

Armenia - STEP Skills Measurement Household Survey 2013 (Wave 2)

World Bank

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Sampling

Sampling Procedure

The Armenia sample design is a 3 stage sample design. There was no explicit stratification but the sample is implicitly stratified by Region. Implicit stratification was achieved by sorting the PSUs by Region and selecting a systematic sample of PSUs.

First Stage Sample

The primary sample unit (PSU) is a cluster of households that are users of Electricity Networks of Armenia (ENA). The first stage units were selected by the World Bank Survey Methodologist.

Each PSU is uniquely defined by the sample frame variable 'Cluster_ID'. The sampling objective was to conduct interviews in 200 PSUs. In addition, 25 extra PSUs were selected for use in case it was impossible to conduct any interviews in one or more initially selected PSUs. (N.B. None of the 25 extra PSUs were required to be activated.)

Second Stage Sample

The second stage sample unit (SSU) is a household. The sampling objective was to obtain interviews at 15 households within each selected PSU. The households were selected in each PSU using a systematic random method. There was an expectation of high non-response for the Armenia STEP. Therefore, it was decided to select 60 households in each PSU; in each PSU, 2 replicates of 30 households each were selected. The sample of 60 households was divided randomly into an initial sample of 15 households and a reserve sample of 45 households which was activated as necessary in the order in which the sample was selected. During the data collection operation, one PSU (i.e., PSU #183) required additional sample due to exceptionally high non-response. A 3rd replicate of 30 households was selected to accommodate this requirement. Thus, a sample of 90 households was selected in this PSU.

Third Stage Sample

The third stage sample unit was an individual aged 15-64 (inclusive). The sampling objective was to select one individual with equal probability from each selected household.

Response Rate

An overall response rate of 50.3% was achieved in the Armenia STEP Survey. Table 18 of the STEP Survey Weighting Procedures Summary provides the detailed percentage distribution by final status code.

Weighting

While the Armenia three-stage stratified cluster design greatly enhanced the operational feasibility of data collection, it resulted in differential probabilities of selection for the selected persons. Consequently, each selected person in the survey does not necessarily represent the same number of persons in the target population. To account for differential probabilities of selection due to the nature of the design and to ensure accurate survey estimates, STEP requires a sampling weight for each person that participated in the survey.

The objectives of the STEP weighting are to construct a set of survey weights to compensate for unequal probabilities of selection, to compensate for household-level non-response and person-level non-response and to adjust the weighted sample distribution for key variables of interest (for example, age, gender, education) so that it conforms to a known population distribution for these variables.

Detailed information about weighting procedures is available in "STEP Weighting Procedures Summary", provided in external resources.

Questionnaires

Overview

The STEP survey instruments include:

- The background questionnaire developed by the WB STEP team
- Reading Literacy Assessment developed by Educational Testing Services (ETS).

All countries adapted and translated both instruments following the STEP Technical Standards: 2 independent translators adapted and translated the Background Questionnaire and Reading Literacy Assessment, while reconciliation was carried out by a third translator.

The WB STEP team and ETS collaborated closely with the Armenian survey firm during the process and reviewed the adaptation and translation to Armenian (using a back translation).

The survey instruments were both piloted as part of the survey pretest.

The adapted Background Questionnaires are provided in English as external resources. The Reading Literacy Assessment is protected by copyright and will not be published.

Data Collection

Data Collection Dates

Start	End	Cycle
2013-04-01	2013-05-30	Fieldwork

Data Collection Mode

Face-to-face [f2f]

DATA COLLECTION NOTES

Each component of the STEP Survey in Armenia was carried out by a personal visit using a Paper And Pencil Interview (PAPI) method. The implementation language was Armenian.

As the STEP program requires all surveys to be implemented in a standardized way, particular attention was provided to implementation processes:

- 1) Each participating country (survey firm) wrote up a National Survey Design Planning Report (NSDPR) detailing how it intended to implement the STEP survey while complying with the STEP Technical Standards. The NSDPRs were submitted to the WB STEP team for approval.
- 2) The WB STEP team and Educational Testing Services (ETS) provided 2 workshops to all survey firms. The first was a 2-day workshop provided via video conference and aimed at presenting the STEP Technical Standards. The second workshop was organized over 2 full weeks at the WB's Headquarters and consisted in a training course to project managers from each survey firm on the survey instruments - Background Questionnaire and Reading Literacy Assessment - as well as on implementation and data management procedures.
- 3) Based on the STEP Technical Standards, the survey firms adapted and translated the STEP survey instruments, the Interviewer Manual, and all training materials.
- 4) Once the instruments had been adapted and translated, survey firms carried out a pre-test, usually including 20-30 interviews. Findings from the pre-test were discussed with the WB STEP team and ETS to finalize the adaptation and translation of the STEP survey instruments.
- 5) Each survey firm provided a 2-week training course to its enumerators, using training materials developed by the WB STEP team (after translation and adaptation). The WB STEP team's Survey Consultant helped organize the training and was present in the country for the first few days at least of the training. In addition, the WB STEP team in Washington DC provided just-in-time technical assistance, answering questions sent by the survey firm during the training. The training included in-field mock interviews in addition to in-class courses. At the end of the training, survey firms only retained enumerators having demonstrated a good understanding of the instruments.
- 6) As per STEP Technical Standards, data collection started within a few days of the end of the enumerators' training course. The composition of each country's fieldwork teams is described in the NSDPR, as well as reporting procedures and quality control processes. Weekly reports were sent to the WB STEP team, which provided just-in-time technical assistance during fieldwork to answer questions or concerns. Regular calls or VCs were also held between survey firms and the WB STEP team to discuss progress. Matters discussed usually involved questions on how to deal with specific situations, strategies to reduce non-response, the activation of reserve households, and general pace of progress. Non-response rates were high in Bolivia and Colombia, in part due to difficult access to apartment buildings and gated communities, although survey firms worked hard to gain local community leaders' support. In a few instances - all documented in the weighting documentation - a couple of EAs were replaced due to security concerns or because an EA had been completely altered (e.g. construction site, dwellings converted into a large shopping center).
- 7) Interviews lasted between 120 and 150 minutes, depending on respondents' reading proficiency.

Detailed information on the survey processes is provided in the National Survey Design Planning Report (NSDPR) provided as an external resource. The document describes the project management structure, fieldwork teams and reporting processes.

Data Collectors

Name	Abbreviation	Affiliation
Armenia Caucasus Research Resource Center for Armenia	CRRC-Armenia	

SUPERVISION

Each interviewer team reports to a team supervisor. Interviewers must hand over to their supervisor properly filled questionnaires and reading exercise booklets (for Reading Literacy Assessment), and report all information about the fieldwork conducted.

Team supervisors are responsible for coordinating fieldwork, monitoring interviewers' work, documenting non-response, assigning reading exercise booklets and communicating regularly with a field manager. Also, once the household listing exercise is completed, the team supervisor randomly selects 15 households to be interviewed in the primary sampling unit (PSU), as well as reserve households that may be required to be activated (used) in the case of a non-response by one of the originally selected 15 households.

Field supervision details are outlined in "National Survey Design Planning Report" and "Interviewer's Manual and Team Supervisor's Manual", available in external resources.

Data Processing

Data Editing

STEP Data Management Process:

- 1) Raw data is sent by the survey firm
- 2) The WB STEP team runs data checks on the Background Questionnaire data.
 - ETS runs data checks on the Reading Literacy Assessment data.
 - Comments and questions are sent back to the survey firm.
- 3) The survey firm reviews comments and questions. When a data entry error is identified, the survey firm corrects the data.
- 4) The WB STEP team and ETS check the data files are clean. This might require additional iterations with the survey firm.
- 5) Once the data has been checked and cleaned, the WB STEP team computes the weights. Weights are computed by the STEP team to ensure consistency across sampling methodologies.
- 6) ETS scales the Reading Literacy Assessment data.
- 7) The WB STEP team merges the Background Questionnaire data with the Reading Literacy Assessment data and computes derived variables.

Detailed information data processing in STEP surveys is provided in the 'Guidelines for STEP Data Entry Programs' document provided as an external resource. The template do-file used by the STEP team to check the raw background questionnaire data is provided as an external resource.

Other Processing

Data entry processes are described in the National Survey Design Planning Report (NSDPR), available as an external resource. In most countries, data entry took place at the survey firm's headquarters.

For the background questionnaire data, survey firms could use the World Bank (WB) STEP Data Entry Program (DEP) or design their own. In the latter case, the WB STEP team checks their DEP to ensure it complies with STEP technical standards. The STEP DEP was developed in Excel and mirrored the background questionnaire. Georgia developed their own DEP in CPro. Yunnan Province of China, Ghana and Vietnam used the WB STEP Data Entry Program. Armenia, Georgia, Bolivia, Colombia, Lao PDR and Sri Lanka developed their own DEP in CPro. Standards for data entry are detailed in "Guidelines for STEP Data Entry Programs" and summarized in the NSDPR. Double data entry process was required. All range checks and skips were controlled by the program. Consistency checks were also included in the data entry program.

All survey firms were required to score the Reading Literacy Assessment booklets and to enter the data using the Data Entry Program developed by Educational Testing Services (ETS). Double data entry process was required. Consistency checks were also included in the data entry program.

Data Appraisal

Estimates of Sampling Error

A weighting documentation was prepared for each participating country and provides some information on sampling errors. Please refer to the STEP Survey Weighting Procedures Summary provided as an external resource.

Related Materials

Questionnaires

Armenia STEP Skills Measurement Survey 2012-2013

Title	Armenia STEP Skills Measurement Survey 2012-2013
Country	Armenia
Language	English
Contributor(s)	The World Bank
Filename	step_bq_armenia.xlsx

Reports

Armenia Skills toward Employment and Productivity Survey Findings (Urban areas)

Title	Armenia Skills toward Employment and Productivity Survey Findings (Urban areas)
Country	Armenia
Language	English
Filename	Armenia STEP Skills Report____Final_Jan 31 2015.pdf

Technical documents

STEP Weighting Procedures Summary

Title	STEP Weighting Procedures Summary
subtitle	Based on The World Bank Weight Requirement
Author(s)	The World Bank
Date	2013-11-14
Country	Armenia
Language	English
Publisher(s)	The World Bank

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Filename	arm_step_survey_weighting_summary_14_nov_2013_.pdf	

STEP Guidelines for Data Processing

Title	STEP Guidelines for Data Processing	
Author(s)	The World Bank	
Date	2012-12-11	
Language	English	
Publisher(s)	The World Bank	
	The present document provides guidelines for processing data collected through the STEP Household Questionnaire.	
	It is specifically intended for Project Managers and all Data Entry Staff, regardless of the Data Entry Program (DEP) they are using, and details:	
	(i) the data entry process and timing;	
	(ii) the structure data files must comply with before being submitted to the World Bank STEP Core Team;	
	(iii) data checks all Survey Firms are expected to carry out during fieldwork and data cleaning.	
Description	<p>The guidelines are organized in three points:</p> <p>(i) Standards, which describe particular norms the Survey Firm is expected to comply with;</p> <p>(ii) Information to provide During Fieldwork;</p> <p>(iii) Information to provide in the Final Implementation Report.</p> <p>Survey Firms are asked to provide either the full list or the frequency of particular inconsistencies:</p> <ul style="list-style-type: none"> - A full list of inconsistencies is required in cases that are unlikely to occur; - Whereas only frequencies are required in cases that are more likely to present errors. 	
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Interviewer's Manual & Team Supervisor's Manual

Title	Interviewer's Manual & Team Supervisor's Manual
Author(s)	The World Bank

Date	2012-12-30
Language	English
Publisher(s)	The World Bank

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National Survey Design Planning Report

Title	National Survey Design Planning Report
subtitle	Skills Toward Employment and Productivity (STEP) - Full Literacy Assessment
Author(s)	The World Bank
Date	2013-03-06
Country	Armenia
Language	English
Publisher(s)	The World Bank
	Introduction: How to Fill Out the NSDPR 3
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Operational Manual

Title	Operational Manual
Author(s)	The World Bank
Date	2012-12-27
Language	English
Publisher(s)	The World Bank

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STEP Skills Measurement Surveys - Innovative Tools for Assessing Skills

Title	STEP Skills Measurement Surveys - Innovative Tools for Assessing Skills
subtitle	STEP Methodology Note
Author(s)	Gaëlle Pierre (The World Bank) Maria Laura Sanchez Puerta (The World Bank) Alexandria Valerio (The World Bank) Tania Rajadel (The World Bank)
Date	2014-07-09
Language	English
Contributor(s)	Household Survey: Angela Duckworth (University of Pennsylvania), Nancy Guerra (University of California), Michael Handel (Northeastern University), Sergio Urzua (University of Maryland), Irwin Kirsch, Claudia Tamassia, Mary Lou Lennon, Ann Kennedy, Eugene

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A guide to understanding the literacy assessment of the STEP Skills Measurement Survey

Title	A guide to understanding the literacy assessment of the STEP Skills Measurement Survey
Language	English
Filename	A guide to understand the literacy assessment of the STEP Skills Measurement Survey 7Nov2014.pdf

Other materials

Data Checking and Variable Generating STATA Do Files

Title	Data Checking and Variable Generating STATA Do Files
Date	2014-05-01
Language	English
Publisher(s)	The World Bank

This folder contains the following STATA programs:

- microdata_library_step_wave_2_do_file_to_generate_asset_indices_may_21_2014.do
- microdata_library_step_wave_2_do_file_to_generate_demographic_education_labor_market_variables_may_21_2014.do

Description

- microdata_library_step_wave_2_do_file_to_generate_derived_variables_for_the_literacy_assessment_data_may_21_2014.do
- microdata_library_step_wave_2_do_file_to_generate_family_related_variables_may_21_2014.do
- microdata_library_step_wave_2_do_file_to_generate_skills_aggregation_variables_may_21_2014.do
- step_data_check_template.do

Filename

Data check and variable generation do files.zip
