

PISA 2022 Results

UNESCO GAML

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06 December 2023

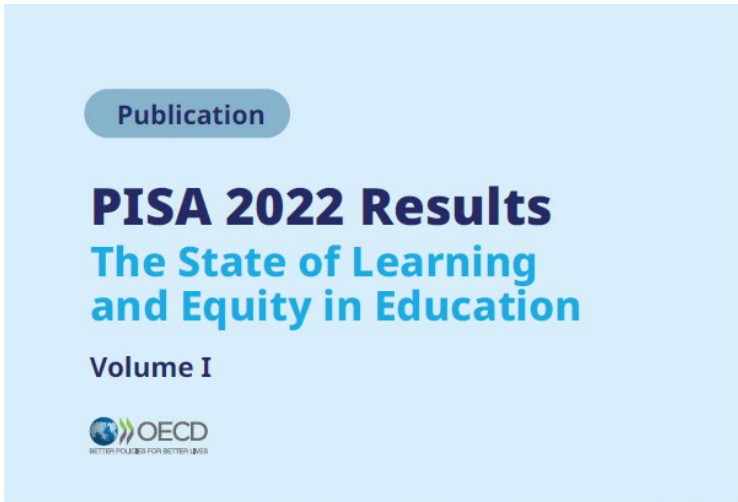
PISA 2022

An introduction

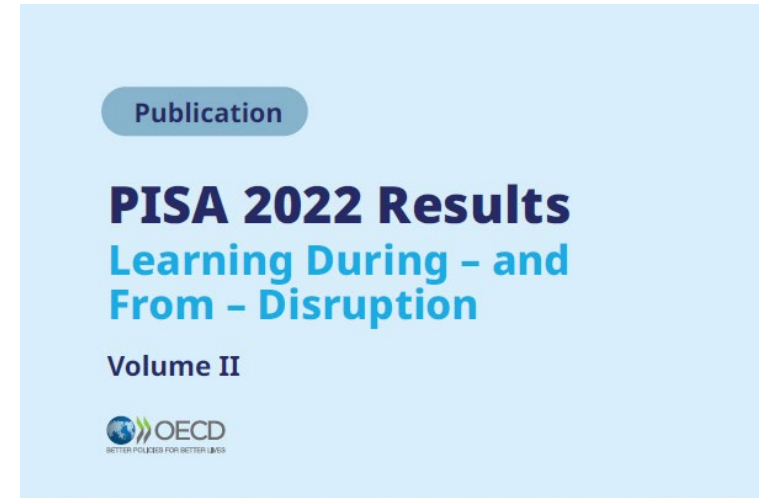


Two volumes were released on 5 December 2023

The first results of OECD's PISA 2022



[link](#)



[link](#)



What is PISA?

Programme for International Student Assessment

assesses 15-year-old students' abilities and knowledge in mathematics, reading and science





What is PISA?

Programme for International Student Assessment

assesses **15-year-old students'**
abilities and knowledge in
mathematics, reading and science





PISA participants

Around **690,000** 15-year-old students in **81 countries and economies** took PISA 2022

PISA Newcomers: El Salvador, Jamaica, Mongolia, the Palestinian Authority and Uzbekistan

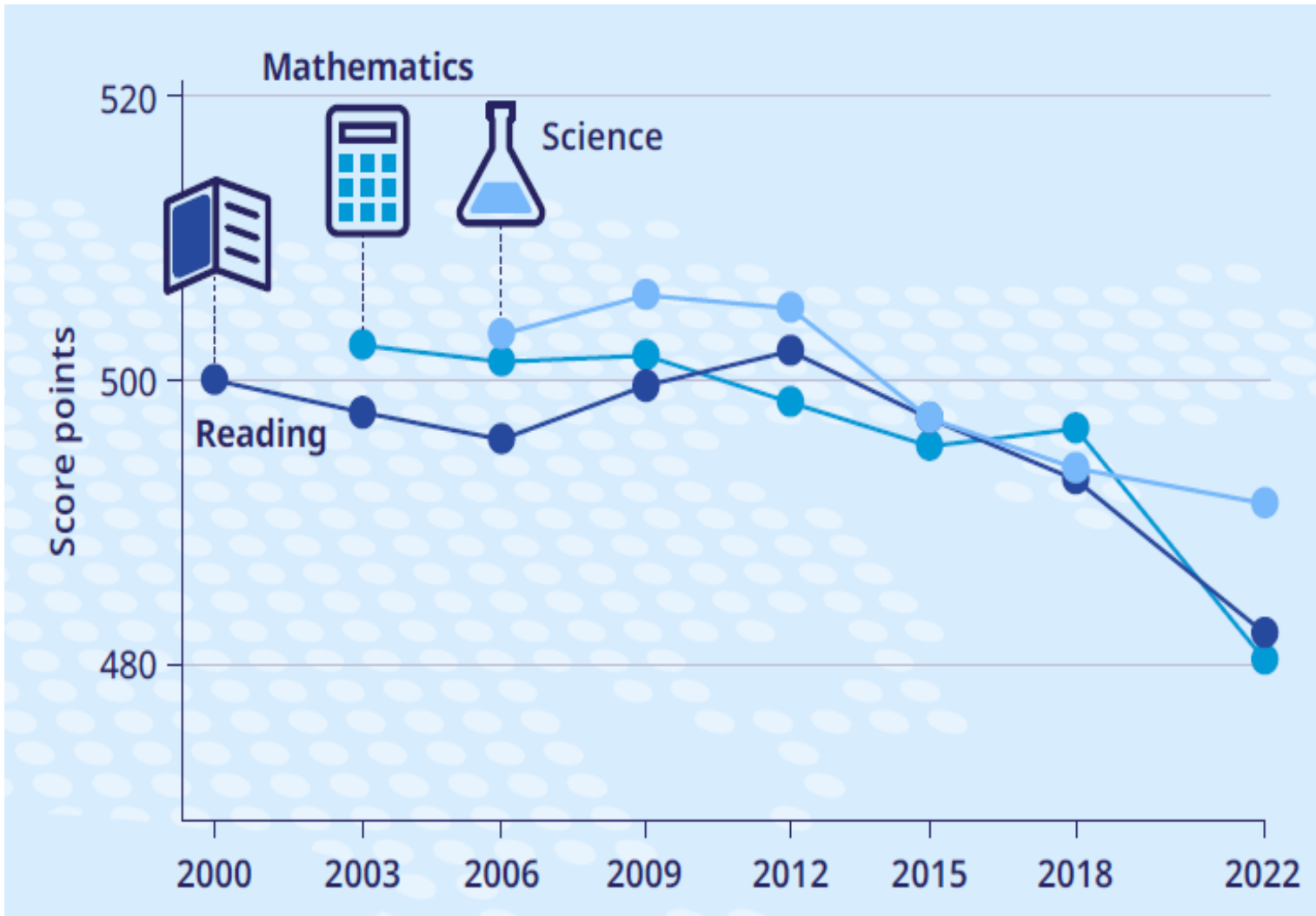


PISA 2022 international results

The state of global education



Trends across OECD countries

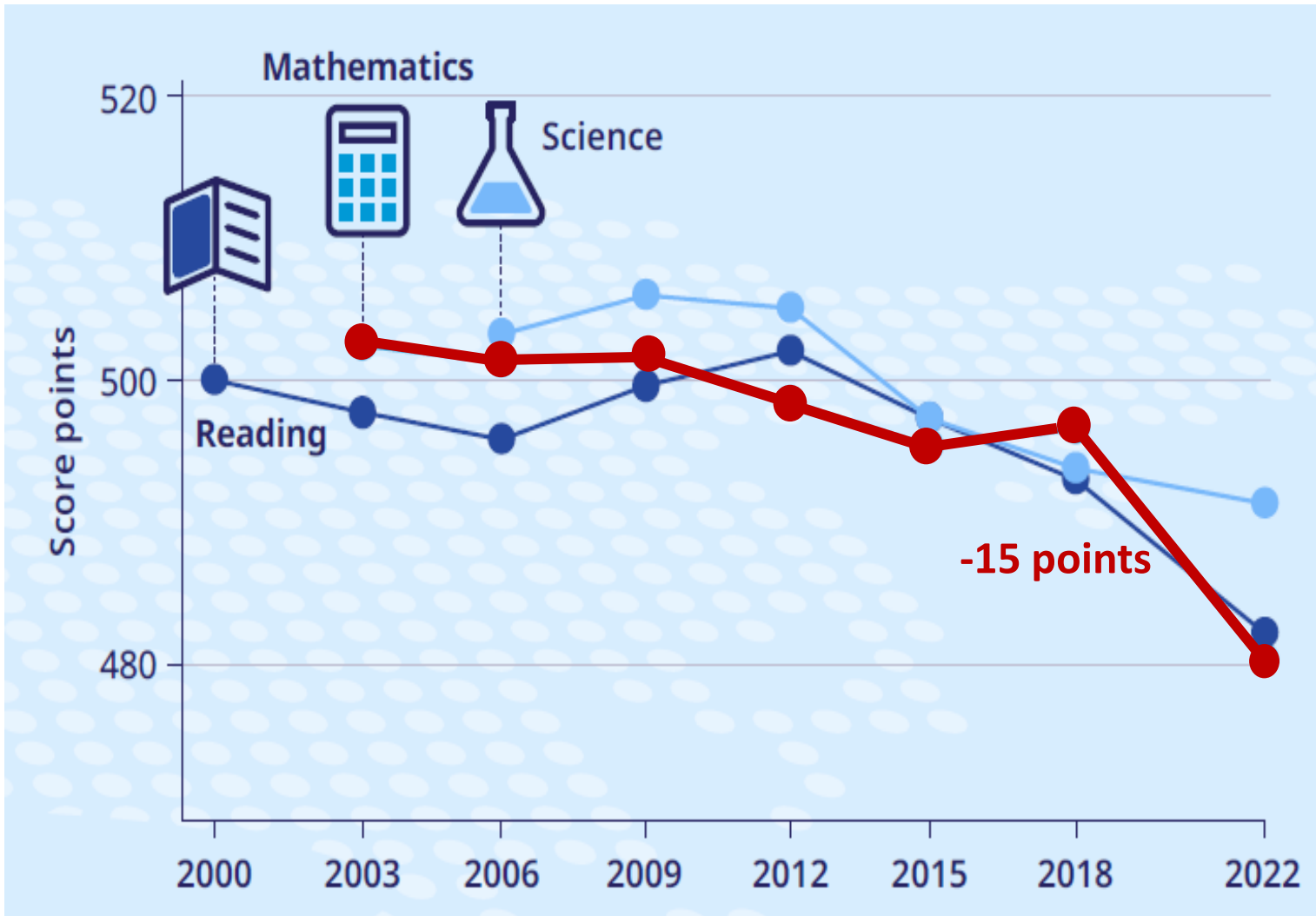


Performance in all three subjects **declined** since PISA began

Between 2018 and 2022

- 15 points decline in mathematics
- 10 points decline in reading
- No significant decline in science

Trends across OECD countries



Performance in all three subjects **declined** since PISA began

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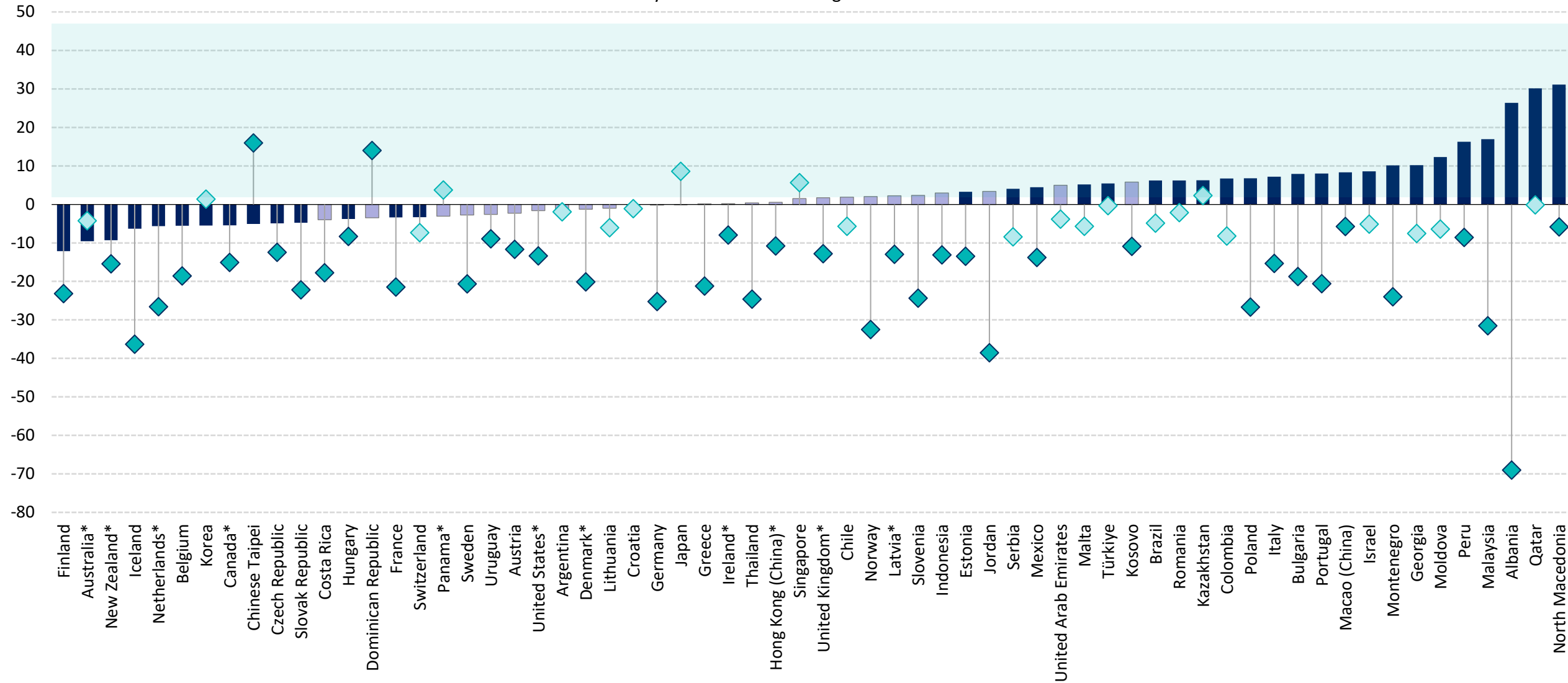
Recent performance changes in the context of pre-2018 performance trends

Figure I.5.3

Mathematics

Score-point difference

■ Pre 2018 4-year trend ◆ Change between 2018 and 2022





Snapshot of PISA 2022 results

Mathematics

Above the OECD average		Below the OECD average	
Singapore	575	Ukrainian regions (18 of 27)	441
Macao (China)	552	Serbia	440
Chinese Taipei	547	United Arab Emirates	431
Hong Kong (China)*	540	Greece	430
Japan	536	Romania	428
Korea	527	Kazakhstan	425
Estonia	510	Mongolia	425
Switzerland	508	Bulgaria	417
Canada*	497	Moldova	414
Netherlands*	493	Qatar	414
Ireland*	492	Chile	412
Belgium	489	Uruguay	409
Denmark*	489	Malaysia	409
United Kingdom*	489	Montenegro	406
Poland	489	Baku (Azerbaijan)	397
Austria	487	Mexico	395
Australia*	487	Thailand	394
Czech Republic	487	Peru	391
Slovenia	485	Georgia	390
Finland	484	Saudi Arabia	389
Latvia*	483	North Macedonia	389
Sweden	482	Costa Rica	385
New Zealand*	479	Colombia	383
Lithuania	475	Brazil	379
Germany	475	Argentina	378
France	474	Jamaica*	377
Spain	473	Albania	368
Hungary	473	Palestinian Authority	366
Portugal	472	Indonesia	366
Italy	471	Morocco	365
Viet Nam	469	Uzbekistan	364
Norway	468	Jordan	361
Malta	466	Panama*	357
United States*	465	Kosovo	355
Slovak Republic	464	Philippines	355
Croatia	463	Guatemala	344
Iceland	459	El Salvador	343
Israel	458	Dominican Republic	339
Türkiye	453	Paraguay	338
Brunei Darussalam	442	Cambodia	336

Reading

Above the OECD average		Below the OECD average	
Singapore	543	Greece	438
Ireland*	516	Iceland	436
Japan	516	Uruguay	430
Korea	515	Brunei Darussalam	429
Chinese Taipei	515	Romania	428
Estonia	511	Ukrainian regions (18 of 27)	428
Macao (China)	510	Qatar	419
Canada*	507	United Arab Emirates	417
United States*	504	Mexico	415
New Zealand*	501	Costa Rica	415
Hong Kong (China)*	500	United Kingdom*	415
Australia*	498	Moldova	411
United Kingdom*	494	Brazil	410
Finland	490	Jamaica*	410
Denmark*	489	Colombia	409
Poland	489	Peru	408
Czech Republic	489	Montenegro	405
Sweden	487	Bulgaria	404
Switzerland	483	Argentina	401
Italy	482	Panama*	392
Austria	480	Malaysia	388
Germany	480	Kazakhstan	386
Belgium	479	Saudi Arabia	383
Portugal	477	Thailand	379
Norway	477	Mongolia	378
Croatia	475	Guatemala	374
Latvia*	475	Georgia	374
Spain	474	Paraguay	373
France	474	Baku (Azerbaijan)	365
Israel	474	El Salvador	365
Hungary	473	Indonesia	359
Lithuania	472	North Macedonia	359
Slovenia	469	Albania	358
Viet Nam**	462	Dominican Republic	351
Netherlands*	459	Palestinian Authority	349
Türkiye	456	Philippines	347
Chile	448	Kosovo	342
Slovak Republic	447	Jordan	342
Malta	445	Morocco	339
Serbia	440	Uzbekistan	336
		Cambodia	329

Science

Above the OECD average		Below the OECD average	
Singapore	561	Iceland	447
Japan	547	Brunei Darussalam	446
Macao (China)	543	Chile	444
Chinese Taipei	537	Greece	441
Korea	528	Uruguay	435
Estonia	526	Qatar	432
Hong Kong (China)*	520	United Arab Emirates	432
Canada*	515	Romania	428
Finland	511	Kazakhstan	423
Australia*	507	Bulgaria	421
New Zealand*	504	Moldova	417
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Italy	477	Guatemala	373
Türkiye	476	Palestinian Authority	369
Viet Nam	472	Paraguay	368
Malta	466	Morocco	365
Israel	465	Dominican Republic	360
Slovak Republic	462	Kosovo	357
Ukrainian regions (18 of 27)	450	Philippines	356
Serbia	447	Uzbekistan	355
		Cambodia	347



PISA 2022 mathematics item: Level 2

PISA 2022

Triangular Pattern
Question 2 / 3

Refer to "Triangular Pattern" on the right. Click on a choice to answer the question.

If Alex were to extend the pattern to a fifth row, what would be the percentage of blue triangles in all five rows of the pattern?

- 40.0%
- 50.0%
- 60.0%
- 66.7%

TRIANGULAR PATTERN

Alex drew the following pattern of red and blue triangles.

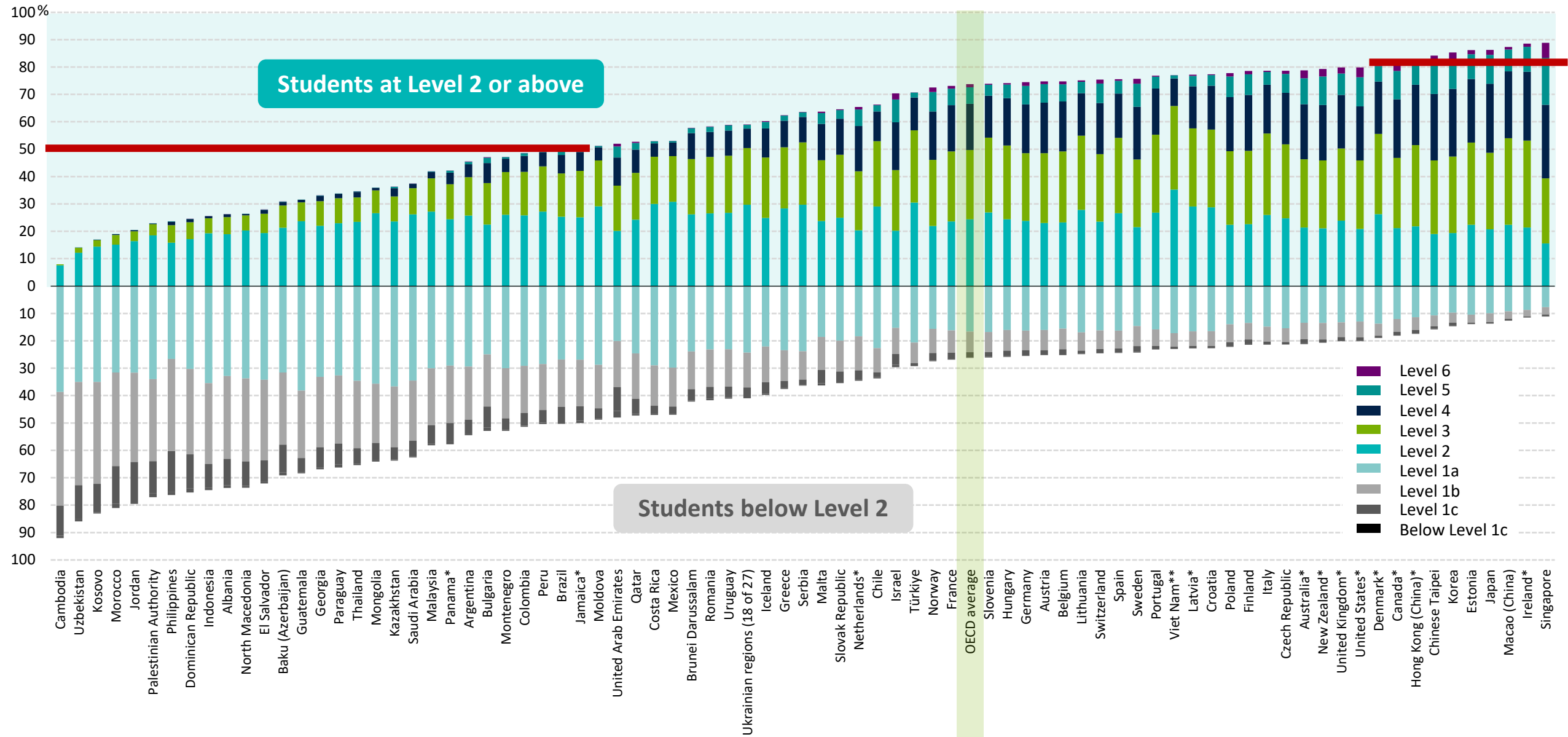
The first four rows of the pattern are shown below.

Row	Triangle 1	Triangle 2	Triangle 3	Triangle 4
1 st row	Red			
2 nd row	Red	Blue		
3 rd row	Red	Blue	Blue	
4 th row	Red	Blue	Blue	Red



SDG Target 4.1: Students' proficiency in reading

Figure I.3.4



PISA 2022 international results

Beyond mathematics, reading and science





Criteria used to identify resilient education systems

Performance

Mathematics scores

Equity

Link between students' performance and socio-economic status

Well-being

Students' sense of belonging at school

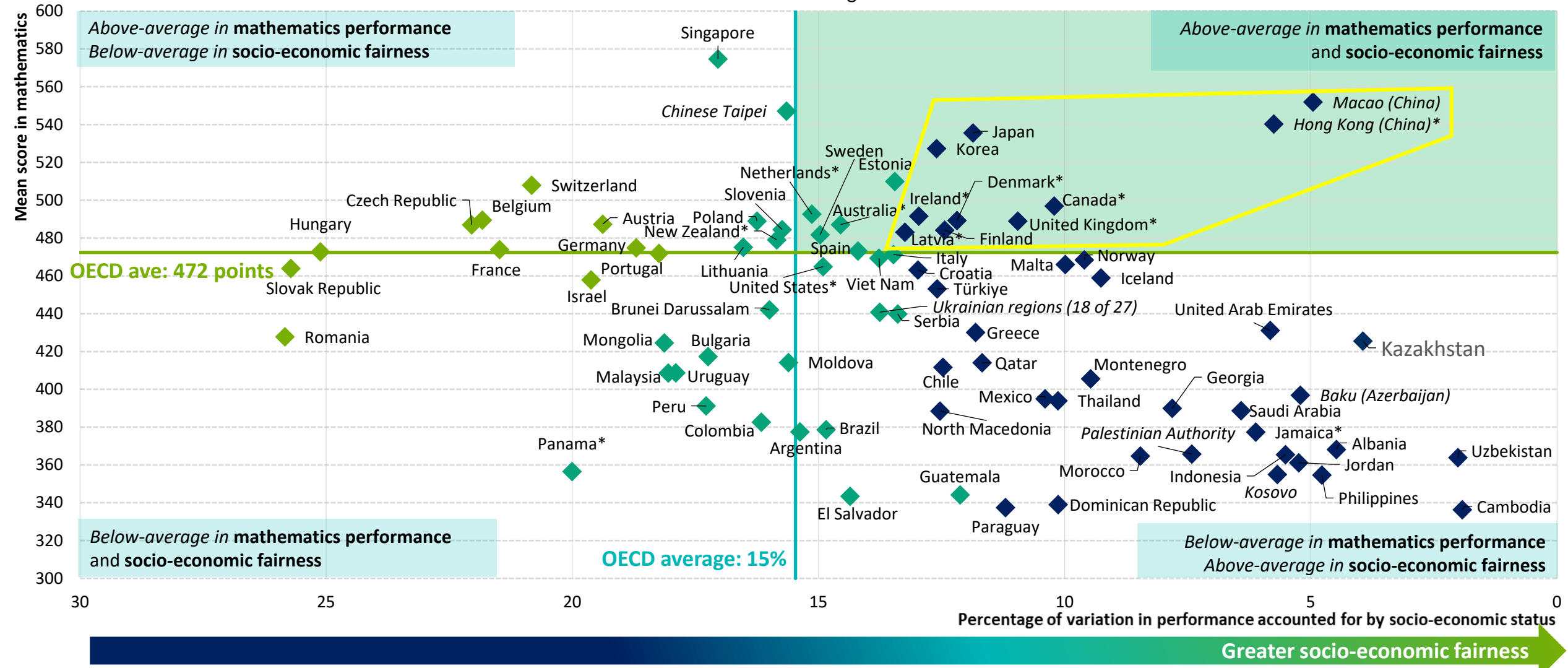




10 systems achieving greater equity

Figure I.4.2

- ◆ Socio-economic fairness is below the OECD average
- ◆ Socio-economic fairness is not statistically significantly different from the OECD average
- ◆ Socio-economic fairness is above the OECD average





Advantaged and disadvantaged students' performance equally went down

Figure I.5.5

- Disadvantaged students in 2018
- Disadvantaged students in 2022
- ◆ Advantaged students in 2018
- ◆ Advantaged students in 2022

Mathematics score

650

600

550

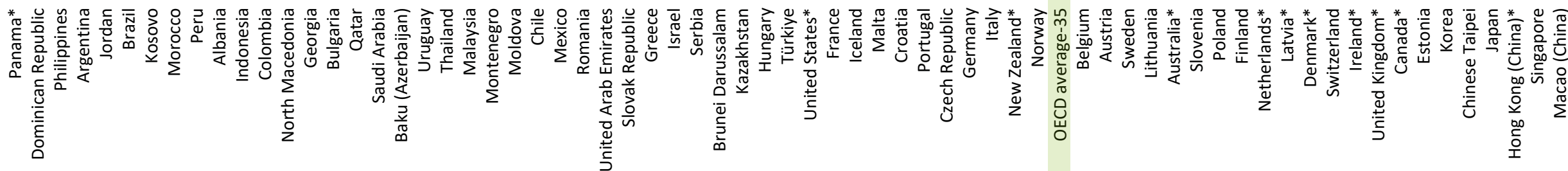
500

450

400

350

300



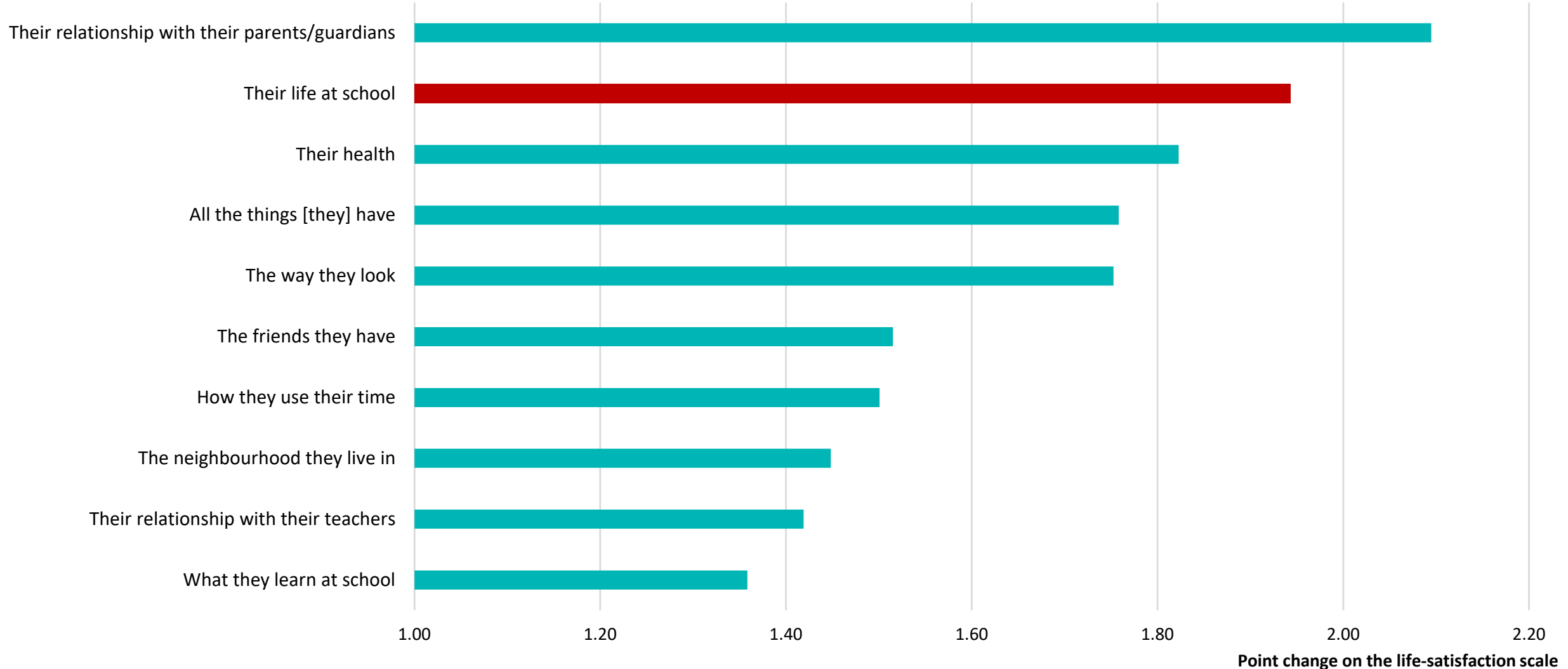


Life satisfaction is closely linked to satisfaction with school life

Figure II.1.7

Average of countries/economies with available data

Change in life satisfaction when students reported that they are satisfied or totally satisfied with the following:

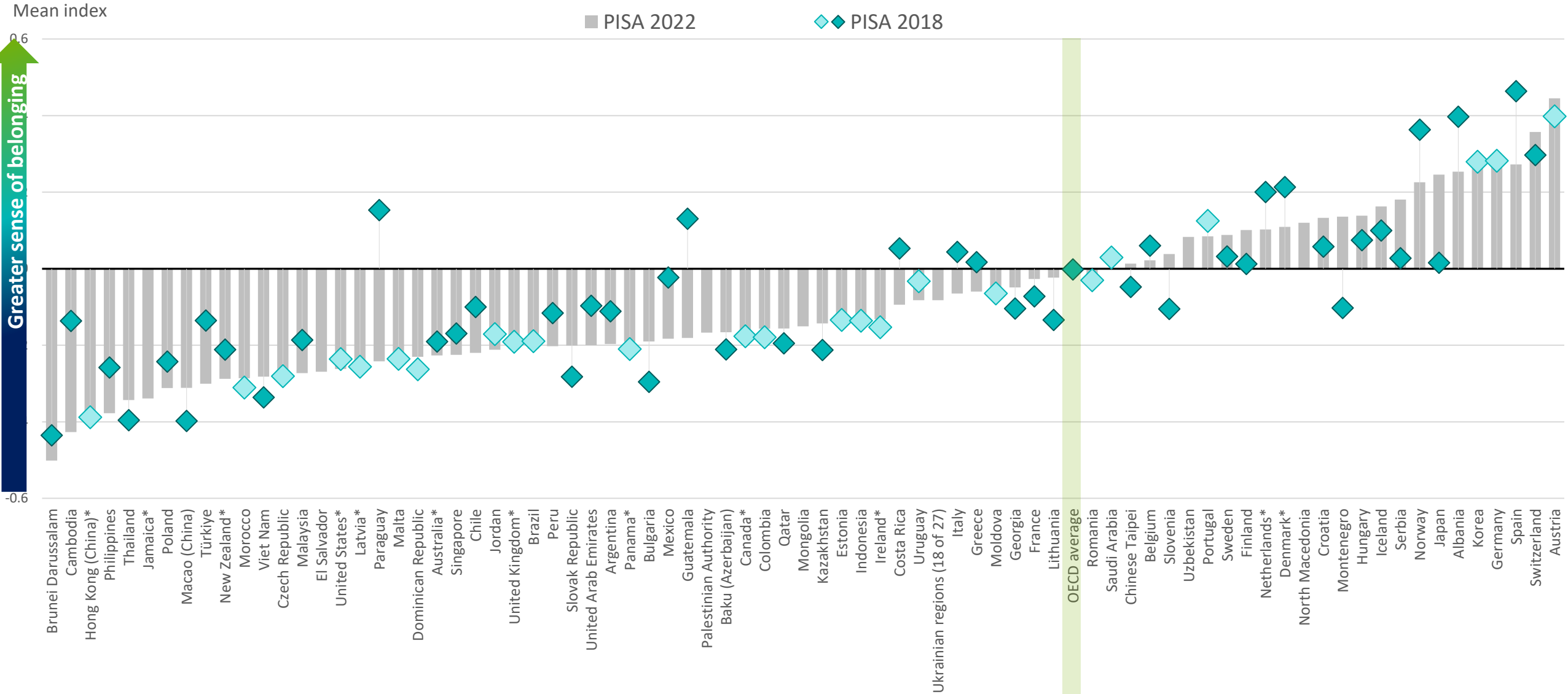




Sense of belonging at school between 2018 and 2022

Table II.b1.1.5

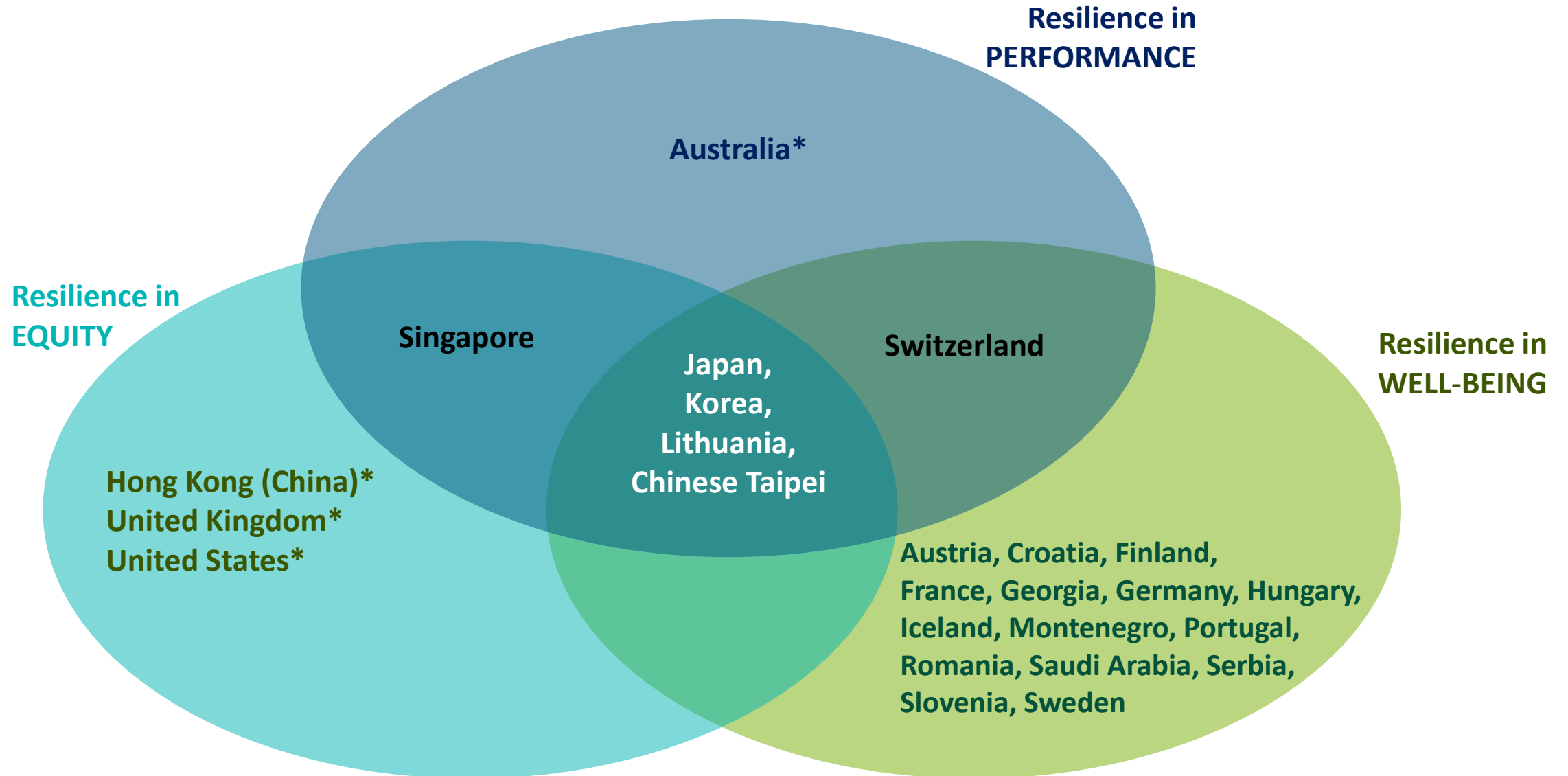
Index of sense of belonging at school





Resilient education systems

Figure II.1.1



Characteristics of resilient education systems

Performance

Equity

Well-being



Learning during school closures

School life and home support

Students' pathways through school

Material and educational resources

School governance



Ten actions related to resilience

Learning during school closures

- ✓ Keep schools open longer for more students
- ✓ Prepare students for self-directed learning

School life and home support

- ✓ Build strong foundations for learning and well-being
- ✓ Strengthen school-family partnerships

Students' pathways through school

- ✓ Delay institutional stratification
- ✓ Provide additional support to struggling students

Material and educational resources

- ✓ Limit digital distractions
- ✓ Align staff and materials with needs

School governance

- ✓ Make schools hubs for social interaction
- ✓ Combine school autonomy with quality assurance





Ten actions related to resilience

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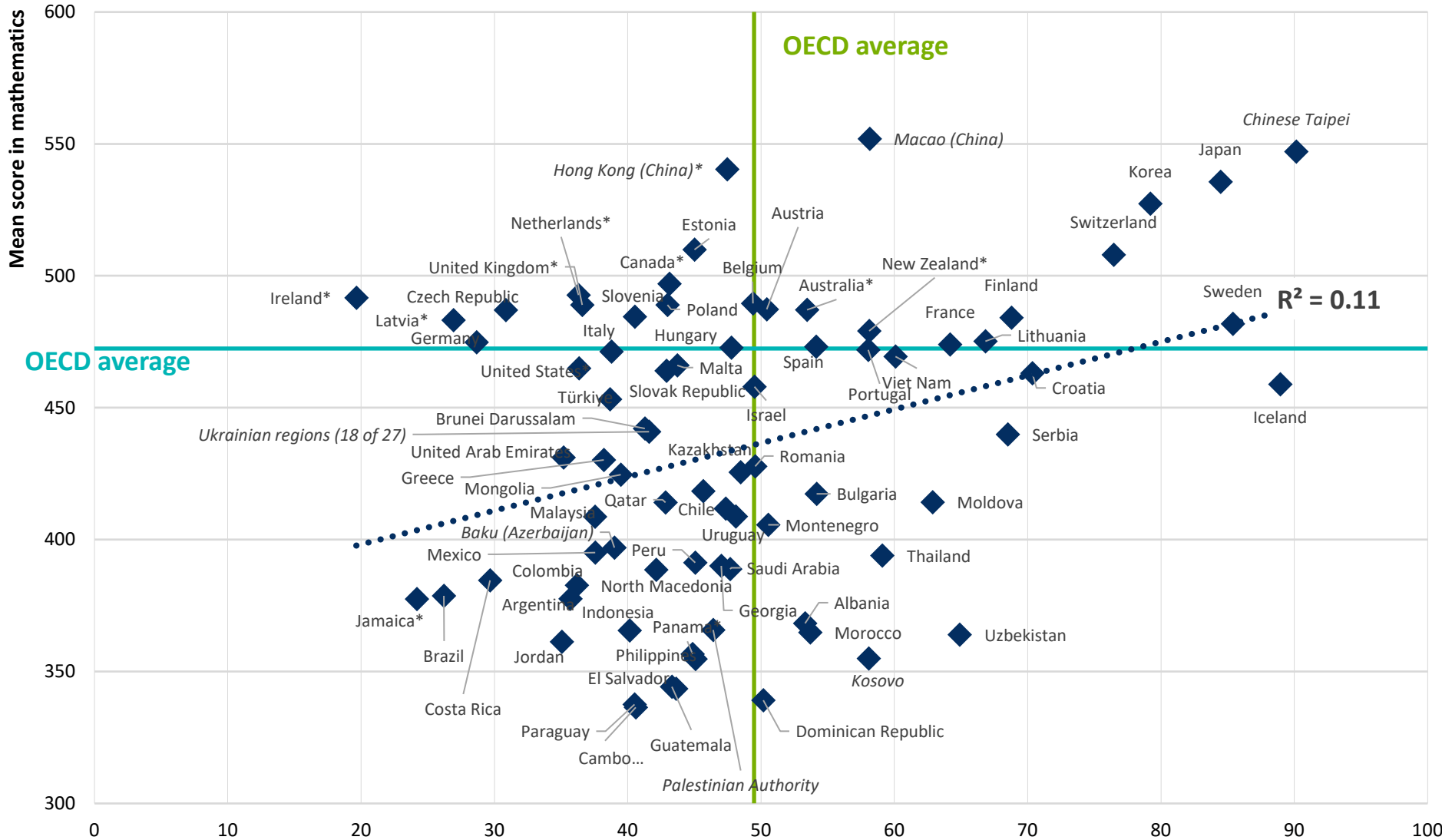
PISA 2022 international results

Learning during school closures



High performers kept schools open longer for more students

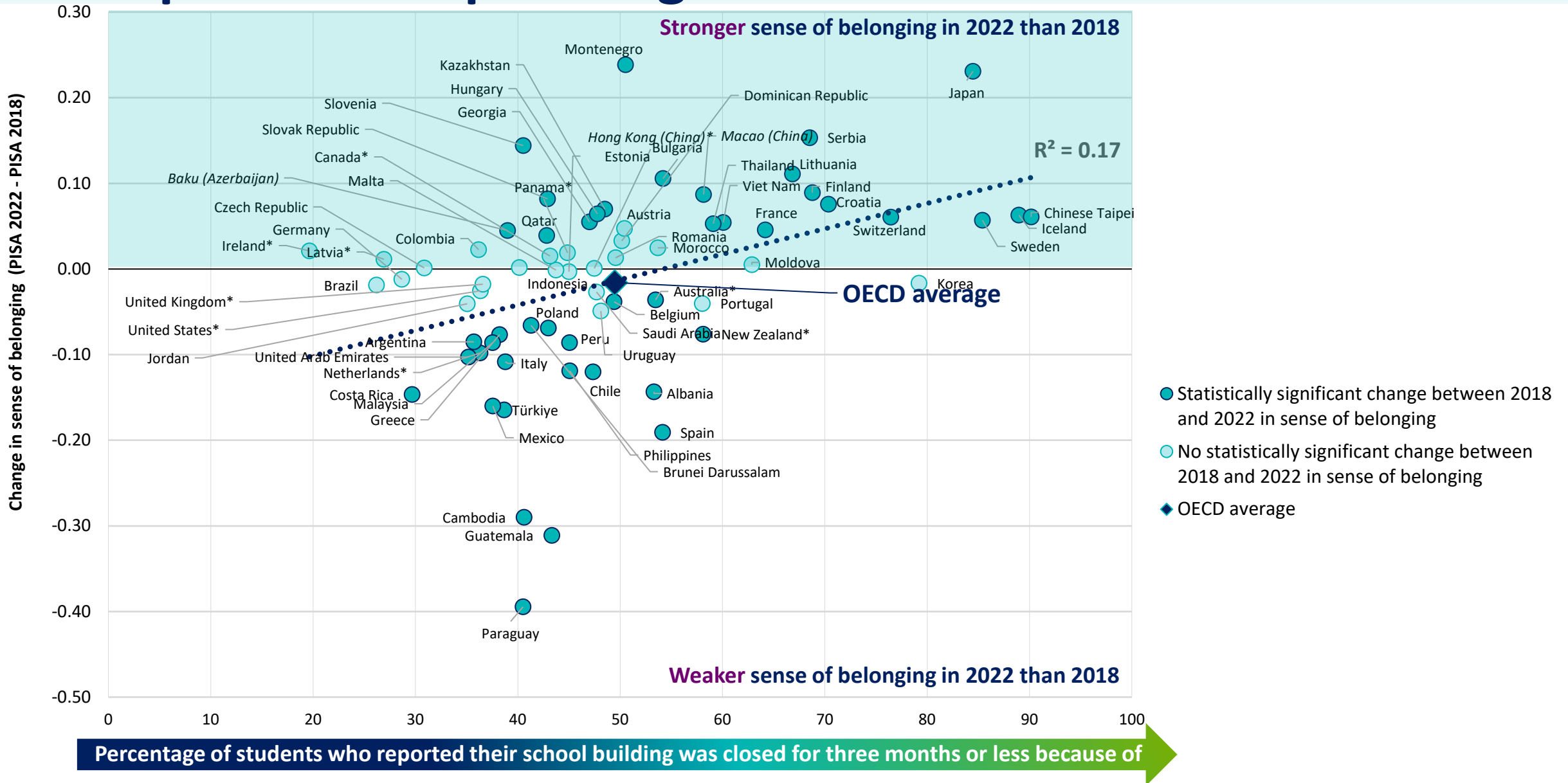
Figure II.2.2



Percentage of students who reported their school building was closed for three months or less because of COVID-19

Systems with improved sense of belonging kept schools open longer for more students

Figure II.2.3



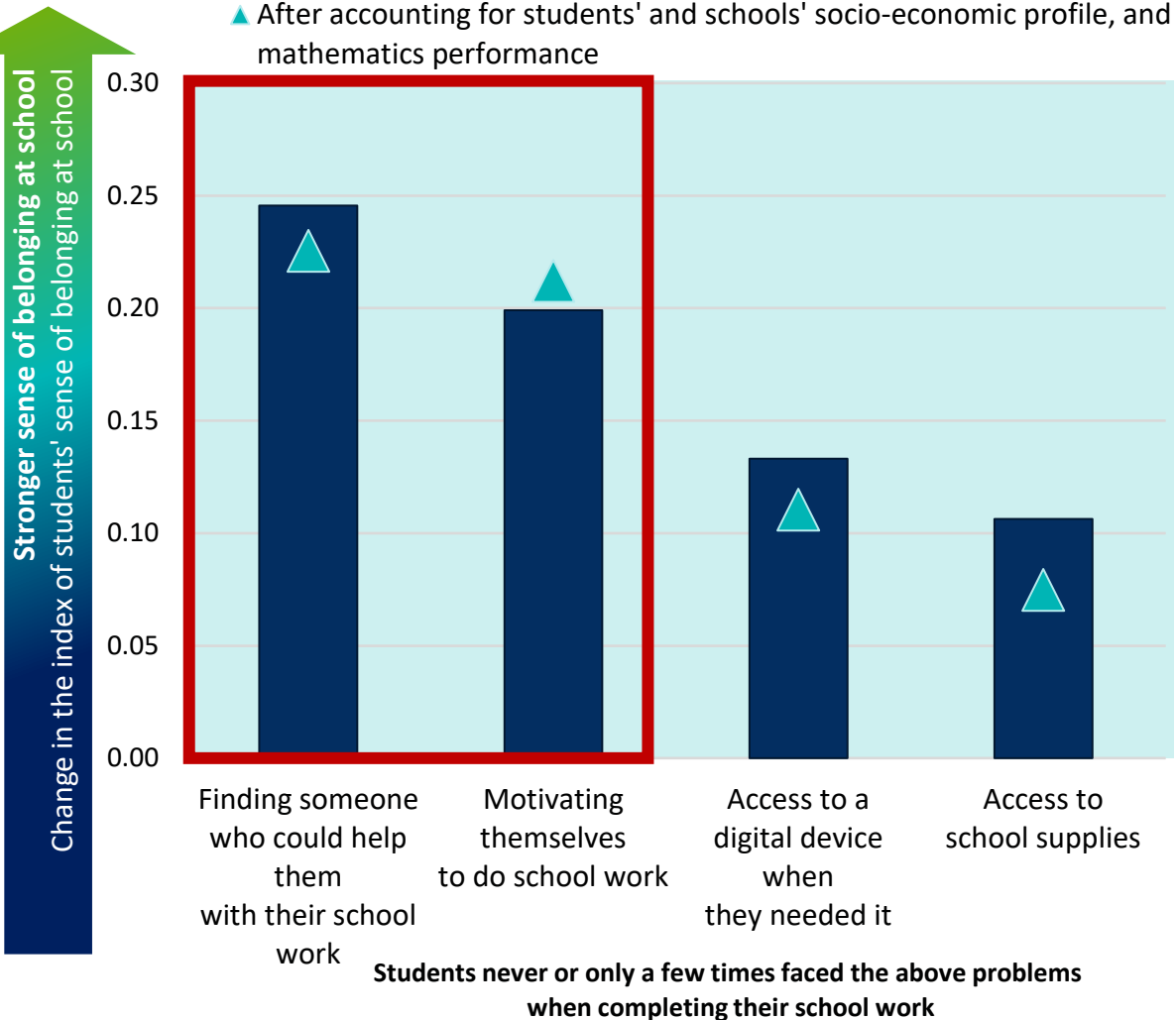


Less problems with remote learning, better sense of belonging and higher performance

Figure II.2.15

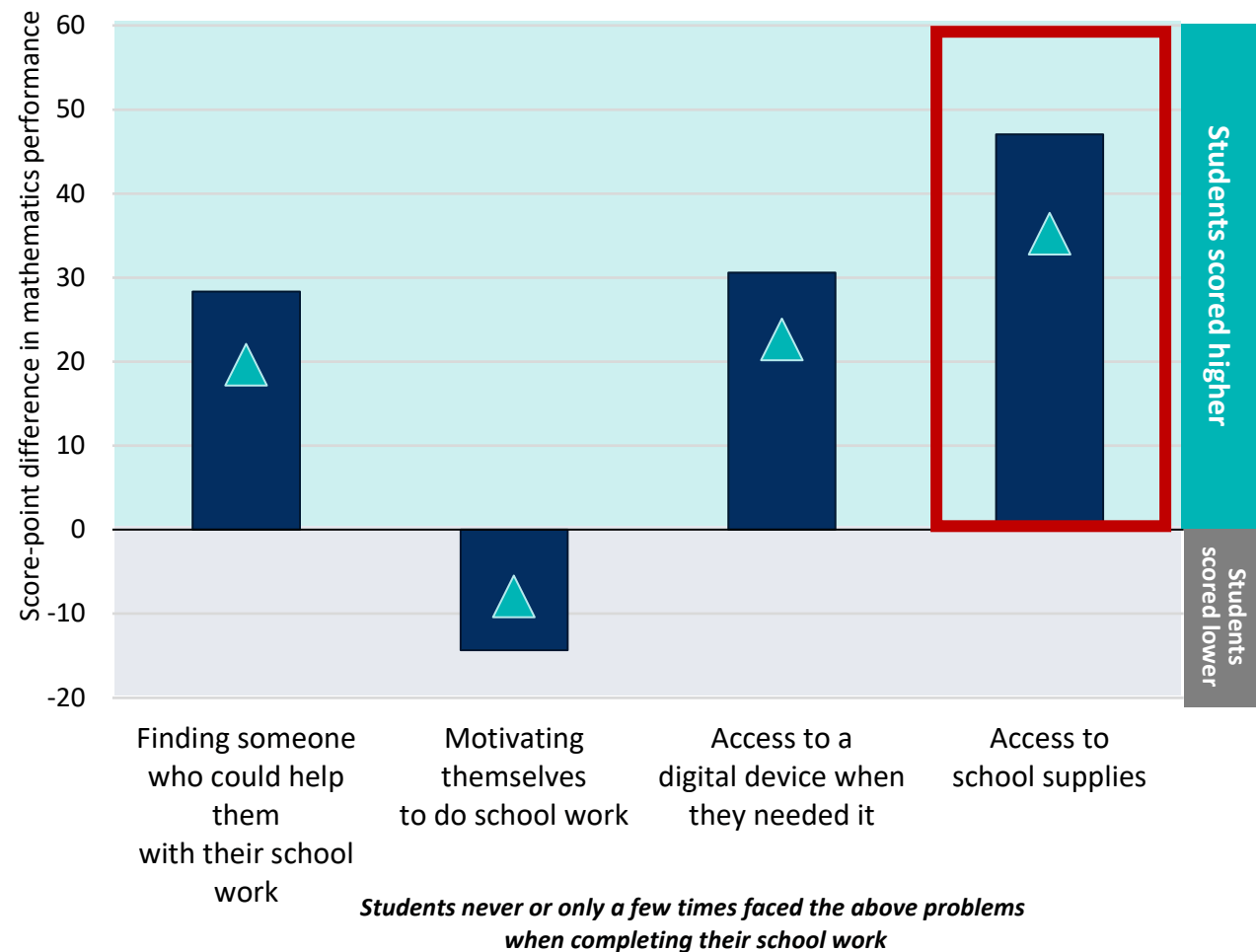
Sense of belonging

■ Before accounting
 ▲ After accounting for students' and schools' socio-economic profile, and mathematics performance



Mathematics performance

■ Before accounting
 ▲ After accounting for students' and schools' socio-economic profile

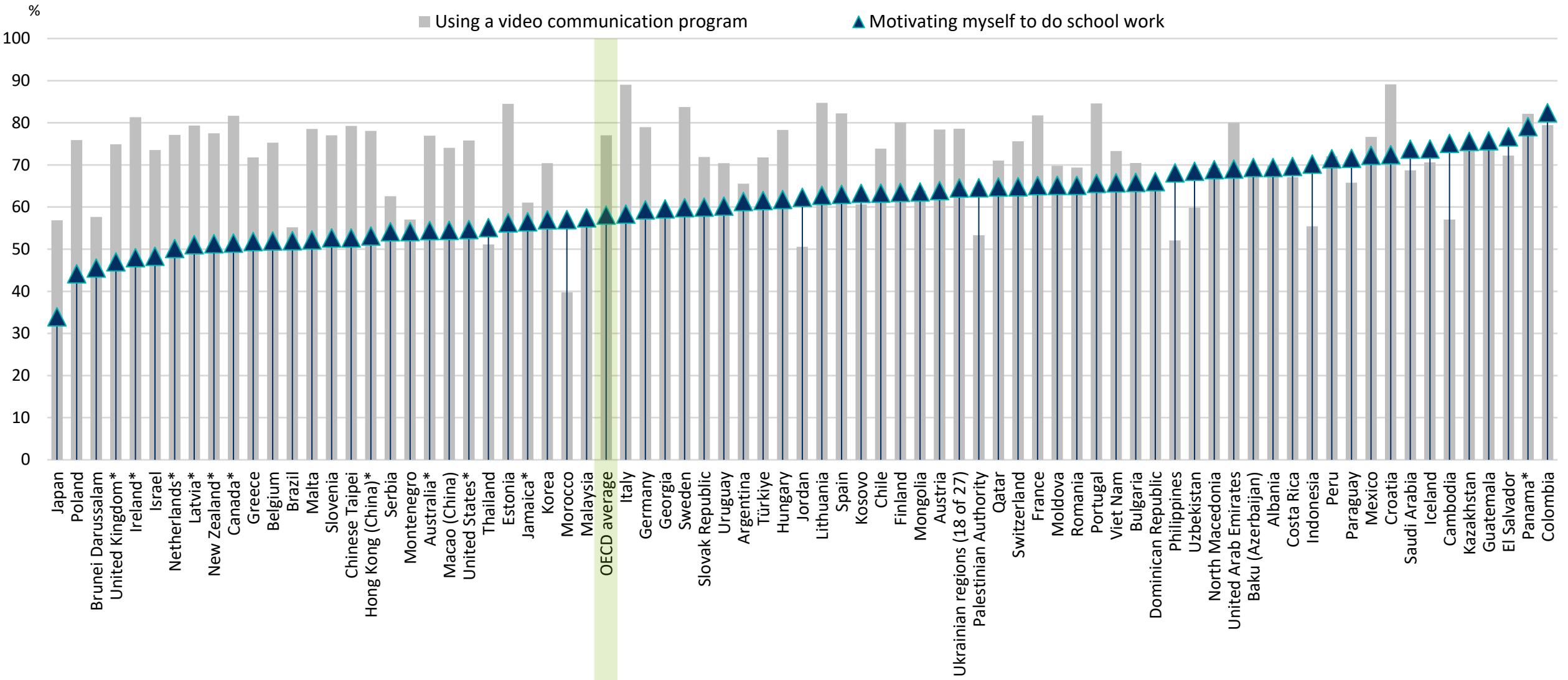




Prepare students for autonomous learning

Figure II.2.5

Percentage of students who reported feeling confident/very confident in taking the following actions if their school building closes again in the future



PISA 2022 international results

Digital distractions



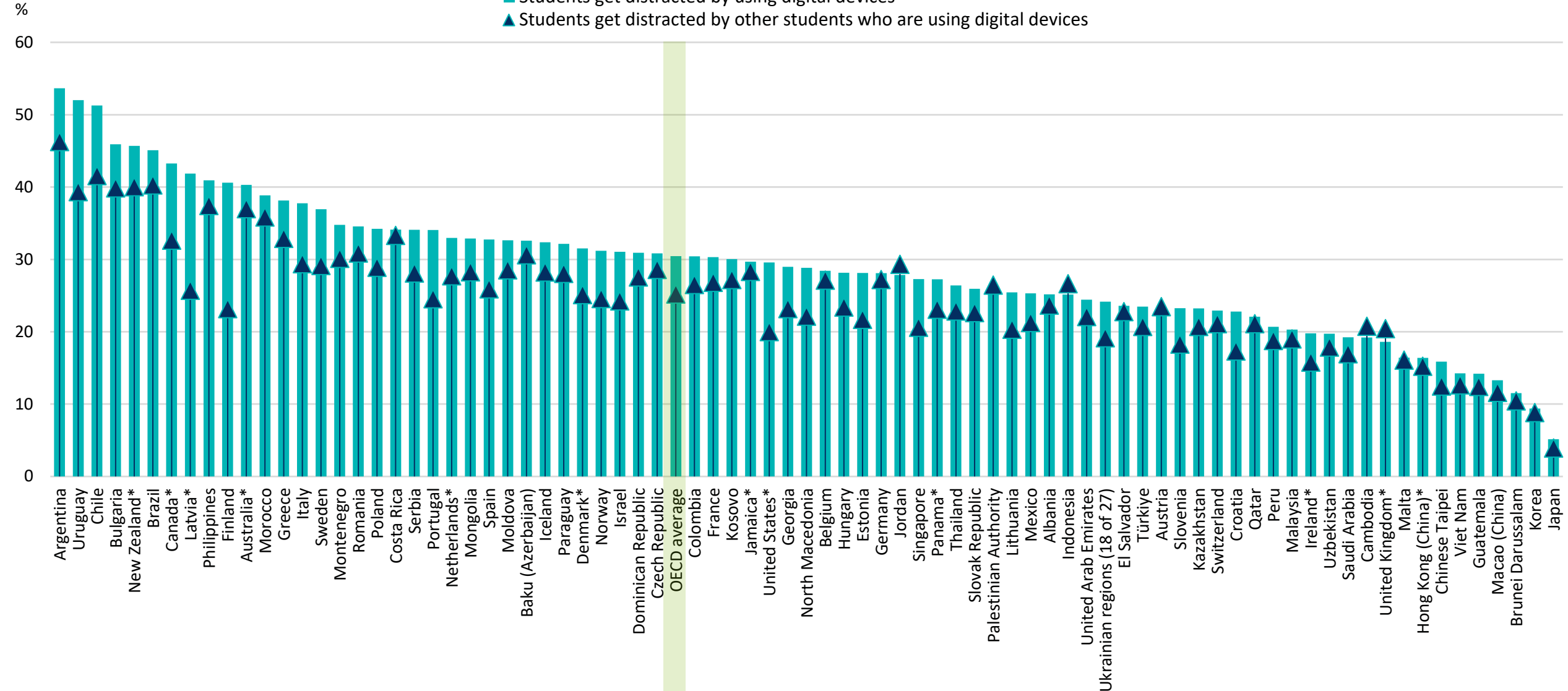


Distraction from digital devices in mathematics lessons

Figure II.3.4

Percentage of students who reported that the following happens in every or in most of their mathematics lessons

- Students get distracted by using digital devices
- ▲ Students get distracted by other students who are using digital devices

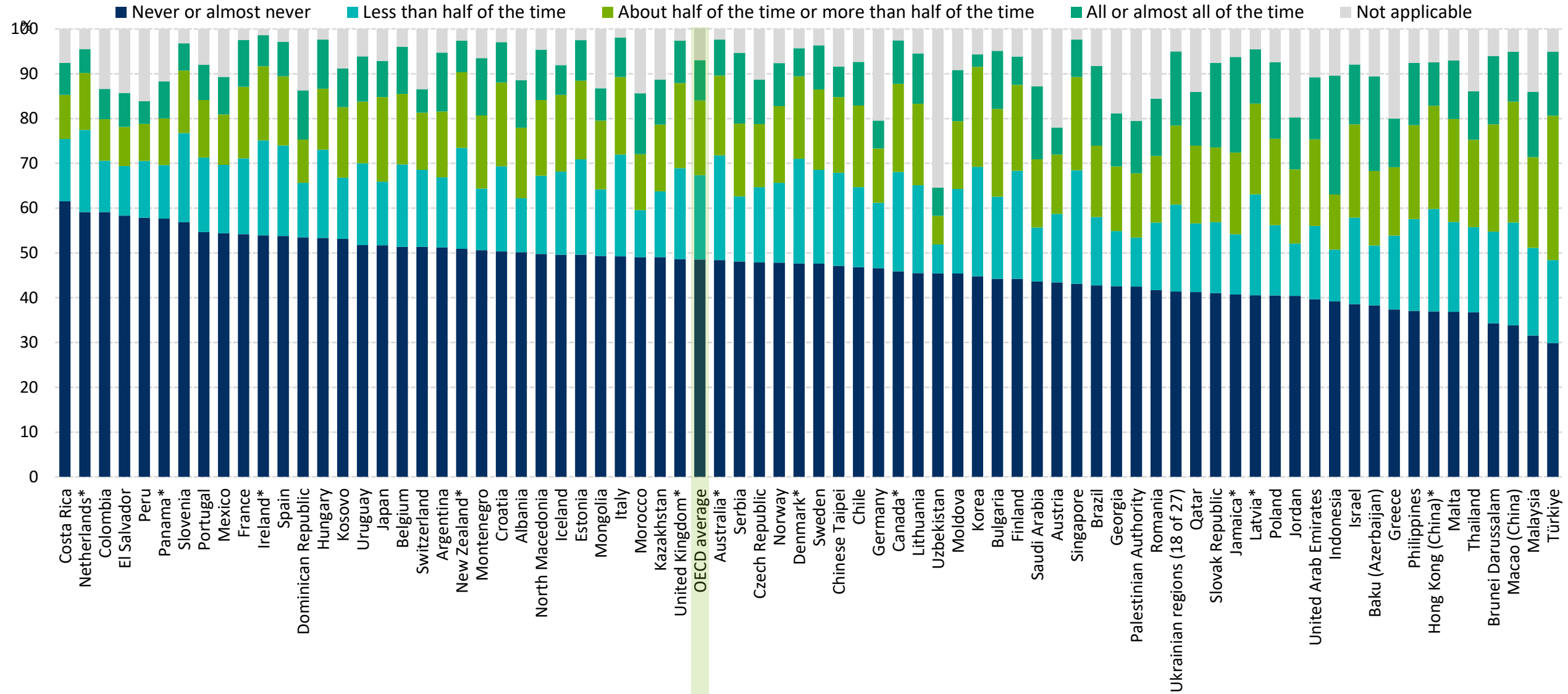




Over a half of students feeling nervous/anxious when digital devices are not near

Figure II.5.16

Based on students' reports



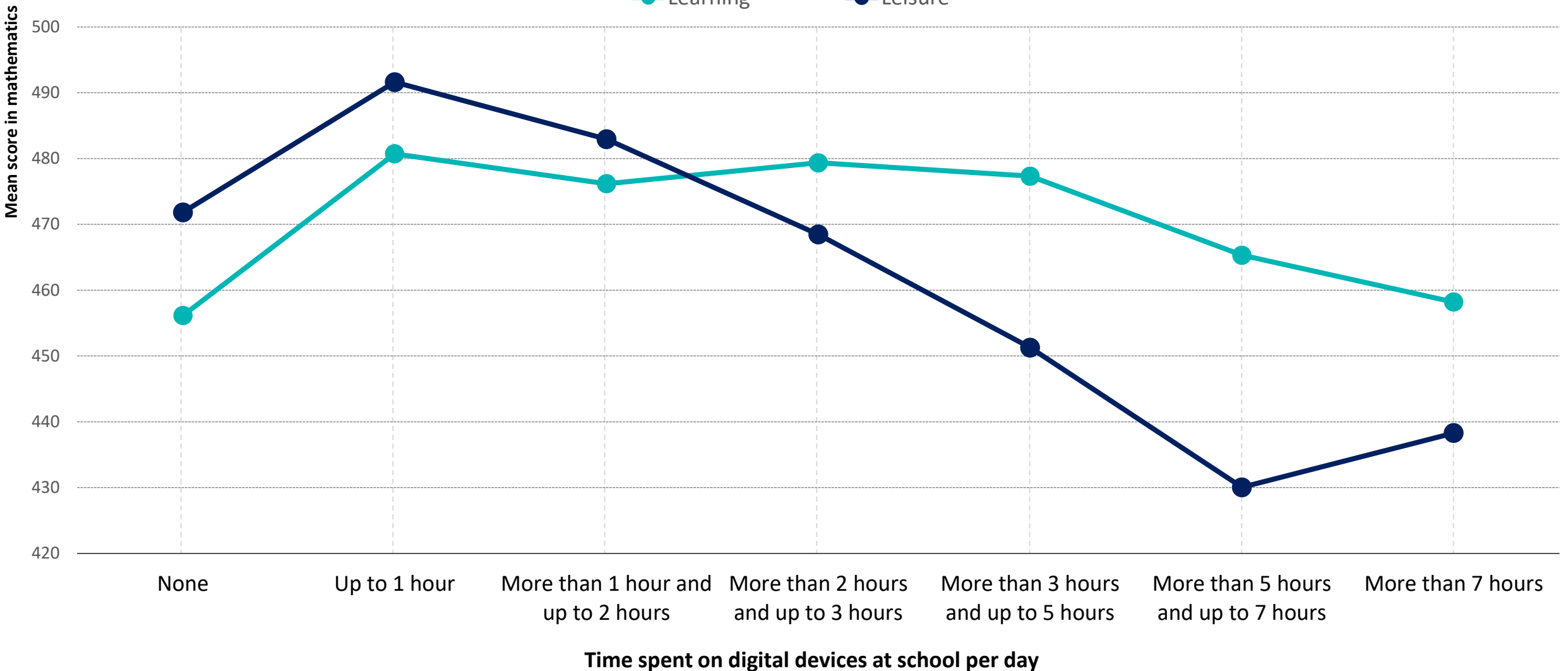


Time spent on digital devices at school and mathematics performance

Figure II.5.14

Based on students' reports; OECD average

Learning Leisure

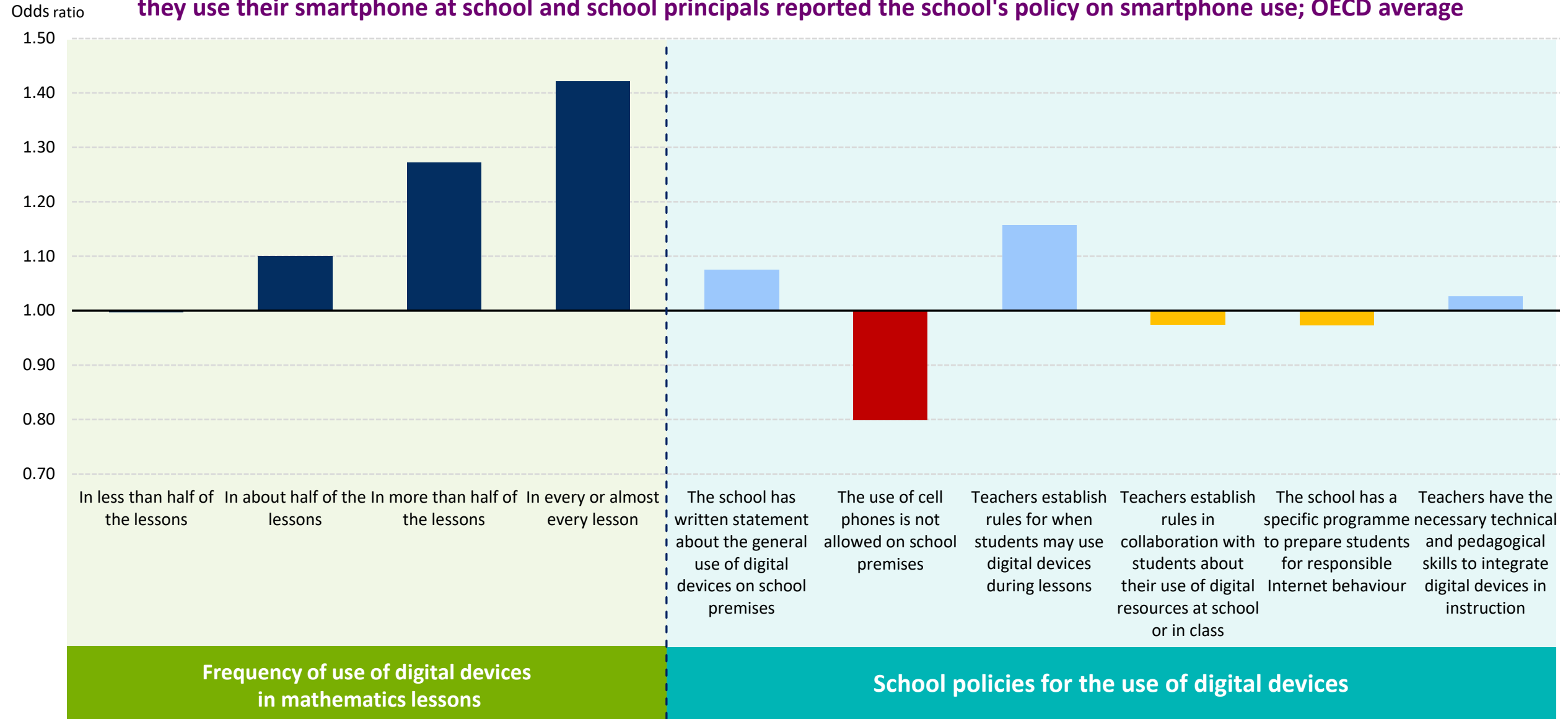




School policies to limit digital distraction

Figure II.5.9

Change in the likelihood of students becoming distracted by using digital devices in mathematics lessons when students reported that they use their smartphone at school and school principals reported the school's policy on smartphone use; OECD average



PISA 2022 international results

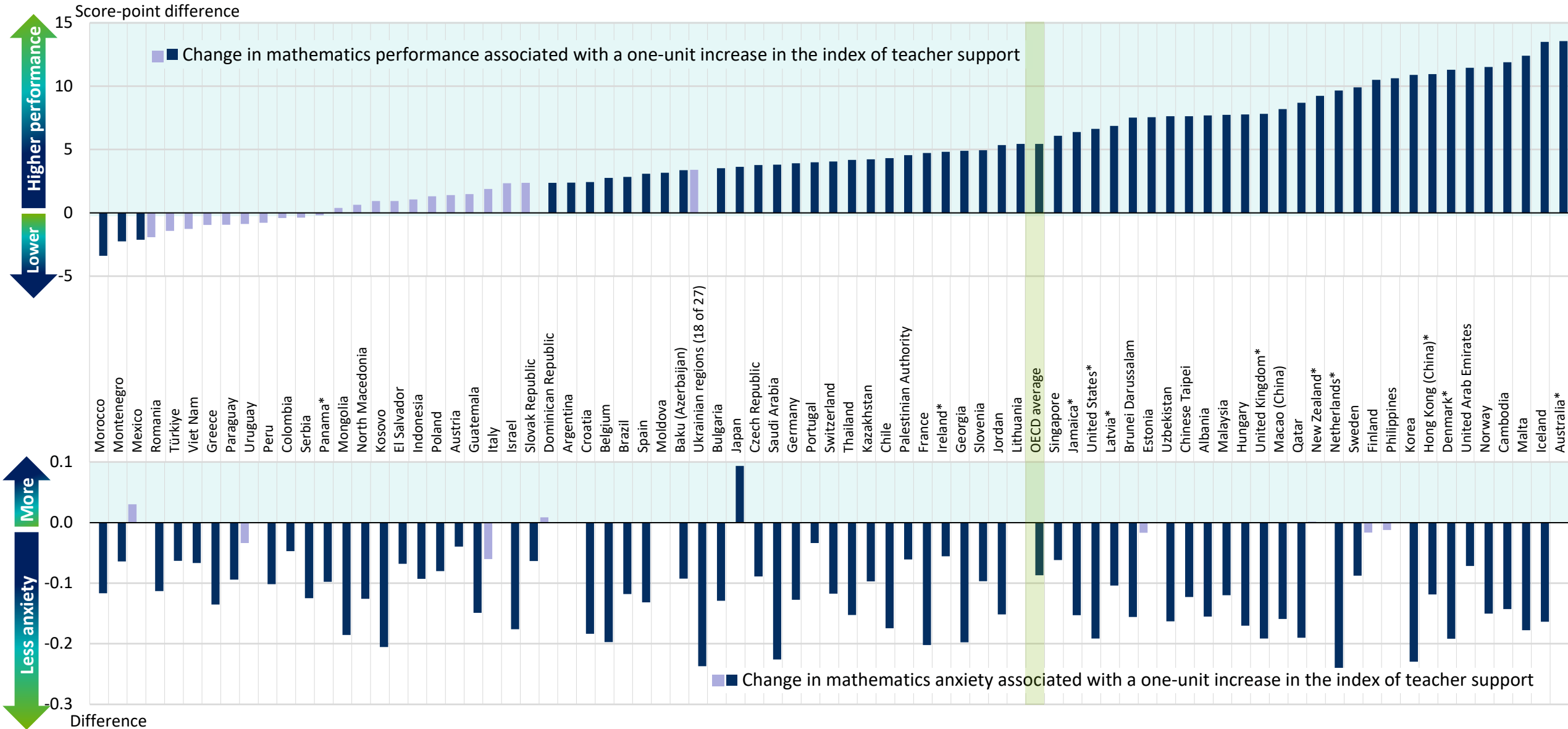
Teacher support





More teacher support, higher mathematics performance and less anxiety towards mathematics

Figure II.3.3

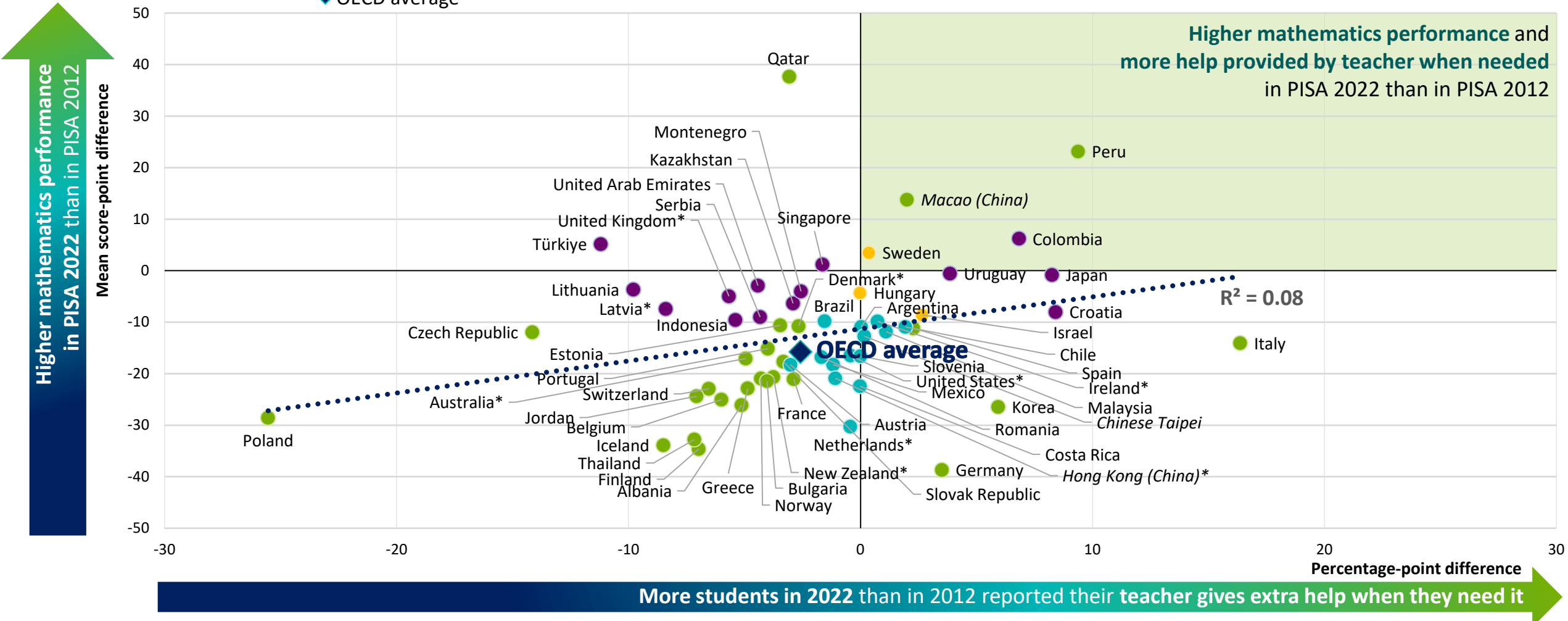




Increase in teacher help, increase in mathematics performance

Figure II.3.2

- Change between 2012 and 2022 is statistically significant for mathematics performance and the percentage of students
- Change between 2012 and 2022 is only statistically significant for mathematics performance
- Change between 2012 and 2022 is only statistically significant for the percentage of students
- Change between 2012 and 2022 is not statistically significant
- ◆ OECD average

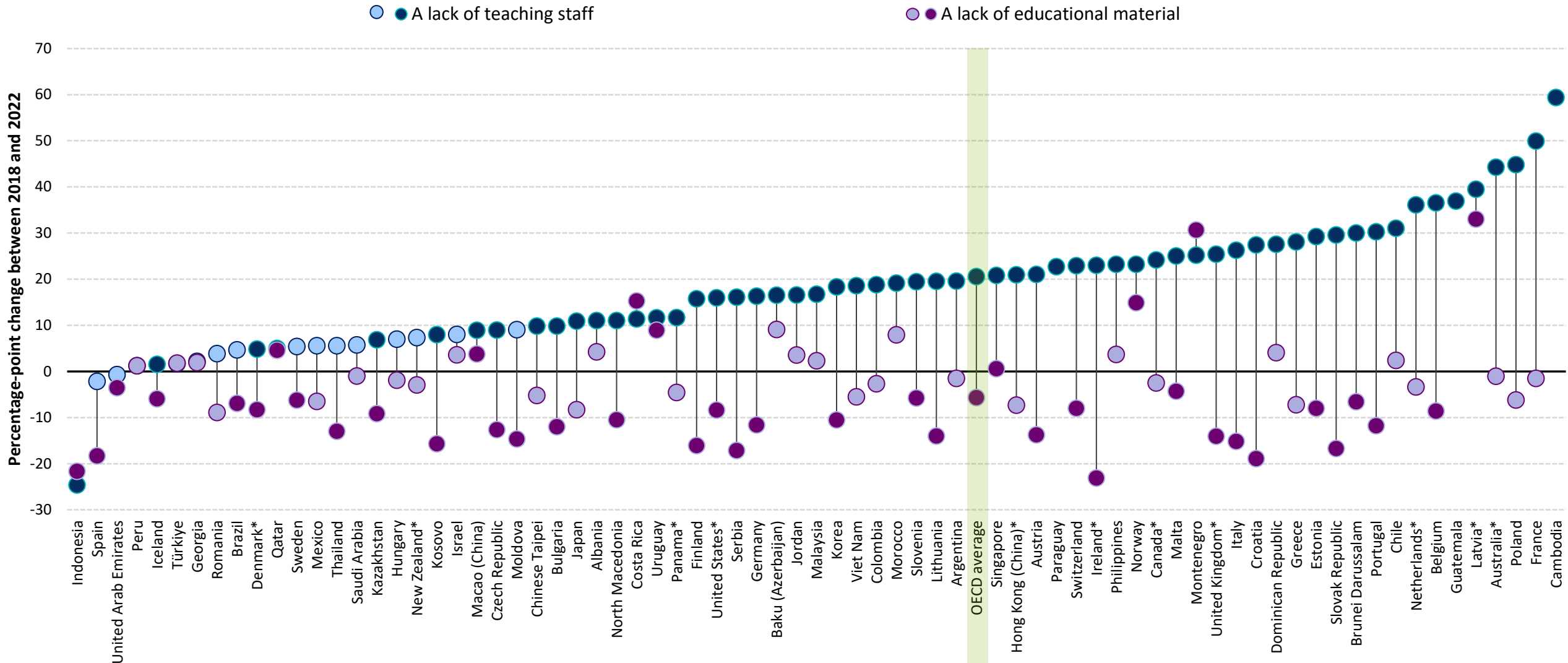




Principals were more concerned about the shortage of teaching staff in 2022 than in 2018

Figure II.5.3

Percentage-point change of students whose principals reported that the school's capacity to provide instruction is hindered to some extent or a lot by the following



PISA 2022 international results

Parents and families

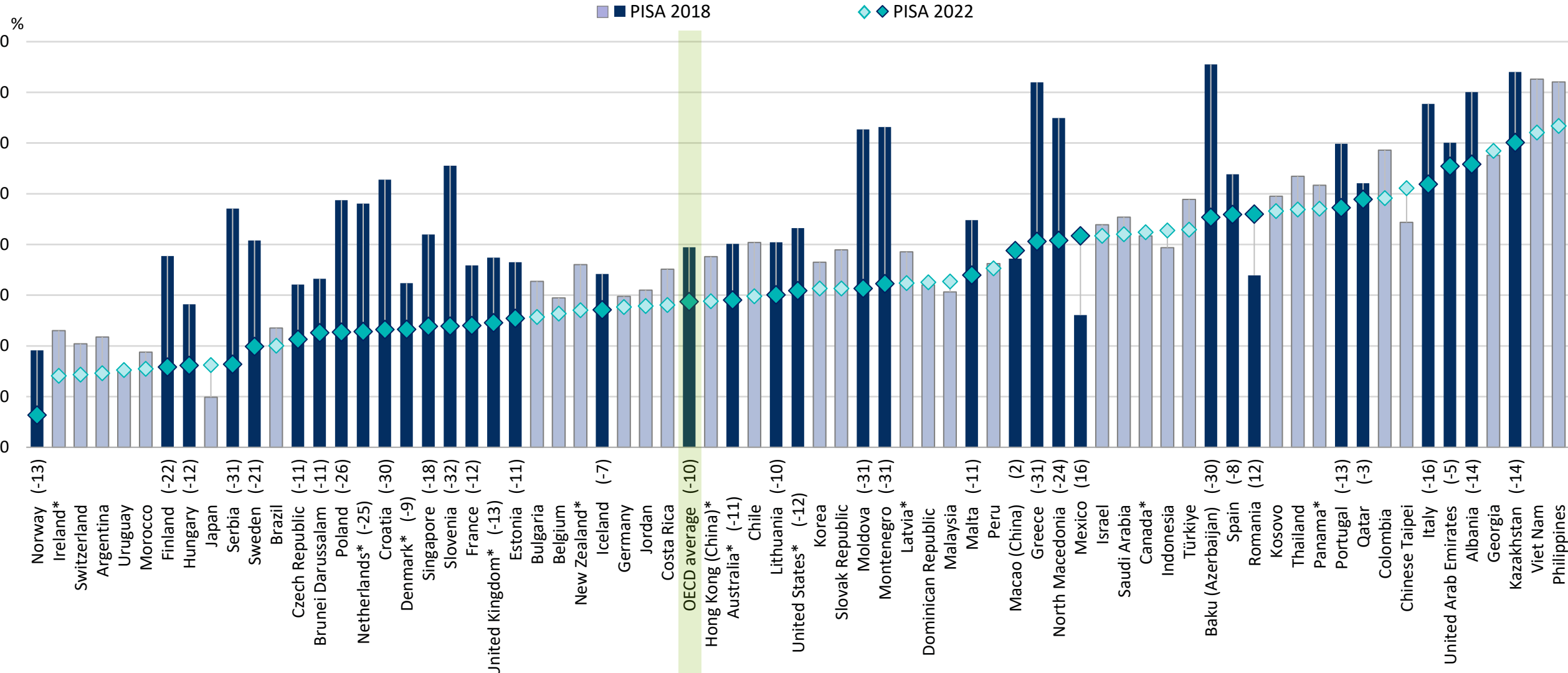




Decline in parents-initiated talks about students' progress

Figure II.3.15

Percentage of students in schools whose principal reported that at least 50% of students' parents are involved in discussing their child's progress with a teacher on their own initiative

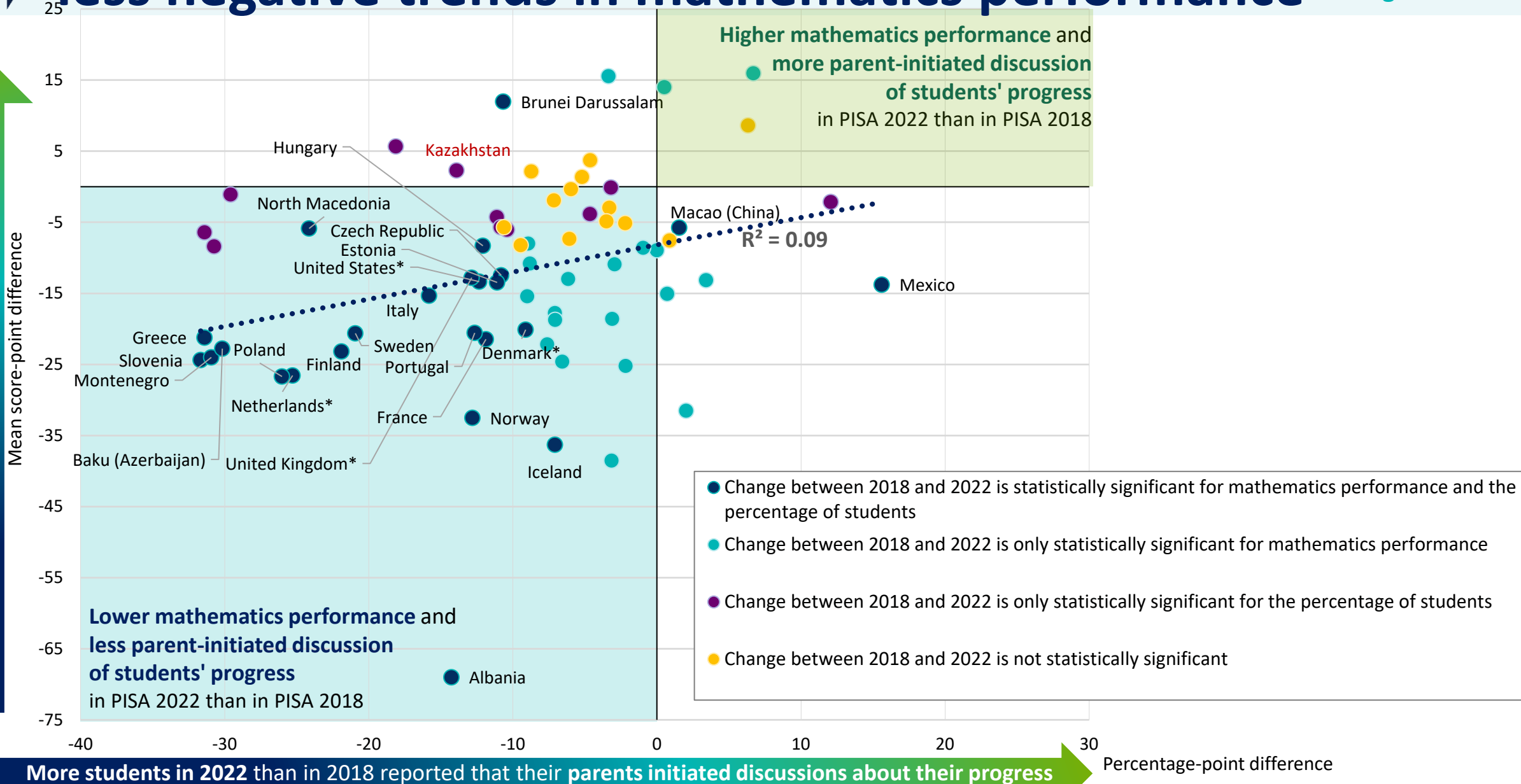




Less decrease in parental involvement in schools, less negative trends in mathematics performance

Figure II.3.16

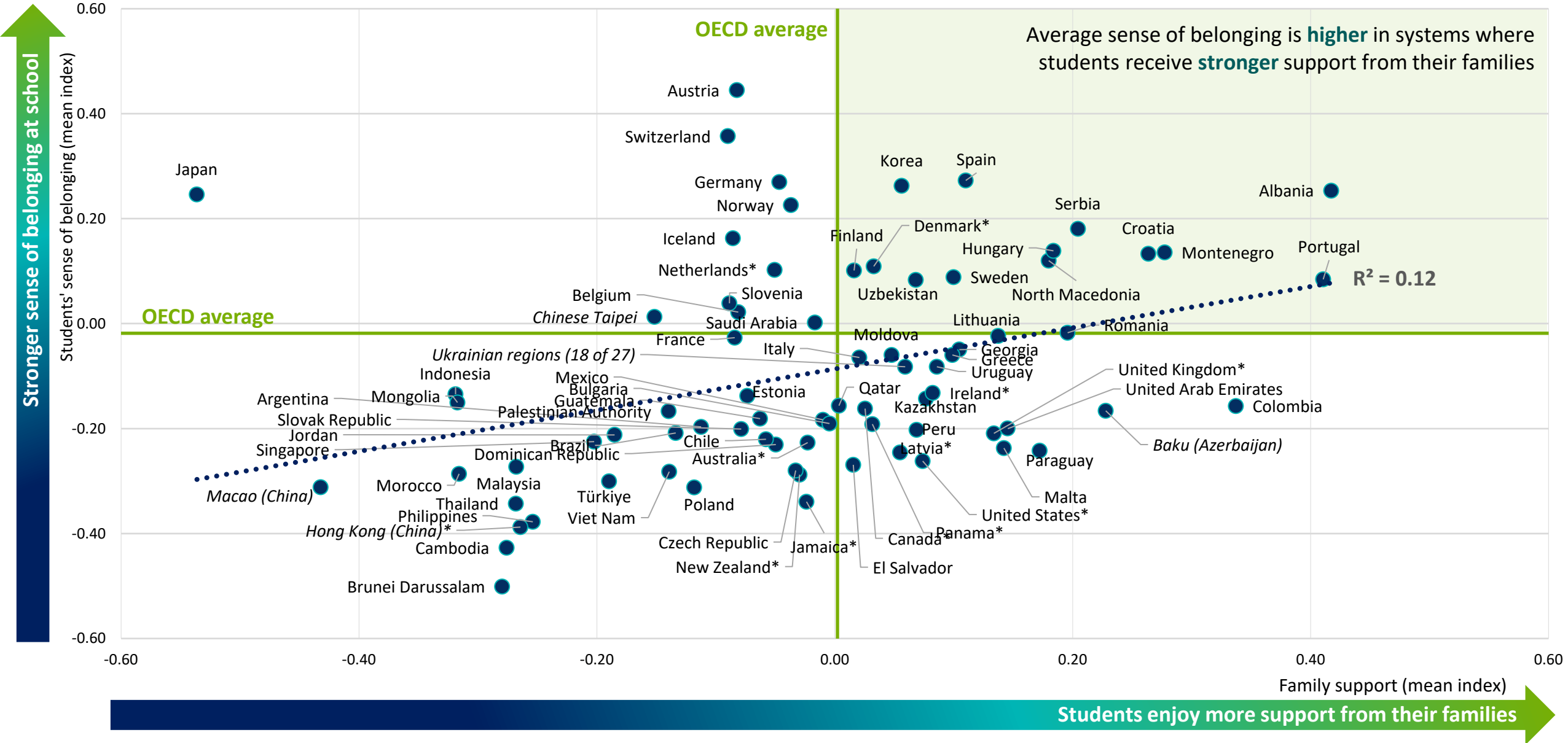
Higher mathematics performance in PISA 2022 than in PISA 2018





More family support, stronger sense of belonging

Figure II.3.17

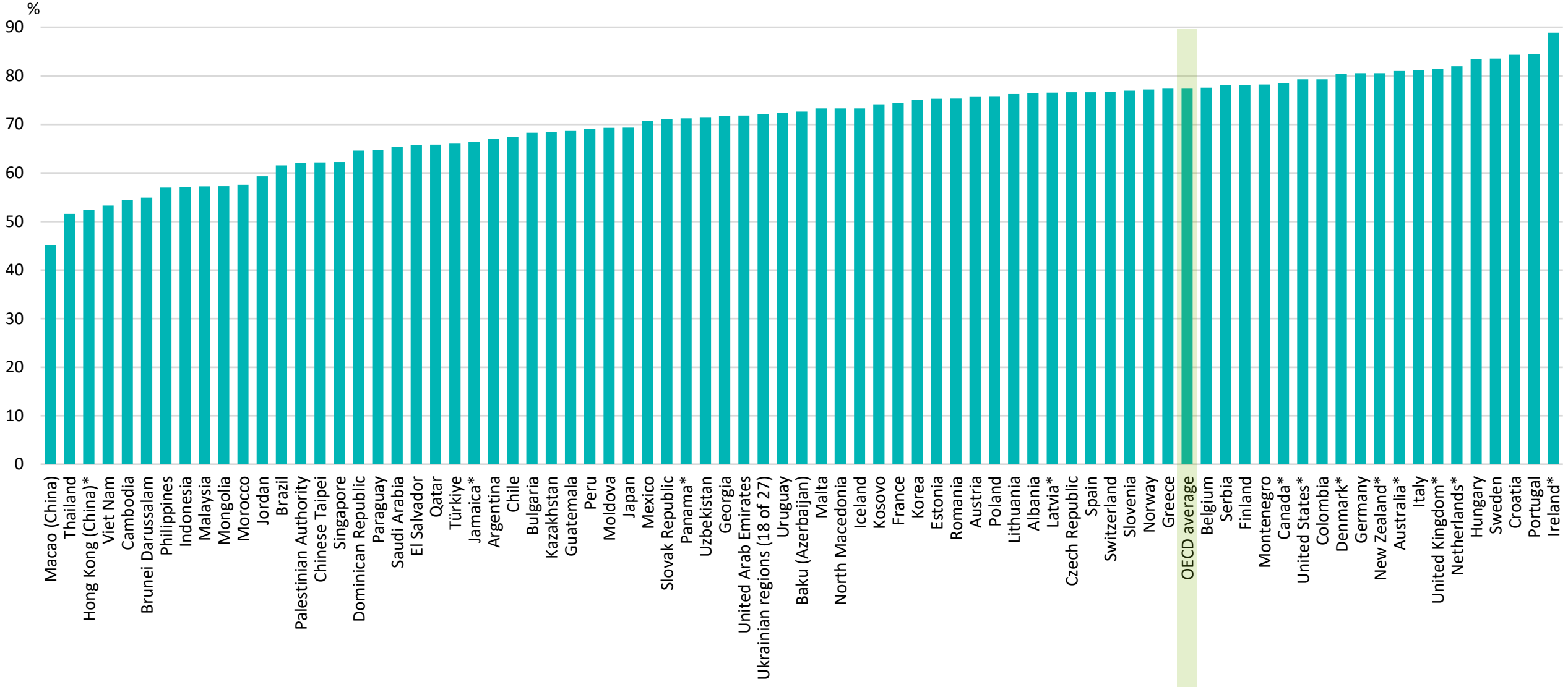




Students whose family regularly asks about school

Figure II.3.18

Percentage of students who reported that at least once a week or twice a week their parents or someone in their family asks them what they did in school that day

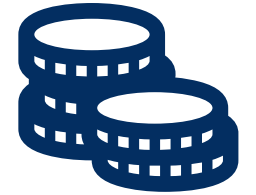


More to come



PISA volumes to be released **in 2024**

1. **Creative Thinking**
2. **Financial Literacy**
3. **Student readiness for life-long learning**



Find out more about our work at www.oecd.org/pisa



PISA main reports



PISA Country notes

* Caution is required when interpreting estimates because one or more PISA sampling standards were not met (see Reader's Guide of [PISA 2022 Results Volume I](#)).

