

# Measuring Adult Skills in Developing Countries

Alexandria Valerio

[avalerio@worldbank.org](mailto:avalerio@worldbank.org)

November 25, 2021



# 3 Messages

1



**STEP**  
**Skills Measurement**

2



**Key Findings**

3



**Lessons Learned**



## STEP Skills Measurement

# STEP Skills Toward Employment and Productivity: Global initiative to generate internationally comparable data on skills of adult populations

So far implemented in  
17 countries



STEP helps countries to identify



THE SKILLS PROFILE  
OF THE  
LABOR FORCE



THE NATURE AND  
SIZE OF  
SKILLS GAPS



THE SKILLS THAT  
MATTER FOR  
EMPLOYMENT



STRATEGIES AND POLICIES  
TO IMPROVE WORKFORCE  
DEVELOPMENT

## Limited information

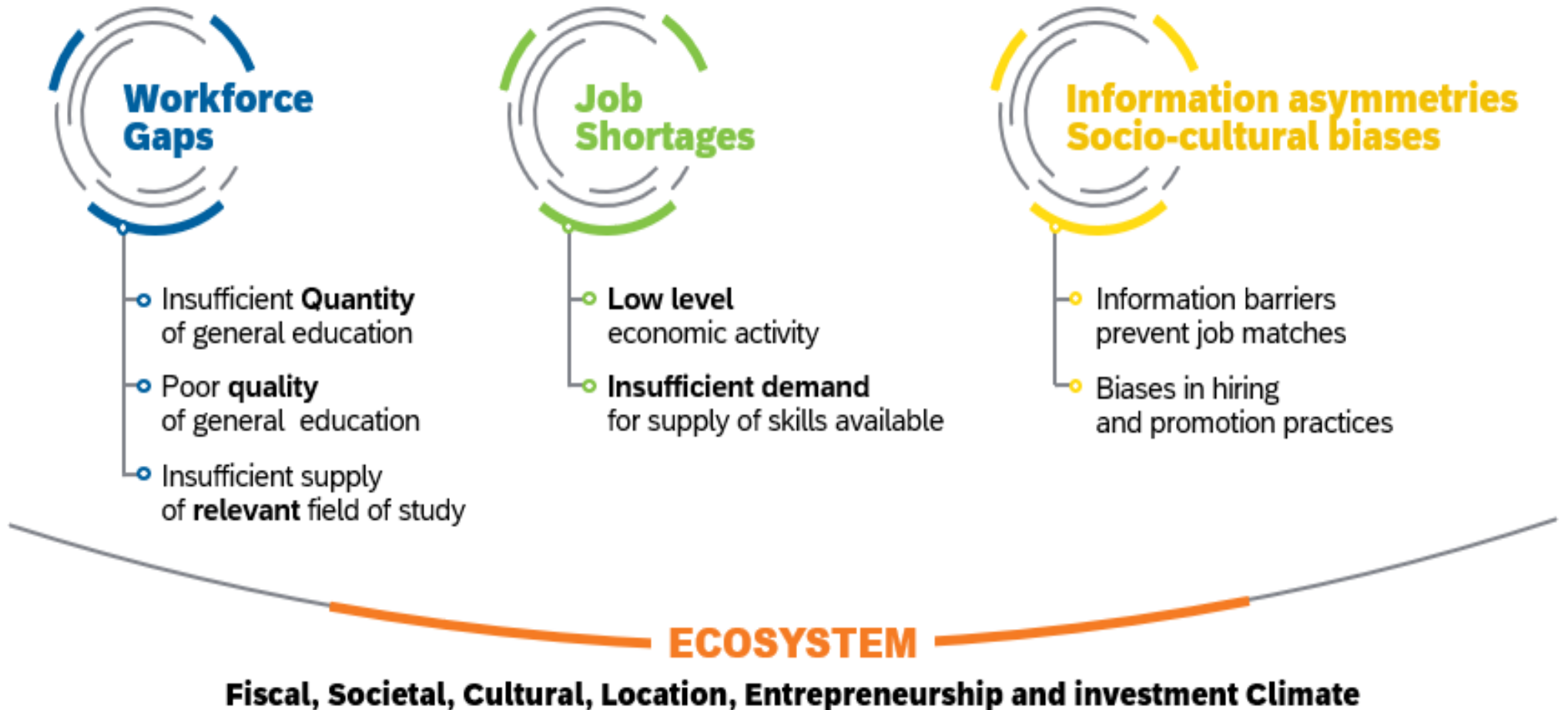
- Proficiency of adults' skills (stock)
- Extent of skills use, and intensity of skills use at the workplace and in daily life
- Payoffs of skills beyond years of education attained
- Role of different types skills —cognitive, socioemotional, job specific—on employability and labor market trajectory
- Household surveys were paired with employer surveys

**Premium placed on comparable data across countries—STEP collaborated with PIAAC-OECD**



# Unpacking “mismatch” in the labor market

## Key Findings



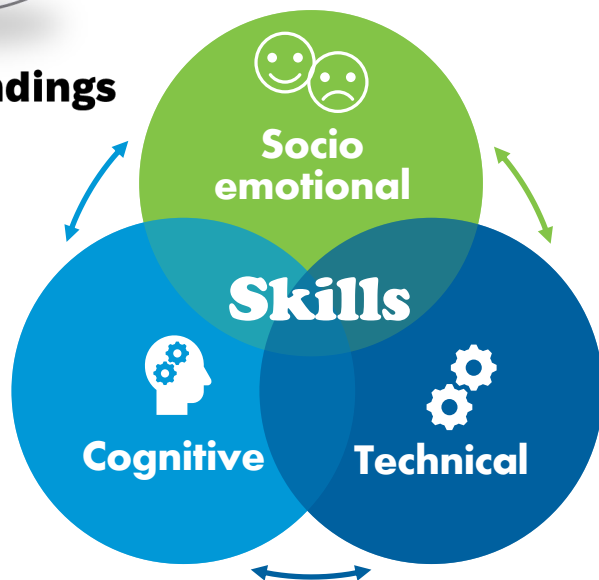
## Key Findings

- Granular skills data [supports policy decisions in developing countries](#) in ways that were not possible before; helping in tailoring solutions based on actual skills profiles not just schooling
- Schooling is a helpful proxy for skills, but not a very precise one—leaves a lot of variation unexplained
- Substantial increase in school enrollment and attainment, but narrow and uneven improvements in literacy skills
- Too many young people exit school early without robust literacy skills—on average, only 35% of primary entrants' complete upper secondary education; in SSA fewer than 25%
- “Early skills gaps” become “long-lasting skills gaps” with adverse implications throughout life—unless skills deficits are remediated, low literacy is not transitional, it is a destination
- More than half of adults in Bolivia, Ghana and Kenya score below level 2 literacy; a sizable share of adults are not “job ready” or “training ready”
- The number of “schooling years” required to reach Level 2 literacy ranges from 9 years in Armenia, Finland, and Vietnam to 16 years in Bolivia, Ghana and Kenya
- New insights on correlations between workers' literacy proficiency and skills use at work, skills use and worker productivity, and “match” rates between worker and job-required education



# Schools are not delivering learning for all

## Key Findings



## Literacy

A critical ingredient to develop numeracy, socio-emotional, and higher order skills for work and life

## # Schooling Years required to reach Level 2 of literacy in PIAAC/STEP

9

Armenia, Finland, Serbia, Vietnam

12

Chile, Colombia, Turkey

16

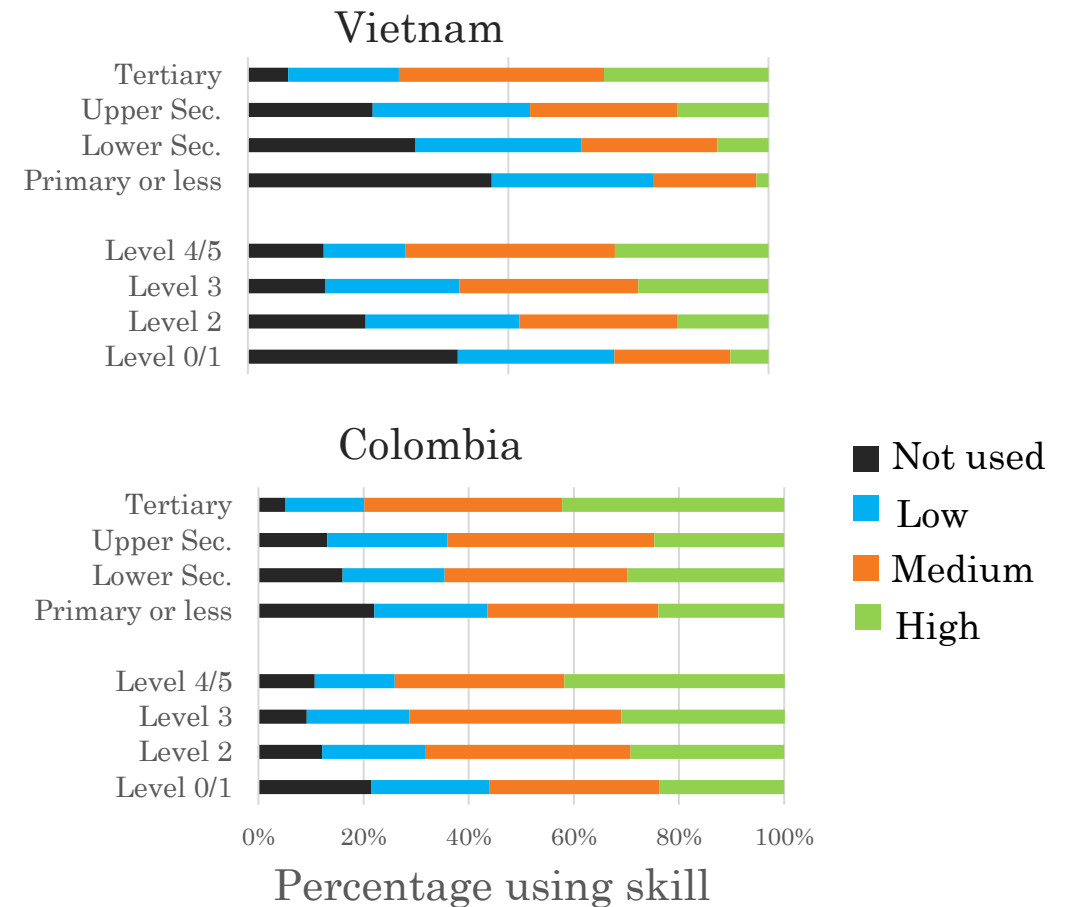
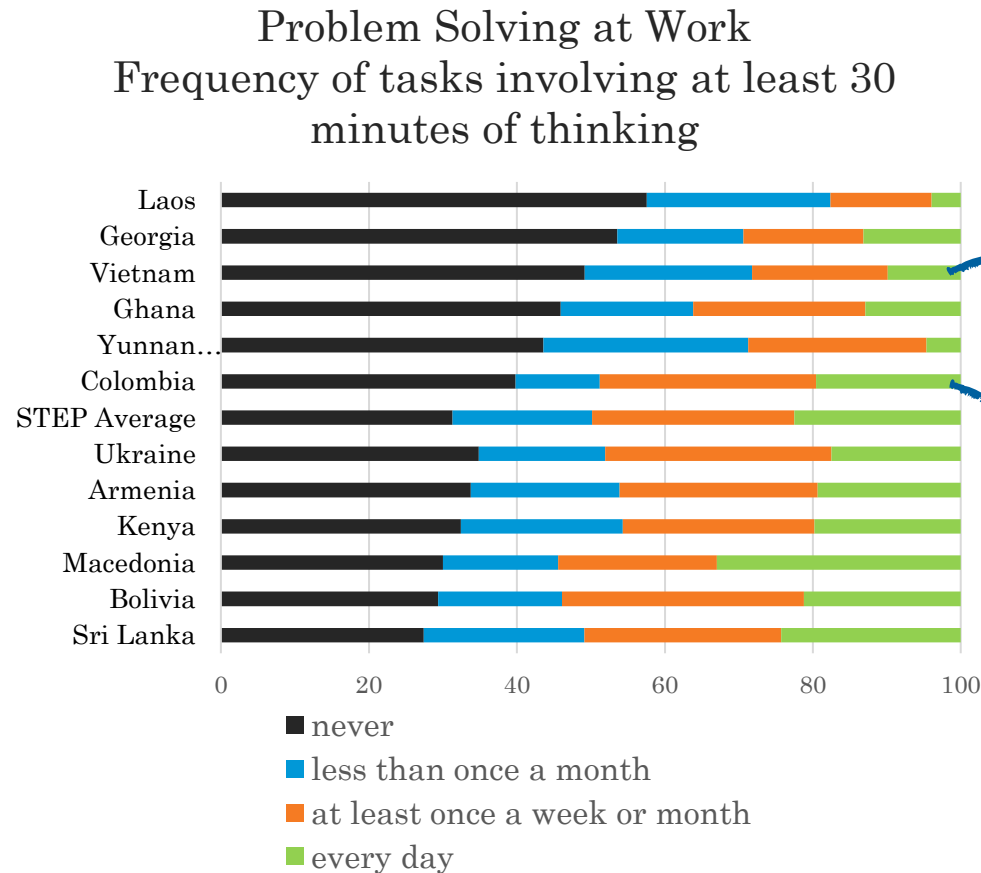
Bolivia, Ghana, Kenya



# Literacy makes for “learning-ready” workers

## Key Findings

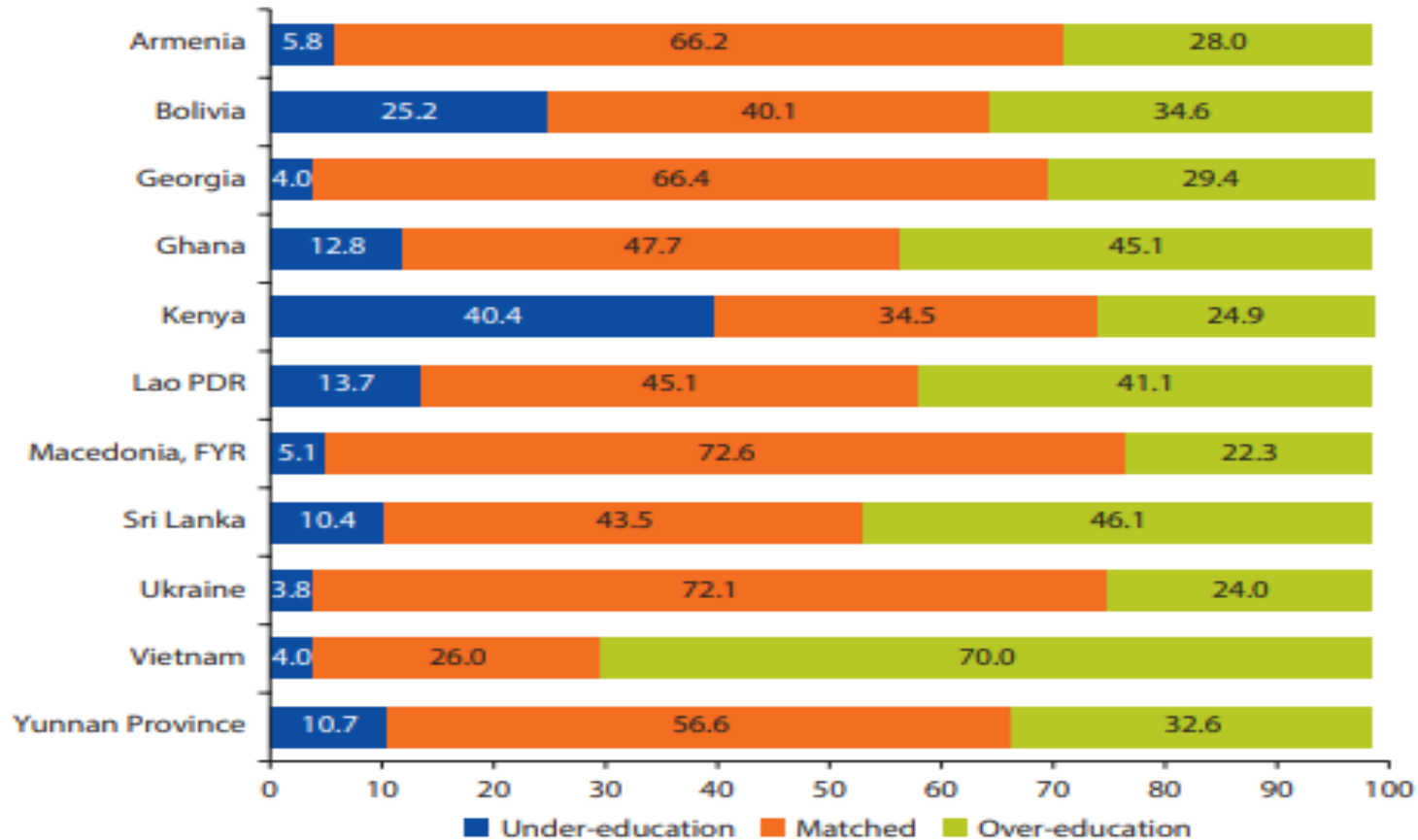
### Problem Solving and Learning “Skills Use at Work”, by Educational Attainment and Literacy Proficiency Level



2

# Individual (Actual) Match Rates between Worker and Job-Required Education

## Key Findings



Source: World Bank STEP Skills Measurement Program.

"Handel, Michael J.; Valerio, Alexandria; Sánchez Puerta, Maria Laura. 2016. Accounting for Mismatch in Low- and Middle-Income Countries: Measurement, Magnitudes, and Explanations. Directions in Development--Human Development. Washington, DC: World Bank. © World Bank. <http://hdl.handle.net/10986/24906>



## Key Findings



### BOOK

#### **Stepping Up Skills in Urban Ghana : Snapshot of the STEP Skills Measurement Survey**

Darvas, Peter; Favara, Marta; Arnold, Tamara

The Skills Toward Employment and Productivity (**STEP**) Survey is an initiative of the World Bank in cooperation with other development partners and nongovernmental agencies and carried out in more than 14 countries globally. In Ghana, the first phase...

Jul 26, 2017



#### **Skilling Up Vietnam : Preparing the Workforce for a Modern Market Economy**

Bodewig, Christian; Badiani-Magnusson, Reena; Macdonald, Kevin; Newhouse, David; Rutkowski, Jan

from an adult **skills** survey presented in this book show that literacy and numeracy among **Vietnam's** youth and young urban adult workforce are strong and exceed those of even some wealthier countries. Despite its clear...

Jun 17, 2014



#### **Developing Skills for Economic Transformation and Social Harmony in China : A Study of Yunnan Province**

Liang, Xiaoyan; Chen, Shuang

It starts with a demand-side analysis in chapter two, examining historical trends in demand for **skills**, revealing the types of **skills** in demand, and projecting future demand for **skills** driven by economic growth and policy development. Chapter two...

Oct 25, 2013



### REPORT

#### **Education, Skills, and Labor Market Outcomes : Results from Large-Scale Adult Skills Surveys in Urban Areas in 12 Countries**

Roseth, Viviana V.; Valerio, Alexandria; Gutierrez, Marcela

In recent years, **skills** development has become a priority among developed and developing countries alike. The World Bank Group, in its quest to end extreme poverty and promote shared prosperity, has joined efforts...

May, 2016



### BOOK

#### **Accounting for Mismatch in Low- and Middle-Income Countries : Measurement, Magnitudes, and Explanations**

Handel, Michael J.; Valerio, Alexandria; Sánchez Puerta, Maria Laura

and training if weak job creation leaves workers' **skills** underutilized. Most of the literature on **mismatch** focuses on higher-income countries and rates of over-education among college graduates. Accounting for **Mismatch** in Low- and Middle-Income Countries uses...

Aug 23, 2016

DATASETS: <https://microdata.worldbank.org/index.php/catalog/step>

REPORTS: <https://openknowledge.worldbank.org/>



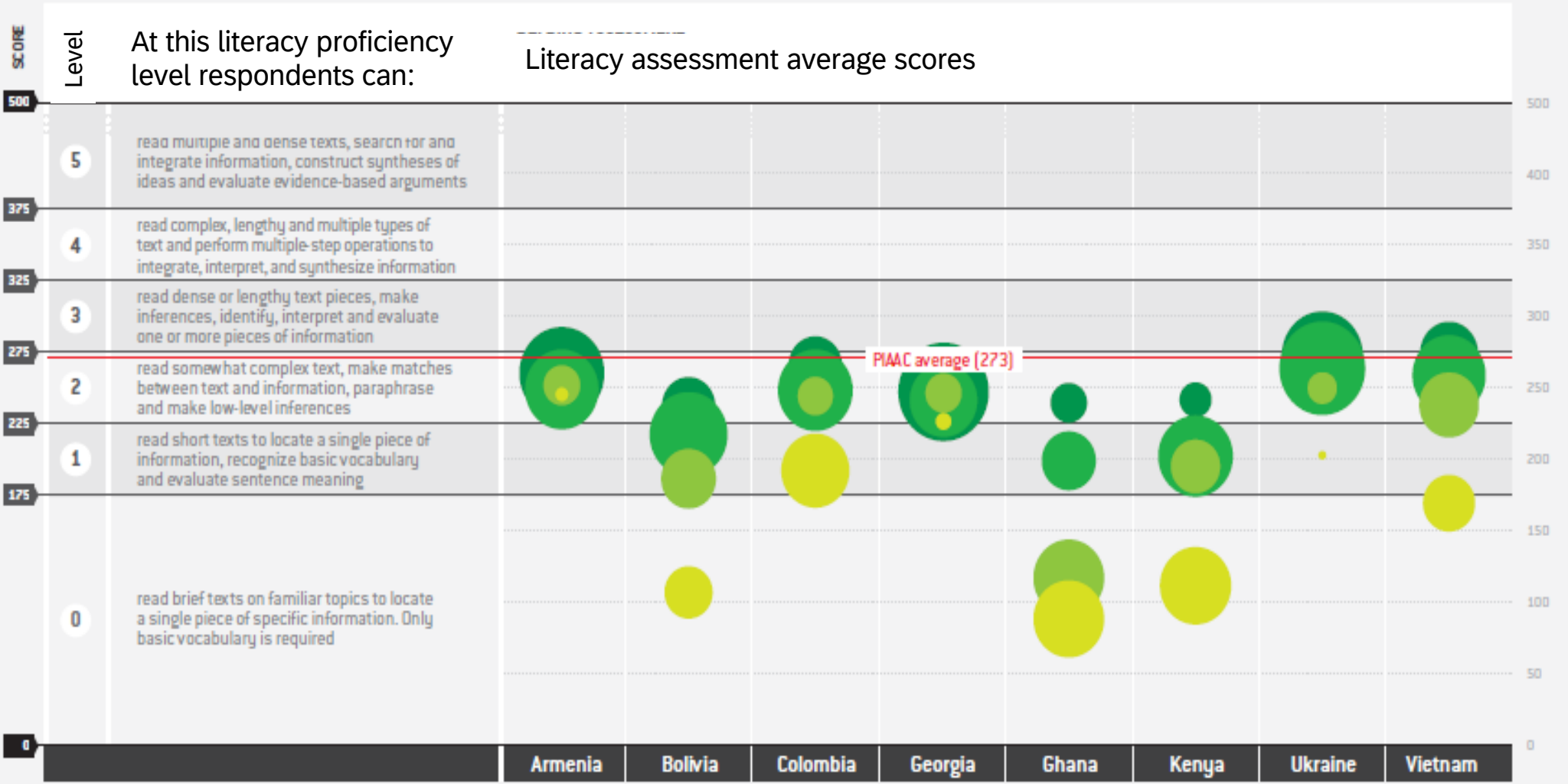
Key Findings

STEP SKILLS  
MEASUREMENT

- Tertiary
- Upper Secondary
- Lower Secondary
- Primary or less

Circle size represents the proportion of individuals at each education level

PIAAC  
STEP average scores correspond to urban populations in developing countries, OECD average score corresponds to national adult populations in developed countries that applied PIAAC





## Lessons Learned

- STEP surveys are intended to shine light on the size and magnitude of skills deficits in the population; however, ideally, they should be paired with analyses on institutional policies, training provision practices, and overall job growth and innovation ecosystem
- Having a shared definition of “literacy” and comparative measurement approaches is very powerful in discussions with policy makers to inform skills development policy, strategy and investment choices
- Measuring adult skills is complex; it requires enough funding, time, patience, and expertise at all stages
- Global comparative standards are often very different from the conventional standards used in most countries for household surveys
- Training, training, and more training is needed to safeguard data quality and overall survey integrity
- Measuring socioemotional skills remains an unconquered frontier
- Making data files and supporting materials available online stimulates independent research; though research uptake remains relatively low, especially in developing countries



**Thank you**

**<https://microdata.worldbank.org/index.php/catalog/step/about>**

**Education, Skills, and Labor Market Outcomes : Results from Large-Scale Adult Skills Surveys in Urban Areas in 12 Countries**