

PISA 2012 Results: What Students Know and Can Do (Volume I) Student Performance in Mathematics, Reading and Science

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This document lists errors in the report between its original release on December 3, 2013 and the release of the revised edition in February 2014. Please note that the revised edition is now available: <http://dx.doi.org/10.1787/9789264208780-en>.

Corrigenda

NB: All tables in Annexes B1, B2 and B3 were revised following the update of the database for Belgium in December 2013. To consult the corrected data, please refer to the revised edition: <http://dx.doi.org/10.1787/9789264208780-en>.

Executive summary, page 17

The third line from the bottom of the page should read as follows

“Boys perform better than girls in mathematics in only 38 out of the 65 countries and economies that participated in PISA 2012, and girls outperform boys in 5 countries.”

Executive summary, page 18

The third paragraph should read as follows:

“More than 15% of students in Hong Kong-China, Japan and Singapore are top performers in reading, as are more than 10% of students in Australia, Belgium, Canada, Finland, France, Ireland, Korea, Liechtenstein, New Zealand, Norway, Poland and Chinese Taipei.”

The sixth paragraph should read as follows:

“Shanghai-China’s mean score in science (580 points) is more than three-quarters of a proficiency level above the OECD average of 501 score points. Estonia, Korea, Viet Nam, Poland, Canada, Liechtenstein, Germany, Chinese Taipei, the Netherlands, Ireland, Australia, Macao-China, New Zealand, Switzerland, Slovenia, the United Kingdom and the Czech Republic also score above the OECD average in science, while Austria, Belgium, Latvia, France, Denmark and the United States scored around the OECD average.

Executive summary, page 19, Table I.A

The OECD average for the Share of low achievers in mathematics should read “23.0”.

The data for Belgium are as follows

	Mathematics				Reading		Science	
	Mean score in PISA 2012	Share of low achievers (Below Level 2)	Share of top performers in mathematics (Level 5 or 6)	Annualised change	Mean score in PISA 2012	Annualised change	Mean score in PISA 2012	Annualised change
OECD average	494	23.0	12.6	-0.3	496	0.3	501	0.5
Belgium	515	19.0	19.5	-1.6	509	0.1	505	-0.9

Chapter 1, page 24

Box I.1.1 and Figure I.1.1, PISA map:

“Macedonia” should read “the former Yugoslav Republic of Macedonia”

Chapter 2, page 32, “What the data tell us”

The last bullet point should read:

“Boys perform better than girls in mathematics in 38 out of the 65 countries and economies that participated in PISA 2012, and girls outperform boys in 5 countries.”

Chapter 2, page 48, Figure I.2.14

The line for the Flemish community (Belgium) should appear below the line for Switzerland.

Chapter 2, page 55, Figure I.2.16

In the figure “Countries/economies with no significant annualised changed”, “Accelerating” (middle left figure), Chinese Taipei should appear at the end of the list of countries, after Japan.

Chapter 2, page 60, Figure I.2.20

The first question for level 3 is “CLIMBING MOUNT FUJI” and the corresponding partial credit is 591.3.

The first question for Level 3 should read “REVOLVING DOOR – Question 1 (512.3)”

Chapter 2, page 65, Figure I.2b

In the middle chart, Belgium should be ranked after Chinese Taipei and before Australia.

Chapter 2, page 66

In the first paragraph, the value for Belgium should read “6.1%” and the country should be ranked after Poland and before the Netherlands, as follows:

“All-rounders, or top performers in all three subjects, comprise between 6% and just over 8% of 15-year-old students in Korea (8.1%), New Zealand (8.0%), Australia (7.6%), Finland (7.4%), Canada (6.5%), Poland (6.1%), **Belgium (6.1%)**, the Netherlands (6.0%) and the partner economy Chinese Taipei (6.1%), and even larger proportions are found in the countries and economies Shanghai-China (19.6%), Singapore (16.4%), Japan (11.3%) and Hong Kong-China (10.9%). Conversely, in two OECD countries and 17 partner countries and economies, fewer than 1% of students are top performers in all three subjects.”

Chapter 2, page 70, Figure I.2.23

The value for Belgium on “Students at or above proficiency Level 5” (top chart) should read “- 6.9” while the value for “Students below proficiency Level 2” (bottom chart) should read “2.5”.

Chapter 2, page 71

The second last paragraph from the bottom should read as follows:

“Figure I.2.25 presents a summary of boys’ and girls’ performance in the PISA mathematics assessment (Table I.2.3a). On average across OECD countries, boys outperform girls in mathematics by 11 score points. Despite the stereotype that boys are better than girls at mathematics, boys show an advantage in only **38** out of the 65 countries and economies that participated in PISA 2012, and in only six countries is the gender gap larger than the equivalent of half a school year.”

Chapter 2, page 72, Figure I.2.24

In the list at the top of the chart “4. Norway” should read “4. United States”. In the chart itself, the diamond for the United States should be the one for Norway.

The OECD average should read: “239 points difference”.

Chapter 2, page 73, Figure I.2.25

The line for Belgium should appear below the OECD average and above Portugal, and the corresponding bar on the left hand-side should be in dark blue and not in light blue.

Chapter 2, page 74, Figure I.2.28

On the left hand side (Boys), the value for Level 2 should be 21.3, not 21.4.

On the right hand-side (Girls), the value for Level 4 should be 17.6, not 17.7.

In the paragraph below the figure, Belgium should be included, as follows:

“For example, in the high-performing OECD countries Korea and Japan, and the partner economy Hong Kong-China, the share of boys who are top performers is around 9 percentage points larger than that of girls. In Israel, Austria, Italy, New Zealand and Luxembourg, which are situated in the middle of the performance distribution, the share of boys who attain at the highest proficiency levels is considerably larger than the share of girls who do, by a difference of 7.7 to 5.8 percentage points. This difference is also larger than 5 percentage points in **Belgium**, Chinese Taipei, the Slovak Republic, Spain, Canada, Liechtenstein, Switzerland and Germany (Table I.2.2a).”

Chapter 2, page 75, Figure I.2.27

Belgium should appear after the OECD average and before Portugal. The corresponding square should be dark blue and the corresponding diamond should be light grey.

Chapter 2, page 91, Figure I.2.37

The title of the figure should read “Comparing countries and economies on the different mathematics process subscales”.

Chapter 4, page 177, Figure I.4.1

The values for Belgium have changed. The columns from Liechtenstein to Norway should read as follows:

516	Liechtenstein	Finland, Ireland, Chinese Taipei, Canada, Poland, Estonia, New Zealand, Australia, Netherlands, Switzerland, Macao-China, Belgium, Viet Nam, Germany
512	New Zealand	Poland, Estonia, Liechtenstein, Australia, Netherlands, Switzerland, Macao-China, Belgium, Viet Nam, Germany, France
512	Australia	Poland, Estonia, Liechtenstein, New Zealand, Netherlands, Switzerland, Macao-China, Belgium, Viet Nam, Germany, France
511	Netherlands	Poland, Estonia, Liechtenstein, New Zealand, Australia, Switzerland, Macao-China, Belgium, Viet Nam, Germany, France, Norway
509	Switzerland	Liechtenstein, New Zealand, Australia, Netherlands, Macao-China, Belgium, Viet Nam, Germany, France, Norway
509	Macao-China	Liechtenstein, New Zealand, Australia, Netherlands, Switzerland, Belgium, Viet Nam, Germany, France, Norway
509	Belgium	Liechtenstein, New Zealand, Australia, Netherlands, Switzerland, Macao-China, Viet Nam, Germany, France, Norway
508	Viet Nam	Poland, Estonia, Liechtenstein, New Zealand, Australia, Netherlands, Switzerland, Macao-China, Belgium, Germany, France, Norway, United Kingdom, United States
508	Germany	Liechtenstein, New Zealand, Australia, Netherlands, Switzerland, Macao-China, Belgium, Viet Nam, France, Norway, United Kingdom
505	France	New Zealand, Australia, Netherlands, Switzerland, Macao-China, Belgium, Viet Nam, Germany, Norway, United Kingdom, United States
504	Norway	Netherlands, Switzerland, Macao-China, Belgium, Viet Nam, Germany, France, United Kingdom, United States, Denmark

Chapter 4, page 178, Figure I.4.2

The line for the Flemish community should appear after the line for Poland and before the line for Victoria (Australia)

The values for New Zealand and Belgium change as follows:

New Zealand	512	7	12	11	19
Australia	512	8	12	12	18
Netherlands	511	6	14	11	21
<i>Madrid (Spain)</i>	511				
<i>Navarre (Spain)</i>	509				
Switzerland	509	8	14	13	21
<i>Macao-China</i>	509			13	22
Belgium	509	9	15	15	20

Chapter 4, page 181

In the second paragraph, the ranking for Belgium changes as follows

“As shown in Figure I.4.1, Shanghai-China, Hong Kong-China, Singapore, Japan and Korea are the five highest-performing countries and economies in reading. Shanghai-China has a mean score of 570 points in reading – the equivalent of more than a year-and-a-half of schooling above the OECD average of 496 score points, and 25 score points above the second best-performing participant, Hong Kong-China. Finland, Ireland, Chinese Taipei, Canada, Poland, Estonia and Liechtenstein perform at least 20 score points above the OECD average. Ten other countries and economies – New Zealand, Australia, the Netherlands, Switzerland, Macao-China, **Belgium**, Viet Nam, Germany, France and Norway – also score above the OECD average. Meanwhile, the United Kingdom, the United States, Denmark and the Czech Republic perform around the OECD average; and 39 countries and economies perform below the OECD average.

Chapter 4, page 182, Figure I.4.3

Belgium should appear between Norway and Denmark.

Chapter 4, page 183, Figure I.4.4

In the first chart, Chinese Taipei should appear between the Russian Federation and Thailand.

Chapter 4, page 188, Figure I.4.7

Belgium should appear between Denmark and the United States.

Chapter 5, page 217, Figure I.5.1

The line for Belgium should be in dark blue and not in light blue as the values are not statistically significantly different from the OECD average.

Chapter 5, page 218

In the second paragraph, the ranking for Belgium changes as follows:

“As shown in Figure I.5.1, five countries and economies outperform all other countries and economies in science in PISA 2012 by about half a standard deviation above the average or more: Shanghai-China (580 points), Hong Kong-China (555 points), Singapore (551 points), Japan (547 points) and Finland (545 points). Shanghai-China has a mean score of 580, which is more than three-quarters of a proficiency level above the average of 501 score points in PISA 2012. Other countries with mean performances above the average include Estonia, Korea, Viet Nam, Poland, Canada, Liechtenstein, Germany, Chinese Taipei, the Netherlands, Ireland, Australia, Macao-China, New Zealand, Switzerland, Slovenia, the United Kingdom and the Czech Republic. Countries that performed around the average include Austria, Belgium, Latvia, France, Denmark and the United States. Thirty-seven participating countries and economies have a mean score that is below the OECD average.”

Chapter 5, page 219, Figure I.5.2

The line for the Flemish community should appear between Queensland (Australia) and Victoria (Australia), and the mean score should be 518.

Chapter 5, page 222, Figure I.5.3

Belgium should be placed between Australia and the Czech Republic.

Chapter 5, page 223, Figure I.5.4

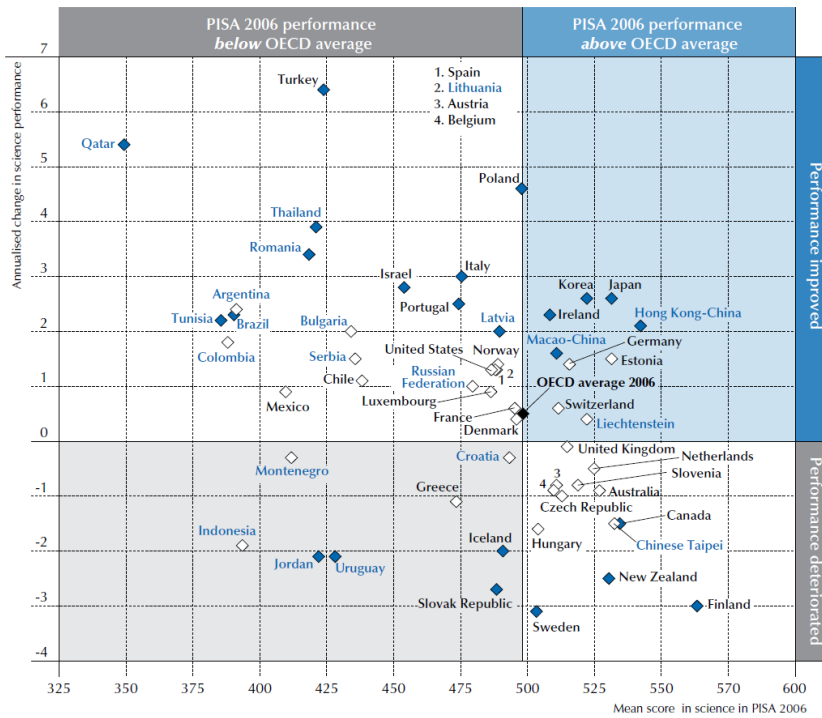
In the figure “Countries/economies with no significant annualised changed”, “Accelerating” (middle left figure), Chinese Taipei should appear at the end of the list of countries, after Slovenia.

Chapter 5, page 228, Figure I.5.6

The value and position of Belgium in the chart changes slightly, as follows:

Figure I.5.6

Relationship between annualised change in science performance and average PISA 2006 science scores



(see “4. Belgium”)

Chapter 5, page 233

In the fourth paragraph, the average of student performers at Level 6 changes as follows:

“Across OECD countries, an average of 1.1% of students perform at Level 6. Between 3% and 6% of the students are at this level in Singapore (5.8%), Shanghai-China (4.2%), Japan (3.4%) and Finland (3.2%). In New Zealand, Australia, Canada, the United Kingdom, Hong Kong-China, Estonia, Poland, Germany and Ireland between 1.5% and 2.7% of students perform at the highest proficiency level. By contrast, in the majority of participating countries the share of students at proficiency Level 6 is below 1%. Around zero percent of students on average reach this level in Albania, Argentina, Brazil, Chile, Colombia, Costa Rica, Indonesia, Jordan, Kazakhstan, Malaysia, Mexico, Montenegro, Peru, Romania, Tunisia, Turkey and Uruguay (Figure I.5.10 and Table I.5.1a).”

Chapter 5, page 240, Figure I.5.12

Belgium should be ranked between Korea and Ireland.

Chapter 5, page 241, Figure I.5.13

Belgium should be ranked between Korea and Ireland.

Annex A1, page 258

In the third paragraph starting with “Scale indices...”, the reference on the second line should read “(Warm, 1989)”.

The corresponding full reference at the bottom of page 264 should read:

Warm, T.A. (1989), "Weighted likelihood estimation of ability in item response theory", *Psychometrika*, Volume 54, Issue 3, pp 427-450, doi: 10.1007/BF02294627

Annex A1, page 261

In the first paragraph after “Student-level scale indices”, the last part of the last sentence should be deleted. The paragraph should stop at “2012”, as follows:

“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.”

Annex A1, page 263

In the last paragraph of the section “Economic, social and cultural status”, the first sentence should read:

“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. “

Annex A2, page 265

The second sentence of the last paragraph should read

“All but eight countries, Luxembourg (8.40%), Canada (6.38%), Denmark (6.18%), Norway (6.11%), Estonia (5.80%), Sweden (5.44%), the United Kingdom (5.43%) and the United States (5.35%), achieved this standard, and in 30 countries and economies, the overall exclusion rate was less than 2%.”

Annex A2, page 266

The last sentence of the last paragraph should read

“Eight countries, Luxembourg, Canada, Denmark, Norway Estonia, Sweden, the United Kingdom and the United States, had exclusion rates higher than 5%. 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%.”

Table A2.1, page 267

Column (12) should be replaced by the following:

	Population and sample information	
	Overall exclusion rate (%)	
	(12)	
OECD		
Australia		4.00
Austria		1.33
Belgium		1.40
Canada		6.38
Chile		1.30
Czech Republic		1.83
Denmark		6.18
Estonia		5.80
Finland		1.91
France		4.42
Germany		1.54
Greece		3.60
Hungary		2.58
Iceland		3.81
Ireland		4.47
Israel		4.13
Italy		3.33
Japan		2.15
Korea		0.82
Luxembourg		8.40
Mexico		0.74
Netherlands		4.42
New Zealand		4.61
Norway		6.11
Poland		4.59
Portugal		1.60
Slovak Republic		2.93
Slovenia		1.58
Spain		4.32
Sweden		5.44
Switzerland		4.22
Turkey		1.49
United Kingdom		5.43
United States		5.35
Partners		
Albania		0.14
Argentina		0.74
Brazil		1.45
Bulgaria		2.55
Colombia		0.14
Costa Rica		0.03

Croatia	2.24
Cyprus ^{1, 2}	3.29
Hong Kong-China	1.76
Indonesia	0.26
Jordan	0.39
Kazakhstan	3.43
Latvia	4.02
Liechtenstein	4.22
Lithuania	4.00
Macao-China	0.17
Malaysia	0.18
Montenegro	0.31
Peru	0.18
Qatar	2.51
Romania	3.48
Russian Federation	2.40
Serbia	2.87
Shanghai-China	1.50
Singapore	1.17
Chinese Taipei	1.22
Thailand	1.32
Tunisia	0.24
United Arab Emirates	2.09
Uruguay	0.28
Vietnam	0.73

Annex A2, page 270

The first paragraph should read:

“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%.”

Annex A3, page 277

The first sentence should read:

“To calculate the range of ranks for countries, data are simulated using the mean and standard error of the mean for each relevant country to generate a distribution of possible values.”

In the section “Range of ranks”, the first sentence should read:

“To calculate the range of ranks for countries and economies (participants), data are simulated using the mean and standard error of the mean for each relevant participant to generate a distribution of possible values.”