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3<sup>rd</sup> READ Global Conference / 6<sup>th</sup> World Bank ECA Education Conference

# Using Assessment Results to Improve Education Quality: A Global Perspective

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# Importance of Focus on Education Quality

- Traditional emphasis on school attainment and expenditure
  - Development of access programs
    - Centerpiece of Millennium Development Goals
    - Education for All initiative
  - Some clear successes and some continuing challenges
  - Clear evidence that **QUALITY** is the primary issue
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# Latin America Then

	GDP/pop 1960	Years schooling
Asia	1891	4.0
Sub-Saharan Africa	2304	3.3
MENA	2599	2.7
<b>Latin America</b>	<b>4152</b>	<b>4.7</b>
Europe	7469	7.4
Commonwlt OECD	11252	9.5

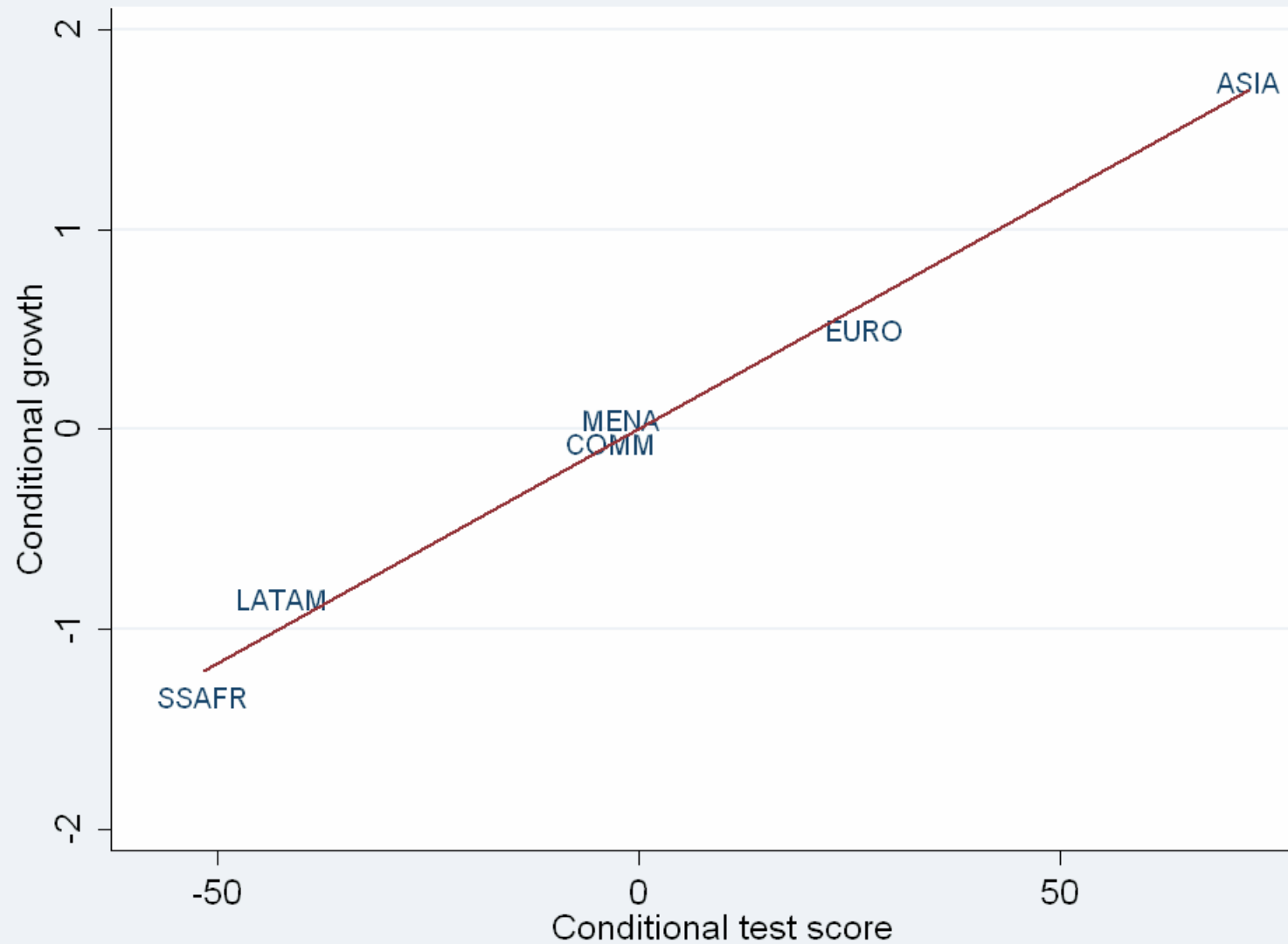
# Latin America Then and Now

	GDP/pop 1960	Years schooling	Growth 1960-2000	GDP/pop 2000
Asia	1891	4.0	4.5	13571
Sub-Saharan Africa	2304	3.3	1.4	3792
MENA	2599	2.7	2.7	8415
<b>Latin America</b>	<b>4152</b>	<b>4.7</b>	<b>1.8</b>	<b>8063</b>
Europe	7469	7.4	2.9	21752
Commonwlt OECD	11252	9.5	2.1	26147

# Latin America Then and Now

	GDP/pop 1960	Years schooling	Growth 1960-2000	GDP/pop 2000	Test score
Asia	1891	4.0	4.5	13571	480
Sub-Saharan Africa	2304	3.3	1.4	3792	360
MENA	2599	2.7	2.7	8415	412
<b>Latin America</b>	<b>4152</b>	<b>4.7</b>	<b>1.8</b>	<b>8063</b>	<b>388</b>
Europe	7469	7.4	2.9	21752	492
Commonwealth OECD	11252	9.5	2.1	26147	500

# Cognitive Skills and Economic Growth



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# Overview of Discussion

1. Why we need a focus on education **quality**
    - Economic growth; individual earnings; distributional outcomes
  2. Huge size of **challenge** in many countries
  3. Relevance of **assessment** for quality improvement
    - Resource policies; exit exams; accountability policies; school autonomy and choice; demand-side incentives
  4. The issue of **global** assessments
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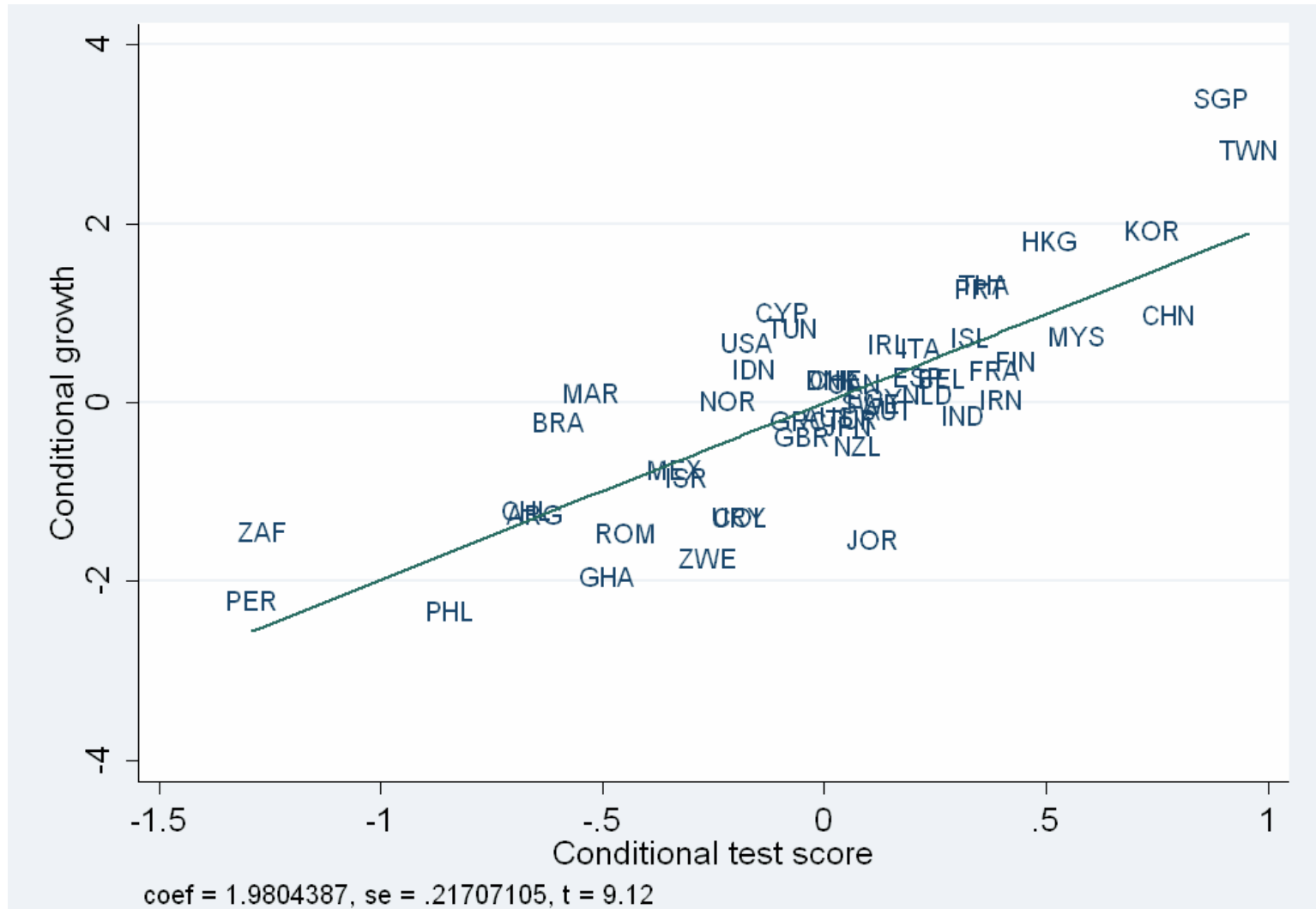
# Growth Analysis Itself Is Based on (International) Assessments

- Cognitive skills: International Student Achievement Tests
    - Measuring knowledge, not sitting in the classroom
  - International agencies have conducted many international tests of students' performance in cognitive skills since mid-1960s
    - 12 testing occasions
    - 36 separate test observations (age levels, subjects)
  - Require rescaling to obtain combined measure
    - Adjust mean and variance of separate tests
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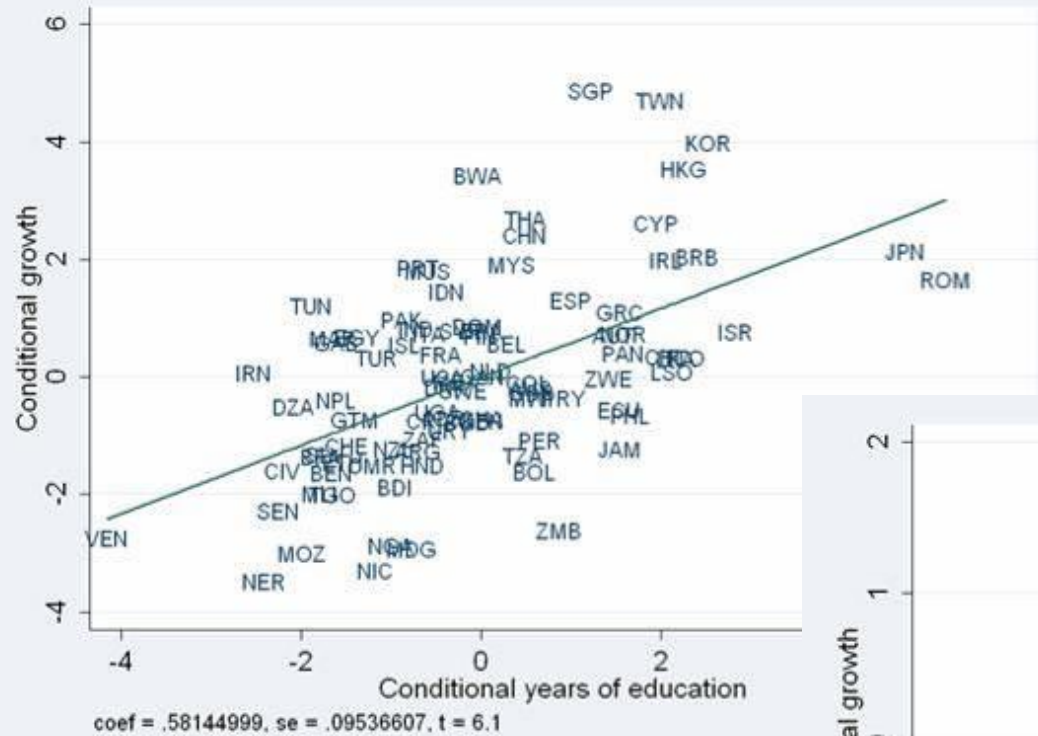




# Education Quality and Economic Growth

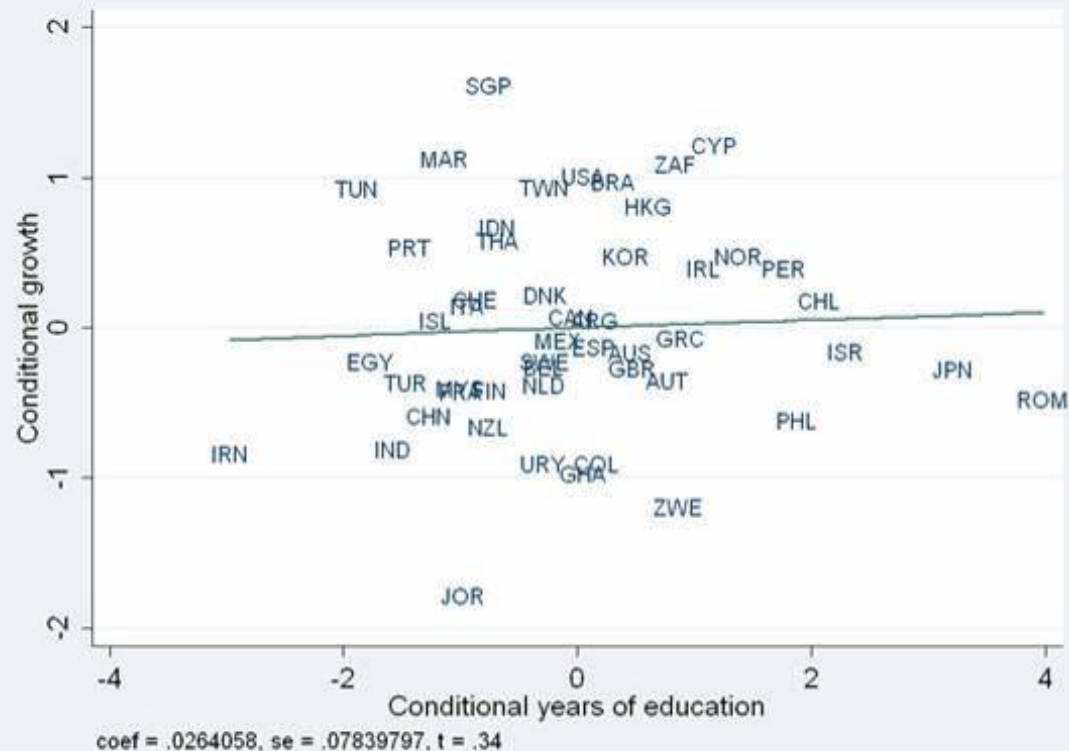


# Quantity of Schooling

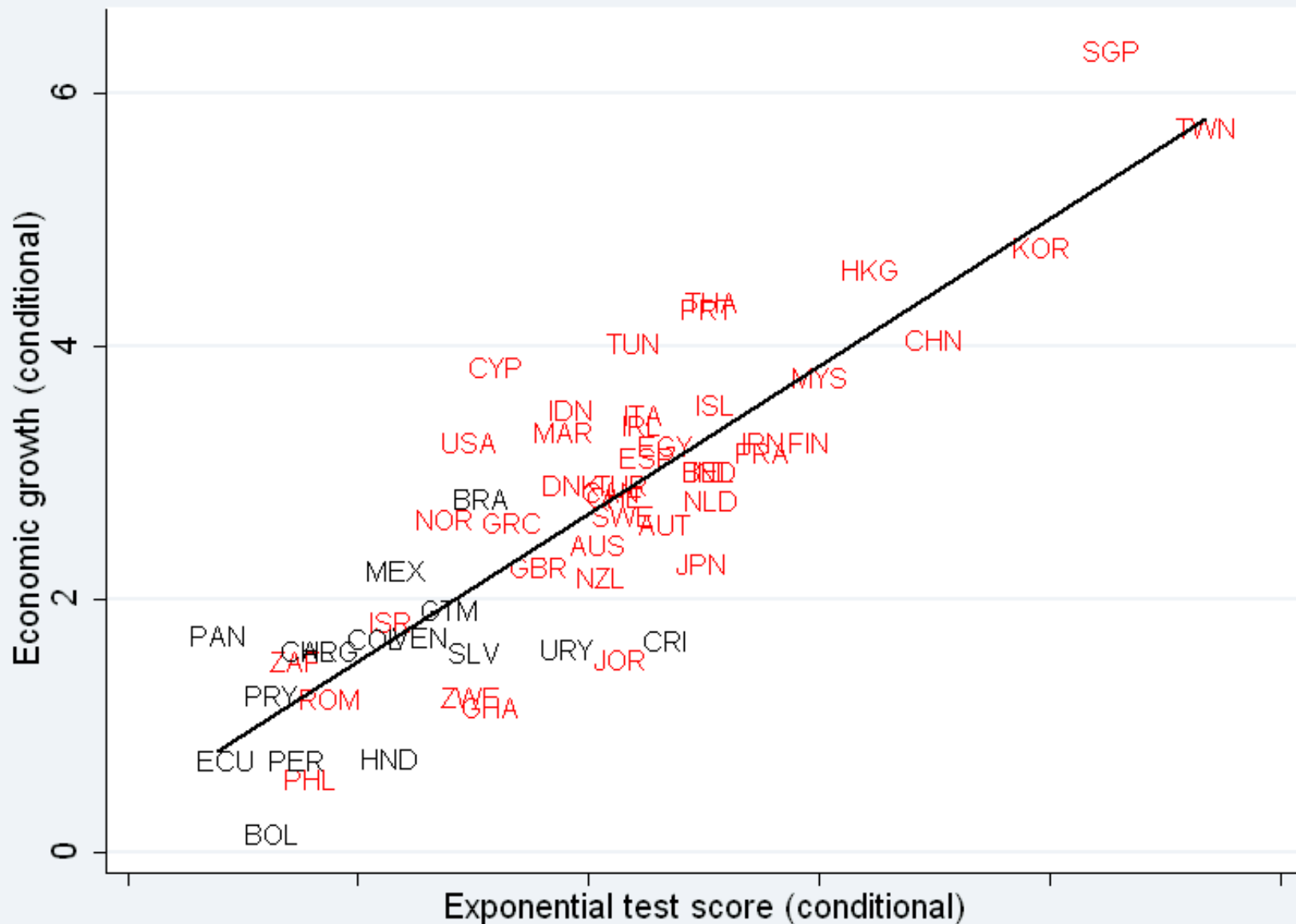


Without quality control

With quality control



# Extension to Latin American Tests



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# Other Benefits of Improved Cognitive Skills

- Improvement in individual earnings
    - True for developed countries
    - True for developing countries
  - Improvement in income distribution
  - Support for causal interpretation
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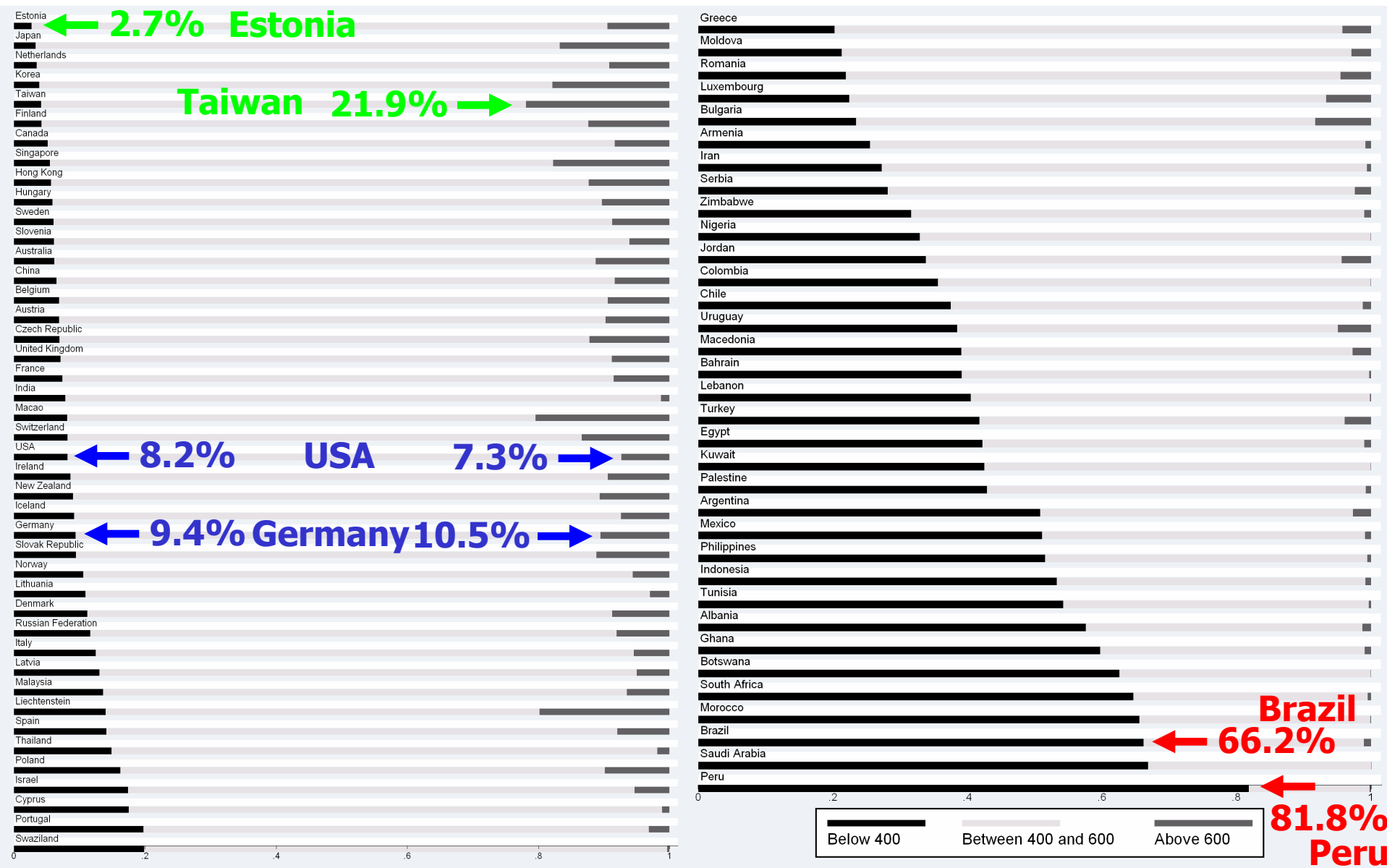
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# The Size of the Current Challenge

- Current situation in developing countries is much worse than generally pictured on basis just of school enrollment and attainment

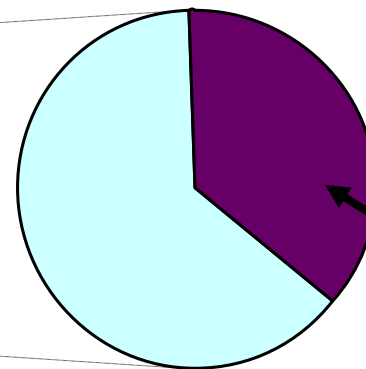
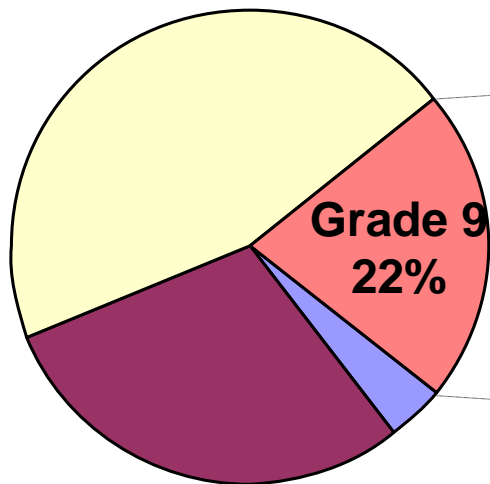
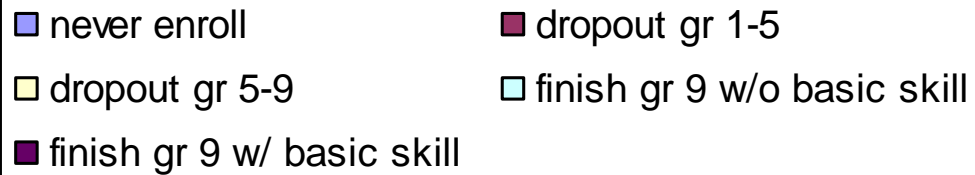


# Lack of Educational Quality – Share of students below 400 test points (“illiterate”), between 400 and 600 and above 600 test points



# Basic Skills

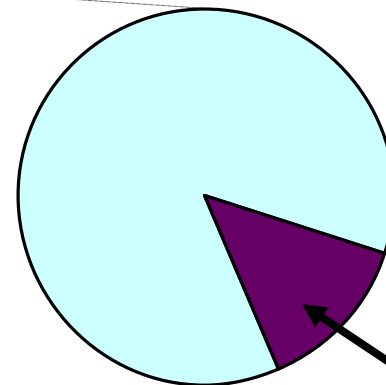
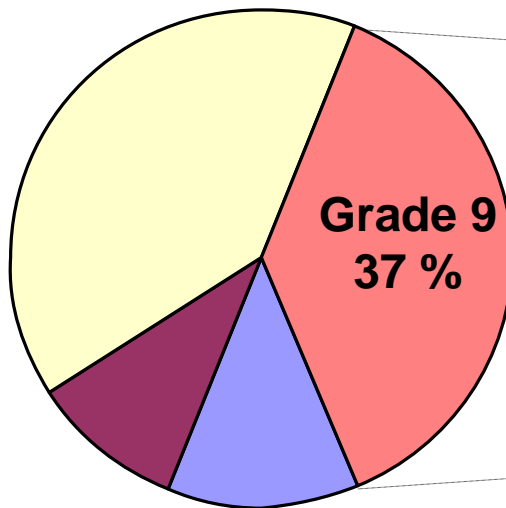
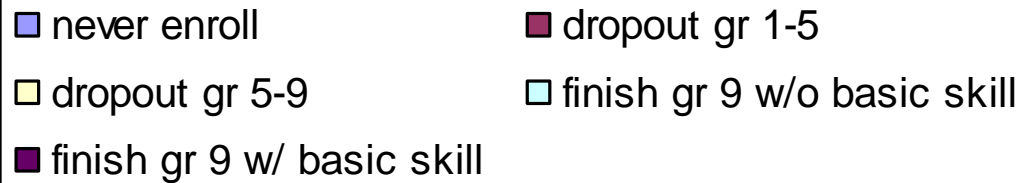
## Brazil





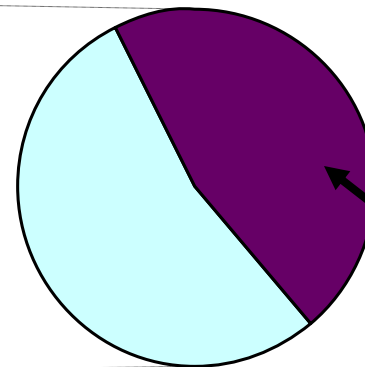
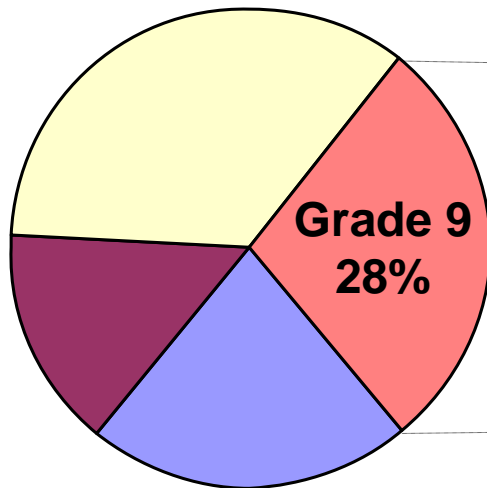
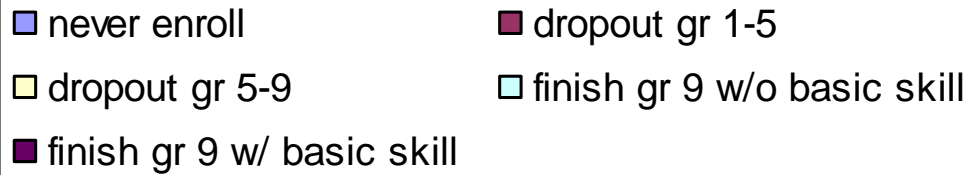
# Basic Skills

## Ghana



# Basic Skills

## Morocco



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# How to Improve Education Quality???

- Families; peers; community, neighborhood
  - Schools
    - Policy largely around schools
    - But other interventions such as health programs
    - a) Resource policies
    - b) Institutional policies
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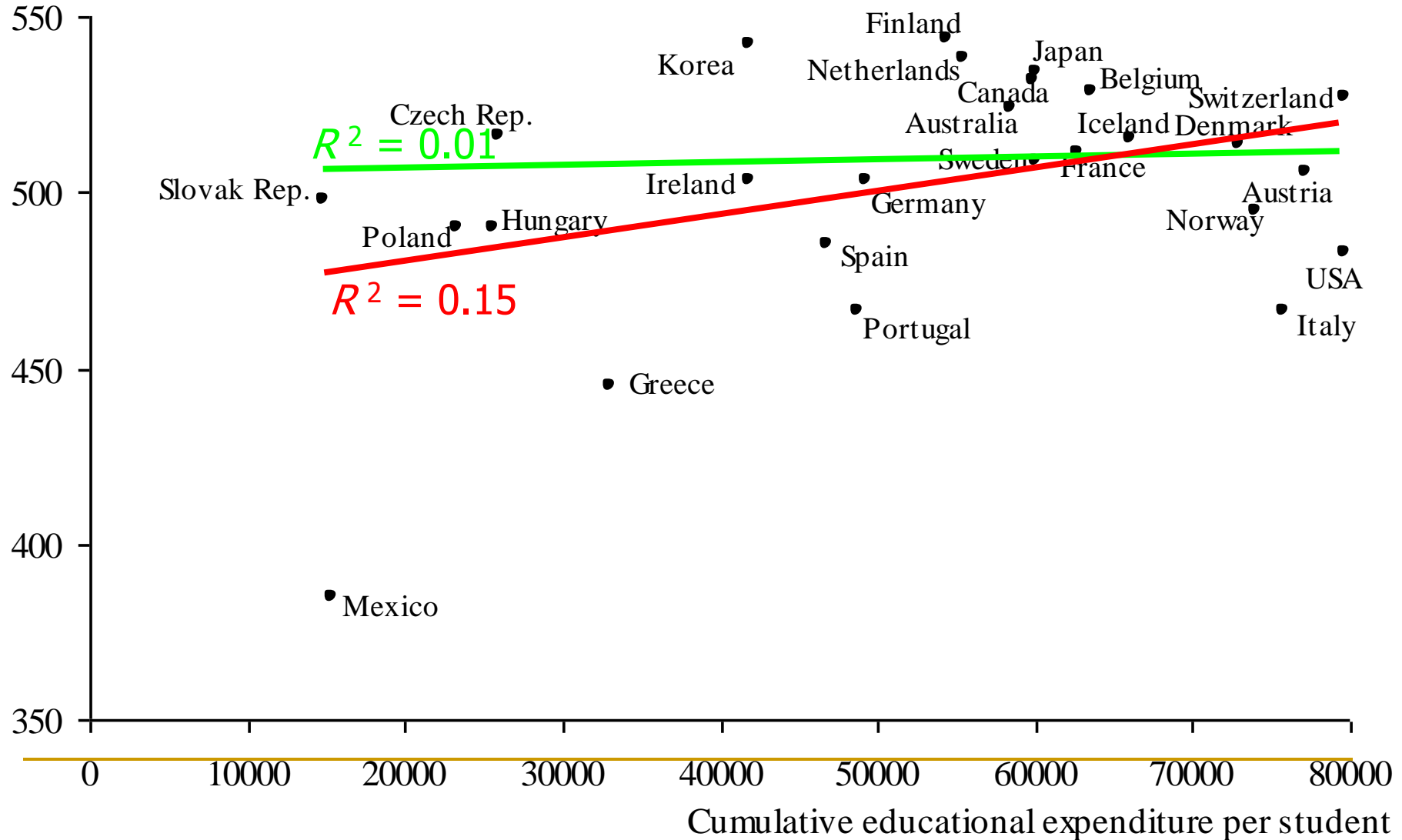
# Resource Policies

- Little evidence of success
  - Cross-country evidence



# Resources and Performance across Countries

Math performance in PISA 2003



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# Resource Policies

- Little evidence of success
  - Cross-country evidence
  - Within-country – developed countries
  - Within-country – developing countries
- Does not say “resources never have effect”
- Does not say “resources cannot have effect”

***No expectation within current incentive structure***

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# Assessments as Part of Institutional Reforms Supported by Evidence

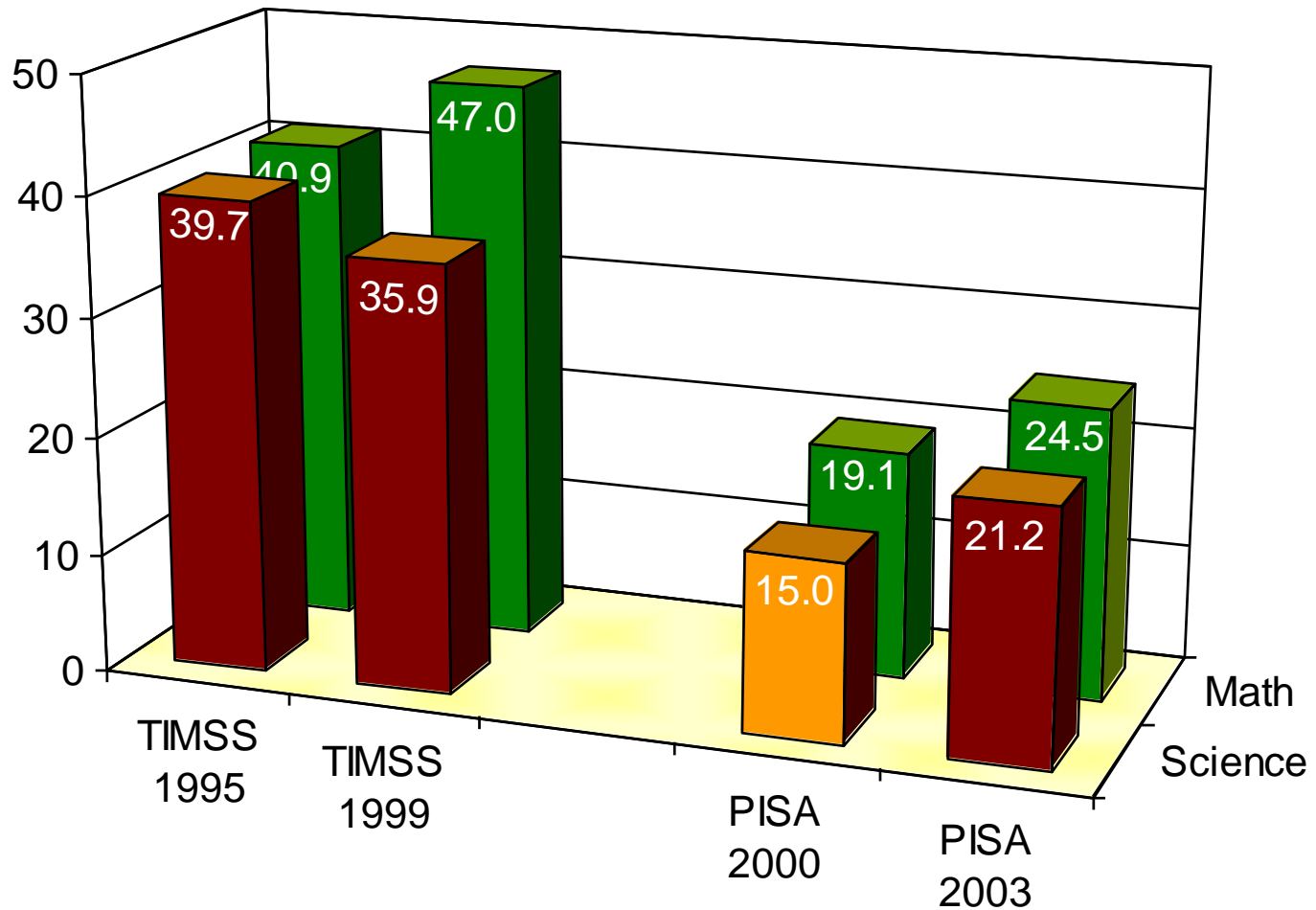
1. Central exit exams
  2. Meaning for autonomy and choice
  3. Various accountability measures
  4. Direct demand-side incentives
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# Central Assessments and Education Quality: A German View



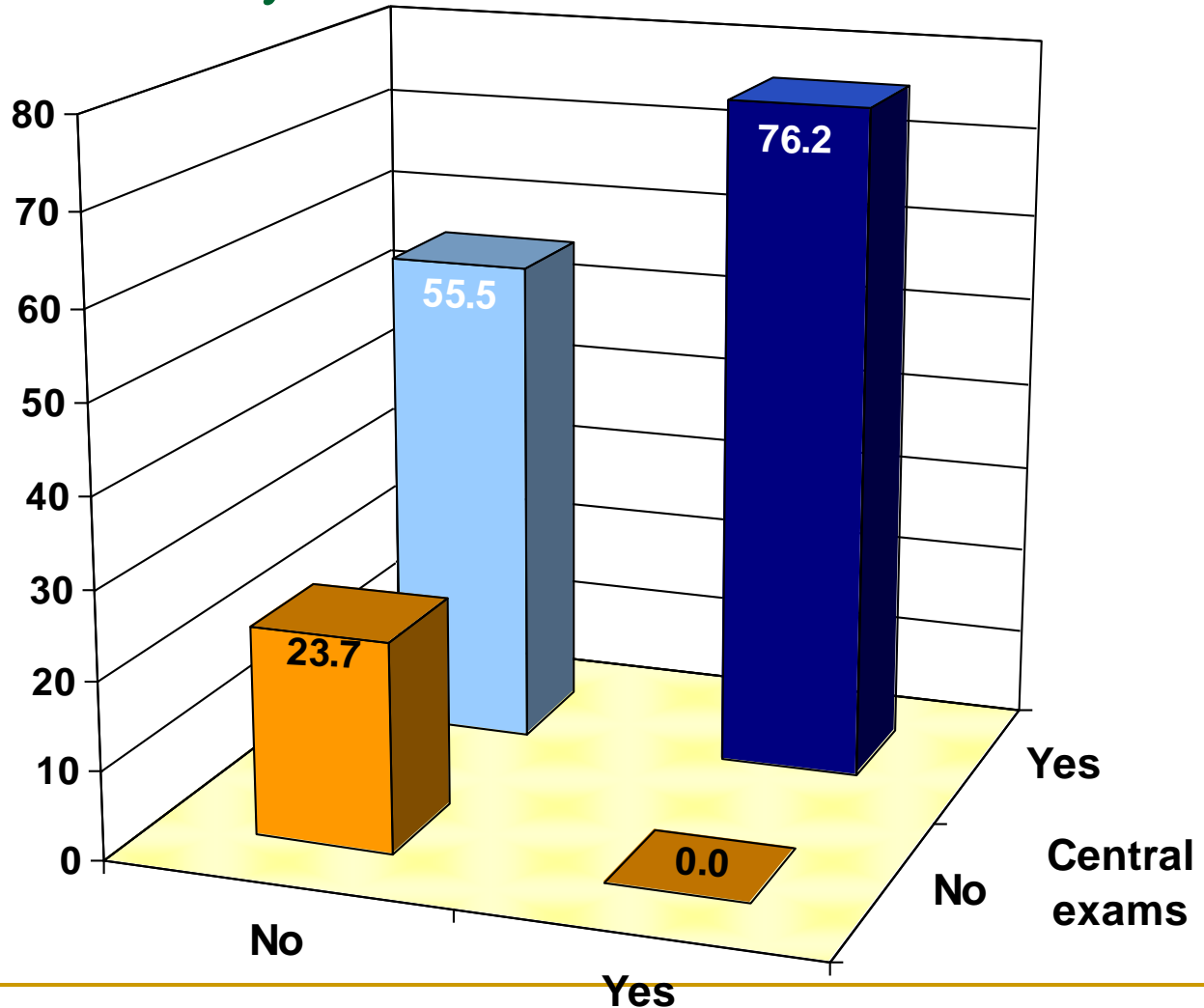


# Central Assessments and Education Quality: The Global Perspective



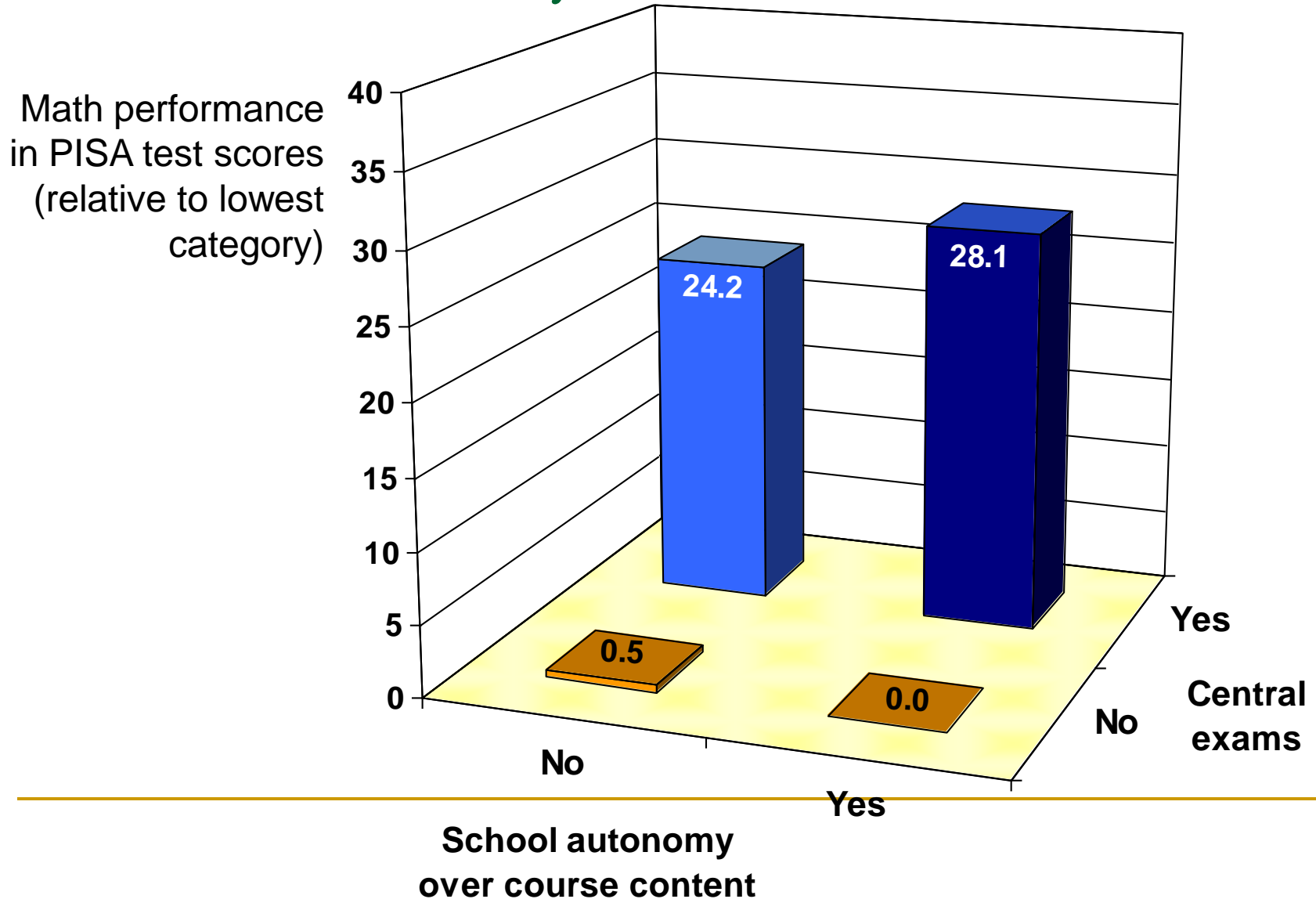
# Complementarity of External Exams and School Autonomy

Math performance in TIMSS/TIMSS-R test scores (relative to lowest category)



School autonomy  
over teacher salaries

# Complementarity of External Exams and School Autonomy



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# Additional Accountability Measures: Some Evidence from OECD Countries

- Positive effects of various assessment measures:
    1. Aimed primarily at students:
      - Use of assessments for decisions on student promotion/retention
    2. Aimed at teachers:
      - Internal monitoring of teacher lessons by principal
      - External monitoring of teacher lessons by inspectors
    3. Aimed at schools:
      - Assessments used to compare schools to district or national performance
  - Effect on equity:
    - Mostly: neither positive nor negative for equity:  
“Flood that raises all boats”
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# Demand-Side Programs

- Aimed generally at encouraging attendance/ completion
    - Work through changing student and family behavior
    - Programs carefully evaluated
  - Conditional cash transfers
    - Mexico, Brazil, Columbia, Nicaragua
  - Fee reduction
    - Indonesia, Cambodia, Taiwan, Kenya\*
  - Food and nutrition supplements
    - Bangladesh, India, Kenya
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# Conclusions on Demand-Side Incentives

- Results of demand-side programs
    - Each has positive (and significant) impact on attendance and attainment
    - But, with exception of Kenyan merit scholarship, little or no apparent impact on achievement
  - Incentives have impact on behavior
  - But: requires care in structuring incentives
    - Ensure goals are correct; not assume other outcomes
  - May be perverse effects
    - Access and quality trade-offs
  - Access viewed as “equity”
    - Equity not supported by low quality
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# Information and Feedback

- **Lack of monitoring of learning outcomes**
    - Developing countries lightly represented in evidence
    - Have not participated frequently in international tests
    - Nonparticipation is itself important policy issue:
    - Difficult to know what improvements are needed or whether policies have impact without accurately measuring student performance
  - **Existing international tests may not be well suited**
    - E.g., PISA tests of OECD do not provide accurate assessments of students in developing countries
    - Adaptive testing (adjust test content to student's ability level) offers possibility of meaningful within-country variation along with ability to link overall performance with global standards
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# Using Assessment Results to Improve Education Quality: A Global Perspective

1. Powerful economic impacts of **education quality**
  2. The current situation in developing countries is dismal
  3. School quality is not easily changed
  4. Focus on **information** is critical
    - Policy-making: system level
    - Performance improvement: school/student level
    - Program feedback
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