



Executive Summary

The best performing school systems manage to provide high-quality education to all students.

Canada, Finland, Japan, Korea and the partner economies Hong Kong-China and Shanghai-China all perform well above the OECD mean performance and students tend to perform well regardless of their own background or the school they attend. They not only have large proportions of students performing at the highest levels of reading proficiency, but also relatively few students at the lower proficiency levels.

Disadvantaged students may have access to more teachers, but not necessarily to the best teachers.

With the exception of Turkey, Slovenia, Israel and the United States, where socio-economically disadvantaged schools also tend to be deprived in terms of basic resources, such as larger student-staff ratios, OECD countries place at least an equal, if not a larger, number of teachers into socio-economically disadvantaged schools as those who are placed in advantaged schools. But despite this fact, disadvantaged schools still report great difficulties in attracting qualified teachers. In other words, in disadvantaged schools, quantity of resources does not necessarily translate into quality of resources since, in general, more advantaged students attend schools that have a higher proportion of full-time teachers who have an advanced university degree. Findings from PISA suggest that, in terms of teacher resources, many students face the double liability of coming from a disadvantaged background and attending a school with lower quality resources. Many countries also show a strong relationship between the socio-economic background of students and their success at school and, in some of these countries, these disparities are magnified by large variations in the schools' socio-economic backgrounds, that is, in the backgrounds of the students' peers.

Home background influences educational success, and schooling often appears to reinforce its effects. Although poor performance in school does not automatically follow from a disadvantaged socio-economic background, the socio-economic background of students and schools does appear to have a powerful influence on performance.

Socio-economic disadvantage has many facets and cannot be ameliorated by education policy alone, much less in the short term. The educational attainment of parents can only gradually improve, and average family wealth depends on the long-term economic development of a country and on a culture that promotes individual savings. However, even if socio-economic background itself is hard to change, PISA shows that some countries succeed in reducing its impact on learning outcomes.

While most of the students who perform poorly in PISA are from socio-economically disadvantaged backgrounds, some peers from similar backgrounds excel in PISA, demonstrating that overcoming socio-economic barriers to achievement is possible. Resilient students come from the bottom quarter of the distribution of socio-economic background in their country and score in the top quarter among students from all countries with similar socio-economic background. In Finland, Japan, Turkey, Canada and Portugal and the partner country Singapore, between 39% and 48% of disadvantaged students are resilient. In Korea and in partner economy Macao-China 50% and 56% of disadvantaged students can be considered resilient, and this percentage is 72% and 76% in partner economies Hong Kong-China and Shanghai-China, respectively.

Across OECD countries, a student from a more socio-economically advantaged background (among the top one seventh) outperforms a student from an average background by 38 score points, or about one year's worth of education, in reading. In New Zealand, France and the partner countries and economies Bulgaria and Dubai (UAE), this one point difference in socio-economic background is associated with a performance difference of more than 50 score points. On average across OECD countries, 14% of the differences in student reading performance within each country is associated with differences in students' socio-economic background. In Hungary and the partner countries Peru, Bulgaria and Uruguay, more than 20% of the differences in student performance is associated with differences in background.

Regardless of their own socio-economic background, students attending schools with a socio-economically advantaged intake tend to perform better than those attending schools with more disadvantaged peers.

In the majority of OECD countries, the effect of the school's economic, social and cultural status on students' performance far outweighs the effects of the individual student's socio-economic background. And the magnitude of the differences is striking. In Japan, the Czech Republic, Germany, Belgium and Israel and the partner countries Trinidad and Tobago and Liechtenstein, the performance gap between two students with similar socio-economic backgrounds, one of whom attends a school with an average socio-economic background and the another attending a school with an advantaged socio-economic background (among the top 16% in the country), is equivalent to more than 50 score points, on average, or more than a year's worth of education.

Across OECD countries, first-generation students – those who were born outside the country of assessment and who also have foreign-born parents – score, on average, 52 score points below students without an immigrant background

In New Zealand, Canada and Switzerland, 20% to 25% of students are from an immigrant background while the proportions are even higher in Liechtenstein (30%), Hong Kong-China (39%), Luxembourg (40%) and Qatar (46%). In Macao-China and Dubai (UAE), that percentage is at least 70%. There is no positive association between the size of the immigrant student population and average performance at the country or economy level, and there is also no relationship between the proportion of students with an immigrant background and the performance gaps between native and immigrant students. These findings contradict the assumption that high levels of immigration will inevitably lower the mean performance of school systems.

Students in urban schools perform better than students in other schools, even after accounting for differences in socio-economic background.

In Turkey, the Slovak Republic, Chile, Mexico and Italy, as well as the partner countries Peru, Tunisia, Albania, Argentina and Romania, the performance gap between students in urban schools and those in rural schools is more than 45 score points after accounting for differences in socio-economic background. This is more than one year of education across OECD countries. That gap is 80 score points or more – or two years of schooling – in Hungary and in the partner countries Bulgaria, Kyrgyzstan and Panama. However, this pattern is not observed in Belgium, Finland, Germany, Greece, Iceland, Ireland, Israel, the Netherlands, Poland, Sweden, the United Kingdom and the United States.

On average across the OECD, 17% of students come from single-parent families and they score five score points lower than students from other types of families after accounting for socio-economic background.

Among OECD countries, the gap is particularly large in the United States where, after accounting for socio-economic background, the performance difference between students from single-parent families and those from other types of families stands at 23 score points. In Ireland, Poland and Mexico, the gap is 13 score points and in Belgium, Japan and Luxembourg it is 10 score points, double the average among OECD countries. Among partner countries and economies students from single-parent families score 10 points lower than peers from other types of families after accounting for socio-economic background.

Parents' engagement with their children's reading life has a positive impact on their children's reading performance. Students whose parents reported that they had read a book with their child "every day or almost every day" or "once or twice a week" during the first year of primary school performed higher in PISA 2009 than students whose parents reported that they had done this "never or almost never" or "once or twice a month". On average across the 14 countries that had collected information on this question, the difference is 25 score points, but it ranges from 4 score points in the partner country Lithuania to 63 score points in New Zealand. Also, 15-year-olds whose parents discuss political or social issues once a week or more score 28 score points higher than those whose parents do not, or who talk about these issues less often. The performance advantage was largest in Italy, at 42 score points, and smallest in the partner economy Macao-China, and it is observed across all countries.



The following table summarises the key data of this volume. For each country, it shows the average score of 15-year-olds in reading and seven equity measures from PISA: *i)* and *ii)* two measures focusing on those that achieve the baseline level of proficiency in PISA: the proportion of boys and girls who score below Level 2; *iii)* a measure of those who overcome socio-economic disadvantaged and do best given their weak prospects, the proportion of resilient students; *iv)* and *v)* two measures of the relationship between student background and performance: the percentage of variation in student performance explained by the student's socio-economic background and the slope of the socio-economic gradient, the average gap in performance between students from different socio-economic backgrounds; and *vi)* and *vii)* two measures of equality in the distribution of educational resources, namely the quality and quantity of teachers. For the first five measures, cells shaded in light blue indicate values of quality or equity above the OECD average. Cells shaded in medium blue indicate values of equity below the OECD average. Cells shaded in dark blue indicate values that are not statistically different from the OECD average. In the last two columns, cells shaded in light blue indicate that disadvantaged schools are more likely to have more or better resources. Cells shaded in medium blue that advantaged schools are more likely to have more or better resources. Cells shaded in dark blue indicate values where disadvantaged and advantaged schools are equally likely to have more or better resources. In these two last columns, estimates in bold indicate that they are statistically different from the OECD average.

■ Table II.A ■

SUMMARY OF PISA MEASURES OF EDUCATIONAL EQUITY

Higher quality or equity than OECD average

At OECD average (no statistically significant difference)

Lower quality or equity than OECD average

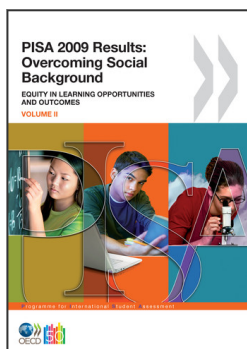
Disadvantaged schools are more likely to have more or better resources, in **bold** if relationship is statistically different from the OECD average

Within country correlation is not statistically significant

Advantaged schools are more likely to have more or better resources, in **bold** if relationship is statistically different from the OECD average

	Mean reading score	Percentage of boys below proficiency Level 2	Percentage of girls below proficiency Level 2	Percentage of resilient students	Percentage of variance in student performance explained by students' socio-economic background	Slope of the socio-economic gradient	Correlation between the socio-economic background of schools and the percentage of teachers with university-level (ISCED 5A) among all full-time teachers	Correlation between socio-economic background of schools and the student/teacher ratio
OECD average	493	25	13	8	14	38	0.15	-0.15
OECD								
Korea	539	9	2	14	11	32	-0.03	0.30
Finland	536	13	3	11	8	31	-0.01	0.08
Canada	524	14	6	10	9	32	0.03	0.09
New Zealand	521	21	8	9	17	52	0.07	0.11
Japan	520	19	8	11	9	40	0.20	0.38
Australia	515	20	9	8	13	46	0.02	-0.07
Netherlands	508	18	11	8	13	37	0.62	0.38
Belgium	506	21	14	8	19	47	0.58	0.66
Norway	503	21	8	6	9	36	0.15	0.19
Estonia	501	19	7	9	8	29	0.00	0.43
Switzerland	501	22	11	8	14	40	0.24	0.06
Poland	500	23	7	9	15	39	-0.05	0.01
Iceland	500	24	10	7	6	27	0.30	0.40
United States	500	21	14	7	17	42	0.10	-0.17
Sweden	497	24	10	6	13	43	-0.04	0.12
Germany	497	24	13	6	18	44	-0.02	0.28
Ireland	496	23	11	7	13	39	-0.08	0.49
France	496	26	14	8	17	51	w	w
Denmark	495	19	11	6	15	36	0.16	0.27
United Kingdom	494	23	14	6	14	44	-0.03	-0.10
Hungary	494	24	11	6	26	48	0.07	0.02
Portugal	489	25	11	10	17	30	0.04	0.39
Italy	486	29	13	8	12	32	0.13	0.50
Slovenia	483	31	11	6	14	39	0.55	-0.25
Greece	483	30	13	7	12	34	0.24	0.25
Spain	481	24	15	9	14	29	m	0.45
Czech Republic	478	31	14	5	12	46	0.37	0.08
Slovak Republic	477	32	13	5	15	41	-0.21	0.00
Israel	474	34	19	6	13	43	0.20	-0.20
Luxembourg	472	33	19	5	18	40	0.39	0.28
Austria	470	35	20	5	17	48	0.64	-0.07
Turkey	464	33	15	10	19	29	0.04	-0.26
Chile	449	36	25	6	19	31	0.25	-0.05
Mexico	425	46	34	7	14	25	-0.04	0.03
Partners								
Shanghai-China	556	7	2	19	12	27	0.32	-0.13
Hong Kong-China	533	11	5	18	5	17	0.12	0.02
Singapore	526	16	9	12	15	47	0.22	-0.14
Liechtenstein	499	21	9	9	8	26	0.57	0.70
Chinese Taipei	495	22	10	10	12	36	0.29	-0.07
Macao-China	487	21	9	13	2	12	-0.18	0.17
Latvia	484	27	9	8	10	29	0.19	0.38
Croatia	476	31	13	7	11	32	0.28	0.32
Lithuania	468	35	13	5	14	33	0.19	0.21
Dubai (UAE)	459	41	21	3	14	51	-0.01	-0.27
Russian Federation	459	36	19	5	11	37	0.31	0.29
Serbia	442	43	23	4	10	27	0.06	0.11
Bulgaria	429	52	29	2	20	51	0.17	0.21
Uruguay	426	51	34	4	21	37	0.08	0.13
Romania	424	51	30	2	14	36	0.11	-0.02
Thailand	421	55	33	7	13	22	0.16	-0.02
Trinidad and Tobago	416	55	34	5	10	38	0.56	0.38
Colombia	413	50	45	6	17	28	-0.08	-0.14
Brazil	412	56	43	6	13	28	0.03	-0.20
Montenegro	408	61	37	2	10	31	0.38	0.33
Jordan	405	62	34	3	8	24	-0.02	0.06
Tunisia	404	58	43	7	8	19	0.20	-0.02
Indonesia	402	65	42	6	8	17	0.16	-0.16
Argentina	398	59	45	3	20	40	0.22	-0.02
Kazakhstan	390	67	50	1	12	38	0.34	0.44
Albania	385	69	44	3	11	31	0.38	0.15
Qatar	372	72	54	1	4	25	-0.07	0.11
Panama	371	72	59	2	18	31	-0.13	0.03
Peru	370	70	60	1	27	41	0.48	-0.02
Azerbaijan	362	78	68	1	7	21	0.44	0.23
Kyrgyzstan	314	88	78	0	15	40	0.35	0.27

Countries are ranked in descending order of the mean score in reading, separately for OECD and partner countries and economies. Source: OECD, PISA 2009 Database, Tables I.2.2., II.1.1., II.2.3., II.3.2 and II.3.3. StatLink <http://dx.doi.org/10.1787/888932343684>



From:
**PISA 2009 Results: Overcoming Social
Background**
Equity in Learning Opportunities and Outcomes (Volume II)

Access the complete publication at:
<https://doi.org/10.1787/9789264091504-en>

Please cite this chapter as:

OECD (2010), "Executive Summary", in *PISA 2009 Results: Overcoming Social Background: Equity in Learning Opportunities and Outcomes (Volume II)*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/9789264091504-2-en>

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