



Students' life satisfaction and meaning in life

This chapter examines differences in students' overall life satisfaction and sense of meaning in life across countries and economies, schools and students. The chapter also discusses how students' satisfaction with their lives are linked to reading performance, school climate and students' sense of meaning in life.

Children may strive to do their best when they are joyful and have a strong sense of purpose in their lives. But no matter how supportive and encouraging schools and families are, students suffer when they are unhappy and cannot find meaning in their own lives. This is especially true for 15-year-olds, who are in the middle of adolescence – a period of rapid change when social, emotional, cultural and economic influences on health and well-being may be established for life (Patton et al., 2016^[1]). It is also a time of emerging independence and self-discovery, when certain vulnerabilities may be revealed and challenges – to the adolescent and to his or her environment – may arise (Wigfield, Byrnes and Eccles, 2006^[2]). While recognising and examining the potentially negative aspects of teenage life is vital, there is also a growing interest in identifying and monitoring the positive characteristics that develop during adolescence (Damon, 2004^[3]; Park, 2004^[4]).

What the data tell us

- On average across OECD countries, 67% of students reported being satisfied with their lives (students who reported between 7 and 10 on the life-satisfaction scale). Between 2015 and 2018, the share of satisfied students shrank by 5 percentage points.
- Girls and disadvantaged students were less likely to report being satisfied with their lives than boys and advantaged students, respectively.
- Reading scores were higher amongst students who reported they are “somehow satisfied” and “moderately satisfied” with their lives and lower amongst students who reported they are “not satisfied” or “very satisfied” with their lives.
- Students with the least exposure to bullying reported an average of 7.5 on the 10-point life-satisfaction scale; students with the greatest exposure to bullying averaged 6.3 on the scale.
- Some 68% of students across OECD countries agreed that their life has clear meaning or purpose. In 42 countries and economies, boys were more likely than girls to report a greater sense of meaning in life.

Asking students to report on their well-being is one way to measure the positive development of young people (Park, 2004^[5]). Adolescents' subjective well-being is related to health and behaviour patterns that may persist into adulthood (Currie et al., 2012^[6]; Patton et al., 2011^[7]). PISA 2018 defines subjective well-being as a multidimensional construct that reflects the extent to which individuals believe (cognitive element) and feel (affective element) that their lives are desirable, fulfilling and rewarding (Diener, 1984^[8]; Diener, Oishi and Lucas, 2003^[9]). This chapter presents the cognitive element of subjective well-being, which refers to “life evaluation” – what a person thinks about his or her life satisfaction in global terms (life as a whole) – and “eudaeonia” – a sense of meaning and purpose in life. The affective element of 15-year-olds' subjective well-being is examined in Chapter 12.

STUDENTS' SATISFACTION WITH LIFE ACROSS COUNTRIES

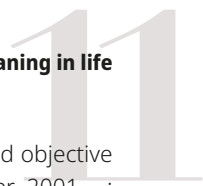
PISA 2018 defines life satisfaction as an overall evaluation that an individual makes about his or her perceived quality of life, according to his or her chosen criteria (Shin and Johnson, 1978^[10]). By providing insights into adolescents' self-perceptions about how satisfied they are with their lives, PISA can help educators, schools and parents promote positive development amongst youth, and identify and support students who experience emotional or behavioural distress (Gilman and Huebner, 2006^[11]; Proctor, Linley and Maltby, 2009^[12]). Life satisfaction is closely associated with happiness, and can enable the kinds of healthy habits and attitudes that lead to a successful, fulfilling life (Lyubomirsky, King and Diener, 2005^[13]; Park, 2004^[5]).

Box III.11.1. How PISA 2018 measured students' life satisfaction

PISA 2018 asked students to rate their life satisfaction on a scale from 0 (not at all satisfied) to 10 (completely satisfied). Based on students' responses, 15-year-olds were classified into four different groups and are referred to as the following throughout this chapter:

- a student is “not satisfied” if he or she reported between 0 and 4 on the life-satisfaction scale
- a student is “somewhat satisfied” if he or she reported 5 or 6 on the life-satisfaction scale
- a student is “moderately satisfied” if he or she reported 7 or 8 on the life-satisfaction scale
- a student is “very satisfied” if he or she reported 9 or 10 on the life-satisfaction scale

A fifth group “satisfied” combines the two groups of students that reported the highest levels of life satisfaction (between 7 and 10 on the life-satisfaction scale).



What makes students feel satisfied with their lives? Both subjective assets, such as personality traits and outlook, and objective components, such as life events and living environments, are critical for young people's satisfaction with life (Diener, 2001^[14]; Proctor, Linley and Maltby, 2009^[12]). Though objective aspects, for example good health and a stable financial situation, may be prerequisites for being satisfied with life in general, individuals might not value these components in the same way (Diener, 1984^[8]). In addition to personal life experiences and individual traits, cultural differences may shape how adolescents evaluate their lives. For example, studies that compare adolescents' life satisfaction across cultures find that adolescents in Western countries report higher levels of life satisfaction than those in East-Asian states (Park and Huebner, 2005^[15]). Hence, in PISA, the criteria for life satisfaction are based on students' self-evaluations, not upon predetermined factors (Borgonovi and Pál, 2016^[16]).

As did PISA 2015, PISA 2018 finds that the average student in OECD countries is largely satisfied with life. Figure III.11.1 shows that, on average across OECD countries, students reported 7.04 on the life-satisfaction scale. Some 67% of students reported that they are satisfied with their lives (students who reported between 7 and 10 on the life-satisfaction scale).

However, PISA 2018 data reveal large between-country differences in students' life satisfaction. In Albania, Kazakhstan and the Netherlands, less than 6% of students reported that they are not satisfied with their lives (between 0 and 4 on the scale). In contrast, in Brunei Darussalam, Turkey and the United Kingdom, more than 25% of students reported so. In Albania, the Dominican Republic, Kazakhstan and Kosovo, more than 3 in 5 students reported that they are very satisfied with their lives (at least 9 on the scale), but fewer than 1 in 5 students in East-Asian countries, such as Brunei Darussalam, Hong Kong (China), Japan and Macao (China) reported similar levels of life satisfaction. In Italy, the Netherlands and Portugal, more than 40% of students reported that they are moderately satisfied with their lives (7 or 8 on the scale), while in Albania, Baku (Azerbaijan), the Dominican Republic, Kazakhstan, Kosovo and Saudi Arabia, less than 20% of students reported so.

PISA 2018 results show that students in countries from the same geographical areas tend to report similar levels for average life satisfaction. The lowest average life satisfaction values were observed mainly in East-Asian countries, while the highest were observed in Latin American and in many Eastern European countries. Countries with life-satisfaction values near the OECD average were mainly in northern and in western European countries. To some extent, these dissimilarities may reflect the cultural differences with which students respond to survey questions. However, PISA reveals not just large differences between countries and cultures but, as discussed below, also within them, when considering different social and demographic groups.

WHAT IS THE PROFILE OF STUDENTS WHO ARE SATISFIED WITH THEIR LIVES?

Research indicates that a wide range of individual characteristics, including gender, socio-economic status and immigrant background, has a modest role in students' self-reported life satisfaction (Chen et al., 2019^[17]; Crede et al., 2015^[18]; Huebner, Drane and Valois, 2000^[19]). For example, several studies find that adolescent boys are more satisfied with their lives than girls (Levin, Dallago and Currie, 2012^[20]; Soares, Pais-Ribeiro and Silva, 2019^[21]). Other studies, however, have found no or little difference in life satisfaction between boys and girls (Huebner, Drane and Valois, 2000^[19]; Neto, 1993^[22]).

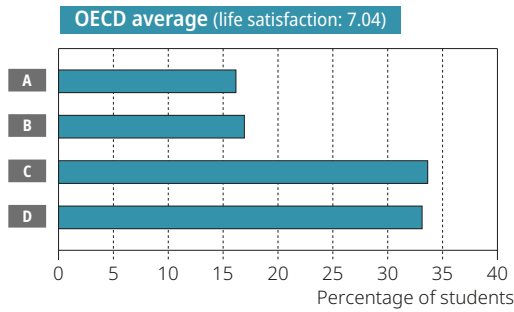
Figure III.11.2 shows that, on average across OECD countries, boys were more likely than girls to be classified as "satisfied" with their lives. Around 61% of girls and 72% of boys reported that they are satisfied with their lives – a significant difference of 11 percentage points (Table III.B1.11.4). This difference between boys and girls was observed in 56 PISA-participating countries/economies. In some countries, the gender gap in life satisfaction was particularly striking. For example, in Korea, Poland, Slovenia, Sweden and the United Kingdom, girls were at least 15 percentage points less likely than boys to report that they are satisfied with their lives. By contrast, in Jordan, the Republic of Moldova (hereafter "Moldova"), the Philippines and Saudi Arabia, girls were significantly more likely than boys to be satisfied with their lives. Girls were also more likely than boys to report a low level of life satisfaction – a gender gap of 5 percentage points in the share of "not satisfied" students (Table III.B1.11.5).

In the majority of PISA-participating countries and economies, there is a strong relationship between students' socio-economic status and students' level of life satisfaction (Figure III.11.2 and Table III.B1.11.4). On average across OECD countries, advantaged students were eight percentage points more likely than their disadvantaged peers to report that they are satisfied with life. Differences of more than 15 percentage points were observed in Jordan, Latvia, Lebanon and Moldova. Only in Panama did more disadvantaged than advantaged students report being satisfied with life. This result may imply that students from advantaged families have easier access to material and emotional support than their disadvantaged peers. But this finding should be interpreted with some caution, as greater wealth does not necessarily buy greater life satisfaction (Kahneman and Deaton, 2010^[23]).

The increased diversity in schools has inspired researchers and policy makers to explore life satisfaction amongst students with an immigrant background. A large number of studies that looked at the relationship between life satisfaction and immigrant background found that immigrant students reported lower levels of life satisfaction than their non-immigrant peers (Liebkind and JasinskajaLahti, 2000^[24]; Neto, 2001^[25]; Vieno et al., 2009^[26]). One study, however, found that the presence of certain factors, such as a positive experience in making friends, an absence of discrimination, strong ethnic identity or a positive academic experience can improve immigrant students' sense of satisfaction with their lives (Chow, 2007^[27]).

Figure III.11.1 **Students' life satisfaction**

Based on students' self-reports



Percentage of students who reported the following levels of life satisfaction

- A** Not satisfied (Students who reported 0 to 4 on the life-satisfaction scale)
- B** Somewhat satisfied (Students who reported 5 or 6 on the life-satisfaction scale)
- C** Moderately satisfied (Students who reported 7 or 8 on the life-satisfaction scale)
- D** Very satisfied (Students who reported 9 or 10 on the life-satisfaction scale)

| OECD | Average life satisfaction | Percentage of students, by level of life satisfaction: | | | |
|-----------------|---------------------------|--------------------------------------------------------|----|----|----|
| | | A | B | C | D |
| Austria | 7.14 | 17 | 13 | 32 | 37 |
| Chile | 7.03 | 18 | 18 | 27 | 37 |
| Colombia | 7.62 | 14 | 14 | 25 | 48 |
| Czech Republic | 6.91 | 18 | 17 | 32 | 33 |
| Estonia | 7.19 | 14 | 16 | 35 | 35 |
| Finland | 7.61 | 10 | 12 | 35 | 43 |
| France | 7.19 | 12 | 19 | 39 | 31 |
| Germany | 7.02 | 17 | 17 | 33 | 34 |
| Greece | 6.99 | 15 | 19 | 35 | 31 |
| Hungary | 7.12 | 16 | 16 | 34 | 34 |
| Iceland | 7.34 | 13 | 14 | 36 | 37 |
| Ireland | 6.74 | 18 | 20 | 35 | 26 |
| Italy | 6.91 | 15 | 18 | 41 | 27 |
| Japan | 6.18 | 25 | 25 | 30 | 20 |
| Korea | 6.52 | 23 | 20 | 31 | 26 |
| Latvia | 7.16 | 13 | 18 | 35 | 33 |
| Lithuania | 7.61 | 12 | 13 | 30 | 46 |
| Luxembourg | 7.04 | 16 | 16 | 36 | 32 |
| Mexico | 8.11 | 8 | 9 | 27 | 56 |
| Netherlands | 7.50 | 6 | 15 | 53 | 27 |
| Poland | 6.74 | 19 | 19 | 32 | 29 |
| Portugal | 7.13 | 12 | 19 | 40 | 29 |
| Slovak Republic | 7.22 | 15 | 15 | 32 | 38 |
| Slovenia | 6.86 | 20 | 16 | 30 | 34 |
| Spain | 7.35 | 12 | 15 | 38 | 35 |
| Sweden | 7.01 | 17 | 17 | 34 | 33 |
| Switzerland | 7.38 | 12 | 15 | 37 | 37 |
| Turkey | 5.62 | 34 | 23 | 23 | 21 |
| United Kingdom | 6.16 | 26 | 21 | 32 | 20 |
| United States | 6.75 | 19 | 20 | 32 | 29 |

| Partners | Average life satisfaction | Percentage of students, by level of life satisfaction: | | | |
|------------------------|---------------------------|--------------------------------------------------------|----|----|----|
| | | A | B | C | D |
| Albania | 8.61 | 5 | 8 | 18 | 68 |
| Argentina | 7.26 | 15 | 15 | 29 | 40 |
| Baku (Azerbaijan) | 7.24 | 19 | 14 | 19 | 48 |
| Belarus | 8.10 | 6 | 10 | 32 | 52 |
| Bosnia and Herzegovina | 7.84 | 11 | 12 | 24 | 53 |
| Brazil | 7.05 | 18 | 17 | 25 | 40 |
| Brunei Darussalam | 5.80 | 26 | 32 | 29 | 13 |
| B-S-J-Z (China) | 6.64 | 19 | 22 | 34 | 25 |
| Bulgaria | 7.15 | 19 | 16 | 22 | 43 |
| Costa Rica | 7.96 | 9 | 12 | 26 | 53 |
| Croatia | 7.69 | 11 | 12 | 29 | 48 |
| Dominican Republic | 8.09 | 11 | 10 | 16 | 62 |
| Georgia | 7.60 | 13 | 14 | 25 | 49 |
| Hong Kong (China) | 6.27 | 20 | 28 | 38 | 14 |
| Indonesia | 7.47 | 13 | 17 | 28 | 42 |
| Jordan | 6.88 | 20 | 18 | 20 | 42 |
| Kazakhstan | 8.76 | 5 | 8 | 16 | 71 |
| Kosovo | 8.30 | 9 | 10 | 18 | 63 |
| Lebanon | 6.67 | 18 | 24 | 30 | 29 |
| Macao (China) | 6.07 | 23 | 27 | 37 | 13 |
| Malaysia | 7.04 | 14 | 23 | 30 | 33 |
| Malta | 6.56 | 20 | 20 | 35 | 25 |
| Moldova | 7.68 | 11 | 12 | 29 | 47 |
| Montenegro | 7.69 | 14 | 11 | 21 | 53 |
| Morocco | 6.95 | 20 | 18 | 20 | 42 |
| North Macedonia | 8.16 | 7 | 12 | 25 | 57 |
| Panama | 7.92 | 11 | 12 | 22 | 54 |
| Peru | 7.31 | 14 | 18 | 29 | 39 |
| Philippines | 7.21 | 14 | 20 | 27 | 39 |
| Qatar | 6.84 | 20 | 18 | 25 | 36 |
| Romania | 7.87 | 9 | 12 | 30 | 49 |
| Russia | 7.32 | 16 | 15 | 27 | 42 |
| Saudi Arabia | 7.95 | 15 | 14 | 13 | 59 |
| Serbia | 7.61 | 13 | 12 | 26 | 49 |
| Chinese Taipei | 6.52 | 19 | 26 | 35 | 21 |
| Thailand | 7.64 | 9 | 18 | 31 | 42 |
| Ukraine | 8.03 | 7 | 11 | 31 | 50 |
| United Arab Emirates | 6.88 | 20 | 19 | 26 | 35 |
| Uruguay | 7.54 | 13 | 14 | 29 | 44 |
| Viet Nam | 7.47 | 7 | 20 | 40 | 34 |

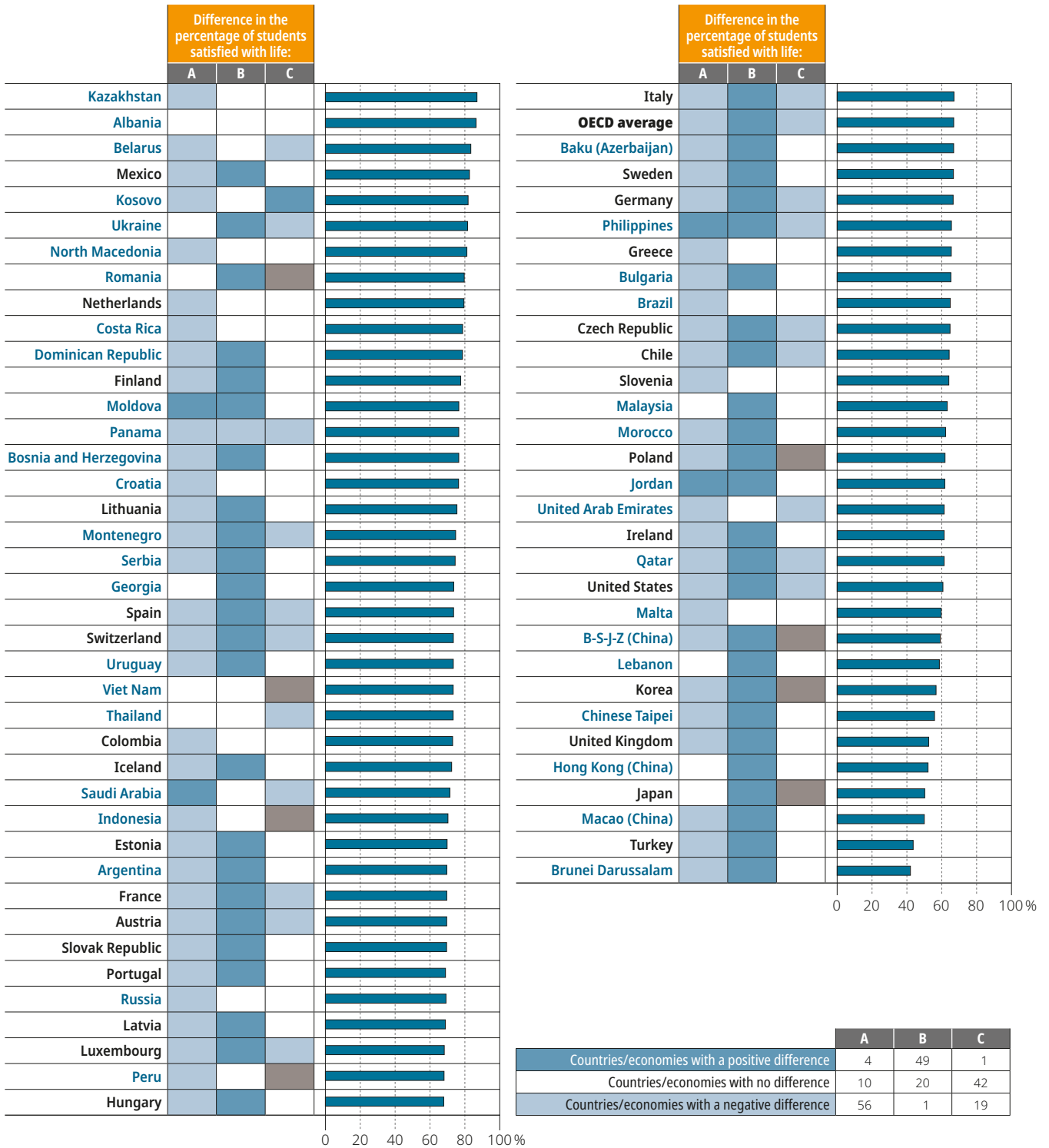
Source: OECD, PISA 2018 Database, Table III.B1.11.1.

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Figure III.11.2 **Satisfied with life, by student characteristics**

Based on students' reports

■ Positive difference
 ■ Negative difference
 ■ Difference is not significant
 ■ Missing values
A Girls – boys **B** Advantaged – disadvantaged students **C** Immigrant – non-immigrant students



Note: A student is classified as “satisfied” with life if he or she reported between 7 and 10 on the life-satisfaction scale. The life-satisfaction scale ranges from 0 to 10. Countries and economies are ranked in descending order of the percentage of students who are classified as “satisfied” with life.

Source: OECD, PISA 2018 Database, Tables III.B1.11.1 and III.B1.11.4.

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PISA 2018 data show that 68% of non-immigrant students reported being satisfied with their lives while 64% of immigrants reported so, on average across OECD countries (Table III.B1.11.4). The difference in the share of satisfied students between non-immigrant and immigrant students was particularly large – more than 12 percentage points – in Italy, Montenegro, Panama, the Philippines, Spain, Thailand and Ukraine. Only in Kosovo were immigrant students significantly more likely than their native-born schoolmates to report that they are satisfied with their lives.

TRENDS IN STUDENTS' LEVEL OF LIFE SATISFACTION

Since PISA 2015 asked the same question about life satisfaction as PISA 2018 did, education systems can monitor changes in students' satisfaction with their lives. In most participating countries and economies with comparable data, students reported less satisfaction with their lives in 2018 than they did in 2015 (Figure III.11.3). On average across OECD countries, students' average life satisfaction declined by 0.30 of a point between 2015 and 2018. The decline over this period was larger than 0.50 of a point on the life-satisfaction scale in several schools systems, including Brazil, Ireland, Japan, Macao (China), Qatar, the United Kingdom and the United States. The only country where average life satisfaction amongst students increased significantly was Korea, though average life satisfaction in Korea in both PISA 2015 and PISA 2018 was below the OECD average.

As shown in Figure III.11.3, in most of the PISA-participating countries and economies where the share of students who reported that they are not satisfied with their lives increased there was a corresponding decrease in the proportion of students who reported that they are satisfied with their lives. The drop in the share of students who reported being satisfied with their lives was particularly large in the United Kingdom – a difference of at least 13 percentage points between 2015 and 2018.

This general downward trend was consistent between subgroups in most participating countries and economies (Table III.B1.11.9). On average across OECD countries, average life satisfaction declined by 0.29 of a point on the life-satisfaction scale amongst disadvantaged students, and by 0.33 of a point amongst advantaged students. The analysis found no wide gender gap and no major difference between immigrant and non-immigrant students on average across OECD countries. In some countries, however, the disparity in the change in students' average life satisfaction related to gender differed from the OECD average pattern. For example, in Turkey, average life satisfaction declined by 0.70 of a point amongst boys and by 0.30 of a point amongst girls. In Korea, average life satisfaction increased by 0.42 of a point amongst boys, while it declined by 0.14 of a point amongst girls.

DIFFERENCES IN STUDENTS' LIFE SATISFACTION ACROSS SCHOOLS

When considering differences across schools, in 15 education systems, students in rural schools were significantly more likely to report being satisfied with their lives than students in urban schools (Table III.B1.11.6). This difference was of more than eight percentage points in Brazil, Kazakhstan, Kosovo, the Russian Federation (hereafter "Russia") and Saudi Arabia. In Lebanon and Romania, the opposite was observed, with a difference of more than 10 percentage points in favour of city schools.

In 18 countries and economies, students in advantaged schools were more likely to report that they are satisfied with their lives than students in disadvantaged schools. This difference was particularly large – more than 20 percentage points – in Lebanon. The reverse pattern was observed in 17 education systems. In Panama, Russia, the United Arab Emirates and Viet Nam, students in disadvantaged schools were at least eight percentage points more likely than their peers in advantaged schools to report being satisfied with their lives.

PISA 2018 data also show that, on average across OECD countries, students in schools with a low concentration of immigrant students were more likely than students in schools with a high concentration of immigrant students to report that they are satisfied with their lives. This difference was of more than 10 percentage points in Lebanon, Panama and Thailand. In Hong Kong (China), Latvia and Slovenia, however, the opposite pattern was observed, with students in schools with a high concentration of immigrant students more likely to report greater life satisfaction than students in schools with a low concentration of immigrant students.

Are students who reported lower levels of life satisfaction concentrated in certain schools? As shown in Figure III.11.4, on average across OECD countries, 30% of students attended schools where one in ten students or fewer reported that they are not satisfied with their lives. Just over 50% of students were in schools where between 10% and 25% of students reported that they are not satisfied with their lives; 17% of students are in schools where between 25% and 50% of students reported that they are not satisfied with their lives; and around 1% of students are in schools where at least one in two students reported that they are not satisfied with their lives.

HOW STUDENTS' LIFE SATISFACTION IS RELATED TO READING PERFORMANCE

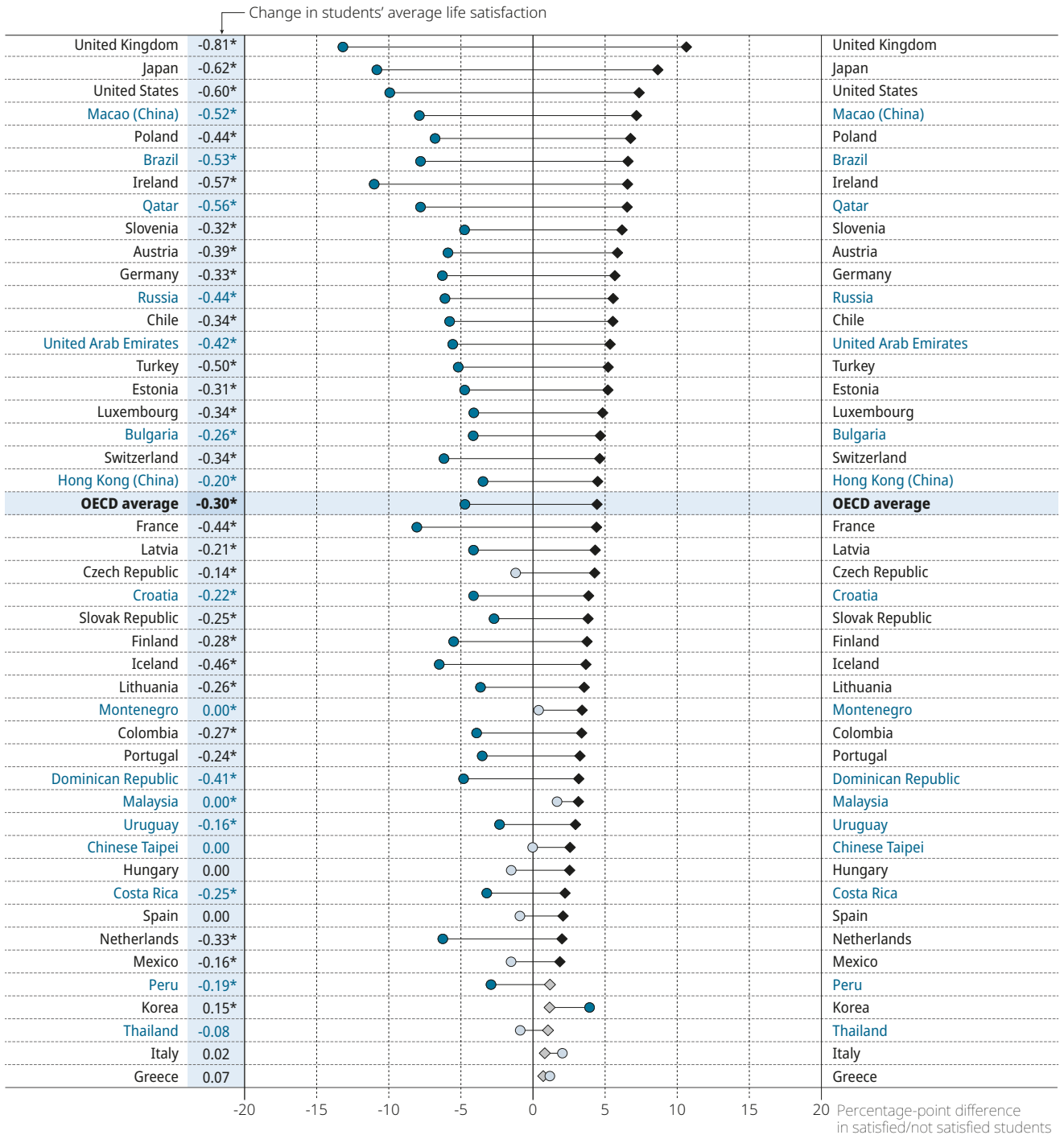
Do students perform better when they are more satisfied with their lives? Although schoolwork represents one of the main activities in 15-year-old students' lives, high academic achievement does not necessarily result in greater satisfaction with life, and low academic achievement does not automatically translate into lower life satisfaction (Bücker et al., 2018^[28]).

Figure III.11.3 **Change between 2015 and 2018 in students' satisfaction with life**

Based on students' self-reports

Change in the percentage of students who are:

- Satisfied (Students who reported 7 to 10 on the life-satisfaction scale)
- ◆ Not satisfied (Students who reported 0 to 4 on the life-satisfaction scale)



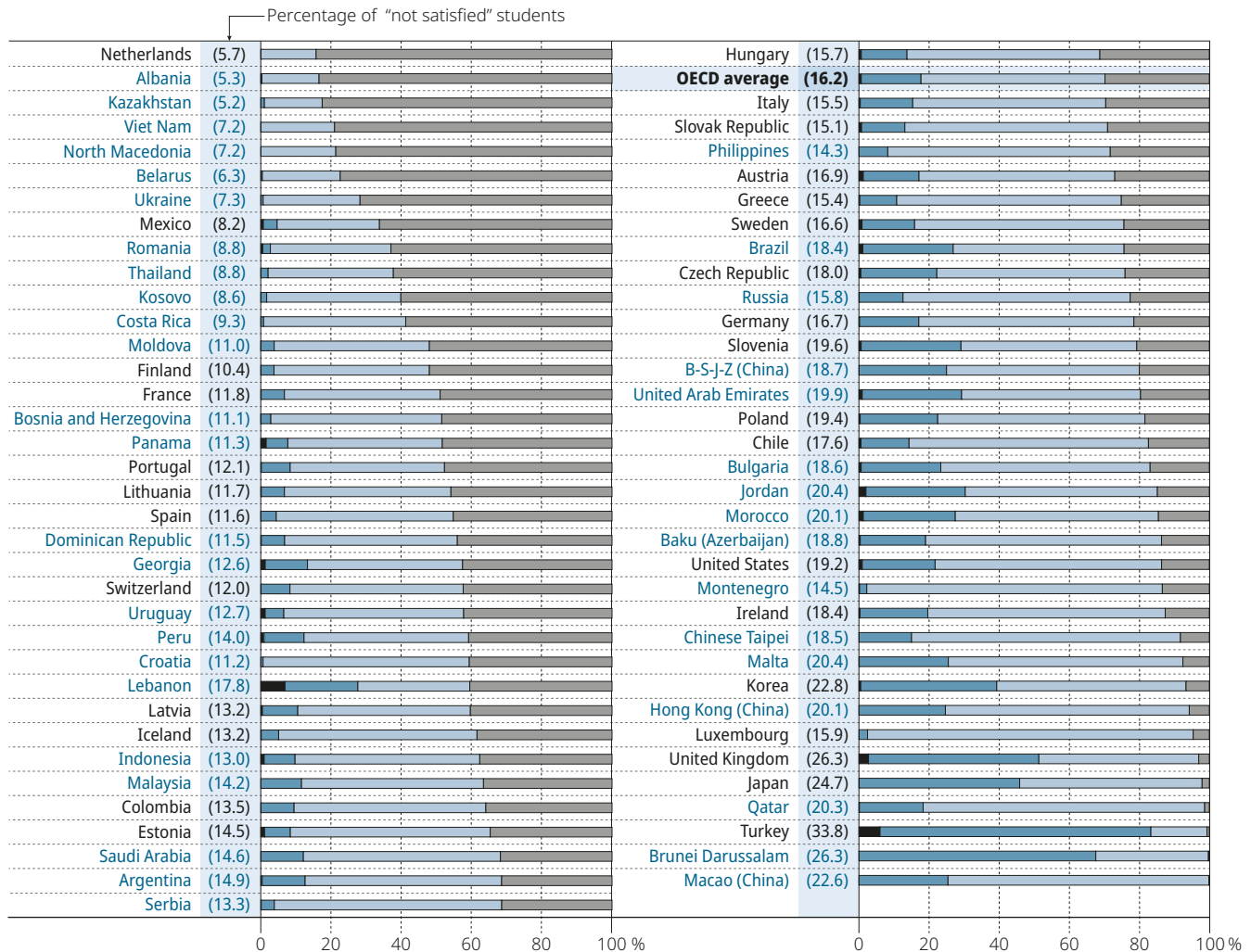
Notes: Statistically significant changes between 2015 and 2018 in students' satisfaction with life are shown in darker tones. Changes in students' average life satisfaction that are statistically significant are marked with an asterisk next to the country/economy name (see Annex A3). Countries and economies are ranked in descending order of the percentage-point difference between 2015 and 2018 (PISA 2018 - PISA 2015) in the share of students who reported they are "not satisfied" with their lives.

Source: OECD, PISA 2018 Database, Table III.B1.11.2.
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Figure III.11.4 **Prevalence of students who are not satisfied with life**

Percentage of students in schools where...

- Over 50% of students reported being not satisfied with life
- Between 25% and 50% of students reported being not satisfied with life
- Between 10% and 25% of students reported being not satisfied with life
- 10% of students or less reported being not satisfied with life



Note: A student is classified as "not satisfied" with life if he or she reported between 0 and 4 on the life-satisfaction scale. The life-satisfaction scale ranges from 0 to 10.

Countries and economies are ranked in descending order of the percentage of students in schools where 10% of students or less reported being not satisfied with life.

Source: OECD, PISA 2018 Database, Table III.B1.11.3.

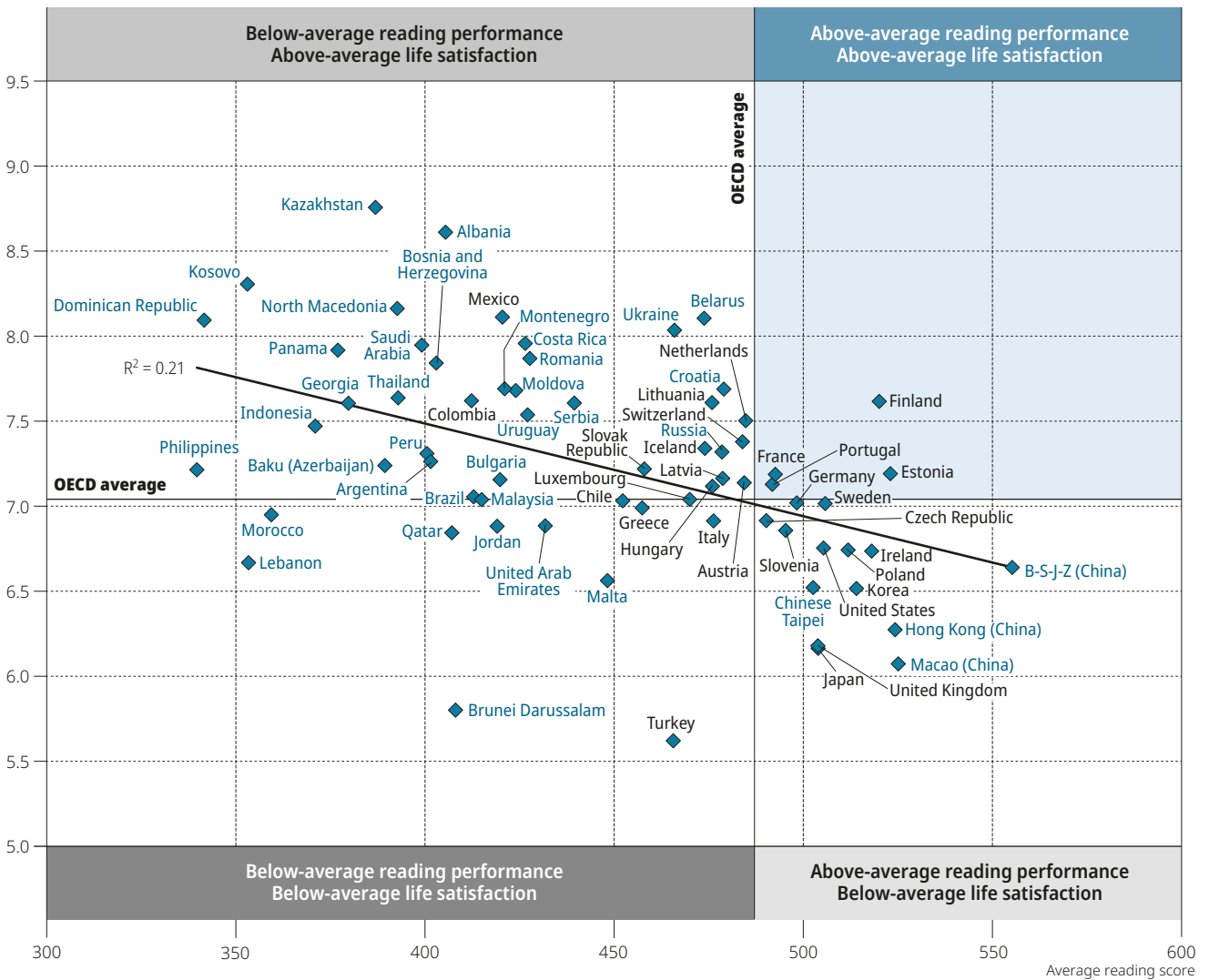
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For example, some studies that measure academic performance through students' reports find that adolescents with high or average levels of life satisfaction earn higher grades than those with low levels of life satisfaction (Gilman and Huebner, 2006^[11]; Ng, Huebner and Hills, 2015^[29]; Salmela-Aro, Aunola and Nurmi, 2007^[30]). By contrast, a study that assesses academic performance through objective measures finds no relationship between adolescents' academic achievement and life satisfaction (Bradley and Corwyn, 2004^[31]).

As shown in Figure III.11.5, students in low-achieving countries tended to report higher levels of life satisfaction than students in high-achieving countries. For example in Albania, the Dominican Republic, Kazakhstan and Kosovo, students reported an average life satisfaction above the OECD average, but performed below the OECD average in reading. Moreover, in most East Asian countries and economies, such as Beijing, Shanghai, Jiangsu and Zhejiang (China) (hereafter "B-S-J-Z [China]"), Hong Kong (China), Japan and Macao (China), students scored above the OECD average in reading, but reported lower levels of life satisfaction than the average 15-year-old student in OECD countries.

Figure III.11.5 Life satisfaction and reading performance across education systems

Average life satisfaction
(on 10-point life-satisfaction scale)



Source: OECD, PISA 2018 Database, Tables III.B1.11.1 and I.B1.4.
StatLink <http://dx.doi.org/10.1787/888934030306>

However, some countries differ from this general pattern. In Estonia, Finland and France, students scored above average in reading and were more likely to report greater life satisfaction than the average student in OECD countries. Students in Brunei Darussalam, Lebanon, Malta, Qatar and Turkey scored below the average in reading and were less likely to report being satisfied with life. These findings are similar to the analysis that used PISA 2015 data to determine whether there was an association between average science score and life satisfaction, and should not be interpreted as a linear link between achievement in reading and levels of life satisfaction (OECD, 2017^[32]).

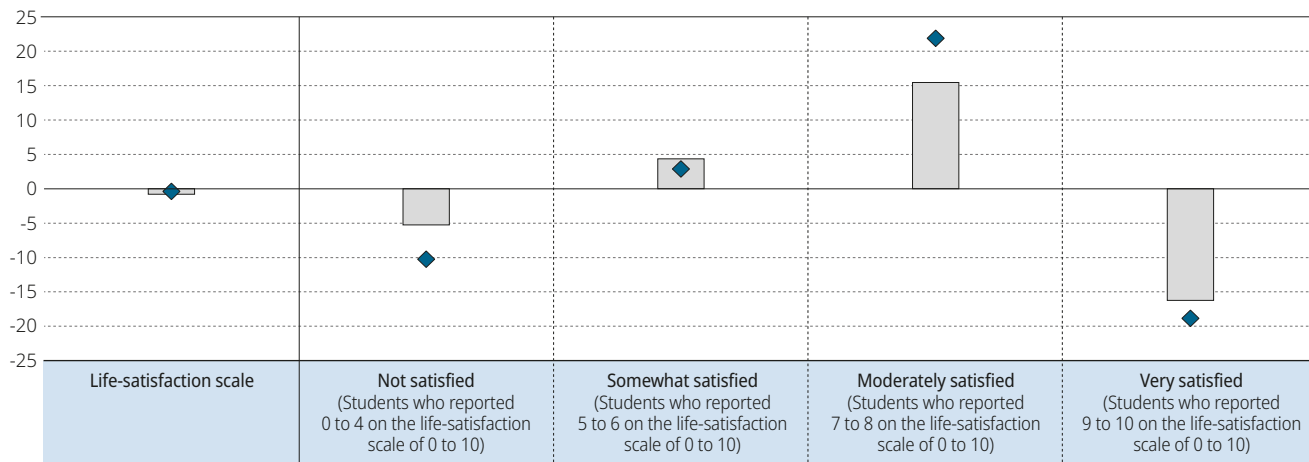
PISA 2018 data provide a more nuanced picture about the relationship between students' life satisfaction and reading performance. They show a trend towards poorer reading performance amongst both students with very high and very low levels of life satisfaction. As shown in Figure III.11.6, reading scores were lower amongst students who reported between 0 and 4, and 9 or 10 on the life-satisfaction scale, while reading scores were higher amongst students who reported 5 through 8 on the scale. On average across OECD countries, students who reported being not satisfied with their lives scored five points lower in reading than students who were more satisfied with their lives, after accounting for students' and schools' socio-economic profile (as measured by the PISA index of economic, social and cultural status). In many of the PISA-participating countries and economies, a negative association of at least a similar magnitude was found between low satisfaction with life and reading performance, after accounting for students' and schools' socio-economic profile (Table III.B1.11.7).

Figure III.11.6 Students' satisfaction with life and reading performance

Based on students' reports; OECD average

- ◆ Before accounting for students' and schools' socio-economic profile¹
- ▒ After accounting for students' and schools' socio-economic profile

Score-point difference in reading associated with students' life satisfaction



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

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

Source: OECD, PISA 2018 Database, Table III.B1.11.7.

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In addition, on average across OECD countries, students who were classified as “somewhat satisfied” with their lives scored 4 points higher in reading, and students who were identified as “moderately satisfied” scored 15 points higher, than all other students, after accounting for students’ and schools’ socio-economic profile (Figure III.11.6). In Indonesia, Kazakhstan, Kosovo, Lebanon and the United Arab Emirates, the latter gap between “moderately satisfied” and all other students was greater than 25 score points, while in Finland and Ireland the performance difference between the two groups was less than 10 score points (Table III.B1.11.7).

Interestingly, students who were classified as “very satisfied” with their lives scored 16 points lower in reading than more dissatisfied students, after accounting for students’ and schools’ socio-economic profile. In Hong Kong (China), Malta and the United States, “very satisfied” students scored at least 30 points lower in reading than other students. Lebanon was the only country where “very satisfied” students scored higher in reading than other students.

When examining the relationship between school-level life satisfaction and reading performance, PISA 2018 finds that the difference in average reading performance between schools with the lowest percentage of “moderately satisfied” students (that is, schools in the bottom quarter of the distribution of “moderately satisfied” students in their country/economy) and schools with the highest percentage of “moderately satisfied” students (that is, schools in the top quarter of the distribution of “moderately satisfied” students in their country/economy) was 57 score points, on average across OECD countries (Table III.B1.11.8). In schools with the lowest percentage of students who are “not satisfied” with their lives (that is, schools in the bottom quarter of the distribution of “not-satisfied” students in their country/economy), the average score in reading was 490 points. In schools with the highest percentage of “not-satisfied” students (that is, schools in the top quarter of the distribution of “not-satisfied” students in their country/economy), the average score in reading was 473 points.

HOW STUDENTS' LIFE SATISFACTION IS ASSOCIATED WITH SCHOOL CLIMATE

Getting support from the community is vital for promoting adolescents’ life satisfaction. Given the amount of time adolescents spend in school, schools are the primary venue, outside of the family, where 15-year-olds can develop supportive ties. Evidence suggests that schools function as psychologically healthy environments if they meet children’s developmental needs and appropriately challenge children (Baker et al., 2003^[33]). Schools with engaging activities, a positive climate, order, discipline, respect, parental involvement and positive student-teacher relations can contribute to adolescents’ life satisfaction (e.g. Suldo et al., 2013^[34]; Zullig, Huebner and Patton, 2011^[35]). By contrast, negative experiences at school, such as bullying and poor relations with teachers, can be associated with less satisfaction with life amongst teenagers (Flouri and Buchanan, 2002^[36]; Navarro et al., 2015^[37]).



Figure III.11.7 shows the relationship between seven school-climate indicators and students' satisfaction with their lives. These indicators measure three distinct characteristics of school climate: student misbehaviour at school; perceived student-teacher relations; and perceived school community. On average across OECD countries, a one-unit increase in the index of exposure to bullying was associated with a 0.50-point decrease on the life-satisfaction scale – after accounting for student and school characteristics (including gender, and the PISA index of socio economic, social and cultural status at the student and school levels). On average across OECD countries, students with the least exposure to bullying (that is, students in the bottom quarter of the index of exposure to bullying in their country/economy), reported an average of 7.47 on the life-satisfaction scale; students with the greatest exposure to bullying (that is, students in the top quarter of that index in their country/economy), reported an average of 6.35 on the life-satisfaction scale (Table III.B1.11.10).

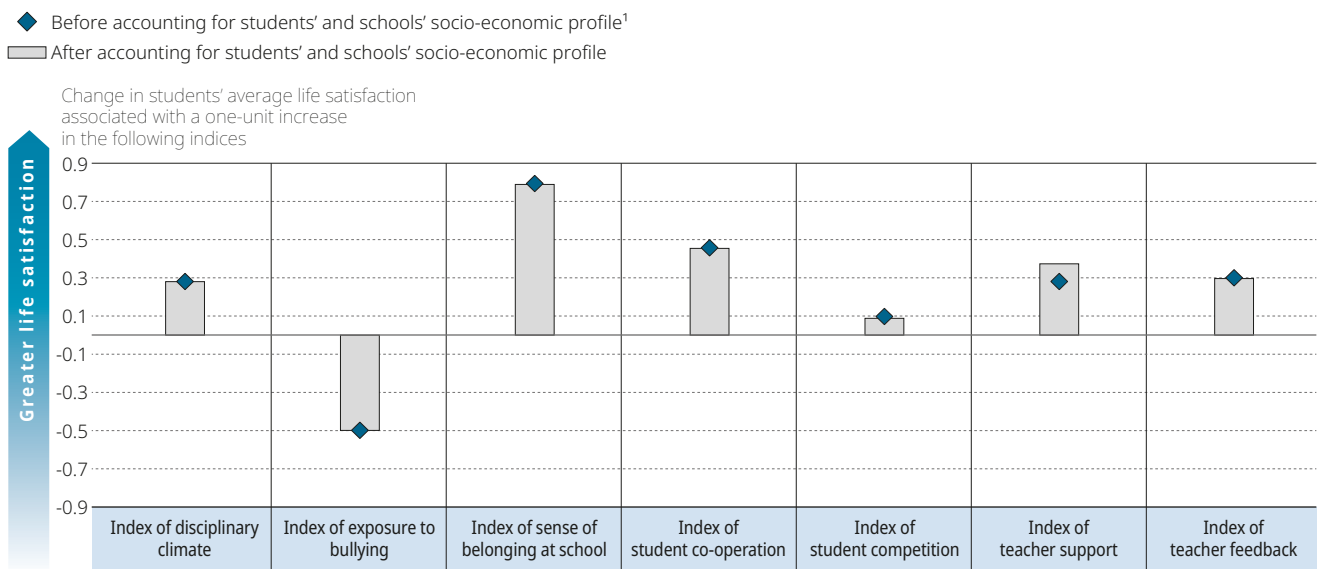
The results also suggest that, on average across OECD countries, school-community indicators, such as the index of disciplinary climate, the index of student competition, the index of student co-operation, and the index of students' sense of belonging at school, were positively associated with students' life satisfaction (Figure III.11.7). For example, a one-unit increase in the index of disciplinary climate was associated with a 0.28-point increase on the life-satisfaction scale, on average across OECD countries, after accounting for student and school characteristics. The results highlight that, on average across OECD countries, a one-unit increase in the index of student co-operation was associated with a 0.45-point increase on the life-satisfaction scale, after accounting for student and school characteristics. This association was significant in all PISA-participating countries and economies. The relationship between the index of student competition and life satisfaction is weaker, but positive on average across OECD countries.

PISA findings also show that students with the weakest sense of belonging at school (students in the bottom quarter of the index of sense of belonging in their country/economy), reported an average of 5.85 on the life-satisfaction scale; students with the strongest sense of belonging at school (those in the top quarter of the index in their country/economy), reported an average of 8.05 on the life-satisfaction scale (Table III.B1.11.10).

Students' perceptions of positive teacher behaviours were also related to higher life satisfaction. In all 68 countries and economies with available data, a one-unit increase in the index of teacher support was associated with a significant increase in students' satisfaction with life, after accounting for students' and schools' socio-economic profile (Table III.B1.11.10). The largest differences in life satisfaction related to teacher support were found in B-S-J-Z (China), Jordan and Malaysia. A one-unit increase in the index of teacher feedback was also linked to a 0.30-point increase on the life-satisfaction scale, on average across OECD countries, after accounting for students' and schools' socio-economic profile (Figure III.11.7).

Figure III.11.7 **Students' life satisfaction and school climate**

Based on students' reports; OECD average



1. Student and school characteristics include the PISA index of economic, social and cultural status (ESCS) at the student and school levels and gender.

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

Source: OECD, PISA 2018 Database, Table III.B1.11.10.

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Students' life satisfaction and meaning in life

These results suggest that school may play a central role not just in influencing students' academic performance, but their lives more generally. For example, students in schools where there are good teacher-student relations, or where students are less exposed to bullying, may be more likely to be more satisfied with their lives.

TIME SPENT ON THE INTERNET, ATTITUDES TOWARDS THE INTERNET AND RELATIONSHIP WITH STUDENTS' LIFE SATISFACTION

Fifteen-year-olds in PISA 2018 were born after 2000 and are members of a generation that grew up with the Internet and digital devices. Although most of these young people have used the Internet for years and are comfortable with digital technology, more frequent and intensive use of digital media does not necessarily make them happier. The *World Happiness Report 2019* found that US teenagers who spend long hours browsing through social media and using their smartphones are significantly less happy than previous generations (Helliwell, Layard and Sachs, 2019^[38]). In addition, those who spend more time on the Internet were more likely to develop depressive syndromes than those who spend more time with their families and socialising with their peers instead (Twenge, 2019^[39]; Twenge et al., 2018^[40]).

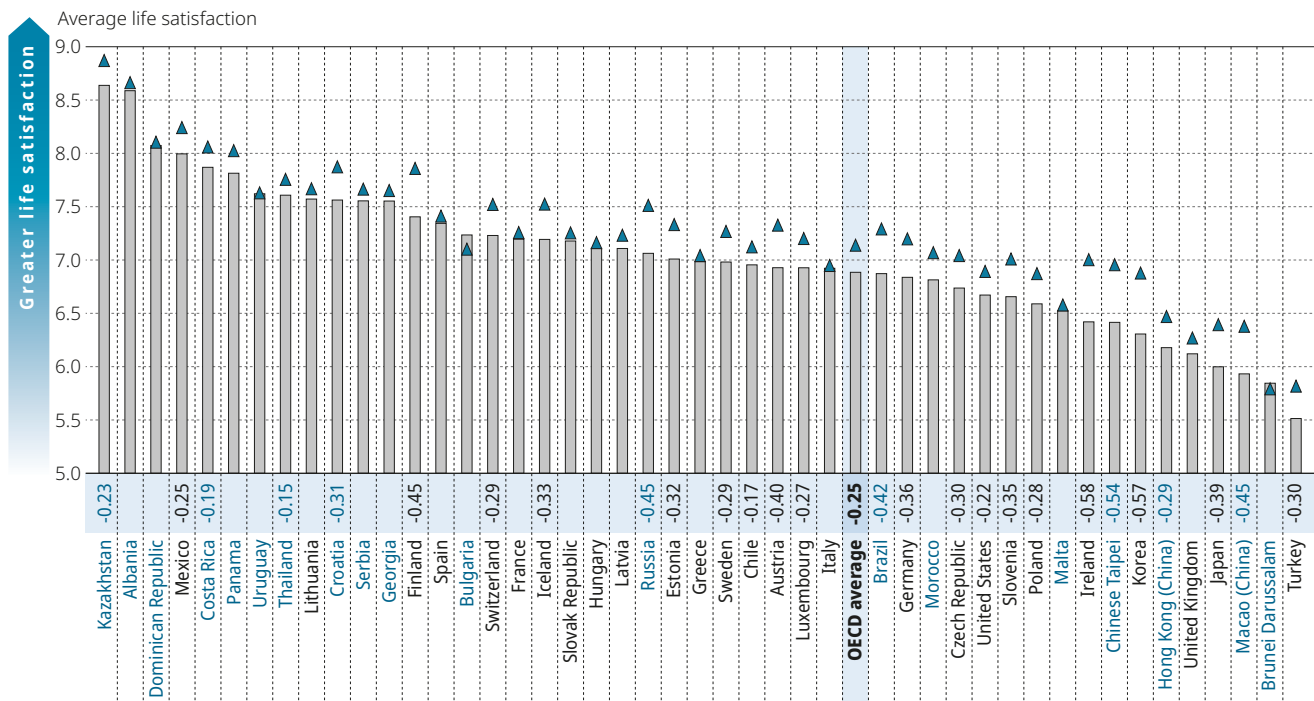
PISA 2012, 2015 and 2018 asked students how much time they spend using the Internet during the typical weekday and weekend day outside of school. These two questions were combined to calculate the amount of time students spend connected to the Internet during a typical week.

PISA data show that, on average across OECD countries, the time students spend on the Internet outside of school has steadily increased over the past few years – from 18 hours per week, including weekend days, in 2012, to 23 hours in 2015 to 27 hours in 2018 (Table III.B1.11.11). The average upward trend in time spent on the Internet outside of school amounted to around 9 hours between PISA 2012 and PISA 2018 across OECD countries.

Figure III.11.8 **Students' life satisfaction, by students feeling really bad when no Internet connection is possible**

Students who agreed/disagreed with the statement
"I really feel bad if no Internet connection is possible"

- Agreed or strongly agreed
- ▲ Disagreed or strongly disagreed



Note: Statistically significant differences between students who agreed/strongly agreed and disagreed/strongly disagreed are shown next to the country/economy name (see Annex A3).

Countries and economies are ranked in descending order of the average life satisfaction of students who agreed/strongly agreed with the statement "I really feel bad when no Internet connection is possible".

Source: OECD, PISA 2018 Database, Table III.B1.11.13.

StatLink <http://dx.doi.org/10.1787/888934030363>

The analysis reveals that time spent on the Internet outside of school increased between 2015 and 2018 amongst students' at all levels on the life-satisfaction scale. On average across OECD countries, students who reported being "not satisfied" with life spent the most time on the Internet outside of school (Tables III.B1.11.11 and III.B1.11.12). Across OECD countries in 2018, the average 15-year-old student who reported being "not satisfied" with life spent 29 hours per week on the Internet outside of school, while a student who reported being at least "moderately satisfied" with life spent 26 hours per week on the Internet. Between 2015 and 2018, the increase in time spent on the Internet was at least three hours for both groups. In Korea and Lithuania, the change in time spent on the Internet outside of school was more than seven hours amongst students "not satisfied" with life and at least six hours amongst "satisfied" students.

Are students' perceived feelings about the Internet and digital devices linked to their life satisfaction? PISA 2018 data show that students who agreed that they forget about time when using digital devices reported an average of 6.89 on the life-satisfaction scale, while students who disagreed with the statement reported 7.18 on the same scale, on average across OECD countries (Figure III.11.8 and Table III.B1.11.13). This difference was larger than 0.40 of a point in Brazil, Chile, Finland, Kazakhstan, Panama, Poland, Russia, Slovenia and Sweden. As shown in Figure III.11.8, in Finland, Ireland, Korea and Chinese Taipei, students who agreed with the statement "I really feel bad if no Internet connection is possible" reported a value at least 0.45 of a point lower on the life-satisfaction scale than those who disagreed with the statement.

The association between life satisfaction and using digital devices is less clear. On average across OECD countries, students who agreed that they like using digital devices reported a significantly higher rating on the life-satisfaction scale (7.01) than did students who disagreed with the statement (6.95). This pattern was also observed in Brunei Darussalam, France, Lithuania and the United Kingdom, while an opposite pattern was observed in Kazakhstan.

These results suggest that not only time spent on the Internet, but also students' feelings about using digital devices may be associated with their satisfaction with life.

HOW STUDENTS' SENSE OF MEANING IN LIFE VARIES ACROSS COUNTRIES, SCHOOLS AND STUDENTS

Understanding adolescents' resilience to the many challenges they face as teenagers is key to supporting their positive development. Amongst other things, finding a coherent meaning in life is considered to be an important protective factor for 15-year-olds (Brassai, Piko and Steger, 2011_[41]), especially because having a sense of purpose in life is necessary for achieving meaningful goals and living a fulfilling life (Frankl, 1959_[42]). In addition, a sense of meaning provides the impetus to set goals that steer people in positive directions (Mcknight and Kashdan, 2009_[43]). PISA 2018 defines meaning in life as the extent to which 15-year-olds comprehend, make sense of, or find significance in their lives (Steger, 2009_[44]).¹

Given the growing interest in adolescents' subjective well-being, PISA 2018 asked students whether they agree or disagree ("strongly disagree", "disagree", "agree", "strongly agree") with the following statements: "My life has clear meaning or purpose"; "I have discovered a satisfactory meaning in life"; and "I have a clear sense of what gives meaning to my life". These statements were combined to create the index of meaning in life whose average is 0 and standard deviation is 1 across OECD countries. Positive values in this index mean that the student has a greater sense of meaning in life than the average student in OECD countries.

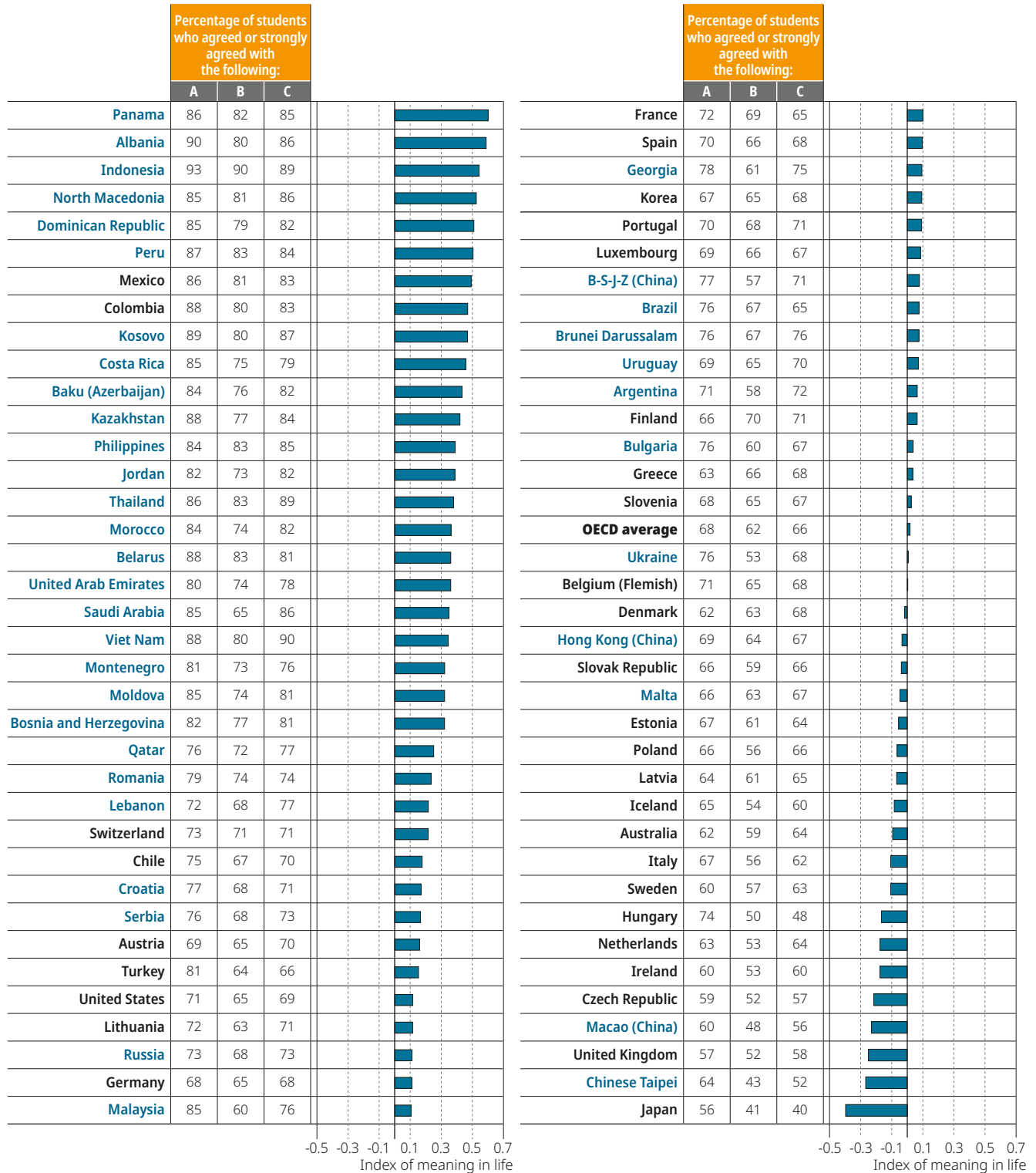
Figure III.11.9 shows the percentage of students who reported their agreement or disagreement with statements related to meaning in life. On average across OECD countries, 68% of students agreed or strongly agreed that their life has clear meaning or purpose; 66% of students agreed or strongly agreed that they have a clear sense of what gives meaning to [their] lives; and 62% of students agreed or strongly agreed that they have discovered a satisfactory meaning in life. But there are large variations across countries and economies. For example, in Albania, Indonesia, Kosovo, the Republic of North Macedonia, the Philippines, Saudi Arabia, Thailand and Viet Nam, more than 85% of students agreed that they have a clear sense of what gives meaning to their lives. By contrast, in Hungary and Japan, less than half of students reported so. The variation across countries was less pronounced concerning the statement, "My life has clear meaning or purpose". The largest shares of students who agreed or strongly agreed with this statement (90% or more) were observed in Albania and Indonesia, while the smallest shares of students who so reported (less than 60%) were observed in the Czech Republic, Ireland, Japan, Macao (China), Sweden and the United Kingdom.

There are large differences within countries too. In 42 countries and economies, boys were more likely than girls to report a greater sense of meaning in life (Table III.B1.11.15). Differences in favour of boys were particularly large (at least one-fourth of a standard deviation) in Croatia, Korea, Poland and Slovenia, while in Jordan, Lebanon and the Philippines, girls were more likely than boys to report a much stronger sense of meaning in life (by around one-sixth of a standard deviation). On average across OECD countries, there was a slight difference between advantaged and disadvantaged students in the index of meaning in life. In 33 countries and economies, advantaged students were more likely than their disadvantaged peers to report a greater sense of meaning in life.

Figure III.11.9 **Students' sense of meaning in life**

Based on students' reports

- A** My life has clear meaning or purpose
- B** I have discovered a satisfactory meaning in life
- C** I have a clear sense of what gives meaning to my life



Countries and economies are ranked in descending order of the index of meaning in life.

Source: OECD, PISA 2018 Database, Table III.B1.11.14.

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The difference in students' sense of meaning in life related to socio-economic status, in favour of advantaged students, was particularly large in Australia, Estonia, Jordan, Lebanon and Saudi Arabia. The opposite pattern was observed in some other countries, such as Hungary, Portugal and the United Arab Emirates, where more disadvantaged than advantaged students reported a greater sense of meaning in life. On average across OECD countries, slightly more immigrant students than native students reported a greater sense of meaning in life. But there were large variations across countries and economies. For example, in the Flemish Community of Belgium, the Netherlands, Sweden and the United Kingdom, students with an immigrant background were much more likely to report a greater sense of meaning in life – at least 0.20 of a unit more – than their native-born counterparts. These results imply that boys were more likely than girls to report a greater sense of meaning in life, but the differences related to students' socio-economic and immigrant background were less pronounced across countries and economies.

PISA 2018 data show substantial differences across different types of schools in students' sense of meaning in life (Table III.B1.11.16). On average across OECD countries, about 2% of the variation in the index of meaning in life lay between schools, a proportion somewhat smaller than that of other indices examined in this report. Students in disadvantaged schools were more likely than those in advantaged schools to report a greater sense of meaning in life, on average across OECD countries. The gap in favour of disadvantaged schools was largest in Hungary and the United Arab Emirates. The opposite was observed in Saudi Arabia and the Philippines. In 23 countries and economies, students in rural schools were more likely than those in city schools to report a greater sense of meaning in life.

The degree of diversity within schools may also explain some of the variation across countries in students' sense of meaning in life. In 12 countries and economies, students in schools with a low concentration of immigrant students were more likely to report a greater sense of meaning in life than students in schools with a higher concentration of immigrant students. By contrast, in nine countries, students in schools with a higher concentration of immigrant students were significantly more likely to report a greater sense of meaning in life than students in schools with a lower concentration of immigrant students.

PISA 2018 findings support the notion that a positive school climate is linked to a greater sense of meaning in life amongst students. On average across OECD countries, a one-unit increase in the index of student co-operation was associated with a 0.19-unit increase in the index of meaning in life, after accounting for student and school characteristics (including gender, and the PISA index of socio economic, social and cultural status at the student and school levels) (Table III.B1.11.17). In the majority of PISA-participating countries and economies, student competition was also associated with an increase in the index of students' sense of meaning in life. In addition, students were more likely to report a greater sense of meaning in life when they reported a stronger sense of belonging at school. On average across OECD countries, a one-unit increase in the index of sense of belonging at school was associated with a 0.27-unit increase in the index of meaning in life, after accounting for student and school characteristics. This increase was greater than 0.35 of a unit in B-S-J-Z (China), Hong Kong (China), Thailand, the United Kingdom and the United States. Students who reported greater teacher support also reported a greater sense of meaning in life. On average across OECD countries, a one-unit increase in the index of teacher support was associated with a 0.12-unit increase in the index of meaning in life, after accounting for student and school characteristics.

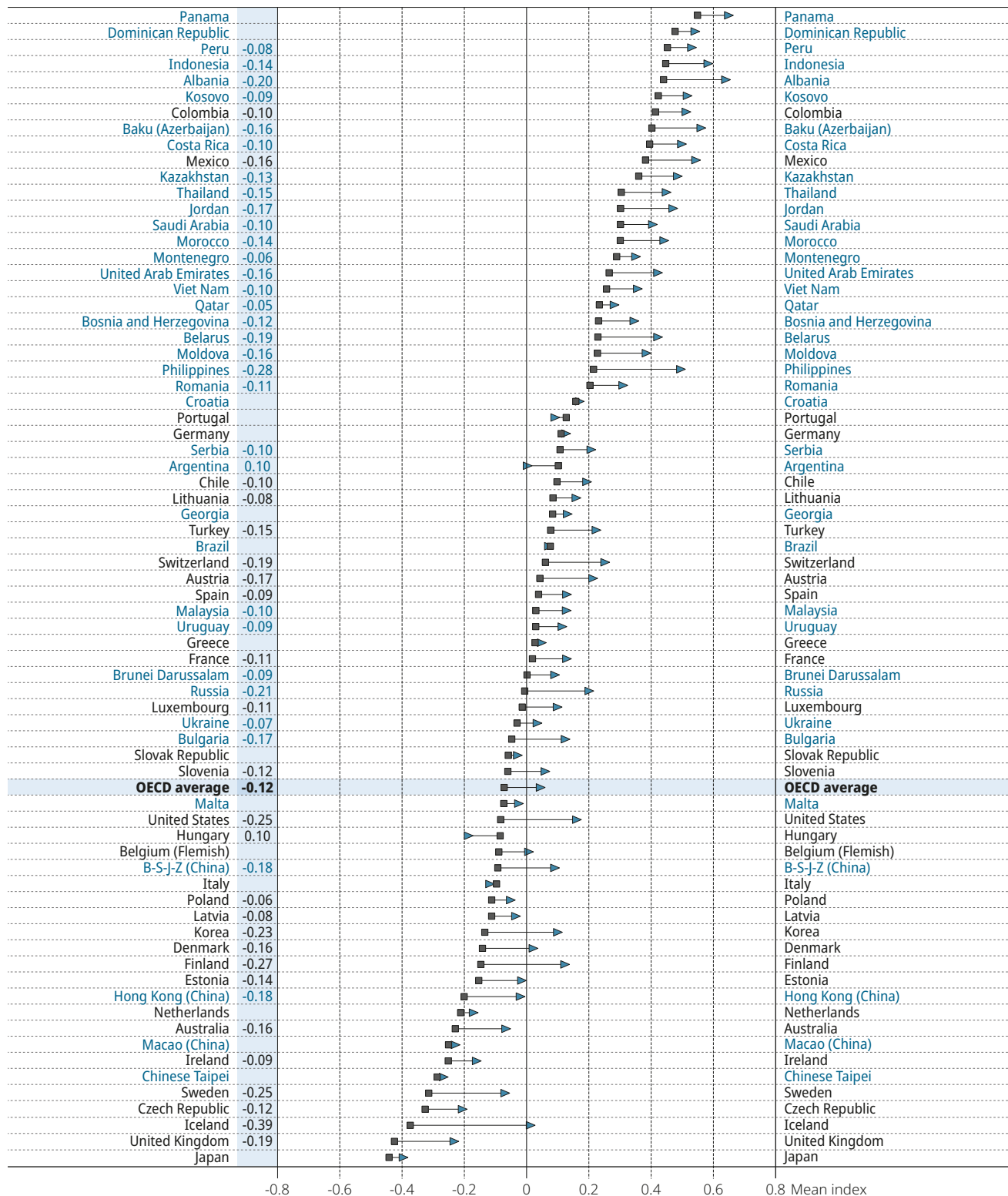
HOW STUDENTS' SENSE OF MEANING IN LIFE IS RELATED TO READING PERFORMANCE AND STUDENTS' ENGAGEMENT AT SCHOOL

The literature suggests that the components of meaning in life, such as the passionate pursuit of goals and purpose, are positively associated with academic performance (Greenway, 2006^[45]). PISA 2018 data, however, show that the index of meaning in life is negatively linked to students' performance in reading, but the relationship is curvilinear (Table III.B1.11.18). On average across OECD countries, a one-unit increase in the index of meaning in life (equivalent to one standard deviation across OECD countries) was associated with a significant decrease – of eight score points – in reading performance, after accounting for students' and schools' socio-economic profile (as measured by the PISA index of economic, social and cultural status at the student and school levels). However, the results reveal large differences across countries and economies. For example, in Ireland and Chinese Taipei, this decline was greater than 15 score points, while in Jordan, Lebanon, the Philippines and Saudi Arabia, there was an increase of at least 12 score points in reading.

The correlational evidence between reading performance and the individual components used to create the index of meaning in life shows that students generally scored highest in reading when they disagreed with those statements, while they tended to score lowest when they strongly agreed (Table III.B1.11.19). On average across OECD countries, students who disagreed with the statements scored higher in reading than students who strongly disagreed, even after accounting for students' and schools' socio-economic profile (as measured by the PISA index of economic, social and cultural status at the student and school levels). For instance, students who disagreed that they have a clear sense of what gives meaning to their life scored 10 points higher in reading than students who strongly disagreed. However, the relationship between reading scores and students who agreed and strongly agreed with statements about meaning in life varied across education systems. In 26 out of 72 countries and economies with available data, students who agreed that they have discovered a satisfactory meaning in life scored significantly lower in reading than those who strongly disagreed with the same statement, after accounting for students' and schools' socio-economic profile.

Figure III.11.10 Students' sense of meaning in life, by student truancy

- ▶ I did not skip some classes in the two weeks prior to the PISA test
- I skipped some classes at least once in the two weeks prior to the PISA test



Note: Statistically significant differences between students who had skipped classes at least once and those who had not skipped classes in the two weeks prior to the PISA test are shown next to the country/economy name (see Annex A3).

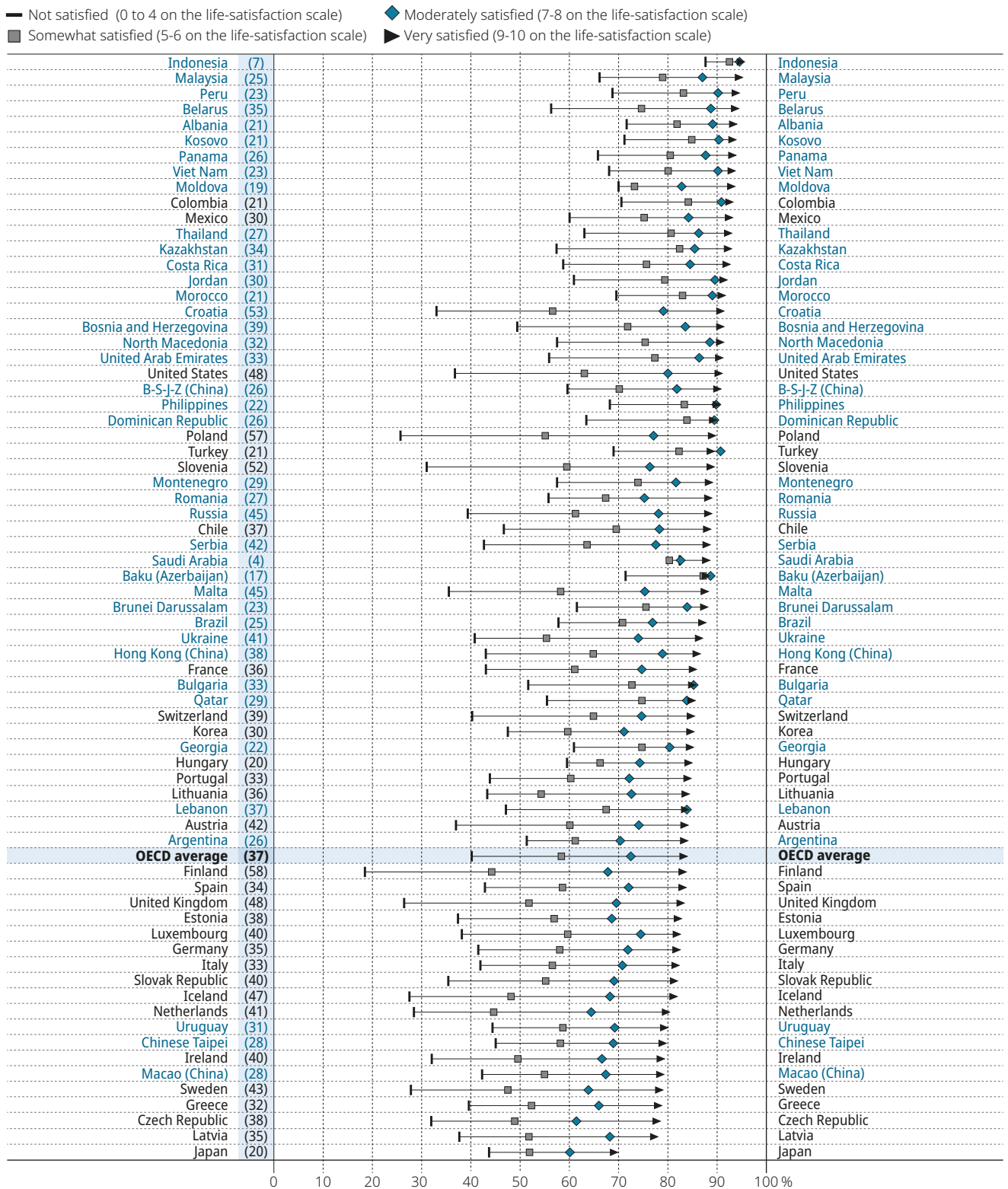
Countries and economies are ranked in descending order of the average life satisfaction of students who had skipped classes in the two weeks prior to the PISA test.

Source: OECD, PISA 2018 Database, Table III.B1.11.20.

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Figure III.11.11 **Students' life satisfaction and sense of meaning in life**

Percentage of students who agreed or strongly that "My life has clear meaning or purpose", by students' satisfaction with life



Note: The difference between students who are "satisfied" (a student who reported between 7 and 10 on the life-satisfaction scale) and "not satisfied" (a student who reported between 0 and 4 on the life-satisfaction scale) with their lives is found next to the country/economy name. All differences are statistically significant (see Annex A3).

Countries and economies are ranked in descending order of the percentage of students who are classified as "very satisfied" with life.

Source: OECD, PISA 2018 Database, Table III.B1.11.21.

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11 Students' life satisfaction and meaning in life

By contrast, in 23 education systems, those who agreed that they have discovered a satisfactory meaning in life scored significantly higher in reading than their peers who strongly disagreed. A similar pattern holds for the statement "I have a clear sense of what gives meaning to my life".

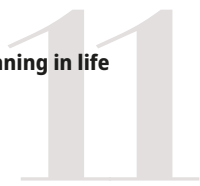
Previous research has found that students who are less engaged in their schoolwork (e.g. they do not attend class regularly or they are not attentive in class) reported less sense of purpose in life compared to more engaged students (Rahman and Khaleque, 1996_[46]). Adolescents who work to accomplish goals reported a greater sense of meaning in life than those who do not have those goals (Yeager and Bundick, 2009_[47]). PISA 2018 finds that, in a majority of countries and economies, students who reported that they had arrived late for school or had skipped classes in the two weeks prior to the PISA test tended to report less of a sense of meaning in life than students who reported that they were not late or truant (Table III.B1.11.20).

For example, as shown on Figure III.11.10, on average across OECD countries, students who had not skipped some classes in the two weeks prior to the PISA test showed an average value of 0.05 in the index of meaning in life, while students who had skipped some classes at least once during that period showed an average value of 0.12 of a unit lower. In Albania, Finland, Iceland, Korea, the Philippines, Russia, Sweden and the United States, a difference of more than 0.20 of a unit in the index of meaning in life was observed between students who had skipped class at least once and those who had not skipped class at all during the period. In only two countries, Argentina and Hungary, did students who had skipped classes at least once reported a greater sense of meaning in life than students who had never skipped classes.

Arriving late for school was also linked to less of a sense of meaning in life (Table III.B1.11.20). On average across OECD countries, students who had not arrived late for school in the two weeks prior to the PISA test showed an average value of 0.05 of a unit in the index of meaning in life, while students who had arrived late for school at least once during that period showed an average value of -0.02 of a unit in the same index.

DO STUDENTS WHO ARE SATISFIED WITH THEIR LIVES HAVE A GREATER SENSE OF MEANING IN LIFE?

Empirical evidence has consistently shown that finding meaning in life is often associated with greater life satisfaction and happiness (Park, Park and Peterson, 2010_[48]; Steger and Kashdan, 2007_[49]; Steger, Oishi and Kashdan, 2009_[50]). On average across OECD countries, students who reported being more satisfied with life were more likely to have a greater sense of meaning in life than students who reported lower levels of life satisfaction (Table III.B1.11.21). For example, on average across OECD countries, the share of students who agreed or strongly agreed that their life has clear meaning or purpose was 37 percentage points larger amongst students who reported being satisfied with their lives than amongst students who reported that they are not satisfied (Figure III.11.11). The difference between these two groups of students was 43 percentage points when considering the statement, "I have discovered a satisfactory meaning in life", and 38 percentage points when considering the statement, "I have a clear sense of what gives meaning to my life". But there were some variations across countries. For example, in Colombia, Indonesia, Kosovo, Peru, Turkey and Viet Nam, more than 90% of "moderately satisfied" students reported that their life had clear meaning or purpose, while in the Czech Republic, Japan, the Netherlands and Sweden, less than 65% of "moderately satisfied" students so reported. In Finland, fewer than one in five students who reported they are not satisfied with life also reported that their life had clear meaning or purpose, while in Indonesia and Saudi Arabia, more than four in five "not-satisfied" students so reported.



Note

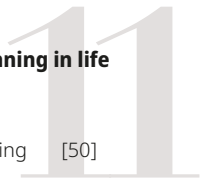
1. The results on the responses to the three statements related to meaning in life might be interpreted with some caution. The Questionnaire Design Resource Centre (QDRC) in Canada and the aSPe (*analyse des Systèmes et des Pratiques d'enseignement*) at the University of Liège, Belgium, conducted qualitative testing of the questions on meaning in life for the PISA survey. In Canada, a total of 15 cognitive interviews (8 interviews in English and 7 in French), and in Belgium 10 interviews (in French) were conducted amongst 15-16 year-old participants. During the testing, participants in the cognitive interviews completed the paper questionnaire on their own and then were asked to comment on the questions.

The two qualitative studies concluded that many respondents found the three statements similar, and some also were not sure how to interpret and answer them as they felt it the statements were very subjective. Many respondents also mentioned that this topic was sometimes discussed in their ethics course in school. The majority of respondents said that they never really thought about the meaning of their life before. When probed on the meaning of life, students gave these types of answers: happy in what I do; happy in my body; having fun in life; developing ambitions; becoming successful in my career; getting into a good university.

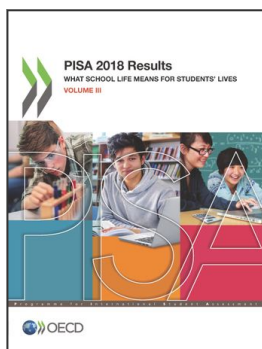
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