

4 Exploring associations between schools and student performance

This chapter explores associations between the characteristics of schools in Türkiye and student performance. Specific characteristics that are explored include the socio-economic composition of school and the national types of upper secondary school that students attend, of which there are eight in the OECD Programme for International Student Assessment (PISA) sample. The chapter also explores how different types of upper secondary schools in Türkiye differ in terms of student gender, school location, school resources, provision of study help and extracurricular activities. The chapter also looks at the performance and composition of private schools in Türkiye.

This chapter explores associations between the characteristics of schools in Türkiye – such as the socio-economic composition, location and type of upper secondary school (high school) – and performance in the International Association for the Evaluation of Educational Achievement (IEA) Trends in International Mathematics and Science Study (TIMSS) and OECD PISA international assessments. It identifies if specific school-level factors are associated with lower-than-average performance.

Box 4.1. What the data tell us

- Schools in Türkiye are highly segregated by performance and students' socio-economic background in the TIMSS Grade 4 assessment.¹
- Differences in performance between schools decline by Grade 8 according to TIMSS data. This might be driven by school attendance having an equalising effect on learning outcomes in Türkiye.
- According to PISA data, there are very wide performance differences across different types of upper secondary schools. Top-performing Science High Schools score 190 points more than Multi-Programme High Schools at the bottom.
- Students from an advantaged background are more likely to attend the higher-performing upper secondary schools and students from a disadvantaged background are more likely to attend the lower-performing upper secondary schools.
- According to both the PISA and TIMSS data, the difference in performance between schools in cities and less-populated towns or rural areas is one of the highest across the OECD.
- Across both PISA and TIMSS, advantaged schools² have lower student-teacher ratios, report fewer shortages in school resources and provide more study help to their students.
- Private school attendance has expanded rapidly in recent decades. The PISA data show that while private schools have more socio-economically advantaged students from an advantaged background and more resources, students in private schools perform below those in public schools, on average.

Performance and socio-economic status across schools

TIMSS Grade 4

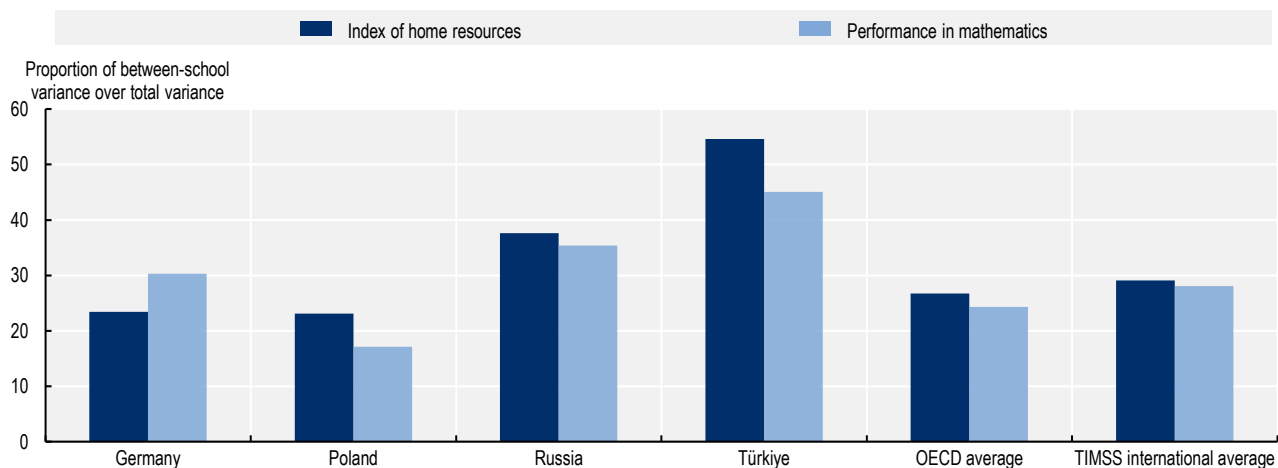
The data from TIMSS Grade 4³ suggest that in the first year of lower secondary, schools in Türkiye are segregated along socio-economic and performance lines. In Grade 4, almost half of the variation in students' mathematics and science performance occurs between schools (Figure 4.1). This is 21 percentage points above the OECD average and the highest among all TIMSS-participating countries – in only Pakistan, Saudi Arabia and the United Arab Emirates is the variation in performance between schools higher.

In Türkiye, there is also a high degree of variation in socio-economic status across schools (Figure 4.1). This is also well above the OECD average and is the highest among all participating countries except Bulgaria. This means that lower secondary schools in Türkiye frequently group together either lower-performing and disadvantaged children or higher-performing and advantaged children in separate schools.

Since private schooling is relatively low and there are no selection criteria to enter lower secondary schools in Türkiye, the high levels of variation in socio-economic background between different schools might reflect residential segregation in the general population, i.e. families and children from disadvantaged

backgrounds tend to live in the same neighbourhoods and go to the same schools, while those from advantaged backgrounds tend to live in different neighbourhoods and go to different schools.

Figure 4.1. Variation in mathematics performance and home resources between schools, Grade 4 TIMSS 2019



Source: IEA (2020^[1]), *TIMSS 2019 International Results in Mathematics and Science*, <https://timssandpirls.bc.edu/timss2019/international-results/> (accessed on 21 May 2021).

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It is important to note that overall variation in socio-economic status across the student body in Türkiye is high (see Chapter 3). However, heterogeneity in socio-economic background across students need not necessarily lead to socially segregated schools. Some countries with overall high levels of variation in students' socio-economic background manage to create more socially mixed primary schools, which leads to less variance in performance between schools such as in Hong Kong (China) and Hungary (Mullis et al., 2020^[2]). A greater understanding of residential segregation, school admission policies and educational and resourcing policies to compensate for disadvantage in those countries would help to understand the factors that influence these results.

TIMSS Grade 8

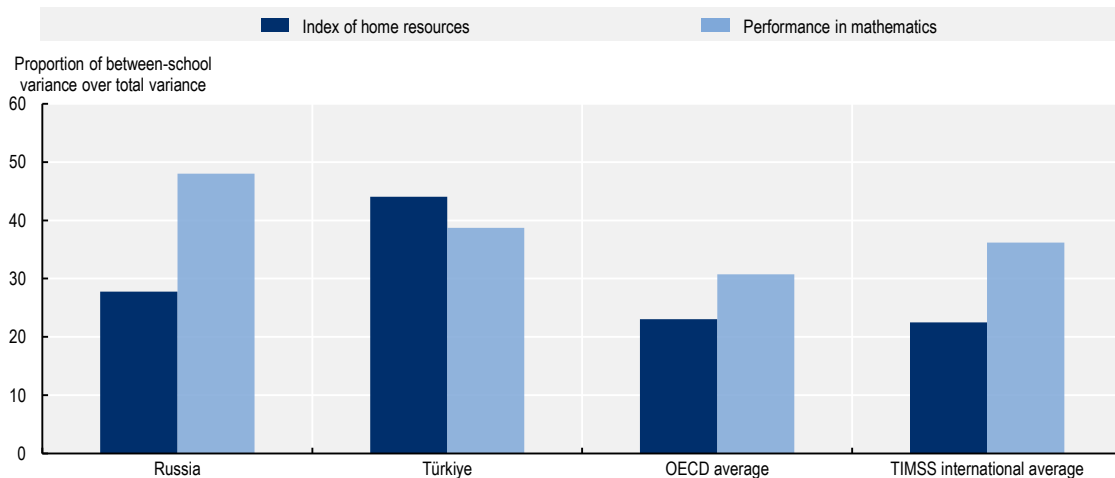
By Grade 8, the variance in performance between schools in Türkiye falls to broadly similar levels as the OECD average (Figure 4.2). One factor contributing to the fall in the performance variance between schools might be the narrowing of the performance gap between students with an advantaged and disadvantaged background (see Chapter 3). As discussed in Chapter 3, data from TIMSS suggest that the education system has an equalising effect on learning outcomes in Türkiye, which results in a fall in the performance gap between students with an advantaged and a disadvantaged background between Grades 4 and 8, and, at the school level, in a narrowing of the difference in performance between schools, even while variation in socio-economic status remains comparatively high.

In Grade 8, the variation in socio-economic background between schools remains far above the OECD average although it does fall slightly – the difference between Türkiye and the OECD average narrows by seven points compared with Grade 4 (Figure 4.2). The slight decline is difficult to explain since in the 2019 TIMSS assessment, students for both the Grade 4 (Grade 5 in Türkiye) and Grade 8 assessment are theoretically all in lower secondary schools and so the decline cannot be explained by changes in the

residential area that schools cover. However, it is possible that student movement across schools may contribute. The TIMSS scale for home resources was constructed differently in Grades 4 and 8 (see Box 3.1 in Chapter 3) which may also impact the results.

Another reason why the variation in performance and socio-economic status between schools in Türkiye falls to similar levels as the OECD average in Grade 8 is that the OECD average itself increases. While schools in Türkiye seem to become slightly less segregated on performance and socio-economic grounds between Grades 4 and 8, the reverse is true in many OECD countries.

Figure 4.2. Variation in mathematics performance and home resources between schools, Grade 8 TIMSS 2019



Source: IEA (2020^[1]), *TIMSS 2019 International Results in Mathematics and Science*, <https://timssandpirls.bc.edu/timss2019/international-results/> (accessed on 21 May 2021).

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PISA

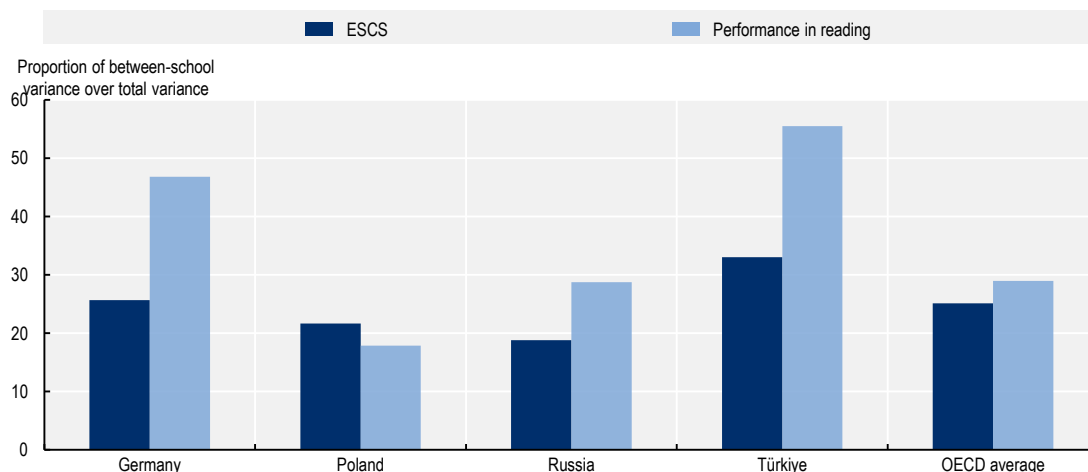
For 15-year-olds, the variation in performance between schools in Türkiye is among the highest across the OECD and is over 26 percentage points greater than the OECD average. It is likely that the selective school admission policies for upper secondary schools in Türkiye at least partially influence the large variance in performance between schools in PISA (Box 4.2). Other countries with selective admission school policies in upper secondary education or earlier, such as Austria, the Czech Republic, Germany, Hungary, the Netherlands and the Slovak Republic, also have similarly high levels of between-school performance variance.

In Türkiye, the high difference in performance between schools unsurprisingly leads to a very high isolation index for high-performing students (i.e. high-performing students are very frequently grouped together) – the highest across the OECD – and a high isolation index for low performing students (i.e. low performing students are very often grouped together) (Figure 4.4). Other countries with selective entrance systems based on ability, such as Germany, Hungary, the Netherlands and the Slovak Republic, also have high indices of isolation for low- and high-performing students.

The variation in socio-economic status between schools in Türkiye is higher than the OECD average and is the sixth-highest across OECD countries (Figure 4.3). This reflects that, to a large extent, students are segregated by socio-economic background across the different types of upper secondary schools (Suna, Tanberkan and Özer, 2020^[3]). However, in the most common upper secondary schools – Anatolian High

Schools and Vocational and Technical High Schools – the social segregation is less pronounced (Figure 4.3).

Figure 4.3. Variation in reading performance and ESCS between schools, PISA 2018

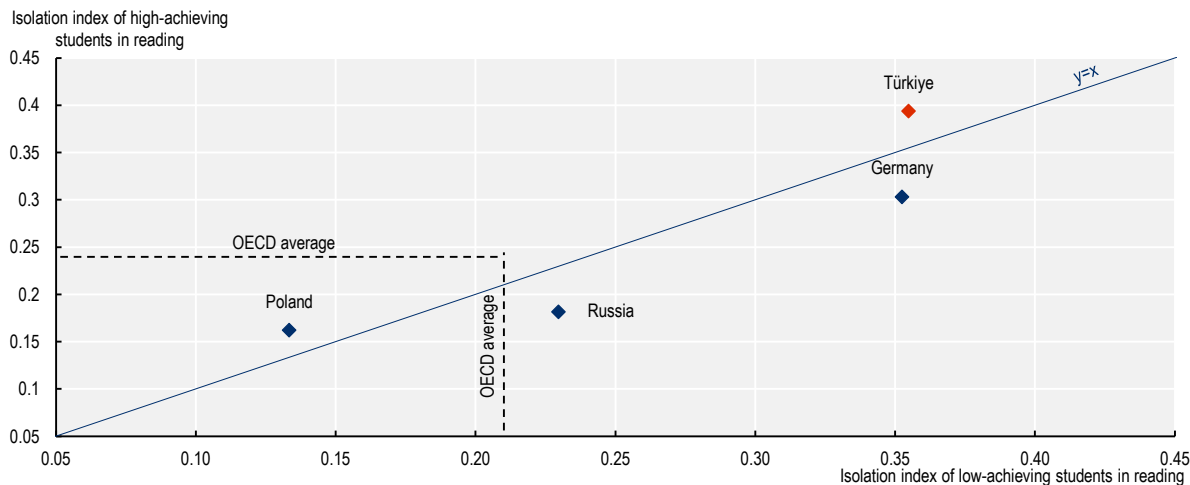


Note: ESCS stands for PISA index of economic, social and cultural status

Source: OECD (2021^[4]), "PISA: Programme for International Student Assessment", <https://dx.doi.org/10.1787/data-00365-en>.

StatLink  <https://stat.link/I01jat>

Figure 4.4. Isolation index of low- and high-achieving students in reading, PISA 2018



Note: The analysis is restricted to schools with the modal International Standard Classification of Education (ISCED) level for 15-year-old students. The isolation index measures whether students of type-A are more concentrated in some schools. The index is related to the likelihood of a representative type-A student to be enrolled in schools that enrol students of another type. It ranges from 0 to 1, with 0 corresponding to no segregation and 1 to full segregation (see (OECD, 2021^[4]) for a more complete description). Low-achieving students are students who scored amongst the bottom 25% of students within their country or economy on the PISA test. High-achieving students are students who scored amongst the top 25% of students within their country or economy on the PISA test.

Source: OECD (2021^[4]), "PISA: Programme for International Student Assessment", <https://dx.doi.org/10.1787/data-00365-en>.

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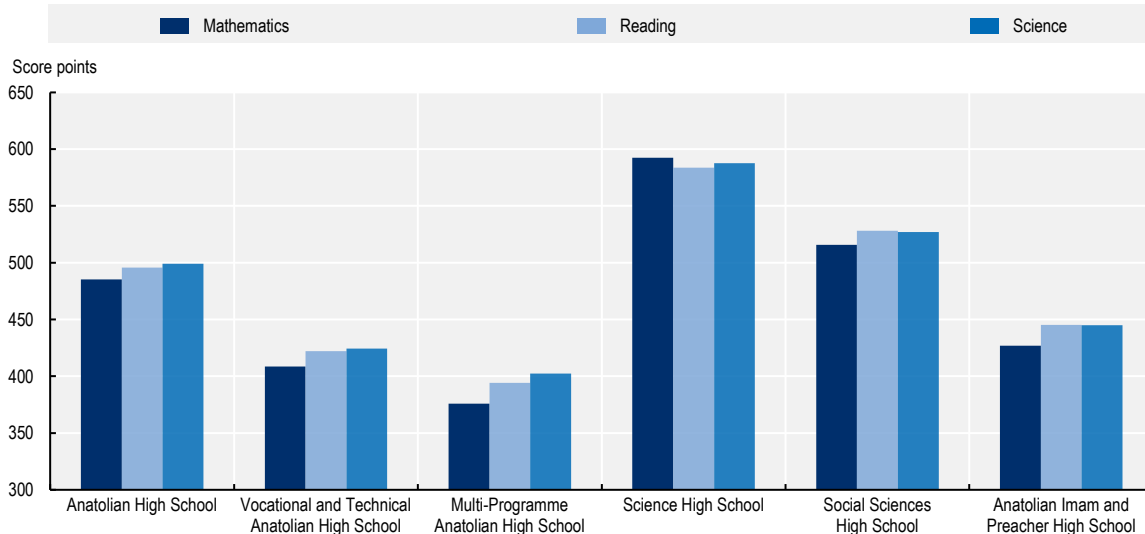
The 2018 changes in Türkiye to upper secondary school entry may help to create more balanced schools in terms of socio-economic status in the future – notably in the Anatolian High Schools and Vocational and Technical High Schools (Box 4.2). However, as the TIMSS data show, social and performance segregation in Türkiye occurs in lower secondary education in the absence of selective school policies. The latter may reflect residential segregation or other factors that are not observable in the international assessment data. In the country’s elite schools – the Science and Social Science High Schools – where social segregation is most marked, students will continue to be required to take competitive examinations for entry. The social composition of these schools might not be affected by the recent end to entrance examinations.

Analysis of upper secondary school type

Average performance across upper secondary schools

Average performance differs significantly across the different types of upper secondary schools in Türkiye (Figure 4.5). Between the top and bottom upper secondary school types, there is a 216 score point difference in average performance in mathematics. To help understand the magnitude of the difference in performance across schools one can compare the average performance in upper secondary schools to countries’ average performance. At the top, with an average performance of 592 in mathematics, the performance in Science High Schools is higher than all PISA-participating countries’ average performance. While at the bottom, with an average performance of 376 in mathematics, performance in Multi-Programme Anatolian High Schools would be among the lowest 10% of all PISA-participating countries, with a performance similar to that of Georgia, Indonesia and Panama (OECD, 2019^[5]).

Figure 4.5. Average performance by upper secondary school, PISA 2018



Source: OECD (2021^[4]), “PISA: Programme for International Student Assessment”, <https://dx.doi.org/10.1787/data-00365-en>.

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Box 4.2. Upper secondary education in Türkiye

In Türkiye, as well as following either vocational or academic pathways in upper secondary education, students also attend different types of upper secondary schools. Within the PISA sample, while there are eight types of upper secondary schools, the majority of students attend either an Anatolian High School or a Vocational and Technical Anatolian High School (Table 4.1).

Table 4.1. Share of students by upper secondary school type, PISA 2018

Pathway	Type of upper secondary school	Share of students (%)
General	Anatolian High School	46.0
	Science High School	4.0
	Social Sciences High School	1.4
	Anatolian Imam and Preacher High School	12.7
	Sport/Arts High School	0.5
	Lower Secondary School	0.5
General/vocational	Multi-Programme Anatolian High School	3.3
Vocational	Vocational and Technical Anatolian High School	31.5

Source: OECD (2021^[4]), "PISA: Programme for International Student Assessment", <https://dx.doi.org/10.1787/data-00365-en..>

Students are placed in one of the different upper secondary schools at the end of Grade 8, at 13.5 years of age (see Chapter 1). Until 2018, students were placed in upper secondary schools based on their preferences, their results in a centralised national examination – the Transition from Elementary School to Secondary School Examination (*Temel Eğitimden Ortaöğretime Geçiş Sistemi*, TEOG) and the results of their classroom assessments in lower secondary school. In 2018, the TEOG was abolished and entrance to most upper secondary schools based instead on a combination of student choice, catchment areas and overall achievement in lower secondary. Students can still opt to take a national examination for entry to the most sought-after upper secondary school places – including the Science and Social Sciences High Schools (Kitchen et al., 2019^[6]). This chapter presents data from PISA 2018, when the students taking the assessment would have entered upper secondary school under the previous TEOG system.

Source: Kitchen, H. et al. (2019^[6]), *OECD Reviews of Evaluation and Assessment in Education: Student Assessment in Türkiye*, <https://dx.doi.org/10.1787/5edc0abe-en>; OECD (2021^[4]), "PISA: Programme for International Student Assessment", <https://dx.doi.org/10.1787/data-00365-en>.

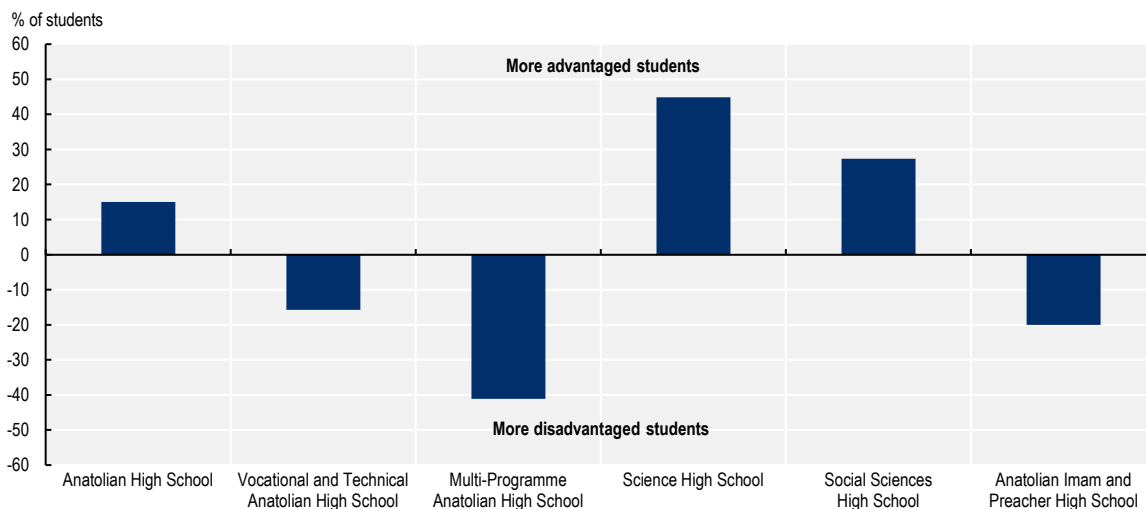
Upper secondary school attendance by students' socio-economic status

The between-school variation in socio-economic background in Türkiye is among the highest across the OECD. In systems that use selective school entrance policies based on ability, effectively selecting students is difficult because background and performance tend to be correlated. In Türkiye, the high levels of variance in both performance and socio-economic background between schools suggests that school selection policies are not always effectively selecting students based on performance alone. Students from an advantaged background are over-represented in all the higher-performing types of upper secondary schools – Anatolian High Schools, Science and Social Sciences High Schools – while, conversely, students with a disadvantaged background are over-represented in all of the lower-performing schools –

Vocational and Technical Anatolian High Schools, Multi-Programme Anatolian High Schools and the Anatolian Imam and Preacher High Schools (Figure 4.6).

After accounting for students' socio-economic background, the general distribution of performance across Türkiye's upper secondary schools remains, i.e. the same schools remain at the top, the middle and the bottom (Figure 4.7). It is notable that in some of the schools that enrol the greatest share of students – Anatolian High Schools and the Anatolian Imam and Preacher High Schools – the average score is impacted only slightly by socio-economic background, suggesting that students of all backgrounds have a fair chance of entering such schools. However, in the highest- (Science High Schools) and lowest-performing (Multi-Programme High Schools) upper secondary schools – where there are the greatest differences by socio-economic status in terms of student enrolment – student background accounts for a far greater share of students' results. This suggests that entrance to these school types may not be shaped by students' performance alone.

Figure 4.6. Share of students with an advantaged and a disadvantaged background by upper secondary school type, PISA 2018

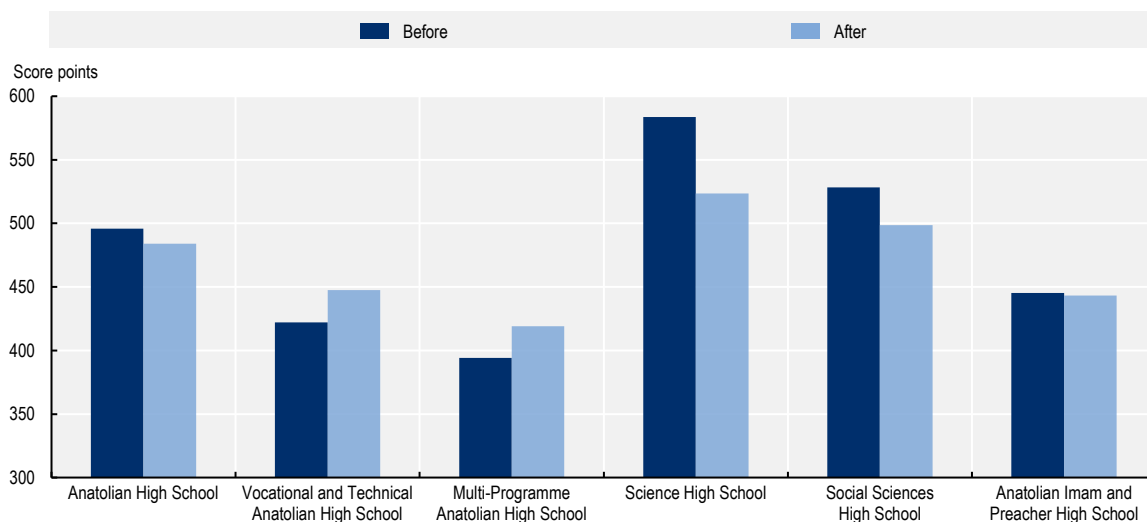


Source: OECD (2021^[4]), "PISA: Programme for International Student Assessment", <https://dx.doi.org/10.1787/data-00365-en>.

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Figure 4.7. Students' performance by school type, PISA 2018

Before and after accounting for student and school socio-economic background



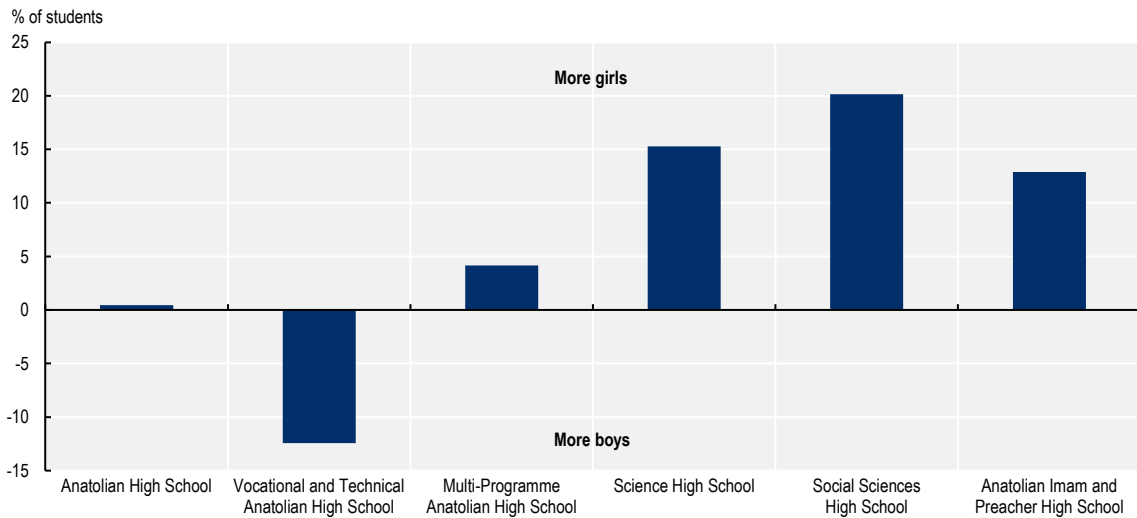
Source: OECD (2021^[4]), "PISA: Programme for International Student Assessment", <https://dx.doi.org/10.1787/data-00365-en>.

StatLink  <https://stat.link/wzlief>


Upper secondary school attendance by students' gender

As is the case across OECD countries on average, boys in Türkiye are more likely to attend vocational schools— the Vocational and Technical Anatolian Schools in Türkiye – which also tend to be lower-performing (Figure 4.8). Girls in Türkiye are over-represented in the highest performing upper secondary schools: Science and Social Sciences High Schools. This partly reflects the fact that girls outperform boys in mathematics and science in Grade 8 (the year when selective school entrance examinations are taken, see Chapter 3).

Figure 4.8. Upper secondary school attendance by gender, PISA 2018



Source: OECD (2021^[4]), "PISA: Programme for International Student Assessment", <https://dx.doi.org/10.1787/data-00365-en>.

StatLink  <https://stat.link/whkfc>

School location

In Türkiye, students of all ages tend to attend schools in urban areas more than students in other countries and less than 1% of students attend schools in remote or rural areas (Table 4.2). Internationally, there is a positive association between schools being located in urban areas and performance. In Türkiye, this association is particularly strong at all levels of schooling. While students living in urban areas (cities in PISA and urban, sub-urban and medium-sized cities in TIMSS) perform at similar levels to the OECD average across PISA- and TIMSS-participating countries, both assessments show that students living in smaller areas (i.e. towns and rural or remote areas) perform significantly below their more urban peers (Figure 4.16).

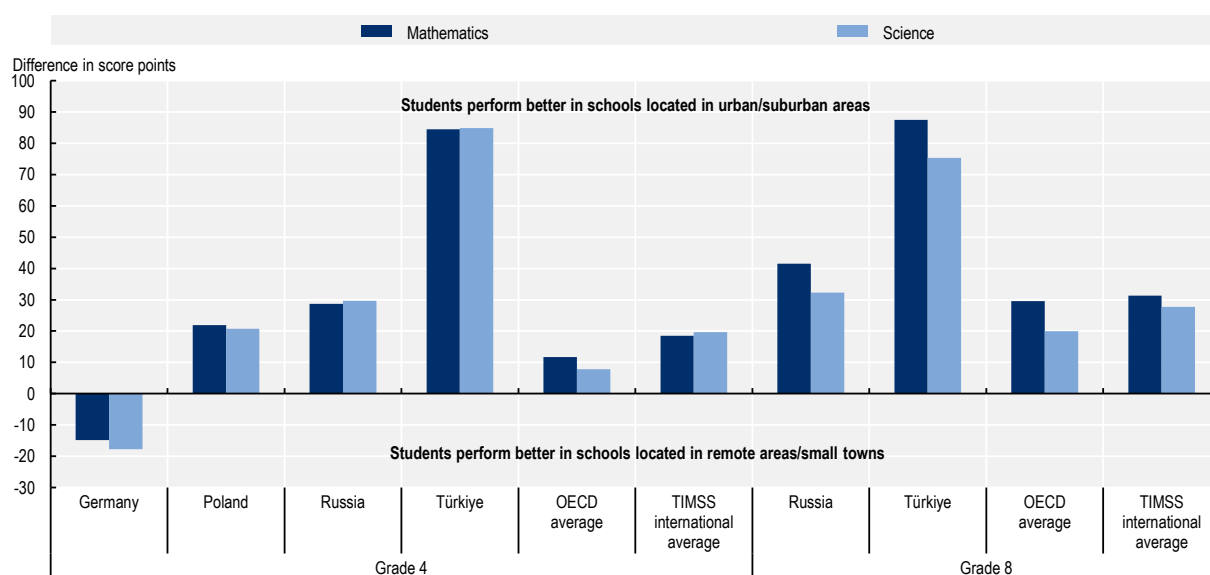
Table 4.2. Share of students by school location in Türkiye, TIMSS 2019 and PISA 2018

			Share of students (%)	
PISA	City	Over 100 000 people	67.1	
	Town	3 000 to 100 000 people	31.9	
	Rural	Fewer than 3 000 people	1	
			Grade 4	Grade 8
TIMSS	Urban	Densely populated	44	46
	Sub-urban	On fringe or outskirts of an urban area	8	8
	Medium-sized city	Medium-sized city or large town	28.9	28
	Small town	Small town or village	19	16
	Remote rural		0	1

Source: IEA (2020^[1]), *TIMSS 2019 International Results in Mathematics and Science*, <https://timssandpirls.bc.edu/timss2019/international-results/> (accessed on 21 May 2021); OECD (2021^[4]), "PISA: Programme for International Student Assessment", <https://dx.doi.org/10.1787/data-00365-en>.

Figure 4.9. Performance by school's location, TIMSS 2019

Difference in performance between urban/suburban areas and remote areas/small towns in Grades 4 and 8



Source: IEA (2020^[1]), *TIMSS 2019 International Results in Mathematics and Science*, <https://timssandpirls.bc.edu/timss2019/international-results/> (accessed on 21 May 2021).

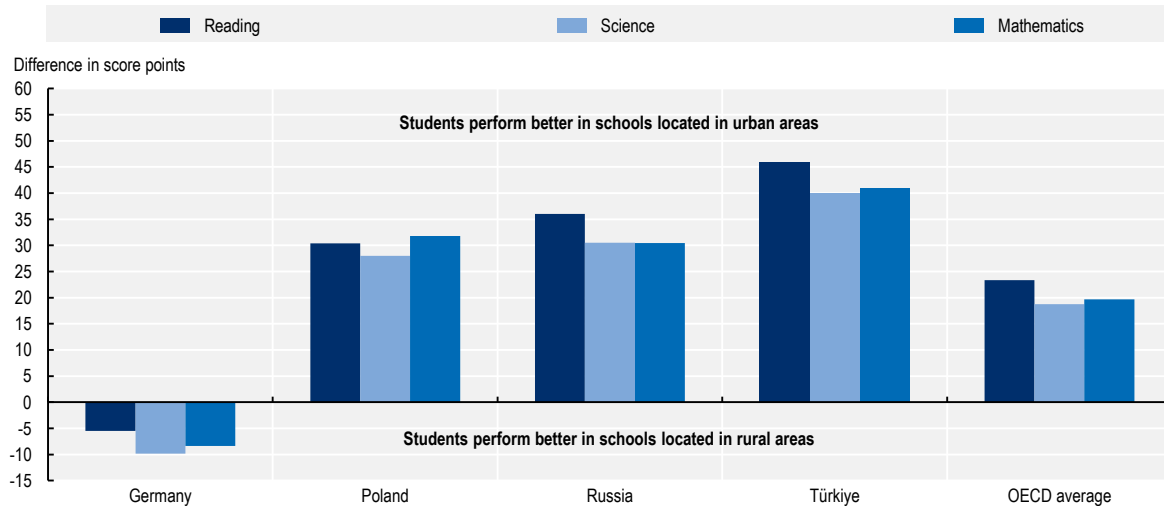
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According to the PISA data, most types of upper secondary schools are located slightly more in cities (Figure 4.17). There are two exceptions, however: Anatolian High Schools – which are significantly more frequently located in cities – and Multi-Programme High Schools – of which over 90% are located in towns or rural areas. The latter reflects a government policy to develop multi-programme schools in lower population areas. These Multi-Programme High Schools group together different programmes, vocational and technical schools and other institutions through single administration with the aim of improving

effectiveness and use of resources (OECD, 2007^[7]). While these schools may have been developed to serve populations living in more remote areas, they are likely not a very attractive option for many students, given the very low learning outcomes compared with other upper secondary schools in Türkiye (Figure 4.11).

Figure 4.10. Performance by school's location, PISA 2018

Difference in performance between urban areas and rural areas/small towns



Source: OECD (2021^[4]), "PISA: Programme for International Student Assessment", <https://dx.doi.org/10.1787/data-00365-en>.


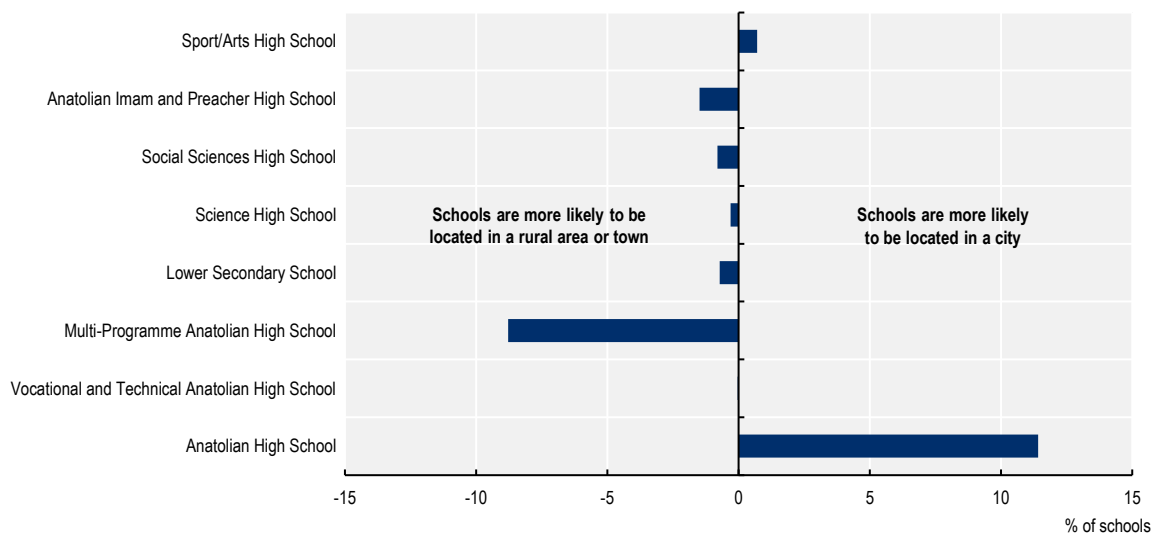
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Figure 4.11. Upper secondary schools by location, PISA 2018



Source: OECD (2021^[4]), "PISA: Programme for International Student Assessment", <https://dx.doi.org/10.1787/data-00365-en>.

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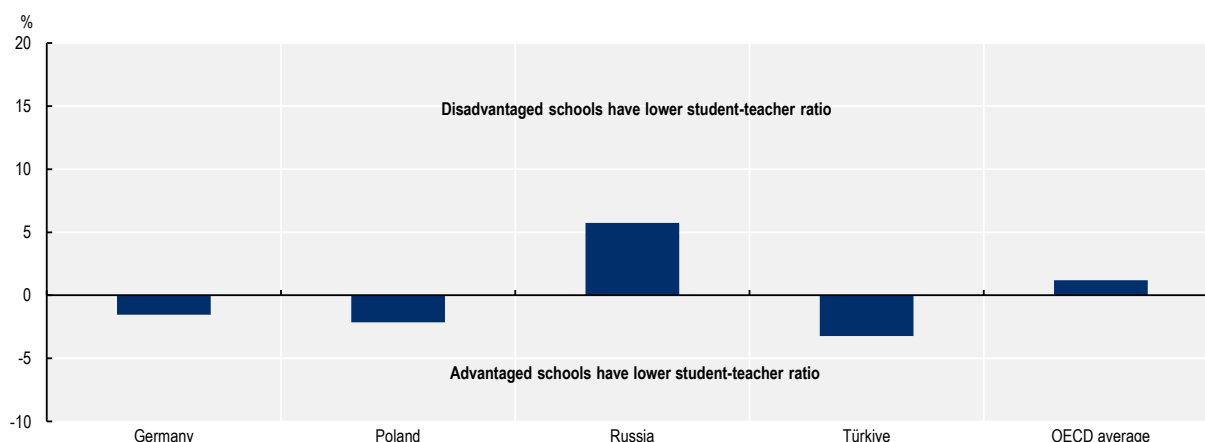
Resources and support at school

This section discusses the resources and support that schools have through a range of indicators on student-teacher ratios, school resources and study help.

Student-teacher ratios

In Türkiye, student-teacher ratios (13.5) are close to the OECD average (13.3). Disadvantaged schools in Türkiye have significantly more students per teacher, compared with more advantaged schools (Figure 4.12). Across OECD member countries, only Colombia has more students per teacher in disadvantaged schools. In contrast, on average across OECD countries, student-teacher ratios are lower in disadvantaged schools. This may reflect a specific policy to have lower student-teacher ratios in disadvantaged schools to provide students in these schools with additional support to rebalance inequities.

Figure 4.12. Difference in student-teacher ratio between advantaged and disadvantaged schools, PISA 2018



Source: OECD (2021^[4]), "PISA: Programme for International Student Assessment", <https://dx.doi.org/10.1787/data-00365-en>.

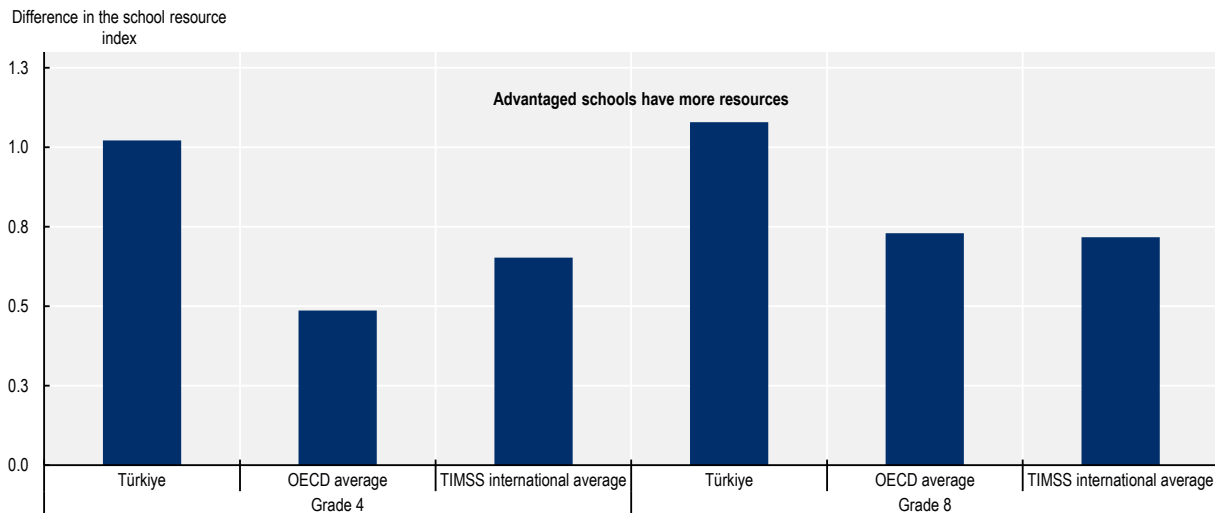
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School resources

Disadvantaged schools in Türkiye tend to report greater shortages in school resources than more advantaged schools. According to the TIMSS data, many children attend lower secondary schools where their instruction is affected by a shortage of resources. In the TIMSS assessment, resource shortage refers to both shortages in general school resources, such as school buildings, infrastructure and digital resources, and shortages in resources for either mathematics (or science) instruction, such as teachers with a specialisation in mathematics and computer software (Mullis et al., 2020^[2]). In Türkiye in Grade 4, 95% of children are in schools where their instruction in mathematics and science is affected by resource shortages and 92% in Grade 8 (Mullis et al., 2020^[2]).⁴ Schools that report greater resource shortages score lower on average in mathematics and science, and more disadvantaged schools are more likely to report resource shortages than more advantaged schools (Figure 4.13).

Figure 4.13. Difference in the shortage of educational resources between advantaged and disadvantaged schools, TIMSS 2019

Difference in instruction affected by shortage of educational resources between advantaged and disadvantaged schools



Note: The lower the index the higher is the shortage of resources. The scales for Grades 4 and 8 differ.

Source: IEA (2020^[1]), *TIMSS 2019 International Results in Mathematics and Science*, <https://timssandpirls.bc.edu/timss2019/international-results/> (accessed on 21 May 2021).

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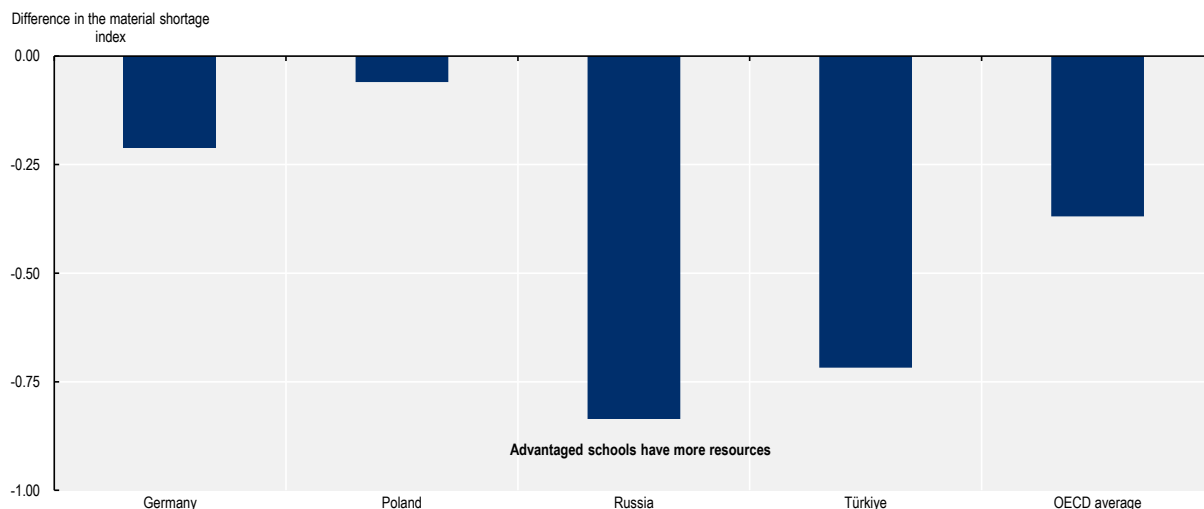
According to the PISA data, on average, schools in Türkiye do not report that a shortage of resources affects instruction. In PISA, resource shortages refer to: a shortage in education materials (i.e. information and communication technology [ICT] equipment, library or laboratory material); inadequate or poor-quality educational materials; a lack of physical infrastructure (i.e. building, grounds, heating/cooling systems, lighting and acoustic systems); or inadequate or poor-quality physical infrastructure (OECD, 2020^[8]). However, in schools in Türkiye where there is a shortage in educational resources or resources of poor quality, students score lower in reading, even after accounting for school and student background. Disadvantaged schools are also more likely to report resource shortages than advantaged schools, while this is also the case across the OECD on average, resource shortages in disadvantaged schools in Türkiye are more pronounced (Figure 4.14). Schools in towns are also more likely to report resource shortages compared with those in cities.

Study help

PISA 2018 collected data about the availability of study help that schools make available to students for their homework. In Türkiye, on average, advantaged schools report making more rooms available for students to use for study and more staff available to help students with their homework. While this reflects a similar trend on average across OECD countries, the difference in the availability of such study help in favour of advantaged schools in Türkiye is the highest across the OECD (Figure 4.15). In contrast, in a number of countries, the reverse is true, with more study help being made available for disadvantaged schools.

Figure 4.14. Difference in material shortage between advantaged and disadvantaged schools, PISA 2018

Difference in the average index of principals' views on material shortage, between advantaged and disadvantaged schools



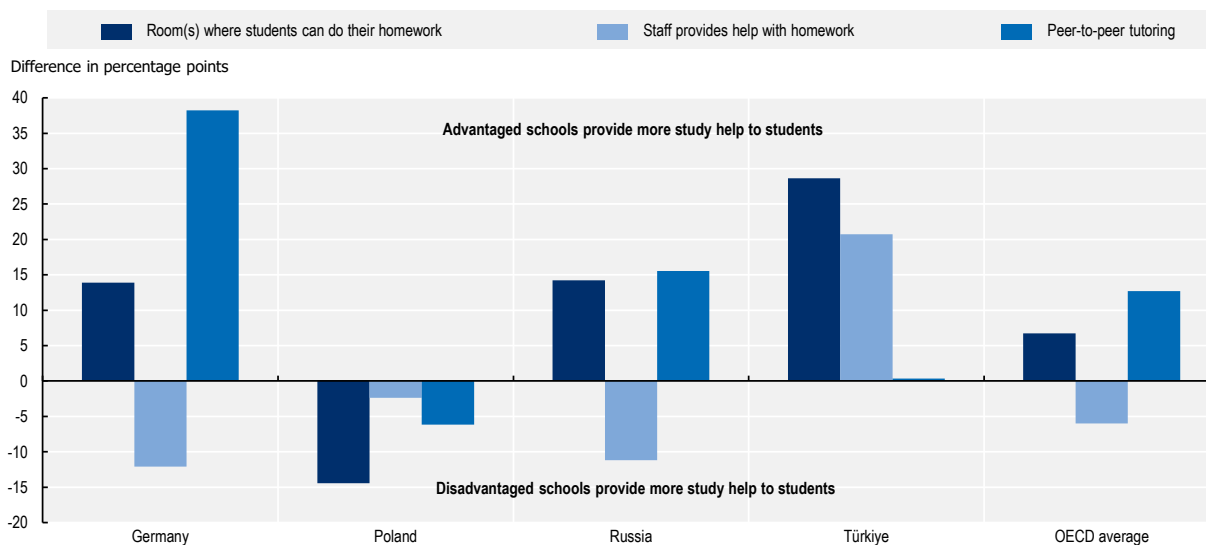
Note: Disadvantaged schools experience material shortage more than advantaged schools.

Source: OECD (2021_[4]), "PISA: Programme for International Student Assessment", <https://dx.doi.org/10.1787/data-00365-en>.

StatLink <https://stat.link/ywxrdp>

Figure 4.15. Schools providing study help by the school's socio-economic status, PISA 2018

Difference in the percentage of students whose principal reported that the school offers study help between advantaged and disadvantaged schools



Source: OECD (2021_[4]), "PISA: Programme for International Student Assessment", <https://dx.doi.org/10.1787/data-00365-en>.

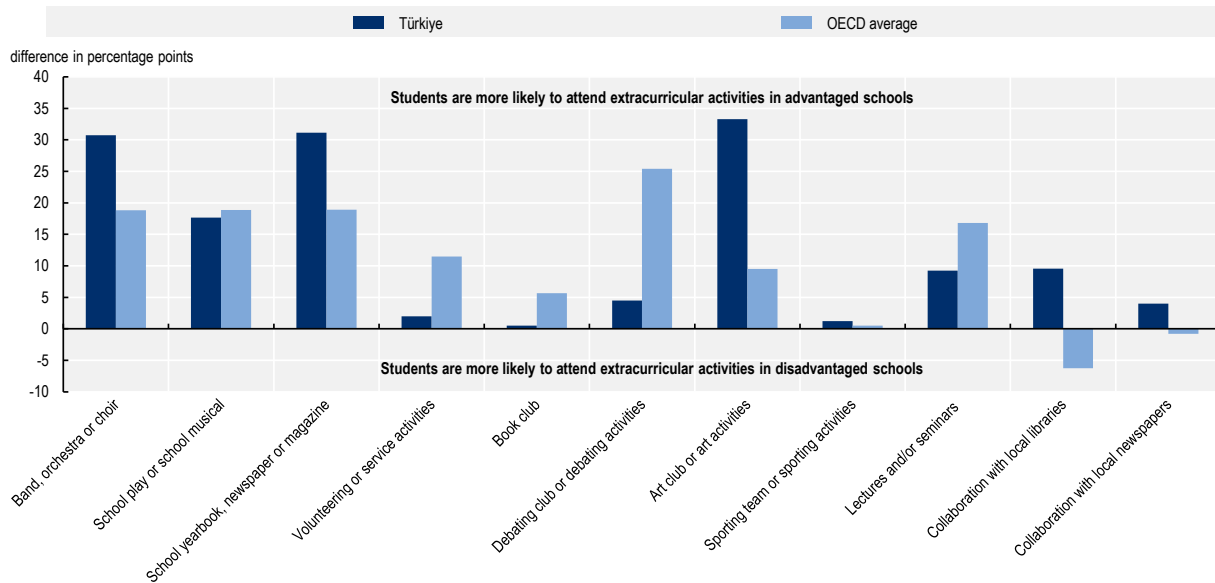
StatLink <https://stat.link/7i4xc5>

Extracurricular activities

Schools in Türkiye provide a comparatively high level of extracurricular activities, compared with the OECD average. Similar to the situation on average across OECD countries, advantaged schools in Türkiye tend to offer more extracurricular activities than disadvantaged schools (Figure 4.16).

Figure 4.16. Extracurricular activities by socio-economic status, PISA 2018

Difference in the percentage of students whose principal reported that the school offers the following activities to students between advantaged and disadvantaged schools



Source: OECD (2021^[4]), "PISA: Programme for International Student Assessment", <https://dx.doi.org/10.1787/data-00365-en>.

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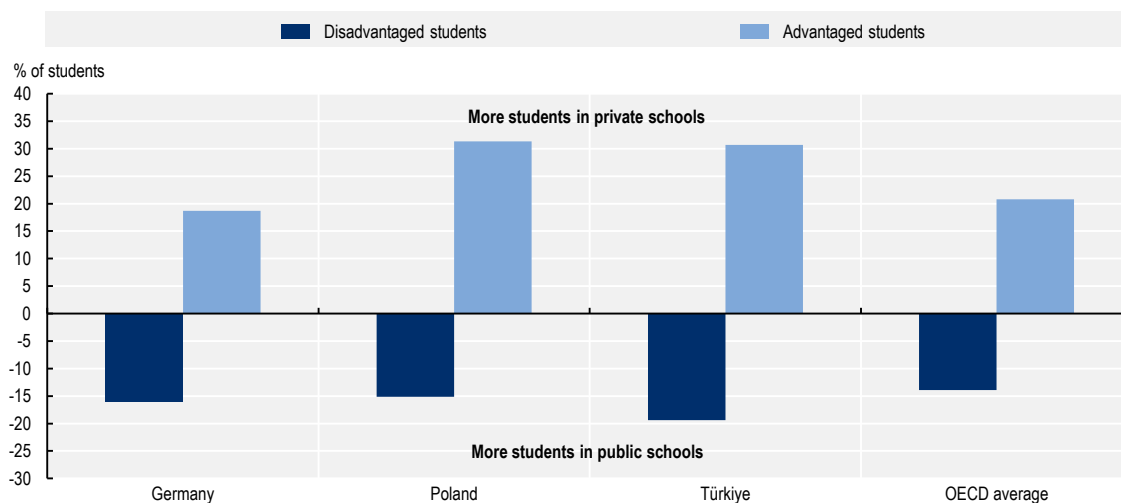
Private schools

In 2018, 12.1% of students in Türkiye attended private schools, slightly lower than the average across the OECD (17.6%). This is a major increase since 2006 when just 0.5% of students attended private schools according to PISA data (OECD, 2008^[9]). Since there has been a significant rise in the share of students attending private schools, this section explores their characteristics and the students that attend them.

Like private schools in other countries, private schools in Türkiye tend to have a relatively advantaged position compared with public schools. Private school students have a higher socio-economic background on average compared with students who attend public schools (Figure 4.17). Private schools also report fewer resource shortages and much lower student-teacher ratios (7.6 compared with 13.1 in public schools) (OECD, 2019^[10]).

Despite these advantages, private schools performed slightly lower on average (-8 points in reading) than public schools in 2018 in Türkiye. With an average score of 459, private schools in Türkiye perform below the three highest performing upper secondary school types in Türkiye – Science, Social Sciences and Anatolian Science High Schools. This may reflect the strong tradition and prestige of the top-performing public schools in Türkiye, which attract top-performing students.

Figure 4.17. Difference in the share of students with an advantaged and a disadvantaged background by private and public schools, PISA 2018



Source: OECD (2021^[4]), "PISA: Programme for International Student Assessment", <https://dx.doi.org/10.1787/data-00365-en>.

StatLink  <https://stat.link/n80rft>

Conclusions

This chapter has shown that there are wide variations in average student performance and socio-economic status between different schools in Türkiye. These variations persist throughout all levels of schooling, although there is a decline between Grades 4 and 8, with an increase in performance differences at 15 years of age. While the increase in performance variation across schools at 15 may be linked to selective school entrance policies in upper secondary education, the high degree of variation between schools before upper secondary education suggests that other factors – such as residential segregation and other school admission policies – may also be influencing the differences in performance and socio-economic status between schools. The distribution of resources across schools in Türkiye at present does not seem to counterbalance these differences between schools. In some OECD countries, resource distribution policies aim to compensate for disadvantage, which is a policy Türkiye may consider exploring.

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Notes

¹ In this report, the terminology of “TIMSS Grade 4” is used throughout since this is the official name of the assessment. However, the data refer to Grade 5 students in lower secondary education in Türkiye.

² Advantaged and disadvantaged schools are defined in terms of the socio-economic profile of schools. All schools in each PISA-participating education system are ranked according to their average PISA index of economic, social and cultural status (ESCS) and then divided into four groups with approximately an equal number of students (quarters). Schools in the bottom quarter are referred to as “socio-economically disadvantaged schools” and schools in the top quarter are referred to as “socio-economically advantaged schools”. TIMSS characterises schools in terms of socio-economic composition based on principals’ reports of the percentages of economically disadvantaged and economically affluent students in the school. “More affluent” schools are defined as having more than 25% of students from economically affluent homes and not more than 25% from economically disadvantaged homes, while “more disadvantaged” schools have more than 25% of students from disadvantaged homes and not more than 25% from affluent homes. In this report, the same terminology as PISA was adopted for TIMSS for consistency, so more affluent and more disadvantaged schools are referred as advantaged and disadvantaged schools.

³ In this report, the terminology of “TIMSS Grade 4” is used throughout since this is the official name of the assessment. However, the data refer to Grade 5 students in lower secondary education in Türkiye.

⁴ The four categories used for the questions on school resource shortages were merged into two with “some” and “a lot” combined together to provide continuity with the PISA variables.



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