



Does attending a rural  
school make a difference in  
how and what you learn?

PISA

PISA in Focus #94



## Does attending a rural school make a difference in how and what you learn?

- On average across OECD countries, students in rural schools scored 31 points lower in science than students in urban schools, a gap that can be accounted for entirely by differences in students' and schools' socio-economic profile.
- Only 30% of students in rural schools expected to complete at least a university degree, compared to about half of students in city schools, on average across OECD countries. This gap persisted when comparing students of similar socio-economic status in rural and urban schools.
- On average, students in rural schools were offered fewer extracurricular activities at school than students in urban schools.

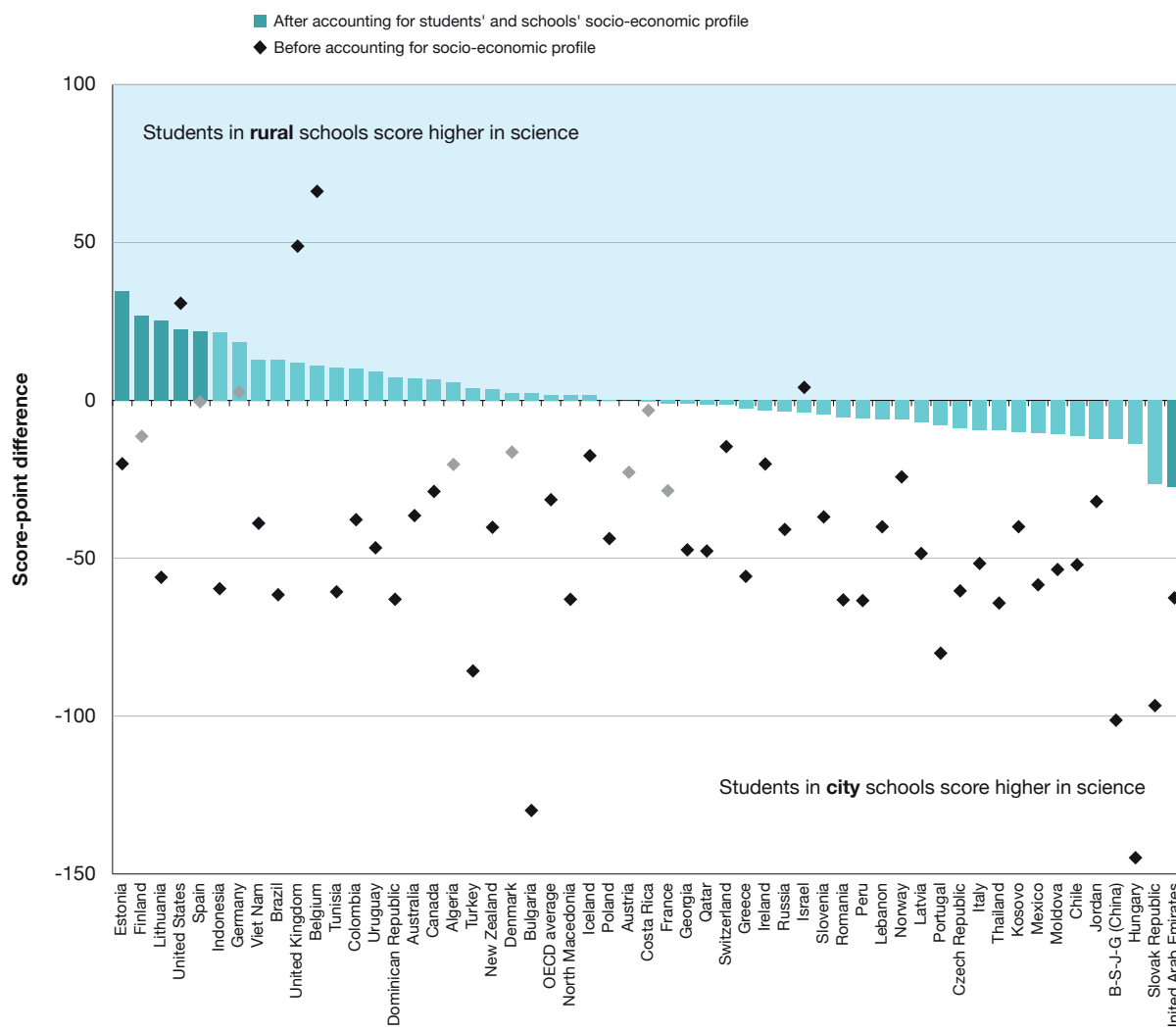
The rural education landscape once consisted of one-room schools where a single teacher educated, took care of and supervised students of diverse ages. While multi-grade teaching is still common in many schools, particularly in primary education, increased government spending, better transport networks and higher social expectations have given way, in many instances, to larger schools with several classrooms, teachers and grades, and a greater variety of learning opportunities. Have these changes attenuated the traditional rural-urban gap in academic performance? Are students in rural schools still less likely to go into higher education than students in urban schools? And what makes rural schools different from urban schools more generally? An analysis of data from PISA 2015, the OECD Teaching and Learning International Survey (TALIS) 2013 and the literature, carried out as part of the OECD School Resources Review project, set out to shed light on these issues.

PISA 2015 defined rural schools as those located in a village, hamlet or rural area with fewer than 3 000 people, and urban schools as those located in a city with over 100 000 people. Based on this classification, 15-year-old students in urban schools scored 31 points higher in science – roughly equivalent to one year of schooling – than students in rural schools, on average across OECD countries. This gap was largest in Bulgaria, Beijing-Shanghai-Jiangsu-Guangdong (China), Hungary, Portugal, the Slovak Republic and Turkey, while Belgium, the United Kingdom and the United States were the only countries where students enrolled in rural schools outperformed those in city schools.

Unsurprisingly, where a rural disadvantage in academic performance is observed, the main reason for it seems to be the lower socio-economic status of students attending rural schools. PISA 2015 data reveal that, on average across OECD countries, the rural-urban gap in science performance disappeared entirely after accounting for students' and schools' socio-economic profile. In several countries, including Estonia, Finland, Lithuania, Spain and the United States, students in rural schools outperformed students in city schools with a similar socio-economic profile.

The gap is more visible in students' education expectations. On average across OECD countries, only 30% of students in rural schools expected to complete at least a university degree, compared to about half of students in city schools. This gap was particularly large in Beijing-Shanghai-Jiangsu-Guangdong (China), Bulgaria, Hungary, Italy and Turkey. Even rural students in the United Kingdom and the United States, who outperformed their urban peers in test scores, were not more likely to expect to complete a university degree than their urban peers. The rural-urban gap in education expectations shrinks substantially after accounting for socio-economic status, on average across OECD countries. But, unlike for student performance, it does not disappear entirely, suggesting that other aspects of rurality, such as a lower academic performance, geographical distance, and a lack of career role models and of highly-skilled jobs in their home villages, may be playing a role. After all, even when they are prepared to undertake further studies, rural students often need to commute long distances or move to larger municipalities to pursue education that is not necessarily required to obtain a job back home.

## The rural-urban gap in science performance



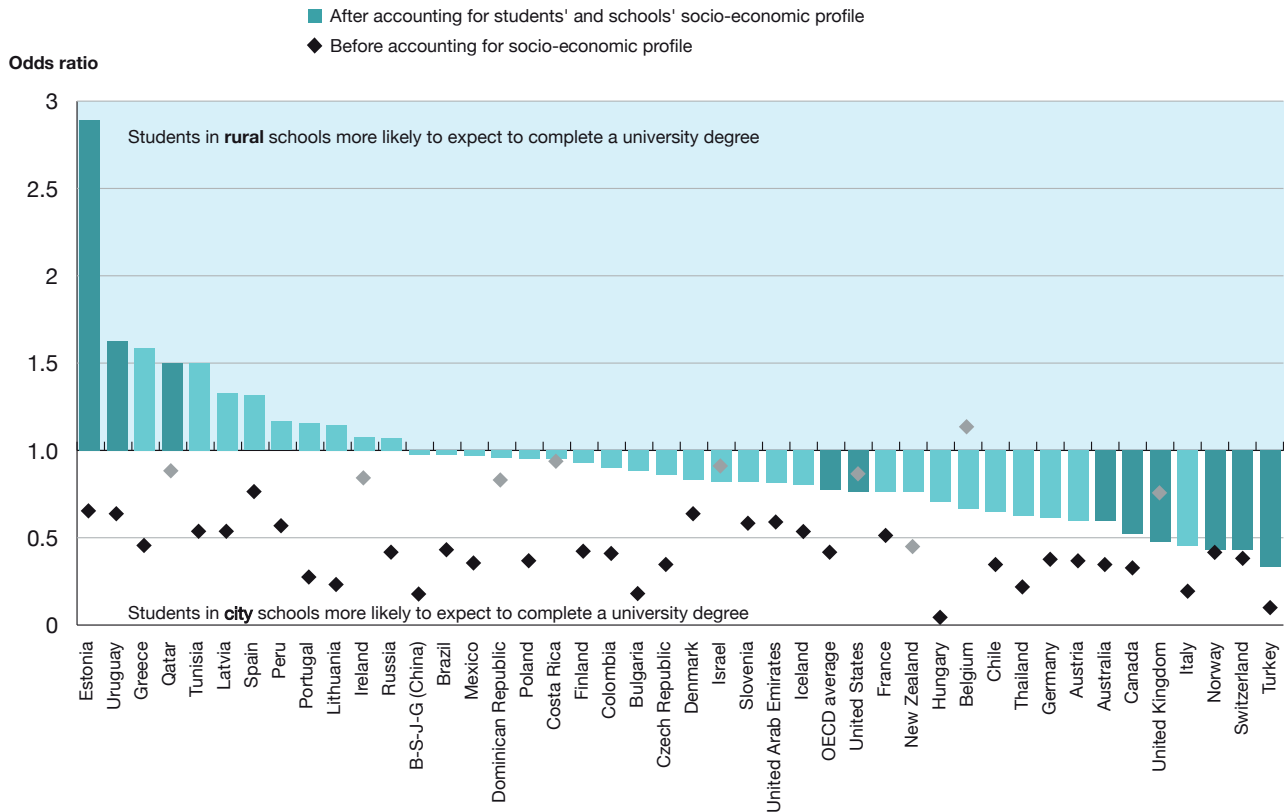
**Note:** B-S-J-G (China) refers to Beijing-Shanghai-Jiangsu-Guangdong (China).  
 Statistically significant differences are marked in a darker tone.  
**Source:** PISA 2015 database

## Learning in rural schools can be challenging and rewarding at the same time

Rural schools are often viewed negatively. Their geographic isolation, small size and socio-economic composition are believed to increase their chances of suffering from inadequate infrastructure, a lack of quality teachers, and limited education offerings, among other challenges. PISA 2015 results confirm that the material resources and education offerings can be somewhat limited in rural areas. In a number of countries, particularly in middle-income countries, urban schools were better equipped than rural schools, according to their principals. In addition, in rural areas school choice was more limited, students attended pre-school for shorter periods of time, and there were fewer extracurricular activities offered at school than in urban areas. For instance, only 38% of rural families across the OECD countries that distributed the parent questionnaire reported that at least one other school competes in the area with their current school, compared to 71% of urban families. Students in rural schools were also offered one extracurricular activity less at school – out of a list of ten activities related to arts, culture, science and sports – than students in urban schools.



## The rural-urban gap in expectations of further education



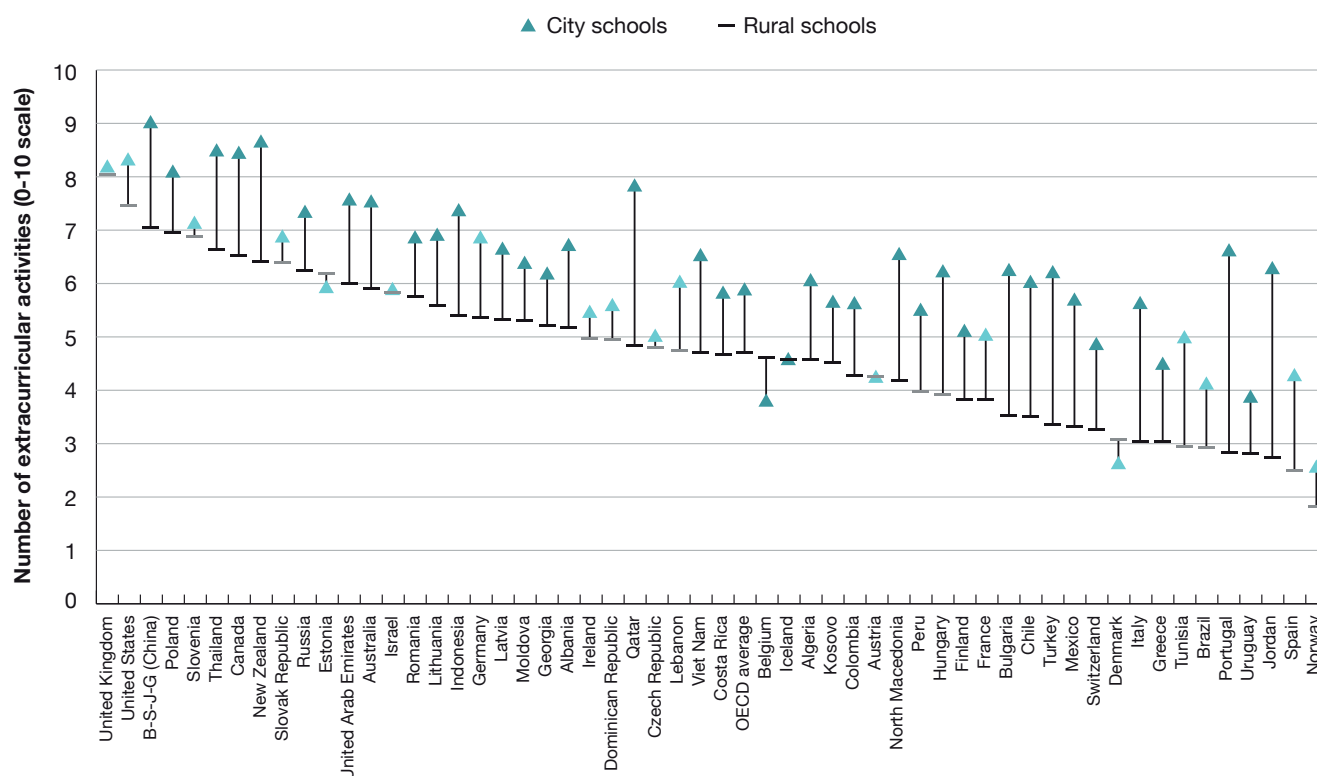
**Note:** B-S-J-G (China) refers to Beijing-Shanghai-Jiangsu-Guangdong (China).  
Statistically significant odds ratios are marked in a darker tone.  
**Source:** PISA 2015 Database.

However, other issues are far from universal. For instance, there were only a handful of countries and economies, among them Indonesia and the United Arab Emirates, where principals in rural schools were more concerned about the quantity and quality of the teaching staff than principals in urban schools. And some of the characteristics of rural education, such as their low student-teacher ratios, open real opportunities for rural students.

## Small can be beautiful

Even in secondary education, rural schools and classes are typically smaller than urban ones, and there are fewer students per teacher. For instance, on average across OECD countries, rural secondary schools had, compared to city schools, five fewer students in language-of-instruction classes and two fewer students per teacher. Limited enrolment may be challenging from a financial perspective and requires tailored pedagogical strategies, but it also creates opportunities for schools and families. For instance, students may receive more teacher support, and teachers may be more willing to use adaptive teaching methods, especially for disadvantaged and struggling students. PISA data reveal that science teachers with smaller classes were more likely to adapt their lessons to the needs and knowledge of their students, and provide academic support, than science teachers in schools with larger classes, according to students' reports. Students in smaller schools were also less likely to skip classes and entire school days than students in larger schools.

## Extracurricular activities offered at school, by school location



**Note:** B-S-J-G (China) refers to Beijing-Shanghai-Jiangsu-Guangdong (China).

Statistically significant differences are marked in a darker tone.

**Source:** PISA 2015 Database.

## The bottom line

Ensuring that all schools provide high-quality teaching and learning regardless of their geographical location can be challenging. In rural areas, geographical distance and small size pose difficulties for providing professional development opportunities for staff and a broad array of education offerings for students. At the same time, low student-teacher ratios open plenty of opportunities for rural schools to innovate. Innovative practices, such as staffing schools with teachers from the community, building professional learning networks across rural schools, or using new technologies for distance learning, combined with efforts to build local capacity and resources, provide promising avenues for closing rural-urban gaps in education.

## For more information

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**See:** Echazarra, A. and T. Radinger (2019), “Learning in rural schools: Insights from PISA, TALIS and the literature”, *OECD Education Working Papers*, No. 196, OECD Publishing, Paris.  
OECD (2018), *Responsive School Systems: Connecting Facilities, Sectors and Programmes for Student Success*, OECD Reviews of School Resources, OECD Publishing, Paris, <https://doi.org/10.1787/9789264306707-en>.

**Coming next month:** Do disadvantaged students benefit from attending more socially diverse schools?

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