PISA FOR SCHOOLS

How is my school comparing internationally?

Andreas Schleicher

Director for Education and Skills

OECD

Madrid, September 22nd

OCDE
MEJORES POLÍTICAS PARA UNA VIDA MEJOR

PISA in brief

- **Over half a million students…**
  - **representing 28 million 15-year-olds in 65 countries/economies**

… took an internationally agreed 2-hour test…

- **Goes beyond testing whether students can reproduce what they were taught…**
- **… to assess students' capacity to extrapolate from what they know and creatively apply their knowledge in novel situations**
- **Mathematics,** reading, science, problem solving, financial literacy
- **Total of 390 minutes of assessment material**

… and responded to questions on…

- **their personal background, their schools and their engagement with learning and school**

- **Parents, principals and system leaders provided data on…**
  - **school policies, practices, resources and institutional factors that help explain performance differences .**

PISA in brief

- **Key principles**
  - **'Crowd sourcing' and collaboration**
    - PISA draws together leading expertise and institutions from participating countries to develop instruments and methodologies…
    - … guided by governments on the basis of shared policy interests
  - **Cross-national relevance and transferability of policy experiences**
    - Emphasis on validity across cultures, languages and systems
    - Frameworks built on well-structured conceptual understanding of academic disciplines and contextual factors
  - **Triangulation across different stakeholder perspectives**
    - Systematic integration of insights from students, parents, school principals and system-leaders
  - **Advanced methods with different grain sizes**
    - A range of methods to adequately measure constructs with different grain sizes to serve different decision-making needs – e.g. PISA for Schools
    - Productive feedback to fuel improvement at every level of the system .

Helen the Cyclist

Helen has just got a new bike. It has a speedometer which sits on the handlebar. The speedometer can tell Helen the distance she travels and her average speed for a trip.

Helen rode 6 km to her aunt's house. Her speedometer showed that she had averaged 18 km/h for the whole trip.

Which one of the following statements is correct?

A. It took Helen 20 minutes to get to her aunt's house.

B. It took Helen 30 minutes to get to her aunt's house.

C. It took Helen 3 hours to get to her aunt's house.

D. It is not possible to tell how long it took Helen to get to her aunt's house.

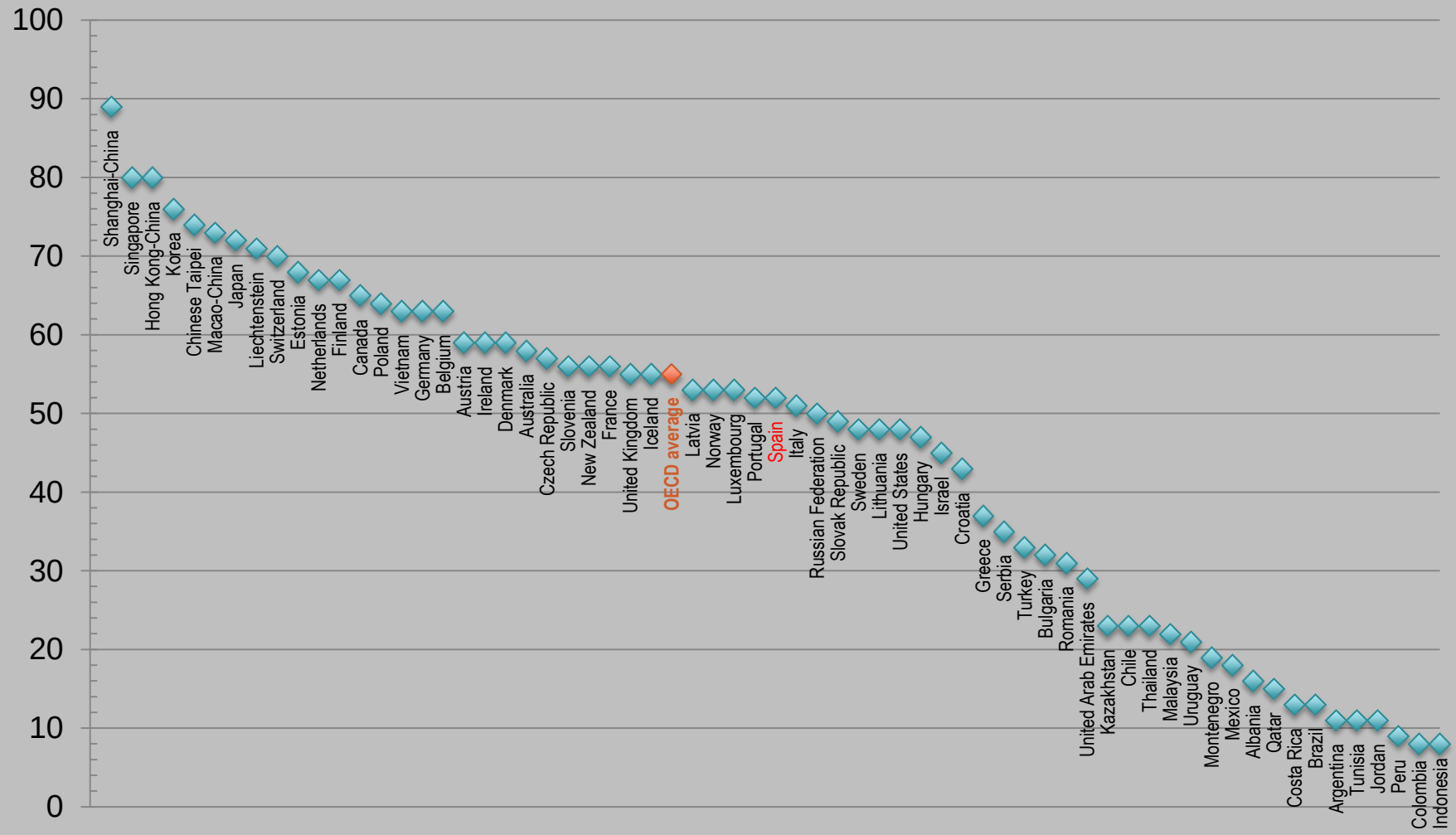
Helen the Cyclist

Correct Answer: A. It took Helen 20 minutes to get to her aunt's house.

This item belongs to the *change* and *relationships* category. This involves understanding fundamental types of change and recognising when they occur in order to use suitable mathematical models to describe and predict change.

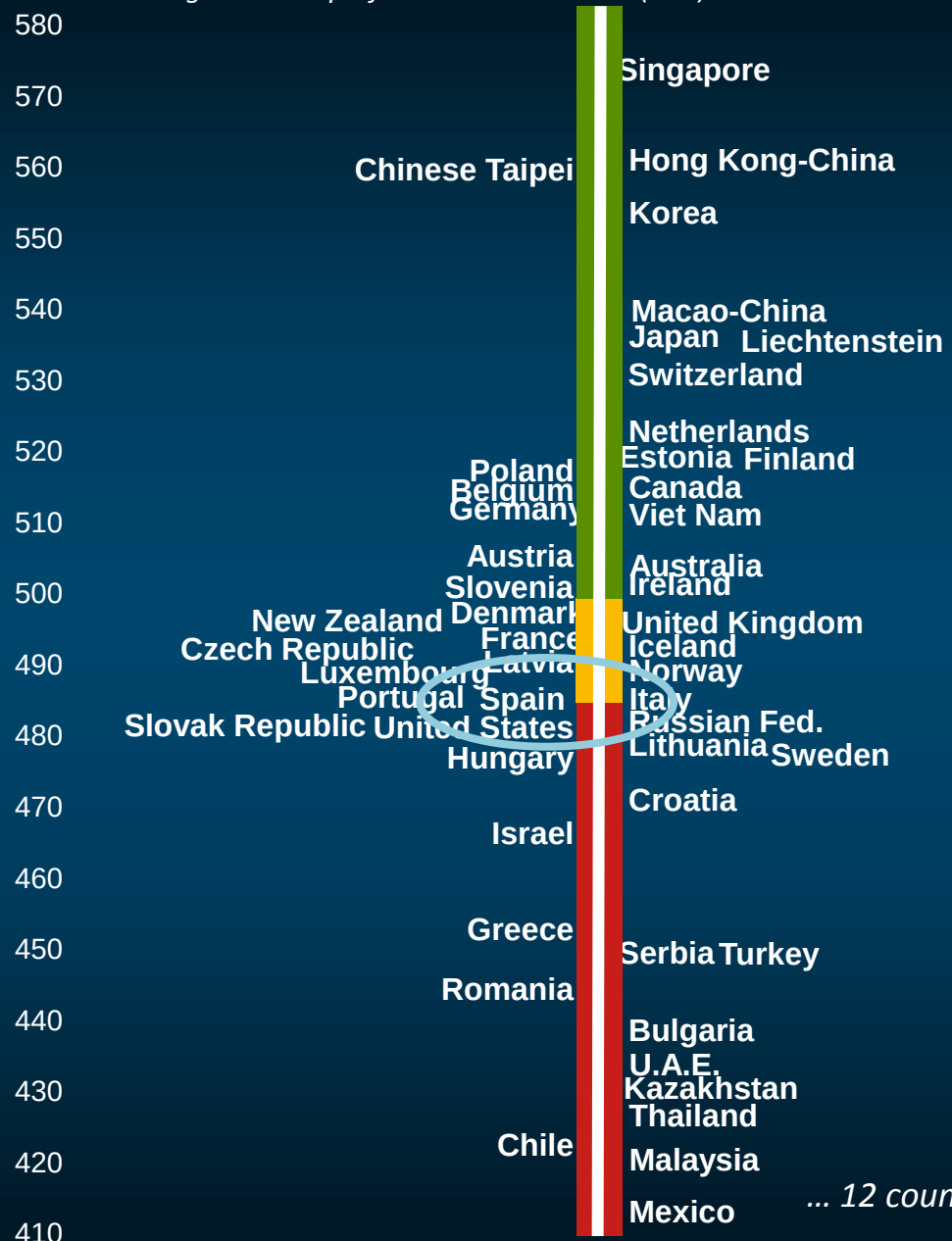
SCORING:	
Description:	Calculate time travelled given average speed and distance travelled
Mathematical content area:	Change and relationships
Context:	Personal
Process:	Employ

Percent of 15-year-olds who scored Level 3 or Above



High mathematics performance

Mean score *... Shanghai-China performs above this line (613)*

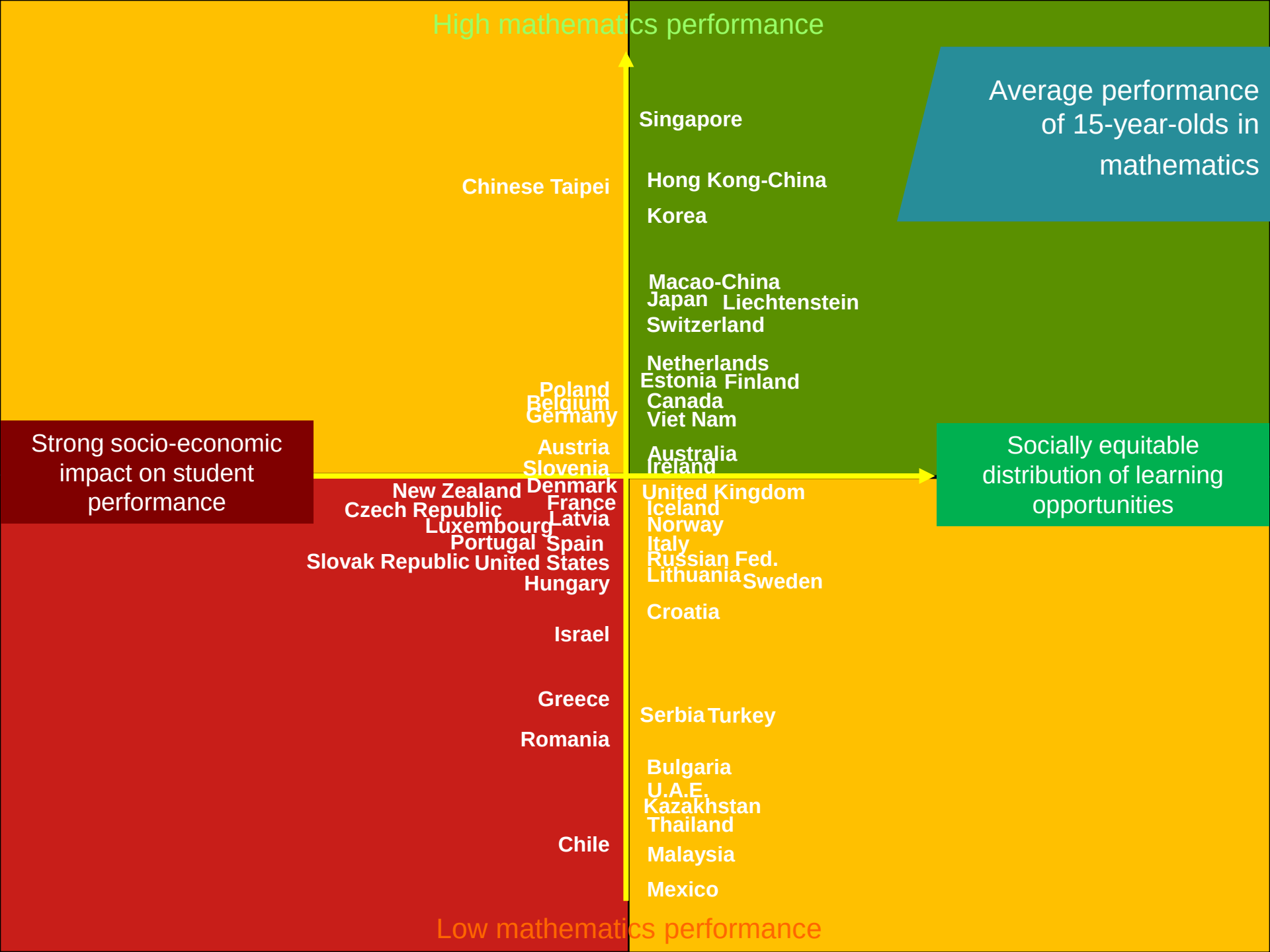


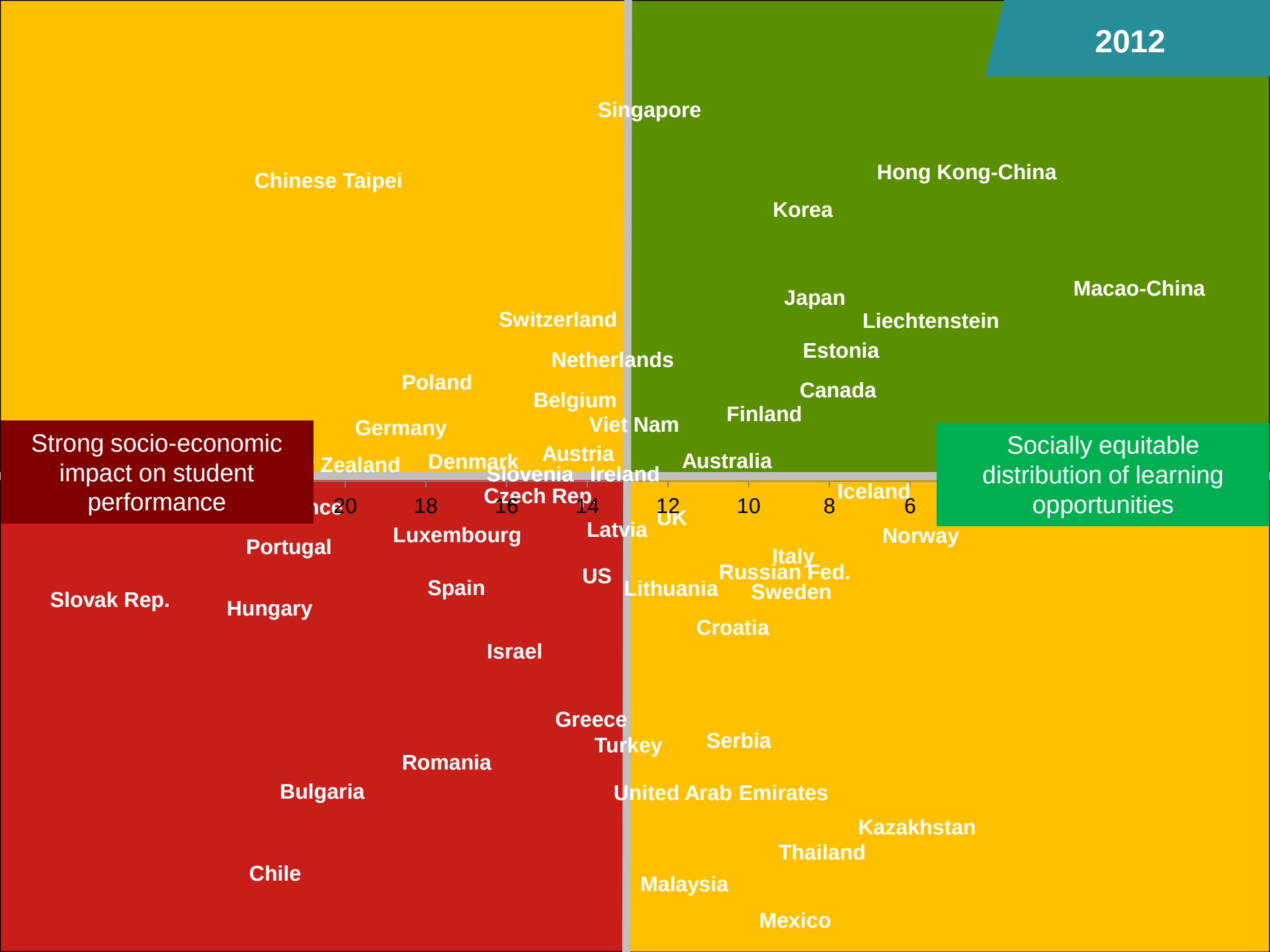
Average performance of 15-year-olds in Mathematics

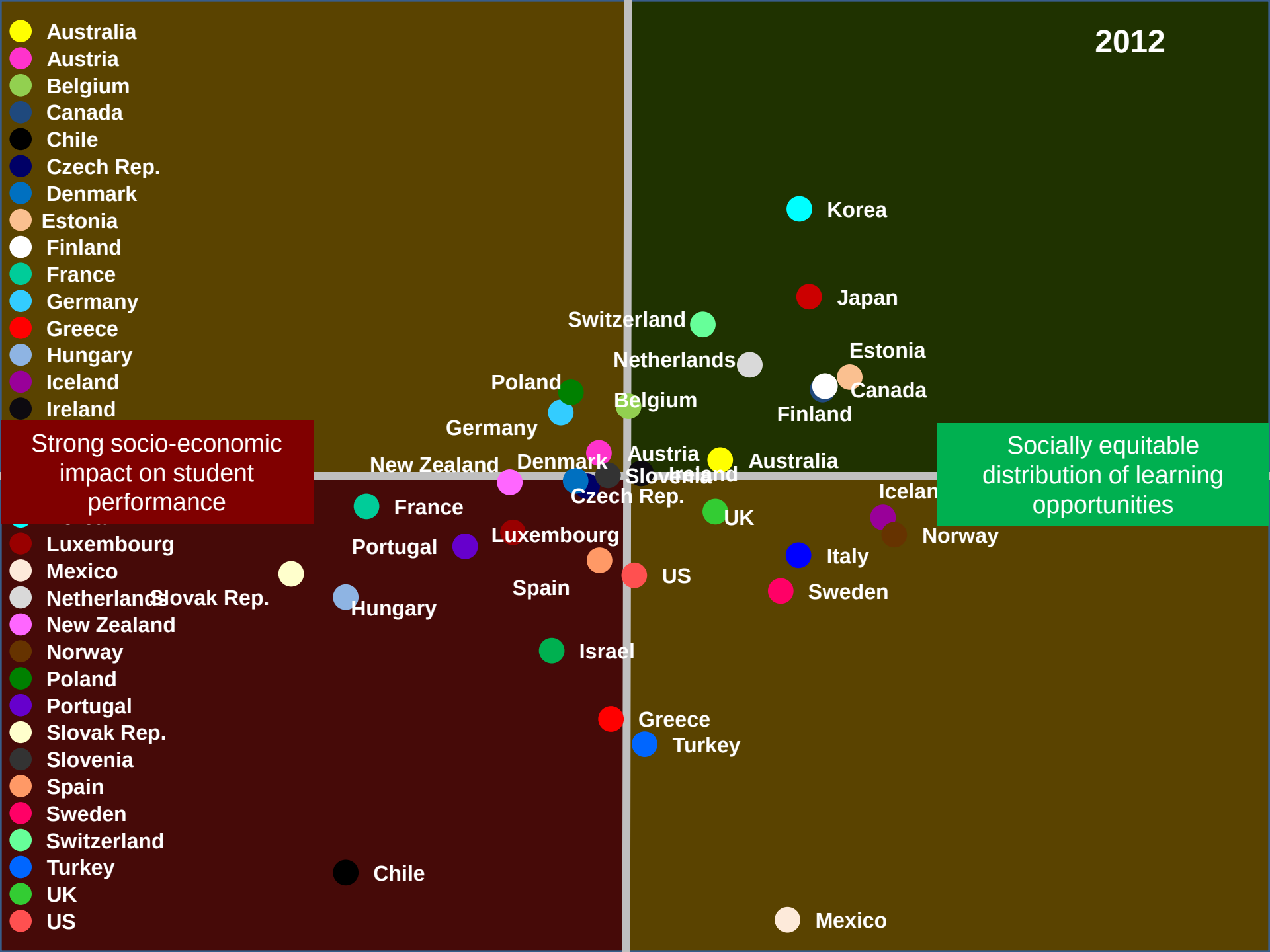
Fig I.2.13

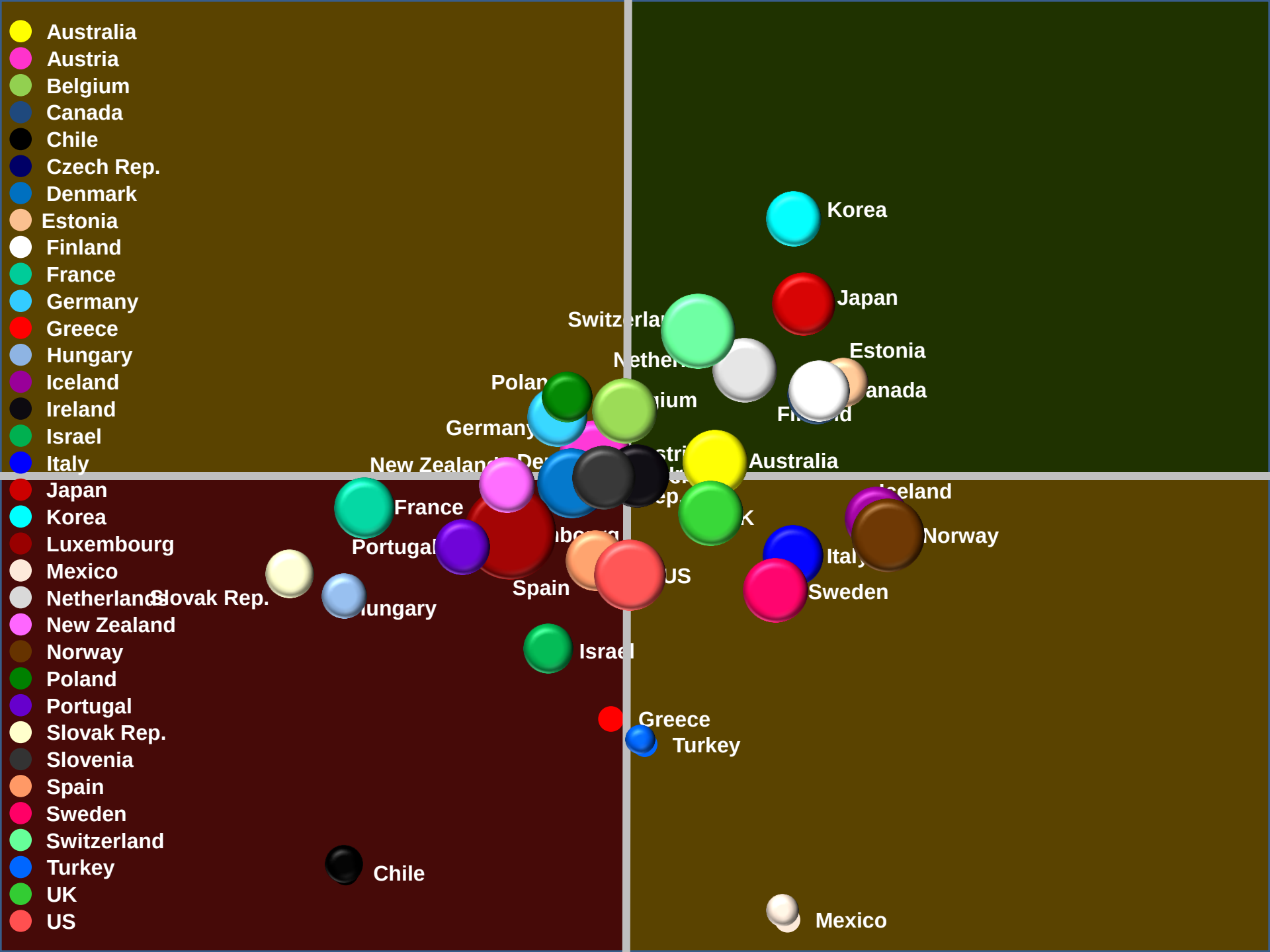
... 12 countries perform below this line

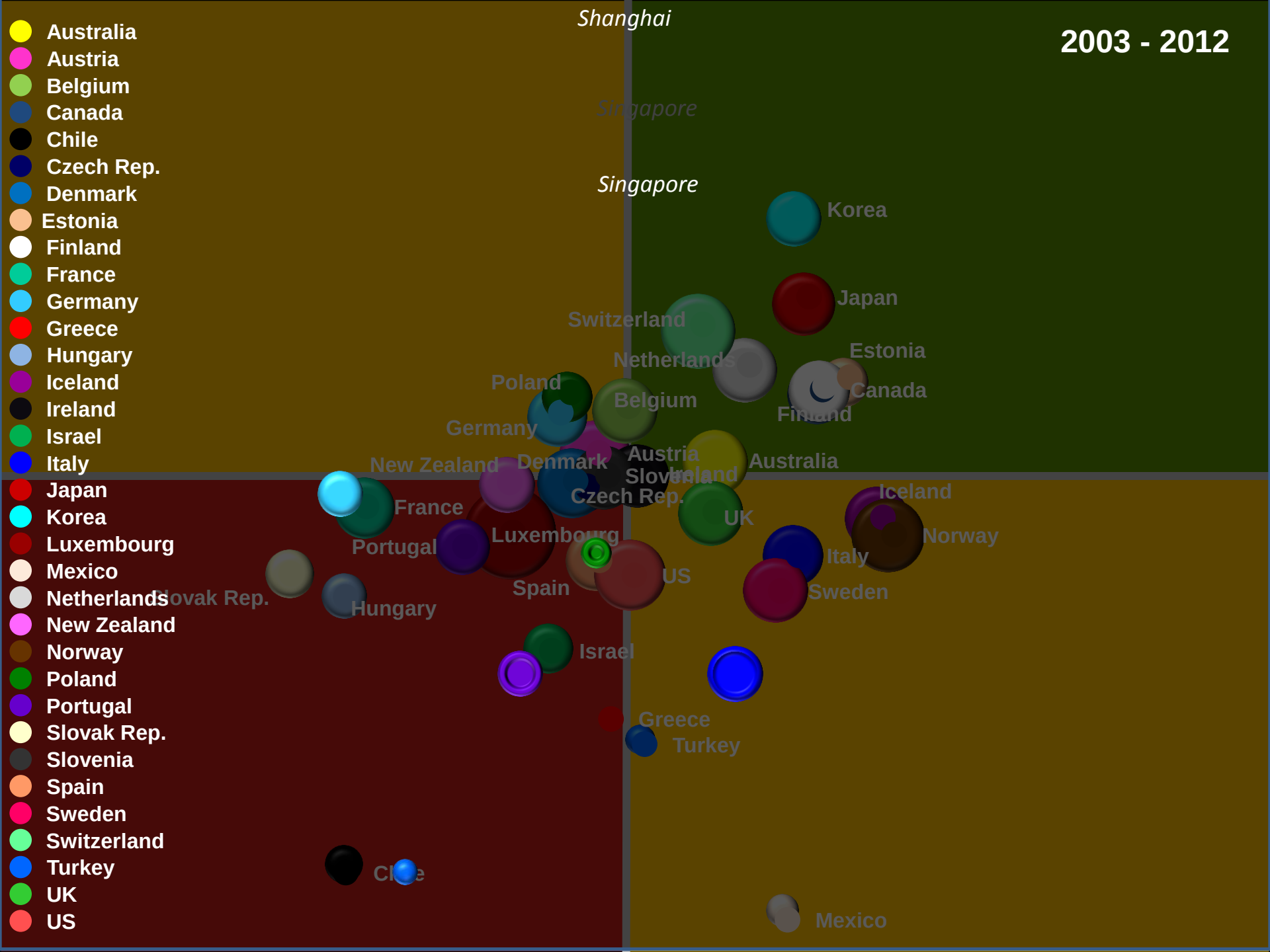
Low mathematics performance


High mathematics performance
Average performance of 15-year-olds in mathematics
Singapore
Chinese Taipei
Hong Kong-China
Korea
Macao-China
Japan
Liechtenstein
Switzerland
Netherlands
Estonia
Finland
Poland
Canada
Belgium
Germany
Viet Nam
Austria
Australia
Slovenia
Ireland
Strong socio-economic impact on student performance
Socially equitable distribution of learning opportunities
New Zealand
Denmark
United Kingdom
Czech Republic
France
Iceland
Latvia
Luxembourg
Norway
Portugal
Spain
Italy
Slovak Republic
United States
Russian Fed.
Lithuania
Hungary
Sweden
Croatia
Israel
Greece
Serbia
Turkey
Romania
Bulgaria
U.A.E.
Kazakhstan
Thailand
Chile
Malaysia
Mexico
Low mathematics performance

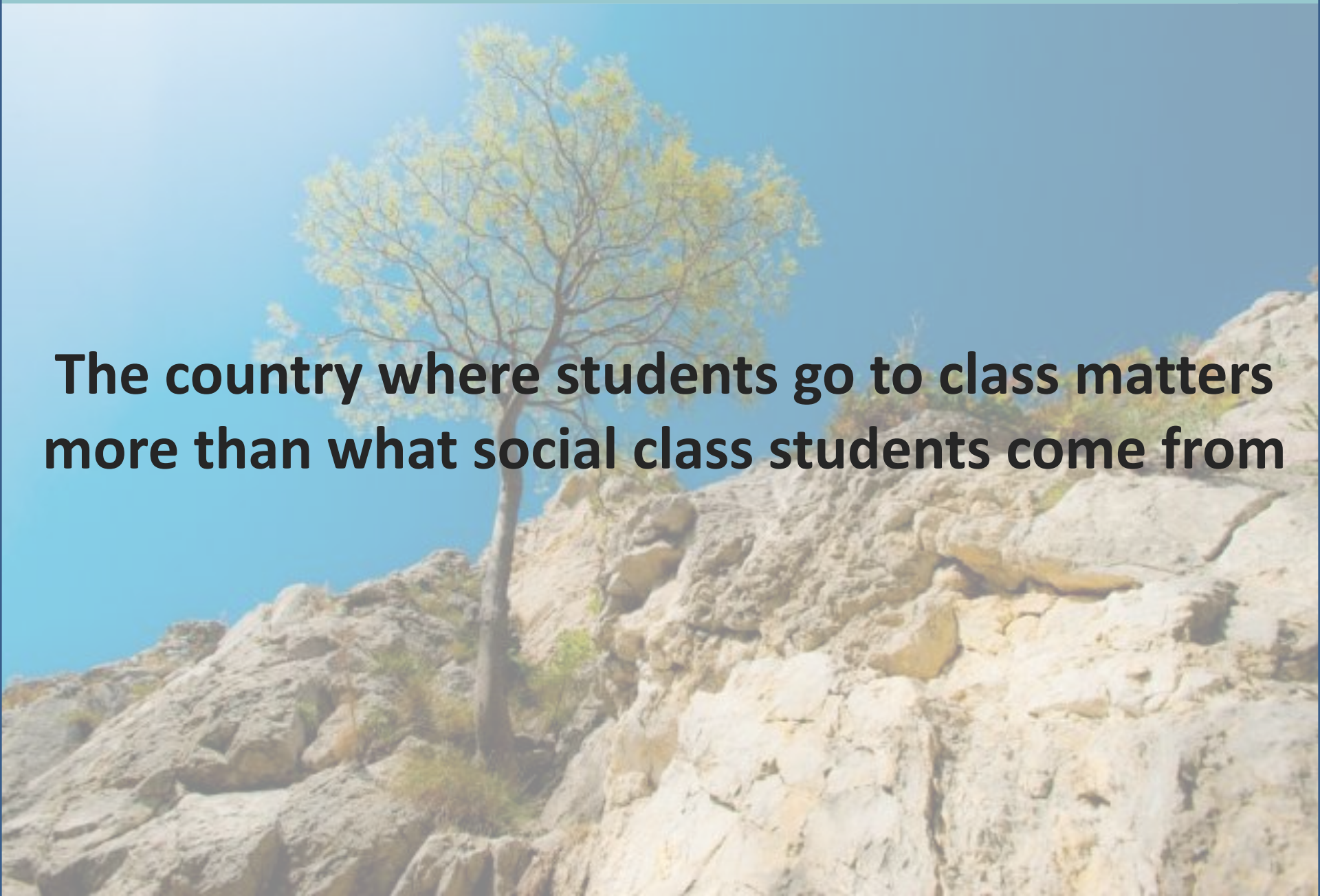

2012
Singapore
Chinese Taipei
Hong Kong-China
Korea
Macao-China
Japan
Switzerland
Liechtenstein
Netherlands
Estonia
Poland
Canada
Belgium
Finland
Germany
Viet Nam
Strong socio-economic impact on student performance
Zealand
Denmark
Austria
Australia
Slovenia
Ireland
Socially equitable distribution of learning opportunities
Czech Rep.
Iceland
20
18
16
14
12
10
8
6
UK
Latvia
Luxembourg
Norway
Portugal
Italy
Russian Fed.
US
Spain
Lithuania
Sweden
Slovak Rep.
Hungary
Croatia
Israel
Greece
Serbia
Turkey
Romania
United Arab Emirates
Bulgaria
Kazakhstan
Thailand
Chile
Malaysia
Mexico


2012
Australia
Austria
Belgium
Canada
Chile
Czech Rep.
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland
Luxembourg
Mexico
Netherlands
New Zealand
Norway
Poland
Portugal
Slovak Rep.
Slovenia
Spain
Sweden
Switzerland
Turkey
UK
US
Strong socio-economic impact on student performance
Socially equitable distribution of learning opportunities
Korea
Japan
Switzerland
Netherlands
Estonia
Canada
Finland
Poland
Belgium
Germany
Austria
Australia
New Zealand
Denmark
Slovenia
Ireland
Czech Rep.
France
UK
Luxembourg
Portugal
Italy
Mexico
Slovak Rep.
Spain
US
Sweden
Hungary
Israel
Greece
Turkey
Chile
Mexico


Australia
Austria
Belgium
Canada
Chile
Czech Rep.
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Japan
Korea
Luxembourg
Mexico
Netherlands
New Zealand
Norway
Poland
Portugal
Slovak Rep.
Slovenia
Spain
Sweden
Switzerland
Turkey
UK
US
Korea
Japan
Estonia
Germany
Australia
France
Portugal
Spain
Slovak Rep.
Israel
Greece
Turkey
Chile
Mexico
Norway
Italy
Sweden

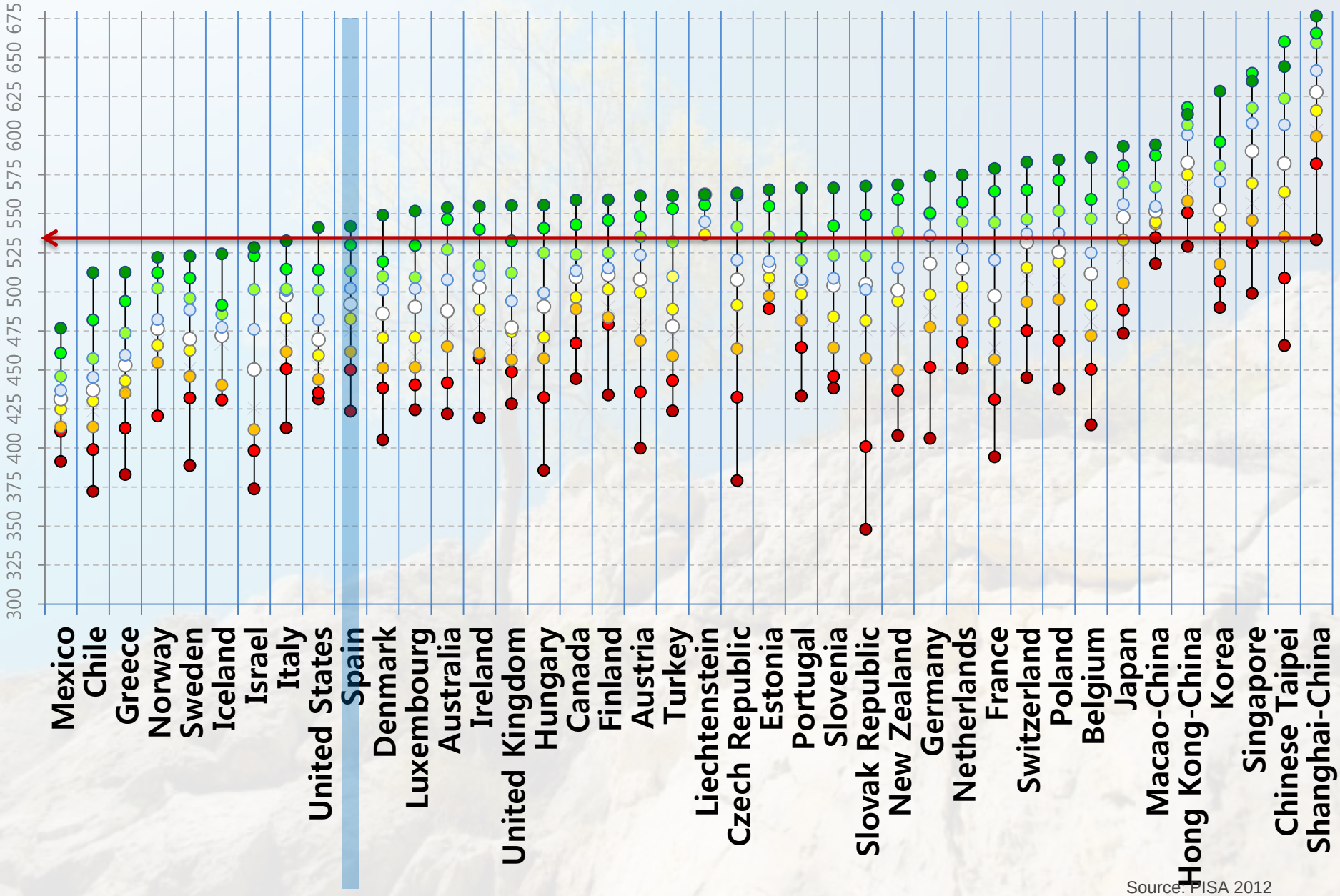

Australia
Austria
Belgium
Canada
Chile
Czech Rep.
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Japan
Korea
Luxembourg
Mexico
Netherlands
New Zealand
Norway
Poland
Portugal
Slovak Rep.
Slovenia
Spain
Sweden
Switzerland
Turkey
UK
US
Shanghai
Singapore
Singapore
2003 - 2012
Korea
Japan
Switzerland
Estonia
Netherlands
Canada
Poland
Belgium
Finland
Germany
Austria
Australia
New Zealand
Denmark
Slovenia
Ireland
Czech Rep.
Iceland
France
UK
Luxembourg
Norway
Portugal
Italy
US
Spain
Sweden
Slovak Rep.
Hungary
Israel
Greece
Turkey
Mexico

Fostering resilience



The country where students go to class matters more than what social class students come from

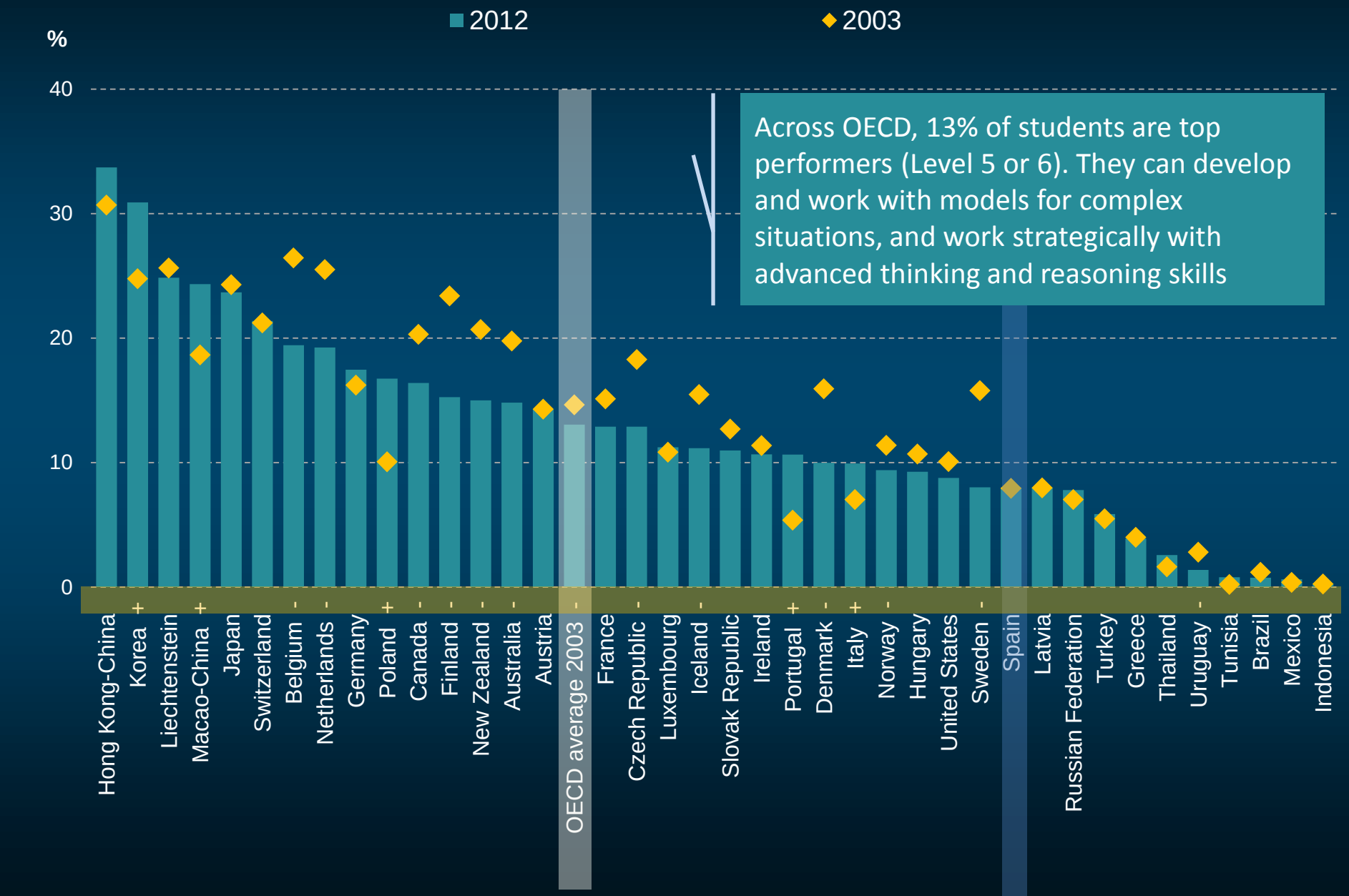
PISA mathematics performance by decile of social background



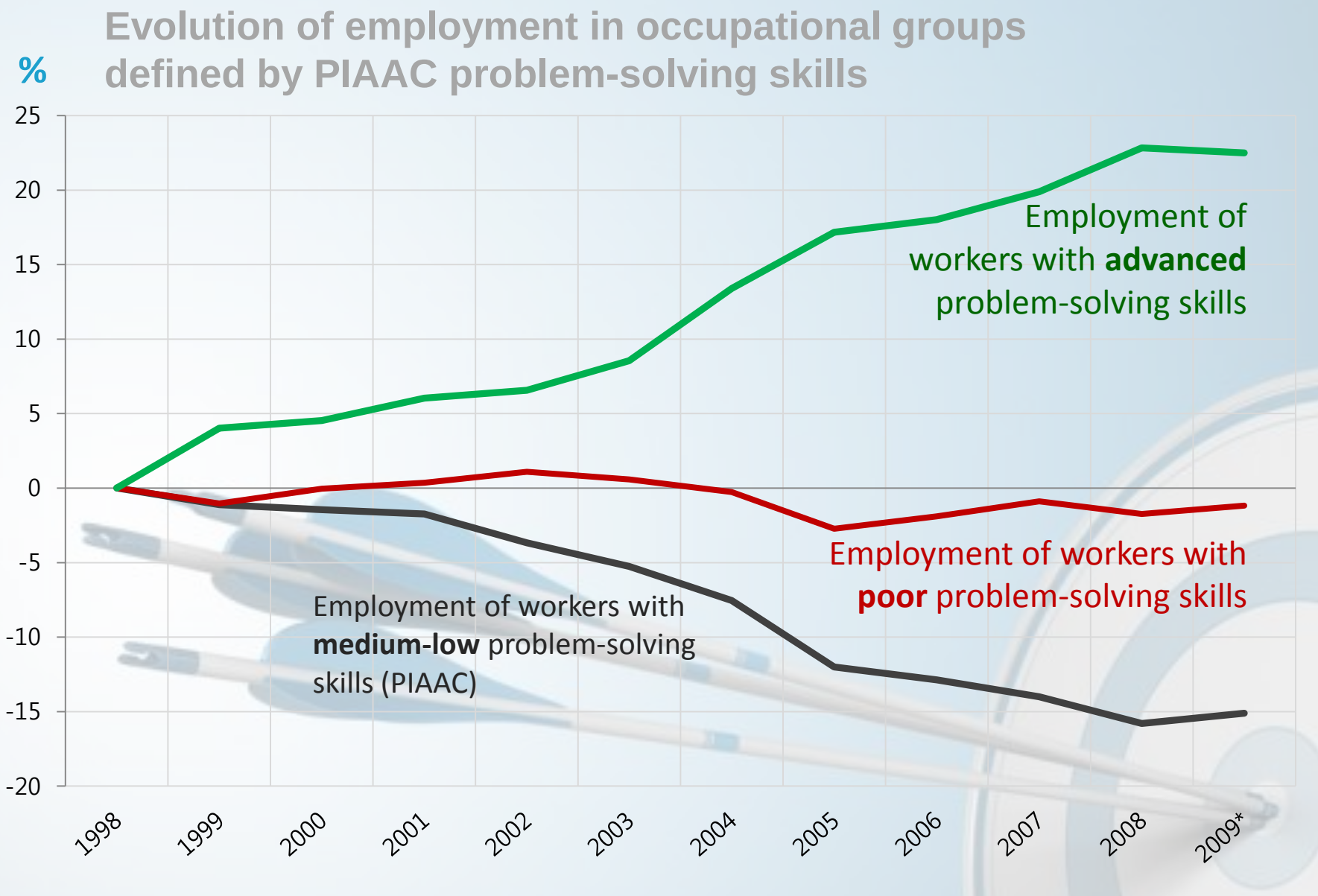
Source: PISA 2012

Percentage of top performers in mathematics in 2003 and 2012

Fig I.2.23



Why care about advanced skills?



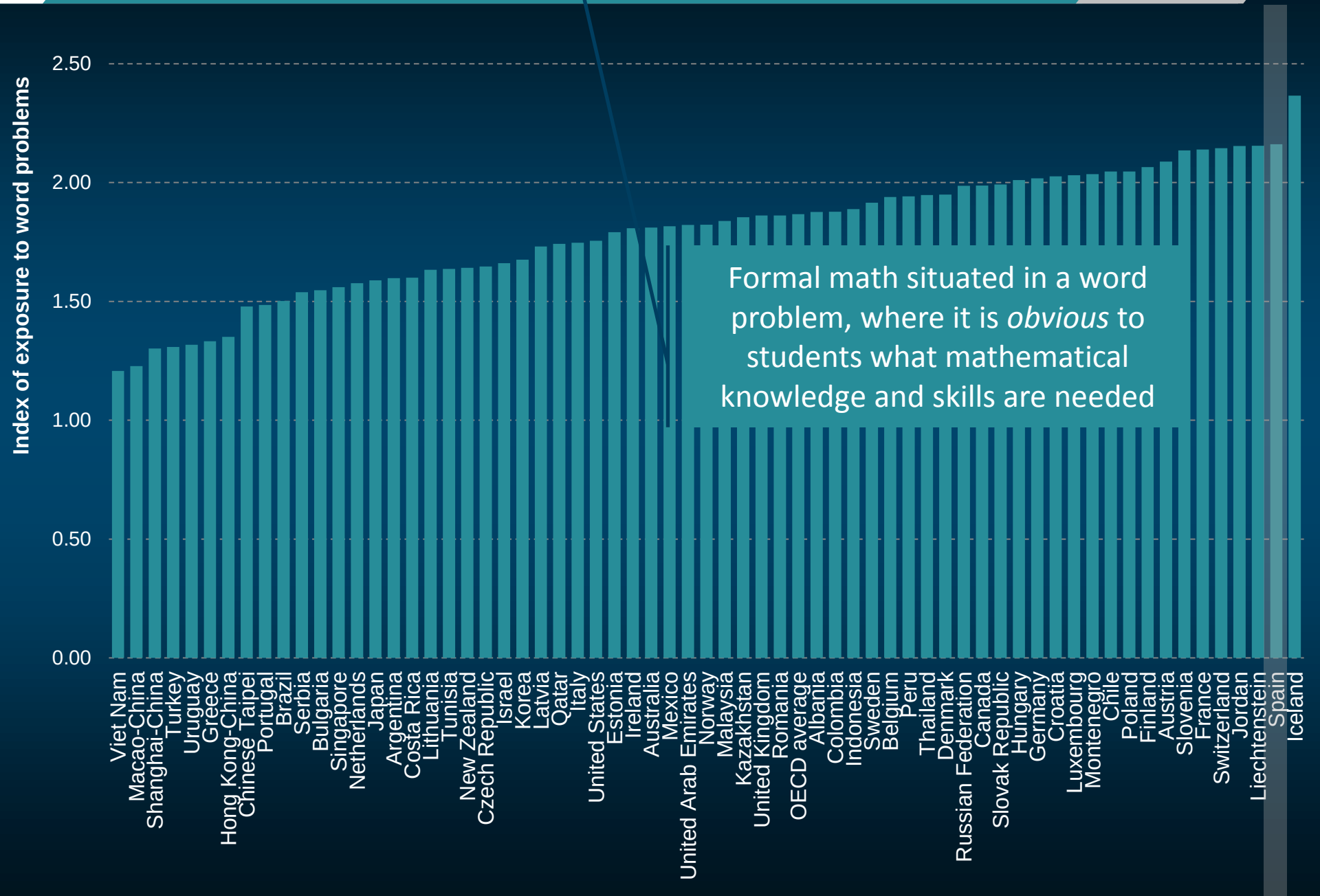
Source:PIAAC 2011

Math teaching ≠ math teaching

PISA = reason mathematically and understand, formulate, employ and interpret mathematical concepts, facts and procedures

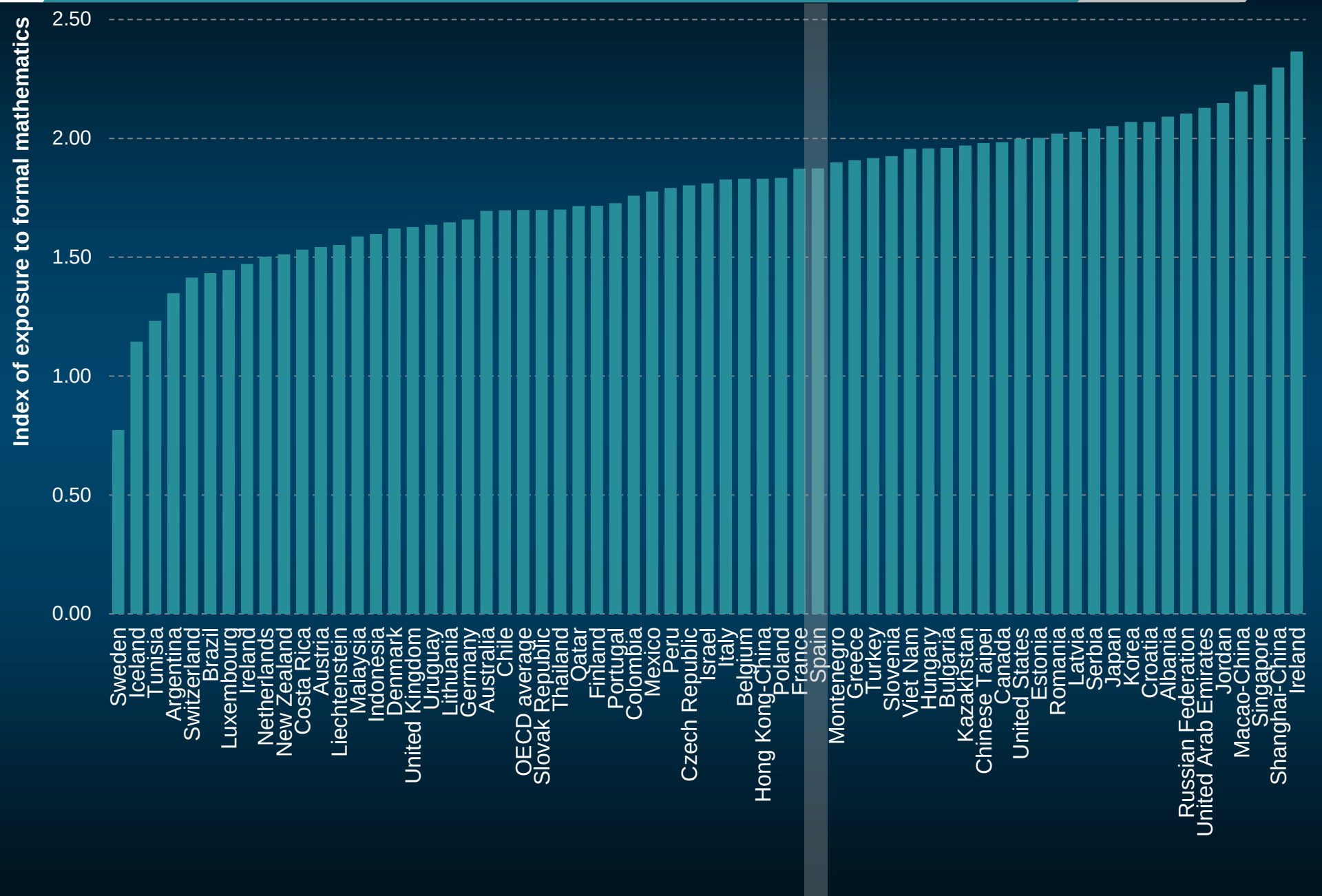
Focus on word problems

Fig I.3.1a



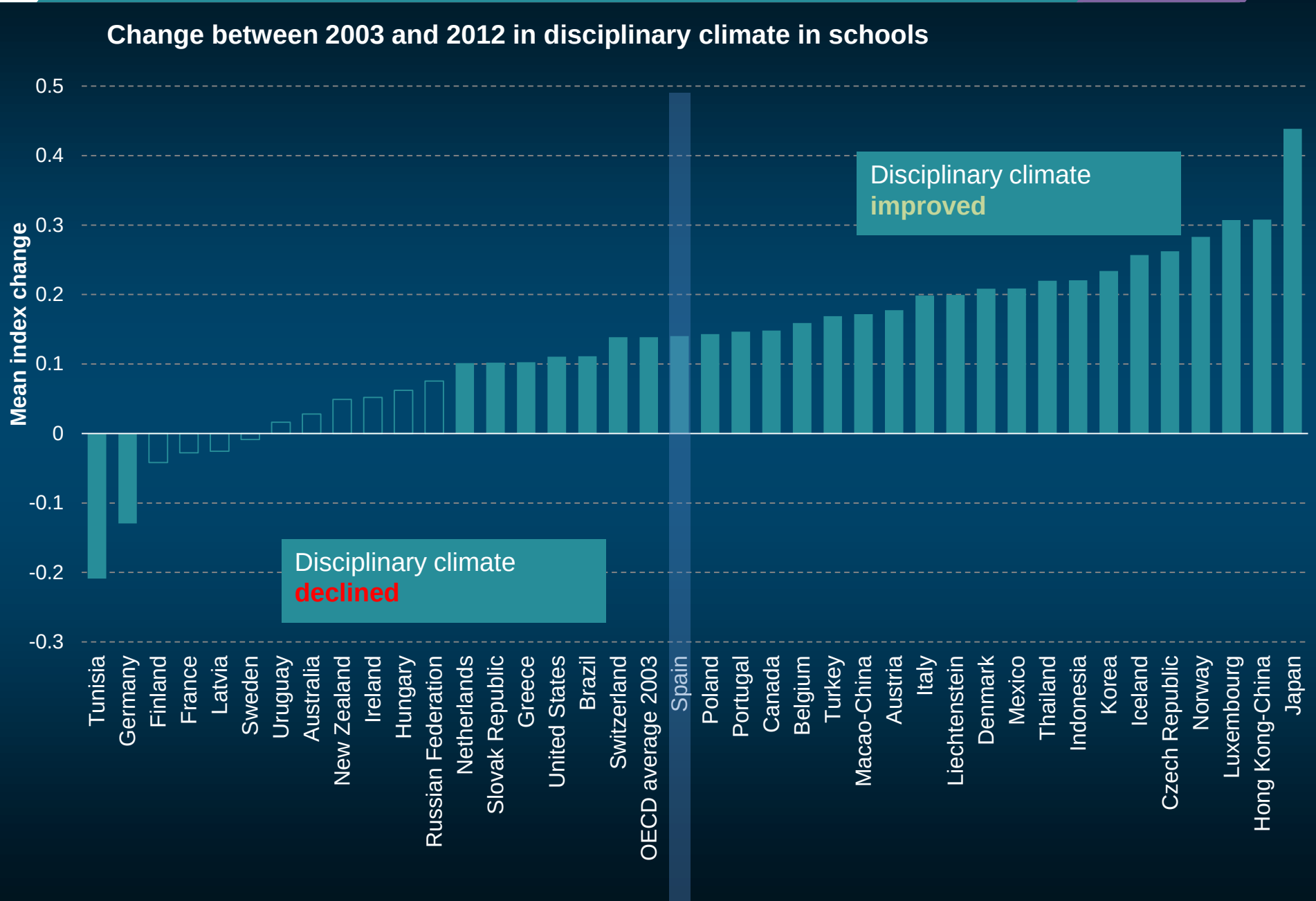
Focus on conceptual understanding

Fig I.3.1b



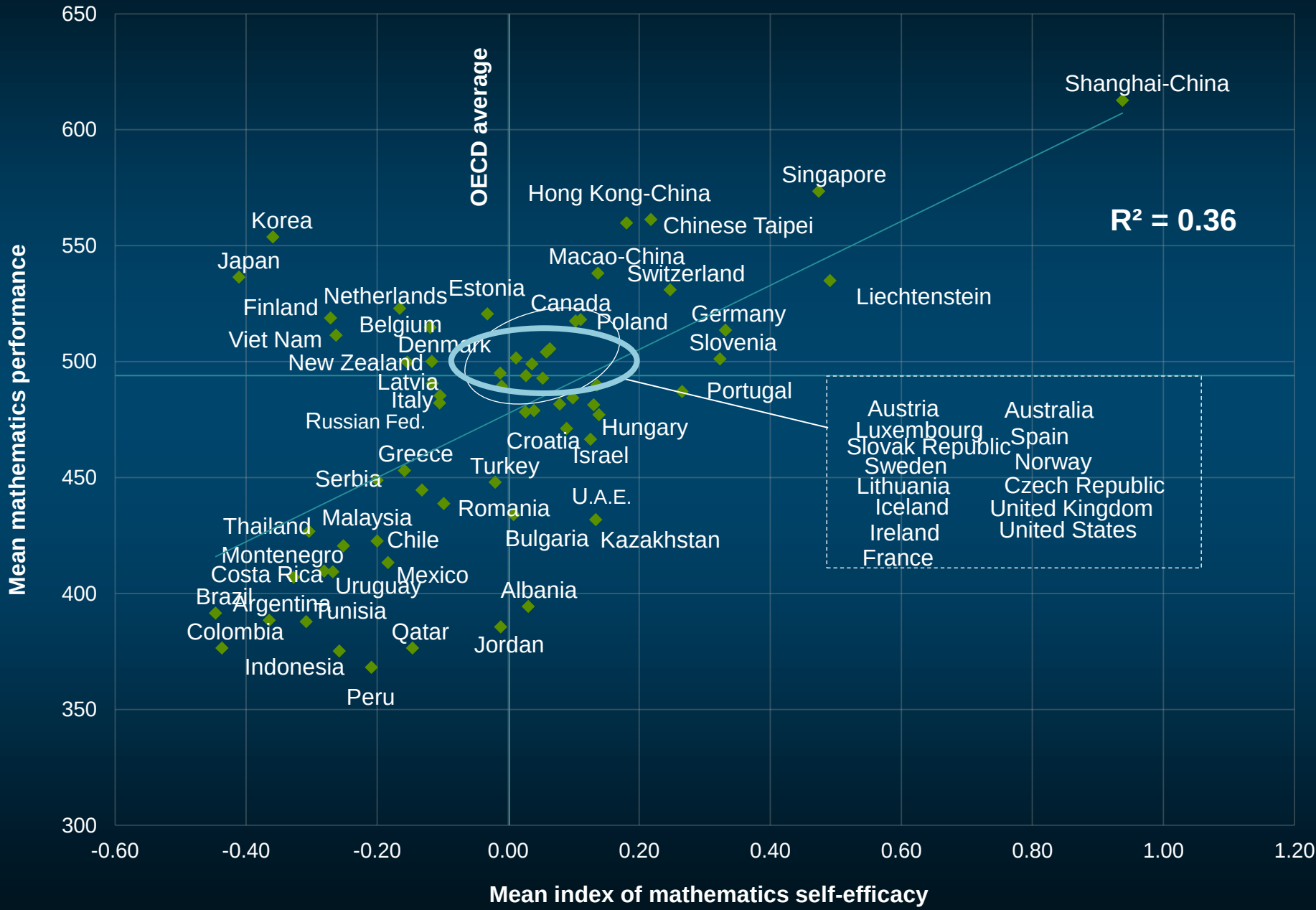
In most countries and economies, the disciplinary climate in schools improved between 2003 and 2012

Fig IV.5.13

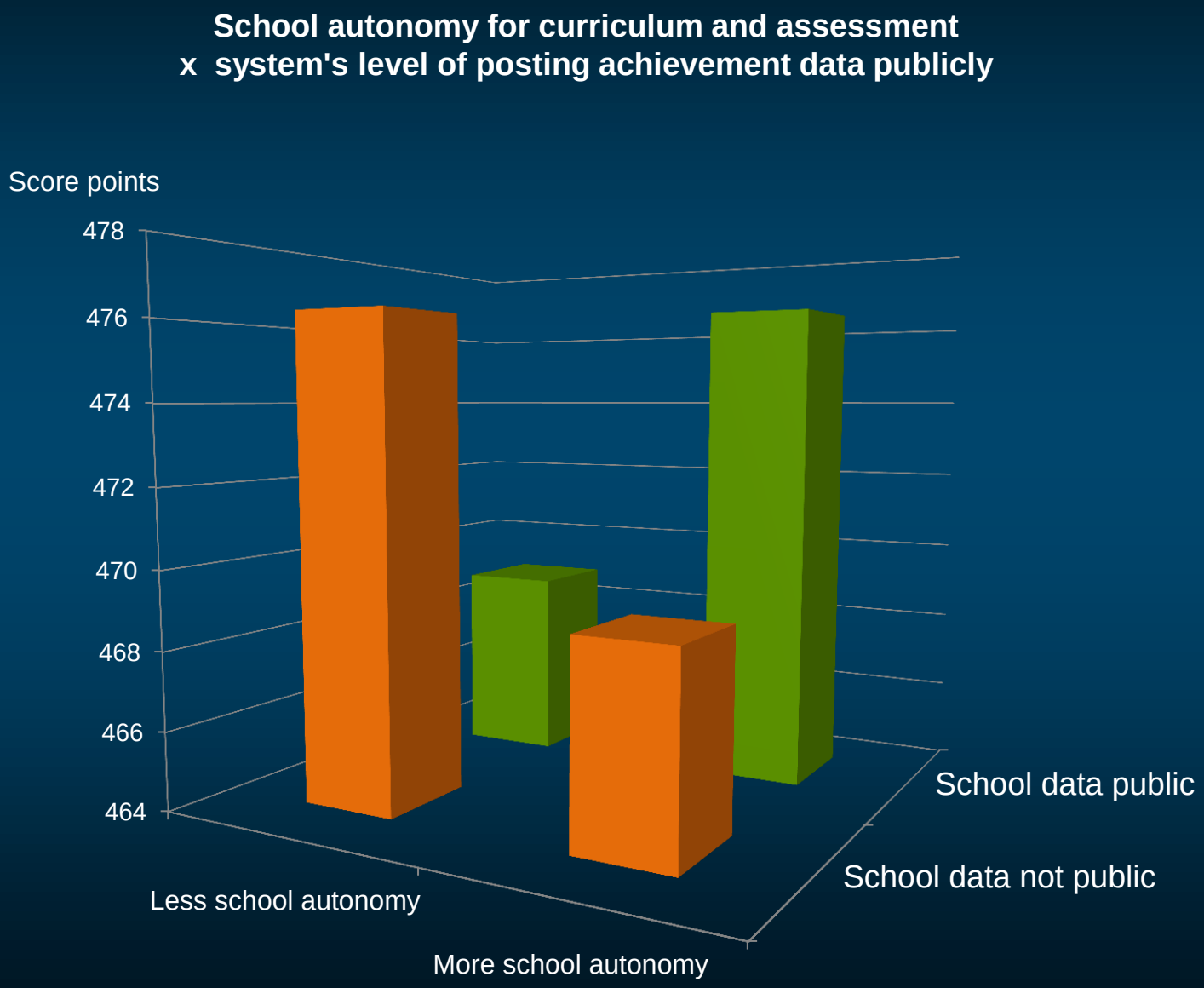


Countries where students have stronger beliefs in their abilities perform better in mathematics

Fig III.4.5



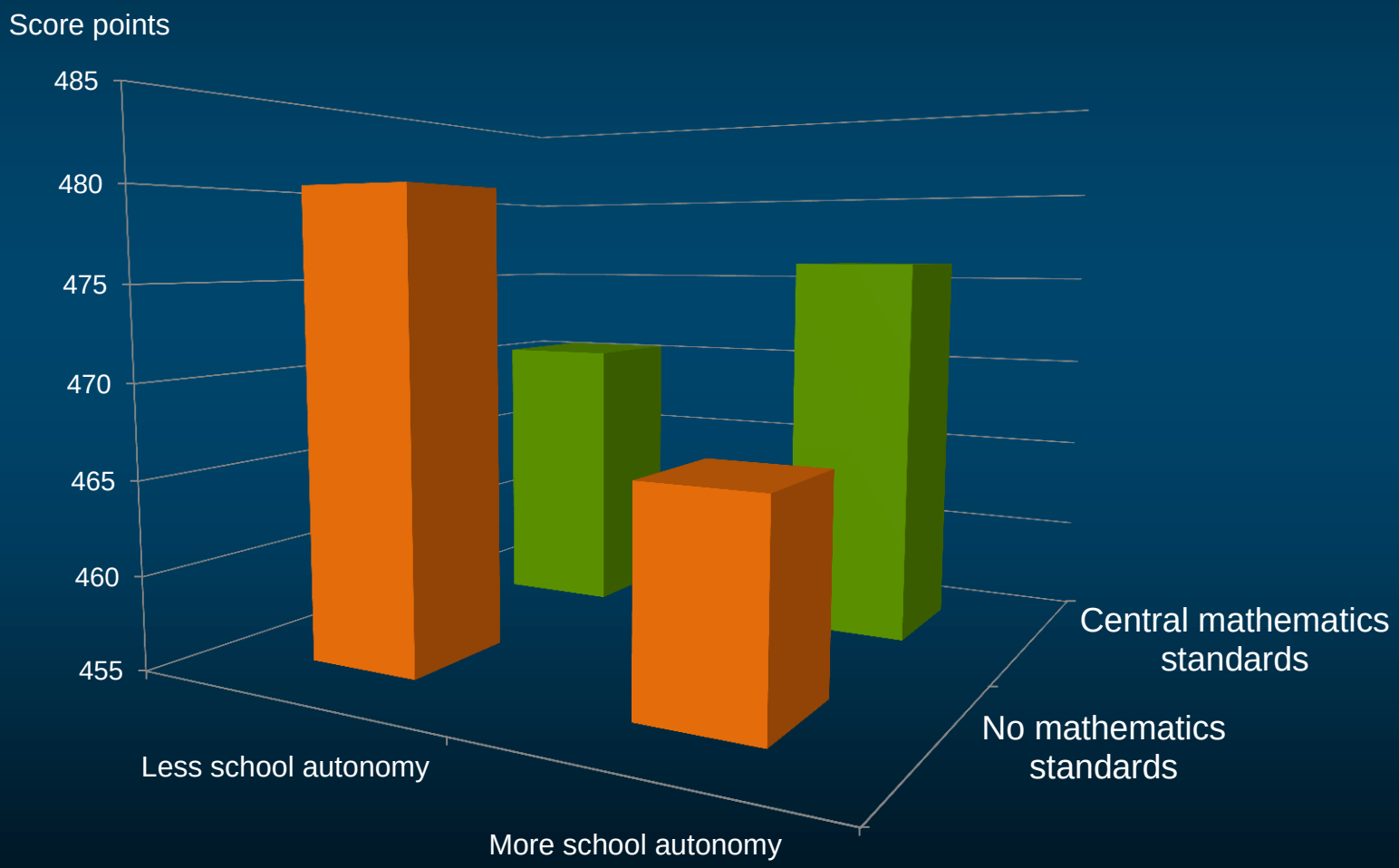
Schools with more autonomy perform better than schools with less autonomy in systems with more accountability arrangements



Schools with more autonomy perform better than schools with less autonomy in systems with more accountability arrangements

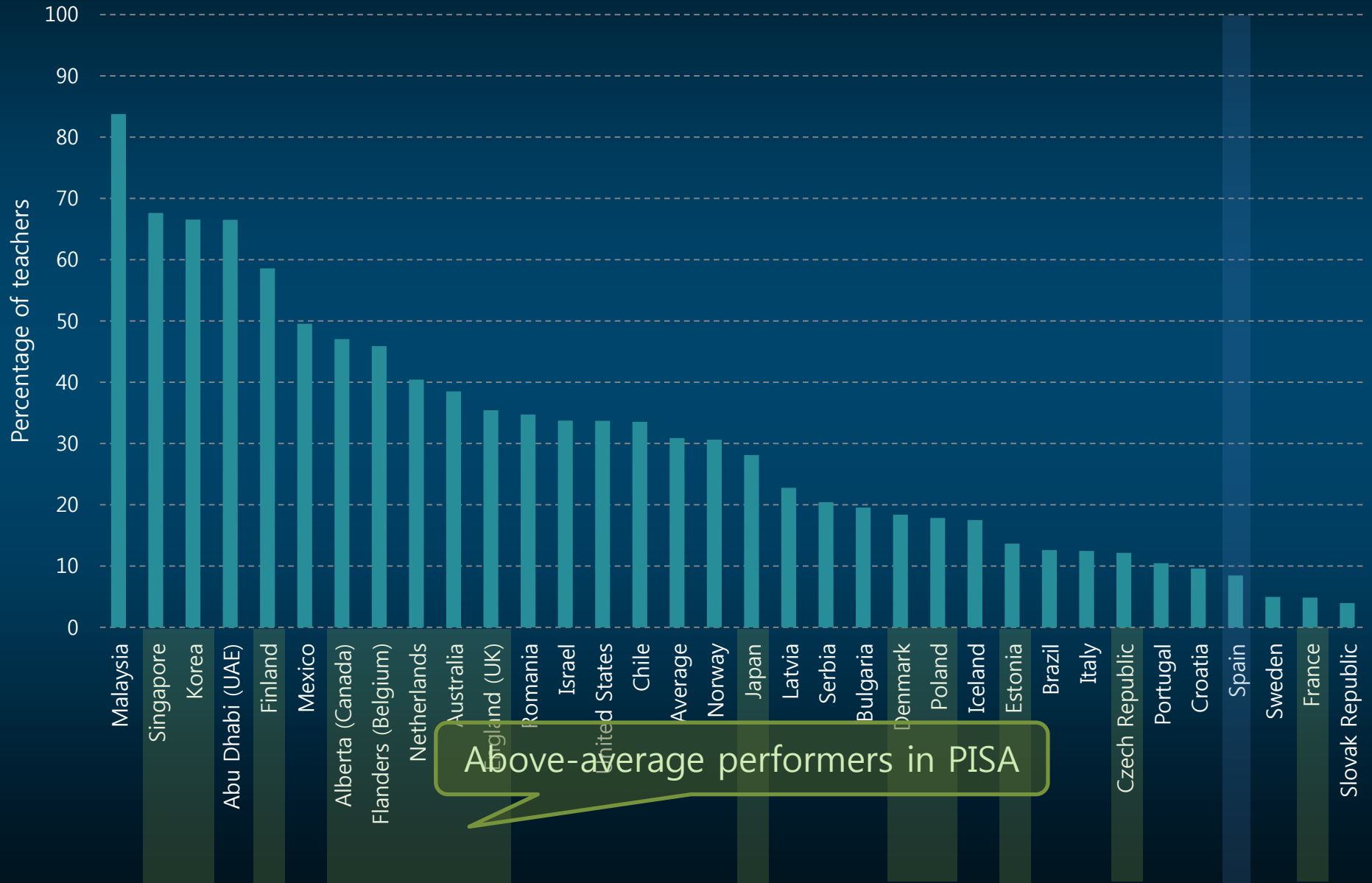
Fig IV.1.16

School autonomy for curriculum and assessment x System's extent of implementing a standardised policy



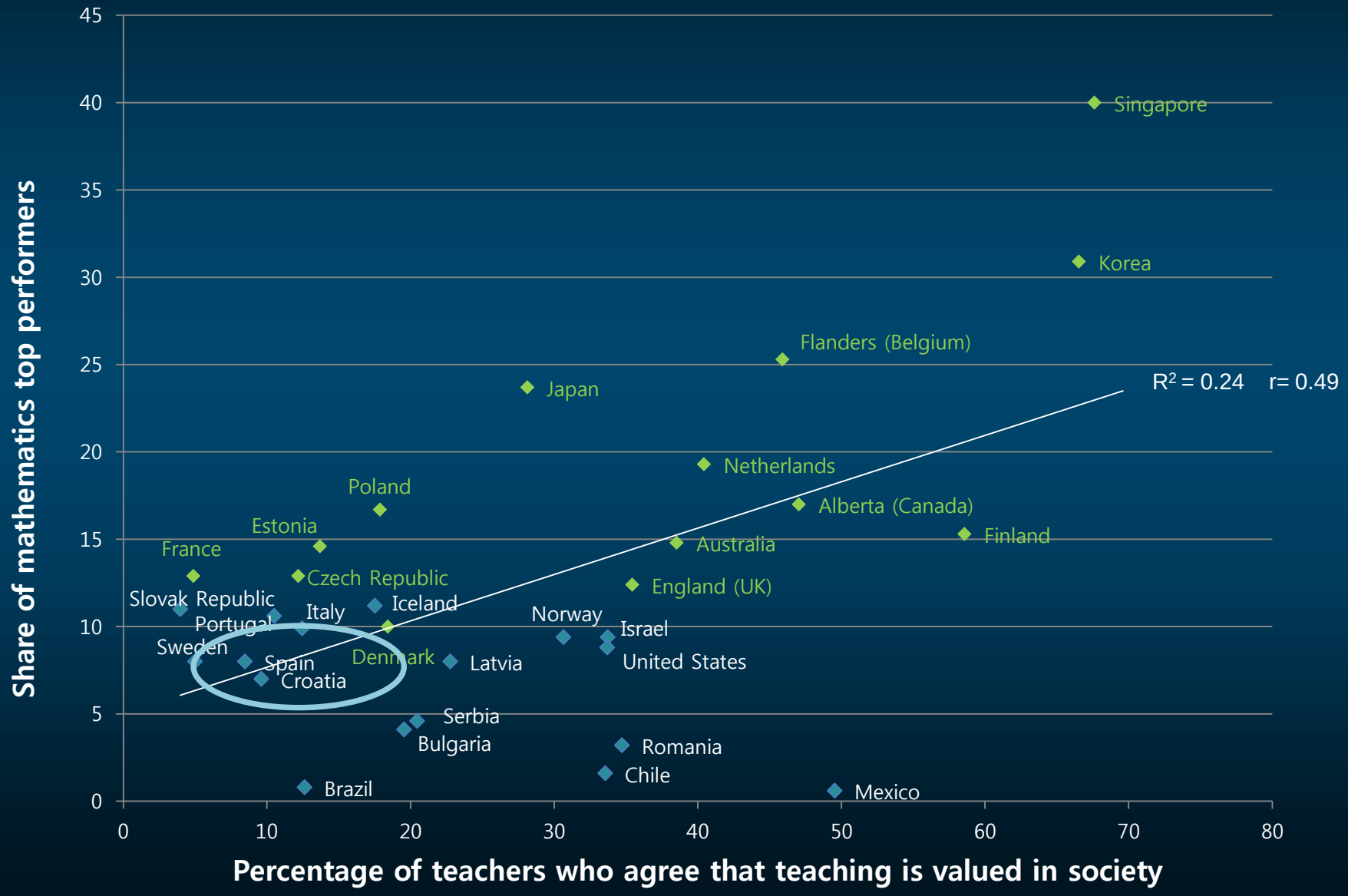
Teachers' perceptions of the value of teaching

Percentage of lower secondary teachers who "agree" or "strongly agree" that teaching profession is a valued profession in society



Countries where teachers believe their profession is valued show higher levels of student achievement

Relationship between lower secondary teachers' views on the value of their profession in society and the country's share of top mathematics performers in PISA 2012



PISA for Schools and PISA

PISA and PISA for Schools measure the skills needed for future life of 15 years around the world

PISA para centros educativos

PISA for Schools

PIS

COMPARABLE

Shows how well *a country* is performing

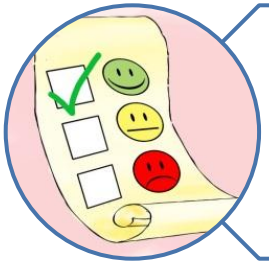
Shows how well *a school* is performing

PISA for Schools - Objectives

Provide information about how schools are performing	How are students performing in maths, science and reading - in an international context?
	How conducive is the school environment and student motivation to learning?
	How do these contextual factors shape learning?
Provide a backdrop for setting goals and planning improvements	What levels do we want our students to reach? The benchmark is no longer national standards alone.
	What can be learnt from higher-performing school and school systems?

PISA for Schools instruments and data

Cognitive test: reading. mathematics and science



Student questionnaire: Socio-demographic factors and students attitudes

School questionnaire: school characteristics

PISA for Schools in Spain

Pilot 2013-2014

First administration 2015-2016

Results from PISA for Schools

Understand the data provided in the school report

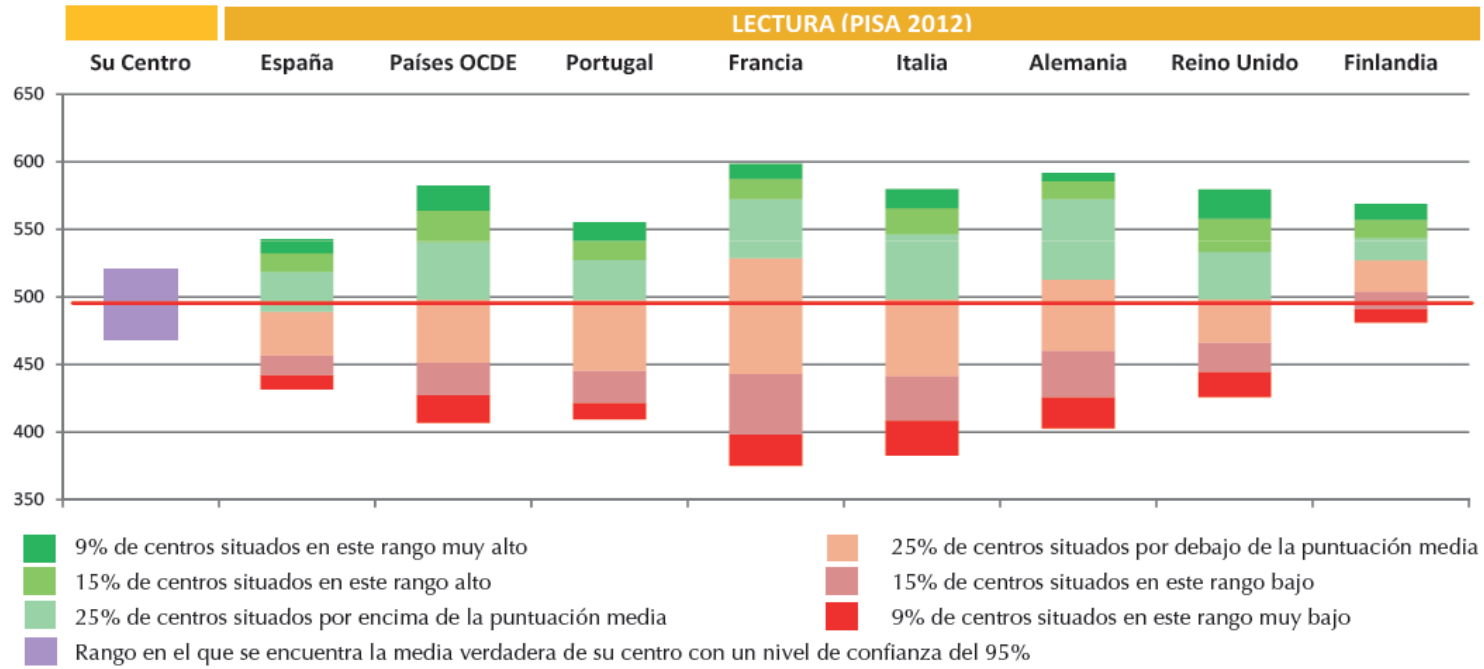
My school results

Identifying areas to work on in the future

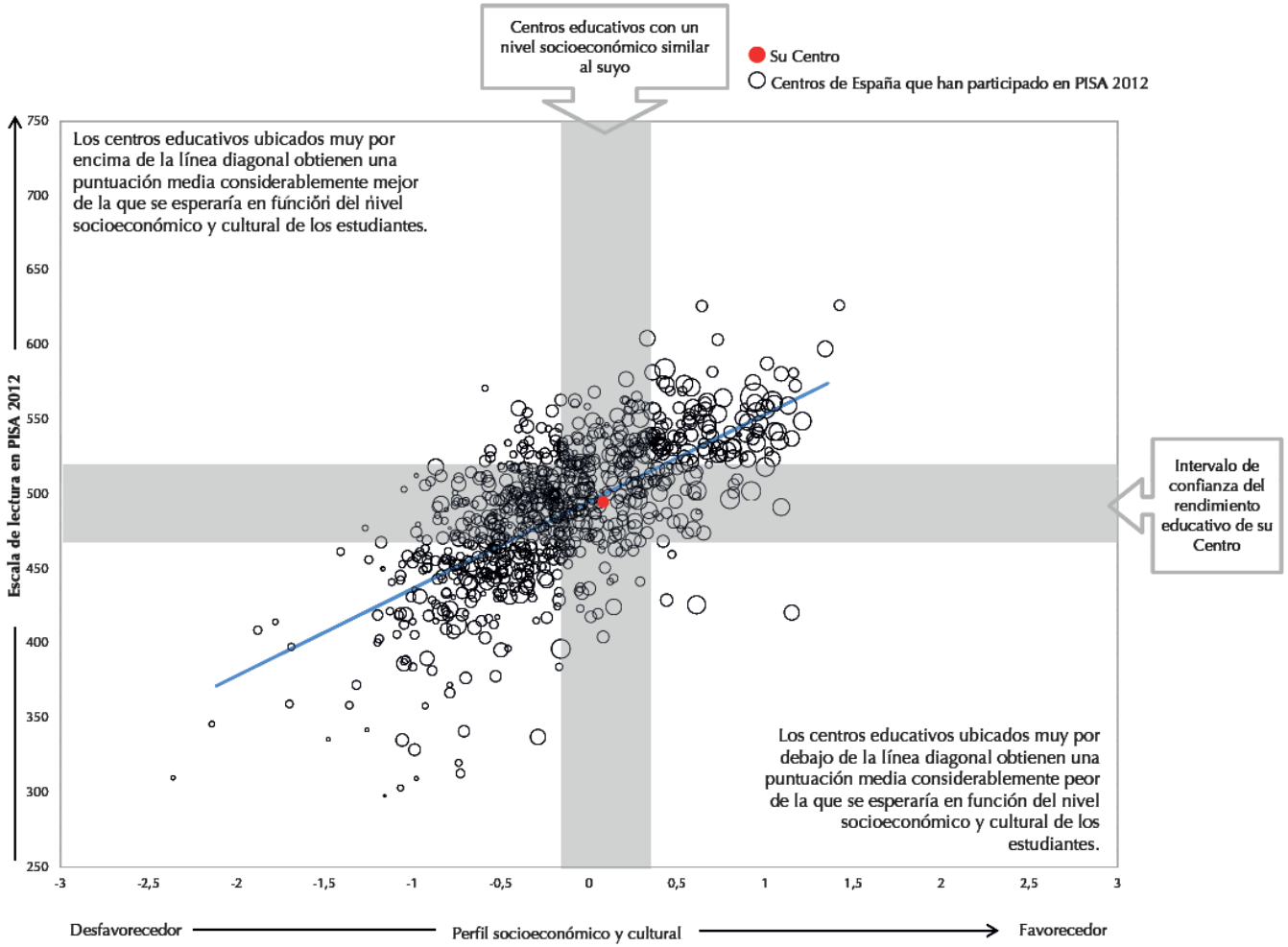
Planning Improvements

Reading performance

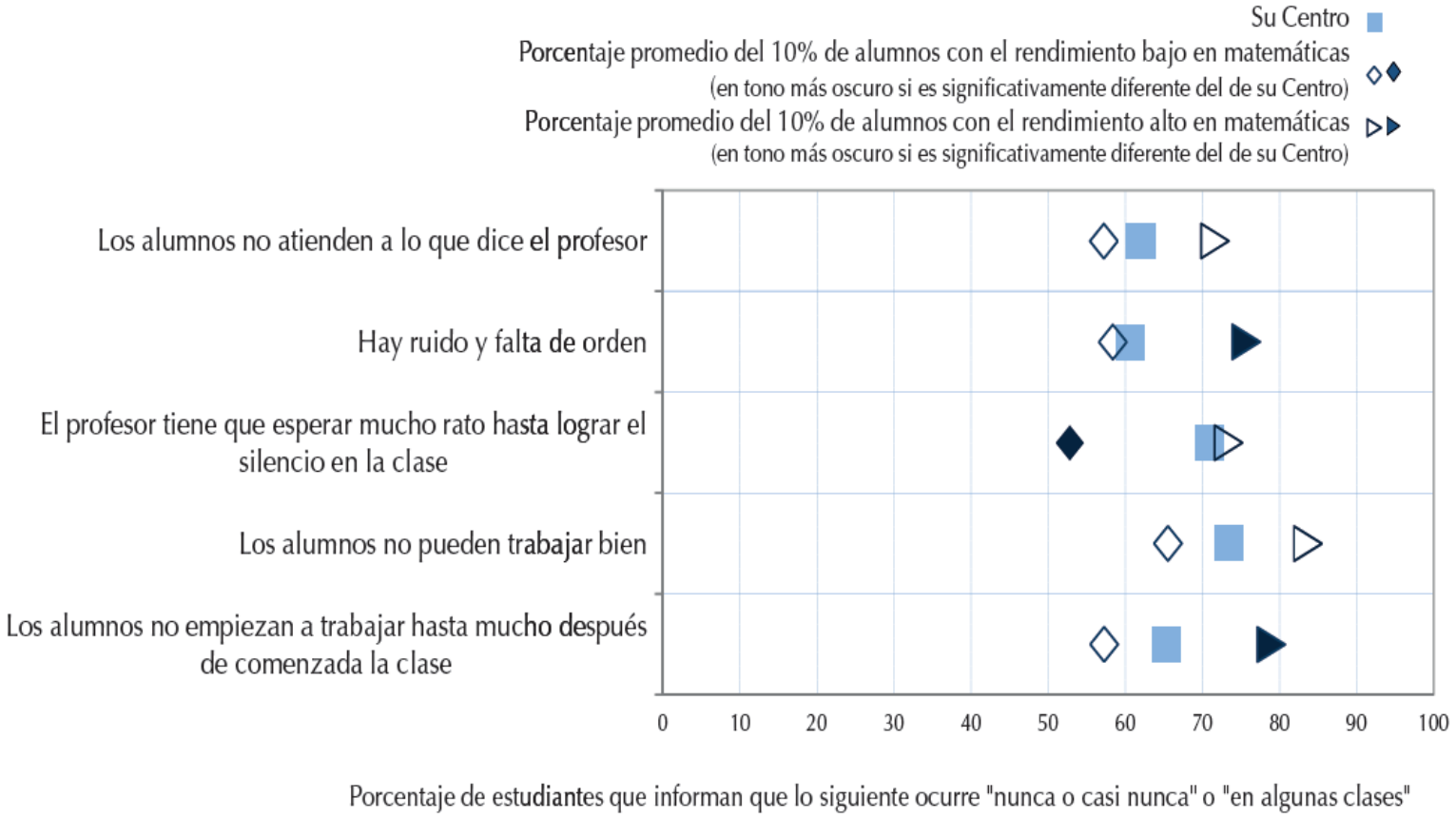
Gráfico 5.2 ▪ **Dónde se sitúa su centro en relación con los centros de otros países seleccionados en lectura en el PISA 2012**



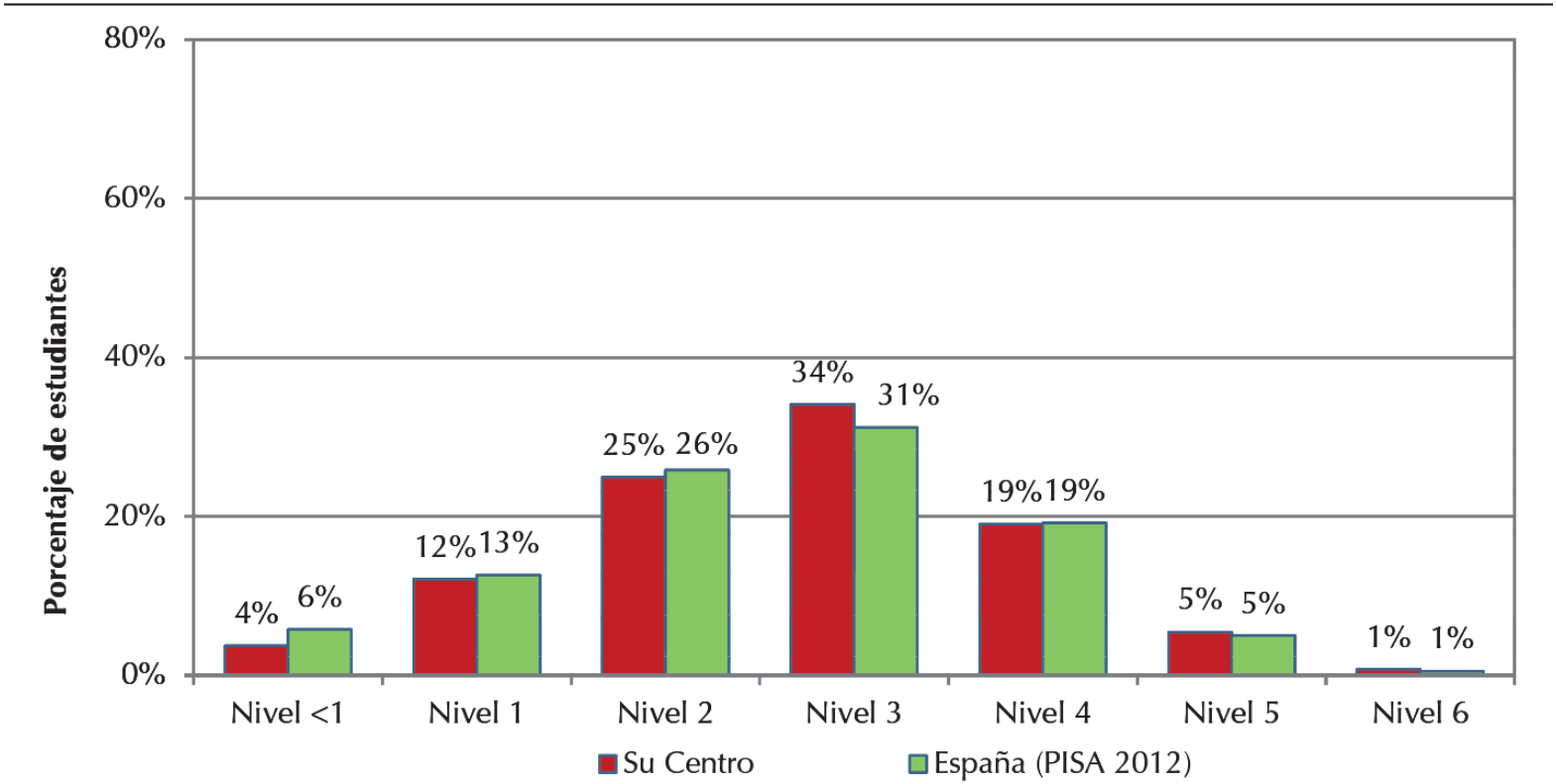
Socio-economic background



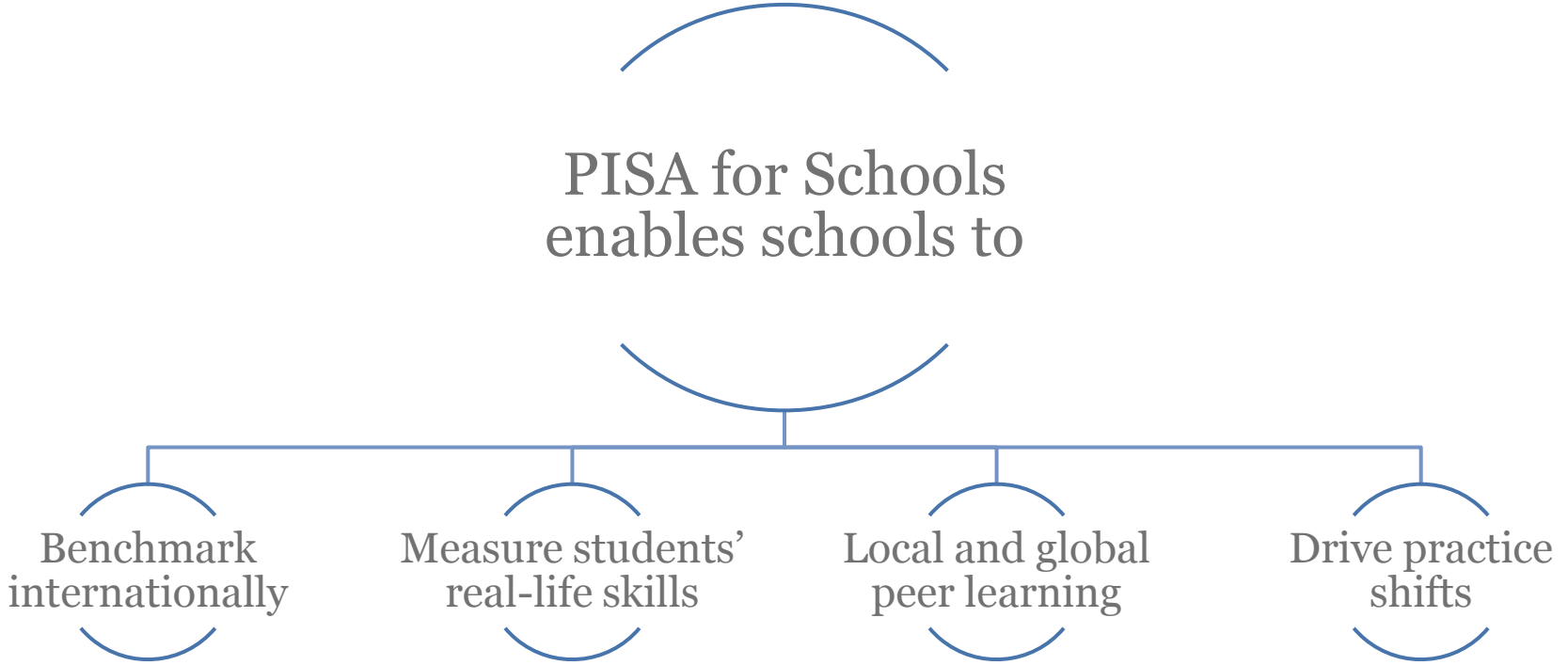
Disciplinary climate



Proficiency levels



What schools use the assessment for



Thank you for your attention!

OCDE

MEJORES POLÍTICAS
PARA UNA VIDA MEJOR