

# *What can we learn about the gender gap from PISA*

Francesca Borgonovi

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OECD

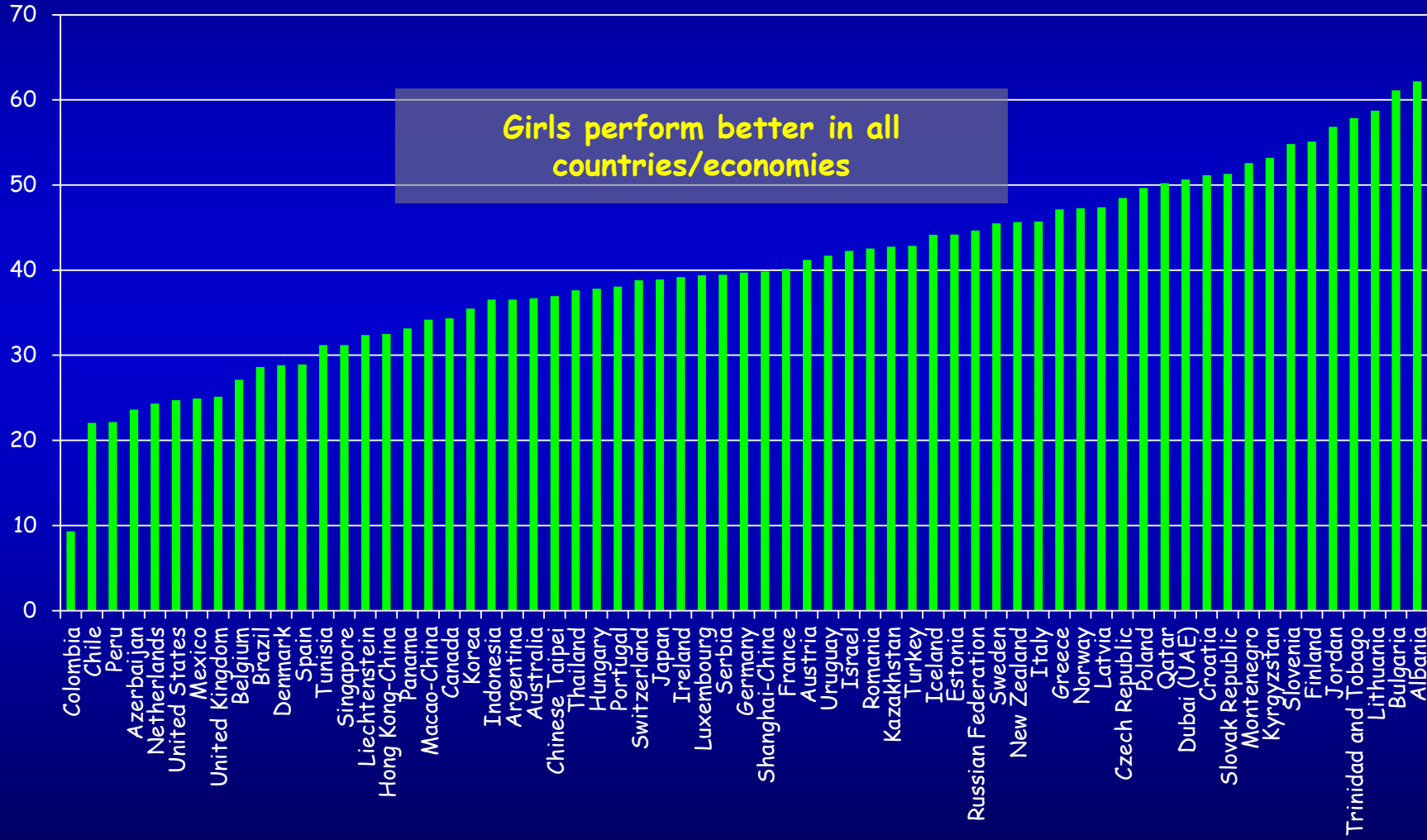
Programme for International Student Assessment

Paris, 3 October 2011

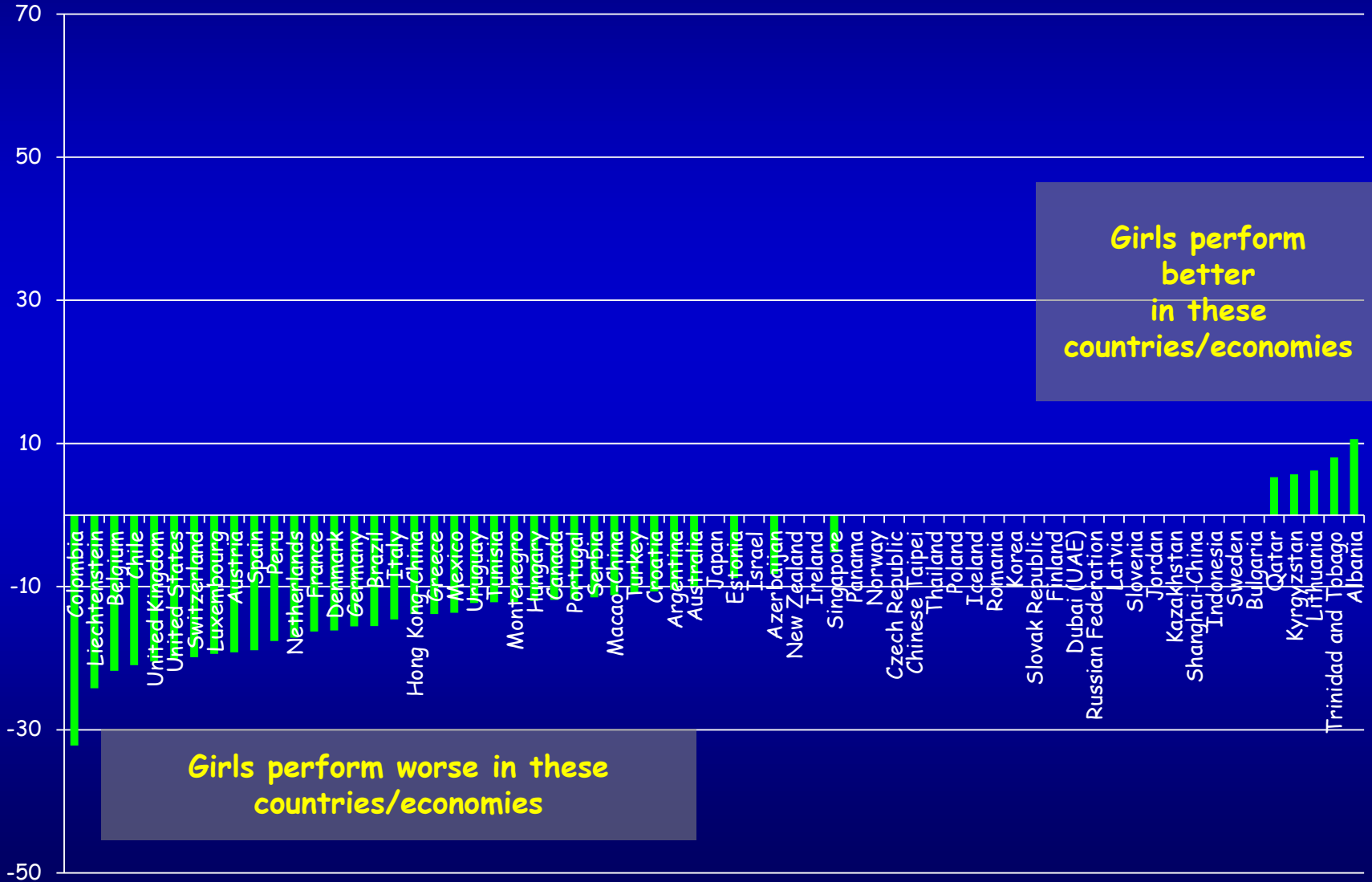
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# Gender Gap in Reading



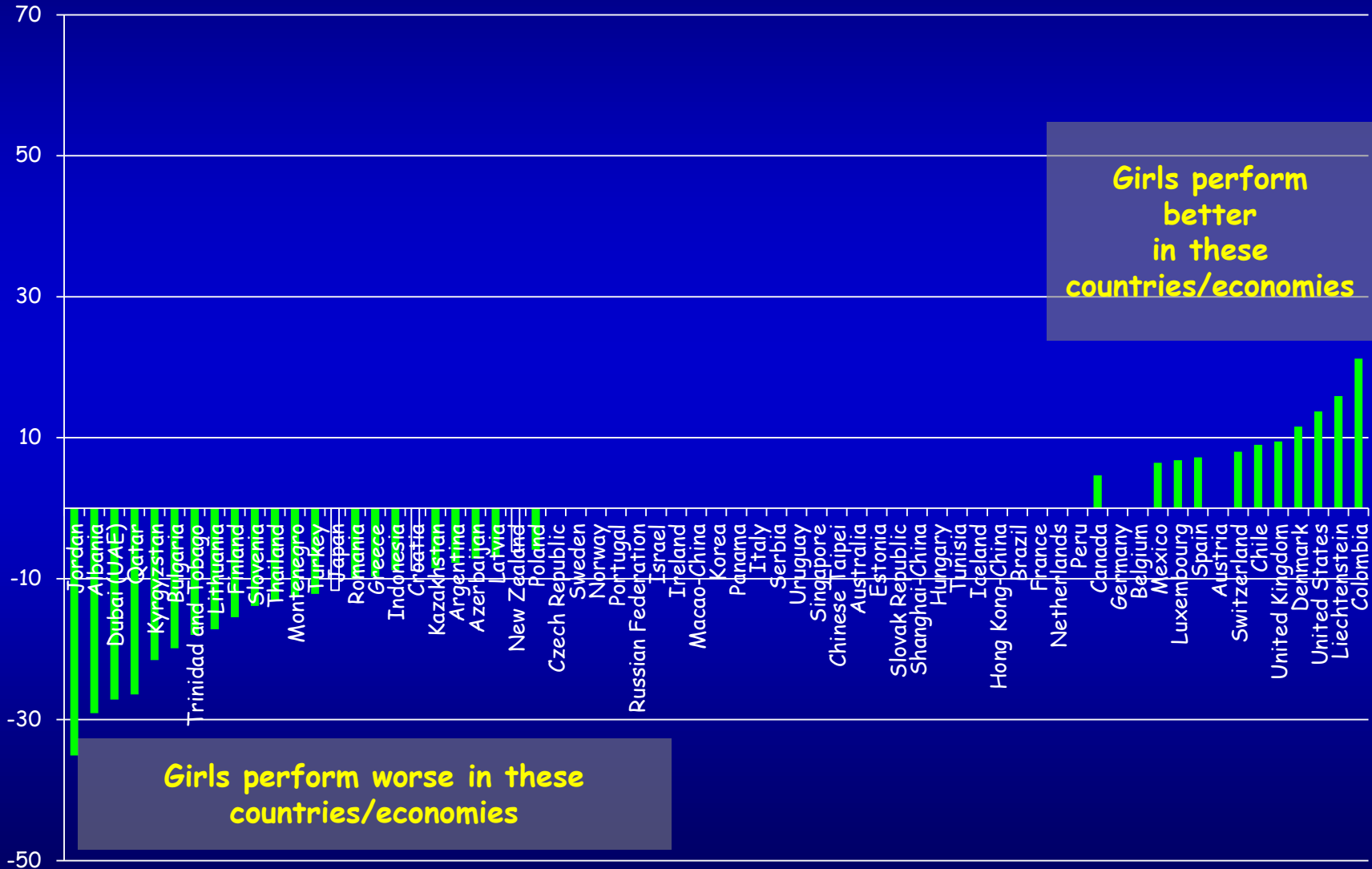
# The Gender Gap in Mathematics



Girls perform better in these countries/economies

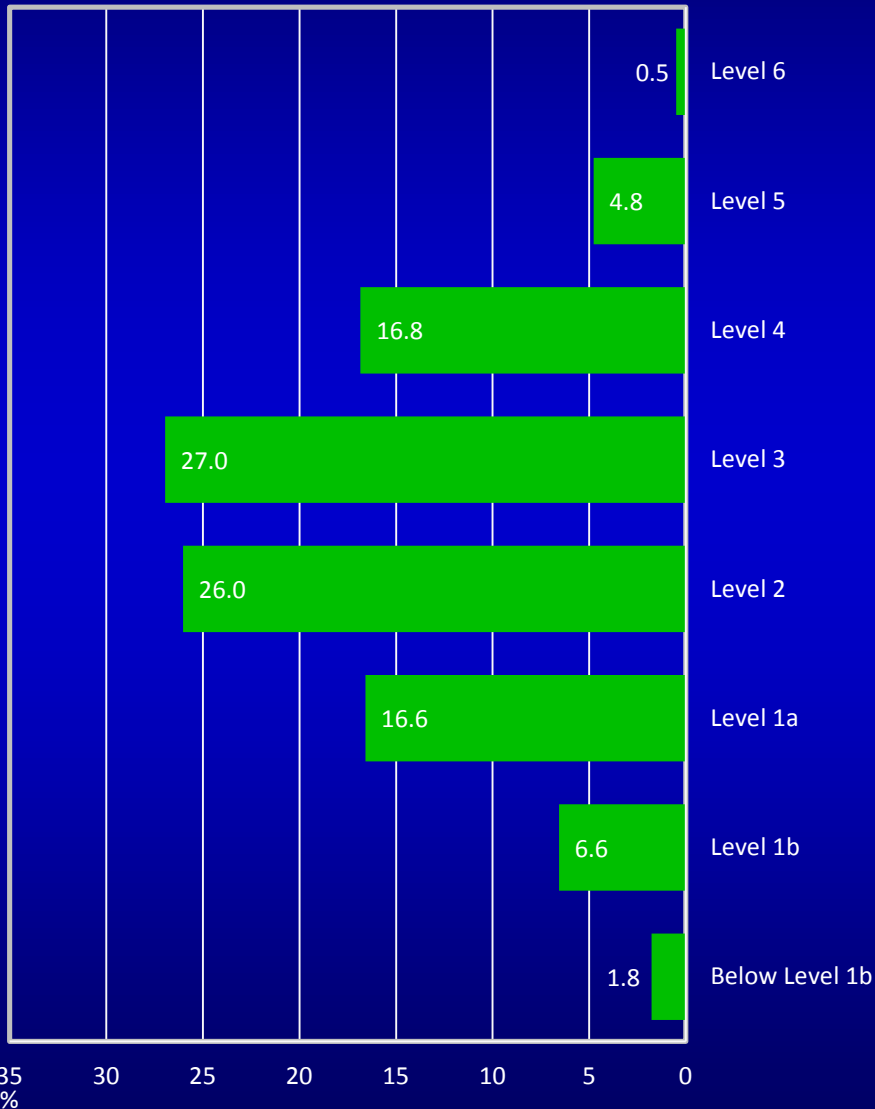
Girls perform worse in these countries/economies

# Gender Gap in Science

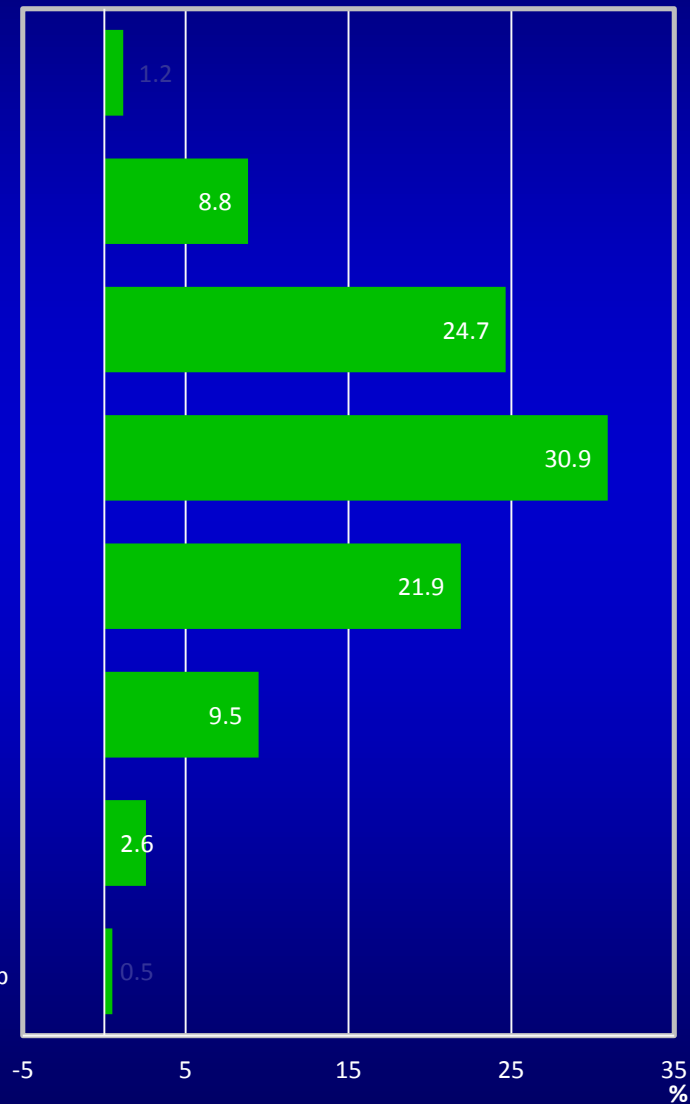


# Reading proficiency - boys and girls

## Boys



## Girls



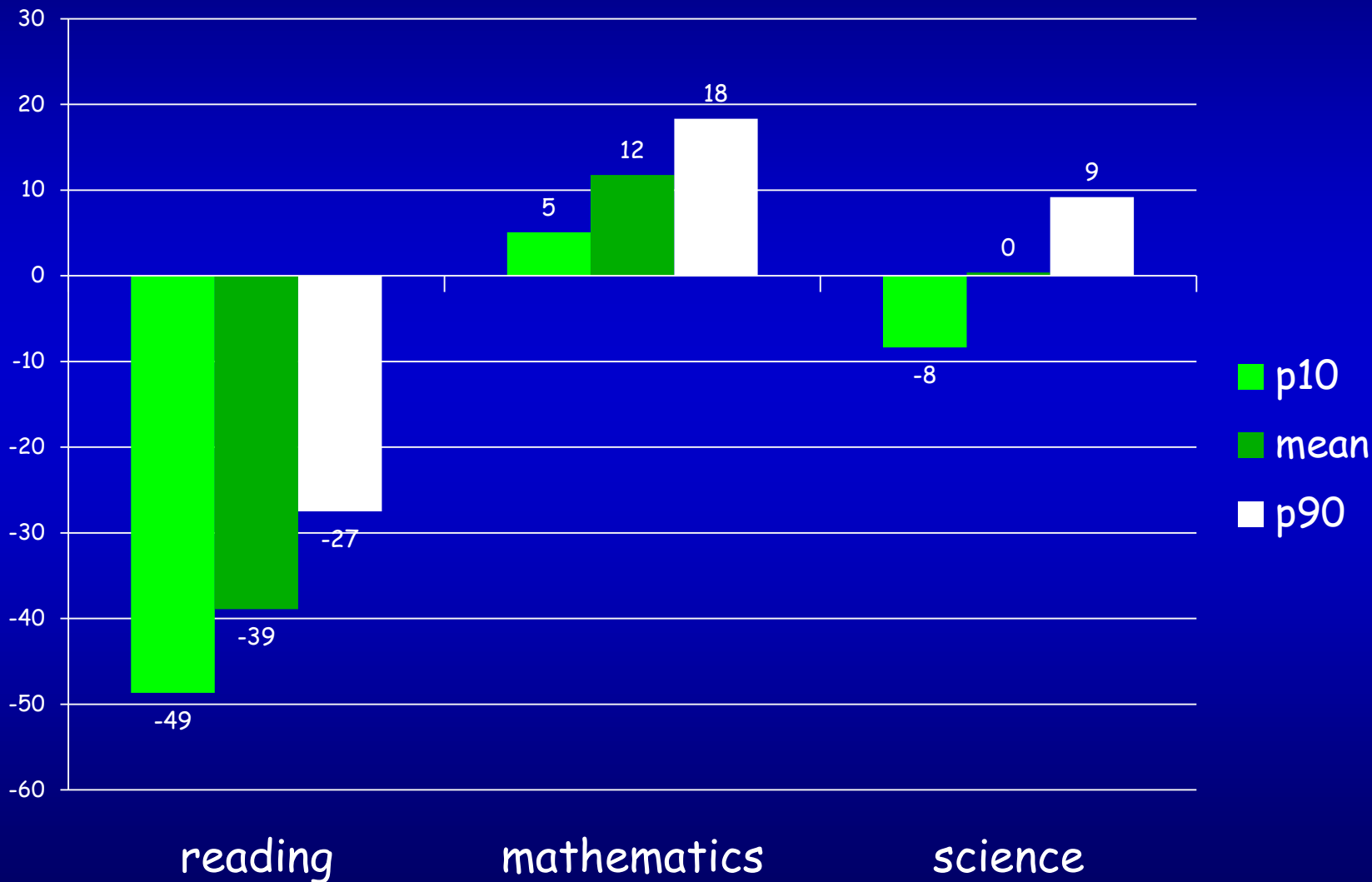
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# Gender gap across assessment areas and at different proficiency levels



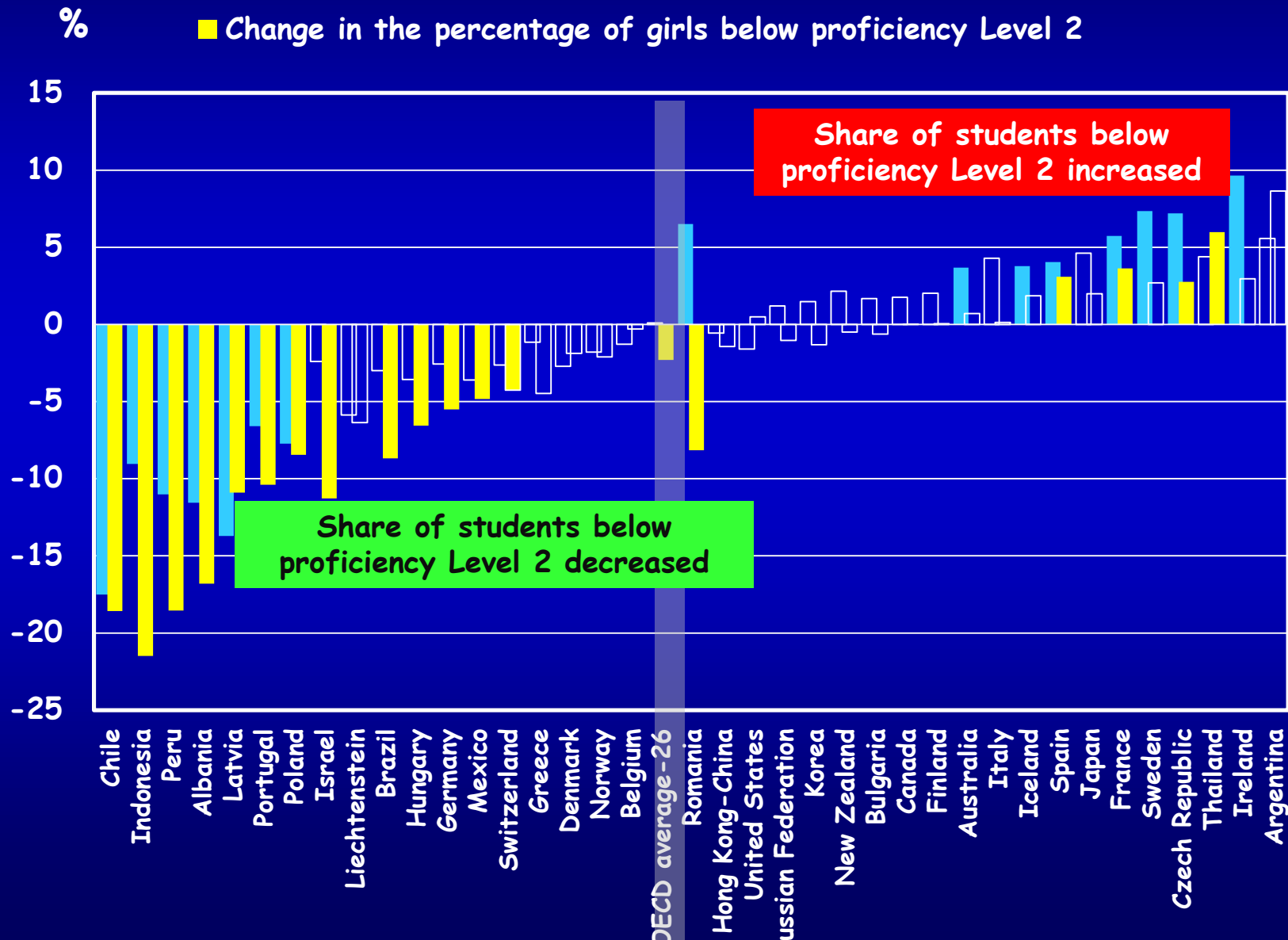
# Trends in gender gap



# Change in the share of boys and girls who are low performers in reading between 2000 and 2009

■ Change in the percentage of boys below proficiency Level 2

■ Change in the percentage of girls below proficiency Level 2



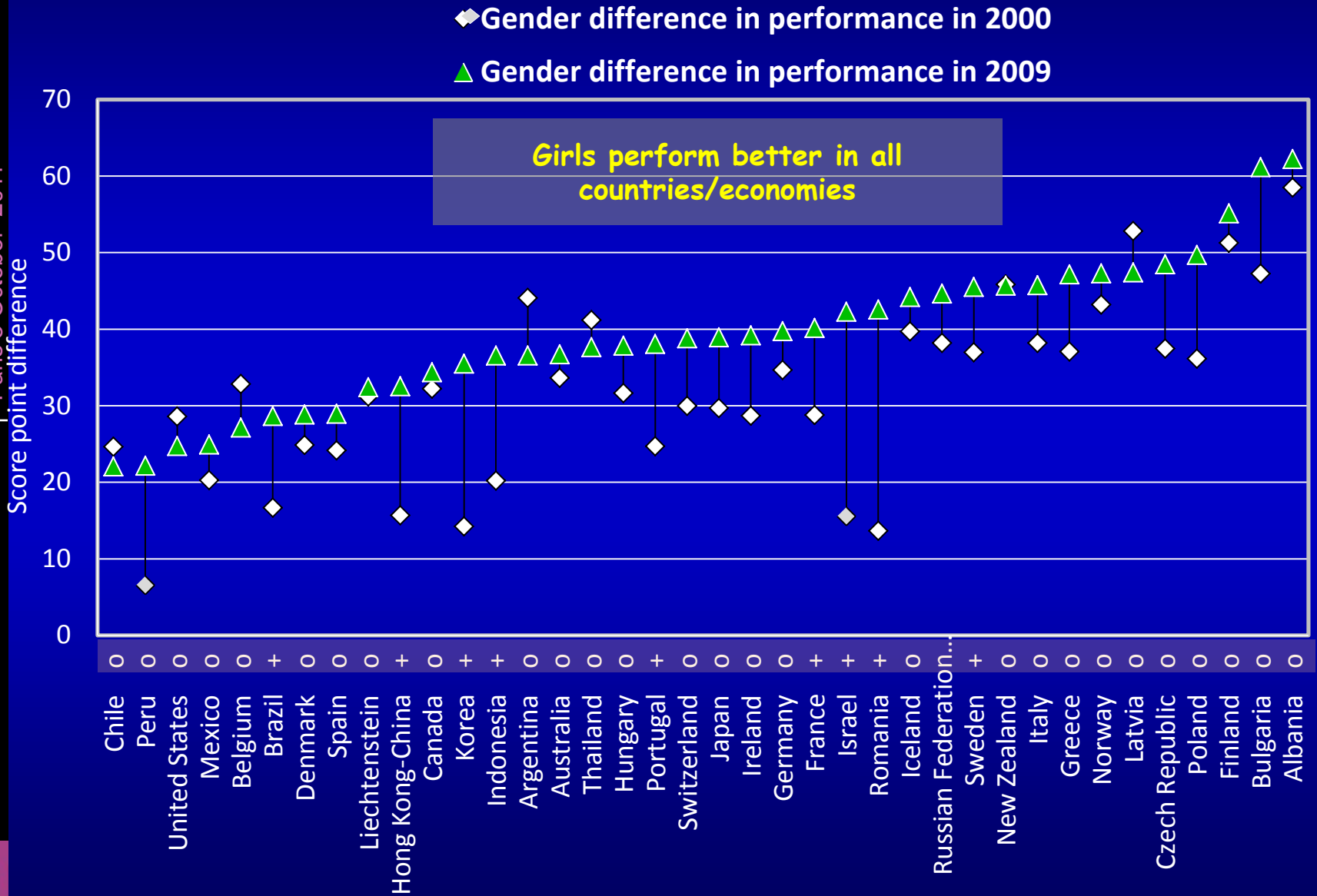
# Trends in reading gender gap

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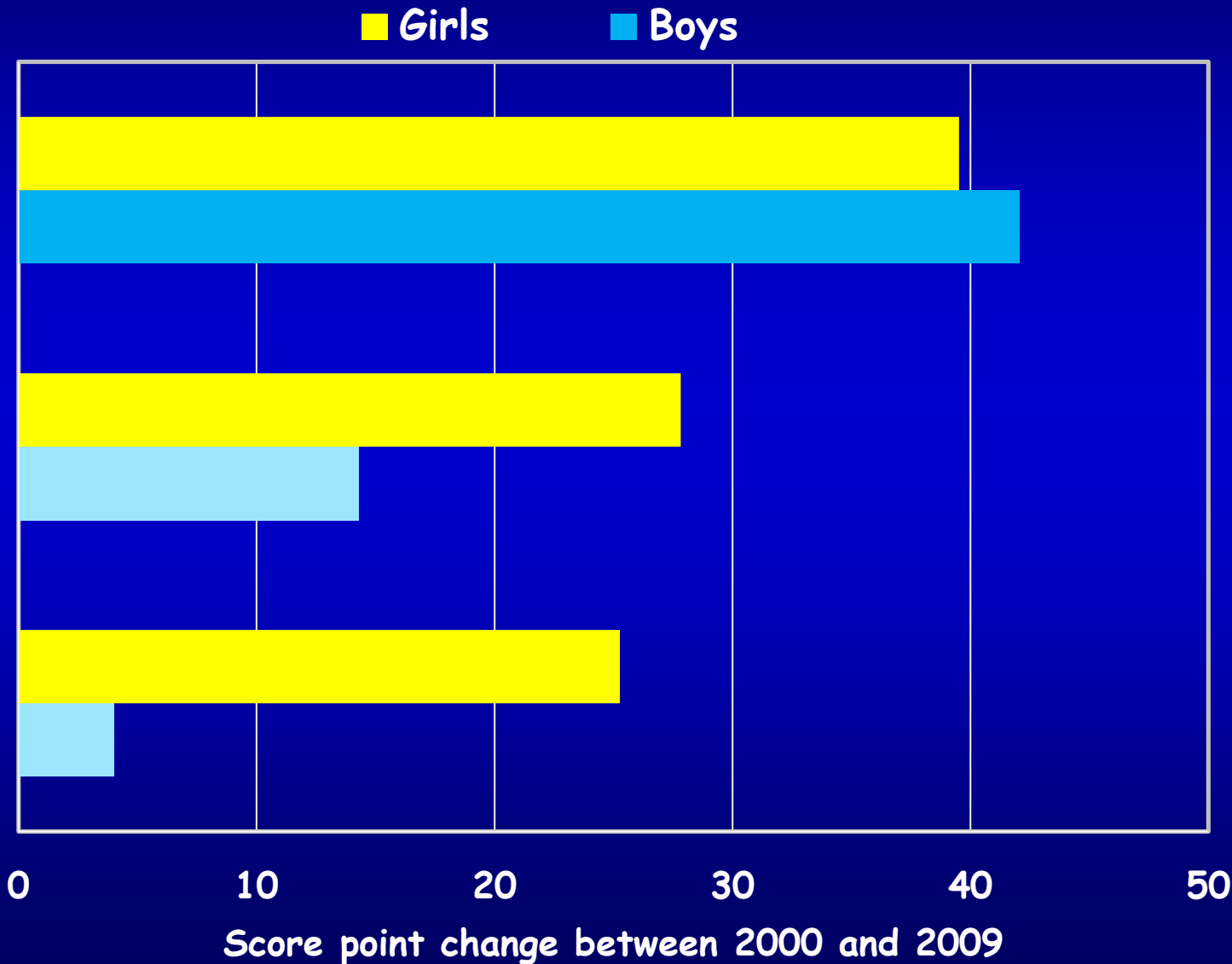
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# Reading performance improvement among boys and girls



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# Gendered Career Expectations

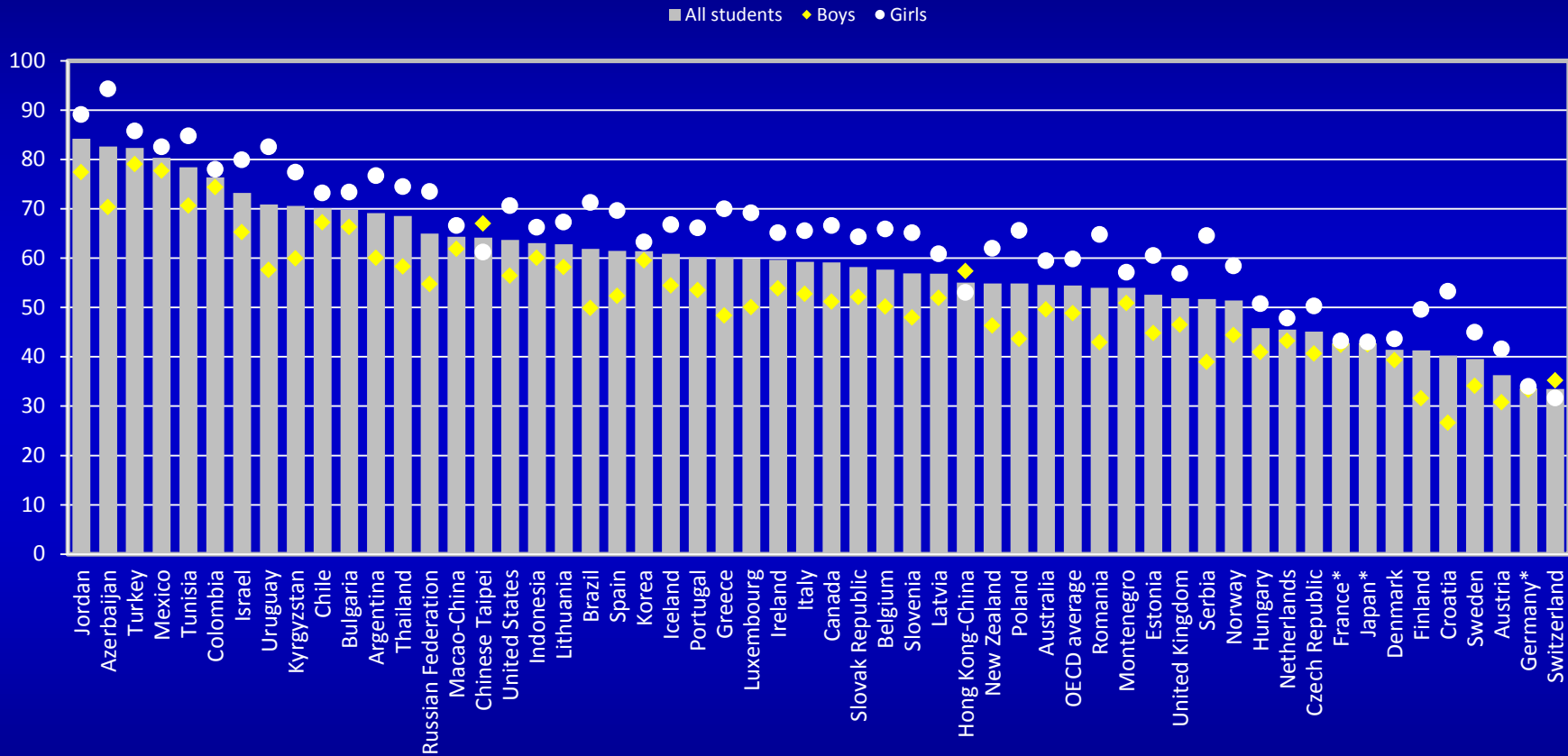
# Ambitious girls and boys

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Percentage of students who plan to work in ISCO major occupational group 1 & 2, by gender

# 14 Most popular careers according to PISA

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ISCO code	Boys	Number of OECD countries	Number of partner countries	ISCO code	Girls	Number of OECD countries	Number of partner countries
3475	athletes, sports persons	27	13	2221	medical doctors	32	21
2221	medical doctors	26	15	5141	hairdressers, barbers, beauticians etc workers	28	10
7231	motor vehicle mechanics & fitters	25	6	2421	lawyers	25	17
2140	architects, engineers	14	11	2445	psychologists	25	10
5162	police officers	14	9	2451	authors journalists & other writers	20	8
2141	architects town & traffic planners	13	2	3471	decorators & commercial designers	16	8
5122	cooks	12	7	2230	nursing & midwifery profess	13	6
7137	building etc electricians	10	1	2300	teaching professionals	12	10
7124	carpenters & joiners	10	0	2331	primary education teaching professionals	12	4
2132	computer programmers	10	10	2223	veterinarians	12	5
2421	lawyers	10	10	2141	architects town & traffic planners	10	2
2130	computing professionals	8	1	3231	nursing associate professionals	9	2
2131	computer systems designers & analysts	7	5	2320	secondary education teaching professionals	7	3
2411	accountants	6	5	2332	pre-primary educ. teaching professionals	9	1
2149	architects engineers	6	11	3226	physiotherapists etc associate professionals	7	0
3121	computer assistants	6	1	5220	shop salespersons & demonstrators	6	2
1310	small enterprise general managers	6	11	2411	accountants	5	9
2300	teaching professionals	6	5	3320	pre-primary education teaching associate professionals	5	0
7136	plumbers & pipe fitters	5	1	4100	office clerks	4	3
2451	authors journalists & other writers	4	0	5131	child-care workers	4	0
3471	decorators & commercial designers	4	1	2211	biologists, botanists zoologists etc professionals	3	3
2320	secondary education teaching professionals	4	2	2321	sec. teachers, academic track incl. middle school	4	6

Source: OECD PISA 2006 Database.



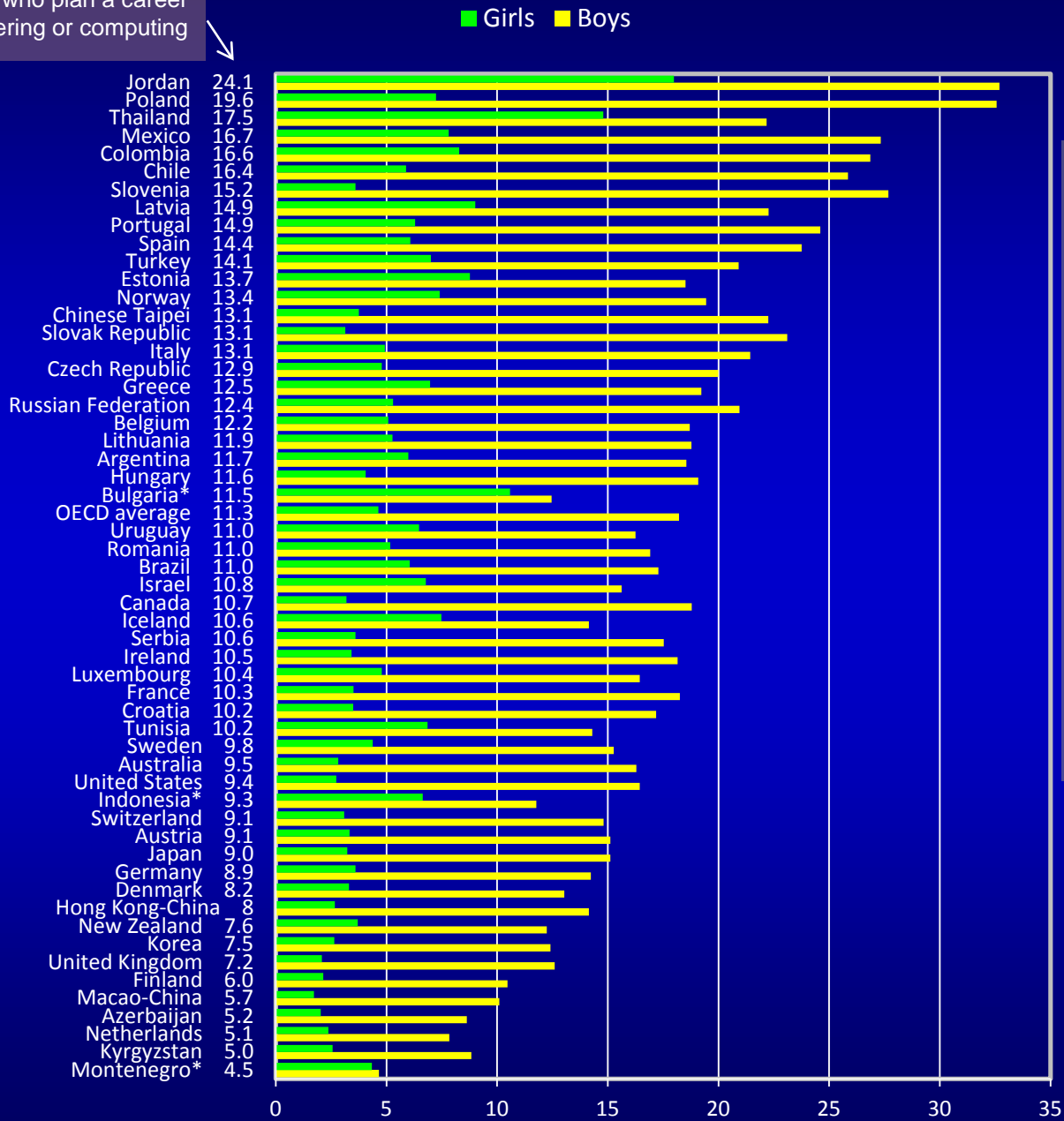
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Percentage of all students who plan a career engineering or computing



Proportion of boys and girls planning a career in engineering or computing

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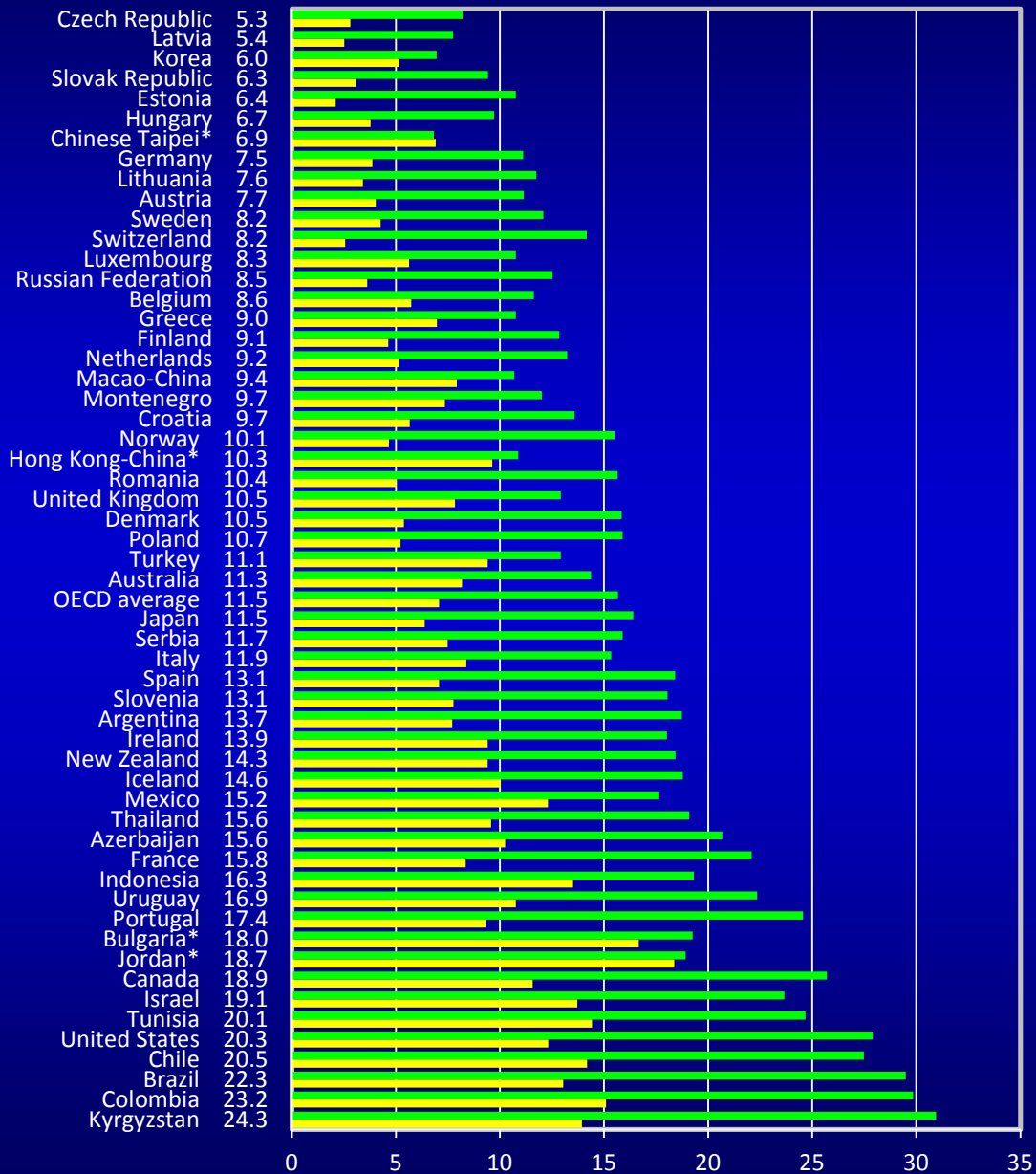
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Percentage of all students who plan a career in health services

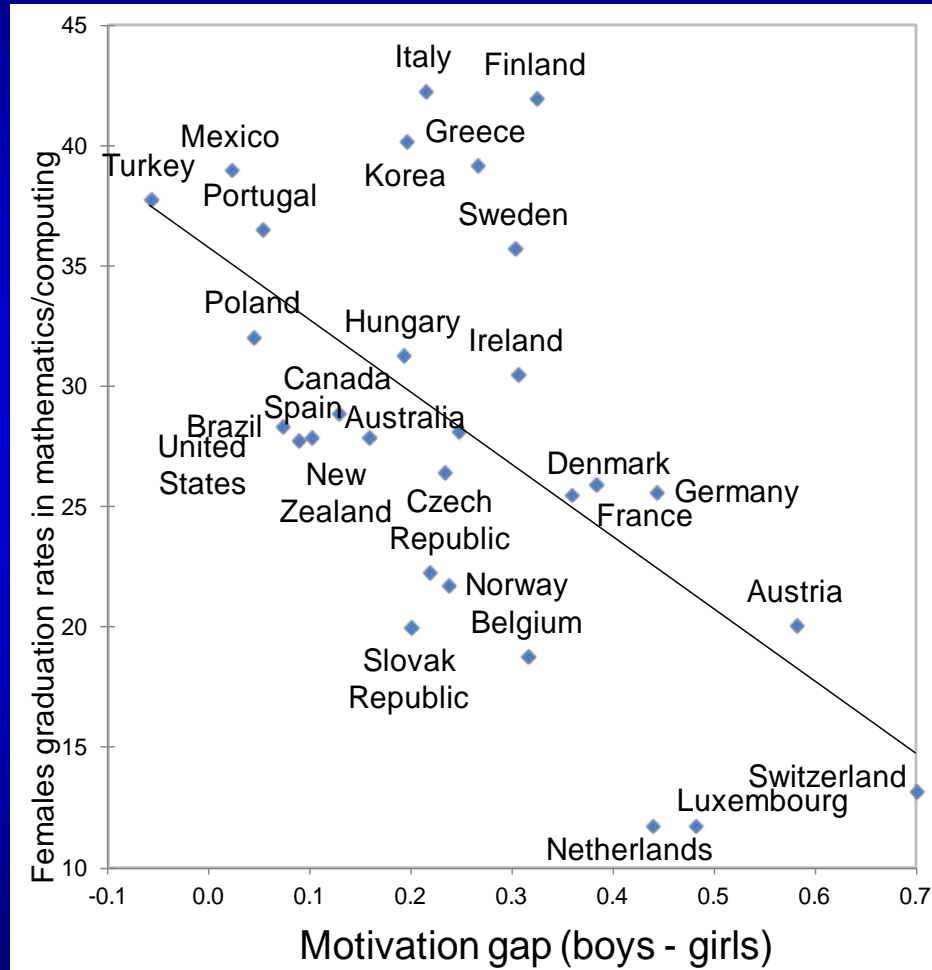
■ Girls ■ Boys



Proportion of boys and girls planning a career in health services (excluding nursing)



# The Gender Gap in Motivation



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# Summary

- ❑ Gender gaps in schools are more evident when looking at top performers in mathematics and low performers in reading. Policy decisions should aim at encouraging talented girls to study mathematics and science at the most advanced levels.
- ❑ Lack of reading skills among low performing boys is worrying. Policies aiming at helping boys to acquire reading skills are especially needed among those with basic reading problems.
- ❑ Career preferences and motivation seems to be more important than achievement for future choices of students. Even top-skilled girls at age 15 rarely opt for engineering or computing.
- ❑ Achievement-focused policies will not change the relative disadvantage of women in labour markets.
- ❑ School level policies aimed at attracting girls to mathematics and science as future career options should be part of more general policies that try to change traditional views on the role of women as professionals.

# The OECD Gender Initiative

- Recognising the importance of gender equality, the OECD has embarked on a Horizontal Project in Gender Equality in three areas key to economic opportunity:
  - Education,
  - Employment and
  - Entrepreneurship

# The OECD Gender Initiative

- ❑ develop more detailed knowledge on KEY barriers in the "three Es"
- ❑ Establish standard indicators to measure progress in closing gender gaps
- ❑ Collect better and more comparable data on gender gaps in entrepreneurship - expected outcome OECD database
- ❑ Promote an exchange of best practices and policy transferability between OECD countries and emerging economies

# Thank you !

Find out more about PISA at...

- OECD [www.pisa.oecd.org](http://www.pisa.oecd.org)

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