

## Low-Performing Students: Why They Fall Behind and How to Help Them Succeed

## Country note Germany

Low performance at school can have severe consequences for individuals and economies. Students who are low performers at age 15 are more likely to drop out of school and less likely to attain better-paying and more-rewarding jobs. When a large share of the population lacks basic skills, a country's long-term economic growth is compromised.

- In 2012, 18% of students in Germany were low performers in mathematics (OECD average: 23%), 14% were low performers in reading (OECD average: 18%), 12% were low performers in science (OECD average: 18%), and 9% were low performers in all three of these subjects (OECD average: 12%).\*
- Around 141,000 15-year-old German students were low performers in mathematics, and almost 70,000 students were low performers in all three subjects (math, reading and science).
- About 24% of 15-year-old students in Germany attend schools where 30% or more of the students are low performers in mathematics, about 12% attend schools where half or more of the students are low performers in mathematics, and about 2% attend schools where 80% or more of the students are low performers in mathematics.
- The share of low performers in mathematics decreased by 4 percentage points between PISA 2003 and 2012 in Germany; the share of low performers in reading decreased by 8 percentage points between PISA 2003 and 2012; and the share of low performers in science has not changed in Germany since 2006.

PISA defines "low performers" as those 15-year-old students who score below Level 2 on the PISA mathematics, reading and science assessments. Level 2 is considered the baseline level of proficiency that is required to participate fully in modern society. Students who score at Level 1 can answer questions involving clear directions and requiring a single source of information and simple connections, but they cannot engage in more complex reasoning and problem-solving tasks.

Poor performance 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. **On average across OECD countries**, the probability of low performance in mathematics is higher for students who are socio-economically disadvantaged, girls, have an immigrant background, speak a different language at home from the language of instruction, live in single-parent families, attend schools in rural areas, have not attended pre-primary school (or have attended for a year or less), have repeated a grade and also for students enrolled in a vocational programmes or schools. **In Germany, the likelihood of being a low performer is higher for students who are socio-economically disadvantaged, girls, had only a year or less of pre-primary education, and had repeated a grade.**

- A socio-economically disadvantaged student is more than 4 times more likely to be a low performer than an advantaged student. Some 31% of disadvantaged students in Germany were low performers in mathematics in 2012, while only 6% of advantaged students were.
- In Germany, among low performers in mathematics, students who had attended only a year or less of pre-primary education (34%) were 2.5 times more likely as students who had attended more than a year of pre-primary education (14%) to be low performers (OECD average: 1.5 times more likely).

\* According to a recent OECD estimate, if, by 2030, all 15-year-old students in Germany reached at least the baseline level of performance in PISA, Germany's GDP in 2095 would be 9% higher. OECD (2015), *Universal Basic Skills: What Countries Stand to Gain*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264234833-en>

### Contacts:

Andreas Schleicher  
Advisor to the Secretary-General on Education  
Policy, Director for Education and Skills  
[Andreas.SCHLEICHER@oecd.org](mailto:Andreas.SCHLEICHER@oecd.org)  
Telephone: +33 1 45 24 93 66

Daniel Salinas  
Analyst  
Directorate for Education and Skills  
[Daniel.SALINAS@oecd.org](mailto:Daniel.SALINAS@oecd.org)  
Telephone: +33 1 45 24 74 86



**In Germany, as on average across OECD countries, low-performing students play truant more often, spend less time doing homework, and are less perseverant than better-performing students.**

- In 2012 in Germany, 10% of low performers in mathematics had skipped school at least once in the two weeks prior to the PISA test (OECD average: 23%). Among German students performing at or above baseline proficiency Level 2, only 4% skipped at least a day of school (OECD average: 12%).
- In 2012, low performers in Germany spent an average of 3.7 hours per week doing homework (OECD average among low performers: 3.5 hours per week) while students scoring at or above the baseline proficiency Level 2 spent about 4.8 hours per week doing homework (OECD average among better-performing students: 5.3 hours).

**Students in Germany are less likely to be low performers in schools where there are fewer teacher shortages, and where there are more mathematics-related and creative extracurricular activities available for students.**

- In Germany, students attending schools where there are more teacher shortages are, on average, 42% more likely to be low performers than students who attend schools with fewer teacher shortages, after accounting for students' and schools' socio-economic status (OECD average: 7% more likely).
- In Germany, students attending schools where there are fewer creative extracurricular activities are, on average, 26% more likely to be low performers than students who attend schools where there are more creative extracurricular activities, after accounting for students' and schools' socio-economic status (OECD average: 9% more likely).

Countries as economically and culturally diverse as Brazil, Germany, Mexico, Poland, Portugal, Russian Federation, Tunisia and Turkey reduced their share of low performers in mathematics between 2003 and 2012. What do these countries have in common? Not very much: their respective shares of low performers in 2003 differed widely, as did their economic performance during the period. But therein lies the lesson: **all countries can improve their students' performance**, given the right policies and the will to implement them.

Germany has reduced its number of low performers in recent years, but major challenges are still ahead. The first step for policy makers is to **make tackling low performance a priority in the 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. Policy makers, teachers, parents and students themselves all have an important role to play. **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.

**To learn more, see...**

OECD (2016), *Low Performing Students: Why They Fall Behind and How to Help Them Succeed*, PISA, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264250246-en>