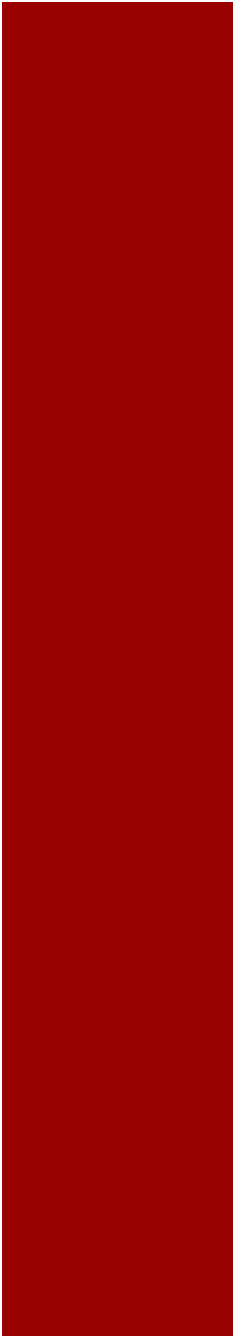


# Education Statistics



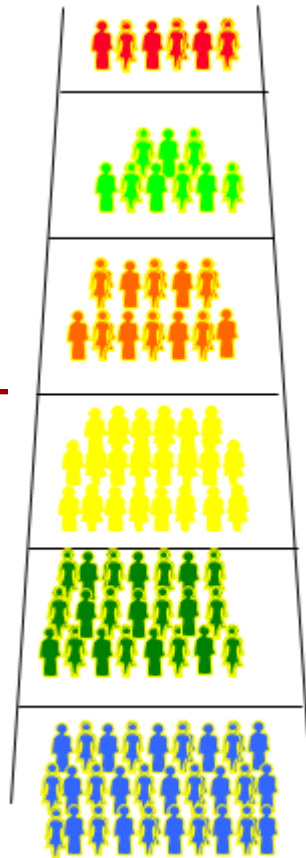
Big Data | Better Policies | Learning for All

**Husein Abdul-Hamid**



# Big Data in Education

- Comprehensive
- Integrated
- Relevant
- Reliable
- Timely

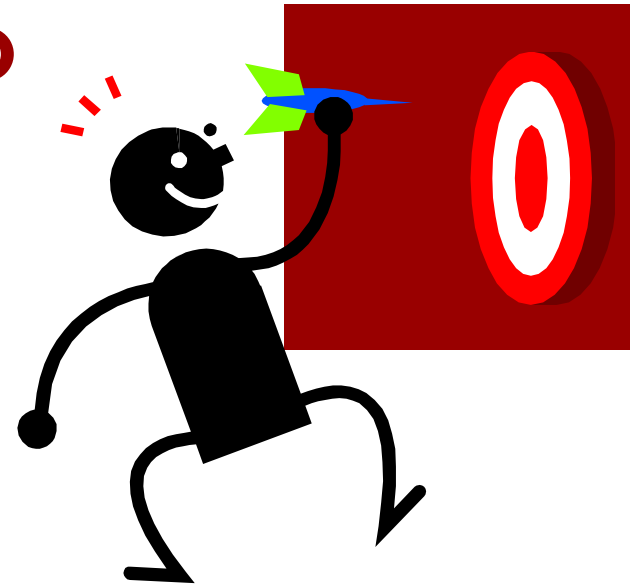


Learning for  
All

- Less poverty
- Shared prosperity



# Data-driven decisions to meet targets



Need to

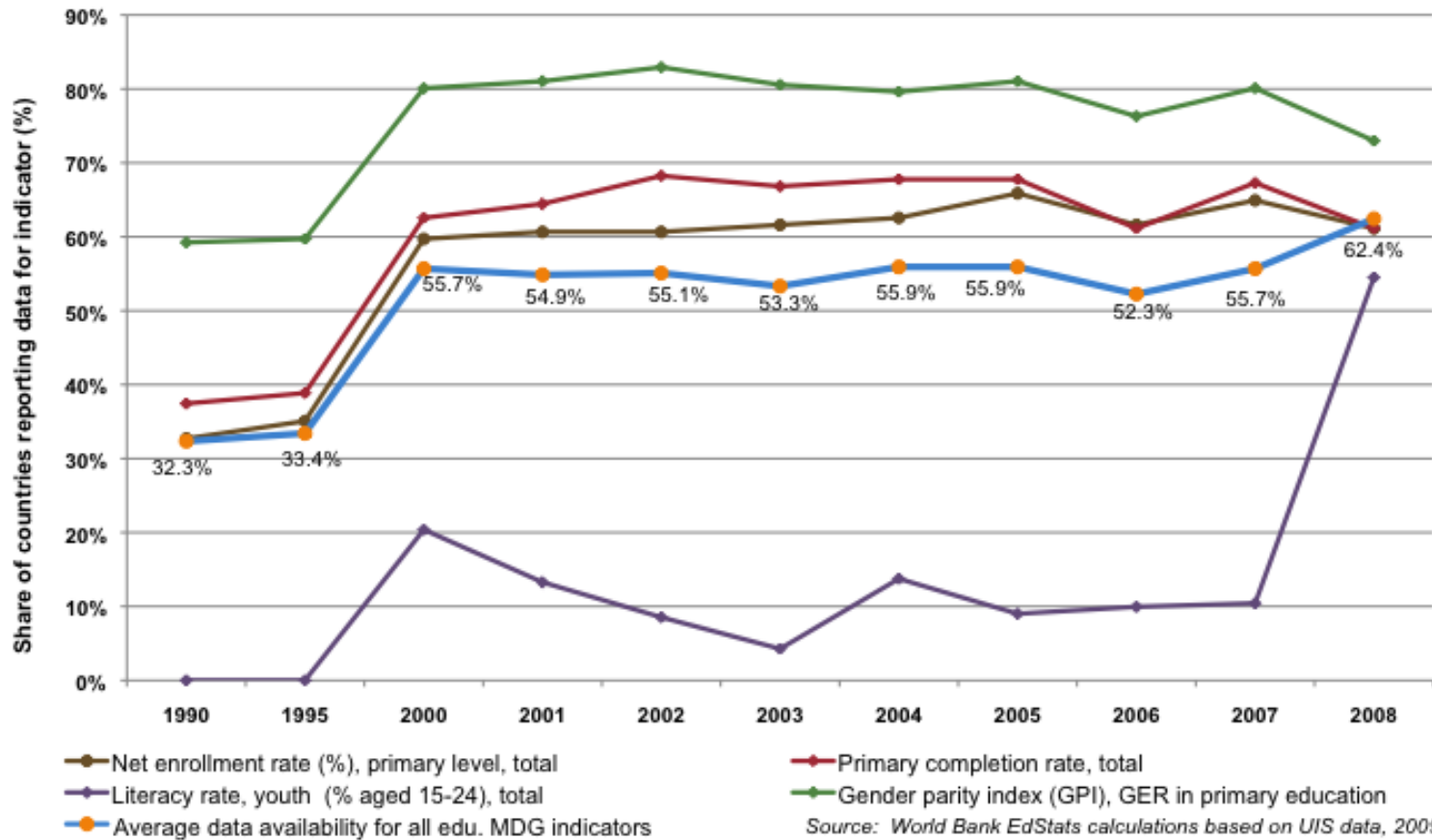
- understand the system
  - Policies (what is working and not working)
  - \$ where and how
- measure outcomes

# Reality ....

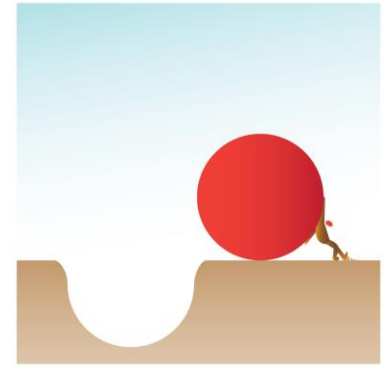


- crucial data is often not available
- available data is often hard to digest.

# Data availability: a challenge we must face



# Bridging information gaps



Continuing to improve administrative data

- Supporting the development of EMIS
- Expanding learning data
- Strengthening partnerships

Exploring other sources of data

- Household surveys
- Bringing policy data
- Public expenditures
- Impact evaluation
- Projects data

# EdStats: Education Statistics



## EdStats Learning Outcome Query updated with new learning data

EdStats' **Learning Outcome Query** has been updated with new learning indicators that illustrate the dispersion of math, science, and reading scores from the 5th percentile to the 95th percentile on four international learning assessments: PISA, TIMSS, PIRLS, and PIAAC. The query now includes data on math, science, reading, literacy, numeracy, and problem solving skills. Mean scores, proficiency levels/benchmarks, and percentile scores are available for all countries and years assessed. |

### Explore EdStats Queries

Core Indicators

All Indicators

Learning Outcomes

Educational Attainment

World Bank Education Projects

Education Expenditures

### About the Portal



is your comprehensive data and analysis source for key topics in education such as access, learning, expenditures and equity.

[Read More >>](#)

### EdStats Dashboards

Access country dashboards illustrating key education indicators, attainment, equity, learning outcomes, policy data and World Bank education projects.

### EdStats DataFinder App



Get education data on your iPhone or iPad with our free mobile app.

### Updates

- EdStats Query updated with new 2012/2013 UIS data (Feb. 2014)
- 2012 PISA data included in EdStats Query (Dec. 2013)

[Get Updates from EdStats](#)



Visualize Data



The State of Education



Education Equality Data



Information Systems (EMIS)



EdStats Blog



# Key features

- Explicit queries by topic
- Highlighting storylines
  - Country Dashboards
    - Issues/success
    - Operations
  - State of education by topic
- Focus on learning
  - Linking quantity to quality of education





# Dashboards

Key Indicators

Learning Outcomes

Attainment

Equality

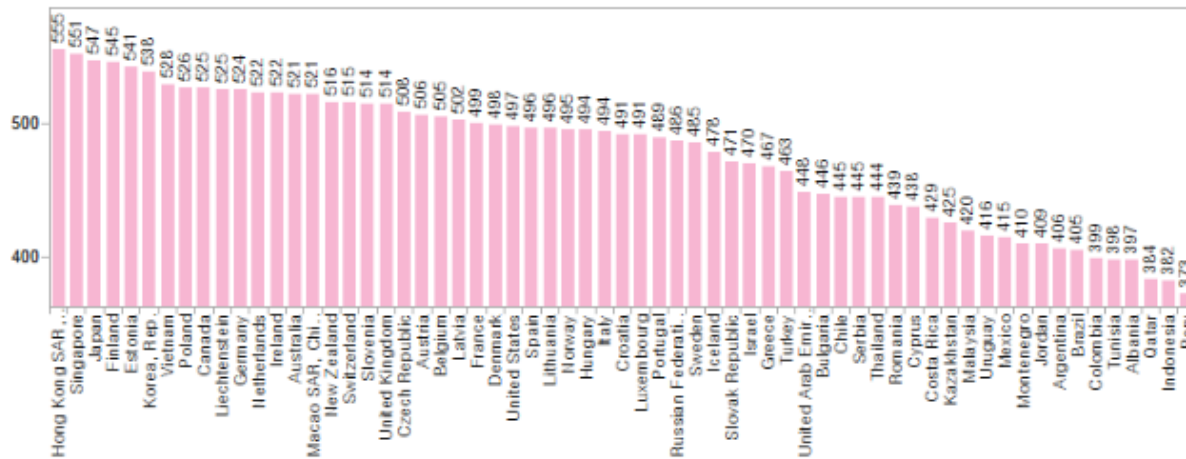
Policy Data

Education Projects

The Learning Outcomes Dashboard highlights levels of student learning in reading, mathematics and science in over 100 countries. The query includes data from the four international learning assessments (PISA, TIMSS, PIRLS, and PIAAC) and three regional learning assessments (LLECE, PASEC, and SACMEQ). For more learning outcome data and information on each assessment, visit EdStats' [Learning Outcome Query](#).

PISA TIMSS PIRLS PIAAC LLECE SACMEQ PASEC

PISA



Subject

- Math
- Reading
- Science

Indicator Name

- PISA: Science Mean

Year

2012

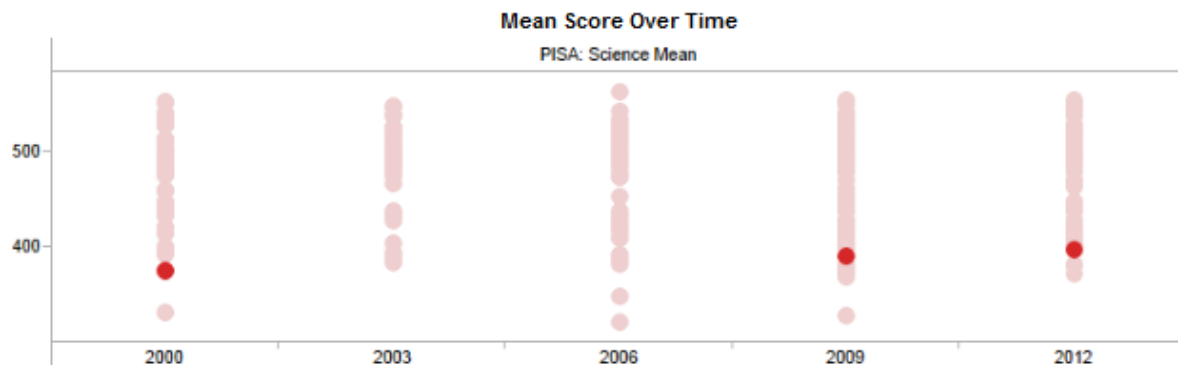
Region

- (All)
- East Asia & Pacific
- Europe & Central Asia
- Latin America & Caribbean
- Middle East & North Africa
- North America
- Sub-Saharan Africa

Country Highlighting

- Albania
- Argentina
- Australia
- Austria
- Azerbaijan
- Belgium
- Brazil
- Bulgaria

PISA: Science Mean

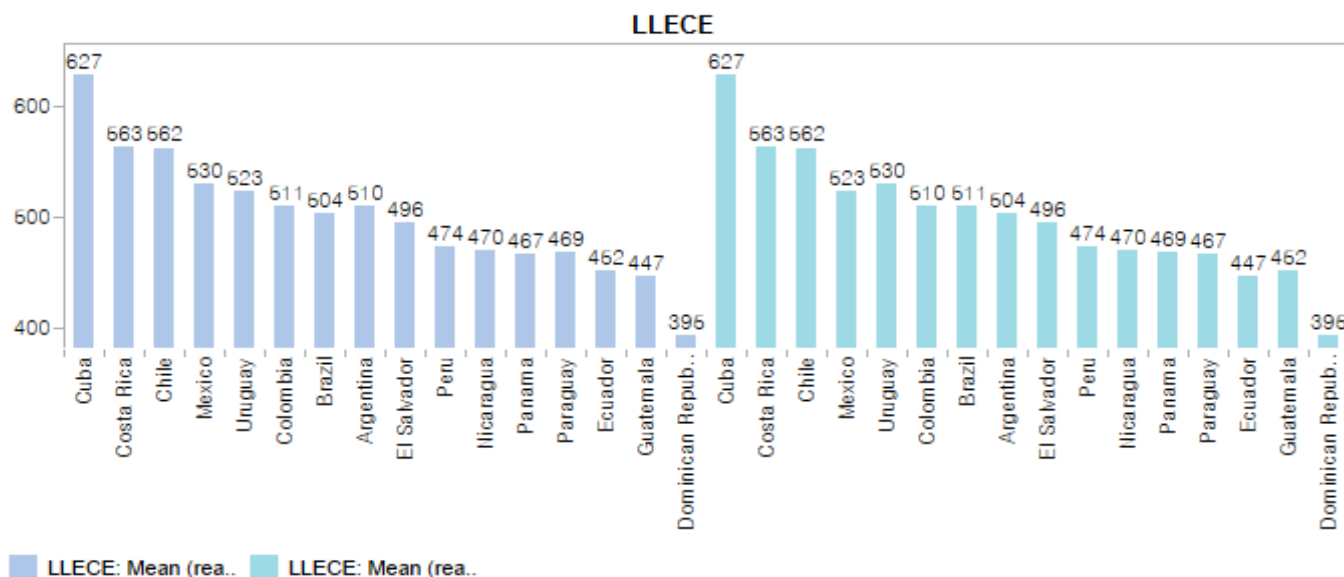


Source: OECD Programme for International Student Assessment (PISA)

# Relative comparisons



PISA TIMSS PIRLS PIAAC LLECE SACMEQ PASEC



#### Test

- Math
- Reading
- Science

#### Indicator Name

- LLECE: Mean (reading, 3rd)
- LLECE: Mean (reading, 6th)

#### Year

2006

#### Region

- (All)
- East Asia & Pacific
- Europe & Central Asia
- Latin America & Caribbean
- Middle East & North Africa
- North America
- Sub-Saharan Africa

#### Country Highlighting

- Cuba
- Dominican Republic
- Ecuador
- El Salvador
- Guatemala**
- Honduras
- Mexico

### Over Time



Source: Latin American Laboratory for Assessment of the Quality of Education (LLECE) Data

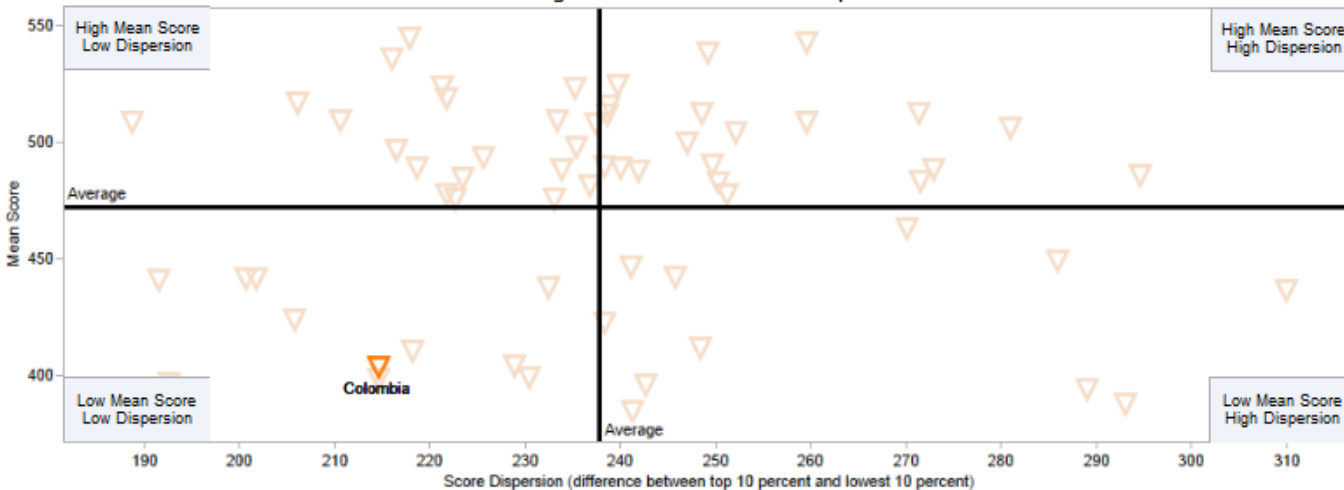
# Learning Data

Click on any bar in the table to see detailed information on gender differences, achievement benchmarks, and score dispersion

Assessment	Age	Subject	2012	2011	2009	2007	2006	2003	2000	1999	1995
TIMSS	Grade 4	Math		605							581
		Science		587							576
	Grade 8	Math		613		597		589		587	581
		Science		560		553		558		549	546
PISA	Age 15	Math	554		546		547	542	547		
		Reading	536		539		556	534	525		
		Science	538		538		522	538	552		
PIAAC	Adult	Literacy	273								
		Numeracy	263								
	Young Adult	Literacy	293								
		Numeracy	281								



PISA Reading: Mean Scores and Score Dispersion



Class	Indicator	Score
Grade 2	Correct Words	~100
	Listening Comprehension	~10
	Non-word Reading	~10
	Reading Comprehension	~10
	Reading Comprehension (80%)	~10
	Reading Fluency	~150
Reading Fluency (single)	~10	
Grade 3	Correct Words	~150
	Listening Comprehension	~10
	Non-word Reading	~100
	Reading Comprehension	~10
	Reading Comprehension (80%)	~10
	Reading Fluency	~250
Reading Fluency (single)	~10	



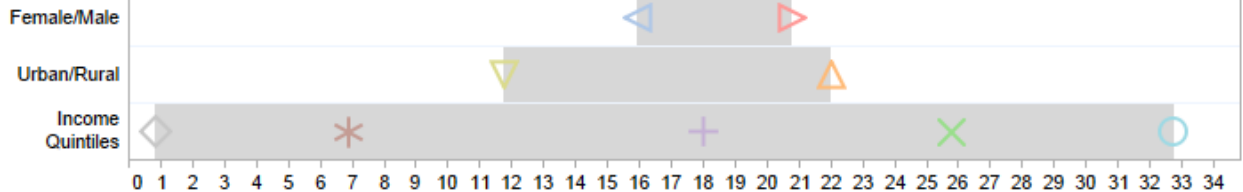
Attendance Rates

Completion

In/Out School

Country Na.. Guatemala

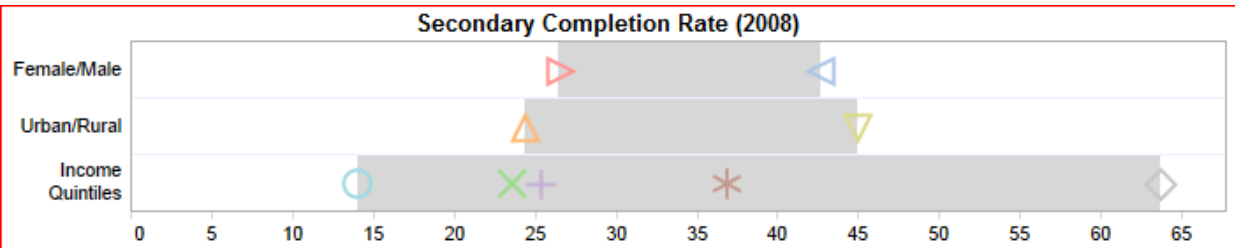
### Proportion out-of-school. Primary (1998)



- ▷ Female
- ◁ Male
- △ Rural
- ▽ Urban
- Quintile 1 (Poorest)
- × Quintile 2

# Inequality in education

## Household Surveys

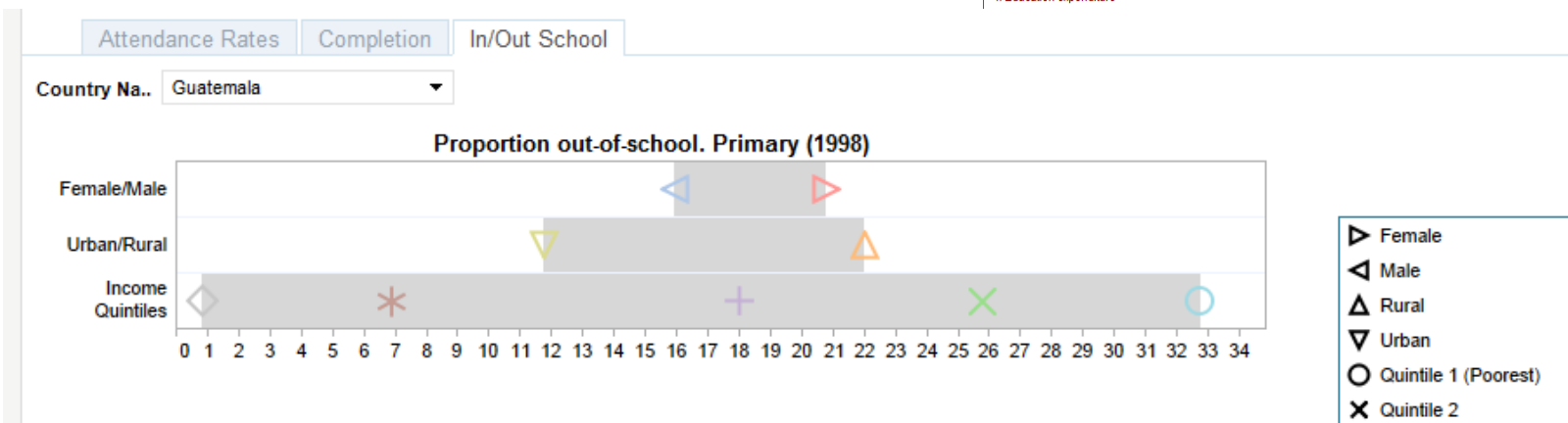


- Albania
- Armenia
- Azerbaijan
- Bangladesh**
- Belize
- Benin
- Bolivia
- Brazil
- Burkina Faso
- Cambodia
- Cameroon

DHS	Data Available	
	MICS	LSMS
Bangladesh DHS 1993	Bangladesh MICS 2006	
Bangladesh DHS 1996		
Bangladesh DHS 1999		
Bangladesh DHS 2004		
Bangladesh DHS 2007		

The profiles are Excel files with multiple worksheets organized into the five categories below. They also include a series of graphs. Click on the links below to see the indicators included in each category or graph. For more detailed information, please see Chapter 4 of the ADePT Education book.

1. School participation
2. School progression
3. School attainment
4. Education expenditure



- ▷ Female
- ◁ Male
- △ Rural
- ▽ Urban
- Quintile 1 (Poorest)
- × Quintile 2

# World Bank Education Projects



## Projects and Activities

Select

[Project Link](#)

### World Bank Education Projects in Afghanistan

*Click a project name*

#### Second Skills Development Project (2013)

Additional Financing for Strengthening of Higher Education Project (2010)

Second Education Quality Improvement Project (2008)

Skills Development Project (2008)

Education Quality Improvement Program (2005)

Strengthening Higher Education Program (2005)

Emergency Education Rehabilitation and Development Project (2002)

#### Activities

- Curriculum
- Disability and special education
- Education research
- Education-to-work transition
- Educational planning and strategy
- EMIS
- Examination boards

#### Components

- Improving performance of TVET Schools and Institutes
- Improving Teacher Competencies
- Project Management, Monitoring & Evaluation and Public Awareness
- Strengthening of the TVET institutional system

#### Project Description

The objective of the Second Skills Development Project for Afghanistan is to increase the potential for employment and higher earnings of graduates from Technical and Vocational (TVET) schools and institutes through improvements in the skills delivery system. The grant will help finance the costs associated with reforms in, and improve Technical and Vocational Education and Training sector in Afghanistan, with particular attention to deepening of the institutional systems. The level of skills in Afghanistan is low. Training for mid-level skills competence, though it exists, is not standardized and/or benchmarked to acceptable sub-regional or regional standards. The support will respond to through: a) strengthening and improving the overall institutional system, b) providing incentives for development of TVET schools and institutes in that provide formal technical training; and d) developing labor market information systems and Management Information System (MIS) to monitor the whole sector. All these interventions will be informed by robust linkages between the training providers and the labor market. The strength and relevance of the project lies in it being market-oriented, with a central

# Policy dashboard



## Early Childhood Development Policy

		Colombia	Kyrgyz Republic	Tajikistan	Tanzania	Tonga	Uganda	Vanuatu	
Goal 1	Establishing an Enabling Environment	Established	Emerging	Emerging	Emerging	Emerging	Emerging	Emerging	Country
	Lever 1: Legal Framework	Established	Established	Established	Emerging	Emerging	Emerging	Emerging	<input checked="" type="checkbox"/> (All)
	Lever 2: Inter-sectoral Coordination	Established	Latent	Latent	Established	Latent	Emerging	Emerging	<input checked="" type="checkbox"/> Colombia
	Lever 3: Finance	Established	Emerging	Emerging	Latent	Emerging	Latent	Latent	<input checked="" type="checkbox"/> Kyrgyz Republic
Goal 2	Implementing Widely	Emerging	Emerging	Emerging	Emerging	Established	Emerging	Emerging	<input checked="" type="checkbox"/> Tajikistan
	Lever 1: Scope of Programs	Established	Emerging	Established	Established	Established	Emerging	Emerging	<input checked="" type="checkbox"/> Tanzania
	Lever 2: Coverage	Established	Emerging	Emerging	Emerging	Established	Emerging	Emerging	<input checked="" type="checkbox"/> Tonga
	Lever 3: Equity	Emerging	Established	Established	Latent	Emerging	Emerging	Emerging	<input checked="" type="checkbox"/> Uganda
Goal 3	Monitoring and Assuring Quality	Emerging	Emerging	Emerging	Established	Latent	Emerging	Emerging	<input checked="" type="checkbox"/> Vanuatu
	Lever 1: Data Availability	Established	Emerging	Emerging	Emerging	Emerging	Emerging	Emerging	
	Lever 2: Quality Standards	Emerging	Emerging	Emerging	Established	Latent	Emerging	Emerging	
	Lever 3: Compliance with Standards	Emerging	Latent	Emerging	Emerging	Latent	Latent	Emerging	

Latent

Emerging

Established

Advanced

# Special Thanks to..



- Jian Guo Zhu, Jennifer Klein, Ying Chi, Manar Eliriq̄sousi, Hiroko Maeda, Masako Hiraga, Azita Amjadi, Jomo Tariku, Nacer Mohamed Megherbi, Jung Roxanne Weil