Overview & Initial Results
Why measure skills?

- **Skills are at the core of improving employment outcomes** and increasing productivity and growth.

- Yet, in many countries **education and training systems often lack quality** and labor market relevance, leaving workers ill-prepared for the labor market.

- **Many workers lack the right skills** to match the requirements in available job openings or have limited opportunities to access high quality pre-employment or skills upgrading training programs that promote higher productivity jobs.

- Despite the central role of skills in shaping employment outcomes, there is very **little information about the distribution of different types of skills** in the labor force and their distinctive contribution to labor market outcomes.

- Ultimately, the **lack of information affects the design of skills development policies** and programs.
What is the STEP Skills Measurement Program?

- First-ever initiative to generate internationally comparable data on skills available in developing countries.

- The program supports the implementation of standardized surveys to gather information on the supply and distribution of skills and the demand for such skills in the labor market.

- The surveys include newly-designed modules that measure the cognitive skills, job-relevant skills, and socio-emotional skills of a representative sample of adults aged 15 to 64 living in urban areas, whether they work or not.

- Survey modules collect information on respondents' skills acquisition and maintenance, transitions in the labor market, self-employed, health status and family background.
Motivation | What we DO know about skills

- Employer surveys point to skills shortages
- Common proxies for skills are inadequate
  - Educational attainment
  - Test scores available for school-age populations only
- Skills are multi-faceted

Cognitive  Socio-emotional  Job-relevant

Skill Set
Skills are a constraint around the world

- % unskilled workers, out of all production workers
- % firms identifying labor regulations as a major constraint
- % firms identifying an inadequately educated workforce as a major constraint

Source: Enterprise Surveys, 2010
Key Questions

- What is the skills profile of the labor force?
- What skills matter for employment and productivity?
- What is the nature and size of skills gaps?
- What interventions may be considered to improve employability and productivity?

To address these questions
STEP Program | Objective

Collect internationally comparable data on different types of skills to inform policy and skill development strategies

The project includes two survey instruments

(1) Survey of Individuals (HH survey)

Supply of skills
- Sample size: 2,000-3,500
- Length: 120-150 minutes
- Representative of urban areas
- Population aged 15-64

(2) Survey of Employers (Firms)

Demand for skills
- Sample size: 300-500 enterprises
- Length: 45-60 minutes
- Formal and informal sectors
- Geographic or economic sector based
What skills are measured in STEP?

Cognitive Skills
- Direct assessment of reading literacy based on the Survey of Adult Skills instruments
- Indirect assessment on individuals’ use of reading, writing and numeracy skills at work and/or in daily life

Job-relevant Skills
- Qualifications required for the job and job learning times
- Indirect assessment of skills used at work
  - Job tasks
  - Data—cognitive, mental power
  - People—interpersonal
  - Things—physical, muscle power
  - Technology use

Socio-emotional Skills
- Personality traits (Big Five and Grit)
- Behavior (Hostile Attribution Bias and Decision Making)
- Risk and Time Preference
Where is STEP being implemented?

- The STEP Skills Measurement Program has 14 participating countries, implemented in three waves:

  - Wave 1 – Completed 2013
  - Wave 2 – To be completed 2014
  - Wave 3 – Started 2014

Countries included:
- Serbia
- Armenia, Azerbaijan, Georgia, Macedonia
- Ghana
- Kenya
- Sri Lanka
- Colombia
- Bolivia
- China (Yunnan Province)
- Lao RD
- Vietnam
Snapshot of results
General takeaways

- Participation in early childhood education programs pays off
- Past household socioeconomic status affects the acquisition of socio-emotional skills, however, the educational system also plays an important role
- Strong foundational skills are a prerequisite for developing job-relevant skills
- A smooth transition from school to work has long lasting positive effects on socio-emotional skills
- The labor market rewards socio-emotional and job-relevant skills as much as educational attainment
- Training to strengthen such skills can improve adult’s employability
- Businesses are not making full use of workers’ skills. For example, employees are vastly underusing their employees’ computer skills in their jobs
STEP | Skills toward Employment and Productivity

1. Getting children off to the right start
2. Ensuring that all students learn
3. Building job-relevant skills
4. Encouraging entrepreneurship and innovation
5. Facilitating labor mobility and job matching

Productivity & growth
Step 1 | Getting children off to a new start

Participation in ECE programs is associated with a higher probability of passing core reading literacy assessment

- The probability of passing the core literacy assessment—a measure of minimum literacy—increases significantly for adults who responded as having participated in an early childhood education program prior to entering the first grade in primary education.

A higher probability of starting primary education at the appropriate age (6-7 years old)

- In Ghana, adults who participated in ECE are significantly more likely to start primary school at the right age. About 40 percent of adults who did not attend ECE reported starting late, compared to 20 percent of adults who attended ECE.
The proportion of adults reaching the minimum literacy proficiency threshold varies widely across countries

- Virtually all adults in Yunnan province and Vietnam pass the core literacy threshold (3 correct answers out of 8 questions)
- In contrast, only 50 percent of adults in Ghana pass the minimum threshold
Step 2 | Ensuring that all students learn

Most adults use their foundational skills regularly, especially numeracy skills...

... but not all adults use their foundational skills to the same extent

Adults who once lived in high socio-economic-status households at the age of 15 perform better in reading proficiency...

... however, adults currently living in wealthier households do not necessarily perform better in reading proficiency
Step 3 | The Right Skills for the Job

Learning outcomes are related to the use of job-relevant skills. For instance, the higher a person’s reading proficiency level, the more he or she uses computers at work.

- Solid foundational and socio-emotional skills play an important role in workforce development. In Colombia and Vietnam, adults with higher than average reading proficiency levels have a higher probability of using computer skills at work.

Similarly, a worker’s socio-emotional skills are associated with the use of job-relevant skills. For example, greater extraversion is associated with more contact with clients.

- Workers who are intellectually curious and open to experience are more likely than others to solve complex problems and learn new things at work.
Step 4 | Encouraging Entrepreneurship & Innovation

Entrepreneurs have a different educational profile compared to wage workers

And they use reading skills less regularly and with less intensity

High-tech jobs in manufacturing are more likely to require workers to be able to use computers, in particular advanced software, than low/medium tech jobs

- Most innovative sectors such as high tech manufacturing require the use of more complex computer skills.
- The proportion of workers in high tech using more specialized software differs across countries
Step 5 | Facilitating Labor Mobility & Job Matching

Individuals with a tertiary education who take the least time to find their first job have the highest scores in terms of conscientiousness, emotional stability, and grit.

- Among 35 to 45-year-old adults with a tertiary education, those who spent more than six months looking for their first job tend to display less conscientiousness, emotional stability, and grit than those who found a job right after graduating.

Workers underuse computer skills in their jobs when compared to their overall use... suggesting untapped skills potential

Most workers feel they do not have the right level of education for their jobs

Looking at Job Matching in 2 Ways
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Annex

Survey Instruments
STEP Skills Measurement | HH Survey Instrument

20 MINUTES
(depending on the size of the household)

Random selection of one HH respondent

110 – 140 MINUTES
(depending on the test and on the selected individual’s background)
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STEP Skills Measurement | HH Survey Key Features

- Provides comprehensive skills modules for selected individuals aged 15-64 (employed, unemployed and inactive)
- Tracks skills acquisition and maintenance through detailed education and training history, including non-formal and formal apprenticeships
- Includes transitions in the labor market, including first job, current and previous spells, information on previous wage jobs for self-employed (voluntary/involuntary self-employment)
- Provides information on labor market success of the self-employed (start-up capital, earnings, sales, business expansion)
- Incorporates information on health status (BMI, chronic disease)
- Instrumental variables (family background, distance to school)
STEP Skills Measurement | Employer Survey

**Firm**

- **Information & workforce characteristics**
  - Information on respondent and workplace
  - Questions on composition of the workforce for each type of occupation

- **Skills used by current workforce**
  - Information on skills used, hiring practices, training and compensation
  - Question on quality of education and training institutions and firms’ interaction with these institutions

- **Hiring practices**

- **Training & compensation**

- **Background characteristics**
  - Financial performance
  - Clients and innovation
  - Investment climate constraints
  - Financial information on the firm

- **Random selection of 2 occupations**

**45-60 MINUTES**
Can be implemented to firms of any size (formal or informal), since it refers to occupations currently employed in firm

Provides comprehensive skills modules for selected types of occupation

Measures skills that are directly comparable to those of the household survey

Provides information on training provision and needs, as well as relationship with and opinion about education and training institutions