



## **Academic resilience and well-being amongst disadvantaged students**

This chapter explores the capacity of students to perform well in school in spite of socio-economic adversity. In particular, the chapter examines the factors that are related to student academic resilience, such as support from parents and teachers, positive school climate and students' beliefs in their own abilities. It also investigates how academic resilience is related to positive attitudes and dispositions.

Socio-economic disadvantage is a major predictor of poor education and well-being outcomes. However, in spite of the odds, some disadvantaged students exhibit a remarkable capacity to reach adequate levels of academic achievement and social adjustment. The degree to which students succumb to adversity is influenced by environmental factors that foster or hinder resilience (Mostafa, Gambaro and Joshi, 2018<sup>[11]</sup>). For instance, parents' and teachers' support may help students cultivate resilience, while having a fixed mindset may impede students from doing so (Yeager and Dweck, 2012<sup>[12]</sup>).

This chapter explores the capacity of students to perform well in school in spite of socio-economic adversity. In particular, the chapter examines the factors that are related to students' academic resilience, such as support from parents and teachers, positive school climate and students' beliefs in their own abilities. It also investigates how academic resilience is related to positive attitudes and dispositions, such as enjoyment of reading, goal orientation, work mastery and students' well-being. Students' well-being at school is considered to be an important education outcome in itself. In this sense, it is not sufficient for students to attain high levels of proficiency in academic subjects; it is also important for them to do so while enjoying high levels of well-being.

### What the data tell us

- In spite of socio-economic disadvantage, some students are capable of attaining high levels of academic proficiency. On average across OECD countries, one in ten disadvantaged students was able to perform in the top quarter of reading performance in their country, indicating that disadvantage is not destiny. In Australia, Canada, Estonia, Hong-Kong (China), Ireland, Macao (China) and the United Kingdom, all of which scored above the OECD average, more than 13% of disadvantaged students were academically resilient.
- Academic resilience was found to be positively related to parental support, teacher enthusiasm, student self-efficacy and a positive disciplinary climate at school. In some countries, resilient students were also found to enjoy reading more, to have higher motivation to master tasks and to have a greater ability to set and pursue goals.
- In 35 out of 76 countries and economies, a greater proportion of academically resilient students reported that they feel they belong at school compared with students who are not academically resilient. Associations were strong in Bulgaria, France, Jordan, Morocco, Panama and the Philippines. Academic resilience was associated with other measures of student well-being, such as life satisfaction and lack of self-doubt when facing failure, but to a lesser extent.

### HOW PISA DEFINES ACADEMIC RESILIENCE

Although some students may have the emotional and social support they need, others live in chronically adverse circumstances (Roffey, 2016<sup>[3]</sup>; Roffey, 2015<sup>[4]</sup>) that inevitably affect these students' learning and well-being, and, ultimately, their future (Bradley and Corwyn, 2002<sup>[5]</sup>; Farah et al., 2006<sup>[6]</sup>; Mani et al., 2013<sup>[7]</sup>). However, not all students succumb to adversity; some exhibit a strong capacity to adapt to – and overcome – the challenges they face (Martin and Marsh, 2006<sup>[8]</sup>; Howard and Johnson, 2000<sup>[9]</sup>). PISA refers to this capacity as resilience.

Academically resilient students are those who, in spite of socio-economic disadvantage, are able to beat the odds against them and sustain high academic performance. While all students face difficulties of one sort or another, disadvantaged students are more likely to be low performers at school (OECD, 2018<sup>[10]</sup>; OECD, 2016<sup>[11]</sup>). Disadvantaged students often have low-educated parents who work in lower-paid and less-prestigious jobs; they often lack educational and material resources at home. These students are also more likely to attend disadvantaged schools that are equipped with fewer resources and to speak at home a language that is different from the language spoken at school (OECD, 2017<sup>[12]</sup>).

While Chapter 2 mainly examines students' performance in the context of their socio-economic status on an international scale, this chapter focuses on a country-specific definition of academic resilience. Chapter 2 shows that in all countries/economies, socio-economically advantaged students outperformed their disadvantaged peers, but performance gaps between disadvantaged and advantaged students varied across countries/economies.

Where are disadvantaged students more likely to beat the odds and score at the highest level in their own country/economy? This chapter attempts to answer that question.

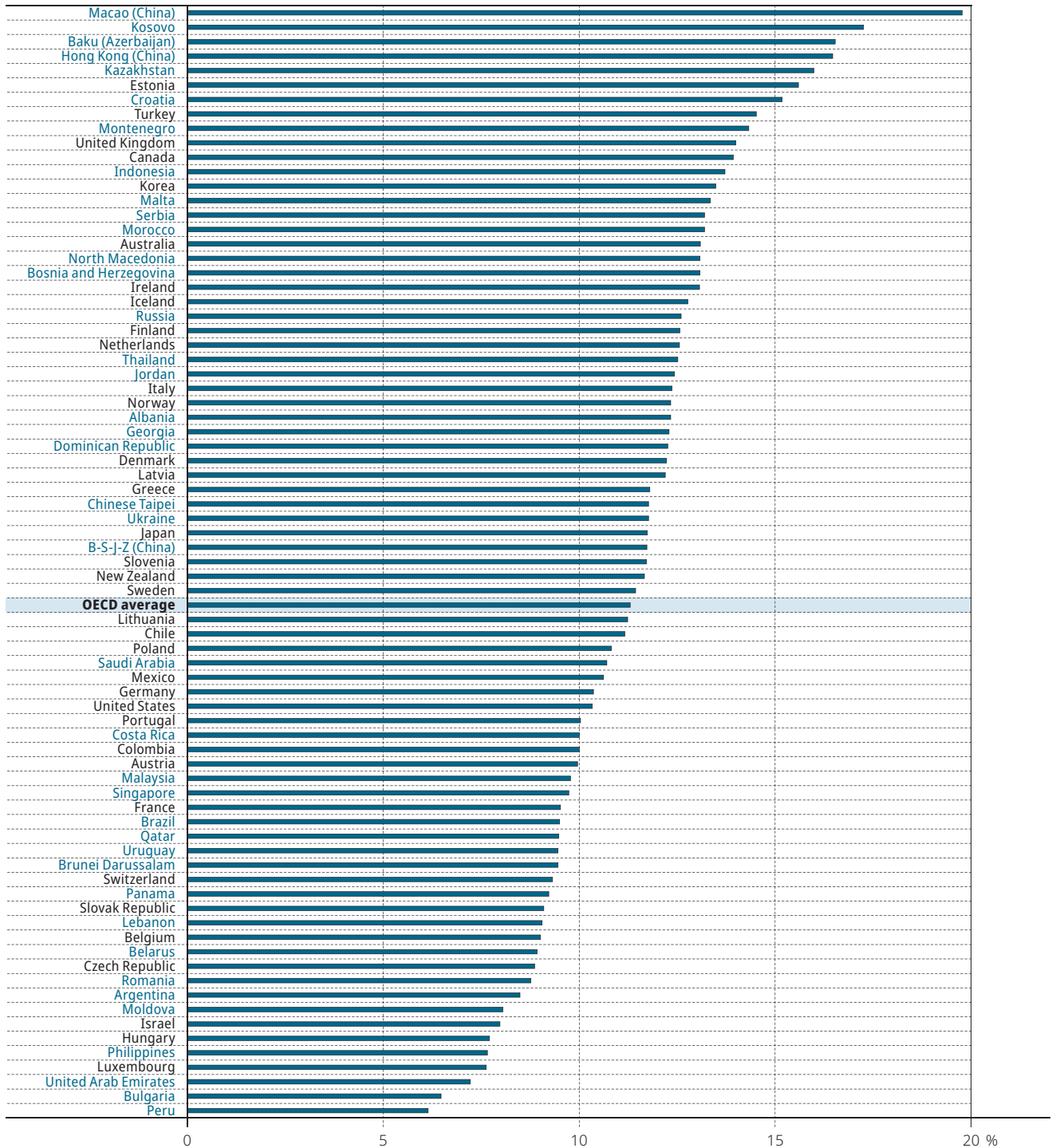
Academically resilient students are disadvantaged students who are in the bottom quarter of the PISA index of economic, social and cultural status (ESCS) in their own country/economy but who score in the top quarter of reading in that country/economy. These students are academically resilient because, in spite of their socio-economic disadvantage, they attain educational excellence by national standards. Academic resilience is a relative measure, with both socio-economic disadvantage and performance thresholds defined within each country/economy.<sup>1</sup>

### ACADEMIC RESILIENCE ACROSS COUNTRIES

Figure II.3.1 shows that some disadvantaged students were able to attain the top quarter of performance in reading in their country. On average across all OECD countries, 11.3% of disadvantaged students were academically resilient. In Baku (Azerbaijan), Croatia, Estonia, Hong Kong (China), Kazakhstan, Kosovo and Macao (China), more than 15% of disadvantaged students were academically resilient. By contrast, in Bulgaria, Hungary, Israel, Luxembourg, Peru, the Philippines and the United Arab Emirates, less than 8% of disadvantaged students were (Table II.B1.3.1).

Figure II.3.1 **Academic resilience**

Percentage of disadvantaged students who scored in the top quarter of reading performance in their own country



Countries and economies are ranked in descending order of the percentage of academically resilient students.

Source: OECD, PISA 2018 Database, Table II.B1.3.1.

StatLink <https://doi.org/10.1787/888934037203>

Differences between countries in the proportion of resilient students are generally small since academic resilience relies on a relative definition of socio-economic disadvantage and academic performance that is specific to each country's context. The smallest proportion of academically resilient students was observed in Peru, where 6% of students were resilient; the largest proportion – 20% – was observed in Macao (China). Academic resilience reflects the extent to which performance is associated with socio-economic disadvantage. The weaker the association, the larger the proportion of disadvantaged students who end up performing in the top quarter of reading proficiency.

### FACTORS RELATED TO ACADEMIC RESILIENCE

Children do not acquire resilience on their own; resilience develops as the product of multiple factors that reflect the interdependence amongst families, communities and schools (Doll, 2012<sub>[13]</sub>). Resilience is related to parents and teachers, co-operation at school, a positive school climate and a student mindset that acknowledges the potential for improvement and growth (Stewart et al., 2004<sub>[14]</sub>; Claro, Paunesku and Dweck, 2016<sub>[15]</sub>; Haimovitz and Dweck, 2017<sub>[16]</sub>). This subsection explores factors that are associated with academic resilience.

#### Support from parents and teachers

Children need the support of their parents and their teachers to thrive. Both parents and teachers play an important role in students' lives as role models, and as a source of secure and healthy attachment (Marzano, 2003<sub>[17]</sub>).

PISA 2018 asked students three questions about whether they receive support from their parents. Students responded on a four-point scale ranging from "strongly disagree" to "strongly agree". Similarly, students were asked four questions about the frequency with which they receive support from their teachers. Again, students responded on a four-point scale ranging from "every lesson" to "never or hardly ever". Two scaled indices were constructed based on the questions. Higher values on the indices indicate greater parental or teacher support.

Figure II.3.2 shows the difference in the proportions of academically resilient students between those who receive the most support from their parents and those who receive the least. In 25 countries and economies, larger proportions of academically resilient students were observed amongst those students in the top quarter of the index of parents' emotional support. For instance, in Kosovo, amongst students who reported receiving strong support from their parents, 29% were academically resilient – a share 20 percentage -points larger than the share of academically resilient students who reported weak parental support (Table II.B1.3.2). This difference was larger than 10 percentage points in Baku (Azerbaijan), Brazil, Georgia, Jordan, Kosovo, Malta, Montenegro, the Philippines and Serbia. Table II.B1.3.2 presents the proportions of resilient students amongst disadvantaged students in each quarter of the index.

When considering teachers' support, there was no difference in the proportion of resilient students amongst those who received more support from their teachers and those who received less. Further findings concerning the index of teacher support can be found in Table II.B1.3.2.

#### School climate

A positive school climate has been shown to be a prerequisite for student achievement and a strong predictor of social and emotional outcomes (Aldridge et al., 2015<sub>[18]</sub>; Loukas and Robinson, 2004<sub>[19]</sub>; Roeser, Eccles and Sameroff, 2000<sub>[20]</sub>). Evidence shows that a positive school climate can nurture resilience while a negative climate is associated with increased behavioural problems (Wang et al., 2010<sub>[21]</sub>). In this section, three indicators of school climate, as perceived by students, are explored: disciplinary climate, student co-operation and student competition at school. These indicators are explored in *PISA 2018 Results (Volume III): What School Life Means for Students' Lives* (OECD, 2019<sub>[22]</sub>), with a focus on student outcomes other than resilience.

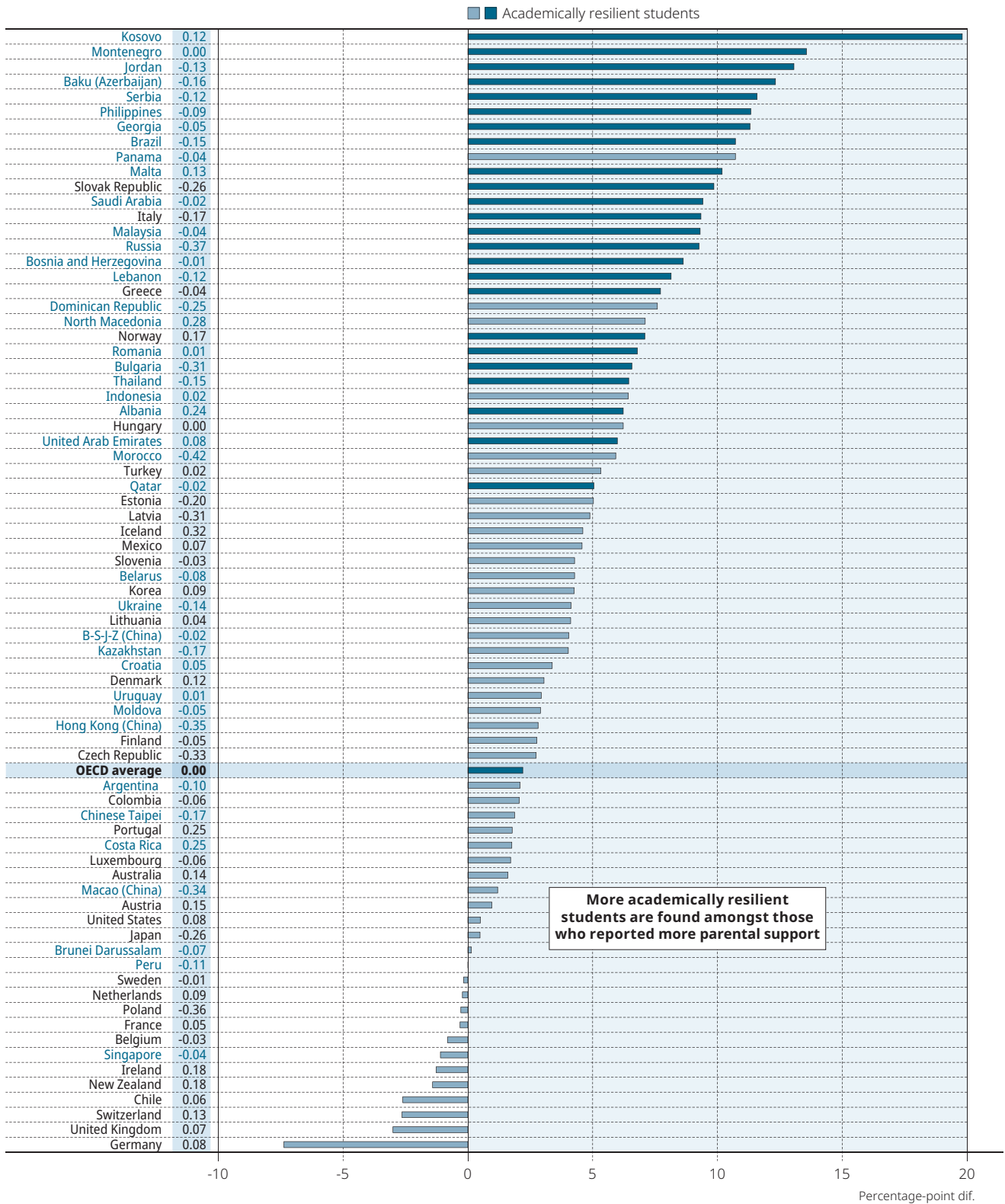
Students who participated in PISA were asked to describe the frequency ("every lesson", "most lessons", "some lessons", "never or hardly ever") with which the following disruptive activities occur in their language-of-instruction lessons: "Students don't listen to what the teacher says"; "There is noise and disorder"; "The teacher has to wait a long time for students to quiet down"; "Students cannot work well"; and "Students don't start working for a long time after the lesson begins". Students' responses were used to construct the index of disciplinary climate. Higher values in the index indicate better perception of discipline in language-of-instruction lessons.

In addition, students were asked about their perceptions of co-operation and competition at school. They were asked to indicate whether the following statements are true ("not at all true", "slightly true", "very true", "extremely true"): "Students seem to value co-operation"; "It seems that students are co-operating with each other"; "Students seem to share the feeling that co-operating with each other is important"; "Students feel that they are encouraged to co-operate with others"; "Students seem to value competition"; "It seems that students are competing with each other"; "Students seem to share the feeling that competing with each other is important"; and "Students feel that they are being compared with others". Students' responses were used to construct the indices of student co-operation and competition at school. Higher values in the indices indicate a greater perception of student co-operation or competition at school.



Figure II.3.2 **Parents' support and student resilience**

Percentage-point difference between the top and bottom quarters of the index of parents' emotional support



**Notes:** Statistically significant differences are shown in a darker tone (see Annex A3).

Resilient students are disadvantaged students who score in the top quarter of performance in reading amongst students in their own country.

The average of the index of parents' emotional support is shown next to the country/economy name.

Countries and economies are ranked in descending order of the percentage-point difference in academically resilient students between the top and bottom quarters of the index of parents' emotional support.

**Source:** OECD, PISA 2018 Database, Table II.B1.3.2 and Table II.B1.3.6.

**StatLink** <https://doi.org/10.1787/888934037222>

The findings show that, in 35 countries, the share of academically resilient students was larger amongst those who reported a better school climate (Figure II.3.3). The difference in the proportions of resilient students between students in the top quarter of the index of disciplinary climate at school and those in the bottom quarter of that index was 6 percentage points, on average across OECD countries. Differences of more than 12 percentage points were observed in Bosnia and Herzegovina, Italy and Malaysia.

Differences in the shares of academically resilient students were also observed when considering other dimensions of school climate, such as student competition and co-operation, as perceived by the students themselves. In general, a larger share of academically resilient students was found amongst students who perceive greater co-operation at school. On average across OECD countries, the share of academically resilient students was 3 percentage points larger (significant differences found in 12 countries and economies) amongst students in the top quarter of the index of student co-operation than amongst students in the bottom quarter of that index. In other words, there were slightly more academically resilient students amongst those who perceive more co-operation amongst students in their school.

When considering the perception of competition amongst students, in 11 countries and economies the share of academically resilient students was larger amongst students in the top quarter of the index than amongst those in the bottom quarter. The largest differences were observed in Albania, Brunei Darussalam, Korea, Malaysia and Malta, with a difference larger than 8 percentage points. The opposite was found to be true in only two countries (Table II.B1.3.2).

In general, these findings show that more academically resilient students are found amongst those who reported better discipline in their schools. In a few countries, co-operation and competition amongst students seem to be positively related to a greater likelihood of a student being academically resilient.

### Beliefs in one's own abilities

When students have a fixed mindset, they tend to believe that their abilities are unchangeable (Hong et al., 1999<sup>[23]</sup>; Nussbaum and Dweck, 2008<sup>[24]</sup>). In this context, adolescents may feel that they are not intelligent enough or that they lack personal capacity to meet certain challenges (Yeager et al., 2011<sup>[25]</sup>). In contrast, students with a growth mindset recognise that these challenges are external, and can thus be confronted and tackled. As such, a growth mindset can contribute to resilience. Even if students have the intellectual and social skills they need, they may not use them unless and until they believe that they can overcome academic, social and emotional adversities (Blackwell, Trzesniewski and Dweck, 2007<sup>[26]</sup>; Yeager, Trzesniewski and Dweck, 2012<sup>[27]</sup>).

PISA 2018 asked students whether or not they agree with the statement: "Your intelligence is something about you that you cannot change very much". Answers were given on a four-point scale ranging from "strongly agree" to "strongly disagree", and were combined into a binary indicator of whether or not the student has a growth mindset.

Figure II.3.4 shows the proportion of students who exhibited a growth mindset across countries. The proportion was large and exceeded 70% in Austria, Denmark, Germany, Iceland, Ireland, Latvia, Lithuania and the United Kingdom; the largest proportion – 77% – was observed in Estonia. Proportions were smaller than 30% in Indonesia, Kosovo, the Republic of North Macedonia and Panama. On average across all OECD countries, about 63% of students exhibited a growth mindset. The growth mindset is examined in more detail in Chapter 14 of *PISA 2018 Results (Volume III): What School Life Means for Students' Lives* (OECD, 2019<sup>[22]</sup>).

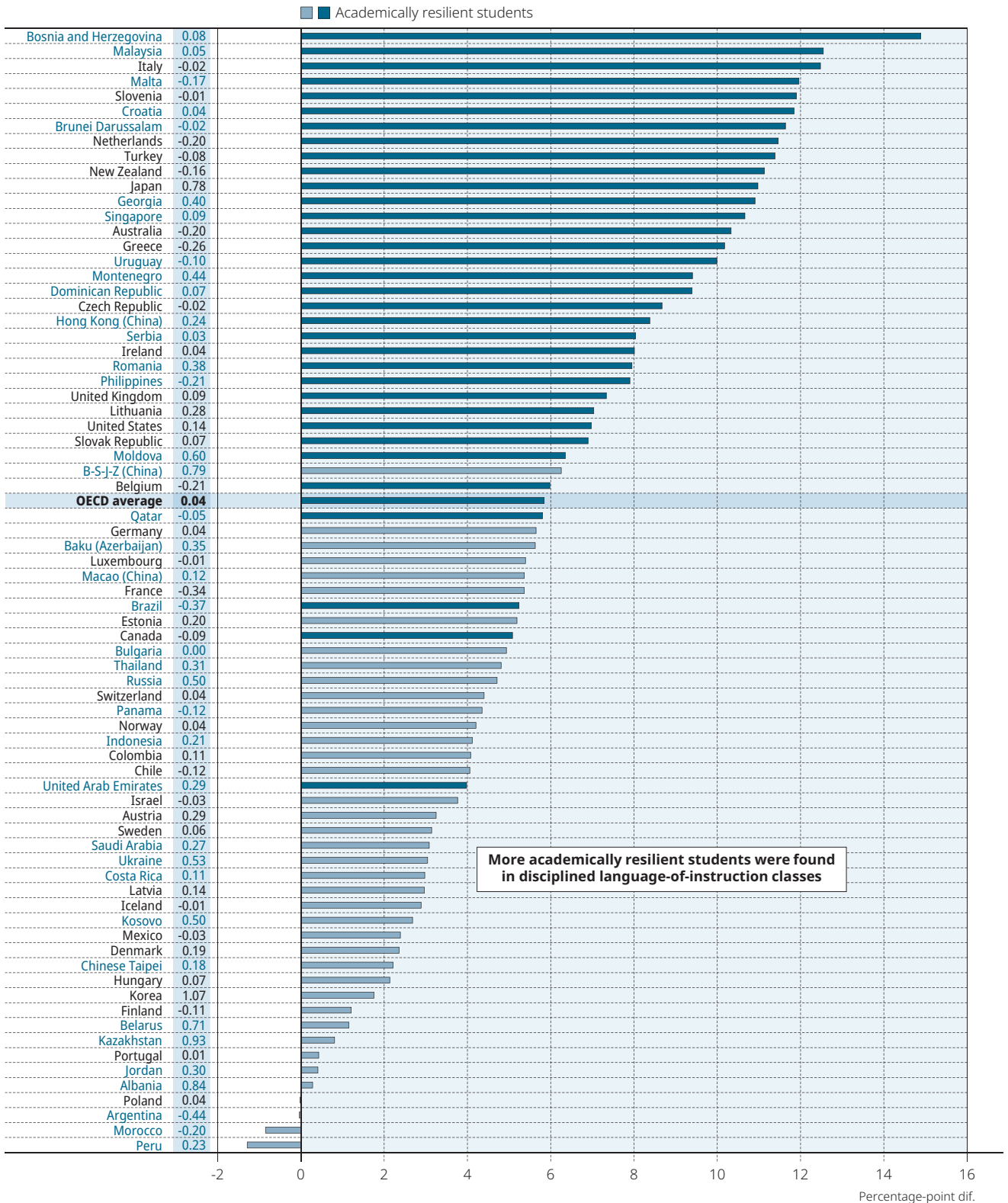
The findings in Figure II.3.5 show that in 64 of 77 countries and economies, there were more academically resilient students amongst those students who exhibited a growth mindset than amongst those who exhibited the opposite. Amongst the students in Baku (Azerbaijan), Brunei Darussalam, Colombia, Kazakhstan, Malta, Mexico, Morocco, New Zealand and Uruguay who exhibited a growth mindset, at least 12% more were academically resilient when compared with students who did not exhibit a growth mindset.

Based on all the results reported in this section, students are more likely to be academically resilient when they receive support from their parents, when they perceive a more positive climate at school and when they have a growth mindset.



Figure II.3.3 **Disciplinary climate at school and student resilience**

Percentage-point difference between the top and bottom quarters of the index of disciplinary climate



**Notes:** Statistically significant differences are shown in a darker tone (see Annex A3).

Resilient students are disadvantaged students who score in the top quarter of performance in reading amongst students in their own country.

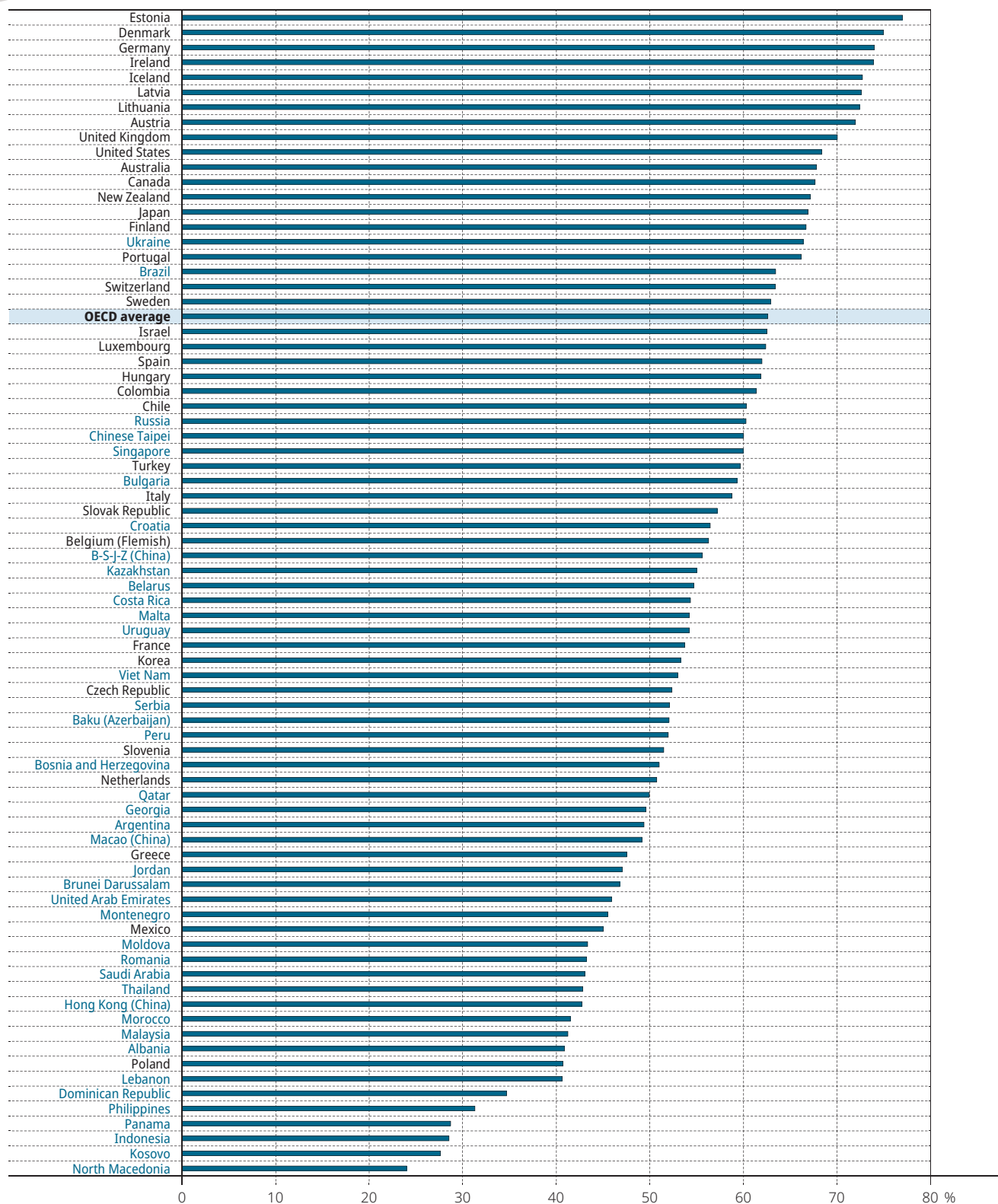
The average index of disciplinary climate is shown next to the country/economy name.

Countries and economies are ranked in descending order of the percentage-point difference in academically resilient students between the top and bottom quarters of the index of disciplinary climate.

**Source:** OECD, PISA 2018 Database, Table II.B1.3.2 and Table II.B1.3.6.

**StatLink** <https://doi.org/10.1787/888934037241>

Figure II.3.4 Proportion of students exhibiting a growth mindset



Note: Students with a growth mindset are those who believe that their abilities and circumstances are not fixed and can be changed. Countries and economies are ranked in descending order of the percentage of students who exhibited a growth mindset.

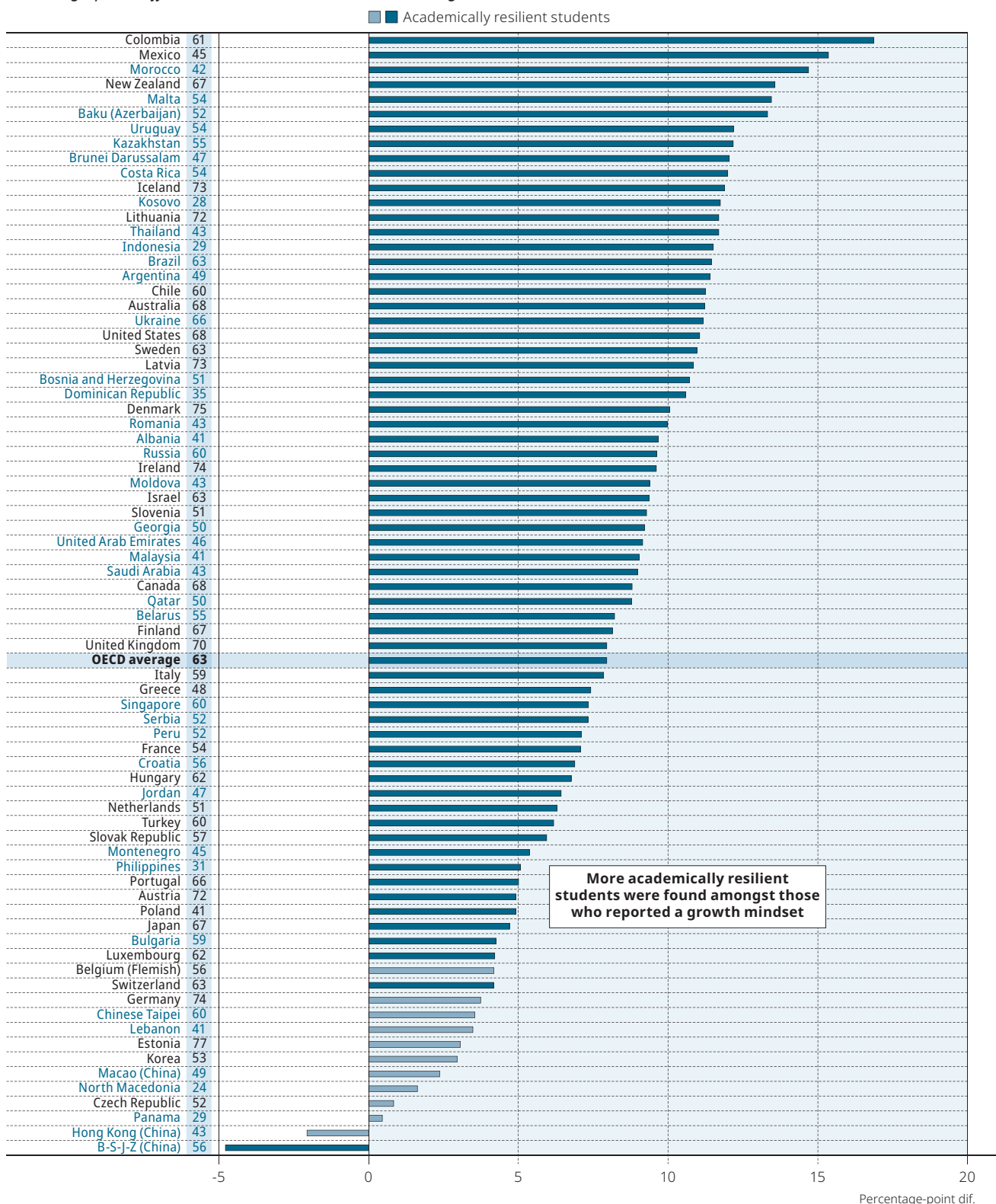
Source: OECD, PISA 2018 Database, Table II.B1.3.6.

StatLink <https://doi.org/10.1787/888934037260>



Figure II.3.5 **Growth mindset and student resilience**

Percentage-point difference between those who exhibited a growth mindset and those who did not



**Notes:** Statistically significant differences are shown in a darker tone (see Annex A3).

The percentage of students who exhibited a growth mindset is shown next to the country/economy name.

Students with a growth mindset are those who believe that their abilities and circumstances are not fixed and can be changed.

Resilient students are disadvantaged students who score in the top quarter of performance in reading amongst students in their own country.

Countries and economies are ranked in descending order of the percentage-point difference in academically resilient students between those who exhibited a growth mindset and those who did not.

**Source:** OECD, PISA 2018 Database, Tables II.B1.3.2 and II.B1.3.6.

**StatLink** <https://doi.org/10.1787/888934037279>

## HOW ACADEMIC RESILIENCE IS RELATED TO STUDENTS' ATTITUDES AND DISPOSITIONS

Results in the previous section shed light on factors that are positively associated with academic resilience. This subsection explores the association between students' academic resilience, on the one hand, and their attitudes, dispositions and expectations, on the other. The working assumption is that resilient students, who are capable of overcoming adversity, are likely to exhibit positive attitudes and dispositions, such as greater enjoyment of learning, well-being, goal orientation and positive expectations for the future.

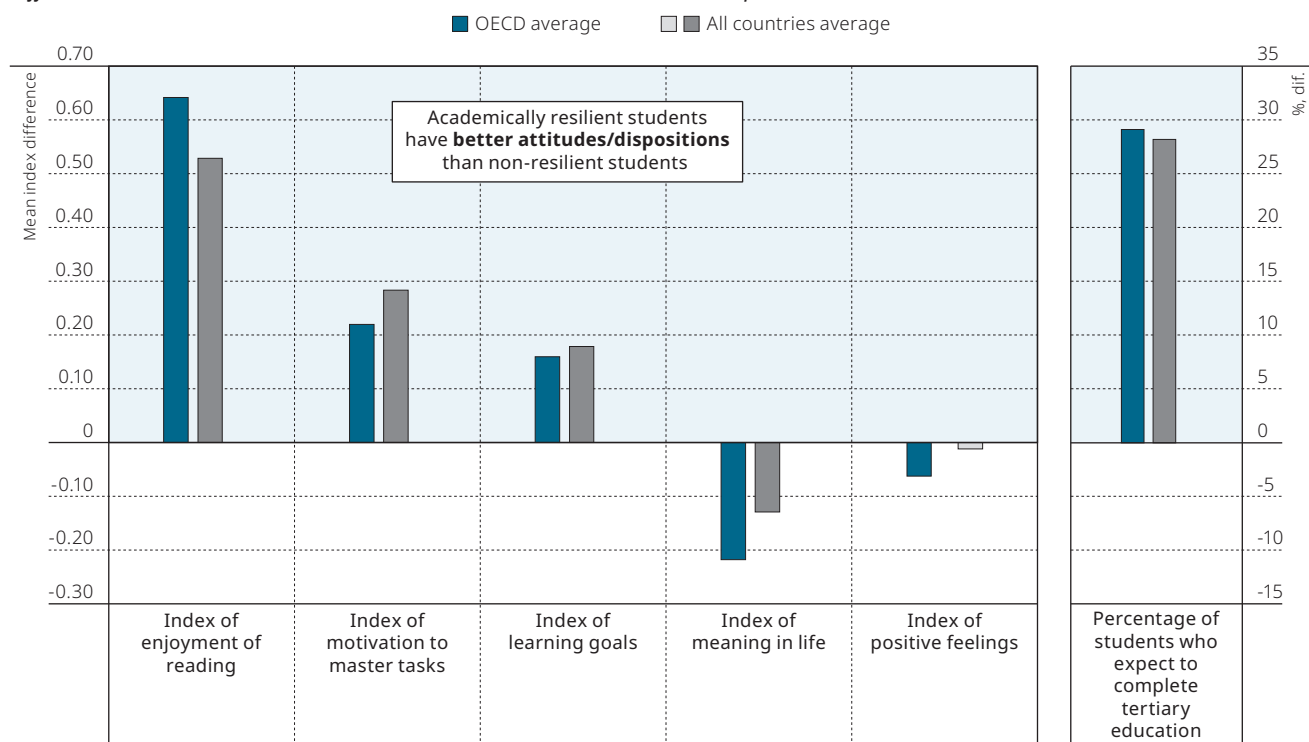
Learning to read is a challenging task that requires persistence in the face of failure (McTigue, Washburn and Liew, 2009<sub>[28]</sub>). As students persist and ultimately overcome the obstacles to learning they face, they learn to associate effort with better academic performance; ultimately they may start enjoying the fruits of their labour. In this sense, enjoyment of reading and mastery of tasks may be two manifestations of academic resilience. These students do not only overcome adversity, they also take pleasure in doing so (Martin and Marsh, 2006<sub>[8]</sub>).

Moreover, in an ideal world, students would not only be equipped to overcome unfavourable circumstances but would be motivated to achieve their academic and personal goals (Martin, 2002<sub>[29]</sub>). Goal-oriented students tend to be resilient and confident in their abilities; they are likely to seek challenges and to be highly persistent (Dweck, 1986<sub>[30]</sub>). This section explores the associations between goal orientation, expectations of further education and student resilience.

PISA assessed students' enjoyment of reading using five questions about students' attitudes towards the subject. Students' mastery of tasks was measured using four questions exploring whether students derive personal satisfaction from investing effort. Students responded on a four-point scale ranging from "strongly disagree" to "strongly agree". Two scaled indices for enjoyment of reading and mastery of tasks were constructed using the data.

Figure II.3.6 Resilience and students' attitudes and dispositions

*Differences between resilient and non-resilient students in attitudes and dispositions*



**Notes:** All differences are statistically significant for OECD average, and statistically significant differences are shown in a darker tone for All countries average (see Annex A3).

Resilient students are disadvantaged students who score in the top quarter of performance in reading amongst students in their own country.

Non-resilient students are disadvantaged students who do not score in the top quarter of performance in reading.

For the index of meaning in life, data are only available for the Flemish community in Belgium.

**Source:** OECD, PISA 2018 Database, Table II.B1.3.3.

**StatLink** <https://doi.org/10.1787/888934037298>



Goal orientation was assessed using three statements asking students about their academic goals. Responses were given on a five-point scale ranging from “not at all true of me” to “extremely true of me” and were combined into a scaled index called the index of learning goals. The index of meaning in life, explored in more detail in Chapter 11 of *PISA 2018 Results (Volume III): What School Life Means for Students’ Lives* (OECD, 2019<sub>[22]</sub>), was assessed using three questions with a four-point response scale ranging from “strongly disagree” to “strongly agree”. The construction of those indices is described in more detail in Annex A1 of this report.

Figure II.3.6 shows the average difference, across OECD countries, in students’ attitudes and dispositions between academically resilient students and those who are not (i.e. disadvantaged students who do not perform in the top quarter of reading proficiency). The findings show that, on average, academically resilient students tended to enjoy reading more, were willing to work hard to master tasks, and indicated a greater ability to set and pursue their goals. However, these students reported having less of sense of meaning in life than students who were not resilient, and there was a minor difference between the two groups of students in their expression of positive feelings. Results for each country are provided in Table II.B1.3.3.

## ACADEMIC RESILIENCE AND STUDENTS’ WELL-BEING

Schools are not only places where students acquire academic skills, they are also places where they develop the social and emotional skills they need to thrive (OECD, 2017<sub>[12]</sub>). In this sense, it is not enough for students to reach high levels of proficiency in academic subjects; but it is also important for them to feel happy, confident and integrated. This subsection explores three dimensions of students’ well-being: the sense of belonging at school, the ability to overcome failure without doubting future plans, and satisfaction with life. The three factors were chosen because they represent a mix of the quality of relationships students have, a lack of self-doubt, and ultimately overall satisfaction with and a positive appraisal of their own lives. This subsection examines those well-being dimensions in light of academic resilience. For a detailed description of these well-being outcomes beyond academic resilience, see Chapters 9, 11 and 13 in *PISA 2018 Results (Volume III): What School Life Means for Students’ Lives* (OECD, 2019<sub>[22]</sub>).

The first component of student well-being is social integration at school. Students were asked to respond, on a four-point scale, whether they agree or disagree with the statement: “I feel like an outsider (or left out of things) at school”. Students who disagreed with the statement were considered to feel socially integrated at school.

The second component is the lack of maladjustment following a failure. Students were asked to respond, on a four-point scale, whether they agree or disagree with the statement: “When I am failing, this makes me doubt my plans for the future”. Students who disagreed with the statement were considered to be capable of adjusting positively after experiencing failure.

The third component of students’ well-being is based on the following question: “Overall, how satisfied are you with your life these days?” Students were asked to assign a number ranging from 0 to 10, with higher numbers indicating greater satisfaction with life. Students who responded with a value of seven or higher were considered to be satisfied with their lives.

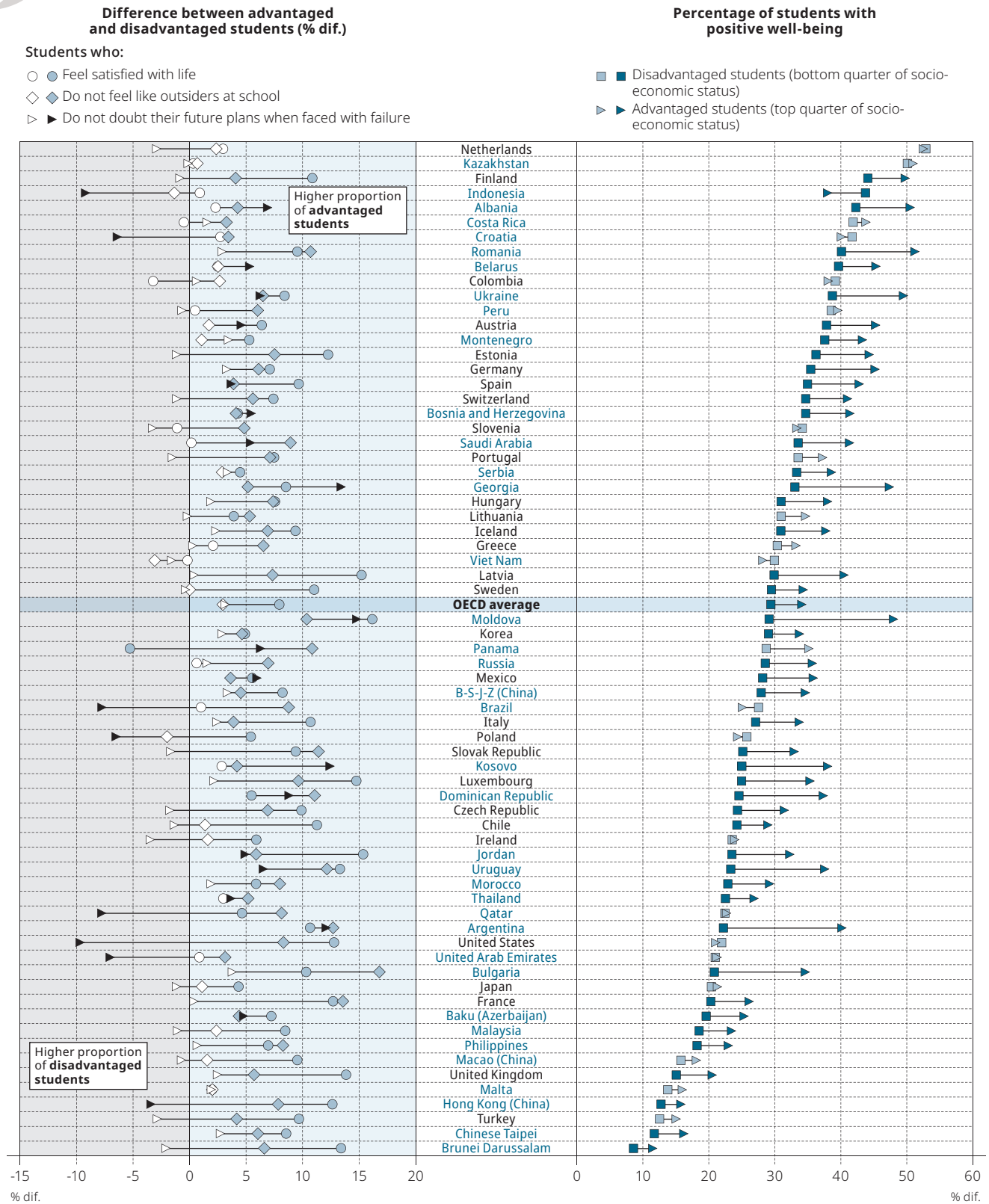
Thus, students who exhibited adequate socio-emotional adjustment and well-being were those who are satisfied with their lives, feel socially integrated at school and do not react negatively to failure (e.g. do not experience self-doubt). In addition to those three binary well-being indicators, a third binary indicator that takes account of all three dimensions was constructed.

### Students’ well-being and socio-economic status

How is students’ socio-economic status related to well-being? Is the relationship negative, as is the case with academic performance? Figure II.3.7 shows the proportion of socio-economically advantaged and disadvantaged students who are satisfied with their lives, do not feel like outsiders in their school and do not doubt their future prospects when confronting failure. As expected, advantaged students were more likely to report greater well-being than their disadvantaged peers. Across all OECD countries, 34% of advantaged students showed positive socio-emotional outcomes across the three dimensions of well-being while only 30% of disadvantaged students did so. Differences between advantaged and disadvantaged students were statistically non-significant in 22 countries and economies.

When each of the well-being measures was considered separately, the findings show that in Jordan, Latvia, Lebanon and the Republic of Moldova (hereafter “Moldova”) the share of advantaged students who reported being satisfied with their lives was at least 15 percentage points larger than the share of disadvantaged students who so reported. In Bosnia and Herzegovina, Japan and Lithuania the difference between the two groups of students amounted to around 4 percentage points; and in 20 participating countries/economies, the difference was not significant (Table II.B1.3.4).

Figure II.3.7 Students' well-being, by socio-economic status



**Notes:** Statistically significant differences between advantaged and disadvantaged students are shown in a darker tone (see Annex A3). Students with positive well-being refers to students who reported that they are satisfied with their lives, do not feel like outsiders at school and do not doubt their future plans when facing failure. For the index of do not doubt their future plans when faced with failure, data are only available for the Flemish community in Belgium. Countries and economies are ranked in descending order of the percentage of students in the bottom quarter of socio-economic status.

Source: OECD, PISA 2018 Database, Table II.B1.3.4.

StatLink <https://doi.org/10.1787/888934037317>

Smaller shares of advantaged students than disadvantaged students reported that they feel like an outsider at school. The difference between the two groups of students exceeded 10 percentage points in Argentina, Bulgaria, the Dominican Republic, France, Moldova, Panama, Romania, the Slovak Republic and Uruguay, compared to the OECD average difference of 5 percentage points. In no country or economy did more advantaged students than disadvantaged students report feeling like an outsider at school.

PISA also shows that more advantaged students than disadvantaged students reported that they do not doubt their plans for the future when facing failure. In 21 countries, including Argentina, Georgia, Kosovo and Moldova, the difference between the two groups exceeded 10 percentage points and was statistically significant. However, in 8 countries/economies, namely Brazil, Croatia, Hong Kong (China), Indonesia, Poland, Qatar, the United Arab Emirates and the United States, larger shares of disadvantaged students reported that they do not doubt their plans for the future when facing failure. On average across OECD countries, the difference between the two groups was not significant.

In summary, the results show some differences in well-being in favour of socio-economically advantaged students. However, those differences tend to be smaller than differences in academic performance between advantaged and disadvantaged groups. The following subsection examines the association between well-being and academic resilience.

### **Do academically resilient students enjoy greater well-being?**

This section explores students' well-being in the context of academic resilience. Figure II.3.8 presents the percentage-point difference in well-being between students who are academically resilient and those who are not.

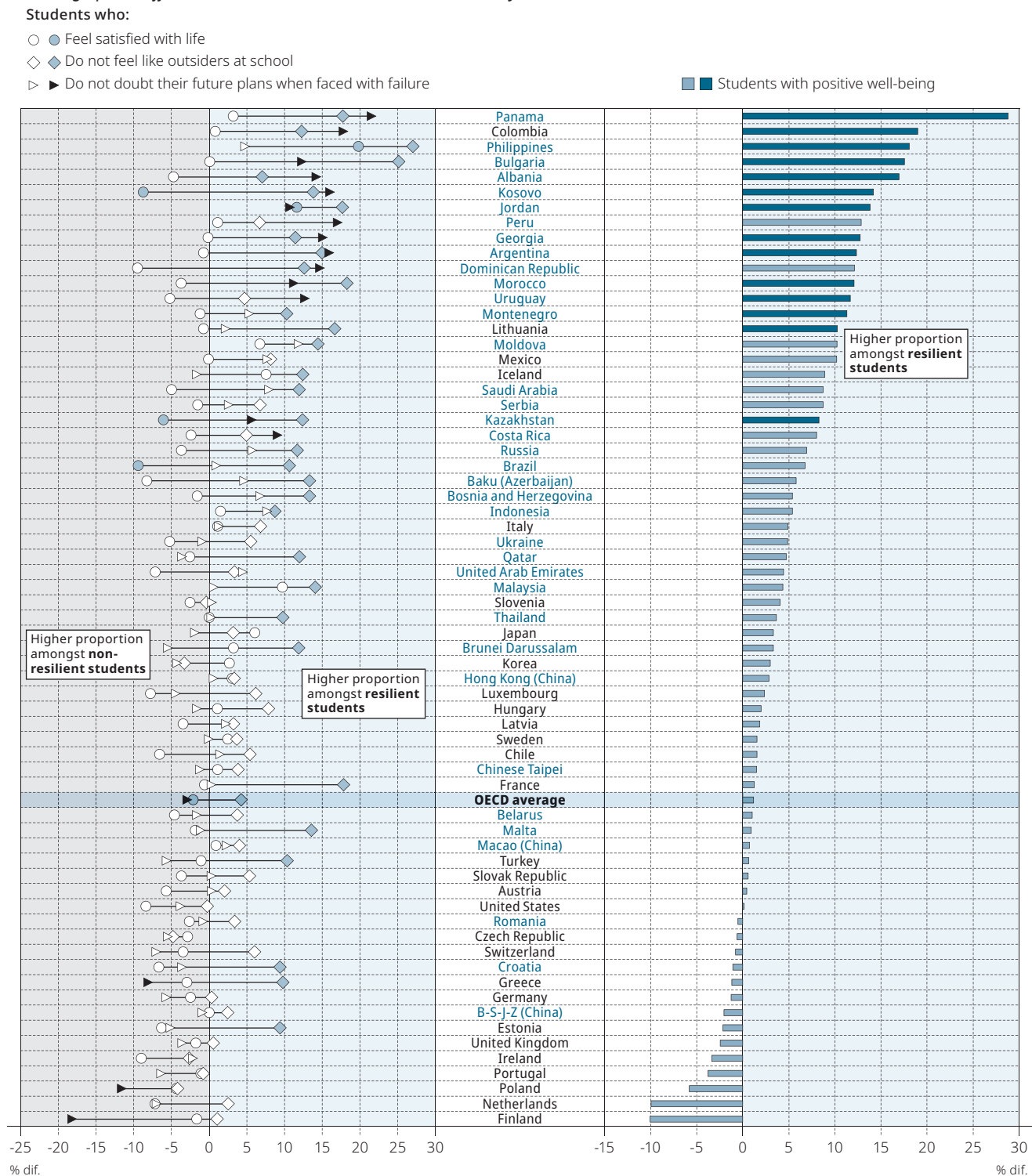
In general, there was no significant difference in well-being between academically resilient students and students who were not academically resilient. However, there were a number of exceptions. The findings show that in 14 of 67 countries and economies, when the three dimensions of well-being were considered together, more academically resilient students than non-resilient students reported positive well-being (i.e. students are satisfied with their lives, do not feel like outsiders at school and do not doubt their future plans when facing failure). The difference between the two groups of students in the proportion of those who reported more positive well-being exceeded 14 percentage points in Albania, Bulgaria, Colombia, Kosovo, Panama and the Philippines. On average across OECD countries, the difference is non-significant (Table II.B1.3.5).

When the three dimensions of well-being were considered separately, a larger proportion of academically resilient students were found to be satisfied with their lives compared with non-resilient students. This was the case in Jordan, Lebanon and the Philippines. The reverse was observed in Brazil, Kazakhstan, Kosovo, and on average across OECD countries. When it comes to sense of belonging at school, academically resilient students were more likely not to feel like outsiders at school. This was observed in 34 of 74 countries and economies. On average across OECD countries, the proportion of students who reported that they do not feel like outsiders at school was four percentage points larger amongst resilient students than amongst their non-resilient peers. Differences exceeded 15 percentage points in Bulgaria, France, Jordan, Lithuania, Morocco, Panama and the Philippines. In 14 of 75 countries and economies, a higher percentage of academically resilient students than non-resilient students reported that they do not doubt their plans after experiencing a failure. The opposite was observed in seven countries and on average across OECD countries, with a difference of three percentage points between the two groups of students.

In summary, the findings show that in a few countries, students who are academically resilient tend to have more positive well-being outcomes. In spite of their relative socio-economic disadvantage, those students are capable of attaining academic excellence by national standards, and exhibiting strong social and emotional adjustment.

Figure II.3.8 Students' well-being, by academic resilience

Percentage-point difference between students who are academically resilient and those who are not



**Notes:** Statistically significant differences between students who are resilient and those who are not are shown in a darker tone (see Annex A3).

Resilient students are disadvantaged students who score in the top quarter of performance in reading amongst students in their own country.

Non-resilient students are disadvantaged students who do not score in the top quarter of performance in reading.

Students with positive well-being refers to students who reported that they are satisfied with their lives, do not feel like outsiders at school and do not doubt their future plans when facing failure.

For the index do not doubt their future plans when faced with failure, data are only available for the Flemish community in Belgium.

Countries and economies are ranked in descending order of the percentage-point difference between students who are academically resilient and those who are not.

**Source:** OECD, PISA 2018 Database, Table II.B1.3.5.

**StatLink** <https://doi.org/10.1787/888934037336>

## Notes

1. Two other forms of resilience were used in PISA: international and core-skills resilience. They both rely on an international definition of academic performance that is not country specific. A full description of the different forms of resilience can be found in the PISA thematic report, *Equity in Education: Breaking Down Barriers to Social Mobility* (OECD, 2018<sub>[10]</sub>).

## References

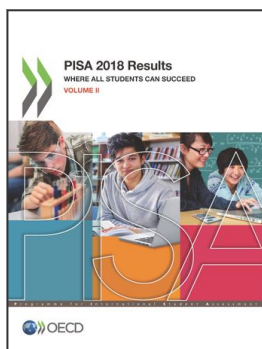
- Aldridge, J.** et al. (2015), "Students' perceptions of school climate as determinants of wellbeing, resilience and identity", *Improving Schools*, Vol. 19/1, pp. 5-26, <http://dx.doi.org/10.1177/1365480215612616>. [18]
- Blackwell, L., K. Trzesniewski and C. Dweck** (2007), "Implicit Theories of Intelligence Predict Achievement Across an Adolescent Transition: A Longitudinal Study and an Intervention", *Child Development*, Vol. 78/1, pp. 246-263, <http://dx.doi.org/10.1111/j.1467-8624.2007.00995.x>. [26]
- Bradley, R. and R. Corwyn** (2002), "Socioeconomic Status and Child Development", *Annual Review of Psychology*, Vol. 53/1, pp. 371-399, <http://dx.doi.org/10.1146/annurev.psych.53.100901.135233>. [5]
- Claro, S., D. Paunesku and C. Dweck** (2016), "Growth mindset tempers the effects of poverty on academic achievement", *Proceedings of the National Academy of Sciences*, Vol. 113/31, pp. 8664-8668, <http://dx.doi.org/10.1073/pnas.1608207113>. [15]
- Doll, B.** (2012), "Enhancing Resilience in Classrooms", in *Handbook of Resilience in Children*, Springer US, Boston, MA, [http://dx.doi.org/10.1007/978-1-4614-3661-4\\_23](http://dx.doi.org/10.1007/978-1-4614-3661-4_23). [13]
- Dweck, C.** (1986), "Motivational processes affecting learning.", *American Psychologist*, Vol. 41/10, pp. 1040-1048, <http://dx.doi.org/10.1037/0003-066x.41.10.1040>. [30]
- Farah, M.** et al. (2006), "Childhood poverty: Specific associations with neurocognitive development", *Brain Research*, Vol. 1110/1, pp. 166-174, <http://dx.doi.org/10.1016/j.brainres.2006.06.072>. [6]
- Haimovitz, K. and C. Dweck** (2017), "The Origins of Children's Growth and Fixed Mindsets: New Research and a New Proposal", *Child Development*, Vol. 88/6, pp. 1849-1859, <http://dx.doi.org/10.1111/cdev.12955>. [16]
- Hong, Y.** et al. (1999), "Implicit theories, attributions, and coping: A meaning system approach.", *Journal of Personality and Social Psychology*, Vol. 77/3, pp. 588-599, <http://dx.doi.org/10.1037/0022-3514.77.3.588>. [23]
- Howard, S. and B. Johnson** (2000), "What Makes the Difference? Children and teachers talk about resilient outcomes for children at risk", *Educational Studies*, Vol. 26/3, pp. 321-337, <http://dx.doi.org/10.1080/03055690050137132>. [9]
- Loukas, A. and S. Robinson** (2004), "Examining the Moderating Role of Perceived School Climate in Early Adolescent Adjustment", *Journal of Research on Adolescence*, Vol. 14/2, pp. 209-233, <http://dx.doi.org/10.1111/j.1532-7795.2004.01402004.x>. [19]
- Mani, A.** et al. (2013), "Poverty Impedes Cognitive Function", *Science*, Vol. 341/6149, pp. 976-980, <http://dx.doi.org/10.1126/science.1238041>. [7]
- Martin, A.** (2002), "Motivation and Academic Resilience: Developing a Model for Student Enhancement", *Australian Journal of Education*, Vol. 46/1, pp. 34-49, <http://dx.doi.org/10.1177/000494410204600104>. [29]
- Martin, A. and H. Marsh** (2006), "Academic resilience and its psychological and educational correlates: A construct validity approach", *Psychology in the Schools*, Vol. 43/3, pp. 267-281, <http://dx.doi.org/10.1002/pits.20149>. [8]
- Marzano, R.** (2003), "Classroom Management That Works: Research-Based Strategies for Every Teacher", [17] <http://www.ascd.org/publications/books/103027.aspx>.
- McTigue, E., E. Washburn and J. Liew** (2009), "Academic Resilience and Reading: Building Successful Readers", *The Reading Teacher*, Vol. 62/5, pp. 422-432, <http://dx.doi.org/10.1598/rt.62.5.5>. [28]
- Mostafa, T., L. Gambaro and H. Joshi** (2018), "The Impact of Complex Family Structure on Child Well-being: Evidence From Siblings", *Journal of Marriage and Family*, Vol. 80/4, pp. 902-918, <http://dx.doi.org/10.1111/jomf.12456>. [1]
- Nussbaum, A. and C. Dweck** (2008), "Defensiveness Versus Remediation: Self-Theories and Modes of Self-Esteem Maintenance", *Personality and Social Psychology Bulletin*, Vol. 34/5, pp. 599-612, <http://dx.doi.org/10.1177/0146167207312960>. [24]
- OECD** (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, <https://dx.doi.org/10.1787/acd78851-en>. [22]
- OECD** (2018), *Equity in Education: Breaking Down Barriers to Social Mobility*, PISA, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264073234-en>. [10]
- OECD** (2017), *PISA 2015 Results (Volume III): Students' Well-Being*, PISA, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264273856-en>. [12]

- OECD** (2016), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, PISA, OECD Publishing, Paris, [11]  
<https://dx.doi.org/10.1787/9789264266490-en>.
- Roeser, R., J. Eccles** and **A. Sameroff** (2000), "School as a Context of Early Adolescents' Academic and Social-Emotional Development: A Summary of Research Findings", *The Elementary School Journal*, Vol. 100/5, pp. 443-471, <http://dx.doi.org/10.1086/499650>. [20]
- Roffey, S.** (2016), "Building a case for whole-child, whole-school wellbeing in challenging contexts", *Educational and Child Psychology*, Vol. 33/2, pp. 30 - 42, <http://handle.uws.edu.au:8081/1959.7/uws:35487>. [3]
- Roffey, S.** (2015), "Becoming an agent of change for school and student well-being", *Educational and Child Psychology*, Vol. 32/1, pp. 21 - 30, <https://pdfs.semanticscholar.org/7a52/a673cd11660975354c11123af9981ad313eb.pdf>. [4]
- Stewart, D.** et al. (2004), "Promoting and Building Resilience in Primary School Communities: Evidence from a Comprehensive 'Health Promoting School' Approach", *International Journal of Mental Health Promotion*, Vol. 6/3, pp. 26-33, <http://dx.doi.org/10.1080/14623730.2004.9721936>. [14]
- Wang, M.** et al. (2010), "A Tobit Regression Analysis of the Covariation Between Middle School Students' Perceived School Climate and Behavioral Problems", *Journal of Research on Adolescence*, Vol. 20/2, pp. 274-286, <http://dx.doi.org/10.1111/j.1532-7795.2010.00648.x>. [21]
- Yeager, D.** and **C. Dweck** (2012), "Mindsets That Promote Resilience: When Students Believe That Personal Characteristics Can Be Developed", *Educational Psychologist*, Vol. 47/4, pp. 302-314, <http://dx.doi.org/10.1080/00461520.2012.722805>. [2]
- Yeager, D., K. Trzesniewski** and **C. Dweck** (2012), "An Implicit Theories of Personality Intervention Reduces Adolescent Aggression in Response to Victimization and Exclusion", *Child Development*, Vol. 84/3, pp. 970-988, <http://dx.doi.org/10.1111/cdev.12003>. [27]
- Yeager, D.** et al. (2011), "Adolescents' implicit theories predict desire for vengeance after peer conflicts: Correlational and experimental evidence.", *Developmental Psychology*, Vol. 47/4, pp. 1090-1107, <http://dx.doi.org/10.1037/a0023769>. [25]









**From:**  
**PISA 2018 Results (Volume II)**  
Where All Students Can Succeed

**Access the complete publication at:**  
<https://doi.org/10.1787/b5fd1b8f-en>

**Please cite this chapter as:**

OECD (2020), “Academic resilience and well-being amongst disadvantaged students”, in *PISA 2018 Results (Volume II): Where All Students Can Succeed*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/a8cac199-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area. Extracts from publications may be subject to additional disclaimers, which are set out in the complete version of the publication, available at the link provided.

The use of this work, whether digital or print, is governed by the Terms and Conditions to be found at <http://www.oecd.org/termsandconditions>.