

# Together for Education

## Lessons from the World

ICARE





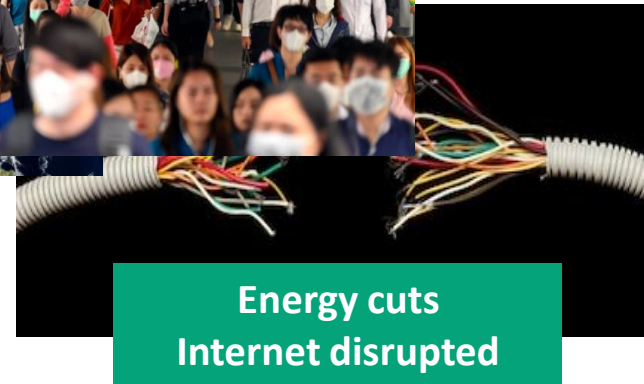
## A balancing act





# The future will always surprise us

Impact



Uncertainty

Restricted Use - À usage restreint





## 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



# Mathematics (PISA)

Student performance

OECD average

2003 2006 2009 2012 2015 2018 2022

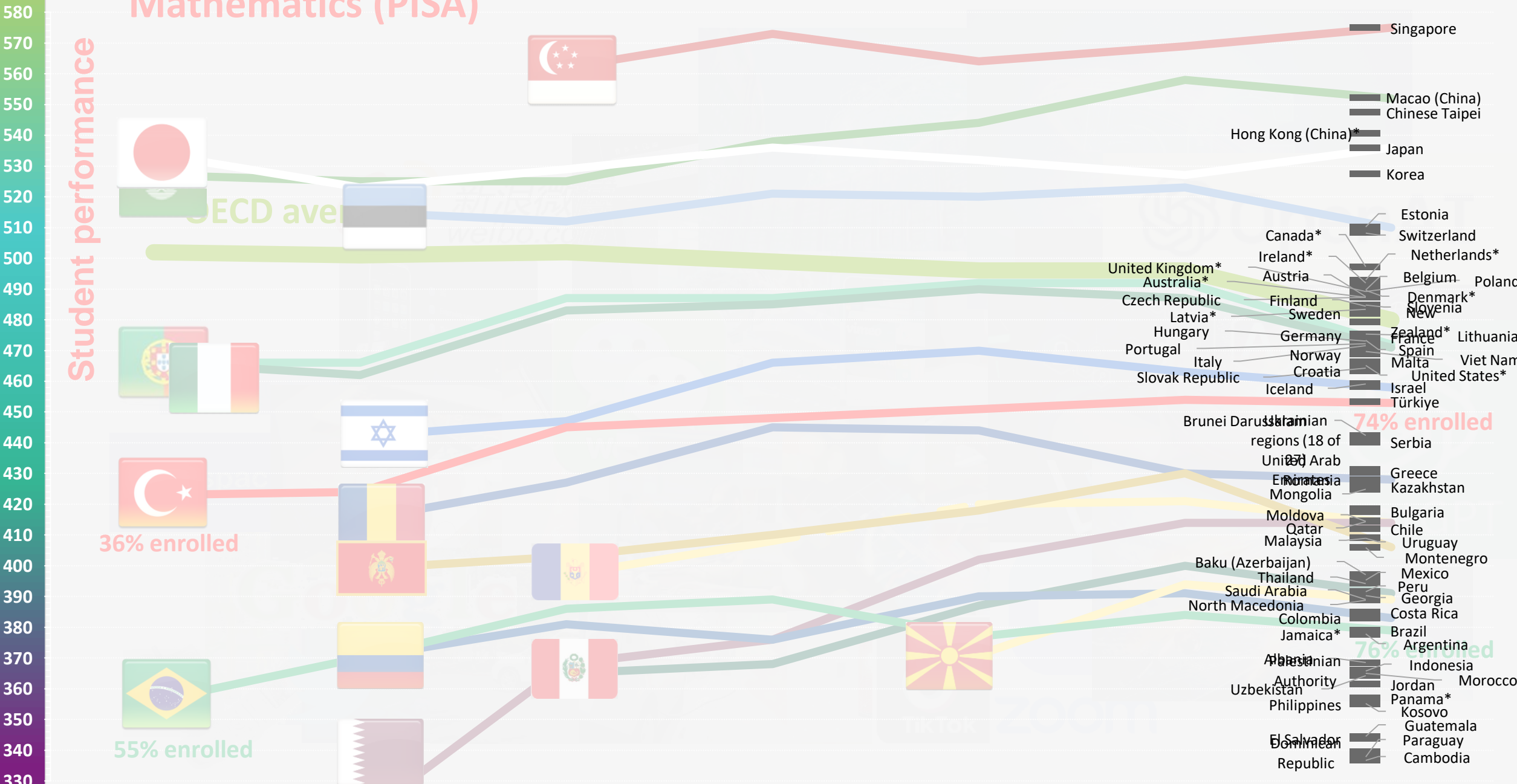


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# Mathematics (PISA)

Student performance



36% enrolled

55% enrolled

74% enrolled

76% enrolled

2003 2006 2009 2012 2015 2018 2022



# Outcomes

**Education and social outcomes are closely linked**



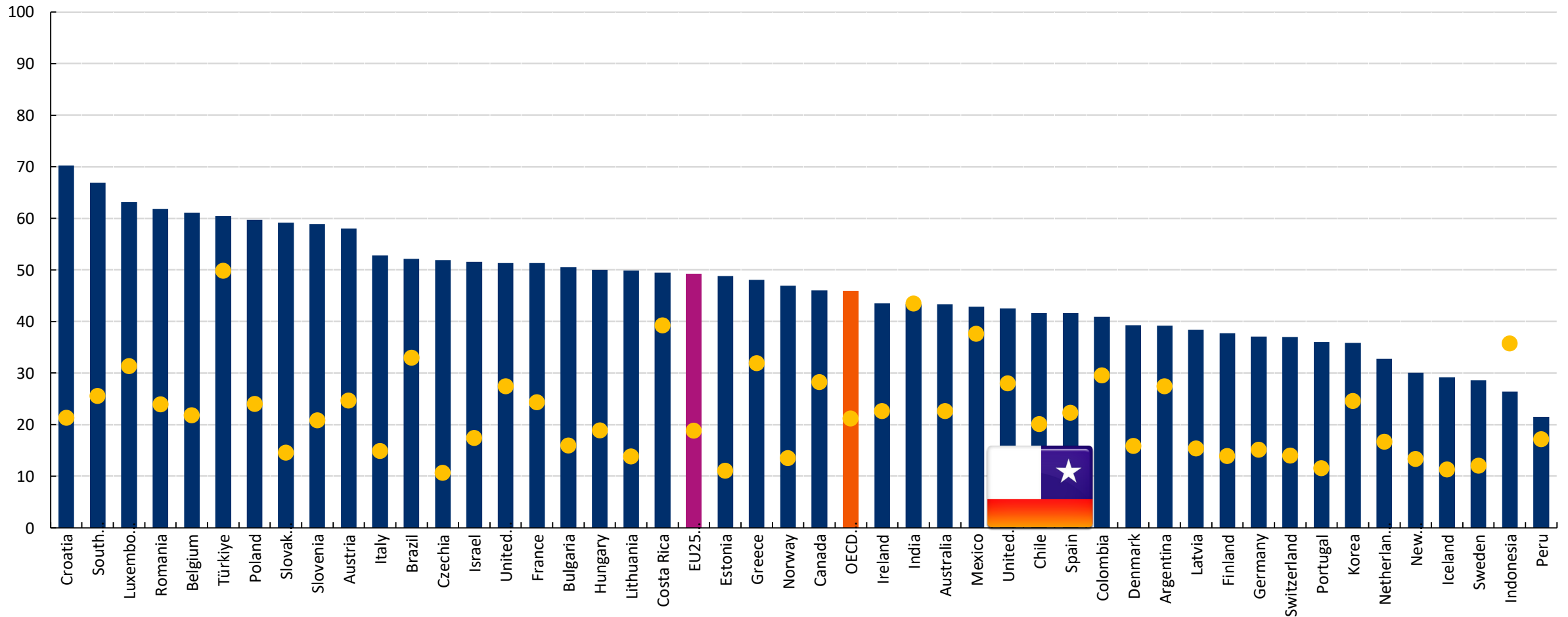


# Adults with low educational attainment often leave the labour market early

## Inactivity rates of 55-64 year-olds, by educational attainment (2023)

■ Below upper secondary

● Tertiary



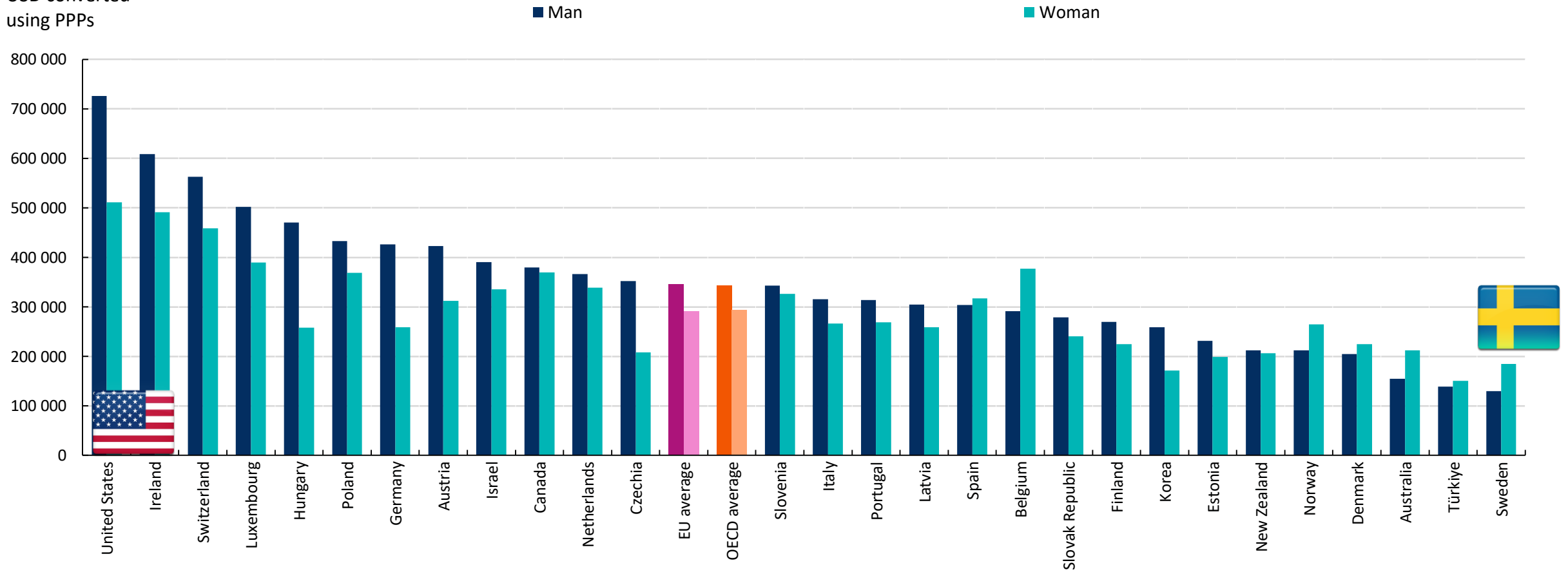




# Tertiary qualifications yield large financial returns

## Private net financial returns for a man or a woman attaining tertiary education (2021)

USD converted  
using PPPs



# Using resources effectively

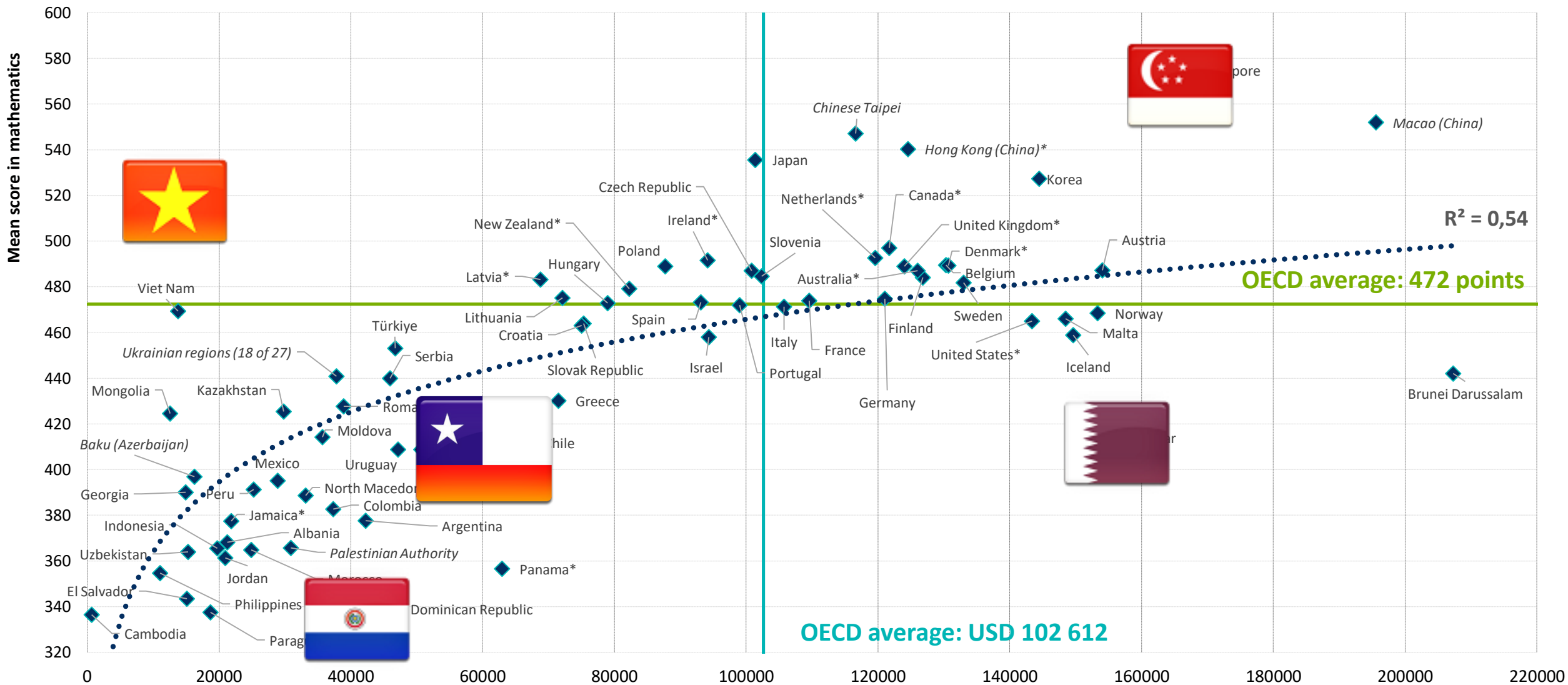
Money matters up to a point





# Money is necessary but not sufficient

Figure I.4.15







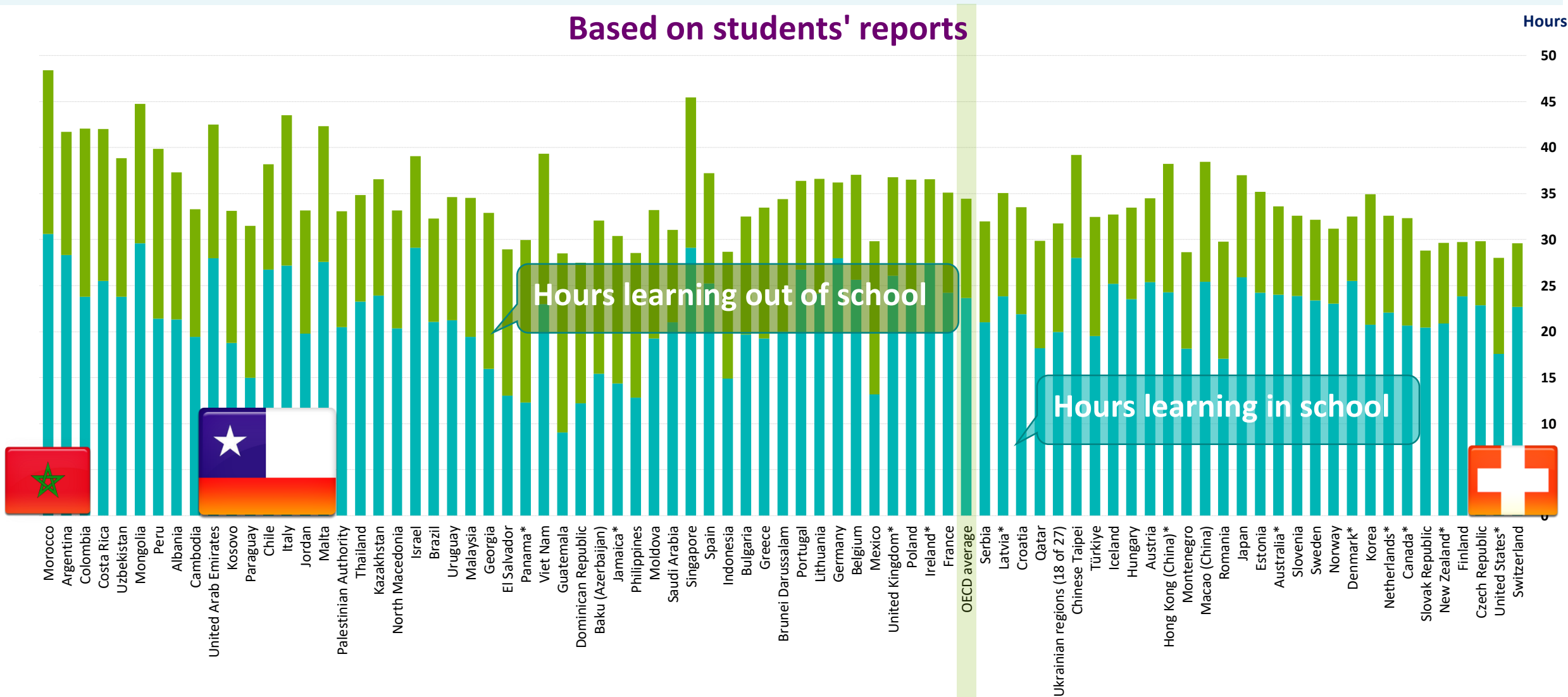
# Learning time ≠ learning outcomes

Figure II.5.11

Based on students' reports

Hours

Score points in mathematics per hour of total learning time

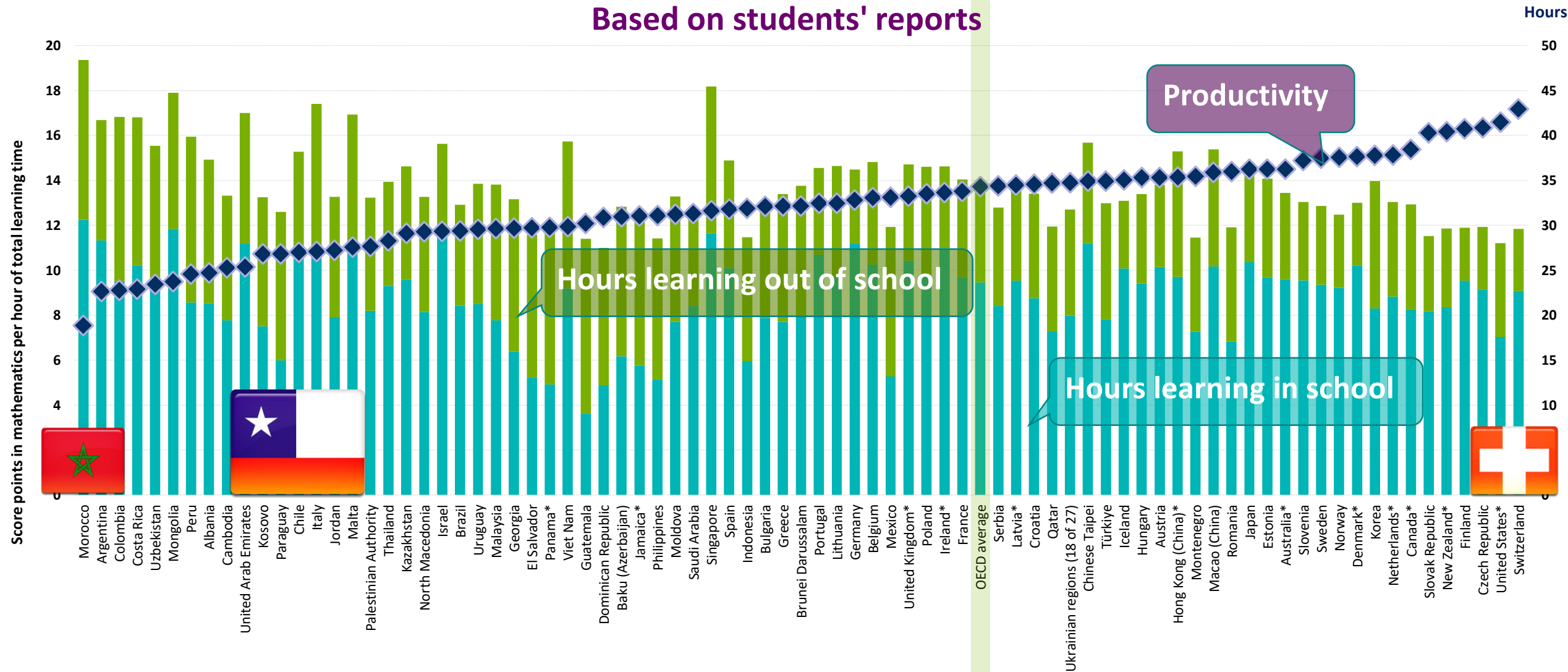




# Learning time ≠ learning outcomes

Figure II.5.11

Based on students' reports



# Revolutionising learning?

Unlocking the potential of the digital world



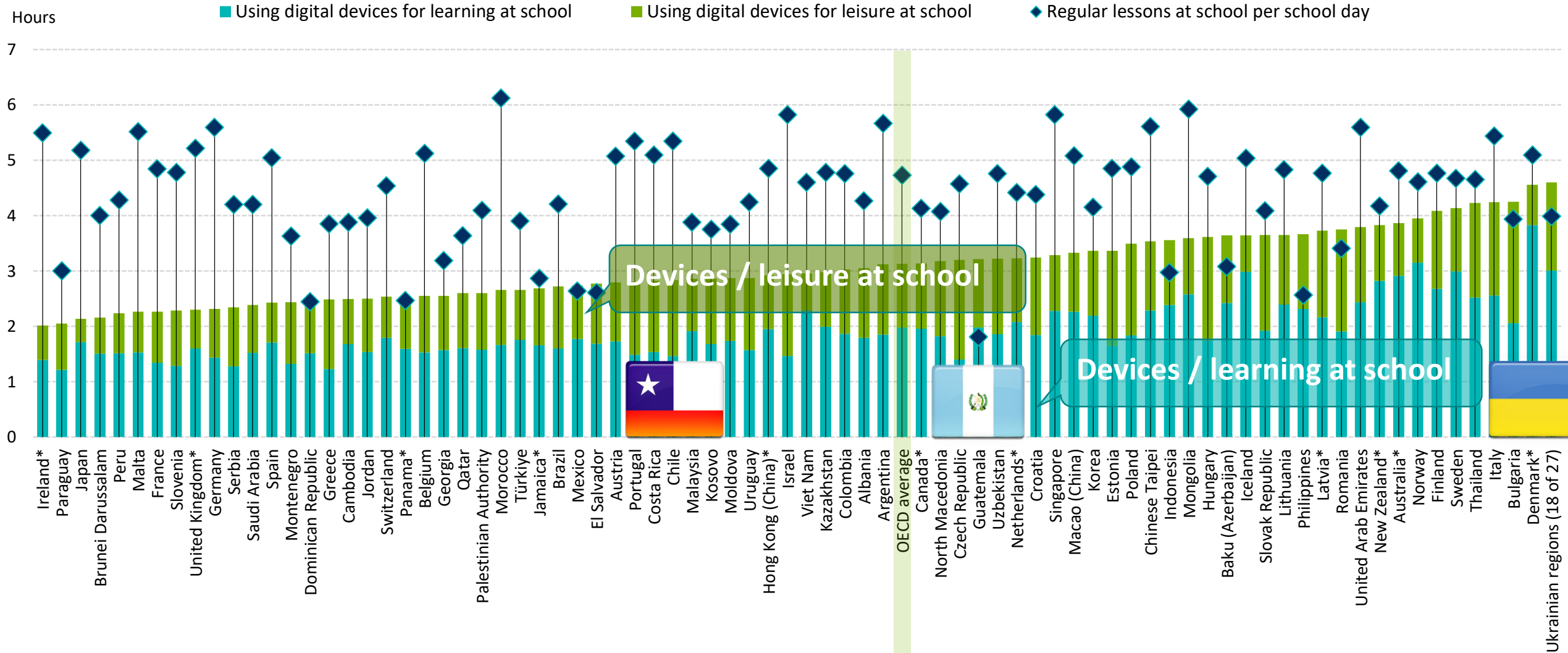




# Time spent at school in regular lessons and on digital devices

Figure II.5.15

## Time spent per day by students (in hours)

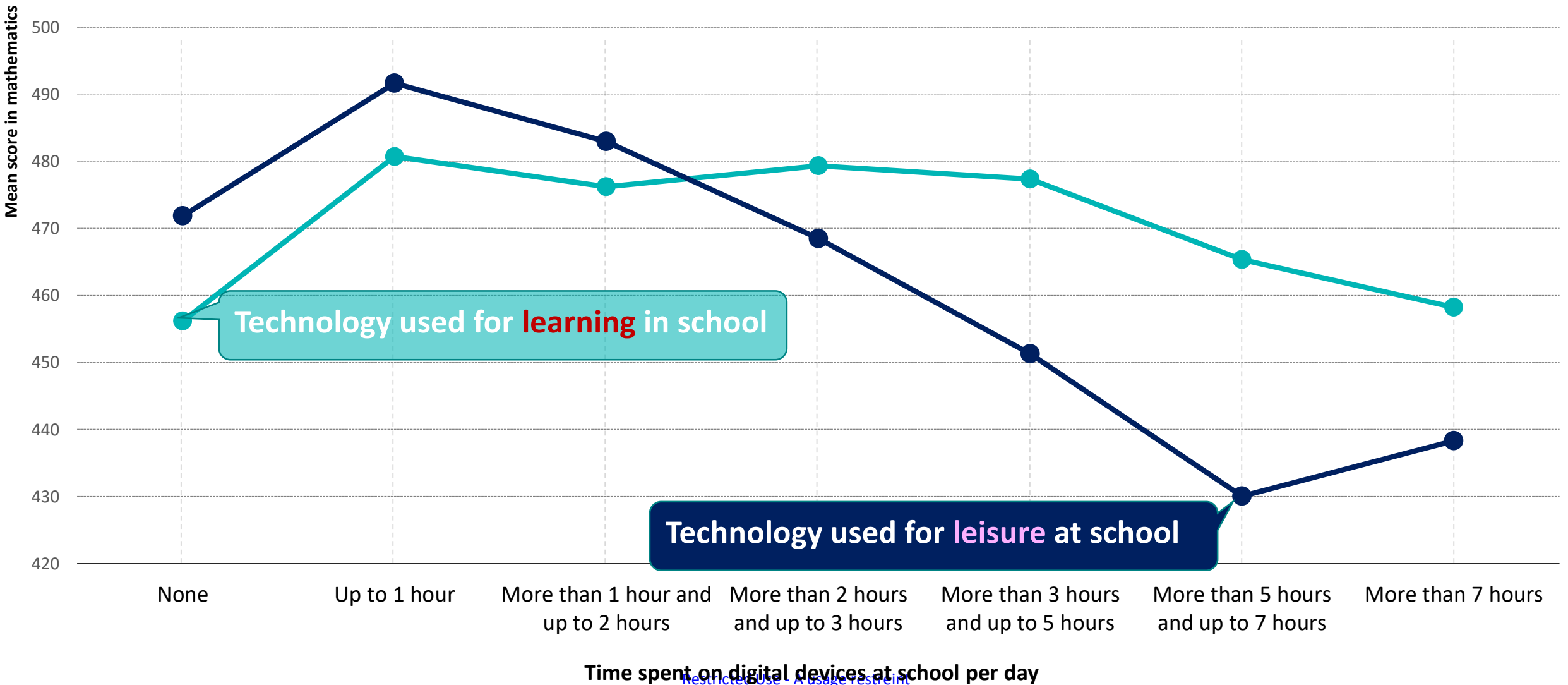




# Time spent on digital devices at school and mathematics performance

Figure II.5.14

Based on students' reports; OECD average



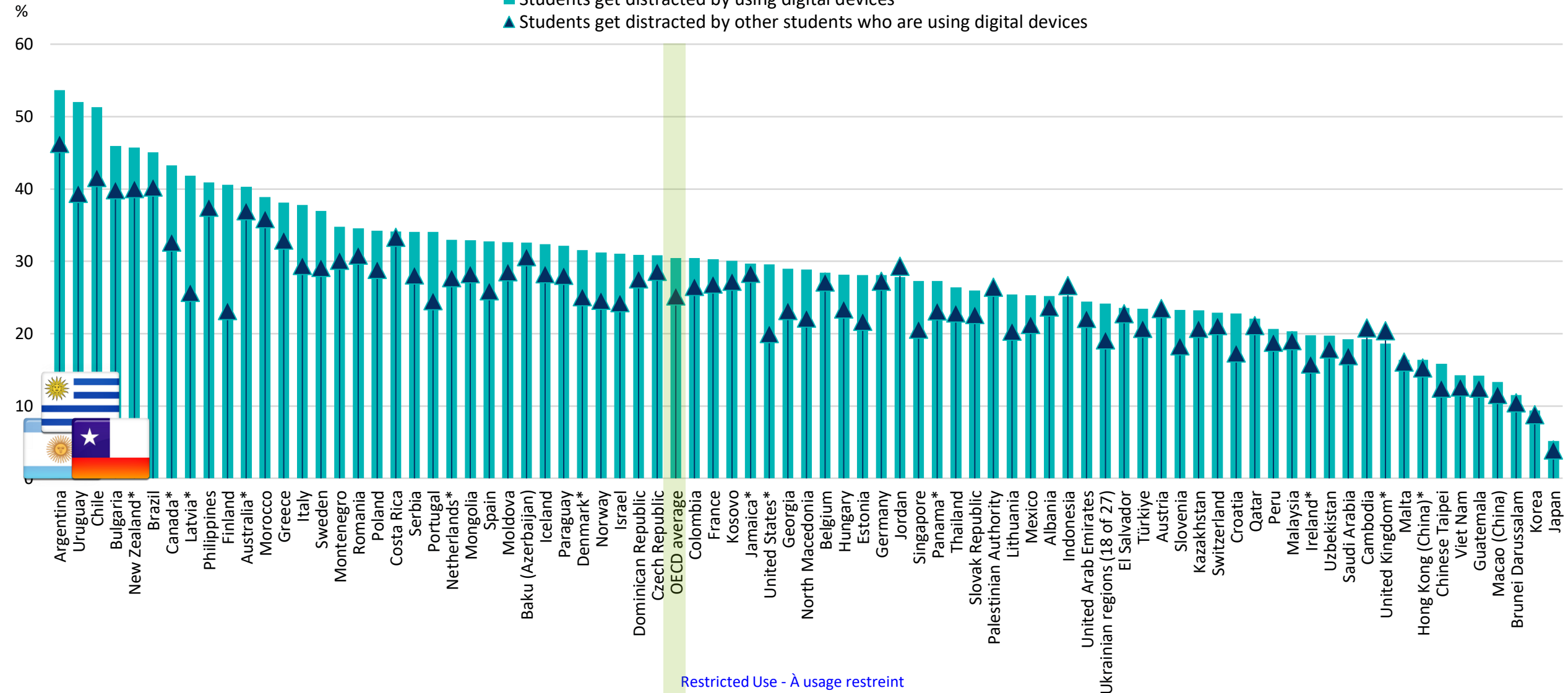


# Distraction from digital devices in mathematics lessons

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





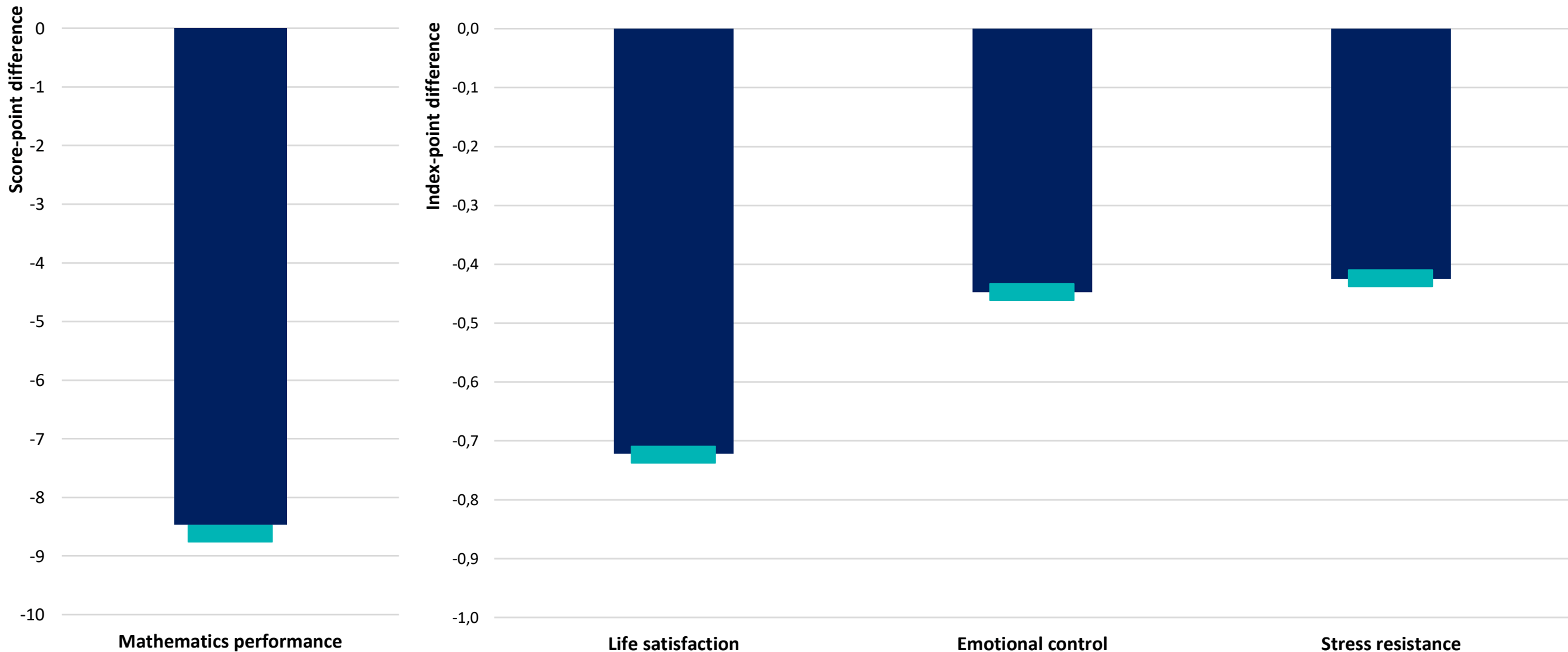


# Outcomes of feeling nervous/anxious when digital devices are not near

Figure II.5.17

Based on students' reports; OECD average

■ Before accounting for students' and schools' socio-economic profile<sup>1</sup> — After accounting for students' and schools' socio-economic profile

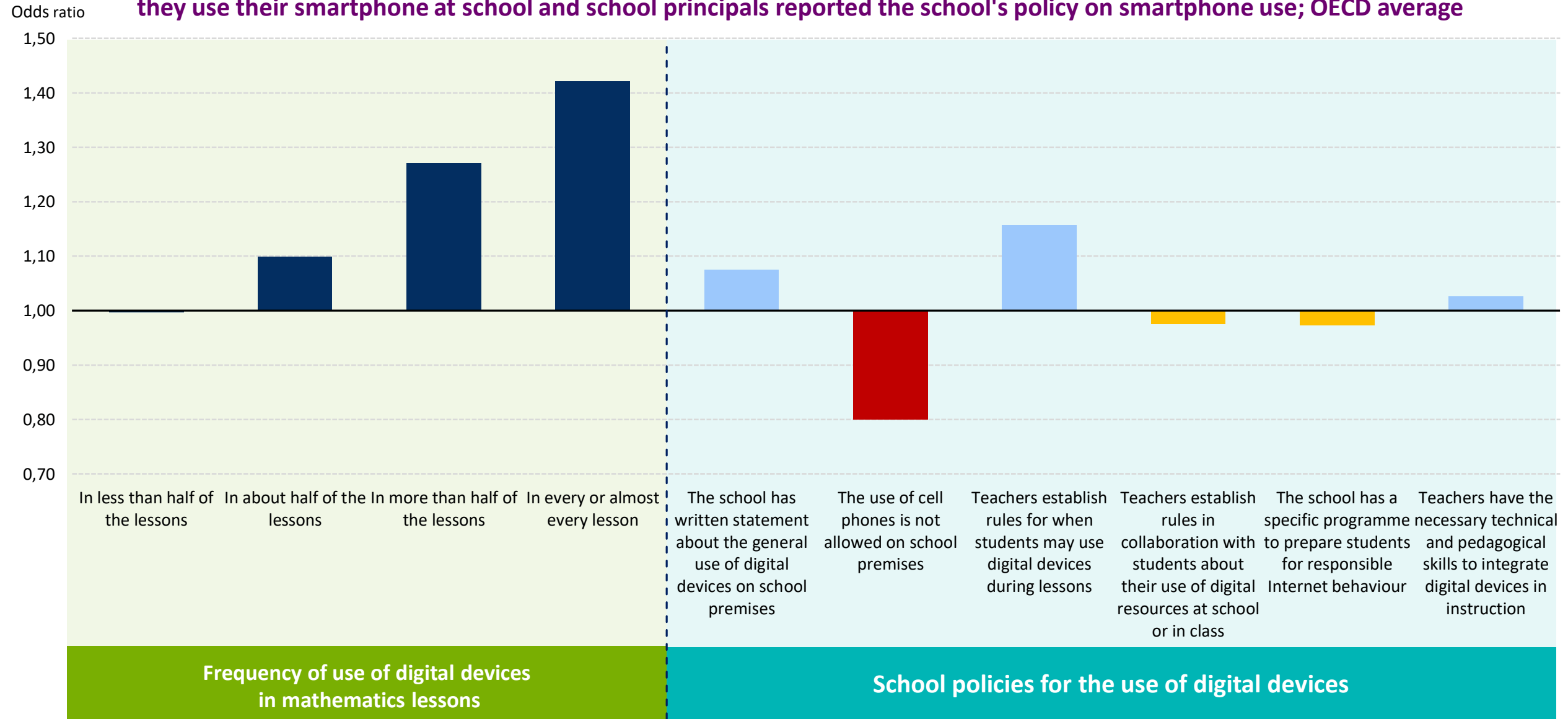




# Digital devices, distraction and school policies

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



# Teachers and teaching

Are some students being let down?

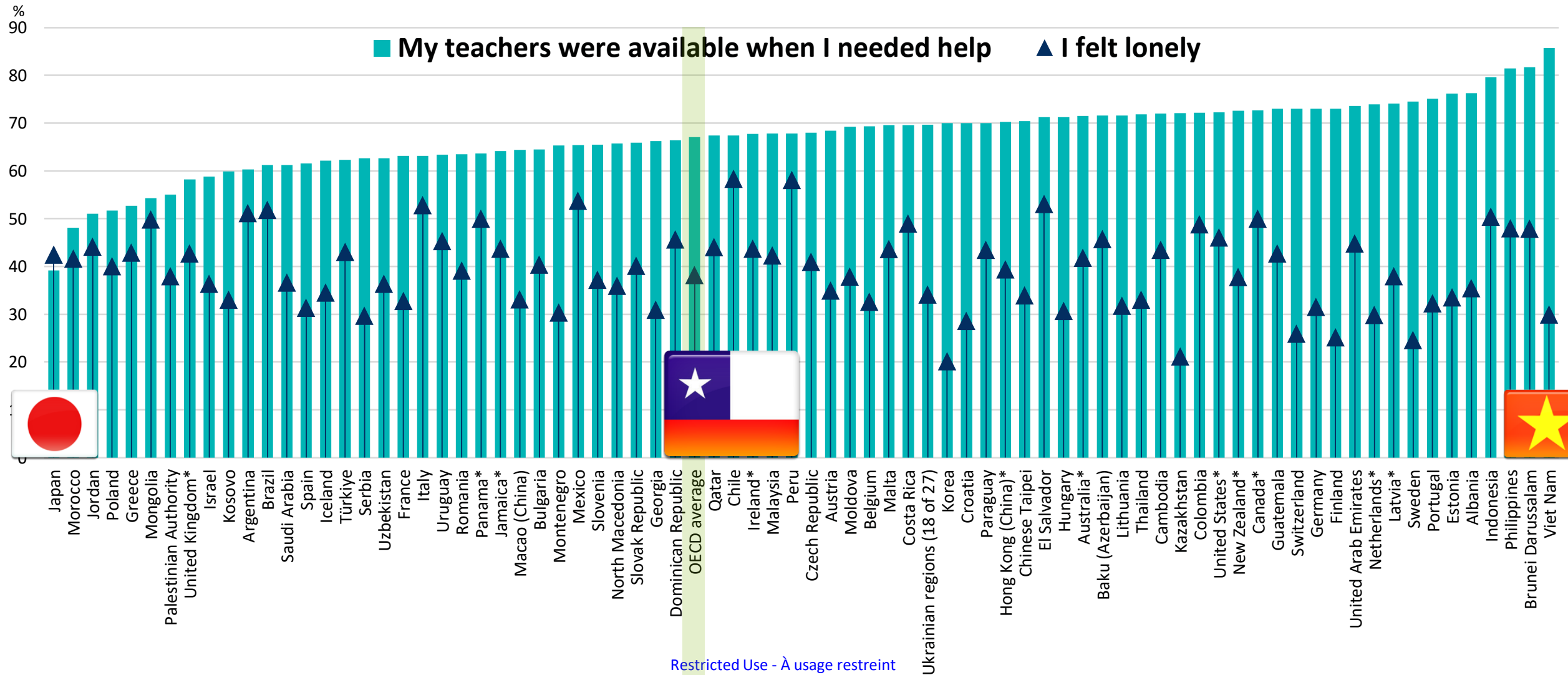




# Teacher support

Figure II.2.10

Percentage of students who agreed or strongly agreed with the following statements about the time when their school building was closed because of COVID-19; based on students' reports





# Students learn best from teachers they love

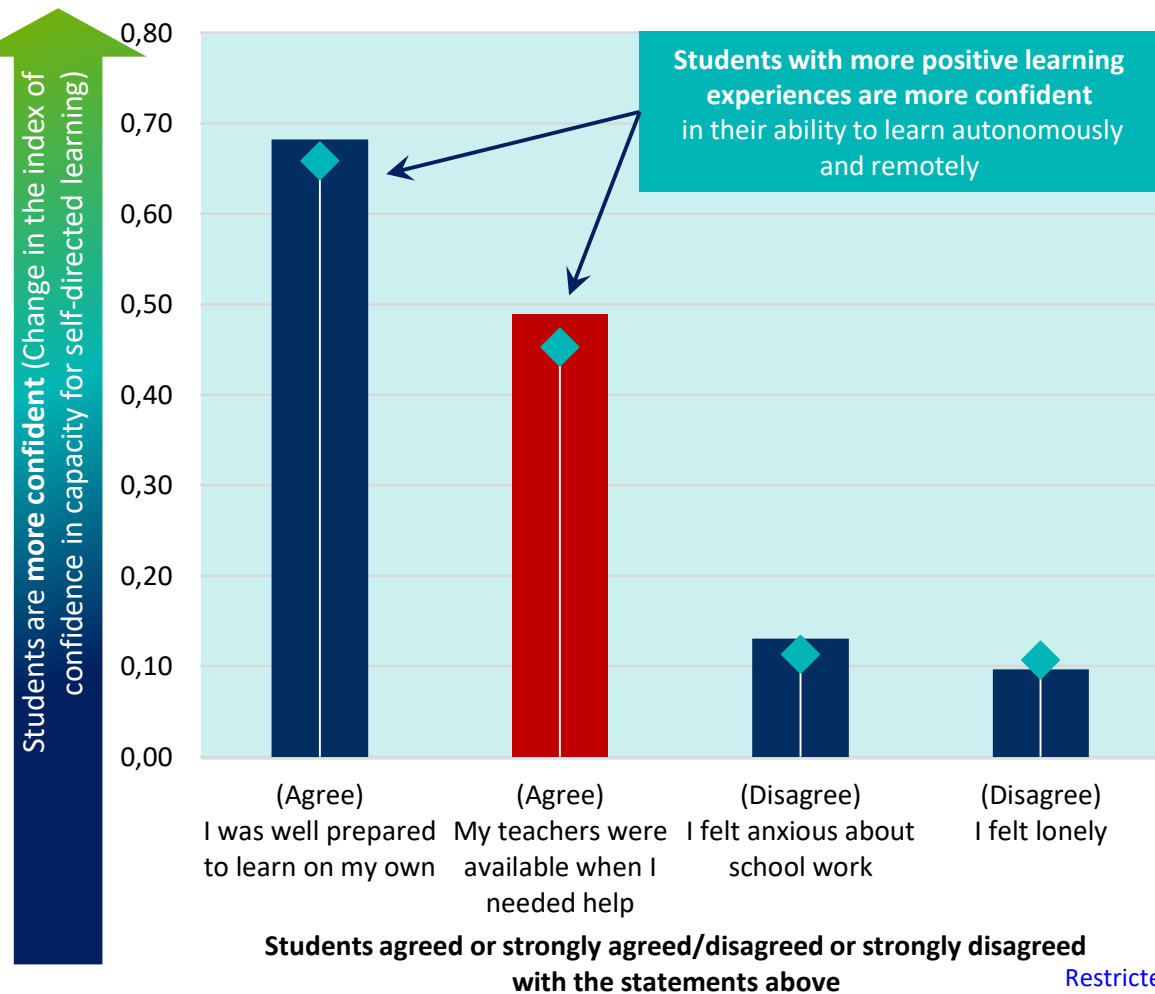
## Remote learning, mathematics performance and confidence in self-directed learning

Figure II.2.12

Change in the index of confidence in students' capacity for self-directed learning/in mathematics performance, when students agreed or disagreed with the following statements about the time when their school building was closed because of COVID-19; OECD average

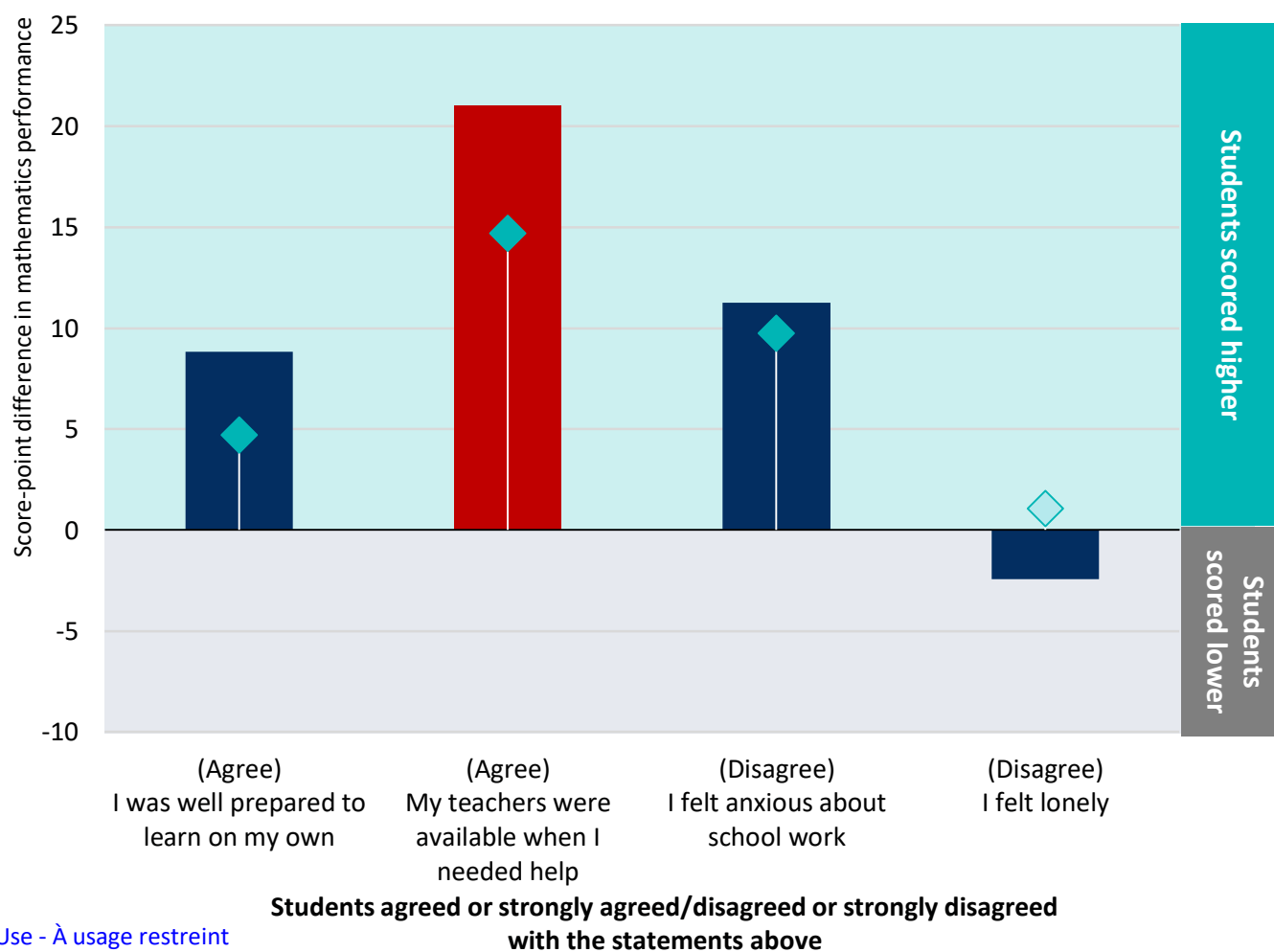
■ Before accounting

◆ After accounting for students' and schools' socio-economic profile, and mathematics performance



■ Before accounting

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







# School actions and activities to maintain learning and well-being

Figure II.2.16

Percentage of students who reported that someone from their school did the following actions every day or almost every day when their school building was closed because of COVID-19; OECD average



Students reported that someone from their school did the above actions every day or almost every day

Restricted Use - A usage restraint

# Parents and families

## Why they matter

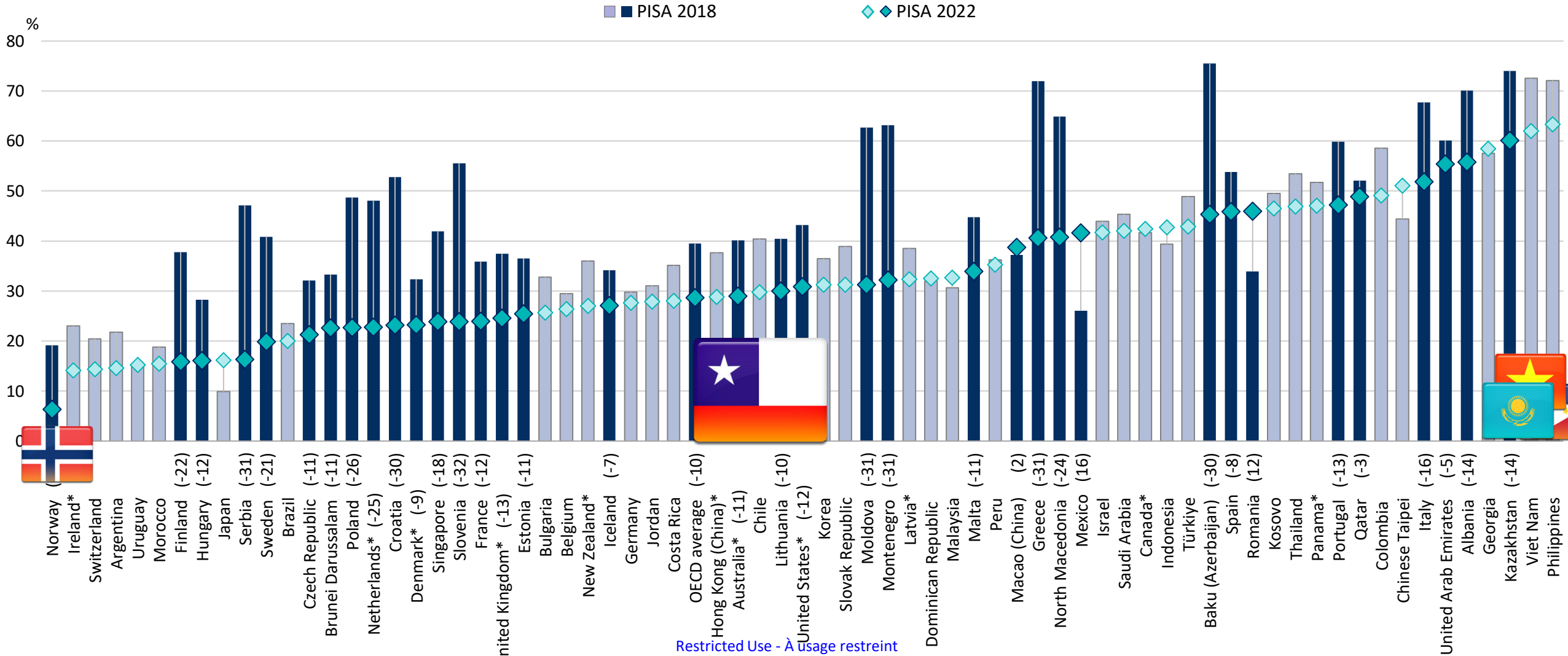




# Parents-initiated talks about students' progress

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



# Beyond academic learning

Student well-being



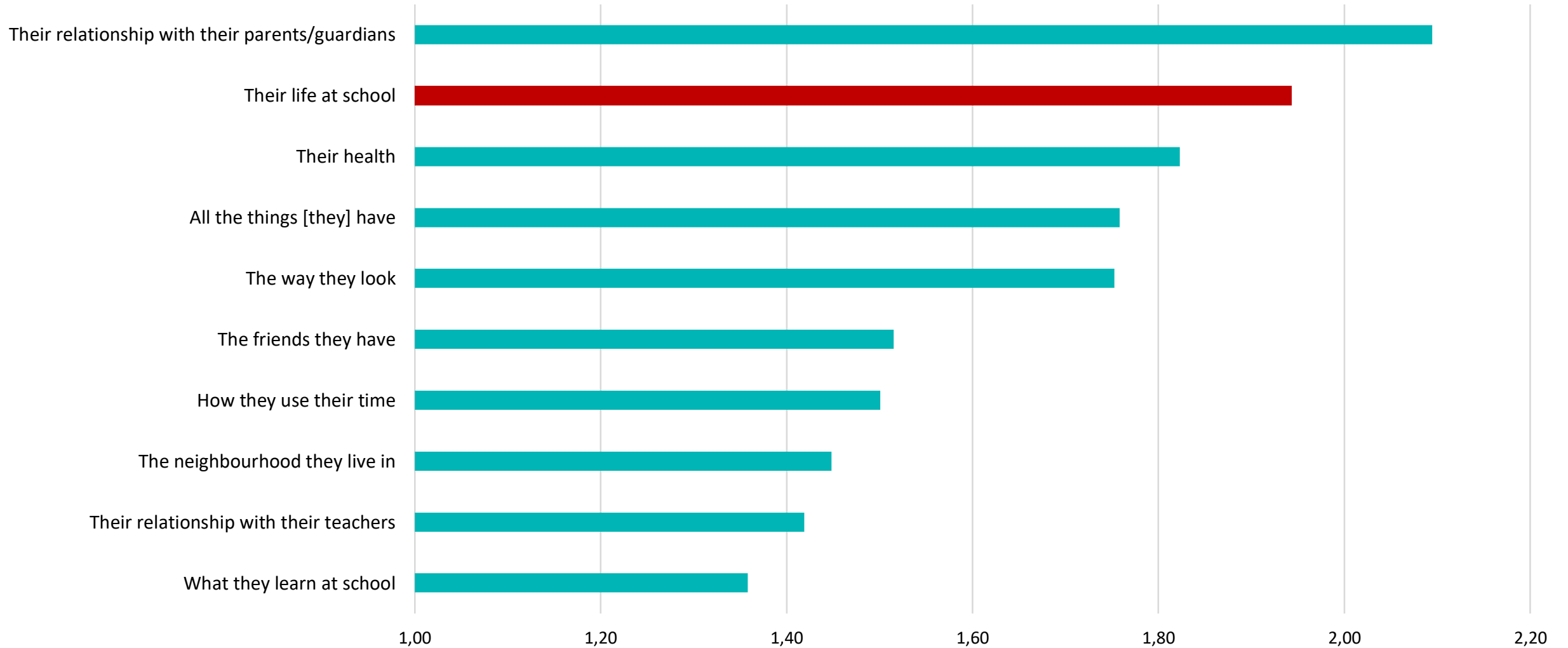


# Life satisfaction and satisfaction with different aspects of life

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:*



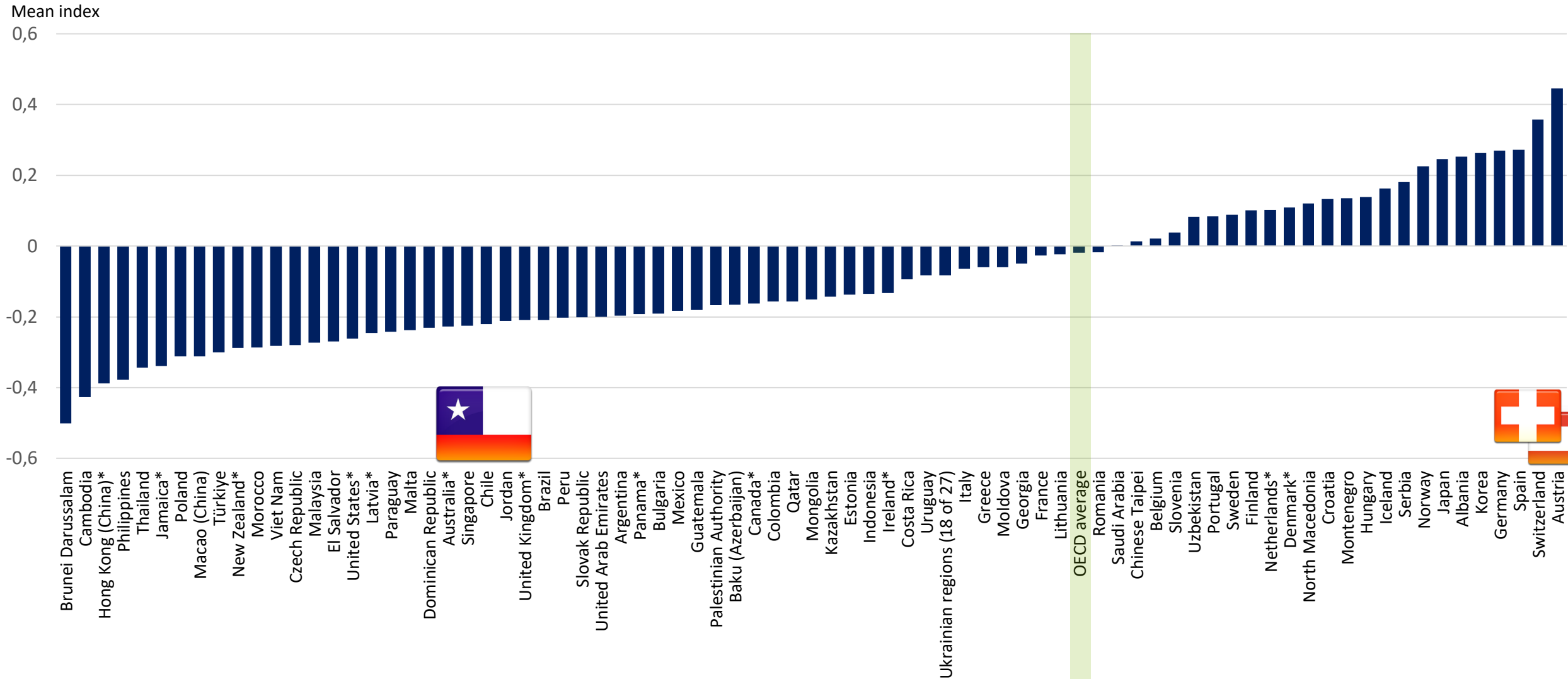




# Students' sense of belonging at school, across all countries and economies

Table II.B1.1.1

Based on students' reports



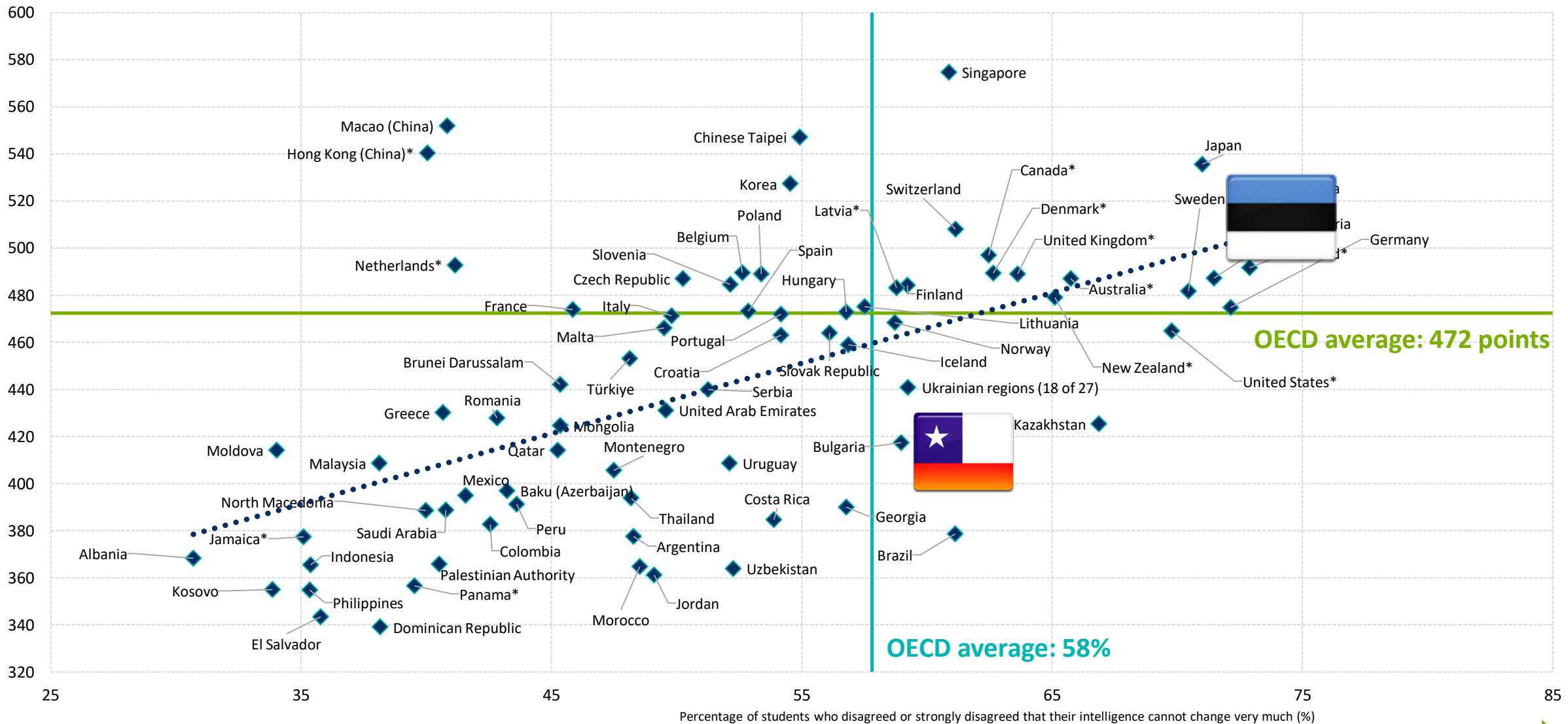


# Growth mindset and mathematics performance

Table I.B1.2.1 &  
Table I.B1.2.16

Higher score

Mean score in mathematics

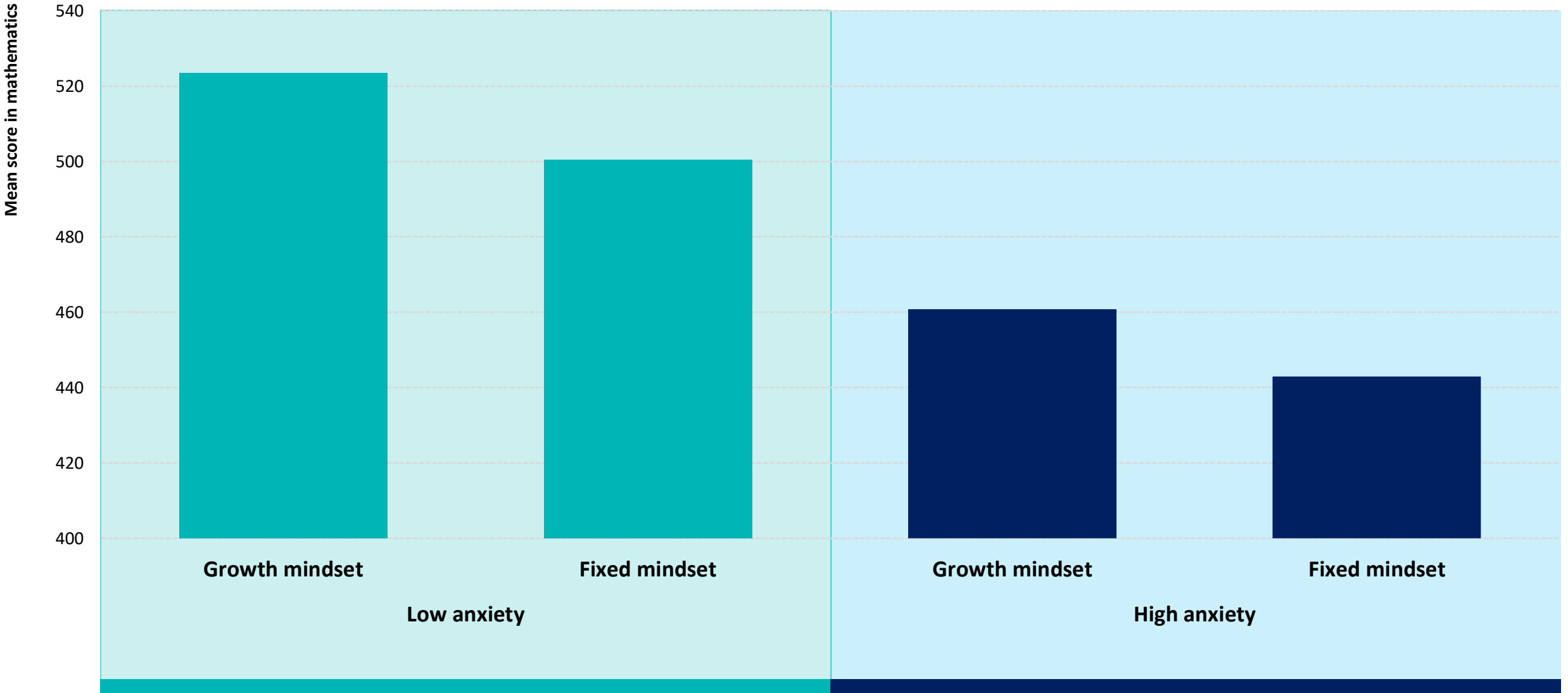


More students holding a growth mindset



# Mathematics performance and anxiety in mathematics among students with fixed and growth mindsets

Figure I.2.2



# Under the surface

## The impact of bullying on learning



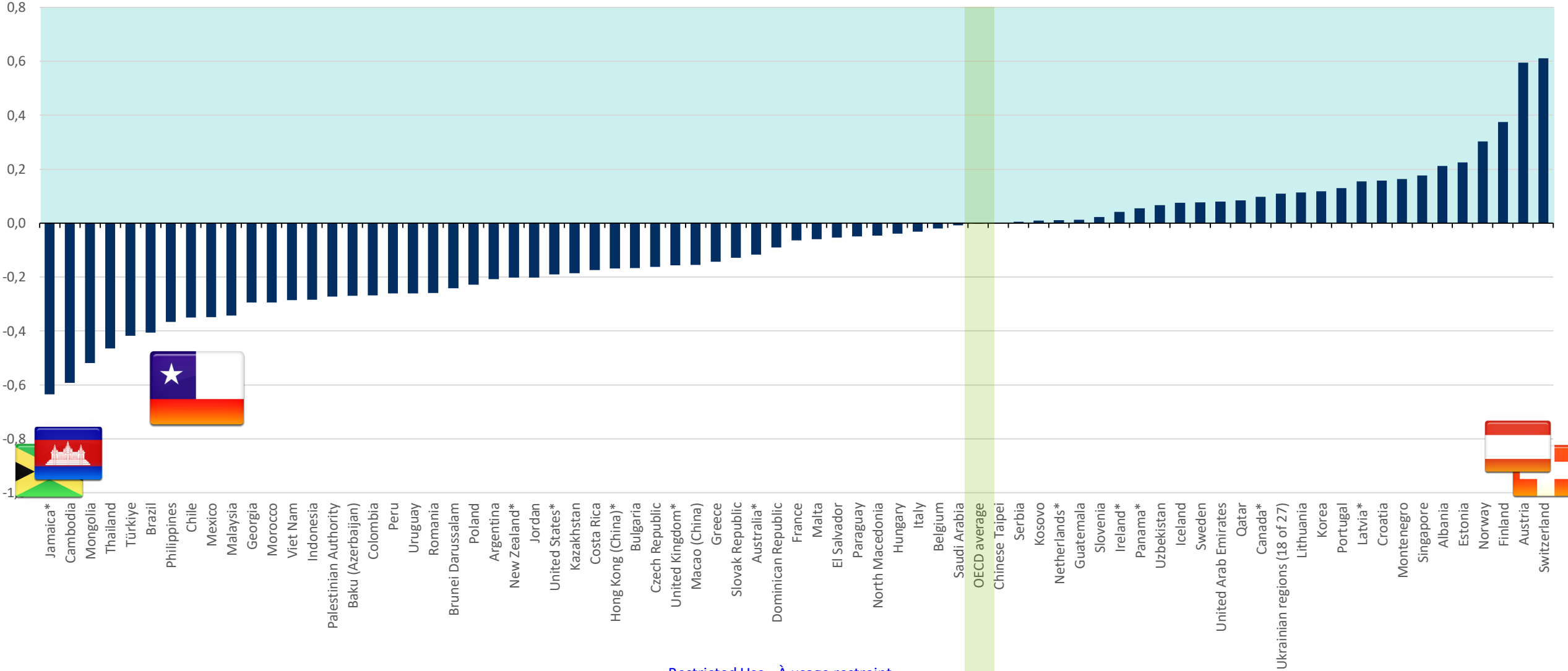


# Feeling safe

Figure II.3.9

Based on students' reports

Mean index



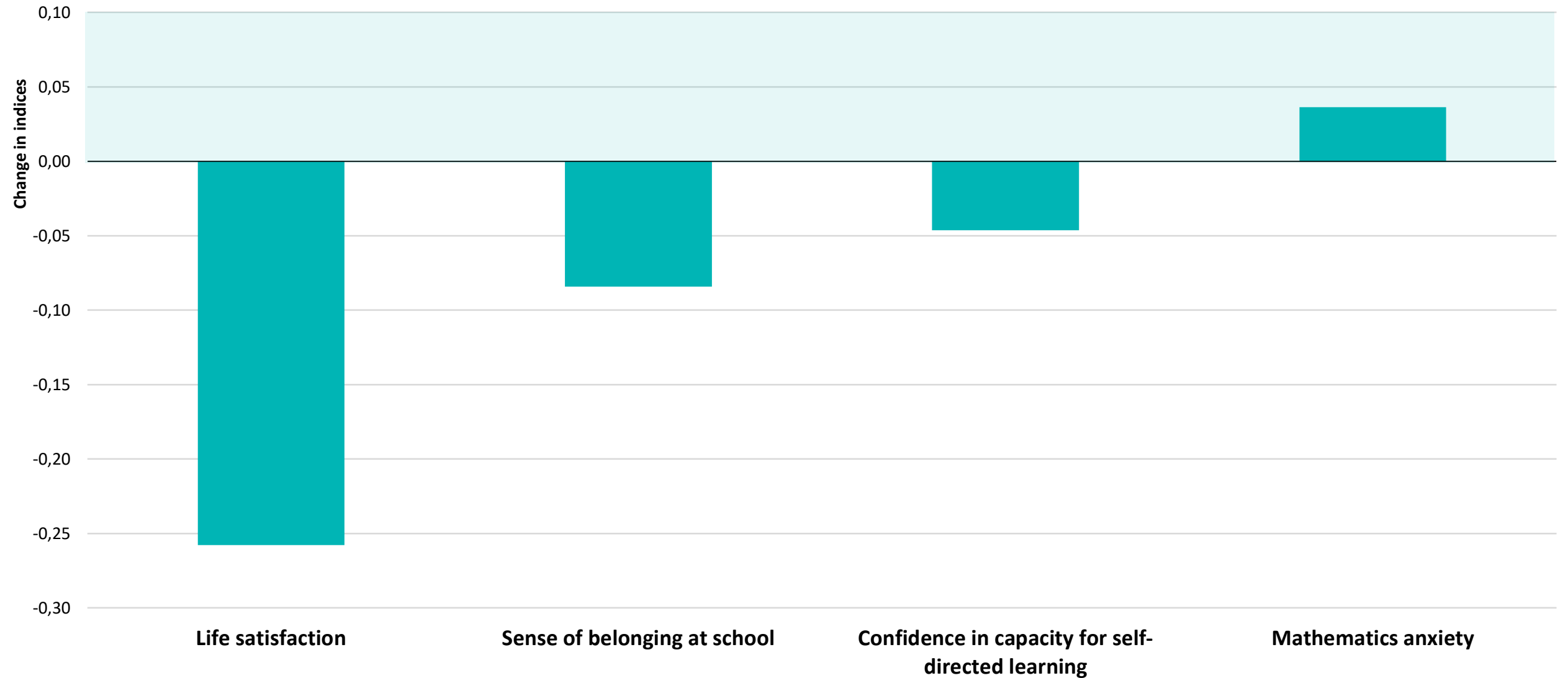




# School safety risks and student well-being

Figure II.3.6

Change in the following indices per one-unit increase in the index of school safety risks; OECD average



# Looking forward

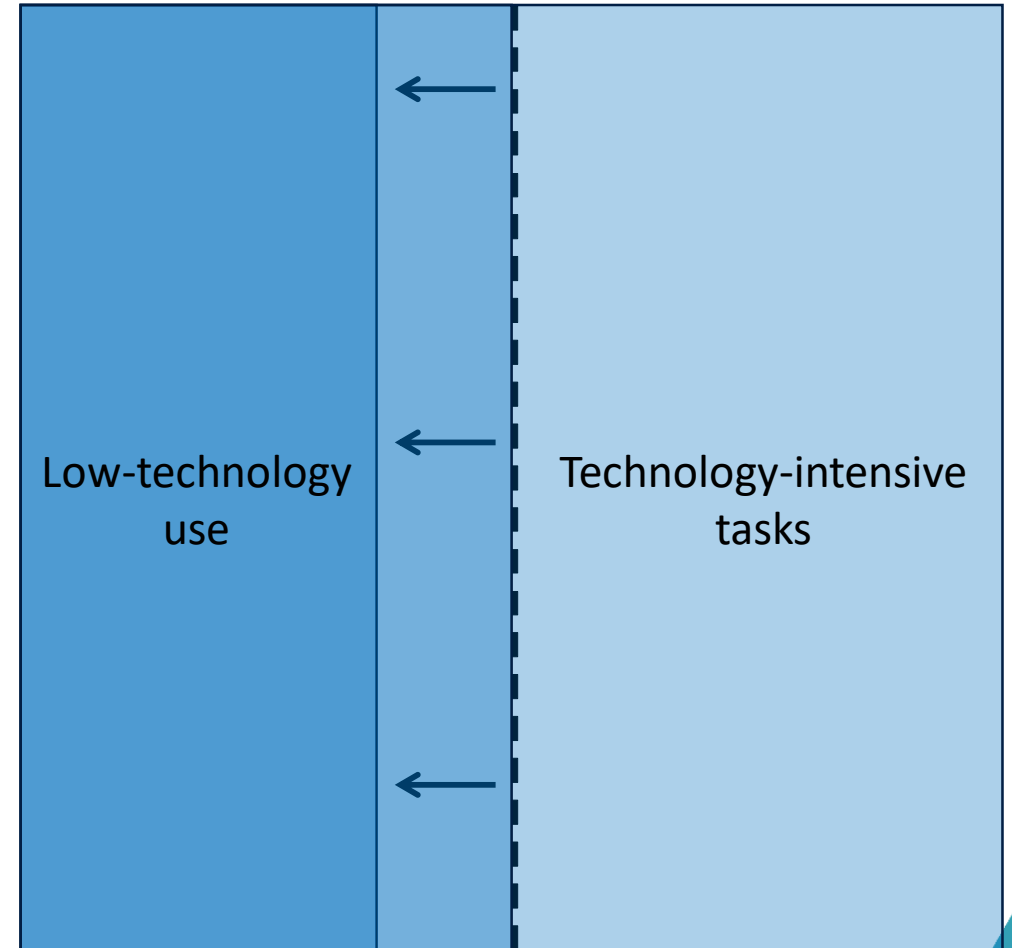
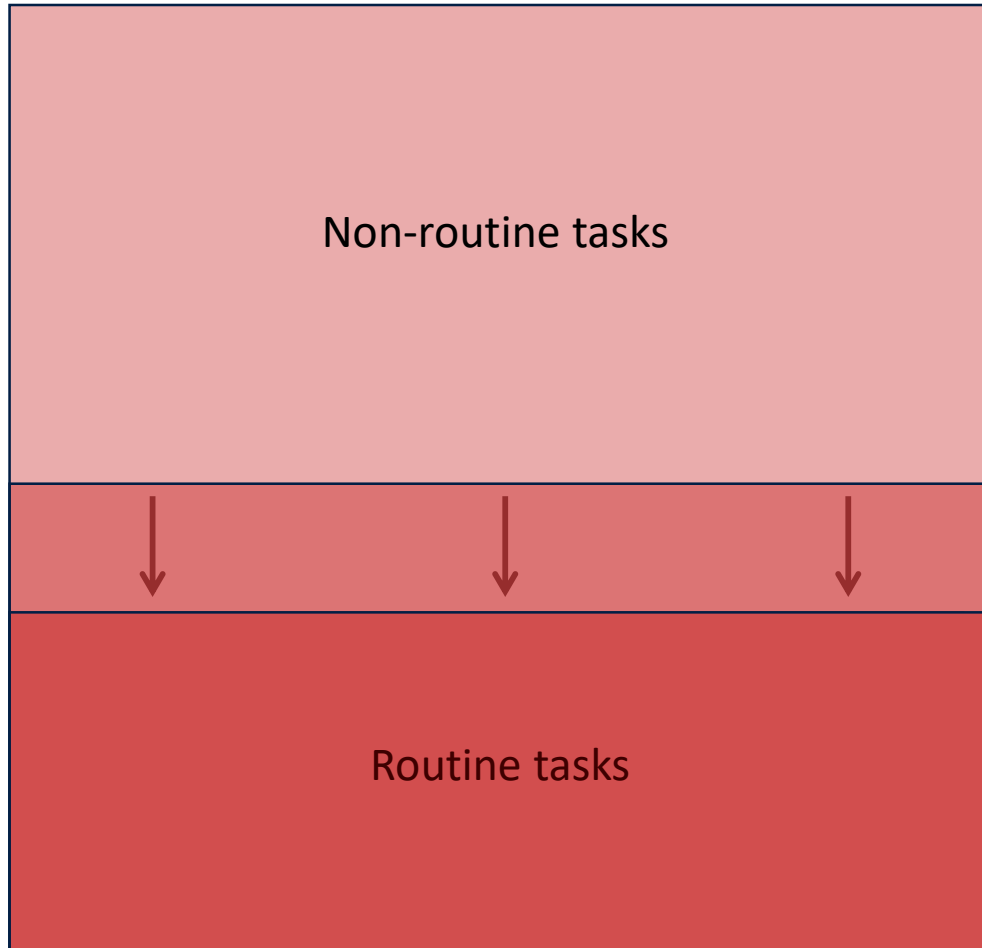
The future will ask for more





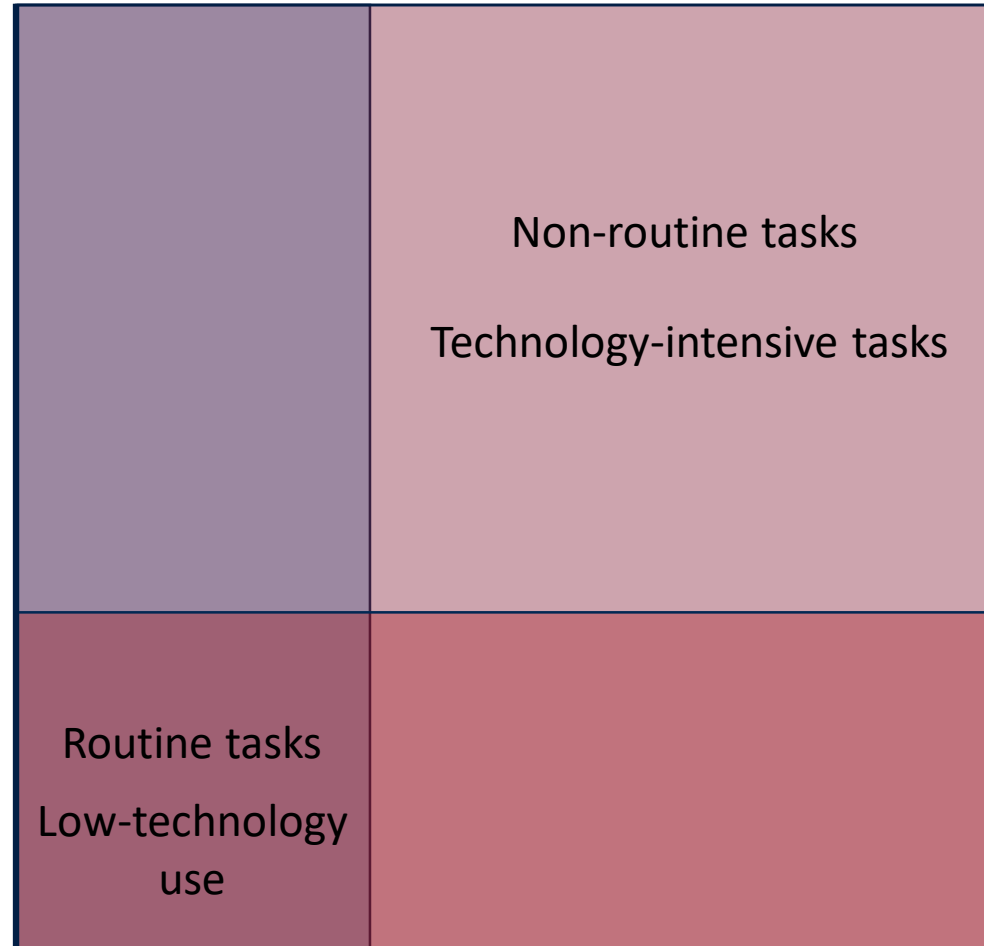
# The kinds of things that are easy to teach...

... have now become easy to digitise and automate





The kinds of things that are easy to teach...  
... have now become easy to digitise and automate





# AI still has many limitations, but will improve

## Near-term

### Tracability

- Trace and identify sources,
- Improve citations

### Accuracy

- Incorporate fact-checking







# AI still has many limitations, but will improve

## Mid-term

### Interpretation

- Understanding semantic of queries
- More natural writing style

#### Long-term

##### Reduced bias

→ Avoid bias due to training data is filtered

##### Increased originality

→ Go beyond the synthesis of training data



## AI still has many limitations, but will improve

### Long-term

#### Reduced bias

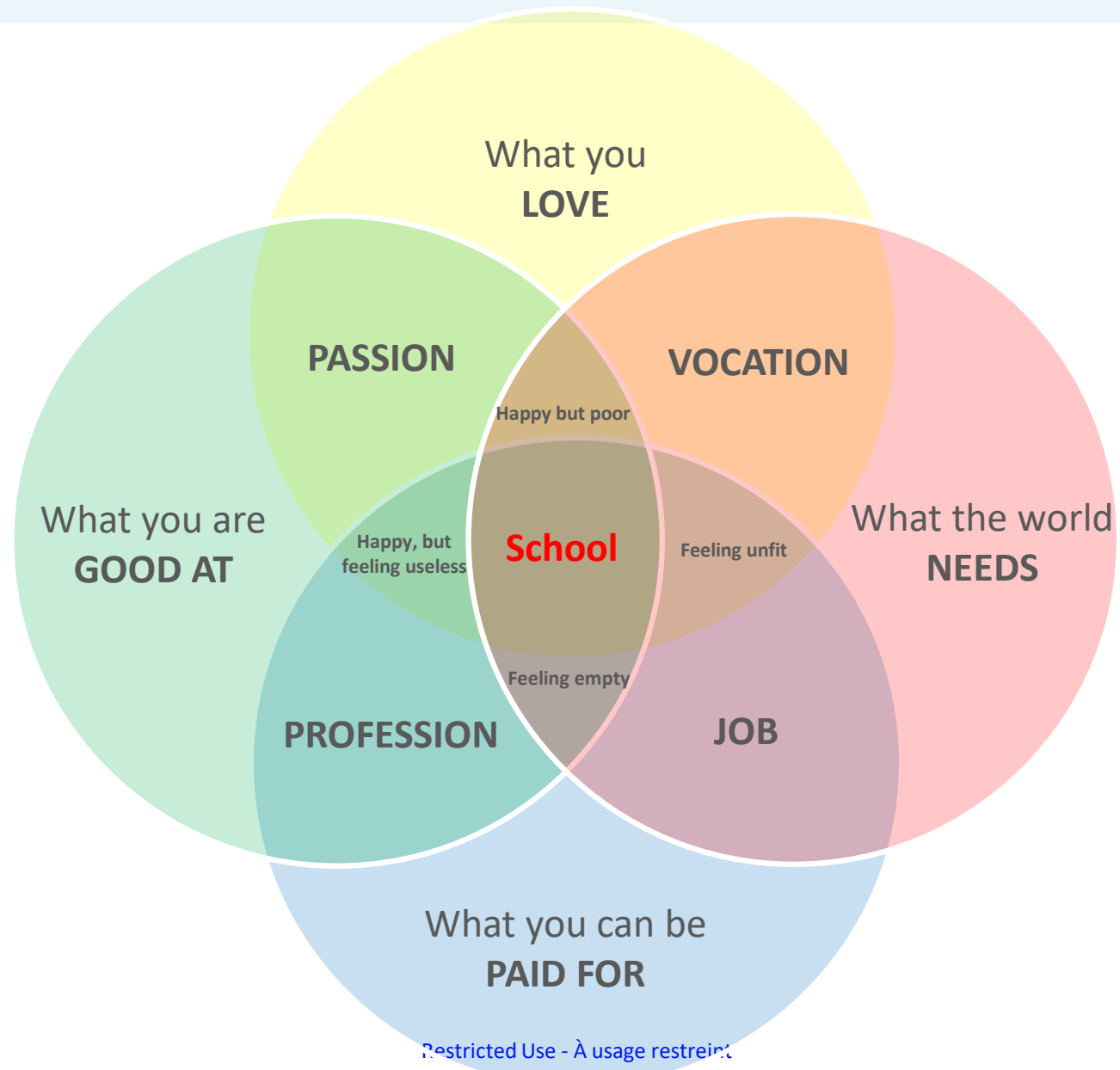
- Avoid that bias in training data is inherited

#### Increased originality

- Go beyond the synthesis of training data



# Education in an AI world

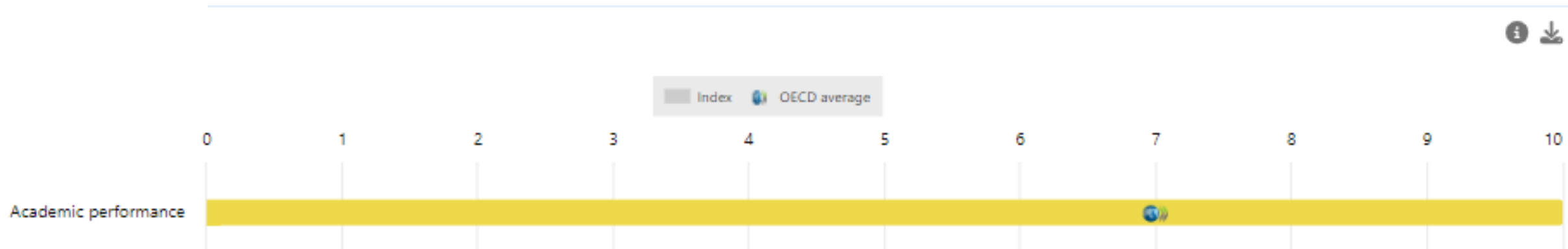




# PISA 2022: Singapore



## What are Singapore's strengths and areas for improvement

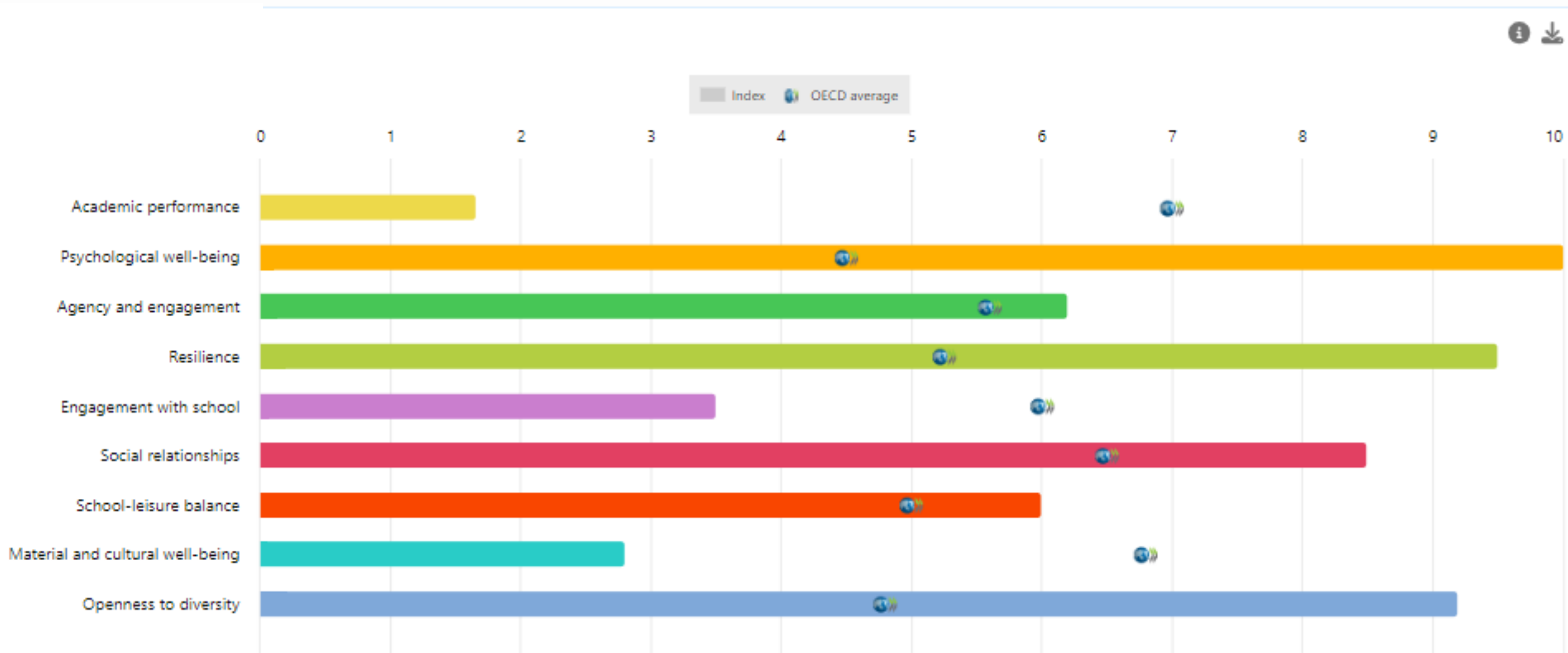




# PISA 2022: Albania



## What are Albania's strengths and areas for improvement

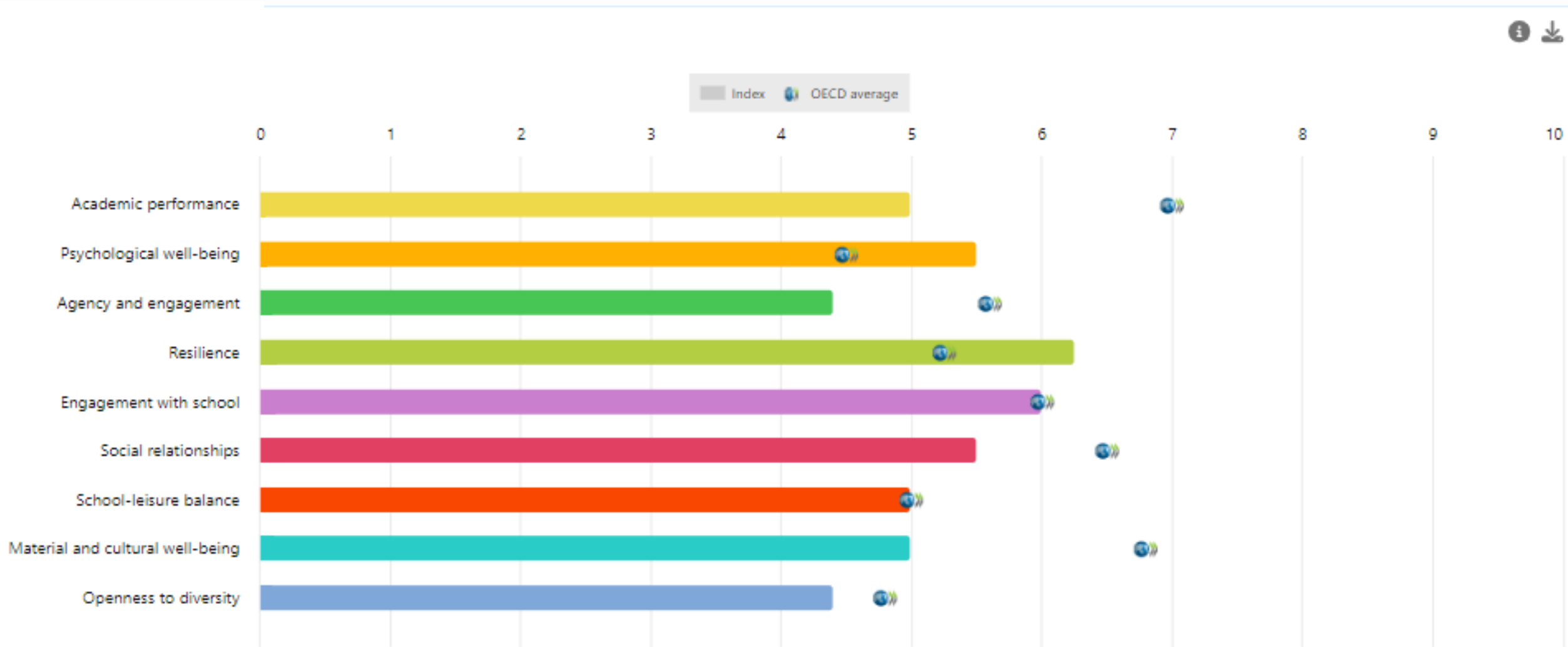




# PISA 2022: Chile



## What are Chile's strengths and areas for improvement



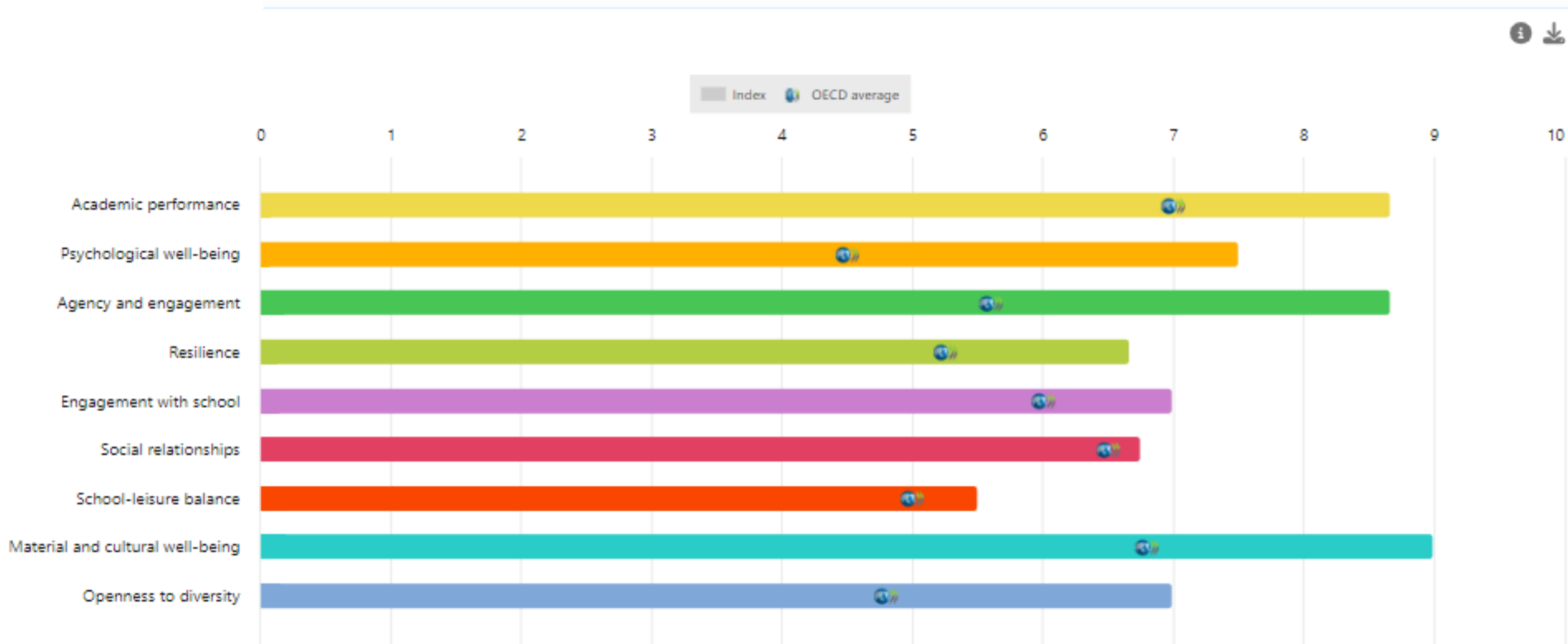




# PISA 2022: Denmark



## What are Denmark's strengths and areas for improvement





Find out more about our work at [www.oecd.org/pisa](http://www.oecd.org/pisa)



## PISA main reports

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WeChat : AndreasSchleicher

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PISA FAQs: [www.oecd.org/pisa/pisafaq](http://www.oecd.org/pisa/pisafaq)

PISA Data Explorer: [www.oecd.org/pisa/data](http://www.oecd.org/pisa/data)



## PISA Country notes

