

## Executive Summary

Far too many students around the world are trapped in a vicious circle of poor performance and demotivation that leads only to more bad marks and further disengagement from school. Worse, poor performance at school has long-term consequences, both for the individual and for society as a whole. Students who perform poorly at age 15 face a high risk of dropping out of school altogether. When a large share of the population lacks basic skills, a country's long-term economic growth is severely compromised.

Results from PISA 2012 show that more than one in four 15-year-old students in OECD countries did not attain a baseline level of proficiency in at least one of the three core subjects PISA assesses: reading, mathematics andscience. Inabsolutenumbers, thismeansthatabout 13 million 15 -year-old students in the 64 countries and economies that participated in PISA 2012 were low performers in at least one subject.

Reducing the number of low-performing students is not only a goal in its own right but also an effective way to improve an education system's overall performance - and equity, since low performers are disproportionately from socio-economically disadvantaged families. Brazil, Germany, Italy, Mexico, Poland, Portugal, the Rusian Federation, Tunisia and Turkey, for example, improved their performance in mathematics between 2003 and 2012 by reducing the share of low performers in this subject. What do these countries have in common? Not very much; as a group, they are about as socio-economically and culturally diverse as can be. But therein lies the lesson: all countries can improve their students' performance, given the right policies and the will to implement them.

## Multiple risk factors acting in concert

Analyses show that poor performance at age 15 is not the result of any single risk factor, but rather of a combination and accumulation of various barriers and disadvantages that affect students throughout their lives. Who is most likely to be a low performer in mathematics? On average across OECD countries, a socio-economically disadvantaged girl who lives in a single-parent family in a rural area, has an immigrant background, speaks a different language at home from the language
of instruction, had not attended pre-primary school, had repeated a grade, and is enrolled in a vocational track has an $83 \%$ probability of being a low performer.

While these background factors can affect all students, among low performers the combination of risk factors is more detrimental to disadvantaged than to advantaged students. Indeed, all of the demographic characteristics considered in the report, as well as the lack of pre-primary education, increase the probability of low performance by a larger margin among disadvantaged than among advantaged students, on average across OECD countries. Only repeating a grade and enrolment in a vocational track have greater penalties for advantaged students. In other words, disadvantaged students tend not only to be encumbered with more risk factors, but those risk factors have a stronger impact on these students' performance.

## Less positive attitudes towards school and learning

Low performers tend to have less perseverance, motivation and self-confidence in mathematics than better-performing students, and they skip classes or days of school more. Students who have skipped school at least once in the two weeks prior to the PISA test are almost three times more likely to be low performers in mathematics than students who did not skip school.

Perhaps surprisingly, however, low performers in mathematics spend a similar amount of time as better-performing students in some mathematics activities, such as programming computers or taking part in mathematics competitions. They are more likely to participate in a mathematics club and play chess after school, perhaps because these activities are presented as recreational and are based on social interactions.

## Less supportive teachers and schools

Students attending schools where teachers are more supportive and have better morale are less likely to be low performers, while students whose teachers have low expectations for them and are absent more often are more likely to be low performers in mathematics, even after accounting for the socio-economic status of students and schools.

In addition, in schools with larger concentrations of low performers, the quality of educational resources is lower, and the incidence of teacher shortage is higher, on average across OECD countries, even after accounting for students' and schools' socio-economic status. In countries and economies where educational resources are distributed more equitably across schools, there is less incidence of low performance in mathematics, and a larger share of top performers, even when comparing school systems whose educational resources are of similar quality.

Analysis also shows that the degree to which advantaged and disadvantaged students attend the same school (social inclusion) is more strongly related to smaller proportions of low performers in a school system than to larger proportions of top performers. These findings suggest that systems that distribute both educational resources and students more equitably across schools might benefit low performers without undermining better-performing students.

## Policies that can help to break the cycle of disengagement and low performance

The first step for policy makers is to make tackling low performance a priority in their education policy agenda - and translate that priority into additional resources. Given the extent to which the
profile of low performers varies across countries, tackling low performance requires a multi-pronged approach, tailored to national and local circumstances. An agenda to reduce the incidence of low performance can include several actions:

- Dismantle the multiple barriers to learning.
- Create demanding and supportive learning environments at school.
- Provide remedial support as early as possible.
- Encourage the involvement of parents and local communities.
- Inspire students to make the most of available education opportunities.
- Identify low performers and design a tailored policy strategy.
- Provide targeted support to disadvantaged schools and/or families.
- Offer special programmes for immigrant, minority-language and rural students.
- Tackle gender stereotypes and assist single-parent families.
- Reduce inequalities in access to early education and limit the use of student sorting.


## PERCENTAGE OF LOW PERFORMERS IN MATHEMATICS, READING AND SCIENCE

Countries/economies where the percentage of low performers is below the OECD average
Countries/economies where the percentage of low performers is not statistically different from the OECD average
Countries/economies where the percentage of low performers is above the OECD average



Note: Values that are statistically significant are indicated in bold.
Countries/economies are ranked in ascending order of the percentage of low performing students in mathematics.
Source: OECD, PISA 2012 Database, Tables 1.1, 1.2, 1.9, 1.11 and 1.12.
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Countries/economies where the percentage of low performers is below the OECD average
Countries/economies where the percentage of low performers is not statistically different from the OECD average
Countries/economies where the percentage of low performers is above the OECD average

|  | Percentage of low-performing students in: |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mathematics |  |  |  | Reading |  |  |  |  | Science |  |  |  |
|  | 2012 |  |  | Total: <br> Change <br> between <br> 2003 and <br> 2012 | 2012 |  |  |  | Total: Change between 2003 and 2012 | 2012 |  |  | Total: Change between 2006 and 2012 |
|  | Total | Below Level 1 | Level 1 |  | Total | Below Level 1b | Level 1b | Level 1a |  | Total | Below Level 1 | Level 1 |  |
|  | \% | \% | \% | \% dif. | \% | \% | \% | \% | \% dif. | \% | \% | \% | \% dif. |
| OECD average | 23.0 | 8.0 | 15.0 | 0.7 | 18.0 | 1.3 | 4.4 | 12.3 | -1.7 | 17.8 | 4.8 | 13.0 | -2.1 |


| Italy | 24.7 | 8.5 | 16.1 | -7.3 | 19.5 | 1.6 | 5.2 | 12.7 | -4.4 | 18.7 | 4.9 | 13.8 | -6.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Portugal | 24.9 | 8.9 | 16.0 | -5.2 | 18.8 | 1.3 | 5.1 | 12.3 | -3.1 | 19.0 | 4.7 | 14.3 | -5.5 |
| United States | 25.8 | 8.0 | 17.9 | 0.1 | 16.6 | 0.8 | 3.6 | 12.3 | -2.8 | 18.1 | 4.2 | 14.0 | -6.2 |
| Lithuania | 26.0 | 8.7 | 17.3 | m | 21.2 | 1.0 | 4.6 | 15.6 | m | 16.1 | 3.4 | 12.7 | -4.3 |
| Sweden | 27.1 | 9.5 | 17.5 | 9.8 | 22.7 | 2.9 | 6.0 | 13.9 | 9.5 | 22.2 | 7.3 | 15.0 | 5.9 |
| Slovak Republic | 27.5 | 11.1 | 16.4 | 7.5 | 28.2 | 4.1 | 7.9 | 16.2 | 3.3 | 26.9 | 9.2 | 17.6 | 6.7 |
| Hungary | 28.1 | 9.9 | 18.2 | 5.1 | 19.7 | 0.7 | 5.2 | 13.8 | -0.8 | 18.0 | 4.1 | 14.0 | 3.0 |
| Croatia | 29.9 | 9.5 | 20.4 | m | 18.7 | 0.7 | 4.0 | 13.9 | m | 17.3 | 3.2 | 14.0 | 0.3 |
| Israel | 33.5 | 15.9 | 17.6 | m | 23.6 | 3.8 | 6.9 | 12.9 | m | 28.9 | 11.2 | 17.7 | -7.3 |
| Greece | 35.7 | 14.5 | 21.2 | -3.3 | 22.6 | 2.6 | 5.9 | 14.2 | -2.6 | 25.5 | 7.4 | 18.1 | 1.5 |
| Serbia | 38.9 | 15.5 | 23.4 | m | 33.1 | 2.6 | 9.3 | 21.3 | m | 35.0 | 10.3 | 24.7 | -3.5 |
| Romania | 40.8 | 14.0 | 26.8 | m | 37.3 | 2.5 | 10.3 | 24.4 | m | 37.3 | 8.7 | 28.7 | -9.6 |
| Turkey | 42.0 | 15.5 | 26.5 | -10.2 | 21.6 | 0.6 | 4.5 | 16.6 | -15.2 | 26.4 | 4.4 | 21.9 | -20.2 |
| Bulgaria | 43.8 | 20.0 | 23.8 | m | 39.4 | 8.0 | 12.8 | 18.6 | m | 36.9 | 14.4 | 22.5 | -5.7 |
| Kazakhstan | 45.2 | 14.5 | 30.7 | m | 57.1 | 4.2 | 17.3 | 35.6 | m | 41.9 | 11.3 | 30.7 | m |
| United Arab Emirates | 46.3 | 20.5 | 25.8 | m | 35.5 | 3.3 | 10.4 | 21.8 | m | 35.2 | 11.3 | 23.8 | m |
| Thailand | 49.7 | 19.1 | 30.6 | -4.2 | 33.0 | 1.2 | 7.7 | 24.1 | -11.0 | 33.6 | 7.0 | 26.6 | -12.5 |
| Chile | 51.5 | 22.0 | 29.5 | m | 33.0 | 1.0 | 8.1 | 23.9 | m | 34.5 | 8.1 | 26.3 | -5.2 |
| Malaysia | 51.8 | 23.0 | 28.8 | m | 52.7 | 5.8 | 16.4 | 30.5 | m | 45.5 | 14.5 | 31.0 | m |
| Mexico | 54.7 | 22.8 | 31.9 | -11.2 | 41.1 | 2.6 | 11.0 | 27.5 | -10.9 | 47.0 | 12.6 | 34.4 | -3.9 |
| Uruguay | 55.8 | 29.2 | 26.5 | 7.7 | 47.0 | 6.4 | 14.7 | 25.9 | 7.3 | 46.9 | 19.7 | 27.2 | 4.8 |
| Montenegro | 56.6 | 27.5 | 29.1 | m | 43.3 | 4.4 | 13.2 | 25.7 | m | 50.7 | 18.7 | 32.0 | 0.5 |
| Costa Rica | 59.9 | 23.6 | 36.2 | m | 32.4 | 0.8 | 7.3 | 24.3 | m | 39.3 | 8.6 | 30.7 | m |
| Albania | 60.7 | 32.5 | 28.1 | m | 52.3 | 12.0 | 15.9 | 24.4 | m | 53.1 | 23.5 | 29.6 | m |
| Argentina | 66.5 | 34.9 | 31.6 | m | 53.6 | 8.1 | 17.7 | 27.7 | m | 50.9 | 19.8 | 31.0 | -5.4 |
| Tunisia | 67.7 | 36.5 | 31.3 | -10.2 | 49.3 | 6.2 | 15.5 | 27.6 | -13.4 | 55.3 | 21.3 | 34.0 | -7.4 |
| Brazil | 68.3 | 36.9 | 31.4 | -8.1 | 50.8 | 4.6 | 15.8 | 30.4 | -0.8 | 55.2 | 19.9 | 35.4 | -7.3 |
| Jordan | 68.6 | 36.5 | 32.1 | m | 50.7 | 7.5 | 14.9 | 28.3 | m | 49.6 | 18.2 | 31.4 | 5.2 |
| Qatar | 69.6 | 47.0 | 22.6 | m | 57.1 | 13.6 | 18.9 | 24.6 | m | 62.6 | 34.6 | 28.0 | -16.5 |
| Colombia | 73.8 | 41.6 | 32.2 | m | 51.4 | 5.0 | 15.4 | 31.0 | m | 56.2 | 19.8 | 36.3 | -4.0 |
| Peru | 74.6 | 47.0 | 27.6 | m | 59.9 | 9.8 | 20.6 | 29.5 | m | 68.5 | 31.5 | 37.0 | m |
| Indonesia | 75.7 | 42.3 | 33.4 | -2.4 | 55.2 | 4.1 | 16.3 | 34.8 | -8.0 | 66.6 | 24.7 | 41.9 | 5.0 |

Note: Values that are statistically significant are indicated in bold.
Countries/economies are ranked in ascending order of the percentage of low performing students in mathematics.
Source: OECD, PISA 2012 Database, Tables 1.1, 1.2, 1.9, 1.11 and 1.12.
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## Table 0.2 [Part 1/2] <br> OVERLAPPING OF LOW PERFORMANCE ACROSS SUBJECTS

$\square$
Countries/economies where the percentage of low performers is below the OECD average
Countries/economies where the percentage of low performers is not statistically different from the OECD average
Countries/economies where the percentage of low performers is above the OECD average

|  |  | Low performers in: |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Above baseline in all subjects | Mathematics only | Reading only | Science only | Mathematics and reading | Mathematics and science | Reading and science | All subjects |
|  | \% | \% | \% | \% | \% | \% | \% | \% |
| OECD average | 71.6 | 5.5 | 2.6 | 1.5 | 2.5 | 3.4 | 1.2 | 11.6 |


| Shanghai-China | 95.0 | 1.1 | 0.6 | 0.3 | 0.5 | 0.6 | 0.2 | 1.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hong Kong-China | 89.4 | 2.6 | 1.3 | 0.4 | 1.2 | 0.8 | 0.4 | 3.9 |
| Korea | 88.2 | 2.4 | 1.4 | 0.7 | 1.3 | 1.0 | 0.6 | 4.4 |
| Singapore | 86.7 | 1.0 | 2.0 | 1.4 | 0.7 | 1.0 | 1.6 | 5.6 |
| Estonia | 85.7 | 3.8 | 2.8 | 0.5 | 2.6 | 0.9 | 0.5 | 3.2 |
| Japan | 85.3 | 2.9 | 1.9 | 0.9 | 1.5 | 1.2 | 0.9 | 5.5 |
| Chinese Taipei | 83.9 | 2.7 | 1.8 | 0.6 | 1.7 | 1.2 | 0.8 | 7.2 |
| Macao-China | 83.6 | 2.7 | 3.1 | 1.0 | 1.9 | 1.2 | 1.5 | 5.0 |
| Finland | 83.5 | 3.5 | 3.0 | 0.5 | 2.3 | 1.1 | 0.7 | 5.3 |
| Viet Nam | 82.9 | 5.6 | 2.0 | 0.5 | 2.8 | 1.6 | 0.3 | 4.3 |
| Poland | 81.9 | 4.8 | 2.1 | 1.0 | 2.2 | 1.7 | 0.6 | 5.7 |
| Canada | 81.8 | 4.2 | 2.1 | 1.2 | 1.5 | 2.0 | 1.1 | 6.2 |
| Ireland | 80.8 | 5.7 | 0.9 | 0.8 | 1.4 | 3.0 | 0.5 | 6.8 |
| Switzerland | 80.7 | 1.9 | 3.1 | 2.0 | 1.4 | 1.7 | 1.7 | 7.5 |
| Liechtenstein | 80.5 | 3.6 | 3.0 | 1.2 | 2.5 | 2.3 | 1.3 | 5.7 |
| Netherlands | 80.3 | 2.6 | 2.4 | 1.2 | 1.6 | 2.0 | 1.4 | 8.6 |
| Germany | 78.5 | 4.4 | 2.3 | 0.6 | 2.6 | 2.0 | 0.8 | 8.8 |
| Denmark | 76.6 | 3.2 | 2.3 | 2.4 | 1.1 | 3.1 | 1.9 | 9.3 |
| Australia | 76.3 | 5.8 | 2.1 | 1.0 | 2.1 | 2.7 | 0.9 | 9.1 |
| Belgium | 75.9 | 3.3 | 1.8 | 1.9 | 1.3 | 2.8 | 1.4 | 11.5 |
| United Kingdom | 74.7 | 5.5 | 1.8 | 1.0 | 3.0 | 2.2 | 0.6 | 11.2 |
| Latvia | 74.2 | 5.6 | 3.9 | 1.1 | 3.9 | 2.1 | 0.8 | 8.3 |
| Austria | 73.7 | 3.6 | 4.6 | 1.2 | 2.4 | 2.0 | 1.9 | 10.7 |
| Czech Republic | 73.3 | 6.0 | 3.5 | 1.2 | 3.4 | 2.7 | 1.0 | 8.9 |
| New Zealand | 73.2 | 6.2 | 2.1 | 1.2 | 2.2 | 3.1 | 0.8 | 11.1 |
| France | 71.9 | 4.4 | 2.7 | 1.7 | 2.2 | 3.1 | 1.3 | 12.7 |
| Slovenia | 71.9 | 5.3 | 6.3 | 0.4 | 3.6 | 1.2 | 1.3 | 9.9 |
| Norway | 71.6 | 5.0 | 2.1 | 2.4 | 1.6 | 4.7 | 1.5 | 11.0 |
| United States | 71.0 | 7.2 | 1.4 | 1.0 | 2.2 | 4.2 | 0.7 | 12.2 |
| Spain | 70.9 | 6.4 | 3.2 | 1.3 | 3.8 | 3.0 | 1.0 | 10.4 |
| Portugal | 69.9 | 6.0 | 2.4 | 1.6 | 2.6 | 3.7 | 1.2 | 12.6 |
| Italy | 69.0 | 6.0 | 3.2 | 1.8 | 3.1 | 3.7 | 1.4 | 11.9 |
| Iceland | 68.8 | 2.4 | 3.2 | 4.0 | 1.7 | 3.8 | 2.6 | 13.6 |

Countries/economies are ranked in descending order of the percentage of students who are above baseline in all subjects.
Source: OCD, PISA 2012 Database, Table 1.3
StatLink 茼ist http://dx.doi.org/10.1787/888933315940

Countries/economies where the percentage of low performers is below the OECD average
Countries/economies where the percentage of low performers is not statistically different from the OECD average
Countries/economies where the percentage of low performers is above the OECD average

|  | Above baseline in all subjects | Low performers in: |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mathematics only | Reading only | Science only | Mathematics and reading | Mathematics and science | Reading and science | All subjects |
|  | \% | \% | \% | \% | \% | \% | \% | \% |
| OECD average | 71.6 | 5.5 | 2.6 | 1.5 | 2.5 | 3.4 | 1.2 | 11.6 |


| Lithuania | 68.6 | 7.2 | 3.6 | 0.8 | 4.5 | 2.2 | 1.0 | 12.1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hungary | 68.4 | 7.5 | 2.1 | 0.8 | 3.9 | 3.6 | 0.6 | 13.1 |
| Luxembourg | 68.0 | 4.0 | 3.5 | 2.2 | 2.3 | 3.7 | 2.0 | 14.4 |
| Russian Federation | 66.8 | 6.0 | 4.9 | 1.8 | 3.5 | 3.1 | 2.5 | 11.4 |
| Sweden | 66.3 | 5.5 | 3.0 | 2.0 | 3.1 | 3.6 | 1.7 | 15.0 |
| Croatia | 66.3 | 10.0 | 2.4 | 0.9 | 4.0 | 4.1 | 0.6 | 11.7 |
| Slovak Republic | 63.2 | 3.2 | 4.5 | 2.2 | 2.2 | 3.3 | 2.7 | 18.8 |
| Israel | 61.2 | 6.2 | 1.9 | 2.1 | 1.9 | 6.9 | 1.3 | 18.5 |
| Greece | 58.2 | 10.6 | 2.6 | 2.4 | 3.1 | 6.2 | 1.2 | 15.7 |
| Turkey | 53.8 | 14.6 | 1.6 | 1.7 | 3.6 | 8.2 | 0.8 | 15.6 |
| Serbia | 51.0 | 6.4 | 4.0 | 3.4 | 3.6 | 6.1 | 2.7 | 22.8 |
| United Arab Emirates | 48.3 | 9.5 | 2.5 | 1.6 | 4.6 | 5.2 | 1.4 | 27.0 |
| Bulgaria | 48.0 | 7.0 | 4.0 | 1.5 | 4.1 | 4.1 | 2.8 | 28.6 |
| Romania | 46.8 | 6.5 | 4.7 | 3.7 | 4.6 | 5.7 | 3.9 | 24.0 |
| Thailand | 44.2 | 13.7 | 2.8 | 1.9 | 5.7 | 7.2 | 1.4 | 23.1 |
| Chile | 44.1 | 13.8 | 2.2 | 1.3 | 5.4 | 7.7 | 0.9 | 24.6 |
| Montenegro | 36.3 | 7.5 | 2.6 | 2.5 | 3.0 | 10.4 | 2.0 | 35.8 |
| Mexico | 36.1 | 8.7 | 2.9 | 4.4 | 5.3 | 9.7 | 1.9 | 31.0 |
| Malaysia | 35.8 | 6.0 | 7.3 | 1.6 | 5.3 | 3.9 | 3.5 | 36.5 |
| Uruguay | 35.4 | 8.3 | 3.8 | 2.7 | 5.7 | 6.6 | 2.4 | 35.2 |
| Costa Rica | 35.2 | 17.2 | 1.8 | 2.4 | 6.5 | 12.8 | 0.7 | 23.4 |
| Kazakhstan | 32.9 | 4.9 | 10.9 | 2.9 | 9.3 | 2.2 | 8.0 | 28.8 |
| Albania | 27.9 | 7.9 | 4.4 | 3.9 | 6.7 | 8.1 | 3.2 | 38.0 |
| Argentina | 27.4 | 10.8 | 3.5 | 1.3 | 7.4 | 6.9 | 1.3 | 41.4 |
| Jordan | 26.8 | 14.0 | 2.6 | 1.0 | 7.0 | 7.4 | 1.0 | 40.1 |
| Brazil | 26.5 | 10.4 | 2.2 | 1.9 | 5.7 | 10.4 | 1.1 | 41.8 |
| Qatar | 25.4 | 6.3 | 1.9 | 2.0 | 3.8 | 9.2 | 1.2 | 50.3 |
| Tunisia | 24.9 | 11.5 | 2.4 | 3.2 | 5.8 | 11.0 | 1.7 | 39.4 |
| Colombia | 22.9 | 13.0 | 1.5 | 1.3 | 6.4 | 11.3 | 0.5 | 43.0 |
| Peru | 19.7 | 6.2 | 1.3 | 3.1 | 4.3 | 11.1 | 1.3 | 53.0 |
| Indonesia | 18.5 | 9.1 | 1.5 | 2.8 | 4.3 | 14.4 | 1.6 | 47.9 |

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Percentage of low performers in mathematics according to their...

|  | Percentage of low performers in mathematics according to their... |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ... socio-economic status |  | ... gender |  | ... immigrant background |  |
|  | Socioeconomically disadvantaged students | Difference between socio-economically advantaged and disadvantaged students | Girls | Difference between girls and boys | Student has an immigrant background | Difference between immigrant students and students without an immigrant background |
|  | \% | \% dif. | \% | \% dif. | \% | \% dif. |
| OECD average | 37.2 | -27.7 | 23.9 | 1.8 | 36.0 | 14.2 |
| Uruguay | 77.4 | -50.7 | 58.5 | 5.7 | 50.2 | -4.8 |
| Chile | 75.0 | -50.1 | 57.5 | 12.2 | 51.7 | 0.5 |
| Bulgaria | 68.0 | -49.6 | 42.3 | -2.9 | 74.5 | 32.2 |
| Costa Rica | 80.4 | -45.8 | 66.6 | 14.3 | 76.5 | 17.9 |
| Romania | 60.7 | -44.0 | 41.2 | 0.8 | C | C |
| Peru | 94.5 | -44.0 | 77.5 | 6.0 | 89.9 | 15.9 |
| Hungary | 50.6 | -42.5 | 28.5 | 0.9 | 17.0 | -10.8 |
| Slovak Republic | 51.7 | -42.3 | 27.3 | -0.3 | 31.6 | 4.9 |
| Israel | 55.8 | -41.4 | 33.4 | -0.2 | 27.7 | -5.3 |
| Brazil | 85.0 | -40.1 | 72.0 | 7.8 | 83.2 | 15.9 |
| Montenegro | 74.4 | -40.0 | 56.5 | -0.3 | 45.5 | -11.1 |
| Argentina | 82.4 | -39.4 | 69.7 | 6.7 | 83.1 | 17.8 |
| Malaysia | 69.5 | -39.2 | 49.6 | -4.5 | 64.6 | 13.9 |
| Greece | 53.3 | -36.6 | 36.9 | 2.4 | 57.7 | 25.1 |
| France | 40.3 | -35.6 | 22.4 | 0.0 | 43.3 | 25.6 |
| Portugal | 42.2 | -35.1 | 25.9 | 1.9 | 42.4 | 20.0 |
| Colombia | 88.3 | -34.5 | 79.6 | 12.2 | 97.3 | 24.0 |
| Luxembourg | 42.5 | -34.5 | 28.7 | 8.6 | 32.8 | 16.7 |
| Tunisia | 80.9 | -34.2 | 71.3 | 7.7 | 65.4 | -2.0 |
| Turkey | 56.9 | -34.2 | 43.2 | 2.5 | 49.1 | 7.6 |
| United Arab Emirates | 67.1 | -34.1 | 44.3 | -4.0 | 31.3 | -31.4 |
| Mexico | 70.7 | -34.1 | 58.5 | 7.8 | 87.7 | 34.1 |
| Serbia | 53.6 | -33.1 | 40.4 | 3.1 | 33.4 | -5.3 |
| New Zealand | 41.0 | -33.0 | 23.6 | 1.8 | 24.8 | 3.9 |
| Jordan | 82.6 | -32.0 | 64.8 | -7.7 | 58.9 | -9.5 |
| United States | 41.0 | -31.5 | 25.2 | -1.3 | 29.8 | 6.3 |
| Lithuania | 42.8 | -31.4 | 24.3 | -3.3 | 25.8 | 0.3 |
| Spain | 39.7 | -31.4 | 25.1 | 3.0 | 42.7 | 22.1 |
| Thailand | 60.2 | -29.6 | 46.3 | -7.7 | 73.7 | 24.7 |
| Kazakhstan | 60.6 | -29.4 | 45.0 | -0.5 | 48.4 | 4.0 |
| Czech Republic | 37.5 | -29.3 | 22.7 | 3.5 | 30.3 | 9.8 |
| Croatia | 43.4 | -28.9 | 31.0 | 2.1 | 35.5 | 6.6 |
| Belgium | 34.0 | -28.5 | 19.3 | 0.7 | 38.7 | 24.3 |
| Austria | 33.9 | -27.5 | 21.2 | 5.1 | 36.8 | 22.1 |
| Indonesia | 84.8 | -27.1 | 76.9 | 2.3 | C | c |
| Slovenia | 33.4 | -26.6 | 19.8 | -0.6 | 37.0 | 18.9 |
| Sweden | 40.1 | -26.3 | 26.0 | -2.2 | 47.2 | 25.1 |
| Russian Federation | 37.9 | -26.1 | 23.3 | -1.4 | 29.6 | 6.9 |
| Italy | 38.4 | -25.9 | 26.7 | 3.9 | 42.3 | 19.7 |
| Latvia | 33.1 | -25.6 | 18.3 | -3.2 | 22.3 | 2.7 |
| Qatar | 85.6 | -25.5 | 68.2 | -2.6 | 50.9 | -36.1 |
| Australia | 32.9 | -25.2 | 21.1 | 2.9 | 15.4 | -3.6 |
| Germany | 31.1 | -25.2 | 18.7 | 1.9 | 31.1 | 17.4 |
| Ireland | 29.7 | -24.9 | 18.7 | 3.5 | 17.6 | 1.2 |
| Denmark | 30.1 | -24.4 | 18.6 | 3.5 | 41.7 | 28.3 |
| United Kingdom | 32.0 | -23.6 | 23.8 | 4.1 | 27.4 | 7.4 |
| Chinese Taipei | 26.6 | -23.1 | 11.4 | -2.9 | 15.9 | 3.6 |
| Poland | 26.5 | -22.7 | 13.8 | -1.2 | c | c |
| Norway | 33.5 | -21.8 | 22.0 | -0.6 | 41.0 | 21.4 |
| Iceland | 31.3 | -20.2 | 19.7 | -3.5 | 39.3 | 19.5 |
| Viet Nam | 24.8 | -19.2 | 14.3 | 0.1 | c | C |
| Netherlands | 24.9 | -18.9 | 15.8 | 1.9 | 28.8 | 16.5 |
| Switzerland | 22.8 | -18.2 | 13.1 | 1.4 | 24.6 | 16.6 |
| Canada | 21.7 | -16.5 | 14.3 | 0.9 | 14.0 | 1.8 |
| Liechtenstein | 24.1 | -16.0 | 17.3 | 6.1 | 22.1 | 12.4 |
| Finland | 20.1 | -15.5 | 10.4 | -3.7 | 44.9 | 34.4 |
| Japan | 19.0 | -14.5 | 11.2 | 0.3 | C | c |
| Singapore | 16.6 | -14.4 | 6.7 | -3.1 | 4.6 | -4.1 |
| Estonia | 15.9 | -12.6 | 10.4 | -0.2 | 19.0 | 9.7 |
| Korea | 14.0 | -9.5 | 9.1 | -0.1 | c | c |
| Hong Kong-China | 13.1 | -8.9 | 8.5 | -0.1 | 8.0 | -0.1 |
| Shanghai-China | 8.1 | -7.2 | 3.6 | -0.3 | 20.8 | 17.3 |
| Macao-China | 13.9 | -6.7 | 10.0 | -1.6 | 9.2 | -3.7 |
| Albania | m | m | 60.3 | -0.7 | c | c |

Albania
Note: Values that are statistically significant are indicated in bold.
Countries/economies are ranked in ascending order of the difference in the percentage of low performers in mathematics between socio-economically advantaged and disadvantaged students.
Source: OECD, PISA 2012 Database, Tables 2.1, 2.3a, 2.6, 2.14, 2.16 and 2.18.
StatLink न्ता डs. http://dx.doi.org/10.1787/888933315951

## - Table 0.3 [Part 2/2]

STUDENT BACKGROUND AND LOW PERFORMANCE

|  | Percentage of low performers in mathematics according to their... |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ... pre-primary education |  | ... grade repetition |  | ... study programme |  |
|  | No preprimary education | Difference between students with no preprimary education and students with more than a year of pre-primary education | Repeated a grade | Difference between students who had repeated a grade and students who had had never repeated a grade | Enrolled in a vocational programme ${ }^{1}$ | Difference between students enrolled in a vocational programme and students enrolled in a general programme |
|  | \% | \% dif. | \% | \% dif. | \% | \% dif. |
| OECD average | 41.5 | 21.7 | 54.5 | 36.3 | 40.6 | 20.4 |
| Uruguay | 75.2 | 27.3 | 85.8 | 49.0 | 78.4 | 23.2 |
| Chile | 74.1 | 27.9 | 81.1 | 40.0 | 49.6 | -2.0 |
| Bulgaria | 64.2 | 25.0 | 90.6 | 50.1 | 53.2 | 15.9 |
| Costa Rica | 73.1 | 18.4 | 82.9 | 35.0 | 46.3 | -15.0 |
| Romania | 64.1 | 26.3 | 70.9 | 31.7 | C | c |
| Peru | 90.8 | 22.3 | 92.8 | 25.4 | C | , |
| Hungary | 56.0 | 29.3 | 71.1 | 48.6 | 68.3 | 46.9 |
| Slovak Republic | 65.7 | 43.0 | 82.1 | 59.5 | 30.6 | 4.7 |
| Israel | 69.2 | 40.5 | 71.6 | 40.6 | 91.5 | 59.8 |
| Brazil | 79.8 | 19.6 | 87.3 | 31.4 | C | C |
| Montenegro | 65.4 | 17.8 | 77.7 | 22.1 | 70.5 | 40.8 |
| Argentina | 87.4 | 27.4 | 87.2 | 33.3 | 63.5 | -3.5 |
| Malaysia | 62.2 | 20.4 | C | C | 58.4 | 7.7 |
| Greece | 63.1 | 31.8 | 87.2 | 54.2 | 75.7 | 46.3 |
| France | 62.7 | 43.4 | 57.1 | 49.1 | 31.7 | 11.1 |
| Portugal | 33.6 | 15.2 | 56.1 | 48.8 | 49.3 | 29.3 |
| Colombia | 83.9 | 14.2 | 85.7 | 20.2 | 64.1 | -13.0 |
| Luxembourg | 40.1 | 19.2 | 47.8 | 36.3 | 35.3 | 14.0 |
| Tunisia | 75.5 | 18.4 | 93.1 | 42.2 | C | c |
| Turkey | 48.0 | 21.7 | 77.4 | 41.5 | 57.4 | 24.9 |
| United Arab Emirates | 64.0 | 27.4 | 78.8 | 37.3 | 33.9 | -12.7 |
| Mexico | 73.4 | 21.7 | 83.6 | 34.6 | 45.2 | -12.7 |
| Serbia | 45.6 | 13.6 | 86.5 | 49.1 | 47.3 | 32.6 |
| New Zealand | 40.8 | 22.4 | 45.4 | 24.6 | C | c |
| Jordan | 77.7 | 21.2 | 92.3 | 26.7 | c | c |
| United States | 40.9 | 16.9 | 53.6 | 33.2 | C | C |
| Lithuania | 34.1 | 13.4 | 77.7 | 53.2 | 70.1 | 44.3 |
| Spain | 44.3 | 24.1 | 51.7 | 42.5 | 64.6 | 41.3 |
| Thailand | 72.6 | 25.4 | 64.6 | 15.5 | 74.3 | 30.6 |
| Kazakhstan | 49.1 | 14.2 | 65.6 | 20.7 | 53.0 | 8.4 |
| Czech Republic | 46.4 | 27.4 | 76.4 | 58.3 | 20.4 | -0.9 |
| Croatia | 35.1 | 11.3 | 49.1 | 20.1 | 40.9 | 37.0 |
| Belgium | 48.2 | 31.6 | 39.9 | 33.1 | 31.4 | 22.3 |
| Austria | 35.8 | 18.5 | 38.0 | 22.1 | 20.6 | 6.2 |
| Indonesia | 86.6 | 25.0 | 90.0 | 17.0 | 71.2 | -5.7 |
| Slovenia | 25.1 | 7.9 | 66.6 | 48.4 | 30.8 | 22.8 |
| Sweden | 46.7 | 23.9 | 69.7 | 45.4 | C | c |
| Russian Federation | 32.7 | 12.2 | 64.5 | 41.6 | 29.3 | 5.6 |
| Italy | 47.6 | 25.6 | 50.9 | 31.9 | 34.1 | 18.7 |
| Latvia | 22.5 | 3.9 | 68.8 | 53.7 | C | C |
| Qatar | 82.2 | 26.7 | 86.1 | 19.6 | C | C |
| Australia | 36.7 | 20.4 | 38.1 | 20.5 | 27.0 | 8.2 |
| Germany | 31.7 | 18.2 | 39.4 | 28.3 | 21.8 | 4.1 |
| Ireland | 21.0 | 4.4 | 33.5 | 18.3 | 71.3 | 54.8 |
| Denmark | 43.6 | 30.6 | 48.5 | 33.8 | C | C |
| United Kingdom | 43.3 | 25.4 | 58.3 | 38.2 | 55.0 | 33.6 |
| Chinese Taipei | 28.8 | 17.6 | 53.7 | 41.2 | 19.9 | 10.8 |
| Poland | 28.4 | 17.3 | 59.6 | 47.2 | c | c |
| Norway | 32.7 | 12.7 | c | C | C | C |
| Iceland | 35.2 | 15.1 | 46.7 | 26.0 | C | c |
| Viet Nam | 35.8 | 25.0 | 57.4 | 46.9 | C | C |
| Netherlands | 28.2 | 14.2 | 26.8 | 17.1 | 49.5 | 44.6 |
| Switzerland | 39.6 | 27.6 | 31.2 | 23.6 | 2.6 | -11.0 |
| Canada | 18.3 | 8.2 | 36.1 | 25.2 | 13.8 | C |
| Liechtenstein | C | C | 24.3 | 12.5 | c | C |
| Finland | 34.5 | 24.8 | 54.0 | 44.0 | C | c |
| Japan | 28.3 | 18.2 | C | C | 17.0 | 7.8 |
| Singapore | 20.1 | 13.0 | 27.9 | 20.9 | c | C |
| Estonia | 12.0 | 2.4 | 46.0 | 37.1 | C | c |
| Korea | 15.3 | 7.1 | 17.6 | 9.0 | 21.2 | 15.1 |
| Hong Kong-China | 30.7 | 23.3 | 21.0 | 15.2 | c | c |
| Shanghai-China | 18.1 | 15.7 | 17.1 | 14.7 | 6.7 | 3.7 |
| Macao-China | 19.5 | 11.0 | 21.5 | 18.5 | 9.9 | -0.9 |
| Albania | 62.0 | 1.3 | 51.8 | -9.7 | 64.4 | 4.1 |

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

1. This category includes students enrolled in pre-vocational, vocational and modular programmes.

Countries/economies are ranked in ascending order of the difference in the percentage of low performers in mathematics between socio-economically advantaged and disadvantaged students.
Source: OECD, PISA 2012 Database, Tables 2.1, 2.3a, 2.6, 2.14, 2.16 and 2.18.
StatLink 司ist http://dx.doi.org/10.1787/888933315951

## ENGAGEMENT, PERSEVERANCE AND SELF-CONFIDENCE AMONG LOW PERFORMERS IN MATHEMATICS

|  | Low performers in mathematics |  |  |  |  | Difference between low performers in mathematics and students scoring above the baseline in mathematics |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Skipped school at least once in the two weeks prior to the PISA test | Index of sense of belonging at school | Hours spent doing homework | Index of perseverance | Index of mathematics self-efficacy | Skipped school at least once in the two weeks prior to the PISA test | Index of sense of belonging at school | Hours spent doing homework | Index of perseverance | Index of mathematics self-efficacy |
|  | \% | Mean index | Mean hours | Mean index | Mean index | \% dif. | Mean index dif. | Mean hours dif. | Mean index dif. | Mean index dif. |
| OECD average | 22.6 | -0.1 | 3.5 | -0.3 | -0.7 | 10.2 | -0.15 | -1.8 | -0.34 | -0.83 |
| Argentina | 62.6 | -0.3 | 3.2 | -0.1 | -0.5 | 13.2 | -0.16 | -1.5 | -0.25 | -0.34 |
| Italy | 59.4 | -0.2 | 5.6 | -0.1 | -0.6 | 14.9 | 0.03 | -4.1 | -0.25 | -0.64 |
| Turkey | 52.0 | 0.1 | 3.7 | 0.3 | -0.4 | -3.9 | -0.08 | -1.0 | -0.31 | -0.65 |
| United Arab Emirates | 47.8 | -0.1 | 4.4 | 0.2 | -0.3 | 16.0 | -0.24 | -3.2 | -0.48 | -0.58 |
| Jordan | 47.4 | -0.1 | 3.6 | 0.2 | -0.2 | 12.6 | -0.26 | -1.6 | -0.55 | -0.53 |
| Australia | 44.5 | -0.3 | 3.5 | -0.3 | -0.7 | 15.6 | -0.24 | -3.1 | -0.50 | -0.94 |
| Romania | 43.4 | -0.4 | 5.0 | -0.1 | -0.4 | 15.4 | -0.15 | -3.8 | -0.19 | -0.40 |
| Spain | 42.8 | 0.3 | 4.7 | -0.1 | -0.5 | 19.2 | -0.15 | -2.3 | -0.31 | -0.73 |
| Latvia | 41.6 | -0.2 | 4.8 | -0.1 | -0.6 | 23.6 | -0.01 | -1.7 | -0.33 | -0.57 |
| Bulgaria | 38.3 | -0.3 | 3.8 | 0.3 | -0.3 | 23.2 | -0.26 | -3.0 | -0.42 | -0.39 |
| Lithuania | 36.7 | -0.2 | 4.9 | -0.1 | -0.5 | 23.9 | -0.44 | -2.3 | -0.27 | -0.79 |
| Malaysia | 36.4 | -0.2 | 3.1 | 0.1 | -0.5 | 16.4 | -0.08 | -3.4 | -0.20 | -0.51 |
| Israel | 35.6 | 0.4 | 3.7 | 0.3 | -0.4 | 7.6 | -0.05 | -1.3 | -0.02 | -0.76 |
| New Zealand | 35.1 | -0.2 | 2.7 | -0.3 | -0.8 | 23.1 | -0.04 | -1.9 | -0.43 | -0.76 |
| Costa Rica | 34.7 | 0.4 | 2.7 | 0.4 | -0.5 | 8.1 | -0.03 | -1.9 | -0.18 | -0.32 |
| Estonia | 33.7 | -0.4 | 5.0 | 0.2 | -0.7 | 20.6 | -0.09 | -2.1 | -0.10 | -0.72 |
| Russian Federation | 33.4 | -0.2 | 7.8 | 0.3 | -0.6 | 15.9 | -0.08 | -2.5 | -0.20 | -0.63 |
| Canada | 31.6 | -0.2 | 3.7 | -0.2 | -0.7 | 10.9 | -0.15 | -2.0 | -0.46 | -0.95 |
| Portugal | 30.4 | -0.1 | 2.4 | -0.1 | -0.5 | 14.6 | -0.20 | -1.8 | -0.55 | -1.03 |
| Slovenia | 30.1 | -0.1 | 3.3 | 0.0 | -0.3 | 19.9 | -0.07 | -0.5 | -0.16 | -0.73 |
| Montenegro | 29.5 | 0.0 | 3.5 | 0.2 | -0.5 | 11.1 | 0.13 | -1.9 | -0.37 | -0.49 |
| Greece | 28.7 | -0.2 | 3.6 | -0.4 | -0.7 | 10.9 | -0.07 | -2.5 | -0.42 | -0.77 |
| Uruguay | 28.3 | 0.2 | 4.0 | 0.1 | -0.5 | 10.6 | 0.01 | -1.5 | -0.26 | -0.45 |
| United States | 27.8 | -0.2 | 3.7 | 0.1 | -0.5 | 9.0 | -0.19 | -3.2 | -0.42 | -0.83 |
| United Kingdom | 27.1 | -0.1 | 3.1 | -0.3 | -0.7 | 11.7 | -0.14 | -2.3 | -0.50 | -0.97 |
| Singapore | 26.7 | -0.3 | 3.8 | 0.1 | -0.5 | 13.3 | -0.15 | -6.1 | -0.21 | -1.06 |
| Poland | 26.6 | -0.3 | 5.0 | -0.4 | -0.7 | 12.6 | 0.01 | -1.8 | -0.48 | -0.97 |
| Croatia | 25.6 | 0.1 | 4.3 | 0.0 | -0.5 | 18.3 | -0.03 | -2.2 | -0.14 | -0.79 |
| Kazakhstan | 25.3 | 0.3 | 7.4 | 0.6 | -0.1 | 10.2 | -0.15 | -2.5 | -0.33 | -0.36 |
| Mexico | 25.2 | 0.0 | 4.0 | 0.2 | -0.4 | 9.4 | -0.13 | -2.7 | -0.34 | -0.43 |
| Tunisia | 24.0 | -0.2 | 3.3 | 0.0 | -0.5 | 10.2 | -0.12 | -0.6 | -0.39 | -0.52 |

Note: Values that are statistically significant are indicated in bold.
Countries/economies are ranked in descending order of the percentage of low performers in mathematics who had skipped school at least once in the two weeks prior to the PISA test.
Source: OECD, PISA 2012 Database, Tables 3.1, 3.3, 3.8, 3.12 and 3.15.
StatLink 泀ist http://dx.doi.org/10.1787/888933315961

## ENGAGEMENT, PERSEVERANCE AND SELF-CONFIDENCE AMONG

 LOW PERFORMERS IN MATHEMATICS|  | Low performers in mathematics |  |  |  |  | Difference between low performers in mathematics and students scoring above the baseline in mathematics |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Skipped school at least once in the two weeks prior to the PISA test | Index of sense of belonging at school | Hours spent doing homework | Index of perseverance | Index of mathematics self-efficacy | Skipped school at least once in the two weeks prior to the PISA test | Index of sense of belonging at school | Hours spent doing homework | Index of perseverance | Index of mathematics self-efficacy |
|  | \% | Mean index | Mean hours | Mean index | Mean index | \% dif. | Mean index dif. | Mean hours dif. | Mean index dif. | Mean index dif. |
| OECD average | 22.6 | -0.1 | 3.5 | -0.3 | -0.7 | 10.2 | -0.15 | -1.8 | -0.34 | -0.83 |
| Thailand | 23.9 | -0.2 | 3.9 | 0.1 | -0.4 | 11.4 | -0.25 | -3.4 | -0.25 | -0.22 |
| Viet Nam | 23.8 | -0.2 | 3.6 | 0.4 | -0.6 | 17.0 | 0.02 | -2.6 | -0.09 | -0.43 |
| Brazil | 21.3 | -0.2 | 2.9 | 0.1 | -0.6 | 3.0 | -0.04 | -1.3 | -0.25 | -0.49 |
| Finland | 20.4 | -0.4 | 2.4 | -0.4 | -1.0 | 11.3 | -0.16 | -0.5 | -0.50 | -0.78 |
| Serbia | 19.6 | 0.0 | 3.7 | 0.1 | -0.6 | 10.9 | -0.03 | -1.2 | -0.24 | -0.59 |
| Denmark | 18.9 | -0.2 | 3.9 | -0.5 | -0.8 | 11.1 | -0.13 | -0.4 | -0.46 | -0.79 |
| France | 18.0 | -0.3 | 3.3 | -0.7 | -0.6 | 10.9 | -0.27 | -2.2 | -0.34 | -0.77 |
| Peru | 16.7 | -0.1 | 4.8 | 0.3 | -0.3 | 9.9 | -0.13 | -2.6 | -0.26 | -0.34 |
| Qatar | 16.2 | -0.3 | 3.6 | 0.1 | -0.3 | -0.4 | -0.32 | -2.1 | -0.48 | -0.59 |
| Chinese Taipei | 15.6 | -0.2 | 1.9 | -0.4 | -1.1 | 13.0 | -0.02 | -4.0 | -0.34 | -1.51 |
| Hungary | 15.6 | -0.1 | 4.0 | -0.2 | -0.6 | 12.2 | -0.25 | -3.0 | -0.22 | -0.96 |
| Slovak Republic | 15.5 | -0.5 | 2.5 | -0.7 | -0.5 | 8.4 | -0.19 | -0.9 | -0.31 | -0.79 |
| Norway | 14.9 | -0.1 | 3.8 | -0.8 | -0.8 | 10.0 | -0.17 | -1.2 | -0.64 | -1.04 |
| Luxembourg | 14.1 | 0.0 | 3.4 | -0.2 | -0.6 | 9.2 | -0.32 | -1.5 | -0.22 | -0.91 |
| Sweden | 14.0 | -0.1 | 3.3 | -0.6 | -0.5 | 9.2 | -0.14 | -0.4 | -0.43 | -0.77 |
| Macao-China | 13.8 | -0.5 | 2.9 | -0.1 | -0.6 | 10.0 | 0.00 | -3.4 | -0.27 | -0.83 |
| Belgium | 13.7 | -0.2 | 3.1 | -0.5 | -0.7 | 10.1 | -0.19 | -2.8 | -0.21 | -0.75 |
| Albania | 13.6 | 0.4 | 5.1 | 0.7 | 0.0 | -2.9 | 0.07 | 0.0 | 0.01 | -0.01 |
| Indonesia | 13.5 | 0.0 | 4.1 | 0.2 | -0.3 | 6.3 | -0.16 | -2.9 | -0.19 | -0.29 |
| Switzerland | 13.0 | 0.2 | 3.1 | -0.3 | -0.6 | 9.2 | -0.26 | -1.0 | -0.22 | -0.96 |
| Austria | 12.8 | 0.3 | 3.4 | -0.2 | -0.6 | 5.8 | -0.25 | -1.4 | -0.23 | -0.82 |
| Hong Kong-China | 11.5 | -0.5 | 2.7 | -0.1 | -0.9 | 8.2 | -0.07 | -3.6 | -0.29 | -1.26 |
| Chile | 10.9 | 0.1 | 2.8 | 0.2 | -0.4 | 6.6 | -0.06 | -1.5 | -0.24 | -0.49 |
| Czech Republic | 10.0 | -0.5 | 2.3 | -0.2 | -0.5 | 5.3 | -0.17 | -1.0 | -0.16 | -0.70 |
| Germany | 10.0 | 0.2 | 3.7 | -0.2 | -0.4 | 5.8 | -0.13 | -1.1 | -0.23 | -0.86 |
| Korea | 9.9 | -0.6 | 1.4 | -0.4 | -1.4 | 8.9 | -0.27 | -1.6 | -0.34 | -1.19 |
| Netherlands | 7.7 | -0.2 | 3.7 | -0.2 | -0.8 | 5.9 | -0.18 | -2.5 | -0.12 | -0.76 |
| Ireland | 6.9 | -0.1 | 4.5 | -0.2 | -0.7 | 3.4 | -0.06 | -3.4 | -0.46 | -0.86 |
| Japan | 6.2 | -0.3 | 1.9 | -1.0 | -1.5 | 5.2 | -0.12 | -2.1 | -0.41 | -1.17 |
| Colombia | 5.0 | 0.2 | 4.4 | 0.4 | -0.5 | 2.2 | -0.16 | -3.3 | -0.16 | -0.26 |
| Iceland | 4.7 | 0.2 | 3.7 | -0.5 | -0.7 | 3.4 | -0.22 | -0.5 | -0.53 | -0.98 |
| Shanghai-China | 4.0 | -0.4 | 4.1 | 0.1 | -0.5 | 3.4 | -0.11 | -10.2 | -0.17 | -1.54 |
| Liechtenstein | 1.6 | c | c | c | c | -0.5 | c | c | c | c |

Note: Values that are statistically significant are indicated in bold.
Countries/economies are ranked in descending order of the percentage of low performers in mathematics who had skipped school at least once in the two weeks prior to the PISA test.
Source: OECD, PISA 2012 Database, Tables 3.1, 3.3, 3.8, 3.12 and 3.15.
StatLink 泀ist http://dx.doi.org/10.1787/888933315961

|  | Percentage of low performers in mathematics in schools where... |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ... princip teachers' lo of students a lot or to | als report that w expectations hinder learning some extent | ... principals report that teacher absenteeism hinders learning <br> a lot or to some extent |  | ... there is ability grouping for all mathematics classes |  | ... additional mathematics lessons are offered after school hours |  | ... principals report that there is little or no pressure from parents for high academic standards |  |
|  | Percentage of students in these schools | Difference between students attending these schools and those where teachers' low expectations hinder learning very little or not at all | Percentage of students in these schools | Difference between students attending these schools and those where teacher absenteeism hinders <br> learning very little or not at all | Percentage of students in these schools | Difference between students attending these schools and those where there is no ability grouping for any classes | Percentage of students in these schools | $\begin{array}{\|c\|} \text { Difference } \\ \text { between } \\ \text { students } \\ \text { attending } \\ \text { these schools } \\ \text { and those } \\ \text { where } \\ \text { additional } \\ \text { mathematical } \\ \text { lessons are } \\ \text { not offered } \end{array}$ | Percentage of students in these schools | Difference between students attending these schools and those with constant pressure from many parents |
|  | \% | \% dif. | \% | \% dif. | \% | \% dif. | \% | \% dif. | \% | \% dif. |
| OECD average | 30.6 | 9.1 | 27.6 | 4.7 | 26.3 | 7.3 | 25.4 | 3.4 | 28.6 | 15.0 |
| Lithuania | 47.2 | 22.8 | c | c | 27.1 | 4.3 | 33.1 | 9.1 | 26.4 | 5.1 |
| France | 42.3 | 21.6 | 28.1 | 6.4 | 25.9 | 7.8 | 21.5 | -1.4 | 24.4 | 14.9 |
| Chile | 63.5 | 18.7 | 61.9 | 14.4 | 57.1 | 12.9 | 61.4 | 14.1 | 68.1 | 37.5 |
| Germany | 33.0 | 16.4 | 20.8 | 4.1 | 27.8 | 17.7 | 25.8 | 12.3 | 20.4 | c |
| Uruguay | 65.6 | 15.6 | 63.0 | 20.7 | 52.6 | 3.4 | 62.5 | 8.2 | 58.3 | 24.7 |
| Belgium | 33.0 | 15.4 | 30.2 | 15.2 | 28.1 | 13.4 | 22.7 | 6.2 | 23.2 | 15.7 |
| Bulgaria | 56.6 | 15.2 | 42.0 | -2.5 | 38.0 | 1.7 | 50.6 | 10.8 | 53.1 | 28.6 |
| Thailand | 62.2 | 14.3 | 59.2 | 10.6 | 45.4 | -8.3 | 71.8 | 24.4 | 54.5 | 16.4 |
| Croatia | 40.3 | 14.2 | 20.5 | -10.2 | 31.9 | 16.7 | 48.6 | 21.0 | 35.1 | c |
| Slovak Republic | 39.6 | 13.8 | 20.2 | -7.9 | 35.1 | 12.7 | 31.3 | 5.8 | 36.4 | 22.2 |
| Greece | 45.5 | 13.7 | 27.0 | -9.9 | 44.3 | 11.6 | 34.2 | -5.2 | 42.8 | 19.7 |
| Qatar | 81.0 | 13.6 | 73.7 | 4.7 | 70.5 | -7.2 | 56.1 | -16.6 | 87.2 | 31.8 |
| Ireland | 28.6 | 13.5 | 22.1 | 5.7 | 15.7 | c | 14.9 | -3.1 | 32.7 | 23.5 |
| Malaysia | 63.2 | 13.5 | 59.2 | 8.6 | 52.3 | 20.1 | 35.7 | -17.6 | 57.7 | 28.0 |
| New <br> Zealand | 33.4 | 13.4 | 30.7 | 9.5 | 23.2 | c | 28.1 | 7.0 | 28.9 | 15.3 |
| Costa Rica | 70.1 | 12.9 | 63.8 | 5.5 | 56.2 | -4.5 | 56.7 | -6.1 | 62.3 | 17.8 |
| United States | 36.2 | 12.8 | 33.5 | 8.9 | 22.7 | -8.4 | 23.7 | -2.9 | 32.8 | 15.5 |
| United Arab Emirates | 56.0 | 12.5 | 58.5 | 15.5 | 45.2 | -0.8 | 51.4 | 8.5 | 53.1 | 19.3 |
| Turkey | 50.2 | 12.4 | 36.0 | -6.4 | 47.4 | 19.7 | 43.6 | 3.4 | 46.7 | 32.0 |
| Indonesia | 87.4 | 12.3 | 84.4 | 8.7 | 79.2 | 1.7 | 86.6 | 14.6 | 72.9 | -2.4 |
| Argentina | 76.5 | 11.9 | 73.8 | 13.9 | 73.1 | 10.7 | 57.7 | -15.2 | 69.1 | 11.4 |
| Austria | 28.4 | 11.5 | 20.9 | 3.0 | 43.8 | 33.1 | 20.0 | 3.2 | 20.5 | C |

Note: Values that are statistically significant are indicated in bold.
Countries/economies are ranked in descending order of the difference in the percentage of low performers in mathematics in schools where teachers' low expectations hinder learning a lot or to some extent and schools where teachers' low expectations hinder learning very little or not at all.
Source: OECD, PISA 2012 Database, Tables 4.6, 4.8, 4.14, 4.16 and 4.20.
StatLink 司ist http://dx.doi.org/10.1787/888933315975

|  | Percentage of low performers in mathematics in schools where... |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ... principals report that teachers' low expectations of students hinder learning a lot or to some extent |  | ... principals report that teacher absenteeism hinders learning a lot or to some extent |  | ... there is ability grouping for all mathematics classes |  | ... additional mathematics lessons are offered after school hours |  | ... principals report that there is little or no pressure from parents for high academic standards |  |
|  | Percentage of students in these schools | Difference between students attending these schools and those where teachers' low expectations hinder learning very little or not at all |  | Difference between students attending these schools and those where teacher absenteeism hinders learning very little or not at all | Percentage of students in these schools | Difference between students attending these schools and those where there is no ability grouping for any classes | Percentage of students in these schools | Difference between students attending these schools and those where additional mathematical lessons are not offered | Percentage of students in these schools | Difference between students attending these schools and those with constant pressure from many parents |
|  | \% | \% dif. | \% | \% dif. | \% | \% dif. | \% | \% dif. | \% | \% dif. |
| OECD average | 30.6 | 9.1 | 27.6 | 4.7 | 26.3 | 7.3 | 25.4 | 3.4 | 28.6 | 15.0 |
| United Kingdom | 32.4 | 11.3 | 31.0 | 11.2 | 21.3 | c | 11.3 | -11.2 | 31.7 | 17.5 |
| Italy | 32.3 | 11.1 | 30.8 | 8.1 | 31.0 | 10.8 | 31.2 | 8.1 | 33.1 | 23.0 |
| Australia | 28.6 | 11.1 | 27.0 | 8.3 | 18.8 | 2.3 | 21.6 | 3.1 | 30.2 | 16.7 |
| Israel | 41.6 | 11.0 | 37.9 | 6.6 | 29.7 | 5.1 | 35.2 | 1.4 | 44.3 | 27.0 |
| Montenegro | 64.7 | 10.3 | c | c | 57.2 | 22.0 | 59.6 | 3.6 | 56.9 | c |
| Brazil | 74.5 | 10.3 | 72.9 | 6.9 | 65.1 | 3.8 | 74.1 | 10.9 | 70.7 | 20.6 |
| Serbia | 46.3 | 10.1 | 37.5 | -1.6 | 38.9 | 10.4 | 56.3 | 18.5 | 47.6 | 28.7 |
| Czech Republic | 30.5 | 10.0 | 22.9 | 2.0 | 32.8 | 14.8 | 22.0 | 1.1 | 26.7 | 15.6 |
| Peru | 82.5 | 10.0 | 82.1 | 9.0 | 71.9 | -1.3 | 79.4 | 10.7 | 78.3 | 14.9 |
| Portugal | 32.4 | 8.3 | 50.0 | 25.1 | 28.3 | 13.1 | 28.4 | 3.1 | 33.5 | 20.0 |
| Hungary | 35.8 | 8.3 | c | c | 30.7 | 1.4 | 41.2 | 15.7 | 44.3 | 35.5 |
| Jordan | 73.1 | 8.2 | 72.6 | 8.1 | 68.9 | 8.5 | 71.8 | 4.5 | 70.3 | 9.1 |
| Japan | 17.5 | 8.0 | c | c | 12.5 | 3.4 | 15.6 | 6.2 | 16.8 | c |
| Norway | 28.3 | 7.9 | 21.3 | -0.6 | 22.9 | 1.5 | 22.6 | 2.0 | 25.5 | 10.5 |
| Poland | 21.5 | 7.4 | 17.5 | 3.6 | 13.7 | -1.5 | 15.2 | 0.9 | 15.5 | 5.0 |
| Spain | 29.1 | 7.3 | 29.8 | 6.7 | 25.1 | 5.9 | 22.7 | -2.2 | 25.7 | 11.7 |
| Korea | 14.1 | 7.1 | c | c | 7.0 | -9.5 | 17.4 | 9.0 | 14.6 | c |
| Switzerland | 18.8 | 6.7 | 16.6 | 4.4 | 15.0 | 13.3 | 12.3 | 0.0 | 9.2 | -2.4 |
| Mexico | 59.1 | 6.0 | 61.7 | 8.5 | 55.4 | 5.9 | 65.4 | 17.9 | 54.9 | 6.1 |
| Denmark | 22.1 | 5.4 | 22.5 | 6.2 | 16.2 | 0.9 | 16.3 | -1.8 | 18.8 | 6.8 |
| Canada | 18.2 | 4.7 | 12.5 | -1.4 | 13.7 | -1.2 | 15.0 | 1.6 | 19.4 | 10.2 |
| Estonia | 14.8 | 4.6 | 17.0 | 7.1 | 11.6 | 0.8 | 10.2 | 0.0 | 10.8 | 0.8 |

Note: Values that are statistically significant are indicated in bold.
Countries/economies are ranked in descending order of the difference in the percentage of low performers in mathematics in schools where teachers' low expectations hinder learning a lot or to some extent and schools where teachers' low expectations hinder learning very little or not at all.
Source: OECD, PISA 2012 Database, Tables 4.6, 4.8, 4.14, 4.16 and 4.20.
StatLink 司ist http://dx.doi.org/10.1787/888933315975

HOW SCHOOL CHARACTERISTICS ARE RELATED TO LOW PERFORMANCE

|  | Percentage of low performers in mathematics in schools where... |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ... principa teachers' low of students a lot or to | als report that w expectations hinder learning some extent | ... principals report that teacher absenteeism hinders learning a lot or to some extent |  | ... there is ability grouping for all mathematics classes |  | ... additional mathematics lessons are offered after school hours |  | ... principals report that there is little or no pressure from parents for high academic standards |  |
|  | Percentage of students in these schools | Difference between students attending these schools and those where teachers' low expectations hinder learning very little or not at all | Percentage of students in these schools | Difference between students attending these schools and those where teacher absenteeism hinders <br> learning very little or not at all | Percentage of students in these schools | Difference between students attending these schools and those where there is no ability grouping for any classes | Percentage of students in these schools | Difference between students attending these schools and those where additional mathematical lessons are not offered | Percentage of students in these schools | Difference between students attending these schools and those with constant pressure from many parents |
|  | \% | \% dif. | \% | \% dif. | \% | \% dif. | \% | \% dif. | \% | \% dif. |
| OECD average | 30.6 | 9.1 | 27.6 | 4.7 | 26.3 | 7.3 | 25.4 | 3.4 | 28.6 | 15.0 |
| Colombia | 77.4 | 4.5 | 77.5 | 4.2 | 67.7 | -11.2 | 77.1 | 9.9 | 74.1 | 1.3 |
| Singapore | 12.4 | 4.4 | 14.5 | 6.5 | 8.5 | c | 7.4 | -0.9 | 15.0 | 9.1 |
| Finland | 15.8 | 3.6 | 9.7 | -3.0 | 14.4 | 3.6 | 11.8 | -0.8 | 12.7 | 5.3 |
| Hong KongChina | 10.8 | 3.5 | 15.6 | 7.9 | c | c | c | c | 5.0 | c |
| Russian Federation | 26.5 | 3.3 | 25.4 | 1.7 | 22.4 | -1.3 | 25.6 | 1.6 | 26.5 | 8.6 |
| Slovenia | 21.6 | 3.2 | 18.2 | -0.7 | 27.2 | 7.2 | 26.9 | 9.9 | 24.1 | 14.0 |
| Sweden | 29.0 | 2.5 | 28.6 | 2.0 | 26.4 | -4.1 | 26.1 | -1.2 | 30.0 | 7.0 |
| Albania | 62.2 | 2.0 | 56.8 | -4.2 | 60.6 | c | 62.0 | 1.6 | 62.9 | 3.6 |
| Chinese <br> Taipei | 14.3 | 1.9 | 20.9 | 8.9 | 15.4 | 2.1 | 17.5 | 5.5 | 19.5 | 11.9 |
| Latvia | 20.8 | 0.9 | 17.0 | -3.2 | 20.6 | 1.9 | 24.9 | 6.5 | 20.1 | c |
| ShanghaiChina | 3.9 | 0.3 | 4.5 | 1.1 | 3.4 | c | 5.5 | 3.5 | 4.8 | c |
| Tunisia | 69.0 | -0.3 | 67.9 | -2.5 | 71.2 | 7.5 | 75.4 | 9.8 | 71.3 | 20.5 |
| Kazakhstan | 44.9 | -1.1 | 47.3 | 3.2 | 41.1 | 11.1 | 41.1 | -4.6 | 48.7 | 14.8 |
| Macao-China | 9.4 | -1.8 | 17.1 | 7.5 | 21.1 | 13.9 | c | c | 10.3 | c |
| Netherlands | 14.0 | -2.8 | 15.5 | -1.0 | 17.9 | 15.9 | 19.5 | 6.8 | 27.8 | 22.5 |
| Romania | 36.5 | -4.8 | 35.6 | -5.6 | 41.2 | 1.1 | 45.5 | 6.0 | 39.2 | 9.7 |
| Iceland | 17.3 | -4.8 | 25.7 | 4.6 | 22.6 | 2.8 | 22.6 | 2.6 | 24.2 | 3.5 |
| Viet Nam | 9.8 | -5.7 | c | c | 13.7 | -16.5 | c | c | 25.5 | 17.3 |
| Luxembourg | c | c | c | c | 27.7 | 14.5 | c | c | 20.1 | -3.3 |
| Liechtenstein | c | c | c | c | C | c | c | c | C | c |

Note: Values that are statistically significant are indicated in bold.
Countries/economies are ranked in descending order of the difference in the percentage of low performers in mathematics in schools where teachers' low expectations hinder learning a lot or to some extent and schools where teachers' low expectations hinder learning very little or not at all.
Source: OECD, PISA 2012 Database, Tables 4.6, 4.8, 4.14, 4.16 and 4.20.


## HOW THE CHARACTERISTICS OF EDUCATION SYSTEMS ARE RELATED TO LOW PERFORMANCE COUNTRY－LEVEL CORRELATIONS

| Pearson correlation coefficients | Percentage of low performers in mathematics | Percentage of top performers in mathematics |
| :---: | :---: | :---: |
| Socio－economic inclusion index | －0．52 | 0.29 |
| Index of quality of physical infrastructure | －0．50 | 0.32 |
| Index of quality of educational resources | －0．65 | 0.61 |
| Index of teacher shortage | 0.24 | 0.00 |
| Size of language－of－instruction class | 0.21 | 0.19 |
| Equity in resource allocation | －0．60 | 0.32 |
| Index of school responsibility for resource allocation | －0．15 | 0.08 |
| Index of school responsibility for curriculum and assessment | －0．36 | 0.35 |
| Percentage of students enrolled in public schools | 0.09 | －0．23 |
| Percentage of students enrolled in private government－dependent schools | －0．24 | 0.25 |
| Percentage of students enrolled in private government－independent schools | 0.30 | 0.00 |
| School competition | －0．05 | 0.24 |
| School accountability | －0．03 | －0．16 |
| Index of vertical stratification | 0.41 | －0．16 |
| Index of horizontal between－school stratification | 0.01 | 0.10 |
| Index of horizontal within－school stratification | 0.26 | －0．21 |

Note：Values that are statistically significant are indicated in bold．
Source：OECD，PISA 2012 Database，Tables 5．1， 5.2 and 5．3．
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[^0]:    Countries/economies are ranked in descending order of the percentage of students who are above baseline in all subjects.
    Source: OCD, PISA 2012 Database, Table 1.3.
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