



## 7

# Students' sense of belonging at school and their relations with teachers

When students feel that they are a part of a school community, they are more likely to perform better academically and are more motivated to learn. This chapter examines differences between countries in the strength of students' sense of belonging at school, and how a sense of belonging is associated with students' gender, socio-economic status and immigrant background. The chapter also explores how the climate at school and students' relations with their teachers can affect students' feelings of being a valued member of the school community.



A sense of belonging is defined as feeling accepted and liked by the rest of the group, feeling connected to others and feeling like a member of a community (Baumeister and Leary, 1995; Maslow, 1943). Human beings in general, and teenagers in particular, desire strong social ties and value acceptance, care and support from others. In school, a sense of belonging gives students feelings of security, identity and community, which, in turn, support academic, psychological and social development (Jethwani-Keyser, 2008).

### What the data tell us

- The majority of students in 67 countries and economies feel that they belong to the school community. However, in several countries students' sense of belonging at school has weakened since 2003.
- On average across countries, disadvantaged students were 7.7 percentage points less likely than advantaged students to report that they feel that they belong at school. First-generation immigrant students were 4.6 percentage points less likely than students without an immigrant background to feel a sense of belonging at school.
- On average across OECD countries, students who reported that they feel like an outsider at school score 22 points lower in science than students who did not report so. Students in OECD countries who reported that they feel like outsiders at school were three times more likely to report that they are not satisfied with their life than those who do not feel like outsiders at school.
- Some 20% of students reported that they experienced some form of unfair treatment by their teachers (they were harshly disciplined, or felt offended or ridiculed in front of others) at least a few times in a given month. Students who reported that their teachers treat them fairly and support them in their learning, and can work in disciplined classrooms, have a stronger sense of belonging at school.

Adolescents who feel that they are part of a school community are more likely to perform better academically and be more motivated in school (Battistich et al., 1997; Goodenow, 1993). When children and adolescents feel a connection with school, they are less likely to engage in risky and antisocial behaviour (Catalano et al., 2004; Hawkins and Weis, 1985). Students with strong and rewarding social ties at school are less likely to drop out of school and never return (Lee and Burkam, 2003), or to engage in substance abuse and truancy (Schulenberg et al., 1994). Furthermore, researchers find that an absence of a feeling of connectedness at school is an antecedent of depression among adolescents (Shochet et al., 2006).

### DIFFERENCES IN STUDENTS' SENSE OF BELONGING BETWEEN AND WITHIN COUNTRIES

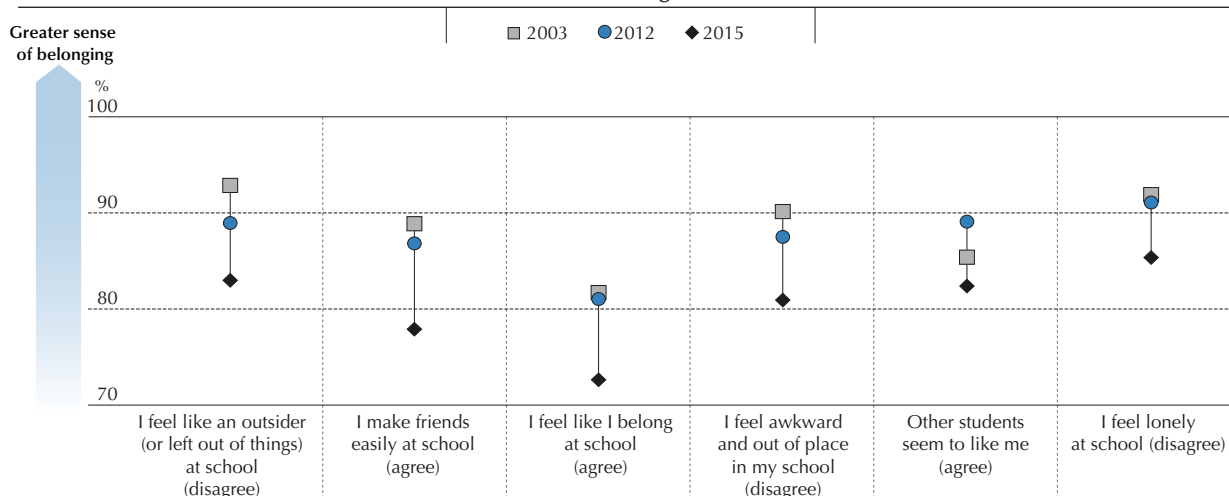
In PISA 2015 students were asked to report whether they feel like an outsider or left out of things, whether they make friends easily, they feel that they belong at school, they feel awkward and out of place at school, they feel that other students like them, or they feel lonely. Since the same questions were asked in previous PISA cycles, education systems can monitor changes in the quality of students' engagement with their school community. As school is the primary environment for social interactions among 15-year-olds, these subjective evaluations indicate whether education systems are able to foster students' well-being. Students' responses to these questions were used to construct the index of sense of belonging, which was standardised to have a mean of 0 and a standard deviation of 1 across OECD countries. Positive values on this scale mean that the student has a greater sense of belonging than the average student in OECD countries.

Figure III.7.1 shows the percentage of students who reported their agreement or disagreement with statements related to sense of belonging that were included in PISA 2003, 2012 and 2015. The second, third and fifth items were worded such that "agree" or "strongly agree" indicates a greater sense of belonging. The first, fourth and sixth items were worded such that "disagree" or "strongly disagree" indicates a greater sense of belonging. Higher points in the chart indicate a greater sense of belonging.

On average across OECD countries in 2015, 73% of students felt that they belong at school; 78% of students agreed or strongly agreed that they can make friends easily at school; 85% of students disagreed or strongly disagreed that they feel lonely at school; and 83% of students disagreed or strongly disagreed that they feel like an outsider or feel left out of things. Some 82% of students felt that other students like them, and 81% disagreed or strongly disagreed that they feel awkward and out of place at school. Most students thus reported that they feel socially connected at school. However, in some countries sizable minorities of students feel lonely or isolated (Table III.7.6). Students in the Dominican Republic, Macao (China) and Turkey reported the weakest sense of belonging at school.



Figure III.7.1 ■ **Change through 2003, 2012 and 2015 in students' sense of belonging at school**  
Percentage of students who reported "agree" or "strongly agree" or who reported "disagree" or "strongly disagree"  
(OECD average-30<sup>1</sup>)



1. OECD average-30 includes all OECD countries, with the exception of Chile, Estonia, Israel, Slovenia and the United States.

Note: All changes between 2003 and 2015, and 2012 and 2015 are statistically significant.

Source: OECD, PISA 2015 Database, Tables III.7.4 and III.7.5.

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Across OECD countries, students' sense of belonging deteriorated between 2012 and 2015, on average (Figure III.7.1). The proportion of students who disagreed or strongly disagreed that they feel like an outsider decreased, on average across countries, by around 6 percentage points over the period. This trend seems to be part of a gradual decline in students' feelings of connectedness at school over the past 12 years. In 2003, around 7% of students reported that they feel like an outsider; by 2012, that proportion had grown by 4 percentage points, and by 2015 it had grown by 10 percentage points. In none of the participating countries and economies did the percentage of students who reported that they feel like an outsider at school decrease significantly between 2003 and 2015.

Differences within countries are also very large. A substantial part of the variation within countries is explained by students' socio-economic status. In 65 countries and economies, advantaged students tend to feel more socially connected at school than disadvantaged students. The difference in sense of belonging related to socio-economic status is particularly large in Beijing-Shanghai-Jiangsu-Guangdong (China) (hereafter "B-S-J-G [China]"), Ciudad Autonoma de Buenos Aires (Argentina) (hereafter "CABA [Argentina]"), the Dominican Republic, the Former Yugoslav Republic of Macedonia (hereafter "FYROM"), Hungary, Jordan, Kazakhstan, Korea, Luxembourg, Peru, the United States and Uruguay (Table III.7.6).

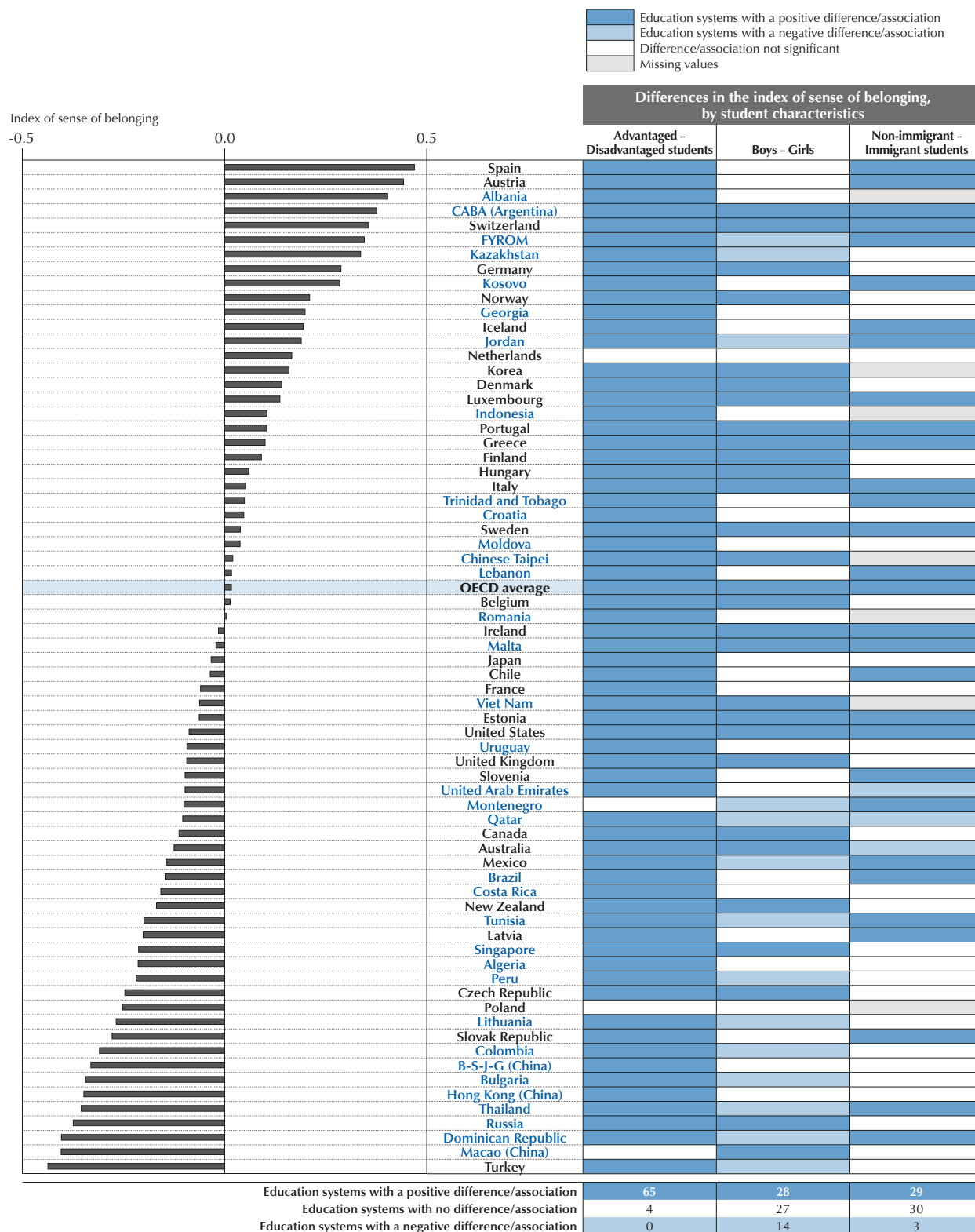
In 28 countries, boys were more likely than girls to report a greater sense of belonging at school. Differences in favour of boys are particularly noticeable (around one-fifth of a standard deviation) in Australia, Denmark, Finland, Ireland, Norway, the United Kingdom and the United States, while in Jordan, Qatar and Turkey, girls reported a much stronger sense of belonging than boys (over one-fifth of a standard deviation; Table III.7.6).

## SENSE OF BELONGING AND IMMIGRANT BACKGROUND

Growing populations of immigrant students pose new challenges to maintaining cohesion at school, as students need to learn how to interact with peers from different cultural backgrounds (OECD, 2015b). Results from PISA indicate that, on average across OECD countries, 12.5% of students in 2015 had an immigrant background compared to 9.4% of students in 2006 (OECD, 2016, Table I.7.1). Countries vary widely in the extent to which first-generation immigrant students (foreign-born students whose parents are also foreign-born) and second-generation immigrant students (those who were born in the country of assessment but whose parents are foreign-born) are more or less likely than students without an immigrant background to feel that they belong at school. On average, and in 29 countries and economies, students without an immigrant background reported a stronger sense of belonging than immigrant students, even after accounting for socio-economic status (Figure III.7.2 and Table III.7.6). The opposite pattern is observed in Australia, Qatar and the United Arab Emirates, where both first- and second-generation immigrant students reported a greater sense of belonging at school than non-immigrant students.

Figure III.7.2 ■ Index of sense of belonging, by student characteristics

Results based on students' self-reports



Countries and economies are ranked in descending order of the index of sense of belonging.

Source: OECD, PISA 2015 Database, Table III.7.6.

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In Brazil, FYROM, Iceland, Latvia, Luxembourg, Norway, Spain, Sweden and Switzerland, first-generation immigrant students reported the greatest sense of alienation from schools compared to students without an immigrant background. Second-generation immigrant students expressed a stronger sense of belonging at school than first-generation immigrant students, particularly in Austria, Chile, FYROM, Jordan, Norway, Spain, Sweden and Switzerland (with a difference of over a third of a standard deviation) (Table III.7.6).

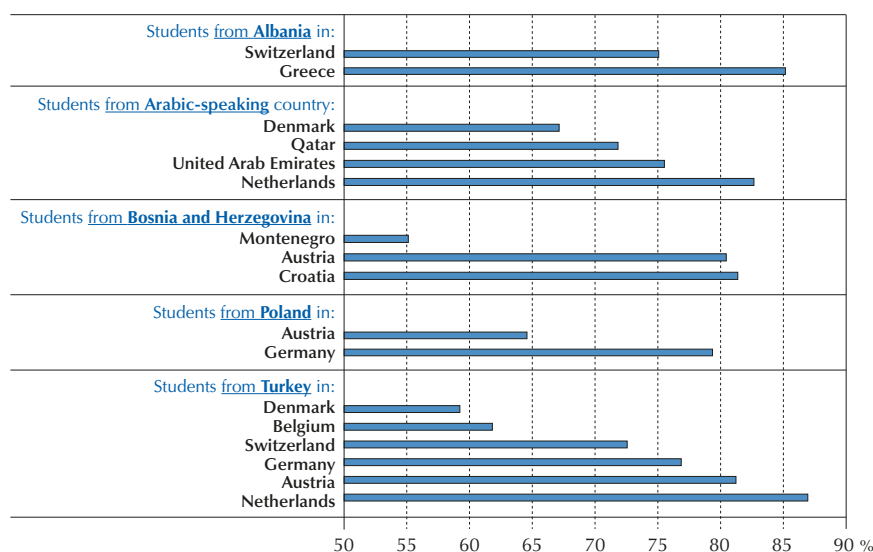
### Box III.7.1 Integrating immigrant students at school

Children of immigrants often have to overcome many barriers in order to succeed at school. For some, the lack of familiarity with the language of instruction and precarious living conditions can turn the first years spent in their new country into a particularly stressful experience (OECD, 2015b). School plays a key role in assimilating immigrant adolescents because it is often the first social and cultural institution that children of immigrants have contact with (Chiu et al., 2012). Many students attend schools where there are deep divisions between immigrants and native-born students, or between newcomers and more acculturated immigrants. Teachers in these schools are often not sufficiently trained to address these divisions (OECD, 2010; Suárez-Orozco and Suárez-Orozco, 2013).

In PISA 2015 foreign-born students tended to report a weaker sense of belonging than non-immigrant students, on average, but this difference varies greatly across countries and economies (Table III.7.3). Figure III.7.3 shows the percentage of immigrant students who reported that they feel that they belong at school, by country of origin and country of destination, taking into account differences in the socio-economic status of students from the same country of origin who settled in different countries. Around 83% of students who were born in, or whose parents were born in, Arabic-speaking countries and who settled in the Netherlands reported feeling that they belong at school, but only 67% of students from Arabic-speaking countries who settled in Denmark reported the same.

Figure III.7.3 ■ **Immigrant students' sense of belonging at school, by countries of origin and destination**

*Percentage of students with an immigrant background who reported that they feel like they belong at school, adjusted for differences in socio-economic status*




**Notes:** The estimates are obtained from pooled data from the PISA 2012 and 2015 databases. Only countries where the percentage of immigrant students in PISA 2015 is higher than 5% are shown.

The estimates are adjusted for differences in socio-economic status by assigning the same value of socio-economic status to all students of one origin group independently of the destination country.

The coverage of destination countries is limited by the fact that only some countries collect detailed information on immigrants' country of birth. Results are only shown for pairs of origin and destination countries/economies with data for 20 or more immigrant students.

Sources: OECD, PISA 2006, 2009, 2012 and 2015 Databases, Table III.7.9.

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Similarly, only 55% of students who migrated to Montenegro from Bosnia reported that they feel that they belong at school, while 81% of the Bosnians who migrated to Croatia so reported. These results suggest that the psychological well-being of immigrant students is affected not only by cultural differences between the country of origin and the host country, but also by how schools and communities help these students handle the daily problems of living, learning and communicating. Providing dedicated support to immigrant students to help them integrate into their new school community can strengthen the overall performance of education systems, particularly in those countries that recently saw a surge in migrant inflows.

## THE CONSEQUENCES OF A WEAK SENSE OF BELONGING AT SCHOOL

There are many reasons why policy makers, teachers and parents should care about students' sense of belonging at school. First, there is an association between feelings of belonging at school and academic achievement. Research examining this association generally shows a positive circular relationship: a sense of belonging leads to higher academic achievement, and high academic achievement leads to greater social acceptance and sense of belonging (Wentzel, 1998). However, the link between social bonding with peers at school and achievement is likely to differ significantly across countries and across groups of students. In some countries, academic achievement is considered socially desirable among teenagers; in others, academic achievement is not a factor in social acceptance, and sometimes it is even sanctioned (Ogbu, 2003).

The relationship between belonging at school and performance in PISA is strong for those students with the least sense of belonging. Beyond a certain threshold, the relationship between sense of belonging and performance becomes flat. On average across OECD countries, the difference in science performance between students in the second quarter and students in the bottom quarter of the index of sense of belonging is 13 score points, while the difference between students in the top quarter and students in the third quarter is only 5 points (Table III.7.8a). It is thus important to identify and support those students with a very weak sense of belonging, because these students are likely to be adversely affected both in their personal well-being and in their academic performance (Anderman, 2002; Goodenow, 1993).

Looking at the individual components used to create the index of sense of belonging, students across OECD countries who reported that they feel like an outsider at school score 22 points lower in science, on average, than those who did not report so (Figure III.7.4). Even after accounting for students' socio-economic status, this gap remains significant in the large majority of countries. The negative relationship between feeling like an outsider and performance in science holds true in the large majority of countries and economies. In Lebanon, the difference in science performance between these two groups of students is as wide as 67 points, after accounting for students' and schools' socio-economic profile.

A sense of belonging and acceptance at school is important for adolescents' sense of self-worth and overall satisfaction with life (Juvonen, 2006). Figure III.7.5 shows a strong relationship between the likelihood of reporting low satisfaction with life (a level of 4 or lower on a scale from 0 to 10) and feeling like an outsider at school. Students in OECD countries who feel like they are outsiders at school were three times more likely to report that they are not satisfied with their life than those who do not feel like they are outsiders (Figure III.7.5). In Finland, Ireland, Korea, the Netherlands, the United Kingdom and the United States, the likelihood of reporting low satisfaction with life is more than four times higher if the student reported feeling like an outsider. The relationship between feeling like an outsider and life satisfaction remains significant after accounting for students' socio-economic status.

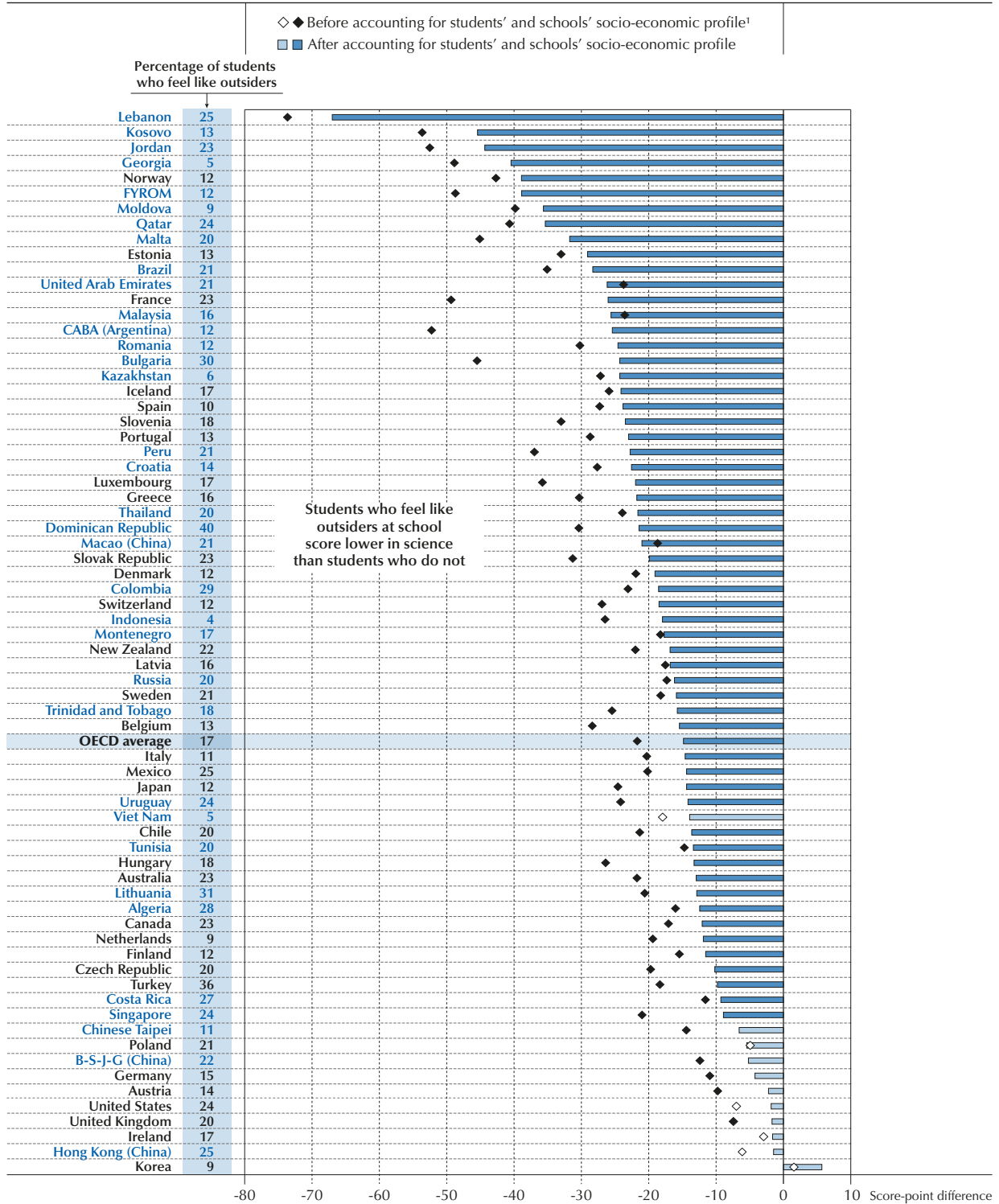
A weak sense of belonging at school might also discourage students from pursuing further education. Table III.7.12 shows that, on average across OECD countries, students in the bottom quarter of the index of sense of belonging were 11 percentage points more likely to expect to end their education at the secondary level than students in the top quarter of the index.

## DISCIPLINARY CLIMATE AND SENSE OF BELONGING

Differences in students' sense of belonging are larger within schools than between schools (Table III.7.7; Ma, 2003). However, the quality of the school environment also matters. In particular, a disciplined and fair learning environment at school can help adolescents build the social skills they need to establish rewarding relationships with their educators and peers.



Figure III.7.4 ■ **Feeling like an outsider at school and science performance**  
 Score-point difference in science performance between students who feel like outsiders at school and students who do not feel like outsiders



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Statistically significant values are marked in a darker tone (see Annex A3).

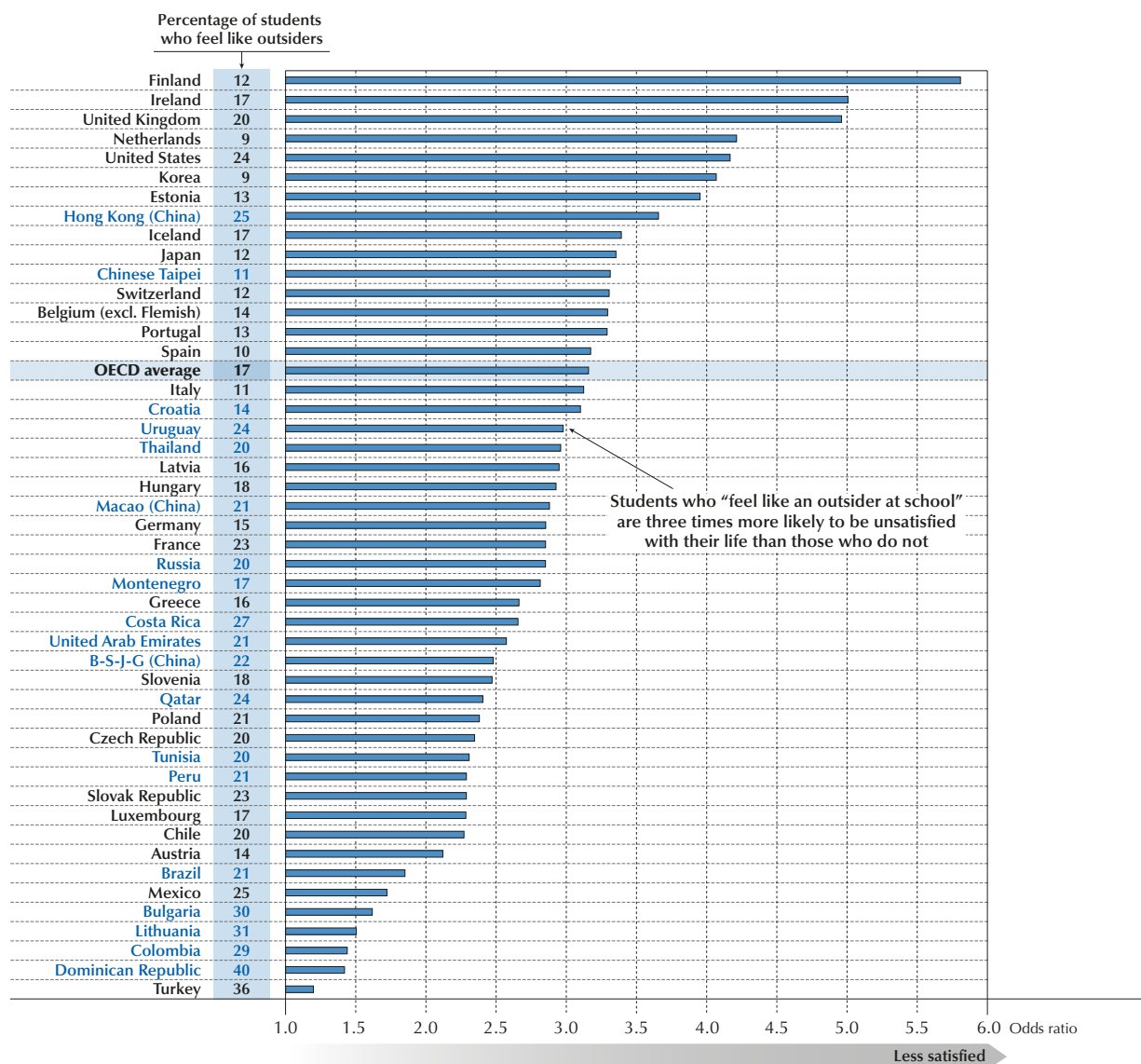
Countries and economies are ranked in ascending order of the score-point difference between students who feel like outsiders and students who do not, after accounting for students' and schools' socio-economic profile.

Source: OECD, PISA 2015 Database, Table III.7.10.

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Figure III.7.5 ■ **Feeling like an outsider at school and low life satisfaction**

Likelihood that students are not satisfied<sup>1</sup> with their life if they “feel like an outsider at school”, after accounting for students’ and schools’ socio-economic profile<sup>2</sup>



1. A student is classified as “not satisfied” if he or she reported between 0 and 4 on the life-satisfaction scale. The life-satisfaction scale ranges between 0 and 10.

2. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: All values are statistically significant (see Annex A3).

Countries and economies are ranked in descending order of the odds of reporting low life satisfaction, after accounting for students’ and schools’ socio-economic profile.

Source: OECD, PISA 2015 Database, Table III.7.13.

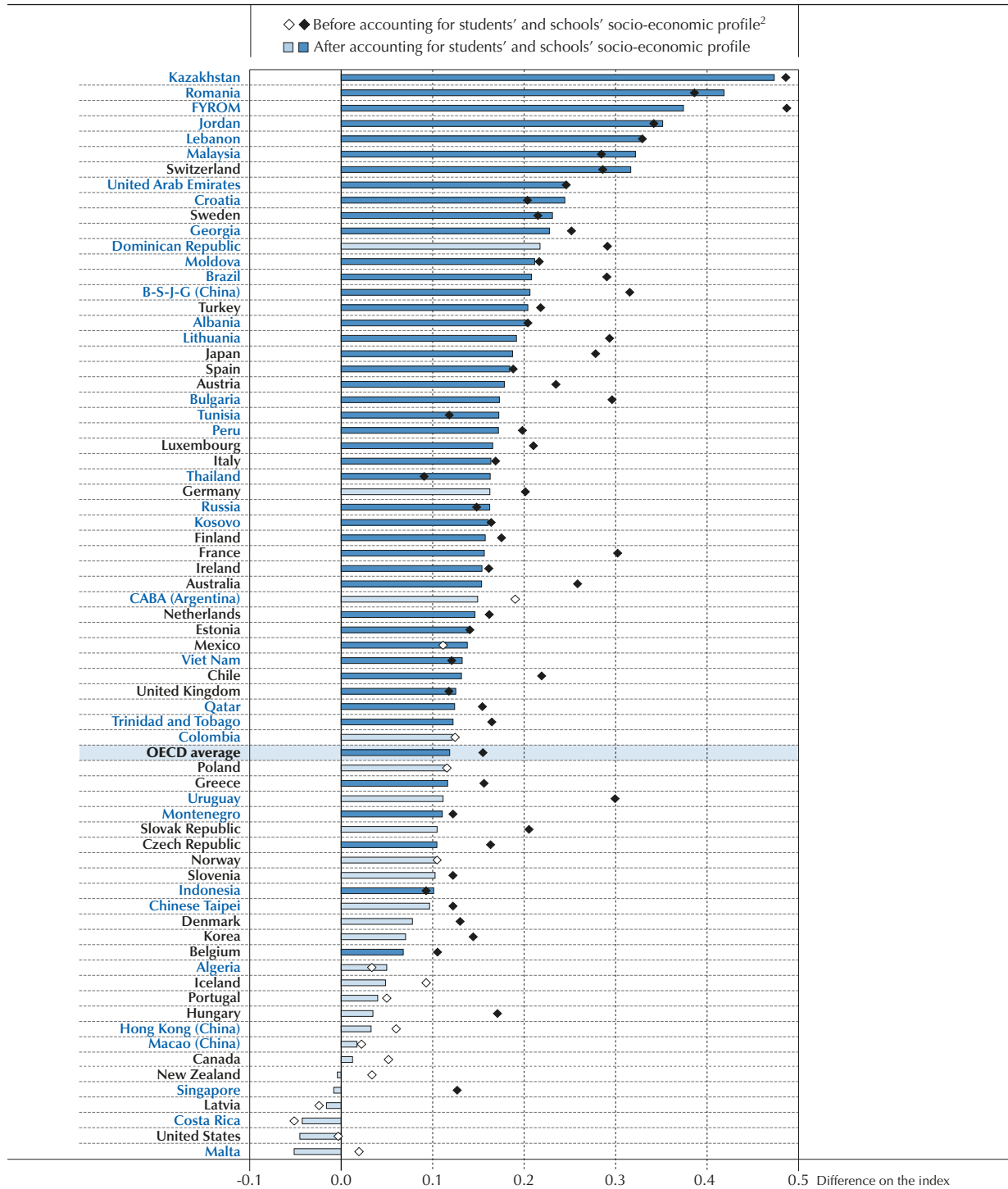
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A school’s disciplinary climate is a strong predictor of a student’s sense of belonging at school (Arum and Velez, 2012; Chiu et al., 2016; OECD, 2003). Figure III.7.6 shows that working in a disciplined classroom can have a positive influence on students’ sense of belonging at school. PISA 2015 measures disciplinary climate by an index based on students’ reports of the frequency with which interruptions occur in science classes. Each bar in the figure reflects the difference in the index of sense of belonging between students in schools with a more favourable disciplinary climate in science classes (the average index of disciplinary climate is significantly above the country mean) and students in schools with a less favourable disciplinary climate (the average index of disciplinary climate is significantly below the country mean).





Figure III.7.6 ■ **Sense of belonging and disciplinary climate in school**  
 Difference on the index of sense of belonging between students who attend schools with a positive disciplinary climate<sup>1</sup> and those who attend schools with a negative disciplinary climate



1. Schools with positive (negative) disciplinary climate are those whose average index of disciplinary climate is statistically higher (lower) than the average level in the country/economy.

2. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Statistically significant values are marked in a darker tone (see Annex A3).

Countries and economies are ranked in descending order of the difference in sense of belonging between students in schools with a positive disciplinary climate and those in schools with a negative disciplinary climate, after accounting for students' and schools' socio-economic profile.

Source: OECD, PISA 2015 Database, Table III.7.14.

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On average, this difference is 0.15 and remains significant after taking into account the socio-economic profile of schools (Figure III.7.6). In FYROM, Kazakhstan, Jordan, Lebanon, Malaysia, Romania and Switzerland, students' sense of belonging is much stronger when they attend classes with a good disciplinary climate. A possible interpretation of this relationship is that reducing disciplinary problems in class might not only lead to better student performance, but might also provide the kind of orderly learning environment that is conducive to supportive social relationships.

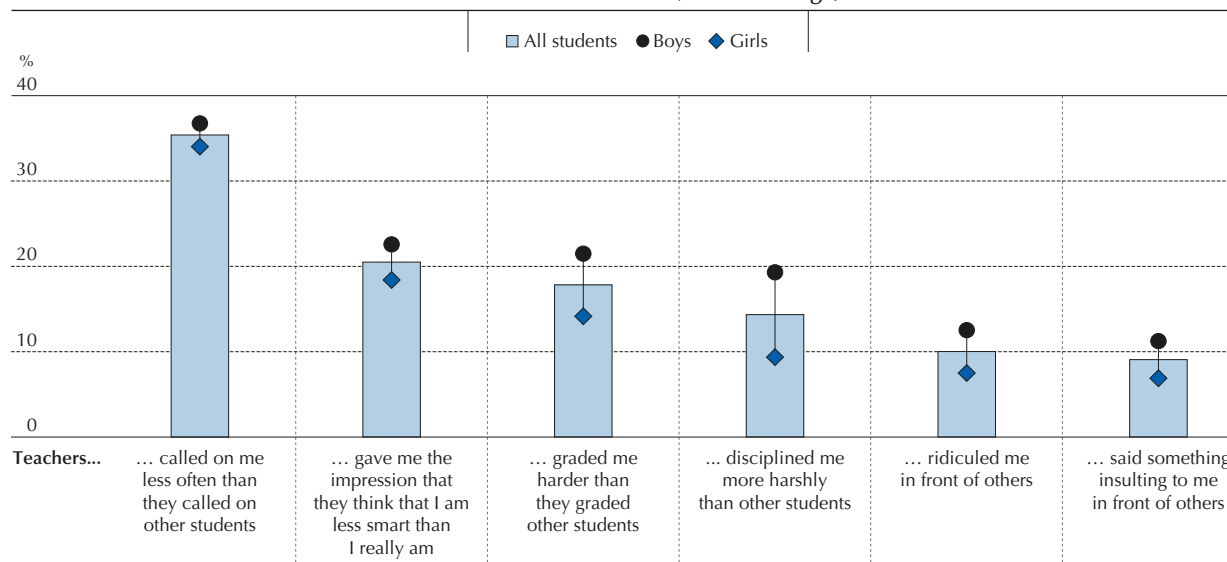
### STUDENTS' RELATIONS WITH TEACHERS AND SENSE OF BELONGING AT SCHOOL

The quality of teacher-student relations can influence students' engagement with school and their socio-emotional development (Anderman, 2003; Battistich et al., 1995; Chiu et al., 2016; Ma, 2003; Noble et al., 2008). Teachers and school staff can promote students' healthy social and emotional development by creating a caring and respectful learning environment (Battistich et al., 1997; Noble et al., 2008). Positive relationships between teachers and students are particularly important for the social and emotional well-being of disadvantaged students (Battistich et al., 1997).

Analyses of PISA 2012 data have shown that positive and constructive teacher-student relations are associated with both better performance in mathematics and with a stronger sense of belonging at school (OECD, 2015a). In PISA 2015 students were asked to report whether their teachers call on them less often than they call on other students, grade them harder than they grade other students, give them the impression that they are less smart than they really are, discipline them more harshly than others, or ridicule them or tell them something insulting in front of others. PISA 2015 also asked students whether they perceive that their science teacher is interested in students' learning and is willing to provide support to students who experience difficulties.

A substantial proportion of students in PISA-participating countries and economies perceive that their teachers engage in different types of unfair behaviour. It is important to bear in mind that these data reflect only students' perceptions, and do not allow for assessing the gravity of what happens in the classroom. On average across OECD countries, 35% of students reported that, at least a few times per month, their teachers call on them less than they call on others; 21% reported that their teachers give them the impression that they are less intelligent than they actually are; 18% of students reported that their teachers grade them more harshly than others; 14% reported that their teachers discipline them more harshly than others; 10% reported that their teachers ridicule them in front of others; and 9% reported that their teachers insult them in front of others (Figure III.7.7). As shown in Figure III.7.7, boys were more likely than girls to report that their teachers do not treat them fairly.

Figure III.7.7 ■ **Students' perception of teachers' unfairness, by gender**  
Percentage of students who reported that their teachers behave unfairly "once a week or more" or "a few times a month" (OECD average)



Source: OECD, PISA 2015 Database, Tables III.7.15 and III.7.16.


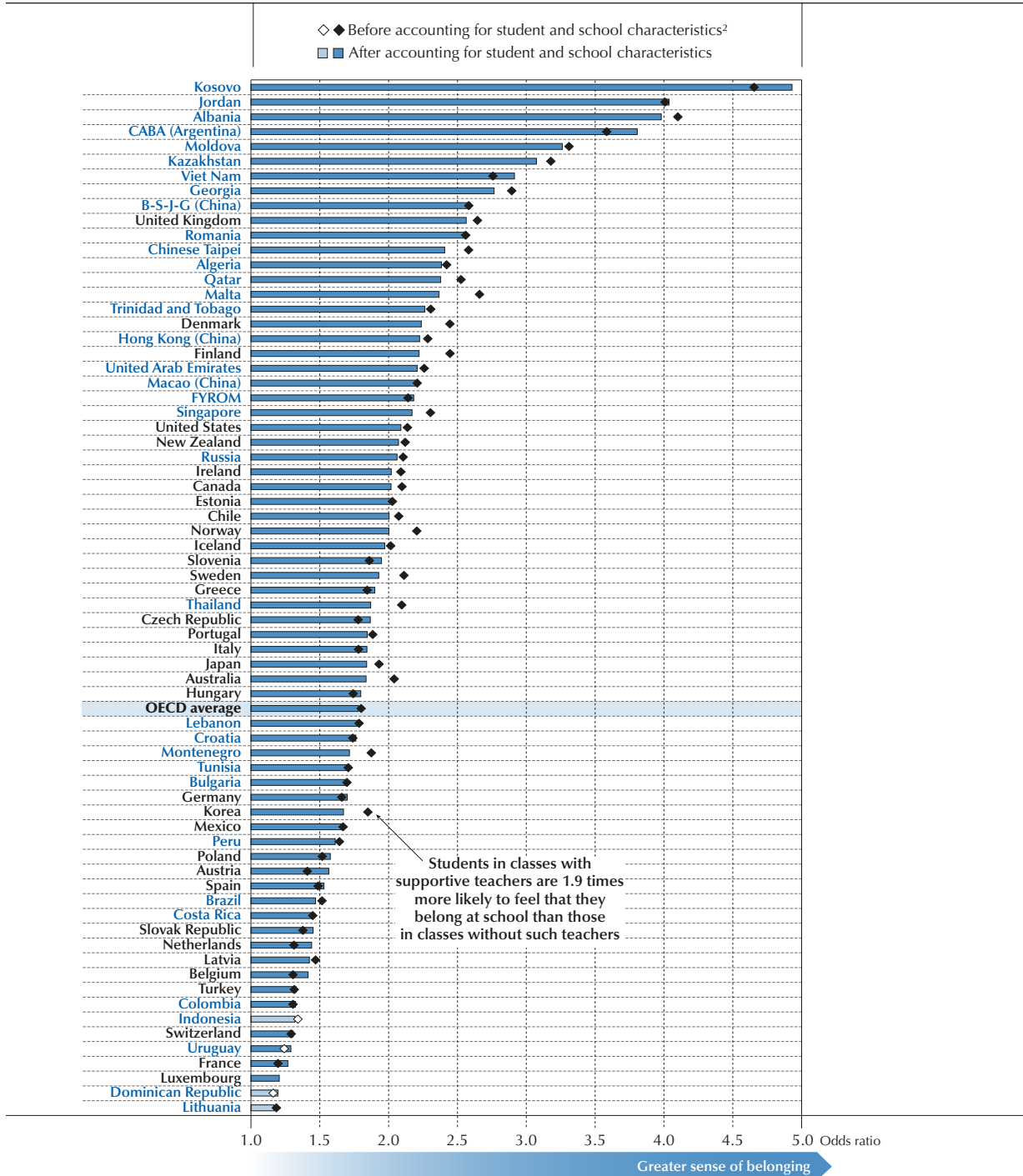
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Figure III.7.8 ■ **Students' sense of belonging at school, by perception of teacher support**  
Likelihood of reporting "I feel like I belong at school" associated with students' perceptions of teachers' supportive behaviour<sup>1</sup>



1. Perceived teacher support refers to students reporting "every lesson" or "most lessons" to the statements "The teacher shows an interest in every student's learning", "The teacher gives extra help when students need it" and "The teacher helps students with their learning".

2. Student and school characteristics include gender, performance in reading and science, and the PISA index of economic, social and cultural status (ESCS) at the student and school levels.

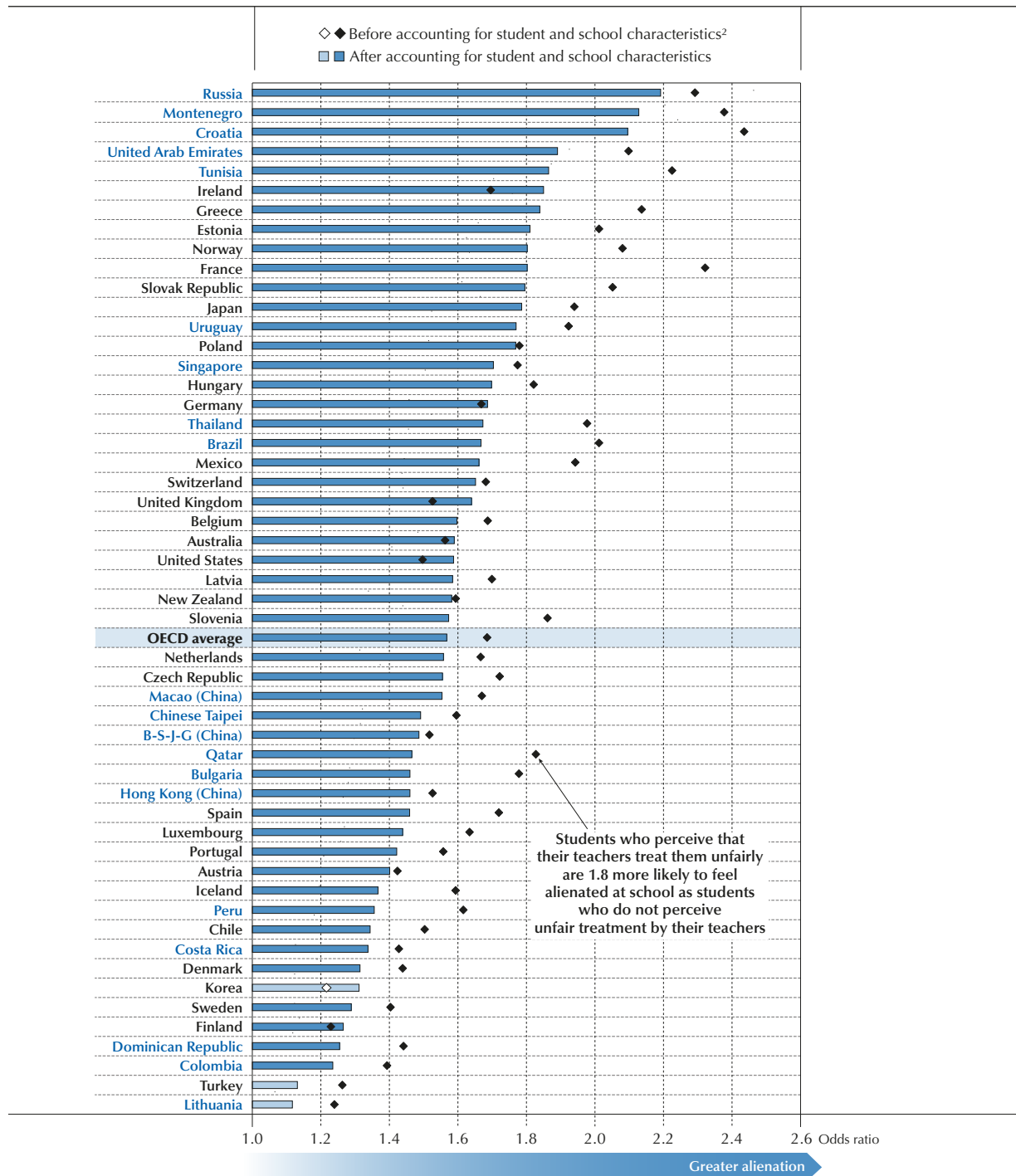
**Note:** Statistically significant values are marked in darker tone (see Annex A3).

Countries and economies are ranked in descending order of the odds ratio of reporting "I feel like I belong at school", after accounting for student and school characteristics.

Source: OECD, PISA 2015 Database, Table III.7.19.

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Figure III.7.9 ■ **Students' sense of belonging and perceptions of teachers' unfairness**  
Likelihood of reporting "I feel like an outsider" associated with students' perceptions  
of teachers' unfair behaviour<sup>1</sup>



1. Perception of teachers behaving unfairly refers to students reporting "a few times a month" or "once a week or more" to the statements "Teachers disciplined me more harshly than other students", "Teachers ridiculed me in front of others" or "Teachers said something insulting to me in front of others".  
 2. Student and school characteristics include gender, performance in reading and science, and the PISA index of economic, social and cultural status (ESCS) at the student and school levels.

Notes: Statistically significant values are marked in darker tone (see Annex A3).

Countries and economies are ranked in descending order of the odds of reporting "I feel like an outsider (or left out of things)", after accounting for student and school characteristics.

Source: OECD, PISA 2015 Database, Table III.7.20.

StatLink <http://dx.doi.org/10.1787/888933471559>



Disadvantaged students and students with an immigrant background were also more likely to report unfair teacher behaviour (Tables III.7.16 and III.7.17). For example, disadvantaged students were 5 percentage points more likely than advantaged students to report that their teachers say something insulting to them in front of others. On average across OECD countries, students with an immigrant background were 4 percentage points more likely than students without an immigrant background to report that they frequently experience at least one of the six types of unfair treatments measured in PISA 2015 (Table III.7.17).

On the one hand, students who perceive that their teachers are supportive reported a greater sense of belonging at school (Figure III.7.8). On average across OECD countries, students who reported that their science teacher is willing to provide help and is interested in their learning are about 1.8 times more likely to feel that they belong at school than those students who did not report so. These results suggest that teachers may play a role in improving students' sense of belonging by showing attention and care to individual students.

On the other hand, across OECD countries, students who reported that they are treated unfairly by their teachers (they perceived that their teachers discipline them more harshly than other students, ridicule them in front of others or say something insulting to them in front of others) are 1.6 times more likely to feel like an outsider at school, on average across OECD countries, after accounting for student and school characteristics (Figure III.7.9). In Croatia, Montenegro and the Russian Federation (hereafter "Russia") students who reported that they are frequently treated unfairly by teachers were at least twice as likely to report that they feel like an outsider at school as students who reported that their teachers do not treat them unfairly, after accounting for socio-economic status. A similar association is observed when perceptions of unfair treatment are measured at the school level: in schools where perceptions of unfairness are pervasive (e.g. the share of students reporting unfair treatment is above the national average), students were more likely to report feeling like an outsider, after accounting for student and school characteristics (Table III.7.20).

One of the ways in which schools can improve their learning climate is by giving voice to students. Students can contribute perspectives on issues related to school climate and relationships that differ from those of principals or teachers (Levin, 2000; Mitra, 2003). Furthermore, by having a formal instrument to express their views, students themselves can develop a stronger sense of ownership and autonomy in their schools (Mitra, 2003; Rudduck and Flutter, 2000).

In PISA 2015, principals responded to a series of questions about quality assurance in their schools, one of which asks about the practice of seeking student feedback on teaching, resources and lessons. On average across OECD countries, around 10% of students were in schools that seek feedback from students because it is mandatory, 59% were in schools that seek feedback based on the school's initiative, and 31% attend schools that do not have any mechanism in place to collect student feedback (Table III.7.21). Differences across countries are large: in the Dominican Republic, more than 96% of students were in schools with this feedback mechanism (either mandatory or based on school initiative), while only 23% of students in France could provide feedback to the school administration. On average across OECD countries, students in advantaged schools were more likely to be asked for their feedback than students in disadvantaged schools. Private schools were also more likely than public schools to use this tool as a way to improve their students' learning experience.

These findings imply that policies and practices that promote communication and respectful interactions between teachers and students might help to enhance students' well-being (Anderman, 2003; O'Brien and Bowles, 2013). Improving students' sense of acceptance and belonging at school might also help students develop stronger interpersonal skills, openness and healthy attitudes towards other groups in society – qualities that are crucial for students' lives beyond school (O'Connor et al., 2010; Osterman, 2000; Shochet et al., 2006).

### What these results imply for policy

- A sense of belonging at school makes a difference for both student performance and adolescents' satisfaction with life. School administrators and teachers need to put in place strategies to identify those students who are most at risk of social exclusion and provide them with the means to establish positive social ties with educators and peers.
- At 15, many students have strong perceptions that their teachers behave unfairly, and these perceptions can affect their sense of belonging and engagement at school. Teacher-training programmes might consider emphasising communication skills, the ability to manage behavioural problems and pedagogical approaches to establish positive and supportive relationships with students. Schools can also consider regularly collecting feedback from students on the quality of the learning climate and the relationships they maintain at school.



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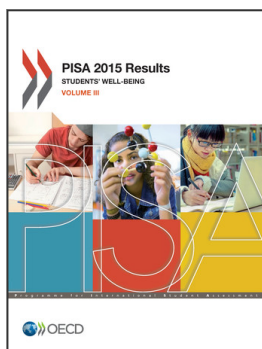
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