## INDICATOR A5

## DOES STUDENT BACKGROUND AFFECT STUDENT PERFORMANCE?

- The difference in reading performance between students from various socio-economic backgrounds is strong, particularly in France and New Zealand.
- Even after adjusting for socio-economic status, students with an immigrant background score an average of 27 points below students who do not have an immigrant background.
- 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.


## Chart A5.1. Difference in reading performance between students from different socio-economic backgrounds

Score point difference in reading performance associated with one unit increase in the PISA index of economic, social and cultural status (ESCS)


Note: The empty bars indicate that the slope of the socio-economic background is not statistically significantly different from the OECD average slope.
Countries are ranked in ascending order of the difference in performance between students from different socio-economic backgrounds. Source: OECD, PISA 2009 Database, Table A5.1.
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## Context

In trying to provide students with equitable learning opportunities, education systems aim to reduce the extent to which a student's socio-economic background affects his or her performance in school. Performance differences that are related to student background are evident in every country. But PISA results show that some countries have been more successful than others in mitigating the impact of socio-economic background on students' performance in reading. In general, students with an immigrant background are socio-economically disadvantaged, and this explains part of the performance disadvantage among these students. They face considerable challenges in reading and other aspects of education. In general, they tend to show lower levels of performance even after their socio-economic background is taken into account. However, the
differences in performance vary greatly, and in some countries, students with an immigrant background perform just as well as their non-immigrant peers. But despite the strong association between socio-economic status 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.

## Other findings

- Although the relationship between students' background and school performance is evident in all countries, the strength of this relationship varies across school systems. The four topperformers in reading, Canada, Finland, Korea and Shanghai-China, show a below-average impact of socio-economic status on students' reading performance, proving that it is possible to reduce the strength of the relationship between background and performance.
- In many countries, first-generation immigrant students are at a significantly greater risk of being poor performers. Across OECD countries, they are around twice as likely to perform among the bottom quarter of students when compared to students who do not have an immigrant background.
- Across OECD countries only $23 \%$ of boys, but $40 \%$ of girls, from disadvantaged backgrounds are considered resilient.

INDICATOR A5


## Analysis

## Socio-economic background and student performance

Socio-economic background is measured by 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. The index is standardised to have an average value of 0 and a standard deviation of 1 across all OECD countries. This means that two-thirds of students are from a socio-economic background that is between one unit above average and one unit below average.

There are two main ways of measuring how closely reading performance is linked to social background. One considers the average difference in performance between students from different socio-economic backgrounds. On average across OECD countries, one unit increase in the PISA Index of economic, social and cultural status is associated with 38 score point difference. As shown in Chart A5.1, this gap is greatest in France and New Zealand, where it is at least $30 \%$ wider than the OECD average. In these countries, a student's predicted score is most heavily influenced by his or her socio-economic background. This gap is also greater than the OECD average in Australia, Austria, Belgium, the Czech Republic, Germany, Hungary, Israel, Sweden and the United Kingdom and smaller than the OECD average in Brazil, Canada, Chile, Estonia, Finland, Iceland, Indonesia, Italy, Korea, Mexico, Portugal, Shanghai-China, Spain and Turkey (Chart A5.1).

While this measure can be used to predict differences in reading scores among students from different backgrounds, many students confound these predictions. Socio-economically advantaged students perform better, on average, but a number perform poorly, just as a number of disadvantaged students perform well. To show the extent to which levels of student performance conform to a pattern predicted by socio-economic status, PISA also measures the percentage of variation in reading performance than can be explained by a student's background.

## Chart A5.2. Strength of the relationship between reading performance and socio-economic background




On average across OECD countries, $14 \%$ of the variation in students' reading performance can be explained by their socio-economic backgrounds. In Hungary more than $20 \%$ of the variation is so explained. In Belgium, Chile, Germany, Luxembourg, New Zealand and Turkey, the strength of the relationship between reading performance and socio-economic background is above the OECD average. In contrast, in Iceland less than 7\% of variation in student performance is explained by socio-economic background. In Canada, Estonia, Finland, Indonesia, Italy, Japan, Korea, Norway and the Russian Federation this percentage of variation is below the OECD average (Chart A5.2).

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

## Immigrant background and student performance

Chart A5.3 shows the average performance of students with an immigrant background for those countries with significant shares of 15 -year-olds who have an immigrant background (see Definitions below). Countries are sorted by the average performance of all students. The figure highlights three main findings. First, students who do not have an immigrant background tend to outperform students with an immigrant background in most countries and economies. The exceptions are Australia and Canada for both first- and second-generation students, and Hungary, where second-generation students significantly outperform students who do not have an immigrant background. Second, the size of the performance gap among these groups of students varies markedly across countries. Third, second-generation students tend to outperform first-generation students.

This analysis defines students with an immigrant background as those who were born in the country of assessment but whose parents are foreign-born (second-generation) and those who are foreign-born whose parents are also foreign-born (first-generation).

Chart A5.3. Reading performance, by immigrant status


On average across OECD countries, students with an immigrant background scored 44 points below their non-immigrant peers in reading. While this gap shrunk to 27 score points after socio-economic background was taken into account, the difference still amounts to nearly half a proficiency level in reading (Table A5.2).
In many OECD countries, first-generation immigrant students are at a significantly greater risk of being poor performers. They lag 52 score points, on average, behind students who do not have an immigrant background, a difference that exceeds the equivalent of one school year's progress (see Definitions). In Austria, Belgium, Brazil, Denmark, Finland, France, Greece, Iceland, Italy, Mexico, Norway, Slovenia, Spain and Sweden, firstgeneration immigrant students are at least twice as likely to perform among the bottom quarter of students when compared to students who do not have an immigrant background (Table A5.2).

While the educational experience abroad can help to explain the performance gap for first-generation immigrants, second-generation students were born in the country and therefore benefited from the education system of the host country from the beginning of their previous education. Despite this, second-generation students also lag behind those who are not from immigrant families by an average of 33 score points across OECD countries (Table A5.2).

In general, students with an immigrant background are socio-economically disadvantaged, and this explains part of the performance disadvantage among these students. On average across OECD countries, students with an immigrant background tend to have a socio-economic background that is 0.4 of a standard deviation lower than that of their non-immigrant peers. This relationship is particularly strong in Austria, Denmark, Germany, Iceland, Luxembourg, the Netherlands and the United States. Only in Australia, Brazil, the Czech Republic, Estonia, Hungary, Ireland, New Zealand and Portugal is there no observed difference in the socio-economic background of students by immigrant status (Table A5.2).

The large gaps in performance and socio-economic background suggest that schools and societies face major challenges in realising the potential of students with an immigrant background. However, as Chart A5.3 shows, in some education systems, the gaps are barely noticeable or very narrow, while in others they are significantly above these averages. For example, in Australia, second-generation students, who account for $12 \%$ of the student population, outperform students who do not have an immigrant background by 16 score points. In Hungary, second-generation students score 32 points above students who are not from immigrant families, but they account only for $1 \%$ of the student population. In Canada, where almost $25 \%$ of students have an immigrant background, these students perform as well as students who do not have an immigrant background. Similarly, no statistically significant differences are observed between second-generation students and non-immigrant students in the Czech Republic, Ireland, Israel, Portugal and the United Kingdom, and between first-generation students and non-immigrant students in Australia, the Czech Republic, Hungary and New Zealand.

Without longitudinal data, it is not possible to directly assess to what extent the observed disadvantages of students with an immigrant background are reduced over successive generations. However, it is possible to compare the performance of second-generation students, who were born in the country of assessment and have thereby benefited from participating in the same formal education system as their native peers for the same number of years, with that of first-generation students, who usually started their education in another country.
On average across OECD countries, second-generation students outperform first-generation students by 18 score points in reading. The relative advantage of second-generation students compared with firstgeneration students exceeds 40 score points in Austria, Finland and Ireland (Chart A5.3) and is larger than 30 score points in Greece, Italy, Slovenia, Spain, Sweden and the United Kingdom. These large gaps highlight the disadvantage of first-generation students and possibly the different backgrounds across immigrant cohorts (Table A5.2). However, they could also signal positive educational and social mobility across generations.

Cross-country comparisons of performance gaps between first- and second-generation immigrant students need to be treated with caution, since they may, in some cases, reflect the characteristics of families participating in different waves of immigration more strongly than the success of integration policies. New Zealand is a case in point. First-generation students perform as well as students without an immigrant background while second-generation students lag behind the former group of students by 22 score points (Table A5.2).

This result signals that there may be important differences in the characteristics of the cohorts of students with an immigrant background. Even students from the same countries of origin, however, show considerable differences in their performance across the different host countries.

In general, a part of these differences persists even after accounting for socio-economic factors. Chart A5.4 shows the size of the performance gap between students with and without an immigrant background before and after accounting for socio-economic status. In Luxembourg, for example, accounting for the socio-economic status of students reduces the performance disadvantage of students with an immigrant background from 52 to 19 score points. On average across OECD countries, the gap is reduced from 44 to 27 score points. The narrowing of the gap after accounting for the socio-economic status of students tends to be similar across countries. The rank order of countries in terms of the performance gap between immigrant and native students remains fairly stable before and after accounting for socio-economic context. This shows the extent to which performance differences between students with varying immigrant backgrounds reflect students' socio-economic status and not necessarily their immigrant background. The fact that the gap is still apparent after accounting for socio-economic status, however, indicates that students from immigrant backgrounds may have difficulties at school that can be attributed directly to their immigrant status.

## Chart A5.4. Reading performance by immigrant background, before and after accounting for socio-economic status

 Differences in reading performance between native students and students with an immigrant background

Note: Score point differences that are statistically significant are shown in a darker tone.
Countries are ranked in ascending order of score point differences after accounting for the economic, social and cultural status of students.
Source: OECD, PISA 2009 Database, Table A5.2.
StatLink ज्ञात्रा http://dx.doi.org/10.1787/888932460268

## Disadvantaged students who succeed

Students' observed performance in reading can be compared to what would be expected of them, given their socio-economic background. Based on the performance of students from different backgrounds across countries, PISA predicts how well a student will perform. Each student's performance can be measured in terms of how much they exceed or fall below this prediction. The quarter of all students across countries who do best relative to those predictions can be seen as the group of students who most exceed expectations. 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.

On average across OECD countries, $31 \%$ of students from disadvantaged backgrounds are resilient. In Korea and Shanghai-China, $56 \%$ and $76 \%$ of students from such backgrounds, respectively, are resilient, meaning that most students from modest backgrounds do far better in reading than would be expected. In Finland, Japan and Turkey, the proportion of resilient students is between 10 and 15 percentage points higher than the OECD average. In contrast, in Argentina, Austria, Luxembourg and the Russian Federation, this proportion is 10 percentage points lower than the OECD average (Chart A5.5).

## Chart A5.5. Percentage of resilient students among disadvantaged students



Note: 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 background. The share of resilient students among all students has been multiplied by 4 so that the percentage values presented here reflect the proportion of resilient students among disadvantaged students (those in the bottom quarter of the PISA index of social, economic and cultural status).
Countries are ranked in descending order of the percentage of resilient students.
Source: OECD, PISA 2009 Database, Table A5.2.
StatLink ज्ञात्राप http://dx.doi.org/10.1787/888932460287

In all countries, girls from disadvantaged backgrounds are far more likely to show resilience in reading performance than boys. Across OECD countries, $39 \%$ of girls compared to $22 \%$ of boys are considered resilient. The majority of disadvantaged girls in this category 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

In PISA 2009, one school year's progress corresponds to an average of 39 score points on the PISA reading scale. This was determined by calculating the difference in scores among the sizeable number of 15 -year-olds in 32 OECD countries who were enrolled in at least two different grade levels.

PISA distinguishes between three types of student immigrant status: i) students without an immigrant background, also referred to as native students, are students who were born in the country where they were assessed by PISA or who had at least one parent born in the country; ii) second-generation students are students who were born in the country of assessment but whose parents are foreign-born; and iii) first-generation students are foreign-born students whose parents are also foreign-born. Students with an immigrant background thus include students who are first or second- generation immigrants.

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.

## References

OECD (2010b), PISA 2009 Results: Overcoming Social Background: Equity in Learning Opportunities and Outcomes (Volume II), OECD, Paris.

Table A5.1. [1/2] Socio-economic background and reading performance
Results based on students' self-reports

|  | PISA index of economic, social and cultural status (ESCS) |  |  |  |  |  |  |  |  |  | Performance on the reading scale, by national quarters of this index |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All students |  | Bottom quarter |  | Second quarter |  | Third quarter |  | Top quarter |  | Bottom quarter |  | Second quarter |  | Third quarter |  | Top quarter |  |
|  | Mean index | S.E. | Mean index | S.E. | Mean index | S.E. | Mean index | S.E. | Mean index | S.E. | Mean score | S.E. | Mean score | S.E. | Mean score | S.E. | Mean score | S.E. |
| Ơ Australia | 0.34 | (0.01) | -0.63 | (0.01) | 0.09 | (0.00) | 0.63 | (0.00) | 1.29 | (0.01) | 471 | (2.7) | 504 | (2.4) | 532 | (3.0) | 562 | (3.1) |
| $\stackrel{0}{0}$ Austria | 0.06 | (0.02) | -0.97 | (0.02) | -0.22 | (0.00) | 0.28 | (0.00) | 1.15 | (0.01) | 421 | (4.3) | 457 | (4.2) | 482 | (3.8) | 525 | (3.9) |
| Belgium | 0.20 | (0.02) | -1.00 | (0.02) | -0.13 | (0.00) | 0.54 | (0.00) | 1.37 | (0.01) | 452 | (3.3) | 489 | (3.3) | 525 | (2.5) | 567 | (2.6) |
| Canada | 0.50 | (0.02) | -0.59 | (0.01) | 0.25 | (0.00) | 0.83 | (0.00) | 1.52 | (0.01) | 495 | (2.3) | 514 | (1.7) | 533 | (2.1) | 562 | (2.4) |
| Chile | -0.57 | (0.04) | -2.00 | (0.01) | -1.00 | (0.01) | -0.22 | (0.01) | 0.95 | (0.02) | 409 | (3.5) | 435 | (3.6) | 457 | (3.5) | 501 | (3.5) |
| Czech Republic | -0.09 | (0.01) | -0.95 | (0.01) | -0.34 | (0.00) | 0.11 | (0.00) | 0.85 | (0.01) | 437 | (3.3) | 467 | (3.7) | 490 | (3.4) | 521 | (4.1) |
| Denmark | 0.30 | (0.02) | -0.83 | (0.01) | 0.00 | (0.01) | 0.62 | (0.01) | 1.39 | (0.01) | 455 | (2.7) | 486 | (3.4) | 509 | (2.9) | 536 | (2.4) |
| Estonia | 0.15 | (0.02) | -0.87 | (0.01) | -0.16 | (0.01) | 0.45 | (0.01) | 1.19 | (0.01) | 476 | (3.6) | 490 | (3.5) | 505 | (3.1) | 534 | (3.9) |
| Finland | 0.37 | (0.02) | -0.64 | (0.01) | 0.12 | (0.00) | 0.69 | (0.00) | 1.32 | (0.01) | 504 | (3.2) | 527 | (2.7) | 548 | (2.9) | 565 | (2.8) |
| France | -0.13 | (0.03) | -1.19 | (0.02) | -0.42 | (0.00) | 0.15 | (0.01) | 0.93 | (0.02) | 443 | (5.2) | 484 | (4.6) | 513 | (4.4) | 553 | (4.8) |
| Germany | 0.18 | (0.02) | -0.93 | (0.02) | -0.12 | (0.00) | 0.42 | (0.01) | 1.36 | (0.01) | 445 | (3.9) | 494 | (2.9) | 515 | (3.5) | 550 | (3.3) |
| Greece | -0.02 | (0.03) | -1.28 | (0.02) | -0.40 | (0.01) | 0.32 | (0.01) | 1.27 | (0.01) | 437 | (7.1) | 475 | (5.2) | 493 | (3.7) | 528 | (3.4) |
| Hungary | -0.20 | (0.03) | -1.38 | (0.03) | -0.56 | (0.00) | 0.06 | (0.01) | 1.10 | (0.02) | 435 | (5.3) | 485 | (3.4) | 505 | (4.1) | 553 | (4.1) |
| Iceland | 0.72 | (0.01) | -0.46 | (0.02) | 0.45 | (0.01) | 1.10 | (0.01) | 1.79 | (0.01) | 470 | (3.1) | 494 | (3.3) | 513 | (3.0) | 530 | (2.8) |
| Ireland | 0.05 | (0.03) | -1.01 | (0.01) | -0.27 | (0.01) | 0.31 | (0.01) | 1.15 | (0.02) | 454 | (3.8) | 486 | (4.0) | 511 | (3.9) | 539 | (3.5) |
| Israel | -0.02 | (0.03) | -1.20 | (0.02) | -0.24 | (0.01) | 0.33 | (0.00) | 1.01 | (0.01) | 423 | (5.4) | 465 | (4.0) | 501 | (3.6) | 526 | (4.1) |
| Italy | -0.12 | (0.01) | -1.41 | (0.01) | -0.47 | (0.00) | 0.18 | (0.00) | 1.21 | (0.01) | 442 | (3.0) | 477 | (2.0) | 500 | (2.0) | 526 | (2.1) |
| Japan | -0.01 | (0.01) | -0.93 | (0.01) | -0.28 | (0.00) | 0.24 | (0.00) | 0.93 | (0.01) | 483 | (4.8) | 510 | (4.8) | 536 | (4.0) | 558 | (3.5) |
| Korea | -0.15 | (0.03) | -1.22 | (0.01) | -0.42 | (0.01) | 0.14 | (0.01) | 0.88 | (0.02) | 503 | (5.1) | 534 | (2.8) | 548 | (3.9) | 572 | (4.6) |
| Luxembourg | 0.19 | (0.01) | -1.31 | (0.02) | -0.09 | (0.01) | 0.64 | (0.01) | 1.51 | (0.01) | 411 | (2.7) | 460 | (3.0) | 497 | (2.8) | 526 | (3.0) |
| Mexico | -1.22 | (0.03) | -2.83 | (0.01) | -1.79 | (0.00) | -0.81 | (0.01) | 0.54 | (0.02) | 386 | (2.8) | 413 | (2.3) | 434 | (2.2) | 469 | (2.2) |
| Netherlands | 0.27 | (0.03) | -0.84 | (0.03) | 0.01 | (0.01) | 0.61 | (0.01) | 1.31 | (0.01) | 474 | (5.5) | 493 | (5.8) | 519 | (4.7) | 553 | (5.9) |
| New Zealand | 0.09 | (0.02) | -0.93 | (0.01) | -0.17 | (0.00) | 0.36 | (0.01) | 1.08 | (0.01) | 475 | (3.9) | 508 | (3.1) | 534 | (3.3) | 578 | (3.6) |
| Norway | 0.47 | (0.02) | -0.47 | (0.01) | 0.23 | (0.00) | 0.73 | (0.00) | 1.40 | (0.01) | 468 | (3.4) | 495 | (3.3) | 517 | (2.9) | 536 | (3.9) |
| Poland | -0.28 | (0.02) | -1.29 | (0.01) | -0.66 | (0.00) | -0.15 | (0.00) | 0.97 | (0.01) | 461 | (3.4) | 488 | (3.1) | 507 | (2.9) | 550 | (3.8) |
| Portugal | -0.32 | (0.04) | -1.70 | (0.01) | -0.87 | (0.01) | -0.05 | (0.01) | 1.35 | (0.03) | 451 | (4.2) | 472 | (3.4) | 499 | (3.4) | 537 | (3.7) |
| Slovak Republic | -0.09 | (0.02) | -1.04 | (0.02) | -0.44 | (0.00) | 0.04 | (0.01) | 1.07 | (0.02) | 435 | (5.0) | 468 | (3.4) | 488 | (3.3) | 521 | (3.6) |
| Slovenia | 0.07 | (0.01) | -1.01 | (0.01) | -0.31 | (0.01) | 0.37 | (0.01) | 1.25 | (0.01) | 444 | (2.6) | 468 | (2.5) | 493 | (2.7) | 532 | (2.6) |
| Spain | -0.31 | (0.03) | -1.68 | (0.02) | -0.74 | (0.00) | 0.03 | (0.01) | 1.14 | (0.01) | 443 | (3.3) | 468 | (2.3) | 491 | (2.2) | 525 | (3.3) |
| Sweden | 0.33 | (0.02) | -0.72 | (0.02) | 0.08 | (0.00) | 0.63 | (0.01) | 1.33 | (0.01) | 452 | (4.0) | 488 | (3.3) | 515 | (3.3) | 543 | (4.1) |
| Switzerland | 0.08 | (0.02) | -1.04 | (0.01) | -0.22 | (0.00) | 0.35 | (0.00) | 1.22 | (0.01) | 457 | (3.9) | 492 | (2.7) | 506 | (3.0) | 550 | (3.7) |
| Turkey | -1.16 | (0.05) | -2.63 | (0.02) | -1.69 | (0.01) | -0.82 | (0.01) | 0.49 | (0.03) | 422 | (3.8) | 454 | (3.5) | 469 | (3.9) | 514 | (4.6) |
| United Kingdom | 0.20 | (0.02) | -0.80 | (0.02) | -0.06 | (0.00) | 0.47 | (0.01) | 1.21 | (0.01) | 451 | (2.9) | 483 | (3.1) | 508 | (2.7) | 544 | (3.2) |
| United States | 0.17 | (0.04) | -1.05 | (0.02) | -0.11 | (0.01) | 0.52 | (0.01) | 1.32 | (0.02) | 451 | (3.6) | 481 | (3.6) | 512 | (3.6) | 558 | (4.7) |
| OECD average | 0.00 | (0.00) | -1.14 | (0.00) | -0.32 | (0.00) | 0.30 | (0.00) | 1.17 | (0.00) | 451 | (0.7) | 483 | (0.6) | 506 | (0.6) | 540 | (0.6) |
| \% Argentina | -0.62 | (0.05) | -2.17 | (0.03) | -1.02 | (0.01) | -0.19 | (0.01) | 0.92 | (0.03) | 345 | (4.9) | 377 | (4.6) | 410 | (5.5) | 468 | (6.2) |
| - Brazil | -1.16 | (0.03) | -2.69 | (0.01) | -1.64 | (0.01) | -0.76 | (0.01) | 0.44 | (0.02) | 376 | (2.5) | 401 | (3.0) | 413 | (3.9) | 460 | (4.1) |
| ¢ Indonesia | -1.55 | (0.06) | -2.86 | (0.01) | -2.05 | (0.01) | -1.26 | (0.01) | -0.04 | (0.03) | 386 | (3.8) | 389 | (3.6) | 402 | (4.5) | 430 | (6.0) |
| Russian Federation | -0.21 | (0.02) | -1.20 | (0.01) | -0.56 | (0.00) | 0.06 | (0.00) | 0.85 | (0.01) | 424 | (3.6) | 447 | (3.9) | 466 | (3.5) | 502 | (4.9) |
| Shanghai-China | -0.49 | (0.04) | -1.83 | (0.02) | -0.88 | (0.01) | -0.11 | (0.01) | 0.86 | (0.01) | 521 | (4.3) | 546 | (3.3) | 564 | (2.5) | 594 | (3.4) |

Note: Values that are statistically significant are indicated in bold.

1. In these columns values that are statistically significantly different from the OECD average are indicated in bold.
2. Single-level bivariate regression of reading performance on the ESCS, the slope is the regression coefficient for the ESCS.

Source: OECD, PISA 2009 Database.
StatLink ⿹ㅔ엔 http://dx.doi.org/10.1787/888932462719

Table A5.1. [2/2] Socio-economic background and reading performance
Results based on students' self-reports

|  | Slope of the socio-economic gradient ${ }^{1,2}$ |  | Strength of the relationship between student performance and the ESCS ${ }^{1}$ |  | Increased likelihood of students in the bottom quarter of the ESCS scoring in the bottom quarter of the reading performance distribution |  | Performance on the reading scale (unadjusted mean score) |  | Performance on the reading scale if the mean ESCS were equal in all OECD |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Change in the reading score per unit of this index |  | Explained variance in student performance (r-squared x 100 ) |  |  |  |  |  |  |  |
|  | Effect | S.E. | \% | S.E. | Ratio | S.E. | Mean score | S.E. | Mean score | S.E. |
| O Australia | 46 | (1.8) | 12.7 | (0.85) | 2.1 | (0.1) | 515 | (2.3) | 502 | (2.0) |
| 0 Austria | 48 | (2.3) | 16.6 | (1.39) | 2.4 | (0.1) | 470 | (2.9) | 468 | (2.6) |
| Belgium | 47 | (1.5) | 19.3 | (1.01) | 2.4 | (0.1) | 506 | (2.3) | 499 | (2.0) |
| Canada | 32 | (1.4) | 8.6 | (0.74) | 1.7 | (0.1) | 524 | (1.5) | 510 | (1.4) |
| Chile | 31 | (1.5) | 18.7 | (1.56) | 2.3 | (0.1) | 449 | (3.1) | 468 | (2.6) |
| Czech Republic | 46 | (2.3) | 12.4 | (1.09) | 2.0 | (0.1) | 478 | (2.9) | 483 | (2.7) |
| Denmark | 36 | (1.4) | 14.5 | (1.02) | 2.1 | (0.1) | 495 | (2.1) | 485 | (1.8) |
| Estonia | 29 | (2.3) | 7.6 | (1.11) | 1.6 | (0.1) | 501 | (2.6) | 497 | (2.4) |
| Finland | 31 | (1.7) | 7.8 | (0.82) | 1.8 | (0.1) | 536 | (2.3) | 525 | (2.2) |
| France | 51 | (2.9) | 16.7 | (1.97) | 2.4 | (0.2) | 496 | (3.4) | 505 | (2.9) |
| Germany | 44 | (1.9) | 17.9 | (1.29) | 2.6 | (0.2) | 497 | (2.7) | 493 | (2.2) |
| Greece | 34 | (2.4) | 12.5 | (1.43) | 2.2 | (0.1) | 483 | (4.3) | 484 | (3.7) |
| Hungary | 48 | (2.2) | 26.0 | (2.17) | 3.0 | (0.2) | 494 | (3.2) | 504 | (2.5) |
| Iceland | 27 | (1.8) | 6.2 | (0.81) | 1.7 | (0.1) | 500 | (1.4) | 483 | (2.0) |
| Ireland | 39 | (2.0) | 12.6 | (1.17) | 2.2 | (0.2) | 496 | (3.0) | 496 | (2.6) |
| Israel | 43 | (2.4) | 12.5 | (1.14) | 2.2 | (0.1) | 474 | (3.6) | 480 | (2.8) |
| Italy | 32 | (1.3) | 11.8 | (0.74) | 2.1 | (0.1) | 486 | (1.6) | 490 | (1.4) |
| Japan | 40 | (2.8) | 8.6 | (0.96) | 1.8 | (0.1) | 520 | (3.5) | 522 | (3.0) |
| Korea | 32 | (2.5) | 11.0 | (1.51) | 2.2 | (0.2) | 539 | (3.5) | 544 | (3.0) |
| Luxembourg | 40 |  | 18.0 | (1.06) | 2.6 | (0.2) | 472 | (1.3) | 466 | (1.3) |
| Mexico | 25 | (1.0) | 14.5 | (0.99) | 2.1 | (0.1) | 425 | (2.0) | 456 | (1.8) |
| Netherlands | 37 | (1.9) | 12.8 | (1.20) | 1.8 | (0.1) | 508 | (5.1) | 499 | (4.6) |
| New Zealand | 52 | (1.9) | 16.6 | (1.08) | 2.2 | (0.1) | 521 | (2.4) | 519 | (2.0) |
| Norway | 36 | (2.1) | 8.6 | (0.96) | 2.0 | (0.1) | 503 | (2.6) | 487 | (2.4) |
| Poland | 39 | (1.9) | 14.8 | (1.38) | 2.0 | (0.1) | 500 | (2.6) | 512 | (2.2) |
| Portugal |  |  | 16.5 | (1.60) | 2.0 | (0.2) | 489 | (3.1) | 499 | (2.3) |
| Slovak Republic | 41 | (2.3) | 14.6 | (1.48) | 2.1 | (0.2) | 477 | (2.5) | 482 | (2.1) |
| Slovenia | 39 | (1.5) | 14.3 | (1.06) | 2.0 | (0.1) | 483 | (1.0) | 481 | (1.1) |
| Spain | 29 | (1.5) | 13.6 | (1.30) | 2.0 | (0.1) | 481 | (2.0) | 491 | (1.8) |
| Sweden |  |  |  | (1.33) | 2.2 | (0.1) |  |  | 485 | (2.4) |
| Switzerland | 40 | (2.1) | 14.1 | (1.38) | 2.1 | (0.1) | 501 | (2.4) | 498 | (2.1) |
| Turkey | 29 | (1.5) | 19.0 | (1.91) | 2.3 | (0.2) | 464 | (3.5) | 499 | (3.5) |
| United Kingdom | 44 | (1.9) | 13.7 | (1.03) | 2.1 | (0.1) | 494 | (2.3) | 488 | (1.8) |
|  |  |  | 16.8 |  |  |  |  |  | 493 | (2.4) |
| OECD average | 38 | (0.3) | 14.0 | (0.2) | 2.1 | (0.0) | 493 | (0.5) | 494 | (0.4) |
| N Argentina | 40 | (2.3) | 19.6 | (2.23) | 2.2 | (0.2) | 398 | (4.6) | 424 | (3.7) |
| ¢ Brazil | 28 | (1.4) | 13.0 | (1.27) | 1.7 | (0.1) | 412 | (2.7) | 445 | (2.9) |
| ¢ Indonesia | 17 | (2.4) | 7.8 | (2.23) | 1.4 | (0.1) | 402 | (3.7) | 428 | (5.9) |
| Russian Federation | 37 | (2.5) | 11.3 | (1.35) | 1.9 | (0.1) | 459 | (3.3) | 468 | (3.0) |
| Shanghai-China | 27 | (2.1) | 12.3 | (1.77) | 2.1 | (0.1) | 556 | (2.4) | 569 | (1.9) |

Note: Values that are statistically significant are indicated in bold.

1. In these columns values that are statistically significantly different from the OECD average are indicated in bold.
2. Single-level bivariate regression of reading performance on the ESCS, the slope is the regression coefficient for the ESCS.

Source: OECD, PISA 2009 Database.
StatLink 需页 http://dx.doi.org/10.1787/888932462719

Table A5.2. [1/2] Percentage of students by immigrant status and their reading performance
Results based on students' self-reports

|  | Native students |  |  |  | Second-generation students |  |  |  | First-generation students |  |  |  | Students with an immigrant background (first- or second-generation) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | S.E. | Performance on the reading scale |  |  | S.E. | Performance on the reading scale |  |  | S.E. | Performance on the reading scale |  |  | S.E. | Performance on the reading scale |  |
|  |  |  | Mean score | S.E. |  |  | Mean score | S.E. |  |  | Mean score | S.E. |  |  | Mean score | S.E. |
| Q Australia | 76.8 | (1.1) | 515 | (2.1) | 12.1 | (0.7) | 530 | (6.2) | 11.1 | (0.6) | 518 | (6.3) | 23.2 | (1.1) | 524 | (5.8) |
| Ó Austria | 84.8 | (1.2) | 482 | (2.9) | 10.5 | (0.9) | 427 | (6.0) | 4.8 | (0.6) | 384 | (10.3) | 15.2 | (1.2) | 414 | (6.2) |
| Belgium | 85.2 | (1.1) | 519 | (2.2) | 7.8 | (0.7) | 454 | (7.0) | 6.9 | (0.7) | 448 | (8.3) | 14.8 | (1.1) | 451 | (6.4) |
| Canada | 75.6 | (1.3) | 528 | (1.5) | 13.7 | (0.8) | 522 | (3.6) | 10.7 | (0.7) | 520 | (4.6) | 24.4 | (1.3) | 521 | (3.4) |
| Chile | 99.5 | (0.1) | 452 | (3.0) | 0.1 | (0.0) | c | c | 0.4 | (0.1) | c | c | 0.5 | (0.1) | c | c |
| Czech Republic | 97.7 | (0.2) | 479 | (2.8) | 1.4 | (0.2) | 448 | (17.9) | 0.8 | (0.1) | 472 | (17.5) | 2.3 | (0.2) | 457 | (13.7) |
| Denmark | 91.4 | (0.4) | 502 | (2.2) | 5.9 | (0.3) | 446 | (4.3) | 2.8 | (0.2) | 422 | (6.2) | 8.6 | (0.4) | 438 | (3.8) |
| Estonia | 92.0 | (0.6) | 505 | (2.7) | 7.4 | (0.6) | 470 | (6.6) | 0.6 | (0.1) | 470 | (17.4) | 8.0 | (0.6) | 470 | (6.5) |
| Finland | 97.4 | (0.3) | 538 | (2.2) | 1.1 | (0.2) | 493 | (13.9) | 1.4 | (0.2) | 449 | (17.7) | 2.6 | (0.3) | 468 | (12.8) |
| France | 86.9 | (1.4) | 505 | (3.8) | 10.0 | (1.0) | 449 | (8.9) | 3.2 | (0.5) | 428 | (15.9) | 13.1 | (1.4) | 444 | (8.5) |
| Germany | 82.4 | (1.0) | 511 | (2.6) | 11.7 | (0.8) | 457 | (6.1) | 5.9 | (0.4) | 450 | (5.7) | 17.6 | (1.0) | 455 | (4.7) |
| Greece | 91.0 | (0.8) | 489 | (4.2) | 2.9 | (0.3) | 456 | (10.4) | 6.1 | (0.7) | 420 | (15.5) | 9.0 | (0.8) | 432 | (11.5) |
| Hungary | 97.9 | (0.3) | 495 | (3.1) | 0.9 | (0.1) | 527 | (12.4) | 1.2 | (0.2) | 493 | (11.6) | 2.1 | (0.3) | 507 | (8.3) |
| Iceland | 97.6 | (0.2) | 504 | (1.4) | 0.4 | (0.1) | c | c | 1.9 | (0.2) | 417 | (12.4) | 2.4 | (0.2) | 423 | (11.7) |
| Ireland | 91.7 | (0.6) | 502 | (3.0) | 1.4 | (0.2) | 508 | (12.8) | 6.8 | (0.5) | 466 | (7.6) | 8.3 | (0.6) | 473 | (7.1) |
| Israel | 80.3 | (1.1) | 480 | (3.3) | 12.6 | (0.7) | 487 | (6.5) | 7.1 | (0.7) | 462 | (9.2) | 19.7 | (1.1) | 478 | (6.4) |
| Italy | 94.5 | (0.3) | 491 | (1.6) | 1.3 | (0.1) | 446 | (9.4) | 4.2 | (0.2) | 410 | (4.5) | 5.5 | (0.3) | 418 | (4.2) |
| Japan | 99.7 | (0.1) | 521 | (3.4) | 0.1 | (0.0) | c | c | 0.1 | (0.0) | c | c | 0.3 | (0.1) | c | c |
| Korea | 100.0 | (0.0) | 540 | (3.4) | 0.0 | (0.0) | c | c | c | c | c | c | 0.0 | (0.0) | c | c |
| Luxembourg | 59.8 | (0.7) | 495 | (1.9) | 24.0 | (0.6) | 439 | (2.9) | 16.1 | (0.5) | 448 | (4.5) | 40.2 | (0.7) | 442 | (2.1) |
| Mexico | 98.1 | (0.2) | 430 | (1.8) | 0.7 | (0.1) | 340 | (9.9) | 1.1 | (0.1) | 324 | (9.9) | 1.9 | (0.2) | 331 | (7.9) |
| Netherlands | 87.9 | (1.4) | 515 | (5.2) | 8.9 | (1.1) | 469 | (8.2) | 3.2 | (0.5) | 471 | (12.5) | 12.1 | (1.4) | 470 | (7.8) |
| New Zealand | 75.3 | (1.0) | 526 | (2.6) | 8.0 | (0.6) | 498 | (8.3) | 16.7 | (0.7) | 520 | (4.5) | 24.7 | (1.0) | 513 | (4.7) |
| Norway | 93.2 | (0.6) | 508 | (2.6) | 3.6 | (0.4) | 463 | (8.0) | 3.2 | (0.3) | 447 | (7.8) | 6.8 | (0.6) | 456 | (5.9) |
| Poland | 100.0 | (0.0) | 502 | (2.6) | c | c | c | c | 0.0 | (0.0) | c | c | 0.0 | (0.0) | c | c |
| Portugal | 94.5 | (0.5) | 492 | (3.1) | 2.7 | (0.3) | 476 | (9.4) | 2.8 | (0.3) | 456 | (8.8) | 5.5 | (0.5) | 466 | (6.9) |
| Slovak Republic | 99.5 | (0.1) | 478 | (2.5) | 0.3 | (0.1) | c | c | 0.3 | (0.1) | c | c | 0.5 | (0.1) | c | c |
| Slovenia | 92.2 | (0.4) | 488 | (1.1) | 6.4 | (0.4) | 447 | (5.5) | 1.4 | (0.2) | 414 | (8.7) | 7.8 | (0.4) | 441 | (4.8) |
| Spain | 90.5 | (0.5) | 488 | (2.0) | 1.1 | (0.1) | 461 | (9.3) | 8.4 | (0.5) | 426 | (4.1) | 9.5 | (0.5) | 430 | (4.0) |
| Sweden | 88.3 | (1.2) | 507 | (2.7) | 8.0 | (0.8) | 454 | (7.5) | 3.7 | (0.5) | 416 | (11.3) | 11.7 | (1.2) | 442 | (6.9) |
| Switzerland | 76.5 | (0.9) | 513 | (2.2) | 15.1 | (0.7) | 471 | (4.5) | 8.4 | (0.5) | 455 | (6.7) | 23.5 | (0.9) | 465 | (4.1) |
| Turkey | 99.5 | (0.1) | 466 | (3.5) | 0.4 | (0.1) | c | c | 0.1 | (0.1) | c | c | 0.5 | (0.1) | c | c |
| United Kingdom | 89.4 | (1.0) | 499 | (2.2) | 5.8 | (0.7) | 492 | (8.5) | 4.8 | (0.4) | 458 | (9.5) | 10.6 | (1.0) | 476 | (7.5) |
| United States | 80.5 | (1.3) | 506 | (3.8) | 13.0 | (1.1) | 483 | (6.2) | 6.4 | (0.5) | 485 | (7.9) | 19.5 | (1.3) | 484 | (5.8) |
| OECD average | 89.6 | (0.1) | 499 | (0.5) | 6.0 | (0.1) | 467 | (1.7) | 4.6 | (0.1) | 448 | (2.0) | 10.4 | (0.1) | 457 | (1.4) |
| - Argentina | 96.4 | (0.5) | 401 | (4.6) | 2.2 | (0.3) | 366 | (12.6) | 1.5 | (0.3) | 356 | (26.5) | 3.6 | (0.5) | 362 | (15.2) |
| - Brazil | 99.2 | (0.1) | 416 | (2.7) | 0.5 | (0.1) | 321 | (18.7) | 0.3 | (0.1) |  | (18.6) | 0.8 | (0.1) | 317 | (13.5) |
| ¢ Indonesia | 99.7 | (0.1) | 403 | (3.7) | c | c | c | c | 0.3 | (0.1) | c | c | 0.3 | (0.1) | c | c |
| Russian Federation | 87.9 | (0.7) | 464 | (3.2) | 7.2 | (0.7) | 435 | (9.4) | 4.9 | (0.4) | 444 | (7.1) | 12.1 | (0.7) | 439 | (7.0) |
| Shanghai-China | 99.5 | (0.1) | 557 | (2.3) | 0.1 | (0.0) | c | c | 0.5 | (0.1) | c | c | 0.5 | (0.1) | c | c |

Source: OECD, PISA 2009 Database.
Please refer to the Reader's Guide for information concerning the symbols replacing missing data.


Table A5.2. [2/2] Percentage of students by immigrant status and their reading performance
Results based on students' self-reports


Note: Values that are statistically significant are indicated in bold.
Source: OECD, PISA 2009 Database.
Please refer to the Reader's Guide for information concerning the symbols replacing missing data.


Table A5.3. Percentage of resilient students and disadvantaged low achievers among all students, by gender Results based on students' self-reports

|  | Resilient and disadvantaged low achievers |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Resilient students ${ }^{1}$ |  |  |  |  |  | Disadvantaged low achievers ${ }^{2}$ |  |  |  |  |  |
|  | All students |  | Girls |  | Boys |  | All students |  | Girls |  | Boys |  |
|  | \% | S.E. | \% | S.E. | \% | S.E. | \% | S.E. | \% | S.E. | \% | S.E. |
| Oi Australia | 7.7 | (0.3) | 9.5 | (0.5) | 5.8 | (0.4) | 4.4 | (0.3) | 2.9 | (0.3) | 6.0 | (0.4) |
| ०0. Austria | 4.9 | (0.4) | 6.3 | (0.5) | 3.5 | (0.5) | 8.2 | (0.6) | 6.1 | (0.8) | 10.4 | (0.7) |
| Belgium | 7.6 | (0.3) | 9.6 | (0.5) | 5.7 | (0.4) | 5.1 | (0.4) | 4.1 | (0.5) | 6.0 | (0.6) |
| Canada | 9.8 | (0.5) | 11.6 | (0.7) | 8.0 | (0.5) | 2.9 | (0.2) | 1.8 | (0.2) | 3.9 | (0.3) |
| Chile | 6.0 | (0.5) | 7.3 | (0.8) | 4.7 | (0.5) | 3.9 | (0.5) | 2.9 | (0.5) | 4.9 | (0.7) |
| Czech Republic | 5.3 | (0.4) | 7.4 | (0.6) | 3.5 | (0.4) | 5.8 | (0.5) | 4.0 | (0.5) | 7.4 | (0.7) |
| Denmark | 6.0 | (0.5) | 7.5 | (0.8) | 4.4 | (0.5) | 4.2 | (0.4) | 3.5 | (0.4) | 4.9 | (0.5) |
| Estonia | 8.5 | (0.5) | 11.4 | (1.0) | 5.9 | (0.6) | 2.9 | (0.4) | 1.5 | (0.4) | 4.1 | (0.7) |
| Finland | 11.4 | (0.6) | 14.4 | (0.7) | 8.4 | (0.8) | 2.2 | (0.3) | 1.0 | (0.2) | 3.5 | (0.4) |
| France | 7.6 | (0.6) | 10.1 | (0.9) | 5.1 | (0.7) | 5.2 | (0.5) | 3.6 | (0.5) | 6.9 | (0.8) |
| Germany | 5.7 | (0.4) | 7.2 | (0.6) | 4.2 | (0.5) | 5.1 | (0.5) | 3.7 | (0.5) | 6.5 | (0.7) |
| Greece | 6.9 | (0.5) | 9.6 | (0.9) | 4.2 | (0.5) | 5.2 | (0.9) | 3.2 | (0.6) | 7.3 | (1.3) |
| Hungary | 6.4 | (0.5) | 9.2 | (0.9) | 3.7 | (0.5) | 4.2 | (0.7) | 2.6 | (0.8) | 5.7 | (0.8) |
| Iceland | 7.4 | (0.5) | 9.7 | (0.7) | 5.1 | (0.6) | 5.1 | (0.4) | 3.6 | (0.5) | 6.7 | (0.6) |
| Ireland | 7.4 | (0.6) | 9.4 | (0.8) | 5.5 | (0.8) | 4.1 | (0.4) | 2.4 | (0.4) | 5.9 | (0.7) |
| Israel | 6.0 | (0.5) | 8.4 | (0.7) | 3.4 | (0.5) | 6.9 | (0.6) | 5.6 | (0.7) | 8.3 | (0.7) |
| Italy | 8.0 | (0.3) | 10.8 | (0.4) | 5.3 | (0.3) | 4.4 | (0.3) | 2.5 | (0.3) | 6.1 | (0.5) |
| Japan | 10.5 | (0.6) | 12.2 | (0.8) | 9.0 | (0.7) | 3.3 | (0.4) | 1.9 | (0.4) | 4.7 | (0.7) |
| Korea | 14.0 | (0.8) | 16.3 | (1.3) | 12.1 | (0.9) | 1.3 | (0.4) | 0.5 | (0.2) | 2.0 | (0.6) |
| Luxembourg | 5.1 |  | 7.0 |  | 3.2 |  | 7.4 |  | 5.7 |  | 9.1 | (0.6) |
| Mexico | 7.3 | (0.4) | 9.2 | (0.5) | 5.3 | (0.4) | 3.5 | (0.3) | 2.7 | (0.3) | 4.2 | (0.4) |
| Netherlands | 8.0 | (0.8) | 9.2 | (1.1) | 6.8 | (0.8) | 2.8 | (0.4) | 2.1 | (0.5) | 3.5 | (0.6) |
| New Zealand | 9.2 | (0.5) | 11.7 | (0.7) | 6.8 | (0.7) | 3.6 | (0.4) | 1.8 | (0.4) | 5.4 | (0.6) |
| Norway | 6.5 |  | 9.3 |  | 3.8 |  | 5.1 |  | 3.6 |  | 6.6 | (0.7) |
| Poland | 9.2 | (0.5) | 12.7 | (0.8) | 5.7 | (0.6) | 3.0 | (0.4) | 1.4 | (0.3) | 4.6 | (0.6) |
| Portugal | 9.8 | (0.5) | 12.9 | (0.8) | 6.6 | (0.5) | 2.8 | (0.3) | 1.5 | (0.4) | 4.2 | (0.5) |
| Slovak Republic | 5.3 | (0.4) | 7.0 | (0.6) | 3.5 | (0.5) | 5.6 | (0.6) | 3.6 | (0.6) | 7.7 | (0.9) |
| Slovenia | 6.1 |  | 9.4 |  | 3.0 |  | 5.1 | (0.3) | 2.8 | (0.3) | 7.2 | (0.5) |
| Spain | 9.0 | (0.6) | 10.5 | (1.0) | 7.6 | (0.6) | 3.3 | (0.4) | 2.3 | (0.3) | 4.3 | (0.5) |
| Sweden | 6.4 | (0.5) | 8.1 | (0.7) | 4.6 | (0.6) | 5.8 | (0.5) | 3.4 | (0.6) | 8.1 | (0.7) |
| Switzerland | 7.9 | (0.5) | 10.4 | (0.9) | 5.6 | (0.4) | 4.5 | (0.4) | 3.0 | (0.4) | 5.9 | (0.6) |
| Turkey | 10.5 | (0.6) | 11.5 | (0.8) | 9.5 | (0.8) | 1.6 | (0.3) | 0.7 | (0.3) | 2.5 | (0.5) |
| United Kingdom | 6.0 | (0.4) | 7.0 | (0.6) | 4.8 | (0.5) | 5.0 | (0.4) | 4.1 | (0.4) | 5.9 | (0.6) |
| United States |  |  | 8.6 | (0.9) |  | (0.5) |  | (0.4) |  | (0.4) | 6.1 | (0.6) |
| OECD average | 7.7 | (0.3) | 9.8 | (0.6) | 5.6 | (0.3) | 4.4 | (0.2) | 2.9 | (0.2) | 5.8 | (0.5) |
| N Argentina | 2.7 | (0.3) | 3.8 | (0.5) | 1.6 | (0.4) | 9.9 | (0.9) | 8.3 | (0.8) | 11.7 | (1.1) |
| $\bigcirc$ Brazil | 5.5 | (0.4) | 7.4 | (0.6) | 3.4 | (0.3) | 4.6 | (0.3) | 3.9 | (0.4) | 5.3 | (0.5) |
| ¢́t Indonesia | 6.0 | (0.7) | 8.3 | (0.9) | 3.7 | (0.7) | 2.0 | (0.4) | 1.3 | (0.4) | 2.8 | (0.5) |
| Russian Federation | 4.7 | (0.5) | 6.2 | (0.7) | 3.2 | (0.4) | 6.0 | (0.6) | 3.9 | (0.6) | 8.1 | (1.0) |
| Shanghai-China | 18.9 | (1.0) | 20.6 | (1.2) | 17.2 | (1.1) | 0.3 | (0.1) | 0.1 | (0.1) | 0.5 | (0.2) |

1. 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 background.
2. A student is classified as a disadvantaged low achiever 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 bottom quarter across students from all countries, after accounting for socio-economic background.
Source: OECD, PISA 2009 Database.
StatLink 페엔 http://dx.doi.org/10.1787/888932462757
