



# **THE ECONOMICS OF IMPROVED BRAZILIAN SCHOOLS**

**Eric Hanushek**  
Stanford University

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# UN Sustainable Development Goals



# Development = Growth



**Growth = Skills**



# Conclusions

## 1. Development = growth

*- Recent focus on fiscal and political issues  
cannot neglect future*

 *Growth = skills*

2. Value of school improvement is enormous

3. Improvement is possible

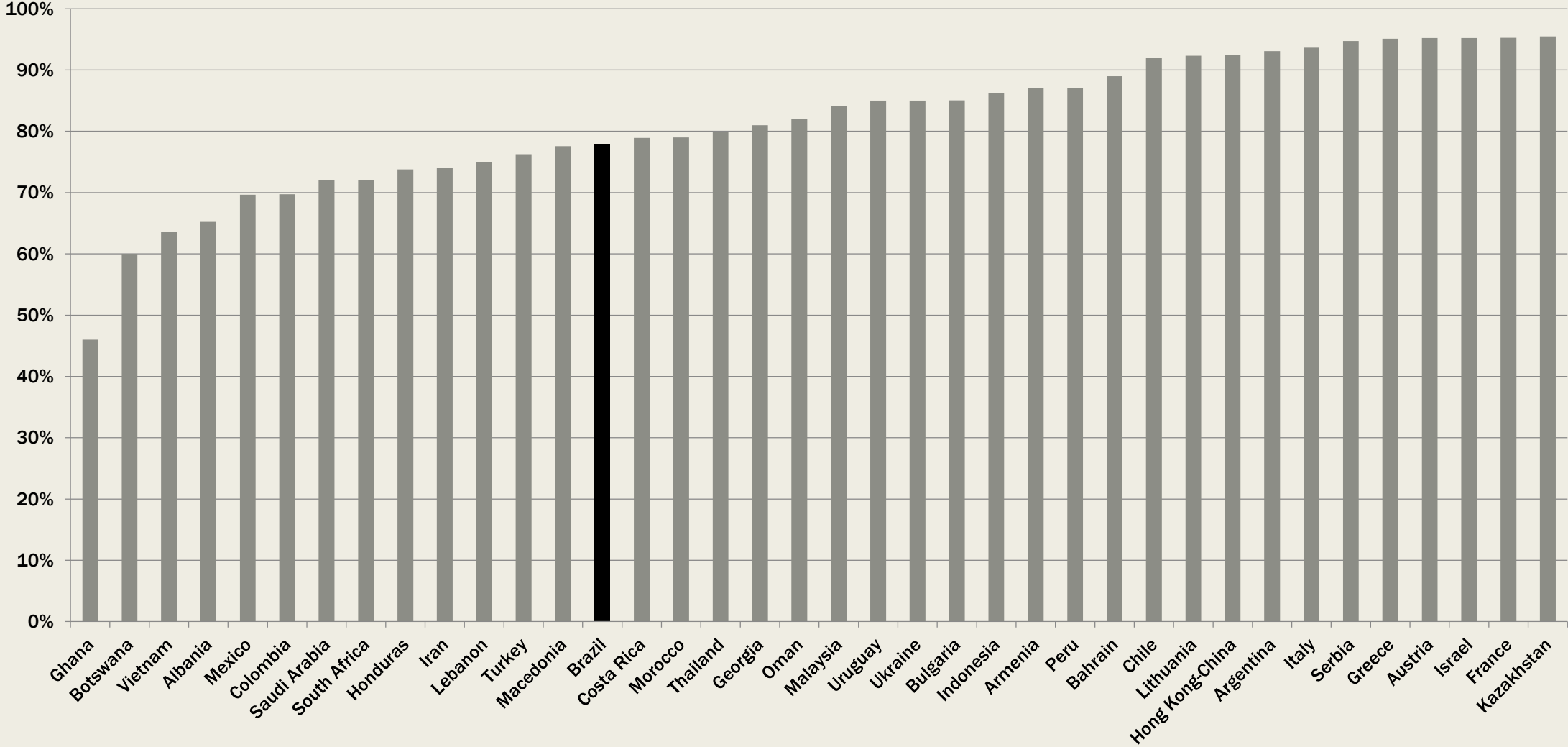
4. Improvement requires continued  
commitment

# KNOWLEDGE CAPITAL

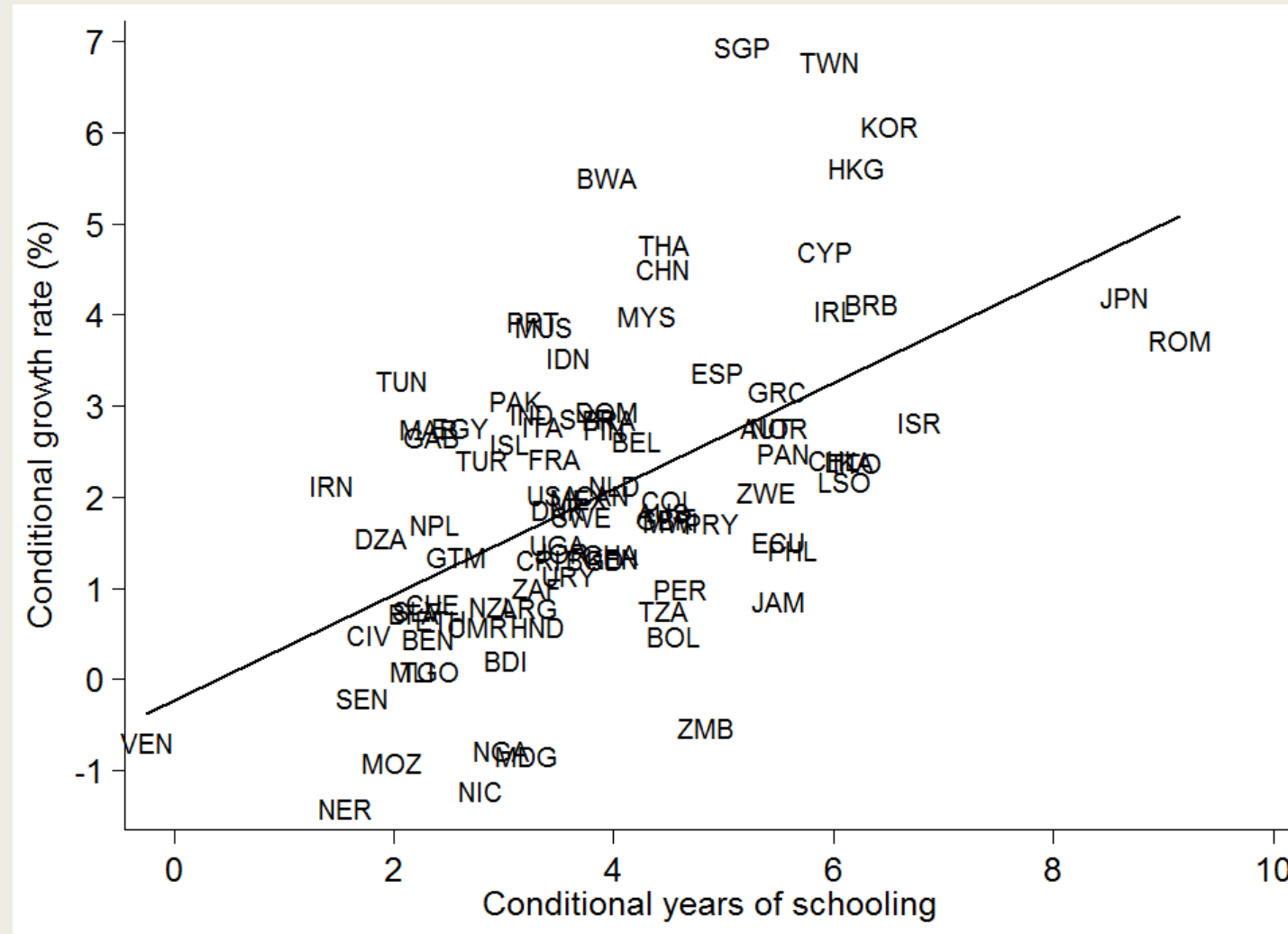
Education and the Economics of Growth



# Secondary School Enrollment Rates, 2012

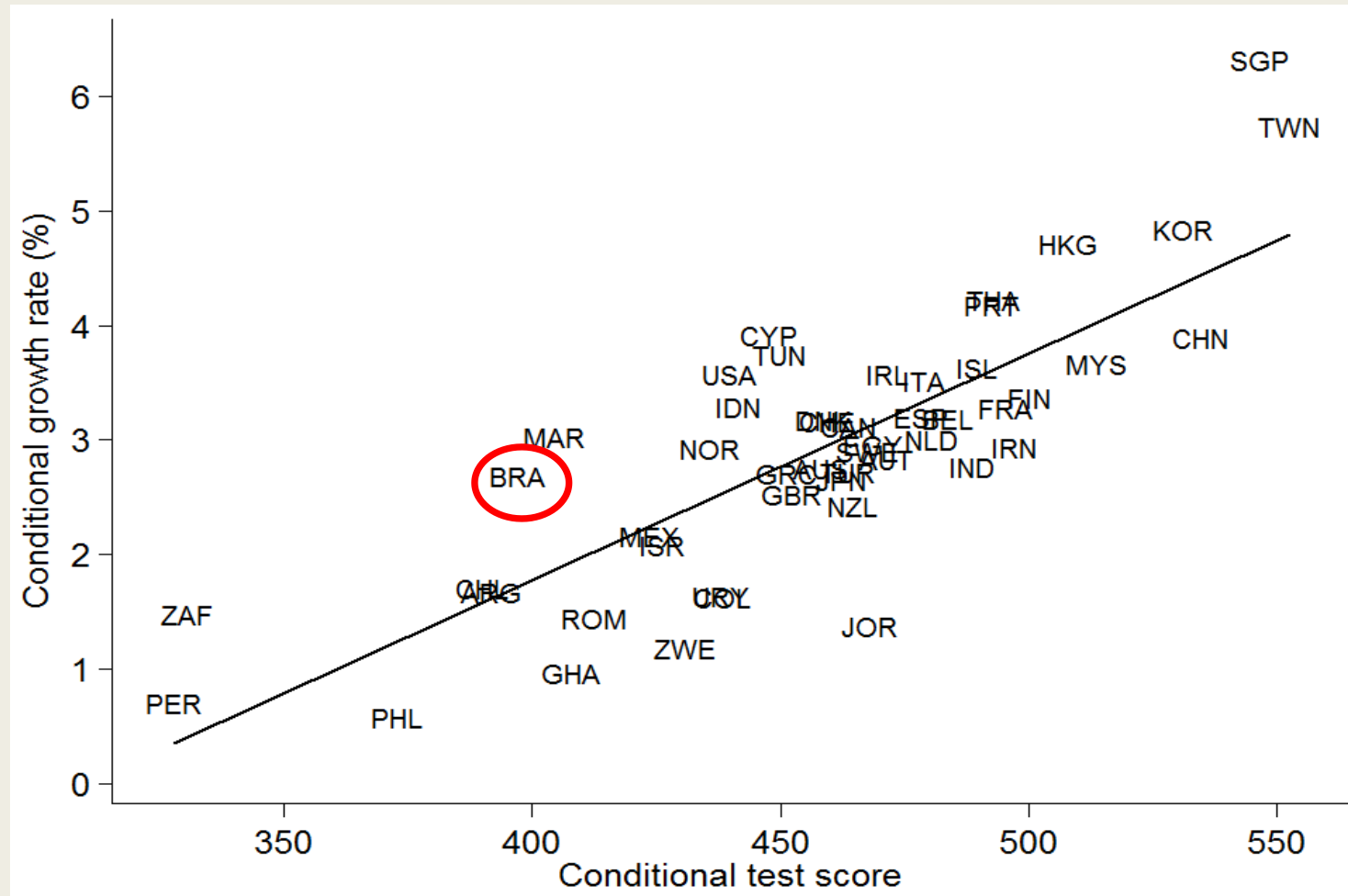


# Years of Schooling and Economic Growth

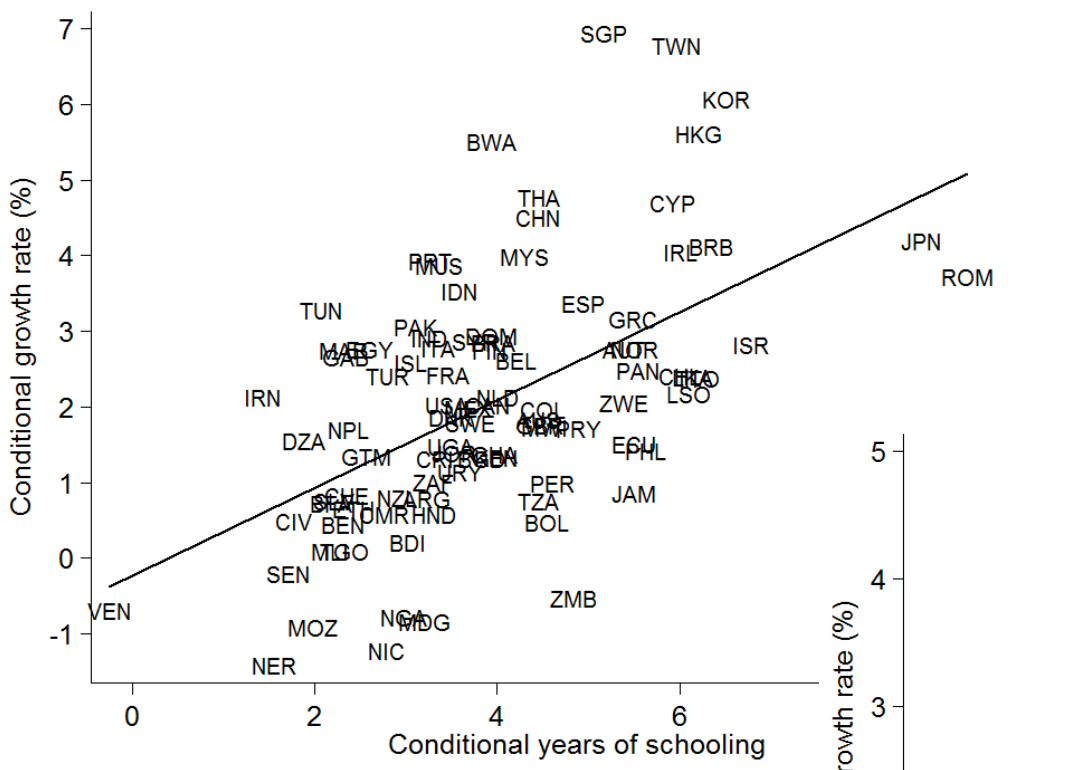




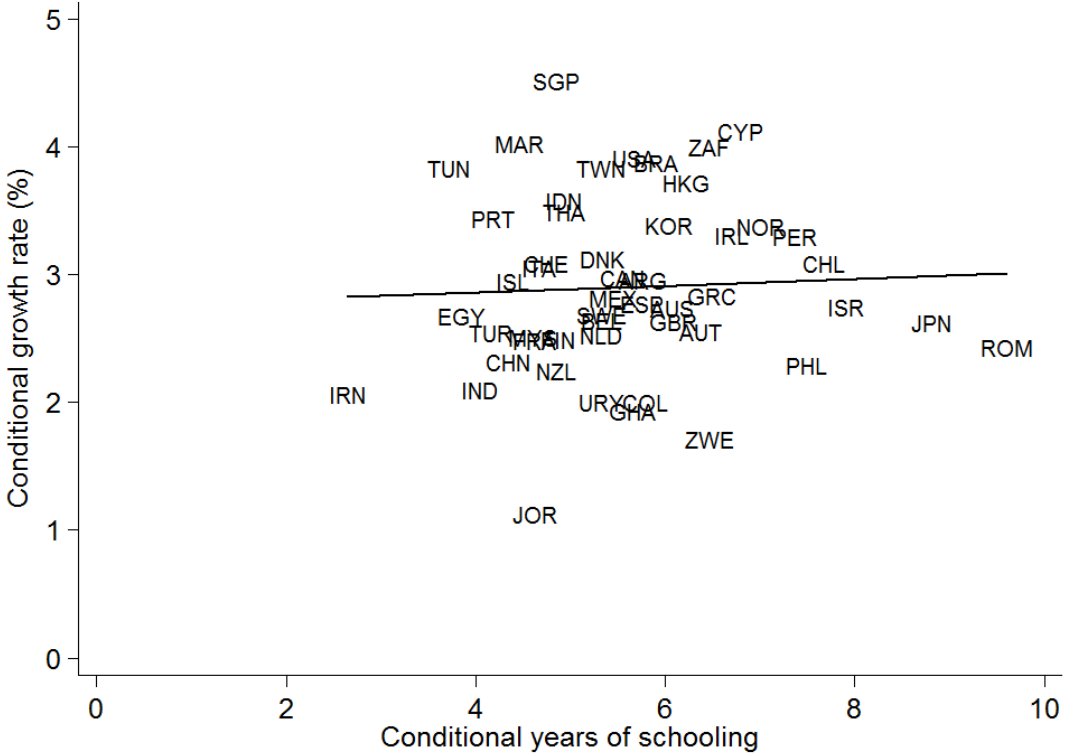
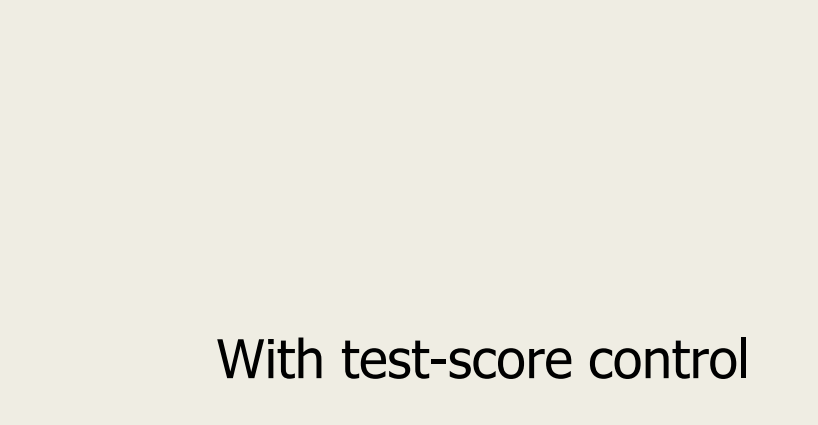
# Knowledge Capital and Economic Growth, 1960-2000



# Years of Schooling and Economic Growth



Without test-score control



# PISA in Brazil

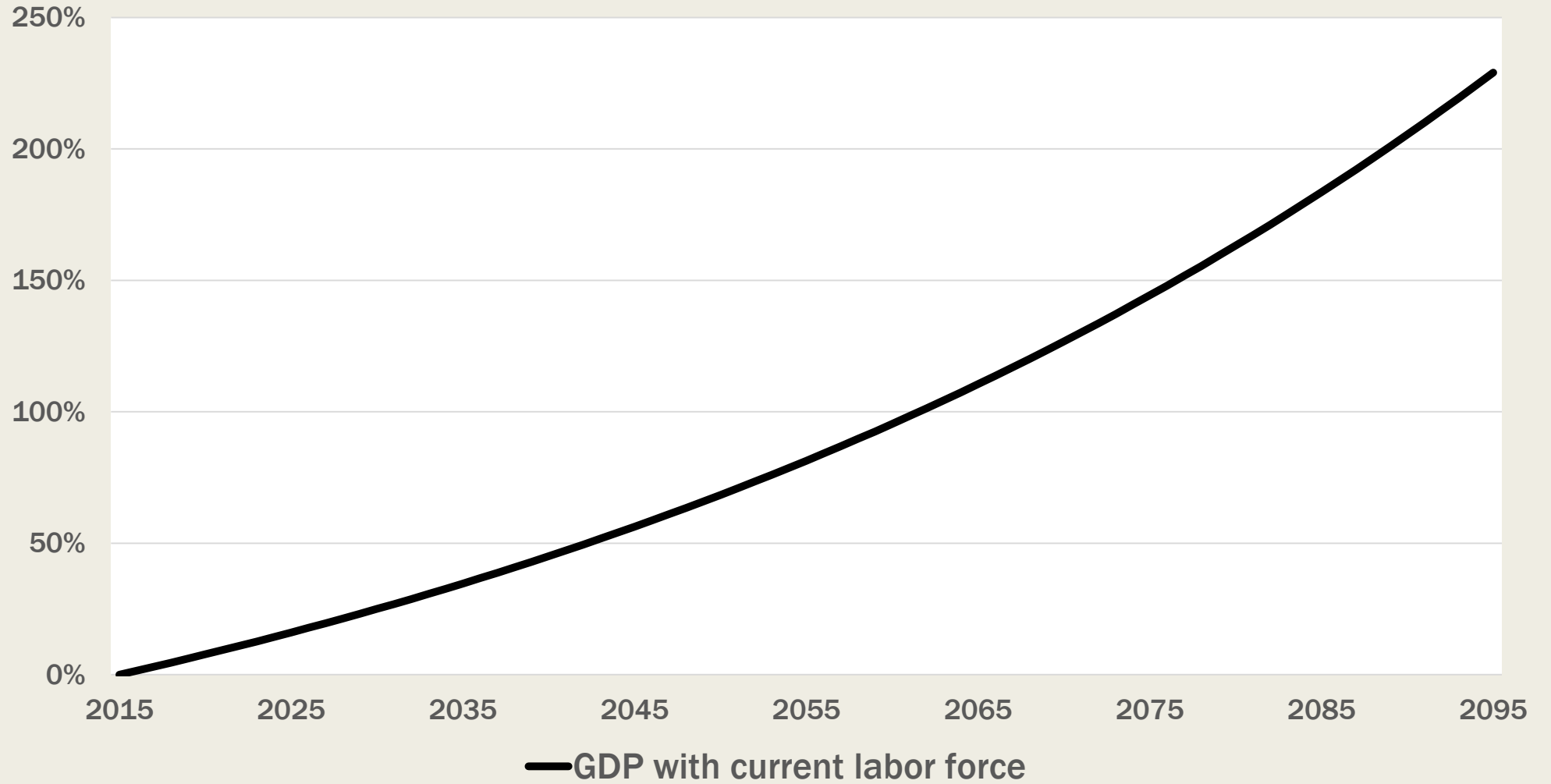


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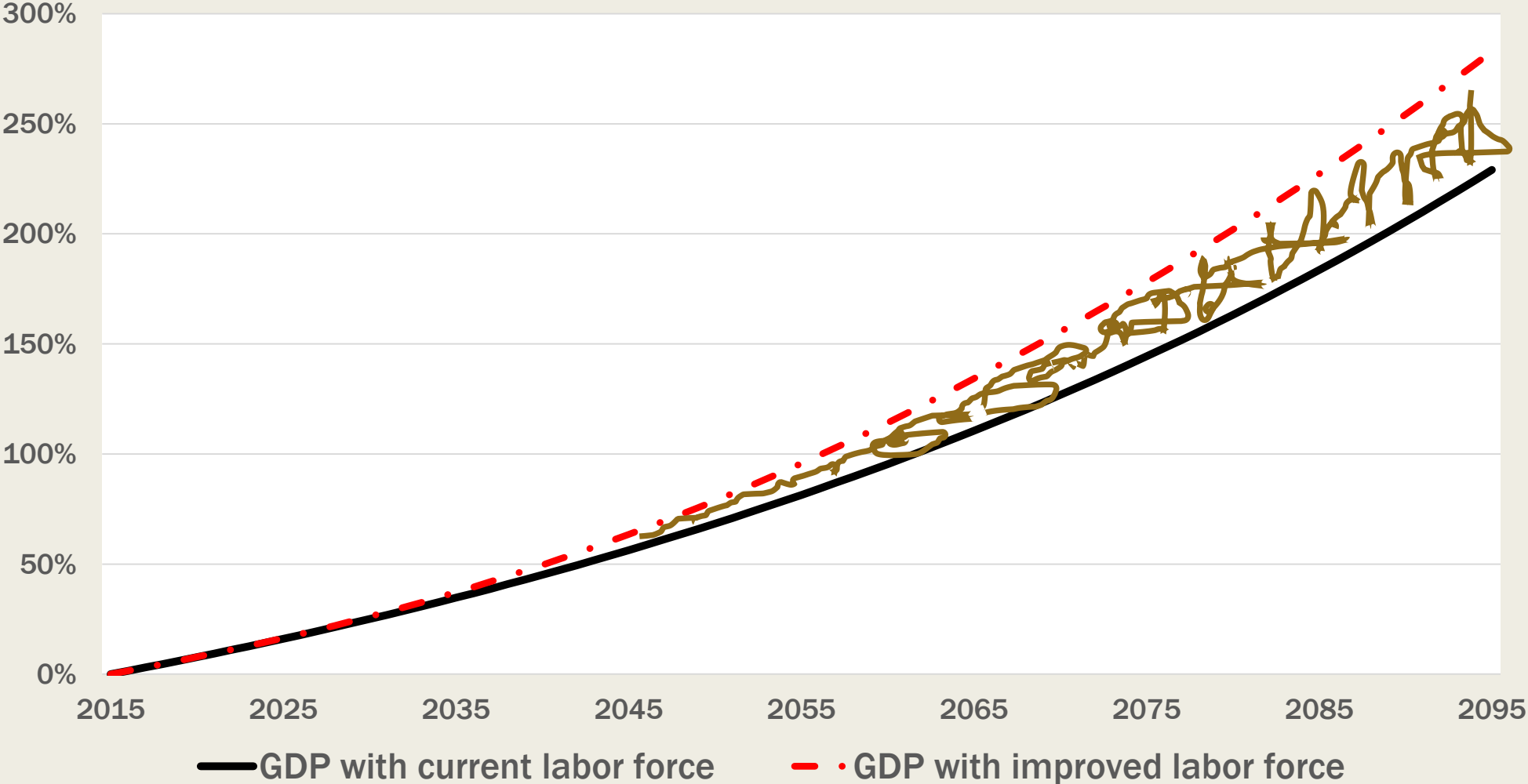
# THE ECONOMIC VALUE OF EDUCATIONAL REFORM



# Gains from Added Growth



# Gains from Added Growth

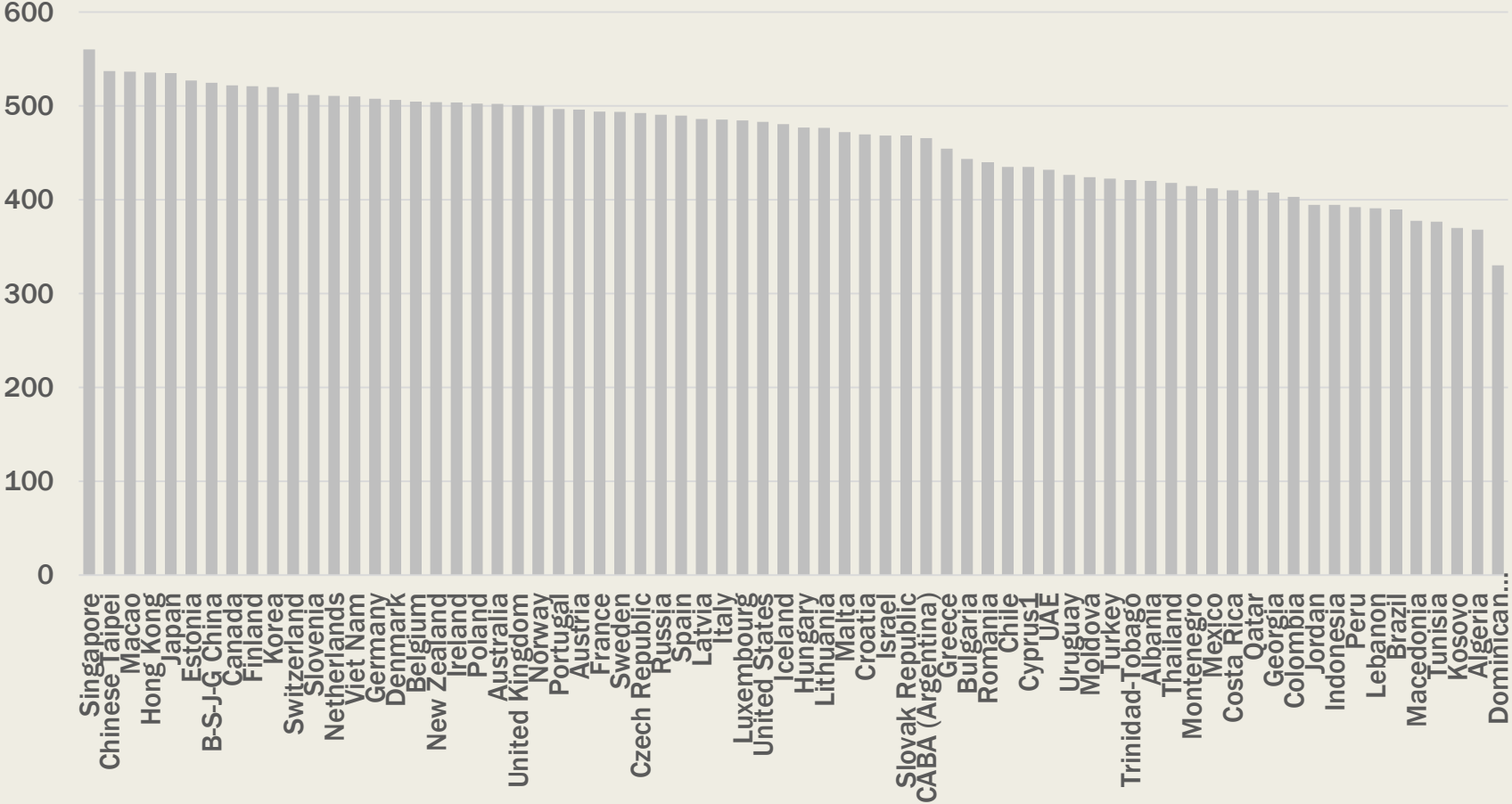


# Value of Improvement for Brazil

- **Two projections**

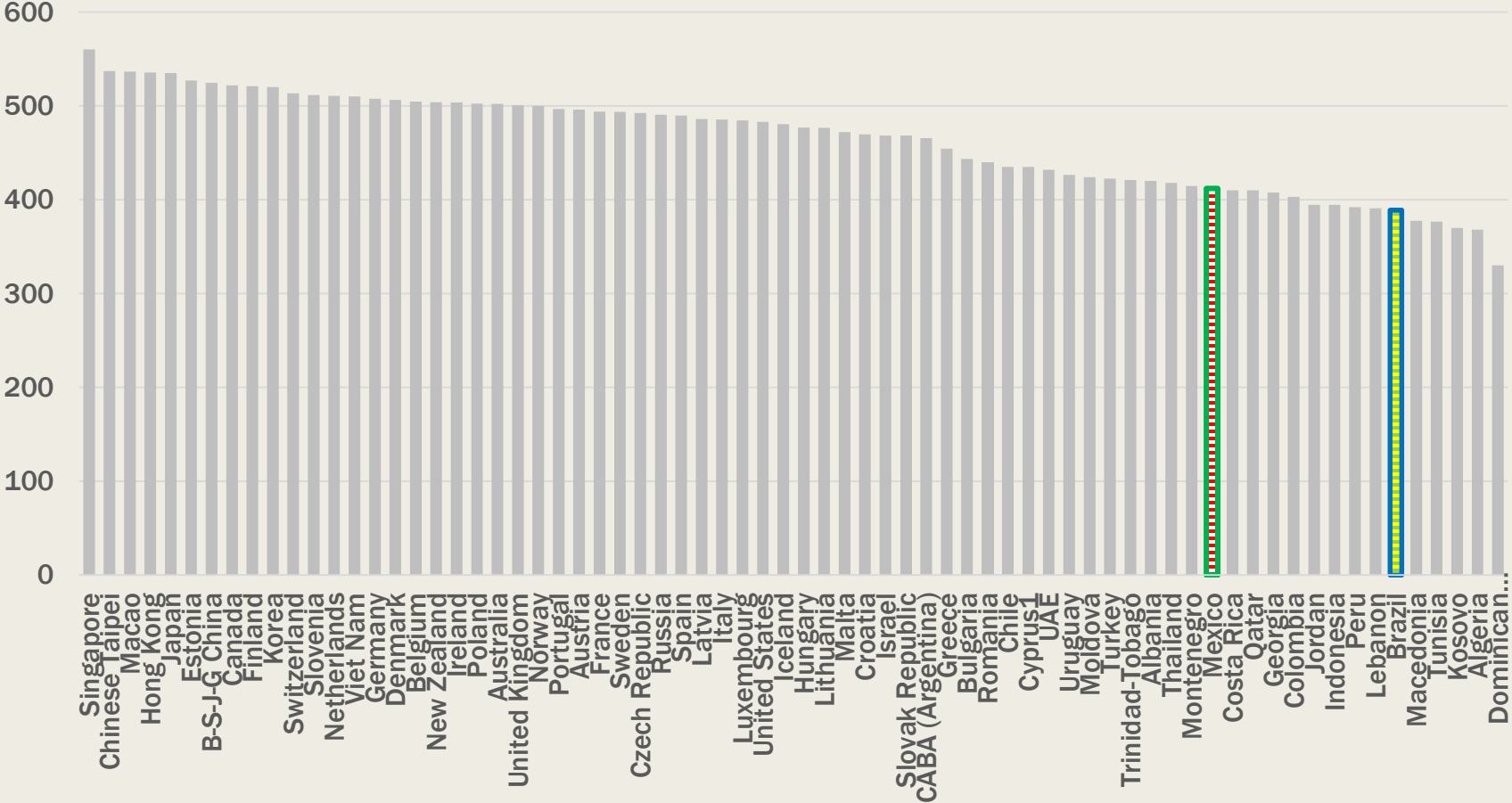
- 1. Reaching Mexican school quality (current students)*
- 2. Universal Basic Skills*

# PISA 2015 – Math + Science





# PISA 2015 – Math + Science



# Value of Improvement - 1

- Brazil moves to quality level of Mexico



- Present value of **260% of GDP [USD 4 256 billion]**
- Average **5.6% higher GDP/pop**
- **11% higher paychecks** for all workers every year

# Value of Improvement - 2

## Universal Basic Skills

- Enrollment rate: 78%
- Below 420 (Level 2): 64%
  
- Enrollment rate: **100%**
- Below 420 (Level 2): **0%**

# Universal Basic Skills

% Added GDP

20

15

10

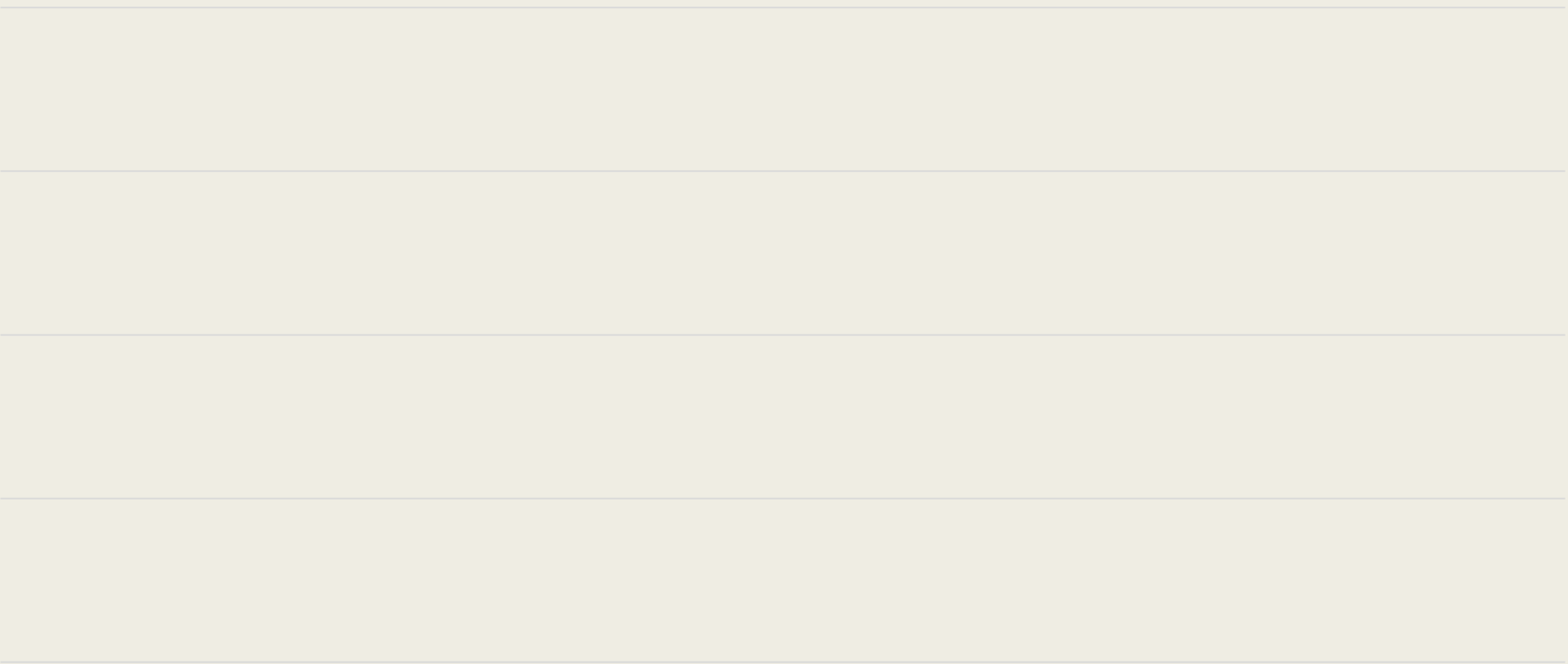
5

0

Full Access, Current Quality

Basic Skills, Current Access

Universal Basic Skills



# Universal Basic Skills

% Added GDP

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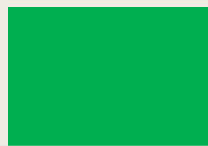
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Full Access, Current Quality

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# Universal Basic Skills

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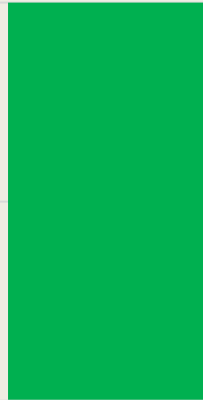
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Full Access, Current Quality

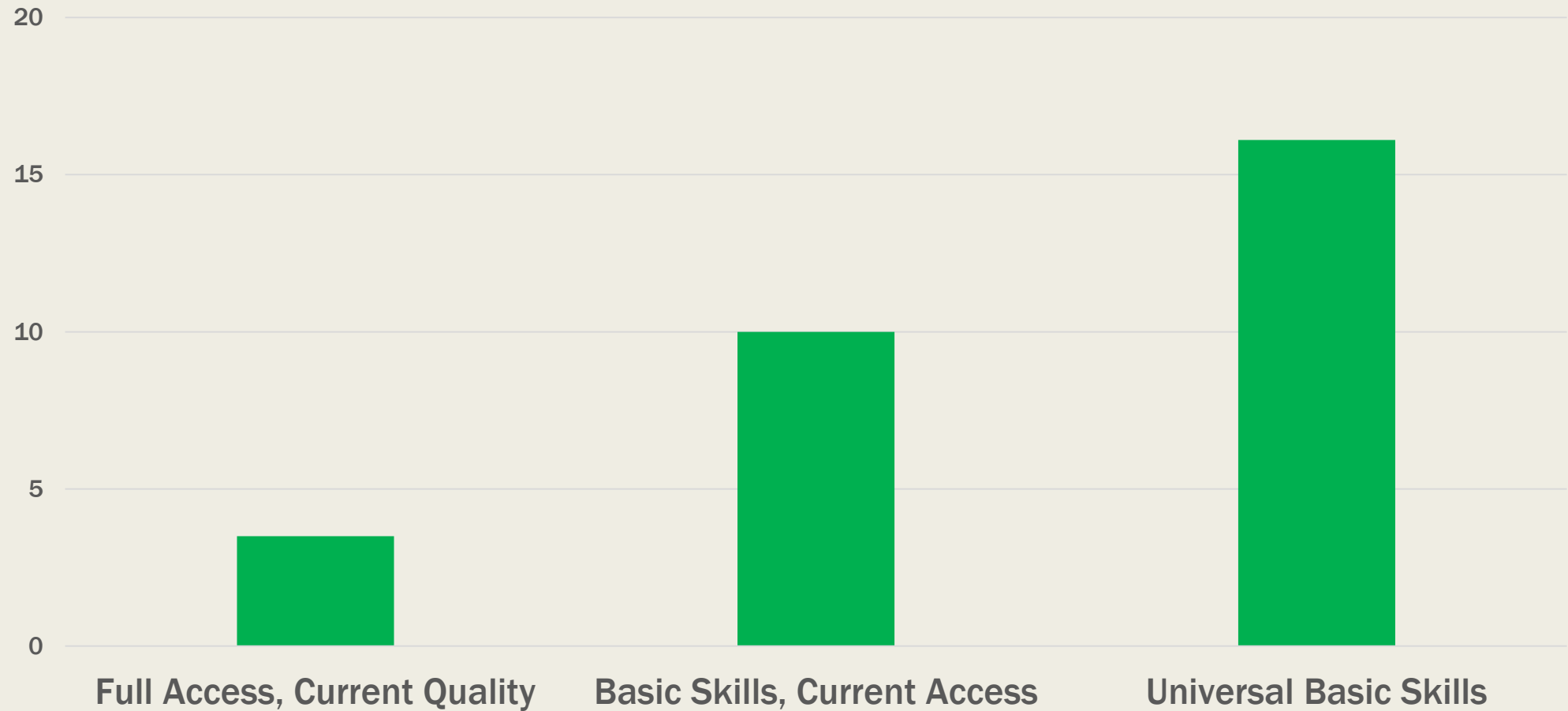
Basic Skills, Current Access

Universal Basic Skills



# Universal Basic Skills

% Added GDP



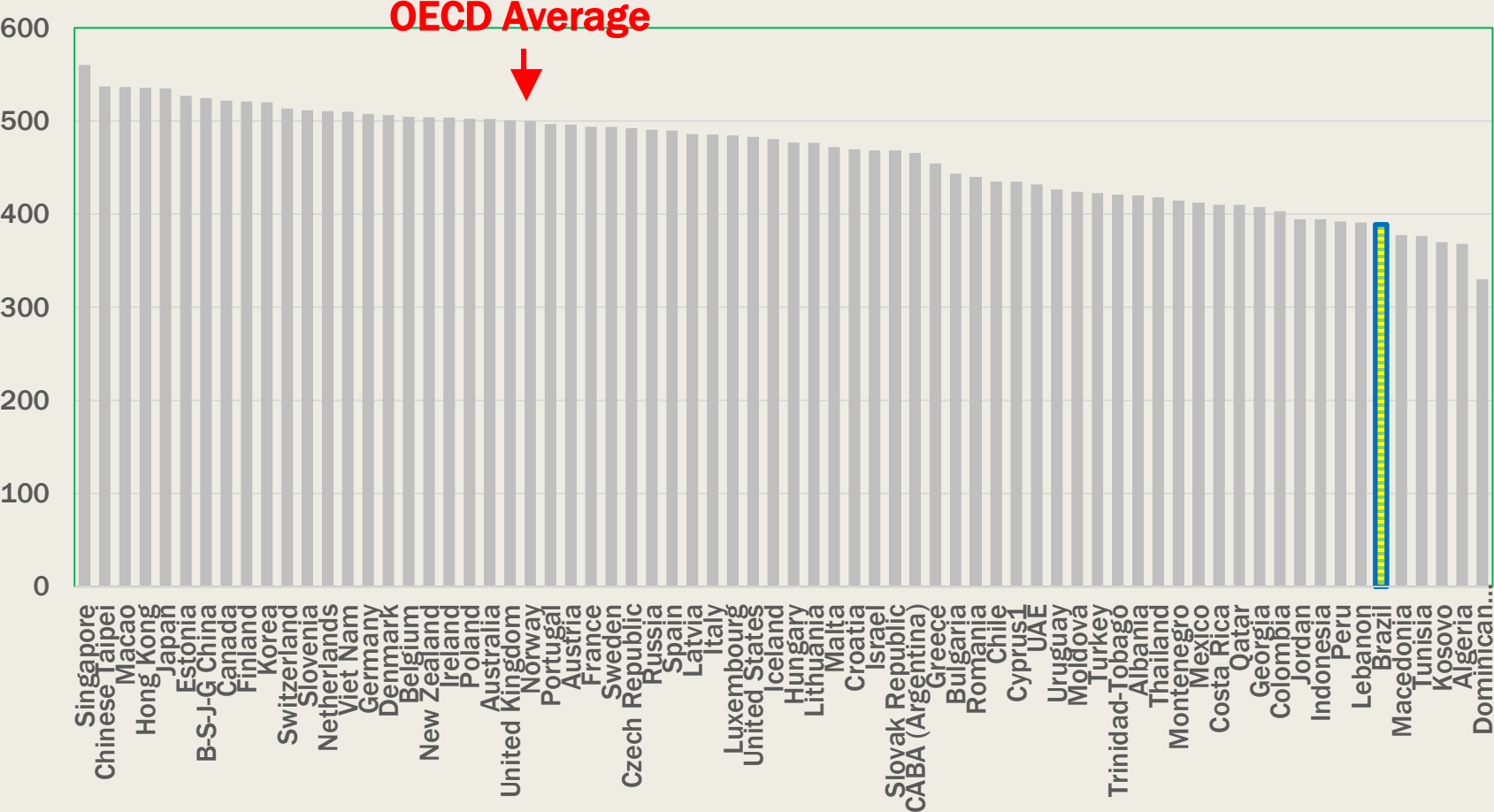
# Value of Improvement - 2

## Universal Basic Skills

- Enrollment rate: 78%
  - Below 420 (Level 2): 64%
- 
- Present value of **751% of GDP [USD 23 841 billion]**
  - Average **16.1% higher GDP/pop**
  - **32% higher paychecks** for all workers every year



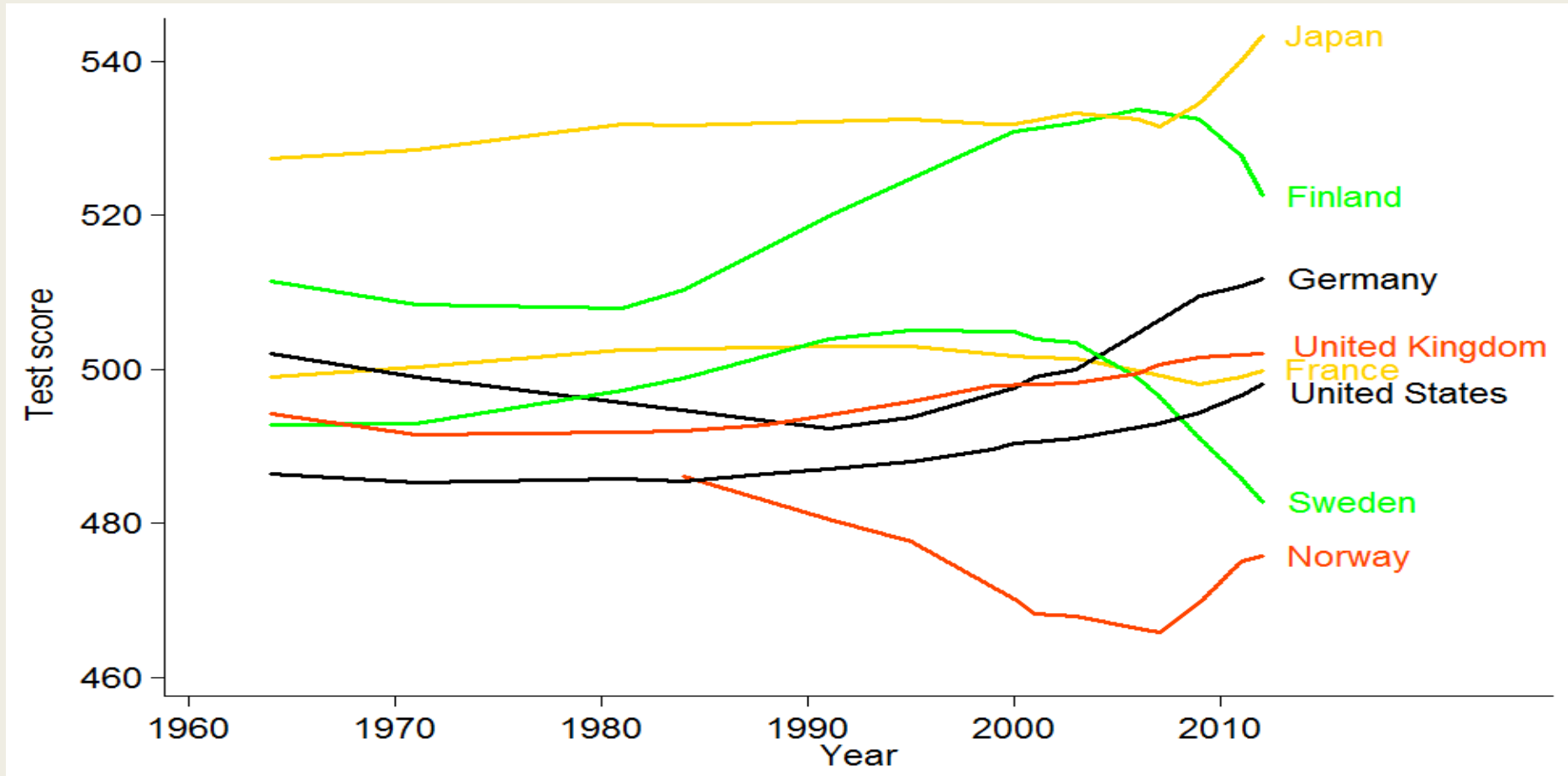
# PISA 2015 – Math + Science



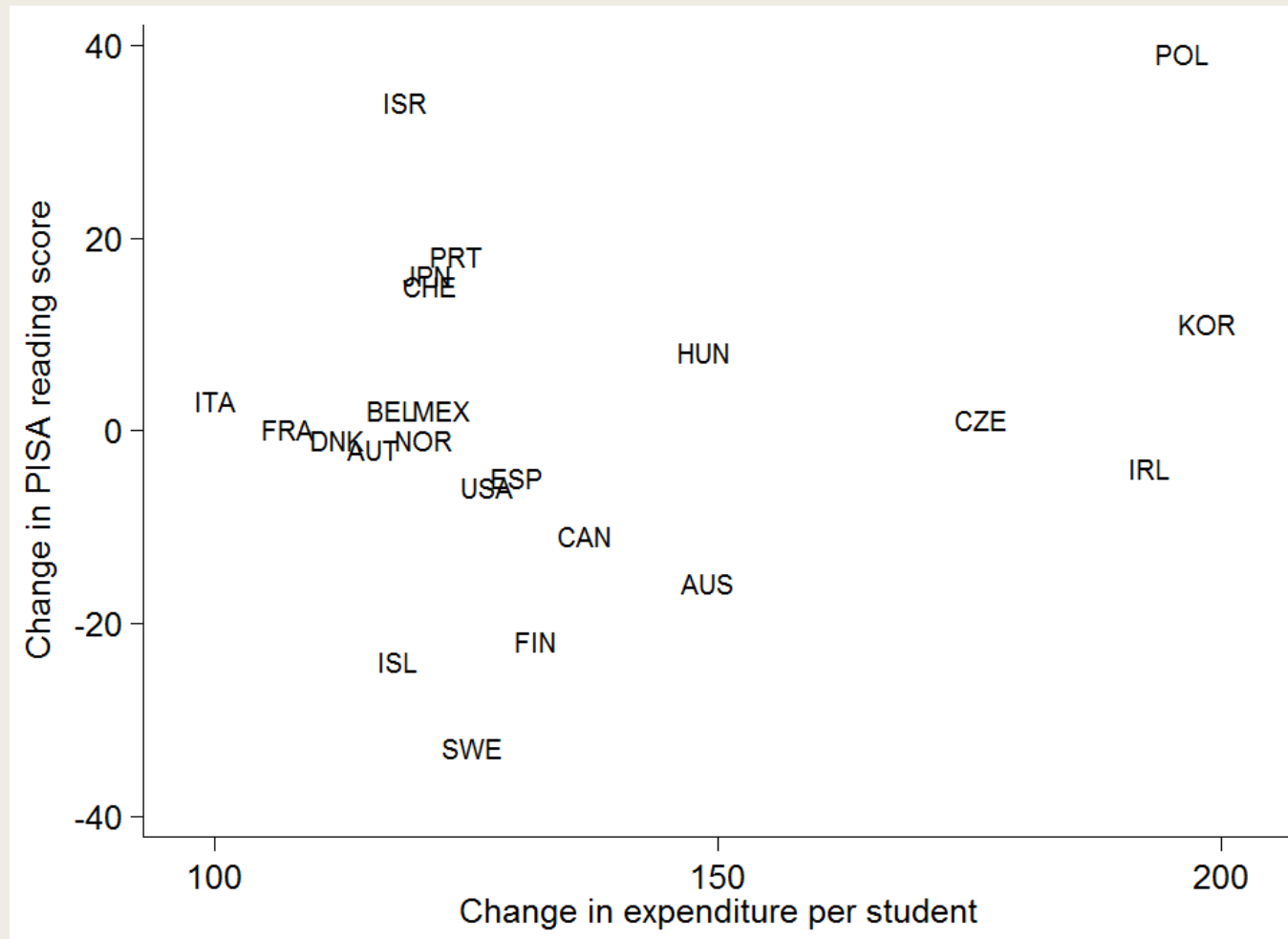
# IMPROVING KNOWLEDGE CAPITAL



# Long-Run Test Score Trends in Selected Countries, 1964-2012



# Changes in Educational Spending and in Achievement across Countries



# What Can Be Done?

- 1. Improve teacher quality**
- 2. Improve teacher quality**
- 3. Improve teacher quality**

**\*and administrator quality**

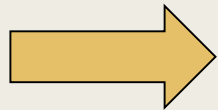
# A Contract for Success

- Incentives are key issue
- Finance contracts with education
  - *Funding follows performance*
- Provides leverage *for school authorities*
- Emphasizes efficiency in schools

# Conclusions

## 1. Development = growth

*- Recent focus on fiscal and political issues  
cannot neglect future*



*Growth = skills*

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# THANK YOU!

[hanushek@Stanford.edu](mailto:hanushek@Stanford.edu)

<http://Hanushek.Stanford.edu>