
		Likelihood of arriving late for school						Likelihood of skipping classes or days of school					
		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)	
		Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.	Change in %	S.E.
OECD	**Australia**	**-3.2**	(0.7)	0.0	(0.8)	**-7.68**	(0.68)	**-6.2**	(0.7)	**-2.1**	(0.7)	**-9.78**	(0.56)
	Austria	1.3	(1.1)	**2.6**	(1.1)	**-3.03**	(1.02)	0.3	(0.8)	**1.6**	(0.8)	**-3.26**	(0.92)
	Belgium	**-2.6**	(0.9)	**2.2**	(0.9)	**-9.69**	(0.68)	**-2.7**	(0.6)	0.6	(0.6)	**-6.82**	(0.47)
	Canada	**-2.7**	(0.6)	0.6	(0.6)	**-10.72**	(0.57)	**-3.2**	(0.6)	-0.5	(0.6)	**-8.54**	(0.69)
	Chile	**-3.4**	(0.8)	-0.2	(0.9)	**-9.09**	(1.06)	**-2.3**	(0.6)	0.2	(0.7)	**-7.40**	(1.11)
	Czech Republic	-2.3	(1.2)	1.6	(1.3)	**-7.49**	(0.88)	-1.6	(1.0)	0.4	(1.0)	**-3.88**	(0.73)
	Denmark	-1.5	(0.9)	1.6	(0.9)	**-7.83**	(0.99)	**-3.5**	(0.7)	0.0	(0.8)	**-8.88**	(0.80)
	Estonia	-0.2	(0.9)	**2.0**	(1.0)	**-7.55**	(1.07)	**-3.1**	(0.9)	0.9	(0.9)	**-13.43**	(1.06)
	Finland	**-2.6**	(0.9)	0.5	(1.0)	**-9.25**	(1.03)	**-4.2**	(0.8)	**-1.7**	(0.8)	**-7.62**	(0.92)
	France	**-3.9**	(1.0)	1.6	(1.1)	**-9.60**	(0.95)	**-3.3**	(0.9)	-0.1	(1.1)	**-5.87**	(0.79)
	Germany	-0.1	(0.8)	1.2	(0.8)	**-2.97**	(0.85)	-0.1	(0.7)	1.1	(0.7)	**-2.90**	(0.71)
	Greece	**3.0**	(1.0)	**4.2**	(0.9)	**-3.41**	(0.98)	-0.5	(0.9)	1.3	(0.9)	**-5.33**	(1.00)
	Hungary	**-4.7**	(1.4)	0.3	(1.3)	**-10.52**	(1.44)	**-4.6**	(1.0)	-1.1	(1.0)	**-7.90**	(0.80)
	Iceland	**-2.6**	(1.0)	-0.1	(1.1)	**-8.22**	(0.98)	**-4.0**	(0.7)	**-2.3**	(0.7)	**-5.68**	(0.75)
	Ireland	**-3.2**	(1.1)	-0.1	(1.1)	**-8.22**	(0.91)	-1.2	(0.7)	-0.4	(0.7)	**-2.20**	(0.87)
	Israel	**-2.2**	(0.9)	-0.4	(0.9)	**-3.61**	(0.92)	1.4	(0.9)	**2.3**	(1.0)	**-1.92**	(0.84)
	Italy	**-1.2**	(0.4)	**1.4**	(0.4)	**-8.62**	(0.53)	**-3.1**	(0.5)	-0.5	(0.5)	**-8.47**	(0.49)
	Japan	**-1.5**	(0.6)	-0.3	(0.6)	**-3.10**	(0.69)	**-1.8**	(0.9)	-0.4	(0.7)	**-3.49**	(0.61)
	Korea	**-4.5**	(1.0)	-0.9	(1.0)	**-8.37**	(0.73)	**-1.8**	(0.4)	0.0	(0.4)	**-4.20**	(0.65)
	Luxembourg	-0.7	(0.5)	**1.2**	(0.6)	**-5.10**	(0.81)	**-1.8**	(0.4)	0.2	(0.5)	**-5.53**	(0.55)
	Mexico	**2.4**	(0.4)	**3.6**	(0.4)	**-6.56**	(0.63)	**3.0**	(0.3)	**4.2**	(0.3)	**-6.33**	(0.65)
	Netherlands	-1.1	(1.1)	**2.7**	(1.2)	**-9.49**	(0.98)	**2.2**	(0.9)	**3.1**	(1.0)	**-2.14**	(1.06)
	New Zealand	**-7.1**	(1.0)	-1.9	(1.1)	**-10.07**	(0.98)	**-10.1**	(0.8)	**-2.9**	(0.8)	**-14.04**	(0.79)
	Norway	**-2.2**	(0.9)	1.0	(0.9)	**-9.78**	(0.98)	-1.5	(0.9)	1.5	(0.9)	**-9.26**	(0.68)
	Poland	**4.3**	(1.1)	**7.6**	(1.1)	**-8.09**	(1.08)	-0.9	(0.9)	**2.6**	(1.0)	**-8.57**	(0.94)
	Portugal	-0.5	(0.7)	0.9	(0.8)	**-3.85**	(0.93)	**-2.2**	(0.8)	0.8	(0.8)	**-8.80**	(0.84)
	Slovak Republic	**-2.5**	(0.8)	0.9	(0.9)	**-6.14**	(1.03)	**-4.7**	(0.7)	**-1.7**	(0.8)	**-5.61**	(0.96)
	Slovenia	-0.4	(0.9)	**2.6**	(1.0)	**-7.26**	(1.15)	**-4.3**	(1.0)	0.1	(1.0)	**-10.74**	(0.96)
	Spain	**-2.5**	(0.6)	0.3	(0.6)	**-8.33**	(0.81)	**-5.5**	(0.6)	**-1.9**	(0.7)	**-10.50**	(0.57)
	Sweden	**-3.4**	(1.1)	-0.1	(1.1)	**-9.22**	(1.06)	**-5.1**	(0.9)	-1.7	(0.9)	**-9.67**	(0.84)
	Switzerland	**2.0**	(0.8)	**2.9**	(0.8)	**-2.45**	(0.82)	**1.6**	(0.7)	**3.1**	(0.7)	**-4.00**	(0.66)
	Turkey	-0.5	(0.6)	0.8	(0.6)	**-4.31**	(1.03)	**3.1**	(0.7)	**2.6**	(0.7)	1.51	(1.09)
	United Kingdom	**-3.4**	(0.8)	0.8	(0.8)	**-10.29**	(0.86)	**-3.9**	(0.7)	-0.9	(0.8)	**-7.43**	(1.03)
	United States	**-6.4**	(0.8)	**-3.2**	(0.9)	**-8.98**	(1.00)	**-5.5**	(0.7)	**-4.0**	(0.8)	**-4.48**	(0.76)
	OECD average	**-1.8**	(0.2)	**1.1**	(0.2)	**-7.32**	(0.16)	**-2.4**	(0.1)	0.1	(0.1)	**-6.56**	(0.14)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**-2.6**	(1.0)	0.1	(1.0)	**-10.26**	(1.37)	-1.2	(1.0)	1.5	(1.0)	**-10.13**	(1.14)
	Brazil	**1.9**	(0.5)	**2.8**	(0.5)	**-3.50**	(0.87)	0.6	(0.5)	**1.2**	(0.4)	**-2.07**	(0.90)
	Bulgaria	**-4.6**	(0.8)	**-1.7**	(0.8)	**-6.74**	(0.86)	**-6.1**	(0.9)	-1.1	(0.9)	**-12.02**	(1.04)
	Colombia	0.4	(0.7)	1.6	(0.8)	**-4.55**	(1.28)	**1.1**	(0.5)	**1.7**	(0.6)	**-2.35**	(0.85)
	Costa Rica	1.4	(0.9)	**2.0**	(0.9)	-2.42	(1.63)	-0.8	(0.8)	0.2	(0.8)	**-4.10**	(1.89)
	Croatia	1.5	(0.8)	**4.1**	(0.9)	**-7.37**	(0.90)	-1.2	(0.8)	**3.6**	(0.9)	**-13.39**	(0.70)
	Cyprus*	**-2.2**	(0.8)	0.1	(0.8)	**-6.13**	(0.83)	**-2.0**	(0.6)	**1.4**	(0.7)	**-9.01**	(0.77)
	Hong Kong-China	**-1.3**	(0.6)	0.3	(0.6)	**-5.84**	(0.58)	0.0	(0.4)	**1.2**	(0.4)	**-4.48**	(0.43)
	Indonesia	**2.7**	(1.0)	**4.2**	(1.1)	**-7.55**	(1.14)	1.5	(0.8)	**3.3**	(0.9)	**-8.74**	(1.56)
	Jordan	0.3	(0.7)	1.3	(0.7)	**-4.51**	(1.09)	0.0	(0.7)	1.0	(0.8)	**-4.50**	(1.20)
	Kazakhstan	**-4.5**	(1.2)	**-3.3**	(1.2)	**-4.31**	(1.32)	**-6.3**	(1.2)	**-4.0**	(1.2)	**-8.44**	(1.22)
	Latvia	0.1	(1.2)	1.4	(1.3)	**-3.95**	(1.41)	-0.4	(1.1)	1.2	(1.2)	**-4.57**	(1.24)
	Liechtenstein	-3.6	(2.5)	-2.0	(2.5)	**-5.63**	(2.69)	-2.3	(1.6)	-1.5	(1.8)	-2.65	(1.68)
	Lithuania	0.5	(0.9)	**3.0**	(0.8)	**-6.94**	(1.05)	**-5.0**	(1.0)	-0.6	(0.9)	**-12.35**	(1.21)
	Macao-China	**-1.8**	(0.6)	0.0	(0.6)	**-10.03**	(0.72)	0.3	(0.5)	**1.1**	(0.5)	**-4.67**	(0.44)
	Malaysia	**-2.3**	(0.9)	**2.1**	(0.9)	**-14.76**	(0.97)	-0.5	(1.1)	**2.4**	(1.1)	**-9.72**	(1.36)
	Montenegro	1.3	(0.7)	**3.1**	(0.9)	**-5.41**	(1.04)	1.3	(0.8)	**3.3**	(0.8)	**-6.08**	(1.03)
	Peru	-1.0	(0.9)	**1.8**	(0.7)	**-8.46**	(0.99)	**-2.8**	(0.5)	0.3	(0.6)	**-9.51**	(0.89)
	Qatar	1.2	(0.6)	**4.3**	(0.6)	**-11.52**	(0.47)	**2.3**	(0.4)	**3.2**	(0.5)	**-3.60**	(0.52)
	Romania	-1.5	(1.2)	0.0	(1.3)	**-3.94**	(1.18)	**-3.2**	(1.0)	-0.4	(1.0)	**-7.42**	(1.17)
	Russian Federation	**-2.6**	(1.2)	0.8	(1.2)	**-8.71**	(1.13)	**-4.7**	(1.1)	-1.6	(1.1)	**-7.98**	(0.97)
	Serbia	**2.7**	(1.0)	**4.7**	(1.1)	**-5.85**	(1.08)	0.1	(1.0)	**2.3**	(1.0)	**-6.49**	(1.15)
	Shanghai-China	**-1.4**	(0.5)	**1.3**	(0.6)	**-6.55**	(0.65)	0.1	(0.3)	0.7	(0.4)	**-1.35**	(0.52)
	Singapore	**-4.2**	(0.6)	**-1.5**	(0.6)	**-6.28**	(0.58)	**-2.2**	(0.6)	-0.4	(0.6)	**-4.01**	(0.57)
	Chinese Taipei	**-2.4**	(0.7)	1.3	(0.8)	**-6.37**	(0.64)	**-4.3**	(0.6)	-0.6	(0.6)	**-6.44**	(0.52)
	Thailand	0.5	(0.8)	**2.3**	(0.7)	**-8.03**	(1.02)	0.5	(0.8)	**2.3**	(0.7)	**-7.88**	(1.12)
	Tunisia	0.8	(0.6)	**1.4**	(0.6)	**-2.64**	(1.33)	0.5	(0.6)	**1.8**	(0.6)	**-5.96**	(1.31)
	United Arab Emirates	0.9	(0.6)	**3.9**	(0.7)	**-9.09**	(0.79)	**-2.3**	(0.8)	0.7	(0.8)	**-8.82**	(0.70)
	Uruguay	-0.3	(0.8)	0.8	(0.8)	**-2.95**	(1.29)	**-4.8**	(0.6)	**-3.2**	(0.7)	**-4.33**	(1.14)
	Viet Nam	**-1.6**	(0.5)	0.2	(0.5)	**-5.89**	(1.05)	**-2.1**	(0.6)	0.2	(0.5)	**-7.68**	(0.91)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Unadjusted refers to the coefficient for the *PISA index of economic, social and cultural status* (ESCS) in a regression with ESCS as the only independent variable.

2. Adjusted refers to the coefficient for the *PISA index of economic, social and cultural status* (ESCS) in a regression with ESCS and mathematics performance divided by 100 as independent variables.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.7.1b Socio-economic disparities in engagement with and at school

Results based on students' self-reports

		Socio-economic disparities in the:											
		Index of sense of belonging						Index of attitudes towards school (learning outcomes)					
		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	**0.16**	(0.02)	**0.13**	(0.02)	**0.09**	(0.01)	**0.20**	(0.02)	**0.12**	(0.02)	**0.21**	(0.01)
	Austria	**0.14**	(0.03)	**0.09**	(0.03)	**0.10**	(0.03)	0.01	(0.03)	-0.02	(0.03)	**0.09**	(0.03)
	Belgium	**0.08**	(0.02)	**0.05**	(0.02)	**0.06**	(0.02)	**0.06**	(0.02)	0.03	(0.02)	**0.07**	(0.02)
	Canada	**0.12**	(0.01)	**0.11**	(0.02)	**0.03**	(0.01)	**0.12**	(0.01)	**0.08**	(0.02)	**0.14**	(0.02)
	Chile	**0.07**	(0.02)	**0.06**	(0.02)	0.02	(0.03)	-0.01	(0.02)	**-0.05**	(0.02)	**0.11**	(0.03)
	Czech Republic	**0.11**	(0.02)	**0.08**	(0.02)	**0.06**	(0.02)	0.02	(0.02)	-0.02	(0.03)	**0.09**	(0.02)
	Denmark	**0.15**	(0.02)	**0.14**	(0.02)	0.02	(0.03)	**0.19**	(0.02)	**0.14**	(0.03)	**0.12**	(0.03)
	Estonia	**0.09**	(0.02)	**0.08**	(0.02)	**0.06**	(0.02)	**0.07**	(0.02)	0.04	(0.02)	**0.09**	(0.03)
	Finland	**0.11**	(0.02)	**0.11**	(0.02)	0.03	(0.02)	**0.16**	(0.02)	**0.10**	(0.02)	**0.21**	(0.02)
	France	**0.18**	(0.02)	**0.12**	(0.03)	**0.10**	(0.02)	**0.10**	(0.03)	0.05	(0.03)	**0.08**	(0.03)
	Germany	**0.08**	(0.02)	**0.06**	(0.03)	0.04	(0.03)	-0.03	(0.02)	-0.03	(0.02)	-0.01	(0.03)
	Greece	**0.04**	(0.02)	0.03	(0.02)	0.03	(0.02)	**-0.04**	(0.02)	-0.04	(0.02)	-0.01	(0.03)
	Hungary	**0.09**	(0.02)	0.03	(0.02)	**0.13**	(0.02)	**0.05**	(0.02)	-0.04	(0.02)	**0.19**	(0.03)
	Iceland	**0.24**	(0.03)	**0.21**	(0.03)	**0.10**	(0.03)	**0.15**	(0.03)	**0.07**	(0.03)	**0.24**	(0.02)
	Ireland	**0.05**	(0.02)	**0.05**	(0.02)	-0.01	(0.02)	**0.09**	(0.02)	**0.07**	(0.02)	**0.07**	(0.02)
	Israel	**0.07**	(0.03)	0.06	(0.03)	0.01	(0.03)	**-0.06**	(0.03)	-0.06	(0.04)	0.00	(0.03)
	Italy	**0.03**	(0.01)	**0.04**	(0.01)	-0.02	(0.01)	**0.02**	(0.01)	0.00	(0.01)	**0.07**	(0.01)
	Japan	**0.11**	(0.02)	**0.11**	(0.02)	0.00	(0.02)	0.05	(0.02)	0.04	(0.02)	0.01	(0.02)
	Korea	**0.15**	(0.02)	**0.11**	(0.02)	**0.09**	(0.02)	0.02	(0.03)	-0.01	(0.02)	**0.08**	(0.02)
	Luxembourg	**0.12**	(0.02)	**0.07**	(0.02)	**0.14**	(0.02)	-0.02	(0.02)	**-0.07**	(0.02)	**0.13**	(0.02)
	Mexico	**0.08**	(0.01)	**0.07**	(0.01)	**0.07**	(0.01)	**0.04**	(0.01)	-0.02	(0.01)	**0.28**	(0.01)
	Netherlands	**0.10**	(0.03)	**0.09**	(0.03)	**0.05**	(0.02)	0.03	(0.02)	0.00	(0.02)	**0.09**	(0.02)
	New Zealand	**0.05**	(0.02)	0.05	(0.03)	0.02	(0.02)	**0.16**	(0.03)	**0.06**	(0.03)	**0.19**	(0.02)
	Norway	**0.17**	(0.03)	**0.16**	(0.03)	0.05	(0.03)	**0.12**	(0.03)	**0.07**	(0.03)	**0.16**	(0.02)
	Poland	0.01	(0.02)	0.02	(0.02)	-0.02	(0.02)	**-0.08**	(0.02)	**-0.08**	(0.02)	0.01	(0.02)
	Portugal	**0.12**	(0.02)	**0.09**	(0.02)	**0.06**	(0.02)	**0.12**	(0.02)	**0.06**	(0.02)	**0.17**	(0.03)
	Slovak Republic	**0.06**	(0.02)	0.02	(0.02)	**0.08**	(0.02)	0.02	(0.02)	-0.02	(0.02)	**0.08**	(0.02)
	Slovenia	**0.08**	(0.02)	**0.05**	(0.02)	**0.05**	(0.03)	**-0.05**	(0.02)	**-0.05**	(0.02)	0.01	(0.02)
	Spain	**0.06**	(0.02)	**0.04**	(0.02)	0.04	(0.02)	**0.06**	(0.01)	0.02	(0.02)	**0.12**	(0.02)
	Sweden	**0.15**	(0.02)	**0.14**	(0.02)	0.04	(0.02)	**0.16**	(0.02)	**0.11**	(0.02)	**0.16**	(0.02)
	Switzerland	**0.05**	(0.02)	0.00	(0.02)	**0.13**	(0.02)	-0.01	(0.02)	**-0.04**	(0.02)	**0.07**	(0.02)
	Turkey	**0.08**	(0.02)	**0.07**	(0.02)	0.01	(0.03)	**-0.06**	(0.02)	**-0.05**	(0.02)	-0.04	(0.03)
	United Kingdom	**0.11**	(0.02)	**0.10**	(0.02)	0.03	(0.02)	**0.10**	(0.03)	0.04	(0.03)	**0.14**	(0.02)
	United States	**0.14**	(0.02)	**0.14**	(0.02)	0.02	(0.02)	**0.13**	(0.02)	**0.09**	(0.03)	**0.13**	(0.03)
	OECD average	**0.10**	(0.00)	**0.08**	(0.00)	**0.05**	(0.00)	**0.06**	(0.00)	**0.02**	(0.00)	**0.10**	(0.00)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**0.06**	(0.02)	**0.04**	(0.02)	**0.09**	(0.03)	**0.07**	(0.02)	0.01	(0.02)	**0.23**	(0.03)
	Brazil	**0.05**	(0.01)	**0.05**	(0.01)	0.00	(0.02)	**0.05**	(0.01)	0.00	(0.01)	**0.16**	(0.02)
	Bulgaria	**0.12**	(0.02)	**0.06**	(0.02)	**0.14**	(0.02)	**0.10**	(0.02)	0.02	(0.02)	**0.18**	(0.02)
	Colombia	**0.08**	(0.02)	**0.05**	(0.02)	**0.11**	(0.03)	**0.08**	(0.02)	0.03	(0.02)	**0.24**	(0.03)
	Costa Rica	**0.06**	(0.02)	**0.06**	(0.02)	0.02	(0.05)	-0.01	(0.02)	-0.04	(0.02)	**0.12**	(0.04)
	Croatia	0.03	(0.02)	0.02	(0.02)	0.03	(0.03)	**-0.05**	(0.02)	**-0.07**	(0.02)	0.04	(0.03)
	Cyprus*	**0.10**	(0.02)	**0.08**	(0.02)	**0.05**	(0.02)	**0.09**	(0.02)	0.03	(0.02)	**0.15**	(0.02)
	Hong Kong-China	**0.08**	(0.01)	**0.07**	(0.01)	**0.04**	(0.02)	0.00	(0.02)	-0.01	(0.02)	**0.04**	(0.02)
	Indonesia	**0.07**	(0.02)	**0.06**	(0.02)	**0.10**	(0.03)	0.03	(0.02)	-0.01	(0.02)	**0.20**	(0.04)
	Jordan	**0.05**	(0.02)	-0.01	(0.02)	**0.26**	(0.03)	-0.02	(0.01)	**-0.07**	(0.01)	**0.22**	(0.02)
	Kazakhstan	**0.19**	(0.03)	**0.17**	(0.03)	**0.08**	(0.03)	**0.22**	(0.03)	**0.14**	(0.03)	**0.29**	(0.04)
	Latvia	**0.05**	(0.02)	**0.06**	(0.02)	-0.04	(0.03)	0.03	(0.02)	-0.03	(0.02)	**0.17**	(0.03)
	Liechtenstein	**0.17**	(0.07)	0.13	(0.08)	0.12	(0.08)	0.05	(0.07)	0.05	(0.07)	-0.01	(0.08)
	Lithuania	**0.18**	(0.03)	**0.11**	(0.03)	**0.21**	(0.03)	**0.05**	(0.03)	-0.02	(0.03)	**0.21**	(0.03)
	Macao-China	**0.09**	(0.02)	**0.09**	(0.02)	-0.02	(0.02)	**0.06**	(0.01)	**0.05**	(0.01)	0.03	(0.02)
	Malaysia	0.00	(0.02)	-0.02	(0.02)	**0.06**	(0.02)	-0.02	(0.02)	**-0.06**	(0.02)	**0.12**	(0.03)
	Montenegro	-0.03	(0.02)	0.00	(0.02)	**-0.10**	(0.02)	-0.04	(0.02)	**-0.06**	(0.03)	0.04	(0.03)
	Peru	**0.08**	(0.01)	**0.06**	(0.02)	**0.06**	(0.02)	**0.08**	(0.02)	**0.04**	(0.02)	**0.13**	(0.02)
	Qatar	**0.05**	(0.02)	0.00	(0.02)	**0.18**	(0.01)	**0.07**	(0.01)	-0.01	(0.01)	**0.30**	(0.01)
	Romania	**0.13**	(0.02)	**0.10**	(0.02)	**0.06**	(0.03)	**0.08**	(0.02)	0.05	(0.02)	**0.08**	(0.03)
	Russian Federation	**0.12**	(0.02)	**0.11**	(0.02)	0.01	(0.02)	**0.06**	(0.02)	0.03	(0.03)	**0.09**	(0.03)
	Serbia	**0.04**	(0.02)	**0.05**	(0.02)	-0.02	(0.02)	-0.01	(0.02)	**-0.04**	(0.01)	**0.08**	(0.02)
	Shanghai-China	**0.07**	(0.02)	**0.07**	(0.02)	0.01	(0.02)	0.00	(0.02)	0.02	(0.02)	-0.04	(0.03)
	Singapore	**0.04**	(0.02)	0.02	(0.02)	**0.04**	(0.02)	**0.07**	(0.02)	0.03	(0.02)	**0.10**	(0.02)
	Chinese Taipei	**0.10**	(0.02)	**0.12**	(0.02)	**-0.03**	(0.02)	0.03	(0.02)	0.02	(0.02)	0.01	(0.02)
	Thailand	**0.08**	(0.01)	**0.05**	(0.01)	**0.16**	(0.02)	**0.07**	(0.01)	0.03	(0.02)	**0.19**	(0.02)
	Tunisia	**0.03**	(0.02)	0.01	(0.02)	**0.10**	(0.03)	-0.03	(0.02)	**-0.06**	(0.02)	**0.12**	(0.04)
	United Arab Emirates	**0.06**	(0.02)	0.01	(0.02)	**0.15**	(0.02)	**0.06**	(0.02)	-0.01	(0.02)	**0.22**	(0.02)
	Uruguay	**0.05**	(0.02)	**0.05**	(0.02)	-0.02	(0.03)	-0.01	(0.02)	-0.03	(0.02)	0.04	(0.03)
	Viet Nam	0.02	(0.01)	**0.03**	(0.01)	-0.01	(0.02)	**-0.05**	(0.02)	**-0.04**	(0.02)	-0.03	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Unadjusted refers to the coefficient for the *PISA index of economic, social and cultural status* (ESCS) in a regression with ESCS as the only independent variable.

2. Adjusted refers to the coefficient for the *PISA index of economic, social and cultural status* (ESCS) in a regression with ESCS and mathematics performance divided by 100 as independent variables.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.7.2a

The gender gap in drive and motivation

Results based on students' self-reports

		The gender gap (boys - girls) in the:											
		Index of perseverance						Index of openness to problem solving					
		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	**0.19**	(0.02)	**0.15**	(0.02)	**0.28**	(0.01)	**0.24**	(0.02)	**0.18**	(0.02)	**0.43**	(0.01)
	Austria	**0.23**	(0.04)	**0.20**	(0.04)	**0.15**	(0.02)	**0.33**	(0.04)	**0.25**	(0.04)	**0.33**	(0.03)
	Belgium	**0.19**	(0.03)	**0.17**	(0.03)	**0.14**	(0.02)	**0.35**	(0.03)	**0.31**	(0.03)	**0.28**	(0.02)
	Canada	**0.06**	(0.02)	0.03	(0.02)	**0.27**	(0.01)	**0.23**	(0.03)	**0.17**	(0.02)	**0.48**	(0.02)
	Chile	0.00	(0.03)	-0.05	(0.03)	**0.20**	(0.02)	**0.15**	(0.03)	**0.07**	(0.03)	**0.36**	(0.02)
	Czech Republic	**-0.08**	(0.04)	**-0.10**	(0.04)	**0.12**	(0.02)	**0.16**	(0.04)	**0.11**	(0.04)	**0.32**	(0.02)
	Denmark	**0.22**	(0.03)	**0.16**	(0.03)	**0.35**	(0.02)	**0.32**	(0.04)	**0.24**	(0.03)	**0.47**	(0.02)
	Estonia	-0.05	(0.04)	-0.05	(0.04)	**0.06**	(0.03)	0.06	(0.04)	0.03	(0.04)	**0.46**	(0.02)
	Finland	**0.13**	(0.03)	**0.12**	(0.02)	**0.41**	(0.02)	**0.21**	(0.03)	**0.19**	(0.03)	**0.57**	(0.02)
	France	**0.24**	(0.03)	**0.20**	(0.03)	**0.30**	(0.03)	**0.37**	(0.03)	**0.32**	(0.03)	**0.35**	(0.02)
	Germany	**0.22**	(0.03)	**0.20**	(0.03)	**0.17**	(0.02)	**0.37**	(0.04)	**0.33**	(0.04)	**0.25**	(0.02)
	Greece	**0.07**	(0.04)	0.04	(0.04)	**0.33**	(0.02)	**0.13**	(0.03)	**0.09**	(0.03)	**0.36**	(0.02)
	Hungary	0.00	(0.03)	-0.01	(0.03)	**0.14**	(0.02)	0.08	(0.04)	0.05	(0.04)	**0.26**	(0.02)
	Iceland	**0.13**	(0.04)	**0.15**	(0.04)	**0.37**	(0.02)	**0.42**	(0.05)	**0.44**	(0.04)	**0.51**	(0.02)
	Ireland	**0.15**	(0.04)	**0.10**	(0.04)	**0.31**	(0.02)	**0.16**	(0.04)	**0.07**	(0.03)	**0.46**	(0.02)
	Israel	-0.07	(0.04)	-0.07	(0.04)	0.02	(0.02)	**0.18**	(0.04)	**0.14**	(0.04)	**0.18**	(0.02)
	Italy	0.05	(0.02)	0.01	(0.02)	**0.17**	(0.01)	**0.15**	(0.02)	**0.10**	(0.02)	**0.22**	(0.01)
	Japan	**0.10**	(0.03)	**0.05**	(0.03)	**0.21**	(0.02)	**0.40**	(0.04)	**0.34**	(0.04)	**0.31**	(0.02)
	Korea	**0.25**	(0.03)	**0.21**	(0.02)	**0.19**	(0.01)	**0.24**	(0.04)	**0.17**	(0.03)	**0.35**	(0.02)
	Luxembourg	**0.19**	(0.03)	**0.14**	(0.03)	**0.17**	(0.02)	**0.43**	(0.04)	**0.35**	(0.04)	**0.29**	(0.02)
	Mexico	**-0.09**	(0.02)	**-0.13**	(0.02)	**0.28**	(0.01)	**0.19**	(0.02)	**0.14**	(0.02)	**0.40**	(0.01)
	Netherlands	**0.06**	(0.03)	0.05	(0.03)	**0.06**	(0.02)	**0.33**	(0.03)	**0.30**	(0.03)	**0.22**	(0.03)
	New Zealand	**0.16**	(0.03)	**0.10**	(0.03)	**0.28**	(0.02)	**0.25**	(0.04)	**0.17**	(0.03)	**0.39**	(0.02)
	Norway	**0.23**	(0.04)	**0.23**	(0.03)	**0.50**	(0.03)	**0.29**	(0.04)	**0.28**	(0.04)	**0.55**	(0.02)
	Poland	0.03	(0.05)	0.01	(0.04)	**0.33**	(0.02)	0.00	(0.04)	-0.02	(0.04)	**0.31**	(0.02)
	Portugal	**-0.12**	(0.04)	**-0.16**	(0.04)	**0.35**	(0.02)	**0.10**	(0.04)	0.06	(0.03)	**0.31**	(0.02)
	Slovak Republic	**0.16**	(0.04)	**0.13**	(0.04)	**0.22**	(0.03)	**0.19**	(0.05)	**0.16**	(0.04)	**0.24**	(0.03)
	Slovenia	-0.03	(0.04)	-0.03	(0.04)	**0.11**	(0.02)	**0.27**	(0.04)	**0.25**	(0.04)	**0.29**	(0.03)
	Spain	0.05	(0.03)	-0.01	(0.03)	**0.26**	(0.02)	**0.27**	(0.02)	**0.19**	(0.02)	**0.38**	(0.02)
	Sweden	**0.25**	(0.04)	**0.25**	(0.04)	**0.37**	(0.02)	**0.26**	(0.05)	**0.27**	(0.04)	**0.49**	(0.03)
	Switzerland	**0.21**	(0.03)	**0.19**	(0.03)	**0.12**	(0.02)	**0.37**	(0.03)	**0.34**	(0.03)	**0.25**	(0.02)
	Turkey	**-0.12**	(0.04)	**-0.14**	(0.03)	**0.20**	(0.02)	0.06	(0.04)	0.04	(0.04)	**0.20**	(0.02)
	United Kingdom	**0.23**	(0.03)	**0.20**	(0.03)	**0.29**	(0.02)	**0.22**	(0.03)	**0.17**	(0.03)	**0.41**	(0.02)
	United States	0.03	(0.04)	0.00	(0.04)	**0.26**	(0.02)	**0.21**	(0.05)	**0.17**	(0.04)	**0.44**	(0.02)
	OECD average	**0.10**	(0.01)	**0.07**	(0.01)	**0.23**	(0.00)	**0.23**	(0.01)	**0.19**	(0.01)	**0.36**	(0.00)
Partners	**Albania**	0.03	(0.05)	0.03	(0.05)	0.00	(0.03)	0.04	(0.04)	0.04	(0.04)	0.00	(0.02)
	Argentina	0.01	(0.03)	-0.02	(0.03)	**0.20**	(0.02)	**0.18**	(0.04)	**0.14**	(0.05)	**0.26**	(0.03)
	Brazil	**-0.12**	(0.02)	**-0.15**	(0.02)	**0.19**	(0.02)	**0.11**	(0.03)	**0.08**	(0.03)	**0.18**	(0.02)
	Bulgaria	**-0.20**	(0.04)	**-0.20**	(0.04)	**0.25**	(0.02)	**0.08**	(0.04)	**0.08**	(0.04)	**0.17**	(0.02)
	Colombia	**-0.14**	(0.03)	**-0.19**	(0.03)	**0.17**	(0.03)	**0.14**	(0.04)	**0.12**	(0.04)	**0.09**	(0.03)
	Costa Rica	-0.04	(0.04)	**-0.08**	(0.04)	**0.18**	(0.04)	**0.20**	(0.05)	0.09	(0.05)	**0.43**	(0.04)
	Croatia	0.00	(0.03)	-0.01	(0.03)	**0.08**	(0.02)	**0.16**	(0.03)	**0.14**	(0.03)	**0.16**	(0.02)
	Cyprus*	**-0.21**	(0.03)	**-0.23**	(0.03)	**0.27**	(0.02)	**0.09**	(0.04)	0.07	(0.04)	**0.36**	(0.02)
	Hong Kong-China	**0.13**	(0.03)	**0.11**	(0.03)	**0.12**	(0.02)	**0.36**	(0.03)	**0.32**	(0.03)	**0.26**	(0.02)
	Indonesia	0.02	(0.03)	0.02	(0.03)	**0.13**	(0.04)	-0.02	(0.03)	-0.02	(0.03)	**0.11**	(0.03)
	Jordan	**-0.15**	(0.04)	**-0.10**	(0.04)	**0.41**	(0.03)	**0.15**	(0.04)	**0.19**	(0.04)	**0.31**	(0.03)
	Kazakhstan	**-0.13**	(0.04)	**-0.13**	(0.04)	**0.25**	(0.04)	-0.01	(0.04)	-0.01	(0.04)	**0.17**	(0.04)
	Latvia	-0.07	(0.04)	-0.06	(0.04)	**0.22**	(0.02)	0.03	(0.03)	0.05	(0.03)	**0.32**	(0.03)
	Liechtenstein	0.17	(0.11)	0.13	(0.10)	0.11	(0.07)	**0.33**	(0.13)	**0.25**	(0.12)	**0.23**	(0.07)
	Lithuania	**-0.14**	(0.03)	**-0.15**	(0.03)	**0.14**	(0.02)	0.07	(0.03)	0.06	(0.03)	**0.35**	(0.02)
	Macao-China	**0.09**	(0.02)	**0.08**	(0.02)	**0.16**	(0.02)	**0.17**	(0.03)	**0.16**	(0.03)	**0.28**	(0.02)
	Malaysia	-0.03	(0.03)	-0.02	(0.03)	**0.16**	(0.02)	0.04	(0.03)	0.05	(0.03)	**0.14**	(0.02)
	Montenegro	**-0.27**	(0.04)	**-0.27**	(0.04)	**0.29**	(0.03)	0.04	(0.03)	0.04	(0.03)	**0.07**	(0.03)
	Peru	**-0.17**	(0.03)	**-0.20**	(0.03)	**0.18**	(0.02)	**0.10**	(0.03)	**0.07**	(0.03)	**0.19**	(0.02)
	Qatar	**-0.10**	(0.02)	**-0.07**	(0.02)	**0.29**	(0.01)	**0.16**	(0.03)	**0.17**	(0.02)	**0.12**	(0.01)
	Romania	**-0.13**	(0.04)	**-0.13**	(0.04)	**0.17**	(0.02)	-0.02	(0.03)	-0.03	(0.03)	**0.19**	(0.03)
	Russian Federation	**-0.06**	(0.03)	**-0.06**	(0.03)	**0.13**	(0.02)	**0.11**	(0.03)	**0.11**	(0.03)	**0.33**	(0.03)
	Serbia	0.00	(0.04)	-0.02	(0.04)	**0.16**	(0.02)	**0.16**	(0.04)	**0.15**	(0.04)	**0.18**	(0.02)
	Shanghai-China	**0.16**	(0.03)	**0.15**	(0.03)	**0.11**	(0.01)	**0.29**	(0.03)	**0.27**	(0.03)	**0.28**	(0.02)
	Singapore	**0.13**	(0.03)	**0.13**	(0.03)	**0.08**	(0.01)	**0.26**	(0.03)	**0.26**	(0.03)	**0.17**	(0.01)
	Chinese Taipei	**0.09**	(0.03)	**0.07**	(0.03)	**0.19**	(0.01)	**0.29**	(0.04)	**0.27**	(0.04)	**0.26**	(0.02)
	Thailand	**-0.14**	(0.03)	**-0.12**	(0.03)	**0.18**	(0.02)	**0.18**	(0.03)	**0.18**	(0.03)	**0.09**	(0.02)
	Tunisia	-0.02	(0.05)	-0.08	(0.04)	**0.31**	(0.03)	**0.15**	(0.03)	**0.10**	(0.03)	**0.23**	(0.03)
	United Arab Emirates	**-0.07**	(0.03)	**-0.06**	(0.03)	**0.31**	(0.02)	**0.18**	(0.03)	**0.18**	(0.03)	**0.20**	(0.02)
	Uruguay	0.06	(0.04)	0.04	(0.04)	**0.19**	(0.02)	**0.30**	(0.03)	**0.27**	(0.04)	**0.26**	(0.02)
	Viet Nam	0.03	(0.04)	0.03	(0.04)	**0.08**	(0.02)	**0.21**	(0.03)	**0.18**	(0.03)	**0.25**	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. Unadjusted refers to the coefficient for whether the student is a boy in a regression where boy is the only independent variable.
2. Adjusted refers to the coefficient for whether the student is a boy in a regression with boy and mathematics performance divided by 100 as independent variables.
* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.7.2a The gender gap in drive and motivation

Results based on students' self-reports

		The gender gap (boys - girls) in the:											
		Index of intrinsic motivation to learn mathematics						Index of instrumental motivation to learn mathematics					
		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	**0.32**	(0.03)	**0.29**	(0.02)	**0.25**	(0.01)	**0.30**	(0.02)	**0.28**	(0.02)	**0.20**	(0.01)
	Austria	**0.38**	(0.04)	**0.35**	(0.04)	**0.17**	(0.03)	**0.50**	(0.05)	**0.49**	(0.05)	0.02	(0.03)
	Belgium	**0.11**	(0.03)	**0.09**	(0.03)	**0.19**	(0.02)	**0.26**	(0.03)	**0.23**	(0.03)	**0.21**	(0.02)
	Canada	**0.23**	(0.03)	**0.19**	(0.02)	**0.29**	(0.02)	**0.13**	(0.03)	**0.10**	(0.03)	**0.29**	(0.02)
	Chile	**0.25**	(0.04)	**0.21**	(0.04)	**0.17**	(0.02)	**0.22**	(0.04)	**0.19**	(0.04)	**0.12**	(0.02)
	Czech Republic	**0.21**	(0.04)	**0.18**	(0.04)	**0.21**	(0.02)	**0.24**	(0.04)	**0.22**	(0.04)	**0.11**	(0.02)
	Denmark	**0.27**	(0.03)	**0.21**	(0.03)	**0.36**	(0.02)	**0.29**	(0.03)	**0.24**	(0.03)	**0.28**	(0.02)
	Estonia	0.06	(0.04)	0.04	(0.04)	**0.26**	(0.02)	**0.10**	(0.04)	**0.08**	(0.03)	**0.20**	(0.02)
	Finland	**0.20**	(0.03)	**0.20**	(0.03)	**0.38**	(0.02)	**0.06**	(0.03)	**0.05**	(0.03)	**0.35**	(0.01)
	France	**0.22**	(0.03)	**0.20**	(0.03)	**0.19**	(0.02)	**0.23**	(0.03)	**0.21**	(0.03)	**0.15**	(0.02)
	Germany	**0.41**	(0.04)	**0.38**	(0.04)	**0.22**	(0.03)	**0.36**	(0.04)	**0.35**	(0.04)	**0.13**	(0.02)
	Greece	**0.32**	(0.04)	**0.29**	(0.04)	**0.35**	(0.03)	**0.22**	(0.05)	**0.19**	(0.05)	**0.27**	(0.02)
	Hungary	**0.23**	(0.04)	**0.22**	(0.04)	**0.13**	(0.03)	**0.24**	(0.03)	**0.22**	(0.03)	**0.11**	(0.02)
	Iceland	0.02	(0.04)	0.04	(0.04)	**0.33**	(0.03)	-0.02	(0.04)	0.00	(0.04)	**0.29**	(0.02)
	Ireland	0.05	(0.04)	0.00	(0.04)	**0.27**	(0.03)	**0.16**	(0.03)	**0.14**	(0.04)	**0.14**	(0.02)
	Israel	**0.12**	(0.04)	**0.13**	(0.04)	**-0.05**	(0.02)	**0.19**	(0.05)	**0.17**	(0.05)	**0.07**	(0.02)
	Italy	**0.16**	(0.02)	**0.12**	(0.02)	**0.18**	(0.01)	**0.19**	(0.02)	**0.16**	(0.02)	**0.13**	(0.01)
	Japan	**0.32**	(0.03)	**0.25**	(0.03)	**0.34**	(0.02)	**0.25**	(0.03)	**0.18**	(0.03)	**0.34**	(0.02)
	Korea	**0.18**	(0.04)	**0.10**	(0.03)	**0.41**	(0.02)	**0.17**	(0.05)	**0.08**	(0.03)	**0.45**	(0.02)
	Luxembourg	**0.43**	(0.04)	**0.38**	(0.04)	**0.17**	(0.02)	**0.47**	(0.04)	**0.42**	(0.04)	**0.17**	(0.02)
	Mexico	**0.14**	(0.02)	**0.14**	(0.02)	**0.05**	(0.02)	**0.07**	(0.01)	**0.06**	(0.02)	**0.08**	(0.01)
	Netherlands	**0.20**	(0.03)	**0.18**	(0.03)	**0.17**	(0.02)	**0.27**	(0.05)	**0.25**	(0.04)	**0.18**	(0.02)
	New Zealand	**0.31**	(0.04)	**0.28**	(0.04)	**0.11**	(0.03)	**0.21**	(0.04)	**0.18**	(0.04)	**0.17**	(0.02)
	Norway	**0.15**	(0.03)	**0.15**	(0.03)	**0.42**	(0.02)	0.03	(0.03)	0.03	(0.03)	**0.39**	(0.02)
	Poland	**0.09**	(0.04)	**0.07**	(0.03)	**0.26**	(0.02)	0.00	(0.03)	-0.02	(0.03)	**0.30**	(0.02)
	Portugal	0.03	(0.03)	0.01	(0.03)	**0.20**	(0.02)	0.04	(0.03)	0.00	(0.03)	**0.26**	(0.02)
	Slovak Republic	**0.22**	(0.04)	**0.21**	(0.04)	**0.05**	(0.02)	**0.18**	(0.04)	**0.17**	(0.04)	**0.06**	(0.03)
	Slovenia	**0.23**	(0.04)	**0.22**	(0.04)	**0.20**	(0.02)	**0.18**	(0.04)	**0.17**	(0.04)	**0.14**	(0.02)
	Spain	**0.19**	(0.02)	**0.14**	(0.03)	**0.21**	(0.02)	**0.17**	(0.03)	**0.12**	(0.03)	**0.28**	(0.02)
	Sweden	**0.20**	(0.04)	**0.21**	(0.04)	**0.35**	(0.02)	**0.16**	(0.04)	**0.17**	(0.04)	**0.23**	(0.02)
	Switzerland	**0.48**	(0.03)	**0.46**	(0.03)	**0.12**	(0.02)	**0.55**	(0.03)	**0.54**	(0.03)	**0.04**	(0.02)
	Turkey	0.08	(0.04)	0.07	(0.04)	**0.12**	(0.03)	-0.06	(0.04)	-0.07	(0.04)	**0.11**	(0.02)
	United Kingdom	**0.11**	(0.03)	**0.09**	(0.03)	**0.23**	(0.02)	**0.15**	(0.03)	**0.14**	(0.03)	**0.11**	(0.02)
	United States	**0.16**	(0.04)	**0.14**	(0.04)	**0.16**	(0.03)	0.07	(0.04)	0.05	(0.04)	**0.18**	(0.02)
	OECD average	**0.21**	(0.01)	**0.18**	(0.01)	**0.22**	(0.00)	**0.19**	(0.01)	**0.17**	(0.01)	**0.19**	(0.00)
Partners	**Albania**	-0.01	(0.03)	-0.01	(0.03)	-0.03	(0.02)	0.01	(0.04)	0.01	(0.04)	-0.04	(0.02)
	Argentina	**0.20**	(0.04)	**0.21**	(0.04)	**-0.11**	(0.03)	**0.09**	(0.04)	**0.10**	(0.04)	-0.05	(0.03)
	Brazil	**0.18**	(0.02)	**0.19**	(0.02)	**-0.10**	(0.02)	**0.08**	(0.02)	**0.09**	(0.02)	**-0.05**	(0.02)
	Bulgaria	**0.12**	(0.04)	**0.12**	(0.04)	**-0.06**	(0.02)	**0.09**	(0.03)	**0.09**	(0.04)	0.04	(0.02)
	Colombia	**0.10**	(0.03)	**0.12**	(0.03)	**-0.07**	(0.03)	0.06	(0.03)	**0.08**	(0.03)	**-0.09**	(0.03)
	Costa Rica	**0.23**	(0.04)	**0.24**	(0.04)	-0.06	(0.04)	**0.21**	(0.04)	**0.23**	(0.04)	**-0.08**	(0.04)
	Croatia	**0.14**	(0.04)	**0.12**	(0.04)	**0.14**	(0.03)	**0.18**	(0.04)	**0.16**	(0.04)	**0.14**	(0.03)
	Cyprus*	0.07	(0.04)	0.05	(0.04)	**0.33**	(0.02)	**0.12**	(0.04)	**0.10**	(0.04)	**0.36**	(0.02)
	Hong Kong-China	**0.38**	(0.04)	**0.33**	(0.04)	**0.29**	(0.02)	**0.24**	(0.03)	**0.21**	(0.03)	**0.20**	(0.02)
	Indonesia	0.03	(0.03)	0.04	(0.03)	-0.07	(0.04)	-0.05	(0.03)	-0.05	(0.03)	0.03	(0.03)
	Jordan	**0.14**	(0.05)	**0.17**	(0.05)	**0.19**	(0.03)	**-0.08**	(0.04)	-0.05	(0.04)	**0.23**	(0.02)
	Kazakhstan	-0.05	(0.03)	-0.05	(0.03)	0.03	(0.03)	-0.05	(0.03)	-0.05	(0.03)	0.01	(0.03)
	Latvia	0.03	(0.04)	0.04	(0.04)	**0.18**	(0.02)	0.05	(0.04)	0.05	(0.04)	**0.14**	(0.02)
	Liechtenstein	**0.47**	(0.17)	**0.40**	(0.17)	**0.18**	(0.09)	**0.42**	(0.14)	**0.48**	(0.14)	**-0.17**	(0.08)
	Lithuania	**0.12**	(0.04)	**0.11**	(0.04)	**0.19**	(0.03)	0.06	(0.04)	0.05	(0.04)	**0.22**	(0.02)
	Macao-China	**0.34**	(0.03)	**0.34**	(0.03)	**0.21**	(0.02)	**0.24**	(0.03)	**0.24**	(0.03)	**0.11**	(0.02)
	Malaysia	**-0.10**	(0.03)	**-0.08**	(0.03)	**0.20**	(0.02)	**-0.13**	(0.03)	**-0.12**	(0.03)	**0.19**	(0.02)
	Montenegro	0.06	(0.04)	0.06	(0.04)	**0.06**	(0.03)	0.05	(0.04)	0.05	(0.04)	0.04	(0.03)
	Peru	**0.13**	(0.03)	**0.15**	(0.03)	**-0.14**	(0.02)	-0.01	(0.04)	-0.01	(0.04)	0.00	(0.02)
	Qatar	**0.35**	(0.03)	**0.36**	(0.03)	**0.11**	(0.01)	**0.19**	(0.03)	**0.21**	(0.03)	**0.22**	(0.01)
	Romania	-0.01	(0.03)	-0.01	(0.03)	**-0.09**	(0.02)	-0.01	(0.04)	-0.01	(0.04)	**-0.13**	(0.03)
	Russian Federation	**0.13**	(0.03)	**0.13**	(0.03)	**0.14**	(0.02)	**0.21**	(0.04)	**0.21**	(0.04)	**0.12**	(0.02)
	Serbia	**0.11**	(0.04)	**0.10**	(0.04)	**0.05**	(0.02)	**0.12**	(0.04)	**0.11**	(0.04)	0.03	(0.02)
	Shanghai-China	**0.28**	(0.04)	**0.27**	(0.03)	**0.16**	(0.02)	**0.08**	(0.03)	**0.07**	(0.03)	**0.10**	(0.02)
	Singapore	**0.08**	(0.03)	**0.08**	(0.03)	**0.05**	(0.01)	**0.13**	(0.03)	**0.13**	(0.03)	-0.03	(0.02)
	Chinese Taipei	**0.31**	(0.04)	**0.29**	(0.03)	**0.28**	(0.02)	**0.20**	(0.04)	**0.18**	(0.03)	**0.24**	(0.01)
	Thailand	**0.07**	(0.02)	**0.08**	(0.02)	**0.04**	(0.02)	**-0.09**	(0.03)	**-0.07**	(0.03)	**0.11**	(0.02)
	Tunisia	**0.15**	(0.04)	**0.13**	(0.04)	**0.12**	(0.03)	0.04	(0.04)	-0.01	(0.04)	**0.22**	(0.03)
	United Arab Emirates	**0.15**	(0.03)	**0.15**	(0.04)	**0.08**	(0.02)	**0.14**	(0.03)	**0.15**	(0.03)	**0.12**	(0.02)
	Uruguay	**0.13**	(0.03)	**0.13**	(0.03)	-0.04	(0.02)	**0.10**	(0.04)	**0.10**	(0.04)	**-0.05**	(0.02)
	Viet Nam	**0.15**	(0.02)	**0.14**	(0.02)	**0.11**	(0.02)	0.00	(0.03)	-0.01	(0.03)	**0.13**	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Unadjusted refers to the coefficient for whether the student is a boy in a regression where boy is the only independent variable.

2. Adjusted refers to the coefficient for whether the student is a boy in a regression with boy and mathematics performance divided by 100 as independent variables.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.7.2b

Socio-economic disparities in drive and motivation

Results based on students' self-reports

		Socio-economic disparities in the:											
		Index of perseverance						Index of openness to problem solving					
		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	**0.20**	(0.01)	**0.10**	(0.02)	**0.25**	(0.01)	**0.27**	(0.01)	**0.11**	(0.01)	**0.40**	(0.01)
	Austria	**0.05**	(0.02)	-0.01	(0.02)	**0.17**	(0.02)	**0.22**	(0.02)	**0.09**	(0.02)	**0.32**	(0.03)
	Belgium	0.03	(0.02)	-0.05	(0.02)	**0.17**	(0.02)	**0.16**	(0.02)	**0.04**	(0.02)	**0.27**	(0.02)
	Canada	**0.17**	(0.02)	**0.09**	(0.02)	**0.24**	(0.01)	**0.23**	(0.02)	**0.08**	(0.02)	**0.47**	(0.02)
	Chile	**0.08**	(0.01)	0.02	(0.02)	**0.18**	(0.03)	**0.17**	(0.01)	**0.05**	(0.02)	**0.34**	(0.03)
	Czech Republic	**0.11**	(0.02)	**0.07**	(0.02)	**0.09**	(0.02)	**0.30**	(0.02)	**0.17**	(0.03)	**0.27**	(0.02)
	Denmark	**0.18**	(0.02)	**0.06**	(0.02)	**0.35**	(0.02)	**0.32**	(0.02)	**0.17**	(0.02)	**0.42**	(0.02)
	Estonia	**0.07**	(0.02)	**0.06**	(0.02)	0.04	(0.03)	**0.27**	(0.02)	**0.15**	(0.02)	**0.42**	(0.02)
	Finland	**0.22**	(0.02)	**0.10**	(0.02)	**0.38**	(0.02)	**0.32**	(0.02)	**0.15**	(0.02)	**0.53**	(0.02)
	France	**0.18**	(0.03)	0.01	(0.03)	**0.31**	(0.03)	**0.25**	(0.03)	0.05	(0.03)	**0.35**	(0.03)
	Germany	**0.07**	(0.02)	-0.01	(0.02)	**0.18**	(0.02)	**0.17**	(0.02)	**0.07**	(0.02)	**0.23**	(0.02)
	Greece	**0.15**	(0.02)	**0.04**	(0.02)	**0.31**	(0.02)	**0.21**	(0.02)	**0.11**	(0.02)	**0.31**	(0.02)
	Hungary	**0.08**	(0.02)	0.03	(0.02)	**0.12**	(0.02)	**0.20**	(0.02)	**0.09**	(0.03)	**0.22**	(0.03)
	Iceland	**0.17**	(0.03)	**0.06**	(0.03)	**0.35**	(0.02)	**0.31**	(0.03)	**0.17**	(0.03)	**0.47**	(0.03)
	Ireland	**0.17**	(0.02)	**0.06**	(0.02)	**0.29**	(0.02)	**0.23**	(0.02)	**0.06**	(0.02)	**0.44**	(0.02)
	Israel	0.01	(0.03)	0.01	(0.04)	0.01	(0.02)	**0.11**	(0.03)	0.03	(0.03)	**0.17**	(0.03)
	Italy	**0.06**	(0.01)	0.01	(0.01)	**0.16**	(0.01)	**0.14**	(0.01)	**0.09**	(0.01)	**0.19**	(0.01)
	Japan	**0.10**	(0.02)	0.01	(0.02)	**0.21**	(0.02)	**0.24**	(0.03)	**0.12**	(0.02)	**0.29**	(0.03)
	Korea	**0.16**	(0.02)	**0.08**	(0.02)	**0.19**	(0.01)	**0.29**	(0.02)	**0.16**	(0.02)	**0.32**	(0.02)
	Luxembourg	**0.08**	(0.01)	0.01	(0.01)	**0.17**	(0.02)	**0.17**	(0.02)	**0.07**	(0.02)	**0.28**	(0.03)
	Mexico	**0.07**	(0.01)	**0.02**	(0.01)	**0.26**	(0.01)	**0.17**	(0.01)	**0.11**	(0.01)	**0.35**	(0.02)
	Netherlands	0.00	(0.02)	-0.02	(0.02)	**0.07**	(0.02)	**0.13**	(0.02)	**0.05**	(0.02)	**0.22**	(0.03)
	New Zealand	**0.18**	(0.02)	0.04	(0.03)	**0.27**	(0.02)	**0.28**	(0.02)	**0.08**	(0.03)	**0.37**	(0.03)
	Norway	**0.22**	(0.03)	**0.07**	(0.03)	**0.49**	(0.03)	**0.32**	(0.03)	**0.17**	(0.03)	**0.51**	(0.03)
	Poland	**0.17**	(0.03)	0.04	(0.03)	**0.31**	(0.02)	**0.23**	(0.02)	**0.12**	(0.02)	**0.26**	(0.02)
	Portugal	**0.14**	(0.02)	0.03	(0.02)	**0.32**	(0.03)	**0.19**	(0.02)	**0.10**	(0.02)	**0.26**	(0.02)
	Slovak Republic	**0.13**	(0.02)	0.01	(0.02)	**0.22**	(0.03)	**0.20**	(0.02)	**0.08**	(0.02)	**0.21**	(0.03)
	Slovenia	**0.05**	(0.02)	0.01	(0.02)	**0.10**	(0.03)	**0.15**	(0.02)	0.04	(0.02)	**0.28**	(0.03)
	Spain	**0.12**	(0.01)	**0.04**	(0.01)	**0.24**	(0.02)	**0.19**	(0.01)	**0.06**	(0.01)	**0.36**	(0.02)
	Sweden	**0.16**	(0.02)	0.03	(0.02)	**0.36**	(0.02)	**0.30**	(0.03)	**0.13**	(0.03)	**0.45**	(0.03)
	Switzerland	0.03	(0.02)	-0.03	(0.02)	**0.14**	(0.02)	**0.16**	(0.02)	**0.06**	(0.02)	**0.24**	(0.02)
	Turkey	**0.07**	(0.02)	0.01	(0.02)	**0.19**	(0.03)	**0.12**	(0.02)	**0.07**	(0.02)	**0.17**	(0.02)
	United Kingdom	**0.17**	(0.02)	0.06	(0.03)	**0.28**	(0.03)	**0.24**	(0.02)	**0.08**	(0.03)	**0.39**	(0.02)
	United States	**0.16**	(0.02)	**0.08**	(0.02)	**0.22**	(0.03)	**0.23**	(0.02)	**0.08**	(0.03)	**0.41**	(0.03)
	OECD average	0.12	(0.00)	**0.03**	(0.00)	**0.22**	(0.00)	0.22	(0.00)	**0.10**	(0.00)	**0.33**	(0.00)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**0.07**	(0.01)	0.03	(0.02)	**0.18**	(0.03)	**0.17**	(0.02)	**0.12**	(0.03)	**0.20**	(0.03)
	Brazil	**0.04**	(0.01)	-0.01	(0.01)	**0.19**	(0.02)	**0.09**	(0.01)	**0.04**	(0.01)	**0.16**	(0.02)
	Bulgaria	**0.21**	(0.02)	**0.14**	(0.02)	**0.17**	(0.03)	**0.22**	(0.02)	**0.20**	(0.02)	**0.06**	(0.02)
	Colombia	**0.06**	(0.02)	0.03	(0.02)	**0.13**	(0.03)	**0.08**	(0.02)	**0.06**	(0.02)	**0.06**	(0.03)
	Costa Rica	**0.04**	(0.02)	0.00	(0.02)	**0.16**	(0.04)	**0.18**	(0.02)	**0.09**	(0.02)	**0.38**	(0.04)
	Croatia	0.03	(0.02)	0.00	(0.03)	**0.08**	(0.02)	**0.12**	(0.02)	**0.07**	(0.02)	**0.15**	(0.02)
	Cyprus*	**0.17**	(0.02)	**0.09**	(0.02)	**0.24**	(0.02)	**0.26**	(0.02)	**0.14**	(0.02)	**0.31**	(0.02)
	Hong Kong-China	**0.11**	(0.01)	**0.08**	(0.02)	**0.11**	(0.02)	**0.19**	(0.02)	**0.12**	(0.02)	**0.24**	(0.02)
	Indonesia	**0.08**	(0.02)	**0.06**	(0.02)	**0.10**	(0.03)	**0.15**	(0.02)	**0.15**	(0.02)	0.04	(0.03)
	Jordan	**0.13**	(0.01)	**0.04**	(0.02)	**0.40**	(0.03)	**0.19**	(0.02)	**0.14**	(0.02)	**0.24**	(0.03)
	Kazakhstan	**0.31**	(0.03)	**0.26**	(0.03)	**0.17**	(0.04)	**0.28**	(0.02)	**0.25**	(0.03)	**0.10**	(0.04)
	Latvia	**0.17**	(0.02)	**0.11**	(0.02)	**0.17**	(0.03)	**0.25**	(0.02)	**0.16**	(0.02)	**0.25**	(0.03)
	Liechtenstein	**0.20**	(0.06)	**0.18**	(0.07)	0.09	(0.07)	**0.27**	(0.07)	**0.23**	(0.07)	**0.20**	(0.08)
	Lithuania	**0.12**	(0.01)	**0.08**	(0.02)	**0.11**	(0.02)	**0.20**	(0.02)	**0.09**	(0.02)	**0.32**	(0.02)
	Macao-China	**0.12**	(0.02)	**0.09**	(0.02)	**0.14**	(0.02)	**0.20**	(0.02)	**0.16**	(0.02)	**0.26**	(0.02)
	Malaysia	**0.09**	(0.02)	**0.04**	(0.02)	**0.14**	(0.02)	**0.12**	(0.02)	**0.08**	(0.02)	**0.10**	(0.02)
	Montenegro	**0.10**	(0.02)	0.01	(0.02)	**0.29**	(0.03)	**0.13**	(0.02)	**0.12**	(0.02)	0.03	(0.03)
	Peru	**0.07**	(0.01)	0.02	(0.02)	**0.15**	(0.02)	**0.10**	(0.01)	**0.05**	(0.02)	**0.16**	(0.02)
	Qatar	**0.12**	(0.01)	**0.04**	(0.01)	**0.28**	(0.01)	**0.15**	(0.02)	**0.12**	(0.02)	**0.09**	(0.01)
	Romania	**0.12**	(0.02)	**0.08**	(0.02)	**0.13**	(0.02)	**0.18**	(0.02)	**0.13**	(0.03)	**0.12**	(0.03)
	Russian Federation	**0.18**	(0.02)	**0.15**	(0.02)	**0.08**	(0.03)	**0.33**	(0.02)	**0.23**	(0.03)	**0.26**	(0.03)
	Serbia	**0.13**	(0.02)	**0.09**	(0.02)	**0.13**	(0.03)	**0.16**	(0.02)	**0.11**	(0.02)	**0.15**	(0.03)
	Shanghai-China	**0.11**	(0.02)	**0.08**	(0.02)	**0.08**	(0.02)	**0.28**	(0.01)	**0.19**	(0.02)	**0.22**	(0.02)
	Singapore	**0.08**	(0.02)	**0.05**	(0.02)	**0.06**	(0.01)	**0.20**	(0.02)	**0.14**	(0.02)	**0.12**	(0.02)
	Chinese Taipei	**0.15**	(0.02)	**0.06**	(0.02)	**0.17**	(0.02)	**0.29**	(0.03)	**0.17**	(0.03)	**0.21**	(0.02)
	Thailand	**0.08**	(0.01)	**0.05**	(0.01)	**0.16**	(0.02)	**0.07**	(0.01)	**0.06**	(0.01)	**0.06**	(0.02)
	Tunisia	**0.09**	(0.02)	0.03	(0.02)	**0.29**	(0.04)	**0.14**	(0.01)	**0.11**	(0.02)	**0.18**	(0.03)
	United Arab Emirates	**0.15**	(0.02)	**0.05**	(0.02)	**0.29**	(0.02)	**0.14**	(0.02)	**0.08**	(0.02)	**0.17**	(0.02)
	Uruguay	**0.07**	(0.02)	0.00	(0.02)	**0.19**	(0.02)	**0.14**	(0.02)	**0.04**	(0.02)	**0.25**	(0.03)
	Viet Nam	0.03	(0.02)	0.01	(0.02)	**0.08**	(0.03)	**0.17**	(0.01)	**0.11**	(0.02)	**0.21**	(0.03)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Unadjusted refers to the coefficient for the *PISA index of economic, social and cultural status* (ESCS) in a regression with ESCS as the only independent variable.
2. Adjusted refers to the coefficient for the *PISA index of economic, social and cultural status* (ESCS) in a regression with ESCS and mathematics performance divided by 100 as independent variables.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.7.2b Socio-economic disparities in drive and motivation

Results based on students' self-reports

		Socio-economic disparities in the:											
		Index of intrinsic motivation to learn mathematics						Index of instrumental motivation to learn mathematics					
		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	**0.08**	(0.02)	**-0.04**	(0.02)	**0.27**	(0.01)	**0.09**	(0.01)	0.00	(0.02)	**0.21**	(0.01)
	Austria	0.02	(0.02)	**-0.07**	(0.03)	**0.22**	(0.03)	-0.04	(0.03)	**-0.08**	(0.03)	**0.08**	(0.03)
	Belgium	**0.06**	(0.02)	**-0.04**	(0.02)	**0.21**	(0.02)	**0.09**	(0.02)	-0.01	(0.02)	**0.23**	(0.02)
	Canada	**0.13**	(0.02)	**0.03**	(0.02)	**0.29**	(0.02)	**0.16**	(0.01)	**0.07**	(0.02)	**0.27**	(0.02)
	Chile	-0.02	(0.02)	**-0.11**	(0.02)	**0.26**	(0.03)	**-0.04**	(0.01)	**-0.11**	(0.02)	**0.22**	(0.03)
	Czech Republic	**0.09**	(0.02)	-0.01	(0.02)	**0.22**	(0.02)	0.02	(0.02)	-0.04	(0.03)	**0.13**	(0.02)
	Denmark	**0.11**	(0.02)	-0.03	(0.02)	**0.39**	(0.02)	**0.16**	(0.02)	**0.05**	(0.02)	**0.28**	(0.02)
	Estonia	**0.11**	(0.02)	0.04	(0.03)	**0.25**	(0.02)	**0.11**	(0.02)	**0.05**	(0.02)	**0.19**	(0.02)
	Finland	**0.19**	(0.02)	**0.07**	(0.02)	**0.36**	(0.02)	**0.23**	(0.02)	**0.13**	(0.02)	**0.31**	(0.02)
	France	**0.11**	(0.02)	-0.01	(0.02)	**0.21**	(0.03)	**0.12**	(0.02)	0.04	(0.02)	**0.14**	(0.02)
	Germany	**0.06**	(0.02)	**-0.05**	(0.02)	**0.25**	(0.03)	0.01	(0.02)	**-0.05**	(0.02)	**0.16**	(0.02)
	Greece	**0.16**	(0.02)	0.04	(0.02)	**0.34**	(0.03)	**0.11**	(0.02)	0.02	(0.02)	**0.27**	(0.03)
	Hungary	0.00	(0.03)	**-0.08**	(0.03)	**0.18**	(0.03)	0.01	(0.02)	**-0.06**	(0.02)	**0.15**	(0.02)
	Iceland	**0.14**	(0.03)	0.04	(0.03)	**0.32**	(0.03)	**0.16**	(0.02)	**0.08**	(0.02)	**0.28**	(0.03)
	Ireland	**0.09**	(0.02)	-0.02	(0.02)	**0.28**	(0.03)	**0.05**	(0.02)	-0.01	(0.02)	**0.16**	(0.02)
	Israel	**-0.09**	(0.02)	**-0.08**	(0.02)	-0.01	(0.02)	0.01	(0.02)	-0.03	(0.02)	**0.09**	(0.02)
	Italy	**0.04**	(0.01)	-0.01	(0.01)	**0.19**	(0.01)	**0.03**	(0.01)	-0.01	(0.01)	**0.14**	(0.01)
	Japan	**0.19**	(0.03)	0.04	(0.03)	**0.34**	(0.02)	**0.23**	(0.03)	**0.09**	(0.03)	**0.32**	(0.02)
	Korea	**0.20**	(0.03)	**0.04**	(0.02)	**0.41**	(0.02)	**0.23**	(0.03)	**0.05**	(0.02)	**0.44**	(0.02)
	Luxembourg	0.03	(0.02)	**-0.06**	(0.02)	**0.23**	(0.02)	**0.06**	(0.02)	-0.01	(0.02)	**0.20**	(0.02)
	Mexico	**-0.09**	(0.01)	**-0.11**	(0.01)	**0.12**	(0.01)	**-0.04**	(0.01)	**-0.06**	(0.01)	**0.11**	(0.01)
	Netherlands	**0.07**	(0.03)	0.00	(0.03)	**0.18**	(0.02)	**0.08**	(0.02)	0.01	(0.03)	**0.19**	(0.02)
	New Zealand	0.02	(0.02)	**-0.06**	(0.03)	**0.15**	(0.03)	**0.09**	(0.02)	0.00	(0.03)	**0.17**	(0.02)
	Norway	**0.15**	(0.03)	0.02	(0.03)	**0.42**	(0.02)	**0.19**	(0.03)	**0.08**	(0.03)	**0.37**	(0.02)
	Poland	0.02	(0.02)	**-0.10**	(0.02)	**0.31**	(0.02)	**0.08**	(0.02)	**-0.05**	(0.02)	**0.33**	(0.02)
	Portugal	**0.06**	(0.01)	-0.01	(0.01)	**0.20**	(0.02)	**0.12**	(0.02)	**0.04**	(0.02)	**0.23**	(0.02)
	Slovak Republic	-0.03	(0.02)	**-0.08**	(0.02)	**0.10**	(0.03)	-0.03	(0.02)	**-0.09**	(0.02)	**0.10**	(0.03)
	Slovenia	**0.05**	(0.02)	-0.03	(0.03)	**0.21**	(0.02)	0.03	(0.03)	-0.03	(0.03)	**0.16**	(0.03)
	Spain	**0.06**	(0.02)	-0.02	(0.02)	**0.23**	(0.02)	**0.10**	(0.02)	0.00	(0.02)	**0.29**	(0.02)
	Sweden	**0.15**	(0.03)	0.02	(0.03)	**0.35**	(0.02)	**0.15**	(0.03)	**0.07**	(0.03)	**0.21**	(0.02)
	Switzerland	**-0.05**	(0.02)	**-0.11**	(0.02)	**0.18**	(0.02)	**-0.07**	(0.02)	**-0.11**	(0.02)	**0.10**	(0.02)
	Turkey	-0.04	(0.02)	**-0.09**	(0.02)	**0.17**	(0.03)	-0.01	(0.02)	**-0.06**	(0.02)	**0.14**	(0.02)
	United Kingdom	**0.10**	(0.02)	0.01	(0.02)	**0.22**	(0.02)	**0.07**	(0.02)	0.03	(0.02)	**0.11**	(0.02)
	United States	0.00	(0.02)	**-0.07**	(0.03)	**0.20**	(0.03)	**0.08**	(0.02)	0.01	(0.02)	**0.17**	(0.02)
	OECD average	0.06	(0.00)	**-0.03**	(0.00)	**0.24**	(0.00)	0.08	(0.00)	0.00	(0.00)	**0.20**	(0.00)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**-0.15**	(0.02)	**-0.15**	(0.02)	0.00	(0.04)	**-0.08**	(0.02)	**-0.09**	(0.02)	0.01	(0.03)
	Brazil	**-0.11**	(0.01)	**-0.10**	(0.01)	-0.02	(0.02)	**-0.07**	(0.01)	**-0.07**	(0.01)	0.00	(0.02)
	Bulgaria	**-0.09**	(0.02)	**-0.08**	(0.02)	-0.02	(0.03)	0.01	(0.02)	-0.01	(0.02)	0.05	(0.03)
	Colombia	**-0.08**	(0.02)	**-0.08**	(0.02)	-0.01	(0.03)	**-0.07**	(0.02)	**-0.06**	(0.02)	-0.04	(0.03)
	Costa Rica	**-0.07**	(0.02)	**-0.08**	(0.02)	0.03	(0.04)	**-0.04**	(0.02)	-0.04	(0.02)	-0.02	(0.04)
	Croatia	0.01	(0.02)	-0.04	(0.02)	**0.15**	(0.03)	-0.01	(0.03)	**-0.06**	(0.02)	**0.17**	(0.03)
	Cyprus*	**0.20**	(0.02)	**0.09**	(0.02)	**0.30**	(0.02)	**0.18**	(0.02)	**0.06**	(0.02)	**0.34**	(0.02)
	Hong Kong-China	**0.08**	(0.02)	-0.01	(0.02)	**0.31**	(0.02)	**0.06**	(0.02)	0.00	(0.02)	**0.21**	(0.02)
	Indonesia	**-0.04**	(0.02)	**-0.03**	(0.01)	-0.05	(0.03)	0.01	(0.01)	0.00	(0.01)	0.02	(0.03)
	Jordan	**0.08**	(0.02)	**0.04**	(0.02)	**0.17**	(0.03)	**0.07**	(0.02)	0.02	(0.02)	**0.23**	(0.03)
	Kazakhstan	**0.06**	(0.03)	**0.06**	(0.03)	0.02	(0.03)	**0.06**	(0.03)	**0.06**	(0.03)	0.00	(0.03)
	Latvia	**0.07**	(0.02)	0.01	(0.02)	**0.18**	(0.03)	**0.05**	(0.02)	-0.01	(0.02)	**0.14**	(0.03)
	Liechtenstein	0.16	(0.09)	0.12	(0.09)	**0.20**	(0.09)	0.12	(0.08)	0.14	(0.09)	-0.14	(0.08)
	Lithuania	**0.06**	(0.03)	-0.01	(0.03)	**0.19**	(0.03)	**0.08**	(0.02)	-0.01	(0.02)	**0.23**	(0.02)
	Macao-China	0.02	(0.02)	-0.02	(0.02)	**0.22**	(0.02)	0.03	(0.02)	0.01	(0.02)	**0.11**	(0.02)
	Malaysia	**0.04**	(0.02)	-0.02	(0.02)	**0.21**	(0.03)	**0.06**	(0.02)	0.00	(0.02)	**0.19**	(0.02)
	Montenegro	-0.03	(0.02)	**-0.05**	(0.02)	**0.08**	(0.03)	**-0.05**	(0.02)	**-0.07**	(0.02)	**0.07**	(0.03)
	Peru	**-0.13**	(0.01)	**-0.11**	(0.01)	**-0.05**	(0.02)	**-0.04**	(0.01)	**-0.05**	(0.01)	0.03	(0.02)
	Qatar	0.00	(0.01)	**-0.03**	(0.01)	**0.11**	(0.01)	**0.07**	(0.01)	0.01	(0.01)	**0.21**	(0.01)
	Romania	-0.03	(0.02)	0.00	(0.03)	**-0.09**	(0.02)	**-0.06**	(0.02)	-0.02	(0.03)	**-0.12**	(0.03)
	Russian Federation	0.03	(0.02)	-0.03	(0.02)	**0.15**	(0.02)	0.02	(0.02)	-0.03	(0.03)	**0.12**	(0.03)
	Serbia	-0.03	(0.02)	**-0.06**	(0.02)	**0.07**	(0.02)	-0.03	(0.02)	**-0.05**	(0.02)	**0.05**	(0.02)
	Shanghai-China	**0.06**	(0.02)	0.00	(0.02)	**0.17**	(0.02)	**0.05**	(0.02)	0.00	(0.02)	**0.10**	(0.02)
	Singapore	**-0.04**	(0.02)	**-0.07**	(0.02)	**0.08**	(0.02)	**-0.06**	(0.02)	**-0.05**	(0.02)	-0.01	(0.02)
	Chinese Taipei	**0.15**	(0.02)	-0.01	(0.02)	**0.28**	(0.02)	**0.17**	(0.02)	**0.04**	(0.02)	**0.23**	(0.02)
	Thailand	**-0.04**	(0.01)	**-0.06**	(0.01)	**0.07**	(0.02)	-0.02	(0.01)	**-0.05**	(0.01)	**0.13**	(0.02)
	Tunisia	0.02	(0.02)	-0.01	(0.02)	**0.14**	(0.03)	**0.05**	(0.02)	0.00	(0.02)	**0.22**	(0.03)
	United Arab Emirates	0.00	(0.02)	-0.02	(0.02)	**0.08**	(0.02)	**0.06**	(0.02)	0.02	(0.02)	**0.12**	(0.02)
	Uruguay	**-0.10**	(0.02)	**-0.12**	(0.02)	0.04	(0.02)	**-0.06**	(0.02)	**-0.06**	(0.02)	-0.01	(0.02)
	Viet Nam	0.02	(0.01)	-0.02	(0.02)	**0.13**	(0.02)	**0.08**	(0.01)	**0.05**	(0.02)	**0.11**	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Unadjusted refers to the coefficient for the *PISA index of economic, social and cultural status* (ESCS) in a regression with ESCS as the only independent variable.

2. Adjusted refers to the coefficient for the *PISA index of economic, social and cultural status* (ESCS) in a regression with ESCS and mathematics performance divided by 100 as independent variables.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.7.3a **The gender gap in mathematics self-beliefs and engagement in mathematics activities**

Results based on students' self-reports

		The gender gap (boys - girls) in the:											
		Index of mathematics self-efficacy						Index of mathematics self-concept					
		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	Australia	**0.44**	(0.03)	**0.35**	(0.02)	**0.64**	(0.01)	**0.38**	(0.02)	**0.32**	(0.02)	**0.43**	(0.01)
	Austria	**0.46**	(0.05)	**0.34**	(0.04)	**0.56**	(0.02)	**0.44**	(0.04)	**0.34**	(0.04)	**0.40**	(0.02)
	Belgium	**0.39**	(0.03)	**0.34**	(0.03)	**0.45**	(0.02)	**0.37**	(0.03)	**0.32**	(0.02)	**0.26**	(0.01)
	Canada	**0.33**	(0.02)	**0.25**	(0.02)	**0.64**	(0.01)	**0.39**	(0.03)	**0.33**	(0.03)	**0.54**	(0.01)
	Chile	**0.28**	(0.04)	**0.19**	(0.03)	**0.37**	(0.02)	**0.43**	(0.04)	**0.31**	(0.04)	**0.45**	(0.03)
	Czech Republic	**0.40**	(0.04)	**0.31**	(0.03)	**0.52**	(0.02)	**0.27**	(0.04)	**0.21**	(0.04)	**0.50**	(0.03)
	Denmark	**0.42**	(0.03)	**0.32**	(0.03)	**0.63**	(0.02)	**0.56**	(0.04)	**0.44**	(0.04)	**0.67**	(0.02)
	Estonia	**0.31**	(0.03)	**0.26**	(0.03)	**0.56**	(0.02)	**0.19**	(0.04)	**0.16**	(0.03)	**0.55**	(0.02)
	Finland	**0.42**	(0.03)	**0.40**	(0.02)	**0.62**	(0.02)	**0.40**	(0.03)	**0.39**	(0.03)	**0.72**	(0.02)
	France	**0.44**	(0.04)	**0.37**	(0.03)	**0.54**	(0.02)	**0.47**	(0.04)	**0.42**	(0.04)	**0.42**	(0.02)
	Germany	**0.49**	(0.04)	**0.41**	(0.03)	**0.55**	(0.02)	**0.55**	(0.04)	**0.49**	(0.04)	**0.41**	(0.02)
	Greece	**0.26**	(0.03)	**0.21**	(0.03)	**0.55**	(0.02)	**0.30**	(0.04)	**0.25**	(0.03)	**0.46**	(0.02)
	Hungary	**0.26**	(0.04)	**0.19**	(0.03)	**0.67**	(0.02)	**0.28**	(0.03)	**0.24**	(0.03)	**0.35**	(0.02)
	Iceland	**0.39**	(0.04)	**0.43**	(0.04)	**0.63**	(0.03)	**0.30**	(0.05)	**0.29**	(0.04)	**0.60**	(0.02)
	Ireland	**0.32**	(0.04)	**0.21**	(0.03)	**0.62**	(0.02)	**0.26**	(0.04)	**0.18**	(0.03)	**0.43**	(0.02)
	Israel	**0.36**	(0.05)	**0.26**	(0.04)	**0.49**	(0.02)	**0.28**	(0.03)	**0.25**	(0.03)	**0.22**	(0.02)
	Italy	**0.28**	(0.02)	**0.19**	(0.02)	**0.44**	(0.01)	**0.24**	(0.02)	**0.18**	(0.02)	**0.35**	(0.01)
	Japan	**0.36**	(0.04)	**0.23**	(0.03)	**0.62**	(0.02)	**0.43**	(0.03)	**0.38**	(0.03)	**0.26**	(0.02)
	Korea	**0.30**	(0.06)	**0.17**	(0.03)	**0.66**	(0.02)	**0.30**	(0.03)	**0.22**	(0.03)	**0.45**	(0.02)
	Luxembourg	**0.46**	(0.03)	**0.30**	(0.03)	**0.57**	(0.02)	**0.52**	(0.04)	**0.44**	(0.04)	**0.32**	(0.02)
	Mexico	**0.19**	(0.02)	**0.14**	(0.02)	**0.36**	(0.01)	**0.25**	(0.01)	**0.19**	(0.01)	**0.38**	(0.01)
	Netherlands	**0.42**	(0.04)	**0.35**	(0.03)	**0.48**	(0.02)	**0.39**	(0.04)	**0.36**	(0.04)	**0.21**	(0.03)
	New Zealand	**0.44**	(0.04)	**0.34**	(0.03)	**0.57**	(0.02)	**0.38**	(0.04)	**0.33**	(0.03)	**0.36**	(0.02)
	Norway	**0.31**	(0.04)	**0.31**	(0.03)	**0.74**	(0.02)	**0.35**	(0.04)	**0.29**	(0.03)	**0.75**	(0.03)
	Poland	**0.14**	(0.04)	**0.09**	(0.03)	**0.71**	(0.02)	**0.22**	(0.04)	**0.18**	(0.03)	**0.62**	(0.02)
	Portugal	**0.18**	(0.03)	**0.09**	(0.03)	**0.68**	(0.02)	**0.24**	(0.03)	**0.17**	(0.03)	**0.45**	(0.02)
	Slovak Republic	**0.18**	(0.04)	**0.12**	(0.04)	**0.50**	(0.02)	**0.31**	(0.03)	**0.28**	(0.03)	**0.28**	(0.02)
	Slovenia	**0.22**	(0.04)	**0.18**	(0.03)	**0.53**	(0.02)	**0.28**	(0.04)	**0.27**	(0.03)	**0.38**	(0.02)
	Spain	**0.25**	(0.03)	**0.14**	(0.02)	**0.53**	(0.02)	**0.32**	(0.03)	**0.25**	(0.02)	**0.43**	(0.02)
	Sweden	**0.28**	(0.04)	**0.29**	(0.03)	**0.56**	(0.02)	**0.36**	(0.04)	**0.35**	(0.03)	**0.53**	(0.02)
	Switzerland	**0.45**	(0.04)	**0.37**	(0.03)	**0.57**	(0.02)	**0.66**	(0.03)	**0.61**	(0.03)	**0.32**	(0.02)
	Turkey	**0.15**	(0.04)	**0.12**	(0.03)	**0.47**	(0.02)	**0.08**	(0.04)	0.06	(0.03)	**0.26**	(0.02)
	United Kingdom	**0.40**	(0.04)	**0.34**	(0.03)	**0.61**	(0.02)	**0.41**	(0.03)	**0.35**	(0.03)	**0.41**	(0.02)
	United States	**0.26**	(0.03)	**0.21**	(0.03)	**0.62**	(0.02)	**0.19**	(0.04)	**0.17**	(0.03)	**0.45**	(0.02)
	OECD average	**0.33**	-(0.01)	**0.26**	(0.01)	**0.57**	(0.00)	**0.35**	-(0.01)	**0.30**	(0.01)	0.43	(0.00)
Partners	Albania	0.03	(0.05)	0.03	(0.05)	0.01	(0.02)	-0.01	(0.04)	-0.01	(0.04)	0.01	(0.02)
	Argentina	**0.21**	(0.04)	**0.17**	(0.04)	**0.25**	(0.03)	**0.32**	(0.04)	**0.28**	(0.04)	**0.25**	(0.03)
	Brazil	**0.25**	(0.02)	**0.20**	(0.02)	**0.35**	(0.02)	**0.30**	(0.02)	**0.26**	(0.02)	**0.19**	(0.02)
	Bulgaria	**0.15**	(0.04)	**0.15**	(0.03)	**0.31**	(0.03)	**0.16**	(0.03)	**0.16**	(0.03)	**0.20**	(0.03)
	Colombia	**0.17**	(0.03)	**0.13**	(0.03)	**0.16**	(0.03)	**0.23**	(0.03)	**0.16**	(0.03)	**0.28**	(0.03)
	Costa Rica	**0.29**	(0.03)	**0.23**	(0.04)	**0.26**	(0.04)	**0.38**	(0.04)	**0.28**	(0.04)	**0.39**	(0.03)
	Croatia	**0.32**	(0.04)	**0.24**	(0.03)	**0.60**	(0.02)	**0.23**	(0.04)	**0.19**	(0.04)	**0.40**	(0.03)
	Cyprus*	**0.17**	(0.04)	**0.13**	(0.03)	**0.59**	(0.02)	**0.14**	(0.04)	**0.12**	(0.03)	**0.48**	(0.01)
	Hong Kong-China	**0.43**	(0.04)	**0.33**	(0.03)	**0.60**	(0.02)	**0.43**	(0.03)	**0.39**	(0.04)	**0.33**	(0.02)
	Indonesia	0.05	(0.03)	0.04	(0.03)	**0.17**	(0.03)	**0.04**	(0.02)	**0.04**	(0.02)	**-0.07**	(0.02)
	Jordan	**0.18**	(0.04)	**0.24**	(0.04)	**0.40**	(0.03)	**0.10**	(0.04)	**0.17**	(0.04)	**0.40**	(0.04)
	Kazakhstan	0.04	(0.04)	0.04	(0.03)	**0.32**	(0.04)	-0.01	(0.03)	-0.01	(0.03)	**0.22**	(0.03)
	Latvia	**0.24**	(0.04)	**0.27**	(0.03)	**0.51**	(0.02)	**0.10**	(0.04)	**0.09**	(0.04)	**0.46**	(0.02)
	Liechtenstein	**0.58**	(0.12)	**0.38**	(0.10)	**0.53**	(0.06)	**0.54**	(0.16)	**0.48**	(0.15)	**0.34**	(0.07)
	Lithuania	**0.27**	(0.03)	**0.25**	(0.03)	**0.57**	(0.02)	**0.24**	(0.04)	**0.24**	(0.04)	**0.51**	(0.02)
	Macao-China	**0.18**	(0.03)	**0.18**	(0.03)	**0.53**	(0.02)	**0.50**	(0.03)	**0.49**	(0.03)	**0.32**	(0.02)
	Malaysia	0.00	(0.03)	0.02	(0.03)	**0.37**	(0.02)	-0.03	(0.03)	-0.01	(0.03)	**0.19**	(0.02)
	Montenegro	**0.14**	(0.04)	**0.14**	(0.04)	**0.38**	(0.02)	**0.20**	(0.03)	**0.19**	(0.03)	**0.31**	(0.03)
	Peru	**0.12**	(0.02)	**0.09**	(0.02)	**0.18**	(0.02)	**0.22**	(0.03)	**0.19**	(0.03)	**0.16**	(0.02)
	Qatar	**0.29**	(0.03)	**0.32**	(0.03)	**0.34**	(0.02)	**0.13**	(0.02)	**0.14**	(0.02)	**0.19**	(0.01)
	Romania	**0.08**	(0.03)	**0.07**	(0.03)	**0.39**	(0.03)	**0.12**	(0.03)	**0.10**	(0.03)	**0.19**	(0.03)
	Russian Federation	**0.20**	(0.03)	**0.21**	(0.03)	**0.49**	(0.02)	**0.10**	(0.03)	**0.10**	(0.03)	**0.35**	(0.01)
	Serbia	**0.22**	(0.04)	**0.18**	(0.04)	**0.43**	(0.03)	**0.17**	(0.04)	**0.13**	(0.04)	**0.39**	(0.02)
	Shanghai-China	**0.19**	(0.04)	**0.14**	(0.03)	**0.64**	(0.02)	**0.48**	(0.03)	**0.47**	(0.03)	**0.27**	(0.01)
	Singapore	**0.21**	(0.03)	**0.22**	(0.03)	**0.55**	(0.01)	**0.23**	(0.03)	**0.24**	(0.03)	**0.29**	(0.01)
	Chinese Taipei	**0.26**	(0.07)	**0.20**	(0.03)	**0.67**	(0.02)	**0.39**	(0.04)	**0.37**	(0.03)	**0.41**	(0.01)
	Thailand	**0.10**	(0.03)	**0.12**	(0.03)	**0.21**	(0.02)	**0.22**	(0.02)	**0.23**	(0.02)	**0.08**	(0.02)
	Tunisia	**0.22**	(0.04)	**0.15**	(0.04)	**0.36**	(0.03)	**0.19**	(0.04)	**0.14**	(0.04)	**0.36**	(0.03)
	United Arab Emirates	**0.22**	(0.03)	**0.23**	(0.03)	**0.41**	(0.02)	**0.09**	(0.03)	**0.10**	(0.03)	**0.27**	(0.01)
	Uruguay	**0.25**	(0.03)	**0.22**	(0.03)	**0.31**	(0.02)	**0.38**	(0.04)	**0.31**	(0.04)	**0.38**	(0.03)
	Viet Nam	**0.14**	(0.02)	**0.10**	(0.02)	**0.37**	(0.02)	**0.19**	(0.02)	**0.16**	(0.02)	**0.21**	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Unadjusted refers to the coefficient for whether the student is a boy in a regression where boy is the only independent variable.
2. Adjusted refers to the coefficient for whether the student is a boy in a regression with boy and mathematics performance divided by 100 as independent variables.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.7.3a The gender gap in mathematics self-beliefs and engagement in mathematics activities

Results based on students' self-reports

		The gender gap (boys - girls) in the:											
		Index of mathematics anxiety						Index of mathematics behaviours					
		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	Australia	**-0.33**	(0.02)	**-0.29**	(0.02)	**-0.37**	(0.01)	**0.31**	(0.02)	**0.28**	(0.02)	**0.27**	(0.01)
	Austria	**-0.35**	(0.04)	**-0.25**	(0.04)	**-0.45**	(0.02)	**0.29**	(0.04)	**0.28**	(0.04)	**0.08**	(0.03)
	Belgium	**-0.38**	(0.03)	**-0.33**	(0.03)	**-0.24**	(0.02)	**0.19**	(0.03)	**0.18**	(0.03)	**0.12**	(0.02)
	Canada	**-0.39**	(0.03)	**-0.34**	(0.03)	**-0.49**	(0.01)	**0.26**	(0.03)	**0.24**	(0.02)	**0.21**	(0.02)
	Chile	**-0.24**	(0.02)	**-0.16**	(0.02)	**-0.30**	(0.02)	**0.34**	(0.03)	**0.33**	(0.03)	0.04	(0.03)
	Czech Republic	**-0.21**	(0.04)	**-0.16**	(0.04)	**-0.43**	(0.03)	**0.34**	(0.03)	**0.32**	(0.03)	**0.11**	(0.03)
	Denmark	**-0.51**	(0.04)	**-0.40**	(0.04)	**-0.62**	(0.02)	**0.09**	(0.03)	**0.08**	(0.03)	**0.05**	(0.02)
	Estonia	**-0.20**	(0.04)	**-0.16**	(0.04)	**-0.57**	(0.02)	**0.20**	(0.04)	**0.19**	(0.04)	**0.18**	(0.02)
	Finland	**-0.39**	(0.03)	**-0.38**	(0.03)	**-0.48**	(0.02)	**0.10**	(0.03)	**0.10**	(0.03)	**0.16**	(0.02)
	France	**-0.43**	(0.03)	**-0.40**	(0.03)	**-0.27**	(0.02)	**0.34**	(0.04)	**0.33**	(0.04)	**0.07**	(0.02)
	Germany	**-0.41**	(0.04)	**-0.34**	(0.03)	**-0.46**	(0.03)	**0.22**	(0.04)	**0.21**	(0.04)	**0.05**	(0.02)
	Greece	**-0.23**	(0.03)	**-0.19**	(0.03)	**-0.43**	(0.02)	**0.32**	(0.04)	**0.31**	(0.05)	**0.13**	(0.03)
	Hungary	**-0.22**	(0.05)	**-0.17**	(0.04)	**-0.43**	(0.02)	**0.31**	(0.04)	**0.29**	(0.04)	**0.13**	(0.02)
	Iceland	**-0.29**	(0.04)	**-0.28**	(0.04)	**-0.52**	(0.02)	**0.18**	(0.04)	**0.18**	(0.04)	**0.09**	(0.03)
	Ireland	**-0.32**	(0.03)	**-0.25**	(0.03)	**-0.39**	(0.02)	0.03	(0.03)	0.01	(0.03)	**0.17**	(0.02)
	Israel	**-0.29**	(0.04)	**-0.25**	(0.04)	**-0.22**	(0.02)	**0.16**	(0.05)	**0.19**	(0.05)	**-0.12**	(0.02)
	Italy	**-0.22**	(0.02)	**-0.17**	(0.02)	**-0.26**	(0.01)	**0.22**	(0.02)	**0.22**	(0.02)	0.00	(0.01)
	Japan	**-0.30**	(0.04)	**-0.26**	(0.03)	**-0.21**	(0.02)	**0.27**	(0.03)	**0.22**	(0.03)	**0.25**	(0.02)
	Korea	**-0.21**	(0.03)	**-0.19**	(0.03)	**-0.16**	(0.02)	**0.23**	(0.05)	**0.14**	(0.03)	**0.44**	(0.02)
	Luxembourg	**-0.41**	(0.04)	**-0.31**	(0.04)	**-0.40**	(0.02)	**0.39**	(0.04)	**0.39**	(0.04)	-0.03	(0.02)
	Mexico	**-0.20**	(0.02)	**-0.14**	(0.01)	**-0.36**	(0.01)	**0.31**	(0.02)	**0.31**	(0.02)	0.00	(0.01)
	Netherlands	**-0.26**	(0.04)	**-0.23**	(0.04)	**-0.22**	(0.02)	**0.15**	(0.04)	**0.15**	(0.04)	0.01	(0.04)
	New Zealand	**-0.34**	(0.03)	**-0.28**	(0.03)	**-0.39**	(0.02)	**0.29**	(0.04)	**0.28**	(0.04)	**0.08**	(0.03)
	Norway	**-0.36**	(0.04)	**-0.31**	(0.03)	**-0.59**	(0.02)	**0.33**	(0.04)	**0.33**	(0.03)	**0.13**	(0.03)
	Poland	**-0.11**	(0.05)	**-0.07**	(0.03)	**-0.60**	(0.02)	**0.16**	(0.03)	**0.15**	(0.03)	**0.14**	(0.02)
	Portugal	**-0.13**	(0.03)	**-0.08**	(0.03)	**-0.32**	(0.02)	**0.25**	(0.03)	**0.24**	(0.03)	**0.08**	(0.02)
	Slovak Republic	**-0.22**	(0.03)	**-0.18**	(0.04)	**-0.40**	(0.02)	**0.33**	(0.04)	**0.33**	(0.04)	-0.01	(0.03)
	Slovenia	**-0.17**	(0.04)	**-0.16**	(0.03)	**-0.29**	(0.02)	**0.41**	(0.04)	**0.40**	(0.04)	**0.09**	(0.02)
	Spain	**-0.29**	(0.02)	**-0.24**	(0.02)	**-0.29**	(0.01)	**0.21**	(0.03)	**0.20**	(0.03)	**0.05**	(0.01)
	Sweden	**-0.34**	(0.04)	**-0.33**	(0.03)	**-0.47**	(0.02)	**0.30**	(0.04)	**0.30**	(0.04)	**0.06**	(0.03)
	Switzerland	**-0.51**	(0.03)	**-0.47**	(0.03)	**-0.34**	(0.01)	**0.28**	(0.03)	**0.28**	(0.03)	-0.02	(0.02)
	Turkey	0.02	(0.04)	0.05	(0.04)	**-0.33**	(0.02)	**0.33**	(0.04)	**0.33**	(0.04)	0.01	(0.03)
	United Kingdom	**-0.42**	(0.03)	**-0.36**	(0.03)	**-0.38**	(0.02)	**0.13**	(0.03)	**0.12**	(0.03)	**0.11**	(0.02)
	United States	**-0.19**	(0.04)	**-0.17**	(0.04)	**-0.48**	(0.02)	**0.26**	(0.04)	**0.25**	(0.04)	**0.11**	(0.03)
	OECD average	**-0.29**	-(0.01)	**-0.24**	(0.01)	**-0.39**	(0.00)	**0.25**	-(0.01)	**0.24**	(0.01)	**0.09**	(0.00)
Partners	Albania	0.03	(0.05)	0.03	(0.05)	-0.02	(0.02)	-0.01	(0.04)	-0.01	(0.04)	0.01	(0.02)
	Argentina	**-0.13**	(0.03)	**-0.08**	(0.04)	**-0.35**	(0.02)	**0.44**	(0.05)	**0.48**	(0.05)	**-0.20**	(0.04)
	Brazil	**-0.19**	(0.02)	**-0.13**	(0.02)	**-0.34**	(0.02)	**0.33**	(0.02)	**0.36**	(0.02)	**-0.19**	(0.02)
	Bulgaria	-0.04	(0.04)	-0.04	(0.03)	**-0.44**	(0.03)	**0.48**	(0.05)	**0.48**	(0.05)	-0.04	(0.04)
	Colombia	**-0.15**	(0.03)	**-0.06**	(0.03)	**-0.35**	(0.02)	**0.30**	(0.03)	**0.33**	(0.04)	**-0.12**	(0.03)
	Costa Rica	**-0.40**	(0.03)	**-0.30**	(0.04)	**-0.36**	(0.03)	**0.20**	(0.04)	**0.21**	(0.04)	-0.05	(0.04)
	Croatia	**-0.13**	(0.04)	**-0.09**	(0.04)	**-0.41**	(0.02)	**0.33**	(0.04)	**0.31**	(0.04)	**0.13**	(0.02)
	Cyprus*	**-0.08**	(0.03)	-0.06	(0.03)	**-0.46**	(0.02)	**0.26**	(0.04)	**0.26**	(0.04)	0.02	(0.02)
	Hong Kong-China	**-0.34**	(0.03)	**-0.30**	(0.03)	**-0.30**	(0.02)	**0.37**	(0.04)	**0.33**	(0.04)	**0.22**	(0.02)
	Indonesia	-0.04	(0.02)	-0.04	(0.02)	**-0.14**	(0.02)	**0.21**	(0.03)	**0.22**	(0.03)	**-0.14**	(0.03)
	Jordan	**0.19**	(0.03)	**0.15**	(0.03)	**-0.25**	(0.03)	**0.51**	(0.05)	**0.50**	(0.05)	**-0.11**	(0.03)
	Kazakhstan	0.05	(0.04)	0.05	(0.04)	**-0.30**	(0.03)	**0.18**	(0.03)	**0.18**	(0.03)	-0.01	(0.03)
	Latvia	**-0.07**	(0.04)	-0.07	(0.04)	**-0.40**	(0.02)	**0.25**	(0.05)	**0.26**	(0.05)	**0.20**	(0.03)
	Liechtenstein	**-0.45**	(0.16)	**-0.39**	(0.15)	**-0.31**	(0.08)	**0.30**	(0.13)	**0.28**	(0.13)	0.04	(0.06)
	Lithuania	**-0.20**	(0.04)	**-0.20**	(0.03)	**-0.48**	(0.02)	**0.25**	(0.03)	**0.24**	(0.03)	**0.08**	(0.02)
	Macao-China	**-0.38**	(0.03)	**-0.37**	(0.03)	**-0.34**	(0.02)	**0.30**	(0.03)	**0.30**	(0.02)	**0.21**	(0.02)
	Malaysia	-0.01	(0.03)	-0.03	(0.03)	**-0.22**	(0.02)	**0.15**	(0.03)	**0.15**	(0.03)	0.01	(0.02)
	Montenegro	-0.03	(0.04)	-0.02	(0.04)	**-0.36**	(0.03)	**0.33**	(0.04)	**0.33**	(0.04)	-0.02	(0.03)
	Peru	**-0.12**	(0.03)	**-0.09**	(0.03)	**-0.20**	(0.02)	**0.32**	(0.03)	**0.34**	(0.03)	**-0.16**	(0.02)
	Qatar	**0.09**	(0.03)	**0.07**	(0.02)	**-0.36**	(0.02)	**0.41**	(0.03)	**0.39**	(0.03)	**-0.24**	(0.02)
	Romania	-0.01	(0.04)	0.01	(0.03)	**-0.34**	(0.02)	**0.17**	(0.06)	**0.17**	(0.06)	0.05	(0.04)
	Russian Federation	**-0.14**	(0.02)	**-0.14**	(0.02)	**-0.39**	(0.02)	**0.30**	(0.03)	**0.30**	(0.03)	**0.16**	(0.02)
	Serbia	0.02	(0.03)	0.05	(0.03)	**-0.37**	(0.02)	**0.41**	(0.04)	**0.41**	(0.04)	0.00	(0.03)
	Shanghai-China	**-0.39**	(0.04)	**-0.38**	(0.03)	**-0.29**	(0.02)	**0.26**	(0.04)	**0.24**	(0.03)	**0.25**	(0.01)
	Singapore	**-0.13**	(0.03)	**-0.14**	(0.03)	**-0.36**	(0.01)	**0.22**	(0.03)	**0.22**	(0.03)	-0.02	(0.01)
	Chinese Taipei	**-0.30**	(0.03)	**-0.29**	(0.03)	**-0.23**	(0.02)	**0.27**	(0.04)	**0.24**	(0.03)	**0.36**	(0.01)
	Thailand	**-0.07**	(0.02)	**-0.09**	(0.02)	**-0.17**	(0.02)	**0.25**	(0.03)	**0.25**	(0.03)	0.00	(0.02)
	Tunisia	**-0.09**	(0.03)	-0.06	(0.03)	**-0.21**	(0.02)	**0.48**	(0.04)	**0.50**	(0.04)	**-0.11**	(0.03)
	United Arab Emirates	**0.08**	(0.03)	**0.06**	(0.03)	**-0.47**	(0.02)	**0.32**	(0.04)	**0.32**	(0.04)	**-0.21**	(0.02)
	Uruguay	**-0.21**	(0.03)	**-0.13**	(0.03)	**-0.40**	(0.02)	**0.31**	(0.04)	**0.33**	(0.04)	**-0.17**	(0.03)
	Viet Nam	**-0.11**	(0.02)	**-0.09**	(0.02)	**-0.23**	(0.02)	**0.29**	(0.02)	**0.28**	(0.02)	**0.11**	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Unadjusted refers to the coefficient for whether the student is a boy in a regression where boy is the only independent variable.

2. Adjusted refers to the coefficient for whether the student is a boy in a regression with boy and mathematics performance divided by 100 as independent variables.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.7.3b Socio-economic disparities in mathematics self-beliefs and engagement in mathematics activities

Results based on students' self-reports

		Socio-economic disparities in the:											
		Index of mathematics self-efficacy						Index of mathematics self-concept					
		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	**0.37**	(0.02)	**0.11**	(0.01)	**0.62**	(0.01)	**0.15**	(0.01)	**-0.04**	(0.02)	**0.46**	(0.01)
	Austria	**0.31**	(0.02)	**0.09**	(0.02)	**0.55**	(0.03)	**0.09**	(0.02)	**-0.10**	(0.03)	**0.47**	(0.03)
	Belgium	**0.26**	(0.02)	**0.06**	(0.02)	**0.44**	(0.02)	**0.05**	(0.01)	**-0.10**	(0.01)	**0.32**	(0.02)
	Canada	**0.30**	(0.02)	**0.10**	(0.02)	**0.62**	(0.01)	**0.17**	(0.02)	0.00	(0.02)	**0.56**	(0.01)
	Chile	**0.15**	(0.01)	0.02	(0.02)	**0.37**	(0.02)	**0.11**	(0.02)	**-0.07**	(0.02)	**0.53**	(0.03)
	Czech Republic	**0.36**	(0.02)	**0.13**	(0.02)	**0.50**	(0.02)	**0.18**	(0.02)	-0.04	(0.03)	**0.52**	(0.03)
	Denmark	**0.31**	(0.02)	**0.08**	(0.02)	**0.62**	(0.02)	**0.27**	(0.02)	-0.01	(0.02)	**0.71**	(0.02)
	Estonia	**0.27**	(0.02)	**0.11**	(0.02)	**0.53**	(0.02)	**0.17**	(0.02)	0.02	(0.02)	**0.55**	(0.02)
	Finland	**0.32**	(0.02)	**0.12**	(0.02)	**0.59**	(0.02)	**0.22**	(0.02)	0.01	(0.02)	**0.72**	(0.02)
	France	**0.39**	(0.02)	**0.10**	(0.02)	**0.51**	(0.02)	**0.19**	(0.02)	**-0.07**	(0.03)	**0.46**	(0.03)
	Germany	**0.27**	(0.01)	**0.05**	(0.02)	**0.54**	(0.02)	**0.12**	(0.02)	**-0.06**	(0.02)	**0.45**	(0.03)
	Greece	**0.30**	(0.02)	**0.13**	(0.02)	**0.50**	(0.02)	**0.25**	(0.02)	**0.11**	(0.02)	**0.42**	(0.02)
	Hungary	**0.38**	(0.02)	**0.07**	(0.02)	**0.64**	(0.03)	**0.13**	(0.02)	**-0.04**	(0.02)	**0.38**	(0.02)
	Iceland	**0.35**	(0.03)	**0.17**	(0.03)	**0.59**	(0.03)	**0.29**	(0.03)	**0.11**	(0.02)	**0.58**	(0.02)
	Ireland	**0.32**	(0.02)	**0.09**	(0.02)	**0.60**	(0.02)	**0.16**	(0.02)	-0.01	(0.02)	**0.45**	(0.02)
	Israel	**0.34**	(0.03)	**0.11**	(0.02)	**0.47**	(0.02)	**0.06**	(0.02)	**-0.06**	(0.02)	**0.25**	(0.02)
	Italy	**0.19**	(0.01)	**0.07**	(0.01)	**0.43**	(0.01)	**0.09**	(0.01)	-0.02	(0.01)	**0.36**	(0.01)
	Japan	**0.38**	(0.03)	**0.13**	(0.02)	**0.59**	(0.02)	**0.08**	(0.02)	-0.03	(0.02)	**0.29**	(0.02)
	Korea	**0.47**	(0.04)	**0.22**	(0.02)	**0.62**	(0.02)	**0.30**	(0.03)	**0.12**	(0.02)	**0.43**	(0.02)
	Luxembourg	**0.30**	(0.02)	**0.10**	(0.02)	**0.53**	(0.02)	**0.07**	(0.01)	**-0.06**	(0.02)	**0.38**	(0.02)
	Mexico	**0.09**	(0.01)	**0.03**	(0.01)	**0.35**	(0.01)	**0.05**	(0.01)	**-0.03**	(0.01)	**0.41**	(0.01)
	Netherlands	**0.20**	(0.02)	0.02	(0.02)	**0.49**	(0.03)	**0.06**	(0.02)	-0.02	(0.03)	**0.24**	(0.03)
	New Zealand	**0.38**	(0.02)	**0.09**	(0.02)	**0.55**	(0.02)	**0.12**	(0.02)	**-0.09**	(0.02)	**0.41**	(0.02)
	Norway	**0.36**	(0.03)	**0.14**	(0.02)	**0.71**	(0.03)	**0.29**	(0.03)	0.05	(0.03)	**0.75**	(0.03)
	Poland	**0.35**	(0.03)	**0.07**	(0.02)	**0.69**	(0.02)	**0.22**	(0.03)	-0.04	(0.02)	**0.64**	(0.02)
	Portugal	**0.32**	(0.02)	**0.10**	(0.02)	**0.63**	(0.02)	**0.18**	(0.01)	0.03	(0.02)	**0.44**	(0.02)
	Slovak Republic	**0.32**	(0.02)	**0.06**	(0.03)	**0.47**	(0.02)	**0.07**	(0.03)	**-0.11**	(0.03)	**0.34**	(0.02)
	Slovenia	**0.32**	(0.02)	**0.13**	(0.02)	**0.49**	(0.02)	**0.12**	(0.02)	-0.04	(0.02)	**0.40**	(0.02)
	Spain	**0.24**	(0.01)	**0.07**	(0.01)	**0.50**	(0.01)	**0.14**	(0.01)	-0.01	(0.01)	**0.45**	(0.02)
	Sweden	**0.31**	(0.03)	**0.11**	(0.02)	**0.53**	(0.02)	**0.21**	(0.02)	0.03	(0.02)	**0.54**	(0.02)
	Switzerland	**0.26**	(0.02)	**0.04**	(0.02)	**0.57**	(0.02)	0.01	(0.02)	**-0.13**	(0.02)	**0.38**	(0.02)
	Turkey	**0.19**	(0.02)	**0.04**	(0.02)	**0.45**	(0.02)	**0.07**	(0.02)	-0.01	(0.01)	**0.26**	(0.02)
	United Kingdom	**0.33**	(0.03)	**0.09**	(0.03)	**0.60**	(0.02)	**0.15**	(0.03)	-0.03	(0.02)	**0.44**	(0.02)
	United States	**0.30**	(0.02)	**0.08**	(0.02)	**0.59**	(0.02)	**0.13**	(0.02)	-0.03	(0.02)	**0.47**	(0.02)
	OECD average	**0.30**	(0.00)	**0.09**	(0.00)	**0.54**	(0.00)	**0.15**	(0.00)	**-0.02**	(0.00)	**0.45**	(0.00)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**0.10**	(0.01)	0.03	(0.02)	**0.25**	(0.03)	**0.04**	(0.02)	-0.03	(0.02)	**0.29**	(0.03)
	Brazil	**0.16**	(0.01)	**0.07**	(0.01)	**0.32**	(0.02)	0.00	(0.01)	**-0.06**	(0.01)	**0.25**	(0.02)
	Bulgaria	**0.20**	(0.02)	**0.09**	(0.02)	**0.26**	(0.03)	**0.10**	(0.02)	0.02	(0.02)	**0.19**	(0.03)
	Colombia	**0.08**	(0.02)	**0.04**	(0.02)	**0.14**	(0.03)	**0.06**	(0.01)	-0.01	(0.02)	**0.31**	(0.03)
	Costa Rica	**0.12**	(0.02)	**0.07**	(0.02)	**0.24**	(0.04)	**0.08**	(0.02)	-0.03	(0.02)	**0.45**	(0.03)
	Croatia	**0.31**	(0.02)	**0.11**	(0.02)	**0.58**	(0.02)	**0.13**	(0.03)	-0.02	(0.02)	**0.41**	(0.03)
	Cyprus*	**0.36**	(0.02)	**0.15**	(0.02)	**0.53**	(0.03)	**0.25**	(0.02)	**0.08**	(0.02)	**0.45**	(0.02)
	Hong Kong-China	**0.25**	(0.02)	**0.09**	(0.02)	**0.58**	(0.02)	**0.10**	(0.02)	0.02	(0.02)	**0.34**	(0.02)
	Indonesia	**0.09**	(0.01)	**0.06**	(0.01)	**0.14**	(0.03)	**-0.03**	(0.01)	-0.01	(0.01)	**-0.06**	(0.02)
	Jordan	**0.23**	(0.02)	**0.16**	(0.02)	**0.33**	(0.03)	**0.17**	(0.02)	**0.09**	(0.02)	**0.36**	(0.04)
	Kazakhstan	**0.26**	(0.03)	**0.18**	(0.03)	**0.27**	(0.04)	**0.15**	(0.02)	**0.10**	(0.02)	**0.19**	(0.03)
	Latvia	**0.28**	(0.02)	**0.12**	(0.02)	**0.45**	(0.03)	**0.15**	(0.02)	-0.02	(0.02)	**0.48**	(0.03)
	Liechtenstein	**0.30**	(0.07)	**0.18**	(0.07)	**0.53**	(0.06)	**0.23**	(0.09)	0.12	(0.10)	**0.32**	(0.09)
	Lithuania	**0.27**	(0.02)	**0.07**	(0.02)	**0.55**	(0.02)	**0.16**	(0.02)	-0.03	(0.02)	**0.52**	(0.02)
	Macao-China	**0.19**	(0.02)	**0.10**	(0.02)	**0.51**	(0.02)	**0.08**	(0.02)	0.03	(0.02)	**0.33**	(0.02)
	Malaysia	**0.18**	(0.01)	**0.07**	(0.02)	**0.34**	(0.02)	**0.05**	(0.01)	-0.01	(0.01)	**0.19**	(0.02)
	Montenegro	**0.17**	(0.02)	**0.06**	(0.02)	**0.36**	(0.03)	**0.13**	(0.02)	0.03	(0.02)	**0.30**	(0.03)
	Peru	**0.09**	(0.01)	**0.04**	(0.01)	**0.15**	(0.02)	-0.01	(0.01)	**-0.09**	(0.01)	**0.23**	(0.02)
	Qatar	**0.17**	(0.02)	**0.09**	(0.02)	**0.31**	(0.02)	**0.09**	(0.01)	**0.04**	(0.01)	**0.18**	(0.01)
	Romania	**0.25**	(0.03)	**0.12**	(0.02)	**0.33**	(0.03)	**0.12**	(0.03)	**0.05**	(0.02)	**0.17**	(0.03)
	Russian Federation	**0.37**	(0.03)	**0.20**	(0.02)	**0.43**	(0.02)	**0.15**	(0.02)	0.02	(0.02)	**0.34**	(0.02)
	Serbia	**0.23**	(0.02)	**0.09**	(0.02)	**0.41**	(0.03)	**0.19**	(0.02)	**0.07**	(0.02)	**0.37**	(0.03)
	Shanghai-China	**0.36**	(0.02)	**0.12**	(0.02)	**0.60**	(0.02)	**0.09**	(0.02)	-0.02	(0.02)	**0.28**	(0.02)
	Singapore	**0.34**	(0.02)	**0.12**	(0.02)	**0.50**	(0.02)	**0.17**	(0.02)	**0.06**	(0.02)	**0.27**	(0.01)
	Chinese Taipei	**0.51**	(0.02)	**0.15**	(0.02)	**0.63**	(0.02)	**0.25**	(0.02)	0.01	(0.02)	**0.42**	(0.02)
	Thailand	**0.08**	(0.01)	**0.04**	(0.01)	**0.19**	(0.02)	-0.02	(0.01)	**-0.03**	(0.01)	**0.08**	(0.02)
	Tunisia	**0.16**	(0.02)	**0.09**	(0.02)	**0.33**	(0.03)	**0.17**	(0.02)	**0.10**	(0.02)	**0.31**	(0.03)
	United Arab Emirates	**0.24**	(0.02)	**0.11**	(0.02)	**0.38**	(0.02)	**0.10**	(0.02)	0.01	(0.02)	**0.26**	(0.02)
	Uruguay	**0.14**	(0.02)	0.03	(0.02)	**0.31**	(0.02)	**0.08**	(0.02)	**-0.07**	(0.02)	**0.44**	(0.03)
	Viet Nam	**0.16**	(0.01)	**0.06**	(0.01)	**0.34**	(0.02)	**0.08**	(0.01)	**0.02**	(0.01)	**0.21**	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Unadjusted refers to the coefficient for the *PISA index of economic, social and cultural status* (ESCS) in a regression with ESCS as the only independent variable.

2. Adjusted refers to the coefficient for the *PISA index of economic, social and cultural status* (ESCS) in a regression with ESCS and mathematics performance divided by 100 as independent variables.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.7.3b Socio-economic disparities in mathematics self-beliefs and engagement in mathematics activities

Results based on students' self-reports

		Socio-economic disparities in the:											
		Index of mathematics anxiety						Index of mathematics behaviours					
		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)		Unadjusted[1]		Adjusted for differences in mathematics performance[2]		Mathematics performance (per 100 score points)	
		Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.	Change in index	S.E.
OECD	**Australia**	**-0.12**	(0.02)	**0.05**	(0.02)	**-0.40**	(0.01)	**0.13**	(0.02)	0.02	(0.02)	**0.27**	(0.02)
	Austria	**-0.16**	(0.03)	0.04	(0.03)	**-0.49**	(0.03)	**0.04**	(0.02)	0.00	(0.02)	**0.09**	(0.03)
	Belgium	-0.03	(0.02)	**0.11**	(0.02)	**-0.31**	(0.02)	**0.11**	(0.02)	**0.06**	(0.02)	**0.11**	(0.02)
	Canada	**-0.11**	(0.02)	**0.04**	(0.02)	**-0.51**	(0.02)	**0.12**	(0.02)	**0.06**	(0.02)	**0.19**	(0.02)
	Chile	**-0.09**	(0.01)	**0.03**	(0.01)	**-0.34**	(0.02)	0.00	(0.02)	-0.03	(0.02)	**0.09**	(0.03)
	Czech Republic	**-0.19**	(0.02)	0.01	(0.03)	**-0.45**	(0.03)	**0.10**	(0.02)	0.06	(0.03)	**0.10**	(0.03)
	Denmark	**-0.27**	(0.02)	-0.01	(0.02)	**-0.64**	(0.02)	**0.05**	(0.02)	0.03	(0.02)	0.04	(0.02)
	Estonia	**-0.13**	(0.03)	0.04	(0.03)	**-0.59**	(0.02)	**0.16**	(0.03)	**0.12**	(0.03)	**0.14**	(0.03)
	Finland	**-0.10**	(0.02)	**0.05**	(0.02)	**-0.50**	(0.02)	**0.13**	(0.02)	**0.09**	(0.02)	**0.13**	(0.02)
	France	**-0.08**	(0.03)	**0.11**	(0.03)	**-0.33**	(0.02)	**0.07**	(0.02)	0.04	(0.03)	**0.06**	(0.02)
	Germany	**-0.15**	(0.02)	0.04	(0.02)	**-0.48**	(0.03)	**0.08**	(0.02)	**0.07**	(0.02)	0.03	(0.02)
	Greece	**-0.20**	(0.02)	**-0.05**	(0.02)	**-0.42**	(0.02)	**0.17**	(0.02)	**0.14**	(0.02)	**0.08**	(0.03)
	Hungary	**-0.17**	(0.02)	0.03	(0.02)	**-0.45**	(0.03)	**0.09**	(0.02)	0.03	(0.03)	**0.12**	(0.03)
	Iceland	**-0.22**	(0.03)	**-0.07**	(0.03)	**-0.51**	(0.02)	0.05	(0.03)	0.03	(0.03)	**0.08**	(0.03)
	Ireland	**-0.13**	(0.02)	0.03	(0.02)	**-0.42**	(0.02)	**0.15**	(0.02)	**0.11**	(0.02)	**0.12**	(0.02)
	Israel	-0.05	(0.02)	**0.09**	(0.03)	**-0.27**	(0.03)	-0.01	(0.02)	**0.06**	(0.02)	**-0.14**	(0.02)
	Italy	**-0.05**	(0.01)	**0.03**	(0.01)	**-0.28**	(0.01)	**0.06**	(0.01)	**0.07**	(0.01)	-0.01	(0.01)
	Japan	**-0.06**	(0.02)	0.03	(0.03)	**-0.24**	(0.02)	**0.23**	(0.02)	**0.13**	(0.02)	**0.23**	(0.02)
	Korea	**-0.12**	(0.02)	**-0.06**	(0.02)	**-0.16**	(0.02)	**0.42**	(0.03)	**0.26**	(0.02)	**0.39**	(0.02)
	Luxembourg	**-0.14**	(0.02)	0.00	(0.02)	**-0.42**	(0.02)	0.02	(0.02)	0.02	(0.02)	0.00	(0.03)
	Mexico	**-0.03**	(0.01)	**0.04**	(0.01)	**-0.39**	(0.01)	**0.02**	(0.01)	**0.02**	(0.01)	0.01	(0.01)
	Netherlands	**-0.06**	(0.02)	0.03	(0.03)	**-0.24**	(0.02)	0.03	(0.03)	0.03	(0.03)	0.01	(0.04)
	New Zealand	**-0.16**	(0.03)	0.05	(0.03)	**-0.42**	(0.02)	**0.06**	(0.03)	0.01	(0.03)	**0.09**	(0.04)
	Norway	**-0.21**	(0.03)	-0.02	(0.02)	**-0.60**	(0.02)	**0.09**	(0.03)	0.05	(0.03)	**0.12**	(0.03)
	Poland	**-0.20**	(0.03)	**0.06**	(0.02)	**-0.63**	(0.02)	0.04	(0.02)	-0.03	(0.02)	**0.16**	(0.02)
	Portugal	**-0.13**	(0.01)	-0.02	(0.01)	**-0.31**	(0.02)	**0.08**	(0.01)	**0.06**	(0.02)	**0.05**	(0.02)
	Slovak Republic	**-0.17**	(0.02)	**0.06**	(0.02)	**-0.43**	(0.02)	-0.03	(0.03)	-0.04	(0.03)	0.02	(0.03)
	Slovenia	**-0.07**	(0.02)	**0.07**	(0.02)	**-0.32**	(0.02)	**0.06**	(0.02)	0.02	(0.03)	**0.09**	(0.03)
	Spain	**-0.09**	(0.01)	0.01	(0.01)	**-0.31**	(0.02)	**0.07**	(0.01)	**0.05**	(0.01)	**0.04**	(0.02)
	Sweden	**-0.19**	(0.02)	-0.03	(0.02)	**-0.47**	(0.02)	**0.11**	(0.03)	**0.09**	(0.03)	0.04	(0.03)
	Switzerland	**-0.05**	(0.02)	**0.09**	(0.02)	**-0.39**	(0.02)	0.01	(0.02)	0.02	(0.02)	-0.01	(0.02)
	Turkey	**-0.08**	(0.02)	0.02	(0.02)	**-0.34**	(0.02)	0.01	(0.02)	0.01	(0.02)	0.02	(0.03)
	United Kingdom	**-0.17**	(0.03)	-0.01	(0.03)	**-0.40**	(0.02)	**0.10**	(0.02)	**0.06**	(0.02)	**0.10**	(0.02)
	United States	**-0.15**	(0.02)	0.02	(0.02)	**-0.49**	(0.03)	**0.09**	(0.02)	**0.06**	(0.02)	**0.10**	(0.03)
	OECD average	**-0.13**	(0.00)	**0.03**	(0.00)	**-0.41**	(0.00)	**0.09**	(0.00)	**0.05**	(0.00)	**0.09**	(0.00)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**-0.08**	(0.02)	0.01	(0.02)	**-0.36**	(0.02)	-0.01	(0.02)	0.03	(0.03)	**-0.18**	(0.05)
	Brazil	**-0.05**	(0.01)	**0.04**	(0.01)	**-0.37**	(0.02)	-0.01	(0.01)	**0.03**	(0.01)	**-0.18**	(0.02)
	Bulgaria	**-0.23**	(0.02)	**-0.06**	(0.02)	**-0.40**	(0.03)	0.04	(0.03)	**0.07**	(0.03)	-0.07	(0.04)
	Colombia	**-0.06**	(0.02)	0.03	(0.02)	**-0.37**	(0.03)	-0.02	(0.02)	0.00	(0.02)	**-0.08**	(0.04)
	Costa Rica	**-0.05**	(0.02)	**0.06**	(0.02)	**-0.45**	(0.03)	0.01	(0.02)	0.02	(0.02)	-0.04	(0.04)
	Croatia	**-0.11**	(0.03)	**0.05**	(0.02)	**-0.43**	(0.02)	**0.07**	(0.02)	0.02	(0.02)	**0.14**	(0.02)
	Cyprus*	**-0.23**	(0.02)	**-0.06**	(0.02)	**-0.44**	(0.02)	**0.10**	(0.02)	**0.10**	(0.02)	-0.01	(0.02)
	Hong Kong-China	**-0.06**	(0.02)	0.02	(0.02)	**-0.31**	(0.02)	**0.13**	(0.02)	**0.07**	(0.02)	**0.21**	(0.02)
	Indonesia	0.01	(0.02)	**0.04**	(0.01)	**-0.16**	(0.02)	**0.04**	(0.02)	**0.08**	(0.02)	**-0.17**	(0.03)
	Jordan	**-0.03**	(0.01)	**0.03**	(0.01)	**-0.27**	(0.03)	**0.12**	(0.02)	**0.17**	(0.03)	**-0.20**	(0.03)
	Kazakhstan	**-0.17**	(0.02)	**-0.10**	(0.03)	**-0.27**	(0.03)	**0.13**	(0.03)	**0.14**	(0.03)	-0.05	(0.04)
	Latvia	**-0.12**	(0.02)	0.03	(0.02)	**-0.41**	(0.03)	**0.20**	(0.02)	**0.16**	(0.03)	**0.13**	(0.03)
	Liechtenstein	**-0.21**	(0.08)	-0.12	(0.09)	**-0.29**	(0.10)	0.14	(0.08)	0.14	(0.08)	0.02	(0.07)
	Lithuania	**-0.13**	(0.02)	**0.06**	(0.02)	**-0.50**	(0.02)	**0.12**	(0.02)	**0.10**	(0.02)	0.04	(0.03)
	Macao-China	-0.01	(0.02)	**0.05**	(0.02)	**-0.36**	(0.02)	**0.15**	(0.02)	**0.12**	(0.02)	**0.19**	(0.02)
	Malaysia	-0.01	(0.01)	**0.06**	(0.01)	**-0.24**	(0.02)	**0.06**	(0.02)	**0.07**	(0.02)	-0.03	(0.02)
	Montenegro	**-0.12**	(0.02)	-0.01	(0.02)	**-0.35**	(0.03)	**0.05**	(0.02)	**0.07**	(0.02)	-0.04	(0.03)
	Peru	-0.01	(0.01)	**0.07**	(0.02)	**-0.26**	(0.02)	**-0.06**	(0.01)	-0.01	(0.01)	**-0.13**	(0.02)
	Qatar	**-0.09**	(0.01)	0.01	(0.01)	**-0.36**	(0.02)	**-0.04**	(0.02)	0.02	(0.02)	**-0.25**	(0.02)
	Romania	**-0.19**	(0.02)	**-0.07**	(0.02)	**-0.30**	(0.03)	0.02	(0.03)	-0.01	(0.03)	0.07	(0.04)
	Russian Federation	**-0.18**	(0.02)	-0.04	(0.02)	**-0.38**	(0.02)	**0.19**	(0.02)	**0.15**	(0.02)	**0.11**	(0.02)
	Serbia	**-0.17**	(0.02)	**-0.05**	(0.02)	**-0.35**	(0.02)	0.02	(0.02)	0.01	(0.02)	0.01	(0.03)
	Shanghai-China	**-0.08**	(0.02)	**0.04**	(0.02)	**-0.30**	(0.02)	**0.19**	(0.02)	**0.10**	(0.02)	**0.22**	(0.02)
	Singapore	**-0.21**	(0.02)	**-0.07**	(0.02)	**-0.33**	(0.02)	0.01	(0.02)	0.03	(0.02)	**-0.03**	(0.02)
	Chinese Taipei	**-0.13**	(0.02)	0.01	(0.02)	**-0.24**	(0.02)	**0.30**	(0.02)	**0.12**	(0.02)	**0.32**	(0.02)
	Thailand	0.00	(0.01)	**0.04**	(0.01)	**-0.18**	(0.02)	**0.04**	(0.01)	**0.05**	(0.01)	-0.03	(0.02)
	Tunisia	**-0.04**	(0.02)	0.01	(0.01)	**-0.22**	(0.02)	**0.11**	(0.02)	**0.14**	(0.02)	**-0.15**	(0.03)
	United Arab Emirates	**-0.17**	(0.02)	-0.01	(0.02)	**-0.47**	(0.02)	-0.02	(0.02)	**0.05**	(0.02)	**-0.23**	(0.02)
	Uruguay	**-0.12**	(0.02)	0.03	(0.02)	**-0.43**	(0.02)	**-0.05**	(0.02)	0.01	(0.02)	**-0.16**	(0.03)
	Viet Nam	**-0.05**	(0.01)	0.02	(0.01)	**-0.25**	(0.02)	**0.06**	(0.01)	**0.03**	(0.01)	**0.10**	(0.02)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Unadjusted refers to the coefficient for the *PISA index of economic, social and cultural status* (ESCS) in a regression with ESCS as the only independent variable.

2. Adjusted refers to the coefficient for the *PISA index of economic, social and cultural status* (ESCS) in a regression with ESCS and mathematics performance divided by 100 as independent variables.

* See notes at the beginning of this Annex.

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[Part 1/1]

Table III.7.4

Association between students' gender and socio-economic status and mathematics performance

Results based on students' self-reports

		Score-point difference at:											
		Mean				10th Percentile[1]				90th Percentile[1]			
		ESCS[2]		Boy		ESCS		Boy		ESCS		Boy	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	**Australia**	**42**	(1.3)	**13**	(2.5)	**38**	(2.7)	5	(3.6)	**41**	(2.2)	**19**	(4.6)
	Austria	**43**	(2.2)	**22**	(4.4)	**43**	(4.4)	10	(7.0)	**36**	(3.4)	**28**	(6.4)
	Belgium	**49**	(1.7)	9	(2.9)	**47**	(2.8)	-1	(5.6)	**44**	(2.2)	**16**	(3.9)
	Canada	**31**	(1.2)	**11**	(1.8)	**31**	(2.4)	4	(3.7)	**30**	(2.0)	**19**	(3.7)
	Chile	**34**	(1.6)	**22**	(3.2)	**27**	(2.3)	**18**	(4.4)	**38**	(2.2)	**26**	(4.9)
	Czech Republic	**51**	(2.7)	**13**	(4.4)	**43**	(5.3)	5	(7.6)	**50**	(2.6)	**15**	(5.6)
	Denmark	**39**	(1.8)	**13**	(2.2)	**37**	(2.7)	7	(4.4)	**39**	(3.4)	**12**	(4.0)
	Estonia	**29**	(1.7)	4	(2.6)	**29**	(3.2)	-3	(5.1)	**29**	(3.9)	**14**	(4.8)
	Finland	**33**	(1.8)	0	(2.6)	**36**	(3.3)	**-13**	(4.8)	**30**	(3.0)	**12**	(5.5)
	France	**57**	(2.2)	**8**	(2.7)	**60**	(3.9)	-6	(6.2)	**53**	(3.0)	**19**	(4.0)
	Germany	**43**	(2.0)	**14**	(2.7)	**40**	(3.7)	4	(6.0)	**38**	(3.6)	**20**	(6.7)
	Greece	**34**	(1.9)	**9**	(2.8)	**29**	(2.8)	**-12**	(5.3)	**36**	(2.7)	**20**	(6.0)
	Hungary	**46**	(2.8)	**7**	(3.2)	**41**	(3.2)	-10	(5.4)	**50**	(3.8)	**19**	(4.4)
	Iceland	**31**	(2.1)	-5	(2.9)	**30**	(4.1)	**-17**	(5.8)	**31**	(3.6)	5	(6.3)
	Ireland	**38**	(1.8)	**16**	(2.9)	**39**	(2.6)	**11**	(5.2)	**36**	(3.3)	**20**	(5.5)
	Israel	**50**	(2.6)	11	(6.6)	**43**	(4.9)	-16	(10.2)	**50**	(4.0)	**36**	(8.3)
	Italy	**30**	(1.1)	**17**	(2.2)	**28**	(1.9)	5	(4.0)	**29**	(1.6)	**28**	(3.2)
	Japan	**41**	(3.9)	**20**	(3.8)	**40**	(6.1)	4	(5.3)	**39**	(4.2)	**28**	(5.3)
	Korea	**42**	(3.3)	**15**	(5.4)	**37**	(5.8)	2	(10.1)	**39**	(4.1)	**27**	(5.8)
	Luxembourg	**36**	(1.2)	**22**	(2.1)	**32**	(2.3)	**16**	(4.5)	**36**	(2.3)	**30**	(6.5)
	Mexico	**19**	(0.8)	**12**	(1.2)	**16**	(1.1)	**5**	(2.7)	**21**	(1.0)	**19**	(2.5)
	Netherlands	**40**	(3.1)	**10**	(2.7)	**35**	(5.1)	7	(5.4)	**34**	(4.0)	**13**	(5.0)
	New Zealand	**52**	(1.8)	**17**	(3.6)	**44**	(3.4)	4	(6.3)	**54**	(3.7)	**26**	(7.3)
	Norway	**32**	(2.4)	2	(2.8)	**30**	(4.1)	-3	(6.1)	**31**	(4.2)	7	(5.5)
	Poland	**41**	(2.4)	3	(2.9)	**39**	(2.7)	-8	(4.6)	**41**	(3.9)	10	(5.6)
	Portugal	**35**	(1.6)	**11**	(2.3)	**34**	(2.6)	-1	(5.3)	**31**	(2.2)	**20**	(4.8)
	Slovak Republic	**54**	(2.9)	**9**	(4.0)	**50**	(4.1)	-3	(6.3)	**54**	(4.8)	**19**	(6.0)
	Slovenia	**42**	(1.5)	4	(2.9)	**33**	(2.3)	-3	(5.0)	**43**	(3.9)	9	(6.0)
	Spain	**34**	(1.1)	**16**	(2.1)	**32**	(2.5)	4	(4.1)	**30**	(3.6)	**27**	(7.0)
	Sweden	**36**	(1.9)	-2	(2.8)	**31**	(3.1)	**-11**	(5.4)	**37**	(3.3)	6	(4.7)
	Switzerland	**38**	(1.8)	**15**	(2.5)	**38**	(3.3)	4	(4.6)	**37**	(3.0)	**20**	(6.0)
	Turkey	**32**	(2.4)	**8**	(4.0)	**21**	(2.5)	2	(5.8)	**37**	(3.3)	**15**	(6.7)
	United Kingdom	**41**	(2.3)	**11**	(3.9)	**37**	(3.5)	10	(5.7)	**43**	(4.1)	11	(7.5)
	United States	**35**	(1.7)	5	(2.8)	**32**	(3.0)	-4	(6.2)	**38**	(2.6)	**14**	(6.6)
	OECD average	**39**	(0.4)	**11**	(0.6)	**36**	(0.6)	0	(1.0)	**38**	(0.6)	**18**	(1.0)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	**26**	(1.7)	**12**	(2.6)	**25**	(3.4)	6	(4.5)	**27**	(2.8)	**15**	(4.5)
	Brazil	**26**	(1.7)	**14**	(1.8)	**17**	(1.5)	**9**	(2.5)	**33**	(2.5)	**19**	(3.4)
	Bulgaria	**42**	(2.7)	-1	(3.4)	**35**	(4.1)	**-11**	(5.5)	**45**	(4.4)	**11**	(5.4)
	Colombia	**24**	(1.7)	**22**	(2.7)	**20**	(2.7)	**16**	(4.3)	**29**	(2.5)	**32**	(5.1)
	Costa Rica	**23**	(1.6)	**19**	(2.3)	**20**	(2.2)	**12**	(4.4)	**28**	(2.6)	**26**	(4.1)
	Croatia	**36**	(2.7)	**10**	(3.9)	**27**	(3.8)	1	(6.5)	**40**	(5.3)	**23**	(6.9)
	Cyprus*	**38**	(1.6)	2	(2.4)	**30**	(3.0)	**-24**	(5.3)	**42**	(2.2)	**28**	(4.4)
	Hong Kong-China	**27**	(2.6)	**14**	(4.9)	**32**	(5.3)	-1	(6.9)	**21**	(3.1)	**27**	(7.3)
	Indonesia	**20**	(3.5)	4	(3.4)	**13**	(2.5)	1	(3.7)	**27**	(5.2)	10	(7.4)
	Jordan	**22**	(2.1)	**-20**	(5.4)	**14**	(2.6)	**-32**	(5.9)	**27**	(4.0)	-6	(8.5)
	Kazakhstan	**27**	(2.8)	1	(2.6)	**25**	(3.5)	-4	(4.4)	**28**	(5.1)	6	(5.0)
	Latvia	**35**	(2.1)	-3	(3.3)	**32**	(5.2)	-13	(7.1)	**36**	(3.4)	9	(6.0)
	Liechtenstein	**28**	(5.8)	**21**	(8.3)	**28**	(13.7)	32	(25.2)	**31**	(14.4)	23	(21.3)
	Lithuania	**36**	(1.8)	0	(2.4)	**33**	(2.7)	**-12**	(4.5)	**36**	(2.9)	**13**	(4.7)
	Macao-China	**17**	(1.5)	**4**	(1.8)	**16**	(3.1)	-8	(4.7)	**15**	(2.6)	**10**	(5.1)
	Malaysia	**30**	(2.1)	**-8**	(3.3)	**19**	(2.6)	**-11**	(4.8)	**36**	(3.1)	-2	(5.9)
	Montenegro	**33**	(1.3)	-2	(2.4)	**27**	(2.7)	**-9**	(4.4)	**36**	(2.5)	4	(5.0)
	Peru	**33**	(2.0)	**18**	(2.7)	**26**	(2.7)	**16**	(4.2)	**41**	(2.7)	**22**	(4.4)
	Qatar	**27**	(1.2)	**-13**	(1.4)	**11**	(1.4)	**-30**	(2.6)	**48**	(2.2)	8	(4.3)
	Romania	**38**	(2.9)	3	(3.1)	**30**	(3.2)	-1	(5.0)	**42**	(4.1)	9	(5.2)
	Russian Federation	**38**	(3.2)	-2	(2.9)	**35**	(4.2)	-10	(5.9)	**41**	(4.1)	2	(5.4)
	Serbia	**34**	(2.4)	7	(3.6)	**26**	(3.5)	6	(6.4)	**39**	(4.4)	**13**	(5.5)
	Shanghai-China	**41**	(2.7)	**8**	(3.0)	**41**	(3.8)	3	(6.1)	**35**	(4.0)	**11**	(4.8)
	Singapore	**44**	(1.4)	-3	(2.5)	**45**	(2.8)	**-19**	(5.5)	**37**	(3.2)	**9**	(4.6)
	Chinese Taipei	**58**	(2.5)	6	(6.8)	**60**	(4.1)	**-15**	(7.5)	**46**	(4.4)	19	(11.1)
	Thailand	**22**	(2.4)	**-13**	(3.0)	**16**	(2.6)	**-17**	(4.5)	**29**	(3.8)	-8	(6.7)
	Tunisia	**22**	(2.6)	**14**	(2.8)	**14**	(2.1)	9	(5.7)	**27**	(4.7)	**19**	(5.4)
	United Arab Emirates	**33**	(1.9)	-5	(4.4)	**21**	(2.5)	**-19**	(4.6)	**43**	(2.3)	9	(6.0)
	Uruguay	**37**	(1.8)	**7**	(2.5)	**35**	(2.5)	-6	(5.2)	**37**	(2.4)	**16**	(4.4)
	Viet Nam	**29**	(2.6)	**7**	(2.7)	**29**	(3.6)	0	(5.2)	**29**	(4.4)	**20**	(5.0)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Results based on quantile regression of mathematics performance on the *PISA index of economic, social and cultural status* (ESCS) and whether the student is a boy.

2. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/4]

Table III.7.6a Gender and socio-economic differences in the association between engagement with and at school and mathematics performance

Results based on students' self-reports

		Differences in the association between engagement with and at school and mathematics performance, by selected indicators:									
		Arriving late for school[1]									
		Arriving late for school		Arriving late for school x Boy		Arriving late for schools x ESCS		ESCS[2]		Boy	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	**Australia**	**-29**	(3.2)	4	(4.3)	3	(2.3)	**40**	(1.6)	**11**	(2.8)
	Austria	**-14**	(5.7)	-1	(6.9)	8	(4.5)	**41**	(2.4)	**22**	(4.6)
	Belgium	**-43**	(3.6)	4	(5.4)	**4**	(2.5)	**47**	(1.9)	**9**	(2.7)
	Canada	**-31**	(2.4)	1	(3.2)	0	(2.3)	**30**	(1.5)	**12**	(2.1)
	Chile	**-21**	(3.4)	-1	(4.5)	**-5**	(1.9)	**36**	(1.7)	**22**	(4.0)
	Czech Republic	**-30**	(5.3)	1	(7.1)	3	(4.6)	**50**	(2.8)	**14**	(4.6)
	Denmark	**-24**	(3.1)	3	(4.7)	**8**	(3.0)	**36**	(2.1)	**13**	(2.7)
	Estonia	**-13**	(3.6)	-11	(5.8)	-2	(3.5)	**30**	(2.1)	**10**	(3.5)
	Finland	**-23**	(4.0)	-6	(4.4)	5	(3.1)	**31**	(2.2)	4	(3.3)
	France	**-36**	(3.9)	8	(5.7)	7	(3.9)	**53**	(2.5)	**7**	(2.9)
	Germany	**-19**	(5.2)	7	(8.0)	**8**	(3.6)	**40**	(2.0)	**13**	(3.4)
	Greece	**-8**	(3.2)	-2	(4.9)	1	(2.9)	**34**	(2.1)	**10**	(3.7)
	Hungary	**-38**	(5.9)	2	(6.7)	5	(5.2)	**43**	(2.7)	**7**	(3.7)
	Iceland	**-28**	(5.4)	-4	(6.1)	4	(3.4)	**29**	(2.4)	-1	(3.6)
	Ireland	**-27**	(3.2)	1	(5.4)	4	(3.2)	**36**	(2.0)	**17**	(3.0)
	Israel	**-8**	(3.4)	-9	(6.1)	-1	(3.9)	**51**	(3.2)	**15**	(7.0)
	Italy	**-30**	(2.6)	0	(3.8)	1	(1.7)	**29**	(1.4)	**18**	(2.3)
	Japan	**-32**	(7.9)	4	(9.6)	12	(6.9)	**39**	(3.8)	**20**	(3.8)
	Korea	**-38**	(4.5)	-5	(6.7)	-8	(4.9)	**42**	(3.3)	**17**	(5.4)
	Luxembourg	**-25**	(4.3)	**14**	(5.5)	0	(2.3)	**36**	(1.4)	**18**	(2.8)
	Mexico	**-15**	(2.2)	0	(2.3)	-1	(1.0)	**20**	(0.9)	**12**	(1.5)
	Netherlands	**-37**	(5.1)	8	(7.3)	-2	(4.4)	**40**	(3.3)	**8**	(3.1)
	New Zealand	**-36**	(4.6)	6	(5.7)	-1	(3.8)	**50**	(2.4)	**13**	(4.2)
	Norway	**-34**	(4.7)	-8	(6.0)	5	(3.2)	**30**	(2.6)	6	(3.0)
	Poland	**-22**	(3.9)	-1	(4.8)	4	(3.1)	**40**	(2.8)	6	(3.7)
	Portugal	**-10**	(3.9)	1	(6.0)	3	(2.5)	**33**	(2.1)	**10**	(4.0)
	Slovak Republic	**-24**	(5.5)	1	(6.9)	5	(3.8)	**52**	(2.9)	**10**	(4.4)
	Slovenia	**-22**	(4.5)	2	(6.0)	3	(3.4)	**40**	(2.0)	4	(3.8)
	Spain	**-23**	(3.0)	2	(3.3)	**5**	(1.9)	**31**	(1.2)	**16**	(2.1)
	Sweden	**-29**	(3.6)	5	(6.2)	0	(3.8)	**35**	(3.0)	-3	(4.3)
	Switzerland	**-13**	(4.2)	2	(5.9)	**8**	(3.5)	**36**	(2.1)	**14**	(2.8)
	Turkey	**-14**	(6.1)	3	(5.4)	0	(2.6)	**31**	(2.7)	8	(4.3)
	United Kingdom	**-38**	(4.0)	4	(5.1)	0	(3.1)	**40**	(2.5)	**10**	(4.4)
	United States	**-26**	(4.0)	-6	(6.4)	-5	(2.9)	**35**	(1.8)	**8**	(3.3)
	OECD average	**-25**	(0.7)	1	(1.0)	**2**	(0.6)	**38**	(0.4)	**11**	(0.6)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m
	Argentina	**-14**	(4.2)	-8	(5.5)	3	(2.4)	**25**	(2.0)	**16**	(3.3)
	Brazil	-6	(3.6)	2	(3.2)	2	(1.8)	**26**	(1.6)	**14**	(2.0)
	Bulgaria	**-20**	(3.8)	1	(5.3)	0	(3.0)	**41**	(3.4)	-1	(4.7)
	Colombia	**-10**	(4.4)	1	(4.8)	0	(2.1)	**24**	(1.8)	**22**	(3.6)
	Costa Rica	**-12**	(4.5)	4	(4.6)	**-6**	(2.1)	**27**	(2.2)	**17**	(3.4)
	Croatia	**-19**	(3.9)	-8	(5.2)	1	(3.4)	**36**	(2.6)	**15**	(4.1)
	Cyprus*	**-14**	(3.2)	-7	(5.5)	0	(3.0)	**38**	(2.0)	6	(3.7)
	Hong Kong-China	**-41**	(6.7)	4	(8.4)	2	(3.7)	**26**	(2.5)	**14**	(5.0)
	Indonesia	-14	(8.5)	-7	(6.5)	0	(3.1)	**21**	(3.5)	7	(4.1)
	Jordan	**-10**	(3.1)	0	(4.5)	-3	(2.4)	**24**	(2.5)	**-17**	(5.7)
	Kazakhstan	-9	(4.8)	-1	(5.8)	1	(3.8)	**26**	(2.9)	2	(3.3)
	Latvia	-5	(4.5)	-6	(5.5)	5	(3.4)	**32**	(3.0)	1	(4.4)
	Liechtenstein	-46	(23.9)	18	(30.5)	14	(16.7)	**25**	(6.1)	**20**	(8.8)
	Lithuania	**-16**	(4.2)	-6	(5.9)	1	(2.9)	**36**	(2.0)	5	(3.7)
	Macao-China	**-40**	(4.8)	3	(6.4)	**6**	(3.0)	**15**	(1.7)	5	(2.6)
	Malaysia	**-40**	(4.5)	-2	(5.0)	-5	(2.7)	**31**	(2.3)	-5	(4.0)
	Montenegro	**-12**	(3.7)	-2	(5.5)	4	(2.9)	**32**	(1.9)	-1	(3.2)
	Peru	**-27**	(4.1)	6	(4.5)	**-4**	(2.0)	**35**	(2.3)	**16**	(3.7)
	Qatar	**-39**	(2.7)	-5	(3.9)	**-5**	(2.1)	**29**	(1.4)	**-10**	(2.1)
	Romania	**-9**	(4.1)	-2	(4.9)	-3	(3.4)	**39**	(3.3)	4	(3.5)
	Russian Federation	**-21**	(3.9)	-4	(4.5)	-2	(3.9)	**39**	(3.8)	1	(3.0)
	Serbia	**-12**	(4.5)	-10	(5.6)	2	(3.7)	**34**	(2.8)	**13**	(4.1)
	Shanghai-China	**-44**	(6.0)	7	(7.3)	3	(4.9)	**40**	(2.9)	**8**	(3.2)
	Singapore	**-28**	(5.2)	-10	(6.9)	**8**	(4.1)	**40**	(1.7)	0	(3.0)
	Chinese Taipei	**-30**	(6.0)	-11	(8.6)	**10**	(4.6)	**55**	(2.9)	11	(7.4)
	Thailand	**-19**	(5.5)	-7	(5.9)	-1	(2.4)	**23**	(2.6)	**-9**	(3.6)
	Tunisia	**-13**	(4.5)	6	(5.5)	-3	(1.8)	**23**	(2.7)	**11**	(4.3)
	United Arab Emirates	**-20**	(2.7)	**-16**	(4.0)	-5	(2.7)	**35**	(1.9)	2	(4.3)
	Uruguay	**-13**	(4.9)	4	(5.8)	-4	(2.5)	**40**	(2.6)	5	(4.5)
	Viet Nam	**-18**	(8.3)	-6	(6.6)	4	(3.5)	**28**	(2.6)	**10**	(2.8)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Results based on a regression of mathematics performance on each indicator, each indicator interacted with the *PISA index of economic, social and cultural status* (ESCS), each indicator interacted with an indicator of whether the student is a boy, ESCS and whether the student is a boy.

2. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/4]

Table III.7.6a

Gender and socio-economic differences in the association between engagement with and at school and mathematics performance

Results based on students' self-reports

		Differences in the association between engagement with and at school and mathematics performance, by selected indicators:									
		Skipping classes or days of school[1]									
		Skipping classes or days of school		Skipping classes or days of school x Boy		Skipping classes or days of school x ESCS		ESCS[2]		Boy	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	**Australia**	**-34**	(2.8)	2	(4.0)	0	(2.6)	**40**	(1.7)	**10**	(3.2)
	Austria	**-17**	(5.6)	5	(8.5)	2	(4.5)	**43**	(2.3)	**21**	(4.5)
	Belgium	**-59**	(5.4)	-3	(7.4)	-2	(4.2)	**48**	(1.8)	**11**	(2.7)
	Canada	**-23**	(2.6)	-3	(3.4)	-2	(2.4)	**31**	(1.6)	**11**	(2.0)
	Chile	**-21**	(5.3)	-3	(6.5)	1	(2.7)	**33**	(1.7)	**23**	(2.9)
	Czech Republic	**-22**	(9.4)	-15	(14.2)	1	(7.9)	**50**	(2.7)	**14**	(4.4)
	Denmark	**-31**	(3.9)	6	(6.1)	-2	(3.2)	**39**	(1.8)	**11**	(2.5)
	Estonia	**-30**	(3.4)	-10	(5.4)	-2	(3.3)	**28**	(2.0)	**10**	(3.3)
	Finland	**-20**	(4.0)	**-18**	(6.4)	-3	(3.4)	**33**	(1.9)	3	(2.6)
	France	**-24**	(4.4)	1	(7.8)	5	(3.6)	**55**	(2.3)	**8**	(2.9)
	Germany	**-16**	(6.8)	-10	(9.9)	4	(5.4)	**42**	(2.1)	**15**	(3.1)
	Greece	**-12**	(3.4)	-5	(5.4)	0	(2.7)	**34**	(2.1)	**12**	(3.7)
	Hungary	**-49**	(7.3)	-1	(8.9)	-3	(4.9)	**45**	(2.8)	**9**	(3.5)
	Iceland	**-40**	(8.1)	7	(9.6)	-6	(6.0)	**30**	(2.3)	-5	(2.8)
	Ireland	-8	(5.4)	-8	(8.1)	1	(4.2)	**38**	(1.9)	**17**	(3.1)
	Israel	**-8**	(3.6)	1	(6.4)	6	(3.7)	**48**	(3.1)	10	(6.6)
	Italy	**-28**	(2.1)	0	(2.9)	1	(1.7)	**28**	(1.6)	**18**	(2.6)
	Japan	**-70**	(10.0)	-3	(14.3)	13	(8.5)	**39**	(3.6)	**20**	(3.9)
	Korea	**-106**	(13.0)	-16	(14.3)	**-35**	(9.2)	**41**	(3.1)	**17**	(5.3)
	Luxembourg	**-45**	(4.8)	9	(9.1)	-4	(3.6)	**36**	(1.3)	**21**	(2.4)
	Mexico	**-12**	(2.2)	-1	(2.3)	2	(0.9)	**19**	(0.9)	**13**	(1.4)
	Netherlands	**-23**	(9.1)	16	(10.3)	2	(7.3)	**39**	(3.0)	**8**	(2.8)
	New Zealand	**-59**	(5.1)	-3	(6.7)	-6	(4.4)	**47**	(2.2)	**17**	(3.5)
	Norway	**-46**	(6.1)	-13	(9.4)	-4	(3.8)	**32**	(2.6)	3	(2.9)
	Poland	**-32**	(4.3)	4	(5.4)	-2	(3.5)	**41**	(2.4)	4	(3.2)
	Portugal	**-24**	(3.9)	-6	(5.4)	-1	(2.1)	**34**	(1.8)	**13**	(3.1)
	Slovak Republic	**-23**	(7.1)	-13	(8.1)	1	(3.8)	**53**	(3.0)	**11**	(4.2)
	Slovenia	**-39**	(5.0)	5	(6.7)	0	(3.9)	**40**	(1.9)	5	(3.5)
	Spain	**-27**	(2.6)	1	(3.6)	2	(1.8)	**31**	(1.3)	**15**	(2.8)
	Sweden	**-29**	(4.4)	**-19**	(6.2)	-8	(4.3)	**36**	(2.3)	2	(2.8)
	Switzerland	**-26**	(5.1)	-9	(7.6)	9	(4.5)	**37**	(2.1)	**15**	(2.6)
	Turkey	6	(6.6)	-1	(4.9)	1	(2.9)	**31**	(3.1)	9	(4.9)
	United Kingdom	**-28**	(5.4)	-3	(6.5)	0	(4.2)	**40**	(2.5)	**10**	(4.1)
	United States	**-11**	(3.3)	-7	(5.0)	**-8**	(3.1)	**37**	(1.7)	**7**	(3.2)
	OECD average	**-31**	(1.0)	**-3**	(1.3)	-1	(0.8)	**38**	(0.4)	**11**	(0.6)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m
	Argentina	**-18**	(3.7)	-2	(4.6)	4	(2.7)	**23**	(2.2)	**13**	(3.9)
	Brazil	0	(3.5)	**-8**	(3.6)	2	(2.0)	**26**	(1.6)	**17**	(2.4)
	Bulgaria	**-30**	(4.6)	**-12**	(5.1)	-5	(3.8)	**42**	(3.1)	6	(3.7)
	Colombia	-3	(5.8)	-8	(5.4)	2	(2.8)	**24**	(1.7)	**24**	(3.0)
	Costa Rica	-6	(4.4)	-1	(4.9)	0	(1.9)	**23**	(1.7)	**20**	(3.9)
	Croatia	**-38**	(4.2)	**-15**	(5.4)	3	(3.5)	**34**	(2.8)	**19**	(4.1)
	Cyprus*	**-19**	(3.1)	**-17**	(5.0)	-2	(2.7)	**38**	(1.9)	**12**	(3.3)
	Hong Kong-China	**-62**	(9.2)	5	(13.2)	9	(5.1)	**26**	(2.6)	**14**	(4.9)
	Indonesia	-6	(8.3)	-11	(6.4)	5	(2.9)	**19**	(3.3)	**8**	(3.9)
	Jordan	**-10**	(4.0)	2	(5.0)	0	(2.5)	**23**	(2.1)	**-19**	(6.3)
	Kazakhstan	**-18**	(4.3)	-4	(5.0)	0	(3.4)	**26**	(3.1)	3	(3.0)
	Latvia	-7	(4.7)	-4	(6.7)	**9**	(3.5)	**29**	(3.3)	0	(5.8)
	Liechtenstein	26	(49.6)	-112	(59.6)	-11	(22.3)	**29**	(6.4)	**28**	(8.2)
	Lithuania	**-33**	(4.4)	-4	(5.0)	6	(3.5)	**31**	(2.2)	5	(2.9)
	Macao-China	**-45**	(8.8)	6	(9.3)	7	(6.0)	**17**	(1.6)	**5**	(1.9)
	Malaysia	**-14**	(4.9)	-8	(5.4)	**6**	(3.1)	**27**	(2.2)	-2	(3.8)
	Montenegro	**-12**	(3.7)	-6	(5.9)	1	(2.9)	**33**	(1.8)	1	(3.3)
	Peru	**-47**	(5.7)	0	(4.6)	**-8**	(2.7)	**33**	(2.1)	**22**	(2.8)
	Qatar	**-11**	(3.1)	**-13**	(4.6)	3	(2.4)	**26**	(1.3)	**-9**	(1.9)
	Romania	**-17**	(3.9)	1	(5.2)	-1	(2.9)	**38**	(3.4)	3	(4.4)
	Russian Federation	**-22**	(3.2)	-1	(5.0)	2	(3.8)	**37**	(3.7)	-2	(3.1)
	Serbia	**-20**	(5.6)	-8	(5.6)	1	(4.1)	**34**	(2.6)	**12**	(3.6)
	Shanghai-China	-16	(23.3)	-35	(24.9)	-9	(8.5)	**41**	(2.6)	**10**	(3.2)
	Singapore	**-18**	(4.7)	-4	(7.1)	6	(3.8)	**42**	(1.8)	-2	(3.1)
	Chinese Taipei	**-76**	(9.3)	-6	(10.8)	-3	(6.3)	**55**	(2.5)	11	(6.8)
	Thailand	**-17**	(6.2)	-7	(4.9)	-1	(2.5)	**22**	(2.5)	**-8**	(3.1)
	Tunisia	**-17**	(5.0)	-9	(6.3)	-4	(2.1)	**23**	(2.8)	**20**	(3.1)
	United Arab Emirates	**-22**	(3.2)	-6	(4.3)	-1	(2.1)	**33**	(2.0)	-3	(5.1)
	Uruguay	**-16**	(4.3)	2	(5.0)	-3	(2.6)	**37**	(2.1)	**6**	(3.2)
	Viet Nam	**-43**	(9.6)	-3	(6.6)	0	(4.1)	**28**	(2.6)	**11**	(2.7)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Results based on a regression of mathematics performance on each indicator, each indicator interacted with the *PISA index of economic, social and cultural status* (ESCS), each indicator interacted with an indicator of whether the student is a boy, ESCS and whether the student is a boy.

2. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 3/4]

Gender and socio-economic differences in the association between engagement with and at school and mathematics performance

Table III.7.6a *Results based on students' self-reports*

		Differences in the association between engagement with and at school and mathematics performance, by selected indicators:									
		Index of sense of belonging[1]									
		Sense of belonging		Sense of belonging x Boy		Sense of belonging x ESCS		ESCS[2]		Boy	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	**Australia**	**6**	(1.6)	2	(2.5)	0	(1.4)	**41**	(1.6)	**12**	(2.5)
	Austria	**5**	(2.2)	2	(3.4)	1	(1.8)	**41**	(2.7)	**24**	(5.1)
	Belgium	3	(2.3)	4	(3.0)	1	(1.6)	**47**	(1.8)	**15**	(3.3)
	Canada	**4**	(1.7)	-2	(2.3)	-1	(1.3)	**30**	(1.4)	**12**	(2.1)
	Chile	-1	(2.1)	3	(2.8)	0	(1.2)	**33**	(1.6)	**23**	(3.7)
	Czech Republic	6	(3.3)	2	(4.6)	5	(3.3)	**45**	(3.2)	**12**	(5.4)
	Denmark	1	(2.4)	4	(3.2)	-4	(2.0)	**39**	(2.0)	**17**	(2.8)
	Estonia	4	(2.7)	2	(3.9)	**5**	(2.4)	**29**	(2.0)	5	(3.5)
	Finland	3	(2.2)	0	(3.0)	-2	(2.0)	**29**	(1.9)	2	(2.8)
	France	**6**	(2.3)	5	(4.1)	-2	(2.0)	**53**	(2.3)	**11**	(3.4)
	Germany	2	(2.7)	1	(3.8)	-1	(1.7)	**39**	(1.9)	**14**	(3.6)
	Greece	0	(2.1)	4	(3.8)	-1	(1.7)	**34**	(2.1)	**11**	(3.3)
	Hungary	**6**	(2.7)	**7**	(3.4)	1	(1.8)	**44**	(3.1)	**9**	(3.7)
	Iceland	3	(3.0)	**7**	(3.4)	-1	(2.2)	**30**	(2.6)	-3	(3.7)
	Ireland	-1	(2.2)	0	(2.9)	-1	(1.9)	**38**	(2.2)	**18**	(3.4)
	Israel	-4	(2.1)	**10**	(3.4)	**-4**	(1.8)	**51**	(2.8)	8	(7.6)
	Italy	**-4**	(1.4)	**5**	(1.8)	1	(1.2)	**30**	(1.3)	**18**	(2.4)
	Japan	0	(2.0)	1	(3.2)	1	(2.5)	**39**	(4.0)	**21**	(4.1)
	Korea	**19**	(3.2)	**-14**	(4.9)	1	(2.5)	**39**	(3.1)	9	(5.5)
	Luxembourg	**7**	(2.0)	2	(2.8)	1	(1.5)	**33**	(1.6)	**20**	(2.8)
	Mexico	**4**	(1.1)	0	(1.5)	0	(0.6)	**18**	(0.8)	**14**	(1.3)
	Netherlands	3	(4.1)	5	(4.8)	-1	(2.5)	**35**	(3.4)	**14**	(3.3)
	New Zealand	3	(2.9)	-5	(4.5)	5	(2.5)	**52**	(2.3)	**15**	(3.9)
	Norway	5	(2.8)	0	(3.7)	**-4**	(1.8)	**31**	(2.7)	6	(3.8)
	Poland	-2	(3.0)	1	(4.2)	1	(2.4)	**41**	(2.8)	6	(3.8)
	Portugal	3	(2.8)	3	(3.9)	-2	(1.6)	**33**	(1.6)	**12**	(2.8)
	Slovak Republic	**7**	(2.9)	4	(4.3)	-1	(2.7)	**54**	(3.3)	**13**	(4.5)
	Slovenia	3	(2.9)	2	(4.0)	3	(2.0)	**41**	(1.9)	5	(3.6)
	Spain	1	(1.4)	3	(2.3)	0	(1.2)	**32**	(1.3)	**15**	(2.6)
	Sweden	0	(2.3)	5	(3.4)	-1	(2.0)	**33**	(2.3)	1	(3.3)
	Switzerland	**7**	(2.0)	4	(2.5)	1	(1.8)	**36**	(1.9)	**14**	(3.0)
	Turkey	-5	(3.0)	**9**	(2.9)	-1	(1.4)	**30**	(2.5)	8	(4.3)
	United Kingdom	3	(2.0)	-1	(2.9)	0	(1.8)	**41**	(2.3)	**12**	(4.3)
	United States	-1	(2.2)	6	(3.8)	**-3**	(1.4)	**33**	(1.9)	4	(3.3)
	OECD average	**3**	(0.4)	**2**	(0.6)	0	(0.3)	**37**	(0.4)	**12**	(0.6)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m
	Argentina	3	(2.3)	5	(3.1)	0	(1.5)	**25**	(1.9)	**15**	(2.9)
	Brazil	1	(2.5)	0	(2.0)	1	(1.1)	**26**	(1.7)	**15**	(2.3)
	Bulgaria	**8**	(2.3)	5	(3.2)	1	(1.9)	**42**	(2.8)	3	(3.8)
	Colombia	4	(2.5)	1	(2.9)	0	(1.2)	**23**	(1.9)	**20**	(3.3)
	Costa Rica	-2	(2.4)	2	(2.1)	-1	(1.2)	**23**	(1.7)	**19**	(3.0)
	Croatia	0	(2.6)	5	(3.1)	-1	(1.9)	**36**	(2.6)	8	(4.4)
	Cyprus*	2	(2.1)	5	(3.4)	**-3**	(1.5)	**37**	(2.0)	**6**	(2.7)
	Hong Kong-China	4	(4.5)	2	(4.8)	1	(2.3)	**25**	(2.8)	**13**	(6.1)
	Indonesia	0	(4.5)	**9**	(3.0)	-2	(2.0)	**19**	(3.6)	4	(3.9)
	Jordan	**7**	(1.9)	**7**	(3.0)	1	(1.3)	**21**	(2.2)	**-15**	(5.1)
	Kazakhstan	4	(2.0)	-2	(2.8)	-2	(1.9)	**27**	(3.1)	2	(3.2)
	Latvia	-4	(2.8)	1	(4.1)	1	(2.8)	**35**	(2.5)	2	(3.9)
	Liechtenstein	-10	(9.9)	**31**	(13.2)	1	(7.1)	**29**	(7.8)	1	(14.3)
	Lithuania	**12**	(2.2)	2	(2.9)	**-4**	(1.6)	**34**	(2.0)	2	(2.9)
	Macao-China	-3	(3.5)	1	(4.1)	0	(2.3)	**17**	(2.1)	6	(3.3)
	Malaysia	0	(3.0)	**8**	(3.7)	-1	(1.8)	**29**	(2.2)	-6	(3.7)
	Montenegro	**-10**	(2.4)	5	(3.4)	-3	(1.9)	**32**	(1.7)	0	(3.1)
	Peru	**7**	(3.5)	-5	(3.6)	0	(1.5)	**31**	(2.2)	**17**	(3.4)
	Qatar	**9**	(1.6)	**10**	(2.2)	**3**	(1.1)	**27**	(1.4)	-4	(2.3)
	Romania	**6**	(2.7)	-1	(3.2)	4	(2.1)	**38**	(3.1)	4	(3.6)
	Russian Federation	4	(2.7)	-6	(3.8)	**-9**	(2.2)	**35**	(3.5)	-2	(3.3)
	Serbia	-2	(2.9)	2	(3.8)	2	(2.2)	**34**	(2.7)	7	(4.6)
	Shanghai-China	-1	(2.7)	3	(3.8)	0	(1.8)	**40**	(3.1)	7	(3.8)
	Singapore	4	(2.5)	0	(3.9)	0	(2.0)	**42**	(1.7)	-3	(3.3)
	Chinese Taipei	-2	(2.7)	-5	(4.1)	0	(2.5)	**60**	(2.7)	6	(7.2)
	Thailand	**9**	(3.0)	**12**	(3.9)	0	(1.5)	**20**	(2.7)	**-10**	(3.4)
	Tunisia	5	(2.8)	6	(3.0)	2	(1.4)	**22**	(2.7)	**15**	(3.1)
	United Arab Emirates	**5**	(2.0)	**10**	(3.3)	1	(1.3)	**31**	(2.2)	-4	(4.3)
	Uruguay	-1	(2.3)	3	(3.1)	2	(1.4)	**35**	(1.7)	**12**	(2.8)
	Viet Nam	8	(4.9)	-3	(5.5)	**5**	(1.9)	**30**	(2.7)	**7**	(3.0)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Results based on a regression of mathematics performance on each indicator, each indicator interacted with the *PISA index of economic, social and cultural status* (ESCS), each indicator interacted with an indicator of whether the student is a boy, ESCS and whether the student is a boy.

2. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 4/4]

Table III.7.6a Gender and socio-economic differences in the association between engagement with and at school and mathematics performance

Results based on students' self-reports

		Differences in the association between engagement with and at school and mathematics performance, by selected indicators:									
		Index of attitudes towards school (learning outcomes)[1]									
		Attitudes towards school		Attitudes towards school x Boy		Attitudes towards school x ESCS		ESCS[2]		Boy	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	**15**	(1.7)	3	(2.3)	1	(1.3)	**38**	(1.5)	**12**	(2.5)
	Austria	-1	(2.3)	**11**	(3.4)	-1	(1.7)	**41**	(2.4)	**22**	(4.9)
	Belgium	**5**	(2.5)	5	(3.7)	1	(1.8)	**46**	(1.8)	**16**	(3.4)
	Canada	**10**	(1.8)	0	(2.1)	-1	(1.4)	**29**	(1.4)	**13**	(2.1)
	Chile	2	(2.0)	4	(2.5)	-2	(1.3)	**34**	(1.7)	**23**	(3.7)
	Czech Republic	6	(3.7)	6	(4.7)	2	(3.1)	**44**	(3.1)	**14**	(5.2)
	Denmark	**10**	(2.4)	1	(2.5)	-4	(2.0)	**38**	(2.0)	**17**	(2.8)
	Estonia	**7**	(2.6)	-1	(3.6)	3	(2.1)	**28**	(1.9)	6	(3.2)
	Finland	**12**	(2.3)	**6**	(2.8)	1	(1.9)	**27**	(1.9)	**7**	(2.9)
	France	**6**	(2.2)	2	(4.0)	1	(1.8)	**54**	(2.3)	**11**	(3.2)
	Germany	1	(2.5)	-1	(3.1)	-1	(1.7)	**39**	(1.9)	**14**	(3.3)
	Greece	**-4**	(2.0)	**8**	(3.2)	0	(1.5)	**34**	(2.1)	**12**	(3.4)
	Hungary	**9**	(2.8)	**8**	(3.5)	-2	(2.2)	**45**	(3.1)	**11**	(3.8)
	Iceland	**22**	(3.2)	-1	(3.9)	-2	(2.4)	**28**	(2.5)	3	(3.5)
	Ireland	3	(1.9)	2	(2.7)	1	(1.8)	**37**	(2.2)	**18**	(3.4)
	Israel	0	(2.5)	2	(3.8)	**-5**	(1.9)	**50**	(2.6)	12	(7.5)
	Italy	**5**	(1.6)	**4**	(1.7)	0	(1.0)	**30**	(1.2)	**19**	(2.5)
	Japan	2	(2.6)	-2	(3.0)	-3	(2.2)	**38**	(4.1)	**21**	(4.2)
	Korea	**11**	(2.6)	-5	(4.1)	1	(2.9)	**41**	(3.2)	**13**	(5.5)
	Luxembourg	**7**	(2.0)	**5**	(2.4)	2	(1.3)	**34**	(1.6)	**22**	(2.7)
	Mexico	**12**	(1.4)	2	(1.4)	**-1**	(0.7)	**18**	(0.8)	**16**	(1.4)
	Netherlands	**11**	(3.8)	0	(4.6)	**7**	(3.0)	**37**	(3.4)	**14**	(3.3)
	New Zealand	**11**	(2.5)	7	(3.6)	3	(2.2)	**49**	(2.3)	**16**	(3.7)
	Norway	**16**	(3.1)	2	(4.3)	**-5**	(2.0)	**28**	(2.7)	**8**	(3.5)
	Poland	1	(2.9)	0	(3.9)	2	(2.4)	**42**	(3.1)	6	(4.0)
	Portugal	**10**	(2.1)	3	(2.7)	0	(1.3)	**33**	(1.6)	**14**	(3.0)
	Slovak Republic	**7**	(3.4)	3	(4.2)	-1	(2.6)	**54**	(3.1)	**13**	(4.8)
	Slovenia	-1	(2.6)	4	(3.9)	5	(2.4)	**41**	(1.9)	5	(3.6)
	Spain	**6**	(1.7)	4	(2.6)	-1	(1.0)	**32**	(1.4)	**17**	(2.5)
	Sweden	**10**	(2.5)	5	(3.8)	1	(2.2)	**32**	(2.3)	3	(3.1)
	Switzerland	**6**	(2.5)	1	(3.0)	0	(1.9)	**37**	(1.8)	**17**	(2.9)
	Turkey	**-13**	(3.3)	4	(3.2)	**-7**	(1.4)	**30**	(2.4)	8	(4.3)
	United Kingdom	**8**	(2.3)	5	(3.0)	-1	(1.9)	**40**	(2.3)	**12**	(4.2)
	United States	**8**	(2.1)	2	(3.4)	**-5**	(1.6)	**33**	(1.9)	5	(3.3)
	OECD average	**6**	(0.4)	**3**	(0.6)	0	(0.3)	**37**	(0.4)	**13**	(0.6)
Partners	Albania	m	m	m	m	m	m	m	m	m	m
	Argentina	**12**	(2.2)	-1	(2.8)	0	(1.3)	**24**	(1.9)	**16**	(2.8)
	Brazil	**10**	(1.9)	1	(1.9)	1	(0.7)	**25**	(1.8)	**16**	(2.4)
	Bulgaria	**11**	(2.3)	**6**	(2.8)	2	(1.7)	**42**	(2.8)	5	(3.7)
	Colombia	**7**	(2.0)	3	(2.6)	-1	(1.2)	**23**	(1.9)	**21**	(3.2)
	Costa Rica	3	(1.9)	3	(2.3)	0	(1.1)	**22**	(1.7)	**19**	(2.9)
	Croatia	1	(2.3)	2	(2.8)	-3	(1.8)	**37**	(2.7)	**9**	(4.5)
	Cyprus*	**7**	(1.9)	**11**	(3.2)	-1	(1.7)	**37**	(1.8)	**10**	(2.9)
	Hong Kong-China	3	(5.0)	6	(5.6)	-1	(2.8)	**24**	(2.9)	**15**	(6.1)
	Indonesia	2	(4.4)	**8**	(2.7)	-2	(1.8)	**20**	(3.9)	2	(3.7)
	Jordan	**11**	(3.2)	**14**	(3.9)	**5**	(2.1)	**23**	(2.3)	-6	(5.3)
	Kazakhstan	**10**	(2.3)	2	(2.7)	**-4**	(1.9)	**26**	(3.3)	3	(3.3)
	Latvia	**10**	(2.7)	3	(4.2)	**-5**	(2.0)	**35**	(2.5)	5	(3.5)
	Liechtenstein	-20	(11.6)	25	(15.3)	10	(7.4)	**28**	(7.5)	13	(12.0)
	Lithuania	**7**	(2.3)	**7**	(2.6)	-3	(1.6)	**36**	(2.3)	2	(3.0)
	Macao-China	**8**	(4.1)	0	(4.9)	4	(2.5)	**18**	(2.0)	6	(3.3)
	Malaysia	0	(3.3)	**10**	(4.1)	**-5**	(1.7)	**29**	(2.2)	-6	(3.7)
	Montenegro	-2	(2.4)	**8**	(3.0)	-4	(2.1)	**32**	(1.6)	1	(3.1)
	Peru	**9**	(2.7)	1	(3.1)	1	(1.3)	**31**	(2.1)	**17**	(3.4)
	Qatar	**24**	(1.7)	**9**	(2.6)	**6**	(1.3)	**28**	(1.5)	0	(2.5)
	Romania	**5**	(2.1)	-2	(2.7)	-1	(1.6)	**37**	(2.9)	5	(3.5)
	Russian Federation	**6**	(2.4)	0	(3.3)	-4	(2.4)	**37**	(3.4)	-1	(3.6)
	Serbia	**9**	(3.4)	2	(4.2)	0	(2.6)	**34**	(2.7)	8	(4.3)
	Shanghai-China	-4	(3.2)	1	(4.2)	4	(2.4)	**41**	(3.1)	6	(3.8)
	Singapore	**9**	(2.4)	4	(3.5)	-2	(2.4)	**41**	(1.6)	-2	(3.1)
	Chinese Taipei	1	(3.2)	0	(4.1)	0	(2.5)	**60**	(2.8)	6	(7.4)
	Thailand	**9**	(2.8)	**10**	(3.2)	-1	(1.5)	**20**	(2.7)	**-10**	(3.4)
	Tunisia	5	(3.0)	5	(3.0)	1	(1.3)	**21**	(2.6)	**16**	(3.2)
	United Arab Emirates	**6**	(2.0)	**16**	(2.9)	1	(1.4)	**31**	(2.2)	-1	(4.1)
	Uruguay	1	(3.2)	5	(3.4)	0	(1.5)	**36**	(1.8)	**12**	(2.7)
	Viet Nam	-4	(4.6)	4	(3.9)	1	(1.7)	**28**	(2.5)	**7**	(3.1)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Results based on a regression of mathematics performance on each indicator, each indicator interacted with the *PISA index of economic, social and cultural status* (ESCS), each indicator interacted with an indicator of whether the student is a boy, ESCS and whether the student is a boy.

2. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/3]

Table III.7.6b Gender and socio-economic differences in the association between drive and motivation and mathematics performance

Results based on students' self-reports

		Differences in the association between drive and motivation and mathematics performance, by selected indicators:									
		Index of perseverance[1]									
		Perseverance		Perseverance x Boy		Perseverance x ESCS		ESCS[2]		Boy	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	**22**	(1.8)	3	(2.4)	-2	(1.5)	**37**	(1.5)	**9**	(2.6)
	Austria	**12**	(2.2)	1	(3.1)	-1	(2.0)	**40**	(2.6)	**21**	(4.3)
	Belgium	**15**	(2.1)	-1	(2.6)	**4**	(1.9)	**47**	(2.3)	**7**	(3.4)
	Canada	**18**	(1.2)	-2	(1.8)	-1	(1.4)	**30**	(1.5)	**12**	(2.0)
	Chile	**8**	(2.0)	2	(2.9)	-1	(1.3)	**33**	(1.7)	**21**	(3.4)
	Czech Republic	**8**	(3.0)	2	(5.1)	0	(3.8)	**45**	(2.7)	**19**	(4.3)
	Denmark	**24**	(2.2)	-4	(3.3)	1	(2.1)	**32**	(2.0)	**9**	(2.5)
	Estonia	2	(2.5)	1	(3.5)	2	(2.0)	**29**	(2.1)	6	(3.2)
	Finland	**31**	(2.1)	0	(2.8)	0	(1.6)	**26**	(1.6)	-1	(2.8)
	France	**19**	(1.9)	2	(2.6)	**6**	(1.8)	**56**	(2.9)	**8**	(3.5)
	Germany	**17**	(3.2)	-1	(4.6)	2	(2.2)	**39**	(2.1)	**11**	(3.5)
	Greece	**18**	(2.0)	6	(2.9)	**4**	(1.6)	**31**	(1.9)	**9**	(3.5)
	Hungary	**11**	(2.8)	1	(4.6)	-3	(2.3)	**46**	(2.9)	7	(3.6)
	Iceland	**29**	(3.6)	-3	(4.1)	1	(2.5)	**25**	(2.5)	**-8**	(3.8)
	Ireland	**21**	(2.2)	**-8**	(2.8)	-1	(1.8)	**35**	(2.0)	**16**	(3.4)
	Israel	0	(1.7)	3	(2.4)	**-5**	(1.3)	**49**	(3.1)	**17**	(5.8)
	Italy	**9**	(1.3)	**5**	(2.1)	0	(0.8)	**29**	(1.2)	**18**	(2.3)
	Japan	**21**	(2.9)	1	(3.8)	1	(2.7)	**41**	(3.9)	**18**	(4.6)
	Korea	**27**	(2.8)	3	(4.3)	-1	(3.7)	**36**	(3.6)	**12**	(5.7)
	Luxembourg	**11**	(2.6)	3	(3.6)	**5**	(1.6)	**36**	(1.5)	**22**	(3.1)
	Mexico	**10**	(1.0)	**5**	(1.3)	0	(0.5)	**18**	(0.9)	**10**	(1.4)
	Netherlands	**7**	(3.1)	-1	(3.6)	0	(2.5)	**37**	(3.0)	**13**	(3.0)
	New Zealand	**25**	(2.4)	0	(3.8)	**6**	(2.3)	**48**	(2.5)	**15**	(3.9)
	Norway	**30**	(2.0)	0	(2.8)	2	(2.0)	**25**	(2.7)	-5	(2.8)
	Poland	**18**	(2.2)	4	(2.9)	0	(2.1)	**37**	(2.4)	5	(3.1)
	Portugal	**17**	(1.8)	**9**	(2.7)	1	(1.1)	**31**	(1.7)	**11**	(2.7)
	Slovak Republic	**15**	(2.3)	4	(3.1)	4	(2.2)	**53**	(3.5)	**11**	(4.7)
	Slovenia	**5**	(2.6)	5	(3.5)	**4**	(1.9)	**39**	(1.9)	**8**	(3.9)
	Spain	**13**	(1.8)	**7**	(2.2)	2	(1.1)	**32**	(1.2)	**18**	(2.5)
	Sweden	**23**	(2.1)	4	(3.5)	**6**	(1.7)	**34**	(2.4)	**-7**	(3.5)
	Switzerland	**12**	(2.3)	1	(3.1)	-1	(1.9)	**37**	(2.3)	**14**	(2.9)
	Turkey	**8**	(3.2)	2	(3.5)	-2	(1.3)	**32**	(2.5)	9	(4.8)
	United Kingdom	**23**	(1.9)	-3	(3.1)	-2	(1.6)	**36**	(2.5)	6	(4.4)
	United States	**13**	(2.1)	1	(3.2)	0	(1.4)	**34**	(1.9)	**8**	(3.4)
	OECD average	**16**	(0.4)	**2**	(0.6)	**1**	(0.3)	**36**	(0.4)	**10**	(0.6)
Partners	Albania	m	m	m	m	m	m	m	m	m	m
	Argentina	**7**	(2.2)	**6**	(2.8)	0	(1.2)	**25**	(1.8)	**15**	(3.5)
	Brazil	**10**	(1.5)	**4**	(2.0)	2	(0.9)	**25**	(1.7)	**14**	(2.1)
	Bulgaria	**6**	(1.8)	**4**	(2.1)	0	(1.5)	**40**	(3.0)	-2	(3.7)
	Colombia	**5**	(2.0)	**8**	(2.9)	2	(1.0)	**22**	(1.8)	**20**	(3.5)
	Costa Rica	**6**	(2.5)	-2	(2.7)	-2	(1.3)	**23**	(2.0)	**22**	(3.1)
	Croatia	2	(2.1)	**6**	(2.9)	0	(1.5)	**34**	(2.7)	**11**	(4.5)
	Cyprus*	**15**	(2.5)	**12**	(4.0)	1	(2.3)	**34**	(1.8)	**8**	(3.1)
	Hong Kong-China	**17**	(3.7)	-7	(4.0)	-2	(2.2)	**27**	(2.8)	**14**	(5.2)
	Indonesia	7	(4.5)	2	(3.0)	1	(1.8)	**20**	(4.0)	5	(3.8)
	Jordan	**18**	(2.1)	4	(3.7)	2	(1.2)	**19**	(2.1)	**-14**	(5.2)
	Kazakhstan	**5**	(2.0)	2	(2.8)	-2	(1.5)	**26**	(3.2)	0	(4.0)
	Latvia	**10**	(2.3)	6	(3.4)	-4	(2.0)	**34**	(2.3)	-5	(3.9)
	Liechtenstein	12	(18.5)	-7	(22.6)	6	(14.9)	**20**	(8.1)	**33**	(11.7)
	Lithuania	**9**	(2.9)	3	(4.0)	-3	(2.3)	**36**	(2.1)	5	(3.2)
	Macao-China	**20**	(3.3)	-3	(3.7)	-1	(2.1)	**16**	(1.8)	2	(2.7)
	Malaysia	**9**	(2.6)	3	(3.9)	-1	(1.8)	**30**	(2.2)	-6	(3.8)
	Montenegro	**11**	(2.1)	5	(2.9)	-1	(1.7)	**31**	(1.7)	-2	(3.2)
	Peru	**9**	(2.0)	4	(2.8)	0	(1.2)	**32**	(2.3)	**16**	(3.2)
	Qatar	**21**	(1.8)	**9**	(2.8)	2	(1.4)	**23**	(1.6)	**-9**	(2.1)
	Romania	**8**	(2.2)	1	(3.3)	2	(1.7)	**37**	(2.8)	4	(3.6)
	Russian Federation	1	(2.6)	**7**	(3.4)	-3	(1.7)	**38**	(3.6)	-5	(3.5)
	Serbia	**6**	(2.5)	2	(3.2)	**-3**	(1.4)	**33**	(2.5)	7	(3.9)
	Shanghai-China	**6**	(3.2)	6	(4.0)	0	(1.8)	**39**	(2.9)	5	(3.6)
	Singapore	**10**	(3.3)	-3	(4.0)	-3	(2.4)	**44**	(2.1)	-3	(3.6)
	Chinese Taipei	**27**	(3.6)	-6	(5.1)	-3	(2.3)	**53**	(2.9)	7	(7.1)
	Thailand	**16**	(3.5)	**9**	(4.3)	1	(1.8)	**20**	(2.6)	**-10**	(3.2)
	Tunisia	**13**	(2.3)	**5**	(2.2)	**3**	(1.3)	**19**	(2.4)	**17**	(2.9)
	United Arab Emirates	**18**	(1.8)	**10**	(2.8)	0	(1.3)	**29**	(2.1)	-6	(4.1)
	Uruguay	**13**	(2.3)	-2	(3.0)	1	(1.1)	**37**	(2.0)	7	(3.6)
	Viet Nam	7	(4.4)	4	(3.0)	1	(1.8)	**29**	(2.6)	6	(3.4)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Results based on a regression of mathematics performance on each indicator, each indicator interacted with the *PISA index of economic, social and cultural status* (ESCS), each indicator interacted with an indicator of whether the student is a boy, ESCS and whether the student is a boy.
2. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/3]

Table III.7.6b Gender and socio-economic differences in the association between drive and motivation and mathematics performance

Results based on students' self-reports

		Differences in the association between drive and motivation and mathematics performance, by selected indicators:									
		Index of intrinsic motivation[1]									
		Intrinsic motivation		Intrinsic motivation x Boy		Intrinsic motivation x ESCS		ESCS[2]		Boy	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	**21**	(1.5)	-2	(2.4)	**5**	(1.4)	**40**	(1.5)	**7**	(2.5)
	Austria	**12**	(3.0)	1	(3.8)	3	(2.2)	**41**	(2.9)	**19**	(4.7)
	Belgium	**19**	(2.1)	-2	(3.0)	**9**	(1.6)	**47**	(2.2)	**7**	(3.4)
	Canada	**18**	(1.5)	-1	(1.8)	2	(1.2)	**30**	(1.5)	**8**	(1.9)
	Chile	**14**	(1.8)	-3	(2.4)	**2**	(1.1)	**34**	(1.8)	**19**	(3.3)
	Czech Republic	**23**	(2.9)	-7	(4.1)	**5**	(2.7)	**46**	(2.7)	**12**	(4.3)
	Denmark	**24**	(2.2)	-4	(2.8)	3	(1.8)	**32**	(1.9)	**9**	(2.7)
	Estonia	**18**	(2.2)	-1	(3.4)	4	(3.2)	**28**	(1.9)	5	(2.7)
	Finland	**25**	(1.9)	-1	(3.0)	**6**	(1.7)	**29**	(1.6)	-3	(3.2)
	France	**19**	(2.1)	-4	(3.6)	**9**	(2.0)	**55**	(2.7)	**7**	(3.2)
	Germany	**17**	(2.3)	-4	(3.0)	**4**	(1.7)	**40**	(2.1)	**8**	(3.5)
	Greece	**19**	(2.2)	2	(2.7)	**7**	(1.4)	**29**	(1.9)	2	(3.4)
	Hungary	**19**	(2.4)	-7	(4.0)	**12**	(2.1)	**48**	(2.7)	2	(3.9)
	Iceland	**26**	(3.1)	**-9**	(4.0)	3	(2.3)	**26**	(2.4)	-4	(4.0)
	Ireland	**17**	(2.3)	-1	(2.9)	**7**	(2.0)	**36**	(2.0)	**16**	(3.4)
	Israel	-1	(2.1)	0	(3.4)	-1	(2.0)	**47**	(3.1)	**17**	(5.9)
	Italy	**17**	(1.6)	-3	(2.2)	**4**	(1.0)	**29**	(1.1)	**16**	(2.4)
	Japan	**25**	(2.2)	-1	(2.8)	0	(2.0)	**37**	(3.4)	**12**	(3.9)
	Korea	**33**	(2.4)	6	(3.7)	3	(2.6)	**33**	(3.4)	**13**	(5.3)
	Luxembourg	**13**	(1.9)	-2	(2.7)	**7**	(1.4)	**37**	(1.5)	**19**	(2.9)
	Mexico	**9**	(1.5)	-2	(1.7)	0	(0.6)	**19**	(0.9)	**10**	(1.6)
	Netherlands	**20**	(2.7)	**-10**	(3.8)	4	(2.8)	**37**	(3.0)	**7**	(3.3)
	New Zealand	**11**	(2.9)	1	(4.5)	**9**	(2.5)	**50**	(2.4)	**15**	(3.8)
	Norway	**30**	(2.6)	-5	(3.2)	**6**	(2.1)	**27**	(2.6)	-5	(2.6)
	Poland	**27**	(2.4)	-5	(3.6)	4	(2.1)	**41**	(2.4)	3	(3.3)
	Portugal	**18**	(2.9)	2	(4.0)	2	(1.3)	**33**	(1.8)	**12**	(2.5)
	Slovak Republic	**10**	(3.0)	0	(4.4)	**11**	(2.5)	**55**	(3.0)	9	(4.8)
	Slovenia	**19**	(2.4)	**-8**	(3.5)	**6**	(1.9)	**40**	(1.8)	2	(4.1)
	Spain	**14**	(1.5)	4	(2.0)	**4**	(1.1)	**34**	(1.2)	**17**	(2.4)
	Sweden	**24**	(1.6)	-2	(3.0)	**8**	(1.9)	**32**	(2.1)	**-7**	(3.2)
	Switzerland	**13**	(1.9)	0	(3.1)	3	(1.5)	**39**	(2.2)	**9**	(2.9)
	Turkey	**21**	(3.5)	**-7**	(3.1)	**5**	(1.5)	**30**	(2.3)	**11**	(4.8)
	United Kingdom	**19**	(2.5)	-5	(3.2)	**7**	(2.3)	**36**	(2.7)	8	(4.5)
	United States	**16**	(2.1)	**-8**	(3.1)	2	(1.6)	**36**	(1.9)	**7**	(3.0)
	OECD average	**19**	(0.4)	**-3**	(0.6)	**5**	(0.3)	**37**	(0.4)	**8**	(0.6)
Partners	Albania	m	m	m	m	m	m	m	m	m	m
	Argentina	3	(2.5)	-6	(3.3)	1	(1.2)	**26**	(1.8)	**16**	(3.5)
	Brazil	-1	(2.5)	-2	(2.3)	0	(1.3)	**26**	(2.0)	**15**	(2.0)
	Bulgaria	1	(2.6)	-4	(3.4)	2	(1.4)	**41**	(2.9)	-1	(3.4)
	Colombia	**6**	(3.0)	-3	(3.3)	**5**	(1.5)	**20**	(1.9)	**22**	(3.8)
	Costa Rica	4	(2.2)	**-6**	(2.8)	1	(1.2)	**23**	(1.8)	**22**	(2.9)
	Croatia	**15**	(3.2)	-5	(3.5)	**5**	(2.5)	**35**	(2.9)	**10**	(4.7)
	Cyprus*	**16**	(1.7)	3	(2.8)	1	(1.6)	**34**	(1.8)	3	(2.9)
	Hong Kong-China	**23**	(3.2)	-1	(3.3)	**-6**	(2.3)	**28**	(2.9)	5	(5.4)
	Indonesia	**-22**	(9.7)	5	(4.1)	**-8**	(3.8)	**27**	(5.4)	1	(4.9)
	Jordan	**13**	(1.8)	-6	(3.6)	0	(1.7)	**21**	(1.6)	**-13**	(4.7)
	Kazakhstan	1	(2.5)	1	(3.2)	1	(2.4)	**27**	(3.3)	0	(3.9)
	Latvia	**17**	(2.9)	-1	(3.8)	**8**	(2.5)	**35**	(2.2)	-6	(3.9)
	Liechtenstein	12	(11.4)	-3	(14.7)	5	(8.0)	**18**	(7.4)	**32**	(11.8)
	Lithuania	**13**	(2.0)	-3	(3.3)	1	(1.6)	**36**	(2.1)	2	(3.1)
	Macao-China	**24**	(3.0)	**-9**	(3.9)	-3	(2.2)	**18**	(1.9)	-3	(2.7)
	Malaysia	**14**	(3.2)	**8**	(3.7)	1	(1.8)	**29**	(2.8)	**-12**	(4.4)
	Montenegro	**8**	(1.9)	**-6**	(3.1)	3	(1.8)	**32**	(1.7)	-4	(2.9)
	Peru	-6	(3.3)	3	(3.1)	1	(1.5)	**32**	(2.6)	**14**	(3.7)
	Qatar	**13**	(1.3)	**-8**	(2.1)	**3**	(1.2)	**26**	(1.6)	**-9**	(2.5)
	Romania	**-8**	(2.5)	0	(3.5)	-3	(2.0)	**39**	(3.1)	3	(4.1)
	Russian Federation	**17**	(3.3)	-3	(4.6)	5	(2.6)	**37**	(3.5)	-4	(3.3)
	Serbia	**13**	(2.9)	**-11**	(4.2)	**5**	(2.0)	**35**	(2.4)	4	(4.2)
	Shanghai-China	**15**	(3.1)	1	(3.8)	-2	(2.2)	**40**	(3.1)	3	(3.7)
	Singapore	1	(2.8)	**11**	(3.6)	-3	(2.1)	**47**	(2.7)	**-12**	(4.4)
	Chinese Taipei	**30**	(2.7)	5	(4.0)	-3	(2.2)	**52**	(2.8)	-2	(6.7)
	Thailand	**7**	(3.2)	1	(4.1)	0	(1.9)	**23**	(2.9)	**-13**	(4.1)
	Tunisia	**12**	(2.4)	-5	(2.6)	**3**	(1.1)	**19**	(2.5)	**19**	(3.1)
	United Arab Emirates	**7**	(1.6)	-3	(2.7)	1	(1.3)	**32**	(2.2)	-2	(4.7)
	Uruguay	**10**	(2.4)	**-8**	(3.3)	**5**	(1.2)	**37**	(2.1)	**7**	(3.5)
	Viet Nam	**12**	(5.1)	**9**	(3.9)	-1	(2.2)	**30**	(2.6)	-1	(4.0)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Results based on a regression of mathematics performance on each indicator, each indicator interacted with the *PISA index of economic, social and cultural status* (ESCS), each indicator interacted with an indicator of whether the student is a boy, ESCS and whether the student is a boy.

2. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 3/3]

Table III.7.6b Gender and socio-economic differences in the association between drive and motivation and mathematics performance

Results based on students' self-reports

		Differences in the association between drive and motivation and mathematics performance, by selected indicators:									
		Index of instrumental motivation[1]									
		Instrumental motivation		Instrumental motivation x Boy		Instrumental motivation x ESCS		ESCS[2]		Boy	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	**17**	(1.5)	-1	(2.2)	2	(1.6)	**40**	(1.6)	**8**	(2.7)
	Austria	2	(2.8)	2	(3.8)	0	(1.9)	**40**	(2.6)	**23**	(4.5)
	Belgium	**18**	(2.6)	0	(3.2)	**6**	(1.4)	**46**	(2.2)	5	(3.8)
	Canada	**17**	(1.8)	2	(2.1)	2	(1.4)	**30**	(1.6)	**9**	(2.1)
	Chile	**11**	(1.7)	0	(2.4)	1	(1.2)	**34**	(1.8)	**20**	(3.4)
	Czech Republic	**10**	(3.5)	0	(4.1)	-2	(2.6)	**46**	(2.7)	**15**	(4.6)
	Denmark	**21**	(2.4)	-4	(3.4)	1	(1.6)	**33**	(2.0)	**9**	(2.7)
	Estonia	**13**	(2.4)	1	(3.7)	2	(2.7)	**28**	(1.9)	5	(2.7)
	Finland	**20**	(1.8)	**6**	(2.6)	**5**	(1.8)	**28**	(1.7)	1	(2.8)
	France	**11**	(2.1)	-1	(3.2)	**8**	(1.9)	**57**	(2.8)	**8**	(3.4)
	Germany	**10**	(2.4)	1	(3.2)	1	(1.7)	**41**	(2.1)	**10**	(3.5)
	Greece	**15**	(1.8)	2	(2.3)	**6**	(1.3)	**32**	(2.0)	6	(3.4)
	Hungary	**13**	(2.6)	1	(4.0)	**7**	(1.9)	**47**	(2.6)	4	(3.9)
	Iceland	**23**	(3.6)	-5	(4.3)	2	(2.3)	**26**	(2.5)	-3	(4.2)
	Ireland	**9**	(2.5)	0	(3.3)	**8**	(2.0)	**36**	(2.0)	**15**	(3.4)
	Israel	**5**	(2.3)	5	(3.5)	-1	(1.9)	**47**	(3.1)	**14**	(6.2)
	Italy	**10**	(1.6)	1	(2.2)	**4**	(0.9)	**30**	(1.1)	**17**	(2.4)
	Japan	**23**	(2.1)	0	(3.0)	0	(2.1)	**36**	(3.6)	**14**	(4.3)
	Korea	**32**	(2.2)	6	(3.5)	1	(2.3)	**33**	(3.4)	**15**	(5.2)
	Luxembourg	**9**	(1.9)	1	(2.5)	**5**	(1.3)	**37**	(1.5)	**20**	(3.2)
	Mexico	**6**	(1.2)	**3**	(1.3)	0	(0.6)	**19**	(0.9)	**9**	(1.4)
	Netherlands	**16**	(2.6)	-3	(3.6)	0	(2.6)	**36**	(3.1)	**8**	(3.3)
	New Zealand	**12**	(2.3)	6	(4.4)	3	(2.3)	**50**	(2.5)	**13**	(3.8)
	Norway	**28**	(2.3)	1	(3.2)	2	(1.8)	**25**	(2.6)	-1	(2.6)
	Poland	**25**	(2.5)	1	(3.4)	3	(2.0)	**39**	(2.4)	6	(3.4)
	Portugal	**17**	(2.6)	6	(3.5)	1	(1.2)	**32**	(1.7)	**10**	(2.5)
	Slovak Republic	**8**	(2.7)	5	(4.4)	**10**	(2.6)	**56**	(3.2)	**10**	(4.7)
	Slovenia	**10**	(2.6)	4	(4.0)	3	(2.3)	**40**	(1.9)	6	(4.2)
	Spain	**12**	(1.3)	**9**	(1.8)	**3**	(1.0)	**33**	(1.2)	**17**	(2.3)
	Sweden	**14**	(2.2)	5	(3.5)	**5**	(2.0)	**34**	(2.3)	-6	(3.4)
	Switzerland	**5**	(2.1)	2	(3.1)	0	(1.5)	**38**	(2.2)	**13**	(3.0)
	Turkey	**12**	(3.0)	1	(3.1)	2	(1.4)	**32**	(2.4)	**9**	(4.6)
	United Kingdom	**11**	(2.8)	-5	(4.0)	3	(2.2)	**38**	(2.8)	**10**	(4.8)
	United States	**11**	(2.0)	0	(2.8)	**3**	(1.6)	**35**	(1.8)	**8**	(3.2)
	OECD average	**14**	(0.4)	**2**	(0.6)	**3**	(0.3)	**37**	(0.4)	**10**	(0.6)
Partners	Albania	m	m	m	m	m	m	m	m	m	m
	Argentina	2	(2.5)	-2	(3.4)	2	(1.4)	**26**	(1.8)	**15**	(3.5)
	Brazil	-3	(1.9)	**5**	(2.1)	0	(1.0)	**26**	(1.8)	**12**	(2.0)
	Bulgaria	2	(2.3)	4	(3.2)	3	(1.7)	**42**	(2.8)	-1	(3.4)
	Colombia	1	(2.6)	1	(3.3)	**4**	(1.4)	**22**	(1.8)	**20**	(3.2)
	Costa Rica	1	(2.4)	-3	(2.5)	2	(1.3)	**23**	(1.8)	**21**	(2.8)
	Croatia	**10**	(3.5)	5	(3.5)	3	(2.5)	**35**	(2.8)	**11**	(4.6)
	Cyprus*	**17**	(1.5)	**8**	(2.5)	**3**	(1.4)	**34**	(1.7)	2	(2.9)
	Hong Kong-China	**18**	(3.1)	-2	(3.6)	**-5**	(2.3)	**26**	(2.7)	9	(5.4)
	Indonesia	-6	(5.3)	4	(3.4)	-4	(2.2)	**22**	(3.9)	3	(3.8)
	Jordan	**12**	(1.9)	2	(3.1)	1	(1.1)	**21**	(2.0)	**-16**	(5.4)
	Kazakhstan	**-4**	(2.1)	**7**	(3.0)	-2	(2.1)	**28**	(3.0)	-2	(3.3)
	Latvia	**11**	(2.8)	1	(4.2)	0	(2.1)	**35**	(2.2)	-6	(3.9)
	Liechtenstein	-18	(9.1)	11	(13.3)	-11	(6.4)	**22**	(7.6)	**42**	(12.1)
	Lithuania	**11**	(2.1)	5	(2.9)	-1	(1.8)	**36**	(2.2)	1	(3.2)
	Macao-China	**15**	(3.4)	-7	(3.7)	0	(2.5)	**18**	(1.9)	-1	(2.7)
	Malaysia	**8**	(3.0)	**11**	(3.5)	-3	(1.9)	**31**	(2.5)	**-10**	(4.0)
	Montenegro	**5**	(2.1)	0	(3.0)	**3**	(1.6)	**33**	(1.6)	-4	(2.9)
	Peru	2	(3.0)	1	(3.5)	0	(1.2)	**33**	(2.4)	**17**	(3.9)
	Qatar	**15**	(1.5)	4	(2.5)	**5**	(1.2)	**24**	(1.5)	**-15**	(2.2)
	Romania	**-9**	(2.2)	0	(3.0)	-4	(1.9)	**36**	(2.8)	3	(3.9)
	Russian Federation	**7**	(2.6)	5	(3.6)	3	(2.2)	**38**	(3.6)	-4	(3.1)
	Serbia	4	(3.0)	1	(3.8)	2	(2.1)	**34**	(2.4)	7	(4.1)
	Shanghai-China	**9**	(3.2)	5	(3.6)	1	(1.9)	**39**	(2.8)	**7**	(3.4)
	Singapore	**-9**	(2.9)	**12**	(3.8)	-4	(2.1)	**45**	(2.1)	**-7**	(3.5)
	Chinese Taipei	**29**	(3.0)	2	(4.4)	-2	(2.3)	**51**	(3.0)	4	(7.4)
	Thailand	**11**	(3.4)	8	(4.4)	0	(1.9)	**22**	(2.8)	**-13**	(3.2)
	Tunisia	**15**	(2.5)	0	(2.7)	**3**	(1.2)	**19**	(2.6)	**17**	(3.2)
	United Arab Emirates	**5**	(1.5)	**6**	(2.6)	2	(1.2)	**31**	(2.4)	-7	(5.0)
	Uruguay	4	(2.2)	-2	(3.0)	**5**	(1.2)	**37**	(2.0)	7	(3.5)
	Viet Nam	**11**	(4.4)	3	(4.3)	0	(1.7)	**29**	(2.8)	6	(3.4)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Results based on a regression of mathematics performance on each indicator, each indicator interacted with the *PISA index of economic, social and cultural status* (ESCS), each indicator interacted with an indicator of whether the student is a boy, ESCS and whether the student is a boy.

2. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/4]

Table III.7.6c

Gender and socio-economic differences in the association between mathematics self-beliefs and mathematics performance

Results based on students' self-reports

		Differences in the association between mathematics self-beliefs and mathematics performance, by selected indicators:									
		Index of mathematics self-efficacy[1]									
		Mathematics self-efficacy		Mathematics self-efficacy x Boy		Mathematics self-efficacy x ESCS		ESCS[2]		Boy	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	**53**	(1.6)	**-5**	(2.3)	1	(1.5)	**24**	(1.3)	**-8**	(2.1)
	Austria	**45**	(3.1)	**-7**	(3.4)	1	(2.3)	**28**	(2.6)	4	(3.6)
	Belgium	**42**	(2.4)	**-6**	(2.7)	1	(1.4)	**36**	(2.1)	-6	(2.9)
	Canada	**46**	(1.5)	**-5**	(1.8)	1	(1.2)	**19**	(1.3)	-1	(1.8)
	Chile	**30**	(2.8)	-5	(3.5)	**7**	(1.2)	**32**	(1.6)	**14**	(3.3)
	Czech Republic	**54**	(3.6)	**-12**	(3.6)	3	(3.3)	**29**	(2.4)	-2	(3.7)
	Denmark	**47**	(2.9)	-6	(3.8)	2	(1.6)	**23**	(1.8)	**-5**	(2.3)
	Estonia	**52**	(2.4)	**-9**	(3.3)	-3	(2.9)	**18**	(1.8)	**-8**	(2.5)
	Finland	**51**	(1.9)	**-7**	(2.8)	0	(1.7)	**18**	(1.6)	**-19**	(2.8)
	France	**47**	(2.7)	**-9**	(3.6)	-1	(2.0)	**41**	(2.6)	**-8**	(3.1)
	Germany	**51**	(2.9)	-4	(3.1)	-2	(2.0)	**28**	(2.0)	**-7**	(2.8)
	Greece	**36**	(2.2)	-5	(2.7)	2	(1.8)	**24**	(1.7)	0	(3.5)
	Hungary	**47**	(2.8)	-4	(3.0)	1	(1.9)	**31**	(2.4)	-3	(3.7)
	Iceland	**45**	(2.7)	**-8**	(3.2)	-1	(2.1)	**16**	(2.4)	**-20**	(3.6)
	Ireland	**46**	(2.1)	**-7**	(3.2)	0	(1.7)	**25**	(1.8)	3	(3.0)
	Israel	**33**	(2.2)	7	(4.0)	3	(2.5)	**35**	(2.5)	3	(4.7)
	Italy	**52**	(1.9)	**-7**	(2.3)	-1	(1.0)	**20**	(1.0)	**5**	(2.1)
	Japan	**52**	(2.5)	**-7**	(3.1)	**-5**	(1.8)	**21**	(2.6)	0	(3.6)
	Korea	**55**	(2.3)	-1	(3.2)	0	(2.0)	**15**	(2.9)	2	(4.5)
	Luxembourg	**40**	(2.3)	**-9**	(3.2)	**3**	(1.4)	**26**	(1.5)	**9**	(2.7)
	Mexico	**27**	(1.7)	-1	(1.5)	**2**	(0.8)	**17**	(0.9)	**5**	(1.4)
	Netherlands	**42**	(3.2)	-4	(3.4)	0	(2.6)	**29**	(2.6)	-4	(3.0)
	New Zealand	**45**	(3.3)	4	(3.7)	**6**	(2.1)	**35**	(2.7)	-2	(3.8)
	Norway	**50**	(2.1)	**-7**	(3.0)	1	(1.9)	**14**	(2.3)	**-14**	(2.5)
	Poland	**49**	(2.0)	1	(2.6)	-2	(1.9)	**24**	(1.8)	-1	(2.8)
	Portugal	**51**	(2.3)	-2	(2.5)	-2	(1.4)	**19**	(1.7)	4	(2.4)
	Slovak Republic	**52**	(2.9)	-7	(4.1)	1	(2.7)	**39**	(2.9)	3	(4.1)
	Slovenia	**38**	(2.6)	-4	(2.9)	1	(1.8)	**28**	(2.0)	1	(3.5)
	Spain	**38**	(1.9)	1	(2.5)	1	(1.0)	**25**	(1.2)	**10**	(2.1)
	Sweden	**44**	(2.3)	-2	(3.9)	**6**	(2.2)	**23**	(2.0)	**-14**	(2.8)
	Switzerland	**57**	(1.9)	**-11**	(2.8)	0	(1.6)	**24**	(1.9)	**-5**	(2.6)
	Turkey	**51**	(4.2)	**-8**	(3.3)	**6**	(1.7)	**24**	(1.8)	2	(4.2)
	United Kingdom	**54**	(2.5)	-7	(3.5)	0	(2.0)	**24**	(2.6)	**-10**	(3.4)
	United States	**45**	(2.5)	-4	(2.9)	**3**	(1.6)	**23**	(1.6)	-2	(2.8)
	OECD average	**46**	(0.4)	**-5**	(0.5)	**1**	(0.3)	**25**	(0.4)	**-2**	(0.5)
Partners	Albania	m	m	m	m	m	m	m	m	m	m
	Argentina	**19**	(2.5)	-3	(3.8)	**5**	(1.5)	**27**	(2.0)	**11**	(3.6)
	Brazil	**33**	(2.4)	**-8**	(2.2)	**8**	(1.1)	**26**	(1.6)	**6**	(2.3)
	Bulgaria	**20**	(3.0)	-1	(3.7)	**7**	(1.8)	**39**	(2.7)	-5	(3.6)
	Colombia	**22**	(3.2)	-4	(3.8)	**8**	(1.4)	**26**	(1.9)	**17**	(3.7)
	Costa Rica	**17**	(3.6)	0	(3.4)	**5**	(1.9)	**23**	(1.9)	**17**	(3.4)
	Croatia	**46**	(3.4)	-1	(3.3)	0	(2.3)	**20**	(1.8)	-2	(3.6)
	Cyprus*	**31**	(2.4)	5	(3.1)	2	(1.6)	**26**	(1.7)	1	(2.8)
	Hong Kong-China	**46**	(2.4)	-5	(2.9)	**-5**	(1.8)	**18**	(2.4)	-3	(4.5)
	Indonesia	**24**	(3.7)	-3	(4.2)	**5**	(1.7)	**21**	(3.5)	3	(4.1)
	Jordan	**23**	(2.4)	**-7**	(2.6)	**4**	(1.7)	**18**	(1.9)	**-20**	(5.4)
	Kazakhstan	**16**	(2.7)	5	(3.2)	4	(2.2)	**23**	(2.8)	-1	(2.9)
	Latvia	**48**	(3.8)	**-10**	(4.3)	-3	(2.3)	**23**	(2.2)	**-17**	(3.7)
	Liechtenstein	**66**	(10.2)	-8	(13.8)	-9	(7.1)	8	(7.6)	6	(12.3)
	Lithuania	**47**	(2.4)	**-6**	(2.9)	2	(1.7)	**25**	(1.9)	**-8**	(2.8)
	Macao-China	**52**	(2.7)	**-11**	(3.0)	-4	(2.3)	**9**	(1.7)	**-5**	(2.4)
	Malaysia	**38**	(3.0)	-5	(3.8)	**5**	(1.8)	**26**	(2.2)	**-7**	(3.8)
	Montenegro	**28**	(2.6)	**-9**	(3.3)	**5**	(1.9)	**30**	(1.8)	**-9**	(3.0)
	Peru	**25**	(4.0)	-4	(3.7)	**7**	(2.1)	**33**	(2.2)	**14**	(3.4)
	Qatar	**22**	(1.7)	**-7**	(2.1)	**8**	(1.0)	**25**	(1.5)	**-18**	(2.2)
	Romania	**28**	(2.8)	-1	(3.5)	**9**	(1.9)	**33**	(2.2)	1	(3.4)
	Russian Federation	**45**	(3.4)	-7	(3.8)	3	(2.4)	**24**	(3.3)	**-11**	(2.8)
	Serbia	**43**	(3.3)	**-14**	(3.5)	**7**	(2.0)	**27**	(2.3)	-3	(4.0)
	Shanghai-China	**45**	(2.5)	2	(2.7)	-3	(1.8)	**26**	(2.7)	-3	(4.2)
	Singapore	**51**	(2.4)	-1	(3.5)	-3	(1.8)	**28**	(1.8)	**-13**	(3.3)
	Chinese Taipei	**55**	(2.6)	1	(3.3)	**-4**	(1.7)	**29**	(2.3)	-6	(5.1)
	Thailand	**36**	(5.1)	-5	(4.8)	**9**	(2.6)	**22**	(2.5)	**-15**	(3.7)
	Tunisia	**28**	(4.0)	-2	(3.3)	**6**	(1.8)	**19**	(2.4)	**13**	(3.1)
	United Arab Emirates	**32**	(1.9)	**-9**	(2.8)	**8**	(1.6)	**27**	(2.0)	**-10**	(4.3)
	Uruguay	**36**	(3.0)	**-10**	(3.4)	**8**	(1.4)	**37**	(1.9)	-4	(3.5)
	Viet Nam	**53**	(6.9)	1	(4.7)	-2	(2.6)	**21**	(2.6)	1	(3.1)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Results based on a regression of mathematics performance on each indicator, each indicator interacted with the *PISA index of economic, social and cultural status* (ESCS), each indicator interacted with an indicator of whether the student is a boy, ESCS and whether the student is a boy.
2. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 2/4]

Table III.7.6c Gender and socio-economic differences in the association between mathematics self-beliefs and mathematics performance

Results based on students' self-reports

		Differences in the association between mathematics self-beliefs and mathematics performance, by selected indicators:									
		Index of mathematics self-concept[1]									
		Mathematics self-concept		Mathematics self-concept x Boy		Mathematics self-concept x ESCS		ESCS[2]		Boy	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	**42**	(1.9)	-3	(2.5)	2	(1.4)	**36**	(1.4)	-3	(2.3)
	Austria	**28**	(2.6)	-1	(3.1)	1	(1.7)	**39**	(2.3)	**12**	(4.6)
	Belgium	**25**	(1.6)	2	(2.4)	4	(1.8)	**45**	(1.8)	5	(3.3)
	Canada	**34**	(1.3)	2	(1.8)	2	(1.1)	**24**	(1.3)	-2	(2.1)
	Chile	**25**	(1.8)	1	(2.4)	**3**	(1.0)	**31**	(1.6)	**14**	(3.6)
	Czech Republic	**39**	(2.0)	-3	(3.3)	3	(2.0)	**37**	(2.9)	1	(4.5)
	Denmark	**39**	(1.8)	-1	(2.3)	**3**	(1.3)	**28**	(1.7)	**-6**	(2.9)
	Estonia	**36**	(1.9)	3	(3.2)	-1	(1.9)	**22**	(1.9)	-2	(2.8)
	Finland	**42**	(1.6)	**4**	(2.1)	1	(1.6)	**20**	(1.6)	**-16**	(2.5)
	France	**30**	(2.1)	2	(3.1)	**7**	(1.9)	**51**	(2.4)	-4	(3.2)
	Germany	**27**	(2.0)	-3	(2.8)	1	(1.5)	**36**	(1.8)	1	(3.4)
	Greece	**33**	(1.9)	-1	(2.9)	**6**	(1.7)	**26**	(1.9)	1	(3.1)
	Hungary	**32**	(2.3)	1	(3.4)	**5**	(2.4)	**42**	(2.9)	1	(3.7)
	Iceland	**42**	(2.9)	0	(2.8)	2	(2.1)	**18**	(2.1)	**-12**	(3.4)
	Ireland	**31**	(1.8)	-1	(2.9)	3	(1.8)	**33**	(2.1)	**10**	(3.2)
	Israel	**18**	(2.1)	**11**	(3.6)	0	(1.9)	**48**	(2.7)	2	(7.4)
	Italy	**30**	(1.4)	-1	(1.8)	**3**	(0.9)	**27**	(1.2)	**11**	(2.4)
	Japan	**19**	(2.2)	**7**	(2.8)	-2	(1.9)	**36**	(4.1)	**15**	(4.1)
	Korea	**45**	(2.5)	0	(3.3)	**7**	(2.4)	**30**	(3.1)	2	(5.0)
	Luxembourg	**23**	(1.9)	-4	(2.7)	**4**	(1.3)	**32**	(1.5)	**11**	(2.5)
	Mexico	**28**	(1.1)	**3**	(1.4)	**2**	(0.7)	**17**	(0.7)	**7**	(1.2)
	Netherlands	**18**	(3.2)	-3	(4.0)	3	(2.1)	**34**	(3.4)	6	(3.4)
	New Zealand	**41**	(2.6)	2	(3.9)	**13**	(2.0)	**45**	(2.3)	-1	(3.9)
	Norway	**50**	(1.9)	-3	(3.1)	2	(1.7)	**19**	(2.4)	**-10**	(2.7)
	Poland	**43**	(1.9)	4	(3.4)	-1	(1.7)	**31**	(2.2)	-4	(2.9)
	Portugal	**40**	(2.5)	-3	(3.2)	**5**	(1.2)	**27**	(1.7)	5	(2.6)
	Slovak Republic	**33**	(3.2)	3	(4.7)	**7**	(2.4)	**52**	(3.2)	0	(4.4)
	Slovenia	**32**	(2.4)	1	(3.7)	4	(2.2)	**37**	(1.6)	-4	(3.1)
	Spain	**25**	(1.2)	**4**	(2.0)	**3**	(0.8)	**29**	(1.2)	**7**	(2.2)
	Sweden	**39**	(2.2)	2	(3.4)	**5**	(2.1)	**25**	(2.3)	**-14**	(3.0)
	Switzerland	**26**	(2.0)	1	(2.8)	0	(1.7)	**36**	(1.7)	-2	(3.0)
	Turkey	**31**	(4.1)	-6	(3.4)	**6**	(1.7)	**29**	(2.2)	6	(4.2)
	United Kingdom	**42**	(2.1)	-4	(2.9)	**5**	(1.5)	**34**	(2.1)	-3	(4.0)
	United States	**29**	(1.8)	5	(3.3)	**4**	(1.6)	**28**	(1.6)	-3	(3.2)
	OECD average	**33**	(0.4)	1	(0.5)	**3**	(0.3)	**32**	(0.4)	1	(0.6)
Partners	Albania	m	m	m	m	m	m	m	m	m	m
	Argentina	**17**	(2.4)	-3	(3.1)	1	(1.3)	**24**	(1.9)	**9**	(2.8)
	Brazil	**16**	(2.6)	1	(2.0)	1	(1.2)	**26**	(1.6)	**11**	(2.3)
	Bulgaria	**22**	(2.8)	**-10**	(3.8)	**7**	(2.5)	**41**	(2.9)	-2	(3.8)
	Colombia	**26**	(2.9)	-3	(3.2)	**5**	(1.3)	**21**	(1.7)	**19**	(3.1)
	Costa Rica	**18**	(2.1)	1	(2.5)	1	(1.2)	**21**	(1.6)	**13**	(2.8)
	Croatia	**32**	(3.0)	-1	(3.0)	**5**	(1.9)	**33**	(2.3)	2	(4.2)
	Cyprus*	**31**	(1.6)	**9**	(2.8)	**6**	(1.5)	**28**	(1.8)	-2	(2.6)
	Hong Kong-China	**32**	(2.6)	-1	(3.4)	-3	(1.8)	**21**	(2.5)	-2	(5.4)
	Indonesia	-6	(4.6)	2	(4.2)	1	(2.1)	**19**	(3.6)	4	(3.9)
	Jordan	**26**	(1.9)	-3	(3.2)	**3**	(1.0)	**17**	(2.3)	**-18**	(5.0)
	Kazakhstan	**20**	(3.1)	-5	(3.5)	**6**	(2.4)	**22**	(2.8)	3	(3.1)
	Latvia	**40**	(2.4)	-2	(3.8)	3	(1.9)	**29**	(2.1)	-2	(3.5)
	Liechtenstein	10	(11.5)	26	(15.5)	7	(8.2)	**27**	(7.3)	5	(12.0)
	Lithuania	**34**	(2.3)	2	(3.1)	0	(1.4)	**30**	(2.0)	**-8**	(2.7)
	Macao-China	**31**	(2.8)	-3	(3.5)	-3	(1.9)	**13**	(1.8)	**-12**	(2.8)
	Malaysia	**19**	(2.4)	4	(3.5)	**5**	(1.8)	**27**	(2.2)	**-8**	(3.6)
	Montenegro	**22**	(2.5)	-5	(3.3)	2	(2.1)	**30**	(1.6)	-3	(3.1)
	Peru	**23**	(3.2)	4	(4.0)	**6**	(1.6)	**30**	(2.2)	**12**	(3.3)
	Qatar	**20**	(1.9)	3	(3.0)	**5**	(1.7)	**24**	(1.5)	**-11**	(2.5)
	Romania	**23**	(3.0)	-2	(4.0)	**14**	(2.2)	**35**	(2.5)	3	(3.5)
	Russian Federation	**33**	(2.7)	3	(3.9)	5	(2.6)	**31**	(3.2)	-6	(3.1)
	Serbia	**34**	(2.6)	**-8**	(3.2)	**9**	(1.8)	**28**	(2.4)	2	(4.3)
	Shanghai-China	**33**	(3.2)	4	(4.2)	-4	(2.3)	**36**	(2.8)	**-11**	(3.7)
	Singapore	**28**	(2.6)	6	(3.4)	0	(2.5)	**37**	(1.8)	**-11**	(3.4)
	Chinese Taipei	**42**	(2.8)	5	(3.8)	**-4**	(1.9)	**46**	(3.0)	-9	(6.7)
	Thailand	**24**	(3.0)	**-9**	(4.0)	**7**	(1.7)	**22**	(2.6)	**-17**	(3.4)
	Tunisia	**25**	(2.9)	**-6**	(2.6)	**5**	(1.6)	**18**	(2.3)	**11**	(2.9)
	United Arab Emirates	**20**	(1.8)	**6**	(2.7)	0	(1.9)	**30**	(2.3)	**-10**	(4.7)
	Uruguay	**28**	(2.5)	-1	(2.8)	**4**	(1.4)	**33**	(1.8)	4	(2.7)
	Viet Nam	**48**	(5.6)	-5	(5.1)	4	(2.3)	**26**	(2.5)	0	(3.3)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Results based on a regression of mathematics performance on each indicator, each indicator interacted with the *PISA index of economic, social and cultural status* (ESCS), each indicator interacted with an indicator of whether the student is a boy, ESCS and whether the student is a boy.

2. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 3/4]

Table III.7.6c Gender and socio-economic differences in the association between mathematics self-beliefs and mathematics performance

Results based on students' self-reports

		Differences in the association between mathematics self-beliefs and mathematics performance, by selected indicators:									
		Index of mathematics anxiety[1]									
		Mathematics anxiety		Mathematics anxiety x Boy		Mathematics anxiety x ESCS		ESCS[2]		Boy	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	**Australia**	**-34**	(2.0)	-2	(2.5)	-2	(1.4)	**38**	(1.4)	0	(2.4)
	Austria	**-24**	(2.1)	-3	(2.9)	0	(1.7)	**38**	(2.3)	**14**	(4.6)
	Belgium	**-24**	(1.9)	-1	(2.9)	-5	(1.8)	**46**	(1.9)	5	(3.3)
	Canada	**-31**	(1.4)	-1	(2.1)	-2	(1.2)	**27**	(1.3)	0	(2.1)
	Chile	**-28**	(2.7)	-6	(3.7)	**-7**	(1.6)	**34**	(1.6)	**20**	(3.9)
	Czech Republic	**-38**	(2.4)	4	(3.2)	-3	(2.5)	**37**	(2.7)	4	(4.7)
	Denmark	**-34**	(1.9)	1	(2.6)	-2	(1.4)	**30**	(1.7)	-1	(3.0)
	Estonia	**-33**	(2.0)	**-8**	(3.1)	1	(1.8)	**24**	(1.7)	-4	(2.8)
	Finland	**-38**	(2.4)	-5	(2.6)	-1	(1.7)	**26**	(1.7)	**-15**	(2.7)
	France	**-28**	(2.4)	-3	(3.7)	**-7**	(2.0)	**55**	(2.5)	-1	(3.1)
	Germany	**-26**	(2.2)	-2	(2.5)	1	(1.4)	**35**	(1.8)	4	(3.2)
	Greece	**-29**	(1.9)	-2	(2.9)	**-6**	(1.4)	**29**	(2.0)	4	(3.2)
	Hungary	**-32**	(3.0)	-3	(4.0)	-2	(1.9)	**40**	(2.8)	2	(3.6)
	Iceland	**-34**	(3.0)	0	(3.4)	-3	(2.1)	**21**	(2.2)	**-10**	(3.5)
	Ireland	**-30**	(2.2)	-1	(3.1)	-3	(1.9)	**34**	(2.1)	**8**	(3.3)
	Israel	**-15**	(2.4)	**-12**	(3.4)	-2	(2.0)	**49**	(2.6)	6	(6.8)
	Italy	**-29**	(1.6)	2	(2.4)	**-4**	(1.2)	**30**	(1.2)	**11**	(2.5)
	Japan	**-16**	(1.9)	-3	(2.6)	-3	(1.8)	**39**	(4.2)	**18**	(3.8)
	Korea	**-20**	(3.5)	2	(4.3)	**-8**	(2.9)	**40**	(3.7)	10	(5.8)
	Luxembourg	**-25**	(2.0)	1	(3.0)	0	(1.3)	**31**	(1.5)	**12**	(2.4)
	Mexico	**-30**	(1.6)	**-5**	(1.7)	**-3**	(0.8)	**18**	(0.9)	**10**	(1.3)
	Netherlands	**-19**	(2.8)	1	(3.8)	-2	(2.1)	**33**	(3.4)	**8**	(3.7)
	New Zealand	**-39**	(2.5)	-6	(3.7)	**-6**	(2.3)	**45**	(2.2)	2	(3.9)
	Norway	**-44**	(2.2)	4	(3.3)	-3	(1.9)	**23**	(2.4)	**-9**	(3.1)
	Poland	**-41**	(2.2)	-3	(3.6)	0	(1.5)	**33**	(2.2)	1	(2.6)
	Portugal	**-34**	(2.7)	0	(3.7)	**-4**	(1.8)	**30**	(1.7)	**9**	(2.7)
	Slovak Republic	**-35**	(3.3)	-2	(3.8)	-1	(2.1)	**48**	(2.9)	2	(4.4)
	Slovenia	**-24**	(2.4)	-1	(3.6)	**-5**	(2.1)	**40**	(1.8)	1	(3.5)
	Spain	**-22**	(1.7)	-3	(2.6)	**-3**	(1.2)	**31**	(1.3)	**9**	(2.5)
	Sweden	**-37**	(2.1)	4	(3.1)	-2	(2.2)	**27**	(2.2)	**-10**	(3.1)
	Switzerland	**-28**	(2.3)	1	(2.8)	2	(1.5)	**35**	(1.7)	2	(2.9)
	Turkey	**-31**	(3.9)	3	(3.2)	**-5**	(1.7)	**30**	(2.2)	8	(4.3)
	United Kingdom	**-35**	(2.1)	2	(3.1)	**-4**	(1.8)	**35**	(2.3)	-2	(4.2)
	United States	**-25**	(1.7)	**-11**	(3.2)	-3	(1.4)	**29**	(1.7)	-3	(3.0)
	OECD average	**-30**	(0.4)	**-2**	(0.5)	**-3**	(0.3)	**34**	(0.4)	**3**	(0.6)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m
	Argentina	**-23**	(3.1)	-3	(3.3)	-1	(2.0)	**24**	(1.9)	**12**	(3.5)
	Brazil	**-34**	(2.6)	-2	(2.3)	**-5**	(1.2)	**26**	(1.8)	**11**	(2.6)
	Bulgaria	**-29**	(2.5)	1	(2.9)	**-4**	(1.8)	**37**	(2.9)	-1	(3.6)
	Colombia	**-28**	(3.0)	-4	(2.8)	**-4**	(1.3)	**23**	(1.8)	**21**	(3.4)
	Costa Rica	**-20**	(2.3)	-3	(2.8)	**-3**	(1.3)	**23**	(1.9)	**14**	(2.9)
	Croatia	**-31**	(2.5)	-2	(2.8)	-3	(1.7)	**33**	(2.2)	6	(4.3)
	Cyprus*	**-29**	(2.0)	-2	(3.2)	**-9**	(1.5)	**31**	(1.9)	3	(2.7)
	Hong Kong-China	**-29**	(2.8)	-2	(3.5)	1	(2.0)	**23**	(2.5)	2	(5.3)
	Indonesia	**-23**	(4.2)	-4	(3.3)	**-6**	(1.8)	**21**	(3.5)	4	(4.1)
	Jordan	**-32**	(2.7)	**10**	(3.9)	**-7**	(1.8)	**24**	(2.3)	**-19**	(6.0)
	Kazakhstan	**-19**	(2.5)	-2	(3.5)	**-4**	(2.1)	**24**	(3.0)	1	(2.8)
	Latvia	**-38**	(2.7)	-1	(4.3)	-4	(2.5)	**30**	(2.1)	-1	(3.6)
	Liechtenstein	-9	(14.0)	-27	(16.4)	3	(10.7)	**27**	(8.3)	3	(12.0)
	Lithuania	**-31**	(2.0)	-3	(3.0)	-1	(1.7)	**32**	(1.8)	**-6**	(2.6)
	Macao-China	**-29**	(2.7)	-1	(3.4)	1	(1.8)	**16**	(1.7)	**-6**	(2.6)
	Malaysia	**-27**	(2.8)	4	(3.5)	**-4**	(1.7)	**30**	(2.3)	**-10**	(4.2)
	Montenegro	**-25**	(2.5)	1	(3.5)	-1	(2.0)	**30**	(1.7)	0	(3.1)
	Peru	**-29**	(3.8)	-7	(4.1)	**-6**	(1.5)	**33**	(2.1)	**16**	(3.9)
	Qatar	**-23**	(1.6)	-4	(2.2)	**-6**	(1.4)	**27**	(1.4)	**-5**	(2.2)
	Romania	**-26**	(2.8)	-2	(3.7)	**-9**	(2.2)	**36**	(2.6)	5	(3.8)
	Russian Federation	**-36**	(2.4)	-2	(2.9)	**-5**	(2.2)	**31**	(2.9)	-6	(3.4)
	Serbia	**-32**	(3.1)	2	(3.5)	**-5**	(1.9)	**29**	(2.4)	8	(4.4)
	Shanghai-China	**-29**	(3.1)	-2	(3.6)	3	(2.3)	**37**	(2.8)	-6	(3.6)
	Singapore	**-35**	(2.3)	-3	(3.2)	2	(2.5)	**34**	(1.6)	**-7**	(3.1)
	Chinese Taipei	**-29**	(2.9)	-5	(3.3)	-4	(2.5)	**57**	(3.1)	-1	(7.1)
	Thailand	**-37**	(3.7)	3	(4.8)	**-6**	(1.9)	**24**	(2.7)	**-18**	(4.5)
	Tunisia	**-21**	(2.9)	4	(3.4)	**-4**	(1.4)	**24**	(2.8)	**10**	(4.0)
	United Arab Emirates	**-30**	(1.8)	-4	(2.5)	**-7**	(1.4)	**28**	(2.1)	-2	(4.1)
	Uruguay	**-30**	(2.8)	-1	(3.0)	-2	(1.7)	**33**	(2.0)	**8**	(2.9)
	Viet Nam	**-38**	(5.4)	-1	(4.5)	0	(2.4)	**27**	(2.6)	4	(3.1)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Results based on a regression of mathematics performance on each indicator, each indicator interacted with the *PISA index of economic, social and cultural status* (ESCS), each indicator interacted with an indicator of whether the student is a boy, ESCS and whether the student is a boy.

2. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 4/4]

Gender and socio-economic differences in the association between mathematics self-beliefs and mathematics performance

Table III.7.6c *Results based on students' self-reports*

		Differences in the association between mathematics self-beliefs and mathematics performance, by selected indicators:									
		Index of mathematics behaviours[1]									
		Mathematics behaviours		Mathematics behaviours x Boy		Mathematics behaviours x ESCS		ESCS[2]		Boy	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	**22**	(1.6)	**-6**	(2.4)	**5**	(1.6)	**40**	(1.6)	**6**	(2.7)
	Austria	**7**	(3.5)	-2	(4.8)	2	(3.0)	**40**	(2.7)	**22**	(4.5)
	Belgium	**10**	(2.8)	-1	(3.7)	3	(1.8)	**46**	(2.2)	**8**	(3.6)
	Canada	**16**	(1.9)	-5	(2.8)	2	(1.6)	**31**	(1.5)	**8**	(2.1)
	Chile	4	(2.2)	0	(2.7)	2	(1.2)	**34**	(1.7)	**20**	(3.3)
	Czech Republic	**8**	(3.2)	-1	(4.3)	2	(2.7)	**46**	(2.8)	**15**	(4.4)
	Denmark	7	(3.7)	-5	(4.1)	-1	(2.7)	**36**	(2.0)	**14**	(2.7)
	Estonia	**14**	(2.6)	-6	(4.6)	0	(5.1)	**28**	(2.1)	4	(2.8)
	Finland	**9**	(2.5)	0	(3.5)	**6**	(1.8)	**32**	(1.7)	2	(3.1)
	France	**8**	(2.8)	-6	(4.2)	5	(2.4)	**58**	(3.0)	**8**	(3.6)
	Germany	5	(3.0)	-6	(3.9)	-3	(2.1)	**41**	(2.0)	**14**	(3.4)
	Greece	4	(2.8)	0	(2.8)	3	(1.9)	**32**	(2.2)	**9**	(3.5)
	Hungary	**16**	(2.6)	**-10**	(4.2)	**6**	(2.2)	**45**	(2.8)	6	(4.0)
	Iceland	**10**	(3.3)	**-11**	(4.2)	3	(2.1)	**30**	(2.6)	-5	(3.9)
	Ireland	**8**	(2.0)	-1	(2.9)	**4**	(1.4)	**38**	(2.1)	**16**	(3.5)
	Israel	**-8**	(2.6)	**-8**	(3.9)	-3	(2.2)	**48**	(3.1)	**23**	(5.7)
	Italy	0	(1.8)	-2	(2.1)	2	(1.2)	**29**	(1.2)	**19**	(2.3)
	Japan	**22**	(2.5)	-4	(3.3)	-1	(2.6)	**37**	(3.8)	**14**	(3.9)
	Korea	**40**	(2.9)	-3	(4.0)	5	(3.2)	**24**	(3.1)	**10**	(4.8)
	Luxembourg	1	(2.5)	-5	(2.9)	**5**	(1.4)	**38**	(1.5)	**24**	(3.1)
	Mexico	**3**	(1.1)	**-7**	(1.4)	0	(0.6)	**19**	(0.9)	**13**	(1.5)
	Netherlands	4	(2.7)	**-8**	(3.6)	**4**	(2.1)	**39**	(3.2)	**10**	(3.4)
	New Zealand	5	(3.5)	0	(3.8)	**8**	(2.0)	**54**	(2.5)	**18**	(4.1)
	Norway	**15**	(2.9)	**-12**	(3.6)	2	(2.4)	**31**	(2.9)	**-7**	(3.5)
	Poland	**16**	(2.5)	-5	(3.1)	4	(2.2)	**39**	(2.4)	5	(3.3)
	Portugal	**6**	(3.2)	-5	(4.7)	1	(1.7)	**34**	(1.8)	**12**	(2.8)
	Slovak Republic	5	(3.1)	-4	(3.9)	**8**	(2.2)	**52**	(2.9)	**11**	(4.6)
	Slovenia	**13**	(3.0)	**-13**	(3.9)	0	(2.0)	**40**	(1.9)	**9**	(3.8)
	Spain	2	(1.9)	-1	(2.6)	-1	(1.0)	**34**	(1.2)	**19**	(2.5)
	Sweden	**8**	(2.3)	**-10**	(3.2)	3	(2.2)	**37**	(2.3)	-4	(3.5)
	Switzerland	0	(1.9)	-6	(3.2)	3	(2.0)	**38**	(2.2)	**17**	(2.9)
	Turkey	7	(3.8)	-7	(4.0)	2	(1.5)	**31**	(2.5)	**13**	(5.3)
	United Kingdom	**11**	(2.4)	**-9**	(3.4)	2	(2.3)	**39**	(2.5)	7	(4.8)
	United States	**9**	(2.0)	**-7**	(2.8)	**6**	(1.5)	**37**	(1.9)	**7**	(3.0)
	OECD average	**9**	(0.5)	**-5**	(0.6)	**3**	(0.4)	**38**	(0.4)	**11**	(0.6)
Partners	Albania	m	m	m	m	m	m	m	m	m	m
	Argentina	**-5**	(2.5)	-4	(2.4)	1	(1.3)	**26**	(1.8)	**19**	(3.5)
	Brazil	**-8**	(2.2)	**-7**	(1.7)	-1	(1.0)	**27**	(1.9)	**20**	(2.1)
	Bulgaria	3	(2.8)	**-9**	(3.1)	1	(1.3)	**41**	(3.0)	2	(3.6)
	Colombia	-6	(3.0)	-2	(2.8)	0	(1.4)	**23**	(1.7)	**25**	(3.5)
	Costa Rica	-1	(3.0)	-4	(3.3)	0	(1.4)	**23**	(1.9)	**24**	(3.3)
	Croatia	**17**	(3.3)	**-7**	(3.4)	**7**	(2.1)	**33**	(2.6)	8	(4.4)
	Cyprus*	1	(2.2)	-4	(3.1)	0	(1.6)	**38**	(1.8)	**7**	(3.2)
	Hong Kong-China	**21**	(3.7)	-4	(4.2)	-5	(2.8)	**26**	(2.8)	7	(5.2)
	Indonesia	**-14**	(4.7)	-2	(4.1)	-2	(1.9)	**23**	(4.2)	9	(5.6)
	Jordan	**-7**	(2.1)	-4	(2.5)	**-4**	(1.4)	**29**	(2.9)	-7	(6.7)
	Kazakhstan	-1	(2.6)	-4	(3.0)	1	(2.2)	**26**	(3.8)	6	(4.3)
	Latvia	**9**	(2.7)	0	(3.2)	2	(1.8)	**34**	(2.2)	-8	(4.1)
	Liechtenstein	-3	(11.6)	-3	(17.7)	9	(10.2)	**21**	(7.6)	**37**	(11.5)
	Lithuania	3	(2.9)	-1	(3.5)	-2	(2.0)	**37**	(2.1)	3	(3.3)
	Macao-China	**24**	(4.2)	**-11**	(5.1)	**-8**	(2.8)	**16**	(1.9)	-2	(2.8)
	Malaysia	-6	(3.6)	0	(4.1)	-4	(2.1)	**34**	(3.0)	-5	(5.7)
	Montenegro	3	(2.3)	**-7**	(2.7)	2	(1.7)	**31**	(1.7)	-1	(3.2)
	Peru	**-7**	(3.6)	-2	(3.6)	2	(1.6)	**31**	(2.7)	**21**	(4.4)
	Qatar	**-10**	(1.5)	**-5**	(2.1)	**-6**	(1.0)	**34**	(2.2)	4	(3.5)
	Romania	**4**	(2.2)	-1	(2.7)	**3**	(1.6)	**36**	(3.1)	3	(3.3)
	Russian Federation	**15**	(3.0)	**-8**	(3.9)	-2	(2.9)	**38**	(3.8)	0	(4.1)
	Serbia	5	(3.3)	-6	(3.8)	**5**	(1.7)	**33**	(2.4)	**9**	(3.9)
	Shanghai-China	**32**	(3.9)	-9	(5.3)	**-5**	(2.3)	**37**	(3.0)	6	(4.3)
	Singapore	-7	(3.6)	4	(4.7)	4	(2.9)	**42**	(2.3)	-4	(4.0)
	Chinese Taipei	**45**	(3.1)	-7	(4.9)	-1	(3.0)	**44**	(2.8)	-2	(6.3)
	Thailand	2	(4.3)	**-11**	(4.2)	-1	(1.7)	**23**	(3.0)	0	(4.7)
	Tunisia	**-8**	(2.9)	**-8**	(3.6)	0	(1.2)	**23**	(2.8)	**29**	(4.2)
	United Arab Emirates	**-8**	(2.2)	**-9**	(2.8)	**-7**	(1.1)	**40**	(2.2)	**10**	(4.3)
	Uruguay	**-5**	(2.0)	-4	(2.6)	1	(1.2)	**37**	(2.0)	**10**	(3.7)
	Viet Nam	**20**	(4.9)	-7	(4.6)	1	(2.2)	**28**	(2.8)	**9**	(4.2)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. Results based on a regression of mathematics performance on each indicator, each indicator interacted with the *PISA index of economic, social and cultural status* (ESCS), each indicator interacted with an indicator of whether the student is a boy, ESCS and whether the student is a boy.

2. ESCS refers to the *PISA index of economic, social and cultural status*.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.7.7a Engagement with and at school among resilient students, disadvantaged low-achievers, advantaged low-achievers and advantaged high-achievers

Results based on students' self-reports

		Differences in engagement with and at school among resilient students, disadvantaged low-achievers, advantaged low-achievers, and advantaged high-achievers, by selected indicators:															
		Arriving late for school								Skipping classes or days of school							
		Disadvantaged low-achievers[1]		Resilient students[2]		Advantaged low-achievers[3]		Advantaged high-achievers[4]		Disadvantaged low-achievers[1]		Resilient students[2]		Advantaged low-achievers[3]		Advantaged high-achievers[4]	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	40.5	(1.2)	28.1	(2.2)	39.2	(2.6)	28.9	(1.4)	49.4	(1.4)	32.2	(2.3)	42.0	(2.5)	28.8	(1.4)
	Austria	22.5	(1.8)	16.0	(2.7)	28.7	(3.8)	24.7	(2.1)	18.2	(2.0)	15.8	(2.8)	23.4	(3.5)	18.7	(1.5)
	Belgium	33.2	(1.8)	19.1	(2.3)	32.9	(2.6)	23.2	(1.3)	15.9	(1.2)	4.7	(1.1)	15.7	(2.2)	5.7	(0.7)
	Canada	49.1	(1.4)	35.2	(2.2)	50.4	(2.7)	36.2	(1.0)	43.2	(1.3)	28.6	(2.4)	43.7	(2.4)	29.3	(1.2)
	Chile	58.2	(2.5)	49.9	(3.3)	60.2	(3.6)	42.0	(1.6)	25.7	(1.9)	15.9	(3.2)	22.0	(3.3)	15.6	(1.2)
	Czech Republic	33.8	(2.2)	19.4	(3.4)	37.1	(3.8)	23.2	(1.7)	14.8	(2.2)	7.1	(2.2)	14.8	(2.6)	9.2	(1.3)
	Denmark	43.2	(2.0)	29.7	(3.4)	45.0	(3.8)	36.3	(2.2)	28.4	(1.7)	16.2	(2.5)	28.2	(3.4)	14.2	(1.6)
	Estonia	41.9	2.23	35.0	3.48	45.7	3.94	36.8	1.73	39.1	2.10	27.8	3.37	42.7	3.87	26.3	1.46
	Finland	51.3	(1.9)	29.8	(3.5)	51.7	(3.2)	36.5	(1.8)	27.7	(1.6)	15.6	(2.4)	24.0	(2.9)	13.2	(1.2)
	France	40.1	(2.4)	24.2	(2.9)	34.6	(3.3)	25.9	(1.6)	27.6	(2.1)	18.8	(2.8)	20.4	(3.3)	16.4	(1.3)
	Germany	24.9	(1.7)	21.5	(3.3)	22.7	(3.7)	25.1	(1.9)	14.7	(1.9)	8.9	(1.8)	14.5	(2.4)	13.0	(1.2)
	Greece	42.8	(2.4)	41.5	(3.2)	53.9	(3.4)	50.0	(2.1)	46.8	(2.7)	42.1	(3.6)	48.4	(3.3)	42.4	(2.2)
	Hungary	36.4	(3.5)	16.4	(2.9)	27.3	(3.6)	17.0	(2.3)	22.4	(2.5)	7.4	(2.2)	15.2	(2.9)	5.9	(0.9)
	Iceland	38.8	(2.3)	26.6	(3.2)	41.3	(3.9)	27.8	(1.8)	17.3	(1.6)	10.2	(2.2)	13.6	(3.3)	5.3	(1.0)
	Ireland	33.4	(2.4)	21.4	(3.4)	29.1	(3.4)	22.8	(1.6)	16.1	(1.6)	13.1	(2.3)	14.5	(2.3)	12.2	(1.3)
	Israel	58.0	(1.8)	55.6	(3.7)	53.0	(3.6)	49.3	(2.2)	47.0	(1.8)	46.4	(4.1)	48.7	(3.5)	50.1	(2.0)
	Italy	40.3	(1.2)	27.2	(2.0)	43.1	(1.7)	31.4	(1.2)	67.6	(1.2)	55.1	(1.7)	67.2	(2.0)	54.1	(1.1)
	Japan	12.8	(1.4)	6.8	(1.5)	10.5	(1.9)	7.3	(0.9)	7.3	(1.8)	0.8	(0.6)	5.1	(1.3)	2.4	(0.4)
	Korea	31.6	(2.2)	20.8	(2.8)	30.0	(3.5)	17.7	(1.6)	7.5	(1.2)	0.8	(0.7)	7.0	(1.9)	0.8	(0.3)
	Luxembourg	34.2	(1.7)	23.1	(3.0)	32.3	(2.9)	27.5	(1.3)	17.4	(1.4)	8.4	(2.4)	15.8	(2.3)	8.4	(0.9)
	Mexico	34.9	(1.0)	27.3	(1.8)	49.4	(1.9)	39.6	(1.2)	28.1	(1.0)	19.4	(1.4)	42.1	(1.8)	35.2	(1.1)
	Netherlands	36.4	(2.2)	22.9	(3.7)	43.6	(4.1)	27.3	(2.2)	11.5	(1.2)	9.0	(2.1)	16.3	(3.8)	14.5	(1.9)
	New Zealand	54.7	(2.0)	36.6	(4.5)	47.4	(4.7)	28.9	(2.3)	44.6	(1.8)	18.4	(3.9)	32.6	(4.7)	11.6	(1.4)
	Norway	34.3	(1.9)	19.9	(2.8)	38.1	(4.1)	24.3	(1.7)	20.7	(1.6)	8.1	(1.7)	29.3	(3.4)	11.5	(1.3)
	Poland	40.3	(2.4)	26.2	(3.3)	50.5	(3.6)	45.9	(2.0)	31.2	(2.2)	22.0	(3.2)	34.9	(3.7)	22.1	(1.7)
	Portugal	57.5	(2.3)	53.4	(4.2)	56.7	(4.3)	54.0	(2.1)	41.0	(2.0)	29.4	(3.5)	41.7	(3.3)	28.8	(2.2)
	Slovak Republic	31.5	(1.9)	21.7	(3.8)	29.8	(2.7)	22.2	(1.5)	24.3	(2.0)	15.5	(3.3)	14.8	(2.2)	10.3	(1.2)
	Slovenia	42.3	(1.9)	30.1	(4.0)	45.2	(3.4)	36.8	(2.1)	37.9	(2.0)	21.5	(4.2)	35.4	(3.8)	21.0	(2.0)
	Spain	42.4	(1.7)	28.9	(2.4)	36.6	(2.5)	29.9	(1.5)	55.9	(1.7)	38.8	(2.5)	44.9	(2.7)	32.8	(1.1)
	Sweden	64.0	(2.1)	48.9	(3.8)	61.9	(3.6)	50.8	(1.8)	33.9	(1.6)	16.5	(2.9)	32.9	(3.7)	15.2	(1.6)
	Switzerland	24.1	(1.3)	19.6	(2.5)	27.9	(3.0)	29.2	(1.9)	12.3	(0.9)	6.8	(1.5)	18.2	(2.7)	14.5	(1.5)
	Turkey	45.5	(2.1)	38.0	(3.2)	47.5	(3.1)	40.8	(1.9)	62.5	(2.0)	64.5	(3.6)	67.1	(3.4)	70.9	(1.9)
	United Kingdom	38.9	(1.8)	24.1	(2.7)	36.8	(3.0)	23.7	(1.3)	32.2	(1.3)	23.3	(2.8)	27.3	(3.1)	19.3	(1.5)
	United States	42.4	(2.2)	30.1	(3.8)	33.4	(3.7)	19.3	(1.9)	35.8	(1.9)	33.0	(3.6)	24.4	(3.2)	19.1	(1.4)
	OECD average	39.9	(0.3)	28.7	(0.5)	40.4	(0.6)	31.3	(0.3)	30.2	(0.3)	20.7	(0.5)	29.1	(0.5)	20.6	(0.2)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	53.8	(2.7)	36.4	(4.5)	47.8	(4.3)	39.1	(2.4)	71.1	(2.2)	53.8	(5.0)	72.9	(4.0)	61.0	(2.2)
	Brazil	30.6	(1.0)	27.3	(2.4)	39.4	(2.4)	34.4	(1.6)	30.7	(1.1)	26.2	(1.9)	34.7	(2.1)	30.6	(1.7)
	Bulgaria	66.2	(2.0)	56.4	(3.7)	57.3	(3.3)	49.1	(2.2)	49.3	(2.7)	38.1	(4.9)	44.1	(3.6)	25.3	(2.1)
	Colombia	33.8	(2.4)	33.4	(3.5)	41.0	(3.9)	34.6	(1.9)	16.5	(1.9)	13.5	(3.3)	20.8	(3.4)	17.3	(1.6)
	Costa Rica	51.4	(2.3)	54.3	(4.1)	62.3	(4.1)	54.7	(2.5)	56.8	(2.3)	54.9	(3.7)	53.8	(4.4)	54.0	(2.7)
	Croatia	32.6	(1.7)	25.0	(3.4)	43.1	(4.2)	32.2	(1.6)	34.3	(1.6)	15.8	(2.5)	37.6	(3.4)	21.7	(1.5)
	Cyprus*	53.2	(1.8)	44.0	(3.5)	51.1	(4.3)	43.4	(1.8)	47.8	(1.5)	37.4	(3.2)	49.7	(3.3)	34.9	(1.6)
	Hong Kong-China	18.5	(1.5)	11.0	(2.0)	19.6	(3.0)	11.9	(1.4)	7.6	(1.1)	2.5	(1.1)	10.6	(2.4)	5.0	(0.8)
	Indonesia	25.3	(2.0)	15.1	(2.7)	35.2	(3.2)	29.1	(2.8)	32.8	(2.2)	18.8	(3.2)	38.2	(3.6)	29.6	(2.1)
	Jordan	34.3	(1.8)	33.7	(3.0)	39.3	(3.3)	33.8	(1.7)	58.3	(2.1)	52.7	(4.9)	62.3	(3.8)	54.8	(2.0)
	Kazakhstan	32.7	(2.6)	28.3	(4.1)	24.4	(3.3)	22.9	(1.7)	36.7	(2.5)	23.8	(3.5)	29.7	(3.8)	19.5	(1.7)
	Latvia	59.8	(3.1)	44.5	(4.6)	61.8	(4.6)	54.3	(2.5)	71.8	(2.3)	54.2	(4.9)	68.1	(4.5)	66.5	(2.2)
	Liechtenstein	25.2	(6.1)	12.7	(10.8)	12.3	(8.4)	16.9	(5.8)	11.8	(3.9)	5.4	(7.6)	13.3	(9.0)	1.5	(2.8)
	Lithuania	44.6	(2.5)	38.4	(3.0)	49.6	(4.8)	41.5	(2.4)	51.1	(2.6)	30.2	(3.6)	42.3	(3.4)	30.3	(2.1)
	Macao-China	30.4	(1.6)	14.5	(2.2)	34.8	(2.9)	19.0	(1.2)	11.2	(1.0)	3.5	(1.2)	19.6	(2.5)	8.1	(1.1)
	Malaysia	40.1	(2.2)	22.0	(2.8)	42.6	(3.1)	25.1	(2.0)	47.3	(2.4)	33.2	(3.5)	48.7	(4.0)	39.9	(2.6)
	Montenegro	39.8	(1.8)	31.7	(3.0)	45.8	(3.9)	38.8	(2.0)	39.7	(1.9)	32.8	(3.7)	46.8	(4.2)	37.5	(2.1)
	Peru	52.4	(2.0)	44.5	(3.5)	61.3	(3.1)	44.5	(2.9)	26.0	(1.7)	15.3	(3.5)	23.3	(2.8)	11.3	(1.5)
	Qatar	42.9	(1.2)	23.1	(2.4)	54.2	(2.2)	36.3	(1.3)	26.4	(0.9)	22.1	(2.7)	32.2	(2.0)	28.4	(1.2)
	Romania	50.7	(2.2)	48.4	(4.2)	48.0	(3.8)	45.9	(2.4)	65.2	(2.3)	57.1	(3.7)	61.3	(4.3)	54.4	(2.1)
	Russian Federation	52.9	(2.4)	38.0	(3.8)	55.0	(3.3)	41.0	(2.0)	46.0	(2.1)	31.4	(3.6)	40.0	(3.3)	30.5	(1.4)
	Serbia	41.1	(2.2)	32.8	(4.5)	51.0	(4.1)	41.8	(2.6)	31.8	(1.8)	23.3	(3.2)	36.3	(3.8)	27.8	(2.5)
	Shanghai-China	21.4	(1.4)	9.6	(2.0)	19.2	(3.2)	13.2	(1.3)	3.8	(0.7)	3.7	(1.4)	5.0	(1.7)	3.6	(0.6)
	Singapore	29.6	(1.4)	16.1	(2.0)	18.3	(3.1)	14.5	(1.4)	27.9	(1.6)	17.1	(2.3)	24.1	(2.9)	20.1	(1.3)
	Chinese Taipei	27.4	(1.7)	14.8	(2.4)	25.1	(3.8)	18.7	(1.5)	18.7	(1.4)	4.7	(1.3)	14.2	(2.4)	4.1	(0.6)
	Thailand	34.8	(2.4)	25.9	(3.2)	43.5	(3.1)	33.3	(2.0)	34.0	(2.2)	23.6	(3.1)	44.7	(4.4)	31.0	(2.1)
	Tunisia	50.5	(1.9)	50.3	(3.7)	60.1	(3.7)	49.9	(2.1)	36.5	(2.1)	32.3	(3.4)	48.1	(4.1)	31.6	(2.3)
	United Arab Emirates	34.6	(1.4)	21.8	(2.5)	43.1	(2.9)	28.9	(1.5)	55.9	(1.6)	42.4	(3.1)	56.1	(2.6)	43.5	(1.7)
	Uruguay	59.5	(1.6)	52.7	(3.5)	64.4	(3.5)	55.4	(2.4)	39.2	(2.0)	36.2	(3.3)	29.9	(2.8)	24.6	(1.7)
	Viet Nam	21.6	(1.9)	10.1	(2.5)	20.8	(3.1)	13.6	(1.5)	20.6	(2.1)	8.8	(2.2)	18.3	(3.0)	8.9	(1.3)

1. Disadvantaged low-achievers are students in the bottom quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the three bottom quarters across students from all countries and economies, after accounting for socio-economic status.
2. Resilient students are students in the bottom quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the top quarter across students from all countries and economies, after accounting for socio-economic status.
3. Advantaged low-achievers are students in the top quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the three bottom quarters across students from all countries and economies, after accounting for socio-economic status.
4. Advantaged high-achievers are students in the top quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the top quarter across students from all countries and economies, after accounting for socio-economic status.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.7.7a Engagement with and at school among resilient students, disadvantaged low-achievers, advantaged low-achievers and advantaged high-achievers

Results based on students' self-reports

		Differences in engagement with and at school among resilient students, disadvantaged low-achievers, advantaged low-achievers, and advantaged high-achievers, by selected indicators:															
		Index of sense of belonging								Index of attitudes towards school (learning outcomes)							
		Disadvantaged low-achievers[1]		Resilient students[2]		Advantaged low-achievers[3]		Advantaged high-achievers[4]		Disadvantaged low-achievers[1]		Resilient students[2]		Advantaged low-achievers[3]		Advantaged high-achievers[4]	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	-0.32	(0.03)	-0.25	(0.05)	-0.06	(0.06)	0.09	(0.03)	-0.16	(0.03)	0.07	(0.05)	0.06	(0.06)	0.42	(0.03)
	Austria	0.38	(0.07)	0.39	(0.10)	0.69	(0.09)	0.73	(0.07)	0.24	(0.06)	0.27	(0.11)	0.25	(0.09)	0.26	(0.06)
	Belgium	-0.12	(0.03)	-0.16	(0.05)	0.01	(0.07)	0.08	(0.03)	-0.19	(0.03)	-0.16	(0.06)	-0.15	(0.08)	0.00	(0.04)
	Canada	-0.22	(0.03)	-0.20	(0.04)	0.07	(0.08)	0.05	(0.03)	-0.10	(0.03)	0.08	(0.06)	0.05	(0.08)	0.25	(0.03)
	Chile	0.05	(0.04)	0.05	(0.09)	0.20	(0.10)	0.25	(0.05)	0.22	(0.05)	0.43	(0.12)	0.17	(0.11)	0.24	(0.05)
	Czech Republic	-0.44	(0.04)	-0.50	(0.06)	-0.38	(0.09)	-0.23	(0.04)	-0.26	(0.05)	-0.10	(0.08)	-0.34	(0.09)	-0.15	(0.05)
	Denmark	-0.26	(0.04)	-0.14	(0.07)	0.16	(0.08)	0.04	(0.04)	-0.35	(0.04)	-0.09	(0.08)	0.08	(0.08)	0.13	(0.05)
	Estonia	-0.41	(0.05)	-0.36	(0.07)	-0.29	(0.09)	-0.18	(0.04)	-0.03	(0.05)	0.07	(0.08)	0.04	(0.09)	0.18	(0.04)
	Finland	-0.37	(0.03)	-0.29	(0.06)	-0.07	(0.09)	-0.10	(0.04)	-0.17	(0.05)	0.09	(0.06)	-0.07	(0.09)	0.33	(0.04)
	France	-0.34	(0.04)	-0.18	(0.07)	-0.03	(0.11)	0.13	(0.04)	0.01	(0.05)	0.03	(0.07)	0.13	(0.11)	0.29	(0.05)
	Germany	0.18	(0.06)	0.29	(0.08)	0.33	(0.10)	0.42	(0.06)	-0.03	(0.05)	0.05	(0.08)	-0.09	(0.10)	-0.10	(0.05)
	Greece	-0.15	(0.04)	-0.24	(0.08)	-0.10	(0.09)	-0.10	(0.04)	-0.05	(0.05)	-0.14	(0.10)	-0.19	(0.09)	-0.20	(0.04)
	Hungary	-0.04	(0.05)	0.02	(0.07)	0.08	(0.11)	0.27	(0.05)	-0.01	(0.05)	0.29	(0.10)	0.03	(0.10)	0.24	(0.05)
	Iceland	0.09	(0.06)	0.24	(0.13)	0.53	(0.12)	0.69	(0.05)	-0.19	(0.05)	0.21	(0.09)	-0.17	(0.10)	0.33	(0.05)
	Ireland	-0.08	(0.05)	-0.05	(0.10)	0.04	(0.08)	0.03	(0.05)	0.05	(0.05)	0.10	(0.08)	0.17	(0.08)	0.25	(0.05)
	Israel	0.33	(0.06)	0.41	(0.09)	0.56	(0.12)	0.45	(0.06)	0.06	(0.06)	0.12	(0.10)	0.03	(0.12)	-0.09	(0.05)
	Italy	-0.25	(0.02)	-0.32	(0.03)	-0.18	(0.05)	-0.18	(0.02)	-0.01	(0.03)	0.07	(0.04)	-0.01	(0.04)	0.08	(0.02)
	Japan	-0.23	(0.04)	-0.29	(0.08)	-0.02	(0.08)	-0.07	(0.04)	-0.20	(0.05)	-0.11	(0.06)	-0.06	(0.07)	-0.11	(0.04)
	Korea	-0.47	(0.04)	-0.41	(0.06)	-0.33	(0.07)	-0.15	(0.05)	-0.27	(0.04)	-0.36	(0.08)	-0.33	(0.08)	-0.26	(0.05)
	Luxembourg	0.05	(0.05)	0.09	(0.09)	0.20	(0.09)	0.43	(0.04)	0.01	(0.04)	0.00	(0.08)	-0.27	(0.08)	0.03	(0.05)
	Mexico	-0.06	(0.02)	0.05	(0.05)	0.16	(0.04)	0.26	(0.02)	0.20	(0.02)	0.57	(0.04)	0.18	(0.04)	0.51	(0.03)
	Netherlands	-0.15	(0.05)	-0.10	(0.07)	0.06	(0.10)	0.09	(0.05)	-0.39	(0.05)	-0.37	(0.07)	-0.42	(0.07)	-0.26	(0.04)
	New Zealand	-0.13	(0.04)	-0.29	(0.08)	-0.13	(0.10)	-0.01	(0.05)	-0.12	(0.05)	0.07	(0.10)	-0.04	(0.10)	0.38	(0.05)
	Norway	-0.08	(0.05)	0.05	(0.08)	0.23	(0.09)	0.17	(0.05)	-0.45	(0.06)	-0.16	(0.10)	-0.33	(0.09)	-0.11	(0.04)
	Poland	-0.40	(0.04)	-0.34	(0.09)	-0.27	(0.10)	-0.33	(0.04)	-0.35	(0.05)	-0.33	(0.10)	-0.50	(0.09)	-0.49	(0.06)
	Portugal	-0.14	(0.06)	-0.06	(0.07)	0.23	(0.09)	0.25	(0.05)	0.07	(0.05)	0.28	(0.08)	0.23	(0.11)	0.54	(0.05)
	Slovak Republic	-0.42	(0.05)	-0.35	(0.08)	-0.30	(0.08)	-0.27	(0.05)	-0.29	(0.05)	-0.24	(0.08)	-0.28	(0.07)	-0.19	(0.06)
	Slovenia	-0.07	(0.04)	-0.05	(0.08)	-0.04	(0.08)	0.12	(0.05)	0.12	(0.05)	0.01	(0.08)	-0.14	(0.10)	0.03	(0.04)
	Spain	0.34	(0.05)	0.33	(0.06)	0.35	(0.08)	0.49	(0.04)	0.18	(0.04)	0.33	(0.06)	0.25	(0.08)	0.45	(0.04)
	Sweden	-0.20	(0.06)	-0.14	(0.10)	0.16	(0.10)	0.11	(0.05)	-0.36	(0.04)	-0.18	(0.10)	-0.16	(0.08)	0.10	(0.05)
	Switzerland	0.37	(0.05)	0.47	(0.08)	0.32	(0.08)	0.54	(0.04)	0.09	(0.04)	0.12	(0.07)	-0.04	(0.07)	0.09	(0.04)
	Turkey	-0.06	(0.05)	-0.07	(0.10)	0.25	(0.09)	0.18	(0.05)	0.10	(0.05)	0.08	(0.10)	0.05	(0.08)	-0.04	(0.06)
	United Kingdom	-0.13	(0.04)	-0.11	(0.07)	0.06	(0.08)	0.12	(0.03)	-0.03	(0.05)	0.20	(0.08)	0.12	(0.12)	0.31	(0.04)
	United States	-0.22	(0.05)	-0.13	(0.08)	0.11	(0.11)	0.13	(0.05)	-0.10	(0.04)	0.21	(0.10)	0.13	(0.12)	0.36	(0.06)
	OECD average	-0.12	(0.01)	-0.08	(0.01)	0.08	(0.02)	0.13	(0.01)	-0.08	(0.01)	0.04	(0.01)	-0.05	(0.02)	0.11	(0.01)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	-0.31	(0.04)	-0.19	(0.08)	-0.31	(0.09)	-0.10	(0.05)	-0.16	(0.05)	0.16	(0.09)	-0.18	(0.10)	0.20	(0.06)
	Brazil	-0.21	(0.03)	-0.21	(0.05)	-0.12	(0.07)	-0.07	(0.03)	0.14	(0.03)	0.30	(0.05)	0.09	(0.06)	0.37	(0.04)
	Bulgaria	-0.32	(0.05)	-0.18	(0.09)	-0.14	(0.10)	0.10	(0.05)	-0.28	(0.06)	-0.18	(0.08)	-0.25	(0.09)	0.08	(0.05)
	Colombia	0.07	(0.05)	0.30	(0.11)	0.18	(0.11)	0.40	(0.05)	0.19	(0.06)	0.58	(0.11)	0.32	(0.10)	0.62	(0.06)
	Costa Rica	0.24	(0.06)	0.29	(0.11)	0.48	(0.14)	0.43	(0.07)	0.47	(0.07)	0.45	(0.11)	0.36	(0.11)	0.50	(0.06)
	Croatia	0.08	(0.04)	0.16	(0.07)	0.13	(0.09)	0.13	(0.05)	0.13	(0.04)	0.19	(0.08)	0.01	(0.09)	0.00	(0.05)
	Cyprus*	-0.28	(0.04)	-0.19	(0.08)	-0.08	(0.10)	-0.01	(0.04)	-0.36	(0.04)	-0.22	(0.08)	-0.29	(0.09)	-0.07	(0.04)
	Hong Kong-China	-0.48	(0.04)	-0.45	(0.07)	-0.36	(0.07)	-0.25	(0.05)	-0.44	(0.03)	-0.38	(0.07)	-0.48	(0.08)	-0.42	(0.04)
	Indonesia	-0.12	(0.04)	-0.02	(0.07)	0.04	(0.08)	0.15	(0.05)	0.19	(0.05)	0.49	(0.08)	0.20	(0.09)	0.40	(0.06)
	Jordan	-0.12	(0.05)	0.20	(0.10)	-0.19	(0.08)	0.14	(0.05)	-0.35	(0.03)	-0.11	(0.07)	-0.62	(0.07)	-0.22	(0.04)
	Kazakhstan	0.17	(0.06)	0.26	(0.10)	0.55	(0.10)	0.54	(0.06)	0.12	(0.06)	0.49	(0.11)	0.45	(0.10)	0.70	(0.06)
	Latvia	-0.23	(0.07)	-0.22	(0.13)	-0.12	(0.10)	-0.10	(0.05)	-0.07	(0.06)	0.31	(0.10)	-0.03	(0.09)	0.15	(0.05)
	Liechtenstein	0.40	(0.19)	0.41	(0.46)	0.87	(0.42)	0.97	(0.21)	0.21	(0.15)	0.05	(0.44)	-0.11	(0.32)	0.44	(0.29)
	Lithuania	-0.14	(0.06)	0.24	(0.08)	0.17	(0.11)	0.44	(0.05)	0.28	(0.05)	0.62	(0.09)	0.27	(0.12)	0.57	(0.05)
	Macao-China	-0.58	(0.04)	-0.57	(0.06)	-0.31	(0.08)	-0.40	(0.03)	-0.46	(0.03)	-0.47	(0.05)	-0.42	(0.06)	-0.31	(0.03)
	Malaysia	-0.19	(0.04)	-0.15	(0.07)	-0.24	(0.08)	-0.12	(0.05)	-0.07	(0.05)	0.18	(0.07)	-0.11	(0.08)	0.01	(0.06)
	Montenegro	0.00	(0.04)	-0.11	(0.07)	-0.02	(0.11)	-0.10	(0.05)	0.05	(0.05)	0.22	(0.08)	-0.07	(0.10)	-0.02	(0.05)
	Peru	-0.15	(0.04)	-0.16	(0.08)	0.00	(0.09)	0.11	(0.05)	0.06	(0.05)	0.21	(0.11)	0.18	(0.09)	0.40	(0.06)
	Qatar	-0.36	(0.03)	-0.01	(0.08)	-0.39	(0.06)	-0.03	(0.04)	-0.57	(0.02)	-0.06	(0.08)	-0.71	(0.04)	-0.16	(0.03)
	Romania	-0.44	(0.04)	-0.44	(0.08)	-0.22	(0.09)	-0.11	(0.06)	-0.09	(0.04)	0.03	(0.10)	0.10	(0.11)	0.09	(0.05)
	Russian Federation	-0.34	(0.04)	-0.16	(0.08)	0.00	(0.07)	-0.09	(0.05)	0.10	(0.05)	0.28	(0.11)	0.20	(0.10)	0.29	(0.06)
	Serbia	0.05	(0.05)	-0.03	(0.07)	0.01	(0.08)	0.12	(0.04)	-0.21	(0.04)	-0.11	(0.08)	-0.29	(0.07)	-0.21	(0.04)
	Shanghai-China	-0.40	(0.03)	-0.41	(0.06)	-0.15	(0.08)	-0.23	(0.05)	-0.19	(0.04)	-0.34	(0.07)	-0.11	(0.10)	-0.20	(0.06)
	Singapore	-0.25	(0.04)	-0.22	(0.06)	-0.22	(0.07)	-0.13	(0.03)	-0.21	(0.04)	-0.01	(0.07)	-0.12	(0.08)	0.02	(0.04)
	Chinese Taipei	-0.30	(0.04)	-0.35	(0.05)	-0.01	(0.09)	-0.09	(0.04)	-0.28	(0.03)	-0.29	(0.06)	-0.26	(0.08)	-0.19	(0.04)
	Thailand	-0.29	(0.04)	-0.06	(0.08)	-0.13	(0.06)	0.08	(0.03)	-0.21	(0.04)	0.05	(0.09)	-0.13	(0.07)	0.17	(0.04)
	Tunisia	-0.25	(0.05)	-0.18	(0.08)	-0.31	(0.11)	-0.06	(0.05)	0.19	(0.06)	0.33	(0.10)	-0.12	(0.12)	0.23	(0.06)
	United Arab Emirates	-0.10	(0.04)	0.15	(0.07)	-0.12	(0.08)	0.16	(0.04)	-0.12	(0.04)	0.29	(0.08)	-0.17	(0.10)	0.22	(0.05)
	Uruguay	0.12	(0.05)	0.09	(0.07)	0.22	(0.09)	0.24	(0.05)	0.02	(0.06)	0.11	(0.07)	-0.07	(0.08)	0.03	(0.04)
	Viet Nam	-0.29	(0.04)	-0.34	(0.06)	-0.27	(0.06)	-0.23	(0.04)	0.18	(0.05)	0.13	(0.07)	0.08	(0.08)	0.04	(0.05)

1. Disadvantaged low-achievers are students in the bottom quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the three bottom quarters across students from all countries and economies, after accounting for socio-economic status.
2. Resilient students are students in the bottom quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the top quarter across students from all countries and economies, after accounting for socio-economic status.
3. Advantaged low-achievers are students in the top quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the three bottom quarters across students from all countries and economies, after accounting for socio-economic status.
4. Advantaged high-achievers are students in the top quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the top quarter across students from all countries and economies, after accounting for socio-economic status.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.7.7b Students' drive and motivation among resilient students, disadvantaged low-achievers, advantaged low-achievers and advantaged high-achievers

Results based on students' self-reports

		Differences in drive and motivation among resilient students, disadvantaged low-achievers, advantaged low-achievers, and advantaged high-achievers, by selected indicators:															
		Index of perseverance								Index of intrinsic motivation							
		Disadvantaged low-achievers[1]		Resilient students[2]		Advantaged low-achievers[3]		Advantaged high-achievers[4]		Disadvantaged low-achievers[1]		Resilient students[2]		Advantaged low-achievers[3]		Advantaged high-achievers[4]	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	-0.20	(0.02)	0.22	(0.05)	0.06	(0.06)	0.39	(0.03)	-0.06	(0.03)	0.35	(0.06)	-0.12	(0.06)	0.33	(0.03)
	Austria	-0.14	(0.04)	0.06	(0.07)	-0.22	(0.08)	0.08	(0.05)	-0.40	(0.06)	-0.10	(0.10)	-0.64	(0.10)	-0.23	(0.05)
	Belgium	-0.40	(0.04)	-0.14	(0.08)	-0.54	(0.08)	-0.17	(0.03)	-0.33	(0.04)	-0.08	(0.07)	-0.52	(0.06)	0.02	(0.03)
	Canada	-0.03	(0.04)	0.26	(0.05)	0.16	(0.06)	0.54	(0.03)	-0.16	(0.03)	0.17	(0.05)	-0.08	(0.07)	0.34	(0.03)
	Chile	0.08	(0.04)	0.34	(0.10)	0.20	(0.08)	0.40	(0.04)	0.29	(0.04)	0.50	(0.08)	-0.02	(0.08)	0.35	(0.04)
	Czech Republic	-0.31	(0.04)	-0.13	(0.08)	-0.14	(0.09)	-0.02	(0.03)	-0.29	(0.04)	-0.07	(0.08)	-0.37	(0.09)	0.01	(0.05)
	Denmark	-0.40	(0.04)	0.09	(0.07)	-0.13	(0.08)	0.24	(0.04)	0.17	(0.05)	0.65	(0.08)	0.17	(0.08)	0.67	(0.04)
	Estonia	0.25	(0.04)	0.21	(0.07)	0.31	(0.08)	0.37	(0.04)	-0.23	(0.04)	0.10	(0.09)	-0.27	(0.10)	0.25	(0.04)
	Finland	-0.36	(0.03)	0.18	(0.07)	-0.18	(0.06)	0.36	(0.04)	-0.52	(0.04)	-0.06	(0.08)	-0.37	(0.07)	0.13	(0.04)
	France	-0.70	(0.06)	-0.35	(0.08)	-0.61	(0.08)	-0.10	(0.05)	-0.12	(0.04)	0.03	(0.08)	-0.24	(0.08)	0.25	(0.04)
	Germany	-0.16	(0.04)	0.17	(0.08)	-0.07	(0.08)	0.14	(0.04)	-0.22	(0.05)	0.15	(0.09)	-0.31	(0.10)	0.11	(0.06)
	Greece	-0.36	(0.05)	-0.06	(0.12)	-0.17	(0.09)	0.23	(0.05)	-0.07	(0.05)	0.19	(0.11)	0.01	(0.11)	0.58	(0.05)
	Hungary	-0.14	(0.04)	0.01	(0.08)	0.15	(0.10)	0.10	(0.04)	-0.17	(0.05)	-0.09	(0.08)	-0.46	(0.09)	0.00	(0.06)
	Iceland	-0.35	(0.05)	0.03	(0.08)	-0.24	(0.10)	0.27	(0.05)	-0.09	(0.06)	0.33	(0.09)	0.06	(0.13)	0.47	(0.06)
	Ireland	-0.16	(0.05)	0.26	(0.08)	0.06	(0.09)	0.41	(0.04)	-0.09	(0.04)	0.11	(0.07)	-0.25	(0.08)	0.30	(0.05)
	Israel	0.31	(0.06)	0.55	(0.13)	0.50	(0.10)	0.39	(0.05)	0.33	(0.05)	0.29	(0.09)	0.29	(0.10)	0.08	(0.04)
	Italy	-0.11	(0.03)	0.18	(0.05)	-0.07	(0.05)	0.18	(0.03)	-0.10	(0.02)	0.16	(0.05)	-0.19	(0.04)	0.16	(0.03)
	Japan	-0.80	(0.04)	-0.42	(0.07)	-0.78	(0.06)	-0.44	(0.03)	-0.54	(0.05)	-0.02	(0.08)	-0.43	(0.07)	0.07	(0.05)
	Korea	-0.31	(0.04)	0.04	(0.06)	-0.12	(0.06)	0.15	(0.04)	-0.57	(0.05)	0.06	(0.08)	-0.55	(0.07)	0.15	(0.06)
	Luxembourg	-0.23	(0.03)	-0.12	(0.07)	-0.22	(0.08)	0.14	(0.05)	-0.16	(0.05)	-0.05	(0.08)	-0.43	(0.09)	0.07	(0.04)
	Mexico	0.09	(0.03)	0.50	(0.06)	0.24	(0.04)	0.51	(0.03)	0.79	(0.02)	0.99	(0.03)	0.42	(0.03)	0.56	(0.02)
	Netherlands	-0.14	(0.04)	-0.15	(0.07)	-0.13	(0.08)	-0.15	(0.03)	-0.43	(0.05)	-0.18	(0.08)	-0.38	(0.12)	-0.18	(0.05)
	New Zealand	-0.27	(0.04)	-0.01	(0.07)	-0.14	(0.09)	0.29	(0.04)	0.09	(0.05)	0.12	(0.09)	-0.09	(0.08)	0.27	(0.04)
	Norway	-0.73	(0.05)	0.07	(0.09)	-0.68	(0.11)	0.07	(0.05)	-0.42	(0.06)	0.23	(0.08)	-0.55	(0.10)	0.23	(0.05)
	Poland	-0.27	(0.05)	0.19	(0.10)	-0.13	(0.11)	0.39	(0.05)	-0.27	(0.04)	0.15	(0.09)	-0.50	(0.08)	0.04	(0.05)
	Portugal	0.06	(0.06)	0.54	(0.10)	0.17	(0.08)	0.72	(0.05)	-0.01	(0.04)	0.33	(0.06)	-0.09	(0.08)	0.35	(0.04)
	Slovak Republic	-0.71	(0.05)	-0.34	(0.10)	-0.67	(0.09)	-0.22	(0.05)	-0.15	(0.05)	-0.13	(0.10)	-0.42	(0.08)	-0.12	(0.05)
	Slovenia	0.01	(0.05)	-0.01	(0.08)	0.04	(0.09)	0.18	(0.05)	-0.28	(0.06)	-0.01	(0.10)	-0.29	(0.09)	-0.02	(0.05)
	Spain	-0.12	(0.04)	0.17	(0.06)	-0.02	(0.06)	0.33	(0.03)	-0.25	(0.04)	-0.03	(0.06)	-0.29	(0.06)	0.03	(0.03)
	Sweden	-0.54	(0.05)	-0.05	(0.08)	-0.49	(0.07)	0.07	(0.05)	-0.16	(0.05)	0.36	(0.09)	-0.17	(0.09)	0.46	(0.05)
	Switzerland	-0.20	(0.04)	-0.06	(0.07)	-0.23	(0.07)	-0.08	(0.04)	0.03	(0.04)	0.21	(0.07)	-0.25	(0.09)	0.03	(0.04)
	Turkey	0.27	(0.05)	0.56	(0.11)	0.48	(0.11)	0.57	(0.05)	0.50	(0.06)	0.60	(0.09)	0.14	(0.08)	0.53	(0.06)
	United Kingdom	-0.15	(0.05)	0.32	(0.11)	0.08	(0.09)	0.37	(0.03)	0.07	(0.04)	0.29	(0.07)	0.00	(0.08)	0.41	(0.04)
	United States	0.03	(0.05)	0.47	(0.10)	0.40	(0.10)	0.64	(0.05)	0.03	(0.06)	0.35	(0.11)	-0.08	(0.09)	0.19	(0.04)
	OECD average	-0.21	(0.01)	0.11	(0.01)	-0.09	(0.01)	0.22	(0.01)	-0.11	(0.01)	0.17	(0.01)	-0.21	(0.01)	0.20	(0.01)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	-0.09	(0.04)	0.10	(0.08)	-0.03	(0.12)	0.24	(0.05)	0.42	(0.06)	0.40	(0.09)	0.00	(0.11)	-0.01	(0.04)
	Brazil	0.05	(0.02)	0.25	(0.05)	0.05	(0.07)	0.28	(0.04)	0.63	(0.03)	0.61	(0.05)	0.31	(0.06)	0.25	(0.03)
	Bulgaria	0.20	(0.05)	0.46	(0.11)	0.49	(0.10)	0.85	(0.06)	0.38	(0.05)	0.25	(0.10)	-0.02	(0.10)	0.19	(0.04)
	Colombia	0.34	(0.05)	0.47	(0.09)	0.39	(0.08)	0.57	(0.05)	0.76	(0.05)	0.69	(0.08)	0.37	(0.08)	0.53	(0.05)
	Costa Rica	0.33	(0.07)	0.61	(0.12)	0.55	(0.11)	0.56	(0.06)	0.50	(0.06)	0.46	(0.11)	0.29	(0.11)	0.26	(0.06)
	Croatia	0.01	(0.04)	0.14	(0.09)	-0.02	(0.08)	0.13	(0.05)	-0.25	(0.05)	-0.10	(0.10)	-0.39	(0.09)	-0.17	(0.06)
	Cyprus*	-0.10	(0.03)	0.12	(0.07)	0.15	(0.08)	0.45	(0.05)	-0.10	(0.05)	0.40	(0.09)	0.22	(0.11)	0.63	(0.05)
	Hong Kong-China	-0.12	(0.04)	0.10	(0.09)	0.09	(0.07)	0.28	(0.03)	0.10	(0.04)	0.62	(0.07)	0.11	(0.10)	0.49	(0.06)
	Indonesia	0.15	(0.04)	0.20	(0.07)	0.25	(0.06)	0.42	(0.06)	0.83	(0.03)	0.87	(0.05)	0.88	(0.07)	0.66	(0.07)
	Jordan	0.09	(0.04)	0.47	(0.08)	0.20	(0.08)	0.64	(0.04)	0.63	(0.04)	0.98	(0.08)	0.86	(0.08)	0.90	(0.06)
	Kazakhstan	0.42	(0.06)	0.60	(0.10)	0.89	(0.12)	1.14	(0.06)	0.84	(0.04)	0.85	(0.10)	0.98	(0.08)	0.99	(0.06)
	Latvia	-0.14	(0.05)	0.23	(0.10)	0.32	(0.09)	0.36	(0.04)	-0.17	(0.05)	-0.05	(0.09)	-0.21	(0.09)	0.11	(0.04)
	Liechtenstein	-0.32	(0.10)	-0.66	(0.28)	-0.21	(0.38)	0.15	(0.16)	-0.18	(0.17)	0.03	(0.39)	-0.35	(0.58)	0.55	(0.27)
	Lithuania	-0.01	(0.03)	0.18	(0.07)	0.16	(0.09)	0.32	(0.04)	-0.01	(0.06)	0.25	(0.09)	0.03	(0.11)	0.23	(0.06)
	Macao-China	-0.01	(0.03)	0.26	(0.06)	0.09	(0.07)	0.36	(0.04)	0.03	(0.03)	0.50	(0.06)	-0.05	(0.08)	0.26	(0.04)
	Malaysia	0.06	(0.04)	0.26	(0.07)	0.23	(0.08)	0.39	(0.04)	0.77	(0.04)	1.15	(0.06)	0.76	(0.07)	1.07	(0.04)
	Montenegro	0.15	(0.05)	0.53	(0.11)	0.22	(0.10)	0.54	(0.06)	0.05	(0.05)	0.06	(0.09)	-0.07	(0.11)	-0.01	(0.05)
	Peru	0.21	(0.04)	0.40	(0.08)	0.33	(0.08)	0.52	(0.04)	0.98	(0.03)	0.94	(0.06)	0.58	(0.06)	0.53	(0.04)
	Qatar	0.04	(0.03)	0.37	(0.07)	0.00	(0.04)	0.55	(0.03)	0.52	(0.03)	0.67	(0.08)	0.43	(0.06)	0.58	(0.03)
	Romania	-0.11	(0.04)	-0.03	(0.07)	0.18	(0.11)	0.24	(0.04)	0.48	(0.04)	0.43	(0.08)	0.55	(0.08)	0.40	(0.04)
	Russian Federation	0.26	(0.04)	0.47	(0.08)	0.62	(0.08)	0.67	(0.04)	0.22	(0.04)	0.44	(0.06)	0.15	(0.08)	0.40	(0.04)
	Serbia	0.05	(0.05)	0.21	(0.08)	0.31	(0.11)	0.42	(0.06)	-0.14	(0.04)	-0.08	(0.07)	-0.39	(0.08)	-0.15	(0.04)
	Shanghai-China	0.06	(0.04)	0.23	(0.07)	0.34	(0.08)	0.43	(0.03)	0.31	(0.05)	0.56	(0.09)	0.41	(0.09)	0.58	(0.04)
	Singapore	0.14	(0.03)	0.31	(0.06)	0.27	(0.09)	0.40	(0.04)	0.82	(0.04)	1.00	(0.07)	0.62	(0.08)	0.81	(0.04)
	Chinese Taipei	-0.33	(0.04)	0.03	(0.06)	-0.21	(0.06)	0.19	(0.04)	-0.22	(0.05)	0.35	(0.07)	-0.14	(0.08)	0.36	(0.04)
	Thailand	0.07	(0.03)	0.30	(0.07)	0.18	(0.07)	0.41	(0.03)	0.77	(0.03)	0.90	(0.06)	0.65	(0.06)	0.68	(0.04)
	Tunisia	-0.04	(0.05)	0.22	(0.09)	-0.10	(0.10)	0.48	(0.09)	0.54	(0.06)	0.71	(0.08)	0.48	(0.13)	0.77	(0.07)
	United Arab Emirates	0.16	(0.03)	0.63	(0.07)	0.33	(0.07)	0.72	(0.03)	0.70	(0.04)	0.85	(0.08)	0.75	(0.08)	0.73	(0.04)
	Uruguay	0.12	(0.05)	0.31	(0.09)	0.25	(0.11)	0.43	(0.05)	0.46	(0.05)	0.43	(0.07)	0.01	(0.09)	0.14	(0.05)
	Viet Nam	0.41	(0.05)	0.48	(0.07)	0.44	(0.09)	0.53	(0.05)	0.58	(0.03)	0.78	(0.05)	0.58	(0.10)	0.71	(0.03)

1. Disadvantaged low-achievers are students in the bottom quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the three bottom quarters across students from all countries and economies, after accounting for socio-economic status.

2. Resilient students are students in the bottom quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the top quarter across students from all countries and economies, after accounting for socio-economic status.

3. Advantaged low-achievers are students in the top quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the three bottom quarters across students from all countries and economies, after accounting for socio-economic status.

4. Advantaged high-achievers are students in the top quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the top quarter across students from all countries and economies, after accounting for socio-economic status.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.7.7b Students' drive and motivation among resilient students, disadvantaged low-achievers, advantaged low-achievers and advantaged high-achievers

Results based on students' self-reports

Differences in drive and motivation among resilient students, disadvantaged low-achievers, advantaged low-achievers, and advantaged high-achievers, by selected indicators: Index of instrumental motivation

		Disadvantaged low-achievers[1]		Resilient students[2]		Advantaged low-achievers[3]		Advantaged high-achievers[4]	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	Australia	0.09	(0.02)	0.39	(0.05)	0.10	(0.06)	0.43	(0.03)
	Austria	-0.32	(0.05)	-0.28	(0.09)	-0.56	(0.10)	-0.43	(0.05)
	Belgium	-0.51	(0.04)	-0.23	(0.07)	-0.60	(0.07)	-0.05	(0.03)
	Canada	0.00	(0.03)	0.31	(0.05)	0.12	(0.06)	0.52	(0.03)
	Chile	0.35	(0.05)	0.54	(0.08)	0.03	(0.07)	0.30	(0.04)
	Czech Republic	-0.27	(0.05)	0.00	(0.08)	-0.28	(0.07)	-0.15	(0.04)
	Denmark	0.02	(0.04)	0.36	(0.07)	0.20	(0.07)	0.53	(0.04)
	Estonia	-0.12	(0.04)	0.10	(0.07)	-0.09	(0.11)	0.27	(0.04)
	Finland	-0.34	(0.04)	0.09	(0.08)	-0.15	(0.08)	0.38	(0.03)
	France	-0.27	(0.04)	-0.20	(0.08)	-0.27	(0.09)	0.12	(0.04)
	Germany	-0.17	(0.05)	0.13	(0.08)	-0.31	(0.09)	-0.03	(0.05)
	Greece	-0.16	(0.04)	0.03	(0.09)	-0.20	(0.10)	0.34	(0.04)
	Hungary	-0.06	(0.04)	0.09	(0.08)	-0.21	(0.09)	0.10	(0.06)
	Iceland	0.08	(0.05)	0.41	(0.08)	0.31	(0.12)	0.59	(0.05)
	Ireland	0.07	(0.05)	0.12	(0.09)	-0.07	(0.07)	0.26	(0.04)
	Israel	0.28	(0.04)	0.39	(0.08)	0.30	(0.10)	0.38	(0.05)
	Italy	-0.26	(0.02)	-0.05	(0.04)	-0.36	(0.05)	-0.06	(0.03)
	Japan	-0.83	(0.05)	-0.32	(0.08)	-0.70	(0.07)	-0.13	(0.05)
	Korea	-0.76	(0.05)	-0.15	(0.08)	-0.77	(0.10)	0.00	(0.06)
	Luxembourg	-0.33	(0.05)	-0.16	(0.10)	-0.45	(0.10)	0.01	(0.04)
	Mexico	0.57	(0.02)	0.72	(0.03)	0.38	(0.05)	0.49	(0.02)
	Netherlands	-0.49	(0.05)	-0.19	(0.08)	-0.34	(0.12)	-0.22	(0.04)
	New Zealand	0.14	(0.05)	0.37	(0.08)	0.14	(0.08)	0.50	(0.04)
	Norway	-0.14	(0.05)	0.47	(0.06)	-0.18	(0.12)	0.55	(0.04)
	Poland	-0.32	(0.05)	0.14	(0.09)	-0.41	(0.09)	0.15	(0.05)
	Portugal	0.05	(0.05)	0.45	(0.07)	0.15	(0.09)	0.59	(0.05)
	Slovak Republic	-0.26	(0.05)	-0.28	(0.09)	-0.60	(0.09)	-0.26	(0.07)
	Slovenia	-0.27	(0.06)	-0.06	(0.11)	-0.30	(0.09)	-0.09	(0.05)
	Spain	-0.22	(0.04)	0.05	(0.06)	-0.22	(0.06)	0.27	(0.03)
	Sweden	-0.02	(0.05)	0.29	(0.08)	0.13	(0.08)	0.46	(0.04)
	Switzerland	-0.03	(0.04)	0.09	(0.07)	-0.26	(0.08)	-0.17	(0.05)
	Turkey	0.07	(0.05)	0.25	(0.09)	-0.13	(0.08)	0.15	(0.05)
	United Kingdom	0.24	(0.05)	0.33	(0.06)	0.25	(0.08)	0.46	(0.03)
	United States	-0.01	(0.05)	0.23	(0.07)	0.03	(0.08)	0.32	(0.04)
	OECD average	-0.12	(0.01)	0.13	(0.01)	-0.16	(0.01)	0.19	(0.01)
Partners	Albania	m	m	m	m	m	m	m	m
	Argentina	0.29	(0.05)	0.31	(0.08)	0.01	(0.12)	0.06	(0.05)
	Brazil	0.50	(0.02)	0.51	(0.04)	0.29	(0.06)	0.25	(0.03)
	Bulgaria	-0.03	(0.05)	-0.11	(0.09)	-0.26	(0.10)	0.03	(0.05)
	Colombia	0.58	(0.04)	0.48	(0.07)	0.27	(0.09)	0.35	(0.04)
	Costa Rica	0.43	(0.05)	0.32	(0.10)	0.29	(0.12)	0.30	(0.05)
	Croatia	-0.24	(0.04)	-0.05	(0.09)	-0.40	(0.09)	-0.19	(0.07)
	Cyprus*	-0.23	(0.05)	0.30	(0.09)	-0.09	(0.09)	0.48	(0.05)
	Hong Kong-China	-0.33	(0.04)	0.00	(0.07)	-0.28	(0.10)	-0.07	(0.05)
	Indonesia	0.30	(0.04)	0.42	(0.07)	0.38	(0.07)	0.33	(0.04)
	Jordan	0.28	(0.04)	0.61	(0.07)	0.31	(0.10)	0.58	(0.04)
	Kazakhstan	0.37	(0.04)	0.34	(0.09)	0.55	(0.09)	0.50	(0.06)
	Latvia	0.05	(0.06)	0.29	(0.10)	0.13	(0.09)	0.24	(0.04)
	Liechtenstein	-0.05	(0.18)	-0.16	(0.39)	0.39	(0.40)	0.18	(0.21)
	Lithuania	0.12	(0.06)	0.47	(0.10)	0.13	(0.09)	0.45	(0.05)
	Macao-China	-0.32	(0.03)	-0.09	(0.06)	-0.33	(0.07)	-0.17	(0.04)
	Malaysia	0.35	(0.04)	0.72	(0.06)	0.48	(0.06)	0.67	(0.04)
	Montenegro	-0.18	(0.05)	-0.26	(0.09)	-0.43	(0.09)	-0.30	(0.05)
	Peru	0.60	(0.04)	0.65	(0.06)	0.43	(0.06)	0.52	(0.03)
	Qatar	0.13	(0.03)	0.41	(0.06)	0.02	(0.06)	0.45	(0.03)
	Romania	-0.51	(0.05)	-0.60	(0.10)	-0.48	(0.09)	-0.68	(0.05)
	Russian Federation	-0.13	(0.05)	0.01	(0.06)	-0.14	(0.11)	0.00	(0.05)
	Serbia	-0.06	(0.04)	-0.05	(0.08)	-0.21	(0.09)	-0.08	(0.04)
	Shanghai-China	-0.03	(0.04)	0.08	(0.07)	-0.04	(0.09)	0.19	(0.04)
	Singapore	0.45	(0.03)	0.49	(0.05)	0.29	(0.08)	0.32	(0.04)
	Chinese Taipei	-0.59	(0.04)	-0.15	(0.07)	-0.50	(0.08)	0.01	(0.04)
	Thailand	0.33	(0.03)	0.57	(0.07)	0.23	(0.06)	0.36	(0.04)
	Tunisia	0.31	(0.05)	0.52	(0.06)	0.23	(0.12)	0.68	(0.06)
	United Arab Emirates	0.28	(0.03)	0.44	(0.08)	0.38	(0.05)	0.47	(0.04)
	Uruguay	0.38	(0.05)	0.24	(0.09)	0.05	(0.09)	0.16	(0.05)
	Viet Nam	0.22	(0.04)	0.38	(0.07)	0.36	(0.07)	0.52	(0.04)

1. Disadvantaged low-achievers are students in the bottom quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the three bottom quarters across students from all countries and economies, after accounting for socio-economic status.
2. Resilient students are students in the bottom quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the top quarter across students from all countries and economies, after accounting for socio-economic status.
3. Advantaged low-achievers are students in the top quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the three bottom quarters across students from all countries and economies, after accounting for socio-economic status.
4. Advantaged high-achievers are students in the top quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the top quarter across students from all countries and economies, after accounting for socio-economic status.

* See notes at the beginning of this Annex.

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[Part 1/2]

Table III.7.7c Mathematics self-beliefs among resilient students, disadvantaged low-achievers, advantaged low-achievers and advantaged high-achievers

Results based on students' self-reports

		Differences in mathematics self-beliefs among resilient students, disadvantaged low-achievers, advantaged low-achievers, and advantaged high-achievers, by selected indicators:															
		Index of mathematics self-efficacy								Index of mathematics self-concept							
		Disadvantaged low-achievers[1]		Resilient students[2]		Advantaged low-achievers[3]		Advantaged high-achievers[4]		Disadvantaged low-achievers[1]		Resilient students[2]		Advantaged low-achievers[3]		Advantaged high-achievers[4]	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**	-0.54	(0.02)	0.42	(0.05)	-0.31	(0.06)	0.68	(0.03)	-0.54	(0.02)	0.42	(0.05)	-0.31	(0.06)	0.68	(0.03)
	Austria	-0.38	(0.04)	0.29	(0.08)	-0.29	(0.08)	0.62	(0.05)	-0.38	(0.04)	0.29	(0.08)	-0.29	(0.08)	0.62	(0.05)
	Belgium	-0.57	(0.04)	0.19	(0.07)	-0.35	(0.07)	0.40	(0.03)	-0.57	(0.04)	0.19	(0.07)	-0.35	(0.07)	0.40	(0.03)
	Canada	-0.43	(0.03)	0.47	(0.05)	-0.21	(0.06)	0.72	(0.04)	-0.43	(0.03)	0.47	(0.05)	-0.21	(0.06)	0.72	(0.04)
	Chile	-0.42	(0.04)	-0.15	(0.06)	-0.40	(0.06)	0.19	(0.04)	-0.42	(0.04)	-0.15	(0.06)	-0.40	(0.06)	0.19	(0.04)
	Czech Republic	-0.49	(0.05)	0.29	(0.08)	-0.27	(0.07)	0.56	(0.04)	-0.49	(0.05)	0.29	(0.08)	-0.27	(0.07)	0.56	(0.04)
	Denmark	-0.61	(0.04)	0.23	(0.08)	-0.34	(0.07)	0.47	(0.05)	-0.61	(0.04)	0.23	(0.08)	-0.34	(0.07)	0.47	(0.05)
	Estonia	-0.42	(0.04)	0.23	(0.07)	-0.24	(0.08)	0.46	(0.04)	-0.42	(0.04)	0.23	(0.07)	-0.24	(0.08)	0.46	(0.04)
	Finland	-0.78	(0.03)	0.03	(0.06)	-0.50	(0.06)	0.27	(0.05)	-0.78	(0.03)	0.03	(0.06)	-0.50	(0.06)	0.27	(0.05)
	France	-0.51	(0.04)	0.15	(0.07)	-0.15	(0.10)	0.65	(0.05)	-0.51	(0.04)	0.15	(0.07)	-0.15	(0.10)	0.65	(0.05)
	Germany	-0.17	(0.04)	0.76	(0.08)	0.15	(0.08)	0.89	(0.05)	-0.17	(0.04)	0.76	(0.08)	0.15	(0.08)	0.89	(0.05)
	Greece	-0.70	(0.06)	-0.08	(0.07)	-0.22	(0.10)	0.44	(0.05)	-0.70	(0.06)	-0.08	(0.07)	-0.22	(0.10)	0.44	(0.05)
	Hungary	-0.47	(0.04)	0.37	(0.09)	-0.07	(0.12)	0.90	(0.07)	-0.47	(0.04)	0.37	(0.09)	-0.07	(0.12)	0.90	(0.07)
	Iceland	-0.49	(0.06)	0.37	(0.09)	-0.12	(0.12)	0.63	(0.06)	-0.49	(0.06)	0.37	(0.09)	-0.12	(0.12)	0.63	(0.06)
	Ireland	-0.52	(0.05)	0.20	(0.07)	-0.29	(0.07)	0.58	(0.04)	-0.52	(0.05)	0.20	(0.07)	-0.29	(0.07)	0.58	(0.04)
	Israel	-0.38	(0.05)	0.32	(0.09)	0.03	(0.10)	0.73	(0.05)	-0.38	(0.05)	0.32	(0.09)	0.03	(0.10)	0.73	(0.05)
	Italy	-0.49	(0.02)	0.15	(0.04)	-0.36	(0.03)	0.29	(0.03)	-0.49	(0.02)	0.15	(0.04)	-0.36	(0.03)	0.29	(0.03)
	Japan	-1.00	(0.06)	-0.04	(0.08)	-0.68	(0.07)	0.13	(0.06)	-1.00	(0.06)	-0.04	(0.08)	-0.68	(0.07)	0.13	(0.06)
	Korea	-1.02	(0.06)	-0.06	(0.07)	-0.71	(0.08)	0.34	(0.09)	-1.02	(0.06)	-0.06	(0.07)	-0.71	(0.08)	0.34	(0.09)
	Luxembourg	-0.46	(0.04)	0.22	(0.07)	-0.09	(0.09)	0.79	(0.04)	-0.46	(0.04)	0.22	(0.07)	-0.09	(0.09)	0.79	(0.04)
	Mexico	-0.40	(0.02)	0.02	(0.04)	-0.33	(0.04)	0.09	(0.02)	-0.40	(0.02)	0.02	(0.04)	-0.33	(0.04)	0.09	(0.02)
	Netherlands	-0.54	(0.05)	0.17	(0.07)	-0.46	(0.08)	0.16	(0.05)	-0.54	(0.05)	0.17	(0.07)	-0.46	(0.08)	0.16	(0.05)
	New Zealand	-0.66	(0.04)	-0.03	(0.09)	-0.41	(0.07)	0.55	(0.05)	-0.66	(0.04)	-0.03	(0.09)	-0.41	(0.07)	0.55	(0.05)
	Norway	-0.60	(0.05)	0.48	(0.08)	-0.41	(0.09)	0.60	(0.06)	-0.60	(0.05)	0.48	(0.08)	-0.41	(0.09)	0.60	(0.06)
	Poland	-0.50	(0.04)	0.55	(0.08)	-0.24	(0.09)	0.88	(0.08)	-0.50	(0.04)	0.55	(0.08)	-0.24	(0.09)	0.88	(0.08)
	Portugal	-0.38	(0.05)	0.56	(0.08)	0.03	(0.10)	1.04	(0.05)	-0.38	(0.05)	0.56	(0.08)	0.03	(0.10)	1.04	(0.05)
	Slovak Republic	-0.43	(0.05)	0.23	(0.09)	-0.18	(0.08)	0.64	(0.05)	-0.43	(0.05)	0.23	(0.09)	-0.18	(0.08)	0.64	(0.05)
	Slovenia	-0.15	(0.03)	0.59	(0.09)	0.06	(0.09)	0.89	(0.05)	-0.15	(0.03)	0.59	(0.09)	0.06	(0.09)	0.89	(0.05)
	Spain	-0.39	(0.04)	0.33	(0.05)	-0.09	(0.04)	0.59	(0.03)	-0.39	(0.04)	0.33	(0.05)	-0.09	(0.04)	0.59	(0.03)
	Sweden	-0.48	(0.05)	0.34	(0.09)	-0.22	(0.08)	0.59	(0.05)	-0.48	(0.05)	0.34	(0.09)	-0.22	(0.08)	0.59	(0.05)
	Switzerland	-0.26	(0.04)	0.60	(0.08)	-0.12	(0.06)	0.80	(0.04)	-0.26	(0.04)	0.60	(0.08)	-0.12	(0.06)	0.80	(0.04)
	Turkey	-0.38	(0.04)	0.21	(0.08)	-0.26	(0.08)	0.50	(0.07)	-0.38	(0.04)	0.21	(0.08)	-0.26	(0.08)	0.50	(0.07)
	United Kingdom	-0.48	(0.04)	0.37	(0.07)	-0.26	(0.09)	0.64	(0.04)	-0.48	(0.04)	0.37	(0.07)	-0.26	(0.09)	0.64	(0.04)
	United States	-0.42	(0.04)	0.31	(0.07)	-0.16	(0.09)	0.75	(0.06)	-0.42	(0.04)	0.31	(0.07)	-0.16	(0.09)	0.75	(0.06)
	OECD average	-0.50	(0.01)	0.27	(0.01)	-0.25	(0.01)	0.57	(0.01)	-0.50	(0.01)	0.27	(0.01)	-0.25	(0.01)	0.57	(0.01)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	-0.49	(0.04)	-0.34	(0.09)	-0.39	(0.10)	-0.12	(0.04)	-0.49	(0.04)	-0.34	(0.09)	-0.39	(0.10)	-0.12	(0.04)
	Brazil	-0.67	(0.03)	-0.38	(0.05)	-0.55	(0.05)	-0.05	(0.05)	-0.67	(0.03)	-0.38	(0.05)	-0.55	(0.05)	-0.05	(0.05)
	Bulgaria	-0.37	(0.05)	-0.28	(0.06)	-0.27	(0.12)	0.34	(0.06)	-0.37	(0.05)	-0.28	(0.06)	-0.27	(0.12)	0.34	(0.06)
	Colombia	-0.54	(0.05)	-0.42	(0.08)	-0.53	(0.07)	-0.20	(0.05)	-0.54	(0.05)	-0.42	(0.08)	-0.53	(0.07)	-0.20	(0.05)
	Costa Rica	-0.52	(0.06)	-0.37	(0.09)	-0.28	(0.11)	-0.06	(0.05)	-0.52	(0.06)	-0.37	(0.09)	-0.28	(0.11)	-0.06	(0.05)
	Croatia	-0.40	(0.04)	0.39	(0.08)	-0.19	(0.08)	0.63	(0.06)	-0.40	(0.04)	0.39	(0.08)	-0.19	(0.08)	0.63	(0.06)
	Cyprus*	-0.65	(0.04)	0.17	(0.09)	-0.16	(0.10)	0.55	(0.05)	-0.23	(0.04)	0.36	(0.07)	-0.06	(0.08)	0.66	(0.04)
	Hong Kong-China	-0.36	(0.06)	0.65	(0.07)	-0.14	(0.10)	0.77	(0.06)	-0.36	(0.06)	0.65	(0.07)	-0.14	(0.10)	0.77	(0.06)
	Indonesia	-0.41	(0.04)	-0.27	(0.05)	-0.28	(0.06)	-0.08	(0.05)	-0.41	(0.04)	-0.27	(0.05)	-0.28	(0.06)	-0.08	(0.05)
	Jordan	-0.43	(0.04)	0.08	(0.08)	0.10	(0.09)	0.39	(0.05)	-0.43	(0.04)	0.08	(0.08)	0.10	(0.09)	0.39	(0.05)
	Kazakhstan	-0.13	(0.05)	0.05	(0.07)	0.14	(0.07)	0.51	(0.06)	-0.13	(0.05)	0.05	(0.07)	0.14	(0.07)	0.51	(0.06)
	Latvia	-0.55	(0.04)	0.01	(0.09)	-0.23	(0.07)	0.37	(0.05)	-0.55	(0.04)	0.01	(0.09)	-0.23	(0.07)	0.37	(0.05)
	Liechtenstein	-0.09	(0.18)	1.10	(0.26)	0.09	(0.46)	1.04	(0.15)	-0.09	(0.18)	1.10	(0.26)	0.09	(0.46)	1.04	(0.15)
	Lithuania	-0.44	(0.04)	0.32	(0.08)	-0.27	(0.08)	0.57	(0.05)	-0.44	(0.04)	0.32	(0.08)	-0.27	(0.08)	0.57	(0.05)
	Macao-China	-0.24	(0.04)	0.63	(0.07)	-0.21	(0.08)	0.57	(0.04)	-0.24	(0.04)	0.63	(0.07)	-0.21	(0.08)	0.57	(0.04)
	Malaysia	-0.58	(0.03)	-0.07	(0.07)	-0.33	(0.06)	0.13	(0.04)	-0.58	(0.03)	-0.07	(0.07)	-0.33	(0.06)	0.13	(0.04)
	Montenegro	-0.55	(0.05)	-0.19	(0.07)	-0.54	(0.10)	0.06	(0.05)	-0.55	(0.05)	-0.19	(0.07)	-0.54	(0.10)	0.06	(0.05)
	Peru	-0.36	(0.03)	-0.30	(0.05)	-0.28	(0.07)	0.00	(0.04)	-0.36	(0.03)	-0.30	(0.05)	-0.28	(0.07)	0.00	(0.04)
	Qatar	-0.43	(0.04)	-0.10	(0.07)	-0.38	(0.07)	0.23	(0.04)	-0.43	(0.04)	-0.10	(0.07)	-0.38	(0.07)	0.23	(0.04)
	Romania	-0.44	(0.03)	-0.22	(0.09)	-0.21	(0.08)	0.35	(0.07)	-0.44	(0.03)	-0.22	(0.09)	-0.21	(0.08)	0.35	(0.07)
	Russian Federation	-0.57	(0.04)	-0.04	(0.08)	-0.26	(0.07)	0.43	(0.06)	-0.57	(0.04)	-0.04	(0.08)	-0.26	(0.07)	0.43	(0.06)
	Serbia	-0.60	(0.04)	-0.03	(0.08)	-0.49	(0.09)	0.27	(0.06)	-0.60	(0.04)	-0.03	(0.08)	-0.49	(0.09)	0.27	(0.06)
	Shanghai-China	0.26	(0.07)	1.19	(0.08)	0.75	(0.12)	1.60	(0.04)	0.26	(0.07)	1.19	(0.08)	0.75	(0.12)	1.60	(0.04)
	Singapore	-0.19	(0.04)	0.76	(0.07)	0.21	(0.08)	1.08	(0.04)	-0.19	(0.04)	0.76	(0.07)	0.21	(0.08)	1.08	(0.04)
	Chinese Taipei	-0.74	(0.06)	0.67	(0.07)	-0.04	(0.08)	0.99	(0.04)	-0.74	(0.06)	0.67	(0.07)	-0.04	(0.08)	0.99	(0.04)
	Thailand	-0.45	(0.03)	-0.26	(0.07)	-0.34	(0.08)	-0.13	(0.04)	-0.45	(0.03)	-0.26	(0.07)	-0.34	(0.08)	-0.13	(0.04)
	Tunisia	-0.61	(0.05)	-0.26	(0.08)	-0.31	(0.09)	0.14	(0.08)	-0.61	(0.05)	-0.26	(0.08)	-0.31	(0.09)	0.14	(0.08)
	United Arab Emirates	-0.37	(0.04)	0.14	(0.07)	-0.07	(0.07)	0.42	(0.05)	-0.37	(0.04)	0.14	(0.07)	-0.07	(0.07)	0.42	(0.05)
	Uruguay	-0.53	(0.04)	-0.23	(0.06)	-0.43	(0.08)	0.08	(0.05)	-0.53	(0.04)	-0.23	(0.06)	-0.43	(0.08)	0.08	(0.05)
	Viet Nam	-0.60	(0.03)	-0.14	(0.06)	-0.41	(0.07)	0.09	(0.05)	-0.60	(0.03)	-0.14	(0.06)	-0.41	(0.07)	0.09	(0.05)

1. Disadvantaged low-achievers are students in the bottom quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the three bottom quarters across students from all countries and economies, after accounting for socio-economic status.
2. Resilient students are students in the bottom quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the top quarter across students from all countries and economies, after accounting for socio-economic status.
3. Advantaged low-achievers are students in the top quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the three bottom quarters across students from all countries and economies, after accounting for socio-economic status.
4. Advantaged high-achievers are students in the top quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the top quarter across students from all countries and economies, after accounting for socio-economic status.

* See notes at the beginning of this Annex.

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[Part 2/2]

Table III.7.7c Mathematics self-beliefs among resilient students, disadvantaged low-achievers, advantaged low-achievers and advantaged high-achievers

Results based on students' self-reports

		Differences in mathematics self-beliefs among resilient students, disadvantaged low-achievers, advantaged low-achievers, and advantaged high-achievers, by selected indicators:															
		Index of mathematics anxiety								Index of mathematics behaviours							
		Disadvantaged low-achievers[1]		Resilient students[2]		Advantaged low-achievers[3]		Advantaged high-achievers[4]		Disadvantaged low-achievers[1]		Resilient students[2]		Advantaged low-achievers[3]		Advantaged high-achievers[4]	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	Australia	0.30	(0.02)	-0.31	(0.05)	0.36	(0.06)	-0.24	(0.03)	-0.42	(0.03)	0.06	(0.06)	-0.36	(0.07)	0.11	(0.03)
	Austria	0.11	(0.05)	-0.59	(0.09)	0.21	(0.09)	-0.59	(0.06)	-0.11	(0.06)	0.06	(0.08)	-0.12	(0.09)	0.08	(0.04)
	Belgium	0.15	(0.04)	-0.26	(0.07)	0.35	(0.07)	-0.13	(0.03)	-0.42	(0.05)	-0.19	(0.05)	-0.28	(0.07)	-0.03	(0.03)
	Canada	0.30	(0.03)	-0.40	(0.07)	0.42	(0.08)	-0.34	(0.03)	-0.24	(0.04)	-0.04	(0.05)	-0.10	(0.07)	0.16	(0.03)
	Chile	0.57	(0.03)	0.36	(0.07)	0.66	(0.06)	0.15	(0.03)	0.17	(0.06)	0.21	(0.10)	0.05	(0.07)	0.17	(0.03)
	Czech Republic	0.30	(0.05)	-0.28	(0.07)	0.32	(0.10)	-0.39	(0.04)	-0.24	(0.05)	-0.04	(0.08)	-0.01	(0.10)	0.03	(0.04)
	Denmark	0.10	(0.05)	-0.72	(0.08)	0.05	(0.07)	-0.89	(0.04)	0.03	(0.04)	0.13	(0.07)	0.14	(0.06)	0.18	(0.04)
	Estonia	0.15	(0.04)	-0.68	(0.08)	0.18	(0.12)	-0.46	(0.05)	-0.08	(0.05)	0.07	(0.08)	0.19	(0.12)	0.33	(0.03)
	Finland	-0.04	(0.03)	-0.76	(0.07)	0.08	(0.07)	-0.59	(0.03)	-0.22	(0.04)	0.03	(0.06)	-0.04	(0.08)	0.18	(0.04)
	France	0.44	(0.05)	0.04	(0.09)	0.62	(0.10)	0.06	(0.04)	-0.31	(0.06)	-0.26	(0.08)	-0.23	(0.09)	-0.09	(0.04)
	Germany	0.06	(0.06)	-0.78	(0.12)	0.10	(0.09)	-0.70	(0.06)	-0.04	(0.05)	0.13	(0.08)	0.31	(0.09)	0.13	(0.04)
	Greece	0.47	(0.04)	0.05	(0.12)	0.33	(0.08)	-0.30	(0.04)	0.04	(0.06)	0.07	(0.08)	0.43	(0.09)	0.53	(0.05)
	Hungary	0.29	(0.05)	-0.26	(0.08)	0.14	(0.09)	-0.42	(0.04)	0.04	(0.05)	0.08	(0.10)	0.14	(0.10)	0.34	(0.04)
	Iceland	0.03	(0.05)	-0.74	(0.10)	-0.08	(0.09)	-0.75	(0.05)	-0.18	(0.07)	-0.10	(0.08)	-0.14	(0.14)	0.02	(0.04)
	Ireland	0.36	(0.04)	-0.09	(0.08)	0.34	(0.07)	-0.20	(0.04)	-0.63	(0.05)	-0.47	(0.08)	-0.48	(0.08)	-0.18	(0.04)
	Israel	0.14	(0.06)	-0.40	(0.11)	0.14	(0.09)	-0.15	(0.05)	0.46	(0.06)	0.38	(0.09)	0.75	(0.10)	0.34	(0.04)
	Italy	0.45	(0.02)	0.06	(0.05)	0.59	(0.04)	0.12	(0.02)	-0.01	(0.02)	-0.04	(0.04)	0.15	(0.05)	0.15	(0.02)
	Japan	0.49	(0.04)	0.19	(0.09)	0.53	(0.08)	0.23	(0.04)	-0.52	(0.04)	-0.14	(0.07)	-0.23	(0.07)	0.07	(0.04)
	Korea	0.47	(0.04)	0.24	(0.06)	0.47	(0.08)	0.12	(0.03)	-0.42	(0.05)	0.32	(0.07)	0.09	(0.08)	0.72	(0.05)
	Luxembourg	0.28	(0.05)	-0.36	(0.07)	0.18	(0.09)	-0.44	(0.04)	-0.11	(0.05)	-0.25	(0.08)	-0.20	(0.13)	-0.04	(0.04)
	Mexico	0.56	(0.02)	0.18	(0.04)	0.72	(0.03)	0.24	(0.02)	0.30	(0.02)	0.41	(0.04)	0.43	(0.04)	0.36	(0.02)
	Netherlands	-0.26	(0.05)	-0.63	(0.10)	-0.13	(0.09)	-0.53	(0.05)	-0.51	(0.06)	-0.54	(0.08)	-0.38	(0.12)	-0.41	(0.05)
	New Zealand	0.41	(0.04)	-0.18	(0.10)	0.49	(0.09)	-0.29	(0.05)	-0.25	(0.06)	-0.20	(0.10)	-0.24	(0.10)	-0.04	(0.04)
	Norway	0.45	(0.05)	-0.55	(0.10)	0.54	(0.09)	-0.40	(0.05)	-0.56	(0.06)	-0.39	(0.08)	-0.48	(0.15)	-0.28	(0.04)
	Poland	0.42	(0.04)	-0.47	(0.09)	0.46	(0.11)	-0.53	(0.06)	0.18	(0.05)	0.45	(0.07)	0.11	(0.10)	0.43	(0.04)
	Portugal	0.23	(0.04)	-0.13	(0.07)	0.20	(0.07)	-0.35	(0.04)	0.02	(0.05)	0.11	(0.07)	0.12	(0.10)	0.30	(0.04)
	Slovak Republic	0.34	(0.05)	-0.36	(0.10)	0.29	(0.09)	-0.37	(0.06)	0.15	(0.06)	0.11	(0.08)	-0.05	(0.10)	0.13	(0.05)
	Slovenia	0.23	(0.05)	-0.19	(0.10)	0.31	(0.10)	-0.12	(0.05)	0.25	(0.05)	0.38	(0.10)	0.38	(0.11)	0.34	(0.05)
	Spain	0.42	(0.03)	0.06	(0.05)	0.48	(0.04)	-0.01	(0.02)	-0.09	(0.04)	-0.01	(0.07)	0.08	(0.08)	0.09	(0.03)
	Sweden	0.01	(0.04)	-0.68	(0.09)	0.02	(0.08)	-0.69	(0.04)	-0.25	(0.05)	-0.16	(0.08)	-0.01	(0.10)	0.05	(0.05)
	Switzerland	-0.10	(0.04)	-0.68	(0.07)	0.03	(0.08)	-0.49	(0.03)	-0.02	(0.04)	-0.07	(0.06)	0.02	(0.07)	-0.01	(0.03)
	Turkey	0.42	(0.05)	0.01	(0.09)	0.58	(0.09)	-0.06	(0.07)	0.53	(0.06)	0.52	(0.10)	0.48	(0.10)	0.62	(0.04)
	United Kingdom	0.17	(0.04)	-0.43	(0.08)	0.16	(0.08)	-0.50	(0.04)	-0.29	(0.05)	-0.15	(0.08)	-0.08	(0.08)	-0.01	(0.04)
	United States	0.28	(0.05)	-0.56	(0.12)	0.32	(0.09)	-0.46	(0.05)	-0.23	(0.07)	-0.16	(0.08)	-0.13	(0.10)	0.06	(0.04)
	OECD average	0.26	(0.01)	-0.30	(0.01)	0.31	(0.01)	-0.31	(0.01)	-0.12	(0.01)	0.01	(0.01)	0.01	(0.02)	0.14	(0.01)
Partners	Albania	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	0.73	(0.05)	0.35	(0.07)	0.70	(0.09)	0.29	(0.06)	0.33	(0.06)	-0.01	(0.11)	0.29	(0.15)	0.14	(0.07)
	Brazil	0.67	(0.03)	0.28	(0.05)	0.79	(0.04)	0.29	(0.03)	0.57	(0.04)	0.42	(0.05)	0.70	(0.07)	0.37	(0.04)
	Bulgaria	0.66	(0.05)	0.27	(0.08)	0.39	(0.07)	-0.26	(0.04)	0.34	(0.08)	0.18	(0.12)	0.44	(0.11)	0.42	(0.04)
	Colombia	0.50	(0.05)	0.14	(0.08)	0.62	(0.11)	0.13	(0.04)	0.68	(0.05)	0.62	(0.09)	0.68	(0.09)	0.60	(0.04)
	Costa Rica	0.56	(0.05)	0.22	(0.09)	0.81	(0.12)	0.16	(0.05)	0.50	(0.05)	0.40	(0.08)	0.58	(0.09)	0.45	(0.04)
	Croatia	0.35	(0.04)	-0.19	(0.07)	0.37	(0.08)	-0.14	(0.06)	-0.12	(0.04)	0.04	(0.07)	-0.16	(0.09)	0.14	(0.04)
	Cyprus*	0.41	(0.04)	-0.12	(0.09)	0.36	(0.08)	-0.47	(0.04)	0.31	(0.05)	0.30	(0.10)	0.56	(0.12)	0.52	(0.04)
	Hong Kong-China	0.28	(0.04)	-0.23	(0.09)	0.40	(0.09)	-0.15	(0.05)	-0.07	(0.05)	0.26	(0.06)	0.26	(0.09)	0.35	(0.03)
	Indonesia	0.28	(0.04)	0.21	(0.06)	0.44	(0.06)	0.23	(0.04)	0.62	(0.04)	0.49	(0.07)	0.88	(0.08)	0.62	(0.05)
	Jordan	0.59	(0.03)	0.31	(0.05)	0.78	(0.07)	0.32	(0.04)	1.29	(0.05)	1.22	(0.08)	1.92	(0.10)	1.47	(0.05)
	Kazakhstan	0.21	(0.05)	-0.02	(0.09)	0.09	(0.10)	-0.24	(0.05)	1.03	(0.04)	0.96	(0.07)	1.33	(0.10)	1.28	(0.06)
	Latvia	0.25	(0.05)	-0.25	(0.09)	0.29	(0.08)	-0.27	(0.04)	-0.32	(0.07)	-0.02	(0.13)	0.12	(0.11)	0.22	(0.04)
	Liechtenstein	0.14	(0.15)	-0.48	(0.34)	-0.48	(0.52)	-0.70	(0.18)	-0.13	(0.16)	-0.59	(0.39)	-0.22	(0.46)	0.41	(0.20)
	Lithuania	0.27	(0.05)	-0.52	(0.08)	0.31	(0.09)	-0.45	(0.05)	-0.03	(0.06)	0.13	(0.08)	0.26	(0.09)	0.25	(0.04)
	Macao-China	0.40	(0.04)	-0.32	(0.08)	0.58	(0.07)	0.07	(0.04)	0.01	(0.03)	0.40	(0.05)	0.38	(0.08)	0.45	(0.03)
	Malaysia	0.46	(0.03)	0.22	(0.06)	0.64	(0.07)	0.30	(0.03)	0.81	(0.05)	0.96	(0.05)	1.07	(0.08)	0.99	(0.04)
	Montenegro	0.41	(0.04)	-0.08	(0.07)	0.39	(0.09)	-0.07	(0.05)	0.38	(0.05)	0.27	(0.08)	0.46	(0.11)	0.46	(0.05)
	Peru	0.38	(0.03)	0.20	(0.05)	0.62	(0.06)	0.20	(0.03)	0.89	(0.04)	0.61	(0.07)	0.69	(0.06)	0.59	(0.04)
	Qatar	0.48	(0.03)	0.05	(0.07)	0.60	(0.06)	0.00	(0.04)	1.30	(0.04)	1.04	(0.07)	1.51	(0.07)	0.94	(0.03)
	Romania	0.58	(0.04)	0.38	(0.08)	0.53	(0.06)	-0.04	(0.07)	0.66	(0.07)	0.79	(0.13)	0.61	(0.10)	0.73	(0.06)
	Russian Federation	0.41	(0.04)	-0.13	(0.08)	0.42	(0.06)	-0.21	(0.04)	0.40	(0.05)	0.73	(0.07)	0.81	(0.08)	0.87	(0.04)
	Serbia	0.45	(0.04)	-0.01	(0.08)	0.41	(0.08)	-0.19	(0.05)	0.22	(0.04)	0.24	(0.08)	0.18	(0.08)	0.29	(0.04)
	Shanghai-China	0.26	(0.04)	-0.21	(0.07)	0.23	(0.07)	-0.21	(0.05)	0.24	(0.03)	0.62	(0.05)	0.59	(0.08)	0.87	(0.03)
	Singapore	0.56	(0.04)	-0.04	(0.06)	0.32	(0.08)	-0.22	(0.04)	0.47	(0.03)	0.41	(0.05)	0.48	(0.07)	0.49	(0.03)
	Chinese Taipei	0.55	(0.04)	0.13	(0.06)	0.54	(0.09)	0.04	(0.04)	-0.44	(0.05)	0.31	(0.06)	0.01	(0.09)	0.54	(0.03)
	Thailand	0.52	(0.02)	0.34	(0.06)	0.63	(0.06)	0.44	(0.03)	0.92	(0.03)	0.90	(0.07)	1.14	(0.09)	0.99	(0.03)
	Tunisia	0.71	(0.04)	0.49	(0.06)	0.86	(0.08)	0.44	(0.06)	0.76	(0.06)	0.59	(0.08)	1.22	(0.12)	1.01	(0.05)
	United Arab Emirates	0.54	(0.03)	-0.06	(0.06)	0.50	(0.07)	-0.18	(0.04)	1.11	(0.04)	1.00	(0.05)	1.44	(0.09)	0.86	(0.04)
	Uruguay	0.71	(0.05)	0.13	(0.07)	0.58	(0.08)	0.04	(0.05)	0.28	(0.06)	0.08	(0.07)	0.24	(0.09)	0.01	(0.04)
	Viet Nam	0.36	(0.03)	0.04	(0.05)	0.47	(0.09)	0.07	(0.04)	0.52	(0.04)	0.71	(0.05)	0.62	(0.08)	0.79	(0.03)

1. Disadvantaged low-achievers are students in the bottom quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the three bottom quarters across students from all countries and economies, after accounting for socio-economic status.
2. Resilient students are students in the bottom quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the top quarter across students from all countries and economies, after accounting for socio-economic status.
3. Advantaged low-achievers are students in the top quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the three bottom quarters across students from all countries and economies, after accounting for socio-economic status.
4. Advantaged high-achievers are students in the top quarter of the *PISA index of economic, social and cultural status* (ESCS) in the country/economy of assessment and perform in the top quarter across students from all countries and economies, after accounting for socio-economic status.

* See notes at the beginning of this Annex.

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[Part 1/7]

Table III.7.8 Change between 2003 and 2012 in the association between students' attitudes and behaviours and mathematics performance, by gender

Results based on students' self-reports

		Boys															
		PISA 2003															
		Arriving late		Index of sense of belonging		Index of attitudes towards school		Index of intrinsic motivation to learn mathematics		Index of instrumental motivation to learn mathematics		Index of mathematics self-efficacy		Index of mathematics self-concept		Index of mathematics anxiety	
		Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.
OECD	**Australia**	**-0.11**	(0.02)	0.02	(0.02)	**0.18**	(0.02)	**0.19**	(0.02)	**0.18**	(0.01)	**0.53**	(0.01)	**0.41**	(0.02)	**-0.36**	(0.01)
	Austria	-0.03	(0.03)	**0.06**	(0.03)	-0.01	(0.03)	**0.06**	(0.03)	-0.04	(0.03)	**0.50**	(0.02)	**0.25**	(0.03)	**-0.29**	(0.02)
	Belgium	**-0.23**	(0.02)	**0.08**	(0.02)	-0.02	(0.02)	**0.12**	(0.02)	**0.11**	(0.02)	**0.42**	(0.02)	**0.19**	(0.02)	**-0.22**	(0.02)
	Canada	**-0.14**	(0.02)	**-0.03**	(0.01)	**0.08**	(0.02)	**0.23**	(0.02)	**0.24**	(0.02)	**0.55**	(0.01)	**0.44**	(0.01)	**-0.39**	(0.01)
	Czech Republic	**-0.08**	(0.02)	**0.10**	(0.02)	**0.06**	(0.02)	**0.23**	(0.02)	**0.18**	(0.02)	**0.57**	(0.01)	**0.40**	(0.02)	**-0.40**	(0.02)
	Denmark	**-0.12**	(0.03)	0.04	(0.02)	**0.08**	(0.03)	**0.26**	(0.02)	**0.16**	(0.02)	**0.52**	(0.02)	**0.51**	(0.02)	**-0.50**	(0.02)
	Finland	**-0.14**	(0.02)	-0.02	(0.03)	**0.18**	(0.02)	**0.34**	(0.02)	**0.33**	(0.02)	**0.54**	(0.02)	**0.58**	(0.02)	**-0.46**	(0.02)
	France	**-0.18**	(0.02)	0.01	(0.02)	**0.10**	(0.03)	**0.25**	(0.03)	**0.19**	(0.02)	**0.50**	(0.02)	**0.31**	(0.02)	**-0.22**	(0.02)
	Germany	**-0.11**	(0.03)	-0.04	(0.03)	**-0.08**	(0.03)	**0.08**	(0.02)	0.00	(0.03)	**0.48**	(0.02)	**0.20**	(0.03)	**-0.30**	(0.02)
	Greece	**-0.06**	(0.03)	**0.05**	(0.03)	**-0.10**	(0.03)	**0.23**	(0.02)	**0.14**	(0.02)	**0.41**	(0.02)	**0.39**	(0.02)	**-0.34**	(0.02)
	Hungary	**-0.24**	(0.03)	**0.12**	(0.02)	-0.04	(0.02)	**0.11**	(0.03)	**0.14**	(0.03)	**0.55**	(0.02)	**0.26**	(0.02)	**-0.31**	(0.03)
	Iceland	**-0.13**	(0.03)	-0.02	(0.03)	**0.18**	(0.03)	**0.27**	(0.02)	**0.20**	(0.03)	**0.50**	(0.02)	**0.51**	(0.02)	**-0.40**	(0.02)
	Ireland	**-0.11**	(0.02)	**-0.07**	(0.03)	**0.09**	(0.03)	**0.21**	(0.03)	**0.09**	(0.02)	**0.52**	(0.02)	**0.39**	(0.03)	**-0.37**	(0.03)
	Italy	**-0.19**	(0.02)	-0.02	(0.02)	-0.03	(0.02)	**0.07**	(0.03)	**0.11**	(0.02)	**0.47**	(0.02)	**0.26**	(0.02)	**-0.28**	(0.02)
	Japan	**-0.17**	(0.04)	**0.10**	(0.02)	0.01	(0.02)	**0.28**	(0.03)	**0.26**	(0.03)	**0.59**	(0.03)	**0.19**	(0.02)	**-0.14**	(0.03)
	Korea	**-0.15**	(0.03)	**0.09**	(0.02)	-0.03	(0.02)	**0.38**	(0.02)	**0.32**	(0.02)	**0.57**	(0.02)	**0.45**	(0.02)	**-0.23**	(0.02)
	Luxembourg	**-0.05**	(0.02)	**0.07**	(0.03)	**-0.06**	(0.02)	**0.07**	(0.02)	0.01	(0.02)	**0.45**	(0.02)	**0.20**	(0.02)	**-0.29**	(0.02)
	Mexico	**-0.05**	(0.02)	**0.16**	(0.02)	**0.31**	(0.02)	**-0.06**	(0.03)	**0.11**	(0.03)	**0.32**	(0.03)	**0.24**	(0.03)	**-0.31**	(0.02)
	Netherlands	**-0.18**	(0.03)	**0.11**	(0.03)	**0.07**	(0.03)	**0.11**	(0.03)	**0.06**	(0.03)	**0.48**	(0.02)	**0.21**	(0.02)	**-0.22**	(0.03)
	New Zealand	**-0.16**	(0.03)	0.02	(0.02)	**0.16**	(0.02)	**0.14**	(0.02)	**0.18**	(0.02)	**0.56**	(0.02)	**0.43**	(0.02)	**-0.45**	(0.02)
	Norway	**-0.13**	(0.02)	0.00	(0.03)	**0.20**	(0.03)	**0.39**	(0.02)	**0.30**	(0.03)	**0.56**	(0.02)	**0.55**	(0.02)	**-0.50**	(0.02)
	Poland	**-0.09**	(0.02)	**0.08**	(0.02)	-0.02	(0.02)	**0.14**	(0.02)	**0.20**	(0.02)	**0.54**	(0.02)	**0.44**	(0.02)	**-0.48**	(0.02)
	Portugal	-0.03	(0.02)	**0.18**	(0.03)	**0.11**	(0.03)	**0.11**	(0.03)	**0.20**	(0.03)	**0.52**	(0.02)	**0.36**	(0.03)	**-0.32**	(0.02)
	Slovak Republic	**-0.12**	(0.02)	0.04	(0.02)	**-0.09**	(0.02)	**0.09**	(0.03)	**0.11**	(0.02)	**0.59**	(0.02)	**0.38**	(0.03)	**-0.40**	(0.02)
	Spain	**-0.18**	(0.02)	0.02	(0.02)	**0.09**	(0.02)	**0.25**	(0.02)	**0.28**	(0.02)	**0.45**	(0.01)	**0.36**	(0.02)	**-0.24**	(0.02)
	Sweden	**-0.15**	(0.02)	0.00	(0.02)	**0.14**	(0.02)	**0.28**	(0.03)	**0.24**	(0.02)	**0.57**	(0.02)	**0.49**	(0.02)	**-0.44**	(0.02)
	Switzerland	**-0.09**	(0.02)	**0.09**	(0.03)	0.02	(0.03)	**0.09**	(0.03)	-0.03	(0.04)	**0.54**	(0.02)	**0.24**	(0.02)	**-0.32**	(0.02)
	Turkey	**-0.11**	(0.03)	**0.17**	(0.03)	-0.01	(0.04)	**0.15**	(0.03)	**0.18**	(0.03)	**0.50**	(0.04)	**0.29**	(0.03)	**-0.30**	(0.03)
	United States	**-0.19**	(0.02)	m	m	**0.08**	(0.02)	**0.10**	(0.02)	**0.19**	(0.02)	**0.55**	(0.02)	**0.39**	(0.02)	**-0.42**	(0.02)
	OECD average 2003	**-0.13**	(0.00)	**0.05**	(0.00)	**0.06**	(0.00)	**0.18**	(0.00)	**0.16**	(0.00)	**0.51**	(0.00)	**0.36**	(0.00)	**-0.34**	(0.00)
Partners	**Brazil**	**-0.07**	(0.03)	0.04	(0.03)	0.04	(0.03)	**-0.13**	(0.04)	**-0.09**	(0.04)	**0.32**	(0.04)	**0.18**	(0.03)	**-0.33**	(0.03)
	Hong Kong-China	**-0.22**	(0.02)	**0.12**	(0.03)	**0.12**	(0.02)	**0.31**	(0.02)	**0.26**	(0.02)	**0.58**	(0.02)	**0.34**	(0.02)	**-0.27**	(0.03)
	Indonesia	**-0.13**	(0.02)	0.04	(0.02)	**0.09**	(0.03)	**-0.08**	(0.03)	-0.02	(0.03)	**0.11**	(0.03)	**-0.06**	(0.02)	**-0.11**	(0.03)
	Latvia	**-0.12**	(0.03)	**0.09**	(0.03)	**0.13**	(0.03)	**0.12**	(0.03)	**0.25**	(0.03)	**0.51**	(0.02)	**0.40**	(0.02)	**-0.42**	(0.03)
	Liechtenstein	0.01	(0.07)	0.09	(0.07)	**-0.18**	(0.08)	-0.06	(0.08)	-0.13	(0.07)	**0.53**	(0.05)	**0.25**	(0.06)	**-0.38**	(0.06)
	Macao-China	**-0.25**	(0.05)	0.01	(0.06)	0.03	(0.08)	**0.22**	(0.05)	0.03	(0.06)	**0.40**	(0.05)	**0.35**	(0.05)	**-0.29**	(0.06)
	Russian Federation	**-0.15**	(0.03)	**0.10**	(0.02)	**0.08**	(0.03)	**0.12**	(0.02)	**0.19**	(0.02)	**0.45**	(0.02)	**0.33**	(0.02)	**-0.37**	(0.02)
	Thailand	**-0.09**	(0.03)	**0.13**	(0.03)	**0.15**	(0.03)	0.02	(0.03)	**0.11**	(0.03)	**0.31**	(0.02)	**0.10**	(0.02)	**-0.15**	(0.03)
	Tunisia	-0.03	(0.03)	0.05	(0.03)	**0.13**	(0.02)	**0.09**	(0.03)	**0.19**	(0.02)	**0.36**	(0.03)	**0.23**	(0.02)	**-0.12**	(0.02)
	Uruguay	**-0.08**	(0.02)	0.00	(0.02)	0.05	(0.03)	**0.12**	(0.02)	**0.09**	(0.03)	**0.39**	(0.02)	**0.32**	(0.02)	**-0.33**	(0.02)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
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[Part 2/7]

Table III.7.8 Change between 2003 and 2012 in the association between students' attitudes and behaviours and mathematics performance, by gender

Results based on students' self-reports

		Boys															
		PISA 2012															
		Arriving late		Index of sense of belonging		Index of attitudes towards school		Index of intrinsic motivation to learn mathematics		Index of instrumental motivation to learn mathematics		Index of mathematics self-efficacy		Index of mathematics self-concept		Index of mathematics anxiety	
		Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.
OECD	**Australia**	**-0.14**	(0.01)	**0.12**	(0.02)	**0.24**	(0.02)	**0.23**	(0.02)	**0.19**	(0.02)	**0.59**	(0.01)	**0.41**	(0.01)	**-0.38**	(0.01)
	Austria	-0.04	(0.03)	**0.13**	(0.04)	**0.15**	(0.03)	**0.17**	(0.03)	0.04	(0.03)	**0.51**	(0.02)	**0.33**	(0.02)	**-0.38**	(0.02)
	Belgium	**-0.16**	(0.02)	**0.10**	(0.02)	**0.09**	(0.02)	**0.12**	(0.02)	**0.14**	(0.02)	**0.34**	(0.02)	**0.15**	(0.02)	**-0.14**	(0.02)
	Canada	**-0.18**	(0.01)	**0.04**	(0.02)	**0.14**	(0.02)	**0.24**	(0.02)	**0.26**	(0.02)	**0.54**	(0.01)	**0.44**	(0.02)	**-0.40**	(0.02)
	Czech Republic	**-0.16**	(0.02)	**0.11**	(0.03)	**0.13**	(0.03)	**0.20**	(0.03)	**0.14**	(0.03)	**0.52**	(0.02)	**0.44**	(0.03)	**-0.38**	(0.03)
	Denmark	**-0.12**	(0.02)	**0.09**	(0.03)	**0.16**	(0.03)	**0.29**	(0.02)	**0.24**	(0.02)	**0.56**	(0.02)	**0.54**	(0.02)	**-0.50**	(0.02)
	Finland	**-0.18**	(0.02)	**0.06**	(0.02)	**0.23**	(0.02)	**0.34**	(0.02)	**0.34**	(0.02)	**0.55**	(0.02)	**0.57**	(0.02)	**-0.46**	(0.02)
	France	**-0.16**	(0.02)	**0.16**	(0.03)	**0.11**	(0.03)	**0.18**	(0.03)	**0.13**	(0.03)	**0.52**	(0.03)	**0.38**	(0.02)	**-0.30**	(0.03)
	Germany	-0.03	(0.03)	**0.07**	(0.03)	-0.02	(0.03)	**0.16**	(0.03)	**0.12**	(0.03)	**0.54**	(0.02)	**0.31**	(0.02)	**-0.37**	(0.02)
	Greece	-0.03	(0.03)	0.06	(0.03)	0.03	(0.03)	**0.30**	(0.03)	**0.25**	(0.02)	**0.45**	(0.02)	**0.41**	(0.02)	**-0.39**	(0.02)
	Hungary	**-0.20**	(0.04)	**0.18**	(0.03)	**0.21**	(0.03)	**0.13**	(0.04)	**0.15**	(0.04)	**0.59**	(0.02)	**0.37**	(0.03)	**-0.42**	(0.03)
	Iceland	**-0.17**	(0.02)	**0.16**	(0.03)	**0.24**	(0.03)	**0.23**	(0.03)	**0.23**	(0.03)	**0.48**	(0.03)	**0.49**	(0.02)	**-0.42**	(0.02)
	Ireland	**-0.16**	(0.03)	0.00	(0.02)	**0.09**	(0.03)	**0.23**	(0.03)	**0.13**	(0.03)	**0.55**	(0.03)	**0.38**	(0.02)	**-0.38**	(0.02)
	Italy	**-0.15**	(0.01)	0.03	(0.02)	**0.10**	(0.01)	**0.15**	(0.02)	**0.13**	(0.02)	**0.48**	(0.01)	**0.31**	(0.02)	**-0.26**	(0.02)
	Japan	**-0.10**	(0.03)	0.03	(0.03)	0.01	(0.03)	**0.31**	(0.02)	**0.29**	(0.02)	**0.57**	(0.02)	**0.28**	(0.02)	**-0.20**	(0.03)
	Korea	**-0.21**	(0.02)	**0.08**	(0.04)	0.07	(0.04)	**0.43**	(0.03)	**0.44**	(0.03)	**0.63**	(0.02)	**0.48**	(0.02)	**-0.20**	(0.02)
	Luxembourg	**-0.07**	(0.02)	**0.17**	(0.02)	**0.14**	(0.03)	**0.14**	(0.02)	**0.15**	(0.02)	**0.49**	(0.02)	**0.24**	(0.02)	**-0.32**	(0.02)
	Mexico	**-0.08**	(0.01)	**0.09**	(0.01)	**0.22**	(0.01)	**0.05**	(0.02)	**0.10**	(0.01)	**0.31**	(0.01)	**0.35**	(0.01)	**-0.36**	(0.01)
	Netherlands	**-0.15**	(0.03)	**0.10**	(0.03)	**0.12**	(0.03)	**0.13**	(0.03)	**0.16**	(0.03)	**0.45**	(0.02)	**0.17**	(0.03)	**-0.22**	(0.03)
	New Zealand	**-0.19**	(0.02)	0.03	(0.03)	**0.23**	(0.02)	**0.13**	(0.04)	**0.21**	(0.03)	**0.60**	(0.02)	**0.42**	(0.03)	**-0.46**	(0.02)
	Norway	**-0.22**	(0.02)	**0.09**	(0.03)	**0.19**	(0.03)	**0.33**	(0.02)	**0.35**	(0.02)	**0.58**	(0.02)	**0.58**	(0.02)	**-0.49**	(0.02)
	Poland	**-0.11**	(0.02)	-0.01	(0.03)	-0.02	(0.03)	**0.21**	(0.03)	**0.29**	(0.03)	**0.65**	(0.02)	**0.55**	(0.02)	**-0.52**	(0.03)
	Portugal	**-0.07**	(0.02)	**0.14**	(0.03)	**0.22**	(0.03)	**0.22**	(0.03)	**0.29**	(0.03)	**0.62**	(0.02)	**0.43**	(0.02)	**-0.36**	(0.03)
	Slovak Republic	**-0.14**	(0.03)	**0.12**	(0.03)	**0.10**	(0.04)	**0.07**	(0.03)	**0.11**	(0.04)	**0.53**	(0.02)	**0.33**	(0.03)	**-0.43**	(0.02)
	Spain	**-0.13**	(0.02)	**0.06**	(0.02)	**0.14**	(0.02)	**0.22**	(0.02)	**0.29**	(0.02)	**0.52**	(0.02)	**0.39**	(0.02)	**-0.29**	(0.02)
	Sweden	**-0.15**	(0.03)	**0.09**	(0.03)	**0.21**	(0.03)	**0.29**	(0.03)	**0.24**	(0.03)	**0.51**	(0.03)	**0.48**	(0.02)	**-0.40**	(0.02)
	Switzerland	-0.03	(0.02)	**0.15**	(0.02)	**0.08**	(0.03)	**0.13**	(0.02)	**0.05**	(0.03)	**0.55**	(0.02)	**0.30**	(0.02)	**-0.32**	(0.02)
	Turkey	**-0.08**	(0.02)	**0.11**	(0.03)	-0.01	(0.03)	0.06	(0.03)	**0.12**	(0.03)	**0.43**	(0.03)	**0.21**	(0.03)	**-0.27**	(0.03)
	United States	**-0.21**	(0.03)	**0.09**	(0.03)	**0.15**	(0.03)	**0.10**	(0.03)	**0.16**	(0.03)	**0.55**	(0.02)	**0.40**	(0.03)	**-0.44**	(0.03)
	OECD average 2003	**-0.13**	(0.00)	**0.09**	(0.01)	**0.13**	(0.01)	**0.20**	(0.01)	**0.20**	(0.00)	**0.52**	(0.00)	**0.38**	(0.00)	**-0.36**	(0.00)
Partners	**Brazil**	-0.03	(0.02)	0.03	(0.02)	**0.15**	(0.02)	**-0.08**	(0.02)	0.00	(0.02)	**0.27**	(0.02)	**0.18**	(0.02)	**-0.35**	(0.02)
	Hong Kong-China	**-0.16**	(0.02)	**0.06**	(0.02)	**0.06**	(0.03)	**0.28**	(0.02)	**0.21**	(0.02)	**0.53**	(0.02)	**0.32**	(0.03)	**-0.31**	(0.03)
	Indonesia	**-0.11**	(0.02)	**0.15**	(0.03)	**0.20**	(0.03)	-0.05	(0.04)	0.05	(0.03)	**0.16**	(0.03)	**-0.07**	(0.03)	**-0.17**	(0.03)
	Latvia	**-0.07**	(0.03)	-0.01	(0.04)	**0.17**	(0.03)	**0.18**	(0.03)	**0.15**	(0.03)	**0.49**	(0.02)	**0.44**	(0.03)	**-0.42**	(0.03)
	Liechtenstein	-0.14	(0.08)	**0.31**	(0.09)	0.17	(0.10)	0.16	(0.11)	-0.12	(0.11)	**0.55**	(0.08)	**0.42**	(0.07)	**-0.44**	(0.07)
	Macao-China	**-0.21**	(0.02)	0.00	(0.03)	0.05	(0.03)	**0.18**	(0.03)	**0.09**	(0.02)	**0.49**	(0.02)	**0.31**	(0.02)	**-0.33**	(0.02)
	Russian Federation	**-0.16**	(0.02)	0.02	(0.03)	**0.09**	(0.03)	**0.14**	(0.03)	**0.15**	(0.03)	**0.48**	(0.03)	**0.38**	(0.02)	**-0.41**	(0.02)
	Thailand	**-0.15**	(0.02)	**0.24**	(0.03)	**0.25**	(0.03)	**0.07**	(0.03)	**0.17**	(0.03)	**0.22**	(0.04)	0.05	(0.03)	**-0.22**	(0.03)
	Tunisia	-0.02	(0.02)	**0.13**	(0.03)	**0.12**	(0.03)	**0.06**	(0.03)	**0.18**	(0.03)	**0.30**	(0.03)	**0.23**	(0.03)	**-0.16**	(0.03)
	Uruguay	-0.05	(0.03)	0.03	(0.03)	**0.07**	(0.03)	**-0.07**	(0.03)	-0.04	(0.03)	**0.30**	(0.02)	**0.32**	(0.03)	**-0.38**	(0.02)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
StatLink http://dx.doi.org/10.1787/888932964053

[Part 3/7]

Table III.7.8 Change between 2003 and 2012 in the association between students' attitudes and behaviours and mathematics performance, by gender

Results based on students' self-reports

		Boys															
		Change between 2003 and 2012 (PISA 2012 - PISA 2003)															
		Arriving late		Index of sense of belonging		Index of attitudes towards school		Index of intrinsic motivation to learn mathematics		Index of instrumental motivation to learn mathematics		Index of mathematics self-efficacy		Index of mathematics self-concept		Index of mathematics anxiety	
		Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.
OECD	**Australia**	-0.03	(0.02)	**0.10**	(0.02)	**0.06**	(0.02)	0.04	(0.02)	0.02	(0.02)	**0.06**	(0.02)	0.00	(0.02)	-0.02	(0.02)
	Austria	-0.01	(0.04)	0.06	(0.04)	**0.16**	(0.04)	**0.10**	(0.04)	0.08	(0.04)	0.00	(0.03)	**0.07**	(0.03)	**-0.09**	(0.03)
	Belgium	**0.07**	(0.03)	0.02	(0.03)	**0.11**	(0.03)	0.00	(0.03)	0.03	(0.03)	**-0.08**	(0.02)	-0.05	(0.03)	**0.08**	(0.03)
	Canada	**-0.05**	(0.02)	**0.07**	(0.02)	**0.06**	(0.02)	0.01	(0.02)	0.02	(0.02)	-0.01	(0.02)	0.00	(0.02)	-0.01	(0.02)
	Czech Republic	**-0.08**	(0.03)	0.01	(0.04)	0.07	(0.04)	-0.03	(0.04)	-0.04	(0.03)	-0.05	(0.03)	0.04	(0.03)	0.02	(0.03)
	Denmark	0.00	(0.04)	0.06	(0.04)	**0.08**	(0.04)	0.03	(0.03)	**0.08**	(0.03)	0.04	(0.03)	0.03	(0.03)	0.00	(0.03)
	Finland	-0.04	(0.03)	**0.07**	(0.03)	0.05	(0.03)	0.00	(0.03)	0.02	(0.03)	0.01	(0.03)	-0.02	(0.02)	0.00	(0.03)
	France	0.03	(0.03)	**0.15**	(0.04)	0.01	(0.04)	-0.08	(0.04)	-0.06	(0.04)	0.01	(0.03)	**0.07**	(0.03)	**-0.08**	(0.04)
	Germany	**0.08**	(0.04)	**0.12**	(0.04)	0.06	(0.04)	**0.09**	(0.04)	**0.11**	(0.04)	**0.06**	(0.03)	**0.10**	(0.03)	-0.07	(0.03)
	Greece	0.02	(0.04)	0.01	(0.04)	**0.13**	(0.04)	**0.07**	(0.03)	**0.10**	(0.03)	0.04	(0.03)	0.02	(0.03)	-0.05	(0.03)
	Hungary	0.04	(0.05)	0.06	(0.04)	**0.25**	(0.04)	0.01	(0.05)	0.01	(0.04)	0.04	(0.03)	**0.12**	(0.04)	**-0.11**	(0.04)
	Iceland	-0.04	(0.04)	**0.18**	(0.04)	0.05	(0.04)	-0.04	(0.04)	0.04	(0.04)	-0.01	(0.03)	-0.02	(0.03)	-0.02	(0.03)
	Ireland	-0.05	(0.03)	**0.07**	(0.04)	0.00	(0.04)	0.02	(0.04)	0.03	(0.04)	0.02	(0.03)	-0.01	(0.04)	-0.01	(0.04)
	Italy	0.03	(0.03)	0.05	(0.03)	**0.13**	(0.03)	**0.08**	(0.03)	0.02	(0.03)	0.01	(0.03)	**0.05**	(0.02)	0.01	(0.02)
	Japan	0.08	(0.05)	-0.06	(0.04)	0.00	(0.04)	0.02	(0.04)	0.03	(0.04)	-0.02	(0.03)	**0.09**	(0.03)	-0.06	(0.04)
	Korea	-0.06	(0.03)	-0.01	(0.04)	**0.10**	(0.04)	0.05	(0.03)	**0.12**	(0.03)	**0.06**	(0.03)	0.03	(0.03)	0.03	(0.03)
	Luxembourg	-0.02	(0.03)	**0.10**	(0.04)	**0.21**	(0.04)	**0.08**	(0.03)	**0.14**	(0.03)	0.04	(0.03)	0.04	(0.03)	-0.03	(0.03)
	Mexico	-0.02	(0.02)	**-0.07**	(0.03)	**-0.09**	(0.03)	**0.11**	(0.03)	-0.01	(0.03)	-0.01	(0.03)	**0.11**	(0.03)	-0.04	(0.03)
	Netherlands	0.02	(0.04)	-0.01	(0.04)	0.04	(0.04)	0.02	(0.04)	**0.10**	(0.04)	-0.03	(0.03)	-0.04	(0.04)	0.00	(0.04)
	New Zealand	-0.03	(0.03)	0.01	(0.04)	**0.07**	(0.03)	-0.01	(0.04)	0.03	(0.04)	0.04	(0.03)	-0.01	(0.03)	-0.01	(0.03)
	Norway	**-0.08**	(0.03)	**0.09**	(0.04)	-0.01	(0.04)	-0.06	(0.03)	0.05	(0.03)	0.02	(0.03)	0.03	(0.03)	0.00	(0.03)
	Poland	-0.03	(0.03)	**-0.09**	(0.03)	0.00	(0.04)	**0.07**	(0.03)	**0.09**	(0.03)	**0.11**	(0.03)	**0.11**	(0.03)	-0.04	(0.03)
	Portugal	-0.05	(0.03)	-0.04	(0.04)	**0.11**	(0.04)	**0.12**	(0.04)	0.08	(0.04)	**0.10**	(0.03)	0.07	(0.04)	-0.04	(0.03)
	Slovak Republic	-0.02	(0.04)	**0.08**	(0.04)	**0.18**	(0.04)	-0.02	(0.04)	0.01	(0.05)	**-0.06**	(0.03)	-0.05	(0.04)	-0.04	(0.03)
	Spain	0.05	(0.03)	0.04	(0.03)	0.05	(0.03)	-0.03	(0.03)	0.01	(0.03)	**0.07**	(0.02)	0.03	(0.02)	-0.06	(0.03)
	Sweden	0.00	(0.03)	**0.09**	(0.04)	0.07	(0.04)	0.01	(0.04)	0.00	(0.04)	-0.05	(0.03)	-0.01	(0.03)	0.04	(0.03)
	Switzerland	0.06	(0.03)	0.06	(0.04)	0.06	(0.04)	0.04	(0.04)	0.08	(0.04)	0.00	(0.03)	**0.06**	(0.03)	0.00	(0.03)
	Turkey	0.03	(0.04)	-0.06	(0.04)	-0.01	(0.05)	**-0.10**	(0.04)	-0.06	(0.04)	-0.06	(0.06)	-0.07	(0.04)	0.04	(0.05)
	United States	-0.02	(0.04)	m	m	0.07	(0.04)	0.00	(0.04)	-0.03	(0.03)	0.00	(0.02)	0.01	(0.03)	-0.03	(0.03)
	OECD average 2003	0.00	(0.01)	**0.04**	(0.01)	**0.07**	(0.01)	**0.02**	(0.01)	**0.04**	(0.01)	**0.01**	(0.01)	**0.03**	(0.01)	**-0.02**	(0.01)
Partners	**Brazil**	0.04	(0.03)	-0.01	(0.04)	**0.12**	(0.03)	0.05	(0.04)	**0.08**	(0.04)	-0.06	(0.05)	-0.01	(0.04)	-0.02	(0.04)
	Hong Kong-China	**0.06**	(0.03)	-0.06	(0.04)	-0.05	(0.03)	-0.03	(0.03)	-0.05	(0.03)	-0.05	(0.03)	-0.02	(0.04)	-0.04	(0.04)
	Indonesia	0.02	(0.03)	**0.11**	(0.04)	**0.11**	(0.04)	0.03	(0.05)	0.07	(0.04)	0.06	(0.05)	-0.01	(0.04)	-0.06	(0.04)
	Latvia	0.05	(0.04)	**-0.10**	(0.05)	0.04	(0.04)	0.05	(0.04)	**-0.09**	(0.04)	-0.02	(0.03)	0.04	(0.04)	-0.01	(0.04)
	Liechtenstein	-0.15	(0.11)	0.21	(0.12)	**0.36**	(0.13)	0.22	(0.13)	0.01	(0.13)	0.02	(0.09)	0.17	(0.10)	-0.06	(0.09)
	Macao-China	0.04	(0.05)	-0.01	(0.07)	0.02	(0.08)	-0.04	(0.06)	0.06	(0.06)	0.09	(0.05)	-0.04	(0.06)	-0.04	(0.07)
	Russian Federation	-0.01	(0.04)	**-0.08**	(0.04)	0.01	(0.04)	0.03	(0.04)	-0.04	(0.04)	0.03	(0.03)	0.05	(0.03)	-0.04	(0.03)
	Thailand	-0.06	(0.04)	**0.10**	(0.04)	**0.10**	(0.04)	0.04	(0.04)	0.06	(0.04)	**-0.09**	(0.04)	-0.05	(0.04)	**-0.08**	(0.04)
	Tunisia	0.01	(0.03)	**0.08**	(0.04)	-0.01	(0.04)	-0.03	(0.04)	-0.01	(0.04)	-0.06	(0.04)	0.00	(0.04)	-0.04	(0.04)
	Uruguay	0.04	(0.04)	0.03	(0.04)	0.03	(0.04)	**-0.19**	(0.04)	**-0.13**	(0.04)	**-0.09**	(0.03)	0.00	(0.04)	-0.04	(0.03)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
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[Part 4/7]

Table III.7.8 Change between 2003 and 2012 in the association between students' attitudes and behaviours and mathematics performance, by gender

Results based on students' self-reports

		Girls															
		PISA 2003															
		Arriving late		Index of sense of belonging		Index of attitudes towards school		Index of intrinsic motivation to learn mathematics		Index of instrumental motivation to learn mathematics		Index of mathematics self-efficacy		Index of mathematics self-concept		Index of mathematics anxiety	
		Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.
OECD	Australia	**-0.13**	(0.02)	**0.05**	(0.02)	**0.14**	(0.02)	**0.18**	(0.02)	**0.17**	(0.02)	**0.52**	(0.01)	**0.41**	(0.02)	**-0.35**	(0.02)
	Austria	0.02	(0.03)	0.00	(0.03)	**-0.05**	(0.03)	**0.12**	(0.02)	**-0.08**	(0.03)	**0.49**	(0.02)	**0.34**	(0.02)	**-0.33**	(0.03)
	Belgium	**-0.23**	(0.02)	0.03	(0.02)	-0.04	(0.02)	**0.16**	(0.02)	**0.09**	(0.02)	**0.42**	(0.02)	**0.23**	(0.02)	**-0.25**	(0.02)
	Canada	**-0.12**	(0.02)	0.01	(0.02)	**0.11**	(0.02)	**0.24**	(0.02)	**0.22**	(0.02)	**0.52**	(0.01)	**0.44**	(0.01)	**-0.40**	(0.01)
	Czech Republic	**-0.05**	(0.02)	**0.12**	(0.02)	0.02	(0.02)	**0.15**	(0.03)	-0.01	(0.02)	**0.54**	(0.02)	**0.38**	(0.02)	**-0.41**	(0.02)
	Denmark	**-0.13**	(0.03)	0.03	(0.03)	**0.09**	(0.03)	**0.31**	(0.02)	**0.23**	(0.02)	**0.52**	(0.02)	**0.52**	(0.02)	**-0.51**	(0.02)
	Finland	**-0.12**	(0.02)	-0.03	(0.02)	**0.11**	(0.02)	**0.33**	(0.02)	**0.24**	(0.02)	**0.52**	(0.02)	**0.57**	(0.02)	**-0.43**	(0.02)
	France	**-0.12**	(0.03)	0.01	(0.02)	**0.07**	(0.03)	**0.18**	(0.02)	**0.11**	(0.03)	**0.50**	(0.02)	**0.32**	(0.02)	**-0.28**	(0.03)
	Germany	**-0.07**	(0.03)	0.01	(0.02)	**-0.10**	(0.03)	**0.13**	(0.03)	-0.02	(0.03)	**0.53**	(0.02)	**0.30**	(0.02)	**-0.36**	(0.02)
	Greece	-0.05	(0.03)	**0.07**	(0.03)	**-0.13**	(0.02)	**0.26**	(0.02)	**0.16**	(0.03)	**0.43**	(0.02)	**0.40**	(0.02)	**-0.34**	(0.02)
	Hungary	**-0.20**	(0.03)	**0.09**	(0.02)	**-0.07**	(0.03)	**0.07**	(0.03)	-0.01	(0.02)	**0.58**	(0.02)	**0.24**	(0.03)	**-0.32**	(0.02)
	Iceland	**-0.10**	(0.02)	0.04	(0.03)	**0.17**	(0.02)	**0.33**	(0.02)	**0.21**	(0.02)	**0.55**	(0.02)	**0.55**	(0.02)	**-0.43**	(0.02)
	Ireland	**-0.12**	(0.03)	-0.05	(0.03)	**0.10**	(0.03)	**0.18**	(0.03)	**0.06**	(0.03)	**0.53**	(0.02)	**0.35**	(0.03)	**-0.34**	(0.02)
	Italy	**-0.13**	(0.02)	**-0.05**	(0.03)	**-0.06**	(0.02)	**0.13**	(0.02)	0.04	(0.02)	**0.43**	(0.02)	**0.26**	(0.02)	**-0.30**	(0.02)
	Japan	**-0.14**	(0.03)	**0.14**	(0.02)	0.05	(0.03)	**0.27**	(0.02)	**0.23**	(0.02)	**0.58**	(0.02)	**0.20**	(0.02)	**-0.14**	(0.03)
	Korea	**-0.15**	(0.03)	**0.10**	(0.03)	**0.05**	(0.02)	**0.40**	(0.02)	**0.37**	(0.03)	**0.58**	(0.02)	**0.46**	(0.02)	**-0.18**	(0.02)
	Luxembourg	0.04	(0.02)	**0.06**	(0.02)	**-0.13**	(0.02)	**0.07**	(0.02)	-0.04	(0.03)	**0.47**	(0.02)	**0.23**	(0.02)	**-0.31**	(0.03)
	Mexico	-0.04	(0.03)	**0.18**	(0.02)	**0.27**	(0.03)	-0.06	(0.03)	0.03	(0.03)	**0.29**	(0.02)	**0.21**	(0.03)	**-0.27**	(0.03)
	Netherlands	**-0.19**	(0.03)	0.02	(0.03)	0.00	(0.04)	**0.17**	(0.03)	0.05	(0.03)	**0.46**	(0.02)	**0.28**	(0.03)	**-0.22**	(0.02)
	New Zealand	**-0.14**	(0.02)	0.03	(0.02)	**0.15**	(0.02)	**0.07**	(0.03)	**0.10**	(0.02)	**0.46**	(0.02)	**0.38**	(0.02)	**-0.41**	(0.02)
	Norway	**-0.10**	(0.02)	0.00	(0.02)	**0.15**	(0.02)	**0.41**	(0.02)	**0.33**	(0.02)	**0.55**	(0.02)	**0.58**	(0.02)	**-0.50**	(0.02)
	Poland	-0.03	(0.03)	**0.08**	(0.02)	-0.04	(0.03)	**0.17**	(0.02)	**0.10**	(0.02)	**0.56**	(0.02)	**0.49**	(0.02)	**-0.50**	(0.02)
	Portugal	0.06	(0.03)	**0.16**	(0.02)	**0.13**	(0.03)	**0.17**	(0.03)	**0.17**	(0.03)	**0.54**	(0.02)	**0.42**	(0.02)	**-0.32**	(0.02)
	Slovak Republic	**-0.06**	(0.02)	0.02	(0.02)	**-0.10**	(0.02)	**0.12**	(0.02)	-0.01	(0.02)	**0.59**	(0.02)	**0.40**	(0.02)	**-0.41**	(0.03)
	Spain	**-0.15**	(0.03)	0.03	(0.02)	0.02	(0.02)	**0.19**	(0.02)	**0.17**	(0.02)	**0.43**	(0.02)	**0.36**	(0.02)	**-0.28**	(0.02)
	Sweden	**-0.11**	(0.03)	0.00	(0.02)	**0.16**	(0.02)	**0.30**	(0.02)	**0.21**	(0.03)	**0.56**	(0.02)	**0.50**	(0.02)	**-0.45**	(0.02)
	Switzerland	0.00	(0.03)	**0.10**	(0.02)	0.01	(0.02)	**0.09**	(0.02)	**-0.09**	(0.03)	**0.55**	(0.02)	**0.26**	(0.02)	**-0.29**	(0.03)
	Turkey	**-0.12**	(0.02)	**0.20**	(0.03)	-0.05	(0.04)	**0.20**	(0.04)	**0.10**	(0.03)	**0.51**	(0.05)	**0.37**	(0.03)	**-0.38**	(0.03)
	United States	**-0.17**	(0.02)	m	m	**0.07**	(0.02)	**0.07**	(0.03)	**0.08**	(0.03)	**0.49**	(0.02)	**0.36**	(0.02)	**-0.37**	(0.02)
	OECD average 2003	**-0.10**	(0.00)	**0.05**	(0.00)	**0.04**	(0.00)	**0.19**	(0.00)	**0.11**	(0.00)	**0.51**	(0.00)	**0.37**	(0.00)	**-0.35**	(0.00)
Partners	Brazil	-0.02	(0.03)	**0.07**	(0.03)	0.00	(0.03)	**-0.12**	(0.03)	**-0.21**	(0.03)	**0.27**	(0.04)	**0.20**	(0.02)	**-0.34**	(0.02)
	Hong Kong-China	**-0.15**	(0.03)	**0.11**	(0.02)	**0.09**	(0.03)	**0.30**	(0.02)	**0.17**	(0.03)	**0.53**	(0.02)	**0.36**	(0.02)	**-0.29**	(0.02)
	Indonesia	**-0.09**	(0.03)	**0.07**	(0.03)	0.06	(0.03)	-0.07	(0.04)	-0.06	(0.04)	**0.10**	(0.03)	-0.06	(0.04)	**-0.10**	(0.03)
	Latvia	**-0.10**	(0.03)	**0.16**	(0.02)	**0.08**	(0.03)	**0.14**	(0.03)	**0.14**	(0.03)	**0.50**	(0.02)	**0.41**	(0.03)	**-0.42**	(0.02)
	Liechtenstein	0.00	(0.09)	0.13	(0.09)	0.01	(0.08)	0.04	(0.08)	**-0.15**	(0.08)	**0.49**	(0.08)	**0.17**	(0.08)	**-0.21**	(0.09)
	Macao-China	**-0.24**	(0.05)	0.10	(0.05)	0.01	(0.05)	**0.15**	(0.05)	0.01	(0.05)	**0.46**	(0.04)	**0.30**	(0.04)	**-0.29**	(0.04)
	Russian Federation	**-0.11**	(0.02)	**0.13**	(0.03)	0.04	(0.02)	**0.12**	(0.02)	**0.09**	(0.02)	**0.41**	(0.02)	**0.31**	(0.02)	**-0.39**	(0.02)
	Thailand	**-0.10**	(0.02)	**0.12**	(0.03)	0.06	(0.03)	0.04	(0.03)	0.05	(0.03)	**0.34**	(0.03)	**0.17**	(0.02)	**-0.11**	(0.02)
	Tunisia	0.00	(0.03)	0.03	(0.03)	**0.12**	(0.03)	**0.10**	(0.02)	**0.15**	(0.02)	**0.37**	(0.03)	**0.29**	(0.02)	**-0.13**	(0.03)
	Uruguay	**-0.11**	(0.02)	**0.07**	(0.03)	0.00	(0.03)	**0.17**	(0.02)	0.03	(0.03)	**0.40**	(0.02)	**0.39**	(0.02)	**-0.37**	(0.02)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
StatLink http://dx.doi.org/10.1787/888932964053

[Part 5/7]

Table III.7.8 Change between 2003 and 2012 in the association between students' attitudes and behaviours and mathematics performance, by gender

Results based on students' self-reports

		Girls															
		PISA 2012															
		Arriving late		Index of sense of belonging		Index of attitudes towards school		Index of intrinsic motivation to learn mathematics		Index of instrumental motivation to learn mathematics		Index of mathematics self-efficacy		Index of mathematics self-concept		Index of mathematics anxiety	
		Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.
OECD	**Australia**	**-0.17**	(0.02)	**0.12**	(0.02)	**0.22**	(0.02)	**0.25**	(0.02)	**0.21**	(0.01)	**0.60**	(0.01)	**0.48**	(0.02)	**-0.38**	(0.02)
	Austria	-0.05	(0.03)	**0.10**	(0.03)	-0.03	(0.03)	**0.15**	(0.04)	0.00	(0.03)	**0.54**	(0.02)	**0.36**	(0.03)	**-0.35**	(0.03)
	Belgium	**-0.18**	(0.02)	**0.07**	(0.03)	**0.09**	(0.03)	**0.18**	(0.02)	**0.18**	(0.02)	**0.36**	(0.02)	**0.16**	(0.02)	**-0.16**	(0.02)
	Canada	**-0.20**	(0.02)	**0.07**	(0.02)	**0.15**	(0.02)	**0.25**	(0.02)	**0.24**	(0.02)	**0.57**	(0.01)	**0.48**	(0.01)	**-0.42**	(0.02)
	Czech Republic	**-0.15**	(0.02)	**0.08**	(0.03)	0.05	(0.04)	**0.23**	(0.03)	**0.08**	(0.04)	**0.56**	(0.02)	**0.47**	(0.02)	**-0.45**	(0.02)
	Denmark	**-0.14**	(0.02)	0.04	(0.03)	**0.16**	(0.03)	**0.33**	(0.02)	**0.28**	(0.03)	**0.57**	(0.02)	**0.56**	(0.02)	**-0.50**	(0.02)
	Finland	**-0.13**	(0.02)	**0.06**	(0.02)	**0.19**	(0.02)	**0.34**	(0.02)	**0.29**	(0.02)	**0.58**	(0.02)	**0.60**	(0.02)	**-0.45**	(0.02)
	France	**-0.23**	(0.02)	**0.15**	(0.03)	**0.10**	(0.03)	**0.22**	(0.02)	**0.16**	(0.03)	**0.56**	(0.02)	**0.41**	(0.03)	**-0.29**	(0.03)
	Germany	**-0.10**	(0.02)	0.06	(0.03)	0.00	(0.03)	**0.23**	(0.03)	**0.13**	(0.03)	**0.55**	(0.02)	**0.38**	(0.03)	**-0.37**	(0.03)
	Greece	-0.02	(0.02)	0.02	(0.03)	**-0.07**	(0.03)	**0.28**	(0.03)	**0.21**	(0.02)	**0.50**	(0.02)	**0.44**	(0.02)	**-0.40**	(0.02)
	Hungary	**-0.25**	(0.03)	**0.11**	(0.03)	**0.13**	(0.03)	**0.13**	(0.04)	**0.08**	(0.03)	**0.62**	(0.02)	**0.37**	(0.03)	**-0.42**	(0.03)
	Iceland	**-0.14**	(0.03)	**0.08**	(0.03)	**0.25**	(0.03)	**0.36**	(0.03)	**0.32**	(0.03)	**0.56**	(0.02)	**0.57**	(0.02)	**-0.49**	(0.02)
	Ireland	**-0.17**	(0.02)	0.01	(0.03)	**0.07**	(0.02)	**0.24**	(0.03)	**0.13**	(0.03)	**0.55**	(0.02)	**0.41**	(0.02)	**-0.36**	(0.02)
	Italy	**-0.17**	(0.01)	**-0.03**	(0.01)	**0.05**	(0.02)	**0.19**	(0.02)	**0.11**	(0.02)	**0.48**	(0.01)	**0.35**	(0.01)	**-0.29**	(0.01)
	Japan	**-0.13**	(0.03)	0.04	(0.02)	0.06	(0.03)	**0.32**	(0.02)	**0.32**	(0.02)	**0.58**	(0.02)	**0.23**	(0.02)	**-0.19**	(0.02)
	Korea	**-0.19**	(0.02)	**0.21**	(0.03)	**0.10**	(0.02)	**0.38**	(0.02)	**0.39**	(0.02)	**0.60**	(0.02)	**0.48**	(0.02)	**-0.18**	(0.03)
	Luxembourg	**-0.12**	(0.02)	**0.13**	(0.02)	**0.05**	(0.02)	**0.16**	(0.02)	**0.14**	(0.03)	**0.50**	(0.02)	**0.32**	(0.02)	**-0.35**	(0.02)
	Mexico	**-0.06**	(0.01)	**0.09**	(0.01)	**0.21**	(0.01)	**0.04**	(0.02)	**0.04**	(0.01)	**0.31**	(0.01)	**0.32**	(0.01)	**-0.31**	(0.01)
	Netherlands	**-0.20**	(0.03)	0.07	(0.04)	**0.12**	(0.03)	**0.21**	(0.03)	**0.19**	(0.03)	**0.47**	(0.02)	**0.22**	(0.04)	**-0.21**	(0.03)
	New Zealand	**-0.25**	(0.02)	0.04	(0.03)	**0.16**	(0.03)	**0.12**	(0.03)	**0.15**	(0.03)	**0.53**	(0.03)	**0.41**	(0.02)	**-0.41**	(0.02)
	Norway	**-0.16**	(0.02)	**0.07**	(0.03)	**0.16**	(0.03)	**0.41**	(0.03)	**0.36**	(0.02)	**0.63**	(0.02)	**0.66**	(0.02)	**-0.56**	(0.02)
	Poland	**-0.07**	(0.03)	-0.01	(0.03)	-0.03	(0.03)	**0.30**	(0.03)	**0.29**	(0.03)	**0.62**	(0.02)	**0.57**	(0.02)	**-0.55**	(0.02)
	Portugal	-0.05	(0.03)	**0.10**	(0.03)	**0.16**	(0.02)	**0.20**	(0.03)	**0.23**	(0.03)	**0.66**	(0.02)	**0.47**	(0.03)	**-0.34**	(0.02)
	Slovak Republic	**-0.13**	(0.03)	**0.09**	(0.03)	**0.07**	(0.04)	0.04	(0.04)	0.00	(0.03)	**0.56**	(0.02)	**0.33**	(0.03)	**-0.39**	(0.03)
	Spain	**-0.17**	(0.02)	**0.04**	(0.02)	**0.10**	(0.02)	**0.17**	(0.02)	**0.17**	(0.02)	**0.47**	(0.02)	**0.33**	(0.02)	**-0.26**	(0.02)
	Sweden	**-0.18**	(0.02)	0.05	(0.03)	**0.15**	(0.02)	**0.32**	(0.02)	**0.19**	(0.03)	**0.54**	(0.02)	**0.51**	(0.02)	**-0.46**	(0.02)
	Switzerland	-0.04	(0.02)	**0.09**	(0.02)	**0.06**	(0.03)	**0.11**	(0.02)	0.02	(0.02)	**0.60**	(0.01)	**0.29**	(0.02)	**-0.30**	(0.02)
	Turkey	**-0.07**	(0.03)	-0.02	(0.03)	**-0.08**	(0.03)	**0.15**	(0.03)	**0.09**	(0.03)	**0.50**	(0.03)	**0.27**	(0.03)	**-0.31**	(0.03)
	United States	**-0.19**	(0.02)	0.04	(0.03)	**0.13**	(0.03)	**0.18**	(0.03)	**0.16**	(0.02)	**0.56**	(0.02)	**0.41**	(0.02)	**-0.37**	(0.02)
	OECD average 2003	**-0.14**	(0.00)	**0.07**	(0.01)	**0.10**	(0.01)	**0.22**	(0.00)	**0.18**	(0.00)	**0.54**	(0.00)	**0.41**	(0.00)	**-0.36**	(0.00)
Partners	**Brazil**	**-0.04**	(0.02)	0.02	(0.02)	**0.13**	(0.02)	**-0.08**	(0.02)	**-0.09**	(0.02)	**0.34**	(0.02)	**0.16**	(0.02)	**-0.31**	(0.02)
	Hong Kong-China	**-0.17**	(0.02)	**0.07**	(0.04)	0.03	(0.04)	**0.30**	(0.03)	**0.21**	(0.03)	**0.57**	(0.02)	**0.37**	(0.02)	**-0.31**	(0.03)
	Indonesia	-0.06	(0.04)	**0.07**	(0.03)	**0.09**	(0.03)	-0.09	(0.05)	0.00	(0.03)	**0.18**	(0.03)	**-0.09**	(0.02)	**-0.11**	(0.03)
	Latvia	-0.03	(0.03)	-0.02	(0.03)	**0.12**	(0.03)	**0.17**	(0.03)	**0.12**	(0.03)	**0.53**	(0.03)	**0.45**	(0.02)	**-0.39**	(0.03)
	Liechtenstein	-0.16	(0.10)	-0.08	(0.10)	-0.20	(0.12)	0.17	(0.12)	-0.18	(0.09)	**0.58**	(0.07)	0.21	(0.12)	-0.11	(0.14)
	Macao-China	**-0.22**	(0.02)	-0.01	(0.03)	0.05	(0.03)	**0.26**	(0.03)	**0.15**	(0.03)	**0.55**	(0.02)	**0.35**	(0.02)	**-0.31**	(0.02)
	Russian Federation	**-0.14**	(0.02)	**0.07**	(0.03)	**0.07**	(0.03)	**0.16**	(0.03)	**0.07**	(0.03)	**0.49**	(0.02)	**0.35**	(0.02)	**-0.39**	(0.02)
	Thailand	**-0.08**	(0.02)	**0.12**	(0.02)	**0.12**	(0.02)	0.03	(0.03)	**0.08**	(0.03)	**0.26**	(0.03)	**0.13**	(0.02)	**-0.22**	(0.02)
	Tunisia	-0.05	(0.03)	0.05	(0.03)	0.05	(0.03)	**0.12**	(0.03)	**0.17**	(0.02)	**0.31**	(0.04)	**0.32**	(0.03)	**-0.21**	(0.03)
	Uruguay	-0.04	(0.03)	-0.01	(0.03)	-0.01	(0.03)	-0.01	(0.03)	**-0.05**	(0.03)	**0.35**	(0.03)	**0.32**	(0.03)	**-0.37**	(0.02)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
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[Part 6/7]

Table III.7.8 Change between 2003 and 2012 in the association between students' attitudes and behaviours and mathematics performance, by gender

Results based on students' self-reports

		Girls															
		Change between 2003 and 2012 (PISA 2012 - PISA 2003)															
		Arriving late		Index of sense of belonging		Index of attitudes towards school		Index of intrinsic motivation to learn mathematics		Index of instrumental motivation to learn mathematics		Index of mathematics self-efficacy		Index of mathematics self-concept		Index of mathematics anxiety	
		Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.
OECD	**Australia**	-0.03	(0.02)	**0.07**	(0.03)	**0.08**	(0.02)	**0.07**	(0.03)	0.04	(0.02)	**0.08**	(0.02)	**0.07**	(0.03)	-0.04	(0.02)
	Austria	-0.07	(0.04)	**0.10**	(0.04)	0.02	(0.04)	0.02	(0.05)	0.08	(0.04)	0.04	(0.03)	0.03	(0.04)	-0.02	(0.04)
	Belgium	0.05	(0.03)	0.04	(0.03)	**0.14**	(0.04)	0.02	(0.03)	**0.09**	(0.03)	-0.05	(0.03)	**-0.07**	(0.03)	**0.09**	(0.03)
	Canada	**-0.08**	(0.02)	**0.05**	(0.02)	0.03	(0.03)	0.01	(0.02)	0.02	(0.03)	**0.04**	(0.02)	0.03	(0.02)	-0.01	(0.02)
	Czech Republic	**-0.10**	(0.03)	-0.04	(0.04)	0.04	(0.04)	0.08	(0.04)	**0.09**	(0.04)	0.01	(0.03)	**0.10**	(0.03)	-0.04	(0.03)
	Denmark	-0.01	(0.04)	0.01	(0.04)	0.07	(0.04)	0.01	(0.03)	0.05	(0.03)	0.05	(0.03)	0.04	(0.03)	0.01	(0.03)
	Finland	-0.01	(0.03)	**0.09**	(0.03)	**0.08**	(0.03)	0.02	(0.03)	0.04	(0.03)	**0.06**	(0.02)	0.03	(0.02)	-0.02	(0.03)
	France	**-0.11**	(0.03)	**0.13**	(0.03)	0.03	(0.04)	0.04	(0.03)	0.05	(0.04)	**0.05**	(0.03)	**0.09**	(0.04)	-0.01	(0.04)
	Germany	-0.03	(0.04)	0.05	(0.04)	**0.10**	(0.04)	**0.10**	(0.04)	**0.15**	(0.04)	0.02	(0.03)	**0.09**	(0.03)	-0.01	(0.03)
	Greece	0.03	(0.04)	-0.05	(0.04)	0.06	(0.04)	0.02	(0.04)	0.06	(0.04)	**0.07**	(0.03)	0.04	(0.03)	-0.06	(0.03)
	Hungary	-0.06	(0.04)	0.02	(0.04)	**0.20**	(0.04)	0.07	(0.05)	**0.09**	(0.04)	0.05	(0.03)	**0.13**	(0.04)	**-0.09**	(0.04)
	Iceland	-0.04	(0.04)	0.04	(0.04)	**0.08**	(0.04)	0.02	(0.04)	**0.10**	(0.04)	0.01	(0.03)	0.02	(0.03)	-0.06	(0.03)
	Ireland	-0.05	(0.04)	0.06	(0.04)	-0.03	(0.03)	0.06	(0.04)	0.08	(0.04)	0.02	(0.03)	0.06	(0.03)	-0.02	(0.03)
	Italy	-0.04	(0.02)	0.02	(0.03)	**0.10**	(0.03)	**0.07**	(0.03)	**0.08**	(0.03)	**0.05**	(0.02)	**0.09**	(0.02)	0.01	(0.03)
	Japan	0.01	(0.04)	**-0.10**	(0.03)	0.01	(0.04)	0.05	(0.03)	**0.09**	(0.03)	0.00	(0.03)	0.02	(0.03)	-0.05	(0.03)
	Korea	-0.04	(0.04)	**0.10**	(0.04)	0.06	(0.03)	-0.02	(0.03)	0.02	(0.03)	0.02	(0.02)	0.02	(0.03)	-0.01	(0.04)
	Luxembourg	**-0.16**	(0.03)	**0.07**	(0.03)	**0.18**	(0.03)	**0.10**	(0.03)	**0.18**	(0.04)	0.03	(0.03)	**0.10**	(0.03)	-0.05	(0.03)
	Mexico	-0.02	(0.03)	**-0.08**	(0.03)	-0.06	(0.03)	**0.11**	(0.04)	0.01	(0.03)	0.03	(0.03)	**0.10**	(0.03)	-0.05	(0.03)
	Netherlands	-0.01	(0.04)	0.05	(0.05)	**0.12**	(0.05)	0.04	(0.04)	**0.14**	(0.04)	0.02	(0.03)	-0.06	(0.04)	0.01	(0.04)
	New Zealand	**-0.11**	(0.03)	0.00	(0.04)	0.01	(0.04)	0.04	(0.04)	0.05	(0.04)	0.06	(0.03)	0.03	(0.03)	0.00	(0.03)
	Norway	-0.06	(0.03)	0.06	(0.04)	0.01	(0.04)	0.00	(0.03)	0.03	(0.03)	**0.08**	(0.03)	**0.08**	(0.03)	**-0.06**	(0.03)
	Poland	-0.04	(0.04)	**-0.10**	(0.04)	0.02	(0.04)	**0.12**	(0.04)	**0.19**	(0.04)	**0.05**	(0.02)	**0.09**	(0.03)	-0.05	(0.03)
	Portugal	**-0.10**	(0.04)	-0.06	(0.04)	0.03	(0.04)	0.03	(0.04)	0.06	(0.04)	**0.12**	(0.03)	0.05	(0.03)	-0.02	(0.03)
	Slovak Republic	**-0.07**	(0.04)	0.07	(0.04)	**0.17**	(0.04)	-0.07	(0.04)	0.02	(0.04)	-0.03	(0.03)	-0.07	(0.04)	0.01	(0.04)
	Spain	-0.02	(0.03)	0.01	(0.03)	**0.08**	(0.03)	-0.03	(0.03)	-0.01	(0.03)	0.04	(0.02)	-0.03	(0.03)	0.02	(0.03)
	Sweden	**-0.07**	(0.03)	0.05	(0.04)	0.00	(0.03)	0.03	(0.03)	-0.02	(0.04)	-0.02	(0.03)	0.01	(0.03)	-0.01	(0.03)
	Switzerland	-0.04	(0.04)	0.00	(0.03)	0.04	(0.04)	0.02	(0.03)	**0.11**	(0.03)	**0.05**	(0.02)	0.04	(0.03)	-0.01	(0.03)
	Turkey	0.04	(0.04)	**-0.23**	(0.04)	-0.03	(0.05)	-0.05	(0.05)	0.00	(0.04)	-0.01	(0.06)	**-0.10**	(0.04)	0.07	(0.04)
	United States	-0.02	(0.03)	m	m	0.05	(0.04)	**0.12**	(0.04)	**0.08**	(0.04)	**0.07**	(0.03)	0.04	(0.03)	0.00	(0.03)
	OECD average 2003	**-0.04**	(0.01)	**0.02**	(0.01)	**0.06**	(0.01)	**0.04**	(0.01)	**0.07**	(0.01)	**0.03**	(0.01)	**0.04**	(0.01)	**-0.02**	(0.01)
Partners	**Brazil**	-0.01	(0.03)	-0.05	(0.03)	**0.13**	(0.04)	0.04	(0.04)	**0.12**	(0.03)	0.07	(0.05)	-0.04	(0.03)	0.03	(0.03)
	Hong Kong-China	-0.02	(0.04)	-0.04	(0.04)	-0.06	(0.04)	0.00	(0.03)	0.04	(0.04)	0.04	(0.03)	0.02	(0.03)	-0.02	(0.03)
	Indonesia	0.02	(0.05)	0.00	(0.04)	0.04	(0.04)	-0.02	(0.07)	0.05	(0.05)	0.08	(0.05)	-0.03	(0.05)	-0.01	(0.04)
	Latvia	0.07	(0.04)	**-0.17**	(0.04)	0.04	(0.04)	0.04	(0.05)	-0.02	(0.05)	0.03	(0.04)	0.04	(0.04)	0.03	(0.04)
	Liechtenstein	-0.16	(0.13)	-0.21	(0.13)	-0.20	(0.14)	0.13	(0.14)	-0.03	(0.12)	0.09	(0.11)	0.04	(0.14)	0.10	(0.16)
	Macao-China	0.02	(0.05)	-0.10	(0.06)	0.05	(0.06)	**0.11**	(0.06)	**0.15**	(0.05)	0.09	(0.05)	0.05	(0.05)	-0.02	(0.05)
	Russian Federation	-0.03	(0.03)	-0.06	(0.04)	0.03	(0.03)	0.04	(0.04)	-0.03	(0.04)	**0.08**	(0.03)	0.04	(0.03)	-0.01	(0.03)
	Thailand	0.02	(0.03)	0.01	(0.04)	0.07	(0.04)	-0.01	(0.04)	0.03	(0.04)	-0.08	(0.04)	-0.04	(0.03)	**-0.10**	(0.03)
	Tunisia	-0.05	(0.04)	0.02	(0.04)	-0.07	(0.04)	0.02	(0.03)	0.01	(0.03)	-0.06	(0.05)	0.03	(0.03)	**-0.08**	(0.04)
	Uruguay	**0.07**	(0.03)	-0.08	(0.04)	-0.01	(0.04)	**-0.18**	(0.04)	**-0.08**	(0.04)	-0.05	(0.04)	**-0.07**	(0.03)	0.00	(0.03)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.

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[Part 7/7]

Table III.7.8

Change between 2003 and 2012 in the association between students' attitudes and behaviours and mathematics performance, by gender

Results based on students' self-reports

		Gender gap (boys - girls)															
		Change between 2003 and 2012 (PISA 2012 - PISA 2003)															
		Arriving late		Index of sense of belonging		Index of attitudes towards school		Index of intrinsic motivation to learn mathematics		Index of instrumental motivation to learn mathematics		Index of mathematics self-efficacy		Index of mathematics self-concept		Index of mathematics anxiety	
		Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.
OECD	**Australia**	0.01	(0.03)	0.02	(0.04)	-0.01	(0.03)	-0.03	(0.04)	-0.02	(0.03)	-0.01	(0.03)	-0.06	(0.03)	0.01	(0.03)
	Austria	0.06	(0.06)	-0.04	(0.06)	**0.13**	(0.06)	0.08	(0.06)	0.00	(0.06)	-0.04	(0.05)	0.05	(0.05)	-0.07	(0.05)
	Belgium	0.02	(0.04)	-0.02	(0.05)	-0.03	(0.05)	-0.02	(0.04)	-0.06	(0.05)	-0.03	(0.04)	0.03	(0.04)	-0.01	(0.04)
	Canada	0.03	(0.03)	0.02	(0.03)	0.03	(0.04)	0.00	(0.03)	0.00	(0.04)	**-0.05**	(0.02)	-0.03	(0.03)	0.00	(0.03)
	Czech Republic	0.02	(0.05)	0.05	(0.06)	0.04	(0.06)	-0.11	(0.06)	**-0.13**	(0.06)	-0.06	(0.04)	-0.06	(0.05)	0.06	(0.04)
	Denmark	0.02	(0.05)	0.05	(0.06)	0.01	(0.05)	0.01	(0.05)	0.03	(0.05)	-0.01	(0.04)	-0.01	(0.04)	-0.01	(0.04)
	Finland	-0.02	(0.05)	-0.02	(0.05)	-0.02	(0.05)	-0.02	(0.04)	-0.02	(0.04)	-0.04	(0.03)	-0.05	(0.03)	0.03	(0.04)
	France	**0.13**	(0.05)	0.01	(0.05)	-0.02	(0.06)	**-0.11**	(0.05)	**-0.11**	(0.05)	-0.04	(0.04)	-0.02	(0.05)	-0.07	(0.05)
	Germany	**0.10**	(0.05)	0.07	(0.06)	-0.04	(0.05)	-0.01	(0.05)	-0.04	(0.05)	0.05	(0.04)	0.02	(0.05)	-0.06	(0.05)
	Greece	-0.01	(0.05)	0.06	(0.06)	0.07	(0.06)	0.05	(0.05)	0.05	(0.05)	-0.03	(0.04)	-0.03	(0.04)	0.01	(0.04)
	Hungary	0.09	(0.06)	0.04	(0.05)	0.05	(0.06)	-0.06	(0.07)	-0.08	(0.06)	-0.01	(0.04)	-0.01	(0.05)	-0.02	(0.05)
	Iceland	0.00	(0.05)	**0.14**	(0.06)	-0.03	(0.06)	-0.06	(0.05)	-0.07	(0.06)	-0.03	(0.04)	-0.04	(0.04)	0.04	(0.05)
	Ireland	0.01	(0.05)	0.01	(0.05)	0.03	(0.05)	-0.04	(0.06)	-0.04	(0.05)	0.01	(0.04)	-0.07	(0.05)	0.01	(0.05)
	Italy	0.07	(0.04)	0.03	(0.04)	0.03	(0.04)	0.02	(0.04)	-0.06	(0.04)	-0.03	(0.03)	-0.04	(0.03)	0.01	(0.04)
	Japan	0.06	(0.06)	0.04	(0.05)	-0.02	(0.05)	-0.03	(0.05)	-0.05	(0.05)	-0.02	(0.04)	0.07	(0.05)	-0.01	(0.05)
	Korea	-0.02	(0.05)	**-0.12**	(0.06)	0.04	(0.06)	0.06	(0.04)	**0.10**	(0.05)	0.03	(0.04)	0.01	(0.04)	0.04	(0.05)
	Luxembourg	**0.15**	(0.04)	0.04	(0.05)	0.03	(0.05)	-0.02	(0.05)	-0.04	(0.05)	0.01	(0.04)	-0.06	(0.05)	0.02	(0.05)
	Mexico	0.00	(0.04)	0.01	(0.04)	-0.03	(0.04)	0.00	(0.05)	-0.02	(0.05)	-0.04	(0.04)	0.00	(0.05)	0.00	(0.04)
	Netherlands	0.03	(0.06)	-0.07	(0.07)	-0.07	(0.07)	-0.01	(0.06)	-0.05	(0.06)	-0.05	(0.04)	0.02	(0.06)	-0.01	(0.06)
	New Zealand	0.08	(0.05)	0.01	(0.06)	0.06	(0.05)	-0.06	(0.06)	-0.02	(0.05)	-0.02	(0.04)	-0.04	(0.04)	-0.01	(0.04)
	Norway	-0.03	(0.05)	0.03	(0.06)	-0.02	(0.05)	-0.07	(0.05)	0.02	(0.05)	-0.06	(0.04)	-0.05	(0.04)	0.06	(0.04)
	Poland	0.02	(0.05)	0.01	(0.05)	-0.02	(0.06)	-0.05	(0.05)	**-0.10**	(0.05)	0.06	(0.03)	0.03	(0.04)	0.01	(0.04)
	Portugal	0.06	(0.05)	0.02	(0.06)	0.09	(0.05)	0.08	(0.06)	0.03	(0.06)	-0.02	(0.04)	0.02	(0.05)	-0.02	(0.05)
	Slovak Republic	0.05	(0.05)	0.02	(0.05)	0.01	(0.06)	0.06	(0.06)	-0.01	(0.06)	-0.03	(0.04)	0.01	(0.06)	-0.05	(0.05)
	Spain	0.07	(0.04)	0.03	(0.04)	-0.03	(0.04)	-0.01	(0.04)	0.02	(0.04)	0.03	(0.03)	0.06	(0.04)	-0.07	(0.04)
	Sweden	0.08	(0.05)	0.05	(0.06)	0.07	(0.05)	-0.02	(0.05)	0.02	(0.05)	-0.03	(0.04)	-0.02	(0.04)	0.05	(0.04)
	Switzerland	0.09	(0.05)	0.07	(0.05)	0.02	(0.05)	0.01	(0.05)	-0.03	(0.06)	-0.05	(0.04)	0.03	(0.05)	0.01	(0.04)
	Turkey	-0.02	(0.05)	**0.17**	(0.06)	0.02	(0.07)	-0.05	(0.07)	-0.06	(0.05)	-0.05	(0.08)	0.02	(0.06)	-0.03	(0.06)
	United States	0.00	(0.05)	m	m	0.01	(0.05)	**-0.12**	(0.05)	**-0.11**	(0.05)	-0.07	(0.04)	-0.04	(0.04)	-0.03	(0.04)
	OECD average 2003	**0.04**	(0.01)	**0.03**	(0.01)	0.01	(0.01)	-0.02	(0.01)	**-0.03**	(0.01)	**-0.02**	(0.01)	-0.01	(0.01)	0.00	(0.01)
Partners	**Brazil**	0.05	(0.04)	0.04	(0.05)	-0.01	(0.05)	0.01	(0.06)	-0.04	(0.05)	**-0.13**	(0.07)	0.03	(0.05)	-0.05	(0.05)
	Hong Kong-China	0.08	(0.05)	-0.03	(0.06)	0.00	(0.06)	-0.03	(0.04)	-0.09	(0.05)	**-0.08**	(0.04)	-0.04	(0.05)	-0.02	(0.05)
	Indonesia	0.00	(0.06)	**0.11**	(0.06)	0.07	(0.06)	0.05	(0.08)	0.02	(0.06)	-0.02	(0.07)	0.02	(0.06)	-0.06	(0.05)
	Latvia	-0.02	(0.06)	0.07	(0.06)	0.00	(0.06)	0.02	(0.06)	-0.07	(0.06)	-0.05	(0.05)	0.00	(0.05)	-0.03	(0.05)
	Liechtenstein	0.01	(0.17)	**0.43**	(0.18)	**0.56**	(0.19)	0.09	(0.20)	0.04	(0.18)	-0.07	(0.14)	0.13	(0.17)	-0.16	(0.18)
	Macao-China	0.01	(0.07)	0.09	(0.09)	-0.03	(0.10)	-0.15	(0.08)	-0.08	(0.08)	0.00	(0.07)	-0.08	(0.08)	-0.02	(0.08)
	Russian Federation	0.02	(0.05)	-0.02	(0.05)	-0.02	(0.05)	-0.01	(0.05)	-0.01	(0.05)	-0.05	(0.05)	0.01	(0.04)	-0.03	(0.04)
	Thailand	-0.08	(0.05)	0.10	(0.05)	0.04	(0.06)	0.05	(0.05)	0.03	(0.05)	-0.01	(0.06)	0.00	(0.05)	0.03	(0.05)
	Tunisia	0.06	(0.05)	0.06	(0.06)	0.06	(0.06)	-0.04	(0.05)	-0.02	(0.05)	-0.01	(0.07)	-0.03	(0.05)	0.05	(0.05)
	Uruguay	-0.04	(0.05)	0.10	(0.05)	0.04	(0.06)	-0.02	(0.05)	-0.05	(0.06)	-0.04	(0.05)	0.07	(0.05)	-0.04	(0.04)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.

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[Part 1/7]

Table III.7.9 Change between 2003 and 2012 in the association between students' attitudes and behaviours and mathematics performance, by socio-economic status

Results based on students' self-reports

		Socio-economically disadvantaged students[1]															
		PISA 2003															
		Arriving late		Index of sense of belonging		Index of attitudes towards school		Index of intrinsic motivation to learn mathematics		Index of instrumental motivation to learn mathematics		Index of mathematics self-efficacy		Index of mathematics self-concept		Index of mathematics anxiety	
		Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.
OECD	**Australia**	**-0.08**	(0.02)	-0.02	(0.02)	**0.10**	(0.02)	**0.21**	(0.02)	**0.16**	(0.02)	**0.47**	(0.02)	**0.38**	(0.02)	**-0.31**	(0.02)
	Austria	-0.03	(0.03)	0.03	(0.03)	0.00	(0.03)	**0.17**	(0.04)	**0.07**	(0.03)	**0.50**	(0.03)	**0.37**	(0.03)	**-0.38**	(0.03)
	Belgium	**-0.17**	(0.03)	0.00	(0.03)	-0.01	(0.03)	**0.28**	(0.02)	**0.24**	(0.02)	**0.34**	(0.02)	**0.35**	(0.02)	**-0.30**	(0.02)
	Canada	**-0.12**	(0.02)	**-0.05**	(0.02)	**0.06**	(0.02)	**0.29**	(0.02)	**0.25**	(0.02)	**0.51**	(0.02)	**0.48**	(0.02)	**-0.42**	(0.02)
	Czech Republic	**-0.08**	(0.03)	**0.07**	(0.03)	-0.03	(0.03)	**0.25**	(0.03)	0.04	(0.03)	**0.46**	(0.03)	**0.36**	(0.03)	**-0.40**	(0.02)
	Denmark	**-0.07**	(0.03)	0.01	(0.03)	0.05	(0.04)	**0.30**	(0.03)	**0.20**	(0.03)	**0.47**	(0.03)	**0.51**	(0.03)	**-0.47**	(0.03)
	Finland	**-0.14**	(0.02)	-0.06	(0.03)	**0.10**	(0.03)	**0.29**	(0.03)	**0.24**	(0.03)	**0.45**	(0.02)	**0.56**	(0.02)	**-0.45**	(0.02)
	France	**-0.10**	(0.03)	0.00	(0.03)	**0.08**	(0.04)	**0.32**	(0.03)	**0.27**	(0.03)	**0.45**	(0.03)	**0.41**	(0.03)	**-0.31**	(0.03)
	Germany	-0.01	(0.03)	-0.03	(0.05)	-0.07	(0.04)	**0.18**	(0.04)	0.07	(0.04)	**0.43**	(0.03)	**0.32**	(0.04)	**-0.34**	(0.03)
	Greece	-0.02	(0.04)	0.04	(0.03)	**-0.08**	(0.03)	**0.26**	(0.03)	**0.17**	(0.04)	**0.36**	(0.03)	**0.40**	(0.03)	**-0.37**	(0.03)
	Hungary	**-0.17**	(0.04)	**0.07**	(0.04)	0.00	(0.04)	**0.24**	(0.03)	**0.21**	(0.03)	**0.49**	(0.03)	**0.36**	(0.03)	**-0.31**	(0.03)
	Iceland	**-0.15**	(0.03)	0.03	(0.04)	**0.14**	(0.04)	**0.28**	(0.03)	**0.22**	(0.04)	**0.48**	(0.03)	**0.51**	(0.03)	**-0.41**	(0.04)
	Ireland	-0.04	(0.04)	**-0.09**	(0.03)	0.06	(0.03)	**0.27**	(0.04)	**0.10**	(0.04)	**0.53**	(0.03)	**0.46**	(0.03)	**-0.40**	(0.03)
	Italy	**-0.11**	(0.03)	-0.05	(0.03)	**-0.06**	(0.02)	**0.20**	(0.03)	**0.14**	(0.03)	**0.40**	(0.02)	**0.30**	(0.03)	**-0.29**	(0.02)
	Japan	-0.03	(0.05)	**0.09**	(0.04)	0.03	(0.03)	**0.27**	(0.03)	**0.22**	(0.03)	**0.55**	(0.04)	**0.20**	(0.04)	**-0.17**	(0.04)
	Korea	**-0.15**	(0.03)	0.05	(0.03)	0.03	(0.03)	**0.40**	(0.02)	**0.34**	(0.03)	**0.54**	(0.03)	**0.48**	(0.02)	**-0.30**	(0.02)
	Luxembourg	0.04	(0.04)	0.04	(0.04)	0.06	(0.04)	**0.20**	(0.04)	**0.17**	(0.04)	**0.42**	(0.03)	**0.31**	(0.03)	**-0.33**	(0.03)
	Mexico	**-0.11**	(0.03)	**0.09**	(0.03)	**0.18**	(0.04)	**0.09**	(0.04)	**0.08**	(0.03)	**0.37**	(0.03)	**0.35**	(0.03)	**-0.37**	(0.03)
	Netherlands	**-0.19**	(0.04)	0.05	(0.04)	0.06	(0.04)	**0.25**	(0.04)	**0.13**	(0.04)	**0.39**	(0.03)	**0.30**	(0.04)	**-0.24**	(0.04)
	New Zealand	**-0.10**	(0.03)	0.01	(0.04)	**0.11**	(0.04)	**0.21**	(0.03)	**0.18**	(0.03)	**0.52**	(0.02)	**0.46**	(0.02)	**-0.45**	(0.02)
	Norway	-0.06	(0.04)	-0.05	(0.03)	**0.16**	(0.03)	**0.40**	(0.03)	**0.32**	(0.04)	**0.53**	(0.03)	**0.54**	(0.03)	**-0.47**	(0.03)
	Poland	-0.03	(0.04)	-0.02	(0.03)	**-0.08**	(0.03)	**0.25**	(0.03)	**0.20**	(0.03)	**0.48**	(0.03)	**0.49**	(0.02)	**-0.50**	(0.03)
	Portugal	-0.02	(0.04)	0.06	(0.04)	**0.10**	(0.04)	**0.18**	(0.03)	**0.14**	(0.03)	**0.47**	(0.03)	**0.40**	(0.03)	**-0.33**	(0.03)
	Slovak Republic	-0.05	(0.03)	0.04	(0.03)	**-0.12**	(0.03)	**0.17**	(0.03)	**0.13**	(0.03)	**0.50**	(0.03)	**0.39**	(0.02)	**-0.37**	(0.03)
	Spain	**-0.15**	(0.03)	0.01	(0.03)	0.03	(0.03)	**0.24**	(0.03)	**0.24**	(0.03)	**0.36**	(0.02)	**0.38**	(0.03)	**-0.37**	(0.02)
	Sweden	**-0.08**	(0.03)	-0.03	(0.04)	**0.09**	(0.03)	**0.38**	(0.03)	**0.28**	(0.03)	**0.51**	(0.03)	**0.54**	(0.03)	**-0.46**	(0.03)
	Switzerland	0.00	(0.03)	0.04	(0.03)	0.01	(0.03)	**0.20**	(0.03)	0.01	(0.03)	**0.52**	(0.05)	**0.29**	(0.04)	**-0.30**	(0.04)
	Turkey	-0.06	(0.04)	**0.14**	(0.04)	-0.12	(0.07)	**0.21**	(0.04)	**0.15**	(0.04)	**0.60**	(0.06)	**0.37**	(0.04)	**-0.41**	(0.03)
	United States	**-0.13**	(0.03)	m	m	0.05	(0.03)	**0.22**	(0.03)	**0.20**	(0.03)	**0.52**	(0.03)	**0.43**	(0.03)	**-0.41**	(0.03)
	OECD average 2003	**-0.08**	(0.01)	**0.02**	(0.01)	**0.03**	(0.01)	**0.25**	(0.01)	**0.18**	(0.01)	**0.47**	(0.01)	**0.40**	(0.01)	**-0.37**	(0.01)
Partners	**Brazil**	**-0.08**	(0.03)	0.02	(0.03)	0.00	(0.03)	-0.08	(0.04)	**-0.13**	(0.05)	**0.37**	(0.05)	**0.23**	(0.03)	**-0.36**	(0.03)
	Hong Kong-China	**-0.17**	(0.04)	0.07	(0.04)	**0.12**	(0.04)	**0.25**	(0.03)	**0.21**	(0.04)	**0.51**	(0.03)	**0.35**	(0.04)	**-0.28**	(0.04)
	Indonesia	**-0.16**	(0.03)	0.05	(0.03)	0.03	(0.04)	**-0.11**	(0.04)	**-0.08**	(0.04)	**0.18**	(0.04)	-0.07	(0.05)	**-0.15**	(0.04)
	Latvia	-0.08	(0.05)	0.05	(0.03)	**0.16**	(0.03)	**0.24**	(0.04)	**0.22**	(0.04)	**0.49**	(0.03)	**0.46**	(0.03)	**-0.45**	(0.03)
	Liechtenstein	-0.04	(0.12)	0.05	(0.10)	0.17	(0.11)	0.12	(0.13)	0.04	(0.14)	**0.45**	(0.09)	**0.36**	(0.10)	**-0.32**	(0.09)
	Macao-China	**-0.24**	(0.06)	0.11	(0.08)	0.06	(0.07)	**0.17**	(0.06)	0.05	(0.07)	**0.36**	(0.06)	**0.27**	(0.06)	**-0.26**	(0.06)
	Russian Federation	**-0.08**	(0.03)	0.06	(0.03)	0.05	(0.03)	**0.17**	(0.03)	**0.17**	(0.03)	**0.43**	(0.03)	**0.35**	(0.03)	**-0.40**	(0.02)
	Thailand	**-0.14**	(0.03)	**0.13**	(0.03)	**0.11**	(0.04)	0.06	(0.03)	**0.11**	(0.03)	**0.35**	(0.03)	**0.19**	(0.03)	**-0.19**	(0.03)
	Tunisia	-0.03	(0.04)	0.00	(0.04)	**0.08**	(0.04)	**0.12**	(0.04)	**0.22**	(0.03)	**0.41**	(0.04)	**0.32**	(0.03)	**-0.20**	(0.03)
	Uruguay	**-0.09**	(0.04)	**0.06**	(0.03)	0.05	(0.03)	**0.21**	(0.03)	**0.14**	(0.03)	**0.40**	(0.03)	**0.37**	(0.03)	**-0.33**	(0.03)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.

1. Socio-economically advantaged/disadvantaged students are those in the top/bottom quarter of the *PISA index of economic, social and cultural status* within each country and economy.

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[Part 2/7]

Table III.7.9

Change between 2003 and 2012 in the association between students' attitudes and behaviours and mathematics performance, by socio-economic status

Results based on students' self-reports

		Socio-economically disadvantaged students[1]															
		PISA 2012															
		Arriving late		Index of sense of belonging		Index of attitudes towards school		Index of intrinsic motivation to learn mathematics		Index of instrumental motivation to learn mathematics		Index of mathematics self-efficacy		Index of mathematics self-concept		Index of mathematics anxiety	
		Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.
OECD	**Australia**	**-0.11**	(0.02)	**0.06**	(0.02)	**0.17**	(0.02)	**0.29**	(0.02)	**0.18**	(0.02)	**0.58**	(0.02)	**0.47**	(0.02)	**-0.38**	(0.03)
	Austria	-0.01	(0.04)	0.05	(0.04)	0.04	(0.04)	**0.24**	(0.03)	0.07	(0.04)	**0.54**	(0.03)	**0.43**	(0.03)	**-0.41**	(0.03)
	Belgium	**-0.11**	(0.02)	**0.07**	(0.03)	**0.09**	(0.03)	**0.24**	(0.03)	**0.23**	(0.03)	**0.33**	(0.03)	**0.18**	(0.03)	**-0.15**	(0.03)
	Canada	**-0.16**	(0.02)	0.00	(0.03)	**0.09**	(0.03)	**0.24**	(0.03)	**0.23**	(0.02)	**0.51**	(0.02)	**0.47**	(0.02)	**-0.42**	(0.02)
	Czech Republic	**-0.15**	(0.03)	0.07	(0.04)	0.06	(0.04)	**0.27**	(0.04)	**0.08**	(0.04)	**0.52**	(0.03)	**0.43**	(0.03)	**-0.39**	(0.03)
	Denmark	**-0.07**	(0.03)	-0.05	(0.04)	0.05	(0.04)	**0.34**	(0.03)	**0.23**	(0.03)	**0.56**	(0.03)	**0.56**	(0.02)	**-0.48**	(0.03)
	Finland	**-0.15**	(0.03)	0.00	(0.04)	**0.19**	(0.04)	**0.34**	(0.03)	**0.31**	(0.03)	**0.51**	(0.03)	**0.56**	(0.02)	**-0.46**	(0.03)
	France	**-0.10**	(0.03)	**0.07**	(0.04)	**0.09**	(0.04)	**0.29**	(0.04)	**0.21**	(0.03)	**0.49**	(0.03)	**0.49**	(0.03)	**-0.39**	(0.03)
	Germany	0.02	(0.03)	0.05	(0.04)	0.00	(0.04)	**0.28**	(0.04)	**0.17**	(0.04)	**0.50**	(0.03)	**0.41**	(0.03)	**-0.41**	(0.03)
	Greece	-0.04	(0.03)	-0.01	(0.04)	-0.02	(0.04)	**0.33**	(0.03)	**0.27**	(0.03)	**0.44**	(0.03)	**0.42**	(0.03)	**-0.40**	(0.03)
	Hungary	-0.12	(0.07)	**0.11**	(0.05)	**0.11**	(0.06)	**0.33**	(0.04)	**0.24**	(0.04)	**0.58**	(0.03)	**0.45**	(0.03)	**-0.41**	(0.03)
	Iceland	**-0.13**	(0.03)	**0.12**	(0.04)	**0.25**	(0.04)	**0.28**	(0.04)	**0.23**	(0.05)	**0.45**	(0.04)	**0.51**	(0.03)	**-0.44**	(0.03)
	Ireland	**-0.08**	(0.04)	-0.03	(0.04)	**0.08**	(0.04)	**0.34**	(0.04)	**0.22**	(0.03)	**0.54**	(0.03)	**0.45**	(0.03)	**-0.42**	(0.03)
	Italy	**-0.13**	(0.02)	0.01	(0.03)	**0.05**	(0.02)	**0.24**	(0.02)	**0.19**	(0.02)	**0.47**	(0.01)	**0.36**	(0.02)	**-0.34**	(0.02)
	Japan	-0.05	(0.04)	0.02	(0.04)	-0.05	(0.03)	**0.31**	(0.03)	**0.29**	(0.03)	**0.51**	(0.03)	**0.24**	(0.03)	**-0.21**	(0.03)
	Korea	**-0.17**	(0.03)	**0.09**	(0.04)	0.07	(0.05)	**0.41**	(0.04)	**0.42**	(0.04)	**0.61**	(0.03)	**0.50**	(0.03)	**-0.23**	(0.04)
	Luxembourg	**-0.08**	(0.03)	**0.11**	(0.04)	**0.15**	(0.04)	**0.30**	(0.04)	**0.25**	(0.04)	**0.47**	(0.03)	**0.36**	(0.03)	**-0.33**	(0.03)
	Mexico	**-0.12**	(0.02)	**0.05**	(0.02)	**0.15**	(0.02)	**0.11**	(0.02)	**0.10**	(0.02)	**0.36**	(0.02)	**0.39**	(0.02)	**-0.40**	(0.02)
	Netherlands	**-0.18**	(0.04)	0.03	(0.04)	**0.13**	(0.04)	**0.20**	(0.05)	**0.15**	(0.06)	**0.41**	(0.04)	**0.23**	(0.03)	**-0.25**	(0.03)
	New Zealand	**-0.17**	(0.04)	0.07	(0.04)	**0.21**	(0.04)	**0.24**	(0.04)	**0.18**	(0.04)	**0.60**	(0.03)	**0.57**	(0.03)	**-0.50**	(0.03)
	Norway	**-0.15**	(0.04)	-0.02	(0.04)	**0.12**	(0.04)	**0.46**	(0.03)	**0.38**	(0.04)	**0.56**	(0.03)	**0.64**	(0.02)	**-0.54**	(0.03)
	Poland	**-0.08**	(0.03)	0.00	(0.05)	0.04	(0.05)	**0.35**	(0.04)	**0.35**	(0.03)	**0.61**	(0.02)	**0.56**	(0.03)	**-0.55**	(0.03)
	Portugal	-0.04	(0.03)	0.04	(0.04)	**0.17**	(0.04)	**0.25**	(0.04)	**0.27**	(0.04)	**0.57**	(0.03)	**0.54**	(0.03)	**-0.43**	(0.04)
	Slovak Republic	-0.06	(0.04)	0.06	(0.05)	0.04	(0.06)	**0.24**	(0.05)	**0.24**	(0.05)	**0.52**	(0.02)	**0.45**	(0.03)	**-0.44**	(0.03)
	Spain	**-0.09**	(0.02)	0.05	(0.02)	**0.08**	(0.03)	**0.28**	(0.03)	**0.29**	(0.02)	**0.47**	(0.02)	**0.44**	(0.02)	**-0.36**	(0.02)
	Sweden	**-0.14**	(0.04)	0.03	(0.04)	**0.17**	(0.04)	**0.37**	(0.04)	**0.21**	(0.04)	**0.54**	(0.03)	**0.49**	(0.03)	**-0.43**	(0.03)
	Switzerland	0.01	(0.03)	**0.13**	(0.03)	0.05	(0.04)	**0.20**	(0.03)	**0.09**	(0.03)	**0.57**	(0.02)	**0.34**	(0.03)	**-0.32**	(0.03)
	Turkey	**-0.08**	(0.03)	-0.02	(0.04)	**-0.15**	(0.04)	**0.20**	(0.04)	**0.14**	(0.03)	**0.51**	(0.04)	**0.32**	(0.04)	**-0.35**	(0.04)
	United States	**-0.15**	(0.03)	-0.01	(0.04)	0.08	(0.04)	**0.22**	(0.04)	**0.22**	(0.04)	**0.56**	(0.03)	**0.46**	(0.03)	**-0.45**	(0.03)
	OECD average 2003	**-0.10**	(0.01)	**0.04**	(0.01)	**0.09**	(0.01)	**0.28**	(0.01)	**0.22**	(0.01)	**0.51**	(0.01)	**0.44**	(0.01)	**-0.39**	(0.01)
Partners	**Brazil**	-0.02	(0.03)	0.01	(0.04)	**0.13**	(0.03)	0.02	(0.04)	0.02	(0.03)	**0.43**	(0.03)	**0.21**	(0.04)	**-0.39**	(0.03)
	Hong Kong-China	**-0.12**	(0.03)	0.06	(0.04)	0.04	(0.04)	**0.23**	(0.04)	**0.14**	(0.04)	**0.46**	(0.04)	**0.31**	(0.03)	**-0.31**	(0.03)
	Indonesia	**-0.10**	(0.04)	0.06	(0.05)	0.07	(0.05)	**-0.18**	(0.08)	-0.06	(0.05)	**0.22**	(0.03)	-0.04	(0.04)	**-0.23**	(0.03)
	Latvia	-0.05	(0.04)	-0.01	(0.05)	**0.08**	(0.04)	**0.27**	(0.04)	**0.09**	(0.04)	**0.45**	(0.04)	**0.50**	(0.03)	**-0.43**	(0.04)
	Liechtenstein	-0.09	(0.13)	0.01	(0.16)	0.17	(0.15)	**0.33**	(0.16)	-0.22	(0.13)	**0.54**	(0.13)	**0.39**	(0.18)	-0.22	(0.23)
	Macao-China	**-0.17**	(0.03)	-0.01	(0.04)	**0.08**	(0.04)	**0.20**	(0.04)	**0.15**	(0.04)	**0.46**	(0.03)	**0.28**	(0.04)	**-0.31**	(0.03)
	Russian Federation	**-0.14**	(0.03)	**-0.06**	(0.03)	0.02	(0.04)	**0.21**	(0.04)	**0.13**	(0.05)	**0.47**	(0.03)	**0.35**	(0.03)	**-0.42**	(0.03)
	Thailand	**-0.12**	(0.03)	**0.15**	(0.04)	**0.13**	(0.04)	**0.08**	(0.03)	**0.13**	(0.03)	**0.31**	(0.06)	**0.18**	(0.04)	**-0.27**	(0.04)
	Tunisia	**-0.09**	(0.03)	**0.09**	(0.04)	**0.11**	(0.05)	**0.16**	(0.04)	**0.21**	(0.04)	**0.39**	(0.04)	**0.32**	(0.03)	**-0.25**	(0.04)
	Uruguay	**-0.11**	(0.04)	0.05	(0.05)	0.05	(0.04)	**0.14**	(0.03)	**0.11**	(0.04)	**0.41**	(0.03)	**0.42**	(0.03)	**-0.39**	(0.04)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.

1. Socio-economically advantaged/disadvantaged students are those in the top/bottom quarter of the *PISA index of economic, social and cultural status* within each country and economy.

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[Part 3/7]

Table III.7.9

Change between 2003 and 2012 in the association between students' attitudes and behaviours and mathematics performance, by socio-economic status

Results based on students' self-reports

		Socio-economically disadvantaged students[1]															
		Change between 2003 and 2012 (PISA 2012 - PISA 2003)															
		Arriving late		Index of sense of belonging		Index of attitudes towards school		Index of intrinsic motivation to learn mathematics		Index of instrumental motivation to learn mathematics		Index of mathematics self-efficacy		Index of mathematics self-concept		Index of mathematics anxiety	
		Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.
OECD	**Australia**	-0.03	(0.03)	**0.08**	(0.03)	**0.07**	(0.03)	**0.07**	(0.03)	0.02	(0.03)	**0.11**	(0.03)	**0.09**	(0.03)	**-0.07**	(0.03)
	Austria	0.02	(0.05)	0.02	(0.05)	0.04	(0.06)	0.07	(0.05)	-0.01	(0.05)	0.05	(0.04)	0.06	(0.04)	-0.03	(0.05)
	Belgium	0.06	(0.04)	0.06	(0.04)	**0.10**	(0.04)	-0.05	(0.03)	-0.01	(0.04)	-0.01	(0.04)	**-0.17**	(0.03)	**0.16**	(0.04)
	Canada	-0.03	(0.03)	0.05	(0.04)	0.03	(0.04)	-0.05	(0.03)	-0.02	(0.03)	0.01	(0.03)	-0.01	(0.03)	0.00	(0.03)
	Czech Republic	-0.07	(0.05)	0.00	(0.05)	0.09	(0.05)	0.02	(0.05)	0.04	(0.05)	0.07	(0.04)	0.06	(0.04)	0.01	(0.04)
	Denmark	0.00	(0.05)	-0.07	(0.05)	-0.01	(0.05)	0.04	(0.05)	0.03	(0.05)	**0.09**	(0.04)	0.05	(0.04)	-0.01	(0.04)
	Finland	-0.02	(0.04)	0.06	(0.05)	0.09	(0.05)	0.05	(0.04)	0.07	(0.04)	0.07	(0.04)	0.00	(0.03)	-0.01	(0.03)
	France	0.00	(0.05)	0.07	(0.05)	0.01	(0.05)	-0.03	(0.05)	-0.06	(0.05)	0.04	(0.04)	**0.08**	(0.04)	-0.09	(0.04)
	Germany	0.03	(0.05)	0.08	(0.06)	0.07	(0.06)	0.10	(0.06)	0.10	(0.06)	0.07	(0.04)	0.09	(0.05)	-0.07	(0.04)
	Greece	-0.02	(0.05)	-0.05	(0.05)	0.07	(0.05)	0.07	(0.05)	**0.10**	(0.05)	0.08	(0.05)	0.02	(0.04)	-0.03	(0.05)
	Hungary	0.05	(0.08)	0.04	(0.06)	0.11	(0.07)	0.08	(0.05)	0.03	(0.05)	**0.08**	(0.04)	**0.09**	(0.04)	**-0.10**	(0.04)
	Iceland	0.02	(0.05)	0.09	(0.06)	0.10	(0.06)	0.00	(0.05)	0.01	(0.06)	-0.03	(0.05)	0.00	(0.04)	-0.03	(0.05)
	Ireland	-0.04	(0.05)	0.06	(0.05)	0.03	(0.05)	0.07	(0.05)	**0.12**	(0.05)	0.02	(0.04)	0.00	(0.04)	-0.02	(0.04)
	Italy	-0.02	(0.03)	0.06	(0.04)	**0.11**	(0.03)	0.04	(0.04)	0.05	(0.04)	**0.07**	(0.03)	0.06	(0.03)	-0.05	(0.03)
	Japan	-0.01	(0.06)	-0.07	(0.05)	-0.08	(0.05)	0.04	(0.04)	0.07	(0.04)	-0.04	(0.05)	0.04	(0.05)	-0.04	(0.05)
	Korea	-0.02	(0.05)	0.04	(0.05)	0.04	(0.05)	0.02	(0.05)	0.08	(0.05)	0.07	(0.04)	0.02	(0.04)	0.07	(0.05)
	Luxembourg	**-0.12**	(0.05)	0.07	(0.05)	0.09	(0.06)	0.09	(0.05)	0.08	(0.05)	0.04	(0.05)	0.05	(0.05)	-0.01	(0.05)
	Mexico	-0.02	(0.04)	-0.04	(0.03)	-0.02	(0.05)	0.02	(0.04)	0.02	(0.04)	0.00	(0.03)	0.05	(0.03)	-0.03	(0.03)
	Netherlands	0.01	(0.05)	-0.02	(0.06)	0.07	(0.05)	-0.05	(0.06)	0.02	(0.07)	0.01	(0.05)	-0.07	(0.05)	-0.01	(0.05)
	New Zealand	-0.07	(0.05)	0.06	(0.06)	0.10	(0.06)	0.04	(0.05)	-0.01	(0.05)	**0.08**	(0.04)	**0.12**	(0.04)	-0.06	(0.04)
	Norway	-0.09	(0.05)	0.04	(0.05)	-0.04	(0.05)	0.06	(0.05)	0.06	(0.05)	0.03	(0.04)	**0.09**	(0.04)	-0.07	(0.04)
	Poland	-0.05	(0.05)	0.03	(0.06)	**0.12**	(0.06)	**0.10**	(0.05)	**0.15**	(0.05)	**0.13**	(0.03)	0.07	(0.04)	-0.06	(0.04)
	Portugal	-0.02	(0.05)	-0.02	(0.06)	0.06	(0.05)	0.07	(0.05)	**0.14**	(0.05)	**0.09**	(0.04)	**0.14**	(0.04)	**-0.10**	(0.05)
	Slovak Republic	-0.01	(0.05)	0.02	(0.06)	**0.15**	(0.06)	0.07	(0.05)	0.11	(0.06)	0.02	(0.03)	0.06	(0.04)	-0.07	(0.04)
	Spain	0.06	(0.04)	0.04	(0.04)	0.05	(0.05)	0.04	(0.04)	0.04	(0.04)	**0.11**	(0.03)	0.06	(0.03)	0.02	(0.03)
	Sweden	-0.06	(0.05)	0.06	(0.06)	0.08	(0.05)	-0.02	(0.05)	-0.07	(0.05)	0.03	(0.04)	-0.05	(0.04)	0.03	(0.04)
	Switzerland	0.01	(0.04)	**0.09**	(0.04)	0.04	(0.05)	0.00	(0.04)	0.08	(0.05)	0.05	(0.05)	0.05	(0.05)	-0.02	(0.05)
	Turkey	-0.02	(0.05)	**-0.16**	(0.06)	-0.03	(0.08)	-0.01	(0.05)	-0.01	(0.05)	-0.09	(0.07)	-0.05	(0.05)	0.06	(0.05)
	United States	-0.02	(0.05)	m	m	0.03	(0.06)	0.01	(0.05)	0.02	(0.05)	0.04	(0.04)	0.04	(0.04)	-0.04	(0.04)
	OECD average 2003	**-0.02**	(0.01)	**0.03**	(0.01)	**0.05**	(0.01)	**0.03**	(0.01)	**0.04**	(0.01)	**0.04**	(0.01)	**0.04**	(0.01)	**-0.02**	(0.01)
Partners	**Brazil**	0.06	(0.04)	-0.02	(0.05)	**0.13**	(0.04)	0.09	(0.06)	**0.15**	(0.06)	0.05	(0.06)	-0.02	(0.05)	-0.03	(0.04)
	Hong Kong-China	0.05	(0.05)	-0.01	(0.05)	-0.08	(0.05)	-0.03	(0.05)	-0.07	(0.06)	-0.05	(0.05)	-0.04	(0.05)	-0.03	(0.05)
	Indonesia	0.06	(0.05)	0.01	(0.06)	0.04	(0.07)	-0.08	(0.09)	0.02	(0.06)	0.04	(0.05)	0.03	(0.06)	-0.08	(0.05)
	Latvia	0.03	(0.07)	-0.06	(0.06)	-0.08	(0.05)	0.03	(0.06)	**-0.13**	(0.06)	-0.04	(0.05)	0.04	(0.05)	0.02	(0.05)
	Liechtenstein	-0.05	(0.18)	-0.04	(0.19)	0.00	(0.19)	0.20	(0.21)	-0.26	(0.19)	0.10	(0.16)	0.03	(0.21)	0.10	(0.25)
	Macao-China	0.07	(0.07)	-0.12	(0.09)	0.02	(0.08)	0.03	(0.07)	0.10	(0.08)	0.09	(0.07)	0.02	(0.07)	-0.04	(0.07)
	Russian Federation	-0.06	(0.04)	**-0.12**	(0.04)	-0.03	(0.05)	0.04	(0.05)	-0.04	(0.06)	0.04	(0.04)	0.00	(0.04)	-0.02	(0.03)
	Thailand	0.02	(0.04)	0.02	(0.05)	0.01	(0.05)	0.02	(0.04)	0.02	(0.04)	-0.04	(0.06)	-0.01	(0.05)	-0.08	(0.04)
	Tunisia	-0.06	(0.05)	0.08	(0.06)	0.03	(0.06)	0.04	(0.05)	-0.01	(0.05)	-0.02	(0.06)	0.00	(0.05)	-0.05	(0.05)
	Uruguay	-0.03	(0.05)	-0.01	(0.06)	0.00	(0.05)	-0.07	(0.04)	-0.03	(0.05)	0.01	(0.04)	0.04	(0.04)	-0.05	(0.05)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.

1. Socio-economically advantaged/disadvantaged students are those in the top/bottom quarter of the *PISA index of economic, social and cultural status* within each country and economy.

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[Part 4/7]

Table III.7.9 Change between 2003 and 2012 in the association between students' attitudes and behaviours and mathematics performance, by socio-economic status

Results based on students' self-reports

		Socio-economically advantaged students[1]															
		PISA 2003															
		Arriving late		Index of sense of belonging		Index of attitudes towards school		Index of intrinsic motivation to learn mathematics		Index of instrumental motivation to learn mathematics		Index of mathematics self-efficacy		Index of mathematics self-concept		Index of mathematics anxiety	
		Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.
OECD	**Australia**	**-0.13**	(0.03)	0.06	(0.04)	**0.12**	(0.03)	**0.15**	(0.03)	**0.17**	(0.02)	**0.47**	(0.02)	**0.39**	(0.02)	**-0.35**	(0.02)
	Austria	-0.04	(0.04)	0.04	(0.04)	-0.07	(0.04)	0.05	(0.03)	-0.06	(0.03)	**0.37**	(0.04)	**0.30**	(0.03)	**-0.35**	(0.03)
	Belgium	**-0.29**	(0.03)	0.05	(0.03)	-0.04	(0.03)	-0.01	(0.03)	-0.02	(0.03)	**0.36**	(0.02)	**0.15**	(0.03)	**-0.20**	(0.03)
	Canada	**-0.12**	(0.02)	0.02	(0.02)	**0.07**	(0.02)	**0.18**	(0.02)	**0.19**	(0.02)	**0.51**	(0.02)	**0.39**	(0.02)	**-0.37**	(0.02)
	Czech Republic	**-0.10**	(0.03)	**0.09**	(0.04)	**0.07**	(0.03)	**0.13**	(0.04)	**0.10**	(0.03)	**0.47**	(0.03)	**0.35**	(0.03)	**-0.36**	(0.03)
	Denmark	**-0.15**	(0.03)	-0.04	(0.03)	0.01	(0.04)	**0.20**	(0.04)	**0.13**	(0.03)	**0.44**	(0.03)	**0.44**	(0.03)	**-0.46**	(0.03)
	Finland	**-0.16**	(0.03)	0.00	(0.03)	**0.07**	(0.03)	**0.24**	(0.03)	**0.23**	(0.03)	**0.47**	(0.03)	**0.50**	(0.02)	**-0.39**	(0.03)
	France	**-0.22**	(0.04)	-0.02	(0.03)	0.02	(0.03)	**0.15**	(0.03)	0.07	(0.03)	**0.38**	(0.03)	**0.24**	(0.03)	**-0.18**	(0.03)
	Germany	**-0.17**	(0.04)	**-0.08**	(0.04)	**-0.11**	(0.03)	0.05	(0.03)	-0.03	(0.03)	**0.42**	(0.03)	**0.23**	(0.03)	**-0.32**	(0.03)
	Greece	**-0.08**	(0.03)	**0.08**	(0.03)	-0.04	(0.03)	**0.12**	(0.03)	0.05	(0.04)	**0.33**	(0.03)	**0.26**	(0.03)	**-0.19**	(0.03)
	Hungary	**-0.25**	(0.04)	0.06	(0.03)	-0.06	(0.04)	0.00	(0.04)	0.02	(0.04)	**0.45**	(0.03)	**0.16**	(0.04)	**-0.24**	(0.04)
	Iceland	**-0.17**	(0.04)	-0.06	(0.03)	**0.20**	(0.04)	**0.32**	(0.04)	**0.19**	(0.04)	**0.48**	(0.03)	**0.44**	(0.03)	**-0.31**	(0.03)
	Ireland	**-0.15**	(0.04)	-0.05	(0.04)	0.01	(0.03)	**0.13**	(0.03)	0.05	(0.03)	**0.40**	(0.03)	**0.25**	(0.03)	**-0.30**	(0.03)
	Italy	**-0.19**	(0.03)	-0.01	(0.04)	-0.03	(0.04)	0.03	(0.03)	0.05	(0.03)	**0.43**	(0.04)	**0.23**	(0.03)	**-0.24**	(0.03)
	Japan	**-0.23**	(0.04)	0.06	(0.03)	0.02	(0.04)	**0.25**	(0.04)	**0.19**	(0.04)	**0.57**	(0.03)	**0.24**	(0.03)	**-0.16**	(0.04)
	Korea	**-0.14**	(0.03)	**0.07**	(0.03)	0.00	(0.03)	**0.33**	(0.03)	**0.29**	(0.03)	**0.49**	(0.03)	**0.33**	(0.03)	**-0.10**	(0.03)
	Luxembourg	-0.06	(0.03)	**0.09**	(0.04)	**-0.17**	(0.03)	-0.04	(0.03)	**-0.14**	(0.03)	**0.43**	(0.03)	**0.16**	(0.04)	**-0.27**	(0.04)
	Mexico	-0.03	(0.04)	**0.11**	(0.04)	**0.28**	(0.03)	-0.06	(0.04)	**0.10**	(0.05)	**0.18**	(0.03)	**0.11**	(0.04)	**-0.20**	(0.03)
	Netherlands	**-0.18**	(0.03)	-0.01	(0.04)	-0.03	(0.04)	**0.10**	(0.04)	0.04	(0.04)	**0.41**	(0.03)	**0.24**	(0.04)	**-0.24**	(0.04)
	New Zealand	**-0.15**	(0.03)	0.03	(0.03)	**0.11**	(0.03)	0.01	(0.03)	0.06	(0.03)	**0.40**	(0.03)	**0.29**	(0.03)	**-0.35**	(0.03)
	Norway	**-0.13**	(0.04)	0.00	(0.04)	**0.17**	(0.04)	**0.32**	(0.04)	**0.24**	(0.04)	**0.45**	(0.04)	**0.44**	(0.03)	**-0.39**	(0.04)
	Poland	**-0.15**	(0.03)	**0.07**	(0.03)	0.02	(0.04)	**0.14**	(0.04)	**0.19**	(0.03)	**0.47**	(0.03)	**0.34**	(0.03)	**-0.40**	(0.03)
	Portugal	-0.02	(0.03)	**0.19**	(0.04)	**0.10**	(0.04)	0.04	(0.03)	**0.10**	(0.04)	**0.39**	(0.03)	**0.24**	(0.03)	**-0.22**	(0.04)
	Slovak Republic	**-0.15**	(0.03)	0.02	(0.03)	**-0.09**	(0.02)	0.05	(0.04)	0.01	(0.04)	**0.52**	(0.03)	**0.31**	(0.04)	**-0.34**	(0.04)
	Spain	**-0.18**	(0.04)	0.02	(0.03)	0.03	(0.03)	**0.17**	(0.04)	**0.15**	(0.03)	**0.41**	(0.03)	**0.30**	(0.03)	**-0.14**	(0.03)
	Sweden	**-0.18**	(0.03)	0.01	(0.04)	**0.09**	(0.03)	**0.20**	(0.03)	**0.15**	(0.03)	**0.51**	(0.03)	**0.40**	(0.03)	**-0.38**	(0.03)
	Switzerland	-0.06	(0.04)	**0.08**	(0.03)	**-0.07**	(0.03)	0.06	(0.03)	0.02	(0.03)	**0.47**	(0.02)	**0.26**	(0.02)	**-0.36**	(0.02)
	Turkey	**-0.13**	(0.03)	0.07	(0.04)	0.07	(0.04)	0.04	(0.04)	0.05	(0.04)	**0.21**	(0.04)	**0.17**	(0.04)	**-0.19**	(0.04)
	United States	**-0.19**	(0.04)	m	m	0.06	(0.03)	-0.01	(0.03)	**0.09**	(0.03)	**0.41**	(0.03)	**0.29**	(0.03)	**-0.31**	(0.03)
	OECD average 2003	**-0.14**	(0.01)	**0.03**	(0.01)	**0.03**	(0.01)	**0.12**	(0.01)	**0.09**	(0.01)	**0.42**	(0.01)	**0.29**	(0.01)	**-0.29**	(0.01)
Partners	**Brazil**	-0.06	(0.04)	0.02	(0.03)	0.00	(0.04)	-0.01	(0.04)	-0.06	(0.04)	**0.17**	(0.04)	**0.26**	(0.04)	**-0.32**	(0.04)
	Hong Kong-China	**-0.21**	(0.04)	**0.10**	(0.03)	**0.08**	(0.03)	**0.34**	(0.03)	**0.25**	(0.03)	**0.56**	(0.03)	**0.35**	(0.03)	**-0.25**	(0.04)
	Indonesia	**-0.09**	(0.04)	**0.07**	(0.03)	**0.09**	(0.04)	**-0.07**	(0.03)	0.01	(0.03)	0.03	(0.03)	-0.03	(0.03)	-0.05	(0.04)
	Latvia	**-0.17**	(0.05)	**0.14**	(0.03)	**0.07**	(0.03)	0.06	(0.04)	**0.14**	(0.04)	**0.46**	(0.04)	**0.35**	(0.03)	**-0.41**	(0.04)
	Liechtenstein	0.10	(0.14)	-0.03	(0.12)	**-0.27**	(0.11)	-0.16	(0.13)	-0.17	(0.11)	**0.44**	(0.11)	0.11	(0.10)	**-0.35**	(0.11)
	Macao-China	**-0.24**	(0.07)	-0.01	(0.06)	0.08	(0.07)	**0.22**	(0.06)	0.04	(0.07)	**0.48**	(0.06)	**0.37**	(0.06)	**-0.31**	(0.06)
	Russian Federation	**-0.09**	(0.03)	**0.09**	(0.03)	0.03	(0.03)	0.04	(0.03)	0.04	(0.04)	**0.34**	(0.03)	**0.23**	(0.04)	**-0.29**	(0.03)
	Thailand	-0.01	(0.04)	0.02	(0.04)	0.07	(0.04)	0.06	(0.03)	0.06	(0.04)	**0.21**	(0.04)	**0.10**	(0.03)	**-0.13**	(0.04)
	Tunisia	**-0.09**	(0.03)	0.03	(0.03)	**0.15**	(0.04)	**0.12**	(0.03)	**0.16**	(0.03)	**0.29**	(0.03)	**0.19**	(0.03)	**-0.08**	(0.03)
	Uruguay	**-0.11**	(0.04)	-0.05	(0.04)	0.02	(0.03)	**0.12**	(0.04)	0.00	(0.04)	**0.29**	(0.03)	**0.26**	(0.04)	**-0.27**	(0.04)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.

1. Socio-economically advantaged/disadvantaged students are those in the top/bottom quarter of the *PISA index of economic, social and cultural status* within each country and economy.

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[Part 5/7]

Table III.7.9 Change between 2003 and 2012 in the association between students' attitudes and behaviours and mathematics performance, by socio-economic status

Results based on students' self-reports

		Socio-economically advantaged students[1]															
		PISA 2012															
		Arriving late		Index of sense of belonging		Index of attitudes towards school		Index of intrinsic motivation to learn mathematics		Index of instrumental motivation to learn mathematics		Index of mathematics self-efficacy		Index of mathematics self-concept		Index of mathematics anxiety	
		Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.
OECD	Australia	**-0.17**	(0.02)	**0.07**	(0.03)	**0.14**	(0.02)	**0.16**	(0.02)	**0.17**	(0.02)	**0.53**	(0.02)	**0.40**	(0.02)	**-0.33**	(0.02)
	Austria	**-0.12**	(0.04)	0.05	(0.05)	0.04	(0.04)	0.10	(0.06)	0.03	(0.05)	**0.37**	(0.05)	**0.32**	(0.04)	**-0.35**	(0.04)
	Belgium	**-0.19**	(0.03)	0.00	(0.04)	-0.02	(0.03)	0.05	(0.04)	0.06	(0.04)	**0.27**	(0.03)	**0.15**	(0.03)	**-0.16**	(0.04)
	Canada	**-0.19**	(0.02)	0.03	(0.02)	**0.13**	(0.03)	**0.17**	(0.03)	**0.21**	(0.03)	**0.48**	(0.02)	**0.40**	(0.02)	**-0.34**	(0.03)
	Czech Republic	**-0.20**	(0.03)	0.00	(0.05)	**0.12**	(0.05)	**0.13**	(0.05)	**0.14**	(0.05)	**0.46**	(0.05)	**0.39**	(0.04)	**-0.36**	(0.04)
	Denmark	**-0.19**	(0.03)	**0.09**	(0.04)	**0.16**	(0.04)	**0.25**	(0.04)	**0.20**	(0.04)	**0.49**	(0.03)	**0.46**	(0.03)	**-0.43**	(0.04)
	Finland	**-0.22**	(0.03)	**0.07**	(0.03)	**0.18**	(0.04)	**0.22**	(0.03)	**0.22**	(0.03)	**0.47**	(0.03)	**0.51**	(0.03)	**-0.40**	(0.03)
	France	**-0.22**	(0.03)	**0.12**	(0.03)	0.06	(0.04)	0.06	(0.04)	0.02	(0.04)	**0.44**	(0.03)	**0.27**	(0.04)	**-0.22**	(0.04)
	Germany	**-0.11**	(0.03)	0.03	(0.04)	0.05	(0.04)	**0.16**	(0.04)	**0.13**	(0.04)	**0.52**	(0.03)	**0.40**	(0.03)	**-0.44**	(0.04)
	Greece	-0.04	(0.04)	0.00	(0.04)	0.00	(0.04)	**0.10**	(0.04)	**0.09**	(0.04)	**0.36**	(0.04)	**0.29**	(0.04)	**-0.26**	(0.04)
	Hungary	**-0.27**	(0.05)	0.06	(0.04)	**0.17**	(0.04)	-0.03	(0.06)	0.01	(0.05)	**0.48**	(0.03)	**0.21**	(0.05)	**-0.34**	(0.04)
	Iceland	**-0.18**	(0.03)	**0.12**	(0.05)	**0.27**	(0.04)	**0.23**	(0.05)	**0.22**	(0.04)	**0.49**	(0.04)	**0.48**	(0.04)	**-0.37**	(0.04)
	Ireland	**-0.17**	(0.03)	0.02	(0.04)	0.05	(0.04)	**0.10**	(0.05)	0.01	(0.05)	**0.47**	(0.03)	**0.31**	(0.04)	**-0.29**	(0.04)
	Italy	**-0.16**	(0.02)	-0.03	(0.02)	**0.05**	(0.02)	**0.10**	(0.02)	**0.06**	(0.02)	**0.42**	(0.02)	**0.29**	(0.02)	**-0.23**	(0.02)
	Japan	**-0.16**	(0.03)	0.02	(0.04)	**0.10**	(0.04)	**0.32**	(0.03)	**0.31**	(0.04)	**0.59**	(0.02)	**0.31**	(0.03)	**-0.17**	(0.03)
	Korea	**-0.17**	(0.03)	**0.11**	(0.04)	0.04	(0.03)	**0.36**	(0.03)	**0.37**	(0.03)	**0.55**	(0.03)	**0.35**	(0.03)	**-0.12**	(0.04)
	Luxembourg	**-0.12**	(0.03)	**0.11**	(0.04)	0.05	(0.04)	0.07	(0.04)	**0.09**	(0.04)	**0.38**	(0.04)	**0.23**	(0.03)	**-0.35**	(0.03)
	Mexico	**-0.08**	(0.02)	**0.07**	(0.02)	**0.23**	(0.02)	**0.09**	(0.02)	**0.09**	(0.02)	**0.27**	(0.02)	**0.27**	(0.03)	**-0.25**	(0.02)
	Netherlands	**-0.16**	(0.03)	0.07	(0.04)	0.04	(0.04)	**0.11**	(0.04)	**0.16**	(0.04)	**0.42**	(0.04)	**0.18**	(0.04)	**-0.24**	(0.04)
	New Zealand	**-0.18**	(0.04)	-0.08	(0.04)	**0.11**	(0.04)	0.03	(0.05)	**0.13**	(0.05)	**0.39**	(0.05)	**0.27**	(0.03)	**-0.36**	(0.04)
	Norway	**-0.20**	(0.03)	**0.12**	(0.04)	**0.22**	(0.04)	**0.29**	(0.04)	**0.33**	(0.03)	**0.56**	(0.03)	**0.55**	(0.03)	**-0.47**	(0.03)
	Poland	**-0.15**	(0.03)	-0.02	(0.05)	0.00	(0.04)	**0.19**	(0.04)	**0.25**	(0.04)	**0.57**	(0.03)	**0.47**	(0.03)	**-0.47**	(0.03)
	Portugal	**-0.09**	(0.03)	0.06	(0.04)	**0.14**	(0.04)	**0.17**	(0.03)	**0.20**	(0.04)	**0.56**	(0.03)	**0.34**	(0.04)	**-0.22**	(0.05)
	Slovak Republic	**-0.18**	(0.04)	0.07	(0.04)	0.07	(0.04)	**-0.11**	(0.04)	-0.06	(0.05)	**0.42**	(0.04)	**0.19**	(0.04)	**-0.41**	(0.04)
	Spain	**-0.19**	(0.03)	0.04	(0.03)	**0.12**	(0.03)	**0.12**	(0.02)	**0.15**	(0.02)	**0.45**	(0.02)	**0.30**	(0.02)	**-0.22**	(0.03)
	Sweden	**-0.17**	(0.04)	0.05	(0.05)	**0.11**	(0.05)	**0.19**	(0.04)	**0.11**	(0.04)	**0.42**	(0.03)	**0.39**	(0.04)	**-0.34**	(0.04)
	Switzerland	**-0.11**	(0.03)	**0.09**	(0.03)	0.05	(0.04)	**0.11**	(0.03)	**0.09**	(0.03)	**0.49**	(0.03)	**0.31**	(0.03)	**-0.34**	(0.03)
	Turkey	**-0.10**	(0.03)	0.04	(0.04)	0.05	(0.04)	0.02	(0.05)	0.07	(0.04)	**0.34**	(0.05)	**0.14**	(0.04)	**-0.24**	(0.04)
	United States	**-0.14**	(0.04)	**0.09**	(0.04)	**0.20**	(0.04)	**0.11**	(0.05)	**0.09**	(0.04)	**0.45**	(0.03)	**0.40**	(0.03)	**-0.41**	(0.03)
	OECD average 2003	**-0.16**	(0.01)	**0.05**	(0.01)	**0.10**	(0.01)	**0.13**	(0.01)	**0.14**	(0.01)	**0.45**	(0.01)	**0.33**	(0.01)	**-0.31**	(0.01)
Partners	Brazil	**-0.06**	(0.02)	-0.01	(0.03)	**0.07**	(0.02)	-0.03	(0.03)	0.00	(0.03)	**0.17**	(0.03)	**0.18**	(0.03)	**-0.30**	(0.02)
	Hong Kong-China	**-0.15**	(0.03)	0.04	(0.05)	0.07	(0.04)	**0.32**	(0.03)	**0.24**	(0.04)	**0.60**	(0.03)	**0.35**	(0.03)	**-0.29**	(0.04)
	Indonesia	**-0.11**	(0.04)	0.07	(0.04)	**0.15**	(0.04)	0.03	(0.04)	0.07	(0.04)	**0.10**	(0.05)	-0.06	(0.05)	-0.07	(0.05)
	Latvia	**-0.15**	(0.04)	-0.03	(0.07)	**0.19**	(0.06)	0.05	(0.05)	**0.09**	(0.04)	**0.44**	(0.04)	**0.38**	(0.04)	**-0.34**	(0.05)
	Liechtenstein	**-0.25**	(0.11)	-0.05	(0.16)	-0.07	(0.13)	0.05	(0.12)	0.09	(0.14)	**0.74**	(0.06)	0.16	(0.13)	**-0.26**	(0.13)
	Macao-China	**-0.24**	(0.03)	-0.01	(0.03)	-0.02	(0.03)	**0.28**	(0.03)	**0.15**	(0.03)	**0.53**	(0.03)	**0.36**	(0.03)	**-0.33**	(0.03)
	Russian Federation	**-0.15**	(0.03)	**0.14**	(0.05)	**0.14**	(0.05)	**0.12**	(0.04)	**0.08**	(0.04)	**0.36**	(0.04)	**0.30**	(0.04)	**-0.34**	(0.03)
	Thailand	**-0.11**	(0.04)	**0.19**	(0.04)	**0.18**	(0.03)	0.07	(0.05)	**0.17**	(0.05)	**0.11**	(0.05)	0.01	(0.04)	**-0.16**	(0.04)
	Tunisia	-0.02	(0.04)	0.05	(0.04)	0.06	(0.04)	0.03	(0.04)	**0.07**	(0.03)	**0.20**	(0.04)	**0.18**	(0.04)	**-0.16**	(0.04)
	Uruguay	-0.05	(0.04)	0.00	(0.03)	0.06	(0.04)	**-0.09**	(0.04)	**-0.11**	(0.04)	**0.19**	(0.04)	**0.27**	(0.04)	**-0.34**	(0.04)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.

1. Socio-economically advantaged/disadvantaged students are those in the top/bottom quarter of the *PISA index of economic, social and cultural status* within each country and economy.

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[Part 6/7]

Table III.7.9 Change between 2003 and 2012 in the association between students' attitudes and behaviours and mathematics performance, by socio-economic status

Results based on students' self-reports

		Socio-economically advantaged students[1]															
		Change between 2003 and 2012 (PISA 2012 - PISA 2003)															
		Arriving late		Index of sense of belonging		Index of attitudes towards school		Index of intrinsic motivation to learn mathematics		Index of instrumental motivation to learn mathematics		Index of mathematics self-efficacy		Index of mathematics self-concept		Index of mathematics anxiety	
		Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.
OECD	**Australia**	-0.04	(0.03)	0.01	(0.05)	0.02	(0.03)	0.01	(0.04)	0.00	(0.03)	0.05	(0.03)	0.01	(0.03)	0.02	(0.03)
	Austria	-0.08	(0.05)	0.00	(0.06)	0.11	(0.06)	0.04	(0.07)	0.09	(0.06)	0.00	(0.06)	0.01	(0.05)	0.00	(0.05)
	Belgium	**0.10**	(0.04)	-0.04	(0.05)	0.02	(0.04)	0.05	(0.05)	0.08	(0.05)	**-0.09**	(0.04)	0.00	(0.04)	0.04	(0.04)
	Canada	**-0.07**	(0.03)	0.01	(0.03)	0.06	(0.04)	0.00	(0.03)	0.02	(0.04)	-0.02	(0.03)	0.00	(0.03)	0.03	(0.03)
	Czech Republic	**-0.10**	(0.05)	-0.10	(0.06)	0.05	(0.05)	0.00	(0.06)	0.04	(0.06)	-0.01	(0.06)	0.04	(0.05)	0.00	(0.05)
	Denmark	-0.04	(0.04)	**0.13**	(0.05)	**0.16**	(0.06)	0.05	(0.05)	0.07	(0.05)	0.05	(0.05)	0.02	(0.05)	0.03	(0.05)
	Finland	-0.07	(0.04)	0.08	(0.04)	**0.11**	(0.05)	-0.03	(0.04)	-0.01	(0.04)	0.00	(0.04)	0.01	(0.04)	-0.02	(0.04)
	France	0.00	(0.05)	**0.14**	(0.04)	0.04	(0.05)	-0.09	(0.05)	-0.05	(0.05)	0.07	(0.05)	0.03	(0.05)	-0.04	(0.05)
	Germany	0.06	(0.05)	0.11	(0.06)	**0.16**	(0.05)	**0.11**	(0.05)	**0.17**	(0.05)	**0.10**	(0.05)	**0.17**	(0.04)	**-0.12**	(0.05)
	Greece	0.04	(0.05)	-0.07	(0.05)	0.04	(0.05)	-0.02	(0.05)	0.05	(0.05)	0.03	(0.05)	0.03	(0.05)	-0.07	(0.05)
	Hungary	-0.02	(0.06)	-0.01	(0.05)	**0.23**	(0.05)	-0.04	(0.07)	-0.01	(0.06)	0.03	(0.05)	0.05	(0.06)	-0.10	(0.06)
	Iceland	-0.01	(0.05)	**0.19**	(0.06)	0.07	(0.06)	-0.08	(0.06)	0.03	(0.06)	0.01	(0.05)	0.03	(0.05)	-0.06	(0.05)
	Ireland	-0.01	(0.05)	0.07	(0.05)	0.04	(0.05)	-0.02	(0.06)	-0.04	(0.06)	0.07	(0.05)	0.05	(0.05)	0.01	(0.05)
	Italy	0.03	(0.04)	-0.02	(0.04)	0.09	(0.04)	0.07	(0.04)	0.02	(0.04)	-0.01	(0.04)	0.06	(0.03)	0.01	(0.04)
	Japan	0.07	(0.04)	-0.04	(0.05)	0.08	(0.05)	0.07	(0.05)	**0.12**	(0.06)	0.02	(0.03)	0.07	(0.05)	-0.01	(0.05)
	Korea	-0.03	(0.05)	0.04	(0.05)	0.03	(0.04)	0.03	(0.04)	0.07	(0.04)	0.06	(0.04)	0.02	(0.05)	-0.02	(0.05)
	Luxembourg	-0.06	(0.04)	0.02	(0.06)	**0.21**	(0.05)	**0.11**	(0.05)	**0.23**	(0.05)	-0.05	(0.05)	0.07	(0.05)	-0.07	(0.05)
	Mexico	-0.05	(0.05)	-0.03	(0.04)	-0.06	(0.04)	**0.16**	(0.05)	-0.02	(0.05)	**0.09**	(0.04)	**0.16**	(0.05)	-0.05	(0.04)
	Netherlands	0.02	(0.05)	0.07	(0.06)	0.07	(0.06)	0.00	(0.06)	**0.12**	(0.05)	0.01	(0.04)	-0.06	(0.06)	0.00	(0.05)
	New Zealand	-0.04	(0.05)	**-0.11**	(0.05)	0.00	(0.05)	0.02	(0.06)	0.07	(0.06)	-0.01	(0.06)	-0.03	(0.04)	-0.01	(0.05)
	Norway	-0.07	(0.05)	**0.13**	(0.05)	0.06	(0.05)	-0.03	(0.05)	0.09	(0.05)	**0.11**	(0.05)	**0.11**	(0.04)	-0.08	(0.05)
	Poland	0.00	(0.05)	-0.10	(0.06)	-0.03	(0.06)	0.05	(0.06)	0.05	(0.05)	**0.10**	(0.05)	**0.13**	(0.04)	-0.07	(0.04)
	Portugal	-0.07	(0.05)	**-0.13**	(0.06)	0.03	(0.06)	**0.14**	(0.05)	0.10	(0.05)	**0.17**	(0.04)	0.10	(0.05)	0.00	(0.06)
	Slovak Republic	-0.03	(0.05)	0.05	(0.05)	**0.17**	(0.05)	**-0.16**	(0.06)	-0.07	(0.06)	**-0.10**	(0.05)	-0.12	(0.06)	-0.07	(0.06)
	Spain	-0.01	(0.04)	0.02	(0.05)	**0.09**	(0.04)	-0.05	(0.05)	0.00	(0.04)	0.04	(0.04)	-0.01	(0.04)	-0.07	(0.05)
	Sweden	0.01	(0.05)	0.04	(0.06)	0.02	(0.05)	0.00	(0.05)	-0.04	(0.05)	**-0.09**	(0.04)	-0.02	(0.05)	0.04	(0.05)
	Switzerland	-0.05	(0.05)	0.01	(0.05)	**0.11**	(0.05)	0.06	(0.04)	0.06	(0.04)	0.02	(0.04)	0.05	(0.04)	0.02	(0.04)
	Turkey	0.03	(0.04)	-0.03	(0.06)	-0.02	(0.06)	-0.02	(0.06)	0.02	(0.05)	**0.13**	(0.06)	-0.02	(0.06)	-0.05	(0.05)
	United States	0.04	(0.05)	m	m	**0.14**	(0.05)	**0.12**	(0.06)	0.01	(0.05)	0.04	(0.04)	**0.11**	(0.04)	**-0.09**	(0.04)
	OECD average 2003	-0.02	(0.01)	0.02	(0.01)	**0.07**	(0.01)	0.02	(0.01)	**0.04**	(0.01)	**0.03**	(0.01)	**0.04**	(0.01)	**-0.03**	(0.01)
Partners	**Brazil**	0.00	(0.05)	-0.03	(0.04)	0.07	(0.04)	-0.02	(0.05)	0.07	(0.05)	0.01	(0.05)	-0.08	(0.05)	0.02	(0.04)
	Hong Kong-China	0.06	(0.04)	-0.05	(0.06)	-0.01	(0.05)	-0.02	(0.04)	-0.02	(0.05)	0.04	(0.04)	0.00	(0.04)	-0.03	(0.05)
	Indonesia	-0.02	(0.06)	0.00	(0.05)	0.07	(0.06)	0.09	(0.05)	0.06	(0.05)	0.07	(0.06)	-0.03	(0.06)	-0.02	(0.06)
	Latvia	0.03	(0.06)	**-0.17**	(0.08)	0.12	(0.07)	-0.01	(0.06)	-0.05	(0.06)	-0.02	(0.05)	0.03	(0.05)	0.08	(0.07)
	Liechtenstein	**-0.36**	(0.17)	-0.03	(0.20)	0.19	(0.17)	0.20	(0.18)	0.26	(0.18)	**0.31**	(0.13)	0.05	(0.17)	0.08	(0.17)
	Macao-China	0.00	(0.07)	0.01	(0.07)	-0.10	(0.07)	0.06	(0.07)	0.10	(0.08)	0.06	(0.06)	-0.01	(0.07)	-0.02	(0.07)
	Russian Federation	-0.07	(0.05)	0.05	(0.05)	0.11	(0.06)	0.08	(0.05)	0.04	(0.05)	0.02	(0.05)	0.07	(0.05)	-0.05	(0.05)
	Thailand	-0.10	(0.06)	**0.17**	(0.05)	**0.11**	(0.05)	0.01	(0.06)	0.11	(0.06)	-0.10	(0.06)	-0.09	(0.05)	-0.03	(0.06)
	Tunisia	0.06	(0.05)	0.02	(0.05)	-0.09	(0.05)	-0.09	(0.05)	**-0.09**	(0.04)	-0.09	(0.06)	-0.01	(0.05)	-0.08	(0.05)
	Uruguay	0.07	(0.05)	0.04	(0.05)	0.04	(0.05)	**-0.21**	(0.05)	**-0.11**	(0.05)	-0.10	(0.05)	0.01	(0.06)	-0.07	(0.06)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.

1. Socio-economically advantaged/disadvantaged students are those in the top/bottom quarter of the *PISA index of economic, social and cultural status* within each country and economy.

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[Part 7/7]

Table III.7.9

Change between 2003 and 2012 in the association between students' attitudes and behaviours and mathematics performance, by socio-economic status

Results based on students' self-reports

		Socio-economic disparities (advantaged - disadvantaged)															
		Change between 2003 and 2012 (PISA 2012 - PISA 2003)															
		Arriving late		Index of sense of belonging		Index of attitudes towards school		Index of intrinsic motivation to learn mathematics		Index of instrumental motivation to learn mathematics		Index of mathematics self-efficacy		Index of mathematics self-concept		Index of mathematics anxiety	
		Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.	Dif.	S.E.
OECD	**Australia**	0.00	(0.05)	0.08	(0.06)	0.05	(0.05)	0.06	(0.05)	0.02	(0.05)	0.05	(0.04)	0.07	(0.04)	**-0.09**	(0.04)
	Austria	0.10	(0.07)	0.01	(0.08)	-0.07	(0.08)	0.03	(0.09)	-0.09	(0.08)	0.05	(0.07)	0.05	(0.06)	-0.03	(0.07)
	Belgium	-0.03	(0.05)	0.11	(0.06)	0.08	(0.06)	-0.10	(0.06)	-0.09	(0.06)	0.08	(0.05)	**-0.18**	(0.05)	**0.12**	(0.06)
	Canada	0.04	(0.04)	0.04	(0.05)	-0.03	(0.05)	-0.05	(0.05)	-0.04	(0.05)	0.03	(0.04)	-0.02	(0.04)	-0.03	(0.05)
	Czech Republic	0.02	(0.07)	0.09	(0.08)	0.04	(0.07)	0.02	(0.08)	0.01	(0.08)	0.08	(0.07)	0.02	(0.07)	0.01	(0.06)
	Denmark	0.04	(0.06)	**-0.19**	(0.07)	**-0.16**	(0.08)	-0.01	(0.07)	-0.03	(0.07)	0.04	(0.06)	0.03	(0.06)	-0.04	(0.06)
	Finland	0.05	(0.06)	-0.02	(0.07)	-0.03	(0.07)	0.08	(0.06)	0.08	(0.06)	0.07	(0.06)	0.00	(0.05)	0.01	(0.05)
	France	-0.01	(0.07)	-0.07	(0.07)	-0.03	(0.07)	0.07	(0.07)	-0.01	(0.07)	-0.03	(0.06)	0.04	(0.06)	-0.05	(0.07)
	Germany	-0.03	(0.07)	-0.03	(0.08)	-0.09	(0.08)	-0.01	(0.08)	-0.07	(0.08)	-0.04	(0.06)	-0.08	(0.07)	0.05	(0.07)
	Greece	-0.06	(0.07)	0.02	(0.07)	0.03	(0.07)	0.09	(0.07)	0.05	(0.07)	0.05	(0.07)	-0.01	(0.07)	0.04	(0.07)
	Hungary	0.07	(0.10)	0.05	(0.08)	-0.12	(0.09)	0.12	(0.08)	0.04	(0.08)	0.05	(0.06)	0.04	(0.07)	-0.01	(0.07)
	Iceland	0.03	(0.07)	-0.10	(0.08)	0.03	(0.08)	0.09	(0.08)	-0.03	(0.08)	-0.04	(0.07)	-0.03	(0.06)	0.03	(0.07)
	Ireland	-0.03	(0.07)	-0.01	(0.07)	-0.01	(0.07)	0.09	(0.08)	**0.16**	(0.08)	-0.06	(0.06)	-0.06	(0.07)	-0.03	(0.06)
	Italy	-0.05	(0.05)	0.08	(0.06)	0.02	(0.06)	-0.02	(0.05)	0.03	(0.05)	0.08	(0.05)	0.00	(0.05)	-0.06	(0.05)
	Japan	-0.08	(0.08)	-0.03	(0.07)	**-0.15**	(0.07)	-0.03	(0.07)	-0.05	(0.07)	-0.06	(0.06)	-0.03	(0.07)	-0.02	(0.07)
	Korea	0.01	(0.07)	0.00	(0.07)	0.00	(0.07)	-0.01	(0.06)	0.01	(0.06)	0.01	(0.06)	0.00	(0.06)	0.09	(0.07)
	Luxembourg	-0.05	(0.06)	0.06	(0.07)	-0.13	(0.08)	-0.02	(0.07)	**-0.15**	(0.07)	0.09	(0.06)	-0.02	(0.07)	0.07	(0.07)
	Mexico	0.03	(0.06)	0.00	(0.06)	0.03	(0.06)	**-0.14**	(0.06)	0.03	(0.06)	-0.09	(0.05)	**-0.11**	(0.06)	0.02	(0.05)
	Netherlands	-0.01	(0.07)	-0.09	(0.08)	0.01	(0.08)	-0.05	(0.08)	-0.09	(0.09)	0.00	(0.07)	-0.01	(0.08)	-0.01	(0.07)
	New Zealand	-0.04	(0.07)	**0.17**	(0.08)	0.10	(0.08)	0.02	(0.08)	-0.07	(0.08)	0.09	(0.07)	**0.14**	(0.06)	-0.05	(0.06)
	Norway	-0.02	(0.07)	-0.09	(0.07)	-0.10	(0.07)	0.09	(0.07)	-0.03	(0.07)	-0.08	(0.06)	-0.01	(0.06)	0.01	(0.06)
	Poland	-0.05	(0.07)	0.12	(0.08)	0.14	(0.08)	0.05	(0.07)	0.10	(0.07)	0.02	(0.06)	-0.06	(0.06)	0.01	(0.06)
	Portugal	0.05	(0.07)	0.12	(0.08)	0.03	(0.08)	-0.07	(0.07)	0.03	(0.07)	-0.08	(0.06)	0.04	(0.07)	-0.10	(0.08)
	Slovak Republic	0.02	(0.07)	-0.03	(0.07)	-0.01	(0.08)	**0.23**	(0.08)	**0.18**	(0.08)	**0.12**	(0.06)	**0.18**	(0.07)	0.00	(0.07)
	Spain	0.06	(0.06)	0.02	(0.06)	-0.04	(0.06)	0.09	(0.06)	0.05	(0.06)	0.08	(0.05)	0.07	(0.05)	0.09	(0.06)
	Sweden	-0.07	(0.07)	0.02	(0.08)	0.06	(0.07)	-0.01	(0.07)	-0.03	(0.07)	**0.12**	(0.06)	-0.03	(0.06)	-0.01	(0.06)
	Switzerland	0.06	(0.06)	0.08	(0.06)	-0.08	(0.07)	-0.05	(0.06)	0.02	(0.06)	0.03	(0.06)	0.00	(0.06)	-0.04	(0.06)
	Turkey	-0.05	(0.06)	-0.13	(0.08)	-0.01	(0.10)	0.01	(0.08)	-0.03	(0.07)	**-0.21**	(0.09)	-0.03	(0.08)	0.11	(0.07)
	United States	-0.07	(0.07)	m	m	-0.12	(0.08)	-0.12	(0.07)	0.01	(0.07)	0.00	(0.06)	-0.07	(0.06)	0.06	(0.06)
	OECD average 2003	0.00	(0.01)	0.01	(0.01)	-0.02	(0.01)	0.02	(0.01)	0.00	(0.01)	0.02	(0.01)	0.00	(0.01)	0.00	(0.01)
Partners	**Brazil**	0.06	(0.06)	0.02	(0.07)	0.06	(0.06)	0.11	(0.08)	0.08	(0.07)	0.05	(0.08)	0.06	(0.07)	-0.05	(0.06)
	Hong Kong-China	-0.01	(0.07)	0.05	(0.08)	-0.07	(0.08)	-0.01	(0.07)	-0.05	(0.08)	-0.09	(0.06)	-0.04	(0.06)	0.01	(0.07)
	Indonesia	0.08	(0.08)	0.01	(0.08)	-0.03	(0.09)	-0.17	(0.10)	-0.04	(0.08)	-0.03	(0.08)	0.06	(0.08)	-0.07	(0.08)
	Latvia	0.00	(0.09)	0.10	(0.10)	**-0.20**	(0.08)	0.03	(0.09)	-0.08	(0.08)	-0.02	(0.08)	0.01	(0.07)	-0.05	(0.08)
	Liechtenstein	0.31	(0.25)	-0.01	(0.28)	-0.20	(0.26)	0.00	(0.27)	**-0.52**	(0.26)	-0.21	(0.21)	-0.01	(0.27)	0.02	(0.30)
	Macao-China	0.07	(0.10)	-0.13	(0.11)	0.12	(0.11)	-0.03	(0.10)	0.00	(0.11)	0.04	(0.09)	0.02	(0.10)	-0.02	(0.10)
	Russian Federation	0.01	(0.06)	**-0.17**	(0.07)	-0.13	(0.08)	-0.04	(0.07)	-0.08	(0.08)	0.02	(0.07)	-0.07	(0.07)	0.04	(0.06)
	Thailand	0.13	(0.07)	**-0.15**	(0.07)	-0.10	(0.07)	0.01	(0.08)	-0.09	(0.08)	0.06	(0.09)	0.08	(0.07)	-0.05	(0.07)
	Tunisia	-0.12	(0.07)	0.07	(0.07)	0.12	(0.08)	0.13	(0.07)	0.08	(0.07)	0.07	(0.08)	0.02	(0.07)	0.04	(0.07)
	Uruguay	-0.09	(0.08)	-0.06	(0.08)	-0.04	(0.07)	**0.15**	(0.07)	0.08	(0.07)	0.11	(0.07)	0.03	(0.07)	0.02	(0.07)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
1. Socio-economically advantaged/disadvantaged students are those in the top/bottom quarter of the *PISA index of economic, social and cultural status* within each country and economy.

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ANNEX B2

RESULTS FOR REGIONS WITHIN COUNTRIES

[Part 1/2]

Table B2.III.1 **Mathematics performance, by the number of times students arrived late for school in the two weeks prior to the PISA test and region**

Results based on students' self-reports

		Percentage of students, by the number of times students arrived late for school								Performance on the mathematics scale, by the number of times students arrived late for school							
		None		One or two times		Three or four times		Five times or more		None		One or two times		Three or four times		Five times or more	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	**Australia**																
	Australian Capital Territory	59.6	(1.4)	28.9	(1.3)	7.1	(1.0)	4.5	(0.7)	**531**	(4.4)	512	(7.4)	498	(13.5)	**472**	(21.2)
	New South Wales	65.8	(1.1)	24.7	(0.9)	5.6	(0.4)	3.9	(0.4)	**521**	(3.6)	498	(5.4)	469	(9.3)	**473**	(11.8)
	Northern Territory	57.9	(2.6)	23.3	(2.2)	10.0	(1.7)	8.8	(1.7)	**474**	(11.9)	438	(13.1)	469	(22.5)	**362**	(18.0)
	Queensland	66.1	(1.1)	23.9	(0.9)	6.9	(0.7)	3.1	(0.3)	**518**	(3.5)	490	(4.3)	465	(7.3)	**446**	(9.6)
	South Australia	58.3	(1.7)	27.4	(1.6)	9.0	(0.8)	5.3	(0.6)	**499**	(4.2)	487	(5.1)	476	(7.7)	**440**	(8.6)
	Tasmania	66.0	(1.6)	23.2	(1.3)	5.0	(0.7)	5.8	(0.6)	**493**	(3.4)	463	(7.6)	447	(13.0)	**418**	(12.0)
	Victoria	62.8	(1.3)	27.2	(1.1)	7.1	(0.6)	2.9	(0.4)	**510**	(4.0)	496	(5.2)	463	(8.9)	**464**	(11.7)
	Western Australia	66.2	(1.5)	25.1	(1.2)	6.0	(0.6)	2.7	(0.4)	**531**	(3.9)	500	(4.9)	481	(12.0)	**446**	(15.6)
	Belgium																
	Flemish Community•	75.5	(0.8)	19.8	(0.7)	2.8	(0.3)	1.8	(0.2)	**543**	(3.2)	504	(5.9)	476	(10.5)	**435**	(14.1)
	French Community	68.8	(1.2)	22.2	(0.9)	4.9	(0.6)	4.2	(0.4)	**507**	(3.0)	480	(5.2)	443	(9.5)	**421**	(10.8)
	German-speaking Community	74.2	(1.7)	16.8	(1.4)	4.5	(0.9)	4.5	(0.8)	**522**	(2.8)	489	(8.2)	467	(16.2)	**467**	(14.2)
	Canada																
	Alberta	54.7	(1.5)	30.1	(1.3)	10.0	(0.7)	5.3	(0.6)	**537**	(4.4)	510	(5.3)	480	(9.3)	**483**	(11.0)
	British Columbia	54.4	(1.6)	30.2	(1.2)	10.2	(0.8)	5.3	(0.8)	**535**	(4.8)	517	(5.6)	507	(7.5)	**501**	(10.8)
	Manitoba	52.8	(1.6)	30.5	(1.3)	9.4	(0.8)	7.3	(0.7)	**508**	(3.7)	489	(3.7)	473	(7.9)	**449**	(9.0)
	New Brunswick	64.0	(1.4)	25.0	(1.1)	6.3	(0.7)	4.7	(0.6)	**512**	(3.2)	492	(5.2)	490	(8.7)	**463**	(12.7)
	Newfoundland and Labrador	67.4	(1.5)	22.6	(1.3)	5.9	(0.7)	4.1	(0.6)	**497**	(4.8)	489	(6.1)	475	(10.3)	**460**	(13.7)
	Nova Scotia	68.0	(1.8)	22.9	(1.4)	5.5	(0.8)	3.7	(0.6)	**508**	(4.1)	489	(6.5)	471	(12.5)	**448**	(14.7)
	Ontario	51.4	(1.4)	30.4	(1.0)	11.4	(0.8)	6.7	(0.6)	**533**	(4.0)	507	(5.2)	492	(6.4)	**463**	(7.0)
	Prince Edward Island	68.5	(1.2)	23.2	(1.1)	4.9	(0.6)	3.4	(0.6)	**487**	(3.0)	470	(4.8)	449	(10.6)	**450**	(12.1)
	Quebec	66.9	(1.1)	24.7	(0.9)	5.3	(0.4)	3.1	(0.3)	**550**	(3.4)	523	(4.5)	495	(7.2)	**479**	(12.4)
	Saskatchewan	56.0	(1.9)	28.8	(1.6)	8.5	(0.8)	6.7	(0.6)	**520**	(4.0)	505	(5.4)	478	(8.9)	**468**	(7.7)
	Italy																
	Abruzzo	65.4	(1.2)	24.6	(1.1)	6.4	(0.8)	3.6	(0.6)	**484**	(6.5)	470	(7.7)	433	(16.5)	**461**	(16.9)
	Basilicata	66.6	(1.9)	26.6	(1.4)	4.8	(0.6)	2.0	(0.4)	**471**	(4.9)	460	(6.6)	451	(10.9)	**434**	(14.6)
	Bolzano	73.0	(1.0)	20.5	(1.0)	3.9	(0.4)	2.5	(0.4)	**512**	(2.5)	504	(4.5)	473	(13.1)	**445**	(16.4)
	Calabria	54.0	(2.0)	33.2	(1.7)	8.1	(0.6)	4.7	(0.7)	**444**	(5.8)	415	(6.9)	414	(9.5)	**410**	(15.1)
	Campania	55.9	(2.1)	32.6	(1.4)	7.2	(1.4)	4.2	(0.6)	**457**	(7.8)	449	(8.7)	454	(14.4)	**415**	(14.7)
	Emilia Romagna	70.7	(1.7)	23.3	(1.4)	3.5	(0.6)	2.5	(0.5)	**510**	(7.1)	484	(6.7)	477	(17.5)	**418**	(18.6)
	Friuli Venezia Giulia	74.6	(1.7)	19.5	(1.4)	3.0	(0.6)	2.9	(0.4)	**531**	(4.7)	503	(7.8)	499	(16.9)	**485**	(14.5)
	Lazio	59.6	(1.7)	30.3	(1.5)	6.5	(0.8)	3.6	(0.6)	**488**	(7.1)	462	(6.6)	432	(15.6)	**441**	(15.1)
	Liguria	68.2	(1.3)	24.9	(1.4)	4.4	(0.6)	2.5	(0.4)	**500**	(6.4)	470	(7.6)	450	(11.4)	**453**	(19.2)
	Lombardia	70.8	(2.1)	23.1	(1.8)	4.1	(0.6)	2.0	(0.5)	525	(7.3)	503	(10.4)	478	(13.7)	485	(24.4)
	Marche	66.9	(2.0)	25.4	(1.4)	4.8	(0.9)	2.9	(0.5)	507	(5.2)	482	(7.4)	449	(23.3)	481	(14.9)
	Molise	60.7	(1.6)	26.8	(1.5)	7.4	(0.9)	5.2	(0.7)	476	(3.6)	459	(6.0)	434	(8.4)	453	(13.3)
	Piemonte	69.5	(2.1)	22.8	(1.3)	4.2	(0.6)	3.5	(1.1)	**508**	(4.8)	486	(8.8)	476	(15.0)	**435**	(24.1)
	Puglia	60.6	(1.6)	28.5	(1.4)	6.5	(0.7)	4.4	(0.7)	489	(6.0)	464	(7.1)	468	(10.6)	447	(20.7)
	Sardegna	60.1	(1.8)	28.0	(1.3)	6.6	(0.8)	5.2	(0.6)	**468**	(5.1)	456	(7.2)	425	(11.4)	**394**	(14.7)
	Sicilia	56.0	(1.9)	29.5	(1.5)	8.4	(0.8)	6.1	(0.9)	**452**	(5.8)	451	(5.9)	434	(8.1)	**415**	(14.3)
	Toscana	66.5	(1.8)	25.7	(1.6)	4.3	(0.6)	3.4	(0.6)	**504**	(4.9)	490	(7.1)	469	(17.0)	**437**	(12.1)
	Trento	74.6	(1.2)	19.9	(1.0)	3.3	(0.5)	2.2	(0.5)	530	(3.9)	514	(7.5)	487	(10.9)	c	c
	Umbria	68.7	(1.6)	23.9	(1.3)	4.5	(0.5)	2.9	(0.5)	**502**	(6.3)	477	(9.8)	472	(14.9)	**438**	(16.9)
	Valle d'Aosta	70.8	(1.5)	21.8	(1.4)	4.0	(0.7)	3.4	(0.6)	496	(2.9)	491	(6.7)	474	(13.3)	c	c
	Veneto	75.3	(1.7)	20.0	(1.6)	2.9	(0.5)	1.9	(0.4)	**528**	(8.8)	513	(7.8)	525	(13.3)	**463**	(24.0)
	Mexico																
	Aguascalientes	56.7	(1.9)	34.5	(1.4)	6.7	(1.1)	2.1	(0.5)	444	(5.2)	430	(6.3)	422	(13.2)	c	c
	Baja California	50.3	(1.5)	37.7	(1.3)	9.0	(0.8)	3.0	(1.0)	**421**	(6.2)	413	(6.4)	405	(13.0)	**390**	(30.1)
	Baja California Sur	54.7	(2.4)	35.8	(2.1)	6.3	(1.0)	3.3	(0.5)	**421**	(7.1)	409	(5.1)	408	(15.0)	**383**	(12.1)
	Campeche	61.5	(2.8)	30.4	(1.9)	4.3	(0.8)	3.8	(0.9)	399	(5.4)	394	(6.2)	386	(12.4)	368	(16.9)
	Chiapas	62.5	(2.6)	31.4	(2.5)	4.5	(0.7)	1.6	(0.5)	373	(7.8)	373	(7.3)	384	(17.1)	c	c
	Chihuahua	64.0	(2.1)	28.4	(1.7)	5.4	(0.8)	2.2	(0.6)	433	(7.6)	422	(10.2)	427	(14.3)	c	c
	Coahuila	58.0	(2.7)	32.1	(2.1)	7.8	(1.1)	2.1	(0.6)	426	(9.6)	411	(6.6)	401	(13.4)	c	c
	Colima	61.0	(2.5)	30.9	(2.0)	5.0	(0.7)	3.1	(0.7)	434	(4.8)	422	(5.8)	415	(10.6)	422	(19.2)
	Distrito Federal	47.9	(2.0)	41.3	(1.5)	8.3	(1.0)	2.5	(0.5)	429	(6.3)	427	(5.8)	427	(10.8)	c	c
	Durango	53.1	(2.2)	36.4	(1.6)	6.7	(0.8)	3.8	(0.9)	**436**	(6.8)	415	(5.7)	405	(11.2)	**382**	(13.2)
	Guanajuato	62.1	(2.3)	29.3	(1.7)	6.1	(1.1)	2.5	(0.5)	419	(4.7)	403	(8.6)	393	(10.7)	c	c
	Guerrero	58.2	(2.3)	32.9	(1.7)	5.9	(1.0)	3.1	(0.7)	366	(4.4)	369	(4.3)	367	(9.4)	377	(9.9)
	Hidalgo	65.2	(2.1)	29.8	(1.7)	4.1	(0.8)	0.9	(0.3)	408	(5.6)	404	(7.2)	404	(14.2)	c	c
	Jalisco	55.9	(3.1)	34.1	(2.3)	7.5	(1.1)	2.5	(0.5)	**444**	(6.2)	426	(7.4)	422	(13.2)	**408**	(12.3)
	Mexico	58.7	(3.0)	33.3	(2.5)	6.4	(0.8)	1.6	(0.6)	425	(6.6)	410	(6.2)	394	(7.9)	c	c
	Morelos	56.6	(2.4)	34.0	(1.9)	6.5	(0.8)	2.9	(0.7)	**426**	(9.3)	419	(8.9)	416	(14.4)	**388**	(20.2)
	Nayarit	58.1	(2.3)	31.1	(1.8)	7.5	(0.9)	3.3	(0.7)	419	(6.5)	406	(7.3)	417	(14.1)	c	c
	Nuevo León	64.4	(3.4)	26.4	(2.0)	6.1	(0.9)	3.1	(1.0)	**446**	(8.7)	424	(5.9)	408	(10.3)	**403**	(26.3)
	Puebla	60.6	(2.5)	32.7	(2.0)	5.0	(0.9)	1.7	(0.4)	418	(5.2)	409	(6.0)	430	(13.4)	c	c
	Querétaro	66.3	(2.5)	29.2	(2.4)	3.5	(0.6)	1.0	(0.4)	436	(6.8)	431	(7.8)	431	(18.2)	c	c
	Quintana Roo	62.8	(1.9)	27.9	(1.6)	6.9	(0.6)	2.3	(0.6)	417	(5.1)	402	(6.0)	411	(11.7)	c	c
	San Luis Potosí	62.6	(2.2)	30.7	(1.9)	5.0	(1.0)	1.8	(0.5)	418	(7.8)	403	(8.6)	398	(9.8)	c	c
	Sinaloa	58.3	(1.8)	34.2	(1.3)	6.0	(0.8)	1.5	(0.3)	416	(4.9)	405	(4.6)	406	(10.6)	c	c
	Tabasco	63.8	(2.3)	29.2	(1.7)	4.1	(0.5)	2.9	(0.7)	**380**	(4.1)	378	(6.4)	388	(8.8)	**342**	(18.7)
	Tamaulipas	63.8	(3.2)	30.2	(2.2)	4.3	(1.0)	1.7	(0.5)	421	(8.1)	396	(7.4)	382	(18.7)	c	c
	Tlaxcala	58.4	(2.1)	34.2	(2.0)	6.2	(0.8)	1.2	(0.4)	417	(6.8)	403	(3.8)	402	(11.0)	c	c
	Veracruz	68.1	(2.9)	26.2	(2.3)	4.1	(1.0)	1.6	(0.5)	407	(8.1)	398	(5.0)	368	(9.3)	c	c
	Yucatán	62.9	(2.2)	29.1	(1.7)	5.7	(1.1)	2.3	(0.8)	416	(5.1)	400	(5.6)	409	(12.2)	c	c
	Zacatecas	54.5	(2.3)	37.3	(1.9)	5.5	(0.7)	2.8	(0.5)	414	(4.8)	406	(5.0)	415	(15.3)	c	c

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.2.1a for national data.

StatLink http://dx.doi.org/10.1787/888932964072

[Part 2/2]

Table B2.III.1 Mathematics performance, by the number of times students arrived late for school in the two weeks prior to the PISA test and region

Results based on students' self-reports

		Percentage of students, by the number of times students arrived late for school								Performance on the mathematics scale, by the number of times students arrived late for school							
		None		One or two times		Three or four times		Five times or more		None		One or two times		Three or four times		Five times or more	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	**Portugal**																
	Alentejo	43.4	(2.2)	39.9	(1.8)	10.8	(1.0)	5.9	(0.9)	**490**	(12.4)	492	(9.2)	490	(13.8)	**461**	(15.2)
	Spain																
	Andalusia•	69.7	(2.5)	21.6	(1.8)	5.2	(0.6)	3.5	(0.7)	**482**	(4.2)	455	(5.0)	453	(12.0)	**437**	(19.5)
	Aragon•	61.5	(2.3)	26.3	(1.8)	6.5	(0.7)	5.7	(0.9)	**510**	(6.2)	482	(7.8)	478	(12.2)	**456**	(13.8)
	Asturias•	63.7	(1.2)	25.4	(1.2)	6.5	(0.7)	4.5	(0.7)	**510**	(5.0)	482	(5.4)	489	(9.4)	**465**	(13.8)
	Balearic Islands•	55.7	(2.1)	26.7	(1.4)	9.4	(1.1)	8.1	(0.9)	**487**	(5.0)	472	(5.6)	452	(8.9)	**444**	(12.4)
	Basque Country•	65.1	(1.1)	24.0	(0.8)	6.2	(0.4)	4.7	(0.4)	**517**	(2.5)	493	(4.2)	480	(5.0)	**472**	(7.6)
	Cantabria•	63.8	(1.6)	24.1	(1.5)	7.0	(0.7)	5.0	(0.7)	**498**	(3.4)	492	(6.7)	460	(6.9)	**452**	(12.0)
	Castile and Leon•	69.8	(2.0)	21.4	(1.6)	5.2	(0.6)	3.6	(0.5)	**519**	(4.2)	493	(6.3)	488	(10.0)	**468**	(13.5)
	Catalonia•	58.7	(2.3)	29.4	(1.6)	7.2	(0.9)	4.8	(0.8)	**504**	(4.6)	482	(7.9)	474	(10.1)	**467**	(13.3)
	Extremadura•	70.8	(1.6)	20.4	(1.3)	4.8	(0.5)	4.0	(0.6)	**472**	(4.4)	444	(7.6)	433	(12.1)	**412**	(12.7)
	Galicia•	68.9	(1.7)	22.7	(1.2)	4.9	(0.6)	3.5	(0.6)	**495**	(4.3)	482	(5.7)	481	(11.5)	**443**	(16.9)
	La Rioja•	67.8	(1.4)	21.7	(1.1)	5.7	(0.7)	4.8	(0.6)	**514**	(2.5)	486	(6.0)	469	(11.6)	**467**	(15.5)
	Madrid•	65.3	(1.9)	24.2	(1.3)	6.5	(0.7)	3.9	(0.7)	**513**	(4.0)	495	(6.5)	481	(12.3)	**460**	(14.1)
	Murcia•	60.2	(1.5)	26.3	(1.2)	8.0	(1.1)	5.6	(0.8)	**471**	(4.9)	453	(6.7)	462	(12.2)	**413**	(10.3)
	Navarre•	67.9	(1.5)	23.0	(1.2)	5.5	(0.6)	3.6	(0.5)	**528**	(3.6)	499	(5.4)	479	(9.4)	**498**	(11.9)
	United Kingdom																
	England	68.6	(1.0)	24.0	(0.8)	4.9	(0.3)	2.5	(0.3)	**510**	(3.7)	471	(4.7)	471	(7.2)	**437**	(12.5)
	Northern Ireland	71.7	(1.2)	20.8	(1.1)	4.7	(0.5)	2.8	(0.4)	**495**	(3.2)	477	(5.7)	461	(11.1)	**445**	(11.2)
	Scotland•	63.5	(1.2)	24.9	(0.9)	7.6	(0.6)	4.1	(0.4)	**511**	(2.3)	483	(4.7)	471	(6.2)	**462**	(9.2)
	Wales	65.1	(1.0)	25.0	(0.7)	6.0	(0.4)	4.0	(0.4)	**482**	(2.4)	451	(3.2)	437	(6.7)	**431**	(7.5)
	United States																
	Connecticut•	69.8	(1.4)	23.8	(1.3)	4.5	(0.6)	1.8	(0.4)	**515**	(6.0)	487	(8.2)	495	(16.9)	**429**	(21.0)
	Florida•	67.2	(1.9)	25.0	(1.2)	5.1	(0.7)	2.7	(0.5)	**479**	(6.2)	452	(6.7)	426	(11.2)	**408**	(10.7)
	Massachusetts•	74.9	(1.6)	20.1	(1.1)	3.3	(0.4)	1.7	(0.5)	**522**	(6.4)	506	(9.4)	436	(12.0)	**426**	(12.7)
Partners	**Argentina**																
	Ciudad Autónoma de Buenos Aires•	50.8	(3.1)	30.2	(1.3)	11.0	(1.4)	8.0	(1.4)	**436**	(6.8)	417	(10.1)	374	(13.7)	**375**	(20.4)
	Brazil																
	Acre	67.2	(1.9)	24.9	(1.3)	4.5	(0.6)	3.4	(0.9)	359	(4.4)	361	(9.5)	377	(20.4)	c	c
	Alagoas	63.6	(3.5)	25.3	(2.5)	6.2	(1.6)	4.9	(1.4)	347	(6.7)	338	(7.6)	340	(12.1)	c	c
	Amapá	61.6	(3.6)	27.0	(2.5)	7.2	(1.2)	4.2	(1.1)	365	(8.8)	352	(10.2)	363	(15.6)	c	c
	Amazonas	64.8	(2.9)	23.0	(2.1)	6.9	(0.6)	5.4	(1.3)	**364**	(6.5)	345	(5.8)	355	(10.5)	**318**	(10.9)
	Bahia	63.9	(2.9)	28.8	(2.6)	5.1	(1.4)	2.2	(1.5)	376	(10.4)	367	(11.9)	c	c	c	c
	Ceará	74.6	(2.0)	19.4	(1.6)	2.7	(0.6)	3.2	(1.0)	377	(9.0)	389	(11.1)	c	c	c	c
	Espírito Santo	65.6	(3.5)	23.3	(2.6)	6.4	(1.0)	4.6	(1.0)	420	(9.3)	418	(18.4)	390	(14.4)	c	c
	Federal District	59.0	(3.0)	32.1	(1.6)	6.3	(2.3)	2.7	(0.6)	413	(10.0)	418	(7.9)	441	(32.4)	c	c
	Goiás	66.2	(2.8)	24.1	(2.0)	5.3	(0.8)	4.5	(1.0)	**383**	(6.0)	381	(7.5)	360	(9.6)	**344**	(15.6)
	Maranhão	70.7	(1.1)	24.6	(1.1)	2.8	(0.8)	1.9	(0.6)	342	(12.1)	344	(14.5)	c	c	c	c
	Mato Grosso	58.9	(3.4)	27.4	(1.9)	6.5	(1.5)	7.2	(1.5)	**375**	(9.8)	373	(9.7)	337	(14.8)	**358**	(8.1)
	Mato Grosso do Sul	60.9	(1.7)	28.0	(1.6)	6.6	(1.2)	4.5	(1.0)	410	(9.4)	408	(5.4)	414	(16.3)	c	c
	Minas Gerais	71.3	(2.3)	20.7	(2.1)	5.1	(1.0)	2.9	(0.7)	408	(7.2)	393	(6.0)	391	(17.6)	c	c
	Pará	62.1	(2.5)	26.5	(1.6)	7.6	(0.9)	3.8	(0.8)	364	(5.4)	357	(6.0)	349	(9.2)	c	c
	Paraíba	69.8	(1.6)	22.8	(1.1)	4.4	(0.8)	3.0	(0.9)	394	(7.1)	408	(9.0)	c	c	c	c
	Paraná	62.3	(4.2)	26.4	(2.9)	6.6	(1.1)	4.7	(1.5)	401	(9.7)	416	(15.3)	413	(30.7)	377	(14.2)
	Pernambuco	61.2	(2.7)	27.6	(2.1)	8.4	(1.6)	2.8	(0.6)	362	(7.0)	365	(8.3)	371	(20.3)	c	c
	Piauí	73.7	(3.2)	20.5	(3.0)	4.6	(1.1)	1.2	(0.7)	384	(10.1)	380	(7.7)	c	c	c	c
	Rio de Janeiro	47.3	(3.7)	34.2	(2.2)	10.3	(1.5)	8.2	(1.3)	391	(10.2)	391	(6.4)	389	(7.5)	377	(13.8)
	Rio Grande do Norte	71.2	(2.0)	24.3	(1.8)	3.7	(0.8)	0.8	(0.3)	385	(10.7)	371	(6.9)	c	c	c	c
	Rio Grande do Sul	66.5	(2.7)	25.6	(1.9)	4.8	(1.2)	3.2	(0.6)	403	(6.5)	411	(7.7)	415	(14.0)	c	c
	Rondônia	61.9	(4.0)	24.8	(2.7)	7.4	(1.4)	5.9	(1.1)	**381**	(5.8)	391	(5.6)	383	(16.9)	**374**	(12.5)
	Roraima	56.2	(2.1)	30.8	(1.9)	8.9	(1.2)	4.1	(1.5)	364	(7.0)	363	(7.2)	360	(10.6)	c	c
	Santa Catarina	68.4	(3.5)	23.5	(2.0)	3.6	(0.8)	4.5	(1.4)	423	(7.4)	405	(10.8)	c	c	c	c
	São Paulo	71.4	(1.8)	22.5	(1.5)	4.2	(0.5)	1.9	(0.3)	**406**	(4.4)	404	(7.3)	396	(9.4)	**375**	(13.4)
	Sergipe	68.6	(3.4)	25.8	(3.2)	3.8	(0.9)	1.8	(0.6)	383	(9.0)	389	(9.2)	c	c	c	c
	Tocantins	64.8	(2.7)	25.6	(1.8)	6.2	(1.0)	3.4	(0.7)	369	(7.2)	367	(9.3)	333	(14.0)	c	c
	Colombia																
	Bogotá	56.3	(1.6)	35.4	(1.7)	5.7	(0.9)	2.6	(0.5)	**396**	(4.2)	393	(3.5)	385	(8.1)	**359**	(9.0)
	Cali	64.1	(2.0)	28.8	(1.7)	5.5	(0.9)	1.5	(0.3)	384	(6.7)	372	(6.2)	365	(11.5)	c	c
	Manizales	60.4	(2.2)	33.2	(2.6)	4.6	(0.8)	1.7	(0.5)	408	(4.8)	401	(5.3)	391	(9.2)	c	c
	Medellín	64.8	(2.5)	28.9	(1.9)	4.5	(0.9)	1.8	(0.4)	400	(9.3)	385	(6.5)	381	(12.9)	c	c
	Russian Federation																
	Perm Territory region•	46.0	(1.9)	32.0	(1.3)	11.4	(0.9)	10.6	(0.9)	**494**	(5.9)	488	(5.7)	473	(8.9)	**445**	(10.0)
	United Arab Emirates																
	Abu Dhabi•	66.6	(1.1)	23.3	(0.8)	5.4	(0.4)	4.7	(0.5)	**432**	(4.1)	410	(4.6)	400	(7.7)	**377**	(8.3)
	Ajman	68.4	(2.0)	23.5	(1.9)	4.1	(1.0)	4.1	(0.9)	406	(9.3)	404	(6.9)	c	c	c	c
	Dubai•	72.9	(0.7)	20.5	(0.7)	4.2	(0.3)	2.5	(0.2)	**474**	(1.6)	441	(3.4)	437	(6.5)	**409**	(9.4)
	Fujairah	69.5	(2.1)	23.2	(1.9)	4.3	(0.8)	3.1	(0.6)	420	(9.8)	394	(8.5)	410	(14.6)	c	c
	Ras al-Khaimah	70.7	(1.5)	22.3	(1.0)	4.3	(0.8)	2.7	(0.9)	418	(7.1)	412	(8.9)	404	(14.5)	c	c
	Sharjah	65.5	(2.6)	24.3	(2.0)	5.7	(0.8)	4.5	(1.2)	**449**	(9.1)	419	(11.0)	420	(15.9)	**437**	(26.3)
	Umm al-Quwain	60.7	(2.8)	30.8	(2.8)	5.7	(1.2)	2.8	(0.9)	405	(6.1)	390	(6.2)	c	c	c	c

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.2.1a for national data.

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[Part 1/2]

Table B2.III.2 Mathematics performance, by the number of times students skipped some classes in the two weeks prior to the PISA test and region

Results based on students' self-reports

		Percentage of students, by the number of times students skipped some classes								Performance on the mathematics scale, by the number of times students skipped some classes							
		None		One or two times		Three or four times		Five times or more		None		One or two times		Three or four times		Five times or more	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	**Australia**																
	Australian Capital Territory	89.5	(1.1)	7.9	(0.9)	1.3	(0.4)	1.2	(0.4)	521	(3.8)	513	(15.8)	c	c	c	c
	New South Wales	87.4	(0.9)	9.5	(0.7)	1.9	(0.3)	1.3	(0.2)	**515**	(3.6)	493	(7.9)	473	(15.6)	**424**	(16.5)
	Northern Territory	79.1	(2.5)	13.4	(1.7)	3.0	(1.0)	4.5	(1.7)	461	(10.5)	431	(19.7)	c	c	c	c
	Queensland	87.2	(0.8)	9.6	(0.7)	1.8	(0.3)	1.3	(0.2)	**509**	(2.9)	486	(7.6)	455	(14.4)	**431**	(14.1)
	South Australia	85.2	(0.8)	11.3	(0.7)	1.9	(0.4)	1.6	(0.3)	495	(3.6)	470	(7.3)	442	(17.2)	c	c
	Tasmania	84.3	(1.2)	12.4	(1.1)	1.8	(0.4)	1.5	(0.4)	484	(3.5)	456	(9.5)	c	c	c	c
	Victoria	85.2	(0.9)	11.6	(0.8)	2.0	(0.3)	1.2	(0.2)	505	(3.7)	489	(6.0)	463	(16.2)	c	c
	Western Australia	86.8	(1.0)	11.3	(0.9)	1.4	(0.3)	0.5	(0.2)	522	(3.8)	497	(8.9)	c	c	c	c
	Belgium																
	Flemish Community•	95.6	(0.4)	4.0	(0.3)	0.3	(0.1)	0.1	(0.1)	534	(3.3)	463	(10.9)	c	c	c	c
	French Community	86.9	(0.8)	10.5	(0.7)	1.2	(0.3)	1.4	(0.2)	**502**	(3.0)	451	(6.3)	386	(15.9)	**437**	(14.1)
	German-speaking Community	87.1	(1.1)	10.3	(1.1)	0.6	(0.3)	2.0	(0.5)	515	(2.8)	492	(11.5)	c	c	c	c
	Canada																
	Alberta	71.9	(1.5)	21.5	(1.3)	4.0	(0.5)	2.6	(0.4)	**525**	(5.0)	515	(5.4)	486	(10.2)	**475**	(13.6)
	British Columbia	74.4	(1.6)	19.8	(1.2)	3.9	(0.6)	1.9	(0.3)	**532**	(4.8)	506	(5.5)	489	(10.8)	**488**	(16.6)
	Manitoba	71.8	(1.8)	22.3	(1.6)	3.3	(0.5)	2.6	(0.5)	**505**	(3.3)	474	(5.1)	457	(11.6)	**428**	(14.8)
	New Brunswick	81.8	(1.3)	14.9	(1.1)	2.0	(0.4)	1.3	(0.3)	**508**	(2.7)	490	(7.0)	452	(18.4)	**475**	(15.6)
	Newfoundland and Labrador	80.5	(1.2)	14.8	(1.2)	2.6	(0.8)	2.2	(0.5)	499	(3.9)	470	(8.6)	c	c	c	c
	Nova Scotia	81.7	(1.4)	14.3	(1.0)	2.5	(0.6)	1.5	(0.4)	504	(5.7)	485	(7.3)	468	(16.3)	c	c
	Ontario	73.6	(1.0)	20.2	(0.9)	4.7	(0.4)	1.4	(0.3)	**523**	(4.1)	497	(5.8)	494	(10.5)	**476**	(17.8)
	Prince Edward Island	81.4	(1.1)	14.1	(1.1)	2.5	(0.4)	1.9	(0.4)	487	(2.8)	465	(6.5)	409	(14.1)	c	c
	Quebec	78.8	(0.9)	17.1	(0.8)	2.3	(0.3)	1.8	(0.2)	**544**	(3.4)	521	(5.1)	486	(12.9)	**489**	(11.3)
	Saskatchewan	79.9	(0.9)	15.1	(0.7)	3.4	(0.5)	1.6	(0.3)	516	(3.0)	485	(5.0)	463	(11.8)	c	c
	Italy																
	Abruzzo	62.3	(1.9)	30.3	(1.8)	4.7	(0.7)	2.8	(0.4)	**487**	(7.3)	465	(5.7)	442	(17.2)	**428**	(18.2)
	Basilicata	72.5	(1.4)	24.1	(1.2)	2.4	(0.4)	0.9	(0.2)	470	(4.2)	457	(6.6)	456	(27.2)	c	c
	Bolzano	82.1	(1.0)	14.9	(0.9)	1.7	(0.3)	1.2	(0.3)	511	(2.4)	494	(5.6)	468	(19.6)	c	c
	Calabria	68.3	(1.6)	26.7	(1.4)	3.3	(0.6)	1.6	(0.4)	439	(5.8)	416	(7.4)	394	(15.8)	c	c
	Campania	65.7	(1.5)	29.4	(1.3)	3.2	(0.4)	1.7	(0.3)	458	(8.6)	443	(8.0)	437	(15.5)	c	c
	Emilia Romagna	66.6	(1.5)	27.1	(1.2)	3.6	(0.6)	2.7	(0.8)	**509**	(6.7)	494	(7.3)	474	(12.0)	**425**	(23.3)
	Friuli Venezia Giulia	68.3	(1.2)	27.8	(1.3)	2.1	(0.4)	1.8	(0.3)	528	(4.3)	514	(6.9)	520	(13.7)	c	c
	Lazio	56.2	(1.3)	35.8	(1.2)	5.2	(0.6)	2.7	(0.5)	480	(6.9)	468	(8.2)	469	(12.8)	472	(14.5)
	Liguria	67.7	(1.8)	27.7	(1.7)	2.7	(0.4)	1.9	(0.5)	497	(6.8)	474	(7.3)	460	(15.4)	c	c
	Lombardia	67.4	(1.4)	27.5	(1.2)	3.9	(0.6)	1.2	(0.4)	524	(7.8)	505	(7.8)	486	(14.1)	c	c
	Marche	61.7	(1.7)	31.7	(1.5)	4.6	(0.5)	1.9	(0.4)	504	(5.7)	491	(6.0)	454	(12.5)	c	c
	Molise	70.4	(1.6)	24.7	(1.6)	3.9	(0.7)	1.0	(0.3)	474	(3.2)	451	(5.9)	445	(17.6)	c	c
	Piemonte	69.0	(1.6)	25.4	(1.6)	3.2	(0.5)	2.4	(0.4)	**506**	(6.3)	492	(5.3)	435	(23.9)	**451**	(20.3)
	Puglia	64.7	(1.8)	29.1	(1.5)	4.1	(0.6)	2.1	(0.5)	484	(5.5)	476	(8.3)	446	(16.0)	c	c
	Sardegna	68.0	(1.5)	26.5	(1.3)	3.2	(0.4)	2.3	(0.5)	**464**	(5.7)	453	(6.1)	431	(12.8)	**360**	(23.1)
	Sicilia	60.3	(1.4)	34.1	(1.3)	3.9	(0.5)	1.7	(0.3)	450	(5.2)	444	(5.8)	452	(17.6)	c	c
	Toscana	64.7	(1.8)	29.7	(1.7)	3.1	(0.6)	2.5	(0.5)	**505**	(5.0)	490	(7.7)	456	(15.9)	**432**	(15.9)
	Trento	63.1	(1.6)	31.8	(1.4)	2.6	(0.5)	2.5	(0.4)	531	(4.8)	512	(5.1)	523	(16.3)	505	(14.0)
	Umbria	67.9	(1.5)	27.3	(1.3)	3.0	(0.5)	1.8	(0.4)	499	(6.2)	483	(9.0)	476	(17.8)	c	c
	Valle d'Aosta	67.4	(1.7)	25.8	(1.6)	3.5	(0.7)	3.4	(0.6)	504	(3.1)	478	(5.7)	c	c	c	c
	Veneto	69.9	(1.7)	25.8	(1.6)	2.3	(0.5)	2.0	(0.5)	524	(8.5)	521	(8.3)	522	(25.8)	524	(28.0)
	Mexico																
	Aguascalientes	76.5	(1.8)	20.4	(1.6)	2.6	(0.5)	0.5	(0.2)	437	(4.5)	439	(7.4)	c	c	c	c
	Baja California	78.5	(1.6)	17.7	(2.0)	2.9	(0.7)	0.9	(0.4)	417	(6.3)	417	(7.6)	c	c	c	c
	Baja California Sur	77.9	(1.1)	18.9	(1.1)	2.5	(0.4)	0.8	(0.2)	419	(5.1)	400	(8.8)	c	c	c	c
	Campeche	80.1	(2.4)	16.1	(1.3)	2.5	(0.9)	1.4	(0.6)	398	(4.1)	391	(8.4)	c	c	c	c
	Chiapas	84.1	(1.1)	13.2	(1.0)	2.0	(0.4)	0.7	(0.3)	374	(7.2)	372	(10.0)	c	c	c	c
	Chihuahua	80.7	(1.5)	17.1	(1.3)	1.1	(0.4)	1.1	(0.5)	431	(7.7)	422	(10.4)	c	c	c	c
	Coahuila	77.6	(2.4)	20.7	(2.1)	1.6	(0.5)	0.1	(0.1)	421	(8.3)	412	(9.9)	c	c	c	c
	Colima	80.5	(2.3)	17.9	(2.1)	1.3	(0.3)	0.4	(0.3)	429	(4.6)	435	(11.8)	c	c	c	c
	Distrito Federal	68.1	(1.6)	25.1	(1.7)	4.8	(0.9)	1.9	(0.4)	421	(5.0)	444	(6.8)	447	(13.8)	c	c
	Durango	69.7	(4.8)	26.0	(4.2)	3.5	(0.8)	0.8	(0.3)	426	(5.4)	423	(8.5)	c	c	c	c
	Guanajuato	79.0	(1.5)	19.0	(1.3)	1.6	(0.4)	0.3	(0.2)	413	(5.0)	412	(9.0)	c	c	c	c
	Guerrero	80.3	(1.9)	17.6	(1.7)	1.8	(0.4)	0.4	(0.1)	368	(3.5)	364	(5.9)	c	c	c	c
	Hidalgo	81.6	(1.7)	17.2	(1.7)	0.9	(0.3)	0.3	(0.2)	406	(5.7)	407	(8.4)	c	c	c	c
	Jalisco	74.2	(1.5)	21.2	(1.5)	3.3	(0.6)	1.3	(0.3)	439	(5.4)	426	(9.0)	427	(19.2)	c	c
	Mexico	73.2	(2.1)	22.3	(1.6)	3.6	(0.8)	0.9	(0.3)	418	(5.0)	417	(9.1)	418	(12.6)	c	c
	Morelos	78.0	(1.7)	18.9	(1.4)	2.2	(0.5)	0.9	(0.3)	422	(8.6)	420	(11.6)	c	c	c	c
	Nayarit	76.0	(2.2)	21.7	(2.1)	1.5	(0.4)	0.8	(0.5)	417	(5.6)	405	(10.1)	c	c	c	c
	Nuevo León	76.9	(2.6)	20.3	(2.1)	2.5	(0.6)	0.3	(0.2)	438	(8.6)	427	(7.8)	447	(19.6)	c	c
	Puebla	78.5	(1.9)	19.3	(1.7)	1.4	(0.4)	0.8	(0.2)	412	(5.3)	431	(6.4)	c	c	c	c
	Querétaro	79.4	(2.5)	18.0	(2.3)	2.3	(0.4)	0.3	(0.2)	432	(7.0)	445	(7.6)	c	c	c	c
	Quintana Roo	77.0	(1.5)	20.2	(1.3)	1.9	(0.5)	0.9	(0.3)	412	(4.9)	410	(7.3)	c	c	c	c
	San Luis Potosí	83.3	(1.6)	15.1	(1.5)	1.3	(0.4)	0.3	(0.2)	414	(7.2)	402	(9.9)	c	c	c	c
	Sinaloa	78.6	(1.3)	19.4	(1.1)	1.5	(0.3)	0.5	(0.1)	413	(4.5)	402	(6.3)	c	c	c	c
	Tabasco	81.3	(1.6)	16.6	(1.3)	1.7	(0.5)	0.4	(0.2)	380	(4.1)	375	(8.6)	c	c	c	c
	Tamaulipas	81.8	(1.6)	16.7	(1.4)	1.0	(0.3)	0.5	(0.3)	412	(7.5)	408	(10.6)	c	c	c	c
	Tlaxcala	79.6	(1.7)	18.7	(1.6)	1.0	(0.4)	0.7	(0.3)	411	(5.5)	410	(6.8)	c	c	c	c
	Veracruz	85.1	(1.7)	13.5	(1.6)	1.2	(0.3)	0.2	(0.1)	404	(6.6)	392	(8.3)	c	c	c	c
	Yucatán	83.1	(1.8)	15.2	(1.6)	1.3	(0.5)	0.4	(0.1)	409	(4.8)	418	(7.8)	c	c	c	c
	Zacatecas	75.1	(2.3)	20.9	(1.9)	2.7	(0.4)	1.3	(0.6)	412	(4.2)	407	(5.7)	c	c	c	c

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.2.2a for national data.

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[Part 2/2]

Table B2.III.2

Mathematics performance, by the number of times students skipped some classes in the two weeks prior to the PISA test and region

Results based on students' self-reports

		Percentage of students, by the number of times students skipped some classes								Performance on the mathematics scale, by the number of times students skipped some classes							
		None		One or two times		Three or four times		Five times or more		None		One or two times		Three or four times		Five times or more	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	**Portugal**																
	Alentejo	65.3	(1.5)	28.8	(1.6)	3.5	(0.5)	2.3	(0.7)	494	(10.0)	480	(12.7)	c	c	c	c
	Spain																
	Andalusia•	67.1	(1.8)	27.3	(1.4)	3.3	(0.5)	2.3	(0.4)	**480**	(4.1)	459	(5.6)	454	(14.9)	**450**	(15.7)
	Aragon•	65.5	(2.0)	27.8	(1.7)	2.9	(0.5)	3.7	(0.5)	**507**	(5.7)	481	(6.8)	466	(17.8)	**467**	(12.2)
	Asturias•	68.2	(1.3)	25.0	(1.3)	4.2	(0.6)	2.6	(0.4)	**508**	(4.6)	490	(6.3)	450	(15.6)	**457**	(15.5)
	Balearic Islands•	71.2	(1.8)	22.7	(1.5)	3.6	(0.6)	2.5	(0.5)	**484**	(4.6)	458	(7.5)	447	(14.8)	**445**	(19.3)
	Basque Country•	78.5	(0.8)	17.8	(0.8)	2.0	(0.3)	1.7	(0.2)	**515**	(2.4)	481	(4.4)	448	(8.2)	**466**	(12.0)
	Cantabria•	64.8	(1.8)	25.2	(1.3)	5.4	(0.7)	4.6	(1.0)	**499**	(4.1)	478	(5.5)	494	(7.6)	**458**	(11.2)
	Castile and Leon•	64.2	(1.8)	26.9	(1.5)	4.7	(0.7)	4.1	(0.6)	517	(4.6)	494	(5.8)	500	(9.9)	494	(14.1)
	Catalonia•	65.9	(1.8)	27.3	(1.7)	3.5	(0.4)	3.3	(0.4)	**503**	(5.3)	476	(7.0)	469	(14.0)	**474**	(13.3)
	Extremadura•	67.3	(1.5)	26.5	(1.0)	3.9	(0.6)	2.3	(0.3)	**471**	(4.6)	445	(5.9)	442	(11.7)	**408**	(24.8)
	Galicia•	87.4	(1.0)	10.2	(0.8)	1.9	(0.4)	0.6	(0.2)	497	(4.0)	451	(7.2)	c	c	c	c
	La Rioja•	62.6	(1.3)	28.1	(1.2)	5.0	(0.7)	4.3	(0.6)	505	(3.2)	503	(5.1)	494	(12.1)	487	(15.7)
	Madrid•	67.1	(1.6)	26.1	(1.2)	3.8	(0.5)	2.9	(0.5)	514	(3.8)	486	(4.7)	464	(11.7)	482	(19.0)
	Murcia•	59.6	(1.6)	31.5	(1.4)	5.9	(0.6)	3.1	(0.4)	**474**	(5.5)	448	(5.8)	425	(10.7)	**452**	(12.1)
	Navarre•	71.9	(1.5)	22.8	(1.2)	2.7	(0.4)	2.6	(0.5)	522	(3.3)	509	(5.9)	492	(15.2)	489	(19.9)
	United Kingdom																
	England	88.5	(0.6)	9.1	(0.5)	1.3	(0.2)	1.1	(0.2)	**500**	(3.8)	472	(8.1)	473	(21.4)	**447**	(20.0)
	Northern Ireland	87.3	(0.8)	9.8	(0.7)	1.9	(0.3)	1.0	(0.2)	491	(3.1)	470	(7.4)	454	(18.2)	c	c
	Scotland•	85.5	(0.8)	11.6	(0.6)	2.0	(0.3)	0.9	(0.2)	504	(2.4)	478	(6.7)	458	(12.5)	c	c
	Wales	84.9	(0.8)	12.5	(0.7)	1.7	(0.2)	0.9	(0.2)	474	(2.2)	446	(5.0)	415	(10.9)	c	c
	United States																
	Connecticut•	88.9	(0.9)	9.6	(0.9)	1.1	(0.3)	0.4	(0.1)	511	(5.9)	470	(12.1)	c	c	c	c
	Florida•	84.2	(1.1)	12.8	(0.8)	1.7	(0.3)	1.3	(0.3)	468	(5.9)	467	(7.7)	454	(13.3)	c	c
	Massachusetts•	92.0	(0.7)	6.4	(0.7)	1.1	(0.3)	0.5	(0.2)	516	(6.4)	492	(12.8)	c	c	c	c
Partners	**Argentina**																
	Ciudad Autónoma de Buenos Aires•	62.3	(2.0)	29.1	(1.4)	5.5	(0.8)	3.1	(0.5)	**428**	(7.6)	416	(6.7)	375	(26.0)	**339**	(14.4)
	Brazil																
	Acre	87.1	(1.9)	10.8	(1.5)	1.7	(0.5)	0.4	(0.2)	360	(5.7)	360	(10.3)	c	c	c	c
	Alagoas	81.2	(1.4)	16.2	(1.8)	2.5	(0.7)	0.1	(0.1)	344	(6.1)	342	(9.2)	c	c	c	c
	Amapá	82.9	(2.3)	15.5	(2.2)	0.6	(0.4)	0.9	(0.4)	362	(8.9)	362	(11.6)	c	c	c	c
	Amazonas	84.0	(1.5)	13.3	(1.2)	2.1	(0.5)	0.5	(0.3)	358	(5.9)	354	(8.1)	c	c	c	c
	Bahia	76.2	(1.7)	19.4	(2.2)	3.0	(1.4)	1.5	(0.7)	370	(9.4)	384	(12.9)	c	c	c	c
	Ceará	84.7	(1.7)	13.0	(1.7)	1.2	(0.5)	1.1	(0.4)	381	(9.0)	373	(12.8)	c	c	c	c
	Espírito Santo	85.4	(1.8)	11.7	(1.3)	1.5	(0.4)	1.3	(0.4)	417	(10.0)	413	(17.7)	c	c	c	c
	Federal District	73.7	(2.4)	22.5	(2.0)	2.0	(0.4)	1.7	(0.6)	418	(8.9)	417	(11.3)	c	c	c	c
	Goiás	59.3	(2.7)	34.6	(2.5)	4.4	(0.9)	1.7	(0.5)	382	(6.8)	376	(7.8)	366	(13.6)	c	c
	Maranhão	84.3	(1.8)	13.2	(1.3)	2.0	(0.5)	0.6	(0.4)	345	(13.3)	340	(15.8)	c	c	c	c
	Mato Grosso	72.2	(2.8)	23.3	(2.7)	1.8	(0.6)	2.7	(0.7)	375	(8.0)	365	(12.2)	c	c	c	c
	Mato Grosso do Sul	81.2	(1.1)	14.8	(1.5)	3.1	(1.2)	0.9	(0.3)	408	(7.4)	410	(7.9)	c	c	c	c
	Minas Gerais	82.9	(1.9)	14.5	(1.6)	1.3	(0.4)	1.3	(0.6)	403	(6.8)	410	(8.9)	c	c	c	c
	Pará	82.8	(1.9)	15.1	(1.9)	1.6	(0.4)	0.4	(0.2)	361	(4.0)	361	(9.3)	c	c	c	c
	Paraíba	81.5	(2.0)	16.4	(1.7)	1.9	(0.5)	0.3	(0.2)	397	(6.5)	397	(15.5)	c	c	c	c
	Paraná	82.3	(3.5)	13.4	(2.7)	2.5	(0.7)	1.7	(0.6)	401	(7.4)	420	(30.4)	c	c	c	c
	Pernambuco	83.5	(2.4)	14.2	(2.1)	1.6	(0.6)	0.7	(0.3)	364	(7.3)	364	(12.1)	c	c	c	c
	Piauí	86.1	(1.9)	12.5	(2.1)	1.1	(0.5)	0.2	(0.2)	387	(8.4)	373	(10.2)	c	c	c	c
	Rio de Janeiro	74.1	(2.3)	23.3	(2.1)	1.1	(0.6)	1.5	(0.5)	392	(6.8)	384	(9.7)	c	c	c	c
	Rio Grande do Norte	77.8	(2.4)	18.9	(1.7)	1.4	(0.5)	1.9	(1.0)	384	(11.1)	369	(6.8)	c	c	c	c
	Rio Grande do Sul	80.4	(2.1)	16.5	(1.8)	2.6	(0.9)	0.5	(0.2)	407	(5.9)	402	(8.4)	c	c	c	c
	Rondônia	85.7	(1.6)	11.4	(1.5)	1.9	(0.7)	0.9	(0.4)	383	(5.1)	378	(9.2)	c	c	c	c
	Roraima	80.1	(2.4)	16.1	(1.7)	2.4	(1.0)	1.4	(0.4)	365	(5.5)	358	(10.2)	c	c	c	c
	Santa Catarina	85.0	(1.9)	11.1	(1.6)	1.7	(0.6)	2.2	(0.6)	416	(7.8)	428	(16.3)	c	c	c	c
	São Paulo	85.0	(1.2)	12.4	(1.0)	1.9	(0.3)	0.7	(0.2)	405	(4.5)	408	(6.9)	378	(14.7)	c	c
	Sergipe	78.2	(3.0)	18.8	(2.6)	2.1	(0.8)	0.9	(0.6)	386	(10.3)	384	(10.1)	c	c	c	c
	Tocantins	68.9	(2.1)	26.2	(1.5)	3.6	(0.8)	1.3	(0.5)	366	(7.9)	369	(7.1)	c	c	c	c
	Colombia																
	Bogotá	81.0	(1.4)	17.9	(1.3)	0.5	(0.2)	0.6	(0.3)	394	(3.3)	390	(7.0)	c	c	c	c
	Cali	85.7	(1.6)	12.7	(1.5)	1.2	(0.3)	0.4	(0.2)	380	(6.2)	375	(8.7)	c	c	c	c
	Manizales	87.1	(1.4)	11.7	(1.3)	1.0	(0.3)	0.3	(0.2)	405	(4.7)	399	(6.6)	c	c	c	c
	Medellín	82.7	(1.1)	15.9	(1.1)	1.0	(0.3)	0.4	(0.1)	397	(7.8)	384	(9.2)	c	c	c	c
	Russian Federation																
	Perm Territory region•	63.3	(1.6)	27.1	(1.1)	6.5	(0.6)	3.1	(0.6)	**491**	(4.9)	476	(7.3)	476	(12.3)	**423**	(17.4)
	United Arab Emirates																
	Abu Dhabi•	76.5	(1.1)	17.8	(0.8)	3.6	(0.4)	2.2	(0.4)	**425**	(4.1)	415	(6.3)	412	(9.9)	**392**	(16.6)
	Ajman	79.0	(2.4)	15.0	(1.6)	3.8	(0.8)	2.1	(0.7)	404	(8.0)	402	(8.6)	c	c	c	c
	Dubai•	77.7	(0.8)	17.5	(0.7)	2.8	(0.3)	1.9	(0.2)	466	(1.6)	460	(3.5)	453	(9.6)	455	(13.9)
	Fujairah	77.9	(2.3)	16.4	(1.8)	3.6	(1.0)	2.0	(0.5)	415	(9.7)	403	(9.1)	c	c	c	c
	Ras al-Khaimah	81.3	(1.6)	14.0	(1.3)	2.1	(0.8)	2.6	(0.7)	420	(6.8)	401	(9.5)	c	c	c	c
	Sharjah	76.0	(2.1)	17.3	(2.0)	4.4	(0.8)	2.4	(0.5)	439	(8.5)	445	(14.1)	454	(24.3)	c	c
	Umm al-Quwain	78.2	(2.0)	15.8	(1.8)	4.2	(1.1)	1.7	(0.7)	401	(4.2)	387	(11.0)	c	c	c	c

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.2.2a for national data.

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[Part 1/2]

Table B2.III.3

Mathematics performance, by the number of times students skipped a day of school in the two weeks prior to the PISA test and region

Results based on students' self-reports

	Percentage of students, by the number of times students skipped a day of school								Performance on the mathematics scale, by the number of times students skipped a day of school							
	None		One or two times		Three or four times		Five times or more		None		One or two times		Three or four times		Five times or more	
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD **Australia**																
Australian Capital Territory	78.9	(1.5)	16.7	(1.3)	2.9	(0.7)	1.4	(0.4)	529	(3.9)	492	(8.3)	c	c	c	c
New South Wales	69.4	(1.1)	24.9	(0.9)	4.1	(0.4)	1.6	(0.3)	**524**	(4.2)	488	(4.1)	459	(8.9)	**441**	(14.1)
Northern Territory	62.3	(2.4)	26.9	(1.8)	5.4	(1.2)	5.4	(1.7)	468	(9.0)	448	(20.0)	394	(36.9)	c	c
Queensland	63.9	(1.3)	28.1	(1.1)	6.0	(0.5)	2.0	(0.3)	**519**	(3.6)	485	(4.2)	474	(7.6)	**440**	(14.0)
South Australia	65.6	(1.6)	26.9	(1.5)	5.0	(0.6)	2.4	(0.4)	**504**	(4.1)	473	(5.1)	435	(11.8)	**446**	(17.5)
Tasmania	70.4	(1.5)	21.4	(1.3)	5.0	(0.7)	3.2	(0.5)	**495**	(3.7)	445	(6.8)	430	(11.4)	**433**	(18.1)
Victoria	70.4	(1.2)	24.7	(1.2)	3.3	(0.4)	1.6	(0.2)	**514**	(4.3)	473	(4.1)	468	(10.2)	**466**	(18.4)
Western Australia	67.5	(1.1)	27.3	(1.1)	3.9	(0.6)	1.3	(0.3)	534	(4.1)	494	(3.8)	446	(11.3)	c	c
Belgium																
Flemish Community•	97.1	(0.4)	2.4	(0.3)	0.3	(0.1)	0.2	(0.1)	534	(3.1)	443	(15.0)	c	c	c	c
French Community	91.0	(0.6)	6.6	(0.5)	1.3	(0.3)	1.2	(0.2)	**501**	(2.9)	442	(8.4)	408	(16.2)	**384**	(14.0)
German-speaking Community	93.9	(0.8)	4.3	(0.7)	0.3	(0.2)	1.5	(0.4)	515	(2.5)	461	(14.4)	c	c	c	c
Canada																
Alberta	78.9	(1.4)	17.6	(1.2)	2.6	(0.4)	0.9	(0.3)	528	(4.6)	495	(7.8)	480	(10.9)	c	c
British Columbia	79.7	(1.6)	17.8	(1.4)	1.8	(0.4)	0.7	(0.3)	531	(4.6)	498	(5.1)	507	(14.9)	c	c
Manitoba	79.1	(1.4)	17.3	(1.4)	2.0	(0.4)	1.5	(0.4)	502	(3.3)	467	(6.6)	460	(16.8)	c	c
New Brunswick	77.0	(1.4)	18.9	(1.2)	2.6	(0.6)	1.5	(0.4)	**510**	(3.0)	485	(6.6)	486	(14.1)	**452**	(22.0)
Newfoundland and Labrador	71.7	(1.7)	21.2	(1.5)	4.4	(0.7)	2.7	(0.6)	**503**	(4.4)	472	(8.4)	447	(15.5)	**474**	(23.3)
Nova Scotia	78.1	(1.8)	18.4	(1.4)	2.7	(0.7)	0.9	(0.3)	501	(5.6)	494	(5.5)	486	(15.1)	c	c
Ontario	74.2	(1.2)	22.1	(0.9)	2.8	(0.3)	0.9	(0.3)	**522**	(4.4)	500	(5.5)	508	(11.4)	**447**	(15.3)
Prince Edward Island	81.5	(1.1)	14.9	(1.0)	2.3	(0.4)	1.3	(0.3)	487	(2.6)	452	(6.3)	c	c	c	c
Quebec	82.7	(0.7)	14.9	(0.6)	1.5	(0.2)	0.8	(0.2)	**546**	(3.3)	504	(4.9)	449	(18.6)	**485**	(17.1)
Saskatchewan	80.7	(1.4)	16.5	(1.3)	2.2	(0.4)	0.7	(0.2)	515	(3.0)	491	(5.5)	449	(14.2)	c	c
Italy																
Abruzzo	43.6	(2.3)	47.3	(1.9)	5.4	(0.8)	3.7	(0.7)	**489**	(6.5)	478	(7.0)	425	(14.6)	**392**	(14.4)
Basilicata	48.6	(1.8)	44.9	(1.4)	4.5	(0.6)	2.1	(0.5)	480	(4.6)	457	(5.4)	414	(15.1)	c	c
Bolzano	79.6	(0.9)	17.5	(0.9)	1.9	(0.3)	1.0	(0.2)	512	(2.3)	495	(5.2)	448	(17.2)	c	c
Calabria	40.9	(1.2)	50.7	(1.1)	5.1	(0.6)	3.3	(0.7)	**440**	(5.9)	428	(6.4)	424	(11.1)	**368**	(11.7)
Campania	37.7	(1.5)	53.4	(1.4)	6.2	(0.6)	2.7	(0.4)	**470**	(8.8)	449	(7.2)	414	(13.3)	**375**	(18.0)
Emilia Romagna	59.0	(1.7)	33.7	(1.5)	4.6	(0.6)	2.6	(0.5)	**514**	(7.5)	493	(5.8)	429	(13.4)	**434**	(18.7)
Friuli Venezia Giulia	63.9	(1.9)	30.3	(1.3)	4.1	(0.7)	1.6	(0.5)	528	(4.2)	524	(5.3)	469	(15.0)	c	c
Lazio	42.8	(1.7)	49.4	(1.6)	5.7	(0.6)	2.1	(0.5)	482	(7.3)	473	(7.3)	460	(13.7)	c	c
Liguria	56.6	(1.3)	37.4	(1.3)	3.9	(0.5)	2.0	(0.5)	**500**	(7.0)	480	(6.8)	450	(13.0)	**425**	(16.1)
Lombardia	61.8	(2.3)	32.7	(2.1)	4.0	(0.6)	1.4	(0.3)	528	(8.2)	507	(6.7)	465	(15.6)	c	c
Marche	54.8	(1.1)	38.1	(1.1)	4.7	(0.6)	2.4	(0.4)	**510**	(5.8)	485	(6.3)	450	(17.4)	**462**	(14.1)
Molise	53.5	(1.7)	38.5	(1.7)	5.4	(0.8)	2.5	(0.5)	**475**	(3.7)	463	(4.3)	441	(10.6)	**412**	(15.7)
Piemonte	59.7	(1.3)	33.6	(1.1)	4.2	(0.7)	2.5	(0.4)	**511**	(6.5)	492	(5.3)	444	(12.9)	**400**	(19.2)
Puglia	48.5	(1.8)	44.6	(1.9)	4.2	(0.6)	2.6	(0.7)	492	(5.5)	472	(7.4)	445	(13.6)	407	(21.3)
Sardegna	45.0	(1.6)	45.6	(1.7)	5.7	(0.6)	3.7	(0.7)	**470**	(6.1)	456	(5.5)	437	(10.9)	**376**	(14.7)
Sicilia	39.5	(1.9)	52.9	(1.7)	5.4	(0.8)	2.3	(0.5)	460	(5.4)	444	(6.1)	417	(11.4)	c	c
Toscana	53.8	(1.4)	40.5	(1.2)	3.1	(0.5)	2.6	(0.6)	**505**	(5.1)	495	(6.2)	463	(12.8)	**410**	(14.4)
Trento	62.5	(1.5)	32.4	(1.2)	3.6	(0.7)	1.5	(0.3)	534	(4.3)	513	(5.9)	466	(13.3)	c	c
Umbria	55.7	(1.7)	38.3	(1.5)	4.4	(0.7)	1.7	(0.5)	499	(6.8)	494	(8.0)	440	(14.6)	c	c
Valle d'Aosta	56.4	(1.6)	34.8	(1.7)	5.9	(0.8)	2.9	(0.6)	505	(3.4)	484	(4.7)	474	(11.7)	c	c
Veneto	66.0	(1.6)	30.1	(1.6)	2.8	(0.6)	1.2	(0.3)	530	(8.4)	513	(7.0)	498	(22.3)	c	c
Mexico																
Aguascalientes	76.9	(2.3)	20.4	(2.0)	2.3	(0.6)	0.5	(0.2)	446	(3.8)	414	(8.1)	c	c	c	c
Baja California	73.9	(3.1)	21.7	(2.4)	3.2	(0.8)	1.2	(0.6)	424	(5.6)	397	(7.7)	c	c	c	c
Baja California Sur	73.2	(1.4)	23.5	(1.3)	2.4	(0.5)	0.9	(0.3)	425	(4.4)	386	(8.3)	c	c	c	c
Campeche	78.7	(2.7)	17.1	(2.0)	2.8	(0.8)	1.4	(0.6)	404	(4.0)	370	(6.7)	c	c	c	c
Chiapas	81.9	(1.4)	15.3	(1.1)	2.3	(0.5)	0.5	(0.2)	379	(7.2)	353	(9.5)	c	c	c	c
Chihuahua	73.9	(2.0)	23.8	(2.0)	1.3	(0.4)	1.1	(0.6)	437	(7.5)	410	(13.1)	c	c	c	c
Coahuila	72.9	(2.9)	24.5	(2.5)	2.2	(0.5)	0.4	(0.2)	429	(8.7)	396	(7.2)	c	c	c	c
Colima	80.6	(2.0)	17.1	(1.7)	1.9	(0.5)	0.4	(0.2)	439	(5.1)	392	(7.1)	c	c	c	c
Distrito Federal	77.1	(1.7)	20.4	(1.2)	1.5	(0.6)	1.1	(0.3)	429	(5.1)	428	(9.4)	c	c	c	c
Durango	78.3	(1.5)	19.7	(1.5)	1.9	(0.6)	0.1	(0.1)	435	(6.6)	387	(5.6)	c	c	c	c
Guanajuato	75.6	(2.1)	22.8	(1.9)	1.2	(0.3)	0.4	(0.2)	420	(5.3)	388	(6.8)	c	c	c	c
Guerrero	80.9	(2.2)	16.4	(1.9)	2.1	(0.5)	0.6	(0.3)	370	(3.6)	357	(5.4)	c	c	c	c
Hidalgo	86.4	(1.5)	12.1	(1.5)	1.5	(0.4)	0.0	c	411	(5.8)	375	(8.9)	c	c	c	c
Jalisco	76.3	(1.5)	20.3	(1.3)	2.7	(0.5)	0.7	(0.3)	444	(5.5)	408	(8.1)	c	c	c	c
Mexico	76.5	(2.3)	21.0	(2.1)	1.7	(0.4)	0.8	(0.4)	424	(5.8)	400	(8.1)	c	c	c	c
Morelos	76.9	(2.1)	20.6	(1.7)	2.0	(0.5)	0.5	(0.3)	429	(8.4)	404	(14.8)	c	c	c	c
Nayarit	77.0	(2.6)	20.7	(2.3)	1.6	(0.3)	0.8	(0.4)	425	(5.2)	380	(9.7)	c	c	c	c
Nuevo León	77.0	(2.7)	20.8	(2.3)	1.5	(0.5)	0.7	(0.4)	444	(8.8)	412	(6.8)	c	c	c	c
Puebla	80.3	(2.0)	17.5	(1.8)	1.8	(0.4)	0.4	(0.2)	418	(4.8)	406	(9.0)	c	c	c	c
Querétaro	81.9	(1.7)	16.5	(1.6)	1.2	(0.5)	0.3	(0.2)	439	(5.8)	416	(12.7)	c	c	c	c
Quintana Roo	78.2	(1.5)	18.9	(1.2)	1.9	(0.5)	1.0	(0.3)	416	(4.3)	395	(9.7)	c	c	c	c
San Luis Potosí	78.4	(2.6)	18.8	(2.5)	1.6	(0.3)	1.1	(0.3)	418	(7.6)	393	(8.6)	c	c	c	c
Sinaloa	77.6	(1.5)	20.7	(1.7)	1.5	(0.4)	0.2	(0.2)	420	(4.1)	380	(5.5)	c	c	c	c
Tabasco	76.8	(1.4)	20.7	(1.1)	2.2	(0.5)	0.4	(0.1)	385	(4.2)	360	(8.2)	c	c	c	c
Tamaulipas	74.2	(2.9)	23.9	(2.7)	1.5	(0.5)	0.4	(0.2)	422	(7.7)	382	(6.7)	c	c	c	c
Tlaxcala	84.4	(1.9)	14.0	(1.8)	1.2	(0.4)	0.5	(0.3)	415	(5.1)	390	(8.3)	c	c	c	c
Veracruz	84.8	(1.5)	14.5	(1.4)	0.6	(0.2)	0.2	(0.2)	407	(6.3)	378	(7.1)	c	c	c	c
Yucatán	82.9	(1.6)	16.0	(1.6)	0.3	(0.2)	0.8	(0.3)	416	(4.0)	390	(9.8)	c	c	c	c
Zacatecas	77.3	(2.8)	20.3	(2.2)	1.7	(0.5)	0.7	(0.4)	420	(3.7)	382	(6.0)	c	c	c	c

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.2.2b for national data.

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[Part 2/2]

Table B2.III.3 Mathematics performance, by the number of times students skipped a day of school in the two weeks prior to the PISA test and region

Results based on students' self-reports

		Percentage of students, by the number of times students skipped a day of school								Performance on the mathematics scale, by the number of times students skipped a day of school							
		None		One or two times		Three or four times		Five times or more		None		One or two times		Three or four times		Five times or more	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	**Portugal**																
	Alentejo	77.6	(2.0)	18.4	(2.0)	1.6	(0.4)	2.4	(0.8)	496	(11.2)	471	(9.1)	c	c	c	c
	Spain																
	Andalusia•	63.9	(2.2)	32.2	(1.8)	2.5	(0.5)	1.5	(0.3)	485	(4.1)	457	(5.2)	413	(14.6)	c	c
	Aragon•	73.9	(1.7)	21.7	(1.3)	2.9	(0.5)	1.5	(0.4)	511	(5.3)	461	(8.0)	454	(17.9)	c	c
	Asturias•	73.5	(1.7)	22.3	(1.6)	2.5	(0.3)	1.8	(0.4)	508	(4.5)	480	(6.9)	459	(17.6)	c	c
	Balearic Islands•	73.6	(1.7)	22.1	(1.5)	2.8	(0.4)	1.6	(0.4)	486	(4.9)	451	(7.4)	438	(18.4)	c	c
	Basque Country•	86.1	(0.6)	11.5	(0.6)	1.4	(0.2)	1.0	(0.2)	**514**	(2.4)	464	(4.4)	444	(10.3)	**442**	(20.3)
	Cantabria•	78.4	(0.9)	18.7	(0.9)	2.1	(0.4)	0.9	(0.3)	501	(3.7)	465	(5.2)	441	(16.0)	c	c
	Castile and Leon•	77.5	(1.2)	19.2	(1.1)	2.2	(0.4)	1.1	(0.3)	518	(4.3)	480	(6.3)	454	(20.0)	c	c
	Catalonia•	75.1	(1.8)	20.9	(1.5)	2.8	(0.5)	1.1	(0.3)	505	(5.0)	465	(7.1)	436	(11.0)	c	c
	Extremadura•	63.3	(1.9)	30.4	(1.6)	4.6	(0.7)	1.8	(0.4)	481	(4.5)	439	(5.2)	393	(14.4)	c	c
	Galicia•	86.9	(1.3)	11.3	(1.0)	1.9	(0.4)	0.8	(0.3)	496	(4.0)	449	(7.5)	c	c	c	c
	La Rioja•	76.5	(1.3)	19.4	(1.2)	2.7	(0.5)	1.4	(0.3)	518	(2.6)	469	(7.0)	407	(17.1)	c	c
	Madrid•	76.3	(1.0)	20.6	(1.0)	3.8	(0.5)	1.1	(0.3)	515	(3.2)	475	(5.8)	c	c	c	c
	Murcia•	70.0	(1.5)	25.5	(1.3)	3.2	(0.5)	1.3	(0.3)	477	(4.5)	435	(6.6)	397	(11.3)	c	c
	Navarre•	82.2	(1.4)	14.9	(1.3)	2.3	(0.5)	0.6	(0.2)	525	(3.1)	486	(5.8)	467	(16.1)	c	c
	United Kingdom																
	England	83.1	(0.7)	14.4	(0.6)	1.8	(0.2)	0.7	(0.1)	503	(4.2)	472	(5.2)	441	(11.8)	c	c
	Northern Ireland	74.3	(1.0)	20.8	(0.8)	3.3	(0.4)	1.6	(0.3)	**500**	(3.5)	460	(4.3)	434	(11.1)	**439**	(15.9)
	Scotland•	76.9	(1.0)	19.0	(0.8)	2.5	(0.3)	1.6	(0.2)	**510**	(2.7)	469	(4.1)	442	(9.4)	**444**	(13.1)
	Wales	78.5	(0.8)	18.2	(0.7)	2.4	(0.3)	1.0	(0.2)	**478**	(2.0)	442	(4.1)	417	(11.8)	**398**	(13.5)
	United States																
	Connecticut•	83.1	(0.9)	15.6	(0.9)	0.9	(0.2)	0.4	(0.2)	512	(6.3)	482	(7.6)	c	c	c	c
	Florida•	73.2	(1.2)	22.9	(1.2)	2.6	(0.4)	1.3	(0.3)	471	(5.9)	464	(7.0)	427	(9.3)	c	c
	Massachusetts•	81.9	(0.9)	16.3	(0.9)	1.3	(0.3)	0.5	(0.1)	520	(6.6)	488	(6.8)	c	c	c	c
Partners	**Argentina**																
	Ciudad Autónoma de Buenos Aires•	48.1	(2.1)	40.2	(2.1)	6.4	(0.6)	5.3	(0.9)	**437**	(8.4)	416	(7.3)	371	(16.1)	**324**	(13.2)
	Brazil																
	Acre	85.2	(1.0)	13.1	(1.2)	0.6	(0.3)	1.1	(0.4)	361	(5.8)	356	(9.8)	c	c	c	c
	Alagoas	79.8	(2.4)	16.6	(2.4)	2.1	(0.6)	1.6	(0.6)	347	(6.7)	333	(8.8)	c	c	c	c
	Amapá	86.0	(1.7)	11.4	(1.3)	2.0	(0.6)	0.5	(0.3)	363	(8.4)	361	(13.4)	c	c	c	c
	Amazonas	83.8	(1.9)	13.2	(1.6)	2.1	(0.8)	1.0	(0.4)	357	(5.5)	359	(8.8)	c	c	c	c
	Bahia	79.5	(3.9)	15.9	(2.5)	3.0	(1.9)	1.6	(0.6)	376	(9.2)	368	(13.8)	c	c	c	c
	Ceará	81.9	(2.5)	13.9	(2.2)	2.8	(0.4)	1.4	(0.3)	382	(9.4)	366	(9.6)	c	c	c	c
	Espírito Santo	85.3	(1.2)	11.8	(1.1)	1.7	(0.7)	1.3	(0.5)	416	(11.4)	421	(9.6)	c	c	c	c
	Federal District	73.3	(2.0)	23.3	(2.0)	2.4	(0.7)	1.0	(0.3)	421	(9.7)	408	(8.3)	c	c	c	c
	Goiás	50.7	(2.5)	40.5	(2.4)	6.0	(1.1)	2.8	(0.7)	386	(7.2)	376	(6.6)	353	(13.2)	c	c
	Maranhão	82.8	(2.4)	14.7	(2.3)	1.4	(0.4)	1.0	(0.4)	348	(14.1)	330	(16.5)	c	c	c	c
	Mato Grosso	69.4	(3.4)	24.0	(2.8)	4.2	(1.2)	2.4	(0.5)	374	(8.4)	374	(11.5)	c	c	c	c
	Mato Grosso do Sul	80.8	(1.7)	15.9	(1.5)	2.8	(0.6)	0.6	(0.3)	414	(7.8)	394	(7.4)	c	c	c	c
	Minas Gerais	79.3	(1.5)	17.6	(1.5)	2.3	(0.6)	0.9	(0.4)	403	(7.2)	415	(8.1)	c	c	c	c
	Pará	86.6	(1.2)	11.7	(1.2)	0.9	(0.5)	0.8	(0.3)	362	(3.9)	346	(13.8)	c	c	c	c
	Paraíba	85.2	(1.2)	12.4	(1.0)	1.5	(0.4)	0.8	(0.4)	398	(6.1)	383	(15.0)	c	c	c	c
	Paraná	79.6	(2.5)	16.2	(2.0)	3.0	(0.5)	1.1	(0.4)	404	(9.3)	410	(21.2)	c	c	c	c
	Pernambuco	80.6	(2.3)	15.6	(2.1)	2.6	(0.7)	1.2	(0.7)	365	(7.6)	364	(10.6)	c	c	c	c
	Piauí	84.5	(1.6)	13.2	(1.1)	1.5	(0.6)	0.8	(0.4)	389	(8.5)	374	(8.3)	c	c	c	c
	Rio de Janeiro	76.6	(2.4)	18.5	(1.8)	3.0	(0.8)	1.9	(0.7)	393	(7.5)	381	(10.1)	c	c	c	c
	Rio Grande do Norte	78.6	(3.2)	16.8	(2.6)	2.5	(0.9)	2.1	(1.0)	382	(11.1)	383	(10.4)	c	c	c	c
	Rio Grande do Sul	78.5	(1.6)	18.4	(1.9)	2.5	(0.8)	0.5	(0.2)	407	(5.5)	406	(9.2)	c	c	c	c
	Rondônia	87.8	(1.4)	10.0	(1.0)	1.6	(0.6)	0.7	(0.4)	385	(4.8)	379	(13.7)	c	c	c	c
	Roraima	85.9	(2.0)	11.1	(1.1)	1.4	(0.4)	1.7	(0.9)	366	(6.0)	346	(9.5)	c	c	c	c
	Santa Catarina	84.4	(1.3)	13.2	(1.1)	0.8	(0.4)	1.7	(0.6)	418	(8.7)	406	(8.4)	c	c	c	c
	São Paulo	82.1	(1.1)	14.6	(1.0)	1.7	(0.3)	1.6	(0.2)	407	(4.7)	402	(5.3)	378	(14.3)	c	c
	Sergipe	84.6	(3.0)	12.8	(2.6)	1.6	(0.4)	1.0	(0.5)	386	(9.3)	381	(12.9)	c	c	c	c
	Tocantins	63.0	(2.7)	30.9	(2.7)	3.9	(0.7)	2.2	(0.6)	372	(8.4)	359	(7.1)	c	c	c	c
	Colombia																
	Bogotá	95.9	(0.4)	3.9	(0.4)	0.1	(0.1)	0.1	(0.1)	393	(3.3)	398	(11.2)	c	c	c	c
	Cali	96.3	(0.7)	3.4	(0.6)	0.1	(0.1)	0.2	(0.1)	380	(6.1)	358	(14.1)	c	c	c	c
	Manizales	96.5	(0.6)	3.3	(0.7)	0.1	(0.1)	0.1	(0.1)	405	(4.1)	398	(13.5)	c	c	c	c
	Medellín	95.7	(0.5)	3.6	(0.6)	0.3	(0.1)	0.4	(0.2)	396	(7.8)	367	(12.0)	c	c	c	c
	Russian Federation																
	Perm Territory region•	81.4	(1.3)	13.1	(0.9)	2.8	(0.6)	2.7	(0.5)	**494**	(5.3)	456	(6.9)	412	(14.0)	**396**	(16.0)
	United Arab Emirates																
	Abu Dhabi•	57.6	(1.3)	33.9	(1.0)	6.3	(0.5)	2.3	(0.3)	**437**	(4.5)	410	(4.3)	380	(8.1)	**355**	(8.5)
	Ajman	53.6	(2.6)	37.7	(2.5)	6.8	(0.9)	1.8	(0.6)	419	(7.2)	390	(9.1)	381	(16.3)	c	c
	Dubai•	65.6	(0.8)	27.9	(0.7)	4.6	(0.3)	1.9	(0.2)	**477**	(1.6)	445	(2.9)	429	(7.2)	**392**	(11.2)
	Fujairah	60.2	(1.9)	31.5	(1.7)	5.6	(1.0)	2.7	(0.8)	431	(10.0)	388	(11.6)	376	(11.4)	c	c
	Ras al-Khaimah	59.6	(2.8)	33.1	(2.5)	5.3	(0.6)	2.0	(0.6)	430	(7.6)	398	(7.7)	389	(11.3)	c	c
	Sharjah	63.6	(2.4)	29.6	(2.2)	4.6	(0.5)	2.2	(0.5)	447	(9.7)	428	(9.1)	421	(10.8)	c	c
	Umm al-Quwain	53.9	(2.6)	38.3	(2.4)	6.4	(1.3)	1.4	(0.7)	417	(5.7)	379	(6.4)	c	c	c	c

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.2.2b for national data.

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[Part 1/4]

Table B2.III.4 Index of sense of belonging and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

	Index of sense of belonging at school																	
	All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
	Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD																		
Australia																		
Australian Capital Territory	0.01	(0.05)	1.04	(0.04)	0.01	(0.07)	0.00	(0.07)	0.01	(0.09)	-1.10	(0.05)	-0.44	(0.03)	0.11	(0.07)	1.47	(0.10)
New South Wales	-0.17	(0.03)	0.99	(0.02)	-0.15	(0.04)	-0.18	(0.04)	0.03	(0.05)	-1.27	(0.03)	-0.53	(0.02)	-0.04	(0.03)	1.17	(0.06)
Northern Territory	-0.23	(0.07)	0.94	(0.07)	-0.43	(0.10)	-0.06	(0.12)	**-0.36**	(0.17)	-1.25	(0.08)	-0.58	(0.06)	-0.11	(0.10)	1.05	(0.15)
Queensland	-0.18	(0.03)	0.92	(0.02)	-0.19	(0.03)	-0.17	(0.04)	-0.02	(0.05)	-1.20	(0.03)	-0.52	(0.02)	-0.09	(0.04)	1.09	(0.05)
South Australia	-0.16	(0.04)	0.96	(0.03)	-0.09	(0.04)	-0.23	(0.05)	**0.14**	(0.06)	-1.22	(0.04)	-0.52	(0.03)	-0.05	(0.04)	1.15	(0.06)
Tasmania	-0.24	(0.04)	1.01	(0.04)	-0.23	(0.06)	-0.25	(0.07)	0.03	(0.09)	-1.33	(0.05)	-0.58	(0.03)	-0.18	(0.05)	1.13	(0.10)
Victoria	-0.07	(0.04)	1.00	(0.03)	0.03	(0.06)	-0.18	(0.04)	**0.21**	(0.07)	-1.17	(0.03)	-0.46	(0.02)	0.06	(0.05)	1.31	(0.08)
Western Australia	-0.24	(0.03)	0.92	(0.03)	-0.18	(0.05)	-0.30	(0.05)	0.12	(0.06)	-1.27	(0.04)	-0.55	(0.02)	-0.13	(0.04)	0.99	(0.07)
Belgium																		
Flemish Community•	-0.08	(0.02)	0.84	(0.01)	-0.10	(0.03)	-0.07	(0.03)	-0.04	(0.04)	-1.03	(0.02)	-0.40	(0.02)	0.10	(0.02)	1.00	(0.04)
French Community	-0.02	(0.03)	1.01	(0.02)	-0.01	(0.04)	-0.02	(0.04)	0.01	(0.05)	-1.18	(0.03)	-0.41	(0.03)	0.17	(0.04)	1.34	(0.06)
German-speaking Community	0.09	(0.05)	0.99	(0.03)	0.02	(0.07)	0.17	(0.06)	-0.16	(0.08)	-1.11	(0.07)	-0.20	(0.05)	0.35	(0.04)	1.34	(0.08)
Canada																		
Alberta	-0.09	(0.04)	1.00	(0.03)	-0.04	(0.04)	-0.15	(0.05)	**0.11**	(0.05)	-1.19	(0.04)	-0.45	(0.02)	0.01	(0.04)	1.27	(0.07)
British Columbia	-0.17	(0.03)	0.90	(0.03)	-0.11	(0.04)	-0.23	(0.04)	**0.12**	(0.05)	-1.16	(0.04)	-0.50	(0.02)	-0.04	(0.04)	1.04	(0.06)
Manitoba	-0.04	(0.04)	1.04	(0.03)	0.00	(0.05)	-0.09	(0.05)	0.09	(0.06)	-1.16	(0.04)	-0.48	(0.02)	0.08	(0.06)	1.40	(0.07)
New Brunswick	-0.10	(0.04)	1.00	(0.03)	-0.05	(0.06)	-0.15	(0.05)	0.10	(0.07)	-1.21	(0.04)	-0.50	(0.03)	0.04	(0.05)	1.25	(0.08)
Newfoundland and Labrador	-0.11	(0.04)	1.01	(0.03)	-0.06	(0.04)	-0.15	(0.06)	0.09	(0.07)	-1.24	(0.05)	-0.47	(0.03)	0.04	(0.05)	1.26	(0.07)
Nova Scotia	-0.23	(0.04)	1.02	(0.03)	-0.27	(0.11)	-0.18	(0.06)	-0.09	(0.16)	-1.36	(0.04)	-0.55	(0.04)	-0.12	(0.07)	1.13	(0.06)
Ontario	-0.06	(0.03)	0.99	(0.02)	0.01	(0.04)	-0.12	(0.03)	**0.13**	(0.05)	-1.16	(0.03)	-0.46	(0.02)	0.10	(0.03)	1.29	(0.06)
Prince Edward Island	-0.08	(0.04)	1.03	(0.03)	-0.02	(0.06)	-0.15	(0.05)	0.13	(0.07)	-1.20	(0.05)	-0.47	(0.02)	0.01	(0.04)	1.33	(0.09)
Quebec	-0.09	(0.02)	0.91	(0.02)	-0.07	(0.03)	-0.11	(0.03)	0.04	(0.05)	-1.15	(0.02)	-0.47	(0.02)	0.13	(0.03)	1.14	(0.04)
Saskatchewan	0.00	(0.04)	1.03	(0.03)	0.03	(0.06)	-0.03	(0.05)	0.07	(0.09)	-1.10	(0.03)	-0.44	(0.02)	0.10	(0.06)	1.45	(0.07)
Italy																		
Abruzzo	-0.26	(0.03)	0.83	(0.03)	-0.23	(0.04)	-0.28	(0.04)	0.05	(0.06)	-1.24	(0.04)	-0.57	(0.03)	-0.04	(0.04)	0.82	(0.05)
Basilicata	-0.17	(0.03)	0.85	(0.02)	-0.19	(0.06)	-0.15	(0.05)	-0.04	(0.08)	-1.15	(0.03)	-0.53	(0.02)	0.03	(0.05)	0.97	(0.06)
Bolzano	0.26	(0.03)	1.06	(0.03)	0.15	(0.04)	0.38	(0.04)	**-0.23**	(0.06)	-1.02	(0.03)	-0.12	(0.05)	0.50	(0.03)	1.68	(0.06)
Calabria	-0.09	(0.04)	0.86	(0.02)	-0.19	(0.05)	0.02	(0.06)	**-0.21**	(0.06)	-1.11	(0.04)	-0.43	(0.05)	0.13	(0.06)	1.05	(0.05)
Campania	-0.13	(0.04)	0.94	(0.03)	-0.13	(0.04)	-0.13	(0.04)	0.00	(0.05)	-1.20	(0.06)	-0.51	(0.04)	0.09	(0.03)	1.09	(0.07)
Emilia Romagna	-0.27	(0.03)	0.81	(0.02)	-0.30	(0.05)	-0.23	(0.04)	-0.07	(0.06)	-1.20	(0.04)	-0.59	(0.03)	-0.09	(0.04)	0.80	(0.04)
Friuli Venezia Giulia	-0.27	(0.02)	0.82	(0.03)	-0.30	(0.04)	-0.25	(0.03)	-0.05	(0.05)	-1.20	(0.03)	-0.60	(0.03)	-0.10	(0.03)	0.82	(0.06)
Lazio	-0.28	(0.03)	0.83	(0.02)	-0.35	(0.03)	-0.19	(0.06)	**-0.17**	(0.07)	-1.27	(0.04)	-0.57	(0.03)	-0.06	(0.04)	0.79	(0.05)
Liguria	-0.29	(0.03)	0.79	(0.02)	-0.33	(0.04)	-0.26	(0.04)	-0.07	(0.05)	-1.23	(0.04)	-0.58	(0.03)	-0.09	(0.05)	0.73	(0.05)
Lombardia	-0.21	(0.03)	0.85	(0.03)	-0.21	(0.05)	-0.22	(0.04)	0.00	(0.06)	-1.16	(0.04)	-0.56	(0.02)	-0.05	(0.04)	0.91	(0.06)
Marche	-0.29	(0.03)	0.81	(0.02)	-0.32	(0.04)	-0.25	(0.05)	-0.06	(0.05)	-1.23	(0.04)	-0.60	(0.04)	-0.10	(0.05)	0.78	(0.04)
Molise	-0.20	(0.04)	0.85	(0.03)	-0.15	(0.05)	-0.24	(0.04)	0.09	(0.06)	-1.18	(0.04)	-0.55	(0.03)	0.03	(0.05)	0.92	(0.07)
Piemonte	-0.27	(0.02)	0.81	(0.02)	-0.32	(0.04)	-0.23	(0.03)	-0.08	(0.06)	-1.24	(0.03)	-0.55	(0.02)	-0.08	(0.03)	0.78	(0.04)
Puglia	-0.16	(0.03)	0.90	(0.04)	-0.22	(0.04)	-0.10	(0.06)	-0.11	(0.08)	-1.18	(0.04)	-0.50	(0.03)	0.04	(0.04)	1.01	(0.08)
Sardegna	-0.22	(0.04)	0.89	(0.02)	-0.24	(0.05)	-0.19	(0.05)	-0.06	(0.06)	-1.23	(0.04)	-0.57	(0.04)	-0.05	(0.06)	0.98	(0.06)
Sicilia	-0.11	(0.04)	0.89	(0.03)	-0.19	(0.05)	-0.02	(0.04)	**-0.17**	(0.07)	-1.13	(0.04)	-0.46	(0.03)	0.11	(0.03)	1.05	(0.07)
Toscana	-0.35	(0.03)	0.79	(0.02)	-0.41	(0.04)	-0.27	(0.05)	**-0.14**	(0.07)	-1.27	(0.04)	-0.65	(0.04)	-0.14	(0.04)	0.69	(0.05)
Trento	-0.28	(0.03)	0.82	(0.03)	-0.32	(0.04)	-0.25	(0.04)	-0.07	(0.06)	-1.17	(0.03)	-0.63	(0.03)	-0.15	(0.03)	0.82	(0.06)
Umbria	-0.28	(0.04)	0.81	(0.03)	-0.29	(0.06)	-0.28	(0.05)	-0.01	(0.07)	-1.21	(0.04)	-0.58	(0.04)	-0.13	(0.05)	0.80	(0.08)
Valle d'Aosta	-0.31	(0.03)	0.85	(0.03)	-0.28	(0.05)	-0.33	(0.05)	0.05	(0.07)	-1.26	(0.04)	-0.63	(0.03)	-0.15	(0.03)	0.82	(0.08)
Veneto	-0.28	(0.03)	0.78	(0.02)	-0.33	(0.03)	-0.24	(0.04)	**-0.09**	(0.04)	-1.18	(0.03)	-0.58	(0.02)	-0.14	(0.03)	0.76	(0.06)
Mexico																		
Aguascalientes	0.06	(0.04)	0.98	(0.03)	0.08	(0.05)	0.05	(0.06)	0.04	(0.07)	-1.05	(0.05)	-0.37	(0.05)	0.30	(0.05)	1.39	(0.07)
Baja California	0.05	(0.05)	0.95	(0.02)	0.02	(0.06)	0.09	(0.05)	-0.08	(0.06)	-1.05	(0.03)	-0.38	(0.05)	0.31	(0.08)	1.33	(0.05)
Baja California Sur	0.11	(0.05)	0.98	(0.03)	0.05	(0.06)	0.18	(0.06)	**-0.13**	(0.06)	-1.00	(0.08)	-0.32	(0.05)	0.33	(0.05)	1.43	(0.05)
Campeche	-0.07	(0.04)	0.86	(0.03)	-0.10	(0.06)	-0.05	(0.05)	-0.05	(0.08)	-1.06	(0.04)	-0.46	(0.04)	0.12	(0.07)	1.12	(0.05)
Chiapas	0.03	(0.06)	0.94	(0.04)	-0.02	(0.08)	0.08	(0.06)	-0.10	(0.09)	-1.01	(0.05)	-0.41	(0.04)	0.23	(0.08)	1.33	(0.11)
Chihuahua	0.24	(0.05)	1.05	(0.04)	0.18	(0.06)	0.30	(0.06)	-0.12	(0.06)	-0.99	(0.04)	-0.19	(0.08)	0.53	(0.06)	1.64	(0.10)
Coahuila	0.17	(0.04)	0.98	(0.03)	0.12	(0.04)	0.23	(0.07)	-0.10	(0.08)	-0.91	(0.04)	-0.28	(0.06)	0.39	(0.07)	1.52	(0.07)
Colima	0.23	(0.04)	1.02	(0.03)	0.16	(0.06)	0.30	(0.06)	-0.14	(0.09)	-0.92	(0.04)	-0.24	(0.04)	0.48	(0.06)	1.62	(0.06)
Distrito Federal	0.06	(0.05)	0.95	(0.03)	-0.01	(0.06)	0.13	(0.08)	-0.14	(0.09)	-1.03	(0.04)	-0.34	(0.04)	0.26	(0.07)	1.36	(0.10)
Durango	0.18	(0.05)	1.00	(0.03)	0.14	(0.08)	0.22	(0.06)	-0.09	(0.10)	-0.93	(0.03)	-0.29	(0.05)	0.38	(0.08)	1.56	(0.07)
Guanajuato	0.09	(0.06)	0.95	(0.03)	0.02	(0.05)	0.14	(0.07)	**-0.12**	(0.05)	-0.98	(0.05)	-0.40	(0.05)	0.34	(0.09)	1.39	(0.08)
Guerrero	-0.09	(0.05)	0.88	(0.03)	-0.12	(0.06)	-0.07	(0.07)	-0.05	(0.08)	-1.05	(0.05)	-0.49	(0.03)	0.04	(0.07)	1.14	(0.10)
Hidalgo	0.13	(0.05)	0.93	(0.02)	0.07	(0.06)	0.18	(0.06)	-0.11	(0.06)	-0.90	(0.04)	-0.30	(0.06)	0.33	(0.07)	1.41	(0.06)
Jalisco	0.09	(0.04)	1.00	(0.03)	0.08	(0.05)	0.11	(0.05)	-0.03	(0.05)	-1.05	(0.05)	-0.38	(0.04)	0.38	(0.05)	1.43	(0.08)
Mexico	0.16	(0.06)	0.98	(0.03)	0.05	(0.07)	0.26	(0.06)	**-0.21**	(0.07)	-0.93	(0.05)	-0.29	(0.06)	0.39	(0.06)	1.49	(0.09)
Morelos	0.02	(0.03)	0.91	(0.03)	-0.05	(0.06)	0.08	(0.05)	-0.12	(0.08)	-1.01	(0.04)	-0.40	(0.03)	0.25	(0.06)	1.24	(0.05)
Nayarit	0.07	(0.04)	0.96	(0.03)	0.02	(0.06)	0.12	(0.05)	-0.11	(0.06)	-0.97	(0.05)	-0.37	(0.03)	0.23	(0.05)	1.40	(0.08)
Nuevo León	0.32	(0.04)	1.04	(0.03)	0.21	(0.05)	0.44	(0.06)	**-0.23**	(0.08)	-0.91	(0.04)	-0.13	(0.08)	0.63	(0.06)	1.71	(0.08)
Puebla	-0.05	(0.05)	0.91	(0.04)	-0.10	(0.06)	0.01	(0.05)	**-0.11**	(0.05)	-1.03	(0.04)	-0.47	(0.03)	0.08	(0.07)	1.23	(0.10)
Querétaro	0.18	(0.08)	0.98	(0.03)	0.09	(0.05)	0.26	(0.11)	-0.17	(0.09)	-0.97	(0.07)	-0.25	(0.10)	0.44	(0.11)	1.51	(0.08)
Quintana Roo	0.08	(0.03)	0.94	(0.03)	0.05	(0.05)	0.10	(0.05)	-0.05	(0.08)	-0.97	(0.04)	-0.37	(0.03)	0.28	(0.05)	1.38	(0.07)
San Luis Potosí	0.07	(0.05)	0.96	(0.03)	-0.04	(0.05)	0.18	(0.08)	**-0.22**	(0.09)	-1.02	(0.04)	-0.37	(0.04)	0.28	(0.09)	1.41	(0.08)
Sinaloa	0.14	(0.04)	0.96	(0.03)	0.08	(0.07)	0.19	(0.04)	-0.11	(0.07)	-0.93	(0.05)	-0.30	(0.05)	0.32	(0.05)	1.47	(0.07)
Tabasco	0.04	(0.06)	1.03	(0.04)	0.03	(0.08)	0.05	(0.07)	-0.01	(0.10)	-1.10	(0.04)	-0.43	(0.05)	0.24	(0.09)	1.46	(0.11)
Tamaulipas	0.18	(0.04)	0.93	(0.03)	0.18	(0.06)	0.18	(0.05)	0.00	(0.07)	-0.92	(0.04)	-0.23	(0.06)	0.46	(0.06)	1.42	(0.05)
Tlaxcala	0.00	(0.05)	0.95	(0.03)	-0.08	(0.05)	0.08	(0.07)	**-0.15**	(0.06)	-1.05	(0.05)	-0.42	(0.04)	0.20	(0.06)	1.28	(0.08)
Veracruz	0.12	(0.04)	0.93	(0.03)	0.05	(0.06)	0.19	(0.06)	-0.14	(0.08)	-0.95	(0.05)	-0.30	(0.05)	0.36	(0.06)	1.37	(0.07)
Yucatán	0.08	(0.05)	0.94	(0.03)	0.05	(0.07)	0.12	(0.06)	-0.07	(0.08)	-0.96	(0.04)	-0.34	(0.07)	0.29	(0.05)	1.36	(0.08)
Zacatecas	0.04	(0.04)	0.96	(0.03)	0.03	(0.05)	0.05	(0.07)	-0.02	(0.08)	-1.00	(0.04)	-0.42	(0.03)	0.19	(0.06)	1.39	(0.09)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.2.3d for national data.

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[Part 2/4]

Table B2.III.4

Index of sense of belonging and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

	Index of sense of belonging at school																	
	All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
	Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD																		
Portugal																		
Alentejo	0.02	(0.05)	0.90	(0.03)	0.09	(0.07)	-0.04	(0.06)	0.13	(0.07)	-0.96	(0.04)	-0.38	(0.04)	0.18	(0.07)	1.26	(0.09)
Spain																		
Andalusia•	0.58	(0.04)	1.08	(0.03)	0.54	(0.05)	0.63	(0.05)	-0.09	(0.06)	-0.70	(0.04)	0.14	(0.03)	0.83	(0.04)	2.07	(0.08)
Aragon•	0.43	(0.04)	1.11	(0.02)	0.38	(0.06)	0.49	(0.07)	-0.11	(0.09)	-0.85	(0.04)	-0.02	(0.05)	0.64	(0.05)	1.96	(0.07)
Asturias•	0.48	(0.04)	1.15	(0.03)	0.43	(0.06)	0.52	(0.05)	-0.10	(0.08)	-0.87	(0.05)	0.02	(0.05)	0.71	(0.04)	2.05	(0.06)
Balearic Islands•	0.22	(0.04)	1.07	(0.03)	0.18	(0.06)	0.26	(0.05)	-0.08	(0.07)	-1.00	(0.04)	-0.24	(0.05)	0.45	(0.05)	1.69	(0.07)
Basque Country•	0.11	(0.02)	0.96	(0.01)	0.06	(0.03)	0.17	(0.03)	**-0.10**	(0.04)	-0.99	(0.03)	-0.29	(0.03)	0.33	(0.02)	1.40	(0.04)
Cantabria•	0.49	(0.04)	1.09	(0.02)	0.50	(0.05)	0.47	(0.06)	0.03	(0.07)	-0.80	(0.04)	0.07	(0.05)	0.71	(0.05)	1.98	(0.07)
Castile and Leon•	0.44	(0.03)	1.04	(0.02)	0.42	(0.05)	0.46	(0.04)	-0.04	(0.07)	-0.75	(0.03)	-0.01	(0.04)	0.62	(0.04)	1.88	(0.06)
Catalonia•	0.13	(0.04)	1.00	(0.02)	0.07	(0.06)	0.18	(0.04)	-0.11	(0.08)	-1.05	(0.04)	-0.31	(0.04)	0.41	(0.04)	1.45	(0.06)
Extremadura•	0.54	(0.04)	1.09	(0.03)	0.56	(0.07)	0.52	(0.05)	0.04	(0.08)	-0.74	(0.06)	0.11	(0.05)	0.74	(0.04)	2.05	(0.07)
Galicia•	0.01	(0.04)	0.98	(0.03)	0.00	(0.06)	0.02	(0.05)	-0.02	(0.06)	-1.10	(0.04)	-0.41	(0.04)	0.21	(0.05)	1.36	(0.07)
La Rioja•	0.44	(0.03)	1.07	(0.03)	0.47	(0.06)	0.41	(0.05)	0.06	(0.08)	-0.80	(0.05)	0.05	(0.04)	0.62	(0.04)	1.88	(0.06)
Madrid•	0.53	(0.04)	1.08	(0.02)	0.54	(0.06)	0.52	(0.05)	0.01	(0.08)	-0.74	(0.03)	0.10	(0.05)	0.75	(0.05)	2.02	(0.07)
Murcia•	0.45	(0.04)	1.09	(0.03)	0.46	(0.05)	0.44	(0.04)	0.02	(0.07)	-0.81	(0.05)	-0.02	(0.05)	0.67	(0.05)	1.95	(0.05)
Navarre•	0.27	(0.04)	1.00	(0.03)	0.28	(0.05)	0.26	(0.05)	0.02	(0.05)	-0.90	(0.05)	-0.10	(0.06)	0.49	(0.04)	1.60	(0.06)
United Kingdom																		
England	-0.02	(0.02)	0.96	(0.02)	0.04	(0.03)	-0.07	(0.03)	**0.12**	(0.04)	-1.10	(0.03)	-0.40	(0.02)	0.16	(0.03)	1.27	(0.04)
Northern Ireland	0.00	(0.03)	1.02	(0.02)	-0.02	(0.04)	0.01	(0.04)	-0.03	(0.05)	-1.13	(0.03)	-0.43	(0.02)	0.14	(0.03)	1.40	(0.05)
Scotland•	-0.10	(0.03)	0.98	(0.02)	-0.06	(0.03)	-0.13	(0.04)	0.07	(0.05)	-1.18	(0.03)	-0.49	(0.02)	0.05	(0.04)	1.23	(0.05)
Wales	-0.06	(0.03)	0.93	(0.02)	0.01	(0.03)	-0.13	(0.03)	**0.14**	(0.04)	-1.08	(0.03)	-0.44	(0.01)	0.08	(0.03)	1.20	(0.05)
United States																		
Connecticut•	-0.10	(0.04)	0.99	(0.03)	0.00	(0.05)	-0.20	(0.05)	**0.20**	(0.07)	-1.19	(0.04)	-0.47	(0.02)	0.01	(0.05)	1.25	(0.08)
Florida•	-0.04	(0.02)	1.04	(0.02)	0.04	(0.03)	-0.11	(0.04)	**0.15**	(0.05)	-1.19	(0.02)	-0.46	(0.02)	0.13	(0.04)	1.39	(0.06)
Massachusetts•	-0.08	(0.04)	1.00	(0.03)	0.05	(0.05)	-0.20	(0.05)	**0.25**	(0.05)	-1.19	(0.06)	-0.45	(0.02)	0.06	(0.05)	1.27	(0.06)
Partners																		
Argentina																		
Ciudad Autónoma de Buenos Aires•	-0.13	(0.05)	0.97	(0.03)	-0.07	(0.07)	-0.18	(0.05)	0.11	(0.06)	-1.24	(0.05)	-0.56	(0.04)	0.12	(0.07)	1.18	(0.08)
Brazil																		
Acre	-0.26	(0.04)	0.86	(0.04)	-0.29	(0.07)	-0.23	(0.07)	-0.06	(0.11)	-1.16	(0.04)	-0.63	(0.04)	-0.16	(0.08)	0.94	(0.09)
Alagoas	-0.19	(0.07)	0.92	(0.06)	-0.20	(0.07)	-0.18	(0.09)	-0.01	(0.07)	-1.21	(0.08)	-0.56	(0.06)	0.01	(0.11)	1.02	(0.12)
Amapá	-0.04	(0.07)	0.94	(0.06)	0.05	(0.08)	-0.12	(0.10)	0.17	(0.10)	-1.13	(0.08)	-0.42	(0.08)	0.21	(0.10)	1.20	(0.10)
Amazonas	-0.21	(0.05)	0.88	(0.04)	-0.19	(0.08)	-0.22	(0.07)	0.04	(0.11)	-1.15	(0.05)	-0.58	(0.04)	-0.10	(0.06)	1.02	(0.11)
Bahia	-0.14	(0.08)	0.86	(0.04)	-0.10	(0.08)	-0.18	(0.10)	0.08	(0.11)	-1.03	(0.06)	-0.57	(0.07)	-0.01	(0.11)	1.07	(0.11)
Ceará	-0.03	(0.05)	1.00	(0.02)	0.04	(0.06)	-0.10	(0.06)	0.13	(0.08)	-1.13	(0.05)	-0.49	(0.04)	0.17	(0.08)	1.33	(0.07)
Espírito Santo	-0.27	(0.04)	0.81	(0.03)	-0.28	(0.06)	-0.26	(0.06)	-0.02	(0.09)	-1.21	(0.07)	-0.57	(0.04)	-0.11	(0.03)	0.82	(0.06)
Federal District	-0.31	(0.04)	0.88	(0.04)	-0.33	(0.08)	-0.30	(0.05)	-0.03	(0.10)	-1.26	(0.05)	-0.71	(0.03)	-0.19	(0.05)	0.92	(0.09)
Goiás	-0.26	(0.07)	0.86	(0.06)	-0.31	(0.08)	-0.21	(0.10)	-0.10	(0.12)	-1.17	(0.05)	-0.61	(0.05)	-0.17	(0.06)	0.92	(0.15)
Maranhão	0.00	(0.07)	0.97	(0.05)	-0.02	(0.10)	0.02	(0.07)	-0.03	(0.10)	-1.09	(0.06)	-0.45	(0.07)	0.24	(0.11)	1.32	(0.11)
Mato Grosso	-0.18	(0.05)	0.88	(0.03)	-0.14	(0.06)	-0.21	(0.07)	0.06	(0.09)	-1.12	(0.06)	-0.54	(0.06)	-0.07	(0.07)	1.04	(0.08)
Mato Grosso do Sul	-0.17	(0.03)	0.93	(0.04)	-0.12	(0.08)	-0.21	(0.06)	0.09	(0.12)	-1.16	(0.03)	-0.59	(0.03)	-0.06	(0.05)	1.13	(0.11)
Minas Gerais	-0.17	(0.04)	0.87	(0.04)	-0.14	(0.06)	-0.21	(0.06)	0.07	(0.08)	-1.13	(0.05)	-0.55	(0.03)	-0.02	(0.07)	1.02	(0.08)
Pará	-0.11	(0.09)	0.87	(0.05)	-0.18	(0.09)	-0.07	(0.09)	**-0.11**	(0.05)	-1.08	(0.07)	-0.53	(0.08)	0.11	(0.08)	1.07	(0.16)
Paraíba	-0.02	(0.05)	0.96	(0.06)	0.11	(0.09)	-0.14	(0.04)	**0.25**	(0.10)	-1.04	(0.08)	-0.45	(0.04)	0.13	(0.08)	1.30	(0.14)
Paraná	-0.29	(0.05)	0.89	(0.06)	-0.29	(0.06)	-0.28	(0.08)	-0.01	(0.08)	-1.26	(0.06)	-0.63	(0.06)	-0.18	(0.05)	0.93	(0.14)
Pernambuco	-0.12	(0.09)	0.97	(0.07)	-0.12	(0.10)	-0.11	(0.11)	-0.01	(0.09)	-1.14	(0.05)	-0.57	(0.05)	0.01	(0.12)	1.24	(0.19)
Piauí	0.02	(0.04)	0.90	(0.03)	0.00	(0.05)	0.04	(0.05)	-0.04	(0.06)	-1.01	(0.05)	-0.37	(0.04)	0.25	(0.07)	1.22	(0.07)
Rio de Janeiro	-0.10	(0.06)	0.93	(0.03)	-0.13	(0.08)	-0.08	(0.08)	-0.04	(0.09)	-1.13	(0.05)	-0.54	(0.05)	0.10	(0.10)	1.17	(0.09)
Rio Grande do Norte	-0.04	(0.06)	0.91	(0.05)	-0.07	(0.08)	-0.02	(0.08)	-0.04	(0.10)	-1.09	(0.06)	-0.45	(0.06)	0.18	(0.08)	1.19	(0.10)
Rio Grande do Sul	0.00	(0.04)	0.90	(0.04)	0.09	(0.06)	-0.07	(0.06)	0.16	(0.10)	-0.94	(0.04)	-0.42	(0.04)	0.14	(0.07)	1.25	(0.08)
Rondônia	-0.22	(0.08)	0.92	(0.07)	-0.24	(0.08)	-0.20	(0.09)	-0.03	(0.08)	-1.23	(0.06)	-0.62	(0.05)	-0.09	(0.11)	1.06	(0.16)
Roraima	-0.26	(0.04)	0.88	(0.05)	-0.44	(0.05)	-0.08	(0.07)	**-0.36**	(0.08)	-1.19	(0.03)	-0.62	(0.04)	-0.16	(0.04)	0.96	(0.13)
Santa Catarina	-0.07	(0.05)	0.90	(0.04)	-0.11	(0.05)	-0.03	(0.06)	-0.09	(0.05)	-1.04	(0.06)	-0.48	(0.05)	0.13	(0.06)	1.13	(0.09)
São Paulo	-0.26	(0.03)	0.84	(0.02)	-0.28	(0.03)	-0.25	(0.03)	-0.04	(0.05)	-1.17	(0.03)	-0.66	(0.02)	-0.13	(0.04)	0.91	(0.05)
Sergipe	-0.19	(0.07)	0.90	(0.04)	-0.13	(0.10)	-0.25	(0.08)	0.13	(0.11)	-1.20	(0.06)	-0.58	(0.06)	-0.03	(0.10)	1.05	(0.11)
Tocantins	-0.20	(0.04)	0.84	(0.02)	-0.21	(0.04)	-0.20	(0.04)	0.00	(0.05)	-1.11	(0.03)	-0.58	(0.04)	-0.10	(0.05)	0.97	(0.05)
Colombia																		
Bogotá	0.10	(0.03)	0.90	(0.03)	0.06	(0.05)	0.14	(0.05)	-0.08	(0.08)	-0.90	(0.03)	-0.32	(0.03)	0.30	(0.04)	1.32	(0.06)
Cali	0.25	(0.05)	0.97	(0.03)	0.23	(0.08)	0.26	(0.05)	-0.02	(0.08)	-0.81	(0.04)	-0.23	(0.03)	0.44	(0.06)	1.59	(0.09)
Manizales	0.33	(0.03)	0.95	(0.02)	0.35	(0.06)	0.31	(0.04)	0.04	(0.07)	-0.72	(0.03)	-0.16	(0.04)	0.56	(0.06)	1.63	(0.05)
Medellín	0.22	(0.05)	0.98	(0.03)	0.24	(0.04)	0.20	(0.07)	0.05	(0.07)	-0.84	(0.04)	-0.27	(0.04)	0.39	(0.06)	1.59	(0.08)
Russian Federation																		
Perm Territory region•	-0.30	(0.03)	0.82	(0.02)	-0.34	(0.04)	-0.26	(0.04)	-0.08	(0.06)	-1.19	(0.03)	-0.64	(0.04)	-0.21	(0.03)	0.83	(0.05)
United Arab Emirates																		
Abu Dhabi•	-0.06	(0.03)	1.04	(0.02)	-0.11	(0.05)	-0.02	(0.04)	-0.09	(0.05)	-1.23	(0.02)	-0.52	(0.02)	0.14	(0.05)	1.37	(0.05)
Ajman	-0.04	(0.07)	1.00	(0.04)	-0.15	(0.13)	0.06	(0.08)	-0.21	(0.15)	-1.21	(0.06)	-0.45	(0.08)	0.21	(0.09)	1.29	(0.11)
Dubai•	0.04	(0.02)	0.99	(0.01)	0.02	(0.03)	0.07	(0.03)	-0.04	(0.04)	-1.09	(0.03)	-0.36	(0.01)	0.24	(0.03)	1.39	(0.04)
Fujairah	0.02	(0.07)	0.99	(0.04)	-0.16	(0.13)	0.20	(0.08)	**-0.36**	(0.15)	-1.16	(0.07)	-0.42	(0.09)	0.31	(0.09)	1.36	(0.10)
Ras al-Khaimah	0.13	(0.07)	1.08	(0.05)	-0.10	(0.10)	0.34	(0.09)	**-0.45**	(0.14)	-1.10	(0.08)	-0.33	(0.05)	0.33	(0.08)	1.62	(0.14)
Sharjah	0.04	(0.06)	1.03	(0.04)	0.05	(0.14)	0.04	(0.07)	0.00	(0.18)	-1.15	(0.05)	-0.41	(0.06)	0.30	(0.09)	1.45	(0.11)
Umm al-Quwain	-0.07	(0.08)	1.06	(0.06)	-0.37	(0.09)	0.21	(0.11)	**-0.58**	(0.13)	-1.32	(0.11)	-0.47	(0.07)	0.18	(0.10)	1.35	(0.15)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.2.3d for national data.

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[Part 3/4]

Table B2.III.4 Index of sense of belonging and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

	Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
	Bottom quarter		Second quarter		Third quarter		Top quarter							
	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD														
Australia														
Australian Capital Territory	498	(10.8)	512	(8.9)	532	(8.3)	524	(8.9)	6.9	(4.6)	**1.6**	(0.3)	0.6	(0.9)
New South Wales	**483**	(5.9)	508	(6.1)	516	(6.4)	**523**	(5.0)	**13.0**	(2.6)	**1.5**	(0.1)	1.7	(0.7)
Northern Territory	451	(18.4)	470	(18.4)	477	(16.8)	440	(19.4)	-8.8	(6.8)	1.1	(0.4)	0.7	(1.1)
Queensland	**489**	(5.7)	502	(5.4)	510	(6.6)	**516**	(5.5)	**10.2**	(2.7)	**1.4**	(0.1)	1.0	(0.5)
South Australia	**466**	(6.2)	488	(6.6)	502	(7.5)	**506**	(6.7)	**14.9**	(3.0)	**1.6**	(0.2)	2.5	(1.0)
Tasmania	**460**	(9.0)	466	(11.0)	488	(9.7)	**510**	(7.8)	**17.5**	(4.4)	**1.5**	(0.2)	3.4	(1.6)
Victoria	**480**	(5.2)	497	(5.5)	514	(5.1)	**517**	(6.7)	**11.7**	(2.2)	**1.6**	(0.2)	1.7	(0.6)
Western Australia	**495**	(7.2)	512	(6.6)	525	(7.3)	**530**	(7.2)	**12.3**	(3.7)	**1.5**	(0.2)	1.4	(0.9)
Belgium														
Flemish Community•	**513**	(4.0)	535	(5.0)	546	(4.9)	**549**	(5.0)	**13.4**	(2.4)	**1.5**	(0.1)	1.3	(0.4)
French Community	**481**	(6.0)	509	(5.2)	511	(4.9)	**505**	(4.6)	**7.2**	(2.6)	**1.6**	(0.2)	0.6	(0.5)
German-speaking Community	**484**	(9.1)	527	(8.0)	516	(10.3)	**533**	(8.7)	**15.4**	(4.4)	**1.9**	(0.4)	3.1	(1.7)
Canada														
Alberta	510	(6.7)	522	(7.9)	528	(7.1)	523	(7.9)	4.5	(3.4)	1.3	(0.2)	0.3	(0.4)
British Columbia	522	(6.4)	524	(6.8)	531	(6.9)	521	(7.0)	-0.4	(3.3)	1.1	(0.2)	0.0	(0.1)
Manitoba	**482**	(6.2)	500	(7.8)	494	(8.3)	**509**	(6.0)	**9.4**	(2.9)	1.3	(0.2)	1.2	(0.7)
New Brunswick	494	(8.6)	498	(7.1)	516	(8.3)	510	(6.9)	**8.1**	(3.0)	1.4	(0.2)	1.0	(0.7)
Newfoundland and Labrador	486	(11.4)	497	(8.9)	498	(7.6)	498	(7.5)	3.1	(3.2)	1.4	(0.2)	0.2	(0.3)
Nova Scotia	491	(8.0)	502	(9.5)	502	(9.9)	509	(8.1)	**7.5**	(3.6)	1.2	(0.2)	0.9	(0.9)
Ontario	**505**	(7.3)	509	(6.4)	527	(6.3)	**520**	(5.8)	**6.2**	(2.0)	**1.4**	(0.1)	0.5	(0.3)
Prince Edward Island	474	(6.9)	488	(7.1)	479	(6.7)	480	(5.6)	0.5	(2.5)	1.3	(0.2)	0.0	(0.1)
Quebec	**527**	(5.5)	538	(4.5)	546	(5.5)	**547**	(5.2)	**6.8**	(2.5)	1.2	(0.1)	0.5	(0.4)
Saskatchewan	499	(6.4)	512	(6.3)	517	(5.9)	512	(5.6)	3.4	(2.6)	**1.4**	(0.2)	0.2	(0.3)
Italy														
Abruzzo	459	(8.3)	489	(9.0)	495	(10.4)	471	(11.2)	0.4	(4.4)	**1.4**	(0.2)	0.0	(0.1)
Basilicata	466	(6.6)	475	(7.5)	475	(7.1)	454	(8.3)	**-6.7**	(3.1)	0.9	(0.1)	0.5	(0.4)
Bolzano	**481**	(5.8)	509	(5.6)	529	(7.0)	**515**	(6.2)	**11.1**	(2.6)	**1.7**	(0.2)	1.8	(0.8)
Calabria	426	(7.3)	440	(8.8)	442	(7.4)	420	(10.5)	-3.7	(5.3)	1.2	(0.2)	0.1	(0.3)
Campania	449	(7.8)	463	(10.2)	461	(10.8)	443	(12.4)	-4.1	(4.5)	1.0	(0.2)	0.2	(0.5)
Emilia Romagna	**489**	(9.2)	508	(10.9)	507	(8.7)	**509**	(7.8)	5.8	(4.4)	1.2	(0.2)	0.2	(0.3)
Friuli Venezia Giulia	513	(9.9)	525	(8.3)	532	(6.7)	524	(6.7)	0.8	(4.0)	1.3	(0.2)	0.0	(0.1)
Lazio	473	(9.9)	474	(9.5)	482	(9.0)	476	(7.9)	-0.8	(3.1)	1.1	(0.2)	0.0	(0.1)
Liguria	**466**	(8.6)	503	(9.8)	493	(8.5)	**494**	(8.6)	7.8	(4.1)	**1.5**	(0.2)	0.5	(0.5)
Lombardia	507	(8.1)	515	(10.3)	530	(11.5)	518	(10.1)	2.3	(4.5)	1.1	(0.2)	0.1	(0.3)
Marche	**476**	(8.9)	503	(7.7)	501	(8.5)	**504**	(9.0)	**11.1**	(4.2)	**1.5**	(0.2)	1.1	(0.7)
Molise	455	(6.5)	472	(8.4)	480	(8.1)	461	(8.5)	1.6	(3.9)	1.4	(0.2)	0.0	(0.2)
Piemonte	**480**	(8.1)	511	(8.8)	502	(7.4)	**502**	(8.5)	**6.8**	(2.8)	1.4	(0.2)	0.4	(0.3)
Puglia	472	(9.3)	482	(9.9)	489	(8.6)	474	(8.2)	-1.6	(3.6)	1.2	(0.2)	0.0	(0.2)
Sardegna	452	(7.9)	455	(8.4)	474	(8.9)	450	(9.2)	-1.4	(5.0)	1.1	(0.2)	0.0	(0.3)
Sicilia	443	(7.9)	452	(8.4)	460	(7.2)	444	(6.7)	-1.7	(3.7)	1.3	(0.2)	0.0	(0.2)
Toscana	485	(6.9)	505	(7.0)	513	(7.8)	501	(9.5)	7.3	(5.3)	**1.4**	(0.2)	0.4	(0.7)
Trento	**505**	(7.3)	525	(7.8)	532	(7.2)	**538**	(7.2)	**12.6**	(3.6)	1.4	(0.2)	1.6	(0.9)
Umbria	485	(11.7)	499	(10.7)	504	(8.9)	489	(10.6)	-2.4	(5.9)	1.1	(0.2)	0.1	(0.3)
Valle d'Aosta	**477**	(7.9)	495	(8.5)	497	(8.8)	**505**	(8.4)	**13.6**	(5.2)	1.3	(0.2)	2.0	(1.5)
Veneto	513	(9.8)	521	(10.2)	538	(11.0)	530	(10.1)	7.1	(5.0)	**1.4**	(0.2)	0.4	(0.5)
Mexico														
Aguascalientes	429	(8.7)	441	(8.9)	450	(9.4)	442	(5.8)	3.7	(3.5)	1.4	(0.3)	0.2	(0.5)
Baja California	411	(10.9)	410	(7.1)	427	(9.5)	412	(7.9)	1.9	(5.3)	1.2	(0.5)	0.1	(0.5)
Baja California Sur	410	(8.3)	417	(9.2)	416	(8.2)	416	(5.8)	0.7	(2.7)	1.1	(0.3)	0.0	(0.1)
Campeche	**387**	(7.1)	394	(6.5)	397	(8.8)	**404**	(6.4)	**6.7**	(2.9)	1.2	(0.2)	0.7	(0.6)
Chiapas	**362**	(11.3)	368	(9.8)	382	(9.7)	**385**	(7.7)	**10.8**	(3.8)	1.5	(0.2)	1.9	(1.2)
Chihuahua	**408**	(9.9)	438	(10.3)	445	(13.7)	**431**	(8.2)	5.4	(3.4)	1.4	(0.2)	0.5	(0.7)
Coahuila	410	(10.8)	419	(9.1)	423	(10.8)	426	(13.0)	4.5	(3.1)	1.3	(0.3)	0.4	(0.5)
Colima	421	(7.6)	428	(8.6)	441	(7.0)	435	(6.2)	4.4	(2.5)	1.2	(0.2)	0.3	(0.4)
Distrito Federal	425	(9.3)	418	(10.8)	439	(9.2)	436	(10.8)	4.6	(4.3)	1.3	(0.3)	0.4	(0.8)
Durango	**411**	(7.5)	422	(10.9)	432	(9.1)	**444**	(10.0)	**12.1**	(3.4)	**1.6**	(0.3)	2.7	(1.5)
Guanajuato	**398**	(9.7)	408	(9.6)	422	(7.9)	**430**	(7.1)	**14.2**	(4.1)	**1.6**	(0.3)	3.2	(1.8)
Guerrero	**356**	(6.7)	365	(9.1)	368	(6.9)	**392**	(5.8)	**14.2**	(3.9)	1.4	(0.3)	3.6	(1.8)
Hidalgo	**393**	(8.9)	407	(10.0)	408	(10.2)	**417**	(8.3)	**9.2**	(3.0)	1.4	(0.2)	1.4	(0.9)
Jalisco	436	(11.9)	431	(6.4)	442	(7.5)	444	(8.8)	5.8	(3.4)	1.4	(0.3)	0.6	(0.7)
Mexico	412	(6.5)	417	(7.5)	410	(6.6)	428	(8.7)	4.9	(3.0)	1.1	(0.3)	0.6	(0.7)
Morelos	417	(8.8)	417	(12.1)	430	(11.1)	424	(9.9)	2.9	(2.8)	1.1	(0.2)	0.1	(0.3)
Nayarit	**402**	(9.6)	419	(10.6)	425	(7.7)	**426**	(8.2)	7.7	(4.2)	1.2	(0.2)	1.0	(1.2)
Nuevo León	430	(8.6)	439	(11.2)	443	(9.5)	436	(10.4)	2.9	(2.5)	1.3	(0.2)	0.2	(0.3)
Puebla	**408**	(8.0)	415	(7.6)	426	(7.5)	**426**	(7.1)	**7.0**	(3.0)	1.3	(0.2)	0.8	(0.6)
Querétaro	427	(8.7)	439	(15.0)	442	(11.3)	438	(7.6)	4.1	(3.3)	1.2	(0.2)	0.3	(0.5)
Quintana Roo	409	(9.5)	407	(5.5)	418	(9.1)	419	(6.6)	2.5	(3.3)	1.2	(0.2)	0.2	(0.3)
San Luis Potosí	**397**	(9.8)	408	(9.7)	419	(10.2)	**433**	(10.5)	**13.3**	(2.7)	**1.5**	(0.2)	2.8	(1.2)
Sinaloa	**399**	(6.0)	402	(6.8)	419	(7.1)	**423**	(6.7)	**9.1**	(2.8)	1.4	(0.2)	1.6	(1.0)
Tabasco	370	(7.7)	375	(10.0)	381	(7.3)	391	(8.0)	**8.9**	(3.8)	1.4	(0.2)	1.7	(1.3)
Tamaulipas	**392**	(12.0)	414	(8.3)	420	(11.3)	**418**	(9.2)	**10.4**	(2.9)	1.6	(0.3)	1.7	(0.9)
Tlaxcala	405	(7.4)	402	(7.3)	419	(8.8)	422	(8.3)	5.3	(2.8)	1.2	(0.2)	0.5	(0.5)
Veracruz	402	(8.1)	401	(10.3)	409	(7.1)	400	(10.2)	-2.0	(3.9)	1.2	(0.2)	0.1	(0.3)
Yucatán	407	(8.3)	401	(10.0)	420	(8.9)	416	(7.2)	3.6	(3.3)	1.2	(0.3)	0.2	(0.4)
Zacatecas	411	(8.4)	403	(8.2)	425	(5.8)	417	(7.2)	4.0	(3.7)	1.0	(0.2)	0.3	(0.6)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.2.3d for national data.

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[Part 4/4]

Table B2.III.4 Index of sense of belonging and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Portugal**														
	Alentejo	**463**	(16.6)	478	(9.8)	498	(14.3)	**515**	(15.0)	**19.9**	(6.3)	**1.9**	(0.4)	4.0	(2.3)
	Spain														
	Andalusia•	466	(6.4)	484	(6.6)	476	(6.2)	475	(6.8)	1.5	(2.8)	1.3	(0.2)	0.0	(0.2)
	Aragon•	**470**	(9.2)	502	(9.0)	510	(7.2)	**501**	(8.5)	**9.6**	(3.3)	**1.8**	(0.2)	1.3	(0.9)
	Asturias•	494	(8.9)	499	(9.0)	509	(8.0)	504	(7.1)	4.8	(2.9)	**1.4**	(0.2)	0.4	(0.4)
	Balearic Islands•	462	(8.1)	479	(8.6)	490	(7.0)	478	(6.5)	4.7	(3.2)	**1.5**	(0.2)	0.4	(0.6)
	Basque Country•	**489**	(4.1)	507	(3.8)	518	(4.0)	**516**	(4.9)	**9.9**	(2.1)	**1.5**	(0.1)	1.3	(0.6)
	Cantabria•	**469**	(7.3)	493	(7.2)	503	(7.9)	**495**	(6.4)	**6.6**	(2.5)	**1.4**	(0.2)	0.7	(0.5)
	Castile and Leon•	502	(8.5)	510	(6.6)	521	(7.4)	504	(6.9)	2.0	(2.9)	1.3	(0.1)	0.1	(0.2)
	Catalonia•	480	(9.8)	500	(8.2)	508	(7.0)	493	(8.3)	2.4	(3.7)	**1.6**	(0.2)	0.1	(0.3)
	Extremadura•	450	(9.9)	475	(7.2)	477	(7.0)	461	(7.3)	3.1	(2.8)	**1.5**	(0.2)	0.1	(0.3)
	Galicia•	479	(7.1)	492	(7.7)	507	(7.7)	494	(7.3)	4.8	(3.0)	1.2	(0.2)	0.3	(0.4)
	La Rioja•	**481**	(8.0)	503	(8.3)	516	(7.8)	**514**	(6.2)	**11.1**	(3.6)	1.4	(0.2)	1.5	(0.9)
	Madrid•	**484**	(8.0)	505	(7.8)	519	(8.4)	**506**	(5.6)	**7.8**	(3.0)	**1.4**	(0.2)	1.0	(0.7)
	Murcia•	**439**	(6.9)	462	(7.7)	472	(8.8)	**473**	(9.2)	**10.3**	(2.6)	**1.7**	(0.2)	1.7	(0.8)
	Navarre•	**493**	(6.0)	519	(6.2)	521	(7.3)	**533**	(7.2)	**13.9**	(3.4)	**1.5**	(0.2)	2.8	(1.3)
	United Kingdom														
	England	**486**	(5.2)	503	(4.9)	501	(5.7)	**506**	(5.7)	**5.7**	(2.0)	**1.4**	(0.1)	0.3	(0.2)
	Northern Ireland	**477**	(6.3)	488	(6.2)	497	(7.2)	**494**	(5.1)	**6.7**	(2.5)	**1.4**	(0.2)	0.5	(0.4)
	Scotland•	**488**	(6.0)	501	(5.2)	509	(3.9)	**504**	(4.8)	4.9	(2.7)	**1.3**	(0.2)	0.3	(0.4)
	Wales	**459**	(3.9)	460	(4.3)	481	(4.6)	**481**	(4.2)	**8.5**	(2.1)	**1.3**	(0.1)	0.9	(0.5)
	United States														
	Connecticut•	488	(11.2)	504	(11.7)	512	(8.7)	512	(7.3)	8.2	(4.5)	**1.6**	(0.2)	0.7	(0.8)
	Florida•	457	(8.1)	464	(7.9)	474	(7.0)	464	(8.0)	2.1	(2.6)	1.2	(0.2)	0.1	(0.2)
	Massachusetts•	**493**	(8.4)	518	(9.3)	522	(8.3)	**527**	(8.4)	**8.9**	(3.3)	**1.5**	(0.2)	0.8	(0.6)
Partners	**Argentina**														
	Ciudad Autónoma de Buenos Aires•	**393**	(14.1)	420	(8.1)	422	(8.4)	**445**	(10.3)	**18.8**	(6.1)	1.6	(0.3)	4.1	(2.4)
	Brazil														
	Acre	355	(9.8)	359	(12.6)	368	(8.9)	370	(9.1)	3.8	(4.4)	1.2	(0.3)	0.3	(0.6)
	Alagoas	334	(9.8)	359	(13.5)	346	(12.5)	342	(13.1)	3.8	(5.6)	1.0	(0.3)	0.3	(0.8)
	Amapá	364	(11.7)	372	(8.5)	359	(15.2)	368	(13.3)	0.0	(4.5)	1.1	(0.3)	0.0	(0.4)
	Amazonas	358	(7.9)	357	(8.9)	360	(12.1)	362	(10.3)	0.6	(3.6)	0.9	(0.3)	0.0	(0.2)
	Bahia	391	(15.0)	378	(14.3)	392	(12.5)	380	(25.0)	-4.8	(9.5)	1.0	(0.4)	0.3	(1.2)
	Ceará	375	(11.9)	375	(12.8)	385	(12.9)	390	(12.7)	**7.3**	(3.1)	1.3	(0.4)	0.9	(0.7)
	Espírito Santo	**385**	(9.2)	427	(12.1)	422	(14.4)	**422**	(11.8)	**13.9**	(6.1)	1.4	(0.3)	1.7	(1.3)
	Federal District	**396**	(14.1)	425	(17.9)	417	(11.6)	**426**	(10.7)	**11.8**	(3.8)	1.6	(0.3)	1.6	(1.0)
	Goiás	382	(12.2)	388	(11.0)	384	(11.8)	378	(9.3)	-1.9	(4.5)	1.3	(0.3)	0.1	(0.4)
	Maranhão	340	(14.3)	343	(16.5)	341	(16.5)	354	(16.8)	1.8	(6.6)	1.2	(0.2)	0.1	(0.6)
	Mato Grosso	368	(10.2)	372	(14.2)	375	(13.2)	386	(14.0)	6.6	(6.5)	1.2	(0.4)	0.7	(1.2)
	Mato Grosso do Sul	405	(11.4)	411	(10.3)	412	(14.5)	411	(12.8)	0.7	(4.9)	1.1	(0.2)	0.1	(0.4)
	Minas Gerais	394	(10.3)	403	(10.4)	413	(7.6)	406	(9.9)	3.5	(3.4)	1.4	(0.3)	0.2	(0.4)
	Pará	372	(10.6)	362	(13.1)	366	(9.0)	354	(13.7)	-3.9	(8.9)	0.7	(0.2)	0.3	(1.6)
	Paraíba	395	(10.6)	397	(15.1)	422	(11.1)	388	(10.7)	-3.3	(3.9)	1.3	(0.3)	0.2	(0.4)
	Paraná	399	(14.5)	398	(12.7)	408	(11.9)	404	(18.2)	2.4	(6.6)	1.0	(0.4)	0.1	(0.6)
	Pernambuco	359	(11.8)	361	(9.7)	381	(14.9)	362	(10.0)	2.0	(4.0)	1.2	(0.4)	0.1	(0.3)
	Piauí	374	(8.6)	391	(13.7)	389	(15.4)	385	(16.6)	2.6	(5.2)	1.1	(0.3)	0.1	(0.4)
	Rio de Janeiro	383	(9.4)	393	(10.2)	391	(10.9)	388	(7.6)	0.3	(4.1)	1.2	(0.3)	0.0	(0.3)
	Rio Grande do Norte	**372**	(9.1)	373	(13.5)	384	(14.3)	**403**	(17.6)	**14.0**	(6.2)	1.0	(0.2)	2.4	(1.9)
	Rio Grande do Sul	401	(9.1)	415	(10.1)	400	(10.6)	411	(9.7)	-0.7	(3.9)	1.1	(0.3)	0.0	(0.3)
	Rondônia	369	(9.8)	394	(10.5)	402	(9.9)	381	(9.1)	4.4	(3.9)	1.6	(0.4)	0.4	(0.6)
	Roraima	347	(7.6)	375	(8.5)	373	(13.3)	360	(8.5)	0.1	(5.1)	1.4	(0.4)	0.0	(0.3)
	Santa Catarina	404	(10.9)	425	(12.9)	432	(11.5)	422	(10.5)	2.7	(3.8)	1.5	(0.4)	0.1	(0.4)
	São Paulo	395	(7.7)	406	(8.6)	404	(6.5)	410	(5.9)	5.9	(4.1)	1.3	(0.2)	0.4	(0.6)
	Sergipe	388	(14.3)	379	(14.4)	380	(14.2)	391	(13.2)	2.6	(5.2)	1.1	(0.3)	0.1	(0.6)
	Tocantins	372	(13.4)	381	(13.3)	369	(9.3)	353	(11.4)	**-10.9**	(5.2)	1.0	(0.2)	1.4	(1.3)
	Colombia														
	Bogotá	390	(5.9)	390	(5.7)	401	(6.0)	399	(6.1)	5.6	(3.2)	1.3	(0.2)	0.6	(0.7)
	Cali	371	(9.7)	389	(7.1)	394	(8.8)	389	(7.9)	5.9	(3.5)	**1.7**	(0.3)	0.7	(0.9)
	Manizales	409	(8.9)	401	(7.2)	409	(8.5)	410	(6.7)	4.0	(3.5)	1.2	(0.2)	0.3	(0.5)
	Medellín	**379**	(9.3)	392	(7.7)	405	(11.9)	**415**	(10.8)	**12.7**	(3.7)	**1.7**	(0.3)	2.2	(1.1)
	Russian Federation														
	Perm Territory region•	**469**	(7.8)	484	(6.8)	486	(10.6)	**497**	(8.5)	**12.1**	(4.9)	1.3	(0.2)	1.2	(0.9)
	United Arab Emirates														
	Abu Dhabi•	**404**	(6.0)	416	(5.9)	437	(6.8)	**439**	(4.9)	**11.9**	(2.1)	**1.5**	(0.2)	2.1	(0.7)
	Ajman	**392**	(11.9)	400	(13.0)	406	(12.9)	**420**	(9.6)	**8.1**	(3.7)	1.3	(0.3)	1.3	(1.1)
	Dubai•	**446**	(4.2)	466	(3.7)	480	(4.1)	**472**	(4.1)	**9.6**	(2.0)	**1.5**	(0.1)	1.0	(0.4)
	Fujairah	**386**	(17.5)	419	(15.2)	420	(10.7)	**420**	(10.6)	**13.5**	(5.4)	**2.0**	(0.4)	2.8	(2.4)
	Ras al-Khaimah	**396**	(10.6)	407	(12.1)	419	(11.3)	**437**	(11.7)	**14.8**	(5.1)	**1.7**	(0.3)	4.5	(2.8)
	Sharjah	425	(12.9)	440	(13.0)	447	(11.7)	448	(11.1)	**8.3**	(3.8)	1.4	(0.3)	1.1	(0.9)
	Umm al-Quwain	**377**	(17.2)	406	(18.9)	392	(13.9)	**425**	(10.5)	**14.3**	(4.1)	1.6	(0.4)	4.1	(2.7)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.2.3d for national data.

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[Part 1/4]

Table B2.III.8

Index of perseverance and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

		Index of perseverance																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**																		
	Australian Capital Territory	0.16	(0.05)	0.91	(0.05)	0.22	(0.06)	0.10	(0.06)	0.12	(0.08)	-0.79	(0.05)	-0.16	(0.04)	0.31	(0.04)	1.30	(0.11)
	New South Wales	0.13	(0.02)	0.96	(0.02)	0.22	(0.02)	0.03	(0.03)	**0.19**	(0.04)	-0.93	(0.04)	-0.17	(0.01)	0.28	(0.02)	1.34	(0.04)
	Northern Territory	0.02	(0.10)	0.99	(0.08)	0.04	(0.14)	0.00	(0.12)	0.03	(0.18)	-0.96	(0.10)	-0.33	(0.06)	0.08	(0.10)	1.32	(0.22)
	Queensland	0.07	(0.03)	0.95	(0.03)	0.15	(0.03)	-0.01	(0.04)	**0.16**	(0.05)	-0.99	(0.04)	-0.26	(0.03)	0.23	(0.02)	1.28	(0.05)
	South Australia	0.06	(0.03)	0.91	(0.03)	0.14	(0.04)	-0.01	(0.04)	**0.15**	(0.06)	-0.94	(0.04)	-0.22	(0.04)	0.23	(0.03)	1.19	(0.05)
	Tasmania	0.07	(0.04)	0.98	(0.05)	0.17	(0.06)	-0.06	(0.04)	**0.23**	(0.08)	-1.01	(0.06)	-0.22	(0.03)	0.21	(0.03)	1.30	(0.10)
	Victoria	0.11	(0.03)	0.93	(0.03)	0.21	(0.04)	-0.01	(0.04)	**0.22**	(0.06)	-0.93	(0.05)	-0.19	(0.02)	0.27	(0.02)	1.28	(0.06)
	Western Australia	0.10	(0.03)	0.90	(0.03)	0.22	(0.05)	-0.04	(0.04)	**0.25**	(0.06)	-0.88	(0.04)	-0.23	(0.03)	0.25	(0.03)	1.25	(0.07)
	Belgium																		
	Flemish Community•	-0.26	(0.02)	0.85	(0.02)	-0.17	(0.03)	-0.34	(0.02)	**0.17**	(0.03)	-1.24	(0.03)	-0.50	(0.01)	-0.08	(0.02)	0.78	(0.04)
	French Community	-0.44	(0.03)	1.08	(0.03)	-0.33	(0.04)	-0.55	(0.03)	**0.22**	(0.05)	-1.70	(0.05)	-0.75	(0.03)	-0.20	(0.03)	0.87	(0.05)
	German-speaking Community	-0.13	(0.04)	0.83	(0.05)	-0.09	(0.06)	-0.18	(0.04)	0.08	(0.07)	-1.03	(0.05)	-0.41	(0.04)	-0.01	(0.03)	0.92	(0.08)
	Canada																		
	Alberta	0.27	(0.03)	0.96	(0.03)	0.34	(0.04)	0.20	(0.04)	**0.14**	(0.06)	-0.77	(0.04)	-0.08	(0.03)	0.44	(0.02)	1.50	(0.07)
	British Columbia	0.28	(0.03)	0.93	(0.03)	0.27	(0.04)	0.29	(0.03)	-0.02	(0.04)	-0.73	(0.04)	-0.07	(0.04)	0.43	(0.03)	1.48	(0.06)
	Manitoba	0.21	(0.04)	1.02	(0.05)	0.28	(0.07)	0.14	(0.05)	0.14	(0.08)	-0.87	(0.05)	-0.14	(0.02)	0.34	(0.04)	1.52	(0.11)
	New Brunswick	0.10	(0.04)	0.98	(0.04)	0.14	(0.05)	0.05	(0.06)	0.08	(0.07)	-0.97	(0.05)	-0.20	(0.04)	0.25	(0.03)	1.32	(0.09)
	Newfoundland and Labrador	0.25	(0.05)	1.14	(0.03)	0.30	(0.09)	0.20	(0.06)	0.10	(0.11)	-0.98	(0.05)	-0.17	(0.04)	0.41	(0.06)	1.76	(0.09)
	Nova Scotia	0.16	(0.06)	0.98	(0.04)	0.17	(0.06)	0.15	(0.08)	0.02	(0.07)	-0.91	(0.12)	-0.17	(0.05)	0.31	(0.05)	1.43	(0.06)
	Ontario	0.31	(0.03)	0.96	(0.03)	0.31	(0.03)	0.31	(0.04)	0.00	(0.05)	-0.72	(0.03)	-0.05	(0.03)	0.46	(0.02)	1.56	(0.07)
	Prince Edward Island	0.18	(0.04)	1.08	(0.04)	0.21	(0.05)	0.16	(0.05)	0.05	(0.06)	-0.98	(0.07)	-0.16	(0.02)	0.35	(0.04)	1.53	(0.08)
	Quebec	0.03	(0.03)	1.05	(0.02)	0.11	(0.04)	-0.06	(0.04)	**0.17**	(0.05)	-1.13	(0.03)	-0.36	(0.02)	0.23	(0.03)	1.37	(0.05)
	Saskatchewan	0.28	(0.03)	0.98	(0.03)	0.28	(0.04)	0.27	(0.04)	0.01	(0.06)	-0.76	(0.04)	-0.08	(0.03)	0.43	(0.02)	1.52	(0.07)
	Italy																		
	Abruzzo	0.06	(0.04)	1.03	(0.03)	0.02	(0.05)	0.10	(0.05)	-0.08	(0.08)	-1.13	(0.05)	-0.25	(0.03)	0.29	(0.04)	1.35	(0.06)
	Basilicata	0.16	(0.03)	1.01	(0.03)	0.20	(0.04)	0.12	(0.05)	0.08	(0.06)	-0.99	(0.05)	-0.16	(0.03)	0.34	(0.04)	1.45	(0.06)
	Bolzano	-0.10	(0.02)	0.88	(0.03)	-0.03	(0.04)	-0.17	(0.04)	**0.13**	(0.06)	-1.04	(0.04)	-0.38	(0.02)	0.03	(0.02)	0.98	(0.06)
	Calabria	0.23	(0.04)	1.09	(0.03)	0.26	(0.06)	0.20	(0.05)	0.06	(0.07)	-0.96	(0.04)	-0.18	(0.04)	0.38	(0.04)	1.69	(0.08)
	Campania	0.27	(0.04)	1.07	(0.03)	0.29	(0.03)	0.24	(0.06)	0.05	(0.06)	-0.92	(0.06)	-0.12	(0.04)	0.46	(0.04)	1.65	(0.06)
	Emilia Romagna	-0.14	(0.04)	0.93	(0.03)	-0.18	(0.06)	-0.09	(0.04)	-0.09	(0.07)	-1.19	(0.05)	-0.41	(0.04)	0.05	(0.03)	1.02	(0.07)
	Friuli Venezia Giulia	-0.07	(0.04)	0.98	(0.04)	0.01	(0.04)	-0.14	(0.06)	**0.15**	(0.07)	-1.16	(0.05)	-0.36	(0.03)	0.13	(0.04)	1.14	(0.08)
	Lazio	0.18	(0.04)	1.03	(0.03)	0.26	(0.04)	0.09	(0.06)	**0.17**	(0.07)	-0.97	(0.05)	-0.15	(0.03)	0.35	(0.05)	1.52	(0.08)
	Liguria	-0.07	(0.04)	1.01	(0.04)	-0.05	(0.06)	-0.09	(0.05)	0.03	(0.07)	-1.18	(0.06)	-0.38	(0.04)	0.11	(0.04)	1.19	(0.06)
	Lombardia	-0.11	(0.04)	0.96	(0.04)	-0.06	(0.05)	-0.17	(0.05)	0.11	(0.08)	-1.23	(0.05)	-0.38	(0.03)	0.10	(0.04)	1.07	(0.08)
	Marche	-0.02	(0.03)	0.97	(0.03)	0.03	(0.04)	-0.06	(0.05)	0.09	(0.06)	-1.13	(0.05)	-0.31	(0.03)	0.19	(0.03)	1.18	(0.06)
	Molise	0.08	(0.05)	1.07	(0.05)	0.10	(0.06)	0.07	(0.07)	0.03	(0.08)	-1.09	(0.06)	-0.27	(0.04)	0.25	(0.04)	1.44	(0.10)
	Piemonte	-0.14	(0.03)	1.02	(0.05)	-0.16	(0.08)	-0.11	(0.05)	-0.05	(0.11)	-1.31	(0.08)	-0.42	(0.04)	0.11	(0.03)	1.07	(0.05)
	Puglia	0.14	(0.04)	1.02	(0.03)	0.14	(0.05)	0.15	(0.05)	-0.01	(0.08)	-1.03	(0.05)	-0.20	(0.04)	0.35	(0.04)	1.46	(0.05)
	Sardegna	-0.03	(0.04)	1.04	(0.04)	0.10	(0.05)	-0.17	(0.04)	**0.28**	(0.06)	-1.23	(0.06)	-0.32	(0.03)	0.19	(0.03)	1.24	(0.08)
	Sicilia	0.23	(0.04)	1.02	(0.04)	0.21	(0.05)	0.25	(0.06)	-0.04	(0.08)	-0.92	(0.04)	-0.14	(0.04)	0.40	(0.04)	1.57	(0.09)
	Toscana	-0.06	(0.04)	1.04	(0.03)	-0.07	(0.06)	-0.04	(0.06)	-0.03	(0.08)	-1.25	(0.07)	-0.34	(0.03)	0.17	(0.04)	1.19	(0.07)
	Trento	-0.02	(0.03)	0.95	(0.03)	0.00	(0.04)	-0.04	(0.06)	0.04	(0.08)	-1.08	(0.05)	-0.33	(0.03)	0.16	(0.04)	1.17	(0.07)
	Umbria	0.04	(0.04)	1.09	(0.03)	0.03	(0.06)	0.05	(0.06)	-0.01	(0.10)	-1.19	(0.05)	-0.32	(0.03)	0.23	(0.04)	1.44	(0.07)
	Valle d'Aosta	-0.15	(0.04)	1.01	(0.05)	-0.15	(0.06)	-0.15	(0.06)	0.00	(0.09)	-1.34	(0.07)	-0.43	(0.04)	0.06	(0.04)	1.11	(0.09)
	Veneto	-0.02	(0.04)	1.03	(0.04)	0.01	(0.06)	-0.05	(0.04)	0.06	(0.08)	-1.17	(0.06)	-0.33	(0.04)	0.19	(0.04)	1.24	(0.06)
	Mexico																		
	Aguascalientes	0.29	(0.04)	0.90	(0.04)	0.24	(0.06)	0.34	(0.06)	-0.10	(0.08)	-0.64	(0.04)	-0.09	(0.03)	0.39	(0.06)	1.51	(0.09)
	Baja California	0.37	(0.06)	1.08	(0.07)	0.39	(0.07)	0.35	(0.06)	0.04	(0.06)	-0.68	(0.07)	-0.08	(0.03)	0.44	(0.05)	1.82	(0.17)
	Baja California Sur	0.30	(0.04)	0.99	(0.04)	0.31	(0.06)	0.28	(0.05)	0.02	(0.09)	-0.72	(0.03)	-0.11	(0.03)	0.38	(0.05)	1.64	(0.09)
	Campeche	0.29	(0.05)	1.01	(0.06)	0.22	(0.07)	0.36	(0.05)	**-0.13**	(0.07)	-0.73	(0.04)	-0.11	(0.02)	0.38	(0.05)	1.62	(0.13)
	Chiapas	0.32	(0.05)	1.00	(0.04)	0.25	(0.05)	0.38	(0.06)	**-0.12**	(0.06)	-0.70	(0.04)	-0.07	(0.03)	0.39	(0.05)	1.64	(0.11)
	Chihuahua	0.30	(0.05)	0.99	(0.05)	0.25	(0.06)	0.36	(0.06)	-0.11	(0.08)	-0.75	(0.05)	-0.11	(0.03)	0.45	(0.09)	1.62	(0.09)
	Coahuila	0.37	(0.05)	1.08	(0.04)	0.33	(0.06)	0.42	(0.06)	-0.08	(0.08)	-0.73	(0.07)	-0.05	(0.04)	0.47	(0.04)	1.81	(0.10)
	Colima	0.38	(0.03)	0.99	(0.03)	0.41	(0.05)	0.34	(0.05)	0.07	(0.07)	-0.61	(0.02)	-0.08	(0.02)	0.45	(0.05)	1.75	(0.08)
	Distrito Federal	0.34	(0.04)	1.04	(0.06)	0.36	(0.05)	0.32	(0.06)	0.04	(0.08)	-0.74	(0.03)	-0.12	(0.04)	0.46	(0.03)	1.77	(0.14)
	Durango	0.33	(0.10)	1.06	(0.09)	0.34	(0.12)	0.31	(0.10)	0.03	(0.06)	-0.71	(0.07)	-0.09	(0.05)	0.35	(0.08)	1.77	(0.25)
	Guanajuato	0.28	(0.05)	1.03	(0.06)	0.19	(0.06)	0.37	(0.06)	**-0.18**	(0.08)	-0.77	(0.04)	-0.15	(0.03)	0.38	(0.05)	1.67	(0.13)
	Guerrero	0.17	(0.04)	0.90	(0.04)	0.11	(0.05)	0.23	(0.06)	-0.12	(0.08)	-0.73	(0.05)	-0.17	(0.02)	0.23	(0.03)	1.34	(0.10)
	Hidalgo	0.28	(0.04)	1.00	(0.04)	0.29	(0.06)	0.27	(0.06)	0.02	(0.09)	-0.74	(0.04)	-0.11	(0.03)	0.40	(0.05)	1.58	(0.09)
	Jalisco	0.27	(0.04)	1.02	(0.04)	0.23	(0.05)	0.30	(0.06)	-0.07	(0.07)	-0.80	(0.06)	-0.15	(0.03)	0.39	(0.04)	1.63	(0.10)
	Mexico	0.34	(0.05)	0.98	(0.04)	0.25	(0.06)	0.44	(0.06)	**-0.19**	(0.06)	-0.68	(0.03)	-0.07	(0.05)	0.47	(0.05)	1.66	(0.10)
	Morelos	0.31	(0.05)	1.03	(0.04)	0.29	(0.06)	0.33	(0.07)	-0.04	(0.09)	-0.70	(0.04)	-0.11	(0.03)	0.37	(0.06)	1.69	(0.12)
	Nayarit	0.29	(0.04)	0.93	(0.04)	0.17	(0.05)	0.39	(0.06)	**-0.22**	(0.07)	-0.69	(0.03)	-0.08	(0.03)	0.36	(0.05)	1.56	(0.09)
	Nuevo León	0.40	(0.03)	1.03	(0.04)	0.40	(0.04)	0.41	(0.05)	-0.01	(0.07)	-0.64	(0.03)	-0.01	(0.03)	0.47	(0.03)	1.81	(0.09)
	Puebla	0.23	(0.04)	0.91	(0.03)	0.17	(0.05)	0.29	(0.05)	**-0.12**	(0.06)	-0.68	(0.04)	-0.15	(0.03)	0.31	(0.05)	1.45	(0.08)
	Querétaro	0.29	(0.07)	0.95	(0.05)	0.29	(0.08)	0.30	(0.09)	-0.01	(0.10)	-0.67	(0.05)	-0.10	(0.05)	0.37	(0.06)	1.59	(0.14)
	Quintana Roo	0.44	(0.03)	1.08	(0.05)	0.37	(0.06)	0.51	(0.04)	-0.14	(0.09)	-0.69	(0.04)	-0.01	(0.03)	0.59	(0.04)	1.88	(0.10)
	San Luis Potosí	0.28	(0.04)	0.94	(0.04)	0.22	(0.07)	0.33	(0.04)	-0.11	(0.08)	-0.64	(0.03)	-0.11	(0.03)	0.33	(0.04)	1.53	(0.08)
	Sinaloa	0.40	(0.06)	1.04	(0.03)	0.33	(0.06)	0.46	(0.08)	-0.14	(0.08)	-0.62	(0.04)	-0.08	(0.05)	0.46	(0.05)	1.83	(0.12)
	Tabasco	0.37	(0.05)	1.04	(0.04)	0.24	(0.06)	0.49	(0.05)	**-0.25**	(0.06)	-0.64	(0.04)	-0.07	(0.03)	0.41	(0.05)	1.79	(0.12)
	Tamaulipas	0.32	(0.05)	1.03	(0.04)	0.32	(0.06)	0.32	(0.07)	-0.01	(0.09)	-0.70	(0.05)	-0.12	(0.03)	0.39	(0.05)	1.72	(0.11)
	Tlaxcala	0.38	(0.04)	1.01	(0.03)	0.38	(0.06)	0.38	(0.06)	0.00	(0.09)	-0.63	(0.03)	-0.09	(0.04)	0.46	(0.05)	1.78	(0.09)
	Veracruz	0.28	(0.04)	1.03	(0.03)	0.13	(0.06)	0.43	(0.06)	**-0.30**	(0.07)	-0.77	(0.06)	-0.15	(0.03)	0.38	(0.06)	1.65	(0.09)
	Yucatán	0.37	(0.05)	1.06	(0.04)	0.36	(0.06)	0.38	(0.06)	-0.02	(0.07)	-0.74	(0.09)	0.00	(0.04)	0.47	(0.05)	1.76	(0.09)
	Zacatecas	0.20	(0.06)	1.01	(0.06)	0.14	(0.09)	0.27	(0.05)	-0.13	(0.09)	-0.84	(0.05)	-0.17	(0.04)	0.33	(0.06)	1.52	(0.13)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.3.1d for national data.

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[Part 2/4]

Table B2.III.8 Index of perseverance and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

		Index of perseverance																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Portugal**																		
	Alentejo	0.30	(0.04)	1.02	(0.04)	0.16	(0.07)	0.43	(0.04)	**-0.27**	(0.07)	-0.78	(0.07)	-0.14	(0.05)	0.46	(0.08)	1.68	(0.07)
	Spain																		
	Andalusia•	0.25	(0.04)	0.96	(0.03)	0.22	(0.05)	0.28	(0.05)	-0.07	(0.08)	-0.76	(0.05)	-0.11	(0.02)	0.37	(0.04)	1.51	(0.07)
	Aragon•	0.09	(0.04)	0.90	(0.03)	0.12	(0.05)	0.06	(0.05)	0.06	(0.06)	-0.90	(0.05)	-0.22	(0.04)	0.24	(0.02)	1.25	(0.07)
	Asturias•	0.12	(0.04)	0.99	(0.03)	0.12	(0.05)	0.13	(0.06)	-0.01	(0.06)	-0.96	(0.04)	-0.21	(0.03)	0.28	(0.03)	1.39	(0.10)
	Balearic Islands•	-0.15	(0.04)	0.94	(0.05)	-0.15	(0.05)	-0.16	(0.05)	0.01	(0.06)	-1.15	(0.06)	-0.47	(0.03)	0.01	(0.04)	1.01	(0.09)
	Basque Country•	0.15	(0.02)	0.83	(0.02)	0.14	(0.03)	0.15	(0.02)	-0.02	(0.03)	-0.72	(0.02)	-0.15	(0.01)	0.25	(0.02)	1.20	(0.04)
	Cantabria•	0.13	(0.03)	0.97	(0.04)	0.18	(0.06)	0.09	(0.04)	0.09	(0.07)	-0.92	(0.04)	-0.19	(0.03)	0.29	(0.04)	1.37	(0.08)
	Castile and Leon•	0.11	(0.03)	0.93	(0.04)	0.10	(0.04)	0.11	(0.06)	-0.02	(0.08)	-0.93	(0.05)	-0.18	(0.02)	0.28	(0.03)	1.27	(0.08)
	Catalonia•	-0.21	(0.03)	0.97	(0.04)	-0.13	(0.06)	-0.29	(0.05)	**0.17**	(0.08)	-1.24	(0.05)	-0.51	(0.03)	-0.08	(0.04)	1.01	(0.07)
	Extremadura•	0.15	(0.03)	1.00	(0.03)	0.09	(0.03)	0.21	(0.05)	-0.12	(0.07)	-0.94	(0.04)	-0.20	(0.03)	0.28	(0.04)	1.46	(0.06)
	Galicia•	0.08	(0.02)	0.91	(0.03)	0.16	(0.04)	-0.01	(0.04)	**0.17**	(0.06)	-0.94	(0.03)	-0.21	(0.03)	0.24	(0.02)	1.21	(0.06)
	La Rioja•	0.11	(0.03)	0.99	(0.03)	0.15	(0.05)	0.07	(0.05)	0.08	(0.07)	-0.99	(0.04)	-0.22	(0.04)	0.28	(0.03)	1.36	(0.08)
	Madrid•	0.19	(0.03)	0.99	(0.03)	0.17	(0.04)	0.21	(0.04)	-0.04	(0.05)	-0.85	(0.05)	-0.14	(0.02)	0.32	(0.03)	1.45	(0.06)
	Murcia•	0.14	(0.04)	0.99	(0.04)	0.12	(0.06)	0.16	(0.05)	-0.03	(0.08)	-0.95	(0.07)	-0.19	(0.04)	0.31	(0.04)	1.39	(0.07)
	Navarre•	0.02	(0.03)	0.85	(0.03)	0.03	(0.03)	0.02	(0.04)	0.01	(0.05)	-0.90	(0.04)	-0.27	(0.02)	0.15	(0.04)	1.11	(0.05)
	United Kingdom																		
	England	0.11	(0.02)	1.00	(0.02)	0.23	(0.03)	0.00	(0.02)	**0.23**	(0.04)	-1.00	(0.03)	-0.20	(0.02)	0.28	(0.02)	1.38	(0.05)
	Northern Ireland	0.10	(0.04)	1.00	(0.02)	0.23	(0.03)	-0.04	(0.05)	**0.27**	(0.04)	-1.04	(0.05)	-0.18	(0.03)	0.29	(0.02)	1.34	(0.07)
	Scotland•	0.10	(0.03)	1.02	(0.03)	0.21	(0.04)	-0.01	(0.03)	**0.22**	(0.05)	-1.03	(0.05)	-0.23	(0.03)	0.26	(0.02)	1.38	(0.04)
	Wales	0.04	(0.02)	0.97	(0.03)	0.18	(0.03)	-0.10	(0.03)	**0.28**	(0.04)	-1.04	(0.04)	-0.27	(0.02)	0.21	(0.02)	1.28	(0.04)
	United States																		
	Connecticut•	0.44	(0.04)	1.00	(0.03)	0.46	(0.05)	0.41	(0.05)	0.05	(0.07)	-0.63	(0.04)	0.05	(0.02)	0.60	(0.05)	1.73	(0.08)
	Florida•	0.38	(0.03)	1.03	(0.03)	0.43	(0.04)	0.33	(0.04)	0.09	(0.05)	-0.75	(0.03)	0.00	(0.03)	0.53	(0.05)	1.74	(0.06)
	Massachusetts•	0.35	(0.02)	1.00	(0.04)	0.41	(0.04)	0.29	(0.04)	0.12	(0.06)	-0.71	(0.05)	-0.02	(0.04)	0.48	(0.02)	1.63	(0.07)
Partners	**Argentina**																		
	Ciudad Autónoma de Buenos Aires•	0.13	(0.04)	0.98	(0.03)	0.11	(0.04)	0.14	(0.07)	-0.03	(0.08)	-0.91	(0.06)	-0.23	(0.05)	0.25	(0.03)	1.41	(0.06)
	Brazil																		
	Acre	0.13	(0.07)	0.95	(0.08)	0.02	(0.12)	0.23	(0.07)	-0.21	(0.14)	-0.86	(0.14)	-0.16	(0.05)	0.25	(0.05)	1.30	(0.10)
	Alagoas	0.19	(0.06)	0.95	(0.08)	0.14	(0.10)	0.23	(0.06)	-0.09	(0.10)	-0.76	(0.06)	-0.17	(0.05)	0.28	(0.04)	1.44	(0.18)
	Amapá	0.16	(0.07)	0.94	(0.05)	0.11	(0.11)	0.19	(0.06)	-0.08	(0.11)	-0.82	(0.09)	-0.15	(0.04)	0.31	(0.06)	1.31	(0.13)
	Amazonas	0.20	(0.06)	0.95	(0.06)	0.08	(0.06)	0.30	(0.08)	**-0.22**	(0.09)	-0.77	(0.05)	-0.14	(0.04)	0.27	(0.05)	1.43	(0.12)
	Bahia	0.20	(0.06)	0.90	(0.03)	0.05	(0.08)	0.33	(0.07)	**-0.28**	(0.10)	-0.82	(0.06)	-0.13	(0.04)	0.37	(0.08)	1.42	(0.09)
	Ceará	0.12	(0.05)	0.89	(0.07)	0.08	(0.05)	0.15	(0.08)	-0.08	(0.09)	-0.80	(0.06)	-0.20	(0.04)	0.21	(0.05)	1.26	(0.16)
	Espírito Santo	0.18	(0.07)	0.97	(0.06)	0.26	(0.07)	0.11	(0.09)	0.15	(0.09)	-0.83	(0.06)	-0.20	(0.04)	0.30	(0.08)	1.49	(0.13)
	Federal District	0.05	(0.04)	0.92	(0.05)	-0.05	(0.04)	0.15	(0.06)	**-0.20**	(0.07)	-1.02	(0.09)	-0.26	(0.03)	0.26	(0.06)	1.22	(0.07)
	Goiás	-0.02	(0.06)	0.98	(0.06)	-0.13	(0.07)	0.07	(0.10)	-0.20	(0.12)	-1.09	(0.11)	-0.29	(0.05)	0.13	(0.06)	1.20	(0.08)
	Maranhão	0.14	(0.06)	0.90	(0.05)	0.14	(0.09)	0.15	(0.09)	-0.01	(0.14)	-0.76	(0.09)	-0.17	(0.03)	0.21	(0.04)	1.30	(0.12)
	Mato Grosso	0.04	(0.04)	0.90	(0.03)	-0.05	(0.06)	0.13	(0.06)	-0.17	(0.09)	-0.93	(0.04)	-0.25	(0.03)	0.17	(0.05)	1.19	(0.08)
	Mato Grosso do Sul	0.09	(0.06)	1.00	(0.06)	-0.07	(0.06)	0.21	(0.09)	**-0.28**	(0.10)	-0.88	(0.10)	-0.28	(0.04)	0.15	(0.06)	1.40	(0.14)
	Minas Gerais	0.10	(0.05)	0.97	(0.06)	0.02	(0.06)	0.17	(0.06)	**-0.15**	(0.07)	-0.89	(0.06)	-0.23	(0.03)	0.19	(0.04)	1.34	(0.13)
	Pará	0.16	(0.05)	0.92	(0.05)	0.03	(0.07)	0.25	(0.06)	**-0.22**	(0.09)	-0.77	(0.06)	-0.13	(0.04)	0.22	(0.04)	1.35	(0.13)
	Paraíba	0.14	(0.07)	0.90	(0.04)	0.07	(0.09)	0.19	(0.09)	-0.12	(0.12)	-0.88	(0.07)	-0.21	(0.08)	0.32	(0.05)	1.33	(0.11)
	Paraná	0.10	(0.05)	0.96	(0.04)	0.10	(0.09)	0.10	(0.07)	0.00	(0.12)	-0.90	(0.08)	-0.23	(0.03)	0.21	(0.04)	1.32	(0.09)
	Pernambuco	0.33	(0.04)	1.04	(0.06)	0.21	(0.07)	0.43	(0.07)	-0.22	(0.12)	-0.69	(0.05)	-0.11	(0.04)	0.39	(0.04)	1.75	(0.14)
	Piauí	0.07	(0.03)	0.95	(0.05)	0.02	(0.05)	0.11	(0.03)	-0.10	(0.05)	-0.94	(0.04)	-0.24	(0.04)	0.20	(0.03)	1.28	(0.09)
	Rio de Janeiro	0.26	(0.05)	0.99	(0.05)	0.27	(0.11)	0.25	(0.04)	0.02	(0.13)	-0.80	(0.04)	-0.12	(0.04)	0.38	(0.06)	1.57	(0.12)
	Rio Grande do Norte	0.20	(0.05)	0.91	(0.05)	0.11	(0.09)	0.27	(0.06)	-0.17	(0.10)	-0.69	(0.05)	-0.15	(0.03)	0.24	(0.04)	1.42	(0.14)
	Rio Grande do Sul	0.31	(0.06)	1.11	(0.05)	0.32	(0.07)	0.30	(0.07)	0.02	(0.07)	-0.81	(0.05)	-0.13	(0.03)	0.37	(0.05)	1.82	(0.16)
	Rondônia	0.14	(0.07)	0.94	(0.06)	-0.01	(0.09)	0.27	(0.07)	**-0.28**	(0.09)	-0.82	(0.05)	-0.19	(0.05)	0.24	(0.05)	1.35	(0.16)
	Roraima	0.05	(0.04)	0.86	(0.06)	-0.01	(0.06)	0.10	(0.05)	-0.11	(0.07)	-0.89	(0.07)	-0.22	(0.05)	0.20	(0.04)	1.11	(0.10)
	Santa Catarina	0.10	(0.05)	0.93	(0.06)	-0.06	(0.06)	0.24	(0.07)	**-0.29**	(0.08)	-0.88	(0.10)	-0.19	(0.03)	0.21	(0.05)	1.27	(0.10)
	São Paulo	0.10	(0.03)	0.91	(0.03)	0.03	(0.03)	0.16	(0.04)	**-0.13**	(0.04)	-0.86	(0.04)	-0.23	(0.02)	0.21	(0.02)	1.27	(0.05)
	Sergipe	0.34	(0.08)	1.02	(0.08)	0.26	(0.07)	0.40	(0.13)	-0.14	(0.14)	-0.66	(0.04)	-0.12	(0.04)	0.42	(0.09)	1.74	(0.20)
	Tocantins	0.19	(0.04)	0.93	(0.04)	0.12	(0.05)	0.26	(0.06)	-0.13	(0.08)	-0.74	(0.03)	-0.17	(0.03)	0.25	(0.05)	1.43	(0.09)
	Colombia																		
	Bogotá	0.34	(0.03)	0.91	(0.03)	0.29	(0.04)	0.39	(0.04)	-0.10	(0.06)	-0.61	(0.03)	-0.04	(0.03)	0.48	(0.03)	1.55	(0.06)
	Cali	0.54	(0.04)	1.00	(0.04)	0.50	(0.06)	0.57	(0.05)	-0.07	(0.06)	-0.49	(0.03)	0.11	(0.03)	0.66	(0.05)	1.89	(0.11)
	Manizales	0.43	(0.04)	1.01	(0.05)	0.43	(0.07)	0.42	(0.04)	0.01	(0.07)	-0.58	(0.04)	0.02	(0.02)	0.51	(0.04)	1.77	(0.11)
	Medellín	0.38	(0.03)	0.98	(0.04)	0.36	(0.05)	0.40	(0.05)	-0.04	(0.07)	-0.65	(0.03)	-0.04	(0.03)	0.50	(0.04)	1.70	(0.09)
	Russian Federation																		
	Perm Territory region•	0.14	(0.03)	0.87	(0.03)	0.14	(0.04)	0.15	(0.03)	-0.02	(0.05)	-0.70	(0.03)	-0.22	(0.02)	0.17	(0.02)	1.33	(0.06)
	United Arab Emirates																		
	Abu Dhabi•	0.40	(0.02)	0.94	(0.02)	0.36	(0.03)	0.44	(0.03)	-0.08	(0.05)	-0.60	(0.02)	0.02	(0.02)	0.52	(0.03)	1.65	(0.05)
	Ajman	0.38	(0.06)	0.98	(0.05)	0.23	(0.09)	0.53	(0.07)	**-0.30**	(0.11)	-0.64	(0.06)	0.02	(0.07)	0.49	(0.06)	1.67	(0.13)
	Dubai•	0.42	(0.02)	0.95	(0.02)	0.44	(0.03)	0.41	(0.03)	0.03	(0.04)	-0.58	(0.03)	0.07	(0.02)	0.55	(0.03)	1.66	(0.04)
	Fujairah	0.40	(0.07)	1.00	(0.05)	0.19	(0.07)	0.60	(0.07)	**-0.41**	(0.10)	-0.59	(0.06)	-0.03	(0.04)	0.47	(0.09)	1.75	(0.13)
	Ras al-Khaimah	0.39	(0.06)	0.96	(0.05)	0.37	(0.06)	0.41	(0.08)	-0.04	(0.09)	-0.65	(0.07)	0.03	(0.04)	0.51	(0.05)	1.68	(0.11)
	Sharjah	0.47	(0.05)	0.96	(0.05)	0.44	(0.09)	0.50	(0.07)	-0.06	(0.11)	-0.57	(0.07)	0.13	(0.06)	0.63	(0.06)	1.71	(0.10)
	Umm al-Quwain	0.30	(0.08)	1.04	(0.08)	0.20	(0.11)	0.39	(0.10)	-0.20	(0.15)	-0.83	(0.10)	-0.04	(0.07)	0.45	(0.07)	1.62	(0.19)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.3.1d for national data.

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[Part 3/4]

Table B2.III.8

Index of perseverance and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Australia**														
	Australian Capital Territory	**497**	(8.0)	513	(10.8)	537	(8.5)	**555**	(10.3)	**23.9**	(5.5)	**1.6**	(0.3)	5.5	(2.3)
	New South Wales	**475**	(5.7)	503	(7.1)	530	(6.2)	**546**	(5.7)	**25.0**	(2.5)	**2.0**	(0.2)	5.7	(1.1)
	Northern Territory	**428**	(20.5)	447	(22.0)	479	(18.1)	**503**	(18.5)	**31.0**	(8.9)	2.0	(0.5)	8.6	(4.6)
	Queensland	**467**	(4.9)	484	(5.4)	521	(6.8)	**550**	(5.2)	**34.6**	(2.5)	**2.0**	(0.2)	12.8	(1.7)
	South Australia	**459**	(5.7)	478	(6.5)	506	(7.9)	**533**	(6.9)	**28.3**	(3.4)	**2.0**	(0.2)	8.5	(1.8)
	Tasmania	**440**	(7.2)	462	(10.1)	494	(6.6)	**526**	(7.0)	**34.8**	(4.0)	**2.3**	(0.4)	14.1	(2.6)
	Victoria	**463**	(6.1)	487	(6.0)	519	(6.7)	**535**	(4.6)	**29.1**	(2.4)	**2.0**	(0.2)	9.1	(1.5)
	Western Australia	**485**	(5.9)	515	(7.4)	534	(6.1)	**551**	(7.1)	**25.9**	(3.2)	**1.9**	(0.2)	6.5	(1.7)
	Belgium														
	Flemish Community•	**522**	(4.5)	535	(5.0)	537	(4.9)	**549**	(5.0)	**11.0**	(2.6)	1.1	(0.1)	0.9	(0.4)
	French Community	**476**	(5.1)	498	(5.6)	503	(5.9)	**529**	(5.3)	**17.4**	(2.2)	**1.5**	(0.1)	4.0	(1.1)
	German-speaking Community	**505**	(8.6)	492	(10.0)	530	(9.2)	**535**	(9.4)	**17.1**	(5.1)	1.0	(0.2)	2.6	(1.6)
	Canada														
	Alberta	**484**	(5.5)	511	(7.8)	542	(5.8)	**550**	(7.3)	**23.5**	(3.0)	**2.0**	(0.2)	6.7	(1.7)
	British Columbia	**493**	(7.0)	506	(7.5)	539	(6.9)	**557**	(6.7)	**25.9**	(3.2)	**1.8**	(0.2)	8.2	(1.9)
	Manitoba	**464**	(6.5)	484	(6.9)	507	(6.8)	**534**	(6.3)	**24.9**	(2.7)	**1.8**	(0.3)	8.6	(1.6)
	New Brunswick	**474**	(5.6)	486	(7.0)	514	(7.1)	**533**	(7.5)	**22.9**	(3.0)	**1.6**	(0.3)	8.0	(1.8)
	Newfoundland and Labrador	**443**	(8.9)	489	(9.7)	513	(7.4)	**525**	(6.6)	**25.2**	(3.2)	**2.6**	(0.4)	11.5	(2.6)
	Nova Scotia	**455**	(14.1)	489	(8.4)	511	(6.6)	**533**	(8.6)	**27.4**	(4.0)	**2.5**	(0.6)	11.3	(3.6)
	Ontario	**495**	(5.9)	502	(7.7)	528	(5.6)	**551**	(5.0)	**21.0**	(2.3)	**1.6**	(0.2)	5.5	(1.1)
	Prince Edward Island	**447**	(6.3)	468	(6.8)	497	(6.6)	**518**	(6.8)	**23.2**	(3.3)	**2.1**	(0.3)	9.0	(2.3)
	Quebec	**509**	(4.6)	525	(4.7)	550	(6.5)	**569**	(5.5)	**19.8**	(2.2)	**1.7**	(0.2)	5.5	(1.1)
	Saskatchewan	**472**	(6.5)	501	(7.4)	525	(6.0)	**541**	(6.4)	**25.0**	(3.3)	**2.1**	(0.3)	9.0	(2.0)
	Italy														
	Abruzzo	**443**	(8.5)	470	(10.0)	496	(9.1)	**498**	(6.8)	**18.4**	(2.9)	**1.7**	(0.2)	4.5	(1.3)
	Basilicata	**451**	(6.3)	458	(8.7)	475	(7.6)	**489**	(6.8)	**15.6**	(3.1)	1.1	(0.2)	3.5	(1.3)
	Bolzano	**480**	(5.8)	508	(6.3)	512	(5.5)	**539**	(5.4)	**23.8**	(2.7)	**1.7**	(0.2)	5.5	(1.3)
	Calabria	**410**	(8.0)	420	(8.0)	437	(8.5)	**455**	(8.8)	**14.0**	(3.2)	**1.4**	(0.2)	3.1	(1.3)
	Campania	**420**	(10.9)	449	(9.7)	480	(9.6)	**473**	(9.2)	**17.0**	(3.0)	**1.8**	(0.3)	4.2	(1.5)
	Emilia Romagna	**472**	(9.5)	500	(8.7)	501	(9.6)	**535**	(9.4)	**24.0**	(4.4)	**1.7**	(0.3)	5.5	(1.8)
	Friuli Venezia Giulia	**498**	(6.7)	521	(8.4)	537	(6.9)	**545**	(6.1)	**16.9**	(3.4)	**1.8**	(0.2)	3.8	(1.5)
	Lazio	**455**	(8.4)	470	(11.1)	487	(8.8)	**487**	(10.2)	**13.4**	(3.4)	1.4	(0.2)	2.4	(1.2)
	Liguria	**469**	(9.4)	482	(9.4)	490	(10.5)	**509**	(8.9)	**13.2**	(2.7)	1.5	(0.2)	2.2	(0.9)
	Lombardia	**489**	(9.7)	509	(9.2)	531	(9.4)	**539**	(10.0)	**17.4**	(4.1)	**1.7**	(0.2)	3.7	(1.6)
	Marche	**473**	(9.6)	487	(6.9)	503	(8.7)	**516**	(9.2)	**16.7**	(3.4)	**1.4**	(0.2)	3.6	(1.4)
	Molise	**430**	(5.9)	461	(8.8)	475	(7.3)	**489**	(7.6)	**19.2**	(3.1)	**1.8**	(0.3)	6.1	(1.7)
	Piemonte	**469**	(8.5)	487	(7.9)	509	(9.5)	**527**	(10.2)	**22.6**	(3.0)	**1.7**	(0.2)	6.7	(1.6)
	Puglia	**447**	(9.9)	477	(10.0)	485	(9.3)	**502**	(6.6)	**17.2**	(2.8)	**1.7**	(0.3)	4.2	(1.4)
	Sardegna	**435**	(7.4)	464	(6.9)	460	(12.2)	**483**	(7.9)	**15.3**	(3.3)	1.5	(0.3)	3.4	(1.4)
	Sicilia	**432**	(7.4)	443	(9.3)	463	(8.9)	**457**	(8.7)	**9.0**	(3.8)	1.4	(0.2)	1.3	(1.1)
	Toscana	**466**	(5.6)	487	(8.9)	512	(7.9)	**521**	(7.9)	**17.2**	(3.6)	**1.7**	(0.3)	3.8	(1.4)
	Trento	**504**	(6.7)	522	(7.9)	537	(8.7)	**544**	(6.5)	**14.1**	(2.9)	1.4	(0.2)	2.7	(1.2)
	Umbria	**469**	(8.9)	473	(11.9)	502	(7.6)	**522**	(7.0)	**19.4**	(2.9)	**1.4**	(0.2)	5.8	(1.5)
	Valle d'Aosta	**476**	(6.6)	486	(8.3)	490	(8.5)	**526**	(7.5)	**19.4**	(3.7)	1.3	(0.3)	5.9	(2.2)
	Veneto	**488**	(6.6)	511	(11.7)	530	(12.2)	**557**	(9.2)	**23.0**	(2.6)	**1.8**	(0.3)	7.0	(1.5)
	Mexico														
	Aguascalientes	**420**	(5.8)	420	(10.0)	445	(9.2)	**464**	(6.9)	**18.8**	(4.1)	1.4	(0.3)	5.6	(2.1)
	Baja California	**384**	(7.4)	405	(6.5)	427	(10.2)	**442**	(11.7)	**15.4**	(4.3)	**2.0**	(0.3)	5.2	(2.4)
	Baja California Sur	**400**	(8.2)	399	(7.9)	428	(9.8)	**448**	(8.0)	**20.1**	(2.6)	**1.7**	(0.3)	7.4	(1.9)
	Campeche	**383**	(6.7)	375	(6.4)	414	(7.9)	**421**	(7.8)	**15.5**	(3.5)	1.4	(0.3)	4.9	(1.9)
	Chiapas	**361**	(8.9)	361	(7.2)	379	(10.7)	**394**	(10.1)	**13.7**	(3.2)	1.3	(0.3)	3.5	(1.5)
	Chihuahua	**408**	(6.3)	413	(7.1)	436	(12.1)	**461**	(12.3)	**16.8**	(4.4)	1.4	(0.4)	4.8	(2.3)
	Coahuila	**397**	(8.9)	407	(10.6)	433	(11.6)	**439**	(10.6)	**11.3**	(3.2)	**1.6**	(0.3)	3.0	(1.5)
	Colima	**404**	(7.5)	423	(8.1)	433	(7.7)	**443**	(8.2)	**14.2**	(3.0)	1.6	(0.3)	3.3	(1.4)
	Distrito Federal	**408**	(9.5)	431	(9.0)	436	(10.0)	**448**	(8.2)	**11.0**	(3.5)	1.6	(0.4)	2.5	(1.6)
	Durango	**399**	(9.5)	411	(10.5)	427	(11.8)	**455**	(9.7)	**20.1**	(3.1)	1.6	(0.4)	8.5	(2.6)
	Guanajuato	**390**	(7.7)	394	(9.0)	424	(9.3)	**447**	(7.4)	**20.3**	(2.9)	1.5	(0.3)	8.0	(2.2)
	Guerrero	**361**	(5.5)	354	(4.8)	371	(7.2)	**386**	(6.6)	**10.8**	(3.1)	1.1	(0.3)	2.3	(1.3)
	Hidalgo	**391**	(8.2)	402	(7.3)	407	(7.9)	**433**	(7.5)	**14.1**	(3.2)	1.5	(0.3)	3.9	(1.5)
	Jalisco	**410**	(8.3)	425	(8.3)	444	(8.9)	**460**	(8.2)	**18.1**	(2.5)	**1.9**	(0.3)	6.8	(2.0)
	Mexico	413	(9.6)	408	(8.6)	424	(7.1)	433	(9.7)	**9.8**	(3.9)	1.3	(0.3)	2.1	(1.6)
	Morelos	**402**	(9.4)	406	(11.1)	430	(12.5)	**452**	(11.9)	**15.2**	(3.6)	1.3	(0.3)	3.9	(1.5)
	Nayarit	**394**	(8.6)	396	(9.4)	428	(11.8)	**444**	(8.2)	**21.1**	(3.4)	**1.5**	(0.2)	6.6	(2.0)
	Nuevo León	**416**	(11.4)	430	(7.5)	440	(11.9)	**459**	(7.1)	**12.9**	(2.9)	**1.6**	(0.3)	3.4	(1.4)
	Puebla	**397**	(5.7)	399	(9.7)	424	(8.8)	**444**	(7.8)	**17.8**	(3.7)	**1.5**	(0.2)	4.9	(2.0)
	Querétaro	**413**	(8.1)	426	(7.7)	440	(10.8)	**457**	(9.9)	**14.3**	(3.3)	1.5	(0.3)	3.3	(1.3)
	Quintana Roo	**399**	(6.8)	395	(9.7)	414	(9.6)	**427**	(6.9)	**9.3**	(2.4)	1.2	(0.2)	2.1	(1.0)
	San Luis Potosí	**393**	(10.0)	402	(8.4)	415	(8.6)	**445**	(8.7)	**18.2**	(2.8)	**1.6**	(0.3)	5.3	(1.6)
	Sinaloa	**404**	(7.7)	392	(7.8)	418	(7.2)	**435**	(5.4)	**11.0**	(3.3)	1.1	(0.2)	2.8	(1.6)
	Tabasco	**361**	(8.7)	367	(10.1)	376	(8.3)	**405**	(5.9)	**16.3**	(2.9)	1.5	(0.3)	6.0	(2.0)
	Tamaulipas	**385**	(9.2)	404	(11.4)	423	(11.0)	**431**	(9.6)	**15.3**	(3.9)	1.7	(0.4)	4.7	(2.3)
	Tlaxcala	**389**	(6.6)	401	(7.6)	424	(10.1)	**438**	(5.1)	**16.6**	(2.6)	**1.7**	(0.2)	5.8	(1.8)
	Veracruz	**383**	(8.1)	394	(9.7)	403	(11.0)	**429**	(12.8)	**17.1**	(3.5)	1.3	(0.3)	5.5	(2.1)
	Yucatán	**389**	(8.9)	399	(8.5)	411	(8.2)	**441**	(7.2)	**16.9**	(3.4)	1.5	(0.3)	5.9	(2.3)
	Zacatecas	**395**	(8.4)	398	(7.9)	414	(10.0)	**428**	(6.5)	**13.8**	(4.1)	1.4	(0.2)	4.0	(2.1)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.3.1d for national data.

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[Part 4/4]

Table B2.III.8

Index of perseverance and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Portugal**														
	Alentejo	**461**	(15.6)	462	(15.4)	501	(12.4)	**529**	(9.9)	**25.9**	(5.3)	**1.7**	(0.3)	8.8	(3.3)
	Spain														
	Andalusia•	**446**	(5.8)	457	(6.8)	487	(7.7)	**501**	(7.6)	**24.1**	(3.3)	**1.6**	(0.3)	7.6	(1.9)
	Aragon•	**465**	(8.3)	487	(8.1)	512	(8.8)	**526**	(8.9)	**20.7**	(3.5)	**1.6**	(0.2)	4.1	(1.3)
	Asturias•	**466**	(7.9)	495	(8.3)	512	(7.3)	**534**	(12.2)	**25.2**	(5.3)	**1.8**	(0.2)	7.1	(2.8)
	Balearic Islands•	**455**	(8.5)	460	(7.8)	487	(8.1)	**515**	(6.6)	**24.5**	(2.8)	**1.5**	(0.2)	7.2	(1.6)
	Basque Country•	**479**	(4.0)	496	(3.6)	514	(3.7)	**537**	(3.9)	**24.5**	(2.0)	**1.7**	(0.1)	6.2	(0.9)
	Cantabria•	**464**	(6.4)	487	(6.6)	507	(6.9)	**521**	(6.7)	**20.7**	(3.8)	**1.8**	(0.2)	5.2	(1.7)
	Castile and Leon•	**487**	(6.6)	502	(7.3)	516	(7.6)	**537**	(6.5)	**19.0**	(2.7)	**1.5**	(0.2)	4.6	(1.4)
	Catalonia•	**469**	(6.7)	482	(9.3)	498	(9.0)	**530**	(7.6)	**23.0**	(3.4)	**1.5**	(0.3)	7.2	(2.1)
	Extremadura•	**418**	(8.2)	448	(7.9)	475	(7.9)	**501**	(6.0)	**30.7**	(3.3)	**2.0**	(0.3)	11.5	(2.1)
	Galicia•	**477**	(5.5)	481	(8.1)	491	(6.6)	**514**	(6.3)	**13.8**	(2.6)	1.1	(0.1)	2.3	(1.0)
	La Rioja•	**472**	(7.1)	484	(9.3)	516	(7.8)	**544**	(6.9)	**26.5**	(3.5)	**1.6**	(0.3)	6.9	(1.6)
	Madrid•	**479**	(6.5)	492	(6.7)	512	(7.2)	**539**	(5.9)	**23.0**	(2.8)	**1.6**	(0.2)	7.2	(1.6)
	Murcia•	**431**	(6.7)	461	(9.5)	473	(6.8)	**487**	(7.2)	**21.0**	(2.8)	**1.7**	(0.2)	5.4	(1.4)
	Navarre•	**492**	(7.2)	506	(5.4)	524	(6.7)	**551**	(6.1)	**23.1**	(3.5)	**1.5**	(0.2)	5.3	(1.6)
	United Kingdom														
	England	**463**	(5.5)	486	(6.2)	509	(5.3)	**529**	(4.0)	**24.8**	(2.5)	**1.8**	(0.2)	7.1	(1.2)
	Northern Ireland	**461**	(6.4)	476	(6.4)	501	(5.9)	**523**	(5.0)	**25.4**	(3.3)	**1.8**	(0.2)	8.1	(2.0)
	Scotland•	**464**	(4.9)	486	(5.6)	513	(5.2)	**539**	(3.9)	**26.8**	(2.2)	**1.9**	(0.2)	10.2	(1.5)
	Wales	**436**	(4.1)	456	(4.7)	477	(4.1)	**510**	(4.3)	**27.0**	(2.1)	**1.9**	(0.2)	9.6	(1.3)
	United States														
	Connecticut•	**475**	(7.8)	496	(10.6)	526	(9.1)	**541**	(8.3)	**20.5**	(3.6)	**1.8**	(0.3)	4.3	(1.4)
	Florida•	**444**	(6.6)	456	(8.4)	480	(8.1)	**503**	(6.4)	**20.1**	(2.3)	**1.6**	(0.2)	5.9	(1.4)
	Massachusetts•	**490**	(8.2)	500	(9.1)	527	(9.5)	**551**	(8.8)	**21.4**	(3.1)	**1.5**	(0.2)	5.0	(1.3)
Partners	**Argentina**														
	Ciudad Autónoma de Buenos Aires•	**411**	(9.3)	414	(10.1)	437	(9.0)	**454**	(6.7)	**15.6**	(2.7)	1.4	(0.3)	3.3	(1.2)
	Brazil														
	Acre	**344**	(8.8)	363	(11.1)	363	(12.0)	**375**	(7.0)	8.4	(5.9)	1.5	(0.4)	1.6	(2.1)
	Alagoas	**340**	(9.6)	341	(9.4)	339	(12.8)	**373**	(13.0)	**13.9**	(4.0)	1.1	(0.5)	3.7	(2.1)
	Amapá	355	(11.6)	358	(12.1)	365	(13.5)	377	(11.9)	**9.4**	(3.7)	1.2	(0.3)	2.2	(1.7)
	Amazonas	**351**	(9.0)	351	(9.0)	360	(10.0)	**380**	(6.5)	**12.3**	(3.9)	1.1	(0.3)	3.2	(2.2)
	Bahia	386	(12.4)	372	(15.3)	386	(14.8)	378	(12.0)	-0.1	(6.9)	1.1	(0.4)	0.0	(0.5)
	Ceará	**374**	(12.3)	368	(9.7)	389	(15.3)	**415**	(11.7)	**18.8**	(3.9)	1.2	(0.3)	4.5	(1.9)
	Espírito Santo	**397**	(9.3)	420	(11.4)	422	(22.6)	**440**	(15.8)	**11.3**	(5.4)	1.5	(0.4)	1.7	(1.3)
	Federal District	**402**	(10.4)	406	(11.6)	414	(12.6)	**450**	(11.5)	**16.5**	(3.7)	1.4	(0.3)	3.4	(1.7)
	Goiás	**369**	(10.8)	368	(9.2)	389	(11.1)	**402**	(9.6)	**12.5**	(3.1)	1.5	(0.3)	3.0	(1.4)
	Maranhão	**342**	(14.7)	332	(15.1)	350	(15.8)	**378**	(20.7)	**17.6**	(5.9)	1.0	(0.3)	4.5	(2.7)
	Mato Grosso	**365**	(14.9)	362	(14.6)	371	(15.3)	**396**	(11.8)	9.9	(5.7)	1.3	(0.3)	1.5	(1.9)
	Mato Grosso do Sul	**400**	(9.6)	402	(9.3)	415	(9.5)	**431**	(10.7)	**12.8**	(3.7)	1.1	(0.3)	3.2	(1.7)
	Minas Gerais	**385**	(11.9)	400	(9.3)	413	(10.8)	**428**	(11.5)	**13.7**	(3.3)	**1.7**	(0.3)	3.2	(1.3)
	Pará	372	(9.9)	360	(10.4)	355	(10.9)	365	(9.3)	-0.4	(4.6)	0.8	(0.3)	0.1	(0.4)
	Paraíba	391	(10.3)	387	(9.3)	385	(8.7)	415	(16.0)	9.1	(5.8)	0.9	(0.3)	1.2	(1.6)
	Paraná	**391**	(8.4)	409	(16.3)	406	(17.6)	**436**	(16.8)	**14.4**	(6.4)	1.5	(0.3)	3.0	(2.0)
	Pernambuco	**356**	(8.5)	362	(10.7)	361	(12.1)	**379**	(11.5)	5.5	(3.7)	1.2	(0.4)	0.8	(1.1)
	Piauí	**382**	(10.4)	379	(18.6)	383	(8.0)	**406**	(11.6)	**6.9**	(3.4)	1.1	(0.2)	0.8	(0.7)
	Rio de Janeiro	**375**	(8.7)	382	(9.9)	400	(10.8)	**403**	(11.6)	**10.9**	(3.6)	1.3	(0.3)	2.5	(1.7)
	Rio Grande do Norte	**367**	(8.7)	365	(12.6)	392	(16.6)	**405**	(17.3)	**14.6**	(6.7)	1.2	(0.3)	2.6	(2.0)
	Rio Grande do Sul	396	(7.6)	403	(8.7)	411	(7.4)	414	(8.6)	2.4	(3.8)	1.3	(0.4)	0.2	(0.7)
	Rondônia	381	(8.0)	371	(8.2)	379	(8.8)	393	(11.3)	**7.5**	(3.2)	1.0	(0.2)	1.4	(1.2)
	Roraima	**345**	(7.6)	369	(11.6)	371	(11.8)	**375**	(9.1)	**9.7**	(4.3)	1.6	(0.5)	1.4	(1.1)
	Santa Catarina	**406**	(11.5)	406	(11.2)	410	(12.0)	**443**	(12.1)	**14.5**	(5.2)	1.2	(0.3)	3.2	(2.4)
	São Paulo	**386**	(5.8)	392	(4.9)	415	(7.8)	**434**	(6.5)	**18.4**	(2.5)	1.4	(0.2)	4.8	(1.2)
	Sergipe	385	(12.6)	377	(13.7)	398	(12.7)	411	(15.1)	**13.2**	(4.7)	1.1	(0.3)	3.6	(2.4)
	Tocantins	364	(9.0)	361	(9.6)	377	(14.9)	384	(11.8)	7.5	(4.0)	1.1	(0.2)	0.8	(0.9)
	Colombia														
	Bogotá	**387**	(5.9)	393	(6.0)	406	(5.1)	**410**	(5.7)	**10.2**	(3.1)	**1.5**	(0.2)	2.1	(1.3)
	Cali	**377**	(8.7)	382	(7.4)	380	(9.7)	**403**	(6.4)	**9.0**	(2.4)	1.4	(0.3)	1.8	(1.0)
	Manizales	398	(6.6)	410	(8.0)	414	(6.2)	414	(8.4)	6.6	(3.7)	1.2	(0.2)	0.9	(1.1)
	Medellín	**377**	(7.6)	385	(10.1)	404	(9.4)	**426**	(13.3)	**16.2**	(3.8)	1.4	(0.3)	3.8	(1.5)
	Russian Federation														
	Perm Territory region•	474	(7.8)	491	(9.6)	490	(6.2)	488	(6.7)	2.9	(3.2)	1.2	(0.2)	0.1	(0.2)
	United Arab Emirates														
	Abu Dhabi•	**388**	(5.7)	401	(5.6)	442	(6.0)	**466**	(5.7)	**29.7**	(2.5)	**1.9**	(0.2)	10.5	(1.5)
	Ajman	**391**	(12.7)	380	(13.0)	413	(11.6)	**433**	(14.5)	**20.9**	(6.9)	1.4	(0.4)	7.8	(4.8)
	Dubai•	**438**	(4.0)	458	(4.5)	476	(4.6)	**493**	(3.9)	**20.0**	(1.8)	**1.6**	(0.1)	4.1	(0.7)
	Fujairah	**380**	(10.5)	385	(10.5)	420	(15.3)	**464**	(13.3)	**32.8**	(4.7)	**1.7**	(0.3)	15.8	(3.8)
	Ras al-Khaimah	**387**	(9.8)	404	(12.5)	429	(9.2)	**454**	(11.9)	**27.1**	(4.7)	**1.9**	(0.4)	12.0	(4.0)
	Sharjah	**409**	(10.5)	427	(12.0)	451	(12.8)	**477**	(15.4)	**27.1**	(4.6)	**1.8**	(0.3)	9.7	(3.0)
	Umm al-Quwain	**363**	(12.6)	393	(12.1)	389	(13.2)	**435**	(11.8)	**22.2**	(6.4)	**2.1**	(0.6)	10.5	(5.4)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.3.1d for national data.

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[Part 1/4]

Table B2.III.9 Index of openness to problem solving and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

		Index of openness to problem solving																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**																		
	Australian Capital Territory	0.12	(0.05)	0.96	(0.04)	0.25	(0.06)	-0.02	(0.07)	**0.27**	(0.09)	-0.96	(0.07)	-0.21	(0.05)	0.27	(0.03)	1.37	(0.10)
	New South Wales	-0.03	(0.02)	0.99	(0.02)	0.07	(0.03)	-0.14	(0.04)	**0.21**	(0.05)	-1.19	(0.04)	-0.36	(0.02)	0.20	(0.03)	1.21	(0.04)
	Northern Territory	0.00	(0.08)	1.05	(0.05)	0.13	(0.14)	-0.12	(0.09)	0.26	(0.18)	-1.22	(0.11)	-0.32	(0.05)	0.20	(0.09)	1.39	(0.15)
	Queensland	-0.12	(0.03)	0.95	(0.02)	-0.04	(0.03)	-0.19	(0.04)	**0.16**	(0.05)	-1.21	(0.03)	-0.45	(0.03)	0.09	(0.03)	1.11	(0.05)
	South Australia	-0.12	(0.04)	1.00	(0.03)	0.00	(0.05)	-0.24	(0.05)	**0.25**	(0.06)	-1.29	(0.06)	-0.41	(0.04)	0.11	(0.04)	1.13	(0.06)
	Tasmania	-0.05	(0.04)	0.92	(0.03)	0.04	(0.05)	-0.16	(0.05)	**0.19**	(0.07)	-1.16	(0.05)	-0.33	(0.03)	0.20	(0.04)	1.09	(0.07)
	Victoria	-0.08	(0.03)	0.95	(0.02)	0.07	(0.04)	-0.26	(0.03)	**0.32**	(0.05)	-1.19	(0.04)	-0.38	(0.02)	0.16	(0.03)	1.10	(0.05)
	Western Australia	-0.08	(0.03)	0.94	(0.03)	0.07	(0.05)	-0.24	(0.05)	**0.30**	(0.07)	-1.16	(0.05)	-0.40	(0.03)	0.12	(0.04)	1.15	(0.06)
	Belgium																		
	Flemish Community•	-0.28	(0.02)	0.89	(0.02)	-0.11	(0.03)	-0.43	(0.02)	**0.31**	(0.03)	-1.34	(0.02)	-0.55	(0.01)	-0.05	(0.02)	0.83	(0.03)
	French Community	-0.31	(0.03)	1.04	(0.02)	-0.11	(0.05)	-0.50	(0.03)	**0.39**	(0.05)	-1.52	(0.04)	-0.68	(0.03)	-0.08	(0.03)	1.03	(0.05)
	German-speaking Community	-0.10	(0.04)	0.95	(0.04)	0.05	(0.07)	-0.26	(0.05)	**0.31**	(0.09)	-1.16	(0.06)	-0.44	(0.03)	0.06	(0.04)	1.15	(0.08)
	Canada																		
	Alberta	0.18	(0.04)	1.03	(0.02)	0.31	(0.05)	0.02	(0.05)	**0.29**	(0.06)	-1.00	(0.05)	-0.18	(0.03)	0.34	(0.04)	1.55	(0.07)
	British Columbia	0.10	(0.03)	0.97	(0.03)	0.17	(0.04)	0.03	(0.04)	**0.15**	(0.06)	-1.03	(0.04)	-0.22	(0.03)	0.29	(0.03)	1.34	(0.06)
	Manitoba	0.11	(0.04)	1.03	(0.02)	0.23	(0.06)	-0.02	(0.05)	**0.25**	(0.08)	-1.06	(0.04)	-0.29	(0.04)	0.27	(0.04)	1.50	(0.06)
	New Brunswick	0.07	(0.04)	1.09	(0.03)	0.17	(0.06)	-0.04	(0.05)	**0.21**	(0.07)	-1.18	(0.06)	-0.31	(0.04)	0.28	(0.04)	1.51	(0.08)
	Newfoundland and Labrador	0.13	(0.04)	1.14	(0.03)	0.20	(0.07)	0.06	(0.05)	0.14	(0.08)	-1.21	(0.06)	-0.29	(0.05)	0.34	(0.04)	1.67	(0.07)
	Nova Scotia	0.11	(0.03)	1.09	(0.03)	0.22	(0.04)	0.00	(0.05)	**0.22**	(0.07)	-1.18	(0.05)	-0.27	(0.05)	0.34	(0.03)	1.58	(0.07)
	Ontario	0.16	(0.02)	0.97	(0.02)	0.26	(0.04)	0.06	(0.04)	**0.20**	(0.05)	-0.95	(0.03)	-0.19	(0.03)	0.33	(0.03)	1.45	(0.04)
	Prince Edward Island	0.07	(0.04)	1.16	(0.03)	0.17	(0.05)	-0.03	(0.05)	**0.20**	(0.07)	-1.27	(0.06)	-0.32	(0.03)	0.31	(0.04)	1.57	(0.07)
	Quebec	0.13	(0.02)	1.05	(0.02)	0.29	(0.04)	-0.02	(0.03)	**0.31**	(0.05)	-1.13	(0.04)	-0.24	(0.03)	0.36	(0.03)	1.52	(0.04)
	Saskatchewan	0.13	(0.03)	1.03	(0.03)	0.26	(0.05)	-0.01	(0.04)	**0.27**	(0.08)	-1.04	(0.04)	-0.23	(0.03)	0.32	(0.03)	1.48	(0.06)
	Italy																		
	Abruzzo	-0.10	(0.03)	0.89	(0.02)	-0.06	(0.03)	-0.14	(0.04)	0.08	(0.04)	-1.16	(0.04)	-0.36	(0.03)	0.11	(0.03)	1.02	(0.05)
	Basilicata	0.00	(0.03)	0.88	(0.02)	0.10	(0.05)	-0.10	(0.05)	**0.20**	(0.06)	-1.02	(0.04)	-0.30	(0.04)	0.20	(0.03)	1.11	(0.06)
	Bolzano	-0.07	(0.03)	0.95	(0.03)	0.09	(0.05)	-0.23	(0.04)	**0.32**	(0.06)	-1.20	(0.04)	-0.39	(0.03)	0.16	(0.03)	1.13	(0.06)
	Calabria	0.06	(0.04)	0.92	(0.03)	0.08	(0.06)	0.04	(0.05)	0.04	(0.07)	-1.03	(0.06)	-0.24	(0.06)	0.30	(0.04)	1.23	(0.06)
	Campania	0.14	(0.03)	0.89	(0.02)	0.21	(0.03)	0.07	(0.05)	**0.14**	(0.05)	-0.87	(0.04)	-0.18	(0.04)	0.32	(0.03)	1.29	(0.05)
	Emilia Romagna	-0.22	(0.03)	0.91	(0.03)	-0.21	(0.06)	-0.23	(0.04)	0.02	(0.07)	-1.29	(0.05)	-0.50	(0.03)	0.00	(0.03)	0.91	(0.06)
	Friuli Venezia Giulia	-0.20	(0.04)	0.85	(0.02)	-0.06	(0.03)	-0.34	(0.05)	**0.28**	(0.06)	-1.23	(0.04)	-0.47	(0.04)	0.04	(0.04)	0.88	(0.05)
	Lazio	-0.01	(0.04)	0.89	(0.03)	0.07	(0.04)	-0.11	(0.05)	**0.18**	(0.06)	-1.03	(0.04)	-0.32	(0.03)	0.20	(0.04)	1.12	(0.07)
	Liguria	-0.14	(0.04)	0.91	(0.04)	-0.07	(0.06)	-0.21	(0.04)	**0.14**	(0.06)	-1.19	(0.06)	-0.47	(0.04)	0.10	(0.03)	1.00	(0.06)
	Lombardia	-0.19	(0.04)	0.91	(0.03)	-0.07	(0.06)	-0.31	(0.04)	**0.24**	(0.07)	-1.29	(0.05)	-0.43	(0.04)	0.04	(0.03)	0.94	(0.07)
	Marche	-0.26	(0.03)	0.84	(0.03)	-0.21	(0.05)	-0.31	(0.04)	0.10	(0.07)	-1.26	(0.05)	-0.55	(0.02)	-0.02	(0.03)	0.79	(0.04)
	Molise	-0.11	(0.03)	0.81	(0.03)	-0.08	(0.05)	-0.14	(0.05)	0.06	(0.07)	-1.07	(0.06)	-0.35	(0.03)	0.11	(0.04)	0.89	(0.05)
	Piemonte	-0.21	(0.04)	0.95	(0.04)	-0.16	(0.08)	-0.26	(0.05)	0.10	(0.11)	-1.33	(0.08)	-0.48	(0.04)	0.04	(0.02)	0.93	(0.06)
	Puglia	0.01	(0.04)	0.91	(0.03)	0.04	(0.07)	-0.01	(0.04)	0.05	(0.07)	-1.06	(0.07)	-0.28	(0.04)	0.23	(0.03)	1.17	(0.06)
	Sardegna	-0.10	(0.04)	1.00	(0.03)	-0.02	(0.06)	-0.19	(0.04)	**0.18**	(0.06)	-1.26	(0.06)	-0.41	(0.04)	0.11	(0.05)	1.15	(0.08)
	Sicilia	0.06	(0.03)	0.89	(0.03)	0.13	(0.04)	-0.01	(0.04)	**0.14**	(0.06)	-0.97	(0.04)	-0.25	(0.03)	0.24	(0.02)	1.23	(0.06)
	Toscana	-0.18	(0.03)	0.93	(0.04)	-0.16	(0.04)	-0.21	(0.04)	0.05	(0.06)	-1.29	(0.06)	-0.48	(0.04)	0.08	(0.04)	0.96	(0.04)
	Trento	-0.18	(0.02)	0.84	(0.03)	-0.10	(0.04)	-0.27	(0.05)	**0.17**	(0.07)	-1.13	(0.04)	-0.49	(0.03)	0.02	(0.03)	0.89	(0.06)
	Umbria	-0.09	(0.02)	0.83	(0.02)	-0.05	(0.04)	-0.13	(0.04)	0.08	(0.06)	-1.07	(0.04)	-0.37	(0.02)	0.11	(0.03)	0.97	(0.05)
	Valle d'Aosta	-0.34	(0.03)	0.91	(0.03)	-0.25	(0.05)	-0.44	(0.05)	**0.19**	(0.08)	-1.45	(0.05)	-0.60	(0.04)	-0.07	(0.04)	0.76	(0.06)
	Veneto	-0.22	(0.04)	0.89	(0.03)	-0.09	(0.04)	-0.34	(0.05)	**0.26**	(0.06)	-1.27	(0.07)	-0.48	(0.04)	0.02	(0.04)	0.87	(0.06)
	Mexico																		
	Aguascalientes	-0.10	(0.05)	0.95	(0.04)	0.03	(0.07)	-0.22	(0.04)	**0.25**	(0.07)	-1.19	(0.07)	-0.46	(0.05)	0.15	(0.05)	1.12	(0.09)
	Baja California	-0.08	(0.05)	1.08	(0.04)	0.04	(0.07)	-0.19	(0.10)	0.22	(0.14)	-1.32	(0.04)	-0.52	(0.05)	0.16	(0.06)	1.39	(0.10)
	Baja California Sur	-0.07	(0.05)	1.03	(0.03)	0.06	(0.07)	-0.21	(0.07)	**0.27**	(0.10)	-1.24	(0.06)	-0.46	(0.04)	0.16	(0.05)	1.29	(0.07)
	Campeche	-0.15	(0.05)	1.00	(0.04)	-0.08	(0.08)	-0.22	(0.04)	0.14	(0.09)	-1.34	(0.09)	-0.49	(0.05)	0.08	(0.04)	1.15	(0.05)
	Chiapas	-0.17	(0.04)	0.98	(0.03)	-0.09	(0.06)	-0.26	(0.06)	**0.17**	(0.08)	-1.31	(0.06)	-0.53	(0.03)	0.06	(0.06)	1.10	(0.08)
	Chihuahua	-0.04	(0.07)	1.04	(0.04)	0.09	(0.07)	-0.18	(0.07)	**0.27**	(0.05)	-1.23	(0.09)	-0.42	(0.05)	0.15	(0.05)	1.35	(0.11)
	Coahuila	-0.04	(0.05)	0.99	(0.04)	0.05	(0.06)	-0.13	(0.06)	**0.18**	(0.06)	-1.17	(0.05)	-0.46	(0.04)	0.20	(0.05)	1.25	(0.10)
	Colima	0.06	(0.03)	1.00	(0.02)	0.23	(0.05)	-0.10	(0.05)	**0.33**	(0.07)	-1.11	(0.04)	-0.32	(0.04)	0.32	(0.03)	1.38	(0.06)
	Distrito Federal	0.04	(0.05)	1.04	(0.04)	0.27	(0.07)	-0.18	(0.06)	**0.45**	(0.08)	-1.19	(0.03)	-0.33	(0.05)	0.30	(0.06)	1.41	(0.11)
	Durango	-0.08	(0.07)	1.00	(0.05)	0.03	(0.08)	-0.19	(0.08)	**0.22**	(0.08)	-1.23	(0.05)	-0.46	(0.05)	0.11	(0.07)	1.25	(0.14)
	Guanajuato	-0.21	(0.05)	1.04	(0.04)	-0.15	(0.07)	-0.27	(0.05)	**0.12**	(0.06)	-1.41	(0.07)	-0.60	(0.05)	-0.01	(0.07)	1.18	(0.08)
	Guerrero	-0.19	(0.05)	1.03	(0.03)	-0.17	(0.07)	-0.22	(0.06)	0.06	(0.07)	-1.41	(0.07)	-0.56	(0.04)	0.05	(0.07)	1.15	(0.08)
	Hidalgo	-0.21	(0.04)	0.98	(0.04)	-0.05	(0.07)	-0.35	(0.05)	**0.30**	(0.08)	-1.36	(0.07)	-0.53	(0.03)	0.03	(0.03)	1.01	(0.10)
	Jalisco	-0.17	(0.05)	0.98	(0.02)	-0.04	(0.08)	-0.28	(0.05)	**0.24**	(0.07)	-1.29	(0.06)	-0.53	(0.05)	0.02	(0.05)	1.15	(0.07)
	Mexico	-0.08	(0.05)	0.95	(0.04)	0.01	(0.07)	-0.16	(0.05)	**0.17**	(0.07)	-1.19	(0.05)	-0.43	(0.05)	0.15	(0.06)	1.17	(0.10)
	Morelos	-0.09	(0.05)	1.10	(0.04)	0.02	(0.06)	-0.18	(0.06)	**0.20**	(0.08)	-1.40	(0.09)	-0.44	(0.05)	0.16	(0.05)	1.33	(0.07)
	Nayarit	-0.20	(0.05)	1.02	(0.04)	-0.16	(0.06)	-0.25	(0.06)	0.09	(0.07)	-1.38	(0.08)	-0.59	(0.04)	0.05	(0.06)	1.12	(0.07)
	Nuevo León	0.12	(0.08)	0.99	(0.03)	0.28	(0.11)	-0.06	(0.07)	**0.33**	(0.11)	-1.06	(0.09)	-0.25	(0.08)	0.36	(0.07)	1.44	(0.10)
	Puebla	-0.21	(0.06)	0.98	(0.05)	-0.12	(0.07)	-0.29	(0.07)	**0.16**	(0.07)	-1.33	(0.09)	-0.56	(0.05)	0.00	(0.06)	1.07	(0.10)
	Querétaro	-0.13	(0.05)	0.91	(0.03)	0.00	(0.08)	-0.24	(0.06)	**0.24**	(0.10)	-1.16	(0.05)	-0.51	(0.05)	0.06	(0.05)	1.11	(0.06)
	Quintana Roo	-0.10	(0.04)	1.02	(0.05)	0.04	(0.06)	-0.25	(0.04)	**0.30**	(0.07)	-1.29	(0.08)	-0.46	(0.05)	0.16	(0.04)	1.20	(0.07)
	San Luis Potosí	-0.20	(0.04)	0.98	(0.03)	-0.15	(0.07)	-0.24	(0.05)	0.08	(0.09)	-1.36	(0.03)	-0.56	(0.05)	0.04	(0.07)	1.08	(0.08)
	Sinaloa	-0.07	(0.06)	0.99	(0.04)	0.06	(0.06)	-0.20	(0.06)	**0.26**	(0.07)	-1.26	(0.07)	-0.41	(0.06)	0.21	(0.07)	1.17	(0.08)
	Tabasco	-0.06	(0.05)	1.10	(0.04)	-0.05	(0.05)	-0.06	(0.09)	0.01	(0.10)	-1.32	(0.07)	-0.47	(0.05)	0.16	(0.05)	1.43	(0.09)
	Tamaulipas	-0.08	(0.06)	1.01	(0.05)	0.01	(0.08)	-0.19	(0.07)	0.20	(0.11)	-1.26	(0.08)	-0.42	(0.06)	0.16	(0.04)	1.20	(0.10)
	Tlaxcala	-0.18	(0.04)	0.99	(0.03)	-0.06	(0.06)	-0.29	(0.04)	**0.22**	(0.06)	-1.31	(0.07)	-0.50	(0.03)	0.02	(0.05)	1.09	(0.08)
	Veracruz	-0.22	(0.04)	1.00	(0.04)	-0.23	(0.07)	-0.21	(0.06)	-0.02	(0.09)	-1.37	(0.06)	-0.54	(0.04)	-0.02	(0.05)	1.05	(0.06)
	Yucatán	-0.06	(0.04)	1.04	(0.04)	0.04	(0.06)	-0.16	(0.04)	**0.20**	(0.08)	-1.29	(0.08)	-0.42	(0.04)	0.17	(0.05)	1.32	(0.07)
	Zacatecas	-0.18	(0.04)	0.99	(0.04)	-0.06	(0.07)	-0.31	(0.04)	**0.25**	(0.08)	-1.33	(0.06)	-0.54	(0.04)	0.05	(0.03)	1.10	(0.08)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.3.2d for national data.

StatLink http://dx.doi.org/10.1787/888932964072

[Part 2/4]

Table B2.III.9

Index of openness to problem solving and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

		Index of openness to problem solving																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Portugal**																		
	Alentejo	0.11	(0.04)	0.95	(0.02)	0.13	(0.05)	0.08	(0.05)	0.05	(0.07)	-1.02	(0.03)	-0.22	(0.02)	0.37	(0.03)	1.32	(0.08)
	Spain																		
	Andalusia•	-0.02	(0.03)	0.97	(0.03)	0.09	(0.04)	-0.13	(0.05)	**0.22**	(0.07)	-1.17	(0.05)	-0.34	(0.02)	0.22	(0.03)	1.21	(0.05)
	Aragon•	-0.06	(0.04)	0.99	(0.04)	0.13	(0.06)	-0.25	(0.04)	**0.38**	(0.07)	-1.23	(0.07)	-0.36	(0.04)	0.17	(0.04)	1.20	(0.06)
	Asturias•	0.04	(0.04)	0.99	(0.03)	0.14	(0.05)	-0.07	(0.04)	**0.21**	(0.05)	-1.10	(0.05)	-0.31	(0.04)	0.25	(0.02)	1.32	(0.07)
	Balearic Islands•	0.02	(0.03)	1.03	(0.03)	0.16	(0.05)	-0.13	(0.06)	**0.29**	(0.09)	-1.17	(0.05)	-0.30	(0.03)	0.24	(0.03)	1.32	(0.06)
	Basque Country•	0.13	(0.02)	0.91	(0.02)	0.22	(0.03)	0.05	(0.02)	**0.17**	(0.03)	-0.93	(0.03)	-0.17	(0.02)	0.32	(0.02)	1.31	(0.03)
	Cantabria•	0.06	(0.04)	1.00	(0.03)	0.18	(0.06)	-0.06	(0.04)	**0.24**	(0.07)	-1.12	(0.05)	-0.25	(0.03)	0.28	(0.03)	1.33	(0.06)
	Castile and Leon•	0.02	(0.03)	0.95	(0.03)	0.16	(0.04)	-0.13	(0.05)	**0.29**	(0.06)	-1.10	(0.05)	-0.29	(0.04)	0.23	(0.02)	1.26	(0.07)
	Catalonia•	0.10	(0.03)	0.91	(0.02)	0.27	(0.05)	-0.08	(0.06)	**0.34**	(0.09)	-0.95	(0.04)	-0.23	(0.04)	0.28	(0.04)	1.32	(0.05)
	Extremadura•	-0.08	(0.03)	1.02	(0.03)	0.03	(0.05)	-0.19	(0.05)	**0.22**	(0.08)	-1.29	(0.05)	-0.43	(0.04)	0.16	(0.04)	1.23	(0.06)
	Galicia•	0.10	(0.03)	0.97	(0.03)	0.26	(0.05)	-0.07	(0.04)	**0.33**	(0.06)	-1.02	(0.04)	-0.22	(0.04)	0.28	(0.04)	1.36	(0.07)
	La Rioja•	0.02	(0.03)	1.00	(0.03)	0.21	(0.05)	-0.17	(0.05)	**0.38**	(0.07)	-1.17	(0.05)	-0.30	(0.03)	0.26	(0.03)	1.29	(0.06)
	Madrid•	0.07	(0.03)	0.94	(0.03)	0.16	(0.05)	-0.01	(0.04)	**0.17**	(0.06)	-1.01	(0.04)	-0.27	(0.04)	0.27	(0.03)	1.32	(0.07)
	Murcia•	-0.05	(0.03)	1.02	(0.03)	0.08	(0.06)	-0.16	(0.04)	**0.24**	(0.08)	-1.23	(0.05)	-0.38	(0.03)	0.19	(0.04)	1.25	(0.06)
	Navarre•	-0.04	(0.03)	0.91	(0.02)	0.04	(0.05)	-0.11	(0.04)	**0.15**	(0.06)	-1.10	(0.05)	-0.34	(0.03)	0.17	(0.04)	1.12	(0.05)
	United Kingdom																		
	England	-0.01	(0.02)	0.93	(0.02)	0.10	(0.03)	-0.11	(0.02)	**0.21**	(0.04)	-1.10	(0.03)	-0.31	(0.02)	0.20	(0.01)	1.16	(0.03)
	Northern Ireland	-0.04	(0.03)	0.93	(0.02)	0.07	(0.04)	-0.15	(0.04)	**0.22**	(0.05)	-1.12	(0.04)	-0.33	(0.03)	0.18	(0.03)	1.12	(0.05)
	Scotland•	-0.03	(0.03)	0.92	(0.02)	0.09	(0.04)	-0.14	(0.03)	**0.23**	(0.05)	-1.11	(0.04)	-0.34	(0.02)	0.20	(0.03)	1.13	(0.04)
	Wales	-0.11	(0.02)	0.95	(0.02)	0.00	(0.03)	-0.23	(0.04)	**0.23**	(0.05)	-1.23	(0.04)	-0.40	(0.02)	0.11	(0.03)	1.08	(0.04)
	United States																		
	Connecticut•	0.27	(0.03)	1.02	(0.02)	0.37	(0.05)	0.17	(0.04)	**0.20**	(0.07)	-0.92	(0.03)	-0.07	(0.03)	0.44	(0.03)	1.64	(0.05)
	Florida•	0.24	(0.04)	1.13	(0.04)	0.32	(0.05)	0.17	(0.07)	0.14	(0.08)	-1.05	(0.05)	-0.15	(0.04)	0.42	(0.05)	1.76	(0.09)
	Massachusetts•	0.25	(0.03)	1.02	(0.03)	0.42	(0.05)	0.10	(0.04)	**0.32**	(0.07)	-0.92	(0.04)	-0.12	(0.04)	0.43	(0.03)	1.63	(0.07)
Partners	**Argentina**																		
	Ciudad Autónoma de Buenos Aires•	-0.04	(0.04)	1.03	(0.03)	-0.01	(0.05)	-0.07	(0.08)	0.06	(0.10)	-1.23	(0.05)	-0.44	(0.04)	0.20	(0.05)	1.31	(0.08)
	Brazil																		
	Acre	0.02	(0.04)	0.94	(0.03)	0.04	(0.06)	0.00	(0.05)	0.04	(0.09)	-1.11	(0.06)	-0.27	(0.04)	0.25	(0.03)	1.21	(0.06)
	Alagoas	0.25	(0.04)	1.06	(0.05)	0.50	(0.08)	0.06	(0.05)	**0.44**	(0.11)	-0.96	(0.07)	-0.12	(0.04)	0.41	(0.05)	1.70	(0.12)
	Amapá	0.22	(0.04)	0.96	(0.06)	0.28	(0.09)	0.17	(0.05)	0.11	(0.11)	-0.89	(0.08)	-0.09	(0.05)	0.41	(0.04)	1.46	(0.11)
	Amazonas	0.33	(0.06)	1.00	(0.04)	0.37	(0.09)	0.30	(0.04)	0.07	(0.07)	-0.80	(0.06)	-0.03	(0.07)	0.47	(0.07)	1.71	(0.10)
	Bahia	0.34	(0.05)	1.03	(0.08)	0.42	(0.10)	0.27	(0.08)	0.16	(0.15)	-0.80	(0.07)	-0.11	(0.09)	0.51	(0.07)	1.78	(0.18)
	Ceará	0.25	(0.05)	1.03	(0.05)	0.33	(0.06)	0.18	(0.10)	0.15	(0.13)	-0.92	(0.06)	-0.10	(0.05)	0.40	(0.08)	1.64	(0.11)
	Espírito Santo	0.18	(0.04)	0.96	(0.03)	0.34	(0.08)	0.04	(0.06)	**0.30**	(0.11)	-0.90	(0.06)	-0.14	(0.03)	0.33	(0.05)	1.45	(0.09)
	Federal District	0.13	(0.06)	0.99	(0.05)	0.22	(0.07)	0.03	(0.07)	**0.19**	(0.07)	-1.03	(0.09)	-0.15	(0.04)	0.31	(0.06)	1.40	(0.12)
	Goiás	0.13	(0.04)	1.04	(0.06)	0.17	(0.08)	0.09	(0.07)	0.09	(0.12)	-1.08	(0.08)	-0.18	(0.05)	0.34	(0.06)	1.43	(0.10)
	Maranhão	0.29	(0.07)	0.94	(0.03)	0.40	(0.16)	0.22	(0.06)	0.18	(0.18)	-0.76	(0.06)	-0.11	(0.06)	0.46	(0.09)	1.60	(0.12)
	Mato Grosso	0.23	(0.05)	1.00	(0.05)	0.34	(0.09)	0.13	(0.07)	0.20	(0.11)	-0.90	(0.10)	-0.12	(0.04)	0.40	(0.06)	1.55	(0.10)
	Mato Grosso do Sul	0.18	(0.05)	1.03	(0.04)	0.17	(0.06)	0.20	(0.06)	-0.03	(0.07)	-0.94	(0.08)	-0.19	(0.06)	0.34	(0.05)	1.54	(0.07)
	Minas Gerais	0.28	(0.05)	1.01	(0.04)	0.32	(0.06)	0.24	(0.08)	0.08	(0.10)	-0.90	(0.09)	-0.08	(0.05)	0.50	(0.05)	1.60	(0.08)
	Pará	0.25	(0.05)	1.01	(0.04)	0.26	(0.08)	0.24	(0.08)	0.01	(0.13)	-0.91	(0.08)	-0.11	(0.05)	0.42	(0.05)	1.62	(0.09)
	Paraíba	0.17	(0.04)	0.92	(0.03)	0.25	(0.11)	0.11	(0.06)	0.13	(0.15)	-0.91	(0.05)	-0.15	(0.04)	0.40	(0.05)	1.37	(0.08)
	Paraná	0.10	(0.04)	0.90	(0.03)	0.20	(0.06)	0.01	(0.07)	0.19	(0.11)	-0.94	(0.04)	-0.18	(0.04)	0.28	(0.03)	1.26	(0.09)
	Pernambuco	0.30	(0.05)	1.02	(0.05)	0.35	(0.08)	0.26	(0.07)	0.09	(0.11)	-0.88	(0.08)	-0.05	(0.05)	0.48	(0.05)	1.66	(0.10)
	Piauí	0.20	(0.04)	0.99	(0.03)	0.36	(0.08)	0.08	(0.05)	**0.27**	(0.09)	-0.94	(0.07)	-0.18	(0.05)	0.41	(0.03)	1.54	(0.07)
	Rio de Janeiro	0.28	(0.05)	1.05	(0.04)	0.30	(0.07)	0.25	(0.05)	0.05	(0.08)	-0.91	(0.05)	-0.09	(0.03)	0.45	(0.03)	1.67	(0.12)
	Rio Grande do Norte	0.20	(0.05)	0.97	(0.06)	0.28	(0.07)	0.15	(0.06)	0.14	(0.08)	-0.94	(0.08)	-0.13	(0.04)	0.41	(0.05)	1.48	(0.14)
	Rio Grande do Sul	0.22	(0.05)	1.03	(0.04)	0.38	(0.04)	0.09	(0.07)	**0.29**	(0.09)	-0.95	(0.07)	-0.13	(0.03)	0.36	(0.03)	1.62	(0.12)
	Rondônia	0.16	(0.04)	0.95	(0.04)	0.21	(0.07)	0.12	(0.07)	0.09	(0.11)	-0.95	(0.05)	-0.17	(0.05)	0.36	(0.04)	1.41	(0.09)
	Roraima	0.18	(0.05)	1.06	(0.04)	0.28	(0.07)	0.10	(0.06)	**0.18**	(0.09)	-1.06	(0.08)	-0.14	(0.05)	0.41	(0.05)	1.53	(0.11)
	Santa Catarina	0.15	(0.05)	0.96	(0.05)	0.26	(0.04)	0.05	(0.08)	**0.21**	(0.09)	-0.96	(0.11)	-0.17	(0.06)	0.36	(0.05)	1.38	(0.06)
	São Paulo	0.16	(0.03)	0.96	(0.03)	0.18	(0.04)	0.15	(0.04)	0.03	(0.05)	-0.95	(0.04)	-0.13	(0.02)	0.35	(0.04)	1.39	(0.06)
	Sergipe	0.20	(0.04)	0.88	(0.04)	0.33	(0.05)	0.09	(0.08)	**0.24**	(0.12)	-0.87	(0.06)	-0.05	(0.04)	0.43	(0.04)	1.29	(0.08)
	Tocantins	0.28	(0.05)	0.98	(0.04)	0.36	(0.08)	0.21	(0.03)	0.15	(0.08)	-0.89	(0.07)	-0.03	(0.06)	0.49	(0.06)	1.58	(0.07)
	Colombia																		
	Bogotá	0.08	(0.03)	0.96	(0.03)	0.14	(0.04)	0.02	(0.05)	0.12	(0.06)	-1.05	(0.07)	-0.23	(0.03)	0.29	(0.03)	1.31	(0.05)
	Cali	0.19	(0.03)	0.90	(0.02)	0.35	(0.06)	0.07	(0.04)	**0.28**	(0.08)	-0.88	(0.04)	-0.12	(0.03)	0.39	(0.03)	1.37	(0.06)
	Manizales	0.18	(0.04)	0.97	(0.03)	0.26	(0.06)	0.12	(0.06)	0.14	(0.09)	-0.95	(0.04)	-0.17	(0.04)	0.37	(0.04)	1.49	(0.09)
	Medellín	0.15	(0.04)	0.96	(0.02)	0.19	(0.06)	0.12	(0.06)	0.07	(0.09)	-0.96	(0.04)	-0.20	(0.05)	0.35	(0.05)	1.42	(0.06)
	Russian Federation																		
	Perm Territory region•	-0.03	(0.03)	0.92	(0.03)	0.02	(0.04)	-0.08	(0.05)	0.10	(0.06)	-1.10	(0.04)	-0.34	(0.02)	0.19	(0.04)	1.14	(0.06)
	United Arab Emirates																		
	Abu Dhabi•	0.44	(0.03)	1.03	(0.02)	0.55	(0.04)	0.34	(0.04)	**0.21**	(0.05)	-0.79	(0.04)	0.11	(0.03)	0.67	(0.02)	1.78	(0.05)
	Ajman	0.31	(0.05)	1.09	(0.04)	0.37	(0.08)	0.26	(0.05)	0.11	(0.09)	-0.97	(0.05)	-0.09	(0.07)	0.59	(0.06)	1.75	(0.09)
	Dubai•	0.32	(0.02)	0.95	(0.02)	0.41	(0.03)	0.22	(0.03)	**0.20**	(0.04)	-0.80	(0.03)	0.00	(0.02)	0.51	(0.02)	1.56	(0.03)
	Fujairah	0.50	(0.04)	0.97	(0.03)	0.54	(0.06)	0.46	(0.06)	0.08	(0.10)	-0.66	(0.04)	0.15	(0.04)	0.71	(0.06)	1.81	(0.07)
	Ras al-Khaimah	0.42	(0.07)	1.09	(0.06)	0.46	(0.05)	0.39	(0.12)	0.07	(0.12)	-0.87	(0.11)	0.06	(0.06)	0.67	(0.08)	1.84	(0.11)
	Sharjah	0.38	(0.06)	1.03	(0.03)	0.47	(0.13)	0.30	(0.06)	0.17	(0.16)	-0.87	(0.07)	0.05	(0.06)	0.62	(0.06)	1.72	(0.09)
	Umm al-Quwain	0.23	(0.08)	1.12	(0.08)	0.34	(0.12)	0.13	(0.09)	0.21	(0.14)	-1.15	(0.18)	-0.02	(0.07)	0.50	(0.07)	1.61	(0.13)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.3.2d for national data.

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[Part 3/4]

Table B2.III.9

Index of openness to problem solving and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Australia**														
	Australian Capital Territory	**473**	(8.8)	517	(10.9)	542	(9.2)	**571**	(8.6)	**36.8**	(4.7)	**2.7**	(0.4)	14.6	(3.5)
	New South Wales	**459**	(4.4)	494	(5.0)	536	(5.9)	**566**	(5.9)	**41.0**	(2.5)	**2.4**	(0.2)	16.3	(1.8)
	Northern Territory	**397**	(13.1)	463	(21.0)	495	(19.6)	**504**	(22.4)	**42.4**	(6.7)	**2.7**	(0.8)	17.9	(5.3)
	Queensland	**449**	(4.6)	486	(5.7)	524	(5.6)	**562**	(6.3)	**45.1**	(2.4)	**2.6**	(0.3)	21.4	(2.0)
	South Australia	**441**	(5.5)	476	(6.2)	513	(7.4)	**544**	(7.2)	**37.8**	(3.2)	**2.5**	(0.3)	18.1	(2.7)
	Tasmania	**423**	(6.9)	470	(9.0)	503	(7.9)	**528**	(8.7)	**44.7**	(4.0)	**3.1**	(0.4)	20.4	(3.1)
	Victoria	**447**	(4.8)	489	(5.9)	516	(6.1)	**553**	(6.1)	**40.9**	(2.2)	**2.5**	(0.3)	18.6	(1.8)
	Western Australia	**469**	(6.7)	507	(6.5)	536	(6.6)	**571**	(6.9)	**41.9**	(3.2)	**2.2**	(0.3)	18.7	(2.5)
	Belgium														
	Flemish Community•	**499**	(4.0)	519	(5.1)	553	(4.6)	**574**	(5.0)	**31.3**	(2.4)	**1.6**	(0.1)	7.8	(1.1)
	French Community	**463**	(5.2)	487	(5.8)	518	(5.8)	**537**	(6.4)	**29.1**	(2.4)	**1.8**	(0.2)	10.4	(1.7)
	German-speaking Community	**476**	(7.4)	510	(9.0)	535	(8.3)	**541**	(9.4)	**22.8**	(5.6)	**2.1**	(0.4)	6.1	(3.0)
	Canada														
	Alberta	**466**	(6.9)	514	(7.4)	534	(6.8)	**573**	(6.1)	**36.6**	(2.5)	**2.7**	(0.4)	18.5	(2.3)
	British Columbia	**471**	(5.5)	506	(6.9)	538	(7.9)	**580**	(7.1)	**42.1**	(2.0)	**2.6**	(0.3)	23.6	(2.1)
	Manitoba	**456**	(5.7)	483	(7.9)	512	(6.0)	**537**	(6.8)	**30.1**	(3.4)	**1.9**	(0.3)	12.8	(2.8)
	New Brunswick	**452**	(5.6)	486	(7.3)	523	(6.5)	**547**	(7.4)	**34.8**	(2.6)	**2.6**	(0.4)	23.0	(3.0)
	Newfoundland and Labrador	**441**	(6.0)	480	(9.4)	510	(7.2)	**539**	(9.1)	**31.5**	(3.7)	**2.4**	(0.4)	18.1	(4.2)
	Nova Scotia	**442**	(10.0)	483	(8.4)	525	(6.7)	**539**	(14.0)	**34.9**	(2.4)	**3.3**	(0.6)	23.0	(3.1)
	Ontario	**469**	(5.1)	506	(6.3)	532	(7.2)	**568**	(5.5)	**38.4**	(2.2)	**2.4**	(0.2)	18.4	(1.8)
	Prince Edward Island	**434**	(5.9)	466	(6.9)	496	(6.2)	**534**	(6.2)	**32.5**	(2.6)	**2.6**	(0.3)	20.2	(2.9)
	Quebec	**491**	(5.2)	524	(5.5)	557	(5.2)	**581**	(4.7)	**33.6**	(2.1)	**2.2**	(0.2)	15.9	(1.7)
	Saskatchewan	**462**	(4.8)	498	(5.3)	525	(7.0)	**553**	(6.0)	**33.7**	(3.0)	**2.5**	(0.3)	18.2	(2.7)
	Italy														
	Abruzzo	**446**	(9.2)	464	(9.1)	492	(10.0)	**505**	(6.9)	**29.6**	(4.0)	**1.6**	(0.3)	8.7	(2.0)
	Basilicata	**435**	(6.8)	461	(6.6)	481	(7.3)	**496**	(7.9)	**25.8**	(3.7)	**1.8**	(0.2)	7.4	(2.0)
	Bolzano	**466**	(5.0)	494	(5.4)	520	(6.2)	**557**	(5.2)	**36.2**	(2.8)	**2.0**	(0.2)	15.1	(2.0)
	Calabria	**406**	(8.7)	429	(10.5)	441	(11.4)	**445**	(9.7)	**15.5**	(4.4)	1.3	(0.3)	2.7	(1.6)
	Campania	**429**	(9.0)	449	(10.8)	475	(10.7)	**469**	(9.0)	**20.1**	(4.0)	**1.7**	(0.2)	4.1	(1.7)
	Emilia Romagna	**465**	(6.6)	486	(9.5)	525	(9.7)	**531**	(10.7)	**28.8**	(4.7)	**1.7**	(0.3)	7.5	(2.2)
	Friuli Venezia Giulia	**490**	(6.3)	515	(7.8)	534	(7.4)	**561**	(6.8)	**33.6**	(3.6)	**1.7**	(0.2)	11.3	(2.2)
	Lazio	**436**	(8.0)	468	(10.6)	489	(8.3)	**506**	(9.8)	**31.0**	(3.2)	**1.8**	(0.3)	9.5	(1.9)
	Liguria	**459**	(8.6)	470	(8.2)	508	(9.3)	**513**	(10.8)	**24.2**	(4.3)	**1.6**	(0.2)	6.0	(2.0)
	Lombardia	**482**	(8.6)	500	(10.0)	534	(10.8)	**553**	(10.9)	**31.3**	(3.9)	**1.8**	(0.2)	10.7	(2.5)
	Marche	**464**	(7.1)	489	(8.7)	502	(9.0)	**524**	(10.6)	**27.0**	(4.6)	1.5	(0.2)	7.0	(2.2)
	Molise	**432**	(6.0)	457	(7.6)	472	(8.4)	**494**	(8.3)	**29.2**	(3.6)	**1.8**	(0.3)	8.2	(1.9)
	Piemonte	**459**	(11.5)	488	(8.4)	519	(7.1)	**526**	(8.6)	**29.5**	(3.9)	**1.8**	(0.2)	10.0	(2.8)
	Puglia	**448**	(10.7)	473	(8.9)	488	(7.3)	**503**	(9.0)	**24.0**	(3.9)	**1.6**	(0.2)	6.5	(2.1)
	Sardegna	**426**	(11.0)	451	(10.0)	474	(8.0)	**491**	(7.8)	**26.3**	(3.8)	**1.8**	(0.3)	9.2	(2.5)
	Sicilia	**425**	(7.3)	445	(7.9)	467	(7.0)	**459**	(9.4)	**14.0**	(4.7)	**1.4**	(0.2)	2.4	(1.6)
	Toscana	**452**	(8.3)	484	(8.8)	520	(8.1)	**529**	(7.9)	**32.5**	(3.1)	**2.2**	(0.3)	10.7	(1.7)
	Trento	**489**	(6.0)	521	(7.7)	537	(7.4)	**561**	(6.5)	**31.3**	(3.4)	**1.9**	(0.3)	10.4	(2.1)
	Umbria	**457**	(8.9)	479	(11.4)	504	(9.0)	**527**	(7.5)	**30.8**	(3.8)	**1.8**	(0.3)	8.6	(1.9)
	Valle d'Aosta	**456**	(7.6)	475	(7.1)	514	(7.5)	**535**	(8.8)	**34.5**	(4.6)	**1.9**	(0.3)	15.1	(3.5)
	Veneto	**481**	(8.6)	514	(8.6)	530	(9.3)	**562**	(12.7)	**34.7**	(3.5)	**2.0**	(0.3)	11.9	(2.1)
	Mexico														
	Aguascalientes	**395**	(6.8)	425	(9.0)	455	(7.4)	**473**	(7.8)	**29.9**	(3.5)	**2.7**	(0.5)	15.5	(3.4)
	Baja California	**373**	(5.7)	403	(8.0)	433	(11.4)	**449**	(9.7)	**25.4**	(3.2)	**2.4**	(0.5)	14.4	(3.0)
	Baja California Sur	**389**	(8.1)	418	(6.2)	426	(9.5)	**442**	(11.0)	**18.9**	(3.4)	1.6	(0.3)	7.1	(2.6)
	Campeche	**380**	(7.0)	394	(7.5)	400	(7.5)	**418**	(8.7)	**15.1**	(2.9)	1.2	(0.2)	4.6	(1.9)
	Chiapas	**360**	(6.4)	367	(9.0)	385	(8.9)	**383**	(11.0)	**10.0**	(3.5)	1.3	(0.2)	1.8	(1.3)
	Chihuahua	**399**	(9.2)	417	(8.4)	447	(9.3)	**454**	(14.4)	**23.3**	(3.6)	**1.9**	(0.3)	10.2	(3.1)
	Coahuila	**386**	(8.2)	410	(9.7)	435	(10.4)	**444**	(11.4)	**23.3**	(3.9)	**2.0**	(0.3)	10.5	(2.5)
	Colima	**398**	(7.0)	419	(7.6)	442	(6.8)	**446**	(10.4)	**20.9**	(3.9)	**1.7**	(0.2)	7.3	(2.4)
	Distrito Federal	**401**	(5.9)	430	(7.9)	433	(7.6)	**459**	(10.5)	**20.8**	(2.9)	**1.9**	(0.4)	9.0	(3.0)
	Durango	**396**	(8.4)	414	(8.7)	426	(10.7)	**456**	(12.1)	**21.7**	(4.5)	1.6	(0.4)	8.8	(3.5)
	Guanajuato	**380**	(7.7)	401	(7.7)	424	(9.3)	**451**	(8.5)	**26.0**	(3.3)	**2.1**	(0.4)	13.5	(3.5)
	Guerrero	359	(6.5)	359	(6.3)	374	(6.3)	379	(7.6)	**8.8**	(3.5)	1.0	(0.2)	2.0	(1.5)
	Hidalgo	**381**	(7.5)	405	(7.8)	417	(7.2)	**430**	(9.2)	**17.3**	(4.4)	**1.8**	(0.3)	5.7	(2.7)
	Jalisco	**402**	(8.9)	424	(7.2)	444	(6.9)	**469**	(9.2)	**25.8**	(2.6)	**2.2**	(0.3)	12.7	(2.5)
	Mexico	**390**	(6.4)	409	(8.4)	431	(8.6)	**449**	(8.7)	**24.4**	(3.1)	**1.9**	(0.4)	12.4	(2.6)
	Morelos	**388**	(9.7)	411	(10.1)	435	(12.0)	**457**	(15.2)	**23.7**	(5.1)	**1.9**	(0.3)	10.8	(3.7)
	Nayarit	**385**	(7.4)	400	(8.7)	434	(8.5)	**443**	(9.5)	**22.1**	(3.4)	**1.7**	(0.3)	8.7	(2.4)
	Nuevo León	**404**	(9.7)	431	(10.5)	448	(10.1)	**463**	(10.5)	**25.3**	(3.0)	**2.0**	(0.4)	12.0	(2.7)
	Puebla	**389**	(5.6)	405	(7.6)	427	(8.3)	**443**	(9.1)	**21.1**	(4.0)	**1.8**	(0.3)	8.1	(3.2)
	Querétaro	**408**	(8.1)	418	(8.3)	442	(8.5)	**470**	(10.5)	**27.3**	(3.7)	1.5	(0.3)	11.1	(2.7)
	Quintana Roo	**378**	(5.4)	401	(7.7)	422	(6.5)	**435**	(9.0)	**20.7**	(3.0)	**1.9**	(0.3)	9.0	(2.4)
	San Luis Potosí	**380**	(9.0)	397	(6.6)	436	(11.2)	**443**	(10.8)	**28.1**	(3.8)	**1.9**	(0.4)	13.7	(3.4)
	Sinaloa	**391**	(7.3)	408	(6.6)	428	(7.4)	**420**	(7.9)	**12.6**	(3.3)	1.4	(0.3)	3.4	(1.7)
	Tabasco	**348**	(6.3)	375	(7.3)	396	(7.5)	**391**	(8.6)	**15.8**	(3.1)	**1.9**	(0.4)	6.3	(2.4)
	Tamaulipas	**390**	(9.9)	398	(8.2)	419	(12.5)	**435**	(9.6)	**17.9**	(3.3)	1.4	(0.3)	6.3	(2.3)
	Tlaxcala	**384**	(6.2)	408	(7.8)	426	(8.9)	**433**	(7.3)	**19.2**	(4.4)	**1.7**	(0.3)	7.4	(3.2)
	Veracruz	**372**	(8.6)	399	(10.0)	405	(9.0)	**434**	(10.8)	**22.5**	(4.5)	**1.7**	(0.3)	9.1	(3.5)
	Yucatán	**382**	(6.9)	405	(6.3)	423	(8.2)	**431**	(9.0)	**19.6**	(2.9)	**1.8**	(0.4)	7.7	(2.1)
	Zacatecas	**383**	(7.2)	410	(7.4)	414	(6.3)	**428**	(9.8)	**16.9**	(3.1)	1.6	(0.3)	5.8	(2.3)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.3.2d for national data.

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[Part 4/4]

Table B2.III.9

Index of openness to problem solving and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

	Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
	Bottom quarter		Second quarter		Third quarter		Top quarter							
	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD														
Portugal														
Alentejo	**449**	(14.3)	472	(12.1)	498	(14.7)	**533**	(12.3)	**35.4**	(3.7)	**1.7**	(0.3)	14.3	(2.5)
Spain														
Andalusia•	**427**	(5.1)	463	(5.3)	488	(6.6)	**514**	(8.7)	**33.3**	(3.5)	**2.2**	(0.3)	14.7	(2.7)
Aragon•	**459**	(8.9)	491	(9.0)	515	(9.5)	**528**	(10.6)	**26.4**	(3.6)	**1.8**	(0.2)	8.1	(2.1)
Asturias•	**463**	(8.4)	491	(7.2)	515	(6.8)	**538**	(10.8)	**30.8**	(4.0)	**1.9**	(0.2)	10.8	(2.7)
Balearic Islands•	**439**	(7.4)	467	(7.8)	493	(8.1)	**518**	(8.2)	**31.0**	(2.6)	**1.8**	(0.3)	13.9	(2.2)
Basque Country•	**465**	(3.6)	499	(3.7)	519	(3.8)	**543**	(3.8)	**32.1**	(1.5)	**2.2**	(0.2)	12.7	(1.2)
Cantabria•	**445**	(6.1)	490	(6.7)	510	(5.9)	**535**	(8.3)	**33.1**	(3.3)	**2.3**	(0.2)	14.3	(2.8)
Castile and Leon•	**466**	(7.0)	507	(7.5)	533	(6.2)	**535**	(6.9)	**27.2**	(3.1)	**2.2**	(0.3)	9.7	(2.1)
Catalonia•	**454**	(7.4)	485	(6.7)	508	(8.0)	**532**	(7.9)	**31.9**	(3.2)	**2.0**	(0.3)	12.1	(2.4)
Extremadura•	**408**	(8.2)	450	(6.4)	488	(6.6)	**496**	(7.0)	**34.5**	(3.3)	**2.3**	(0.3)	15.2	(2.8)
Galicia•	**455**	(5.5)	486	(6.3)	501	(8.1)	**520**	(6.6)	**23.8**	(2.2)	**1.8**	(0.2)	7.7	(1.5)
La Rioja•	**464**	(6.8)	485	(7.9)	528	(6.9)	**539**	(7.5)	**30.5**	(3.8)	**1.6**	(0.2)	9.2	(2.1)
Madrid•	**458**	(6.6)	489	(6.1)	529	(7.1)	**546**	(5.5)	**34.9**	(3.2)	**2.1**	(0.2)	14.6	(2.1)
Murcia•	**429**	(5.4)	446	(7.1)	481	(8.2)	**496**	(9.0)	**28.4**	(3.7)	**1.7**	(0.3)	10.6	(2.6)
Navarre•	**476**	(5.8)	510	(5.1)	529	(6.8)	**558**	(6.9)	**36.0**	(3.3)	**2.1**	(0.3)	14.7	(2.8)
United Kingdom														
England	**444**	(7.4)	485	(4.5)	514	(4.9)	**544**	(4.5)	**41.9**	(2.2)	**2.4**	(0.2)	17.3	(1.5)
Northern Ireland	**442**	(5.8)	480	(6.1)	507	(5.8)	**532**	(7.0)	**37.4**	(2.5)	**2.3**	(0.3)	15.2	(1.9)
Scotland•	**455**	(4.7)	486	(5.0)	516	(5.3)	**544**	(4.6)	**38.8**	(2.6)	**2.2**	(0.2)	17.6	(2.0)
Wales	**421**	(3.8)	457	(3.7)	484	(4.7)	**517**	(5.1)	**37.8**	(2.1)	**2.5**	(0.2)	17.8	(1.9)
United States														
Connecticut•	**455**	(6.8)	500	(7.9)	522	(10.8)	**558**	(8.7)	**34.7**	(3.7)	**2.2**	(0.3)	12.7	(2.5)
Florida•	**434**	(6.5)	466	(7.9)	473	(7.7)	**507**	(9.2)	**22.2**	(1.8)	**1.8**	(0.2)	8.5	(1.5)
Massachusetts•	**474**	(6.8)	505	(7.6)	529	(8.7)	**561**	(11.2)	**30.5**	(3.0)	**2.2**	(0.3)	10.6	(2.1)
Partners														
Argentina														
Ciudad Autónoma de Buenos Aires•	**393**	(7.0)	422	(7.8)	449	(9.7)	**452**	(10.7)	**23.0**	(3.7)	**1.9**	(0.3)	7.8	(2.6)
Brazil														
Acre	**340**	(7.7)	367	(13.5)	377	(6.8)	**363**	(9.4)	**9.8**	(3.6)	1.6	(0.5)	2.2	(1.6)
Alagoas	330	(8.9)	347	(14.0)	360	(10.4)	359	(13.5)	8.3	(4.4)	1.3	(0.5)	1.8	(2.0)
Amapá	355	(13.6)	351	(12.5)	375	(10.3)	374	(9.5)	**8.3**	(3.8)	1.2	(0.3)	1.7	(1.7)
Amazonas	**346**	(7.1)	355	(8.3)	365	(9.3)	**379**	(9.6)	**12.9**	(3.3)	1.2	(0.3)	3.9	(1.5)
Bahia	357	(12.8)	384	(14.1)	399	(16.9)	384	(10.4)	8.2	(5.3)	1.7	(0.5)	1.2	(1.5)
Ceará	**362**	(10.3)	382	(12.2)	395	(9.7)	**410**	(13.4)	**18.3**	(4.7)	1.7	(0.4)	5.8	(2.4)
Espírito Santo	**391**	(8.5)	415	(17.6)	437	(16.0)	**437**	(19.7)	**14.7**	(5.9)	1.7	(0.4)	2.7	(1.9)
Federal District	**392**	(9.6)	405	(13.6)	431	(16.6)	**444**	(11.0)	**21.9**	(4.7)	1.8	(0.4)	6.8	(2.9)
Goiás	**360**	(10.0)	366	(8.7)	401	(10.7)	**401**	(12.0)	**14.2**	(3.6)	1.5	(0.3)	4.2	(2.0)
Maranhão	338	(16.7)	352	(14.2)	353	(15.5)	364	(22.2)	8.6	(7.8)	1.3	(0.5)	1.2	(2.2)
Mato Grosso	364	(13.2)	371	(10.8)	388	(13.9)	372	(14.6)	2.6	(5.0)	1.1	(0.3)	0.2	(0.7)
Mato Grosso do Sul	**398**	(8.8)	402	(11.0)	417	(10.6)	**430**	(12.8)	**9.4**	(3.8)	1.3	(0.3)	1.8	(1.4)
Minas Gerais	**390**	(10.0)	402	(10.7)	413	(12.5)	**422**	(10.9)	**13.1**	(3.7)	1.3	(0.3)	3.2	(1.6)
Pará	348	(9.2)	367	(7.3)	371	(8.5)	367	(10.7)	3.7	(4.3)	1.3	(0.3)	0.4	(0.9)
Paraíba	**379**	(10.8)	386	(10.8)	401	(10.0)	**411**	(13.2)	**9.3**	(4.7)	1.2	(0.3)	1.3	(1.4)
Paraná	**380**	(8.9)	413	(15.6)	422	(16.5)	**427**	(17.3)	**17.4**	(4.3)	1.5	(0.4)	3.9	(1.6)
Pernambuco	347	(8.0)	369	(10.0)	378	(10.6)	364	(11.2)	4.8	(3.4)	1.5	(0.4)	0.6	(0.9)
Piauí	**370**	(8.3)	389	(12.7)	382	(13.7)	**410**	(10.2)	**14.6**	(3.8)	1.2	(0.3)	3.4	(1.5)
Rio de Janeiro	**373**	(9.9)	393	(10.4)	391	(10.1)	**403**	(9.1)	**9.6**	(3.0)	1.3	(0.2)	2.2	(1.3)
Rio Grande do Norte	**356**	(11.8)	385	(13.6)	397	(13.3)	**390**	(13.7)	**9.8**	(4.3)	1.5	(0.4)	1.4	(1.2)
Rio Grande do Sul	391	(6.6)	411	(8.3)	415	(9.9)	408	(9.6)	4.7	(3.5)	1.5	(0.3)	0.6	(0.8)
Rondônia	**369**	(7.3)	366	(8.6)	392	(9.0)	**398**	(8.5)	**11.8**	(3.1)	1.4	(0.3)	3.5	(1.7)
Roraima	350	(9.6)	363	(9.7)	384	(10.7)	362	(9.8)	**6.3**	(3.2)	1.1	(0.3)	0.9	(1.0)
Santa Catarina	**383**	(11.7)	419	(12.2)	425	(10.1)	**437**	(10.5)	**16.9**	(3.9)	1.9	(0.5)	4.7	(2.6)
São Paulo	**381**	(4.8)	403	(6.5)	425	(6.9)	**417**	(8.0)	**13.9**	(3.1)	**1.6**	(0.2)	3.0	(1.2)
Sergipe	**362**	(13.6)	396	(10.3)	407	(16.2)	**407**	(18.2)	**17.2**	(6.2)	2.0	(0.6)	4.6	(3.0)
Tocantins	**354**	(8.0)	367	(11.8)	378	(9.7)	**385**	(9.9)	**12.0**	(2.9)	1.2	(0.2)	2.4	(1.0)
Colombia														
Bogotá	**381**	(5.7)	399	(5.8)	406	(6.7)	**413**	(5.9)	**10.3**	(2.3)	**1.6**	(0.2)	2.5	(1.1)
Cali	**367**	(5.4)	382	(8.4)	391	(8.3)	**400**	(10.2)	**12.4**	(3.4)	1.2	(0.2)	2.8	(1.4)
Manizales	**385**	(4.2)	400	(5.7)	424	(11.0)	**428**	(6.1)	**16.7**	(3.3)	**1.7**	(0.3)	5.5	(1.8)
Medellín	**373**	(7.1)	397	(7.5)	405	(10.5)	**417**	(14.6)	**15.7**	(5.0)	1.4	(0.3)	3.4	(1.9)
Russian Federation														
Perm Territory region•	**447**	(6.0)	479	(6.4)	503	(7.6)	**515**	(10.4)	**28.0**	(4.2)	**1.9**	(0.3)	8.8	(2.4)
United Arab Emirates														
Abu Dhabi•	**402**	(5.5)	427	(4.7)	428	(5.4)	**442**	(6.9)	**12.6**	(2.6)	**1.4**	(0.1)	2.3	(0.9)
Ajman	**388**	(12.0)	397	(9.7)	409	(11.9)	**423**	(16.9)	**14.0**	(3.8)	1.2	(0.3)	4.3	(2.3)
Dubai•	**440**	(3.5)	463	(4.3)	474	(4.4)	**488**	(4.7)	**18.7**	(2.1)	**1.5**	(0.1)	3.6	(0.8)
Fujairah	**397**	(10.2)	412	(10.8)	412	(13.0)	**428**	(15.0)	**13.4**	(5.2)	1.1	(0.2)	2.5	(2.1)
Ras al-Khaimah	**385**	(9.7)	415	(8.9)	430	(11.0)	**445**	(12.6)	**20.5**	(3.7)	**1.9**	(0.4)	8.8	(3.1)
Sharjah	**409**	(10.9)	445	(12.8)	451	(13.0)	**457**	(12.9)	**17.4**	(3.8)	**1.9**	(0.4)	4.7	(2.0)
Umm al-Quwain	**383**	(10.4)	387	(13.0)	386	(12.5)	**424**	(8.5)	**15.0**	(4.3)	1.3	(0.3)	5.5	(3.2)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.3.2d for national data.

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[Part 1/4]

Table B2.III.11 Index of intrinsic motivation to learn mathematics and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

		Index of intrinsic motivation to learn mathematics																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Australia**																		
	Australian Capital Territory	0.14	(0.05)	1.00	(0.03)	0.19	(0.07)	0.09	(0.05)	0.10	(0.08)	-1.14	(0.09)	-0.16	(0.06)	0.52	(0.05)	1.36	(0.06)
	New South Wales	0.12	(0.03)	1.03	(0.02)	0.28	(0.03)	-0.04	(0.04)	**0.31**	(0.05)	-1.18	(0.05)	-0.22	(0.02)	0.45	(0.04)	1.44	(0.03)
	Northern Territory	0.21	(0.07)	0.95	(0.04)	0.25	(0.09)	0.17	(0.09)	0.09	(0.13)	-1.04	(0.12)	-0.05	(0.09)	0.60	(0.07)	1.35	(0.07)
	Queensland	0.08	(0.03)	0.94	(0.02)	0.22	(0.03)	-0.05	(0.04)	**0.27**	(0.05)	-1.10	(0.04)	-0.23	(0.02)	0.37	(0.04)	1.29	(0.04)
	South Australia	-0.02	(0.04)	0.94	(0.02)	0.12	(0.04)	-0.17	(0.05)	**0.29**	(0.05)	-1.25	(0.07)	-0.26	(0.04)	0.28	(0.04)	1.15	(0.04)
	Tasmania	0.15	(0.04)	0.94	(0.02)	0.20	(0.05)	0.09	(0.05)	0.11	(0.07)	-1.02	(0.06)	-0.18	(0.04)	0.46	(0.05)	1.34	(0.05)
	Victoria	0.15	(0.03)	1.02	(0.02)	0.30	(0.03)	-0.04	(0.05)	**0.34**	(0.06)	-1.17	(0.04)	-0.19	(0.03)	0.57	(0.04)	1.38	(0.04)
	Western Australia	0.07	(0.03)	0.98	(0.02)	0.30	(0.04)	-0.18	(0.06)	**0.48**	(0.07)	-1.16	(0.06)	-0.22	(0.02)	0.32	(0.03)	1.36	(0.04)
	Belgium																		
	Flemish Community•	-0.26	(0.02)	0.93	(0.01)	-0.21	(0.02)	-0.31	(0.03)	**0.10**	(0.03)	-1.50	(0.02)	-0.50	(0.02)	0.03	(0.03)	0.91	(0.03)
	French Community	-0.19	(0.03)	0.95	(0.01)	-0.13	(0.04)	-0.25	(0.03)	**0.12**	(0.05)	-1.42	(0.03)	-0.51	(0.04)	0.13	(0.04)	1.03	(0.03)
	German-speaking Community	-0.43	(0.05)	1.02	(0.03)	-0.39	(0.07)	-0.48	(0.06)	0.09	(0.09)	-1.66	(0.04)	-0.87	(0.06)	-0.14	(0.08)	0.95	(0.07)
	Canada																		
	Alberta	0.17	(0.04)	1.08	(0.02)	0.31	(0.05)	0.00	(0.05)	**0.31**	(0.07)	-1.25	(0.05)	-0.17	(0.06)	0.58	(0.04)	1.52	(0.04)
	British Columbia	0.03	(0.03)	1.00	(0.02)	0.13	(0.05)	-0.06	(0.04)	**0.19**	(0.06)	-1.25	(0.05)	-0.27	(0.04)	0.34	(0.05)	1.32	(0.03)
	Manitoba	0.11	(0.05)	1.03	(0.03)	0.22	(0.07)	-0.01	(0.04)	**0.22**	(0.08)	-1.17	(0.06)	-0.24	(0.02)	0.40	(0.06)	1.44	(0.08)
	New Brunswick	0.05	(0.05)	1.05	(0.03)	0.09	(0.06)	0.01	(0.06)	0.08	(0.08)	-1.32	(0.06)	-0.27	(0.05)	0.43	(0.06)	1.39	(0.06)
	Newfoundland and Labrador	0.11	(0.04)	1.04	(0.02)	0.06	(0.06)	0.15	(0.05)	-0.08	(0.08)	-1.23	(0.06)	-0.23	(0.05)	0.47	(0.06)	1.43	(0.05)
	Nova Scotia	0.00	(0.05)	1.03	(0.02)	0.01	(0.05)	-0.02	(0.07)	0.03	(0.07)	-1.32	(0.06)	-0.34	(0.04)	0.31	(0.09)	1.35	(0.04)
	Ontario	0.04	(0.03)	1.07	(0.02)	0.19	(0.04)	-0.10	(0.04)	**0.29**	(0.05)	-1.33	(0.04)	-0.30	(0.03)	0.35	(0.04)	1.44	(0.04)
	Prince Edward Island	-0.03	(0.04)	1.08	(0.02)	0.02	(0.06)	-0.07	(0.05)	0.08	(0.08)	-1.46	(0.05)	-0.34	(0.04)	0.33	(0.05)	1.36	(0.04)
	Quebec	0.01	(0.02)	0.97	(0.02)	0.10	(0.03)	-0.08	(0.03)	**0.18**	(0.04)	-1.25	(0.03)	-0.29	(0.03)	0.32	(0.03)	1.25	(0.03)
	Saskatchewan	0.04	(0.03)	0.98	(0.02)	0.09	(0.04)	-0.01	(0.04)	0.10	(0.06)	-1.23	(0.05)	-0.25	(0.03)	0.37	(0.05)	1.29	(0.04)
	Italy																		
	Abruzzo	-0.02	(0.04)	0.94	(0.02)	0.04	(0.05)	-0.08	(0.05)	0.13	(0.07)	-1.25	(0.05)	-0.29	(0.05)	0.32	(0.05)	1.14	(0.05)
	Basilicata	0.08	(0.03)	0.89	(0.02)	0.18	(0.04)	-0.01	(0.05)	**0.19**	(0.06)	-1.09	(0.05)	-0.17	(0.03)	0.41	(0.03)	1.18	(0.05)
	Bolzano	-0.36	(0.03)	0.97	(0.02)	-0.20	(0.04)	-0.51	(0.04)	**0.31**	(0.05)	-1.59	(0.04)	-0.68	(0.03)	-0.09	(0.03)	0.92	(0.04)
	Calabria	0.23	(0.05)	0.98	(0.02)	0.33	(0.05)	0.12	(0.07)	**0.21**	(0.08)	-1.05	(0.07)	-0.07	(0.06)	0.61	(0.06)	1.43	(0.06)
	Campania	0.24	(0.05)	0.93	(0.02)	0.29	(0.06)	0.18	(0.06)	0.10	(0.06)	-0.97	(0.06)	-0.05	(0.07)	0.60	(0.06)	1.37	(0.05)
	Emilia Romagna	-0.10	(0.05)	0.94	(0.02)	-0.08	(0.06)	-0.13	(0.06)	0.06	(0.07)	-1.33	(0.06)	-0.42	(0.06)	0.24	(0.05)	1.10	(0.05)
	Friuli Venezia Giulia	-0.12	(0.04)	0.94	(0.02)	-0.04	(0.06)	-0.22	(0.07)	0.18	(0.10)	-1.36	(0.07)	-0.37	(0.05)	0.19	(0.05)	1.05	(0.04)
	Lazio	0.07	(0.06)	0.94	(0.03)	0.13	(0.05)	-0.02	(0.09)	0.15	(0.08)	-1.19	(0.08)	-0.20	(0.07)	0.42	(0.06)	1.24	(0.06)
	Liguria	-0.12	(0.05)	0.94	(0.03)	-0.05	(0.06)	-0.19	(0.06)	0.15	(0.08)	-1.35	(0.07)	-0.39	(0.07)	0.20	(0.05)	1.07	(0.05)
	Lombardia	-0.09	(0.04)	0.96	(0.02)	0.05	(0.05)	-0.24	(0.06)	**0.29**	(0.06)	-1.33	(0.06)	-0.40	(0.06)	0.25	(0.04)	1.11	(0.05)
	Marche	-0.08	(0.04)	0.90	(0.02)	-0.05	(0.05)	-0.12	(0.04)	0.07	(0.06)	-1.28	(0.04)	-0.32	(0.05)	0.25	(0.04)	1.03	(0.04)
	Molise	0.09	(0.03)	0.89	(0.02)	0.14	(0.05)	0.03	(0.04)	0.11	(0.06)	-1.08	(0.05)	-0.16	(0.03)	0.39	(0.06)	1.20	(0.04)
	Piemonte	-0.14	(0.06)	0.95	(0.03)	-0.07	(0.07)	-0.21	(0.06)	**0.13**	(0.06)	-1.41	(0.07)	-0.40	(0.09)	0.23	(0.05)	1.03	(0.05)
	Puglia	0.09	(0.04)	0.95	(0.02)	0.14	(0.05)	0.04	(0.05)	0.10	(0.07)	-1.13	(0.07)	-0.22	(0.04)	0.41	(0.05)	1.31	(0.04)
	Sardegna	-0.08	(0.05)	0.97	(0.03)	-0.02	(0.05)	-0.13	(0.07)	0.11	(0.07)	-1.35	(0.06)	-0.39	(0.07)	0.28	(0.05)	1.16	(0.06)
	Sicilia	0.15	(0.05)	0.92	(0.02)	0.22	(0.06)	0.08	(0.07)	0.14	(0.08)	-1.03	(0.08)	-0.11	(0.06)	0.47	(0.05)	1.30	(0.05)
	Toscana	-0.09	(0.04)	0.90	(0.02)	-0.05	(0.05)	-0.13	(0.06)	0.08	(0.06)	-1.28	(0.06)	-0.35	(0.05)	0.26	(0.04)	1.03	(0.05)
	Trento	-0.06	(0.03)	0.88	(0.02)	0.00	(0.03)	-0.14	(0.05)	**0.14**	(0.06)	-1.21	(0.04)	-0.28	(0.04)	0.22	(0.04)	1.03	(0.04)
	Umbria	-0.04	(0.03)	0.96	(0.02)	-0.01	(0.06)	-0.06	(0.05)	0.04	(0.09)	-1.28	(0.05)	-0.35	(0.04)	0.33	(0.03)	1.16	(0.05)
	Valle d'Aosta	-0.34	(0.04)	0.96	(0.03)	-0.33	(0.06)	-0.36	(0.05)	0.03	(0.08)	-1.60	(0.04)	-0.65	(0.05)	0.01	(0.05)	0.87	(0.06)
	Veneto	-0.05	(0.06)	0.91	(0.02)	0.05	(0.05)	-0.15	(0.08)	**0.21**	(0.08)	-1.24	(0.07)	-0.29	(0.07)	0.26	(0.07)	1.08	(0.07)
	Mexico																		
	Aguascalientes	0.54	(0.03)	0.80	(0.02)	0.60	(0.05)	0.48	(0.04)	**0.12**	(0.06)	-0.47	(0.05)	0.32	(0.04)	0.78	(0.03)	1.53	(0.05)
	Baja California	0.57	(0.03)	0.83	(0.02)	0.70	(0.04)	0.45	(0.03)	**0.26**	(0.04)	-0.44	(0.06)	0.30	(0.05)	0.83	(0.03)	1.62	(0.05)
	Baja California Sur	0.52	(0.04)	0.84	(0.03)	0.60	(0.05)	0.44	(0.06)	**0.17**	(0.08)	-0.55	(0.09)	0.27	(0.05)	0.80	(0.03)	1.57	(0.06)
	Campeche	0.67	(0.06)	0.84	(0.04)	0.77	(0.06)	0.56	(0.07)	**0.21**	(0.07)	-0.43	(0.08)	0.50	(0.07)	0.93	(0.05)	1.67	(0.08)
	Chiapas	0.95	(0.04)	0.80	(0.03)	0.94	(0.04)	0.97	(0.05)	-0.03	(0.05)	-0.08	(0.08)	0.78	(0.03)	1.19	(0.05)	1.93	(0.04)
	Chihuahua	0.61	(0.03)	0.86	(0.03)	0.71	(0.04)	0.51	(0.05)	**0.20**	(0.05)	-0.51	(0.06)	0.39	(0.06)	0.94	(0.05)	1.62	(0.03)
	Coahuila	0.62	(0.07)	0.81	(0.03)	0.70	(0.07)	0.53	(0.08)	**0.18**	(0.07)	-0.42	(0.08)	0.41	(0.07)	0.88	(0.08)	1.61	(0.08)
	Colima	0.70	(0.04)	0.87	(0.02)	0.81	(0.06)	0.59	(0.05)	**0.21**	(0.07)	-0.41	(0.05)	0.44	(0.06)	1.01	(0.04)	1.78	(0.05)
	Distrito Federal	0.53	(0.04)	0.84	(0.02)	0.64	(0.06)	0.42	(0.04)	**0.22**	(0.07)	-0.53	(0.07)	0.31	(0.04)	0.78	(0.03)	1.57	(0.06)
	Durango	0.67	(0.04)	0.82	(0.04)	0.77	(0.07)	0.57	(0.06)	**0.20**	(0.10)	-0.36	(0.08)	0.44	(0.03)	0.92	(0.05)	1.68	(0.07)
	Guanajuato	0.64	(0.05)	0.83	(0.03)	0.69	(0.06)	0.60	(0.06)	0.09	(0.08)	-0.46	(0.08)	0.42	(0.06)	0.98	(0.05)	1.63	(0.04)
	Guerrero	0.76	(0.04)	0.79	(0.03)	0.77	(0.05)	0.76	(0.06)	0.01	(0.07)	-0.25	(0.07)	0.59	(0.05)	1.00	(0.03)	1.72	(0.05)
	Hidalgo	0.80	(0.04)	0.79	(0.03)	0.90	(0.04)	0.72	(0.05)	**0.18**	(0.06)	-0.20	(0.05)	0.61	(0.05)	1.03	(0.04)	1.78	(0.06)
	Jalisco	0.60	(0.03)	0.80	(0.02)	0.73	(0.06)	0.49	(0.05)	**0.23**	(0.09)	-0.37	(0.03)	0.34	(0.04)	0.82	(0.04)	1.63	(0.06)
	Mexico	0.64	(0.04)	0.78	(0.03)	0.71	(0.08)	0.57	(0.04)	0.14	(0.09)	-0.37	(0.08)	0.43	(0.06)	0.91	(0.04)	1.60	(0.05)
	Morelos	0.54	(0.04)	0.85	(0.02)	0.63	(0.06)	0.47	(0.05)	**0.16**	(0.06)	-0.51	(0.06)	0.27	(0.06)	0.81	(0.03)	1.61	(0.06)
	Nayarit	0.63	(0.04)	0.83	(0.03)	0.69	(0.05)	0.56	(0.04)	**0.13**	(0.06)	-0.42	(0.05)	0.35	(0.04)	0.91	(0.05)	1.68	(0.05)
	Nuevo León	0.51	(0.06)	0.96	(0.02)	0.59	(0.07)	0.41	(0.07)	**0.18**	(0.08)	-0.72	(0.07)	0.25	(0.06)	0.78	(0.04)	1.71	(0.09)
	Puebla	0.75	(0.04)	0.70	(0.02)	0.81	(0.06)	0.70	(0.04)	0.11	(0.06)	-0.13	(0.05)	0.56	(0.05)	0.96	(0.03)	1.62	(0.05)
	Querétaro	0.65	(0.06)	0.87	(0.04)	0.70	(0.12)	0.60	(0.06)	0.10	(0.13)	-0.49	(0.10)	0.40	(0.05)	0.97	(0.08)	1.72	(0.08)
	Quintana Roo	0.65	(0.04)	0.87	(0.03)	0.69	(0.06)	0.62	(0.05)	0.07	(0.06)	-0.47	(0.07)	0.41	(0.05)	0.96	(0.04)	1.72	(0.05)
	San Luis Potosí	0.73	(0.05)	0.82	(0.02)	0.83	(0.05)	0.65	(0.08)	**0.19**	(0.08)	-0.32	(0.08)	0.55	(0.07)	0.98	(0.03)	1.73	(0.06)
	Sinaloa	0.67	(0.05)	0.84	(0.02)	0.76	(0.05)	0.59	(0.07)	**0.16**	(0.07)	-0.42	(0.07)	0.48	(0.06)	0.96	(0.04)	1.68	(0.05)
	Tabasco	0.69	(0.03)	0.86	(0.03)	0.75	(0.04)	0.63	(0.05)	**0.11**	(0.06)	-0.43	(0.05)	0.46	(0.06)	0.99	(0.02)	1.74	(0.05)
	Tamaulipas	0.64	(0.03)	0.83	(0.03)	0.71	(0.04)	0.57	(0.06)	**0.13**	(0.07)	-0.42	(0.07)	0.44	(0.04)	0.91	(0.05)	1.66	(0.04)
	Tlaxcala	0.71	(0.03)	0.81	(0.02)	0.76	(0.04)	0.67	(0.04)	0.09	(0.05)	-0.31	(0.06)	0.49	(0.05)	0.97	(0.02)	1.71	(0.04)
	Veracruz	0.76	(0.05)	0.79	(0.02)	0.83	(0.07)	0.68	(0.05)	**0.15**	(0.05)	-0.26	(0.07)	0.57	(0.07)	1.00	(0.04)	1.72	(0.06)
	Yucatán	0.72	(0.04)	0.84	(0.02)	0.76	(0.05)	0.68	(0.05)	0.08	(0.06)	-0.34	(0.05)	0.43	(0.05)	0.98	(0.05)	1.81	(0.05)
	Zacatecas	0.71	(0.04)	0.82	(0.03)	0.82	(0.05)	0.59	(0.06)	**0.24**	(0.08)	-0.35	(0.08)	0.48	(0.05)	1.00	(0.03)	1.70	(0.05)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.3.4d for national data.

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[Part 2/4]

Table B2.III.11 Index of intrinsic motivation to learn mathematics and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

		Index of intrinsic motivation to learn mathematics																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Portugal**																		
	Alentejo	0.02	(0.03)	0.89	(0.03)	0.00	(0.04)	0.03	(0.03)	-0.02	(0.05)	-1.14	(0.07)	-0.23	(0.04)	0.29	(0.05)	1.15	(0.04)
	Spain																		
	Andalusia•	-0.08	(0.03)	0.93	(0.02)	-0.02	(0.05)	-0.15	(0.04)	0.13	(0.08)	-1.28	(0.04)	-0.36	(0.04)	0.21	(0.03)	1.10	(0.04)
	Aragon•	-0.21	(0.04)	0.91	(0.02)	-0.10	(0.05)	-0.33	(0.05)	**0.23**	(0.06)	-1.41	(0.05)	-0.49	(0.05)	0.11	(0.04)	0.94	(0.05)
	Asturias•	-0.24	(0.04)	0.97	(0.02)	-0.14	(0.05)	-0.33	(0.06)	**0.19**	(0.06)	-1.47	(0.04)	-0.57	(0.05)	0.08	(0.06)	1.03	(0.06)
	Balearic Islands•	-0.06	(0.03)	1.00	(0.02)	0.05	(0.05)	-0.17	(0.04)	**0.22**	(0.07)	-1.36	(0.05)	-0.35	(0.05)	0.29	(0.03)	1.20	(0.04)
	Basque Country•	-0.19	(0.02)	0.93	(0.01)	-0.14	(0.03)	-0.24	(0.03)	**0.10**	(0.03)	-1.40	(0.02)	-0.47	(0.02)	0.11	(0.03)	1.00	(0.04)
	Cantabria•	-0.15	(0.03)	0.95	(0.02)	-0.06	(0.05)	-0.24	(0.06)	**0.18**	(0.09)	-1.40	(0.04)	-0.43	(0.05)	0.19	(0.03)	1.04	(0.04)
	Castile and Leon•	-0.16	(0.04)	0.92	(0.02)	-0.09	(0.06)	-0.24	(0.04)	**0.15**	(0.07)	-1.36	(0.04)	-0.43	(0.05)	0.14	(0.03)	1.01	(0.05)
	Catalonia•	-0.17	(0.04)	1.00	(0.02)	-0.04	(0.06)	-0.31	(0.06)	**0.27**	(0.09)	-1.43	(0.04)	-0.51	(0.05)	0.14	(0.04)	1.13	(0.05)
	Extremadura•	-0.13	(0.03)	0.94	(0.02)	-0.07	(0.05)	-0.20	(0.05)	0.12	(0.07)	-1.34	(0.04)	-0.43	(0.05)	0.17	(0.04)	1.07	(0.05)
	Galicia•	-0.17	(0.04)	0.96	(0.02)	-0.11	(0.05)	-0.23	(0.05)	**0.12**	(0.06)	-1.40	(0.05)	-0.48	(0.05)	0.14	(0.03)	1.05	(0.06)
	La Rioja•	-0.19	(0.04)	0.97	(0.02)	-0.05	(0.05)	-0.32	(0.05)	**0.27**	(0.06)	-1.45	(0.04)	-0.50	(0.05)	0.16	(0.04)	1.05	(0.04)
	Madrid•	-0.14	(0.03)	0.91	(0.02)	-0.07	(0.04)	-0.22	(0.03)	**0.15**	(0.05)	-1.31	(0.05)	-0.44	(0.04)	0.14	(0.02)	1.04	(0.05)
	Murcia•	-0.19	(0.03)	0.96	(0.02)	-0.14	(0.05)	-0.24	(0.04)	0.10	(0.06)	-1.42	(0.04)	-0.52	(0.03)	0.11	(0.06)	1.07	(0.04)
	Navarre•	-0.20	(0.03)	0.91	(0.01)	-0.14	(0.05)	-0.26	(0.04)	**0.13**	(0.05)	-1.40	(0.04)	-0.46	(0.03)	0.11	(0.04)	0.95	(0.05)
	United Kingdom																		
	England	0.21	(0.02)	0.94	(0.01)	0.26	(0.04)	0.15	(0.02)	**0.11**	(0.04)	-0.97	(0.03)	-0.13	(0.03)	0.53	(0.02)	1.39	(0.03)
	Northern Ireland	0.06	(0.03)	1.00	(0.02)	0.09	(0.04)	0.02	(0.04)	0.07	(0.05)	-1.22	(0.05)	-0.25	(0.04)	0.36	(0.05)	1.35	(0.04)
	Scotland•	0.07	(0.03)	0.93	(0.01)	0.11	(0.03)	0.04	(0.03)	0.07	(0.04)	-1.10	(0.05)	-0.21	(0.02)	0.36	(0.03)	1.24	(0.03)
	Wales	0.12	(0.02)	0.92	(0.01)	0.21	(0.03)	0.02	(0.03)	**0.19**	(0.04)	-1.00	(0.03)	-0.20	(0.02)	0.39	(0.03)	1.30	(0.02)
	United States																		
	Connecticut•	0.15	(0.03)	1.02	(0.02)	0.30	(0.05)	0.01	(0.04)	**0.29**	(0.06)	-1.13	(0.04)	-0.21	(0.03)	0.50	(0.05)	1.45	(0.05)
	Florida•	-0.01	(0.04)	1.05	(0.02)	0.09	(0.04)	-0.10	(0.05)	**0.18**	(0.05)	-1.37	(0.05)	-0.34	(0.04)	0.34	(0.04)	1.34	(0.05)
	Massachusetts•	0.06	(0.03)	1.00	(0.02)	0.15	(0.05)	-0.02	(0.05)	**0.17**	(0.08)	-1.19	(0.04)	-0.28	(0.04)	0.37	(0.06)	1.34	(0.03)
Partners	**Argentina**																		
	Ciudad Autónoma de Buenos Aires•	-0.01	(0.05)	1.03	(0.02)	0.05	(0.07)	-0.07	(0.06)	0.13	(0.08)	-1.36	(0.07)	-0.33	(0.06)	0.32	(0.05)	1.31	(0.07)
	Brazil																		
	Acre	0.51	(0.04)	0.82	(0.03)	0.56	(0.05)	0.46	(0.07)	0.10	(0.09)	-0.47	(0.07)	0.22	(0.05)	0.70	(0.04)	1.59	(0.08)
	Alagoas	0.65	(0.07)	0.88	(0.03)	0.73	(0.13)	0.58	(0.07)	0.15	(0.14)	-0.45	(0.08)	0.36	(0.08)	0.91	(0.09)	1.78	(0.08)
	Amapá	0.58	(0.07)	0.89	(0.03)	0.81	(0.09)	0.39	(0.06)	**0.42**	(0.06)	-0.56	(0.11)	0.35	(0.08)	0.89	(0.07)	1.66	(0.06)
	Amazonas	0.62	(0.06)	0.87	(0.03)	0.77	(0.07)	0.48	(0.07)	**0.29**	(0.07)	-0.47	(0.09)	0.32	(0.06)	0.90	(0.07)	1.76	(0.06)
	Bahia	0.67	(0.08)	0.88	(0.04)	0.80	(0.12)	0.58	(0.07)	0.21	(0.11)	-0.43	(0.07)	0.35	(0.12)	1.01	(0.07)	1.79	(0.12)
	Ceará	0.61	(0.05)	0.87	(0.02)	0.72	(0.04)	0.52	(0.08)	**0.20**	(0.08)	-0.46	(0.04)	0.30	(0.06)	0.89	(0.05)	1.73	(0.05)
	Espírito Santo	0.38	(0.05)	0.89	(0.03)	0.58	(0.05)	0.20	(0.08)	**0.38**	(0.10)	-0.74	(0.09)	0.14	(0.04)	0.65	(0.06)	1.49	(0.08)
	Federal District	0.25	(0.06)	0.89	(0.04)	0.36	(0.06)	0.13	(0.08)	**0.23**	(0.08)	-0.84	(0.11)	-0.05	(0.07)	0.53	(0.06)	1.37	(0.05)
	Goiás	0.38	(0.04)	0.92	(0.03)	0.51	(0.07)	0.28	(0.05)	**0.23**	(0.09)	-0.79	(0.06)	0.11	(0.05)	0.69	(0.06)	1.53	(0.07)
	Maranhão	0.80	(0.07)	0.83	(0.05)	0.90	(0.12)	0.73	(0.10)	0.18	(0.16)	-0.24	(0.11)	0.57	(0.07)	1.04	(0.06)	1.86	(0.14)
	Mato Grosso	0.46	(0.04)	0.87	(0.02)	0.63	(0.07)	0.30	(0.08)	**0.33**	(0.12)	-0.64	(0.06)	0.18	(0.04)	0.74	(0.04)	1.57	(0.08)
	Mato Grosso do Sul	0.42	(0.04)	0.93	(0.03)	0.49	(0.07)	0.38	(0.05)	0.11	(0.08)	-0.73	(0.06)	0.10	(0.05)	0.70	(0.04)	1.62	(0.07)
	Minas Gerais	0.38	(0.05)	0.92	(0.04)	0.44	(0.06)	0.32	(0.06)	0.12	(0.07)	-0.81	(0.07)	0.09	(0.06)	0.74	(0.06)	1.50	(0.06)
	Pará	0.56	(0.11)	0.85	(0.04)	0.73	(0.13)	0.44	(0.10)	**0.29**	(0.07)	-0.56	(0.14)	0.33	(0.14)	0.84	(0.11)	1.64	(0.09)
	Paraíba	0.46	(0.05)	0.89	(0.03)	0.52	(0.09)	0.41	(0.05)	0.11	(0.11)	-0.64	(0.05)	0.15	(0.05)	0.73	(0.05)	1.60	(0.08)
	Paraná	0.24	(0.06)	0.92	(0.03)	0.36	(0.08)	0.13	(0.07)	**0.23**	(0.08)	-0.92	(0.08)	-0.04	(0.08)	0.55	(0.07)	1.40	(0.07)
	Pernambuco	0.71	(0.06)	0.86	(0.04)	0.75	(0.09)	0.68	(0.07)	0.07	(0.11)	-0.37	(0.07)	0.45	(0.07)	0.99	(0.06)	1.80	(0.10)
	Piauí	0.50	(0.06)	0.88	(0.03)	0.62	(0.10)	0.41	(0.07)	0.21	(0.11)	-0.60	(0.08)	0.23	(0.08)	0.77	(0.07)	1.63	(0.08)
	Rio de Janeiro	0.39	(0.05)	0.95	(0.04)	0.57	(0.07)	0.21	(0.06)	**0.36**	(0.08)	-0.79	(0.06)	0.07	(0.06)	0.66	(0.07)	1.63	(0.09)
	Rio Grande do Norte	0.58	(0.05)	0.86	(0.04)	0.66	(0.08)	0.51	(0.04)	0.15	(0.09)	-0.52	(0.09)	0.35	(0.04)	0.81	(0.05)	1.68	(0.06)
	Rio Grande do Sul	0.32	(0.06)	0.86	(0.04)	0.40	(0.07)	0.24	(0.07)	**0.16**	(0.08)	-0.78	(0.09)	0.10	(0.04)	0.56	(0.07)	1.40	(0.07)
	Rondônia	0.56	(0.05)	0.80	(0.03)	0.67	(0.06)	0.46	(0.06)	**0.21**	(0.07)	-0.42	(0.07)	0.30	(0.07)	0.79	(0.05)	1.59	(0.07)
	Roraima	0.66	(0.06)	0.87	(0.02)	0.75	(0.06)	0.56	(0.07)	**0.19**	(0.06)	-0.45	(0.07)	0.37	(0.07)	0.97	(0.07)	1.75	(0.08)
	Santa Catarina	0.32	(0.05)	0.86	(0.02)	0.29	(0.06)	0.34	(0.06)	-0.05	(0.07)	-0.77	(0.06)	0.08	(0.07)	0.58	(0.05)	1.41	(0.05)
	São Paulo	0.31	(0.03)	0.85	(0.02)	0.39	(0.03)	0.23	(0.04)	**0.16**	(0.05)	-0.75	(0.04)	0.07	(0.03)	0.56	(0.03)	1.37	(0.04)
	Sergipe	0.51	(0.06)	0.83	(0.03)	0.61	(0.07)	0.43	(0.08)	0.18	(0.11)	-0.50	(0.06)	0.21	(0.05)	0.77	(0.06)	1.58	(0.10)
	Tocantins	0.66	(0.04)	0.83	(0.02)	0.73	(0.04)	0.60	(0.07)	0.13	(0.07)	-0.37	(0.05)	0.36	(0.06)	0.98	(0.05)	1.70	(0.04)
	Colombia																		
	Bogotá	0.41	(0.03)	0.78	(0.02)	0.46	(0.04)	0.36	(0.04)	0.10	(0.05)	-0.55	(0.04)	0.16	(0.02)	0.68	(0.04)	1.35	(0.05)
	Cali	0.54	(0.03)	0.80	(0.03)	0.60	(0.05)	0.49	(0.04)	0.10	(0.07)	-0.43	(0.05)	0.23	(0.03)	0.79	(0.03)	1.57	(0.05)
	Manizales	0.42	(0.04)	0.88	(0.02)	0.46	(0.06)	0.39	(0.04)	0.07	(0.07)	-0.68	(0.06)	0.15	(0.02)	0.73	(0.05)	1.49	(0.06)
	Medellín	0.40	(0.04)	0.86	(0.02)	0.45	(0.06)	0.34	(0.06)	0.11	(0.08)	-0.71	(0.07)	0.14	(0.03)	0.70	(0.05)	1.45	(0.05)
	Russian Federation																		
	Perm Territory region•	0.21	(0.03)	0.80	(0.02)	0.28	(0.04)	0.14	(0.05)	**0.14**	(0.06)	-0.75	(0.04)	-0.07	(0.02)	0.43	(0.03)	1.24	(0.06)
	United Arab Emirates																		
	Abu Dhabi•	0.76	(0.03)	1.01	(0.01)	0.86	(0.03)	0.66	(0.04)	**0.21**	(0.05)	-0.61	(0.04)	0.53	(0.04)	1.15	(0.03)	1.97	(0.03)
	Ajman	0.73	(0.06)	0.97	(0.04)	0.75	(0.10)	0.70	(0.05)	0.05	(0.11)	-0.58	(0.07)	0.52	(0.10)	1.07	(0.05)	1.91	(0.09)
	Dubai•	0.59	(0.02)	1.00	(0.01)	0.69	(0.03)	0.49	(0.03)	**0.20**	(0.04)	-0.75	(0.04)	0.34	(0.02)	0.98	(0.03)	1.80	(0.03)
	Fujairah	1.04	(0.05)	0.87	(0.03)	1.05	(0.07)	1.03	(0.06)	0.01	(0.09)	-0.12	(0.09)	0.84	(0.04)	1.36	(0.07)	2.09	(0.03)
	Ras al-Khaimah	0.87	(0.07)	0.95	(0.03)	0.88	(0.10)	0.87	(0.09)	0.02	(0.14)	-0.38	(0.11)	0.62	(0.08)	1.25	(0.07)	2.02	(0.05)
	Sharjah	0.77	(0.06)	0.98	(0.03)	0.81	(0.12)	0.73	(0.05)	0.07	(0.13)	-0.53	(0.10)	0.53	(0.06)	1.13	(0.06)	1.94	(0.05)
	Umm al-Quwain	0.70	(0.07)	1.10	(0.05)	0.78	(0.13)	0.63	(0.08)	0.14	(0.18)	-0.76	(0.14)	0.38	(0.11)	1.18	(0.08)	2.04	(0.05)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.3.4d for national data.

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[Part 3/4]

Table B2.III.11 Index of intrinsic motivation to learn mathematics and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

	Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
	Bottom quarter		Second quarter		Third quarter		Top quarter							
	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD														
Australia														
Australian Capital Territory	**506**	(10.3)	515	(10.8)	535	(10.7)	**545**	(10.2)	**14.9**	(4.9)	1.3	(0.2)	2.6	(1.7)
New South Wales	**481**	(5.2)	509	(6.1)	519	(6.4)	**545**	(5.6)	**23.5**	(2.0)	**1.6**	(0.2)	5.8	(0.9)
Northern Territory	458	(16.9)	449	(19.0)	467	(24.3)	466	(20.3)	7.8	(7.4)	0.7	(0.3)	0.5	(1.0)
Queensland	**477**	(5.4)	499	(5.2)	507	(5.2)	**537**	(7.7)	**23.1**	(3.0)	**1.5**	(0.2)	5.6	(1.4)
South Australia	**464**	(6.4)	493	(8.0)	496	(7.6)	**520**	(7.6)	**21.2**	(3.5)	**1.7**	(0.2)	5.0	(1.6)
Tasmania	**453**	(9.4)	477	(12.4)	486	(7.5)	**506**	(7.5)	**20.7**	(4.0)	1.5	(0.3)	4.6	(1.7)
Victoria	**470**	(5.1)	488	(6.1)	510	(7.4)	**535**	(7.3)	**25.3**	(2.6)	**1.5**	(0.1)	8.1	(1.6)
Western Australia	**490**	(5.9)	518	(5.5)	527	(7.0)	**550**	(8.4)	**24.2**	(3.4)	**1.7**	(0.2)	6.7	(1.9)
Belgium														
Flemish Community•	**498**	(4.4)	525	(4.1)	553	(4.9)	**565**	(4.9)	**26.7**	(2.3)	**1.7**	(0.1)	6.0	(1.0)
French Community	**483**	(4.6)	491	(4.9)	510	(5.1)	**519**	(7.0)	**16.9**	(2.9)	1.2	(0.1)	2.9	(1.1)
German-speaking Community	**478**	(7.6)	507	(7.8)	517	(9.3)	**554**	(8.1)	**27.3**	(3.8)	**1.6**	(0.2)	9.7	(2.7)
Canada														
Alberta	**495**	(5.3)	511	(6.8)	533	(8.2)	**549**	(7.2)	**19.3**	(2.4)	**1.5**	(0.2)	5.7	(1.4)
British Columbia	**490**	(5.8)	512	(8.9)	533	(7.8)	**560**	(6.4)	**27.1**	(2.3)	**1.9**	(0.2)	10.5	(1.8)
Manitoba	**476**	(6.8)	491	(6.4)	508	(6.8)	**513**	(7.4)	**14.7**	(4.0)	1.3	(0.2)	2.9	(1.6)
New Brunswick	**480**	(6.2)	487	(5.3)	508	(6.4)	**532**	(6.5)	**20.3**	(2.9)	1.4	(0.2)	7.3	(2.0)
Newfoundland and Labrador	**463**	(6.7)	486	(7.8)	498	(9.7)	**521**	(11.0)	**20.4**	(4.4)	1.5	(0.3)	6.3	(2.8)
Nova Scotia	**466**	(9.2)	483	(10.3)	505	(9.2)	**536**	(8.8)	**26.2**	(2.9)	**1.9**	(0.3)	11.5	(2.3)
Ontario	**491**	(6.5)	507	(5.8)	524	(6.2)	**550**	(7.0)	**22.5**	(2.1)	**1.6**	(0.2)	7.7	(1.4)
Prince Edward Island	**441**	(5.6)	475	(5.9)	495	(6.5)	**518**	(7.0)	**28.0**	(2.5)	**2.3**	(0.3)	13.1	(2.2)
Quebec	**517**	(4.3)	528	(5.8)	546	(6.1)	**557**	(5.5)	**16.8**	(2.2)	**1.3**	(0.1)	3.3	(0.9)
Saskatchewan	**480**	(5.3)	502	(5.9)	512	(6.0)	**543**	(6.5)	**24.7**	(2.8)	**1.7**	(0.2)	8.9	(2.0)
Italy														
Abruzzo	**444**	(8.8)	460	(8.6)	487	(9.8)	**515**	(8.5)	**29.2**	(4.1)	**1.6**	(0.2)	9.3	(2.2)
Basilicata	**446**	(4.7)	452	(7.5)	484	(9.3)	**487**	(8.0)	**20.2**	(3.4)	**1.4**	(0.2)	4.6	(1.4)
Bolzano	**476**	(5.1)	500	(6.3)	519	(5.4)	**541**	(5.7)	**25.5**	(2.4)	**1.8**	(0.2)	7.7	(1.4)
Calabria	**408**	(9.2)	419	(9.2)	443	(6.4)	**450**	(10.0)	**15.6**	(3.5)	1.4	(0.3)	3.1	(1.4)
Campania	**427**	(9.0)	447	(11.3)	471	(11.9)	**471**	(10.9)	**21.2**	(4.6)	**1.4**	(0.2)	5.0	(2.0)
Emilia Romagna	**479**	(8.7)	493	(8.5)	518	(12.7)	**514**	(10.4)	**16.7**	(4.6)	1.3	(0.3)	2.7	(1.3)
Friuli Venezia Giulia	**493**	(8.4)	520	(9.3)	535	(8.4)	**549**	(7.4)	**22.8**	(4.0)	**1.9**	(0.2)	6.2	(2.0)
Lazio	**444**	(7.8)	468	(10.5)	489	(9.9)	**500**	(12.4)	**24.2**	(4.0)	**1.7**	(0.3)	6.5	(2.2)
Liguria	**464**	(8.4)	473	(9.6)	502	(10.5)	**508**	(9.6)	**19.7**	(3.9)	1.4	(0.2)	4.2	(1.6)
Lombardia	**487**	(9.4)	510	(9.7)	527	(9.8)	**543**	(10.8)	**22.5**	(3.5)	**1.6**	(0.3)	6.1	(1.8)
Marche	**470**	(6.2)	483	(10.3)	509	(10.4)	**518**	(10.1)	**19.0**	(3.8)	1.4	(0.2)	4.0	(1.6)
Molise	**434**	(6.2)	457	(7.3)	474	(7.9)	**491**	(8.7)	**25.4**	(4.6)	**1.6**	(0.2)	7.5	(2.6)
Piemonte	**460**	(7.7)	493	(9.6)	514	(9.1)	**527**	(10.0)	**27.1**	(3.4)	**1.9**	(0.3)	8.5	(1.9)
Puglia	**446**	(8.1)	475	(9.8)	489	(8.7)	**501**	(6.3)	**20.3**	(3.3)	**1.8**	(0.2)	5.1	(1.7)
Sardegna	**442**	(8.9)	454	(7.3)	467	(8.7)	**476**	(10.4)	**14.3**	(3.8)	1.2	(0.2)	2.6	(1.3)
Sicilia	440	(8.2)	436	(6.9)	457	(10.0)	461	(10.1)	**10.1**	(4.6)	1.1	(0.3)	1.3	(1.2)
Toscana	**469**	(7.7)	484	(7.5)	505	(9.8)	**521**	(8.6)	**23.3**	(4.8)	1.3	(0.3)	5.2	(2.0)
Trento	**497**	(6.0)	523	(7.0)	526	(10.1)	**556**	(7.2)	**25.3**	(3.7)	**1.8**	(0.2)	7.4	(2.1)
Umbria	**462**	(9.0)	481	(8.2)	507	(10.1)	**512**	(10.3)	**22.0**	(3.1)	1.5	(0.3)	5.6	(1.7)
Valle d'Aosta	**468**	(7.0)	483	(7.5)	505	(8.3)	**521**	(8.5)	**22.2**	(3.9)	**1.8**	(0.3)	7.0	(2.5)
Veneto	**484**	(8.4)	517	(8.9)	533	(13.2)	**552**	(11.8)	**26.9**	(5.2)	**1.8**	(0.3)	7.5	(2.7)
Mexico														
Aguascalientes	434	(8.6)	433	(8.4)	434	(8.4)	448	(8.1)	**9.5**	(3.9)	0.9	(0.2)	1.1	(1.0)
Baja California	**405**	(7.7)	406	(8.2)	420	(10.2)	**427**	(8.2)	**12.7**	(3.0)	1.1	(0.3)	2.1	(1.0)
Baja California Sur	**408**	(7.4)	415	(7.8)	413	(10.9)	**435**	(10.3)	**11.4**	(4.4)	1.0	(0.2)	1.7	(1.3)
Campeche	391	(6.9)	399	(9.9)	393	(7.9)	408	(9.0)	6.3	(3.6)	0.8	(0.2)	0.6	(0.6)
Chiapas	377	(8.7)	373	(9.1)	367	(11.2)	376	(10.0)	-2.0	(4.5)	0.8	(0.2)	0.1	(0.3)
Chihuahua	**421**	(10.4)	422	(8.6)	428	(12.6)	**446**	(10.7)	**12.3**	(3.8)	1.1	(0.2)	1.9	(1.2)
Coahuila	415	(11.4)	413	(12.5)	415	(9.1)	431	(10.9)	8.4	(4.4)	1.2	(0.2)	0.9	(0.9)
Colima	426	(7.8)	424	(7.7)	421	(7.9)	431	(8.5)	1.5	(4.5)	1.1	(0.2)	0.0	(0.3)
Distrito Federal	**420**	(9.1)	428	(8.8)	426	(6.7)	**444**	(8.8)	**10.2**	(4.7)	1.2	(0.2)	1.4	(1.5)
Durango	**409**	(8.0)	418	(8.2)	423	(10.1)	**440**	(13.2)	**16.4**	(5.8)	1.3	(0.3)	3.4	(2.6)
Guanajuato	403	(9.9)	414	(7.9)	411	(7.5)	424	(11.7)	9.9	(5.6)	1.1	(0.3)	1.3	(1.5)
Guerrero	375	(5.8)	360	(6.3)	363	(6.7)	369	(8.1)	-1.5	(4.5)	0.7	(0.2)	0.0	(0.4)
Hidalgo	411	(7.8)	411	(8.0)	405	(8.9)	403	(7.7)	-5.7	(4.3)	1.0	(0.2)	0.4	(0.7)
Jalisco	**428**	(8.6)	426	(7.4)	436	(8.4)	**450**	(8.9)	**12.4**	(4.9)	1.1	(0.2)	2.0	(1.6)
Mexico	**412**	(9.6)	410	(8.0)	419	(9.3)	**435**	(8.8)	**13.1**	(3.0)	1.2	(0.2)	2.4	(1.1)
Morelos	414	(10.8)	417	(10.6)	427	(9.5)	431	(13.0)	7.4	(4.7)	1.1	(0.3)	0.7	(0.9)
Nayarit	403	(6.9)	409	(10.0)	418	(11.3)	429	(11.9)	**11.2**	(5.0)	1.2	(0.3)	1.5	(1.3)
Nuevo León	**429**	(12.9)	435	(10.0)	425	(8.4)	**451**	(8.9)	**8.5**	(3.9)	1.1	(0.2)	1.3	(1.1)
Puebla	418	(7.2)	412	(9.3)	416	(7.4)	418	(10.5)	2.2	(6.2)	0.9	(0.2)	0.0	(0.4)
Querétaro	422	(12.0)	432	(6.8)	432	(9.4)	446	(11.7)	9.0	(6.6)	1.4	(0.4)	1.1	(1.6)
Quintana Roo	409	(6.4)	409	(7.0)	405	(9.1)	413	(8.6)	0.5	(3.2)	0.9	(0.2)	0.0	(0.1)
San Luis Potosí	418	(12.6)	405	(8.3)	410	(9.1)	417	(10.6)	-1.5	(6.7)	0.9	(0.2)	0.0	(0.5)
Sinaloa	411	(6.4)	416	(7.6)	413	(7.9)	408	(8.3)	-0.7	(3.2)	1.0	(0.2)	0.0	(0.2)
Tabasco	371	(6.8)	381	(9.3)	376	(7.6)	380	(8.1)	3.6	(3.0)	1.1	(0.2)	0.2	(0.4)
Tamaulipas	**401**	(9.0)	407	(8.6)	404	(11.8)	**425**	(10.0)	**8.0**	(3.4)	1.2	(0.2)	0.8	(0.7)
Tlaxcala	**403**	(6.4)	411	(7.1)	408	(8.1)	**425**	(9.3)	**10.2**	(3.7)	1.1	(0.1)	1.4	(0.9)
Veracruz	391	(8.7)	406	(8.9)	402	(9.2)	410	(11.2)	7.5	(4.4)	1.1	(0.2)	0.6	(0.8)
Yucatán	405	(9.1)	409	(7.6)	410	(7.4)	416	(8.3)	3.7	(4.3)	1.0	(0.3)	0.2	(0.5)
Zacatecas	410	(6.7)	408	(7.1)	404	(8.6)	410	(9.7)	1.4	(5.0)	0.7	(0.2)	0.1	(0.4)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.3.4d for national data.

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[Part 4/4]

Table B2.III.11 Index of intrinsic motivation to learn mathematics and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Portugal**														
	Alentejo	**462**	(11.1)	487	(17.2)	497	(12.5)	**505**	(10.8)	**16.5**	(4.5)	1.4	(0.3)	2.8	(1.4)
	Spain														
	Andalusia•	**452**	(5.8)	458	(6.1)	477	(6.8)	**503**	(8.2)	**20.9**	(3.9)	1.2	(0.2)	5.3	(1.8)
	Aragon•	**472**	(8.8)	496	(8.6)	507	(9.3)	**517**	(9.3)	**17.6**	(4.1)	1.3	(0.2)	3.0	(1.3)
	Asturias•	**475**	(7.6)	496	(7.7)	512	(7.3)	**524**	(10.6)	**19.5**	(4.7)	1.4	(0.2)	4.1	(2.0)
	Balearic Islands•	**454**	(7.7)	472	(7.6)	493	(8.0)	**493**	(8.4)	**16.4**	(3.5)	1.4	(0.2)	3.6	(1.6)
	Basque Country•	**483**	(3.3)	495	(3.5)	515	(4.3)	**531**	(4.3)	**20.0**	(1.9)	**1.6**	(0.1)	5.1	(1.0)
	Cantabria•	**473**	(6.0)	482	(7.5)	499	(7.6)	**518**	(7.6)	**19.3**	(3.3)	1.3	(0.2)	4.3	(1.5)
	Castile and Leon•	**492**	(6.4)	501	(6.5)	517	(7.5)	**529**	(7.0)	**16.3**	(3.0)	1.3	(0.2)	3.2	(1.2)
	Catalonia•	**478**	(5.9)	485	(7.7)	495	(8.4)	**516**	(8.5)	**14.4**	(3.1)	1.1	(0.2)	2.9	(1.3)
	Extremadura•	**431**	(6.7)	453	(7.6)	473	(7.6)	**479**	(7.5)	**19.3**	(3.5)	**1.5**	(0.2)	3.9	(1.4)
	Galicia•	**469**	(6.7)	489	(6.4)	496	(6.5)	**505**	(7.4)	**15.0**	(2.3)	1.3	(0.2)	2.9	(0.9)
	La Rioja•	**484**	(7.7)	498	(7.4)	512	(6.9)	**524**	(8.4)	**16.0**	(3.7)	1.2	(0.2)	2.4	(1.1)
	Madrid•	**484**	(5.8)	498	(6.9)	503	(6.0)	**535**	(8.1)	**21.0**	(3.1)	1.3	(0.2)	5.0	(1.5)
	Murcia•	**442**	(7.1)	457	(7.3)	472	(7.0)	**479**	(9.7)	**15.6**	(4.1)	1.2	(0.2)	2.9	(1.5)
	Navarre•	**494**	(5.1)	513	(6.4)	523	(7.7)	**543**	(6.9)	**20.1**	(3.0)	**1.3**	(0.2)	4.6	(1.4)
	United Kingdom														
	England	**472**	(5.9)	486	(6.4)	502	(5.0)	**524**	(5.6)	**22.4**	(2.7)	**1.4**	(0.1)	5.1	(1.1)
	Northern Ireland	**462**	(5.4)	476	(5.9)	499	(5.4)	**523**	(6.0)	**24.9**	(2.7)	**1.6**	(0.2)	7.8	(1.6)
	Scotland•	**479**	(4.8)	490	(6.5)	503	(5.4)	**528**	(4.5)	**21.2**	(2.1)	**1.4**	(0.1)	5.3	(1.0)
	Wales	**448**	(3.9)	461	(4.3)	472	(4.6)	**498**	(5.2)	**21.7**	(1.9)	**1.4**	(0.1)	5.5	(1.0)
	United States														
	Connecticut•	**496**	(7.5)	506	(6.4)	501	(9.7)	**535**	(9.8)	**15.1**	(2.8)	1.2	(0.2)	2.4	(0.9)
	Florida•	461	(6.1)	466	(6.6)	476	(9.0)	476	(9.4)	**7.1**	(3.1)	1.0	(0.1)	0.8	(0.7)
	Massachusetts•	**498**	(7.9)	514	(8.7)	517	(9.8)	**535**	(9.5)	**13.1**	(3.4)	1.3	(0.2)	1.8	(0.9)
Partners	**Argentina**														
	Ciudad Autónoma de Buenos Aires•	435	(8.2)	419	(9.5)	422	(8.6)	425	(12.6)	-3.8	(4.5)	**0.7**	(0.1)	0.2	(0.5)
	Brazil														
	Acre	361	(10.8)	364	(9.6)	349	(10.7)	363	(9.4)	1.3	(4.9)	1.1	(0.3)	0.0	(0.4)
	Alagoas	354	(11.1)	351	(12.5)	346	(11.1)	333	(13.3)	-7.5	(6.6)	0.8	(0.3)	0.9	(1.6)
	Amapá	361	(10.9)	354	(12.0)	367	(11.9)	364	(10.9)	0.5	(4.1)	0.9	(0.2)	0.0	(0.3)
	Amazonas	369	(7.7)	354	(11.5)	360	(8.9)	359	(10.9)	-3.5	(3.1)	0.7	(0.2)	0.2	(0.5)
	Bahia	403	(16.2)	379	(12.8)	370	(22.7)	362	(16.5)	**-16.2**	(6.3)	0.7	(0.3)	3.2	(2.4)
	Ceará	385	(10.9)	384	(14.8)	380	(10.3)	384	(15.1)	-1.0	(6.0)	0.8	(0.3)	0.0	(0.4)
	Espírito Santo	406	(13.8)	422	(13.4)	420	(10.7)	425	(18.6)	4.9	(3.7)	1.1	(0.3)	0.3	(0.4)
	Federal District	417	(14.6)	415	(11.0)	416	(10.9)	424	(11.8)	3.9	(5.2)	0.8	(0.2)	0.2	(0.5)
	Goiás	384	(8.6)	378	(11.1)	385	(12.9)	375	(11.2)	-1.7	(4.5)	0.9	(0.2)	0.1	(0.4)
	Maranhão	353	(16.1)	346	(18.7)	341	(15.7)	344	(17.8)	-2.8	(7.2)	0.8	(0.3)	0.2	(0.7)
	Mato Grosso	376	(11.4)	379	(15.4)	369	(10.5)	358	(10.6)	**-9.1**	(4.5)	0.8	(0.2)	1.2	(1.0)
	Mato Grosso do Sul	422	(8.1)	409	(10.6)	400	(12.1)	415	(16.0)	-2.2	(5.5)	**0.6**	(0.2)	0.1	(0.7)
	Minas Gerais	414	(11.2)	400	(8.8)	396	(11.9)	411	(13.3)	-4.0	(4.4)	**0.6**	(0.1)	0.3	(0.6)
	Pará	377	(10.5)	359	(16.2)	356	(12.0)	351	(13.1)	-10.7	(9.6)	**0.5**	(0.2)	1.9	(3.7)
	Paraíba	**407**	(7.1)	407	(10.6)	378	(12.7)	**374**	(14.3)	**-16.4**	(6.3)	0.6	(0.2)	3.7	(2.5)
	Paraná	415	(18.7)	416	(17.8)	402	(11.7)	402	(13.5)	-8.4	(7.5)	0.7	(0.2)	1.0	(1.5)
	Pernambuco	370	(11.4)	364	(10.0)	356	(12.6)	359	(9.9)	-6.3	(5.4)	0.8	(0.3)	0.7	(1.3)
	Piauí	394	(14.7)	396	(17.5)	379	(13.0)	376	(6.7)	-10.3	(8.7)	0.8	(0.3)	1.3	(1.9)
	Rio de Janeiro	388	(8.1)	394	(12.6)	390	(10.6)	385	(10.3)	-2.2	(4.6)	0.9	(0.3)	0.1	(0.6)
	Rio Grande do Norte	392	(10.7)	388	(18.7)	375	(13.2)	371	(11.3)	**-10.2**	(4.3)	0.7	(0.2)	1.1	(1.2)
	Rio Grande do Sul	404	(7.4)	412	(9.6)	402	(9.7)	403	(9.2)	0.3	(4.2)	1.1	(0.2)	0.0	(0.3)
	Rondônia	385	(8.4)	387	(10.8)	383	(8.8)	375	(8.7)	-3.2	(5.0)	0.9	(0.2)	0.3	(0.6)
	Roraima	363	(10.6)	377	(11.0)	359	(11.7)	353	(8.4)	-5.5	(5.6)	0.9	(0.3)	0.5	(1.0)
	Santa Catarina	413	(10.6)	416	(13.4)	415	(13.1)	419	(10.0)	3.2	(4.9)	0.9	(0.3)	0.1	(0.5)
	São Paulo	404	(4.9)	408	(6.6)	402	(5.6)	408	(8.0)	1.9	(3.5)	0.9	(0.1)	0.1	(0.2)
	Sergipe	398	(13.3)	386	(12.1)	395	(11.7)	389	(15.6)	-3.2	(4.9)	0.9	(0.4)	0.2	(0.6)
	Tocantins	373	(10.2)	372	(10.7)	369	(12.8)	364	(11.8)	-6.0	(5.6)	0.8	(0.3)	0.5	(0.9)
	Colombia														
	Bogotá	394	(5.9)	393	(5.5)	400	(6.3)	397	(6.5)	1.9	(3.2)	1.1	(0.2)	0.1	(0.2)
	Cali	383	(6.6)	381	(6.8)	382	(9.6)	378	(8.3)	-1.8	(3.7)	1.0	(0.2)	0.1	(0.3)
	Manizales	401	(5.9)	411	(6.6)	403	(8.1)	405	(6.8)	0.9	(3.6)	0.9	(0.2)	0.0	(0.2)
	Medellín	387	(7.0)	393	(9.0)	401	(11.3)	400	(12.4)	6.7	(5.1)	1.0	(0.1)	0.5	(0.7)
	Russian Federation														
	Perm Territory region•	**469**	(7.3)	472	(7.4)	486	(9.7)	**513**	(8.9)	**20.2**	(5.0)	1.1	(0.1)	3.5	(1.5)
	United Arab Emirates														
	Abu Dhabi•	**416**	(5.3)	422	(6.1)	424	(5.8)	**432**	(6.7)	**5.7**	(2.3)	1.1	(0.1)	0.4	(0.4)
	Ajman	405	(9.3)	403	(10.3)	389	(15.9)	413	(13.6)	3.5	(3.8)	0.7	(0.2)	0.2	(0.5)
	Dubai•	**457**	(3.7)	464	(3.8)	462	(4.6)	**478**	(4.7)	**7.5**	(2.2)	1.1	(0.1)	0.6	(0.4)
	Fujairah	409	(13.2)	395	(12.9)	415	(12.0)	428	(14.1)	7.5	(5.8)	0.9	(0.2)	0.6	(1.0)
	Ras al-Khaimah	413	(8.7)	405	(11.1)	421	(12.1)	432	(13.1)	10.7	(5.9)	1.1	(0.4)	1.9	(2.1)
	Sharjah	**424**	(9.7)	435	(11.6)	442	(13.7)	**460**	(12.2)	**13.4**	(2.8)	1.3	(0.3)	2.4	(1.1)
	Umm al-Quwain	393	(11.8)	382	(13.0)	397	(11.2)	408	(9.6)	6.6	(4.7)	0.8	(0.3)	1.0	(1.6)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.3.4d for national data.

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[Part 1/4]

Table B2.III.12

Index of instrumental motivation to learn mathematics and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

	Index of instrumental motivation to learn mathematics																	
	All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
	Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD																		
Australia																		
Australian Capital Territory	0.24	(0.05)	0.97	(0.03)	0.28	(0.07)	0.19	(0.06)	0.09	(0.09)	-1.01	(0.08)	-0.05	(0.04)	0.52	(0.09)	1.51	(0.04)
New South Wales	0.22	(0.02)	0.97	(0.01)	0.38	(0.03)	0.05	(0.03)	**0.32**	(0.04)	-1.02	(0.03)	-0.07	(0.02)	0.50	(0.03)	1.47	(0.02)
Northern Territory	0.40	(0.06)	0.85	(0.03)	0.52	(0.10)	0.28	(0.11)	0.24	(0.18)	-0.70	(0.06)	0.04	(0.08)	0.82	(0.12)	1.47	(0.05)
Queensland	0.19	(0.02)	0.92	(0.02)	0.33	(0.03)	0.04	(0.03)	**0.29**	(0.05)	-0.99	(0.03)	-0.08	(0.02)	0.41	(0.03)	1.40	(0.03)
South Australia	0.17	(0.04)	0.97	(0.02)	0.33	(0.05)	0.01	(0.04)	**0.32**	(0.06)	-1.07	(0.06)	-0.07	(0.03)	0.41	(0.07)	1.43	(0.02)
Tasmania	0.40	(0.04)	0.90	(0.02)	0.47	(0.05)	0.32	(0.05)	**0.15**	(0.07)	-0.76	(0.07)	0.07	(0.03)	0.78	(0.05)	1.51	(0.03)
Victoria	0.33	(0.03)	0.97	(0.01)	0.45	(0.03)	0.19	(0.04)	**0.26**	(0.05)	-0.93	(0.03)	-0.02	(0.02)	0.75	(0.05)	1.53	(0.02)
Western Australia	0.19	(0.03)	0.94	(0.02)	0.38	(0.04)	-0.03	(0.05)	**0.42**	(0.07)	-1.00	(0.05)	-0.09	(0.02)	0.40	(0.06)	1.43	(0.03)
Belgium																		
Flemish Community•	-0.39	(0.02)	0.94	(0.01)	-0.28	(0.02)	-0.49	(0.03)	**0.21**	(0.03)	-1.55	(0.02)	-0.71	(0.03)	-0.07	(0.02)	0.78	(0.04)
French Community	-0.35	(0.02)	1.03	(0.01)	-0.18	(0.04)	-0.50	(0.03)	**0.32**	(0.05)	-1.60	(0.03)	-0.75	(0.03)	-0.07	(0.03)	1.04	(0.03)
German-speaking Community	-0.36	(0.05)	1.06	(0.03)	-0.25	(0.07)	-0.48	(0.07)	**0.23**	(0.09)	-1.64	(0.06)	-0.79	(0.06)	-0.09	(0.06)	1.08	(0.06)
Canada																		
Alberta	0.26	(0.03)	0.98	(0.02)	0.38	(0.05)	0.13	(0.05)	**0.26**	(0.07)	-1.01	(0.05)	-0.04	(0.03)	0.60	(0.07)	1.51	(0.02)
British Columbia	0.30	(0.03)	0.92	(0.02)	0.31	(0.04)	0.28	(0.04)	0.03	(0.06)	-0.89	(0.03)	0.02	(0.02)	0.61	(0.06)	1.46	(0.03)
Manitoba	0.31	(0.04)	0.97	(0.02)	0.36	(0.06)	0.25	(0.05)	0.11	(0.08)	-0.95	(0.06)	-0.01	(0.03)	0.68	(0.08)	1.51	(0.03)
New Brunswick	0.29	(0.05)	0.98	(0.02)	0.35	(0.05)	0.23	(0.06)	0.13	(0.07)	-0.97	(0.07)	0.00	(0.04)	0.63	(0.08)	1.52	(0.03)
Newfoundland and Labrador	0.31	(0.04)	0.92	(0.02)	0.30	(0.06)	0.32	(0.05)	-0.02	(0.08)	-0.87	(0.05)	0.02	(0.03)	0.63	(0.08)	1.47	(0.03)
Nova Scotia	0.32	(0.03)	0.96	(0.02)	0.25	(0.06)	0.38	(0.06)	-0.13	(0.09)	-0.91	(0.04)	-0.02	(0.03)	0.66	(0.06)	1.54	(0.02)
Ontario	0.17	(0.02)	1.02	(0.02)	0.26	(0.04)	0.08	(0.03)	**0.18**	(0.05)	-1.17	(0.04)	-0.13	(0.03)	0.51	(0.05)	1.48	(0.02)
Prince Edward Island	0.17	(0.04)	1.04	(0.02)	0.18	(0.05)	0.16	(0.05)	0.02	(0.07)	-1.21	(0.06)	-0.07	(0.03)	0.45	(0.06)	1.50	(0.03)
Quebec	0.31	(0.03)	1.01	(0.01)	0.38	(0.04)	0.25	(0.05)	**0.13**	(0.05)	-1.04	(0.04)	-0.05	(0.05)	0.80	(0.03)	1.54	(0.02)
Saskatchewan	0.38	(0.03)	0.93	(0.02)	0.34	(0.04)	0.43	(0.04)	-0.09	(0.07)	-0.82	(0.06)	0.05	(0.02)	0.78	(0.05)	1.53	(0.02)
Italy																		
Abruzzo	-0.21	(0.04)	0.97	(0.02)	-0.11	(0.05)	-0.30	(0.06)	**0.19**	(0.08)	-1.42	(0.05)	-0.53	(0.06)	0.09	(0.05)	1.05	(0.04)
Basilicata	-0.12	(0.03)	0.93	(0.02)	-0.03	(0.05)	-0.21	(0.05)	**0.18**	(0.08)	-1.31	(0.05)	-0.40	(0.05)	0.14	(0.03)	1.07	(0.04)
Bolzano	-0.43	(0.03)	0.97	(0.02)	-0.22	(0.04)	-0.63	(0.04)	**0.41**	(0.06)	-1.59	(0.04)	-0.84	(0.03)	-0.16	(0.04)	0.86	(0.05)
Calabria	-0.03	(0.04)	0.97	(0.02)	0.05	(0.04)	-0.11	(0.06)	**0.15**	(0.07)	-1.30	(0.06)	-0.28	(0.05)	0.24	(0.05)	1.22	(0.04)
Campania	-0.03	(0.05)	0.99	(0.02)	0.03	(0.07)	-0.10	(0.05)	**0.13**	(0.06)	-1.30	(0.06)	-0.31	(0.07)	0.24	(0.05)	1.24	(0.05)
Emilia Romagna	-0.23	(0.04)	0.95	(0.03)	-0.19	(0.06)	-0.26	(0.06)	0.07	(0.08)	-1.40	(0.06)	-0.54	(0.04)	0.01	(0.05)	1.03	(0.06)
Friuli Venezia Giulia	-0.26	(0.04)	0.95	(0.04)	-0.15	(0.05)	-0.39	(0.06)	**0.24**	(0.08)	-1.48	(0.09)	-0.54	(0.06)	0.05	(0.02)	0.93	(0.08)
Lazio	-0.22	(0.06)	0.96	(0.03)	-0.12	(0.06)	-0.36	(0.08)	**0.24**	(0.07)	-1.45	(0.07)	-0.57	(0.10)	0.12	(0.06)	1.00	(0.05)
Liguria	-0.22	(0.04)	0.96	(0.02)	-0.15	(0.05)	-0.29	(0.06)	0.14	(0.08)	-1.45	(0.05)	-0.51	(0.06)	0.08	(0.03)	1.01	(0.04)
Lombardia	-0.28	(0.04)	0.97	(0.02)	-0.12	(0.06)	-0.44	(0.05)	**0.32**	(0.08)	-1.49	(0.06)	-0.63	(0.04)	0.02	(0.04)	0.99	(0.07)
Marche	-0.25	(0.03)	0.91	(0.02)	-0.16	(0.05)	-0.34	(0.04)	**0.18**	(0.07)	-1.37	(0.03)	-0.60	(0.04)	0.03	(0.04)	0.93	(0.06)
Molise	-0.10	(0.04)	0.92	(0.02)	-0.05	(0.05)	-0.15	(0.05)	0.10	(0.06)	-1.26	(0.05)	-0.37	(0.05)	0.14	(0.03)	1.10	(0.06)
Piemonte	-0.27	(0.04)	0.92	(0.02)	-0.15	(0.05)	-0.39	(0.04)	**0.24**	(0.05)	-1.41	(0.06)	-0.58	(0.04)	0.00	(0.04)	0.90	(0.07)
Puglia	-0.13	(0.04)	0.92	(0.02)	-0.04	(0.05)	-0.22	(0.06)	**0.19**	(0.08)	-1.28	(0.06)	-0.41	(0.06)	0.11	(0.04)	1.07	(0.05)
Sardegna	-0.23	(0.03)	0.96	(0.02)	-0.15	(0.04)	-0.32	(0.06)	**0.17**	(0.07)	-1.46	(0.05)	-0.53	(0.05)	0.06	(0.03)	1.01	(0.04)
Sicilia	-0.12	(0.04)	0.92	(0.02)	-0.06	(0.04)	-0.18	(0.06)	0.12	(0.06)	-1.27	(0.05)	-0.42	(0.06)	0.16	(0.03)	1.07	(0.04)
Toscana	-0.27	(0.04)	0.88	(0.03)	-0.26	(0.05)	-0.27	(0.05)	0.01	(0.07)	-1.36	(0.06)	-0.55	(0.05)	0.03	(0.03)	0.82	(0.07)
Trento	-0.19	(0.03)	0.88	(0.02)	-0.08	(0.04)	-0.32	(0.04)	**0.24**	(0.05)	-1.30	(0.05)	-0.41	(0.04)	0.05	(0.01)	0.92	(0.07)
Umbria	-0.21	(0.04)	0.93	(0.03)	-0.17	(0.06)	-0.25	(0.04)	0.08	(0.08)	-1.40	(0.06)	-0.49	(0.06)	0.07	(0.04)	0.98	(0.05)
Valle d'Aosta	-0.47	(0.04)	0.96	(0.03)	-0.38	(0.06)	-0.55	(0.05)	**0.16**	(0.08)	-1.68	(0.07)	-0.75	(0.05)	-0.12	(0.04)	0.69	(0.06)
Veneto	-0.13	(0.05)	0.93	(0.02)	-0.02	(0.05)	-0.23	(0.06)	**0.22**	(0.08)	-1.31	(0.06)	-0.39	(0.07)	0.13	(0.03)	1.07	(0.04)
Mexico																		
Aguascalientes	0.47	(0.04)	0.82	(0.02)	0.48	(0.05)	0.46	(0.05)	0.01	(0.07)	-0.57	(0.07)	0.17	(0.04)	0.82	(0.05)	1.47	(0.03)
Baja California	0.49	(0.04)	0.85	(0.02)	0.56	(0.04)	0.42	(0.04)	**0.14**	(0.05)	-0.61	(0.07)	0.15	(0.04)	0.87	(0.05)	1.55	(0.03)
Baja California Sur	0.51	(0.03)	0.87	(0.03)	0.59	(0.06)	0.42	(0.04)	0.16	(0.09)	-0.61	(0.06)	0.17	(0.04)	0.89	(0.06)	1.59	(0.03)
Campeche	0.48	(0.05)	0.83	(0.03)	0.55	(0.07)	0.41	(0.06)	0.14	(0.08)	-0.55	(0.09)	0.12	(0.05)	0.82	(0.05)	1.53	(0.04)
Chiapas	0.63	(0.03)	0.81	(0.03)	0.60	(0.04)	0.65	(0.04)	-0.04	(0.04)	-0.43	(0.06)	0.36	(0.06)	0.99	(0.03)	1.58	(0.02)
Chihuahua	0.51	(0.03)	0.86	(0.02)	0.55	(0.05)	0.47	(0.04)	0.07	(0.06)	-0.61	(0.04)	0.20	(0.04)	0.90	(0.04)	1.56	(0.03)
Coahuila	0.49	(0.04)	0.86	(0.02)	0.55	(0.04)	0.43	(0.05)	**0.12**	(0.05)	-0.61	(0.07)	0.18	(0.04)	0.87	(0.05)	1.53	(0.04)
Colima	0.47	(0.03)	0.89	(0.02)	0.53	(0.04)	0.41	(0.05)	0.12	(0.07)	-0.65	(0.06)	0.13	(0.04)	0.84	(0.05)	1.58	(0.03)
Distrito Federal	0.40	(0.06)	0.87	(0.03)	0.45	(0.08)	0.34	(0.06)	0.11	(0.08)	-0.74	(0.09)	0.10	(0.08)	0.76	(0.05)	1.48	(0.03)
Durango	0.46	(0.04)	0.87	(0.03)	0.53	(0.09)	0.39	(0.05)	0.14	(0.12)	-0.65	(0.06)	0.16	(0.05)	0.80	(0.05)	1.53	(0.04)
Guanajuato	0.54	(0.04)	0.82	(0.03)	0.57	(0.06)	0.51	(0.05)	0.06	(0.06)	-0.49	(0.07)	0.21	(0.04)	0.89	(0.05)	1.56	(0.03)
Guerrero	0.47	(0.04)	0.76	(0.02)	0.42	(0.04)	0.52	(0.06)	-0.11	(0.06)	-0.45	(0.06)	0.14	(0.04)	0.75	(0.06)	1.43	(0.03)
Hidalgo	0.54	(0.04)	0.85	(0.02)	0.61	(0.04)	0.47	(0.05)	0.14	(0.07)	-0.56	(0.05)	0.19	(0.04)	0.93	(0.07)	1.59	(0.02)
Jalisco	0.51	(0.03)	0.82	(0.02)	0.62	(0.05)	0.40	(0.04)	**0.22**	(0.06)	-0.48	(0.05)	0.13	(0.03)	0.82	(0.04)	1.55	(0.04)
Mexico	0.50	(0.05)	0.85	(0.02)	0.55	(0.06)	0.45	(0.05)	0.11	(0.07)	-0.61	(0.07)	0.17	(0.05)	0.90	(0.06)	1.55	(0.04)
Morelos	0.35	(0.05)	0.86	(0.02)	0.38	(0.07)	0.32	(0.05)	0.06	(0.07)	-0.76	(0.08)	0.05	(0.02)	0.65	(0.08)	1.45	(0.04)
Nayarit	0.44	(0.04)	0.84	(0.02)	0.47	(0.05)	0.41	(0.04)	0.06	(0.05)	-0.62	(0.07)	0.12	(0.04)	0.79	(0.04)	1.49	(0.03)
Nuevo León	0.41	(0.05)	0.95	(0.02)	0.47	(0.05)	0.35	(0.06)	0.12	(0.07)	-0.85	(0.06)	0.11	(0.05)	0.86	(0.05)	1.54	(0.05)
Puebla	0.54	(0.04)	0.78	(0.02)	0.57	(0.06)	0.50	(0.04)	0.07	(0.06)	-0.44	(0.06)	0.22	(0.05)	0.88	(0.05)	1.49	(0.04)
Querétaro	0.53	(0.05)	0.80	(0.02)	0.54	(0.07)	0.53	(0.08)	0.01	(0.11)	-0.46	(0.05)	0.19	(0.05)	0.87	(0.08)	1.53	(0.05)
Quintana Roo	0.48	(0.03)	0.89	(0.02)	0.46	(0.05)	0.51	(0.05)	-0.05	(0.08)	-0.69	(0.05)	0.19	(0.03)	0.88	(0.05)	1.56	(0.03)
San Luis Potosí	0.58	(0.05)	0.79	(0.02)	0.58	(0.06)	0.58	(0.06)	-0.01	(0.05)	-0.44	(0.06)	0.26	(0.07)	0.96	(0.04)	1.54	(0.05)
Sinaloa	0.44	(0.04)	0.82	(0.03)	0.46	(0.05)	0.41	(0.06)	0.05	(0.07)	-0.61	(0.07)	0.14	(0.05)	0.78	(0.05)	1.43	(0.03)
Tabasco	0.51	(0.04)	0.85	(0.02)	0.49	(0.05)	0.52	(0.05)	-0.03	(0.07)	-0.59	(0.06)	0.19	(0.05)	0.87	(0.04)	1.56	(0.03)
Tamaulipas	0.50	(0.04)	0.88	(0.02)	0.51	(0.07)	0.49	(0.05)	0.02	(0.08)	-0.64	(0.06)	0.17	(0.05)	0.90	(0.07)	1.58	(0.04)
Tlaxcala	0.46	(0.04)	0.82	(0.02)	0.51	(0.05)	0.42	(0.05)	0.09	(0.06)	-0.58	(0.06)	0.13	(0.04)	0.80	(0.04)	1.52	(0.04)
Veracruz	0.61	(0.05)	0.73	(0.02)	0.64	(0.06)	0.58	(0.05)	0.06	(0.06)	-0.31	(0.05)	0.30	(0.07)	0.93	(0.06)	1.53	(0.04)
Yucatán	0.59	(0.04)	0.79	(0.02)	0.57	(0.05)	0.62	(0.05)	-0.05	(0.06)	-0.41	(0.06)	0.27	(0.05)	0.95	(0.04)	1.57	(0.03)
Zacatecas	0.53	(0.03)	0.79	(0.02)	0.58	(0.03)	0.48	(0.06)	0.10	(0.07)	-0.43	(0.06)	0.19	(0.03)	0.86	(0.04)	1.52	(0.03)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.3.5d for national data.

StatLink http://dx.doi.org/10.1787/888932964072

[Part 2/4]

Table B2.III.12

Index of instrumental motivation to learn mathematics and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

		Index of instrumental motivation to learn mathematics																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Portugal**																		
	Alentejo	0.22	(0.03)	0.95	(0.03)	0.22	(0.04)	0.22	(0.05)	0.00	(0.06)	-1.01	(0.06)	-0.01	(0.02)	0.46	(0.09)	1.43	(0.03)
	Spain																		
	Andalusia•	0.01	(0.02)	1.06	(0.02)	0.09	(0.04)	-0.07	(0.04)	**0.16**	(0.07)	-1.35	(0.05)	-0.32	(0.03)	0.35	(0.04)	1.37	(0.03)
	Aragon•	-0.15	(0.03)	1.01	(0.02)	0.01	(0.05)	-0.31	(0.05)	**0.32**	(0.08)	-1.43	(0.05)	-0.50	(0.05)	0.16	(0.03)	1.18	(0.05)
	Asturias•	-0.08	(0.04)	1.09	(0.02)	0.00	(0.06)	-0.16	(0.05)	**0.16**	(0.07)	-1.49	(0.06)	-0.42	(0.06)	0.28	(0.04)	1.32	(0.04)
	Balearic Islands•	0.01	(0.04)	1.04	(0.02)	0.06	(0.05)	-0.05	(0.04)	0.11	(0.06)	-1.32	(0.06)	-0.36	(0.04)	0.37	(0.05)	1.35	(0.04)
	Basque Country•	-0.03	(0.02)	1.03	(0.01)	0.01	(0.03)	-0.07	(0.03)	**0.08**	(0.04)	-1.36	(0.04)	-0.33	(0.03)	0.27	(0.03)	1.30	(0.02)
	Cantabria•	-0.04	(0.03)	1.04	(0.02)	0.07	(0.07)	-0.15	(0.04)	**0.22**	(0.09)	-1.39	(0.05)	-0.37	(0.05)	0.28	(0.04)	1.31	(0.04)
	Castile and Leon•	-0.03	(0.04)	1.02	(0.02)	0.06	(0.06)	-0.13	(0.04)	**0.19**	(0.07)	-1.34	(0.05)	-0.36	(0.05)	0.29	(0.04)	1.30	(0.03)
	Catalonia•	-0.03	(0.04)	1.03	(0.02)	0.06	(0.07)	-0.13	(0.05)	0.19	(0.10)	-1.32	(0.03)	-0.41	(0.04)	0.28	(0.05)	1.33	(0.05)
	Extremadura•	-0.02	(0.03)	1.02	(0.02)	0.05	(0.06)	-0.08	(0.05)	0.12	(0.09)	-1.33	(0.04)	-0.33	(0.03)	0.29	(0.04)	1.30	(0.03)
	Galicia•	-0.08	(0.03)	1.04	(0.02)	-0.01	(0.04)	-0.15	(0.05)	**0.13**	(0.07)	-1.41	(0.06)	-0.40	(0.04)	0.21	(0.04)	1.30	(0.04)
	La Rioja•	-0.08	(0.04)	1.09	(0.02)	0.03	(0.05)	-0.18	(0.06)	**0.21**	(0.07)	-1.51	(0.05)	-0.39	(0.05)	0.27	(0.05)	1.31	(0.04)
	Madrid•	-0.03	(0.04)	1.01	(0.02)	0.05	(0.05)	-0.11	(0.05)	**0.16**	(0.06)	-1.31	(0.05)	-0.36	(0.04)	0.26	(0.06)	1.30	(0.05)
	Murcia•	-0.07	(0.04)	1.03	(0.02)	-0.05	(0.05)	-0.09	(0.06)	0.04	(0.07)	-1.39	(0.04)	-0.44	(0.06)	0.29	(0.05)	1.25	(0.04)
	Navarre•	-0.11	(0.03)	1.01	(0.02)	-0.08	(0.05)	-0.13	(0.05)	0.04	(0.06)	-1.40	(0.04)	-0.43	(0.06)	0.19	(0.04)	1.22	(0.04)
	United Kingdom																		
	England	0.32	(0.02)	0.90	(0.01)	0.40	(0.03)	0.25	(0.03)	**0.15**	(0.03)	-0.83	(0.02)	-0.03	(0.02)	0.68	(0.04)	1.48	(0.02)
	Northern Ireland	0.35	(0.03)	0.89	(0.02)	0.40	(0.04)	0.30	(0.03)	**0.10**	(0.05)	-0.80	(0.04)	0.04	(0.02)	0.69	(0.05)	1.46	(0.02)
	Scotland•	0.26	(0.03)	0.93	(0.01)	0.38	(0.04)	0.14	(0.03)	**0.24**	(0.05)	-0.95	(0.03)	-0.06	(0.02)	0.61	(0.05)	1.44	(0.02)
	Wales	0.38	(0.02)	0.85	(0.01)	0.44	(0.03)	0.31	(0.03)	**0.13**	(0.04)	-0.69	(0.02)	0.03	(0.02)	0.69	(0.04)	1.49	(0.02)
	United States																		
	Connecticut•	0.15	(0.04)	0.96	(0.01)	0.30	(0.05)	0.00	(0.04)	**0.30**	(0.06)	-1.08	(0.05)	-0.10	(0.03)	0.35	(0.05)	1.42	(0.05)
	Florida•	0.06	(0.04)	1.00	(0.01)	0.12	(0.05)	0.00	(0.05)	0.11	(0.07)	-1.23	(0.04)	-0.21	(0.04)	0.32	(0.05)	1.36	(0.03)
	Massachusetts•	0.11	(0.04)	0.98	(0.02)	0.18	(0.04)	0.05	(0.06)	0.14	(0.08)	-1.14	(0.07)	-0.13	(0.03)	0.32	(0.04)	1.41	(0.03)
Partners	**Argentina**																		
	Ciudad Autónoma de Buenos Aires•	-0.05	(0.05)	0.99	(0.02)	0.00	(0.07)	-0.10	(0.05)	0.10	(0.08)	-1.31	(0.06)	-0.38	(0.06)	0.27	(0.06)	1.21	(0.04)
	Brazil																		
	Acre	0.41	(0.06)	0.84	(0.04)	0.38	(0.08)	0.44	(0.06)	-0.06	(0.08)	-0.64	(0.10)	0.09	(0.07)	0.73	(0.07)	1.48	(0.04)
	Alagoas	0.57	(0.06)	0.84	(0.02)	0.62	(0.12)	0.53	(0.05)	0.09	(0.14)	-0.55	(0.08)	0.27	(0.08)	0.98	(0.08)	1.58	(0.05)
	Amapá	0.52	(0.05)	0.85	(0.03)	0.66	(0.05)	0.41	(0.06)	**0.25**	(0.07)	-0.58	(0.08)	0.18	(0.06)	0.95	(0.06)	1.54	(0.05)
	Amazonas	0.50	(0.04)	0.84	(0.03)	0.56	(0.05)	0.45	(0.08)	0.11	(0.10)	-0.55	(0.08)	0.16	(0.05)	0.85	(0.06)	1.57	(0.03)
	Bahia	0.54	(0.06)	0.88	(0.02)	0.56	(0.09)	0.52	(0.08)	0.03	(0.11)	-0.61	(0.06)	0.22	(0.08)	0.97	(0.12)	1.59	(0.04)
	Ceará	0.45	(0.04)	0.84	(0.01)	0.53	(0.04)	0.38	(0.07)	0.15	(0.08)	-0.60	(0.06)	0.08	(0.04)	0.81	(0.05)	1.52	(0.03)
	Espírito Santo	0.32	(0.05)	0.91	(0.02)	0.42	(0.07)	0.24	(0.07)	**0.18**	(0.09)	-0.84	(0.05)	0.01	(0.05)	0.64	(0.11)	1.49	(0.04)
	Federal District	0.18	(0.06)	0.95	(0.05)	0.23	(0.06)	0.14	(0.09)	0.09	(0.08)	-1.04	(0.13)	-0.10	(0.08)	0.49	(0.06)	1.40	(0.03)
	Goiás	0.33	(0.04)	0.89	(0.03)	0.43	(0.07)	0.25	(0.06)	0.18	(0.09)	-0.81	(0.05)	0.01	(0.03)	0.65	(0.10)	1.48	(0.04)
	Maranhão	0.61	(0.04)	0.79	(0.03)	0.66	(0.08)	0.57	(0.05)	0.09	(0.10)	-0.38	(0.06)	0.27	(0.06)	0.97	(0.08)	1.59	(0.02)
	Mato Grosso	0.39	(0.05)	0.85	(0.03)	0.41	(0.07)	0.36	(0.08)	0.05	(0.11)	-0.72	(0.09)	0.07	(0.05)	0.74	(0.06)	1.46	(0.05)
	Mato Grosso do Sul	0.34	(0.03)	0.88	(0.02)	0.31	(0.07)	0.37	(0.04)	-0.06	(0.10)	-0.79	(0.03)	-0.03	(0.04)	0.72	(0.06)	1.48	(0.03)
	Minas Gerais	0.40	(0.03)	0.88	(0.04)	0.44	(0.05)	0.37	(0.04)	0.07	(0.06)	-0.71	(0.09)	0.07	(0.03)	0.73	(0.04)	1.53	(0.04)
	Pará	0.51	(0.07)	0.80	(0.03)	0.52	(0.11)	0.50	(0.05)	0.02	(0.08)	-0.52	(0.11)	0.24	(0.06)	0.82	(0.08)	1.51	(0.04)
	Paraíba	0.36	(0.04)	0.89	(0.05)	0.44	(0.06)	0.30	(0.06)	0.14	(0.09)	-0.79	(0.07)	0.03	(0.06)	0.77	(0.07)	1.47	(0.05)
	Paraná	0.25	(0.03)	0.91	(0.04)	0.40	(0.04)	0.11	(0.05)	**0.29**	(0.07)	-0.90	(0.06)	-0.09	(0.04)	0.55	(0.09)	1.44	(0.04)
	Pernambuco	0.57	(0.05)	0.82	(0.03)	0.63	(0.08)	0.53	(0.05)	0.10	(0.09)	-0.44	(0.06)	0.20	(0.08)	0.95	(0.15)	1.59	(0.00)
	Piauí	0.51	(0.03)	0.83	(0.03)	0.61	(0.08)	0.43	(0.07)	0.19	(0.13)	-0.55	(0.06)	0.20	(0.04)	0.84	(0.06)	1.56	(0.04)
	Rio de Janeiro	0.37	(0.06)	0.93	(0.03)	0.42	(0.09)	0.31	(0.07)	0.12	(0.09)	-0.85	(0.08)	0.03	(0.07)	0.75	(0.07)	1.55	(0.05)
	Rio Grande do Norte	0.43	(0.05)	0.87	(0.03)	0.46	(0.08)	0.41	(0.05)	0.06	(0.08)	-0.74	(0.09)	0.17	(0.06)	0.81	(0.05)	1.49	(0.04)
	Rio Grande do Sul	0.17	(0.04)	0.90	(0.02)	0.25	(0.04)	0.11	(0.06)	**0.14**	(0.06)	-0.96	(0.06)	-0.12	(0.05)	0.43	(0.05)	1.36	(0.04)
	Rondônia	0.43	(0.05)	0.82	(0.03)	0.44	(0.04)	0.43	(0.09)	0.01	(0.10)	-0.61	(0.07)	0.10	(0.05)	0.76	(0.07)	1.50	(0.04)
	Roraima	0.49	(0.05)	0.89	(0.03)	0.52	(0.08)	0.47	(0.07)	0.05	(0.11)	-0.68	(0.08)	0.18	(0.04)	0.91	(0.08)	1.57	(0.04)
	Santa Catarina	0.24	(0.05)	0.89	(0.03)	0.23	(0.06)	0.25	(0.07)	-0.02	(0.09)	-0.92	(0.07)	-0.03	(0.05)	0.54	(0.06)	1.38	(0.06)
	São Paulo	0.32	(0.03)	0.89	(0.02)	0.34	(0.04)	0.31	(0.05)	0.02	(0.06)	-0.83	(0.03)	0.02	(0.02)	0.65	(0.07)	1.45	(0.02)
	Sergipe	0.43	(0.03)	0.87	(0.04)	0.44	(0.05)	0.42	(0.04)	0.03	(0.07)	-0.69	(0.09)	0.11	(0.04)	0.79	(0.05)	1.51	(0.04)
	Tocantins	0.49	(0.04)	0.83	(0.02)	0.50	(0.05)	0.49	(0.06)	0.01	(0.08)	-0.57	(0.06)	0.19	(0.04)	0.85	(0.06)	1.52	(0.04)
	Colombia																		
	Bogotá	0.29	(0.03)	0.85	(0.02)	0.34	(0.04)	0.24	(0.03)	0.10	(0.06)	-0.81	(0.04)	0.00	(0.02)	0.57	(0.05)	1.39	(0.03)
	Cali	0.33	(0.03)	0.87	(0.03)	0.36	(0.05)	0.30	(0.05)	0.06	(0.07)	-0.80	(0.05)	0.02	(0.03)	0.64	(0.07)	1.47	(0.03)
	Manizales	0.29	(0.04)	0.92	(0.03)	0.34	(0.06)	0.25	(0.04)	0.09	(0.07)	-0.93	(0.06)	0.02	(0.03)	0.63	(0.07)	1.45	(0.03)
	Medellín	0.24	(0.04)	0.92	(0.02)	0.33	(0.06)	0.16	(0.05)	**0.17**	(0.06)	-0.94	(0.06)	-0.05	(0.03)	0.55	(0.08)	1.43	(0.02)
	Russian Federation																		
	Perm Territory region•	-0.06	(0.03)	0.91	(0.02)	0.03	(0.04)	-0.16	(0.04)	**0.18**	(0.06)	-1.18	(0.04)	-0.36	(0.04)	0.14	(0.02)	1.16	(0.04)
	United Arab Emirates																		
	Abu Dhabi•	0.39	(0.02)	0.99	(0.01)	0.48	(0.04)	0.31	(0.03)	**0.17**	(0.04)	-0.95	(0.03)	0.08	(0.03)	0.86	(0.03)	1.58	(0.02)
	Ajman	0.21	(0.06)	1.01	(0.03)	0.24	(0.09)	0.19	(0.07)	0.05	(0.09)	-1.10	(0.10)	-0.12	(0.04)	0.64	(0.12)	1.44	(0.03)
	Dubai•	0.31	(0.02)	0.99	(0.01)	0.44	(0.03)	0.19	(0.03)	**0.25**	(0.04)	-1.01	(0.03)	-0.02	(0.03)	0.79	(0.02)	1.50	(0.02)
	Fujairah	0.57	(0.04)	0.85	(0.03)	0.50	(0.07)	0.64	(0.05)	-0.14	(0.08)	-0.52	(0.07)	0.22	(0.07)	0.99	(0.07)	1.59	(0.03)
	Ras al-Khaimah	0.43	(0.05)	0.96	(0.02)	0.38	(0.07)	0.48	(0.08)	-0.10	(0.10)	-0.88	(0.07)	0.14	(0.07)	0.90	(0.05)	1.57	(0.03)
	Sharjah	0.40	(0.06)	0.94	(0.04)	0.47	(0.10)	0.35	(0.06)	0.12	(0.10)	-0.87	(0.12)	0.13	(0.07)	0.83	(0.06)	1.52	(0.03)
	Umm al-Quwain	0.27	(0.07)	1.06	(0.06)	0.26	(0.12)	0.27	(0.10)	-0.01	(0.16)	-1.22	(0.15)	0.03	(0.10)	0.76	(0.07)	1.51	(0.05)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.3.5d for national data.

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[Part 3/4]

Table B2.III.12 Index of instrumental motivation to learn mathematics and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Australia**														
	Australian Capital Territory	520	(10.6)	511	(14.2)	525	(13.2)	545	(8.7)	**11.3**	(4.8)	1.1	(0.2)	1.4	(1.2)
	New South Wales	**491**	(6.7)	504	(6.0)	512	(6.1)	**546**	(5.3)	**21.1**	(2.2)	**1.5**	(0.2)	4.1	(0.9)
	Northern Territory	**444**	(15.8)	448	(20.4)	449	(26.9)	**506**	(25.6)	**28.8**	(9.2)	1.2	(0.4)	5.3	(3.7)
	Queensland	**490**	(4.8)	493	(5.9)	508	(6.7)	**529**	(6.4)	**17.2**	(3.1)	1.3	(0.2)	3.0	(1.0)
	South Australia	**477**	(7.4)	476	(6.5)	496	(8.3)	**525**	(6.6)	**20.2**	(3.3)	1.4	(0.2)	4.9	(1.6)
	Tasmania	**452**	(9.1)	456	(8.2)	496	(9.5)	**518**	(7.4)	**30.3**	(4.4)	**1.7**	(0.3)	8.9	(2.5)
	Victoria	**476**	(4.8)	484	(5.5)	515	(7.1)	**528**	(6.1)	**22.9**	(2.4)	**1.6**	(0.2)	6.1	(1.2)
	Western Australia	**492**	(6.1)	518	(7.0)	520	(6.6)	**555**	(8.0)	**23.5**	(3.1)	**1.5**	(0.2)	5.9	(1.6)
	Belgium														
	Flemish Community•	**498**	(4.3)	524	(4.3)	551	(4.8)	**569**	(5.8)	**30.3**	(2.4)	**1.7**	(0.1)	7.9	(1.2)
	French Community	**484**	(5.1)	495	(5.7)	502	(5.5)	**522**	(6.7)	**15.4**	(2.6)	1.2	(0.1)	2.9	(1.0)
	German-speaking Community	**487**	(8.7)	498	(9.5)	522	(8.7)	**549**	(8.3)	**24.6**	(3.7)	**1.5**	(0.3)	8.5	(2.5)
	Canada														
	Alberta	**496**	(6.8)	510	(5.8)	534	(8.1)	**548**	(7.2)	**21.0**	(2.8)	**1.6**	(0.2)	5.6	(1.5)
	British Columbia	**494**	(6.1)	514	(7.7)	528	(6.7)	**558**	(6.5)	**25.8**	(2.5)	**1.9**	(0.2)	8.0	(1.4)
	Manitoba	**472**	(7.9)	484	(5.8)	502	(6.2)	**529**	(7.0)	**21.5**	(3.8)	**1.7**	(0.3)	5.6	(2.0)
	New Brunswick	**471**	(6.9)	494	(6.8)	508	(6.2)	**535**	(6.3)	**25.1**	(2.8)	**2.1**	(0.3)	9.5	(2.0)
	Newfoundland and Labrador	**473**	(8.0)	486	(7.7)	498	(10.1)	**511**	(11.1)	**17.9**	(5.3)	1.3	(0.2)	3.8	(2.4)
	Nova Scotia	**472**	(8.4)	488	(7.7)	502	(12.4)	**528**	(10.3)	**22.9**	(3.5)	**1.7**	(0.3)	7.6	(2.2)
	Ontario	**491**	(6.3)	505	(5.5)	527	(6.0)	**550**	(6.3)	**24.9**	(2.3)	**1.6**	(0.2)	8.5	(1.5)
	Prince Edward Island	**446**	(6.5)	483	(6.2)	480	(6.3)	**520**	(5.5)	**25.6**	(2.5)	**2.1**	(0.3)	10.3	(1.8)
	Quebec	**520**	(5.1)	526	(5.2)	543	(6.4)	**559**	(5.3)	**15.9**	(2.3)	**1.2**	(0.1)	3.3	(0.9)
	Saskatchewan	**468**	(5.8)	508	(5.8)	520	(7.0)	**540**	(6.1)	**28.0**	(2.9)	**2.3**	(0.3)	10.2	(1.9)
	Italy														
	Abruzzo	**448**	(7.2)	456	(9.5)	499	(7.4)	**503**	(8.9)	**24.7**	(3.6)	**1.5**	(0.2)	7.2	(1.7)
	Basilicata	**454**	(5.2)	459	(6.5)	476	(8.1)	**481**	(9.4)	**13.6**	(3.0)	1.3	(0.2)	2.3	(1.0)
	Bolzano	**482**	(5.3)	502	(5.7)	521	(5.9)	**530**	(6.4)	**18.9**	(3.0)	**1.6**	(0.2)	4.3	(1.3)
	Calabria	**414**	(7.9)	427	(8.6)	440	(8.9)	**439**	(10.3)	**11.4**	(3.3)	1.4	(0.3)	1.6	(0.9)
	Campania	**434**	(8.3)	457	(10.8)	458	(10.4)	**468**	(11.0)	**14.4**	(4.1)	1.3	(0.2)	2.6	(1.4)
	Emilia Romagna	**486**	(8.4)	485	(8.6)	518	(10.0)	**514**	(11.3)	**16.1**	(5.2)	1.2	(0.3)	2.6	(1.5)
	Friuli Venezia Giulia	**502**	(8.8)	528	(7.7)	532	(8.6)	**537**	(6.6)	**16.8**	(4.0)	**1.7**	(0.3)	3.5	(1.5)
	Lazio	**453**	(8.1)	472	(9.6)	483	(12.0)	**494**	(12.0)	**17.1**	(4.9)	1.4	(0.3)	3.4	(2.0)
	Liguria	**462**	(7.6)	489	(9.7)	502	(9.5)	**495**	(10.0)	**14.4**	(3.1)	**1.6**	(0.2)	2.3	(1.0)
	Lombardia	**495**	(8.3)	520	(9.4)	520	(8.6)	**531**	(12.5)	**14.8**	(3.2)	1.4	(0.2)	2.7	(1.2)
	Marche	**475**	(7.4)	490	(8.5)	504	(7.2)	**510**	(10.0)	**14.3**	(3.8)	1.3	(0.2)	2.3	(1.3)
	Molise	**447**	(6.3)	453	(7.3)	470	(7.4)	**487**	(9.1)	**17.7**	(4.1)	1.3	(0.2)	3.9	(1.7)
	Piemonte	**479**	(7.8)	493	(7.3)	507	(9.8)	**515**	(9.7)	**17.5**	(3.1)	1.4	(0.3)	3.3	(1.1)
	Puglia	**459**	(8.5)	474	(8.5)	484	(10.3)	**493**	(7.6)	**13.6**	(3.4)	1.3	(0.2)	2.1	(1.1)
	Sardegna	**449**	(7.7)	457	(8.5)	460	(8.2)	**472**	(7.7)	**9.5**	(3.4)	1.1	(0.2)	1.1	(0.8)
	Sicilia	448	(7.9)	444	(7.4)	449	(11.2)	458	(7.4)	**5.4**	(2.6)	1.1	(0.2)	0.4	(0.4)
	Toscana	**483**	(8.7)	481	(7.5)	508	(8.8)	**508**	(7.7)	**17.3**	(5.2)	1.2	(0.2)	2.7	(1.6)
	Trento	**505**	(8.0)	521	(8.0)	532	(7.6)	**543**	(8.6)	**16.4**	(3.8)	**1.4**	(0.2)	3.1	(1.5)
	Umbria	**470**	(8.5)	487	(9.5)	493	(12.3)	**513**	(9.8)	**18.9**	(3.7)	**1.4**	(0.2)	3.9	(1.5)
	Valle d'Aosta	**469**	(8.1)	498	(8.1)	501	(8.3)	**510**	(7.4)	**17.5**	(3.9)	**1.5**	(0.2)	4.3	(1.9)
	Veneto	**499**	(7.4)	524	(11.2)	531	(11.1)	**534**	(12.4)	**16.2**	(3.9)	1.4	(0.2)	2.8	(1.2)
	Mexico														
	Aguascalientes	432	(8.3)	431	(8.4)	445	(8.2)	440	(7.0)	5.5	(3.6)	0.9	(0.2)	0.4	(0.6)
	Baja California	411	(7.9)	405	(8.6)	417	(9.1)	427	(9.9)	6.5	(4.6)	1.0	(0.3)	0.6	(0.9)
	Baja California Sur	**406**	(7.5)	410	(9.7)	420	(9.6)	**435**	(9.4)	**12.1**	(4.0)	1.1	(0.2)	2.1	(1.3)
	Campeche	392	(7.6)	389	(7.4)	405	(8.2)	406	(8.6)	**8.9**	(3.6)	1.0	(0.2)	1.1	(0.9)
	Chiapas	368	(9.9)	370	(8.4)	374	(9.3)	380	(9.2)	7.1	(4.4)	1.2	(0.2)	0.6	(0.7)
	Chihuahua	425	(11.6)	421	(9.3)	432	(9.4)	441	(9.5)	**8.1**	(3.2)	1.2	(0.2)	0.8	(0.7)
	Coahuila	**415**	(11.2)	409	(9.8)	415	(9.7)	**436**	(9.9)	**8.5**	(3.9)	1.3	(0.3)	1.0	(1.0)
	Colima	420	(8.1)	424	(7.2)	419	(8.0)	439	(9.7)	**7.4**	(3.5)	1.0	(0.2)	0.7	(0.7)
	Distrito Federal	423	(9.9)	427	(9.0)	431	(9.6)	438	(8.7)	6.7	(6.0)	1.2	(0.3)	0.7	(1.6)
	Durango	411	(10.7)	413	(8.8)	431	(9.1)	435	(12.2)	**12.7**	(4.7)	1.3	(0.3)	2.3	(1.7)
	Guanajuato	**406**	(6.4)	408	(9.6)	407	(10.2)	**433**	(7.7)	**10.4**	(4.2)	1.1	(0.2)	1.4	(1.1)
	Guerrero	366	(6.1)	363	(6.3)	362	(7.5)	377	(6.6)	5.6	(3.7)	1.0	(0.2)	0.4	(0.6)
	Hidalgo	402	(8.5)	415	(7.0)	416	(8.9)	398	(7.3)	-0.7	(3.7)	1.1	(0.2)	0.0	(0.2)
	Jalisco	**419**	(8.5)	428	(7.7)	443	(7.7)	**448**	(8.6)	**13.2**	(3.6)	1.3	(0.3)	2.4	(1.3)
	Mexico	**410**	(7.0)	413	(8.3)	421	(7.7)	**431**	(7.6)	**8.6**	(2.4)	1.2	(0.2)	1.2	(0.6)
	Morelos	421	(11.4)	417	(12.3)	423	(10.5)	428	(11.1)	3.4	(4.4)	1.0	(0.2)	0.2	(0.4)
	Nayarit	**401**	(9.7)	410	(10.6)	414	(8.8)	**434**	(11.3)	**16.0**	(4.3)	1.3	(0.3)	3.0	(1.6)
	Nuevo León	**428**	(9.2)	428	(9.9)	426	(10.0)	**461**	(9.6)	**9.7**	(2.4)	1.1	(0.2)	1.6	(0.8)
	Puebla	412	(7.2)	405	(8.6)	425	(9.1)	422	(8.8)	7.1	(4.0)	1.0	(0.2)	0.6	(0.7)
	Querétaro	432	(9.3)	430	(11.5)	425	(11.7)	444	(12.7)	3.2	(4.3)	1.0	(0.2)	0.1	(0.4)
	Quintana Roo	416	(7.4)	399	(7.2)	413	(8.7)	406	(8.3)	-3.7	(2.2)	0.8	(0.1)	0.2	(0.3)
	San Luis Potosí	409	(10.0)	404	(8.7)	412	(10.1)	424	(10.1)	6.9	(3.8)	1.1	(0.2)	0.6	(0.6)
	Sinaloa	416	(8.1)	409	(7.4)	403	(7.0)	420	(8.4)	1.3	(3.6)	0.8	(0.2)	0.0	(0.2)
	Tabasco	369	(7.2)	381	(7.5)	374	(10.8)	385	(8.2)	**6.8**	(3.3)	1.3	(0.2)	0.7	(0.7)
	Tamaulipas	**399**	(9.0)	407	(8.9)	409	(9.1)	**423**	(9.4)	**8.4**	(2.8)	1.4	(0.3)	1.0	(0.7)
	Tlaxcala	407	(8.8)	409	(6.7)	408	(9.7)	423	(8.5)	7.9	(4.1)	1.1	(0.2)	0.9	(0.8)
	Veracruz	**392**	(7.9)	398	(9.1)	402	(10.5)	**415**	(11.2)	**11.6**	(4.2)	1.0	(0.2)	1.3	(0.9)
	Yucatán	417	(8.0)	404	(10.5)	407	(8.6)	410	(7.3)	-2.0	(3.3)	0.7	(0.2)	0.1	(0.2)
	Zacatecas	402	(6.1)	408	(8.0)	408	(8.4)	414	(7.2)	6.0	(3.9)	1.2	(0.3)	0.5	(0.6)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.3.5d for national data.

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[Part 4/4]

Table B2.III.12 **Index of instrumental motivation to learn mathematics and mathematics performance, by national quarters of this index and region**

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Portugal**														
	Alentejo	**461**	(13.3)	478	(14.4)	484	(16.4)	**527**	(12.7)	**25.3**	(4.8)	1.4	(0.3)	7.3	(2.6)
	Spain														
	Andalusia•	**452**	(6.1)	457	(6.1)	477	(7.3)	**504**	(7.8)	**19.6**	(3.1)	1.2	(0.2)	6.0	(1.8)
	Aragon•	**476**	(9.1)	486	(8.6)	509	(7.7)	**522**	(9.0)	**18.9**	(3.2)	1.2	(0.2)	4.3	(1.4)
	Asturias•	**479**	(8.5)	485	(10.8)	506	(9.3)	**537**	(8.9)	**21.5**	(4.3)	1.4	(0.2)	6.3	(2.2)
	Balearic Islands•	**450**	(7.9)	471	(9.0)	486	(8.5)	**504**	(7.9)	**19.5**	(3.0)	**1.5**	(0.2)	5.5	(1.7)
	Basque Country•	**477**	(3.7)	497	(3.9)	513	(4.4)	**537**	(4.1)	**22.9**	(1.5)	**1.7**	(0.1)	8.2	(1.2)
	Cantabria•	**464**	(6.2)	481	(7.9)	500	(7.9)	**529**	(6.0)	**24.1**	(2.4)	**1.6**	(0.2)	8.1	(1.6)
	Castile and Leon•	**491**	(6.2)	497	(7.9)	513	(6.6)	**538**	(7.5)	**18.1**	(2.1)	1.4	(0.2)	5.0	(1.1)
	Catalonia•	**468**	(6.1)	485	(6.8)	499	(7.0)	**522**	(9.7)	**19.4**	(3.0)	1.3	(0.2)	5.6	(1.8)
	Extremadura•	**432**	(5.4)	452	(8.4)	461	(8.3)	**490**	(8.5)	**20.9**	(3.3)	**1.5**	(0.2)	5.4	(1.7)
	Galicia•	**473**	(6.9)	485	(5.8)	493	(6.7)	**508**	(7.5)	**14.5**	(2.7)	1.2	(0.2)	3.3	(1.2)
	La Rioja•	**475**	(6.5)	499	(8.7)	508	(7.2)	**536**	(6.4)	**20.9**	(2.9)	**1.4**	(0.2)	5.3	(1.4)
	Madrid•	**479**	(6.7)	486	(7.4)	517	(7.5)	**538**	(6.2)	**23.1**	(3.0)	**1.4**	(0.2)	7.4	(2.0)
	Murcia•	**445**	(7.7)	454	(7.8)	465	(7.9)	**486**	(10.1)	**15.7**	(3.5)	1.1	(0.2)	3.3	(1.4)
	Navarre•	**496**	(5.2)	504	(6.9)	530	(6.6)	**543**	(6.6)	**20.1**	(2.5)	**1.4**	(0.2)	5.6	(1.4)
	United Kingdom														
	England	**486**	(6.1)	487	(4.8)	499	(6.3)	**511**	(5.7)	**11.5**	(2.4)	1.2	(0.1)	1.2	(0.5)
	Northern Ireland	**483**	(5.2)	476	(5.7)	495	(5.5)	**505**	(6.8)	**12.0**	(3.2)	1.1	(0.1)	1.4	(0.8)
	Scotland•	**479**	(4.9)	492	(5.3)	504	(5.9)	**526**	(4.4)	**19.3**	(2.5)	**1.4**	(0.1)	4.4	(1.1)
	Wales	**459**	(4.6)	453	(4.2)	475	(4.6)	**492**	(4.9)	**16.7**	(2.2)	1.2	(0.1)	2.8	(0.7)
	United States														
	Connecticut•	**489**	(7.1)	495	(8.7)	511	(10.2)	**543**	(9.1)	**21.8**	(3.0)	**1.3**	(0.1)	4.5	(1.1)
	Florida•	**460**	(5.2)	464	(7.2)	465	(9.6)	**491**	(10.7)	**11.3**	(3.5)	1.0	(0.1)	1.8	(1.1)
	Massachusetts•	**502**	(8.9)	511	(8.6)	513	(10.3)	**538**	(8.8)	**14.5**	(3.1)	1.2	(0.2)	2.2	(0.9)
Partners	**Argentina**														
	Ciudad Autónoma de Buenos Aires•	424	(7.1)	418	(9.4)	430	(11.2)	429	(9.2)	2.8	(3.3)	0.9	(0.1)	0.1	(0.3)
	Brazil														
	Acre	364	(8.0)	362	(10.9)	362	(11.3)	351	(7.7)	-5.6	(4.3)	1.0	(0.3)	0.6	(0.9)
	Alagoas	354	(8.8)	355	(9.4)	339	(12.4)	335	(13.6)	-9.2	(4.9)	0.9	(0.2)	1.3	(1.3)
	Amapá	353	(15.4)	365	(14.6)	366	(10.3)	367	(9.5)	5.2	(5.8)	1.4	(0.5)	0.5	(1.3)
	Amazonas	369	(8.9)	355	(9.4)	356	(10.1)	362	(9.5)	-4.4	(3.1)	0.8	(0.3)	0.4	(0.5)
	Bahia	389	(16.0)	376	(11.2)	387	(16.6)	365	(12.5)	-10.6	(6.7)	0.9	(0.4)	1.4	(1.8)
	Ceará	383	(10.5)	380	(10.8)	382	(12.8)	390	(15.2)	3.3	(4.8)	0.8	(0.2)	0.2	(0.4)
	Espírito Santo	426	(14.7)	407	(14.1)	415	(10.8)	425	(20.7)	-0.3	(3.9)	0.7	(0.2)	0.0	(0.1)
	Federal District	425	(16.6)	401	(12.5)	416	(12.9)	432	(12.3)	2.7	(4.7)	0.8	(0.3)	0.1	(0.5)
	Goiás	380	(8.5)	384	(9.2)	378	(10.1)	381	(11.9)	-1.6	(3.5)	0.9	(0.2)	0.0	(0.2)
	Maranhão	347	(17.0)	349	(15.4)	343	(13.2)	349	(16.7)	-2.0	(4.5)	0.9	(0.3)	0.1	(0.3)
	Mato Grosso	369	(9.2)	368	(17.9)	383	(12.2)	361	(12.9)	-3.2	(3.5)	0.9	(0.2)	0.1	(0.3)
	Mato Grosso do Sul	425	(7.1)	414	(10.3)	401	(13.4)	406	(13.6)	**-9.6**	(4.0)	**0.6**	(0.2)	1.4	(1.2)
	Minas Gerais	411	(9.2)	397	(9.5)	404	(10.2)	411	(14.3)	-1.5	(3.6)	0.7	(0.2)	0.0	(0.2)
	Pará	373	(16.3)	348	(9.8)	362	(8.3)	361	(9.4)	-4.5	(8.8)	0.8	(0.3)	0.3	(1.3)
	Paraíba	408	(10.1)	404	(10.3)	374	(11.3)	383	(11.1)	-12.2	(6.4)	0.7	(0.2)	2.1	(1.8)
	Paraná	411	(15.6)	403	(14.3)	420	(15.3)	401	(16.7)	-3.3	(5.6)	0.7	(0.2)	0.2	(0.6)
	Pernambuco	367	(12.2)	362	(14.2)	360	(13.1)	363	(11.2)	-2.6	(6.2)	1.1	(0.4)	0.1	(0.9)
	Piauí	402	(15.1)	384	(14.9)	370	(10.7)	389	(6.7)	-7.2	(6.5)	1.1	(0.4)	0.6	(1.0)
	Rio de Janeiro	398	(9.1)	384	(8.8)	383	(10.1)	393	(11.9)	-1.1	(5.2)	0.8	(0.2)	0.1	(0.5)
	Rio Grande do Norte	407	(23.7)	369	(11.8)	375	(10.1)	374	(9.2)	**-14.0**	(6.2)	**0.5**	(0.1)	2.2	(1.6)
	Rio Grande do Sul	415	(7.7)	410	(7.3)	400	(9.4)	396	(9.3)	-7.8	(4.5)	0.8	(0.3)	1.3	(1.3)
	Rondônia	391	(8.7)	379	(12.5)	383	(11.0)	377	(7.6)	-6.2	(4.4)	**0.6**	(0.2)	0.7	(1.0)
	Roraima	369	(11.7)	372	(11.2)	351	(10.6)	361	(9.3)	-5.8	(5.1)	1.0	(0.3)	0.6	(0.9)
	Santa Catarina	407	(11.7)	423	(12.5)	409	(12.6)	425	(10.0)	5.5	(4.6)	1.1	(0.2)	0.5	(0.8)
	São Paulo	408	(5.9)	399	(5.6)	404	(5.9)	412	(5.8)	3.3	(2.7)	0.9	(0.1)	0.2	(0.3)
	Sergipe	404	(13.8)	384	(11.3)	389	(16.8)	391	(10.9)	-5.6	(4.5)	0.8	(0.2)	0.5	(0.7)
	Tocantins	376	(8.4)	368	(11.0)	362	(13.7)	369	(10.9)	-2.6	(5.0)	0.9	(0.2)	0.1	(0.5)
	Colombia														
	Bogotá	398	(5.2)	397	(6.0)	392	(4.0)	397	(6.4)	-1.0	(2.7)	0.9	(0.2)	0.0	(0.2)
	Cali	387	(7.2)	383	(8.1)	380	(8.5)	376	(8.7)	-4.0	(3.3)	0.8	(0.2)	0.3	(0.5)
	Manizales	409	(6.7)	402	(7.1)	396	(8.5)	413	(8.5)	-0.6	(3.7)	0.9	(0.2)	0.0	(0.2)
	Medellín	397	(7.4)	391	(11.4)	394	(9.5)	400	(9.7)	0.3	(3.1)	0.9	(0.1)	0.0	(0.1)
	Russian Federation														
	Perm Territory region•	**481**	(6.5)	472	(6.9)	482	(7.7)	**505**	(9.2)	**11.5**	(3.7)	0.9	(0.2)	1.5	(0.9)
	United Arab Emirates														
	Abu Dhabi•	**413**	(6.0)	418	(6.0)	426	(6.3)	**437**	(5.7)	**10.0**	(2.3)	1.2	(0.1)	1.3	(0.6)
	Ajman	394	(9.6)	406	(13.8)	404	(12.4)	410	(11.5)	4.3	(3.7)	1.2	(0.3)	0.4	(0.5)
	Dubai•	**447**	(3.9)	460	(4.2)	466	(4.7)	**488**	(5.1)	**15.4**	(2.1)	**1.3**	(0.1)	2.6	(0.7)
	Fujairah	**401**	(12.5)	393	(12.1)	417	(11.4)	**439**	(11.6)	**17.9**	(5.2)	1.3	(0.3)	3.5	(2.0)
	Ras al-Khaimah	**400**	(8.4)	417	(12.3)	417	(10.6)	**438**	(11.2)	**13.8**	(4.6)	1.3	(0.3)	3.1	(2.0)
	Sharjah	436	(12.6)	439	(12.4)	442	(11.8)	445	(10.7)	4.5	(4.4)	1.1	(0.2)	0.3	(0.7)
	Umm al-Quwain	**369**	(11.6)	419	(13.1)	391	(11.9)	**400**	(9.9)	6.6	(4.9)	1.6	(0.6)	1.1	(1.5)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.3.5d for national data.

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[Part 1/4]
Table B2.III.13 Index of mathematics self-efficacy and mathematics performance, by national quarters of this index and region
Results based on students' self-reports

OECD

	Index of mathematics self-efficacy																	
	All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
	Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
Australia																		
Australian Capital Territory	0.21	(0.05)	1.02	(0.04)	0.43	(0.07)	-0.02	(0.06)	**0.44**	(0.09)	-0.91	(0.06)	-0.22	(0.04)	0.38	(0.07)	1.61	(0.09)
New South Wales	0.12	(0.03)	1.08	(0.02)	0.32	(0.05)	-0.09	(0.03)	**0.40**	(0.05)	-1.09	(0.03)	-0.34	(0.02)	0.29	(0.04)	1.62	(0.06)
Northern Territory	-0.15	(0.08)	1.08	(0.06)	0.08	(0.13)	-0.37	(0.12)	**0.45**	(0.20)	-1.34	(0.11)	-0.53	(0.07)	0.02	(0.11)	1.29	(0.14)
Queensland	0.06	(0.03)	1.03	(0.02)	0.22	(0.04)	-0.11	(0.04)	**0.32**	(0.05)	-1.08	(0.03)	-0.38	(0.02)	0.22	(0.05)	1.48	(0.05)
South Australia	-0.17	(0.03)	0.97	(0.03)	0.02	(0.05)	-0.36	(0.04)	**0.38**	(0.06)	-1.22	(0.05)	-0.49	(0.03)	-0.07	(0.04)	1.11	(0.06)
Tasmania	-0.08	(0.04)	1.05	(0.03)	0.10	(0.05)	-0.29	(0.06)	**0.39**	(0.07)	-1.23	(0.06)	-0.45	(0.04)	0.06	(0.05)	1.30	(0.07)
Victoria	0.01	(0.04)	0.98	(0.02)	0.26	(0.05)	-0.29	(0.04)	**0.55**	(0.05)	-1.06	(0.04)	-0.39	(0.03)	0.14	(0.04)	1.35	(0.07)
Western Australia	0.16	(0.04)	1.03	(0.02)	0.42	(0.05)	-0.13	(0.04)	**0.55**	(0.06)	-0.98	(0.04)	-0.31	(0.03)	0.34	(0.05)	1.60	(0.06)
Belgium																		
Flemish Community•	-0.21	(0.02)	0.93	(0.02)	0.00	(0.03)	-0.40	(0.02)	**0.39**	(0.04)	-1.24	(0.02)	-0.53	(0.02)	-0.08	(0.02)	1.02	(0.03)
French Community	0.00	(0.03)	1.06	(0.03)	0.19	(0.04)	-0.19	(0.04)	**0.38**	(0.05)	-1.21	(0.05)	-0.35	(0.02)	0.20	(0.03)	1.37	(0.06)
German-speaking Community	-0.13	(0.04)	0.97	(0.04)	0.02	(0.06)	-0.28	(0.05)	**0.30**	(0.08)	-1.21	(0.08)	-0.42	(0.04)	0.03	(0.04)	1.10	(0.07)
Canada																		
Alberta	0.17	(0.04)	1.03	(0.02)	0.37	(0.05)	-0.05	(0.05)	**0.41**	(0.07)	-0.98	(0.06)	-0.24	(0.03)	0.33	(0.05)	1.58	(0.05)
British Columbia	0.10	(0.04)	0.99	(0.03)	0.28	(0.05)	-0.07	(0.06)	**0.35**	(0.07)	-0.99	(0.05)	-0.32	(0.03)	0.26	(0.06)	1.46	(0.07)
Manitoba	-0.01	(0.04)	1.00	(0.03)	0.21	(0.05)	-0.25	(0.04)	**0.46**	(0.06)	-1.10	(0.04)	-0.40	(0.03)	0.11	(0.04)	1.34	(0.07)
New Brunswick	0.03	(0.04)	1.06	(0.03)	0.14	(0.07)	-0.10	(0.04)	**0.24**	(0.08)	-1.14	(0.06)	-0.36	(0.03)	0.22	(0.05)	1.40	(0.08)
Newfoundland and Labrador	-0.04	(0.03)	0.98	(0.04)	0.08	(0.05)	-0.16	(0.05)	**0.24**	(0.08)	-1.10	(0.05)	-0.37	(0.03)	0.07	(0.04)	1.24	(0.06)
Nova Scotia	-0.06	(0.05)	0.99	(0.03)	0.06	(0.06)	-0.18	(0.05)	**0.24**	(0.06)	-1.12	(0.06)	-0.42	(0.02)	0.04	(0.08)	1.28	(0.08)
Ontario	0.03	(0.04)	1.05	(0.02)	0.22	(0.05)	-0.15	(0.04)	**0.37**	(0.05)	-1.12	(0.04)	-0.38	(0.03)	0.17	(0.05)	1.45	(0.07)
Prince Edward Island	-0.18	(0.03)	1.00	(0.03)	-0.02	(0.05)	-0.34	(0.04)	**0.31**	(0.07)	-1.28	(0.06)	-0.49	(0.02)	-0.05	(0.04)	1.11	(0.06)
Quebec	0.31	(0.03)	1.02	(0.02)	0.42	(0.04)	0.21	(0.04)	**0.21**	(0.05)	-0.85	(0.03)	-0.12	(0.03)	0.53	(0.04)	1.69	(0.04)
Saskatchewan	-0.01	(0.04)	0.96	(0.03)	0.15	(0.06)	-0.19	(0.04)	**0.34**	(0.07)	-1.07	(0.04)	-0.37	(0.03)	0.14	(0.05)	1.26	(0.07)
Italy																		
Abruzzo	-0.13	(0.03)	0.78	(0.02)	-0.06	(0.04)	-0.19	(0.05)	0.13	(0.07)	-0.99	(0.04)	-0.38	(0.03)	-0.02	(0.03)	0.88	(0.06)
Basilicata	-0.07	(0.03)	0.82	(0.03)	0.08	(0.05)	-0.22	(0.04)	**0.30**	(0.06)	-0.95	(0.03)	-0.37	(0.03)	0.02	(0.03)	1.02	(0.07)
Bolzano	-0.02	(0.03)	0.97	(0.03)	0.25	(0.04)	-0.27	(0.03)	**0.52**	(0.06)	-1.09	(0.04)	-0.39	(0.02)	0.11	(0.03)	1.29	(0.05)
Calabria	-0.15	(0.04)	0.80	(0.03)	-0.01	(0.05)	-0.29	(0.04)	**0.28**	(0.06)	-0.98	(0.04)	-0.47	(0.04)	-0.05	(0.04)	0.91	(0.08)
Campania	-0.15	(0.04)	0.79	(0.03)	-0.01	(0.05)	-0.29	(0.04)	**0.27**	(0.05)	-0.99	(0.04)	-0.42	(0.04)	-0.05	(0.03)	0.88	(0.08)
Emilia Romagna	-0.12	(0.05)	0.85	(0.03)	-0.02	(0.06)	-0.23	(0.05)	**0.21**	(0.06)	-1.03	(0.05)	-0.42	(0.04)	0.00	(0.05)	0.98	(0.07)
Friuli Venezia Giulia	-0.04	(0.04)	0.86	(0.03)	0.14	(0.04)	-0.24	(0.06)	**0.38**	(0.07)	-0.97	(0.05)	-0.36	(0.04)	0.06	(0.05)	1.10	(0.07)
Lazio	-0.07	(0.05)	0.87	(0.04)	0.06	(0.06)	-0.23	(0.06)	**0.29**	(0.08)	-0.99	(0.06)	-0.38	(0.05)	0.04	(0.06)	1.07	(0.10)
Liguria	-0.14	(0.05)	0.84	(0.03)	-0.02	(0.06)	-0.25	(0.05)	**0.23**	(0.06)	-1.03	(0.06)	-0.40	(0.04)	-0.03	(0.03)	0.93	(0.07)
Lombardia	-0.09	(0.05)	0.90	(0.04)	0.10	(0.07)	-0.28	(0.06)	**0.38**	(0.08)	-1.05	(0.08)	-0.41	(0.04)	0.02	(0.05)	1.10	(0.08)
Marche	-0.21	(0.04)	0.81	(0.04)	-0.06	(0.05)	-0.36	(0.05)	**0.30**	(0.05)	-1.07	(0.08)	-0.46	(0.03)	-0.08	(0.04)	0.80	(0.06)
Molise	-0.13	(0.03)	0.78	(0.03)	-0.03	(0.05)	-0.23	(0.04)	**0.19**	(0.07)	-0.95	(0.03)	-0.41	(0.03)	-0.04	(0.03)	0.88	(0.07)
Piemonte	-0.14	(0.05)	0.85	(0.03)	0.02	(0.07)	-0.30	(0.04)	**0.32**	(0.06)	-1.09	(0.08)	-0.42	(0.04)	0.01	(0.04)	0.95	(0.06)
Puglia	0.00	(0.04)	0.87	(0.04)	0.08	(0.05)	-0.09	(0.04)	**0.18**	(0.04)	-0.96	(0.07)	-0.29	(0.03)	0.14	(0.03)	1.10	(0.07)
Sardegna	-0.21	(0.04)	0.84	(0.04)	-0.05	(0.05)	-0.36	(0.05)	**0.31**	(0.05)	-1.12	(0.07)	-0.47	(0.03)	-0.09	(0.04)	0.85	(0.08)
Sicilia	-0.18	(0.03)	0.76	(0.03)	-0.10	(0.05)	-0.26	(0.04)	**0.16**	(0.06)	-0.98	(0.04)	-0.44	(0.03)	-0.05	(0.03)	0.77	(0.06)
Toscana	-0.11	(0.04)	0.89	(0.04)	-0.03	(0.06)	-0.22	(0.05)	**0.19**	(0.07)	-1.05	(0.06)	-0.41	(0.04)	-0.01	(0.04)	1.04	(0.06)
Trento	0.01	(0.04)	0.88	(0.03)	0.10	(0.04)	-0.11	(0.06)	**0.21**	(0.07)	-0.92	(0.05)	-0.33	(0.03)	0.11	(0.05)	1.17	(0.07)
Umbria	-0.11	(0.03)	0.79	(0.03)	0.02	(0.06)	-0.24	(0.03)	**0.26**	(0.07)	-0.96	(0.05)	-0.39	(0.03)	-0.02	(0.03)	0.92	(0.06)
Valle d'Aosta	-0.20	(0.03)	0.87	(0.04)	0.01	(0.05)	-0.42	(0.04)	**0.43**	(0.06)	-1.11	(0.05)	-0.54	(0.03)	-0.11	(0.03)	0.96	(0.08)
Veneto	-0.02	(0.06)	0.89	(0.03)	0.16	(0.06)	-0.19	(0.06)	**0.35**	(0.07)	-0.97	(0.05)	-0.36	(0.04)	0.09	(0.07)	1.17	(0.10)
Mexico																		
Aguascalientes	-0.17	(0.04)	0.79	(0.03)	-0.05	(0.05)	-0.29	(0.03)	**0.24**	(0.05)	-1.01	(0.05)	-0.48	(0.03)	-0.06	(0.04)	0.89	(0.08)
Baja California	-0.14	(0.03)	0.87	(0.02)	0.01	(0.05)	-0.29	(0.03)	**0.31**	(0.07)	-1.08	(0.04)	-0.48	(0.02)	-0.02	(0.03)	1.02	(0.05)
Baja California Sur	-0.21	(0.05)	0.89	(0.04)	-0.08	(0.06)	-0.35	(0.05)	**0.27**	(0.07)	-1.17	(0.06)	-0.52	(0.04)	-0.09	(0.05)	0.94	(0.07)
Campeche	-0.28	(0.05)	0.83	(0.02)	-0.19	(0.06)	-0.36	(0.06)	**0.16**	(0.07)	-1.17	(0.04)	-0.60	(0.04)	-0.18	(0.04)	0.84	(0.08)
Chiapas	-0.20	(0.03)	0.85	(0.03)	-0.17	(0.04)	-0.23	(0.05)	0.06	(0.07)	-1.13	(0.04)	-0.52	(0.03)	-0.08	(0.04)	0.93	(0.06)
Chihuahua	-0.14	(0.04)	0.89	(0.04)	-0.04	(0.06)	-0.25	(0.05)	**0.21**	(0.07)	-1.14	(0.05)	-0.47	(0.04)	0.02	(0.05)	1.03	(0.08)
Coahuila	-0.18	(0.06)	0.83	(0.05)	-0.08	(0.06)	-0.29	(0.09)	**0.21**	(0.08)	-1.12	(0.06)	-0.48	(0.04)	-0.04	(0.08)	0.93	(0.13)
Colima	-0.07	(0.03)	0.91	(0.03)	0.01	(0.05)	-0.16	(0.04)	**0.17**	(0.06)	-1.07	(0.04)	-0.43	(0.03)	0.04	(0.03)	1.17	(0.07)
Distrito Federal	-0.19	(0.05)	0.87	(0.04)	-0.02	(0.06)	-0.37	(0.06)	**0.35**	(0.06)	-1.15	(0.07)	-0.47	(0.04)	-0.06	(0.04)	0.92	(0.09)
Durango	-0.23	(0.04)	0.83	(0.03)	-0.08	(0.08)	-0.37	(0.03)	**0.29**	(0.09)	-1.10	(0.05)	-0.55	(0.03)	-0.15	(0.04)	0.87	(0.10)
Guanajuato	-0.25	(0.04)	0.76	(0.03)	-0.16	(0.05)	-0.34	(0.04)	**0.18**	(0.05)	-1.11	(0.05)	-0.55	(0.03)	-0.10	(0.04)	0.76	(0.06)
Guerrero	-0.38	(0.05)	0.84	(0.03)	-0.31	(0.07)	-0.45	(0.05)	**0.14**	(0.06)	-1.29	(0.06)	-0.68	(0.04)	-0.25	(0.04)	0.71	(0.09)
Hidalgo	-0.09	(0.04)	0.85	(0.02)	0.04	(0.05)	-0.20	(0.05)	**0.24**	(0.07)	-1.03	(0.04)	-0.41	(0.03)	0.04	(0.04)	1.05	(0.06)
Jalisco	-0.22	(0.05)	0.85	(0.03)	-0.07	(0.05)	-0.35	(0.05)	**0.28**	(0.05)	-1.10	(0.04)	-0.55	(0.03)	-0.15	(0.04)	0.92	(0.10)
Mexico	-0.15	(0.05)	0.85	(0.04)	-0.07	(0.08)	-0.23	(0.04)	**0.16**	(0.08)	-1.09	(0.07)	-0.46	(0.04)	-0.02	(0.05)	0.96	(0.08)
Morelos	-0.27	(0.04)	0.82	(0.03)	-0.15	(0.06)	-0.39	(0.05)	**0.23**	(0.07)	-1.19	(0.06)	-0.59	(0.04)	-0.13	(0.05)	0.82	(0.06)
Nayarit	-0.27	(0.04)	0.84	(0.05)	-0.20	(0.04)	-0.34	(0.06)	**0.14**	(0.06)	-1.21	(0.06)	-0.56	(0.04)	-0.14	(0.04)	0.82	(0.09)
Nuevo León	-0.03	(0.08)	0.92	(0.03)	0.07	(0.09)	-0.15	(0.07)	**0.22**	(0.08)	-1.05	(0.10)	-0.38	(0.07)	0.12	(0.07)	1.19	(0.10)
Puebla	-0.16	(0.04)	0.78	(0.05)	-0.10	(0.05)	-0.22	(0.05)	**0.11**	(0.04)	-0.99	(0.07)	-0.46	(0.03)	-0.03	(0.05)	0.85	(0.09)
Querétaro	-0.15	(0.06)	0.79	(0.02)	-0.07	(0.09)	-0.22	(0.05)	0.15	(0.09)	-1.01	(0.05)	-0.47	(0.05)	-0.04	(0.04)	0.94	(0.09)
Quintana Roo	-0.23	(0.03)	0.89	(0.03)	-0.16	(0.04)	-0.31	(0.04)	**0.14**	(0.05)	-1.19	(0.06)	-0.56	(0.03)	-0.11	(0.04)	0.94	(0.04)
San Luis Potosí	-0.16	(0.05)	0.79	(0.03)	-0.14	(0.06)	-0.19	(0.06)	0.05	(0.06)	-1.04	(0.05)	-0.45	(0.06)	-0.06	(0.05)	0.91	(0.09)
Sinaloa	-0.22	(0.04)	0.83	(0.04)	-0.14	(0.05)	-0.30	(0.05)	**0.17**	(0.06)	-1.15	(0.05)	-0.53	(0.04)	-0.08	(0.04)	0.87	(0.08)
Tabasco	-0.29	(0.03)	0.89	(0.03)	-0.20	(0.06)	-0.37	(0.04)	**0.17**	(0.08)	-1.30	(0.05)	-0.58	(0.03)	-0.11	(0.04)	0.86	(0.06)
Tamaulipas	-0.28	(0.04)	0.87	(0.04)	-0.21	(0.06)	-0.36	(0.07)	0.15	(0.10)	-1.21	(0.06)	-0.55	(0.04)	-0.17	(0.03)	0.83	(0.09)
Tlaxcala	-0.18	(0.03)	0.85	(0.03)	-0.11	(0.05)	-0.24	(0.06)	0.13	(0.08)	-1.10	(0.05)	-0.49	(0.03)	-0.05	(0.05)	0.93	(0.06)
Veracruz	-0.17	(0.07)	0.84	(0.03)	-0.11	(0.07)	-0.23	(0.07)	**0.13**	(0.05)	-1.07	(0.07)	-0.52	(0.04)	-0.05	(0.07)	0.98	(0.11)
Yucatán	-0.14	(0.04)	0.88	(0.05)	-0.10	(0.03)	-0.17	(0.06)	0.07	(0.05)	-1.12	(0.07)	-0.47	(0.04)	0.05	(0.04)	1.00	(0.08)
Zacatecas	-0.16	(0.03)	0.84	(0.05)	-0.02	(0.04)	-0.30	(0.05)	**0.28**	(0.07)	-1.04	(0.06)	-0.45	(0.04)	-0.07	(0.03)	0.94	(0.07)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.4.1d for national data.

StatLink http://dx.doi.org/10.1787/888932964072

[Part 2/4]

Table B2.III.13 Index of mathematics self-efficacy and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

		Index of mathematics self-efficacy																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Portugal**																		
	Alentejo	0.23	(0.07)	0.98	(0.04)	0.27	(0.08)	0.19	(0.08)	0.08	(0.07)	-0.83	(0.07)	-0.21	(0.06)	0.38	(0.09)	1.59	(0.10)
	Spain																		
	Andalusia•	0.03	(0.04)	0.94	(0.04)	0.16	(0.06)	-0.10	(0.04)	**0.25**	(0.06)	-0.99	(0.07)	-0.32	(0.02)	0.14	(0.04)	1.30	(0.06)
	Aragon•	0.12	(0.05)	0.96	(0.03)	0.26	(0.06)	-0.01	(0.06)	**0.27**	(0.08)	-0.94	(0.07)	-0.24	(0.03)	0.29	(0.06)	1.39	(0.07)
	Asturias•	0.11	(0.05)	0.99	(0.04)	0.17	(0.06)	0.05	(0.04)	**0.12**	(0.05)	-0.98	(0.07)	-0.24	(0.03)	0.29	(0.05)	1.38	(0.09)
	Balearic Islands•	0.21	(0.04)	0.93	(0.03)	0.33	(0.05)	0.07	(0.05)	**0.25**	(0.06)	-0.81	(0.05)	-0.18	(0.03)	0.35	(0.06)	1.47	(0.06)
	Basque Country•	0.08	(0.02)	0.87	(0.02)	0.22	(0.03)	-0.06	(0.02)	**0.28**	(0.04)	-0.86	(0.03)	-0.25	(0.02)	0.22	(0.02)	1.21	(0.03)
	Cantabria•	0.16	(0.03)	0.98	(0.04)	0.30	(0.05)	0.03	(0.04)	**0.27**	(0.07)	-0.93	(0.06)	-0.18	(0.03)	0.33	(0.04)	1.44	(0.06)
	Castile and Leon•	0.17	(0.04)	0.93	(0.02)	0.28	(0.06)	0.06	(0.03)	**0.23**	(0.07)	-0.84	(0.04)	-0.20	(0.03)	0.33	(0.06)	1.42	(0.05)
	Catalonia•	0.34	(0.04)	0.90	(0.02)	0.44	(0.04)	0.23	(0.06)	**0.21**	(0.06)	-0.68	(0.03)	-0.06	(0.05)	0.54	(0.05)	1.56	(0.06)
	Extremadura•	-0.02	(0.03)	0.94	(0.03)	0.04	(0.05)	-0.09	(0.04)	0.13	(0.06)	-1.07	(0.05)	-0.33	(0.02)	0.11	(0.04)	1.19	(0.06)
	Galicia•	-0.02	(0.04)	0.99	(0.03)	0.10	(0.05)	-0.15	(0.05)	**0.26**	(0.06)	-1.13	(0.06)	-0.34	(0.03)	0.15	(0.05)	1.23	(0.06)
	La Rioja•	0.24	(0.03)	0.96	(0.03)	0.36	(0.05)	0.12	(0.04)	**0.24**	(0.07)	-0.83	(0.04)	-0.13	(0.03)	0.40	(0.04)	1.52	(0.06)
	Madrid•	0.16	(0.03)	0.87	(0.02)	0.28	(0.04)	0.03	(0.04)	**0.25**	(0.05)	-0.80	(0.03)	-0.18	(0.03)	0.29	(0.04)	1.32	(0.06)
	Murcia•	0.00	(0.04)	0.91	(0.03)	0.09	(0.06)	-0.08	(0.04)	**0.17**	(0.06)	-1.02	(0.05)	-0.29	(0.02)	0.17	(0.05)	1.15	(0.06)
	Navarre•	0.15	(0.03)	0.86	(0.03)	0.25	(0.05)	0.04	(0.03)	**0.21**	(0.05)	-0.79	(0.04)	-0.20	(0.02)	0.25	(0.03)	1.32	(0.06)
	United Kingdom																		
	England	0.04	(0.03)	1.00	(0.02)	0.25	(0.04)	-0.17	(0.03)	**0.42**	(0.05)	-1.08	(0.04)	-0.38	(0.02)	0.20	(0.03)	1.39	(0.04)
	Northern Ireland	-0.12	(0.03)	0.97	(0.03)	0.00	(0.04)	-0.25	(0.05)	**0.25**	(0.06)	-1.19	(0.05)	-0.48	(0.03)	0.03	(0.03)	1.16	(0.06)
	Scotland•	0.11	(0.03)	1.00	(0.02)	0.29	(0.04)	-0.06	(0.04)	**0.35**	(0.05)	-1.00	(0.03)	-0.31	(0.03)	0.28	(0.03)	1.48	(0.05)
	Wales	-0.16	(0.02)	0.94	(0.02)	-0.01	(0.03)	-0.32	(0.04)	**0.32**	(0.05)	-1.19	(0.04)	-0.53	(0.02)	-0.02	(0.03)	1.10	(0.04)
	United States																		
	Connecticut•	0.36	(0.05)	1.05	(0.02)	0.51	(0.06)	0.22	(0.06)	**0.29**	(0.07)	-0.81	(0.04)	-0.15	(0.05)	0.56	(0.08)	1.85	(0.05)
	Florida•	0.12	(0.05)	1.03	(0.03)	0.23	(0.06)	0.02	(0.06)	**0.21**	(0.06)	-0.98	(0.07)	-0.29	(0.02)	0.23	(0.05)	1.54	(0.07)
	Massachusetts•	0.33	(0.06)	1.04	(0.02)	0.49	(0.07)	0.18	(0.06)	**0.31**	(0.06)	-0.82	(0.05)	-0.16	(0.04)	0.49	(0.08)	1.81	(0.08)
Partners	**Argentina**																		
	Ciudad Autónoma de Buenos Aires•	-0.20	(0.05)	0.97	(0.04)	-0.13	(0.06)	-0.27	(0.06)	**0.15**	(0.07)	-1.23	(0.07)	-0.50	(0.03)	-0.09	(0.04)	1.01	(0.12)
	Brazil																		
	Acre	-0.59	(0.03)	0.77	(0.06)	-0.59	(0.04)	-0.59	(0.05)	0.00	(0.07)	-1.46	(0.08)	-0.81	(0.04)	-0.41	(0.05)	0.34	(0.06)
	Alagoas	-0.59	(0.06)	0.81	(0.05)	-0.42	(0.09)	-0.74	(0.08)	**0.32**	(0.12)	-1.50	(0.06)	-0.86	(0.04)	-0.45	(0.08)	0.46	(0.13)
	Amapá	-0.61	(0.05)	0.89	(0.05)	-0.33	(0.06)	-0.84	(0.06)	**0.51**	(0.09)	-1.60	(0.08)	-0.91	(0.06)	-0.42	(0.06)	0.50	(0.07)
	Amazonas	-0.51	(0.05)	0.82	(0.03)	-0.35	(0.06)	-0.66	(0.05)	**0.31**	(0.06)	-1.46	(0.06)	-0.78	(0.05)	-0.30	(0.05)	0.51	(0.07)
	Bahia	-0.54	(0.06)	0.86	(0.04)	-0.24	(0.08)	-0.78	(0.08)	**0.54**	(0.11)	-1.47	(0.12)	-0.76	(0.03)	-0.39	(0.07)	0.48	(0.08)
	Ceará	-0.37	(0.07)	0.98	(0.06)	-0.20	(0.09)	-0.54	(0.09)	**0.34**	(0.11)	-1.46	(0.06)	-0.72	(0.06)	-0.22	(0.07)	0.91	(0.16)
	Espírito Santo	-0.23	(0.09)	0.94	(0.03)	-0.01	(0.10)	-0.42	(0.11)	**0.41**	(0.10)	-1.24	(0.08)	-0.59	(0.05)	-0.12	(0.11)	1.06	(0.14)
	Federal District	-0.36	(0.08)	0.91	(0.05)	-0.21	(0.10)	-0.52	(0.09)	**0.31**	(0.10)	-1.43	(0.07)	-0.61	(0.08)	-0.18	(0.08)	0.78	(0.14)
	Goiás	-0.52	(0.05)	0.86	(0.05)	-0.43	(0.08)	-0.59	(0.07)	0.17	(0.11)	-1.49	(0.07)	-0.78	(0.04)	-0.33	(0.04)	0.54	(0.11)
	Maranhão	-0.45	(0.07)	0.93	(0.06)	-0.24	(0.16)	-0.61	(0.06)	**0.37**	(0.17)	-1.43	(0.07)	-0.78	(0.06)	-0.36	(0.10)	0.78	(0.15)
	Mato Grosso	-0.46	(0.06)	0.96	(0.07)	-0.32	(0.06)	-0.60	(0.09)	**0.29**	(0.09)	-1.52	(0.11)	-0.74	(0.03)	-0.33	(0.05)	0.76	(0.14)
	Mato Grosso do Sul	-0.32	(0.06)	0.94	(0.06)	-0.24	(0.06)	-0.37	(0.09)	0.13	(0.10)	-1.30	(0.07)	-0.64	(0.04)	-0.22	(0.07)	0.89	(0.14)
	Minas Gerais	-0.31	(0.06)	0.88	(0.04)	-0.19	(0.06)	-0.41	(0.08)	**0.23**	(0.07)	-1.29	(0.05)	-0.62	(0.05)	-0.15	(0.06)	0.83	(0.12)
	Pará	-0.57	(0.09)	0.81	(0.04)	-0.50	(0.11)	-0.61	(0.08)	0.11	(0.09)	-1.50	(0.07)	-0.82	(0.06)	-0.41	(0.08)	0.48	(0.15)
	Paraíba	-0.47	(0.07)	0.87	(0.04)	-0.37	(0.12)	-0.56	(0.06)	0.18	(0.12)	-1.42	(0.07)	-0.76	(0.04)	-0.34	(0.07)	0.64	(0.13)
	Paraná	-0.52	(0.10)	0.90	(0.08)	-0.35	(0.09)	-0.67	(0.12)	**0.32**	(0.08)	-1.52	(0.11)	-0.79	(0.08)	-0.34	(0.07)	0.58	(0.22)
	Pernambuco	-0.44	(0.03)	0.80	(0.05)	-0.35	(0.06)	-0.50	(0.04)	0.15	(0.08)	-1.33	(0.07)	-0.70	(0.03)	-0.27	(0.03)	0.57	(0.10)
	Piauí	-0.38	(0.07)	0.89	(0.05)	-0.18	(0.10)	-0.54	(0.06)	**0.36**	(0.08)	-1.43	(0.05)	-0.68	(0.05)	-0.21	(0.07)	0.79	(0.13)
	Rio de Janeiro	-0.44	(0.04)	0.92	(0.05)	-0.25	(0.08)	-0.64	(0.06)	**0.39**	(0.12)	-1.49	(0.08)	-0.75	(0.04)	-0.25	(0.06)	0.74	(0.06)
	Rio Grande do Norte	-0.41	(0.09)	0.89	(0.09)	-0.26	(0.09)	-0.51	(0.10)	**0.26**	(0.07)	-1.36	(0.06)	-0.75	(0.06)	-0.26	(0.06)	0.76	(0.23)
	Rio Grande do Sul	-0.43	(0.04)	0.78	(0.02)	-0.35	(0.05)	-0.50	(0.05)	**0.15**	(0.07)	-1.26	(0.04)	-0.69	(0.03)	-0.32	(0.02)	0.55	(0.08)
	Rondônia	-0.46	(0.05)	0.86	(0.06)	-0.40	(0.04)	-0.52	(0.09)	0.13	(0.10)	-1.41	(0.08)	-0.74	(0.03)	-0.31	(0.04)	0.62	(0.11)
	Roraima	-0.43	(0.06)	0.90	(0.05)	-0.34	(0.12)	-0.51	(0.05)	0.18	(0.13)	-1.47	(0.09)	-0.66	(0.04)	-0.20	(0.03)	0.63	(0.12)
	Santa Catarina	-0.47	(0.05)	0.80	(0.05)	-0.38	(0.04)	-0.55	(0.08)	**0.17**	(0.08)	-1.39	(0.10)	-0.73	(0.05)	-0.26	(0.06)	0.49	(0.06)
	São Paulo	-0.48	(0.03)	0.91	(0.03)	-0.39	(0.04)	-0.56	(0.04)	**0.17**	(0.05)	-1.50	(0.04)	-0.76	(0.02)	-0.29	(0.04)	0.66	(0.07)
	Sergipe	-0.51	(0.09)	0.81	(0.09)	-0.32	(0.08)	-0.65	(0.12)	**0.33**	(0.10)	-1.45	(0.15)	-0.68	(0.09)	-0.31	(0.06)	0.44	(0.16)
	Tocantins	-0.39	(0.04)	0.83	(0.03)	-0.27	(0.07)	-0.50	(0.06)	**0.23**	(0.10)	-1.33	(0.05)	-0.66	(0.04)	-0.21	(0.04)	0.67	(0.07)
	Colombia																		
	Bogotá	-0.47	(0.04)	0.76	(0.02)	-0.39	(0.05)	-0.53	(0.05)	**0.14**	(0.05)	-1.29	(0.05)	-0.73	(0.02)	-0.34	(0.04)	0.51	(0.06)
	Cali	-0.38	(0.03)	0.82	(0.04)	-0.31	(0.06)	-0.44	(0.05)	0.13	(0.08)	-1.25	(0.06)	-0.65	(0.03)	-0.29	(0.03)	0.66	(0.06)
	Manizales	-0.45	(0.05)	0.82	(0.04)	-0.39	(0.07)	-0.51	(0.07)	0.12	(0.10)	-1.31	(0.04)	-0.74	(0.04)	-0.37	(0.07)	0.62	(0.10)
	Medellín	-0.48	(0.05)	0.86	(0.04)	-0.41	(0.06)	-0.56	(0.08)	0.16	(0.09)	-1.42	(0.06)	-0.76	(0.04)	-0.34	(0.05)	0.59	(0.12)
	Russian Federation																		
	Perm Territory region•	-0.17	(0.04)	0.84	(0.04)	-0.04	(0.06)	-0.30	(0.03)	**0.26**	(0.06)	-1.05	(0.03)	-0.49	(0.02)	-0.10	(0.03)	0.97	(0.10)
	United Arab Emirates																		
	Abu Dhabi•	0.01	(0.03)	1.04	(0.02)	0.14	(0.04)	-0.10	(0.04)	**0.24**	(0.06)	-1.15	(0.04)	-0.35	(0.02)	0.18	(0.04)	1.38	(0.06)
	Ajman	-0.16	(0.04)	0.94	(0.04)	-0.15	(0.07)	-0.17	(0.03)	0.02	(0.08)	-1.20	(0.06)	-0.50	(0.04)	0.00	(0.04)	1.08	(0.08)
	Dubai•	0.06	(0.02)	0.93	(0.02)	0.18	(0.02)	-0.07	(0.02)	**0.25**	(0.03)	-0.99	(0.02)	-0.30	(0.01)	0.25	(0.02)	1.29	(0.04)
	Fujairah	0.11	(0.05)	0.95	(0.04)	0.09	(0.08)	0.13	(0.08)	-0.03	(0.12)	-0.93	(0.08)	-0.26	(0.04)	0.28	(0.07)	1.36	(0.09)
	Ras al-Khaimah	-0.04	(0.07)	1.02	(0.05)	-0.04	(0.12)	-0.03	(0.09)	-0.01	(0.15)	-1.20	(0.11)	-0.36	(0.05)	0.13	(0.08)	1.30	(0.10)
	Sharjah	-0.04	(0.08)	0.97	(0.05)	0.14	(0.07)	-0.19	(0.07)	**0.32**	(0.09)	-1.14	(0.10)	-0.37	(0.07)	0.17	(0.08)	1.19	(0.13)
	Umm al-Quwain	-0.12	(0.08)	1.18	(0.09)	-0.09	(0.15)	-0.14	(0.08)	0.04	(0.18)	-1.47	(0.17)	-0.43	(0.06)	0.09	(0.08)	1.36	(0.14)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.4.1d for national data.

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[Part 3/4]

Table B2.III.13

Index of mathematics self-efficacy and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Australia**														
	Australian Capital Territory	**456**	(8.6)	511	(9.6)	542	(10.6)	**594**	(8.7)	**48.3**	(4.4)	**3.3**	(0.5)	28.1	(4.6)
	New South Wales	**434**	(3.5)	484	(4.8)	536	(5.9)	**600**	(6.9)	**57.4**	(2.1)	**3.6**	(0.3)	37.9	(1.8)
	Northern Territory	**398**	(13.0)	441	(21.6)	464	(15.6)	**552**	(17.0)	**56.1**	(6.0)	**2.3**	(0.7)	33.3	(5.7)
	Queensland	**434**	(4.4)	479	(5.1)	527	(6.7)	**581**	(5.6)	**52.8**	(2.6)	**3.5**	(0.4)	34.4	(2.6)
	South Australia	**427**	(5.7)	475	(6.3)	506	(6.7)	**563**	(6.9)	**51.1**	(3.3)	**3.3**	(0.4)	30.6	(3.1)
	Tasmania	**418**	(6.9)	462	(7.6)	493	(8.4)	**552**	(8.9)	**48.3**	(3.1)	**3.0**	(0.4)	31.1	(3.4)
	Victoria	**436**	(5.1)	477	(5.2)	520	(7.0)	**573**	(7.4)	**52.9**	(2.6)	**3.1**	(0.3)	33.1	(2.4)
	Western Australia	**446**	(5.7)	498	(6.4)	548	(6.7)	**592**	(6.9)	**53.9**	(2.8)	**3.7**	(0.4)	36.8	(3.1)
	Belgium														
	Flemish Community•	**468**	(4.7)	522	(4.9)	546	(5.7)	**606**	(4.2)	**51.1**	(2.4)	**2.8**	(0.2)	22.4	(1.5)
	French Community	**434**	(5.4)	479	(4.9)	524	(4.8)	**565**	(5.7)	**44.7**	(2.3)	**3.2**	(0.3)	25.7	(2.5)
	German-speaking Community	**456**	(7.3)	507	(6.8)	527	(8.3)	**569**	(9.0)	**46.6**	(4.1)	**2.6**	(0.4)	26.0	(4.7)
	Canada														
	Alberta	**462**	(6.0)	495	(8.0)	539	(8.6)	**590**	(6.4)	**46.9**	(2.6)	**2.8**	(0.5)	30.3	(2.3)
	British Columbia	**455**	(6.3)	506	(6.6)	548	(6.2)	**586**	(6.5)	**49.1**	(2.3)	**3.8**	(0.4)	33.5	(2.7)
	Manitoba	**440**	(5.1)	483	(5.3)	507	(5.7)	**557**	(7.2)	**42.8**	(3.2)	**2.7**	(0.4)	24.0	(4.0)
	New Brunswick	**446**	(5.9)	482	(6.1)	521	(5.8)	**560**	(7.1)	**41.7**	(2.7)	**3.0**	(0.4)	30.8	(3.1)
	Newfoundland and Labrador	**439**	(7.1)	478	(7.1)	500	(8.7)	**555**	(6.4)	**42.8**	(2.8)	**2.6**	(0.4)	24.8	(3.7)
	Nova Scotia	**444**	(5.8)	481	(6.9)	501	(13.5)	**564**	(9.5)	**45.3**	(3.0)	**3.0**	(0.5)	32.1	(4.1)
	Ontario	**459**	(5.0)	495	(5.7)	535	(6.5)	**586**	(6.6)	**47.5**	(1.9)	**2.9**	(0.3)	32.5	(2.2)
	Prince Edward Island	**432**	(5.3)	456	(6.2)	495	(5.6)	**546**	(6.4)	**43.3**	(2.8)	**2.7**	(0.4)	26.8	(2.9)
	Quebec	**471**	(5.0)	522	(5.5)	563	(5.3)	**594**	(4.7)	**44.3**	(2.3)	**3.5**	(0.3)	25.4	(2.3)
	Saskatchewan	**447**	(5.7)	490	(5.8)	534	(6.9)	**567**	(6.2)	**46.5**	(2.7)	**3.4**	(0.4)	30.3	(2.7)
	Italy														
	Abruzzo	**410**	(9.8)	464	(7.7)	487	(9.3)	**545**	(7.5)	**59.4**	(5.5)	**3.4**	(0.5)	27.1	(3.9)
	Basilicata	**410**	(5.3)	451	(7.1)	480	(7.6)	**529**	(7.3)	**54.8**	(3.9)	**2.9**	(0.4)	28.8	(3.1)
	Bolzano	**453**	(4.8)	495	(5.4)	520	(6.4)	**569**	(5.7)	**43.7**	(3.2)	**2.6**	(0.3)	22.6	(3.0)
	Calabria	**381**	(6.5)	416	(7.3)	445	(8.4)	**480**	(12.1)	**46.1**	(4.6)	**2.4**	(0.4)	17.6	(3.2)
	Campania	**395**	(10.0)	440	(10.6)	472	(8.1)	**512**	(9.7)	**53.5**	(3.9)	**3.1**	(0.4)	23.2	(3.1)
	Emilia Romagna	**433**	(9.0)	477	(8.9)	525	(9.5)	**569**	(10.2)	**61.4**	(4.5)	**3.0**	(0.5)	29.5	(3.8)
	Friuli Venezia Giulia	**458**	(6.8)	508	(9.0)	542	(7.6)	**592**	(5.2)	**56.7**	(2.8)	**4.0**	(0.5)	32.6	(2.8)
	Lazio	**419**	(5.0)	448	(12.6)	491	(10.0)	**542**	(10.1)	**49.8**	(4.4)	**2.6**	(0.5)	23.3	(2.8)
	Liguria	**430**	(6.6)	472	(7.9)	499	(12.3)	**548**	(10.1)	**50.2**	(3.6)	**2.6**	(0.5)	21.7	(2.5)
	Lombardia	**454**	(11.3)	502	(9.2)	534	(9.3)	**577**	(9.9)	**49.7**	(3.9)	**3.3**	(0.5)	26.5	(3.7)
	Marche	**435**	(10.0)	478	(8.0)	509	(9.2)	**559**	(8.6)	**57.3**	(3.8)	**3.0**	(0.5)	29.3	(2.8)
	Molise	**414**	(6.3)	444	(6.5)	470	(7.1)	**529**	(8.6)	**57.6**	(4.4)	**2.5**	(0.4)	29.1	(3.8)
	Piemonte	**434**	(6.5)	480	(8.1)	514	(8.2)	**563**	(12.5)	**56.6**	(4.0)	**2.8**	(0.5)	29.5	(2.8)
	Puglia	**419**	(9.9)	473	(8.0)	485	(8.2)	**535**	(7.9)	**48.8**	(4.2)	**2.9**	(0.4)	24.6	(3.6)
	Sardegna	**410**	(7.2)	450	(8.6)	470	(6.7)	**511**	(11.5)	**46.8**	(4.8)	**2.3**	(0.3)	20.7	(3.8)
	Sicilia	**403**	(7.2)	435	(7.3)	454	(9.9)	**501**	(8.2)	**47.7**	(4.7)	**2.4**	(0.3)	19.8	(2.6)
	Toscana	**426**	(6.1)	480	(9.1)	510	(7.8)	**562**	(9.3)	**52.6**	(4.7)	**3.0**	(0.4)	25.6	(3.4)
	Trento	**469**	(6.5)	515	(7.9)	536	(8.2)	**582**	(6.0)	**47.4**	(3.4)	**2.9**	(0.5)	25.7	(3.1)
	Umbria	**425**	(9.5)	479	(10.4)	506	(8.6)	**554**	(9.4)	**59.5**	(5.3)	**3.5**	(0.6)	27.7	(3.1)
	Valle d'Aosta	**437**	(5.2)	471	(6.8)	512	(8.2)	**557**	(6.7)	**52.3**	(3.9)	**3.0**	(0.6)	31.6	(3.8)
	Veneto	**452**	(7.0)	508	(9.7)	542	(13.4)	**584**	(10.7)	**49.5**	(4.7)	**3.7**	(0.8)	24.3	(4.4)
	Mexico														
	Aguascalientes	**400**	(7.3)	426	(6.2)	442	(8.3)	**480**	(8.2)	**36.9**	(4.6)	**2.1**	(0.3)	16.4	(3.7)
	Baja California	**383**	(6.4)	406	(5.9)	423	(7.8)	**448**	(13.9)	**26.8**	(4.6)	**1.8**	(0.3)	10.5	(3.1)
	Baja California Sur	**388**	(6.8)	413	(9.0)	413	(12.3)	**455**	(10.5)	**26.4**	(4.4)	**1.6**	(0.3)	10.2	(3.2)
	Campeche	**372**	(7.7)	383	(8.4)	402	(7.0)	**434**	(7.6)	**25.6**	(4.0)	**1.6**	(0.3)	9.0	(2.6)
	Chiapas	**350**	(9.5)	368	(8.4)	380	(7.9)	**391**	(10.6)	**14.8**	(3.8)	1.6	(0.4)	2.9	(1.4)
	Chihuahua	**391**	(7.3)	417	(8.6)	437	(12.9)	**471**	(9.6)	**34.4**	(2.7)	**2.1**	(0.5)	16.0	(1.9)
	Coahuila	**383**	(8.3)	407	(8.6)	431	(12.3)	**452**	(13.0)	**30.4**	(5.8)	**2.2**	(0.3)	12.5	(3.7)
	Colima	**391**	(6.0)	419	(8.2)	432	(6.3)	**459**	(9.3)	**28.9**	(3.6)	**1.8**	(0.3)	11.4	(2.5)
	Distrito Federal	**389**	(7.4)	430	(8.9)	439	(9.4)	**462**	(11.7)	**29.3**	(4.7)	**2.3**	(0.6)	12.3	(4.3)
	Durango	**389**	(7.6)	409	(8.8)	427	(8.5)	**463**	(12.9)	**33.3**	(4.2)	**2.0**	(0.3)	14.3	(3.8)
	Guanajuato	**380**	(6.3)	400	(7.9)	423	(7.9)	**448**	(8.7)	**36.2**	(3.6)	**1.7**	(0.3)	13.9	(3.1)
	Guerrero	358	(5.9)	359	(5.5)	369	(5.7)	379	(9.3)	11.1	(5.7)	1.2	(0.2)	2.1	(2.3)
	Hidalgo	**381**	(8.3)	402	(8.2)	414	(6.8)	**431**	(8.3)	**19.8**	(4.5)	**1.7**	(0.3)	5.5	(2.3)
	Jalisco	**403**	(7.7)	426	(6.8)	439	(8.0)	**473**	(10.5)	**32.9**	(5.7)	**2.0**	(0.4)	15.7	(5.0)
	Mexico	**393**	(7.6)	407	(7.1)	424	(8.6)	**452**	(9.7)	**26.9**	(4.0)	**1.9**	(0.2)	11.9	(2.8)
	Morelos	**379**	(9.0)	416	(8.8)	434	(10.8)	**462**	(16.3)	**35.4**	(5.3)	**2.3**	(0.5)	13.4	(3.2)
	Nayarit	**382**	(8.1)	405	(7.2)	416	(10.3)	**457**	(10.5)	**33.8**	(4.5)	1.7	(0.4)	13.3	(3.2)
	Nuevo León	**399**	(9.8)	428	(12.4)	447	(9.4)	**470**	(9.2)	**30.9**	(4.0)	**2.1**	(0.3)	15.2	(3.6)
	Puebla	**386**	(7.9)	415	(6.9)	419	(9.2)	**444**	(9.0)	**29.0**	(4.5)	**1.9**	(0.4)	9.6	(2.9)
	Querétaro	**396**	(8.1)	430	(12.6)	437	(9.5)	**469**	(11.6)	**31.2**	(3.8)	**2.2**	(0.6)	10.8	(2.5)
	Quintana Roo	**381**	(5.2)	399	(7.4)	420	(8.8)	**435**	(9.4)	**19.1**	(3.2)	**1.6**	(0.3)	5.8	(2.0)
	San Luis Potosí	**380**	(7.3)	398	(9.7)	414	(9.4)	**455**	(10.8)	**35.9**	(4.9)	**2.0**	(0.4)	14.5	(3.5)
	Sinaloa	**391**	(4.9)	408	(8.3)	419	(7.2)	**431**	(8.0)	**16.4**	(4.1)	1.4	(0.2)	4.0	(1.7)
	Tabasco	**349**	(7.2)	372	(5.8)	388	(5.8)	**396**	(7.6)	**21.9**	(3.2)	**1.8**	(0.3)	7.7	(2.1)
	Tamaulipas	**376**	(6.1)	403	(11.1)	419	(10.5)	**440**	(11.1)	**26.9**	(4.4)	1.7	(0.4)	10.4	(2.8)
	Tlaxcala	**385**	(5.7)	408	(8.4)	412	(7.1)	**440**	(8.5)	**24.8**	(3.2)	**1.7**	(0.3)	8.9	(2.1)
	Veracruz	**364**	(6.8)	389	(10.3)	409	(8.5)	**442**	(9.8)	**33.2**	(4.0)	**2.0**	(0.3)	13.7	(2.7)
	Yucatán	**380**	(6.8)	409	(7.9)	425	(7.6)	**426**	(8.9)	**18.1**	(4.5)	1.6	(0.3)	4.7	(2.3)
	Zacatecas	**382**	(6.8)	415	(7.2)	404	(6.2)	**431**	(8.8)	**17.3**	(4.4)	**1.7**	(0.3)	4.4	(1.9)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.4.1d for national data.

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[Part 4/4]

Table B2.III.13 Index of mathematics self-efficacy and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Portugal**														
	Alentejo	**417**	(12.3)	462	(12.6)	511	(15.7)	**563**	(11.7)	**58.0**	(5.7)	**3.5**	(0.6)	40.4	(4.6)
	Spain														
	Andalusia•	**415**	(6.9)	457	(5.9)	486	(5.2)	**532**	(7.1)	**46.8**	(3.3)	**2.8**	(0.5)	27.2	(3.0)
	Aragon•	**443**	(6.6)	483	(9.6)	512	(9.2)	**556**	(8.0)	**42.1**	(2.7)	**2.3**	(0.3)	19.0	(2.6)
	Asturias•	**441**	(11.6)	481	(7.4)	526	(6.7)	**560**	(7.8)	**47.2**	(4.2)	**2.5**	(0.4)	25.0	(3.4)
	Balearic Islands•	**423**	(7.7)	459	(8.8)	498	(8.3)	**532**	(7.0)	**44.5**	(3.3)	**2.8**	(0.4)	22.9	(3.0)
	Basque Country•	**457**	(3.4)	486	(4.3)	523	(3.8)	**558**	(3.5)	**44.0**	(1.9)	**2.6**	(0.2)	21.4	(1.5)
	Cantabria•	**432**	(7.1)	483	(6.6)	506	(6.1)	**552**	(6.5)	**43.5**	(3.6)	**2.8**	(0.4)	23.3	(2.9)
	Castile and Leon•	**452**	(7.2)	490	(5.8)	532	(8.6)	**566**	(5.9)	**44.8**	(2.6)	**3.1**	(0.4)	25.2	(2.2)
	Catalonia•	**430**	(6.5)	474	(7.2)	519	(7.6)	**555**	(7.2)	**53.2**	(3.1)	**3.3**	(0.5)	32.4	(2.8)
	Extremadura•	**406**	(6.5)	447	(7.1)	474	(7.5)	**515**	(6.4)	**42.1**	(3.5)	**2.5**	(0.3)	19.1	(2.6)
	Galicia•	**436**	(6.9)	482	(6.1)	507	(7.0)	**535**	(5.7)	**36.2**	(2.6)	**2.6**	(0.3)	18.4	(2.3)
	La Rioja•	**441**	(7.3)	486	(6.2)	517	(7.1)	**571**	(7.7)	**48.9**	(3.8)	**2.6**	(0.3)	21.7	(2.6)
	Madrid•	**446**	(5.4)	487	(6.5)	523	(6.0)	**565**	(5.9)	**50.1**	(3.2)	**3.0**	(0.3)	25.8	(2.7)
	Murcia•	**411**	(7.2)	450	(5.9)	475	(7.0)	**517**	(10.1)	**44.7**	(4.3)	**2.5**	(0.4)	21.0	(3.7)
	Navarre•	**466**	(4.6)	510	(6.9)	533	(7.7)	**567**	(6.4)	**43.5**	(2.5)	**2.5**	(0.4)	19.5	(2.7)
	United Kingdom														
	England	**422**	(6.6)	475	(5.4)	518	(5.1)	**569**	(4.8)	**54.7**	(1.8)	**3.6**	(0.3)	33.8	(1.7)
	Northern Ireland	**422**	(5.4)	469	(4.4)	505	(6.3)	**563**	(5.6)	**54.2**	(2.5)	**3.5**	(0.3)	34.8	(2.6)
	Scotland•	**432**	(4.4)	482	(5.8)	520	(3.7)	**567**	(4.0)	**50.1**	(2.0)	**3.7**	(0.3)	34.1	(2.1)
	Wales	**409**	(3.6)	450	(3.5)	483	(4.3)	**536**	(4.3)	**51.7**	(1.9)	**3.2**	(0.4)	32.5	(1.7)
	United States														
	Connecticut•	**430**	(7.9)	476	(8.8)	538	(9.4)	**590**	(6.3)	**57.4**	(3.0)	**3.8**	(0.5)	36.8	(2.7)
	Florida•	**417**	(6.2)	445	(6.9)	480	(8.8)	**538**	(7.9)	**43.3**	(2.3)	**2.3**	(0.3)	27.6	(2.0)
	Massachusetts•	**447**	(5.8)	489	(6.0)	544	(13.9)	**587**	(8.3)	**49.3**	(2.8)	**3.2**	(0.4)	28.8	(2.5)
Partners	**Argentina**														
	Ciudad Autónoma de Buenos Aires•	**376**	(7.5)	429	(7.0)	440	(8.9)	**460**	(10.0)	**29.0**	(4.2)	**2.5**	(0.3)	10.4	(3.4)
	Brazil														
	Acre	**344**	(7.8)	349	(10.6)	368	(10.2)	**371**	(11.2)	9.3	(5.0)	1.2	(0.2)	1.3	(1.2)
	Alagoas	326	(9.5)	347	(9.8)	355	(12.2)	355	(16.7)	14.0	(8.8)	1.3	(0.5)	2.9	(3.7)
	Amapá	347	(10.7)	364	(12.1)	362	(12.8)	371	(13.4)	7.4	(4.7)	1.3	(0.4)	1.1	(1.4)
	Amazonas	**345**	(6.1)	356	(6.7)	361	(9.9)	**383**	(13.6)	14.0	(8.1)	1.2	(0.2)	3.1	(3.1)
	Bahia	**353**	(16.3)	369	(15.3)	380	(14.7)	**407**	(14.1)	**21.3**	(9.5)	1.5	(0.5)	5.0	(4.5)
	Ceará	**352**	(8.4)	368	(12.0)	400	(13.0)	**415**	(16.5)	**29.1**	(7.0)	1.8	(0.5)	12.8	(5.3)
	Espírito Santo	**371**	(8.1)	399	(9.8)	436	(22.2)	**470**	(19.7)	**39.2**	(6.2)	**2.1**	(0.5)	18.4	(4.5)
	Federal District	**373**	(9.7)	400	(14.8)	428	(11.3)	**470**	(18.8)	**38.8**	(7.6)	1.9	(0.4)	18.2	(6.8)
	Goiás	**354**	(8.8)	370	(9.6)	386	(11.9)	**411**	(10.8)	**25.2**	(5.0)	**1.6**	(0.3)	9.1	(3.0)
	Maranhão	324	(12.2)	328	(10.5)	354	(22.8)	372	(26.7)	16.0	(8.8)	1.5	(0.5)	3.8	(3.6)
	Mato Grosso	**347**	(10.5)	366	(11.4)	387	(15.4)	**384**	(13.2)	**15.0**	(6.6)	1.6	(0.4)	3.9	(3.0)
	Mato Grosso do Sul	**383**	(8.9)	406	(9.8)	419	(11.4)	**438**	(14.2)	**24.2**	(5.9)	**1.8**	(0.3)	9.9	(4.6)
	Minas Gerais	**376**	(6.0)	390	(11.5)	417	(9.0)	**438**	(17.2)	**29.4**	(5.9)	1.5	(0.3)	12.3	(4.6)
	Pará	344	(9.9)	350	(13.6)	376	(10.7)	374	(15.2)	13.5	(10.5)	1.3	(0.3)	2.7	(4.5)
	Paraíba	**371**	(13.4)	379	(10.6)	391	(11.6)	**431**	(14.3)	**21.7**	(7.5)	1.5	(0.4)	6.3	(4.3)
	Paraná	**365**	(6.9)	394	(10.2)	414	(17.2)	**460**	(27.2)	**36.2**	(11.5)	**2.3**	(0.4)	16.5	(7.7)
	Pernambuco	**341**	(7.8)	365	(10.7)	365	(10.3)	**384**	(13.6)	**19.2**	(6.3)	1.6	(0.4)	5.7	(3.4)
	Piauí	**344**	(9.6)	379	(7.4)	395	(12.3)	**427**	(21.6)	**36.9**	(9.7)	**2.4**	(0.7)	17.5	(7.4)
	Rio de Janeiro	**358**	(8.5)	382	(9.9)	399	(11.8)	**418**	(12.8)	**21.0**	(5.3)	**1.9**	(0.4)	8.0	(3.2)
	Rio Grande do Norte	**350**	(7.5)	368	(10.1)	378	(9.8)	**427**	(28.3)	**32.7**	(12.7)	1.5	(0.3)	12.1	(8.6)
	Rio Grande do Sul	**378**	(7.0)	404	(7.5)	411	(7.9)	**432**	(7.8)	**21.3**	(3.6)	1.9	(0.5)	6.5	(2.2)
	Rondônia	**369**	(8.6)	382	(7.8)	381	(7.3)	**393**	(12.9)	**10.3**	(5.1)	1.3	(0.3)	2.1	(2.2)
	Roraima	**343**	(8.3)	355	(9.6)	371	(11.3)	**381**	(10.8)	**13.7**	(4.9)	1.3	(0.2)	3.0	(1.8)
	Santa Catarina	**385**	(9.0)	400	(12.4)	425	(11.5)	**452**	(11.5)	**31.9**	(5.4)	**1.8**	(0.4)	11.7	(3.4)
	São Paulo	**367**	(4.9)	392	(4.0)	417	(5.7)	**447**	(10.5)	**30.9**	(4.4)	**2.0**	(0.2)	13.2	(3.0)
	Sergipe	**357**	(11.0)	391	(12.1)	394	(12.5)	**421**	(22.3)	**28.7**	(8.7)	2.0	(0.5)	10.6	(5.9)
	Tocantins	**343**	(6.1)	361	(13.2)	372	(9.6)	**402**	(14.2)	**30.8**	(5.6)	1.3	(0.2)	11.0	(3.5)
	Colombia														
	Bogotá	**374**	(5.6)	392	(5.6)	399	(6.1)	**419**	(7.1)	**16.9**	(3.6)	**1.8**	(0.3)	4.1	(1.5)
	Cali	**362**	(5.8)	384	(8.4)	384	(9.6)	**398**	(9.2)	**13.7**	(3.1)	1.3	(0.3)	2.7	(1.2)
	Manizales	**379**	(5.3)	398	(7.5)	403	(8.9)	**440**	(10.9)	**21.9**	(5.8)	**1.6**	(0.3)	6.4	(2.8)
	Medellín	**372**	(6.4)	389	(7.5)	390	(8.5)	**434**	(22.6)	**27.5**	(9.5)	1.3	(0.3)	8.4	(5.0)
	Russian Federation														
	Perm Territory region•	**440**	(5.4)	462	(7.3)	492	(6.8)	**550**	(11.5)	**51.1**	(4.2)	**2.4**	(0.3)	24.6	(3.8)
	United Arab Emirates														
	Abu Dhabi•	**382**	(5.0)	410	(5.1)	438	(6.3)	**464**	(8.4)	**27.5**	(3.2)	**1.9**	(0.2)	10.8	(2.1)
	Ajman	**382**	(10.2)	389	(9.2)	409	(13.5)	**435**	(14.3)	**20.7**	(4.8)	1.5	(0.3)	6.9	(3.3)
	Dubai•	**408**	(2.8)	443	(3.0)	488	(4.5)	**524**	(4.4)	**48.1**	(2.2)	**2.5**	(0.2)	22.6	(1.8)
	Fujairah	**384**	(9.5)	396	(11.4)	419	(9.9)	**449**	(16.1)	**25.0**	(4.9)	1.4	(0.2)	8.3	(3.3)
	Ras al-Khaimah	**384**	(8.0)	397	(9.8)	431	(10.5)	**461**	(13.8)	**26.6**	(4.4)	1.8	(0.4)	13.2	(4.5)
	Sharjah	**393**	(11.7)	433	(11.4)	456	(11.6)	**482**	(12.8)	**32.3**	(6.6)	**2.3**	(0.6)	13.9	(4.4)
	Umm al-Quwain	**367**	(11.6)	382	(12.1)	400	(9.3)	**431**	(11.1)	**17.0**	(4.8)	1.5	(0.4)	8.0	(4.1)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.4.1d for national data.

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[Part 1/4]

Table B2.III.14 Index of mathematics self-concept and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

OECD

	Index of mathematics self-concept																	
	All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
	Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
Australia																		
Australian Capital Territory	0.16	(0.04)	0.92	(0.03)	0.29	(0.06)	0.02	(0.06)	**0.27**	(0.09)	-1.03	(0.06)	-0.11	(0.06)	0.47	(0.04)	1.31	(0.06)
New South Wales	0.05	(0.03)	0.93	(0.02)	0.19	(0.03)	-0.09	(0.03)	**0.28**	(0.05)	-1.14	(0.04)	-0.20	(0.03)	0.37	(0.02)	1.19	(0.03)
Northern Territory	0.08	(0.07)	0.87	(0.06)	0.30	(0.11)	-0.11	(0.11)	**0.41**	(0.16)	-1.01	(0.09)	-0.13	(0.10)	0.34	(0.08)	1.15	(0.14)
Queensland	0.05	(0.03)	0.93	(0.02)	0.23	(0.03)	-0.14	(0.04)	**0.38**	(0.05)	-1.14	(0.04)	-0.23	(0.04)	0.37	(0.03)	1.19	(0.04)
South Australia	0.04	(0.04)	0.96	(0.02)	0.25	(0.05)	-0.17	(0.05)	**0.42**	(0.06)	-1.19	(0.06)	-0.26	(0.04)	0.36	(0.03)	1.24	(0.05)
Tasmania	0.12	(0.04)	0.91	(0.03)	0.28	(0.05)	-0.05	(0.05)	**0.33**	(0.08)	-1.04	(0.06)	-0.13	(0.04)	0.41	(0.04)	1.22	(0.05)
Victoria	0.07	(0.03)	0.99	(0.02)	0.26	(0.04)	-0.15	(0.04)	**0.42**	(0.05)	-1.22	(0.04)	-0.23	(0.03)	0.43	(0.02)	1.28	(0.04)
Western Australia	0.09	(0.03)	0.95	(0.02)	0.36	(0.04)	-0.21	(0.04)	**0.57**	(0.06)	-1.13	(0.05)	-0.18	(0.04)	0.41	(0.03)	1.26	(0.04)
Belgium																		
Flemish Community•	-0.04	(0.02)	0.89	(0.01)	0.10	(0.02)	-0.18	(0.03)	**0.29**	(0.03)	-1.19	(0.03)	-0.27	(0.02)	0.26	(0.02)	1.04	(0.03)
French Community	-0.08	(0.03)	1.01	(0.02)	0.17	(0.03)	-0.31	(0.04)	**0.48**	(0.04)	-1.38	(0.04)	-0.38	(0.03)	0.26	(0.03)	1.18	(0.04)
German-speaking Community	0.12	(0.05)	1.03	(0.03)	0.26	(0.07)	-0.02	(0.06)	**0.27**	(0.09)	-1.22	(0.08)	-0.16	(0.06)	0.47	(0.05)	1.42	(0.06)
Canada																		
Alberta	0.22	(0.04)	1.10	(0.02)	0.43	(0.04)	-0.01	(0.06)	**0.44**	(0.07)	-1.21	(0.05)	-0.15	(0.05)	0.59	(0.04)	1.64	(0.05)
British Columbia	0.11	(0.04)	1.02	(0.02)	0.29	(0.04)	-0.06	(0.06)	**0.35**	(0.07)	-1.16	(0.06)	-0.25	(0.05)	0.42	(0.04)	1.45	(0.05)
Manitoba	0.18	(0.04)	1.02	(0.03)	0.36	(0.05)	-0.01	(0.04)	**0.37**	(0.06)	-1.07	(0.04)	-0.19	(0.04)	0.47	(0.04)	1.51	(0.07)
New Brunswick	0.24	(0.04)	1.10	(0.02)	0.37	(0.07)	0.13	(0.05)	**0.24**	(0.09)	-1.17	(0.06)	-0.17	(0.05)	0.62	(0.05)	1.68	(0.05)
Newfoundland and Labrador	0.33	(0.04)	1.14	(0.03)	0.39	(0.10)	0.28	(0.07)	0.12	(0.15)	-1.10	(0.06)	-0.07	(0.07)	0.68	(0.05)	1.84	(0.06)
Nova Scotia	0.12	(0.03)	1.12	(0.03)	0.25	(0.06)	-0.02	(0.06)	**0.27**	(0.09)	-1.31	(0.07)	-0.25	(0.05)	0.49	(0.04)	1.57	(0.05)
Ontario	0.15	(0.03)	1.06	(0.02)	0.36	(0.04)	-0.06	(0.03)	**0.41**	(0.05)	-1.19	(0.04)	-0.21	(0.03)	0.47	(0.03)	1.51	(0.04)
Prince Edward Island	0.22	(0.04)	1.09	(0.02)	0.37	(0.05)	0.07	(0.06)	**0.30**	(0.07)	-1.17	(0.05)	-0.12	(0.05)	0.54	(0.05)	1.63	(0.06)
Quebec	0.30	(0.03)	1.05	(0.02)	0.52	(0.04)	0.09	(0.03)	**0.42**	(0.05)	-1.05	(0.04)	-0.02	(0.04)	0.64	(0.03)	1.64	(0.03)
Saskatchewan	0.24	(0.03)	1.01	(0.02)	0.40	(0.04)	0.07	(0.05)	**0.33**	(0.06)	-1.05	(0.05)	-0.07	(0.03)	0.58	(0.03)	1.52	(0.05)
Italy																		
Abruzzo	-0.02	(0.04)	0.97	(0.03)	0.07	(0.05)	-0.11	(0.06)	0.17	(0.09)	-1.26	(0.08)	-0.31	(0.04)	0.32	(0.05)	1.17	(0.04)
Basilicata	0.05	(0.03)	0.93	(0.03)	0.15	(0.05)	-0.05	(0.05)	**0.20**	(0.07)	-1.12	(0.05)	-0.24	(0.04)	0.35	(0.03)	1.20	(0.05)
Bolzano	-0.07	(0.03)	1.05	(0.02)	0.13	(0.04)	-0.29	(0.05)	**0.43**	(0.07)	-1.44	(0.05)	-0.38	(0.04)	0.32	(0.04)	1.22	(0.04)
Calabria	0.02	(0.05)	0.96	(0.02)	0.13	(0.05)	-0.10	(0.06)	**0.23**	(0.06)	-1.18	(0.05)	-0.29	(0.05)	0.30	(0.06)	1.24	(0.06)
Campania	0.08	(0.04)	0.93	(0.03)	0.15	(0.04)	0.00	(0.06)	0.15	(0.08)	-1.07	(0.06)	-0.23	(0.05)	0.40	(0.04)	1.21	(0.04)
Emilia Romagna	0.01	(0.04)	1.00	(0.03)	0.15	(0.05)	-0.15	(0.05)	**0.30**	(0.05)	-1.26	(0.07)	-0.31	(0.05)	0.35	(0.05)	1.26	(0.05)
Friuli Venezia Giulia	-0.03	(0.04)	0.99	(0.02)	0.08	(0.06)	-0.14	(0.07)	**0.22**	(0.10)	-1.27	(0.05)	-0.33	(0.05)	0.27	(0.06)	1.22	(0.05)
Lazio	0.17	(0.04)	0.95	(0.02)	0.27	(0.05)	0.04	(0.07)	**0.23**	(0.08)	-1.04	(0.06)	-0.10	(0.05)	0.47	(0.03)	1.34	(0.07)
Liguria	-0.09	(0.04)	0.98	(0.02)	0.00	(0.04)	-0.19	(0.06)	**0.19**	(0.06)	-1.36	(0.06)	-0.36	(0.05)	0.24	(0.05)	1.12	(0.05)
Lombardia	-0.05	(0.05)	1.01	(0.02)	0.13	(0.05)	-0.24	(0.08)	**0.36**	(0.08)	-1.36	(0.08)	-0.34	(0.06)	0.33	(0.05)	1.19	(0.04)
Marche	-0.07	(0.03)	0.98	(0.02)	0.04	(0.05)	-0.17	(0.04)	**0.21**	(0.08)	-1.34	(0.06)	-0.34	(0.03)	0.26	(0.03)	1.15	(0.03)
Molise	0.05	(0.03)	0.94	(0.03)	0.19	(0.05)	-0.09	(0.05)	**0.28**	(0.07)	-1.12	(0.05)	-0.23	(0.03)	0.35	(0.05)	1.21	(0.06)
Piemonte	-0.03	(0.03)	0.99	(0.02)	0.06	(0.04)	-0.12	(0.05)	**0.18**	(0.06)	-1.32	(0.04)	-0.31	(0.05)	0.34	(0.05)	1.17	(0.05)
Puglia	0.09	(0.03)	0.97	(0.03)	0.23	(0.04)	-0.05	(0.05)	**0.28**	(0.07)	-1.13	(0.06)	-0.25	(0.04)	0.41	(0.03)	1.31	(0.06)
Sardegna	-0.03	(0.05)	1.04	(0.03)	0.06	(0.06)	-0.13	(0.06)	**0.19**	(0.08)	-1.38	(0.07)	-0.36	(0.06)	0.34	(0.06)	1.26	(0.06)
Sicilia	0.11	(0.04)	0.94	(0.02)	0.23	(0.05)	-0.03	(0.06)	**0.26**	(0.08)	-1.04	(0.06)	-0.19	(0.06)	0.40	(0.04)	1.29	(0.04)
Toscana	-0.07	(0.05)	0.95	(0.02)	0.01	(0.06)	-0.18	(0.06)	**0.19**	(0.06)	-1.32	(0.08)	-0.31	(0.04)	0.30	(0.06)	1.05	(0.04)
Trento	0.03	(0.03)	0.98	(0.02)	0.11	(0.04)	-0.05	(0.05)	**0.16**	(0.06)	-1.24	(0.05)	-0.23	(0.04)	0.39	(0.03)	1.19	(0.04)
Umbria	-0.05	(0.04)	0.97	(0.03)	0.14	(0.06)	-0.22	(0.04)	**0.36**	(0.08)	-1.30	(0.07)	-0.32	(0.03)	0.28	(0.04)	1.16	(0.06)
Valle d'Aosta	-0.15	(0.05)	1.04	(0.03)	0.01	(0.07)	-0.32	(0.07)	**0.33**	(0.10)	-1.49	(0.07)	-0.45	(0.06)	0.20	(0.06)	1.16	(0.06)
Veneto	-0.02	(0.05)	1.00	(0.03)	0.07	(0.06)	-0.11	(0.06)	**0.18**	(0.08)	-1.29	(0.08)	-0.31	(0.04)	0.32	(0.06)	1.22	(0.05)
Mexico																		
Aguascalientes	0.12	(0.04)	0.88	(0.03)	0.27	(0.05)	-0.02	(0.06)	**0.29**	(0.07)	-0.93	(0.04)	-0.22	(0.06)	0.38	(0.05)	1.27	(0.06)
Baja California	0.10	(0.04)	0.91	(0.03)	0.23	(0.07)	-0.04	(0.04)	**0.27**	(0.09)	-0.97	(0.05)	-0.25	(0.03)	0.34	(0.05)	1.30	(0.06)
Baja California Sur	-0.07	(0.03)	0.87	(0.03)	0.01	(0.04)	-0.15	(0.05)	**0.16**	(0.07)	-1.15	(0.07)	-0.35	(0.03)	0.19	(0.03)	1.04	(0.05)
Campeche	0.00	(0.04)	0.77	(0.02)	0.11	(0.04)	-0.12	(0.05)	**0.23**	(0.06)	-0.93	(0.05)	-0.28	(0.04)	0.22	(0.03)	0.98	(0.06)
Chiapas	0.09	(0.03)	0.75	(0.02)	0.17	(0.04)	0.00	(0.04)	**0.17**	(0.05)	-0.82	(0.05)	-0.17	(0.03)	0.29	(0.04)	1.04	(0.04)
Chihuahua	0.06	(0.05)	0.92	(0.04)	0.25	(0.07)	-0.13	(0.04)	**0.37**	(0.08)	-1.04	(0.05)	-0.29	(0.02)	0.33	(0.08)	1.26	(0.09)
Coahuila	0.02	(0.06)	0.83	(0.03)	0.15	(0.05)	-0.11	(0.08)	**0.27**	(0.06)	-0.97	(0.05)	-0.26	(0.05)	0.23	(0.05)	1.10	(0.11)
Colima	0.09	(0.04)	0.94	(0.02)	0.32	(0.05)	-0.14	(0.06)	**0.46**	(0.07)	-1.04	(0.06)	-0.25	(0.05)	0.34	(0.05)	1.32	(0.05)
Distrito Federal	0.04	(0.04)	0.87	(0.03)	0.21	(0.05)	-0.13	(0.04)	**0.35**	(0.06)	-1.01	(0.05)	-0.29	(0.03)	0.31	(0.04)	1.15	(0.07)
Durango	0.00	(0.05)	0.86	(0.03)	0.14	(0.06)	-0.13	(0.05)	**0.26**	(0.07)	-1.04	(0.06)	-0.30	(0.04)	0.23	(0.06)	1.12	(0.08)
Guanajuato	0.04	(0.05)	0.88	(0.03)	0.16	(0.05)	-0.08	(0.07)	**0.24**	(0.07)	-1.04	(0.08)	-0.26	(0.04)	0.28	(0.06)	1.16	(0.08)
Guerrero	-0.02	(0.04)	0.76	(0.02)	0.00	(0.05)	-0.03	(0.05)	0.03	(0.05)	-0.90	(0.04)	-0.28	(0.04)	0.15	(0.04)	0.96	(0.07)
Hidalgo	0.06	(0.04)	0.78	(0.02)	0.18	(0.05)	-0.04	(0.04)	**0.22**	(0.07)	-0.88	(0.04)	-0.19	(0.04)	0.28	(0.05)	1.05	(0.05)
Jalisco	0.04	(0.04)	0.86	(0.03)	0.20	(0.07)	-0.10	(0.04)	**0.30**	(0.07)	-1.01	(0.06)	-0.24	(0.04)	0.28	(0.05)	1.14	(0.06)
Mexico	0.04	(0.04)	0.83	(0.02)	0.17	(0.06)	-0.08	(0.05)	**0.25**	(0.06)	-0.91	(0.05)	-0.28	(0.04)	0.23	(0.05)	1.14	(0.08)
Morelos	-0.01	(0.04)	0.91	(0.04)	0.04	(0.06)	-0.05	(0.06)	0.09	(0.08)	-1.10	(0.06)	-0.34	(0.03)	0.25	(0.06)	1.16	(0.08)
Nayarit	0.00	(0.05)	0.85	(0.03)	0.12	(0.04)	-0.11	(0.07)	**0.23**	(0.07)	-0.99	(0.06)	-0.33	(0.05)	0.18	(0.05)	1.14	(0.06)
Nuevo León	0.13	(0.05)	0.95	(0.04)	0.25	(0.06)	-0.01	(0.06)	**0.25**	(0.07)	-1.02	(0.06)	-0.24	(0.06)	0.39	(0.05)	1.37	(0.09)
Puebla	0.02	(0.03)	0.79	(0.02)	0.13	(0.04)	-0.08	(0.05)	**0.21**	(0.06)	-0.91	(0.05)	-0.25	(0.03)	0.24	(0.04)	1.03	(0.05)
Querétaro	0.09	(0.04)	0.86	(0.03)	0.28	(0.06)	-0.09	(0.05)	**0.37**	(0.06)	-0.93	(0.05)	-0.23	(0.06)	0.32	(0.06)	1.21	(0.06)
Quintana Roo	0.09	(0.03)	0.90	(0.02)	0.17	(0.04)	0.00	(0.04)	**0.18**	(0.05)	-0.99	(0.05)	-0.27	(0.04)	0.35	(0.05)	1.27	(0.04)
San Luis Potosí	-0.01	(0.05)	0.84	(0.04)	0.14	(0.05)	-0.14	(0.08)	**0.27**	(0.10)	-1.05	(0.08)	-0.25	(0.05)	0.24	(0.06)	1.03	(0.06)
Sinaloa	-0.02	(0.03)	0.81	(0.02)	0.12	(0.05)	-0.14	(0.04)	**0.26**	(0.05)	-0.97	(0.04)	-0.33	(0.03)	0.20	(0.04)	1.04	(0.07)
Tabasco	0.03	(0.04)	0.88	(0.03)	0.20	(0.06)	-0.13	(0.05)	**0.33**	(0.08)	-1.01	(0.06)	-0.28	(0.04)	0.25	(0.06)	1.16	(0.06)
Tamaulipas	0.03	(0.04)	0.85	(0.03)	0.17	(0.04)	-0.12	(0.06)	**0.29**	(0.07)	-1.01	(0.05)	-0.23	(0.03)	0.25	(0.05)	1.11	(0.06)
Tlaxcala	0.07	(0.04)	0.80	(0.02)	0.12	(0.05)	0.02	(0.05)	0.10	(0.07)	-0.88	(0.04)	-0.21	(0.04)	0.29	(0.06)	1.10	(0.06)
Veracruz	0.09	(0.03)	0.79	(0.03)	0.21	(0.05)	-0.03	(0.04)	**0.25**	(0.05)	-0.85	(0.05)	-0.19	(0.03)	0.32	(0.04)	1.10	(0.06)
Yucatán	0.07	(0.03)	0.85	(0.02)	0.22	(0.05)	-0.08	(0.04)	**0.30**	(0.07)	-0.98	(0.05)	-0.20	(0.03)	0.33	(0.04)	1.14	(0.05)
Zacatecas	0.11	(0.04)	0.82	(0.03)	0.25	(0.05)	-0.03	(0.06)	**0.28**	(0.07)	-0.89	(0.04)	-0.20	(0.05)	0.37	(0.05)	1.16	(0.06)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.4.2d for national data.

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[Part 2/4]

Table B2.III.14 Index of mathematics self-concept and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

		Index of mathematics self-concept																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Portugal**																		
	Alentejo	-0.06	(0.03)	0.95	(0.03)	0.13	(0.03)	-0.25	(0.05)	**0.39**	(0.05)	-1.24	(0.06)	-0.36	(0.03)	0.23	(0.03)	1.14	(0.07)
	Spain																		
	Andalusia•	0.00	(0.03)	1.03	(0.02)	0.07	(0.04)	-0.08	(0.06)	**0.15**	(0.07)	-1.31	(0.06)	-0.31	(0.03)	0.33	(0.04)	1.29	(0.05)
	Aragon•	-0.14	(0.05)	1.05	(0.02)	0.04	(0.05)	-0.32	(0.07)	**0.36**	(0.08)	-1.52	(0.07)	-0.43	(0.05)	0.27	(0.05)	1.13	(0.05)
	Asturias•	-0.17	(0.04)	1.06	(0.03)	0.00	(0.07)	-0.34	(0.04)	**0.34**	(0.08)	-1.50	(0.04)	-0.52	(0.02)	0.15	(0.05)	1.19	(0.09)
	Balearic Islands•	-0.14	(0.04)	0.99	(0.03)	0.07	(0.06)	-0.33	(0.05)	**0.40**	(0.08)	-1.40	(0.05)	-0.43	(0.05)	0.19	(0.04)	1.11	(0.06)
	Basque Country•	0.01	(0.02)	0.97	(0.01)	0.18	(0.03)	-0.17	(0.03)	**0.34**	(0.03)	-1.21	(0.03)	-0.29	(0.02)	0.31	(0.03)	1.21	(0.03)
	Cantabria•	-0.10	(0.04)	1.01	(0.02)	0.09	(0.05)	-0.30	(0.05)	**0.39**	(0.07)	-1.38	(0.04)	-0.43	(0.05)	0.25	(0.05)	1.17	(0.04)
	Castile and Leon•	-0.17	(0.04)	1.01	(0.02)	0.02	(0.04)	-0.36	(0.05)	**0.38**	(0.05)	-1.47	(0.06)	-0.49	(0.03)	0.18	(0.05)	1.10	(0.06)
	Catalonia•	0.05	(0.04)	1.06	(0.02)	0.25	(0.06)	-0.18	(0.06)	**0.43**	(0.09)	-1.30	(0.05)	-0.31	(0.06)	0.39	(0.03)	1.41	(0.06)
	Extremadura•	-0.02	(0.04)	1.04	(0.02)	0.14	(0.05)	-0.19	(0.05)	**0.33**	(0.07)	-1.36	(0.05)	-0.35	(0.04)	0.34	(0.04)	1.28	(0.06)
	Galicia•	-0.13	(0.04)	1.07	(0.02)	0.07	(0.05)	-0.33	(0.05)	**0.40**	(0.07)	-1.50	(0.05)	-0.47	(0.04)	0.23	(0.04)	1.22	(0.06)
	La Rioja•	-0.14	(0.04)	1.06	(0.03)	0.02	(0.05)	-0.28	(0.05)	**0.31**	(0.07)	-1.52	(0.06)	-0.44	(0.04)	0.20	(0.03)	1.19	(0.05)
	Madrid•	-0.11	(0.03)	1.02	(0.03)	0.10	(0.04)	-0.33	(0.03)	**0.42**	(0.05)	-1.42	(0.06)	-0.44	(0.03)	0.24	(0.03)	1.17	(0.04)
	Murcia•	-0.07	(0.04)	1.02	(0.02)	0.14	(0.05)	-0.29	(0.06)	**0.43**	(0.07)	-1.37	(0.05)	-0.42	(0.05)	0.31	(0.05)	1.20	(0.05)
	Navarre•	-0.13	(0.03)	0.97	(0.02)	-0.03	(0.04)	-0.23	(0.05)	**0.20**	(0.05)	-1.35	(0.04)	-0.44	(0.04)	0.19	(0.03)	1.08	(0.06)
	United Kingdom																		
	England	0.20	(0.02)	0.90	(0.01)	0.42	(0.03)	0.00	(0.02)	**0.42**	(0.03)	-0.94	(0.03)	-0.05	(0.02)	0.49	(0.03)	1.32	(0.03)
	Northern Ireland	0.06	(0.03)	0.98	(0.02)	0.26	(0.04)	-0.15	(0.04)	**0.40**	(0.05)	-1.21	(0.04)	-0.21	(0.05)	0.42	(0.03)	1.25	(0.04)
	Scotland•	0.07	(0.02)	0.92	(0.01)	0.25	(0.03)	-0.10	(0.03)	**0.35**	(0.04)	-1.09	(0.04)	-0.21	(0.03)	0.38	(0.02)	1.21	(0.03)
	Wales	0.07	(0.02)	0.85	(0.01)	0.26	(0.03)	-0.11	(0.03)	**0.37**	(0.04)	-0.99	(0.02)	-0.19	(0.03)	0.36	(0.02)	1.12	(0.03)
	United States																		
	Connecticut•	0.43	(0.03)	0.92	(0.02)	0.60	(0.04)	0.26	(0.04)	**0.34**	(0.04)	-0.74	(0.05)	0.16	(0.04)	0.65	(0.03)	1.64	(0.05)
	Florida•	0.24	(0.03)	1.00	(0.02)	0.41	(0.05)	0.06	(0.04)	**0.35**	(0.06)	-1.04	(0.04)	-0.06	(0.04)	0.56	(0.04)	1.51	(0.06)
	Massachusetts•	0.37	(0.03)	0.95	(0.02)	0.54	(0.05)	0.21	(0.04)	**0.33**	(0.05)	-0.83	(0.04)	0.10	(0.04)	0.63	(0.03)	1.60	(0.05)
Partners	**Argentina**																		
	Ciudad Autónoma de Buenos Aires•	-0.12	(0.05)	0.98	(0.03)	0.07	(0.06)	-0.28	(0.05)	**0.35**	(0.07)	-1.37	(0.06)	-0.43	(0.07)	0.21	(0.04)	1.13	(0.07)
	Brazil																		
	Acre	-0.11	(0.05)	0.81	(0.04)	0.02	(0.06)	-0.22	(0.06)	**0.24**	(0.08)	-1.11	(0.09)	-0.33	(0.05)	0.11	(0.05)	0.88	(0.05)
	Alagoas	0.04	(0.06)	0.91	(0.04)	0.28	(0.10)	-0.16	(0.06)	**0.44**	(0.11)	-1.02	(0.07)	-0.31	(0.06)	0.27	(0.09)	1.26	(0.08)
	Amapá	-0.10	(0.07)	0.89	(0.04)	0.12	(0.10)	-0.29	(0.07)	**0.41**	(0.08)	-1.11	(0.10)	-0.42	(0.05)	0.02	(0.08)	1.11	(0.11)
	Amazonas	-0.02	(0.03)	0.78	(0.02)	0.22	(0.04)	-0.24	(0.05)	**0.45**	(0.07)	-0.97	(0.05)	-0.27	(0.04)	0.22	(0.03)	0.96	(0.06)
	Bahia	0.05	(0.09)	0.79	(0.04)	0.14	(0.10)	-0.03	(0.12)	0.16	(0.13)	-0.90	(0.09)	-0.26	(0.10)	0.33	(0.09)	1.05	(0.13)
	Ceará	-0.06	(0.05)	0.81	(0.04)	0.05	(0.07)	-0.15	(0.06)	**0.20**	(0.09)	-1.01	(0.05)	-0.34	(0.05)	0.15	(0.05)	0.98	(0.10)
	Espírito Santo	-0.04	(0.05)	0.86	(0.03)	0.17	(0.07)	-0.22	(0.06)	**0.40**	(0.09)	-1.09	(0.07)	-0.32	(0.05)	0.18	(0.06)	1.06	(0.08)
	Federal District	-0.15	(0.05)	0.95	(0.03)	0.03	(0.05)	-0.31	(0.07)	**0.34**	(0.08)	-1.34	(0.08)	-0.43	(0.05)	0.13	(0.04)	1.05	(0.07)
	Goiás	-0.09	(0.04)	0.85	(0.04)	0.08	(0.07)	-0.27	(0.05)	**0.35**	(0.08)	-1.11	(0.07)	-0.37	(0.04)	0.16	(0.04)	0.96	(0.08)
	Maranhão	-0.02	(0.07)	0.82	(0.06)	0.23	(0.11)	-0.20	(0.08)	**0.44**	(0.13)	-0.98	(0.10)	-0.32	(0.05)	0.21	(0.08)	1.03	(0.14)
	Mato Grosso	-0.03	(0.04)	0.85	(0.04)	0.19	(0.06)	-0.24	(0.06)	**0.43**	(0.08)	-1.07	(0.09)	-0.30	(0.04)	0.20	(0.04)	1.05	(0.08)
	Mato Grosso do Sul	-0.02	(0.05)	0.95	(0.04)	0.23	(0.06)	-0.23	(0.07)	**0.46**	(0.10)	-1.13	(0.09)	-0.37	(0.03)	0.19	(0.04)	1.24	(0.07)
	Minas Gerais	-0.07	(0.04)	0.85	(0.03)	0.10	(0.06)	-0.22	(0.06)	**0.32**	(0.09)	-1.13	(0.07)	-0.33	(0.05)	0.19	(0.04)	1.02	(0.06)
	Pará	-0.20	(0.07)	0.84	(0.03)	0.00	(0.08)	-0.33	(0.07)	**0.34**	(0.07)	-1.29	(0.11)	-0.38	(0.07)	0.11	(0.04)	0.80	(0.08)
	Paraíba	-0.15	(0.05)	0.85	(0.04)	-0.10	(0.13)	-0.19	(0.05)	0.09	(0.17)	-1.24	(0.11)	-0.37	(0.05)	0.14	(0.04)	0.91	(0.07)
	Paraná	-0.20	(0.07)	0.88	(0.03)	-0.04	(0.10)	-0.35	(0.07)	**0.31**	(0.09)	-1.27	(0.06)	-0.49	(0.07)	0.07	(0.11)	0.91	(0.09)
	Pernambuco	0.01	(0.05)	0.91	(0.04)	0.19	(0.07)	-0.14	(0.10)	**0.33**	(0.14)	-1.15	(0.09)	-0.23	(0.05)	0.32	(0.08)	1.13	(0.06)
	Piauí	-0.17	(0.05)	0.79	(0.02)	0.03	(0.07)	-0.32	(0.07)	**0.35**	(0.08)	-1.15	(0.08)	-0.43	(0.04)	0.07	(0.06)	0.83	(0.06)
	Rio de Janeiro	-0.07	(0.07)	0.93	(0.03)	0.12	(0.09)	-0.23	(0.11)	**0.34**	(0.13)	-1.22	(0.09)	-0.37	(0.05)	0.19	(0.05)	1.12	(0.13)
	Rio Grande do Norte	0.00	(0.06)	0.89	(0.03)	0.20	(0.09)	-0.18	(0.07)	**0.38**	(0.11)	-1.10	(0.10)	-0.26	(0.04)	0.24	(0.07)	1.14	(0.08)
	Rio Grande do Sul	-0.09	(0.05)	0.88	(0.03)	0.06	(0.05)	-0.21	(0.07)	**0.27**	(0.07)	-1.16	(0.09)	-0.34	(0.05)	0.17	(0.04)	1.00	(0.08)
	Rondônia	-0.02	(0.04)	0.82	(0.03)	0.14	(0.06)	-0.18	(0.06)	**0.32**	(0.09)	-0.99	(0.05)	-0.31	(0.04)	0.18	(0.04)	1.03	(0.07)
	Roraima	-0.09	(0.05)	0.87	(0.03)	0.12	(0.07)	-0.29	(0.08)	**0.40**	(0.10)	-1.18	(0.08)	-0.37	(0.07)	0.18	(0.05)	1.02	(0.06)
	Santa Catarina	-0.03	(0.06)	0.87	(0.04)	-0.07	(0.08)	0.00	(0.06)	-0.07	(0.06)	-1.07	(0.07)	-0.29	(0.06)	0.17	(0.07)	1.07	(0.12)
	São Paulo	-0.11	(0.03)	0.86	(0.02)	0.04	(0.04)	-0.25	(0.05)	**0.29**	(0.05)	-1.18	(0.06)	-0.38	(0.03)	0.15	(0.04)	0.97	(0.05)
	Sergipe	-0.13	(0.05)	0.82	(0.03)	0.01	(0.05)	-0.25	(0.07)	**0.26**	(0.07)	-1.11	(0.07)	-0.39	(0.05)	0.08	(0.06)	0.92	(0.05)
	Tocantins	0.09	(0.04)	0.83	(0.03)	0.23	(0.06)	-0.06	(0.04)	**0.29**	(0.06)	-0.95	(0.05)	-0.16	(0.05)	0.32	(0.05)	1.15	(0.07)
	Colombia																		
	Bogotá	0.18	(0.04)	0.80	(0.02)	0.31	(0.05)	0.06	(0.04)	**0.26**	(0.05)	-0.78	(0.04)	-0.10	(0.04)	0.38	(0.04)	1.21	(0.05)
	Cali	0.20	(0.03)	0.82	(0.03)	0.33	(0.06)	0.10	(0.04)	**0.23**	(0.08)	-0.77	(0.06)	-0.07	(0.03)	0.42	(0.03)	1.23	(0.06)
	Manizales	0.14	(0.04)	0.86	(0.03)	0.25	(0.07)	0.04	(0.04)	**0.21**	(0.08)	-0.90	(0.05)	-0.15	(0.06)	0.38	(0.04)	1.25	(0.07)
	Medellín	0.07	(0.04)	0.89	(0.03)	0.21	(0.07)	-0.06	(0.04)	**0.27**	(0.07)	-1.02	(0.05)	-0.23	(0.04)	0.34	(0.05)	1.18	(0.06)
	Russian Federation																		
	Perm Territory region•	0.06	(0.03)	0.78	(0.02)	0.11	(0.04)	0.01	(0.04)	**0.10**	(0.05)	-0.87	(0.03)	-0.19	(0.03)	0.26	(0.04)	1.06	(0.05)
	United Arab Emirates																		
	Abu Dhabi•	0.46	(0.03)	0.91	(0.02)	0.54	(0.03)	0.38	(0.04)	**0.16**	(0.06)	-0.70	(0.04)	0.19	(0.02)	0.74	(0.04)	1.61	(0.04)
	Ajman	0.41	(0.05)	0.90	(0.03)	0.49	(0.07)	0.34	(0.08)	0.15	(0.12)	-0.73	(0.05)	0.12	(0.05)	0.66	(0.07)	1.59	(0.07)
	Dubai•	0.38	(0.02)	0.88	(0.01)	0.47	(0.03)	0.29	(0.02)	**0.18**	(0.03)	-0.73	(0.02)	0.10	(0.03)	0.65	(0.02)	1.51	(0.03)
	Fujairah	0.56	(0.04)	0.85	(0.03)	0.49	(0.06)	0.63	(0.07)	-0.14	(0.10)	-0.51	(0.07)	0.31	(0.05)	0.83	(0.04)	1.64	(0.06)
	Ras al-Khaimah	0.45	(0.06)	0.88	(0.03)	0.36	(0.05)	0.54	(0.10)	-0.18	(0.11)	-0.62	(0.05)	0.13	(0.06)	0.70	(0.09)	1.62	(0.07)
	Sharjah	0.46	(0.04)	0.87	(0.04)	0.45	(0.06)	0.47	(0.05)	-0.02	(0.07)	-0.64	(0.08)	0.20	(0.04)	0.73	(0.04)	1.57	(0.07)
	Umm al-Quwain	0.27	(0.08)	0.98	(0.06)	0.12	(0.10)	0.40	(0.10)	**-0.28**	(0.13)	-0.93	(0.14)	-0.08	(0.07)	0.58	(0.08)	1.52	(0.11)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.4.2d for national data.

StatLink `http://dx.doi.org/10.1787/888932964072`

[Part 3/4]

Table B2.III.14 Index of mathematics self-concept and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Australia**														
	Australian Capital Territory	**459**	(9.6)	516	(9.5)	529	(9.1)	**559**	(11.4)	**39.5**	(5.7)	**2.7**	(0.5)	15.0	(4.1)
	New South Wales	**462**	(5.4)	490	(6.4)	514	(5.4)	**565**	(6.3)	**43.8**	(2.8)	**2.0**	(0.2)	16.8	(1.9)
	Northern Territory	**424**	(12.8)	467	(20.7)	446	(20.7)	**508**	(20.6)	**31.9**	(6.7)	1.5	(0.6)	8.3	(3.9)
	Queensland	**456**	(4.9)	482	(4.9)	517	(5.7)	**560**	(5.8)	**45.0**	(2.5)	**2.2**	(0.3)	20.0	(2.3)
	South Australia	**435**	(5.1)	468	(6.8)	500	(6.6)	**557**	(6.8)	**49.5**	(2.7)	**2.7**	(0.3)	27.5	(2.8)
	Tasmania	**431**	(8.4)	460	(8.6)	492	(9.8)	**548**	(8.7)	**48.4**	(4.5)	**2.4**	(0.3)	21.1	(3.1)
	Victoria	**449**	(5.2)	486	(5.7)	513	(6.1)	**561**	(6.0)	**43.8**	(2.3)	**2.4**	(0.2)	23.3	(2.2)
	Western Australia	**461**	(5.4)	504	(5.9)	526	(6.7)	**575**	(7.6)	**46.3**	(2.9)	**2.4**	(0.3)	21.6	(2.6)
	Belgium														
	Flemish Community•	**498**	(5.0)	537	(4.7)	543	(4.9)	**568**	(5.0)	**29.5**	(2.2)	**1.8**	(0.1)	7.0	(1.0)
	French Community	**469**	(5.6)	488	(6.4)	508	(5.3)	**542**	(5.3)	**28.5**	(2.2)	**1.6**	(0.2)	9.8	(1.5)
	German-speaking Community	**480**	(7.7)	505	(8.1)	528	(9.3)	**551**	(8.4)	**25.9**	(3.7)	**1.8**	(0.4)	9.5	(2.7)
	Canada														
	Alberta	**463**	(6.4)	496	(7.1)	538	(6.8)	**586**	(7.1)	**42.7**	(2.7)	**2.7**	(0.4)	28.2	(3.1)
	British Columbia	**470**	(5.1)	501	(6.7)	541	(7.7)	**587**	(6.5)	**43.9**	(1.9)	**2.7**	(0.4)	29.0	(2.2)
	Manitoba	**447**	(5.2)	475	(6.0)	507	(6.0)	**552**	(7.4)	**40.2**	(2.6)	**2.2**	(0.3)	21.0	(2.3)
	New Brunswick	**448**	(5.3)	479	(5.4)	525	(7.0)	**567**	(7.1)	**42.1**	(2.5)	**2.6**	(0.4)	31.5	(3.0)
	Newfoundland and Labrador	**441**	(7.7)	468	(7.6)	513	(7.9)	**561**	(6.9)	**41.4**	(3.2)	**2.7**	(0.5)	31.1	(3.0)
	Nova Scotia	**450**	(5.5)	482	(5.1)	498	(9.6)	**572**	(5.5)	**38.9**	(3.2)	**2.8**	(0.3)	29.3	(3.3)
	Ontario	**474**	(4.9)	495	(6.6)	522	(6.6)	**569**	(7.4)	**35.3**	(2.3)	**2.0**	(0.2)	18.4	(2.2)
	Prince Edward Island	**438**	(5.6)	452	(6.0)	488	(7.4)	**542**	(6.1)	**37.3**	(2.6)	**2.1**	(0.3)	24.0	(2.9)
	Quebec	**492**	(4.7)	526	(5.5)	550	(5.7)	**590**	(5.6)	**35.5**	(2.0)	**2.2**	(0.2)	17.0	(1.8)
	Saskatchewan	**455**	(4.2)	487	(6.1)	528	(8.4)	**570**	(5.6)	**42.4**	(2.7)	**2.8**	(0.4)	28.6	(2.8)
	Italy														
	Abruzzo	**435**	(8.2)	473	(9.2)	478	(12.1)	**528**	(8.0)	**38.7**	(2.6)	**2.1**	(0.3)	17.2	(2.8)
	Basilicata	**428**	(6.3)	447	(7.6)	476	(7.9)	**517**	(6.7)	**37.8**	(3.1)	**1.8**	(0.2)	17.5	(2.4)
	Bolzano	**460**	(4.9)	489	(5.0)	519	(4.9)	**564**	(4.9)	**37.6**	(2.2)	**2.2**	(0.2)	20.2	(2.0)
	Calabria	**395**	(9.5)	424	(6.5)	434	(9.7)	**475**	(8.8)	**30.1**	(3.5)	**1.8**	(0.3)	10.9	(2.4)
	Campania	**411**	(12.0)	439	(8.5)	464	(11.0)	**502**	(10.2)	**38.4**	(3.9)	**2.1**	(0.3)	16.5	(2.9)
	Emilia Romagna	**459**	(7.4)	490	(8.6)	512	(14.2)	**553**	(9.6)	**34.9**	(4.4)	**1.9**	(0.3)	13.5	(2.8)
	Friuli Venezia Giulia	**484**	(11.7)	509	(6.9)	535	(8.7)	**567**	(8.0)	**31.5**	(3.8)	**1.9**	(0.4)	12.0	(2.6)
	Lazio	**433**	(7.0)	460	(9.4)	485	(9.7)	**528**	(9.7)	**38.3**	(4.2)	**2.0**	(0.3)	16.0	(3.0)
	Liguria	**444**	(6.0)	482	(8.6)	501	(8.6)	**531**	(9.6)	**34.5**	(3.0)	**2.0**	(0.3)	13.8	(2.3)
	Lombardia	**473**	(9.9)	510	(8.2)	529	(9.9)	**557**	(10.6)	**31.3**	(3.0)	**2.1**	(0.3)	13.6	(2.8)
	Marche	**455**	(6.3)	483	(5.9)	503	(10.7)	**546**	(7.9)	**33.3**	(3.2)	**1.9**	(0.3)	14.6	(3.1)
	Molise	**429**	(6.4)	454	(9.3)	472	(8.8)	**513**	(8.1)	**34.4**	(4.1)	**1.9**	(0.3)	14.7	(3.2)
	Piemonte	**457**	(8.3)	495	(7.3)	510	(7.8)	**534**	(11.7)	**29.9**	(4.2)	**2.0**	(0.3)	11.6	(2.8)
	Puglia	**438**	(7.3)	467	(8.8)	494	(8.6)	**519**	(9.2)	**33.0**	(3.0)	**2.1**	(0.3)	13.4	(2.5)
	Sardegna	**422**	(9.2)	446	(8.4)	470	(8.3)	**492**	(10.0)	**28.4**	(3.3)	**1.8**	(0.3)	11.2	(2.3)
	Sicilia	**416**	(8.0)	437	(6.8)	458	(7.5)	**490**	(9.5)	**30.6**	(4.2)	**2.0**	(0.4)	12.2	(2.8)
	Toscana	**461**	(7.2)	487	(8.5)	508	(9.3)	**546**	(7.5)	**32.1**	(3.3)	**1.7**	(0.2)	11.4	(2.0)
	Trento	**488**	(6.5)	515	(6.8)	528	(8.1)	**567**	(8.5)	**31.4**	(3.2)	**2.0**	(0.4)	14.2	(3.1)
	Umbria	**450**	(9.0)	500	(7.3)	496	(15.8)	**534**	(8.0)	**30.3**	(3.7)	**2.2**	(0.4)	11.3	(3.3)
	Valle d'Aosta	**457**	(7.3)	478	(6.5)	503	(7.9)	**539**	(8.4)	**29.3**	(3.4)	**2.0**	(0.4)	14.0	(3.1)
	Veneto	**477**	(7.6)	516	(7.3)	539	(13.1)	**570**	(11.4)	**35.9**	(4.7)	**2.1**	(0.3)	15.1	(3.4)
	Mexico														
	Aguascalientes	**416**	(6.6)	416	(7.9)	444	(9.5)	**481**	(9.4)	**30.8**	(3.6)	1.3	(0.2)	12.8	(2.8)
	Baja California	**387**	(7.5)	399	(7.5)	421	(6.9)	**454**	(8.2)	**30.8**	(3.7)	**1.9**	(0.4)	15.7	(3.4)
	Baja California Sur	**398**	(5.8)	405	(9.9)	410	(9.4)	**442**	(9.8)	**19.7**	(3.4)	1.1	(0.2)	6.0	(2.1)
	Campeche	**381**	(7.1)	381	(8.3)	397	(8.4)	**424**	(8.4)	**26.1**	(3.9)	1.1	(0.2)	8.2	(2.4)
	Chiapas	**360**	(7.3)	370	(8.8)	379	(9.7)	**393**	(10.9)	**19.9**	(4.0)	1.2	(0.2)	4.1	(1.7)
	Chihuahua	**395**	(7.4)	411	(9.3)	429	(13.0)	**485**	(11.2)	**37.9**	(3.0)	**1.8**	(0.3)	19.7	(3.2)
	Coahuila	**389**	(9.4)	397	(9.9)	425	(10.9)	**461**	(13.2)	**35.5**	(3.5)	**1.9**	(0.4)	16.5	(3.0)
	Colima	**406**	(6.5)	421	(7.1)	430	(9.2)	**469**	(8.6)	**27.6**	(3.1)	**1.7**	(0.2)	11.1	(2.6)
	Distrito Federal	**402**	(7.1)	412	(7.3)	439	(7.5)	**462**	(7.6)	**28.4**	(3.0)	1.6	(0.4)	11.4	(2.4)
	Durango	**396**	(7.1)	413	(8.8)	433	(7.5)	**465**	(12.4)	**32.9**	(4.7)	1.8	(0.4)	15.0	(4.7)
	Guanajuato	**384**	(7.9)	395	(9.3)	423	(7.8)	**453**	(10.1)	**32.4**	(3.8)	1.8	(0.5)	14.7	(4.0)
	Guerrero	**361**	(5.4)	362	(6.5)	364	(7.4)	**393**	(7.3)	**19.0**	(3.6)	1.1	(0.2)	4.7	(1.8)
	Hidalgo	**389**	(8.7)	399	(8.6)	398	(8.9)	**439**	(9.6)	**23.2**	(5.3)	1.3	(0.3)	6.1	(2.7)
	Jalisco	**411**	(9.9)	416	(7.1)	439	(8.5)	**484**	(10.9)	**35.3**	(3.2)	**1.6**	(0.3)	16.8	(3.0)
	Mexico	**396**	(6.0)	398	(7.6)	414	(8.3)	**458**	(9.4)	**31.2**	(4.5)	**1.6**	(0.3)	16.1	(3.6)
	Morelos	**398**	(6.4)	406	(7.3)	424	(8.1)	**461**	(17.3)	**28.6**	(5.7)	1.5	(0.3)	11.6	(4.7)
	Nayarit	**389**	(7.0)	400	(8.7)	418	(9.9)	**461**	(9.9)	**33.4**	(4.2)	1.4	(0.2)	14.3	(3.1)
	Nuevo León	**405**	(7.8)	420	(10.5)	444	(12.1)	**483**	(8.0)	**32.3**	(2.3)	**1.9**	(0.3)	17.1	(2.8)
	Puebla	**393**	(7.4)	408	(7.7)	422	(6.8)	**449**	(10.2)	**30.8**	(4.7)	**1.8**	(0.4)	11.3	(3.9)
	Querétaro	**401**	(7.6)	420	(9.2)	436	(10.3)	**481**	(10.7)	**34.5**	(3.5)	**1.9**	(0.4)	15.9	(3.3)
	Quintana Roo	**392**	(5.2)	398	(8.2)	413	(8.5)	**450**	(8.6)	**26.1**	(3.4)	1.5	(0.3)	11.0	(2.7)
	San Luis Potosí	**393**	(13.7)	401	(8.5)	416	(10.8)	**446**	(10.1)	**28.3**	(4.5)	1.4	(0.4)	9.6	(3.7)
	Sinaloa	**393**	(6.0)	397	(7.3)	412	(8.7)	**440**	(7.6)	**25.9**	(3.7)	1.3	(0.2)	9.2	(2.6)
	Tabasco	**360**	(7.1)	371	(8.6)	379	(7.0)	**409**	(10.1)	**24.2**	(3.5)	1.5	(0.3)	9.0	(2.5)
	Tamaulipas	**390**	(6.4)	397	(9.9)	402	(12.8)	**457**	(9.6)	**28.3**	(4.0)	1.5	(0.3)	10.6	(2.9)
	Tlaxcala	**395**	(6.5)	404	(6.7)	405	(8.1)	**444**	(9.0)	**27.0**	(4.8)	1.3	(0.2)	9.1	(3.1)
	Veracruz	**377**	(5.7)	389	(7.3)	398	(7.0)	**447**	(13.7)	**34.9**	(5.3)	**1.6**	(0.3)	14.0	(4.0)
	Yucatán	**380**	(6.7)	408	(6.7)	413	(7.5)	**445**	(9.3)	**29.7**	(3.8)	**2.0**	(0.3)	11.5	(2.9)
	Zacatecas	**393**	(4.8)	390	(7.8)	423	(8.1)	**450**	(8.0)	**31.2**	(2.9)	1.4	(0.2)	13.1	(2.6)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.4.2d for national data.

StatLink http://dx.doi.org/10.1787/888932964072

[Part 4/4]

Table B2.III.14 Index of mathematics self-concept and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Portugal**														
	Alentejo	**441**	(11.7)	471	(11.6)	486	(15.4)	**557**	(11.3)	**46.6**	(3.7)	**2.1**	(0.5)	24.5	(3.0)
	Spain														
	Andalusia•	**436**	(5.4)	463	(6.8)	475	(6.2)	**524**	(7.8)	**32.0**	(3.0)	**1.7**	(0.2)	15.4	(2.7)
	Aragon•	**451**	(6.6)	483	(8.5)	506	(8.8)	**540**	(8.5)	**33.0**	(2.8)	**1.9**	(0.3)	13.9	(2.6)
	Asturias•	**462**	(6.1)	488	(5.7)	502	(8.1)	**552**	(9.1)	**32.1**	(2.8)	**1.6**	(0.3)	13.4	(2.5)
	Balearic Islands•	**444**	(7.5)	463	(7.1)	481	(6.8)	**518**	(7.6)	**28.3**	(3.3)	**1.7**	(0.3)	11.0	(2.6)
	Basque Country•	**470**	(2.9)	489	(4.4)	516	(4.6)	**553**	(4.3)	**34.3**	(1.8)	**1.8**	(0.1)	16.0	(1.5)
	Cantabria•	**455**	(5.5)	472	(6.4)	491	(8.7)	**545**	(6.8)	**35.2**	(3.0)	**1.6**	(0.2)	16.3	(2.5)
	Castile and Leon•	**473**	(6.3)	492	(7.1)	518	(7.4)	**555**	(5.6)	**31.2**	(2.2)	**1.9**	(0.2)	14.2	(2.1)
	Catalonia•	**460**	(7.2)	477	(9.2)	496	(7.1)	**546**	(7.4)	**30.4**	(2.7)	**1.7**	(0.3)	15.4	(2.3)
	Extremadura•	**434**	(5.7)	454	(5.7)	468	(8.9)	**506**	(5.8)	**25.3**	(2.2)	**1.6**	(0.2)	8.2	(1.4)
	Galicia•	**454**	(7.1)	475	(7.4)	505	(7.1)	**536**	(7.6)	**29.6**	(2.6)	**1.9**	(0.2)	13.8	(2.3)
	La Rioja•	**469**	(6.2)	489	(6.5)	507	(7.8)	**553**	(6.5)	**30.8**	(2.6)	**1.6**	(0.3)	11.6	(1.8)
	Madrid•	**464**	(6.0)	488	(8.1)	507	(7.2)	**555**	(4.7)	**33.7**	(2.6)	**1.8**	(0.2)	15.9	(2.3)
	Murcia•	**429**	(6.4)	443	(7.1)	471	(8.5)	**502**	(9.7)	**28.1**	(3.6)	**1.6**	(0.2)	10.8	(2.5)
	Navarre•	**477**	(6.0)	503	(5.2)	522	(6.1)	**563**	(5.9)	**33.9**	(3.1)	**2.0**	(0.2)	15.4	(2.7)
	United Kingdom														
	England	**450**	(4.5)	482	(4.7)	512	(5.5)	**554**	(5.6)	**46.5**	(2.2)	**2.2**	(0.2)	19.5	(1.7)
	Northern Ireland	**442**	(5.0)	469	(5.5)	501	(6.3)	**544**	(5.7)	**40.5**	(2.7)	**2.1**	(0.3)	18.3	(2.0)
	Scotland•	**460**	(4.3)	485	(4.7)	508	(4.4)	**552**	(5.0)	**40.0**	(2.0)	**2.1**	(0.2)	18.8	(1.7)
	Wales	**428**	(4.2)	454	(4.4)	478	(3.6)	**520**	(4.5)	**42.1**	(2.3)	**2.2**	(0.2)	18.4	(1.9)
	United States														
	Connecticut•	**453**	(7.5)	492	(9.8)	512	(10.1)	**559**	(7.6)	**41.9**	(3.7)	**2.1**	(0.2)	16.2	(2.2)
	Florida•	**431**	(6.0)	448	(7.3)	478	(8.1)	**505**	(9.5)	**28.7**	(3.2)	**1.7**	(0.2)	12.1	(2.4)
	Massachusetts•	**470**	(7.2)	499	(9.9)	527	(8.6)	**567**	(7.2)	**39.6**	(2.6)	**2.0**	(0.2)	15.2	(2.0)
Partners	**Argentina**														
	Ciudad Autónoma de Buenos Aires•	**395**	(8.5)	410	(9.6)	433	(9.3)	**455**	(9.8)	**24.4**	(3.5)	1.5	(0.3)	7.5	(2.4)
	Brazil														
	Acre	**353**	(10.6)	358	(11.2)	367	(10.2)	**385**	(8.8)	**16.6**	(4.2)	1.2	(0.3)	4.3	(2.3)
	Alagoas	332	(8.4)	345	(9.2)	357	(12.7)	358	(12.6)	**11.7**	(5.4)	1.2	(0.4)	2.5	(2.4)
	Amapá	**349**	(11.5)	365	(10.0)	368	(11.3)	**385**	(13.9)	**16.5**	(4.1)	1.3	(0.4)	5.4	(2.6)
	Amazonas	**347**	(10.5)	349	(6.8)	353	(7.2)	**384**	(10.6)	**15.3**	(3.9)	1.4	(0.3)	3.3	(1.5)
	Bahia	377	(10.2)	380	(16.1)	385	(23.5)	403	(16.4)	**10.6**	(5.2)	1.2	(0.4)	1.2	(1.2)
	Ceará	**370**	(12.6)	368	(11.6)	379	(12.3)	**404**	(18.9)	**22.6**	(6.2)	1.2	(0.3)	5.3	(2.9)
	Espírito Santo	**393**	(10.1)	397	(12.6)	420	(16.2)	**445**	(9.3)	**30.3**	(3.8)	**1.6**	(0.3)	9.5	(2.4)
	Federal District	**404**	(13.6)	394	(9.5)	420	(10.9)	**456**	(12.5)	**22.3**	(3.9)	1.1	(0.2)	6.4	(2.9)
	Goiás	**360**	(8.9)	371	(10.0)	395	(10.0)	**406**	(9.6)	**21.1**	(4.6)	1.4	(0.3)	6.3	(2.8)
	Maranhão	339	(15.1)	340	(15.0)	354	(14.3)	352	(20.4)	11.7	(6.5)	1.0	(0.2)	1.5	(1.6)
	Mato Grosso	371	(8.7)	366	(11.4)	374	(13.1)	392	(15.1)	**12.5**	(5.8)	0.9	(0.2)	2.3	(1.9)
	Mato Grosso do Sul	**398**	(8.3)	404	(11.5)	408	(12.1)	**433**	(17.4)	**16.4**	(7.0)	1.0	(0.3)	4.3	(3.4)
	Minas Gerais	**396**	(8.5)	391	(8.2)	406	(10.1)	**430**	(10.9)	**15.6**	(4.8)	1.2	(0.3)	3.6	(2.0)
	Pará	349	(8.7)	361	(10.8)	375	(9.4)	377	(10.5)	**13.5**	(6.6)	1.2	(0.3)	3.2	(2.9)
	Paraíba	**397**	(10.4)	383	(10.0)	404	(13.5)	**424**	(11.9)	**13.7**	(5.4)	1.0	(0.2)	2.3	(1.7)
	Paraná	**385**	(11.2)	384	(20.0)	414	(17.2)	**427**	(9.0)	**18.7**	(5.5)	1.3	(0.4)	4.2	(3.3)
	Pernambuco	361	(8.7)	363	(10.4)	363	(14.1)	382	(15.3)	**11.6**	(5.1)	1.0	(0.3)	2.4	(2.2)
	Piauí	**375**	(8.8)	371	(11.4)	385	(12.7)	**409**	(15.3)	**16.4**	(7.9)	0.9	(0.3)	2.6	(2.2)
	Rio de Janeiro	**382**	(8.4)	383	(8.2)	391	(7.8)	**404**	(10.1)	**10.9**	(2.6)	1.0	(0.2)	2.3	(1.1)
	Rio Grande do Norte	**374**	(9.6)	371	(13.0)	385	(13.9)	**402**	(10.9)	**13.3**	(6.0)	1.1	(0.3)	2.2	(1.7)
	Rio Grande do Sul	**393**	(7.4)	398	(10.7)	404	(12.5)	**431**	(10.5)	**16.6**	(4.8)	1.2	(0.3)	4.7	(2.6)
	Rondônia	**362**	(8.2)	379	(7.9)	389	(10.0)	**414**	(8.9)	**24.8**	(3.4)	**1.9**	(0.4)	10.1	(2.9)
	Roraima	**348**	(10.1)	365	(7.6)	363	(9.1)	**377**	(9.3)	**12.1**	(5.0)	1.4	(0.3)	2.3	(1.9)
	Santa Catarina	**403**	(11.7)	403	(13.5)	417	(13.8)	**461**	(12.3)	**24.3**	(4.8)	1.3	(0.4)	7.9	(3.6)
	São Paulo	**391**	(5.1)	385	(5.5)	406	(8.3)	**434**	(9.3)	**20.7**	(4.7)	1.2	(0.2)	5.2	(2.0)
	Sergipe	**364**	(11.7)	370	(12.2)	403	(15.0)	**395**	(12.2)	**15.5**	(4.6)	1.4	(0.5)	3.4	(1.9)
	Tocantins	**353**	(9.1)	363	(9.2)	359	(13.1)	**406**	(13.7)	**24.4**	(4.4)	1.2	(0.3)	6.9	(2.5)
	Colombia														
	Bogotá	**368**	(5.2)	386	(5.9)	398	(5.8)	**418**	(6.2)	**24.8**	(2.5)	**1.9**	(0.3)	9.0	(1.6)
	Cali	**354**	(5.9)	379	(9.3)	391	(10.3)	**414**	(7.1)	**27.4**	(3.0)	**2.0**	(0.5)	10.6	(2.2)
	Manizales	**376**	(5.4)	399	(8.6)	410	(7.7)	**437**	(8.1)	**25.6**	(2.8)	**1.8**	(0.2)	9.4	(1.9)
	Medellín	**364**	(6.9)	379	(7.3)	405	(8.4)	**441**	(13.3)	**36.6**	(4.1)	**1.9**	(0.3)	15.3	(2.5)
	Russian Federation														
	Perm Territory region•	**447**	(6.4)	464	(7.2)	486	(8.5)	**542**	(10.5)	**45.6**	(5.4)	**1.7**	(0.2)	15.5	(2.8)
	United Arab Emirates														
	Abu Dhabi•	**396**	(4.8)	413	(4.8)	427	(5.9)	**460**	(5.5)	**27.6**	(1.9)	**1.6**	(0.1)	8.5	(1.2)
	Ajman	**383**	(8.6)	395	(10.8)	404	(11.0)	**439**	(11.0)	**23.9**	(3.7)	**1.6**	(0.3)	9.1	(2.9)
	Dubai•	**439**	(3.7)	450	(4.3)	473	(4.3)	**502**	(5.2)	**28.5**	(2.1)	**1.4**	(0.1)	7.3	(1.1)
	Fujairah	**389**	(12.0)	397	(13.8)	408	(13.7)	**452**	(10.8)	**26.0**	(4.8)	1.7	(0.3)	7.5	(2.6)
	Ras al-Khaimah	**376**	(7.7)	398	(9.7)	420	(11.4)	**466**	(12.8)	**37.7**	(4.4)	**1.9**	(0.3)	19.2	(4.0)
	Sharjah	**422**	(7.6)	427	(10.7)	455	(12.9)	**460**	(13.5)	**18.7**	(5.0)	**1.8**	(0.3)	4.1	(2.1)
	Umm al-Quwain	**379**	(9.5)	382	(11.2)	399	(14.3)	**441**	(15.0)	**24.5**	(5.4)	1.2	(0.3)	10.2	(3.8)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.4.2d for national data.

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[Part 1/4]

Table B2.III.15 Index of mathematics anxiety and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

	Index of mathematics anxiety																	
	All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
	Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD																		
Australia																		
Australian Capital Territory	-0.06	(0.04)	0.99	(0.04)	-0.16	(0.06)	0.06	(0.06)	**-0.22**	(0.10)	-1.28	(0.08)	-0.31	(0.03)	0.23	(0.05)	1.15	(0.07)
New South Wales	0.04	(0.02)	0.89	(0.02)	-0.07	(0.03)	0.16	(0.03)	**-0.23**	(0.04)	-1.06	(0.04)	-0.19	(0.03)	0.30	(0.02)	1.12	(0.03)
Northern Territory	0.13	(0.07)	0.88	(0.06)	0.00	(0.15)	0.25	(0.08)	-0.25	(0.19)	-0.96	(0.10)	-0.11	(0.09)	0.42	(0.11)	1.20	(0.08)
Queensland	0.07	(0.02)	0.91	(0.02)	-0.08	(0.03)	0.22	(0.04)	**-0.30**	(0.05)	-1.04	(0.04)	-0.20	(0.03)	0.33	(0.03)	1.19	(0.04)
South Australia	0.07	(0.04)	0.98	(0.03)	-0.12	(0.05)	0.26	(0.04)	**-0.39**	(0.06)	-1.12	(0.06)	-0.21	(0.04)	0.34	(0.04)	1.29	(0.06)
Tasmania	-0.01	(0.04)	0.90	(0.03)	-0.18	(0.06)	0.16	(0.05)	**-0.34**	(0.08)	-1.12	(0.07)	-0.25	(0.04)	0.23	(0.04)	1.10	(0.06)
Victoria	-0.01	(0.03)	0.99	(0.02)	-0.22	(0.04)	0.23	(0.04)	**-0.46**	(0.05)	-1.24	(0.05)	-0.27	(0.03)	0.27	(0.03)	1.21	(0.04)
Western Australia	-0.03	(0.03)	0.92	(0.02)	-0.22	(0.04)	0.19	(0.05)	**-0.42**	(0.07)	-1.15	(0.04)	-0.28	(0.03)	0.24	(0.03)	1.10	(0.04)
Belgium																		
Flemish Community•	-0.07	(0.02)	0.94	(0.01)	-0.22	(0.02)	0.08	(0.03)	**-0.30**	(0.03)	-1.24	(0.03)	-0.32	(0.02)	0.21	(0.02)	1.06	(0.03)
French Community	0.23	(0.03)	0.95	(0.02)	-0.01	(0.03)	0.46	(0.04)	**-0.47**	(0.05)	-0.96	(0.05)	-0.01	(0.03)	0.54	(0.02)	1.37	(0.04)
German-speaking Community	-0.26	(0.05)	1.13	(0.03)	-0.39	(0.07)	-0.12	(0.07)	**-0.27**	(0.10)	-1.70	(0.07)	-0.59	(0.06)	0.11	(0.05)	1.15	(0.07)
Canada																		
Alberta	-0.02	(0.04)	1.15	(0.02)	-0.24	(0.04)	0.22	(0.06)	**-0.46**	(0.07)	-1.49	(0.06)	-0.33	(0.04)	0.32	(0.05)	1.42	(0.05)
British Columbia	0.00	(0.05)	1.05	(0.02)	-0.20	(0.04)	0.19	(0.07)	**-0.38**	(0.06)	-1.35	(0.06)	-0.24	(0.04)	0.32	(0.04)	1.26	(0.07)
Manitoba	-0.02	(0.04)	1.05	(0.03)	-0.20	(0.05)	0.18	(0.05)	**-0.38**	(0.07)	-1.39	(0.08)	-0.25	(0.03)	0.33	(0.03)	1.22	(0.05)
New Brunswick	-0.08	(0.05)	1.12	(0.04)	-0.18	(0.07)	0.02	(0.06)	**-0.19**	(0.09)	-1.54	(0.09)	-0.33	(0.05)	0.31	(0.03)	1.26	(0.07)
Newfoundland and Labrador	-0.21	(0.04)	1.17	(0.03)	-0.34	(0.08)	-0.08	(0.06)	**-0.26**	(0.13)	-1.77	(0.08)	-0.46	(0.05)	0.17	(0.05)	1.23	(0.06)
Nova Scotia	-0.01	(0.04)	1.10	(0.03)	-0.17	(0.05)	0.15	(0.05)	**-0.31**	(0.06)	-1.46	(0.10)	-0.24	(0.04)	0.35	(0.04)	1.30	(0.04)
Ontario	0.05	(0.03)	1.08	(0.02)	-0.15	(0.04)	0.24	(0.03)	**-0.39**	(0.05)	-1.33	(0.06)	-0.22	(0.03)	0.40	(0.03)	1.34	(0.03)
Prince Edward Island	-0.05	(0.04)	1.19	(0.03)	-0.18	(0.06)	0.09	(0.06)	**-0.26**	(0.08)	-1.60	(0.07)	-0.34	(0.05)	0.35	(0.05)	1.41	(0.06)
Quebec	0.02	(0.03)	0.98	(0.02)	-0.19	(0.04)	0.22	(0.03)	**-0.41**	(0.05)	-1.26	(0.05)	-0.21	(0.02)	0.34	(0.03)	1.20	(0.04)
Saskatchewan	-0.15	(0.03)	1.06	(0.02)	-0.33	(0.04)	0.04	(0.05)	**-0.37**	(0.06)	-1.50	(0.05)	-0.42	(0.03)	0.20	(0.04)	1.14	(0.05)
Italy																		
Abruzzo	0.30	(0.03)	0.87	(0.02)	0.19	(0.03)	0.40	(0.04)	**-0.21**	(0.05)	-0.80	(0.05)	0.07	(0.03)	0.56	(0.03)	1.36	(0.05)
Basilicata	0.40	(0.03)	0.80	(0.02)	0.28	(0.03)	0.52	(0.05)	**-0.25**	(0.05)	-0.59	(0.04)	0.18	(0.04)	0.65	(0.03)	1.38	(0.05)
Bolzano	-0.11	(0.04)	1.11	(0.02)	-0.26	(0.05)	0.04	(0.05)	**-0.29**	(0.07)	-1.55	(0.06)	-0.44	(0.04)	0.28	(0.03)	1.27	(0.06)
Calabria	0.41	(0.03)	0.87	(0.02)	0.32	(0.04)	0.50	(0.04)	**-0.18**	(0.05)	-0.69	(0.05)	0.19	(0.03)	0.69	(0.03)	1.44	(0.03)
Campania	0.36	(0.04)	0.82	(0.02)	0.31	(0.06)	0.42	(0.04)	-0.12	(0.07)	-0.67	(0.06)	0.14	(0.04)	0.66	(0.03)	1.34	(0.05)
Emilia Romagna	0.27	(0.03)	0.85	(0.02)	0.12	(0.04)	0.45	(0.04)	**-0.33**	(0.06)	-0.79	(0.05)	0.06	(0.04)	0.54	(0.03)	1.29	(0.03)
Friuli Venezia Giulia	0.18	(0.04)	0.87	(0.02)	0.08	(0.05)	0.28	(0.04)	**-0.20**	(0.06)	-0.95	(0.07)	0.00	(0.03)	0.46	(0.04)	1.19	(0.04)
Lazio	0.26	(0.03)	0.87	(0.03)	0.17	(0.03)	0.37	(0.04)	**-0.20**	(0.05)	-0.83	(0.06)	0.06	(0.03)	0.53	(0.02)	1.29	(0.05)
Liguria	0.33	(0.04)	0.85	(0.03)	0.26	(0.04)	0.41	(0.05)	**-0.16**	(0.07)	-0.73	(0.06)	0.10	(0.04)	0.60	(0.03)	1.36	(0.05)
Lombardia	0.29	(0.04)	0.86	(0.03)	0.17	(0.05)	0.42	(0.06)	**-0.25**	(0.07)	-0.77	(0.07)	0.04	(0.04)	0.55	(0.03)	1.34	(0.05)
Marche	0.34	(0.03)	0.86	(0.02)	0.23	(0.03)	0.44	(0.05)	**-0.20**	(0.06)	-0.71	(0.05)	0.12	(0.03)	0.57	(0.03)	1.38	(0.05)
Molise	0.30	(0.03)	0.82	(0.03)	0.18	(0.05)	0.43	(0.04)	**-0.25**	(0.06)	-0.69	(0.05)	0.08	(0.04)	0.53	(0.03)	1.30	(0.05)
Piemonte	0.24	(0.04)	0.89	(0.02)	0.13	(0.04)	0.34	(0.07)	**-0.22**	(0.07)	-0.88	(0.06)	0.01	(0.04)	0.52	(0.04)	1.31	(0.05)
Puglia	0.36	(0.03)	0.85	(0.04)	0.21	(0.04)	0.50	(0.04)	**-0.29**	(0.05)	-0.70	(0.07)	0.14	(0.04)	0.61	(0.03)	1.37	(0.05)
Sardegna	0.31	(0.04)	0.92	(0.03)	0.23	(0.05)	0.39	(0.05)	**-0.16**	(0.07)	-0.83	(0.06)	0.05	(0.03)	0.55	(0.04)	1.46	(0.05)
Sicilia	0.38	(0.03)	0.84	(0.03)	0.28	(0.05)	0.49	(0.04)	**-0.21**	(0.07)	-0.70	(0.05)	0.17	(0.04)	0.67	(0.03)	1.38	(0.04)
Toscana	0.29	(0.04)	0.81	(0.02)	0.17	(0.05)	0.43	(0.05)	**-0.27**	(0.07)	-0.70	(0.05)	0.07	(0.04)	0.51	(0.04)	1.26	(0.05)
Trento	0.12	(0.02)	0.83	(0.02)	0.05	(0.04)	0.19	(0.04)	**-0.13**	(0.05)	-0.92	(0.05)	-0.10	(0.03)	0.39	(0.03)	1.11	(0.05)
Umbria	0.35	(0.03)	0.81	(0.02)	0.20	(0.04)	0.49	(0.04)	**-0.29**	(0.06)	-0.68	(0.04)	0.14	(0.03)	0.61	(0.03)	1.32	(0.05)
Valle d'Aosta	0.26	(0.05)	0.97	(0.04)	0.07	(0.06)	0.47	(0.06)	**-0.40**	(0.09)	-1.00	(0.09)	0.09	(0.04)	0.58	(0.04)	1.38	(0.08)
Veneto	0.28	(0.04)	0.87	(0.04)	0.20	(0.03)	0.38	(0.05)	**-0.17**	(0.06)	-0.79	(0.05)	0.06	(0.03)	0.55	(0.03)	1.32	(0.07)
Mexico																		
Aguascalientes	0.38	(0.05)	0.85	(0.04)	0.29	(0.06)	0.47	(0.05)	**-0.18**	(0.06)	-0.69	(0.07)	0.20	(0.03)	0.64	(0.04)	1.39	(0.08)
Baja California	0.41	(0.06)	0.87	(0.02)	0.33	(0.06)	0.49	(0.08)	**-0.15**	(0.07)	-0.63	(0.08)	0.19	(0.04)	0.62	(0.06)	1.47	(0.07)
Baja California Sur	0.52	(0.04)	0.84	(0.03)	0.41	(0.06)	0.63	(0.05)	**-0.23**	(0.07)	-0.51	(0.06)	0.31	(0.04)	0.76	(0.05)	1.51	(0.06)
Campeche	0.46	(0.03)	0.73	(0.03)	0.41	(0.04)	0.52	(0.04)	-0.11	(0.06)	-0.41	(0.05)	0.26	(0.03)	0.67	(0.02)	1.33	(0.06)
Chiapas	0.45	(0.03)	0.83	(0.03)	0.39	(0.04)	0.51	(0.05)	-0.13	(0.07)	-0.56	(0.06)	0.22	(0.04)	0.69	(0.03)	1.46	(0.05)
Chihuahua	0.41	(0.06)	0.87	(0.03)	0.28	(0.08)	0.55	(0.05)	**-0.27**	(0.08)	-0.66	(0.10)	0.18	(0.04)	0.64	(0.06)	1.49	(0.06)
Coahuila	0.50	(0.05)	0.78	(0.03)	0.43	(0.05)	0.56	(0.08)	-0.13	(0.08)	-0.43	(0.09)	0.23	(0.05)	0.72	(0.04)	1.46	(0.05)
Colima	0.42	(0.03)	0.89	(0.03)	0.26	(0.04)	0.57	(0.04)	**-0.31**	(0.07)	-0.71	(0.06)	0.22	(0.03)	0.69	(0.03)	1.47	(0.04)
Distrito Federal	0.43	(0.05)	0.85	(0.03)	0.27	(0.07)	0.59	(0.04)	**-0.32**	(0.06)	-0.60	(0.08)	0.18	(0.03)	0.68	(0.06)	1.48	(0.05)
Durango	0.40	(0.05)	0.86	(0.03)	0.30	(0.07)	0.49	(0.05)	**-0.19**	(0.08)	-0.64	(0.07)	0.14	(0.04)	0.60	(0.05)	1.51	(0.06)
Guanajuato	0.43	(0.05)	0.78	(0.03)	0.33	(0.06)	0.53	(0.05)	**-0.21**	(0.07)	-0.53	(0.07)	0.20	(0.04)	0.68	(0.06)	1.39	(0.06)
Guerrero	0.54	(0.04)	0.75	(0.02)	0.52	(0.04)	0.55	(0.06)	-0.02	(0.08)	-0.37	(0.05)	0.33	(0.04)	0.73	(0.04)	1.46	(0.04)
Hidalgo	0.44	(0.03)	0.76	(0.03)	0.32	(0.04)	0.54	(0.04)	**-0.21**	(0.05)	-0.47	(0.05)	0.21	(0.02)	0.65	(0.04)	1.36	(0.06)
Jalisco	0.46	(0.03)	0.80	(0.03)	0.36	(0.04)	0.56	(0.03)	**-0.21**	(0.05)	-0.49	(0.06)	0.21	(0.03)	0.67	(0.03)	1.48	(0.06)
Mexico	0.45	(0.04)	0.82	(0.02)	0.33	(0.04)	0.56	(0.06)	**-0.24**	(0.08)	-0.56	(0.05)	0.22	(0.04)	0.70	(0.03)	1.44	(0.05)
Morelos	0.47	(0.05)	0.90	(0.04)	0.40	(0.06)	0.53	(0.08)	-0.13	(0.09)	-0.63	(0.11)	0.24	(0.05)	0.72	(0.04)	1.55	(0.06)
Nayarit	0.37	(0.05)	0.73	(0.03)	0.23	(0.05)	0.51	(0.06)	**-0.28**	(0.06)	-0.50	(0.06)	0.15	(0.03)	0.58	(0.05)	1.27	(0.07)
Nuevo León	0.40	(0.03)	0.88	(0.03)	0.33	(0.05)	0.48	(0.06)	-0.15	(0.09)	-0.69	(0.08)	0.18	(0.02)	0.62	(0.04)	1.49	(0.04)
Puebla	0.48	(0.03)	0.79	(0.03)	0.43	(0.05)	0.54	(0.04)	**-0.11**	(0.06)	-0.45	(0.05)	0.22	(0.02)	0.69	(0.04)	1.48	(0.06)
Querétaro	0.35	(0.04)	0.78	(0.04)	0.14	(0.05)	0.54	(0.05)	**-0.40**	(0.05)	-0.66	(0.09)	0.16	(0.04)	0.62	(0.05)	1.27	(0.05)
Quintana Roo	0.46	(0.05)	0.87	(0.02)	0.43	(0.05)	0.50	(0.07)	-0.07	(0.08)	-0.60	(0.04)	0.21	(0.04)	0.72	(0.05)	1.54	(0.07)
San Luis Potosí	0.41	(0.04)	0.79	(0.03)	0.31	(0.04)	0.49	(0.06)	**-0.19**	(0.05)	-0.55	(0.06)	0.16	(0.04)	0.65	(0.04)	1.38	(0.07)
Sinaloa	0.55	(0.04)	0.80	(0.04)	0.53	(0.07)	0.58	(0.04)	-0.05	(0.07)	-0.39	(0.06)	0.32	(0.03)	0.75	(0.04)	1.54	(0.08)
Tabasco	0.65	(0.03)	0.83	(0.02)	0.56	(0.04)	0.74	(0.03)	**-0.18**	(0.05)	-0.37	(0.03)	0.43	(0.03)	0.86	(0.04)	1.69	(0.06)
Tamaulipas	0.44	(0.03)	0.77	(0.03)	0.30	(0.03)	0.59	(0.04)	**-0.29**	(0.05)	-0.51	(0.05)	0.25	(0.03)	0.67	(0.02)	1.36	(0.06)
Tlaxcala	0.43	(0.03)	0.79	(0.02)	0.38	(0.04)	0.48	(0.03)	-0.10	(0.05)	-0.56	(0.05)	0.24	(0.03)	0.67	(0.02)	1.36	(0.05)
Veracruz	0.36	(0.04)	0.73	(0.02)	0.26	(0.05)	0.47	(0.05)	**-0.22**	(0.06)	-0.54	(0.06)	0.18	(0.03)	0.59	(0.06)	1.23	(0.05)
Yucatán	0.48	(0.02)	0.82	(0.02)	0.36	(0.04)	0.59	(0.05)	**-0.23**	(0.08)	-0.50	(0.04)	0.21	(0.03)	0.72	(0.02)	1.49	(0.05)
Zacatecas	0.46	(0.04)	0.88	(0.03)	0.35	(0.05)	0.57	(0.06)	**-0.22**	(0.09)	-0.62	(0.06)	0.22	(0.04)	0.68	(0.02)	1.55	(0.07)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.4.3d for national data.

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[Part 2/4]

Table B2.III.15 **Index of mathematics anxiety and mathematics performance, by national quarters of this index and region**

Results based on students' self-reports

		Index of mathematics anxiety																	
		All students		Variability in this index		Boys		Girls		Gender difference (B-G)		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	**Portugal**																		
	Alentejo	-0.04	(0.04)	0.81	(0.02)	-0.17	(0.06)	0.10	(0.04)	**-0.27**	(0.07)	-1.08	(0.06)	-0.21	(0.04)	0.25	(0.04)	0.90	(0.04)
	Spain																		
	Andalusia•	0.23	(0.03)	0.90	(0.03)	0.16	(0.04)	0.32	(0.05)	**-0.16**	(0.06)	-0.90	(0.06)	-0.01	(0.03)	0.52	(0.03)	1.33	(0.05)
	Aragon•	0.19	(0.04)	0.94	(0.02)	0.00	(0.05)	0.39	(0.04)	**-0.38**	(0.06)	-1.01	(0.07)	-0.03	(0.05)	0.51	(0.03)	1.31	(0.04)
	Asturias•	0.21	(0.04)	0.94	(0.02)	0.06	(0.05)	0.37	(0.05)	**-0.31**	(0.06)	-1.00	(0.07)	0.01	(0.04)	0.52	(0.03)	1.32	(0.05)
	Balearic Islands•	0.22	(0.03)	0.83	(0.02)	0.05	(0.05)	0.37	(0.04)	**-0.32**	(0.06)	-0.81	(0.05)	-0.03	(0.04)	0.49	(0.03)	1.23	(0.04)
	Basque Country•	0.03	(0.02)	0.93	(0.01)	-0.12	(0.03)	0.19	(0.03)	**-0.32**	(0.03)	-1.16	(0.04)	-0.18	(0.02)	0.33	(0.02)	1.14	(0.03)
	Cantabria•	0.18	(0.03)	0.94	(0.02)	-0.03	(0.04)	0.39	(0.04)	**-0.41**	(0.06)	-1.05	(0.05)	-0.02	(0.04)	0.49	(0.03)	1.29	(0.04)
	Castile and Leon•	0.27	(0.03)	0.87	(0.03)	0.14	(0.04)	0.40	(0.03)	**-0.26**	(0.05)	-0.80	(0.05)	0.01	(0.04)	0.54	(0.03)	1.34	(0.05)
	Catalonia•	0.12	(0.03)	0.93	(0.03)	-0.08	(0.05)	0.32	(0.04)	**-0.40**	(0.06)	-1.03	(0.05)	-0.13	(0.03)	0.36	(0.04)	1.27	(0.05)
	Extremadura•	0.21	(0.04)	0.89	(0.02)	0.09	(0.04)	0.32	(0.04)	**-0.23**	(0.05)	-0.90	(0.06)	-0.03	(0.03)	0.49	(0.04)	1.27	(0.05)
	Galicia•	0.23	(0.03)	0.87	(0.02)	0.08	(0.05)	0.38	(0.04)	**-0.31**	(0.06)	-0.86	(0.06)	-0.02	(0.03)	0.51	(0.03)	1.29	(0.04)
	La Rioja•	0.24	(0.03)	0.92	(0.03)	0.04	(0.05)	0.42	(0.04)	**-0.38**	(0.07)	-0.90	(0.05)	0.01	(0.03)	0.53	(0.03)	1.35	(0.05)
	Madrid•	0.23	(0.03)	0.87	(0.02)	0.05	(0.03)	0.41	(0.04)	**-0.36**	(0.05)	-0.84	(0.05)	0.01	(0.04)	0.50	(0.02)	1.28	(0.04)
	Murcia•	0.28	(0.04)	0.88	(0.02)	0.15	(0.05)	0.42	(0.04)	**-0.27**	(0.05)	-0.82	(0.06)	0.08	(0.04)	0.54	(0.03)	1.33	(0.04)
	Navarre•	0.17	(0.03)	0.89	(0.03)	0.04	(0.05)	0.31	(0.04)	**-0.27**	(0.06)	-0.93	(0.05)	-0.07	(0.03)	0.46	(0.03)	1.25	(0.05)
	United Kingdom																		
	England	-0.17	(0.02)	0.93	(0.01)	-0.38	(0.03)	0.04	(0.02)	**-0.42**	(0.04)	-1.35	(0.04)	-0.38	(0.02)	0.09	(0.02)	0.97	(0.03)
	Northern Ireland	0.05	(0.04)	0.97	(0.02)	-0.17	(0.03)	0.29	(0.05)	**-0.46**	(0.05)	-1.11	(0.04)	-0.26	(0.03)	0.30	(0.03)	1.27	(0.06)
	Scotland•	-0.01	(0.02)	0.91	(0.02)	-0.18	(0.03)	0.15	(0.03)	**-0.33**	(0.04)	-1.14	(0.03)	-0.25	(0.02)	0.25	(0.02)	1.09	(0.03)
	Wales	-0.03	(0.02)	0.88	(0.01)	-0.22	(0.03)	0.16	(0.03)	**-0.39**	(0.04)	-1.11	(0.04)	-0.28	(0.02)	0.23	(0.02)	1.04	(0.03)
	United States																		
	Connecticut•	-0.24	(0.03)	1.03	(0.02)	-0.41	(0.04)	-0.08	(0.05)	**-0.33**	(0.06)	-1.58	(0.05)	-0.46	(0.03)	0.07	(0.04)	1.01	(0.06)
	Florida•	-0.05	(0.04)	1.11	(0.03)	-0.23	(0.06)	0.14	(0.04)	**-0.38**	(0.05)	-1.45	(0.08)	-0.35	(0.05)	0.28	(0.04)	1.32	(0.05)
	Massachusetts•	-0.24	(0.04)	1.04	(0.02)	-0.43	(0.05)	-0.06	(0.04)	**-0.37**	(0.06)	-1.56	(0.06)	-0.50	(0.04)	0.05	(0.05)	1.07	(0.04)
Partners	**Argentina**																		
	Ciudad Autónoma de Buenos Aires•	0.38	(0.05)	0.94	(0.04)	0.20	(0.07)	0.54	(0.04)	**-0.35**	(0.05)	-0.83	(0.09)	0.20	(0.04)	0.68	(0.04)	1.47	(0.07)
	Brazil																		
	Acre	0.49	(0.04)	0.76	(0.03)	0.44	(0.04)	0.54	(0.06)	-0.10	(0.06)	-0.37	(0.07)	0.22	(0.05)	0.67	(0.03)	1.47	(0.08)
	Alagoas	0.65	(0.05)	0.90	(0.04)	0.49	(0.07)	0.78	(0.09)	**-0.29**	(0.13)	-0.39	(0.05)	0.29	(0.05)	0.83	(0.07)	1.89	(0.09)
	Amapá	0.69	(0.03)	0.84	(0.05)	0.52	(0.05)	0.83	(0.05)	**-0.31**	(0.08)	-0.33	(0.07)	0.44	(0.03)	0.90	(0.06)	1.76	(0.08)
	Amazonas	0.52	(0.05)	0.78	(0.04)	0.34	(0.06)	0.68	(0.05)	**-0.35**	(0.06)	-0.43	(0.07)	0.30	(0.05)	0.73	(0.05)	1.49	(0.08)
	Bahia	0.41	(0.07)	0.73	(0.02)	0.34	(0.09)	0.47	(0.08)	-0.13	(0.09)	-0.45	(0.07)	0.16	(0.04)	0.56	(0.09)	1.39	(0.09)
	Ceará	0.51	(0.05)	0.74	(0.03)	0.44	(0.07)	0.58	(0.05)	**-0.14**	(0.07)	-0.35	(0.07)	0.30	(0.05)	0.67	(0.02)	1.44	(0.09)
	Espírito Santo	0.50	(0.04)	0.79	(0.03)	0.49	(0.08)	0.51	(0.04)	-0.02	(0.10)	-0.41	(0.04)	0.21	(0.04)	0.70	(0.04)	1.52	(0.07)
	Federal District	0.51	(0.04)	0.82	(0.02)	0.37	(0.05)	0.64	(0.05)	**-0.26**	(0.07)	-0.49	(0.06)	0.30	(0.06)	0.72	(0.04)	1.53	(0.06)
	Goiás	0.58	(0.05)	0.83	(0.05)	0.43	(0.06)	0.72	(0.08)	**-0.29**	(0.09)	-0.34	(0.06)	0.24	(0.05)	0.74	(0.05)	1.68	(0.13)
	Maranhão	0.70	(0.04)	0.70	(0.04)	0.56	(0.09)	0.80	(0.06)	**-0.25**	(0.12)	-0.13	(0.05)	0.47	(0.03)	0.85	(0.03)	1.61	(0.11)
	Mato Grosso	0.49	(0.05)	0.76	(0.04)	0.40	(0.07)	0.57	(0.06)	**-0.16**	(0.07)	-0.42	(0.09)	0.26	(0.06)	0.69	(0.04)	1.43	(0.08)
	Mato Grosso do Sul	0.44	(0.05)	0.82	(0.04)	0.26	(0.06)	0.58	(0.05)	**-0.32**	(0.07)	-0.55	(0.06)	0.23	(0.04)	0.67	(0.04)	1.41	(0.09)
	Minas Gerais	0.42	(0.03)	0.79	(0.03)	0.32	(0.05)	0.51	(0.04)	**-0.19**	(0.06)	-0.52	(0.07)	0.17	(0.04)	0.60	(0.04)	1.43	(0.06)
	Pará	0.63	(0.04)	0.76	(0.03)	0.54	(0.06)	0.69	(0.05)	-0.15	(0.08)	-0.25	(0.04)	0.36	(0.04)	0.78	(0.04)	1.63	(0.08)
	Paraíba	0.53	(0.05)	0.80	(0.04)	0.46	(0.09)	0.60	(0.06)	-0.14	(0.12)	-0.36	(0.06)	0.21	(0.04)	0.69	(0.04)	1.58	(0.09)
	Paraná	0.52	(0.05)	0.79	(0.03)	0.44	(0.06)	0.61	(0.06)	**-0.17**	(0.07)	-0.39	(0.07)	0.24	(0.06)	0.70	(0.07)	1.56	(0.06)
	Pernambuco	0.61	(0.05)	0.81	(0.04)	0.51	(0.07)	0.68	(0.07)	**-0.17**	(0.08)	-0.34	(0.07)	0.32	(0.05)	0.80	(0.05)	1.67	(0.10)
	Piauí	0.58	(0.04)	0.75	(0.04)	0.44	(0.08)	0.69	(0.04)	**-0.25**	(0.09)	-0.31	(0.06)	0.34	(0.05)	0.79	(0.05)	1.51	(0.08)
	Rio de Janeiro	0.56	(0.05)	0.79	(0.04)	0.51	(0.06)	0.60	(0.06)	-0.09	(0.07)	-0.37	(0.08)	0.33	(0.06)	0.74	(0.04)	1.55	(0.06)
	Rio Grande do Norte	0.57	(0.05)	0.84	(0.05)	0.45	(0.07)	0.68	(0.05)	**-0.23**	(0.09)	-0.41	(0.09)	0.32	(0.05)	0.77	(0.04)	1.63	(0.08)
	Rio Grande do Sul	0.47	(0.04)	0.75	(0.03)	0.31	(0.05)	0.62	(0.07)	**-0.31**	(0.08)	-0.39	(0.05)	0.20	(0.04)	0.64	(0.04)	1.46	(0.08)
	Rondônia	0.47	(0.04)	0.74	(0.05)	0.41	(0.05)	0.52	(0.05)	**-0.12**	(0.06)	-0.40	(0.08)	0.23	(0.03)	0.62	(0.05)	1.42	(0.08)
	Roraima	0.62	(0.05)	0.84	(0.03)	0.52	(0.08)	0.71	(0.07)	-0.20	(0.10)	-0.40	(0.06)	0.37	(0.05)	0.86	(0.06)	1.65	(0.08)
	Santa Catarina	0.39	(0.05)	0.78	(0.04)	0.36	(0.07)	0.43	(0.04)	-0.07	(0.06)	-0.53	(0.08)	0.16	(0.04)	0.59	(0.05)	1.36	(0.09)
	São Paulo	0.51	(0.03)	0.73	(0.02)	0.41	(0.03)	0.61	(0.04)	**-0.20**	(0.05)	-0.35	(0.04)	0.27	(0.03)	0.69	(0.02)	1.44	(0.05)
	Sergipe	0.68	(0.06)	0.79	(0.04)	0.52	(0.09)	0.82	(0.06)	**-0.30**	(0.09)	-0.29	(0.07)	0.44	(0.08)	0.93	(0.08)	1.65	(0.06)
	Tocantins	0.45	(0.03)	0.79	(0.03)	0.32	(0.04)	0.58	(0.04)	**-0.26**	(0.06)	-0.49	(0.06)	0.20	(0.03)	0.66	(0.03)	1.43	(0.04)
	Colombia																		
	Bogotá	0.31	(0.03)	0.75	(0.03)	0.20	(0.04)	0.40	(0.03)	**-0.20**	(0.04)	-0.60	(0.04)	0.11	(0.03)	0.51	(0.03)	1.21	(0.04)
	Cali	0.32	(0.04)	0.76	(0.03)	0.22	(0.05)	0.40	(0.05)	**-0.18**	(0.06)	-0.60	(0.05)	0.12	(0.04)	0.53	(0.05)	1.23	(0.06)
	Manizales	0.37	(0.03)	0.80	(0.03)	0.28	(0.04)	0.44	(0.04)	**-0.15**	(0.06)	-0.63	(0.06)	0.19	(0.02)	0.60	(0.04)	1.31	(0.04)
	Medellín	0.40	(0.03)	0.85	(0.03)	0.32	(0.05)	0.47	(0.04)	**-0.14**	(0.06)	-0.63	(0.06)	0.17	(0.03)	0.63	(0.03)	1.43	(0.05)
	Russian Federation																		
	Perm Territory region•	0.09	(0.04)	0.77	(0.03)	-0.01	(0.04)	0.21	(0.04)	**-0.22**	(0.04)	-0.87	(0.06)	-0.10	(0.03)	0.32	(0.04)	1.02	(0.05)
	United Arab Emirates																		
	Abu Dhabi•	0.23	(0.03)	1.01	(0.02)	0.26	(0.05)	0.19	(0.04)	0.07	(0.06)	-1.06	(0.04)	-0.03	(0.05)	0.57	(0.03)	1.44	(0.04)
	Ajman	0.34	(0.06)	0.92	(0.05)	0.45	(0.08)	0.24	(0.07)	**0.20**	(0.10)	-0.81	(0.08)	0.17	(0.06)	0.58	(0.06)	1.45	(0.10)
	Dubai•	0.06	(0.02)	0.99	(0.02)	0.03	(0.03)	0.08	(0.03)	-0.05	(0.04)	-1.20	(0.04)	-0.22	(0.02)	0.36	(0.02)	1.28	(0.03)
	Fujairah	0.24	(0.05)	0.90	(0.04)	0.44	(0.07)	0.04	(0.05)	**0.40**	(0.09)	-0.88	(0.09)	-0.03	(0.06)	0.52	(0.05)	1.36	(0.07)
	Ras al-Khaimah	0.31	(0.05)	0.92	(0.06)	0.41	(0.07)	0.21	(0.07)	**0.21**	(0.10)	-0.86	(0.12)	0.13	(0.04)	0.59	(0.04)	1.38	(0.08)
	Sharjah	0.22	(0.07)	0.97	(0.04)	0.32	(0.11)	0.15	(0.07)	0.17	(0.11)	-0.99	(0.09)	-0.05	(0.09)	0.53	(0.05)	1.42	(0.09)
	Umm al-Quwain	0.35	(0.06)	0.93	(0.06)	0.51	(0.10)	0.19	(0.08)	**0.31**	(0.13)	-0.77	(0.12)	0.04	(0.07)	0.60	(0.07)	1.55	(0.12)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.4.3d for national data.

StatLink http://dx.doi.org/10.1787/888932964072

[Part 3/4]

Table B2.III.15 Index of mathematics anxiety and mathematics performance, by national quarters of this index and region

Results based on students' self-reports

	Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
	Bottom quarter		Second quarter		Third quarter		Top quarter							
	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD														
Australia														
Australian Capital Territory	**552**	(11.2)	535	(9.7)	505	(11.2)	**470**	(9.7)	**-30.0**	(4.7)	**0.5**	(0.2)	9.9	(2.9)
New South Wales	**561**	(6.4)	520	(5.5)	490	(5.6)	**460**	(5.5)	**-41.2**	(3.2)	**0.3**	(0.1)	13.7	(1.7)
Northern Territory	**495**	(16.0)	465	(23.2)	453	(20.9)	**430**	(17.9)	**-30.4**	(6.3)	**0.6**	(0.2)	7.8	(3.2)
Queensland	**557**	(5.6)	516	(5.3)	485	(5.5)	**457**	(5.2)	**-44.0**	(2.4)	**0.3**	(0.1)	18.3	(2.0)
South Australia	**550**	(6.9)	491	(6.5)	475	(6.2)	**445**	(6.0)	**-39.4**	(3.1)	**0.3**	(0.1)	17.9	(2.4)
Tasmania	**534**	(10.5)	486	(8.6)	470	(9.2)	**440**	(9.9)	**-38.0**	(4.6)	**0.4**	(0.1)	12.9	(2.8)
Victoria	**554**	(6.5)	510	(5.6)	485	(6.2)	**461**	(5.6)	**-35.7**	(2.3)	**0.3**	(0.1)	15.6	(1.8)
Western Australia	**561**	(6.9)	523	(7.4)	510	(6.3)	**471**	(6.9)	**-37.0**	(3.3)	**0.4**	(0.1)	13.0	(2.2)
Belgium														
Flemish Community•	**558**	(4.6)	548	(4.6)	538	(4.8)	**502**	(4.6)	**-22.4**	(2.0)	**0.7**	(0.1)	4.5	(0.8)
French Community	**539**	(4.7)	514	(5.9)	484	(5.8)	**470**	(5.4)	**-27.9**	(3.0)	**0.5**	(0.1)	8.3	(1.6)
German-speaking Community	**535**	(9.0)	540	(8.7)	499	(8.1)	**489**	(8.0)	**-18.4**	(3.8)	0.8	(0.2)	5.8	(2.4)
Canada														
Alberta	**578**	(8.4)	529	(7.8)	501	(7.6)	**474**	(5.7)	**-33.8**	(2.6)	**0.3**	(0.1)	19.1	(2.6)
British Columbia	**582**	(6.5)	533	(7.5)	511	(7.0)	**473**	(5.7)	**-38.0**	(2.3)	**0.2**	(0.1)	22.9	(2.5)
Manitoba	**559**	(7.3)	503	(5.5)	473	(5.9)	**447**	(5.4)	**-39.9**	(2.8)	**0.3**	(0.1)	22.2	(2.7)
New Brunswick	**570**	(7.0)	510	(6.9)	481	(6.2)	**459**	(6.9)	**-38.2**	(2.4)	**0.1**	(0.1)	26.7	(2.9)
Newfoundland and Labrador	**556**	(8.1)	514	(8.2)	467	(10.0)	**444**	(6.0)	**-37.4**	(2.2)	**0.2**	(0.1)	26.7	(3.2)
Nova Scotia	**562**	(6.0)	509	(7.5)	479	(6.1)	**451**	(6.6)	**-37.1**	(2.6)	**0.2**	(0.1)	25.8	(3.8)
Ontario	**565**	(6.3)	521	(6.7)	495	(6.7)	**477**	(4.5)	**-32.7**	(2.1)	**0.3**	(0.1)	16.5	(1.9)
Prince Edward Island	**539**	(6.0)	488	(7.9)	453	(7.6)	**439**	(5.9)	**-32.2**	(2.4)	**0.3**	(0.1)	21.5	(2.7)
Quebec	**582**	(5.2)	551	(5.4)	523	(5.3)	**501**	(6.2)	**-31.8**	(2.6)	**0.4**	(0.1)	12.1	(1.9)
Saskatchewan	**563**	(5.8)	531	(7.5)	484	(5.2)	**461**	(4.8)	**-36.1**	(2.6)	**0.3**	(0.1)	22.5	(2.5)
Italy														
Abruzzo	**515**	(9.1)	487	(9.1)	468	(10.5)	**444**	(9.9)	**-30.3**	(3.8)	**0.6**	(0.1)	8.5	(2.1)
Basilicata	**505**	(7.4)	470	(7.6)	454	(7.0)	**441**	(6.0)	**-33.0**	(3.3)	**0.5**	(0.1)	9.9	(1.8)
Bolzano	**552**	(5.7)	527	(4.6)	491	(5.6)	**462**	(4.7)	**-31.3**	(2.2)	**0.4**	(0.1)	15.6	(1.9)
Calabria	**467**	(8.7)	442	(8.2)	421	(8.6)	**399**	(7.5)	**-32.2**	(3.7)	**0.5**	(0.1)	10.2	(2.3)
Campania	**490**	(9.7)	462	(12.9)	445	(10.5)	**420**	(8.0)	**-31.9**	(3.5)	**0.6**	(0.1)	9.0	(1.9)
Emilia Romagna	**540**	(9.0)	516	(11.0)	492	(9.4)	**465**	(8.2)	**-36.9**	(4.3)	**0.6**	(0.1)	11.0	(2.0)
Friuli Venezia Giulia	**558**	(8.7)	523	(7.5)	516	(7.5)	**496**	(8.2)	**-26.4**	(3.2)	**0.5**	(0.1)	6.5	(1.5)
Lazio	**515**	(7.9)	483	(9.6)	463	(10.2)	**445**	(9.3)	**-30.9**	(3.7)	**0.4**	(0.1)	8.8	(2.0)
Liguria	**528**	(10.0)	507	(10.3)	479	(9.1)	**445**	(7.2)	**-34.8**	(4.1)	**0.6**	(0.2)	10.7	(2.3)
Lombardia	**549**	(11.0)	528	(9.6)	504	(10.4)	**489**	(9.1)	**-27.5**	(3.5)	**0.6**	(0.1)	7.6	(2.0)
Marche	**538**	(9.1)	505	(7.5)	481	(9.7)	**462**	(6.8)	**-33.1**	(3.8)	**0.5**	(0.1)	11.0	(2.6)
Molise	**502**	(8.7)	478	(8.5)	457	(7.9)	**431**	(6.3)	**-33.5**	(4.1)	**0.5**	(0.1)	10.7	(2.4)
Piemonte	**534**	(8.5)	507	(9.3)	489	(8.6)	**466**	(7.4)	**-26.2**	(4.0)	**0.4**	(0.1)	7.2	(2.0)
Puglia	**506**	(10.1)	497	(9.2)	469	(8.1)	**446**	(7.2)	**-28.3**	(4.4)	**0.7**	(0.1)	7.6	(2.3)
Sardegna	**486**	(8.9)	468	(8.9)	451	(7.9)	**425**	(8.2)	**-24.3**	(4.3)	**0.6**	(0.1)	6.4	(2.0)
Sicilia	**483**	(6.6)	445	(9.8)	444	(7.0)	**428**	(6.2)	**-23.6**	(3.6)	**0.5**	(0.1)	5.8	(1.8)
Toscana	**520**	(7.8)	514	(9.7)	494	(8.4)	**474**	(8.8)	**-20.2**	(4.9)	0.9	(0.2)	3.3	(1.6)
Trento	**554**	(8.0)	538	(8.8)	508	(6.9)	**496**	(5.9)	**-30.1**	(3.5)	**0.6**	(0.1)	9.5	(2.3)
Umbria	**527**	(8.5)	507	(9.6)	483	(10.8)	**461**	(9.9)	**-30.5**	(4.7)	**0.5**	(0.2)	7.8	(2.3)
Valle d'Aosta	**522**	(8.8)	499	(9.4)	483	(8.2)	**472**	(7.7)	**-18.7**	(4.9)	**0.6**	(0.1)	4.9	(2.5)
Veneto	**563**	(10.6)	540	(9.7)	518	(11.7)	**481**	(9.0)	**-34.1**	(4.3)	**0.6**	(0.1)	10.3	(2.1)
Mexico														
Aguascalientes	**481**	(9.7)	448	(7.9)	424	(8.2)	**404**	(9.5)	**-37.0**	(3.5)	**0.4**	(0.1)	17.5	(3.2)
Baja California	**457**	(7.8)	420	(8.0)	406	(9.0)	**378**	(6.8)	**-35.1**	(3.1)	**0.4**	(0.1)	18.4	(3.2)
Baja California Sur	**446**	(7.4)	421	(7.5)	397	(9.0)	**389**	(7.6)	**-26.2**	(3.2)	**0.4**	(0.1)	9.9	(2.3)
Campeche	**426**	(10.0)	397	(7.4)	378	(8.5)	**382**	(6.2)	**-25.4**	(4.1)	**0.6**	(0.2)	7.0	(2.2)
Chiapas	**398**	(10.5)	383	(12.8)	366	(7.4)	**353**	(8.7)	**-20.3**	(3.9)	**0.7**	(0.1)	5.2	(1.7)
Chihuahua	**467**	(14.0)	446	(8.7)	410	(10.1)	**397**	(8.1)	**-36.8**	(5.4)	**0.6**	(0.1)	16.5	(4.7)
Coahuila	**455**	(13.5)	429	(11.4)	402	(9.1)	**386**	(8.8)	**-38.9**	(4.7)	**0.5**	(0.1)	17.6	(3.9)
Colima	**477**	(7.4)	433	(7.2)	422	(7.5)	**394**	(6.8)	**-31.3**	(4.0)	**0.3**	(0.1)	12.8	(2.8)
Distrito Federal	**466**	(11.1)	433	(8.0)	412	(9.1)	**403**	(8.1)	**-32.0**	(5.5)	**0.4**	(0.2)	13.8	(4.0)
Durango	**476**	(9.5)	436	(8.6)	408	(7.5)	**387**	(6.2)	**-38.8**	(2.9)	**0.3**	(0.1)	20.7	(3.3)
Guanajuato	**447**	(8.6)	423	(8.4)	397	(10.0)	**388**	(6.1)	**-33.1**	(4.0)	**0.4**	(0.2)	11.9	(2.5)
Guerrero	**387**	(7.7)	380	(7.0)	359	(7.5)	**352**	(6.2)	**-18.1**	(4.9)	0.7	(0.2)	4.2	(2.2)
Hidalgo	**437**	(9.2)	403	(8.0)	397	(10.4)	**388**	(8.5)	**-26.1**	(5.2)	**0.6**	(0.2)	7.3	(2.8)
Jalisco	**486**	(10.3)	430	(8.2)	433	(10.1)	**401**	(6.8)	**-38.7**	(3.5)	**0.3**	(0.1)	17.4	(3.2)
Mexico	**453**	(8.6)	421	(8.6)	399	(6.1)	**394**	(6.2)	**-26.9**	(4.9)	**0.4**	(0.1)	11.5	(3.2)
Morelos	**458**	(15.4)	423	(11.8)	413	(9.2)	**394**	(7.3)	**-33.2**	(6.3)	**0.5**	(0.1)	15.2	(5.7)
Nayarit	**454**	(9.3)	416	(14.1)	399	(10.5)	**398**	(6.9)	**-31.5**	(5.5)	**0.6**	(0.2)	9.2	(2.8)
Nuevo León	**482**	(10.8)	436	(8.1)	425	(10.1)	**406**	(9.0)	**-31.6**	(3.0)	**0.3**	(0.1)	14.0	(2.7)
Puebla	**448**	(7.2)	428	(6.6)	400	(7.2)	**397**	(6.3)	**-28.3**	(3.5)	**0.5**	(0.1)	9.7	(2.5)
Querétaro	**475**	(11.7)	439	(9.5)	419	(7.2)	**406**	(6.0)	**-35.0**	(4.5)	**0.4**	(0.1)	13.4	(3.7)
Quintana Roo	**455**	(8.2)	411	(8.0)	402	(8.2)	**386**	(7.3)	**-30.7**	(3.7)	**0.3**	(0.1)	14.2	(3.1)
San Luis Potosí	**444**	(9.7)	423	(8.0)	404	(11.7)	**382**	(8.9)	**-31.5**	(3.2)	**0.5**	(0.1)	10.4	(2.5)
Sinaloa	**442**	(6.9)	414	(7.7)	399	(8.0)	**387**	(7.3)	**-26.4**	(3.5)	**0.5**	(0.1)	9.2	(2.4)
Tabasco	**415**	(8.0)	387	(7.1)	368	(6.9)	**348**	(10.7)	**-30.1**	(4.8)	**0.4**	(0.1)	12.5	(3.8)
Tamaulipas	**449**	(11.3)	412	(8.9)	401	(10.2)	**382**	(7.4)	**-32.8**	(4.7)	**0.5**	(0.1)	11.2	(2.8)
Tlaxcala	**444**	(8.7)	415	(5.5)	406	(8.8)	**383**	(7.3)	**-27.3**	(3.8)	**0.5**	(0.1)	9.3	(2.2)
Veracruz	**439**	(12.5)	407	(8.5)	391	(8.5)	**373**	(5.4)	**-35.3**	(5.6)	**0.5**	(0.1)	11.9	(3.0)
Yucatán	**448**	(9.1)	422	(7.5)	398	(8.0)	**378**	(6.3)	**-34.7**	(4.0)	**0.4**	(0.1)	14.6	(2.9)
Zacatecas	**453**	(7.0)	425	(7.4)	395	(6.5)	**383**	(4.9)	**-30.7**	(3.6)	**0.4**	(0.1)	14.7	(3.9)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.4.3d for national data.

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[Part 4/4]

Table B2.III.15 **Index of mathematics anxiety and mathematics performance, by national quarters of this index and region**

Results based on students' self-reports

		Mathematics score, by national quarters of this index								Change in the mathematics score per unit of this index		Increased likelihood of students in the bottom quarter of this index scoring in the bottom quarter of the national mathematics performance distribution		Explained variance in student performance (r-squared x 100)	
		Bottom quarter		Second quarter		Third quarter		Top quarter							
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Ratio	S.E.	%	S.E.
OECD	**Portugal**														
	Alentejo	**535**	(12.9)	503	(14.5)	476	(11.7)	**440**	(11.4)	**-46.7**	(4.9)	**0.5**	(0.1)	17.6	(3.1)
	Spain														
	Andalusia•	**513**	(6.6)	481	(6.4)	458	(7.0)	**445**	(5.8)	**-30.3**	(2.8)	**0.5**	(0.1)	10.5	(1.8)
	Aragon•	**534**	(7.3)	505	(9.8)	484	(9.0)	**458**	(8.6)	**-30.0**	(3.6)	**0.4**	(0.1)	9.2	(2.1)
	Asturias•	**541**	(7.7)	505	(6.4)	486	(7.8)	**473**	(7.1)	**-24.3**	(3.6)	**0.6**	(0.1)	6.1	(1.7)
	Balearic Islands•	**499**	(7.7)	490	(7.0)	470	(8.5)	**447**	(7.1)	**-23.9**	(4.1)	**0.6**	(0.1)	5.5	(1.8)
	Basque Country•	**556**	(4.3)	515	(4.4)	491	(3.8)	**466**	(3.7)	**-36.9**	(1.7)	**0.3**	(0.0)	17.1	(1.4)
	Cantabria•	**533**	(7.2)	491	(8.6)	465	(7.6)	**474**	(6.6)	**-25.5**	(4.3)	**0.6**	(0.1)	7.6	(2.4)
	Castile and Leon•	**539**	(6.2)	523	(7.4)	494	(8.2)	**483**	(7.1)	**-26.8**	(2.6)	**0.6**	(0.1)	7.9	(1.6)
	Catalonia•	**529**	(8.2)	502	(7.5)	484	(7.2)	**464**	(6.8)	**-25.5**	(3.0)	**0.5**	(0.1)	8.2	(2.0)
	Extremadura•	**496**	(7.5)	477	(6.7)	446	(7.7)	**442**	(7.8)	**-28.1**	(3.4)	0.8	(0.1)	7.3	(1.8)
	Galicia•	**523**	(8.2)	496	(8.0)	487	(7.2)	**464**	(6.5)	**-25.3**	(3.8)	**0.6**	(0.1)	6.7	(2.0)
	La Rioja•	**545**	(6.3)	521	(6.4)	483	(7.4)	**467**	(6.5)	**-32.9**	(3.8)	**0.6**	(0.1)	9.8	(2.1)
	Madrid•	**542**	(7.7)	508	(7.1)	490	(8.4)	**473**	(7.8)	**-30.0**	(2.6)	**0.5**	(0.1)	9.1	(1.7)
	Murcia•	**501**	(10.1)	467	(7.3)	448	(9.2)	**428**	(5.8)	**-28.7**	(4.4)	**0.5**	(0.1)	8.4	(2.3)
	Navarre•	**550**	(6.3)	523	(5.8)	506	(6.3)	**486**	(6.1)	**-28.8**	(3.6)	**0.5**	(0.1)	9.4	(2.1)
	United Kingdom														
	England	**553**	(5.9)	504	(5.0)	488	(5.0)	**451**	(4.9)	**-40.8**	(1.9)	**0.3**	(0.1)	16.3	(1.6)
	Northern Ireland	**538**	(6.0)	502	(6.6)	473	(5.6)	**443**	(5.2)	**-38.0**	(2.6)	**0.3**	(0.1)	15.7	(1.9)
	Scotland•	**540**	(4.6)	505	(5.0)	493	(4.4)	**466**	(4.6)	**-31.0**	(2.0)	**0.5**	(0.1)	11.3	(1.4)
	Wales	**516**	(4.6)	478	(4.7)	452	(3.9)	**434**	(4.1)	**-37.1**	(2.2)	**0.4**	(0.1)	15.3	(1.7)
	United States														
	Connecticut•	**558**	(8.4)	513	(9.4)	488	(8.4)	**457**	(9.7)	**-36.4**	(3.3)	**0.3**	(0.1)	15.2	(2.3)
	Florida•	**511**	(9.5)	476	(8.4)	446	(6.5)	**428**	(5.7)	**-29.3**	(2.8)	**0.3**	(0.1)	15.3	(2.6)
	Massachusetts•	**570**	(7.5)	529	(9.9)	499	(10.9)	**464**	(7.0)	**-37.5**	(3.2)	**0.3**	(0.1)	16.4	(2.5)
Partners	**Argentina**														
	Ciudad Autónoma de Buenos Aires•	**471**	(9.5)	426	(9.1)	412	(9.1)	**379**	(11.1)	**-35.1**	(5.6)	**0.3**	(0.1)	14.1	(4.1)
	Brazil														
	Acre	**399**	(6.9)	361	(8.2)	352	(8.2)	**346**	(9.2)	**-27.0**	(5.3)	**0.4**	(0.1)	9.8	(3.6)
	Alagoas	**381**	(14.2)	359	(11.7)	338	(10.3)	**310**	(11.5)	**-28.4**	(6.9)	**0.5**	(0.2)	13.5	(5.0)
	Amapá	**397**	(14.1)	372	(9.4)	352	(11.9)	**342**	(10.2)	**-25.1**	(4.3)	**0.5**	(0.2)	11.2	(3.3)
	Amazonas	**393**	(10.8)	359	(11.4)	343	(8.5)	**337**	(9.0)	**-29.1**	(4.7)	**0.4**	(0.1)	12.0	(2.8)
	Bahia	**419**	(15.3)	395	(17.9)	365	(16.3)	**362**	(11.3)	**-32.5**	(9.4)	**0.5**	(0.2)	9.1	(4.7)
	Ceará	**426**	(14.9)	380	(15.2)	363	(12.7)	**351**	(7.4)	**-39.9**	(5.9)	**0.3**	(0.1)	14.0	(2.9)
	Espírito Santo	**461**	(8.6)	421	(12.8)	398	(12.4)	**375**	(10.5)	**-42.9**	(4.6)	**0.2**	(0.1)	16.2	(4.7)
	Federal District	**463**	(11.7)	425	(14.3)	394	(12.8)	**387**	(12.7)	**-34.6**	(4.2)	**0.4**	(0.1)	11.4	(2.6)
	Goiás	**424**	(9.7)	385	(12.9)	373	(8.9)	**352**	(7.9)	**-34.2**	(3.8)	**0.4**	(0.2)	15.7	(4.1)
	Maranhão	**376**	(21.6)	351	(13.1)	332	(16.9)	**320**	(13.1)	**-32.8**	(6.9)	0.7	(0.2)	8.7	(2.7)
	Mato Grosso	**419**	(21.3)	362	(9.1)	374	(13.2)	**346**	(8.9)	**-33.2**	(7.9)	**0.3**	(0.2)	12.4	(4.0)
	Mato Grosso do Sul	**448**	(11.0)	415	(16.0)	398	(8.8)	**378**	(9.2)	**-36.0**	(4.4)	**0.5**	(0.2)	15.2	(2.9)
	Minas Gerais	**436**	(9.4)	409	(9.3)	398	(8.5)	**377**	(7.7)	**-27.2**	(4.6)	**0.4**	(0.1)	9.3	(2.6)
	Pará	**386**	(7.6)	377	(8.7)	362	(9.6)	**335**	(7.0)	**-25.2**	(4.4)	**0.6**	(0.1)	8.9	(2.6)
	Paraíba	**440**	(10.3)	402	(12.0)	376	(9.6)	**387**	(11.4)	**-28.7**	(6.3)	**0.5**	(0.2)	8.6	(2.9)
	Paraná	**438**	(15.8)	406	(15.1)	388	(14.0)	**377**	(12.3)	**-30.4**	(5.0)	**0.4**	(0.2)	9.0	(2.9)
	Pernambuco	**400**	(12.7)	374	(11.5)	360	(10.5)	**334**	(10.1)	**-31.7**	(5.2)	**0.5**	(0.2)	14.2	(4.5)
	Piauí	**422**	(24.1)	388	(10.3)	373	(12.3)	**356**	(8.4)	**-33.1**	(11.3)	0.6	(0.2)	9.4	(4.3)
	Rio de Janeiro	**412**	(9.3)	403	(12.3)	378	(10.9)	**365**	(6.8)	**-21.9**	(4.0)	**0.5**	(0.2)	6.7	(2.2)
	Rio Grande do Norte	**432**	(19.5)	387	(10.0)	366	(9.4)	**345**	(8.8)	**-44.2**	(5.9)	**0.2**	(0.1)	20.9	(4.2)
	Rio Grande do Sul	**436**	(11.1)	414	(9.9)	396	(10.2)	**381**	(6.9)	**-28.5**	(5.6)	**0.5**	(0.2)	10.2	(3.6)
	Rondônia	**411**	(8.0)	400	(8.5)	376	(9.0)	**355**	(8.2)	**-31.0**	(4.9)	**0.5**	(0.2)	12.9	(3.3)
	Roraima	**398**	(10.1)	373	(8.6)	347	(9.8)	**334**	(7.3)	**-25.5**	(4.7)	**0.4**	(0.2)	9.2	(3.2)
	Santa Catarina	**467**	(12.2)	424	(15.0)	405	(11.8)	**389**	(9.8)	**-38.7**	(4.7)	**0.3**	(0.2)	16.0	(4.5)
	São Paulo	**446**	(9.7)	410	(7.3)	392	(4.9)	**366**	(4.9)	**-41.7**	(4.7)	**0.4**	(0.1)	14.9	(2.6)
	Sergipe	**420**	(15.1)	387	(10.6)	371	(12.2)	**351**	(11.4)	**-30.5**	(6.0)	**0.4**	(0.2)	12.2	(4.0)
	Tocantins	**406**	(11.8)	380	(9.9)	360	(10.3)	**333**	(10.0)	**-35.3**	(3.3)	**0.4**	(0.1)	13.0	(2.2)
	Colombia														
	Bogotá	**419**	(6.1)	402	(6.9)	380	(6.6)	**368**	(6.4)	**-27.1**	(2.7)	**0.5**	(0.1)	9.3	(1.8)
	Cali	**420**	(8.7)	386	(9.0)	373	(8.6)	**357**	(7.6)	**-30.8**	(4.0)	**0.4**	(0.1)	11.6	(2.7)
	Manizales	**442**	(9.9)	403	(6.6)	392	(6.9)	**385**	(6.7)	**-27.4**	(3.9)	**0.5**	(0.1)	9.5	(2.2)
	Medellín	**445**	(12.9)	397	(9.6)	383	(9.7)	**362**	(6.6)	**-38.3**	(4.8)	**0.4**	(0.1)	15.2	(2.4)
	Russian Federation														
	Perm Territory region•	**545**	(13.2)	492	(7.2)	464	(8.1)	**437**	(6.8)	**-53.1**	(5.7)	**0.3**	(0.1)	20.3	(3.2)
	United Arab Emirates														
	Abu Dhabi•	**482**	(5.1)	433	(6.4)	404	(6.1)	**378**	(3.9)	**-38.7**	(2.1)	**0.3**	(0.1)	20.6	(1.9)
	Ajman	**438**	(9.5)	408	(10.7)	386	(12.9)	**388**	(11.2)	**-21.9**	(5.7)	**0.5**	(0.1)	7.9	(3.9)
	Dubai•	**522**	(4.6)	475	(3.9)	449	(3.5)	**416**	(3.7)	**-41.4**	(1.9)	**0.3**	(0.0)	19.2	(1.6)
	Fujairah	**455**	(9.8)	421	(14.3)	389	(15.2)	**377**	(12.0)	**-35.4**	(3.8)	**0.3**	(0.1)	15.2	(3.2)
	Ras al-Khaimah	**448**	(13.9)	419	(12.6)	405	(6.6)	**387**	(9.8)	**-26.0**	(4.6)	**0.6**	(0.2)	10.0	(3.2)
	Sharjah	**477**	(13.4)	455	(13.8)	429	(10.8)	**403**	(11.1)	**-29.9**	(4.1)	**0.5**	(0.2)	13.0	(3.4)
	Umm al-Quwain	**442**	(14.7)	411	(11.1)	379	(10.2)	**368**	(10.7)	**-31.7**	(5.6)	**0.5**	(0.2)	15.6	(4.2)

• PISA adjudicated region.

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

See Table III.4.3d for national data.

StatLink http://dx.doi.org/10.1787/888932964072

ANNEX B3

LIST OF TABLES AVAILABLE ON LINE

The following tables are available in electronic form only.

Chapter 2 Engagement with and at school

http://dx.doi.org/10.1787/888932963920

WEB	Table III.2.1c	Association between arriving late for school and mathematics performance, by performance level
WEB	Table III.2.3b	Students' sense of belonging, by gender
WEB	Table III.2.3c	Students' sense of belonging, by socio-economic status
WEB	Table III.2.3e	Association between students' sense of belonging and mathematics performance, by performance level
WEB	Table III.2.3g	Change between 2003 and 2012 in students' sense of belonging, by gender and socio-economic status
WEB	Table III.2.4b	Students' attitudes towards school: Learning outcomes, by gender
WEB	Table III.2.4c	Students' attitudes towards school: Learning outcomes, by socio-economic status
WEB	Table III.2.4f	Change between 2003 and 2012 in students' attitudes towards school (learning outcomes), by gender and socio-economic status
WEB	Table III.2.5b	Students' attitudes towards school: Learning activities, by gender
WEB	Table III.2.5c	Students' attitudes towards school: Learning activities, by socio-economic status
WEB	Table III.2.6	Students' sense of belonging and attitudes towards school, by socio-economic status
WEB	Table III.2.8	Students' engagement with and at school, by proficiency level in mathematics

Chapter 3 Students' drive and motivation

http://dx.doi.org/10.1787/888932963939

WEB	Table III.3.1b	Students and perseverance, by gender
WEB	Table III.3.1c	Students and perseverance, by socio-economic status
WEB	Table III.3.1e	Association between students' perseverance and mathematics performance, by performance decile
WEB	Table III.3.2b	Students' openness to problem solving, by gender
WEB	Table III.3.2c	Students' openness to problem solving, by socio-economic status
WEB	Table III.3.2e	Association between students' openness to problem solving and mathematics performance, by performance decile
WEB	Table III.3.3c	Association between students' self-responsibility for failing in mathematics and mathematics performance, by performance decile
WEB	Table III.3.3e	Students' perceived control of success in mathematics, by gender
WEB	Table III.3.3f	Students' perceived control of success in mathematics, by socio-economic status
WEB	Table III.3.3g	Association between students' perceived control of success in mathematics and mathematics performance, by performance decile
WEB	Table III.3.3i	Students' perceived control of success in school, by gender
WEB	Table III.3.3j	Students' perceived control of success in school, by socio-economic status
WEB	Table III.3.3k	Association between students' perceived control of success in school and mathematics performance, by performance decile
WEB	Table III.3.4b	Students' intrinsic motivation to learn mathematics, by gender
WEB	Table III.3.4c	Students' intrinsic motivation to learn mathematics, by socio-economic status
WEB	Table III.3.4e	Association between students' intrinsic motivation to learn mathematics and mathematics performance, by performance decile
WEB	Table III.3.4g	Change between 2003 and 2012 in students' intrinsic motivation to learn mathematics, by gender and socio-economic status
WEB	Table III.3.5b	Students' instrumental motivation to learn mathematics, by gender
WEB	Table III.3.5c	Students' instrumental motivation to learn mathematics, by socio-economic status
WEB	Table III.3.5e	Association between students' instrumental motivation to learn mathematics and mathematics performance, by performance decile
WEB	Table III.3.5g	Change between 2003 and 2012 in students' instrumental motivation to learn mathematics, by gender and socio-economic status
WEB	Table III.3.6a	Students' perceptions about their control over their success in school and perseverance, by socio-economic status
WEB	Table III.3.6b	Students' intrinsic motivation to learn mathematics and mathematics self-efficacy, by socio-economic status

Chapter 4 Mathematics self-beliefs and participation in mathematics-related activities

http://dx.doi.org/10.1787/888932963958

Chapter 5 The role of teachers and schools in shaping students' engagement, drive and self-beliefs

http://dx.doi.org/10.1787/888932963977, http://dx.doi.org/10.1787/888932963996

WEB	Table III.5.13g	Relationship between students' feelings of confidence solving an equation like 2(x+3)=(x+3)(x-3) and exposure to different mathematics tasks
WEB	Table III.5.13h	Relationship between students' feelings of confidence calculating the petrol-consumption rate of a car and exposure to different mathematics tasks
WEB	Table III.5.20	Relationship between attendance in pre-primary education and student dispositions
WEB	Table III.5.21	Relationship between repeating a grade and student dispositions
WEB	Table III.5.30	Percentage of students in schools where the social and emotional development of students is considered important

Chapter 6 The role of families in shaping students' engagement, drive and self-beliefs

http://dx.doi.org/10.1787/888932964034

WEB	Table III.6.3a	Students who skipped some classes or a day of school in the two weeks prior to the PISA test, by parents' activities at home
WEB	Table III.6.3b	Students who skipped some classes or a day of school in the two weeks prior to the PISA test, by family structure and labour-market situation
WEB	Table III.6.3c	Students who skipped some classes or a day of school in the two weeks prior to the PISA test, by parents' attitudes towards the child's future
WEB	Table III.6.4a	Students' sense of belonging, by parents' activities at home
WEB	Table III.6.4b	Students' sense of belonging, by family structure and labour-market situation
WEB	Table III.6.4c	Students' sense of belonging, by parents' attitudes towards the child's future
WEB	Table III.6.5a	Students' attitudes towards school, by parents' activities at home
WEB	Table III.6.5b	Students' attitudes towards school, by family structure and labour-market situation
WEB	Table III.6.5c	Students' attitudes towards school, by parents' attitudes towards the child's future
WEB	Table III.6.7a	Students' openness to problem solving, by parents' activities at home
WEB	Table III.6.7b	Students' openness to problem solving, by family structure and labour-market situation
WEB	Table III.6.7c	Students' openness to problem solving, by parents' attitudes towards the child's future
WEB	Table III.6.9a	Index of instrumental motivation to learn mathematics, by parents' activities at home
WEB	Table III.6.9b	Index of instrumental motivation to learn mathematics, by family structure and labour-market situation
WEB	Table III.6.9c	Index of instrumental motivation to learn mathematics, by parents' attitudes towards the child's future
WEB	Table III.6.11a	Students' mathematics anxiety, by parents' activities at home
WEB	Table III.6.11b	Students' mathematics anxiety, by family structure and labour-market situation
WEB	Table III.6.11c	Students' mathematics anxiety, by parents' attitudes towards the child's future
WEB	Table III.6.12a	Index of mathematics behaviours, by parents' activities at home
WEB	Table III.6.12b	Index of mathematics behaviours, by family structure and labour-market situation
WEB	Table III.6.12c	Index of mathematics behaviours, by parents' attitudes towards the child's future
WEB	Table III.6.14	Comparison of students whose parents answered the parental questionnaire and students the main PISA sample

Chapter 7 Gender and socio-economic disparities

http://dx.doi.org/10.1787/888932964053

WEB	Table III.7.5a	Association between engagement with and at school and socio-economic disparities/the gender gap in mathematics performance
WEB	Table III.7.5b	Association between students' drive and motivation and socio-economic disparities/the gender gap in mathematics performance
WEB	Table III.7.5c	Association between mathematics self-beliefs and socio-economic disparities/the gender gap in mathematics performance

Annex B2 Results for regions within countries

http://dx.doi.org/10.1787/888932964072

WEB	Table B2.III.5	Index of attitudes towards school (learning outcomes) and mathematics performance, by national quarters of this index and region
WEB	Table B2.III.6	Effect sizes for gender differences, by region
WEB	Table B2.III.7	Effect sizes for socio-economic differences, by region
WEB	Table B2.III.10	Index of self-responsibility for failing in mathematics and mathematics performance, by national quarters of this index and region
WEB	Table B2.III.16	Index of mathematics behaviours and mathematics performance, by national quarters of this index and region
WEB	Table B2.III.17	Index of mathematics intentions and mathematics performance, by national quarters of this index and region
WEB	Table B2.III.18	Index of subjective norms in mathematics and mathematics performance, by national quarters of this index and region

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These tables, as well as additional material, may be found at: *www.pisa.oecd.org*.

Annex C

THE DEVELOPMENT AND IMPLEMENTATION OF PISA – A COLLABORATIVE EFFORT

PISA is a collaborative effort, bringing together experts from the participating countries, steered jointly by their governments on the basis of shared, policy-driven interests.

A PISA Governing Board, on which each country is represented, determines the policy priorities for PISA, in the context of OECD objectives, and oversees adherence to these priorities during the implementation of the programme. This includes setting priorities for the development of indicators, for establishing the assessment instruments, and for reporting the results.

Experts from participating countries also serve on working groups that are charged with linking policy objectives with the best internationally available technical expertise. By participating in these expert groups, countries ensure that the instruments are internationally valid and take into account the cultural and educational contexts in OECD member and partner countries and economies, that the assessment materials have strong measurement properties, and that the instruments place emphasise authenticity and educational validity.

Through National Project Managers, participating countries and economies implement PISA at the national level subject to the agreed administration procedures. National Project Managers play a vital role in ensuring that the implementation of the survey is of high quality, and verify and evaluate the survey results, analyses, reports and publications.

The design and implementation of the surveys, within the framework established by the PISA Governing Board, is the responsibility of external contractors. For PISA 2012, the development and implementation of the cognitive assessment and questionnaires, and of the international options, was carried out by a consortium led by the Australian Council for Educational Research (ACER). Other partners in this Consortium include cApStAn Linguistic Quality Control in Belgium, the Centre de Recherche Public Henri Tudor (CRP-HT) in Luxembourg, the Department of Teacher Education and School Research (ILS) at the University of Oslo in Norway, the Deutsches Institut für Internationale Pädagogische Forschung (DIPF) in Germany, the Educational Testing Service (ETS) in the United States, the Leibniz Institute for Science and Mathematics Education (IPN) in Germany, the National Institute for Educational Policy Research in Japan (NIER), the Unité d'analyse des systèmes et des pratiques d'enseignement (aSPe) at the University of Liège in Belgium, and WESTAT in the United States, as well as individual consultants from several countries. ACER also collaborated with Achieve, Inc. in the United States to develop the mathematics framework for PISA 2012.

The OECD Secretariat has overall managerial responsibility for the programme, monitors its implementation daily, acts as the secretariat for the PISA Governing Board, builds consensus among countries and serves as the interlocutor between the PISA Governing Board and the international Consortium charged with implementing the activities. The OECD Secretariat also produces the indicators and analyses and prepares the international reports and publications in co-operation with the PISA Consortium and in close consultation with member and partner countries and economies both at the policy level (PISA Governing Board) and at the level of implementation (National Project Managers).

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