

A photograph of a woman in the foreground and a man in the background, both smiling. The woman is wearing a pink sleeveless top and has short dark hair. The man is wearing a light blue button-down shirt. The background is a blurred outdoor setting with greenery.

Social Stratification and Educational Inequalities

Tarek Mostafa

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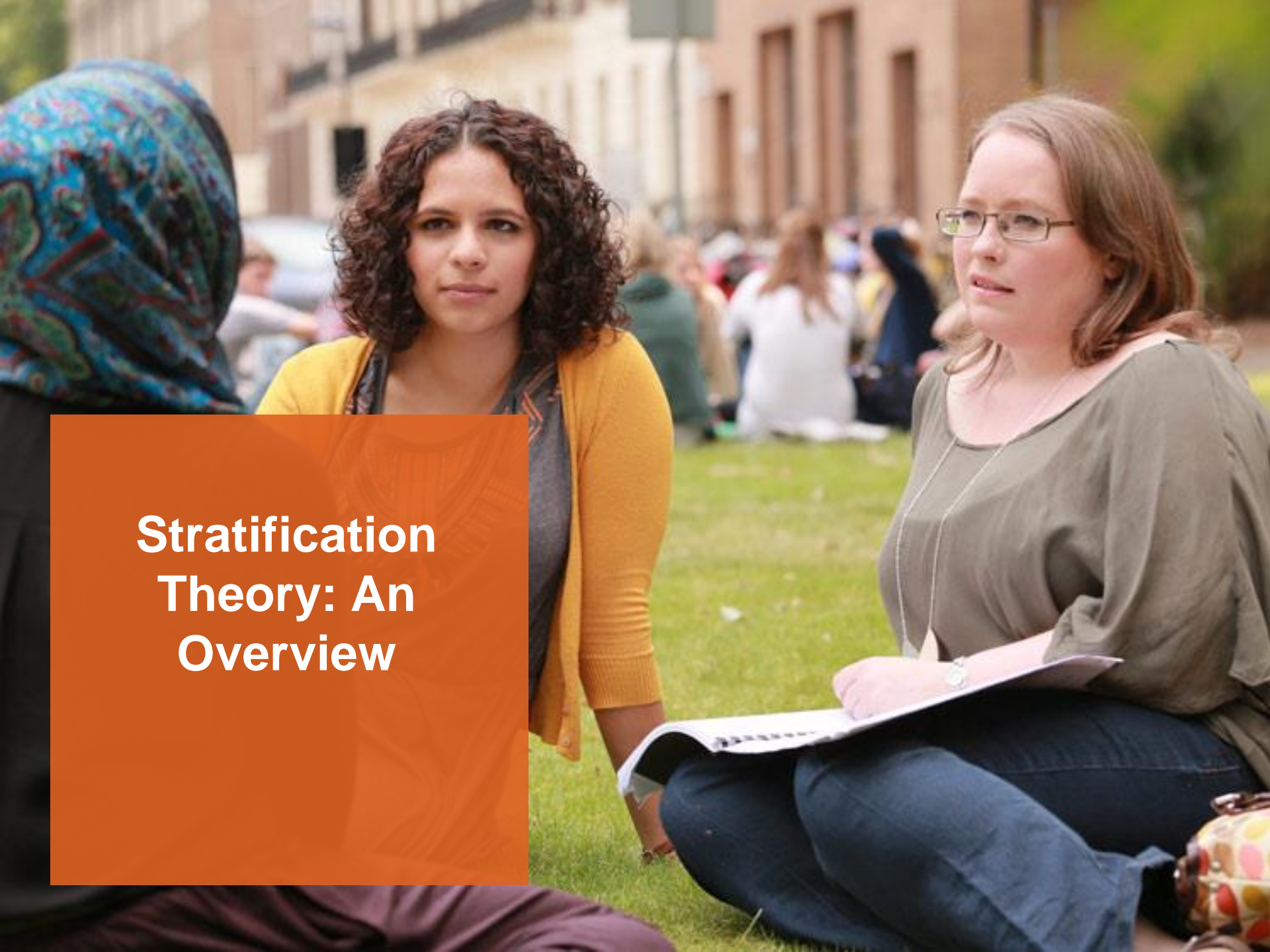
- 1 Stratification: a definition.
- 2 Theories of stratification.
- 3 Stratification and Education.
- 4 Educational Stratification: Empirical evidence.
- 5 Conclusions.
- 6 Policy implications.

Definition:

Socioeconomic stratification is the categorization of people into strata, based on their occupation, income, wealth and social status. As such, stratification is the relative position of persons within a group, category, geographic region, and social unit.

- The word comes from the Latin ‘Stratum’ meaning layer.
- Stratification exists in every society.
- Stratification is reproduced from one generation to another.
- Stratification does not only involve quantitative differences (income, wealth, etc) but also in qualitative ones (attitudes and beliefs).

- Stratification implies unequal access to valued goods: education, employment, housing, consumption, etc.
- The level of stratification depends on each society's history and institutions.
- Stratification is determined by 3 factors:
 - Social institutions which define certain goods as valuable.
 - The rules of allocation of these goods (e.g welfare systems).
 - Social mobility and the ability to move between strata. Open stratification systems are the one that allow mobility (opposed to closed stratification systems, like in caste based societies).



Stratification Theory: An Overview

Max Weber: Three component theory of stratification. This differs from Marxian theory in a number of ways.

- Class: Economic position in society. (Corporate executives: they have economic power without owning their companies).
- Prestige: the respect with which a person is regarded by others. Writers, poets and musicians can social power without owning much capital.
- Power: the ability of people or groups to achieve their goals despite opposition from others. Legislators (e.g. MPs) have political power without necessarily having capital.

Functionalist perspective (Davis and Moore 1945):
Stratification serves an important function in society. In any society, a number of tasks must be accomplished. Some tasks, are relatively simple while others are complicated. Those who perform the difficult tasks are therefore entitled to more power, prestige, and money.

Argument heavily criticized: inequality and stratification are a *cause* of individual success or failure, rather than a consequence of it.

Social stratification can be characterised by a number of dimensions:

- Economic: income, wealth.
- Social: occupation, education, gender, ethnic group, race, and nationality.

In this session we are interested in educational stratification.



Stratification and Education

Stratification in the education system:

Access to education and to educational attainments is a function of social class, economic status, gender, disability, personal preferences, education 'quality', teachers, pedagogy, peer relations, etc.

What are the mechanisms behind educational stratification?

- Residential stratification: people live in neighbourhoods they can afford => Schools reflecting the wealth of the neighbourhood.=>
- Children go to schools with similar peers (similar background).
- If funding is decentralized => school resources will reflect the wealth of their geographical location.
- If teacher hiring is decentralized => better schools will attract wealthier students and better teachers.

- Personal preferences => private, religious, single-sex schools, schools with particular pedagogy, etc. Preferences are also related to social class.

The more the educational system is stratified the more likely it will have larger inequalities.

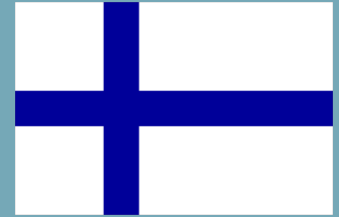
The level of educational stratification and inequalities vary between countries and between systems:

Example

Finland, Germany, UK, Japan, Italy.



Finland



- Highly egalitarian system (homogenous schools).
- Lutheran traditions => universal literacy and state controlled education.
- Social structure: large class of farmers and small bourgeoisie.
- Late selection: 9 to 10 years of all-through comprehensive education.
- Small private sector, and low population density => limited school choice.
- Highly qualified teachers (Masters level).
- Absence of grade repetition

Germany

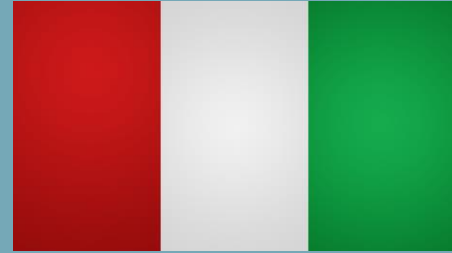


- Early selection (around age 11 or 12)
⇒ exacerbates the impact of social background.
- Federal political system => national reforms are hard to implement => persistence of early selection.
- Important apprenticeship systems oriented towards the labour market.
- Labour market having a high level of coordination allowing for the provision of training at a low cost.



Italy

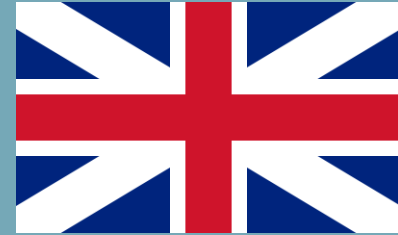
- Most Mediterranean countries have Napoleonic legacies of educational centralisation.
- Relatively old comprehensive lower secondary system and differentiated upper secondary one.
- Grade repetition for low performing students (absence of streaming).
- Limited school choice.





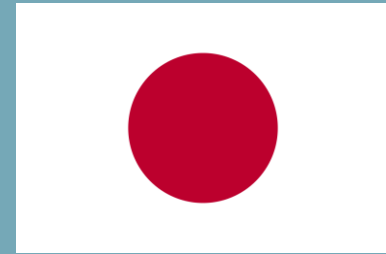
United Kingdom

- Incomplete comprehensivisation due to Introduction of competition under Thatcher.
- Large disparities within countries, between states and between school districts.
- Availability of school choice between different types of schools.
- Elitist private sector.
- School autonomy and differences in curricula, school management, and in streaming practices (setting).





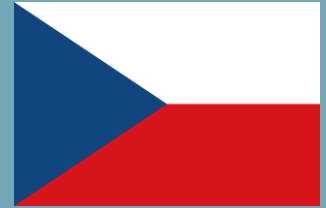
Japan



- Comprehensive compulsory education up to the end of lower secondary schooling.
- Highly stratified (by ability) upper secondary system. 94% of student continue at upper secondary.
- Most teachers have four year degrees.
- Limited autonomy in developing curricula or choosing textbooks.
- Upper secondary => general academic stream and vocational one
- 10% attend private schools up to lower sec, then 29% of student go to private high schools.



Czech Republic

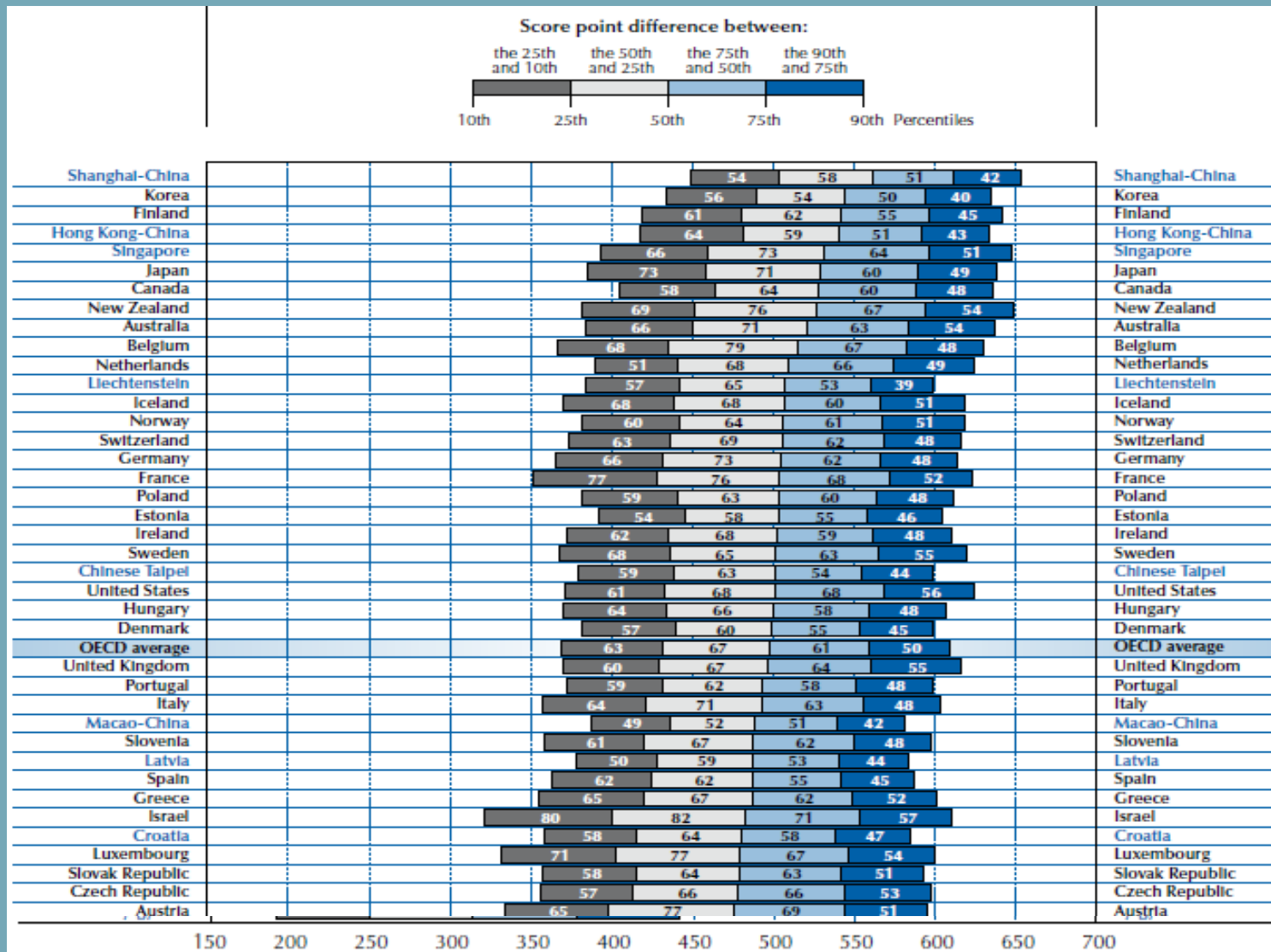


Educational Stratification: Empirical Evidence



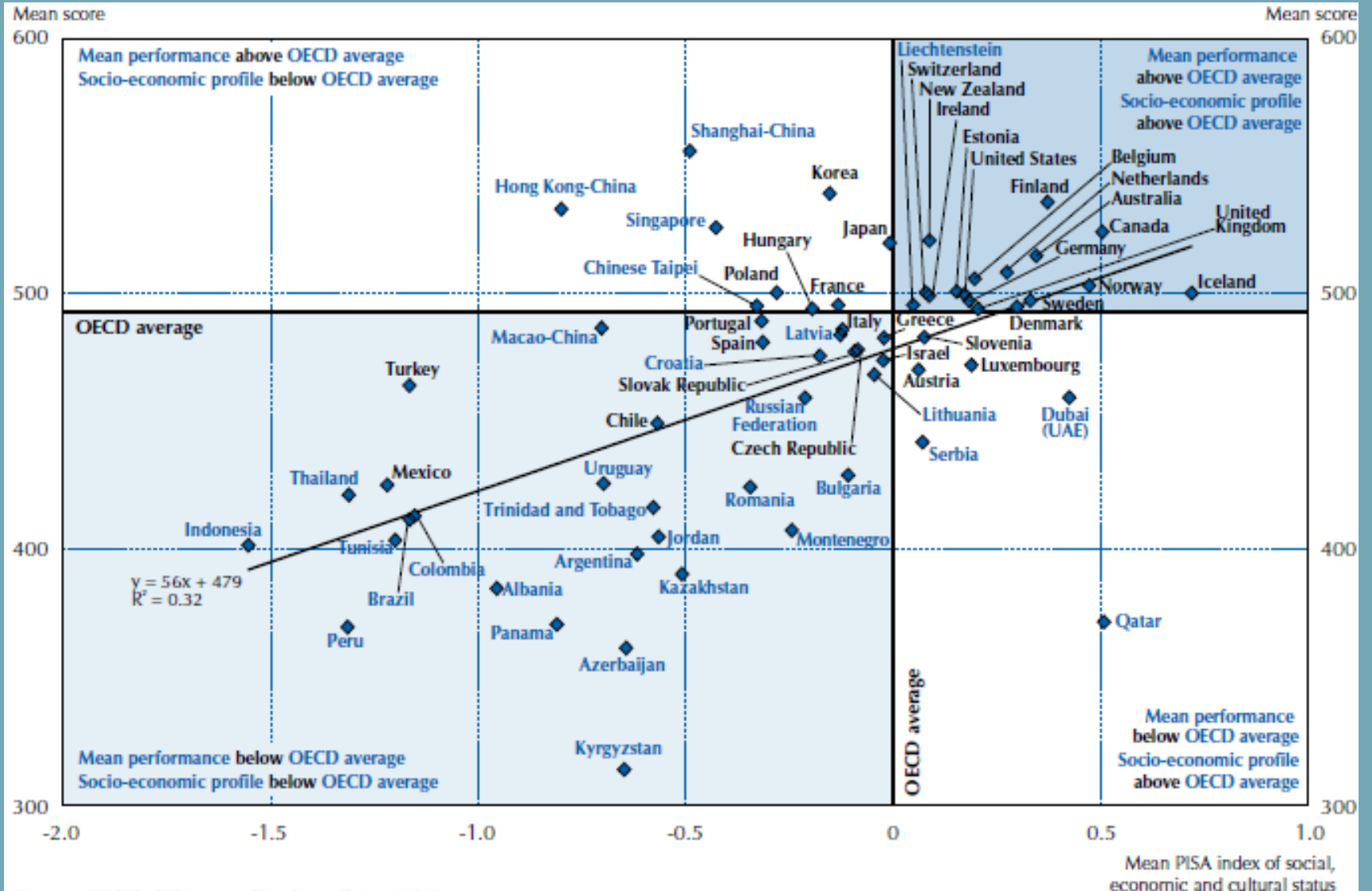


Achievement distribution in PISA 2009





Achievements and socio-economic status

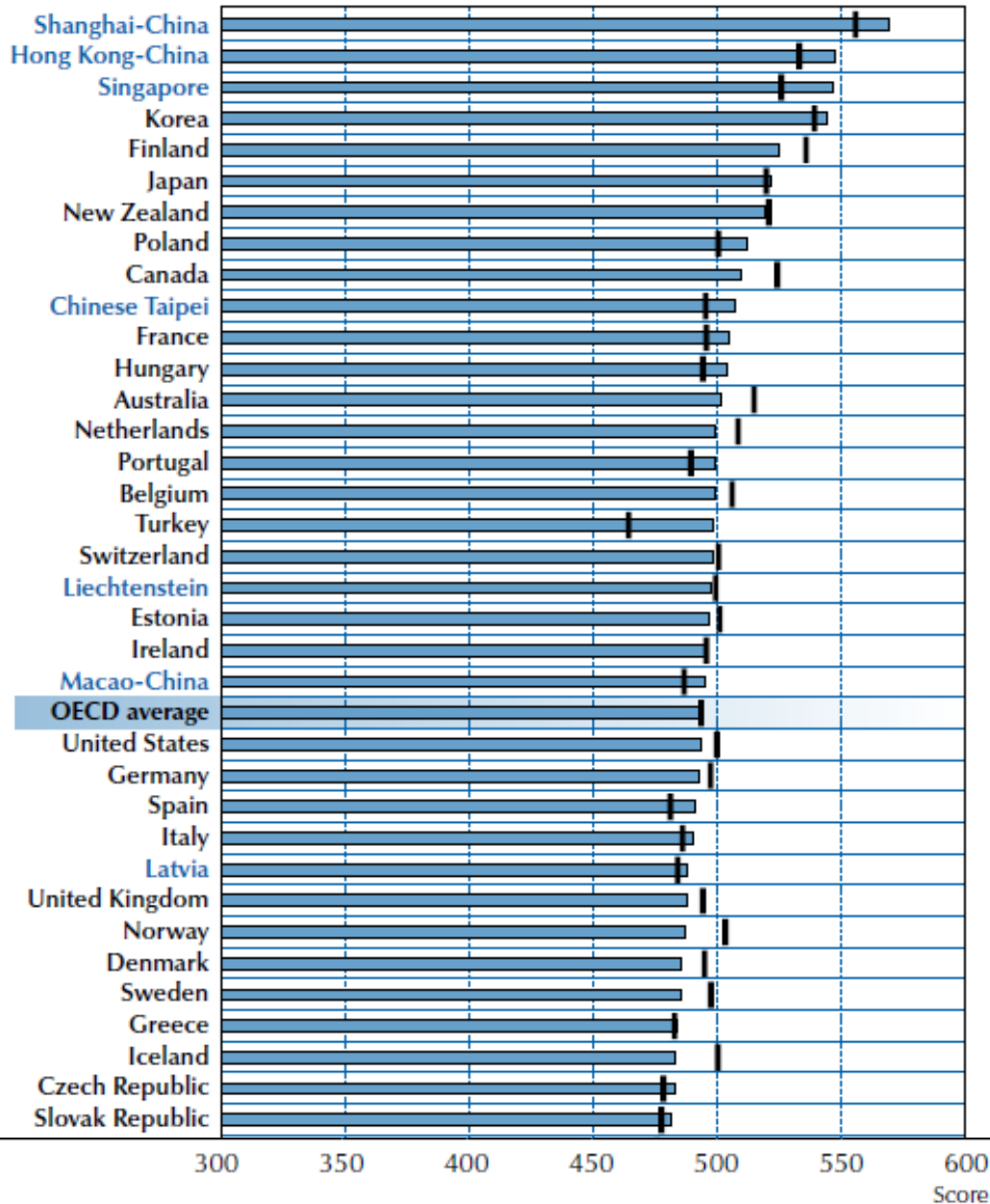


	Strength of the gradient ¹	Slope of the gradient ¹	Mean performance in reading	Mean socio-economic background	Height of the gradient	Length of the gradient	Linearity of the gradient ²	
	Percentage of variance in student performance explained by student socio-economic background	Score point difference associated with one unit increase in the PISA index of economic, social and cultural status	Average student performance	Average students' PISA index of economic, social and cultural status	Predicted performance for a student with a socio-economic background equal to zero, the OECD average	Range of socio-economic index points for the middle 90% of students (difference between the 95th and 5th percentiles)	Score point difference associated with one unit increase in the PISA index of economic, social and cultural status squared	
<i>OECD</i>	Australia	12.7	46	515	0.34	502	2.38	-2.58
	Austria	16.6	48	470	0.06	468	2.73	-1.29
	Belgium	19.3	47	506	0.20	499	2.93	1.87
	Canada	8.6	32	524	0.50	510	2.63	2.79
	Chile	18.7	31	449	-0.57	468	3.73	3.53
	Czech Republic	12.4	46	478	-0.09	483	2.30	-1.98
	Denmark	14.5	36	495	0.30	485	2.81	-2.67
	Estonia	7.6	29	501	0.15	497	2.53	1.61
	Finland	7.8	31	536	0.37	525	2.45	-3.60
	France	16.7	51	496	-0.13	505	2.74	-1.50
	Germany	17.9	44	497	0.18	493	2.94	-2.95
	Greece	12.5	34	483	-0.02	484	3.21	-0.29
	Hungary	26.0	48	494	-0.20	504	3.14	-4.71
	Iceland	6.2	27	500	0.72	483	2.88	-4.85
	Ireland	12.6	39	496	0.05	496	2.72	-3.50
	Israel	12.5	43	474	-0.02	480	2.75	2.14
	Italy	11.8	32	486	-0.12	490	3.32	-3.09
	Japan	8.6	40	520	-0.01	522	2.32	-4.91
	Korea	11.0	32	539	-0.15	544	2.71	-0.06
	Luxembourg	18.0	40	472	0.19	466	3.63	-0.13
	Mexico	14.5	25	425	-1.22	456	4.18	0.23
	Netherlands	12.8	37	508	0.27	499	2.66	4.55
	New Zealand	16.6	52	521	0.09	519	2.53	-0.15
	Norway	8.6	36	503	0.47	487	2.36	-5.03
	Poland	14.8	39	500	-0.28	512	2.86	-3.10
	Portugal	16.5	30	489	-0.32	499	3.79	-0.03
	Slovak Republic	14.6	41	477	-0.09	482	2.70	-5.48
	Slovenia	14.3	39	483	0.07	481	2.78	-0.75
	Spain	13.6	29	481	-0.31	491	3.58	-0.58
	Sweden	13.4	43	497	0.33	485	2.57	-2.45
	Switzerland	14.1	40	501	0.08	498	2.90	-0.57
	Turkey	19.0	29	464	-1.16	499	4.02	-0.27
	United Kingdom	13.7	44	494	0.20	488	2.52	0.84
	United States	16.8	42	500	0.17	493	3.01	6.61
	OECD average	14.0	38	493	0.00	494	2.92	-0.95



Reading performance scores after accounting for ESCS

Reading performance after accounting for socio-economic profile
Observed reading performance



	Mean reading score	Percentage of boys below proficiency Level 2	Percentage of girls below proficiency Level 2	Percentage of resilient students	Percentage of variance in student performance explained by students' socio-economic background	Slope of the socio-economic gradient
OECD average	493	25	13	8	14	38

Correlation between the socio-economic background of schools and the percentage of teachers with university-level (ISCED 5A) among all full-time teachers	Correlation between socio-economic background of schools and the student/teacher ratio
0.15	-0.15

OECD

Korea	539	9	2	14	11	32
Finland	536	13	3	11	8	31
Canada	524	14	6	10	9	32
New Zealand	521	21	8	9	17	52
Japan	520	19	8	11	9	40
Australia	515	20	9	8	12	46
Netherlands	514	20	9	8	12	46
Belgium	513	20	9	8	12	46
Norway	512	20	9	8	12	46
Estonia	511	20	9	8	12	46
Switzerland	510	20	9	8	12	46
Poland	509	20	9	8	12	46
Iceland	500	24	10	7	6	27
United States	500	21	14	7	17	42
Sweden	497	24	10	6	13	43
Germany	497	24	13	6	18	44
Ireland	496	23	11	7	13	39
France	496	26	14	8	17	51
Denmark	495	19	11	6	15	36
United Kingdom	494	23	14	6	14	44
Hungary	494	24	11	6	26	48
Portugal	489	25	11	10	17	30
Italy	486	29	13	8	12	32
Slovenia	483	31	11	6	14	39
Greece	483	30	13	7	12	34
Spain	481	24	15	9	14	29
Czech Republic	478	31	14	5	12	46
Slovak Republic	477	32	13	5	15	41
Israel	474	34	19	6	13	43
Luxembourg	472	33	19	5	18	40
Austria	470	35	20	5	17	48
Turkey	464	33	15	10	19	29
Chile	449	36	25	6	19	31
Mexico	425	46	34	7	14	25

Higher quality or equity than OECD average

At OECD average (no statistically significant difference)

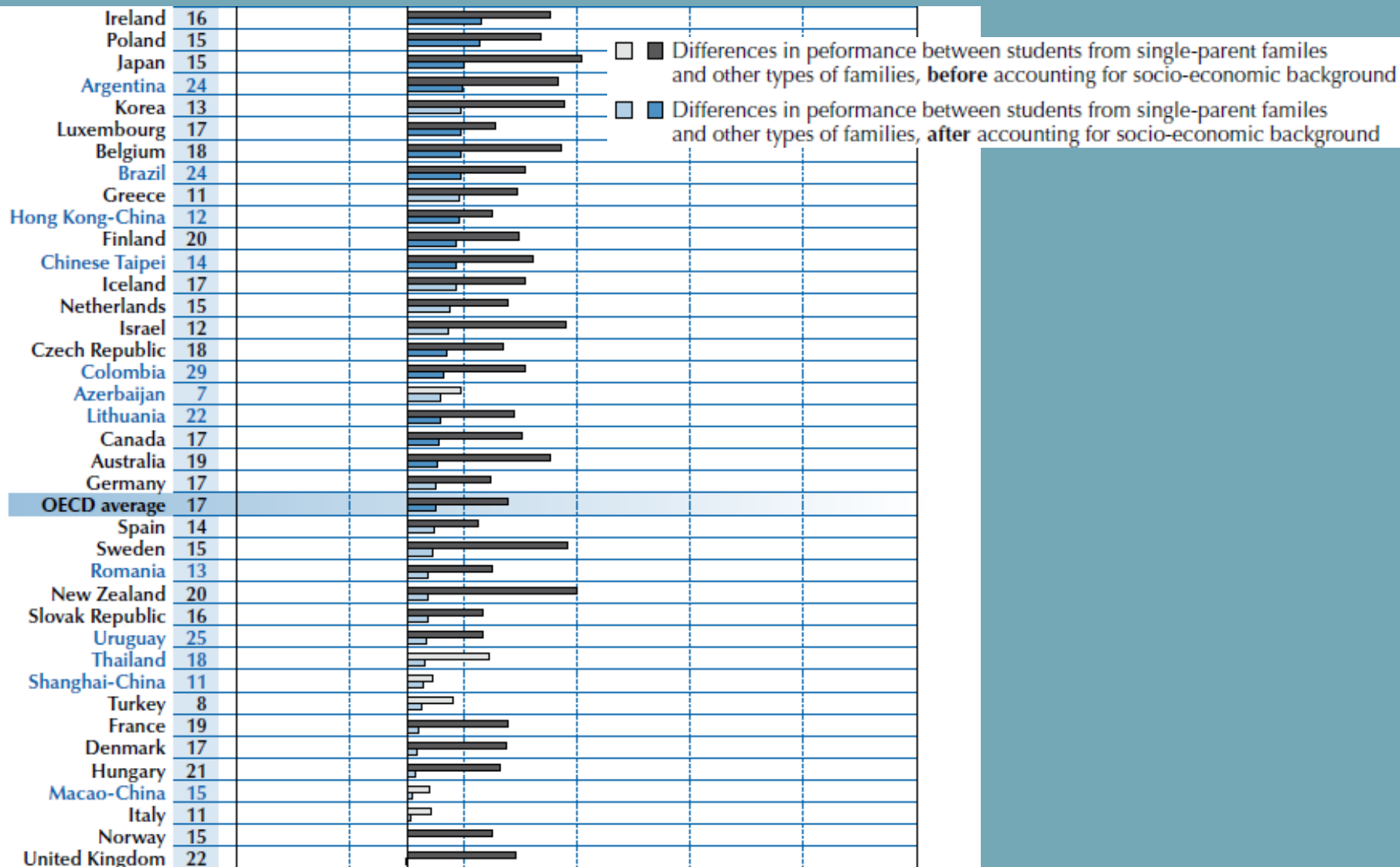
Lower quality or equity than OECD average

-0.03	0.30
-0.01	0.08
0.03	0.09
0.07	0.11
0.20	0.38
0.22	0.27
0.23	0.27
0.24	0.27
0.25	0.27
0.26	0.27
0.27	0.27
0.28	0.27
0.29	0.27
0.30	0.40
0.10	-0.17
-0.04	0.12
-0.02	0.28
-0.08	0.49
w	w
0.16	0.27
-0.03	-0.10
0.07	0.02
0.04	0.39
0.13	0.50
0.55	-0.25
0.24	0.25
m	0.45
0.37	0.08
-0.21	0.00
0.20	-0.20
0.39	0.28
0.64	-0.07
0.04	-0.26
0.25	-0.05
-0.04	0.03

Disadvantaged schools are more likely to have more or better resources, in **bold** if relationship is statistically different from the OECD average

Within country correlation is not statistically significant

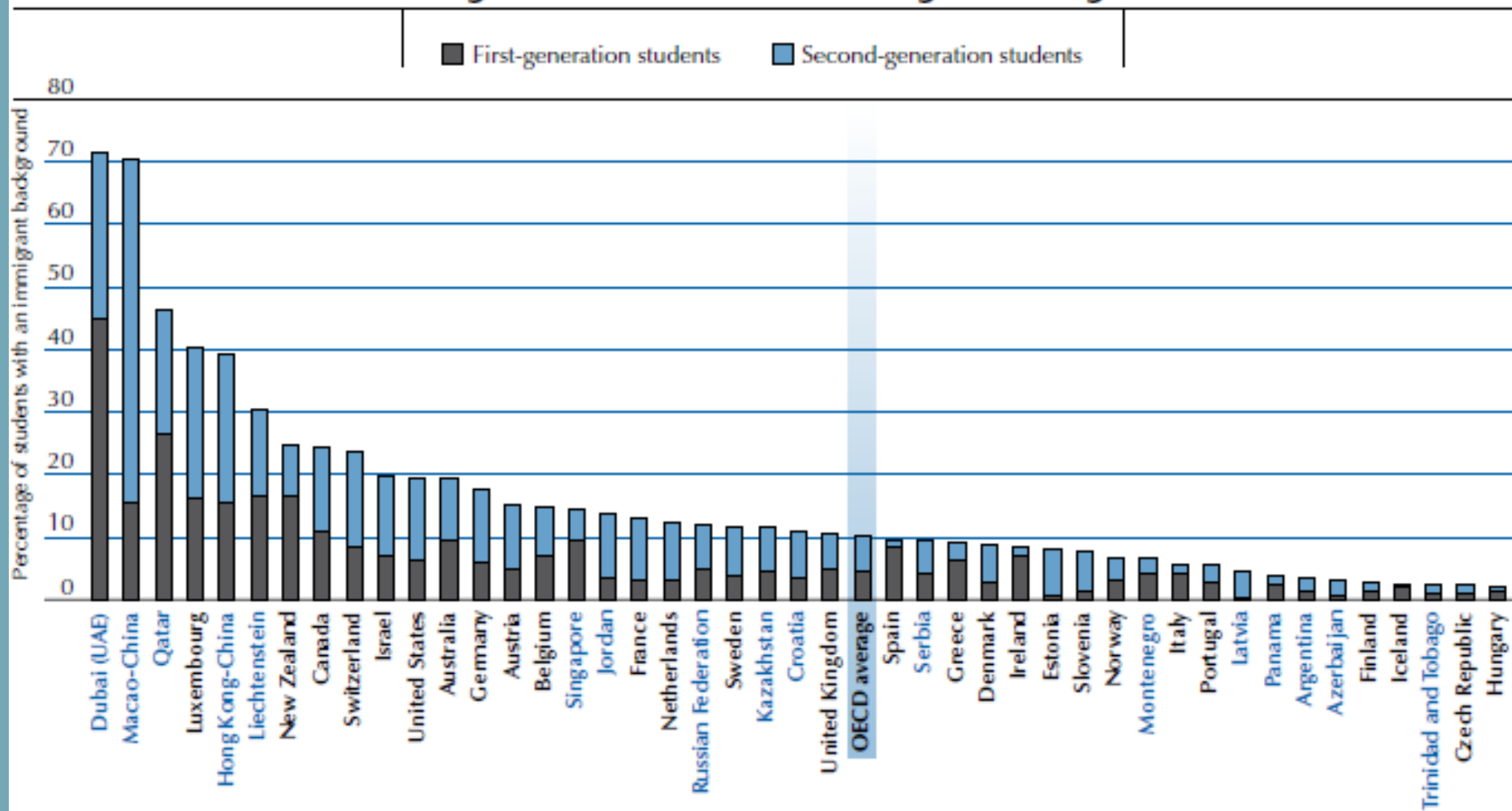
Advantaged schools are more likely to have more or better resources, in **bold** if relationship is statistically different from the OECD average



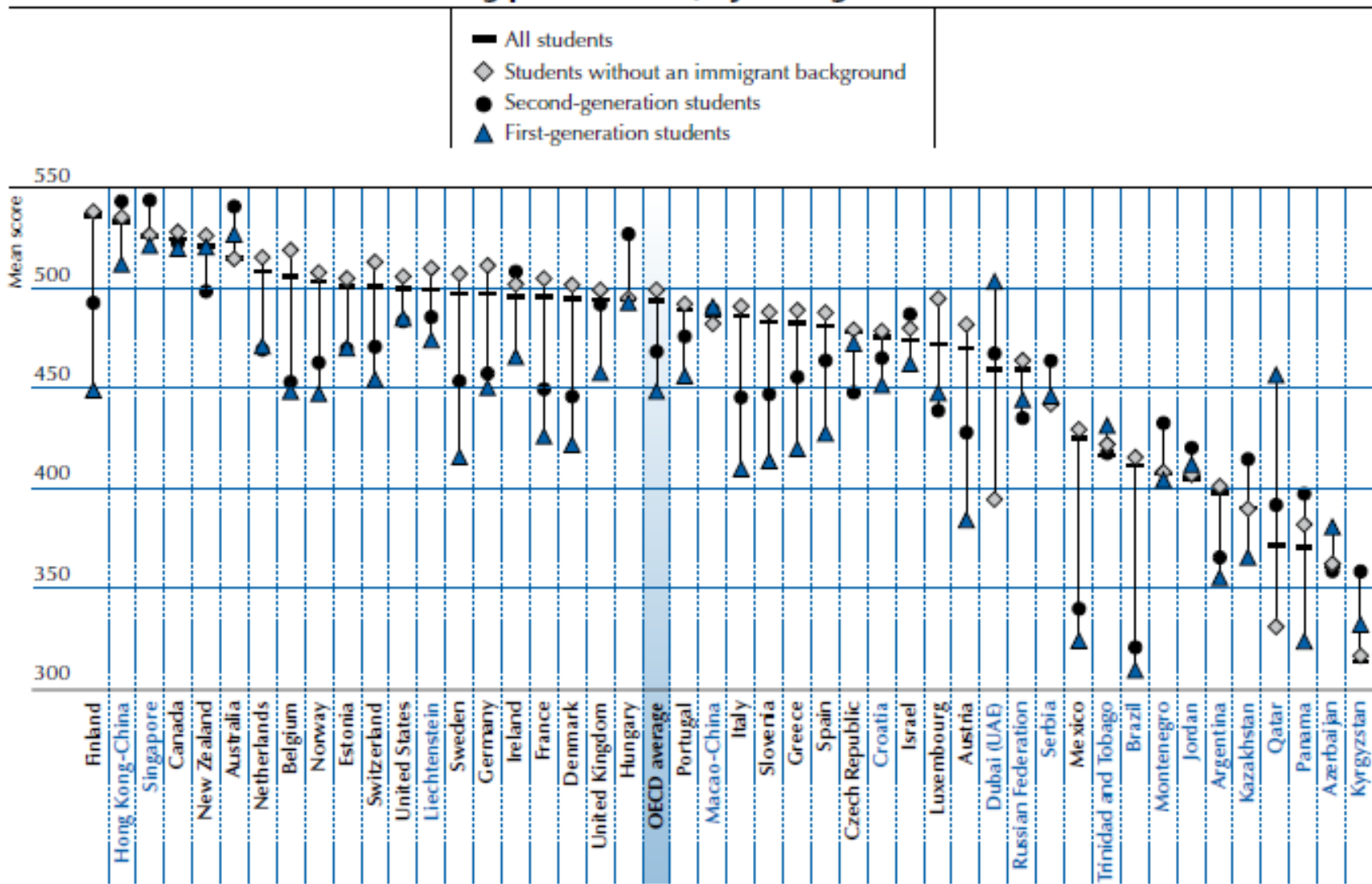
Immigrant background



Percentage of students with an immigrant background

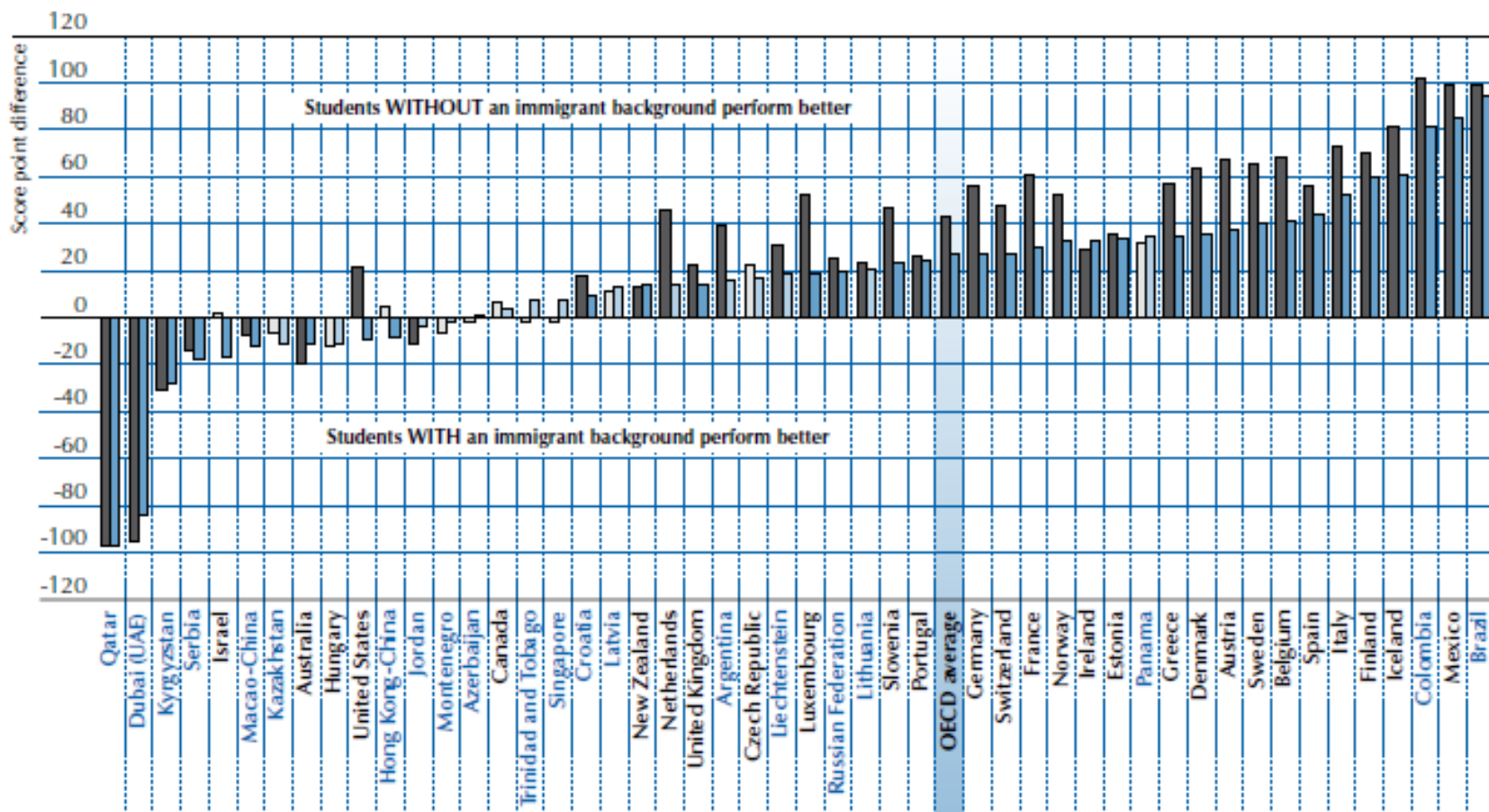


Reading performance, by immigrant status



Reading performance by immigrant status, before and after accounting for socio-economic background

Before accounting for socio-economic background
 After accounting for socio-economic background



School characteristics are MORE favourable for students with an immigrant background by:

School characteristics are LESS favourable for students with an immigrant background by:

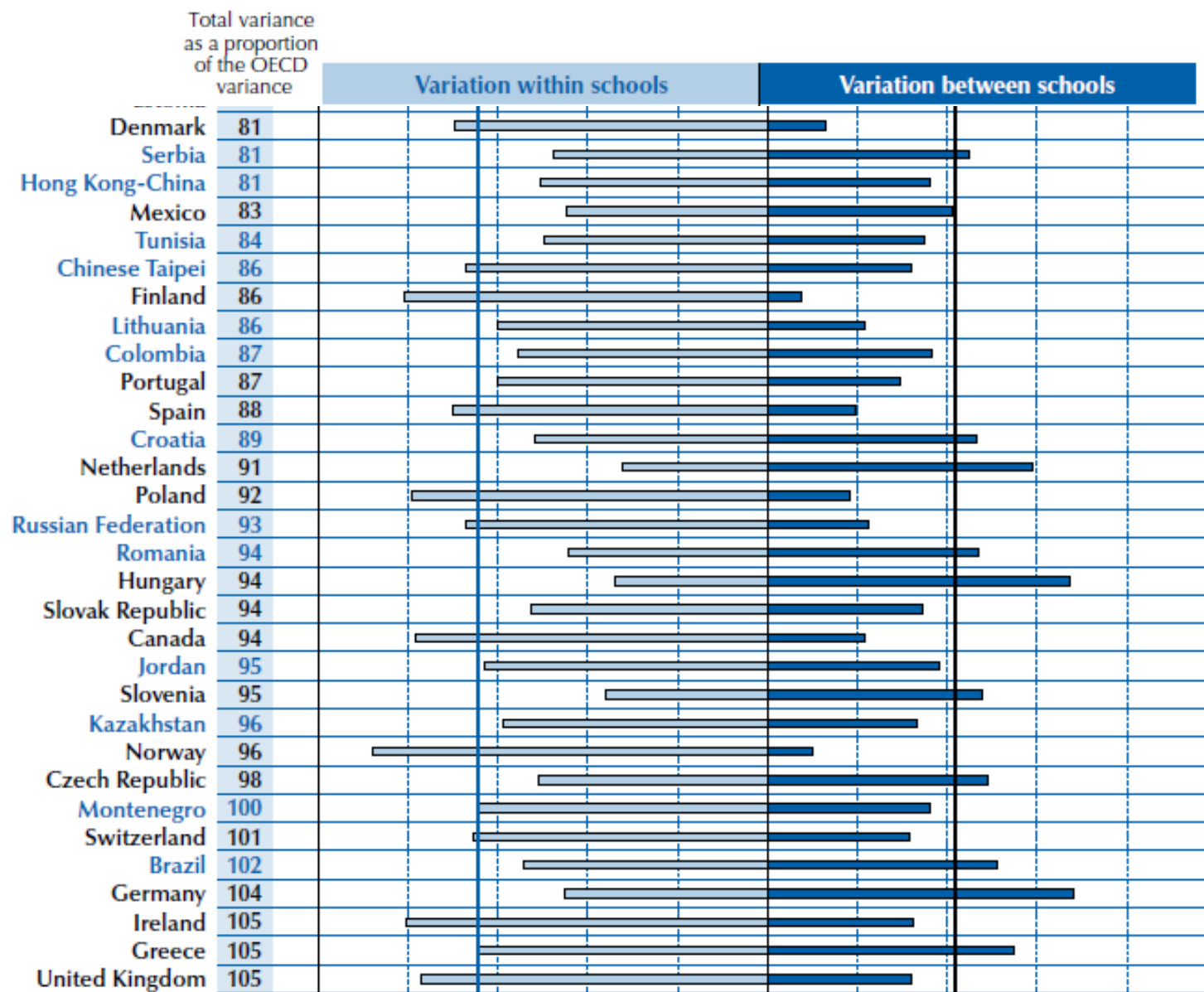
	at least 0.50 index points	
	between 0.20 and 0.49 index points	
	up to 0.19 index points	

	Percentage of students with an immigrant background	Percentage of students in schools that have more than 25% students with an immigrant background	School average PISA index of economic, social and cultural status ¹	Quality of educational resources ¹	Student/teacher ratio ¹	Teacher shortage ¹
OECD						
Australia	19	38				
Austria	15	21				
Belgium	15	19				
Canada	24	37				
Chile	1	0	c	c	c	c
Czech Republic	2	0				
Denmark	9	7				
Estonia	8	12				
Finland	3	0				
France	13	17		w	w	w
Germany	18	27				
Greece	9	8				
Hungary	2	0				
Iceland	2	1				
Ireland	8	5				
Israel	20	33				
Italy	6	3				
Japan	0	0	c	c	c	c
Korea	0	0	c	c	c	c
Luxembourg	40	72				
Mexico	2	1				
Netherlands	12	12				
New Zealand	25	38				
Norway	7	3				
Poland	0	0	c	c	c	c
Portugal	5	2				
Slovak Republic	1	0	c	c	c	c
Slovenia	8	7				
Spain	9	10				
Sweden	12	12				
Switzerland	24	40				
Turkey	1	0	c	c	c	c
United Kingdom	11	13				
United States	19	31				
OECD average	10	14				

Schools, stratification and performance

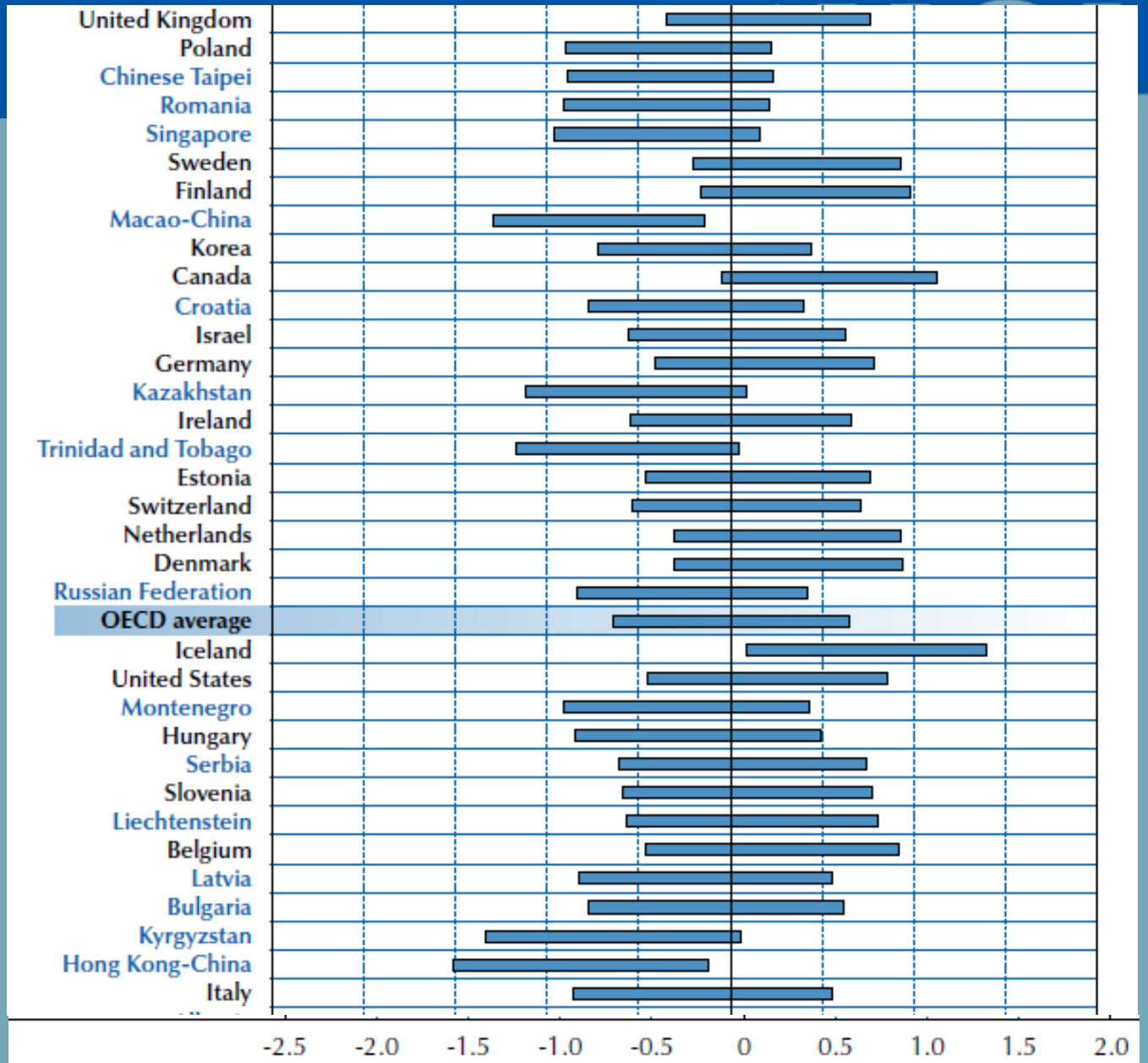
Variation in reading performance between and within schools

Expressed as a percentage of the variance in student performance across OECD countries



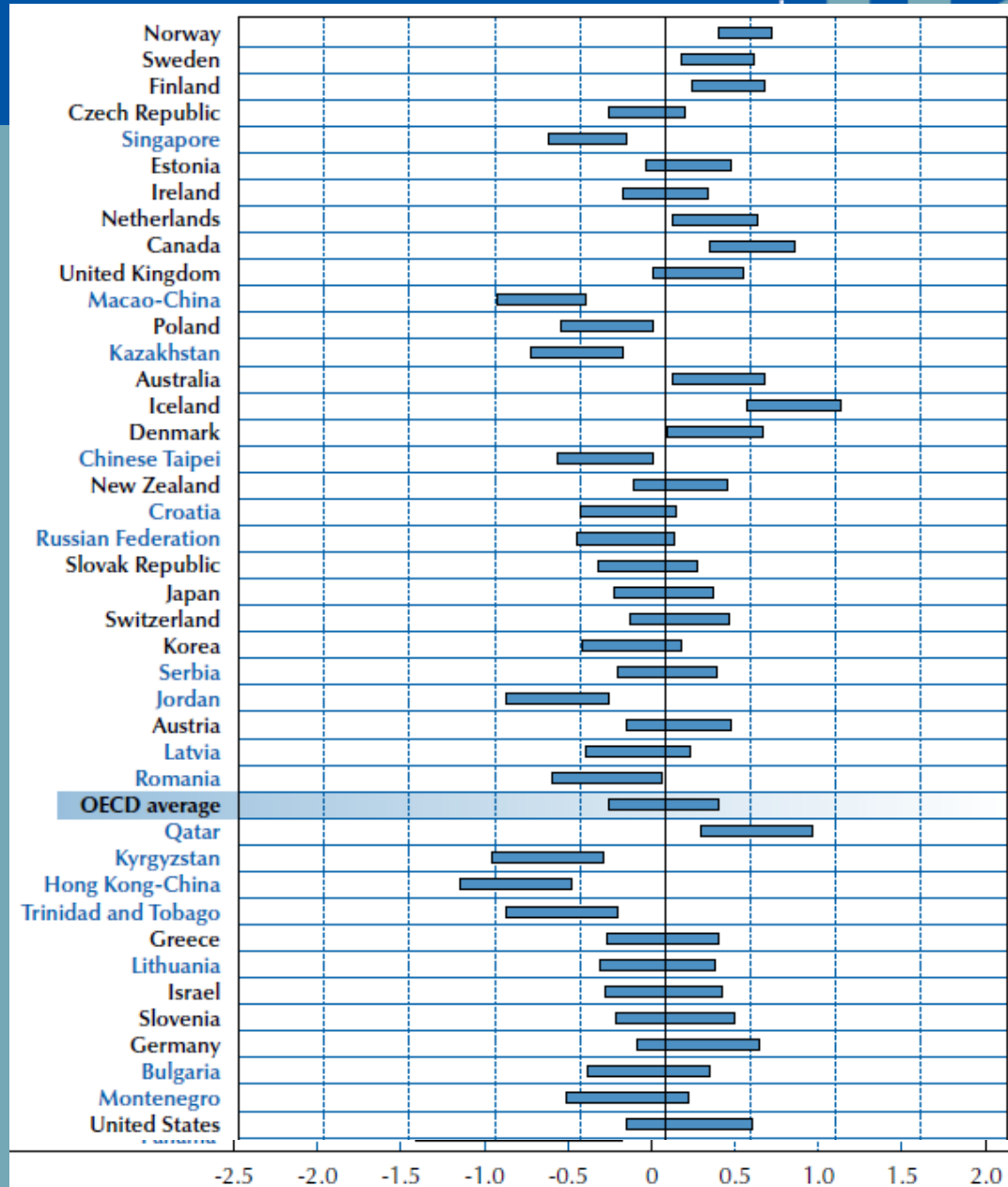
Distribution of ESCS by country (25th -75th percentiles)

ESCS at the country Level. Difference between 25th and 75th percentiles



School ESCS distribution (25th – 75th percentiles)

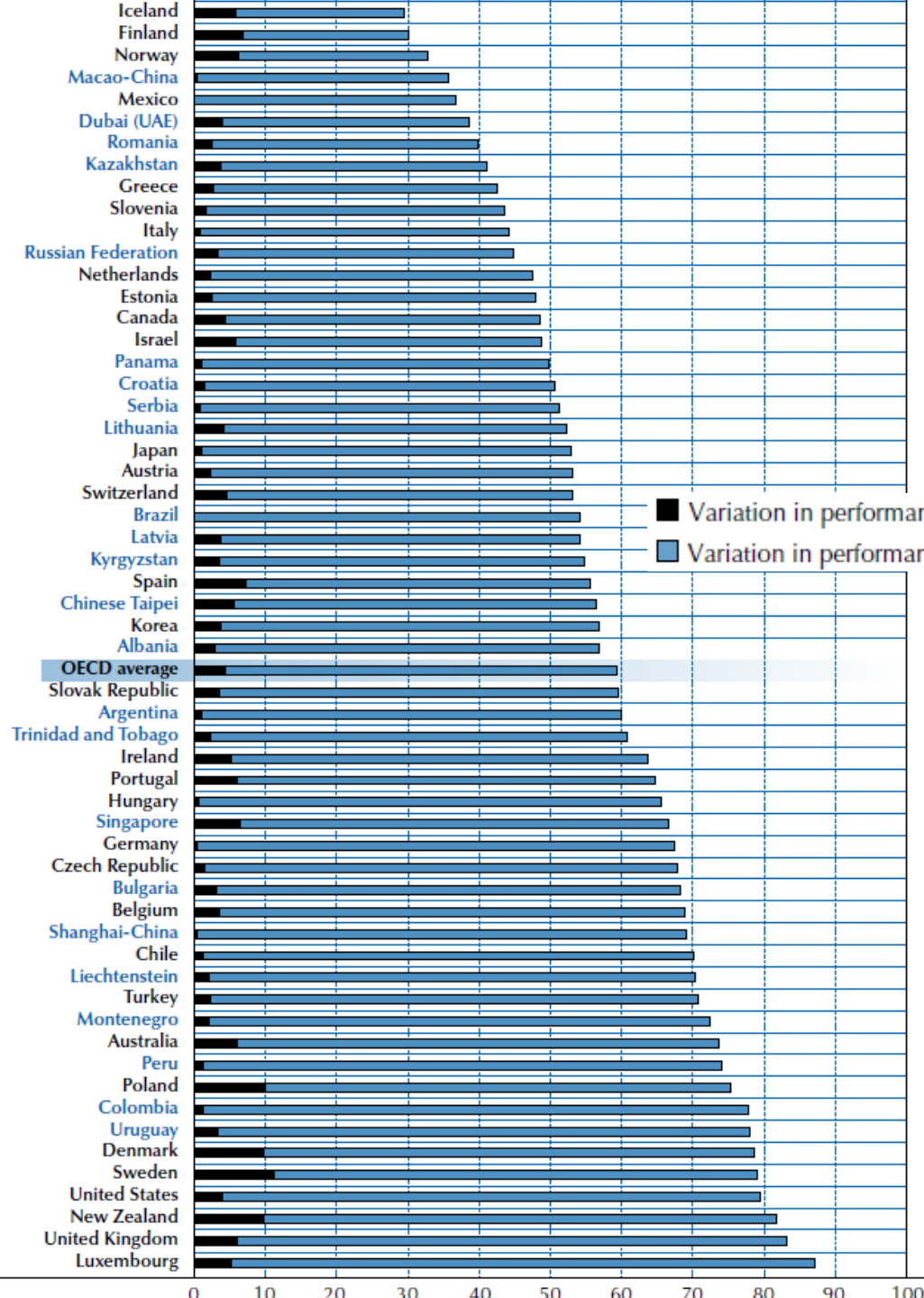
ESCS at the school Level. Difference between 25th and 75th percentiles





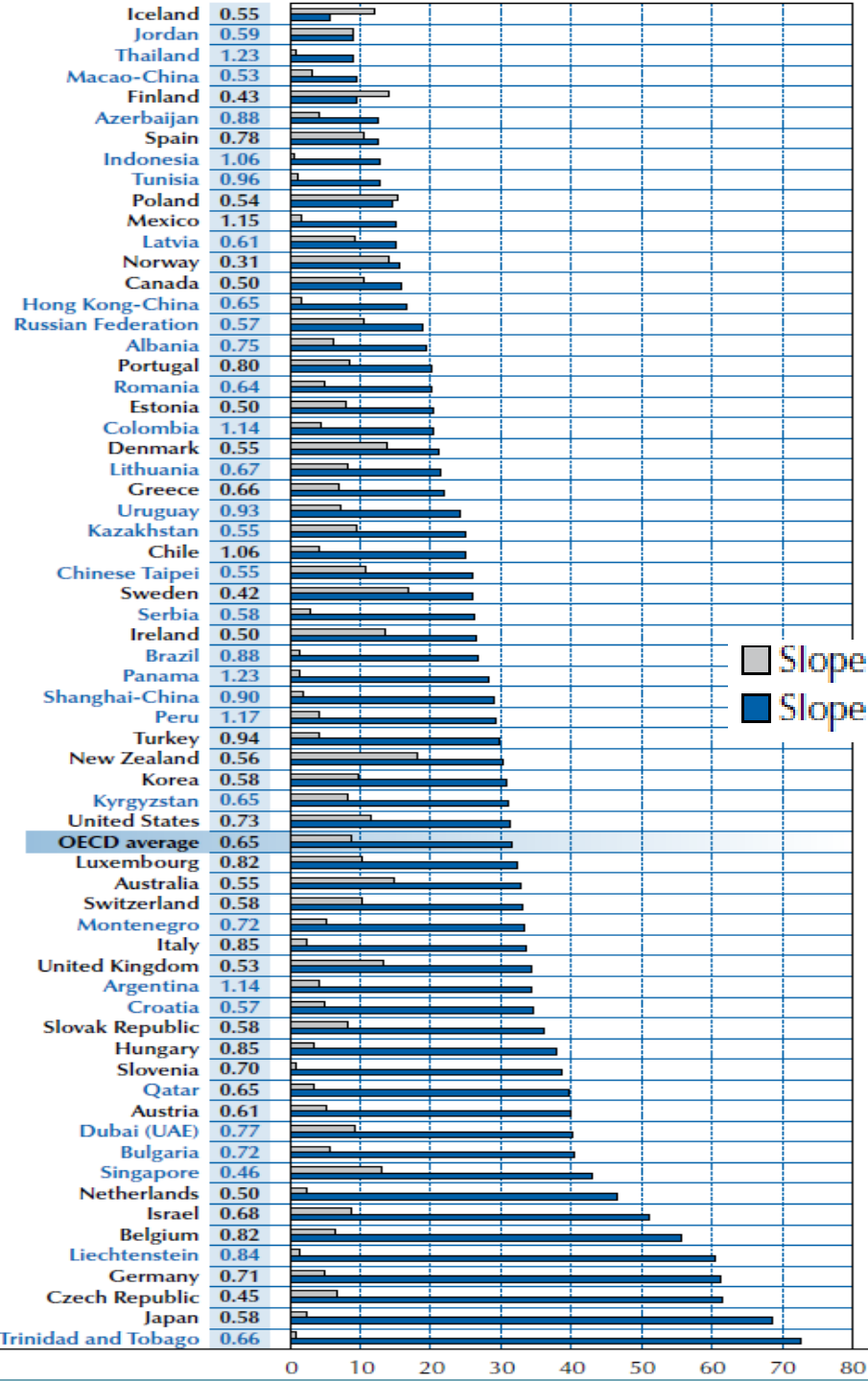
UCL

Variation in reading performance explained by students' and schools' socio-economic background



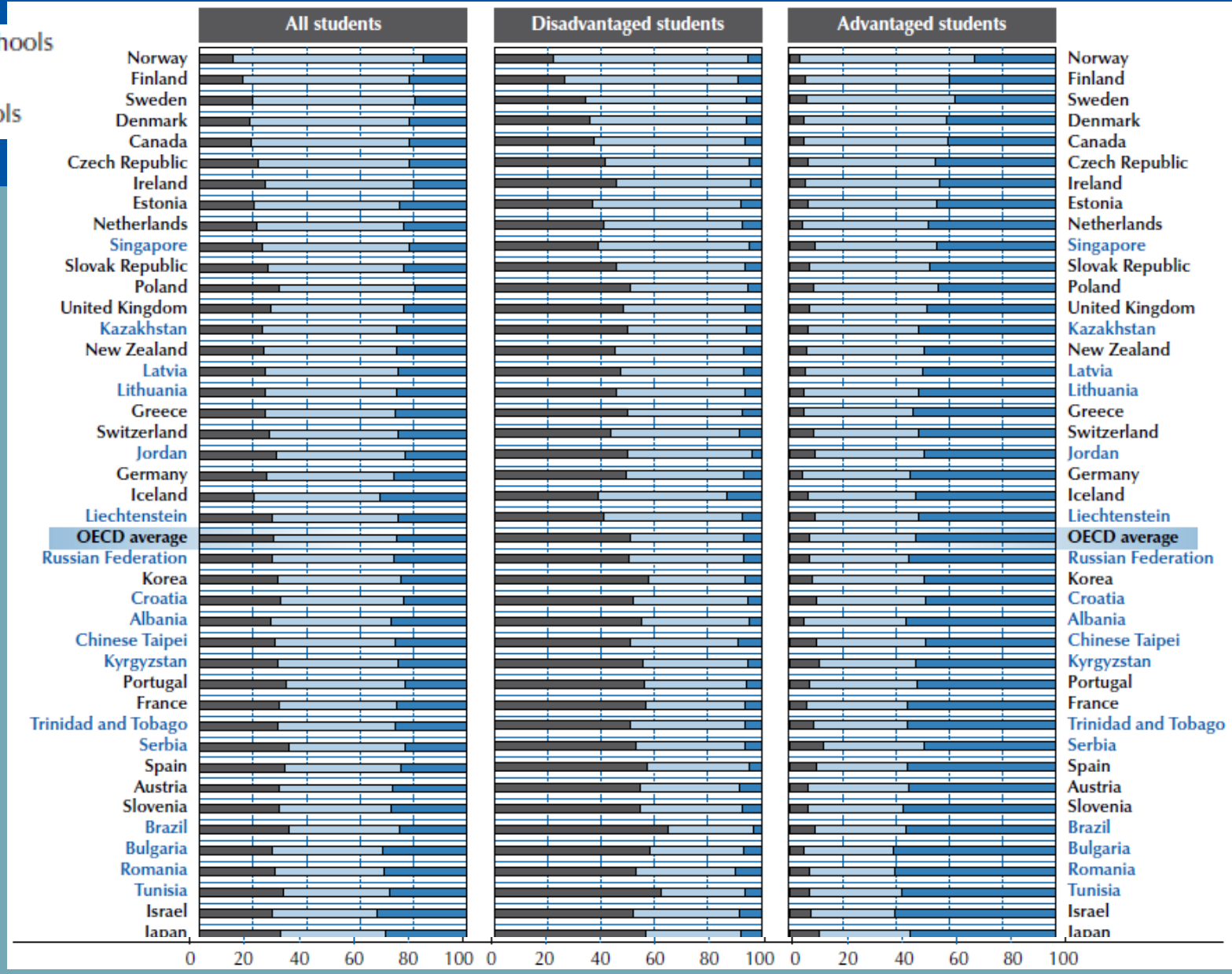
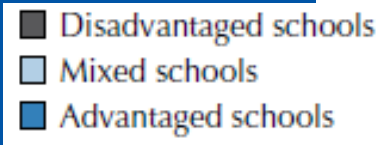
■ Variation in performance explained by **students'** socio-economic background **within** schools
■ Variation in performance explained by **schools'** socio-economic background **between** schools

Slope of the socio-economic gradient between and within schools



Slope within schools
 Slope between schools

Percentage of students in disadvantaged, mixed and advantaged schools, by students' socio-economic background



Conclusions



- Education systems with more comprehensiveness (Nordic) tend to generate more equal outcomes.
- Systems with early selection (Germany) have more inequality and stratification.
- Systems with more choice and marketization have higher levels of inequality.
- Stratification and inequality operate along different lines:
 - Social class.
 - Immigrant background.
 - School characteristics (school resources, peers).

A photograph of a park scene. In the foreground, there is a green lawn with several pigeons. A low hedge runs across the middle ground. Behind the hedge, there is a fountain with water spraying upwards. Several people are sitting on benches in the background. Large trees with green leaves are scattered throughout the scene. A red rectangular box is overlaid on the left side of the image, containing white text.

Possible Policy Implications

- Targeting low performers regardless of their social background will yield higher levels of equality in the distribution of outcomes since low performers tend to be the most disadvantaged.
- Targeting disadvantaged students or schools with more and better resources will reduce inequalities.
- Moving towards more comprehensive and inclusive systems will also reduce inequalities: less selection, less grade repetition, less school diversification, homogenisation of resources, etc.

Tarek Mostafa

University College London

Institute of Education

Department of Quantitative Social
Science

t.mostafa@ioe.ac.uk

www.tarekmostafa.net

