



Bullying

Bullying is a major problem worldwide with serious consequences for students' lives. This chapter examines differences between countries and economies in students' exposure to bullying at school, and how bullying is associated with student and school characteristics. It also examines how students' exposure to bullying is related to reading performance, to students' attitudes towards bullying, to students' well-being and to school climate.

Bullying at school can affect any schoolchild in any country (Nansel et al., 2004^[1]). This violent behaviour can have severe physical and emotional long-term consequences for students, which is why teachers, parents, policy makers and the media are increasingly drawing attention to bullying and trying to find ways to tackle it (Phillips, 2007^[2]).

What the data tell us

- On average across OECD countries, 23% of students reported being bullied at least a few times a month.
- Boys and low-achieving students in reading were more likely to report being bullied at least a few times a month than girls and high-achieving students.
- On average across OECD countries, students who reported being bullied at least a few times a month scored 21 points lower in reading than students who did not report so, after accounting for socio-economic status.
- Some 88% of students across OECD countries agreed that it is a good thing to help students who cannot defend themselves and it is wrong to join in bullying. Girls and students who were not frequently bullied were more likely to report stronger anti-bullying attitudes than boys and frequently bullied students.
- Students who reported being frequently exposed to bullying also reported feeling sad, scared and less satisfied with their lives than students who did not report so. Students in schools with a high prevalence of bullying were also more likely to report a weaker sense of belonging at school and a worse disciplinary climate than their counterparts in schools with a low prevalence of bullying.

Bullying is a specific type of aggressive behaviour that involves unwanted, negative actions in which someone intentionally and repeatedly harms and discomforts another person who has difficulty defending himself or herself (Olweus, 1993^[3]). It is characterised by a systematic abuse of power and an unequal power relationship between the bully and the victim (Woods and Wolke, 2004^[4]). Bullying can be physical (hitting, punching and kicking), verbal (name-calling and mocking) and relational (spreading gossip and engaging in other forms of public humiliation, shaming and social exclusion) (Woods and Wolke, 2004^[4]). With widespread use of information and communication technologies (ICT), cyberbullying has become another type of harassment amongst students that takes place through digital devices and tools (Hinduja and Patchin, 2010^[5]; Smith et al., 2008^[6]).

Since 2015, PISA has asked students about their experiences with bullying-related behaviours at school and measures three distinct types of bullying: physical, relational and verbal. PISA 2018 asked students how often (“never or almost never”, “a few times a year”, “a few times a month”, “once a week or more”) during the 12 months prior to the PISA test they had had the following experiences in school (the question also indicated that “Some experiences can also happen in social media”): “Other students left me out of things on purpose” (relational bullying); “Other students made fun of me” (verbal bullying); “I was threatened by other students” (verbal/physical bullying); “Other students took away or destroyed things that belong to me” (physical bullying); “I got hit or pushed around by other students” (physical bullying); and “Other students spread nasty rumours about me” (relational bullying). These statements were combined into a single indicator, “any type of bullying act”, when a student responded at least a few times a month to any of the bullying questions. The indicator “any type of bullying act” is referred to throughout this chapter as “being bullied”.

Box III.2.1. How the index of exposure to bullying, frequently bullied students and schools with a high prevalence of bullying were classified in PISA 2018

An index of exposure to bullying was constructed using student responses (“never or almost never”, “a few times a year”, “a few times a month”, “once a week or more”) to three statements about students’ experience with bullying: “Other students left me out of things on purpose”; “Other students made fun of me”; and “I was threatened by other students”. The index average is 0 and the standard deviation is 1 across OECD countries. Positive values in this index indicate that the student is more exposed to bullying at school than the average student in OECD countries; negative values in this index indicate that the student is less exposed to bullying at school than the average student in OECD countries.

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Students were classified as being “frequently bullied” if they were amongst the 10% of students with the highest values in the index of exposure to bullying across all countries and economies with available data (a value greater than 1.51 in the index of exposure to bullying). This cut-off was selected because most of the students at or above this level were frequently exposed (at least a few times a month) to the three forms of bullying measured by the index (Table III.B1.2.20). Across most PISA-participating countries and economies, more than two in three students who were classified as frequently bullied reported that other students left them out of things on purpose or made fun of them. On average across OECD countries, about three in five frequently bullied students reported that other students threatened them.

PISA 2018 also classified schools based on the concentration of frequently bullied students. PISA 2018 results show that, on average across OECD countries, about 3% of the variation in the index of exposure to bullying lay between schools, a proportion somewhat smaller than that of other indices examined in this report (Table III.B1.2.1). Schools with a high prevalence of bullying are those where more than 10% of students were frequently bullied. Schools with a low prevalence of bullying are those where 5% of students or less were frequently bullied.

THE MAGNITUDE OF THE BULLYING PROBLEM ACROSS COUNTRIES AND SCHOOLS

Figure III.2.1 shows that bullying occurs in all PISA-participating countries and economies. On average across OECD countries, 23% of students reported being bullied at least a few times a month; 8% of students were classified as being frequently bullied. However, PISA 2018 data reveal large between-country differences in students’ reported exposure to bullying. In Brunei Darussalam, the Dominican Republic, Indonesia, Morocco and the Philippines, more than 40% of students reported being bullied at least a few times a month. In contrast, in Korea, the Netherlands, Portugal and Chinese Taipei, less than 15% of students reported so. In Brunei Darussalam, the Dominican Republic and the Philippines, more than 20% of students were frequently bullied, while in Beijing, Shanghai, Jiangsu and Zhejiang (China) (hereafter “B-S-J-Z [China]”), Iceland, Japan, the Netherlands and Chinese Taipei fewer than 5% of students were frequently bullied.

Certain types of bullying at school occur more often than others. While the prevalence of bullying varies substantially, depending on the student’s age, the country and the culture he or she lives in, and the type of studies pursued (Chester et al., 2015^[7]; Craig et al., 2009^[8]), verbal and relational bullying are the most common types of bullying amongst secondary school-age students (Thomas et al., 2015^[9]; Waasdorp and Bradshaw, 2015^[10]; Wang, Iannotti and Nansel, 2009^[11]; Williams and Guerra, 2007^[12]). Like PISA 2015, PISA 2018 found that in many countries verbal and relational bullying occurred the most frequently (Figure III.2.1 and Table III.B1.2.1). On average across OECD countries, 14% of students reported that others made fun of them at least a few times a month; 10% reported that they were the object of nasty rumours at school; and 9% reported that they were left out of things on purpose. More than 10% of students in 67 out of 75 countries/economies with available data reported that their peers made fun of them at least a few times a month. The same proportion of students in 55 out of 75 countries and economies reported that they were the object of nasty rumours; and in 40 out of 75 countries and economies that their schoolmates frequently left them out of things.

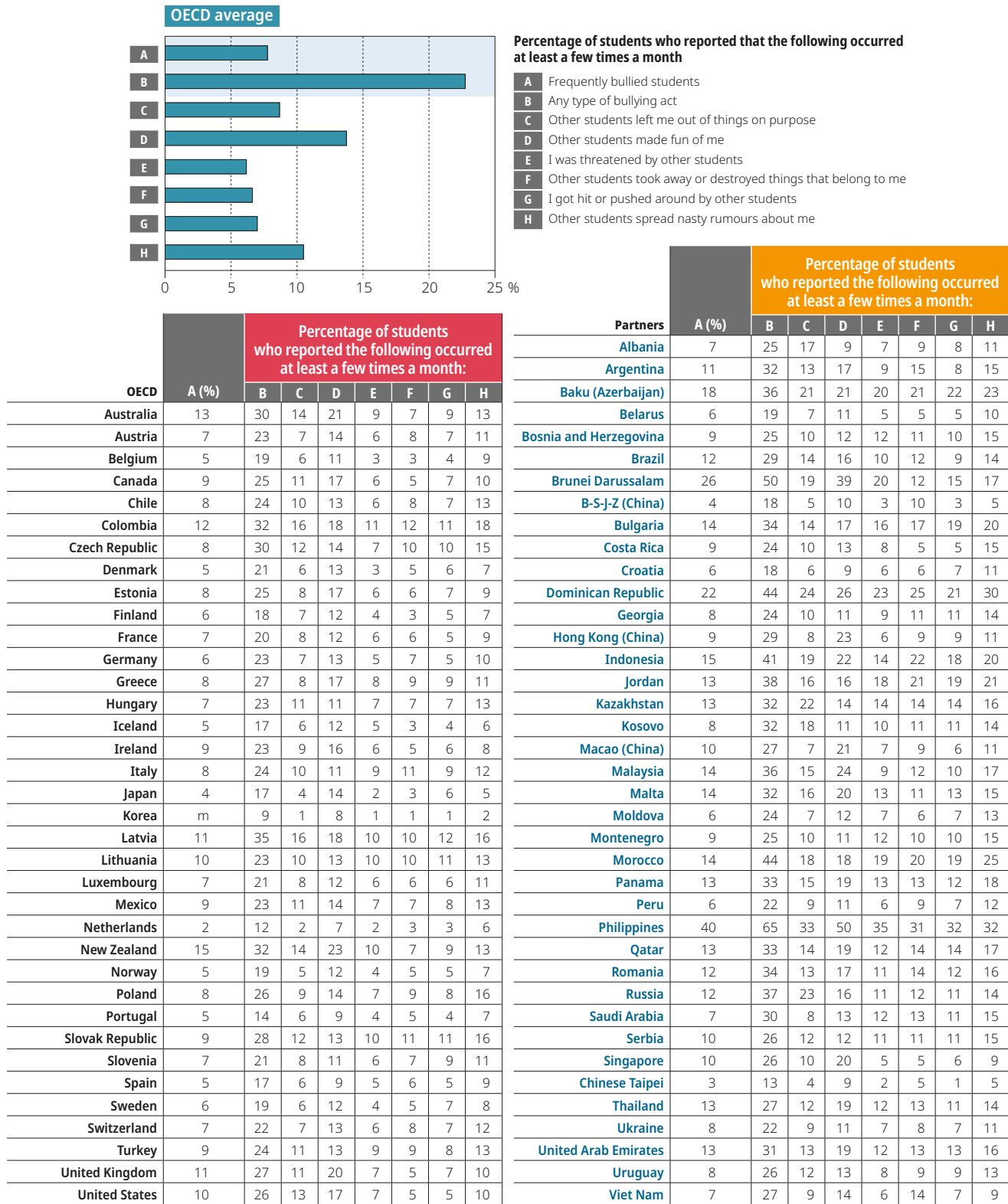
PISA 2018 data show that physical bullying was less prevalent than verbal and relational bullying. On average across OECD countries, around 7% of students reported that they got hit or pushed around by other students at least a few times a month. Similar proportions of students reported that other students took away or destroyed things that belong to them and that they were threatened by others. However, these percentages mask large differences across countries and economies. One possible explanation might be that different cultural and social norms may affect how students in different countries perceive various types of violence. For example, in Baku (Azerbaijan), the Dominican Republic, Indonesia, Jordan, Morocco and the Philippines, more than 20% of students reported that their belongings were taken away or destroyed, while in Japan, Korea and the Netherlands, less than 3% of students so reported.

Are students who are being bullied at least a few times a month concentrated in certain schools? As shown in Figure III.2.2, on average across OECD countries, 15% of students attended schools where 10% of their schoolmates or less reported being bullied at school at least a few times a month in the 12 months prior to the PISA test. Some 47% of students were in schools where between 10% and 25% of their schoolmates had been bullied at school at least a few times a month over this period. Some 34% of students were in schools where between 25% and 50% of their schoolmates reported being bullied at least a few times a month. Only 4% of students attended schools where at least 50% of their fellow students reported being bullied at least a few times a month.

In all education systems, 15-year-old students’ exposure to bullying varied across schools (Figure III.2.2 and Table III.B1.2.3). However, in some systems, victims of bullying seemed to be concentrated in certain schools, while in other systems these students were distributed more evenly across all schools. For example, in Luxembourg and Slovenia, around 21% of students reported being bullied at least a few times a month. But these students were more evenly distributed across schools in Luxembourg than in Slovenia. In Luxembourg, 80% of students attended schools where between 10% and 25% of their schoolmates reported being bullied (the second lowest category of the concentration of bullying in schools), while in Slovenia, 49% of students attended such schools.

Figure III.2.1 Students' exposure to bullying

Based on students' reports



Note: A student is frequently bullied if he or she is in the top 10% of the index of exposure to bullying across all countries/economies. The index of exposure to bullying includes the following statements: "Other students left me out of things on purpose"; "Other students made fun of me"; and "I was threatened by other students".

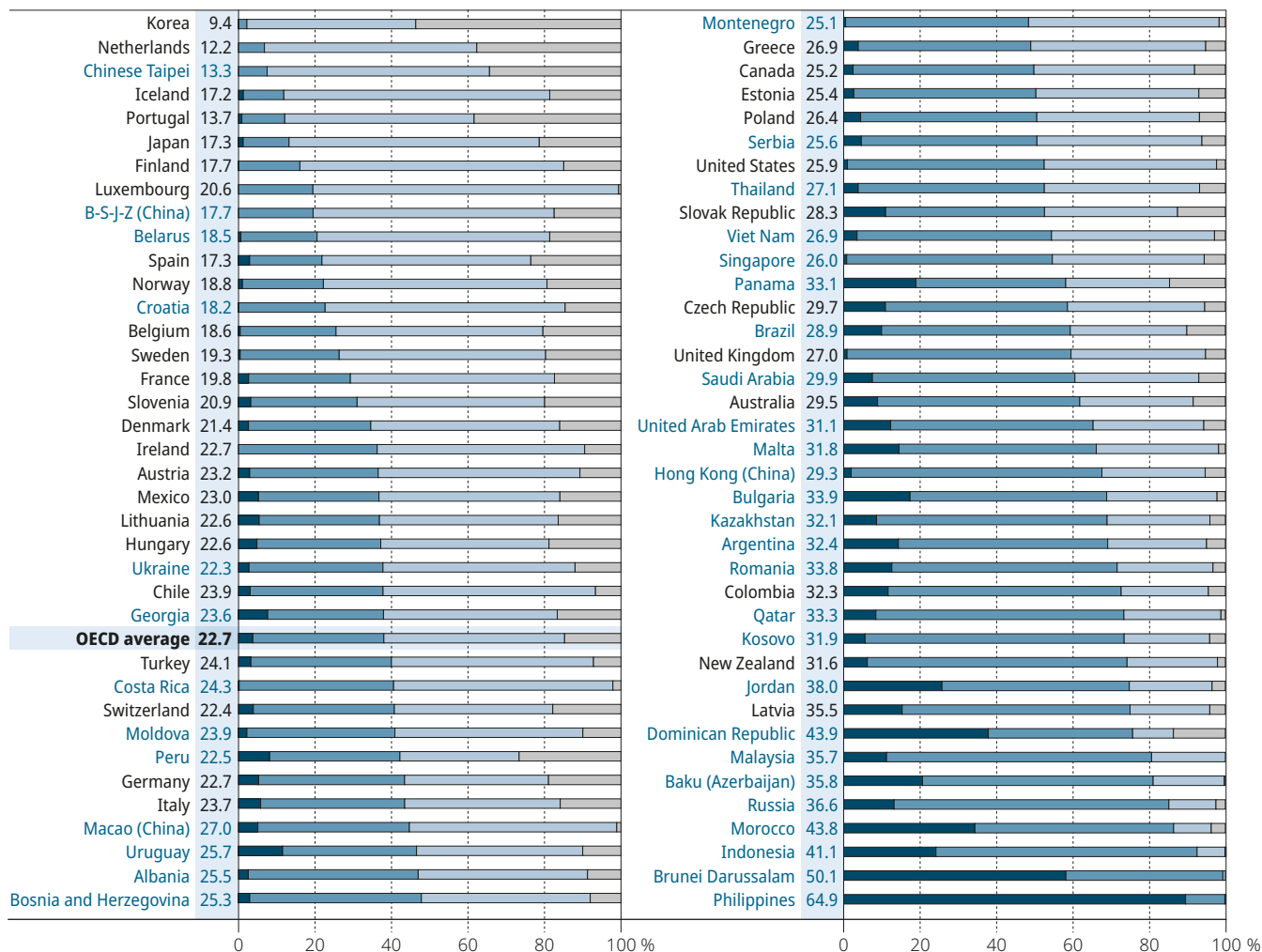
Source: OECD, PISA 2018 Database, Table III.B1.2.1.

StatLink <http://dx.doi.org/10.1787/888934029185>

Figure III.2.2 Prevalence of exposure to bullying at school

Percentage of students in schools where...

- Over 50% of students reported being bullied at least a few times a month
- Between 25% and 50% of students reported being bullied at least a few times a month
- Between 10% and 25% of students reported being bullied at least a few times a month
- 10% of students or less reported being bullied at least a few times a month



Note: The percentage of students who reported being bullied at least a few times a month is found next to the country/economy name.

Countries and economies are ranked in descending order of the percentage of students in schools where less than 25% of students were bullied at least a few times a month.

Source: OECD, PISA 2018 Database, Table III.B1.2.3.

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Educators are best placed to institute effective anti-bullying strategies, but only when they are able to recognise bullying can they take the appropriate action. PISA 2018 asked school principals to describe the extent to which learning is hindered by students intimidating or bullying other students. On average across OECD countries, 24% of students attended schools whose principals reported that learning is “not at all” hindered, 64% of students were in schools whose principals reported that learning is hindered “very little”, and 12% of students were in schools whose principals reported that learning is hindered to “some extent” or “a lot” by students intimidating or bullying other students (Table III.B1.2.8). But there are significant differences across countries. In Albania, Belarus, Indonesia, the Republic of North Macedonia, Qatar and Saudi Arabia, more than 60% of students were in schools whose principal reported that learning is not at all hindered by students intimidating or bullying other students. In Australia, Canada, Finland, Germany, the Netherlands, New Zealand, Norway and the United States, less than 10% of students attended such schools. In addition, in Ireland, New Zealand, Norway and the United States, more than 75% of students were in schools whose principal reported that learning is hindered “very little” by students intimidating or bullying other students. In Belarus, B-S-J-Z (China), Kazakhstan, Qatar, the Russian Federation and Saudi Arabia, less than 25% of students attended such schools.

Bullying is a group activity that takes place in the larger peer and school context (Hong and Espelage, 2012^[13]; Salmivalli et al., 1996^[14]). Relational and environmental factors that can affect students' social development may have an impact on the prevalence of bullying (Saarento, Garandeau and Salmivalli, 2015^[15]). The socio-economic, immigrant and gender composition of the school, to name just three elements, may explain substantial differences amongst schools in the prevalence of bullying.

PISA 2018 results show substantial differences across schools, in countries and economies with available data, in students' exposure to bullying (Table III.B1.2.5). On average across OECD countries and in a majority of education systems, fewer students in socio-economically advantaged schools than in disadvantaged schools were bullied at least a few times a month. The difference in favour of advantaged schools was at least 16 percentage points in Brunei Darussalam, the Dominican Republic, Hungary and Romania. PISA 2018 data show a smaller difference between rural and city schools. Still, in 16 education systems, students who were exposed to bullying at least a few times a month were significantly more likely to be found in rural schools; in only three school systems were students who reported being bullied at least a few times a month more likely to be found in city schools.

When considering the relationship between exposure to bullying and the concentration of immigrant students in a school, previous evidence suggests that bullying is just as prevalent amongst students who attend schools with little or no diversity in their student population as amongst students who attend schools with a highly diverse student body (Tippett, Wolke and Platt, 2013^[16]; Tolsma et al., 2013^[17]; Walsh et al., 2016^[18]). Other studies, however, find that minority students are at greater risk of victimisation in an ethnically, culturally or linguistically heterogeneous context (Strohmeier, Kärnä and Salmivalli, 2011^[19]; Vervoort, Scholte and Overbeek, 2010^[20]; Vitoroulis, Brittain and Vaillancourt, 2016^[21]). PISA 2018 data show that, on average across OECD countries, students were exposed to bullying slightly more frequently when they attended schools with a high concentration of students with an immigrant background than in schools with a low concentration of immigrant students (Table III.B1.2.5). But this difference was observed in only 14 countries and economies; it was relatively large in Bulgaria and Thailand. In addition, a further four education systems showed significant differences in the opposite direction.

Are students at greater risk of being bullied when they are in mixed schools or single-sex schools? Previous research finds no clear evidence between school-level gender composition and self-reported victimisation (Saarento et al., 2013^[22]), although some studies suggest that the risk of being a victim of bullying is greater in schools with a larger proportion of boys (Saarento, Garandeau and Salmivalli, 2015^[15]; Khoury-Kassabri et al., 2004^[23]). There are only a limited number of PISA-participating countries and economies with a sufficiently large number of sampled students who attended single-sex schools; but a comparison of gender-balanced schools and those where either boys or girls were the clear majority provides valuable insights (see Box III.3.1 in Chapter 3 for more details about schools' gender composition in PISA 2018).

On average across OECD countries, and in more than half of the other PISA-participating education systems, the share of students being bullied at least a few times a month was larger in schools where more than 60% of students were boys than in schools where more than 60% of students were girls (Table III.B1.2.11). In 30 out of 71 countries and economies, the percentage of these students was lower in gender-balanced schools (those schools where boys and girls represented between 40% and 60% of students) than in schools where boys were the clear majority.

In addition, PISA 2018 data show that, in 11 out of 16 education systems with available data, the share of students being bullied at least a few times a month was significantly larger in all-boys' schools than in gender-balanced schools; in 15 out of 18 participating countries and economies, the share of students being bullied at least a few times a month was larger in gender-balanced schools than in all-girls schools. Moreover, in 13 out of the 14 countries with enough girls-only and boys-only schools in the sample, the percentage of students frequently exposed to bullying was lower in single-sex girls' schools than in single-sex boys' schools. The results suggest that bullying is the most prevalent in boys-only schools, followed by schools with a clear majority of boys, gender balanced-schools, schools with a clear majority of girls and girls-only schools.

TRENDS IN STUDENTS' EXPOSURE TO BULLYING AT SCHOOL

Since PISA 2015 asked similar questions about bullying as PISA 2018 did, education systems can monitor changes in the prevalence of students' exposure to bullying at school.¹ The responses provided by students in 2018 closely followed the pattern observed in 2015, with an upward trend in the responses to all six questions on bullying during the period (OECD, 2017^[24]) (Table III.B1.2.2). On average across OECD countries with comparable data, the share of students who reported being bullied at least a few times a month increased by four percentage points between 2015 and 2018. This increase during this period was marked (more than 10 percentage points) in several schools systems, including Brazil, Colombia, the Dominican Republic and Greece. For example, in 2018, 44% of students in the Dominican Republic reported being bullied at least a few times a month compared to 30% of students who so reported three years earlier. By contrast, in Hong Kong (China), Japan and Korea, there was at least a two percentage-point decrease in the share of students who reported being bullied at least a few times a month.

The largest increase in bullying-related behaviours across OECD countries between 2015 and 2018 was in making fun of other students (which increased by three percentage points over the period), while the smallest increase was in leaving a student out of things on purpose (which increased by one percentage point). The largest change (between 8 and 16 percentage points) in the level of exposure to bullying, reflected in students' responses to all six questions, was observed in the Dominican Republic. The upward trend in most countries and economies should not necessarily be interpreted as evidence of an increase in students' exposure to bullying. This result might be partly related to students' greater ability to distinguish bullying from other forms of aggressive behaviour, or to PISA including social media as a potential platform for bullying in the 2018 questionnaire.

Box III.2.2. Bullying, cyberbullying and time spent on the Internet

Over the past decade, cyberbullying became increasingly common amongst teenagers (Smith et al., 2008_[6]). Cyberbullying is defined as bullying via electronic devices and the Internet (Olweus, 2012_[25]). It can take various forms, including sending nasty text messages, chats or comments, spreading rumours via online posts, or excluding someone from online groups (OECD, 2017_[24]). Potential anonymity, impersonation, perpetrators' relative lack of fear of being caught, lack of supervision and victims' feeling that they can be bullied anywhere, at any time, are amongst some characteristics that differentiate cyberbullying from traditional bullying (Slonje and Smith, 2008_[26]; Wang, Iannotti and Nansel, 2009_[11]).

While a majority of cyberbullying victims are also victims of traditional forms of bullying (Schneider et al., 2012_[27]), education systems may find it more difficult to tackle cyberbullying. A recent OECD publication, *Educating 21st-Century Children: Emotional Well-Being in the Digital Age*, concludes that the ubiquity of digital technology, the fact that cyberbullying often takes place outside of school, and anonymous online victimisation can be seen as potential obstacles to dealing with cyberbullying; see Chapter 12 in Burns and Gottschalk (2019_[28]).

PISA 2018 does not directly measure cyberbullying. However, PISA can monitor how bullying is associated with the intensity of Internet use across countries and economies. Evidence suggests longer hours spent on social media may increase the risk of being bullied (Athanasίου et al., 2018_[29]). Research also shows that greater levels of digital literacy and digital citizenship, such as online respect and civic engagement, were negatively associated with the perpetration of online bullying and positively related to helpful bystander behaviours (Cassidy, Faucher and Jackson, 2013_[30]; Jones and Mitchell, 2016_[31]).

In 51 of the 52 countries and economies that distributed the ICT questionnaire (of which 43 also have data on students' exposure to bullying), PISA 2018 asked students how much time they spend using the Internet during the typical weekday and weekend day outside of school. These two questions were combined to calculate the amount of time students spend connected to the Internet during a typical week. Five categories of Internet users were then created based on this indicator: "low Internet user" (0-9 hours per week); "moderate Internet user" (10-19 hours per week); "average Internet user" (20-29 hours per week); "high Internet user" (30-39 hours per week); and "heavy Internet user" (more than 40 hours per week).

In 2018, the analysis shows that for all the categories of Internet use, frequent exposure to bullying increased between 2015 and 2018 (Table III.B1.2.12). The largest increase was observed amongst "low Internet users". On average across OECD countries, 23% of "low Internet users" reported being bullied at least a few times a month – a 6 percentage-point increase since 2015. Some 28% of "heavy Internet users" reported being bullied at least a few times a month, a 2 percentage-point increase since 2015.

The results also show that, on average across OECD countries in 2018, the shares of "moderate Internet users" and "average Internet users" who reported being bullied at least a few times a month were smaller than amongst the other groups of Internet users (Table III.B1.2.12). By contrast, students categorised as "heavy Internet users" tended to be the most frequently bullied, both in 2015 and 2018.

These findings imply that students categorised as "heavy Internet users" tended to be more frequently exposed to bullying, both in 2015 and 2018. The analysis also shows that for all the categories of Internet use, frequent exposure to bullying increased between 2015 and 2018. However, these upward changes might be related to PISA including social media as a potential platform for bullying in the 2018 questionnaire.

WHAT IS THE PROFILE OF STUDENTS WHO WERE BULLIED AT LEAST A FEW TIMES A MONTH?

Individual characteristics can shape how students approach bullying. Boys tend to be more often involved in bullying than girls (Camodeca et al., 2002^[32]; Haynie et al., 2001^[33]; Veenstra et al., 2005^[34]) and more physically violent (Rivers and Smith, 1994^[35]), while girls tend to engage in more relational aggression (Crick and Grotpeter, 1995^[36]).

Figure III.2.3 shows that, on average across OECD countries, boys were more likely than girls to report being bullied – in all forms (Table III.B1.2.9) – at least a few times a month. However, when it came to being left out of things on purpose and being the object of nasty rumours, the difference between boys and girls was relatively small. In Belgium, Costa Rica, the Republic of Moldova, the Netherlands, the United Kingdom and the United States, girls were significantly more likely than boys to be the object of nasty rumours.

Being bullied is associated with students' socio-economic status (Knaappila et al., 2018^[37]; Tippett and Wolke, 2014^[38]). In 41 countries and economies, a larger share of disadvantaged than advantaged students reported being bullied at least a few times a month (Figure III.2.3). PISA 2018 data show that, across OECD countries, there was a difference of between one and three percentage points between advantaged and disadvantaged students in the proportion of frequently bullied students (considering all types of bullying) (Table III.B1.2.10). However, in a few countries the reverse pattern was observed. For example, in Indonesia, Japan and Malta, advantaged students were more likely than disadvantaged students to report that “other students left me out of things on purpose” and “other students made fun of me”. In addition, in Indonesia, advantaged students were more likely than disadvantaged students to report that “other students took away or destroyed things that belong to me” and “other students spread nasty rumours about me”.

Previous studies have shown that the prevalence of bullying peaks in lower secondary school years, and declines over upper secondary school years (Nansel et al., 2001^[39]; Nylund et al., 2007^[40]). This was also observed in PISA 2018 (Figure III.2.3). In 39 out of 57 education systems with comparable data, the share of students who had been bullied at least a few times a month was smaller amongst upper secondary students than lower secondary students. In Hungary, Malaysia, Morocco and Viet Nam, there was at least a 15 percentage-point difference between the two groups (Table III.B1.2.4).

Bullying between immigrant and non-immigrant students raises concern amongst policy makers as bullying may have a strong impact on relations between immigrant and non-immigrant groups later on, in adult life. The difference between the shares of immigrant and non-immigrant students who reported being bullied at least a few times a month was not large (a three percentage-point difference between the two groups), on average across OECD countries (Figure III.2.3 and Table III.B1.2.4). But there was a sizeable difference in some countries. For example, in Albania, 48% of immigrant students reported being frequently bullied, compared to 25% of non-immigrant students who so reported. The opposite was observed in Brunei Darussalam, where 51% of non-immigrant students reported being bullied at least a few times a month, while 42% of immigrant students so reported. These results are in line with previous research, which is ambiguous about the predictive power of having an immigrant background on the incidence of bullying (Vitoroulis and Vaillancourt, 2018^[41]).

HOW EXPOSURE TO BULLYING IS RELATED TO READING PERFORMANCE

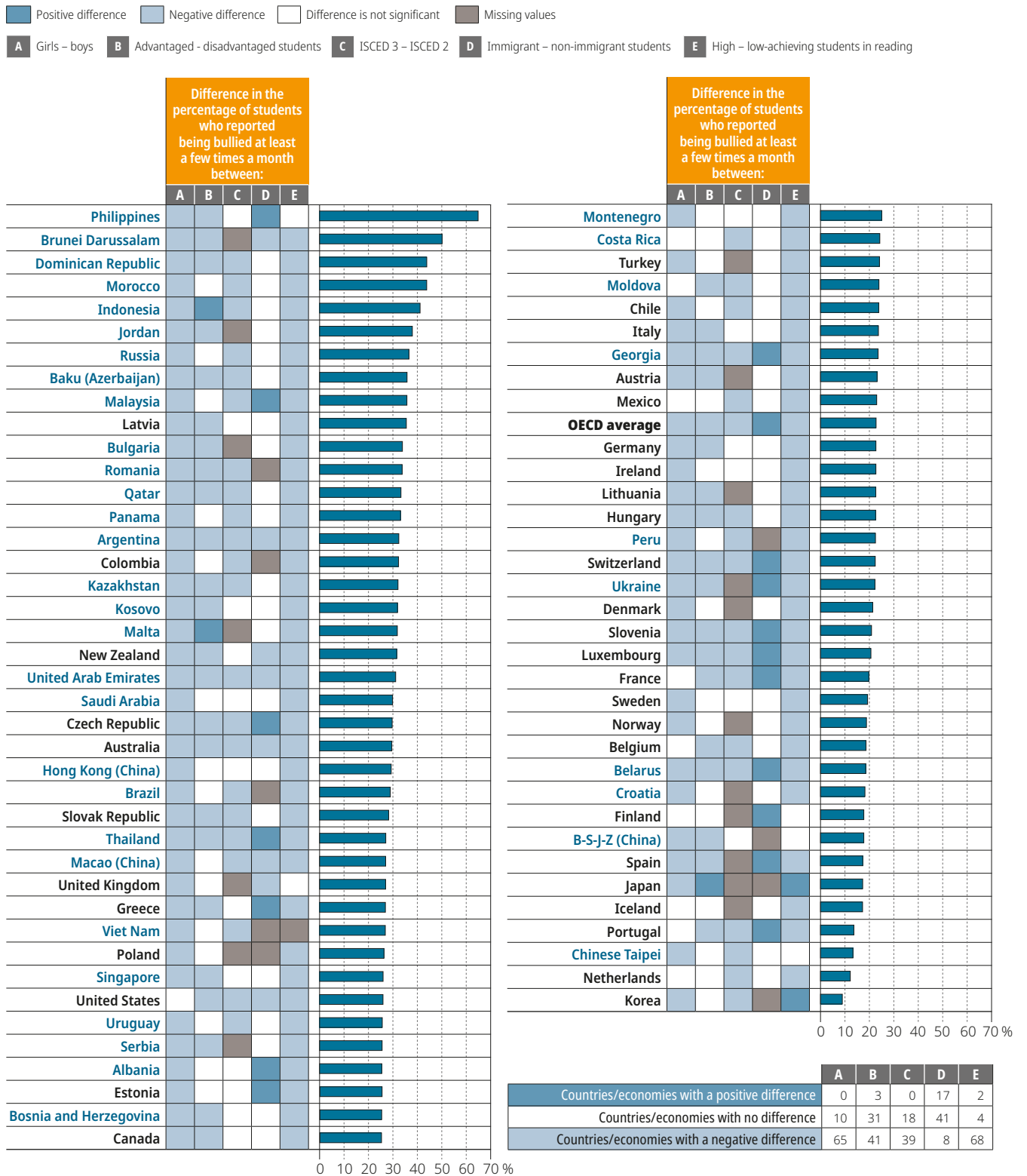
Bullying schoolmates can be associated with poorer academic performance. Research finds that both aggressors and victims tend to skip classes and drop out of school more often, and perform worse academically, than peers not involved in bullying (Juvonen, Yueyan Wang and Espinoza, 2011^[42]; Konishi et al., 2010^[43]; Townsend et al., 2008^[44]). Academic tracking may also stigmatise students by tacitly labelling low-achieving students as academic failures. As the evidence suggests, low-achieving students are more likely to be victimised when there is a greater academic difference between high- and low-achieving students (Akiba et al., 2002^[45]).

As in PISA 2015, in PISA 2018 a larger share of low-achieving than high-achieving students reported having been bullied at least a few times a month (Figure III.2.3). On average across OECD countries, 18% of high-achieving students (those who scored amongst the top 25% of students in their country/economy on the PISA reading test) reported being bullied, while 31% of low-achieving students (those who scored amongst the bottom 25% of students in their country/economy on the PISA reading test) reported so (Table III.B1.2.4). This difference was observed in most participating countries and economies, and the gap was larger in partner countries/economies than in OECD countries.

PISA 2018 data also reveal that a greater exposure to bullying was associated with lower performance in reading (Figure III.2.4 and Table III.B1.2.6). On average across OECD countries, every one-unit increase in the index of exposure to bullying (equivalent to one standard deviation across OECD countries) was associated with a drop of nine score points in reading, after accounting for students' and schools' socio-economic profile (as measured by the PISA index of economic, social and cultural status). The analysis of the relationship between reading performance and any type of bullying act revealed that across OECD countries, 15-year-old students who reported being bullied at least a few times a month scored 21 points lower in reading than students who were less-frequently bullied, after accounting for students' and schools' socio-economic profile. In Georgia, Lithuania, Malta and Portugal, this gap was 40 score points; only in Japan and Korea did frequently bullied students score higher in reading.

Figure III.2.3 **Being bullied, by student characteristics**

Based on students' reports



Note: Low-achieving (high-achieving) students are students who score amongst the bottom 25% (the top 25%) of students within their country or economy on the PISA test.

Countries and economies are ranked in descending order of the percentage of students being bullied at least a few times a month.

Source: OECD, PISA 2018 Database, Tables III.B1.2.1 and III.B1.2.4.

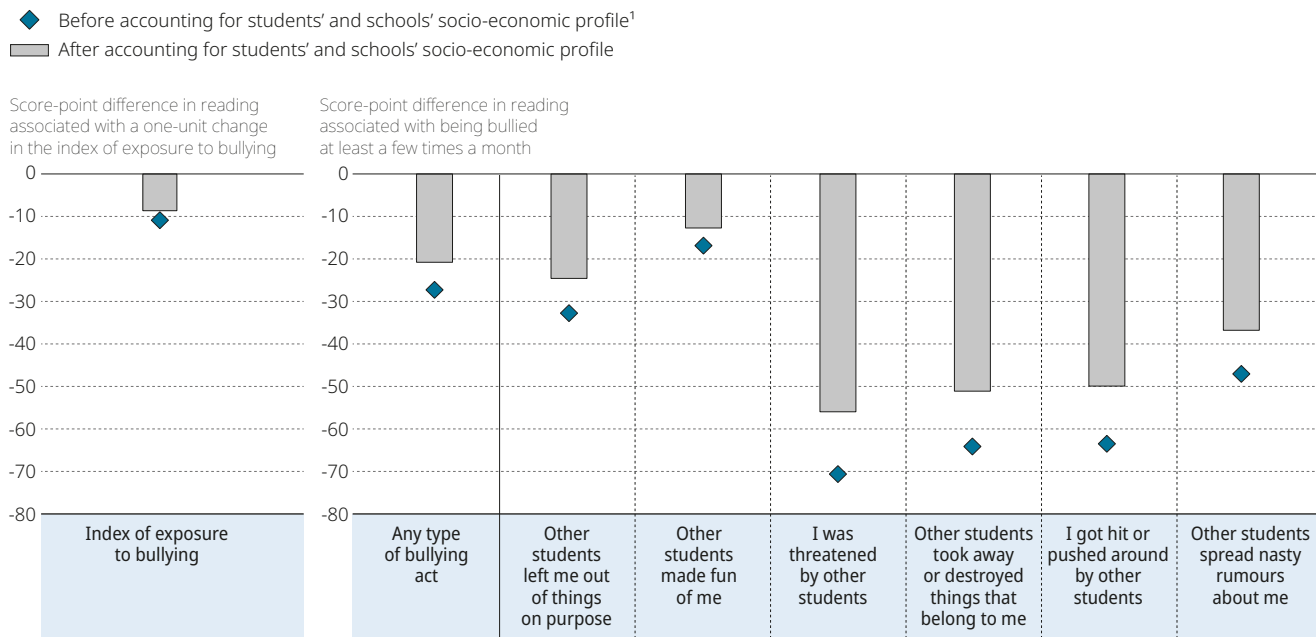
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The relationship with reading performance also varied depending on the type of bullying considered (Table III.B1.2.6). On average across OECD countries, students who reported that other students threatened them at least a few times a month scored 56 points lower in reading than students who reported that they were threatened by other students a few times a year or less frequently, after accounting for students' and schools' socio-economic profile. By contrast, students whose peers made fun of them at least a few times a month scored only 13 points lower in reading than students who reported that this occurred a few times a year or less frequently. This result suggests that physical bullying is more strongly associated with lower academic performance than verbal bullying.

Students attending schools where bullying is widespread, for instance because the school lacks the resources to address behavioural problems, may perform worse, even if they themselves have not been bullied (Table III.B1.2.7). When considering the relationship between reading performance and types of bullying at the school level, students performed better in reading in schools where bullying was less prevalent. For instance, in schools with the lowest percentage of students who reported that they were the object of nasty rumours (that is, schools in the bottom quarter of this indicator in their country/economy), the average reading score was 507 points. In schools with the highest percentage of these students (that is, schools in the top quarter of this indicator in their country/economy), the average reading score was 455 points.

Figure III.2.4 **Students' exposure to bullying and reading performance**

Based on students' reports; OECD average



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

Notes: The index of exposure to bullying includes the following statements: "Other students left me out of things on purpose"; "Other students made fun of me"; and "I was threatened by other students".

All values are statistically significant (see Annex A3).

Source: OECD, PISA 2018 Database, Table III.B1.2.6.

StatLink <http://dx.doi.org/10.1787/888934029242>

WHAT DO STUDENTS THINK ABOUT BULLYING?

Examining students' attitudes towards bullying – and towards defending the victims of bullying – may help educators and policy makers in their efforts to develop effective bullying prevention and intervention programmes (Baldry, 2004_[46]; Baldry and Farrington, 1999_[47]). Such information can also be used to describe the atmosphere in schools where bullying thrives – with the ultimate goal of changing that climate.

Given the growing interest in the topic, PISA 2018 asked students about their general attitudes towards bullying. These attitudes are regarded as moral judgements on bullying behaviour in general; as such, they may differ from the attitudes students hold in relation to bullying in their own school (Salmivalli and Voeten, 2004_[48]). PISA monitored five forms of bullying-related attitudes. PISA asked students whether they agree ("strongly disagree", "disagree", "agree", "strongly agree") with the following

statements: “It irritates me when nobody defends bullied students”; “It is a good thing to help students who can’t defend themselves”; “It is a wrong thing to join in bullying”; “I feel bad seeing other students bullied”; and “I like it when someone stands up for other students who are being bullied”.

Figure III.2.5 shows the percentage of students who reported that they agree or disagree with the statements related to attitudes towards bullying. Most students across OECD countries expressed negative attitudes towards bullying and positive attitudes towards defending the victims of bullying. On average across OECD countries, 90% of students agreed or strongly agreed that they like it when someone stands up for other students who are being bullied; 88% of students agreed or strongly agreed that it is a good thing to help students who can’t defend themselves; 87% of students agreed or strongly agreed that they feel bad seeing other students bullied; and 81% of students reported that it irritates them when nobody defends bullied students. These results are in line with previous evidence, which indicates that most students express anti-bullying attitudes (Boulton, Bucci and Hawker, 1999_[49]).

While 88% of students reported that they think it is wrong to join in bullying, in some PISA-participating countries and economies, sizable minorities of students disagreed or strongly disagreed with this statement. For instance, at least three out of ten students in Colombia, Indonesia, Jordan and Morocco disagreed or strongly disagreed that it is wrong to join in bullying (Figure III.2.5 and Table III.B1.2.15).

Research shows that girls tend to report stronger anti-bullying attitudes than boys do (Rigby and Slee, 1991_[50]; Salmivalli and Voeten, 2004_[48]). In PISA 2018, the responses to the five statements show that, on average across OECD countries, girls had more negative attitudes towards bullying than boys (Figure III.2.5 and Table III.B1.2.16). The largest gap between girls and boys was observed for the statement “It irritates me when nobody defends bullied students”, followed by “I feel bad seeing other students bullied”, “It is a good thing to help students who can’t defend themselves”, “I like it when someone stands up for other students who are being bullied” and “It is a wrong thing to join in bullying”.

On average across OECD countries, about 84% of boys and 91% of girls reported that they think it is wrong to join in bullying (Figure III.2.5). In particular, in Austria, Belarus, Bulgaria, Lithuania, Poland, Saudi Arabia, the Slovak Republic, Switzerland and Ukraine the proportion of girls who so reported was at least 10 percentage points larger than the share of boys who did (Table III.B1.2.16).

Some 74% of boys and 88% of girls agreed or strongly agreed that it irritates them when nobody defends bullied students. In Lithuania and Saudi Arabia, girls were at least 20 percentage points more likely than boys to describe themselves as irritated when nobody defends bullied students, while in Baku (Azerbaijan), B-S-J-Z (China) and Macao (China), the gender difference amounted to around 3 percentage points. These disparities may be related to differences in group values, with girls putting a priority on sociability and intimacy, and boys on toughness, self-confidence and physical prowess (Tulloch, 1995_[51]).

Advantaged students were also more likely than disadvantaged students to report anti-bullying attitudes (Table III.B1.2.17). On average across OECD countries, advantaged students were at least five percentage points more likely than their disadvantaged peers to report that they agree or strongly agree with any of the five statements about their attitudes towards bullying.

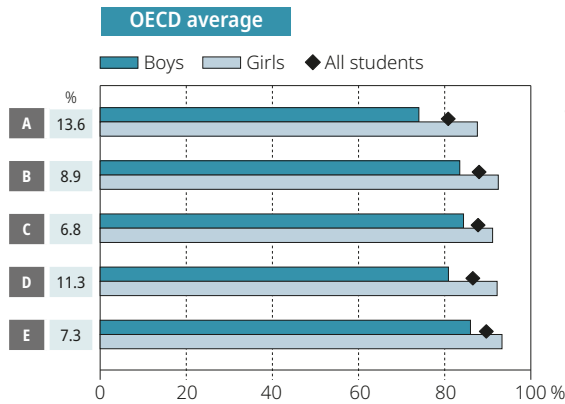
HOW EXPOSURE TO BULLYING IS RELATED TO STUDENTS’ ATTITUDES TOWARDS BULLYING

Promoting intervention by bystanders is seen as a promising way to prevent bullying. Research suggests that moral disapproval of bullying is often associated with staying outside of a bullying situation, showing empathy with the victims (Baldry, 2004_[46]; Poyhonen, Juvonen and Salmivalli, 2010_[52]; Tulloch, 1995_[51]) and expressing the intent to intervene (Rigby and Johnson, 2006_[53]). In addition to personal values, group norms can explain why some students in certain classrooms are more likely to bully or to defend the victims (Ojala and Nesdale, 2004_[54]; Salmivalli, 2010_[55]).

On average across OECD countries, frequently bullied students tended to show greater tolerance towards bullying than not frequently bullied students (Table III.B1.2.18). For example, the share of frequently bullied students who agreed or strongly agreed with the statements “I like it when someone stands up for other students who are being bullied” or “It is a good thing to help students who can’t defend themselves” was at least four percentage points lower than the share of less-frequently bullied students who so reported. But there were variations across countries. In 24 of 75 countries and economies, the share of frequently bullied students who agreed or strongly agreed that “It is a wrong thing to join in bullying” was smaller than the share of less-frequently bullied students who agreed with that statement. The finding that frequently bullied students were more likely to express more favourable views towards bullying should be interpreted with some caution as there could be many possible explanations. For example, some frequently bullied students may also be bullies themselves, who tend to form less favourable anti-bullying views than students who are classified only as victims.

Figure III.2.5 Students' attitudes towards bullying, by gender

Based on students' reports



Percentage of students who agreed or strongly agreed with the following statements

- A It irritates me when nobody defends bullied students
- B It is a good thing to help students who can't defend themselves
- C It is a wrong thing to join in bullying
- D I feel bad seeing other students bullied
- E I like it when someone stands up for other students who are being bullied

OECD	Percentage of students who agreed or strongly agreed with the following statements:				
	A	B	C	D	E
Australia	86	93	92	92	94
Austria	76	84	87	80	86
Belgium	80	93	94	87	94
Canada	85	92	92	91	93
Chile	84	88	86	87	89
Colombia	75	84	68	82	86
Czech Republic	84	89	88	86	89
Denmark	88	92	94	92	94
Estonia	81	89	89	86	89
Finland	82	91	93	89	92
France	84	90	93	89	93
Germany	77	86	90	80	90
Greece	84	85	85	88	89
Hungary	76	83	75	80	85
Iceland	79	88	88	86	86
Ireland	90	94	94	95	96
Israel	82	86	84	87	89
Italy	84	87	85	83	89
Japan	71	80	93	90	84
Korea	86	94	93	94	94
Latvia	74	82	83	77	84
Lithuania	72	79	81	77	82
Luxembourg	78	87	89	82	88
Mexico	78	86	82	84	87
Netherlands	70	91	95	91	96
New Zealand	88	93	92	92	94
Norway	89	93	94	91	92
Poland	76	83	80	79	84
Portugal	81	94	86	93	93
Slovak Republic	73	79	80	80	84
Slovenia	80	86	84	87	86
Spain	87	92	90	91	93
Sweden	84	90	92	83	92
Switzerland	73	82	86	79	87
Turkey	80	84	80	85	82
United Kingdom	88	94	95	93	96
United States	88	93	93	93	95

Percentage of students who agreed or strongly agreed with the following statements:

Partners	A	B	C	D	E
Albania	86	89	86	90	91
Argentina	81	87	79	85	88
Baku (Azerbaijan)	71	77	76	79	79
Belarus	68	81	76	72	82
Bosnia and Herzegovina	80	86	86	87	89
Brazil	71	85	83	86	87
Brunei Darussalam	81	89	87	90	88
B-S-J-Z (China)	88	83	96	89	91
Bulgaria	68	73	77	75	76
Costa Rica	84	90	86	88	90
Croatia	83	89	89	88	90
Dominican Republic	72	77	74	79	80
Georgia	81	85	80	86	80
Hong Kong (China)	75	81	91	83	89
Indonesia	74	80	57	80	73
Jordan	60	74	70	80	79
Kazakhstan	65	74	72	70	74
Kosovo	77	83	76	84	83
Macao (China)	75	84	93	86	91
Malaysia	82	87	84	87	87
Malta	87	90	90	91	92
Moldova	74	91	74	83	85
Montenegro	79	84	83	84	87
Morocco	67	73	67	74	74
Panama	73	83	74	81	84
Peru	77	88	81	86	87
Philippines	77	84	79	82	78
Qatar	78	83	79	84	85
Romania	77	85	75	82	87
Russia	74	81	84	77	84
Saudi Arabia	69	75	71	79	79
Serbia	78	84	83	83	86
Singapore	90	94	96	94	96
Chinese Taipei	75	84	92	83	84
Thailand	68	77	72	80	81
Ukraine	76	83	78	79	86
United Arab Emirates	77	83	77	85	86
Uruguay	83	86	84	87	89
Viet Nam	71	85	82	86	89

Note: Differences between girls and boys on average across OECD countries are shown next to the item on attitudes towards bullying. All differences are statistically significant (see Annex A3).

Source: OECD, PISA 2018 Database, Tables III.B1.2.15 and III.B1.2.16.

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At the school level, PISA 2018 shows that a prevalence of anti-bullying attitudes in schools is related to less exposure to bullying amongst students (Table III.B1.2.19). For instance, on average across OECD countries, in schools with the highest percentage of students who agreed or strongly agreed with the statement “I feel bad seeing other students bullied” (that is, schools in the top quarter of this indicator on bullying-related attitudes in their country/economy), the index of exposure to bullying was -0.18 of a unit lower than in schools with the lowest percentage of students who agreed with this statement (that is, schools in the bottom quarter of this indicator on bullying-related attitudes in their country/economy).

Figure III.2.6 shows the relationship between the index of exposure to bullying and students’ agreement with the statement “It is a good thing to help students who can’t defend themselves” at the school level. The results show that, in 54 out of 74 countries and economies with available data, students were less exposed to bullying when they attended schools where their schoolmates were more likely to agree than disagree with this statement, after accounting for students’ and schools’ socio-economic profile. This difference was particularly large in Macao (China) and Malta. Moreover, in 45 out of 75 PISA-participating countries and economies with available data, the school-level index of exposure to bullying was negatively associated with the share of students in schools who disapproved of joining in bullying, after accounting for students’ and schools’ socio-economic profile (Table III.B1.2.19). The only country where less-favourable views on joining in bullying was positively associated with the school-level exposure to bullying was the Dominican Republic.

DO FREQUENTLY BULLIED STUDENTS REPORT LESS WELL-BEING?

Bullying is a major risk factor for adolescents’ mental and physical health, in both the short and long term (Wolke and Lereya, 2015^[56]). Being bullied increases the risk of depression, anxiety, low self-esteem, loneliness and sadness amongst adolescents (Kochel, Ladd and Rudolph, 2012^[57]; Livingston et al., 2019^[58]; Rigby and Cox, 1996^[59]).

PISA 2018 data show that in the majority of participating countries and economies frequently bullied students were more likely to feel sad, scared and not satisfied with their lives than students who were characterised as not frequently bullied (Table III.B1.2.13). Frequently bullied students were also less likely to feel happy and have the self-belief to get through hard times. As shown in Figure III.2.7, on average across OECD countries, 30% of students who were frequently bullied – but 42% of students who were characterised as not frequently bullied – reported that they “always” feel happy. The difference between the two groups of students was of at least 20 percentage points in B-S-J-Z (China), Canada, Costa Rica, Ireland and the United States, after accounting for student and school characteristics (including students’ gender and performance in reading, and the socio-economic profile of both students and schools). In addition, on average across OECD countries, 49% of students who were not frequently bullied reported that they “sometimes” or “always” feel sad, compared to 64% of frequently bullied students who so reported. This difference holds for virtually all participating countries/economies with available data, after accounting for student and school characteristics.

HOW BULLYING IS ASSOCIATED WITH SCHOOL CLIMATE

Teachers and principals not only need to be able to recognise bullying when it happens, but they may also need to create an atmosphere where bullying is less likely to occur. Research suggests that a supportive and caring school environment is linked to a lower prevalence of bullying and to students’ willingness to seek help (Låftman, Östberg and Modin, 2017^[60]; Ma, 2002^[61]; Olweus, 1993^[3]). In schools where students perceive greater fairness, feel they belong at school, work in a more disciplined, structured and co-operative environment, and have less punitive teachers, students are less inclined to engage in risky and violent behaviours (Gottfredson et al., 2005^[62]; Kuperminc, Leadbeater and Blatt, 2001^[63]).

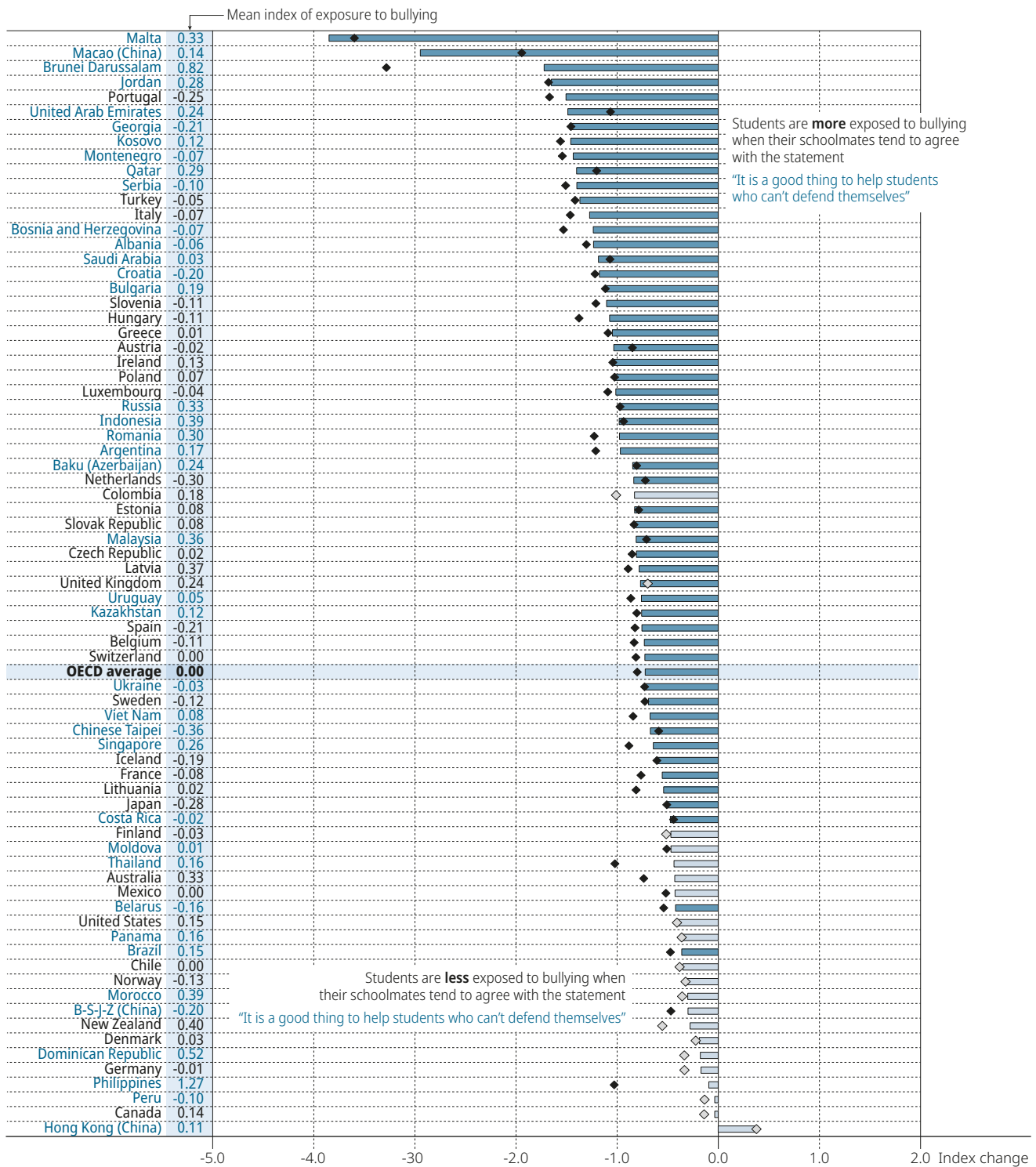
Figure III.2.8 shows that students in schools with a high prevalence of bullying were more likely to report a weaker sense of belonging at school, a poorer disciplinary climate and less co-operation amongst their schoolmates than students in schools with a low prevalence of bullying. On average across OECD countries, 23% of students in schools with a high prevalence of bullying reported that they feel like an outsider at school compared with 17% of students in schools with a low prevalence of bullying who reported so. Around 73% of students in schools with a low prevalence of bullying reported that they feel like they belong at school, while 67% of students in schools with a high prevalence of bullying reported so. On average across OECD countries, 61% of students in schools with a low prevalence of bullying, and 57% of students in schools with a high prevalence of bullying reported that they are encouraged to co-operate with others.

The share of students who reported that there is noise and disorder in every or most language-of-instruction lessons was six percentage points larger amongst students in schools with a high prevalence of bullying than amongst students in schools with a low prevalence of bullying, after accounting for students’ and schools’ socio-economic profile (Figure III.2.8). The difference between these two groups of students was more than 10 percentage points in Iceland, Macao (China), Malta, Singapore, Slovenia, Turkey and the United Arab Emirates (Table III.B1.2.14). When considering the association between the prevalence of bullying and both competition between students and teachers’ interest in student learning, as perceived by students, the difference between these two groups of students was less pronounced than for the other school-climate measures.

Figure III.2.6 Exposure to bullying and students' attitudes towards bullying at school

Based on students' reports

◆ ◇ Before accounting for students' and schools' socio-economic profile¹
 ■ □ After accounting for students' and schools' socio-economic profile



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

Note: Statistically significant changes are shown in darker tones (see Annex A3).

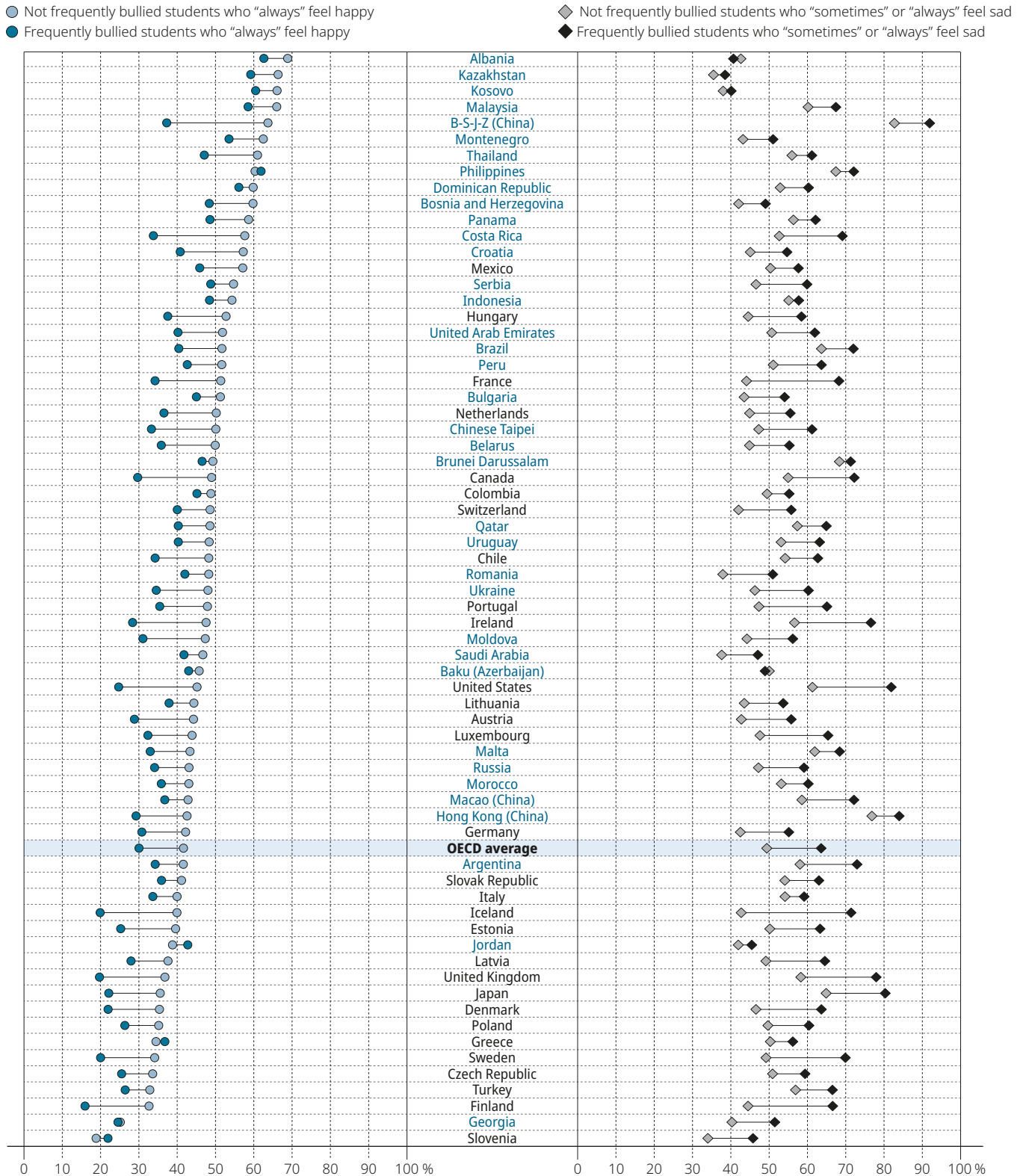
Countries and economies are ranked in ascending order of the change in the index of exposure to bullying when students' schoolmates tend to agree with the statement "It is a good thing to help students who can't defend themselves", after accounting for students' and schools' socio-economic profile.

Source: OECD, PISA 2018 Database, Tables III.B1.2.1 and III.B1.2.19.

StatLink <http://dx.doi.org/10.1787/888934029280>

Figure III.2.7 **Being frequently bullied and students' feelings**

Based on students' reports



Note: A student is frequently bullied if he or she is in the top 10% of the index of exposure to bullying across all countries/economies. Countries and economies are ranked in descending order of the percentage of not frequently bullied students who "always" feel happy.

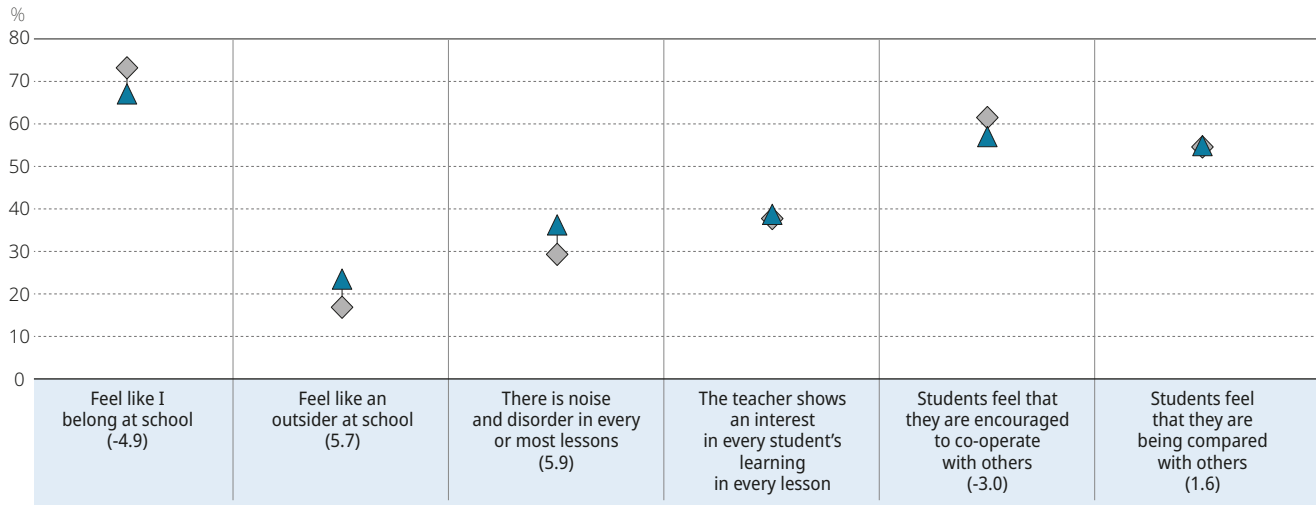
Source: OECD, PISA 2018 Database, Table III.B1.2.13.

StatLink <http://dx.doi.org/10.1787/888934029299>

Figure III.2.8 School climate, by prevalence of bullying in school

OECD average

◆ Schools with low prevalence of bullying ▲ Schools with high prevalence of bullying



Notes: Schools with a high prevalence of bullying are those where more than 10% of students are frequently bullied. Schools with a low prevalence of bullying are those where 5% of students or less are frequently bullied. A student is frequently bullied if he or she is in the top 10% of the index of exposure to bullying across all countries/economies.

Statistically significant differences between schools with high and low prevalence of bullying after accounting for students' and schools' socio-economic profile are shown next to the item label (see Annex A3).

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

Source: OECD, PISA 2018 Database, Table III.B1.2.14.

StatLink <http://dx.doi.org/10.1787/888934029318>

Box III.2.3. Anti-bullying programmes in countries and economies that participated in PISA 2018

Anti-bullying programmes at the national and school levels may be seen as important components of bullying-prevention strategies. A recent UNESCO publication on ending violence and school bullying identifies the following actions that may be effective in tackling bullying at school (UNESCO, 2019, pp. 48-54^[64]):

- summoning the political will to develop a policy framework to address violence against children, including school violence
- enhancing collaboration between the education sector and a wide range of partners
- focusing on safe and positive school and classroom environments
- implementing school-based programmes and interventions that are based on evidence of effectiveness
- collecting data on school violence and bullying, monitoring responses systematically
- providing training for teachers on school violence, bullying and positive classroom management
- renewing the commitment to children's rights and empowerment, and student participation
- involving all stakeholders in the school community
- supporting students affected by school violence and bullying.

For the first time since its inception, in 2018 PISA collected data on anti-bullying programmes in participating countries and economies. PISA 2018 asked PISA Governing Board members, through a questionnaire, whether there is a national action plan to prevent bullying; whether there are school-based intervention programmes in place; whether there are systemic monitoring responses; and whether participating countries/economies collect information to monitor and evaluate bullying cases. See Annex B3 for more information about the system-level data collection. PISA also asked countries to group these strategies by different levels of education (primary, lower secondary and upper secondary). Participating countries/economies were given the options to report that a certain strategy exists, does not exist, or that country-level information is not available.

...

PISA 2018 data show that in around two out of three PISA-participating countries and economies with available data, national- and school-level anti-bullying programmes are in place at each level of education (Table B3.5.1). Some 50% of PISA-participating countries and economies reported that programmes to monitor and evaluate bullying cases were in place. By contrast, around 17% of the participating countries and economies had no national anti-bullying policy at the secondary level, and about 1 in 5 participating countries and economies did not provide information about such programmes.

Table III.2.1 shows the share of countries where the percentage of students who reported being bullied at least a few times a month was above or below the OECD average, by the existence of anti-bullying programmes. With a few exceptions, the share of countries where the prevalence of bullying was above the OECD average was smallest amongst the countries where anti-bullying programmes are in place, followed by the countries where no anti-bullying programmes exist, and the countries where information about anti-bullying programmes is not available. For example, the prevalence of bullying was above the OECD average in around 61% of the countries where national anti-bullying programmes are in place in upper secondary education, compared to around 73% of the countries where such programmes do not exist.

The existence of anti-bullying programmes may be crucial for tackling bullying, but it is important to bear in mind that the effectiveness of these programmes lies in their implementation and content.

Table III.2.1 **System-level anti-bullying policies and students' exposure to bullying**


Based on system-level information and students' self-reports, 2018

	National anti-bullying policy			School-based anti-bullying strategy (bullying prevention)			Response to bullying strategy			Data collection to monitor and evaluate bullying cases														
	Primary	Lower secondary	Upper secondary	Primary	Lower secondary	Upper secondary	Primary	Lower secondary	Upper secondary	Primary	Lower secondary	Upper secondary												
	N %	N %	N %	N %	N %	N %	N %	N %	N %	N %	N %	N %												
The relevant policy exists	44	59	45	61	44	59	47	64	47	64	46	62	43	58	43	58	42	57	36	49	37	50	37	50
The relevant policy exists: The prevalence of students who reported being bullied at least a few times a month was above the OECD average	27	61	28	62	27	61	30	64	30	64	30	65	27	63	27	63	26	62	23	64	24	65	24	65
The relevant policy exists: The prevalence of students who reported being bullied at least a few times a month was below the OECD average	17	39	17	38	17	39	17	36	17	36	16	35	16	37	16	37	16	38	13	36	13	35	13	35
The relevant policy does not exist	12	16	11	15	11	15	7	9	7	9	8	11	12	16	12	16	12	16	18	24	17	23	16	22
The relevant policy does not exist: The prevalence of students who reported being bullied at least a few times a month was above the OECD average	9	75	8	73	8	73	4	57	4	57	4	50	8	67	8	67	8	67	12	67	11	65	10	63
The relevant policy does not exist: The prevalence of students who reported being bullied at least a few times a month was below the OECD average	3	25	3	27	3	27	3	43	3	43	4	50	4	33	4	33	4	33	6	33	6	35	6	38
No information available about the relevant policy	18	24	18	24	19	26	20	27	20	27	20	27	19	26	19	26	20	27	20	27	20	27	21	28
No information available about the relevant policy: The prevalence of students who reported being bullied at least a few times a month was above the OECD average	14	78	14	78	15	79	16	80	16	80	16	80	15	79	15	79	16	80	15	75	15	75	16	76
No information available about the relevant policy: The prevalence of students who reported being bullied at least a few times a month was below the OECD average	4	22	4	22	4	21	4	20	4	20	4	20	4	21	4	21	4	20	5	25	5	25	5	24

Notes: Only countries and economies with available data for students' exposure to bullying in PISA 2018 and system-level information on anti-bullying policies or general programmes are shown.

The OECD average of students who reported being bullied at least a few times a month is 23%.

Source: OECD, PISA 2018 Database, Tables III.B1.2.1 and B3.5.1.

StatLink  <http://dx.doi.org/10.1787/888934029337>

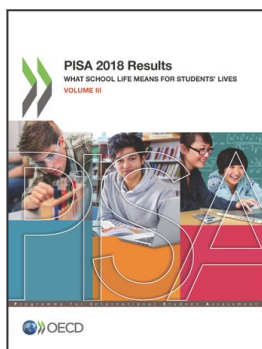
1. Due to the slight modification, between 2015 and 2018, of the survey question about students' exposure to bullying, trend results should be interpreted with some caution. In 2015, PISA included two items that were dropped from the PISA 2018 questionnaire. In addition, the PISA 2018 questionnaire included an additional instruction indicating that bullying can also happen in social media. This instruction was missing from the PISA 2015 questionnaire.

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