

**PISA 2012 Results: What Makes Schools Successful? (Volume IV)**

**Resources, Policies and Practices**

DOI: <http://dx.doi.org/10.1787/9789264201156-en>

ISBN 978-92-64-20114-9 (print)

ISBN 978-92-64-20115-6 (PDF)

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## **Corrigenda**

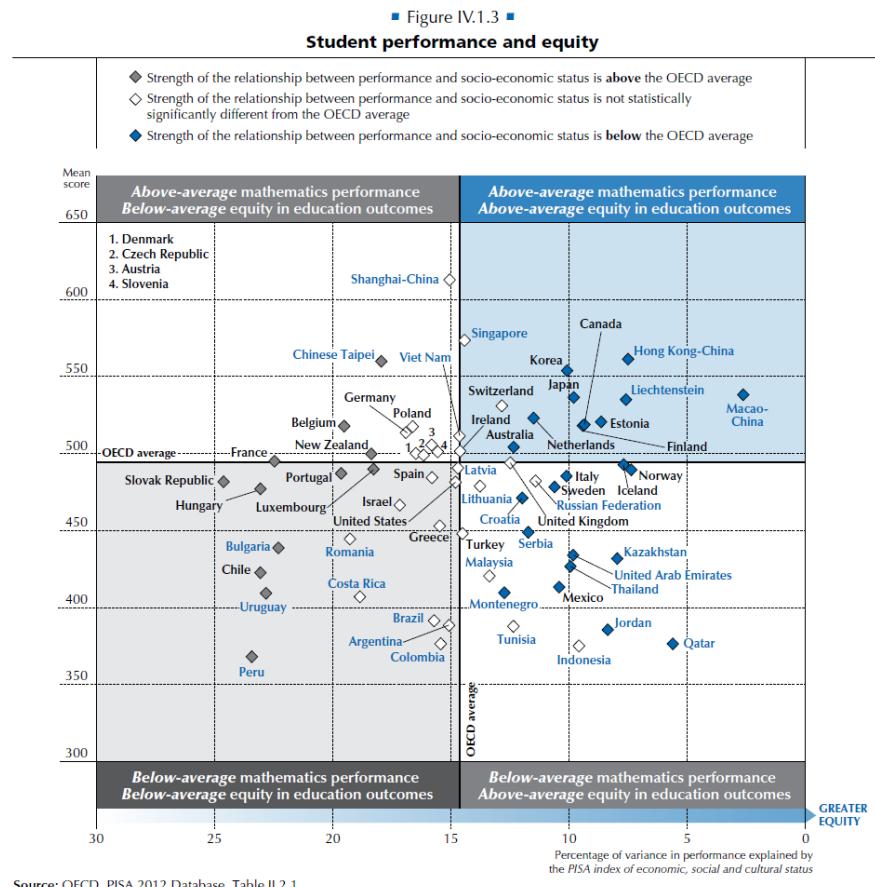
### **Chapter 1, page 31**

In the paragraph under ‘Measuring the success of school systems’, the value for the variation in mathematics score accounted for by the socio-economic status of students has changed. The paragraph should read:

““Successful” school systems are defined here as those that perform above the OECD average in mathematics (494 points) and in which students’ socio-economic status has a weaker-than-average impact on mathematics performance (on average across OECD countries, 14.8% of the variation in mathematics scores is accounted for by the socio-economic status of students). As shown in Volume II, Australia, Canada, Estonia, Finland, Hong Kong-China, Japan, Korea, Liechtenstein and Macao-China perform at higher levels than the OECD average and also show a weaker relationship between socio-economic status and performance (Figure IV.1.3).”

## Chapter 1, page 32, Figure IV.1.3

The figure changed as follows:

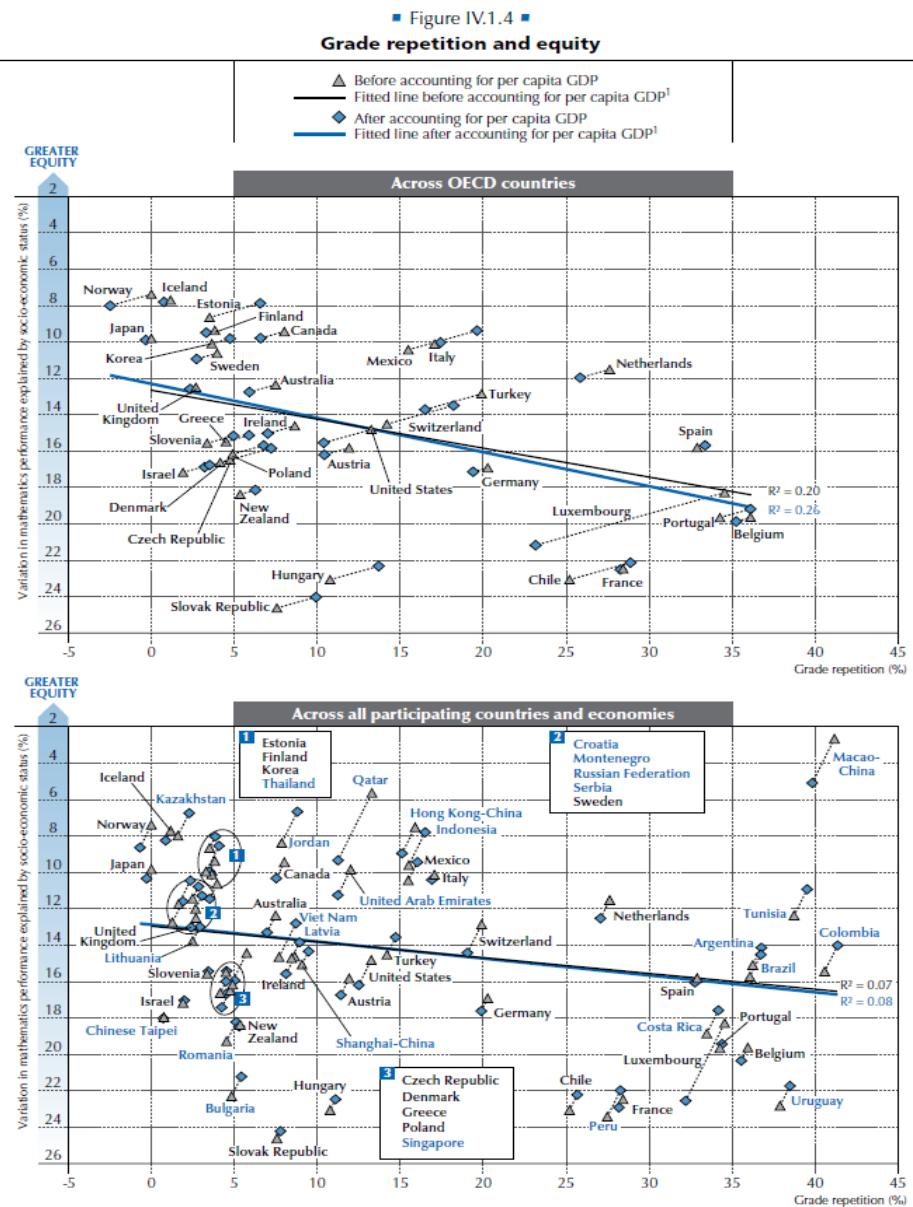


economies to make education more inclusive by accommodating students who started school at relatively late ages or who are at greater risk of dropping out.”

“PISA examines the issue of grade repetition not at the individual student level but at the system level in order to avoid selection bias (Heckman and Li, 2003). Grade repetition tends to be negatively related to equity, and this is especially obvious when the relationship is examined across OECD countries, as shown in Figure IV.1.4. Across OECD countries, 26% of the variation in the impact of students’ socio-economic status on their mathematics performance can be explained by differences in the proportion of students who repeated a grade, even after accounting for per capita GDP. Across OECD countries, grade repetition is unrelated to the system’s overall performance; but across all PISA participating countries and economies, systems in which more students have repeated a grade tend to be those that have lower overall performance in mathematics (Table IV.1.1).”

## Chapter 1, page 35, Figure IV.1.4

The figure changes as follows:



## Chapter 1, page 36

The paragraph under the figure should read:

"In general, horizontal stratification is unrelated to a system's average performance. The exception is that systems that group students, within schools, for all classes based on their ability tend to have lower performance across all participating countries and economies, after accounting for per capita GDP (partial correlation coefficient = **-0.26**). However, between-school horizontal stratification is negatively related to equity in education opportunities. The impact of the socio-economic status of

students and/or schools on performance is stronger in school systems that sort students into different tracks, where students are grouped into different tracks at an early age, where more students attend vocational programmes, where more students attend academically selective schools, or where more students attend schools that transfer low-performing students or students with behaviour problems to another school. Across OECD countries, 39% of the variation in the impact of socio-economic status of students and schools on students' mathematics performance can be explained by differences in the ages at which students are selected into different programmes, even after accounting for per capita GDP (Table IV.1.1)."

#### **Chapter 1, page 38, Figure IV.1.7**

Belgium should be ranked between Portugal and Greece.

#### **Chapter 1, page 47, Figure IV.1.13**

Belgium should be ranked between France and Hong Kong-China.

#### **Chapter 1, page 57**

The end of the first paragraph should read as follows:

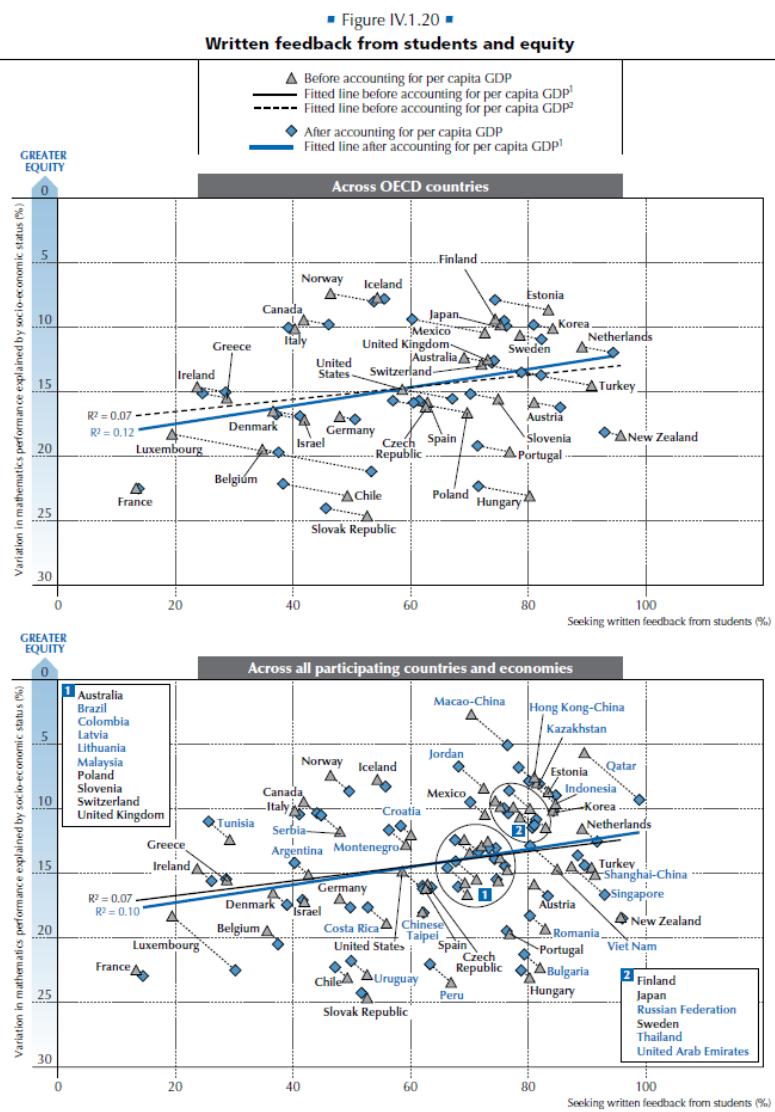
Students who attend private schools tend to be more socio-economically advantaged than students who attend public schools. Thus, after accounting for the socio-economic status of students and schools, private schools outperform public schools in only **eight** countries and economies, and public schools outperform private schools in **13** countries and economies (Table IV.4.7). In addition, after accounting for the demographic background of students and schools and various other school characteristics, private schools outperform public schools in 10 countries and economies, while public schools show better average performance than private schools in **four** countries and economies (Table IV.1.12c).

The fifth paragraph should read:

"PISA shows that the degree to which systems seek feedback from students regarding lessons, teachers or resources tends to be related to systems' level of equity. PISA 2012 asked school principals to report whether written feedback from students regarding lessons, teachers or resources is sought for quality-assurance and improvement of the school. Systems where more students attend schools with such practices tend to show less impact of student socio-economic status on performance. This is observed across OECD countries and across all participating countries and economies. As shown in Figure IV.1.20, across OECD countries, some **12%** of the variation in the impact of students' socio-economic status on their mathematics performance can be accounted for by differences in the degree to which systems use this approach, after accounting for per capita GDP (Table IV.1.4). Systems seeking written feedback from students also tend to perform better across OECD countries."

### **Chapter 1, page 58, Figure IV.2.20**

The figure changes as follows:



Note: Seeking written feedback from students refers to the percentage of students in school whose principal reported that written feedback from students regarding lessons, teachers or resources is sought for quality assurance and improvement of schools.

1. A significant relationship ( $p < 0.10$ ) is shown by the solid line.
  2. A non-significant relationship ( $p > 0.10$ ) is shown by the dotted line.

Chapter 1, page 59

The fourth paragraph should read:

“Between PISA 2003 and PISA 2012 all these differences shifted in favour of students in private schools. The overall difference in performance between public and private school students across OECD countries widened by nine points (up to 28 points in favour of students in private schools); after accounting for students of similar socio-economic status, the difference, which was not significant in 2003, was 11 points in favour of private-school students in 2012. However, after

accounting for students of similar socio-economic status who attend schools with similar socio-economic profiles, the public-school advantage remained, but narrowed to eight score points.<sup>23</sup>

## Chapter 1, page 64, Figure IV.1.23

The figure changes as follows:

■ Figure IV.1.23 ■  
Relationship between selected policy, practice and resource indicators

		Vertical stratification		Horizontal stratification (between schools)		Material resources		Time resources		Inequity in allocation of material resources		School autonomy		Assessment and accountability policies		Student truancy	
		Standard deviation of grade levels in which 15-year-olds are enrolled	Percentage of students who repeated one or more grades	Number of years between age of selection and age 15	Teachers' salaries relative to per capita GDP <sup>1</sup>	Average index of quality of schools' educational resources	Percentage of students reporting that they had attended pre-primary education for more than one year	Percentage of students in upper secondary school that have been tracked by administrative authorities	Difference in the index of quality of schools' educational resources between socio-economically advanced and disadvantaged schools <sup>2</sup>	Average index of school responsibility for curriculum and assessment	Percentage of students in schools that use achievement data fed back to administrative authorities	Percentage of students in schools that receive feedback from students for quality assurance and improvement	Percentage of students who arrived late for school in the two weeks prior to the PISA test	Percentage of students who skipped some lessons or a day of school in the two weeks prior to the PISA test	Percentage of students who completed some lessons at a time other than the time set in the two weeks prior to the PISA test		
	Mathematics performance	-0.31 <sup>x</sup>	-0.25	0.10	0.31	0.58	-0.30 <sup>x</sup>	-0.55	0.58	-0.31	0.34	-0.44	-0.40				
	Inequity	<b>0.58</b>	<b>0.51</b>	<b>0.35<sup>x</sup></b>	0.01	0.06	-0.01	0.04	-0.11	0.01	-0.34	-0.01	-0.14				
Vertical stratification	Standard deviation of grade levels in which 15-year-olds are enrolled	<b>-0.36</b>	<b>0.26</b>	<b>0.71</b>	<b>0.45</b>	0.18	-0.08	-0.20	0.17	-0.31	0.02	-0.16	0.01	0.12			
	percentage of students who repeated one or more grades	-0.34	<b>0.28</b>	<b>0.80</b>		0.25	<b>0.42</b>	0.10	0.06	0.07	-0.31	-0.02	-0.24	-0.01	0.01		
Horizontal stratification (between schools)	Number of years between age of selection and age 15	0.12	<b>0.44</b>	0.19	0.16		-0.05	0.01	0.17	-0.28	-0.02	-0.29	0.16	<b>-0.48</b>	-0.24		
Financial resources	Teachers' salaries relative to per capita GDP <sup>1</sup>	-0.05	-0.19	-0.04	0.16	-0.12		<b>0.37</b>	-0.18	0.03	0.00	-0.13	0.06	-0.08	-0.09		
Material resources	Average index of quality of schools' educational resources	<b>0.51</b>	0.16	<b>-0.28<sup>x</sup></b>	-0.20	0.16	0.05		0.12	-0.20	0.28	-0.20	0.10	<b>-0.36</b>	-0.23		
Time resources	Percentage of students reporting that they had attended pre-primary education for more than one year	<b>0.57</b>	<b>0.24</b>	<b>-0.25<sup>x</sup></b>	-0.08	0.23	<b>-0.24<sup>x</sup></b>	<b>0.46</b>		<b>-0.44</b>	<b>0.34</b>	<b>-0.35</b>	<b>-0.09</b>	<b>-0.50</b>	<b>-0.46</b>		
Inequity in the allocation of material resources	Difference in the index of quality of schools' educational resources between socio-economically advanced and disadvantaged schools <sup>2</sup>	-0.44	0.11	<b>0.44</b>	0.35	<b>-0.28</b>	-0.06	<b>-0.42</b>	<b>-0.32</b>		<b>-0.31</b>	<b>0.39</b>	0.03	<b>0.34</b>	<b>0.37</b>		
School autonomy	Average index of school responsibility for curriculum and assessment	<b>0.37</b>	-0.11	-0.08	-0.11	-0.03	-0.14	0.21	<b>0.39</b>	-0.14		-0.20	0.26	<b>-0.36<sup>x</sup></b>	<b>-0.41</b>		
Assessment and accountability policies	Percentage of students in schools that use achievement data fed back to administrative authorities	-0.32	-0.08	0.00	-0.06	-0.22	0.11	-0.22	<b>-0.39</b>	0.25	<b>-0.28</b>		0.22	<b>0.55</b>	0.28		
	Percentage of students in schools that seek written feedback from students for quality assurance and improvement	0.20	<b>-0.31</b>	-0.06	<b>-0.25<sup>x</sup></b>	0.01	-0.08	0.17	-0.03	0.06	0.17	0.21		0.02	0.02		
Student truancy	Percentage of students who arrived late for school in the two weeks prior to the PISA test	<b>-0.43</b>	<b>0.21</b>	0.08	0.12	-0.20	-0.18	<b>-0.36</b>	<b>-0.34</b>	<b>0.28</b>	<b>-0.33</b>	<b>0.37</b>	<b>-0.18</b>		<b>0.60</b>		
	percentage of students who skipped some lessons or a day of school in the two weeks prior to the PISA test	<b>-0.41</b>	-0.09	0.01	0.00	-0.18	-0.12	<b>-0.25</b>	<b>-0.39</b>	0.25	<b>-0.40</b>	<b>0.32</b>	-0.06	<b>0.65</b>			

Notes: Values that are statistically significant at the 10% level ( $p<0.10$ ) are indicated in italics and at the 5% level ( $p<0.05$ ) are in bold. X indicates that the Pearson's correlation coefficient is significant at least at the 10% level but Spearman's rank correlation coefficient is not significant at the 10% level. Inequity refers to variation in mathematics performance explained by the PISA index of economic, social and cultural status of students. Correlations with mathematics performance and inequity are partial correlation coefficients after accounting for per capita GDP.

1. Average of teachers' salaries in upper and lower secondary school. The average is computed by weighting teachers' salaries for upper and lower secondary school according to the respective 15-year-old students' enrolment for countries and economies with available information on both the upper and lower secondary levels.

2. See Box IV.3.1 for the definition of socio-economically advanced and disadvantaged schools.

Source: OECD, PISA 2012 Database. Tables IV.1.1, IV.1.2, IV.1.3, IV.1.4, IV.1.5, IV.1.9 and IV.1.20.

## Chapter 1, page 67

Note 19 should read:

"19. Across OECD countries, the correlation between the degree of competition and equity is 0.29 (significant at the 10% level), while it is 0.19 after excluding Norway, where there is less school

competition than in other countries (i.e. the degree of school competition is 35% in Norway, while it varies from 42% to 94% in other OECD countries)."

## Chapter 2, page 84, Figure IV.2.6

The figure changes as follows:

Figure IV.2.6 ■ System-level correlation between indicators of stratification											
Correlation coefficients between two relevant indicators											
Correlation coefficients range from -1.00 (i.e. a perfect negative linear association) to +1.00 (i.e. a perfect positive linear association). When a correlation coefficient is 0, there is no linear relationship between two indicators.											
Vertical stratification			Horizontal stratification					Within schools			
Between schools			Between schools			School transfer rates			Ability grouping for all mathematics classes		
Across OECD countries			Variability in students' grade levels	Number of educational tracks	Prevalence of vocational and pre-vocational programmes	Early selection	Academic selectivity	School transfer rates	Ability grouping for all mathematics classes		
Across all participating countries and economies			Mathematics performance	-0.31	0.10	0.04	0.10	0.20	-0.17	-0.07	
Vertical stratification			Mathematics performance	0.58	0.28	0.05	0.35	0.13	0.32	-0.12	
Horizontal stratification	Between schools		Variability in students' grade levels	-0.36	0.26	0.50	0.20	0.45	0.21	0.29	0.04
	Between schools		Number of educational tracks	0.04	0.21	0.26	0.54	0.73	0.60	0.41	-0.13
	Between schools		Prevalence of vocational and pre-vocational programmes	0.09	0.01	-0.12	0.39	0.50	0.38	0.75	-0.48
	Between schools		Early selection	0.12	<b>0.44</b>	0.16	<b>0.49</b>	0.28	0.53	0.53	-0.17
	Between schools		Academic selectivity	0.15	-0.10	0.05	<b>0.38</b>	0.37	<b>0.28</b>	0.32	0.08
Horizontal stratification	Within schools		School transfer rates	-0.19	0.07	0.16	0.09	0.37	0.20	<b>0.30</b>	-0.32
	Within schools		Ability grouping for all mathematics classes	-0.25	-0.19	0.08	0.02	<b>-0.30</b>	-0.22	-0.02	-0.17

**Notes:** Correlation coefficients that are statistically significant at the 5% level ( $p < 0.05$ ) are indicated in bold and those at the 10% level ( $p < 0.10$ ) are in italics.  
 Inequity refers to variation in mathematics performance explained by the PISA index of economic, social and cultural status of students. Correlations with mathematics performance and inequity are partial correlation coefficients after accounting for per capita GDP.

Ability grouping for all mathematics classes is the system-level percentage of students in schools whose principal reports that students are grouped by ability in all classes.  
 Source: OECD, PISA 2012 Database, Tables IV.1.1 and IV.2.12.

StatLink  <http://dx.doi.org/10.1787/888932957308>

## Chapter 4, Page 144

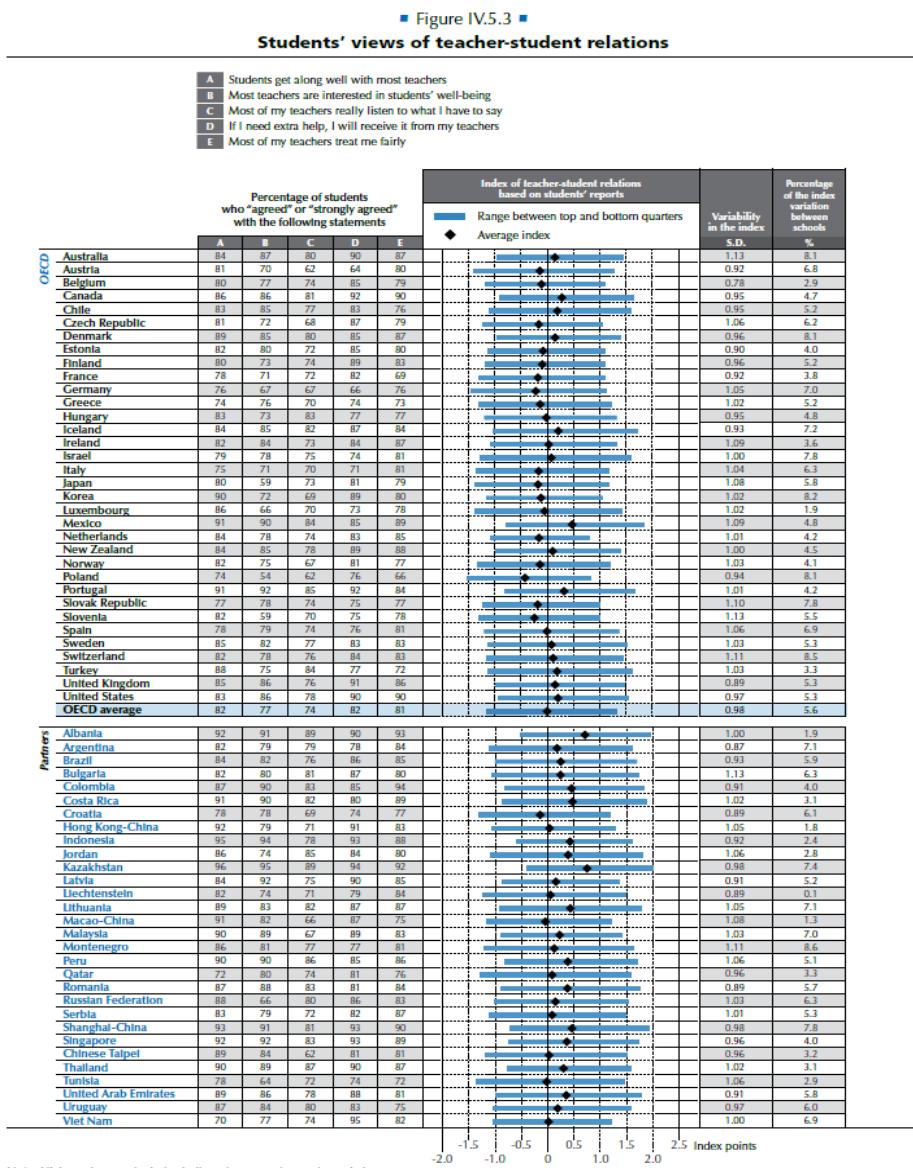
The first paragraph should read:

"In 2003, on average across OECD countries, 83% of students attended government or public schools, 14% attended government-dependent private schools and 4% attended government-independent private schools.<sup>5</sup> These percentages have remained stable since then. In both PISA 2003 and PISA 2012 students enrolled in government or public schools had, on average, a lower socio-economic status than students attending private schools (by an order of around 0.4 points in the PISA index of economic social and cultural status). However, some countries and economies have seen an increase in enrolment in public schools (Figure IV.4.9), while in others there has been a shift towards private schools (Table IV.4.19). In **Indonesia, Spain and Finland**, a larger proportion of 15-year-old students attended public schools in 2012 than did in 2003. In Indonesia there was a 21 percentage-point reduction in the share of students attending government-independent private schools, with a consequent 13 percentage-point increase in enrolment in government-dependent private schools and a seven percentage-point increase in public school enrolments. In **Spain and Finland** there was a four percentage-point increase in the share of students attending public schools. In Sweden, the share of students enrolled in public schools fell by ten percentage points, with a consequent greater share of students attending government-dependent private schools. A similar

shift in enrolment towards government-dependent schools – an increase of six percentage points – was observed in Thailand, and, to a lesser degree, in Poland (Figure IV.4.9 and Table IV.4.19)."

### Chapter 5, page 170, figure IV.5.3

The figure changes as follows:



### Chapter 5, page 171

The first and the last paragraphs should read:

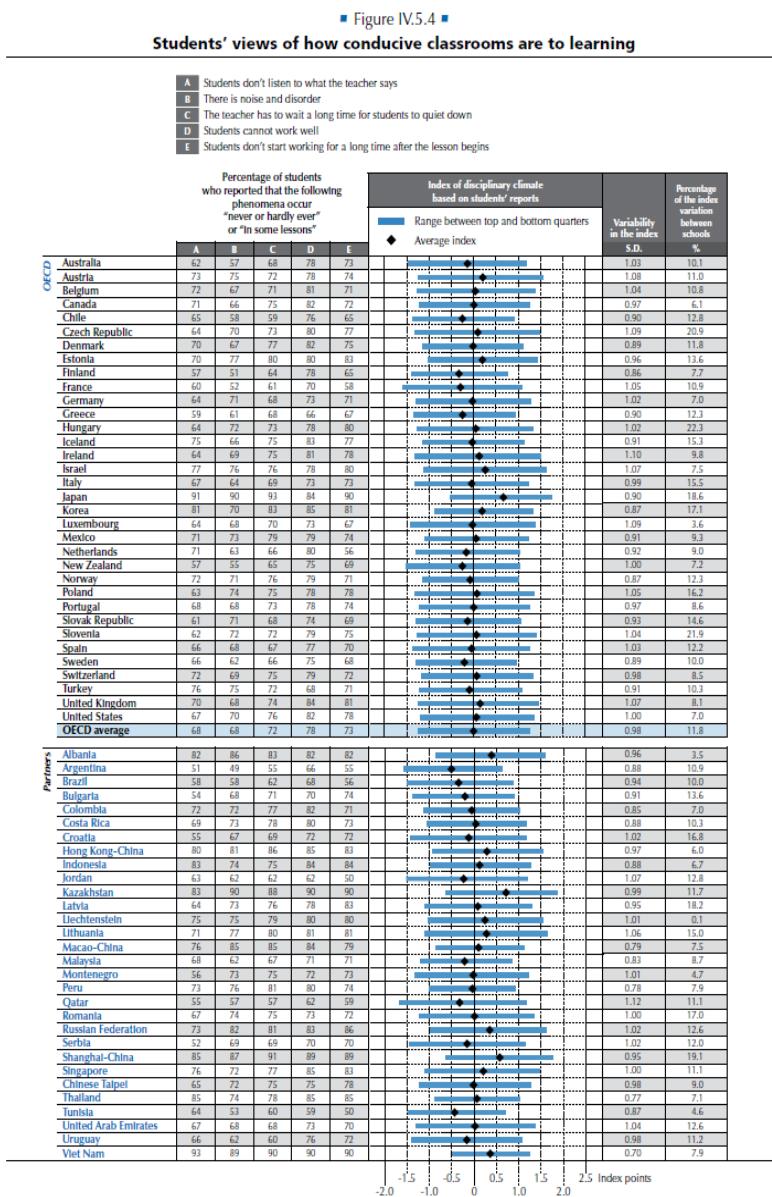
"Students' reports on their relationship with teachers vary both between and within schools. On average across OECD countries, most of the variation in the index of teacher-student relations is seen within schools (i.e. 94% of variation is seen within schools, while 6% is observed between

schools). In other words, students who attend the same school vary in the extent to which they reported good relations with their teachers. In Liechtenstein, Macao-China, Hong Kong-China, Luxembourg, Albania and Indonesia, around 2.5% or less of variation in the index of teacher-student relations is observed between schools; in contrast, in Montenegro, Switzerland, Korea, Australia, Denmark and Poland, 8% or more of the variation is seen between schools (Figure IV.5.3 and Table IV.5.5)."

"Variations in the index of disciplinary climate can occur between and within schools. On average across OECD countries, 88% of the variation in the index of disciplinary climate is seen within schools, while 12% is observed between schools. Higher levels of between-school variation mean lower levels of within-school variation. In other words, students who attend the same school share similar perceptions about the disciplinary climate in their classes. In Hungary, Slovenia and the Czech Republic, 20% or more of the variation in this index is observed between schools. In contrast, in Liechtenstein, Albania, Luxembourg, Tunisia and Montenegro, less than 5% of the variation is seen between schools (Figure IV.5.4 and Table IV.5.6)."

## Chapter 5, page 172, Figure IV.5.4

The figure changes as follows:



## Annex A2, page 209

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%."

**Table A2.1, page 211**

Column (12) should be replaced by the following:

	Population and sample information	
	Overall exclusion rate (%)	
	(12)	
<b>OECD</b>		
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
<b>Partners</b>		
Albania		0.14
Argentina		0.74
Brazil		1.45
Bulgaria		2.55
Colombia		0.14
Costa Rica		0.03
Croatia		2.24
Cyprus <sup>1,2</sup>		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

**Table IV.4.19, page 406**

The OECD average 2003 should be replaced by the following:

	PISA 2003											
	Government or public schools <sup>1</sup>				Government-dependent private schools <sup>2</sup>			Government-independent private schools <sup>3</sup>				
	Percentage of students		Performance on the mathematics scale		Percentage of students		Performance on the mathematics scale		Percentage of students			
	%	S.E.	Mean score	S.E.	%	S.E.	Mean score	S.E.	%	S.E.		
OECD average 2003	82.7	(0.3)	494	(0.9)	13.6	(0.4)	514	(4.5)	3.7	(0.3)	516	(5.9)

	PISA 2003											
	Difference in performance on the mathematics scale between public and private schools (government-dependent and government-independent schools combined)	PISA index of economic, social and cultural status						Difference in performance on the mathematics scale between public and private schools after accounting for the PISA index of economic, social and cultural status of:				
		Public schools		Private schools (government-dependent and government-independent)		Difference		Students		Students and schools		
		Dif. (Pub. - Priv.)	S.E.	Mean index	S.E.	Mean index	S.E.	(Pub. - Priv.)	S.E.	(Pub. - Priv.)	S.E.	
OECD average 2003	-19	(3.0)	-0.29	(0.01)	0.10	(0.03)	-0.40	(0.03)	-4	(2.2)	14	(2.1)

	PISA 2012											
	Government or public schools <sup>1</sup>				Government-dependent private schools <sup>2</sup>			Government-independent private schools <sup>3</sup>				
	Percentage of students		Performance on the mathematics scale		Percentage of students		Performance on the mathematics scale		Percentage of students		Performance on the mathematics scale	
	%	S.E.	Mean score	S.E.	%	S.E.	Mean score	S.E.	%	S.E.	Mean score	S.E.
OECD average 2003	83.1	(0.4)	492	(0.8)	13.0	(0.4)	519	(2.8)	3.9	(0.3)	541	(2.9)

	PISA 2012											
	Difference in performance on the mathematics scale between public and private schools (government-dependent and government-independent schools combined)	PISA index of economic, social and cultural status					Difference in performance on the mathematics scale between public and private schools after accounting for the PISA index of economic, social and cultural status of:					
		Public schools		Private schools (government-dependent and government-independent)		Difference	Students	Students and schools				
	Dif. (Pub. - Priv.)	S.E.	Mean index	S.E.	Mean index	S.E.	Dif. (Pub. - Priv.)	S.E.	Dif. (Pub. - Priv.)	S.E.		
OECD average 2003	-28	(2.4)	-0.06	(0.01)	0.40	(0.02)	-0.45	(0.02)	-11	(1.9)	8	(1.9)

	Change between 2003 and 2012 (PISA 2012 - PISA 2003)								
	Government or public schools <sup>1</sup>			Government-dependent private schools <sup>2</sup>			Government-independent private schools <sup>3</sup>		
	Percentage of students	Performance on the mathematics scale	Percentage of students	Performance on the mathematics scale	Percentage of students	Performance on the mathematics scale			
	Dif. in %	S.E.	Score dif.	S.E.	Dif. in %	S.E.	Score dif.	S.E.	Dif. in %
									S.E.
OECD average 2003	0.5 (0.5)	-2 (1.2)	-0.6 (0.6)	3 (5.2)	0.1 (0.4)	15 (6.5)			

	Change between 2003 and 2012 (PISA 2012 - PISA 2003)							
	Difference in performance on the mathematics scale between public and private schools (government-dependent and government-independent schools combined)	PISA index of economic, social and cultural status				Difference in performance on the mathematics scale between public and private schools after accounting for the PISA index of economic, social and cultural status of:		
		Public schools		Private schools (government-dependent and government-independent)		Difference		Students
		Dif. in Dif. (Pub. - Priv.)	S.E.	Index dif.	S.E.	Dif. in Dif. (Pub. - Priv.)	S.E.	Dif. in Dif. (Pub. - Priv.)
								S.E.
OECD average 2003	-9 (3.7)	0.23 (0.01)	0.32 (0.03)	-0.06 (0.04)	-8 (3.0)	-6 (2.9)		