How does social background affect performance?

- There is significant difference in reading performance between students from various socio-economic backgrounds, particularly in France and New Zealand.
- Across OECD countries, nearly one-third of disadvantaged students are identified as “resilient”, meaning that they perform better in reading than would be predicted from their socio-economic backgrounds.
- 23% of boys, but 40% of girls, from disadvantaged backgrounds are considered resilient.

Significance

All countries face the challenge of providing their students with equitable learning opportunities, as performance differences related to student background are evident in every country. But PISA results show that some countries have been more successful than others in minimizing the impact of socio-economic background on students’ performance in reading. Despite the strong association between socio-economic background and reading performance, many students from disadvantaged backgrounds confound predictions and perform well. Thus educators must not assume that someone from a disadvantaged background is incapable of high achievement.

Findings

By measuring the average difference in performance between students from different socio-economic backgrounds, clear distinctions appear in every country. On average across OECD countries, a 38-point difference in reading performance is associated with a one unit increase in socio-economic status. This performance difference is greatest in France and New Zealand, where it is at least 30% wider than the OECD average.

Although students’ background has a clear effect on school performance in all countries, the strength of this relationship varies across school systems. On average across OECD countries, 14% of variation in students’ reading performance can be explained by their socio-economic backgrounds. In Belgium, Chile, Germany, Hungary, Luxembourg, New Zealand and Turkey the link between reading performance and socio-economic background is greater than the OECD average. By contrast, in Iceland, less than 7% of variation in student performance is explained by socio-economic background. Figures are also below the OECD average in Canada, Estonia, Finland, Indonesia, Italy, Japan, Korea, Norway and the Russian Federation.

These findings show that in all countries, a student’s socio-economic background is associated with his or her reading performance to some extent. However, in the three countries with the highest reading performance, namely Korea, Finland and Canada, the link between student background and performance is weaker than average for both measures. This highlights that it is possible to achieve the highest levels of performance while providing students with equitable learning opportunities.

Based on the performance of students from different socio-economic backgrounds across countries, PISA can predict how well a student will perform and identify “resilient” students. By comparing a students’ reading performance to what would be expected of them given their socio-economic background, PISA can determine resilient students who manage to rise above their disadvantages. Each student’s performance can then be measured in terms of how much they exceed or fall below this prediction.

On average across OECD countries, 31% of students from disadvantaged backgrounds are resilient. In Korea, 56% of such students are resilient, meaning that most students from modest backgrounds in Korea do far better in reading than would be expected. In Finland, Japan and Turkey, there are between 10% and 15% more resilient students than the OECD average. In contrast, the figure is 10% less in Argentina, Austria, Luxembourg and the Russian Federation.

In all countries, girls from disadvantaged backgrounds are far more likely to show resilience in reading performance than boys. Across the OECD, 39% of girls compared to 22% of boys are considered resilient. The majority of these girls are found in Finland, Korea, Poland and Portugal; in Korea, some 65% of disadvantaged girls are resilient. In Poland, Portugal and Slovenia there are 25% more resilient girls than resilient boys.

Definitions

Socio-economic background is measured according to the PISA index of social, cultural and economic status, which is based on information, provided by students, about their parents’ education and occupations and their home possessions, such as a desk to use for studying and the number of books in the home. A 15-year-old who is among the 25% most socio-economically disadvantaged students in his or her own country and whose reading performance is ranked among the international group of students who most exceed expectations is described as “resilient”. Such a student combines the characteristics of having the weakest prospects and doing the best given those prospects.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see Education at a Glance 2011 (Indicator A5).

Areas covered include:
- Strength of the relationship between reading performance and socio-economic background.
- Percentage of resilient students among disadvantaged students.

Further reading from the OECD

Against the Odds: Disadvantaged Students Who Succeed in School (2011).
Figure S.4. **Difference in reading performance between students from different socio-economic backgrounds, 2009**

This figure shows the difference in reading performance between average students and those with a one unit increase in the PISA index of economic, social and cultural status. It demonstrates the link between advantaged socio-economic backgrounds and higher reading performance.

![Score point difference associated with one unit increase in the PISA index of economic, social and cultural status](image)


Figure S.5. **Percentage of resilient students among disadvantaged students, 2009**

This figure shows the percentage of resilient students among disadvantaged students. Resilient students overcome their socio-economic disadvantages to perform in the top quarter of students from all countries, after accounting for socio-economic background. On average across OECD countries, 31% of students from disadvantaged backgrounds are resilient.

![Percentage of resilient students among disadvantaged students](image)
