

How to use ADePT - Social Protection



Pensions Core Course

Washington DC

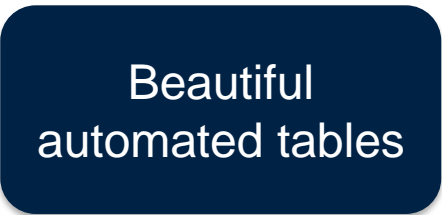
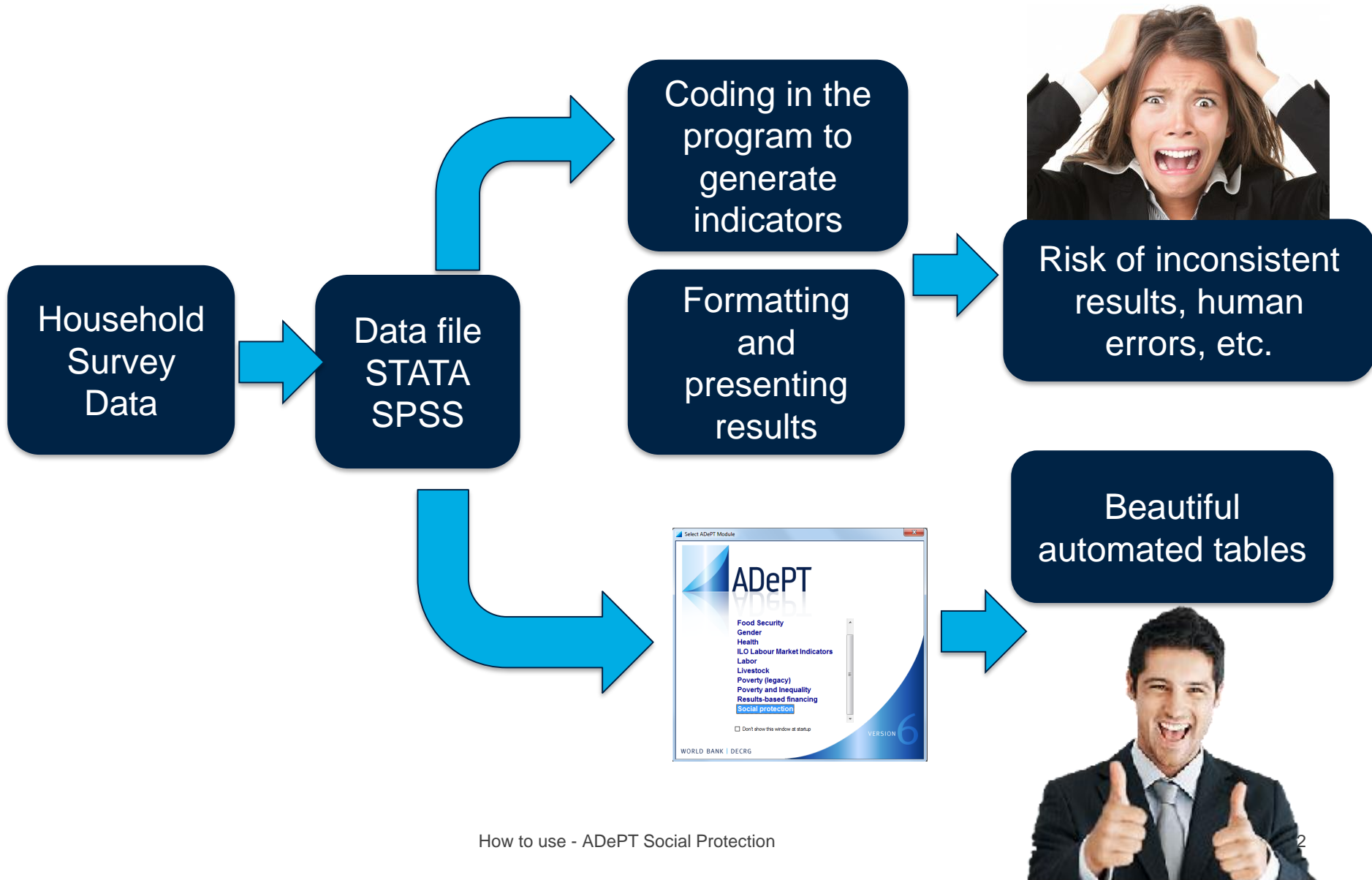
October 28 – November 8, 2019

Presenters: Claudia Rodríguez
and Oleksiy Ivaschenko.

This presentation builds on the
work of World Bank colleagues

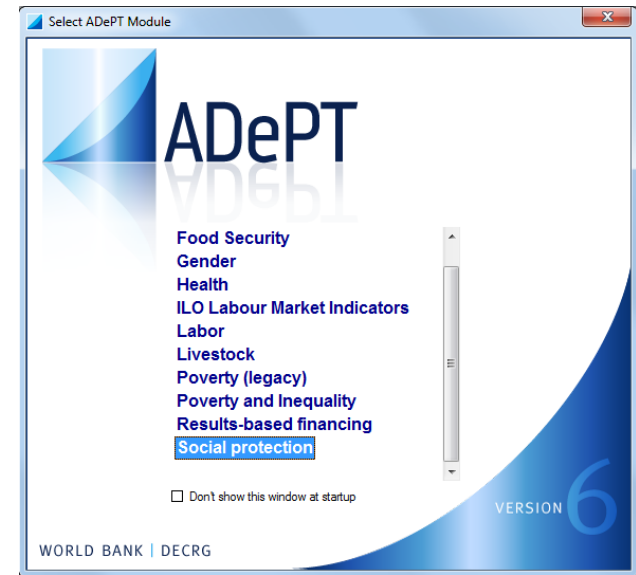


Process to generate performance indicators



What is ADePT

ADePT is a software Platform for Automated Economic Analysis.



ADePT uses micro-level data from various types of surveys, such as Household Budget Surveys, Demographic and Health Surveys and Labor Force surveys to produce rich sets of tables and graphs for a particular area of economic research

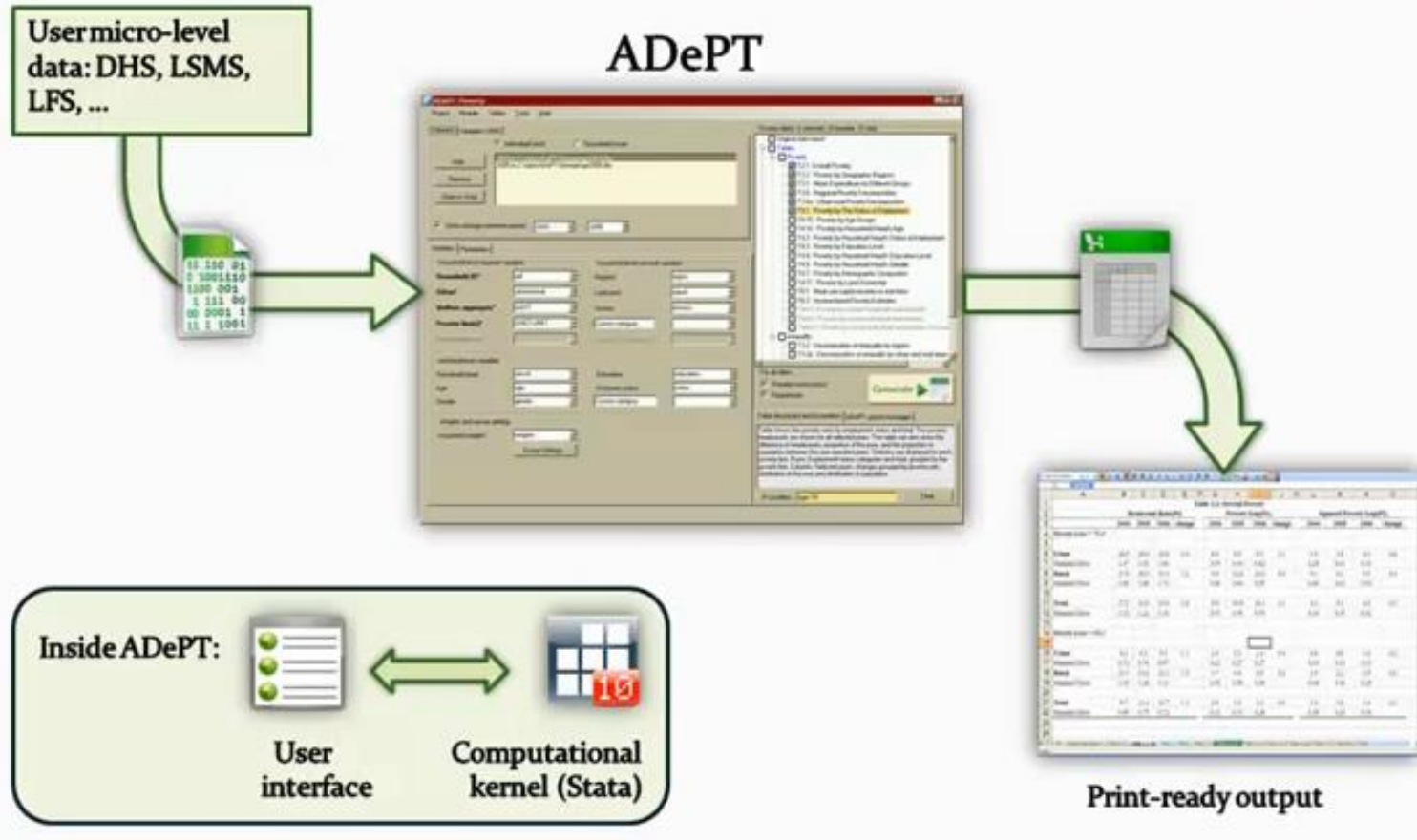
User requires knowledge of statistical packages -e.g. Stata and SPSS – to prepare the dataset. Construction of key variables is not trivial but a statistician can do it.

Why ADePT?

- **ADePT** ensures **comparability** of results across countries/years, in a standardized format.
- **ADePT saves time** because users do not need to write commands and code to produce the tables and charts. It is automated!
- **ADePT** it is **easy** to learn and use. It minimizes human errors in programming!

Download from surveys.worldbank.org/adept

ADePT: From data to report



INPUTS



OUTPUTS

Household Survey Data

Dataset prepared in STATA or SPSS

Variables needed (mandatory):

- Household ID
- Location (urban and rural)
- Household weights
- Welfare aggregate (total household consumption or income)
- Poverty line
- Social Protection programs
 - Social Insurance
 - Social Assistance
 - Labor Market Programs



Excel Tables with indicators

- Average per capita transfer
- Coverage
- Distribution of beneficiaries
- Distribution of benefits
- Relative incidence
- Generosity
- Undercoverage and leakage
- Impact of programs on poverty and inequality
- Coady-Grosh-Hoddinott indicator
- Program duplication and overlap
- Cost-Benefit ratio

Plus: statistics, profiles, demographics, charts

ADePT-SP Interface

The screenshot displays the ADePT-SP software interface. At the top, there is a menu bar with 'Project', 'Module', 'Tools', and 'Help'. Below it, a 'Datasets' tab is active, showing a table with columns 'Label' and 'Dataset'. The 'Label' column contains 'Bulgaria' and the 'Dataset' column contains 'C:\ADePT\example\adept_blg.dta'. A yellow box with the text '(1) Load your dataset(s)' is overlaid on this section.

Below the dataset table, there are three buttons: 'Add...', 'Remove', and 'Browse...'. To the right, there are radio buttons for 'Individual level' (selected) and 'Household level'.

The main area of the interface is divided into several sections. On the left, there are tabs for 'Main', 'Programs', and 'Consumption'. Below these, there are several rows of dropdown menus for selecting variables. For example, 'Household ID' is set to 'hhid', 'Urban' to 'location', 'Household size' to 'hhsize', and 'Household weights' to an empty dropdown. A yellow box with the text '(2) Tell ADePT what's what' is overlaid on this section.

On the right side, there is a 'Social protection' panel with a tree view of tables. The tree shows a hierarchy of tables, including 'Original Data Report', 'Direct and indirect beneficiaries (2/2/2)', 'Direct beneficiaries only (1/1/1)', and 'Profile (10/10/19)'. A yellow box with the text '(3) Select tables and charts' is overlaid on this section.

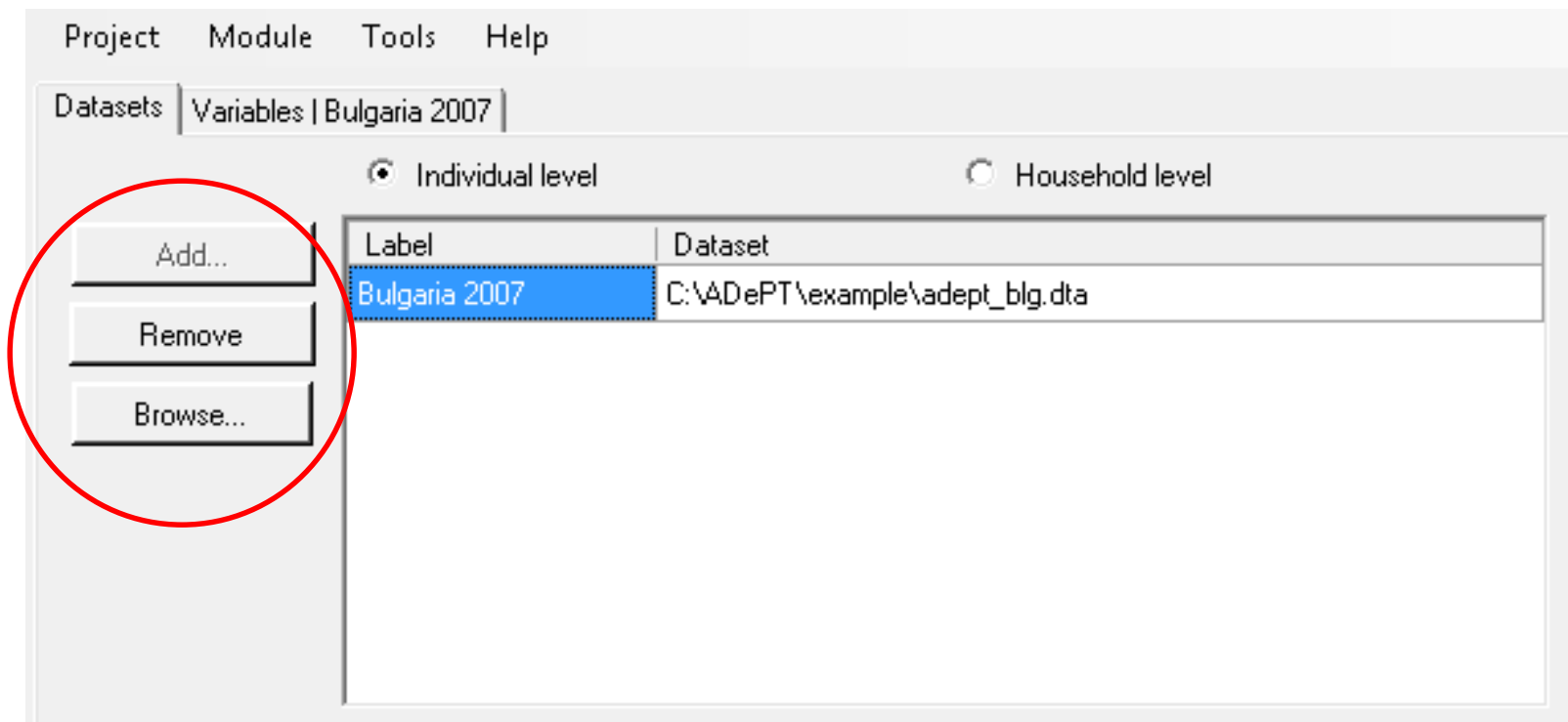
Below the tree view, there is a 'For all tables' section with a checkbox for 'Standard errors (slow)' and a 'Generate' button with a green play icon and a document icon. A yellow box with the text '(4) Choose options and hit "Generate"' is overlaid on this section.

At the bottom of the interface, there is a 'Table description and if-condition' section with a 'Messages' tab. The 'Messages' tab is active, showing a text area with the text: 'Data Report presents information on variables selected for the analysis. For each variable it shows the number of observations with non-missing'. A yellow box with the text '(4) Choose options and hit "Generate"' is overlaid on this section.

ADePT-SP Steps

1. Upload your data

- Click on the “Add” button to open and upload the data you want to use
- Label the dataset. The label will be used in the tables and graphs
- You can add or remove multiple datasets



ADePT-SP Steps

1. Upload your data

- Specify if the dataset is at the individual or household level
- The dataset can be opened by clicking on the browse button

The screenshot displays the ADePT-SP software interface. The main window has a menu bar with 'Project', 'Module', 'Tools', and 'Help'. Below the menu bar, there are tabs for 'Datasets', 'Variables', and 'Bulgaria 2007'. The 'Individual level' radio button is selected and circled in red. The 'Dataset' field shows 'C:\ADePT\example\adept_blg.dta'. The 'Browse...' button is also circled in red. A blue arrow points from the 'Browse...' button to a 'Data1 - ADePT Data Browser' window. This window shows a data table with columns: hhid, hhweight, location, region, ethnicity_head, age, gender, relation, and iterate. The table contains 18 rows of data.

	hhid	hhweight	location	region	ethnicity_head	age	gender	relation	iterate
1	1	627.2325	urban location	Sofia region	Turks	37	female	head	no
2	1	627.2325	urban location	Sofia region	Turks	11	female	child	ye
3	1	627.2325	urban location	Sofia region	Turks	8	male	child	ye
4	2	627.2325	urban location	Haskovo	Bulgaria	73	male	head	ye
5	2	627.2325	urban location	Haskovo	Bulgaria	70	female	spouse/partner	ye
6	3	627.2325	rural location	Lovetch	Bulgaria	75	male	head	ye
7	4	627.2325	rural location	Lovetch	Bulgaria	79	male	head	ye
8	4	627.2325	rural location	Lovetch	Bulgaria	80	female	spouse/partner	ye
9	5	627.2325	urban location	Sofia region	Bulgaria	82	female	head	ye
10	6	627.2325	urban location	Sofia region	Bulgaria	83	female	head	ye
11	7	627.2325	urban location	Lovetch	Turks	58	male	head	ye
12	7	627.2325	urban location	Lovetch	Turks	57	female	spouse/partner	ye
13	8	627.2325	urban location	Bourgass	Bulgaria	63	male	head	ye
14	8	627.2325	urban location	Bourgass	Bulgaria	66	female	spouse/partner	ye
15	9	627.2325	urban location	Bourgass	Bulgaria	50	female	head	ye
16	9	627.2325	urban location	Bourgass	Bulgaria	71	female	parent, parent-in-law	ye
17	9	627.2325	urban location	Bourgass	Bulgaria	19	male	child	ye
18	10	627.2325	urban location	Sofia region	Bulgaria	42	male	head	ye

ADePT-SP Steps

2. Specify variables

- Once data has been uploaded, the variable names and labels are shown in the second tab of the first window to the left.
- The bottom window to the left has three tabs to specify main, program and welfare variables

The screenshot displays the ADePT-SP software interface. The main window is titled "NewProject_sp_0001* - ADePT: Social protection". Below the title bar is a menu bar with "Project", "Module", "Tools", and "Help". The "Variables | Bulgaria 2007" tab is active, showing a table of variables:

Variable name	Variable label
hhid	Household ID
hhweight	Household Expansion Factor
location	Urban/Rural
region	Region
ethnicity_head	Ethnicity
age	Age
gender	Gender
relation	Relation to household head

Below the table is a search field. At the bottom, there are three tabs: "Main", "Programs", and "Consumption". The "Main" tab is selected and circled in red. Below the tabs, there are several dropdown menus for selecting variables:

- Household ID: *hhid*
- Urban: *location*
- Household size: (empty)
- Household weights: *weight*
- Regions: *region*
- Ethnicity: (empty)
- Special status: (empty)
- Custom variable: (empty)

On the right side, there is a list of available variables for selection, with "region" highlighted in green:

- region
- ethnicity_head
- age
- gender
- relation
- literate
- income_mnt

ADePT-SP Steps

2. Specify variables

Tab 1. Main variables

- Some main variables such as Household ID, urban, household weights, and household size, are mandatory to generate ADePT tables
- If the dataset is at the individual level, variables of individual characteristics can be specified
- Variables can be selected by dragging them from the upper window or by using the dropdown menu in the variable field

The screenshot displays the 'Main' tab of the ADePT-SP software interface. The 'Main' tab is highlighted with a red circle. The interface is divided into two sections: 'Household level variables' and 'Individual level variables'. The 'Household level variables' section includes fields for Household ID (set to 'hhid'), Urban (set to 'location'), Household size, Household weights (set to 'weight'), Regions, Ethnicity, Special status, and Custom variable. The 'Individual level variables' section includes fields for Household head, Age, Gender, Education, Economic status, and Custom variable.

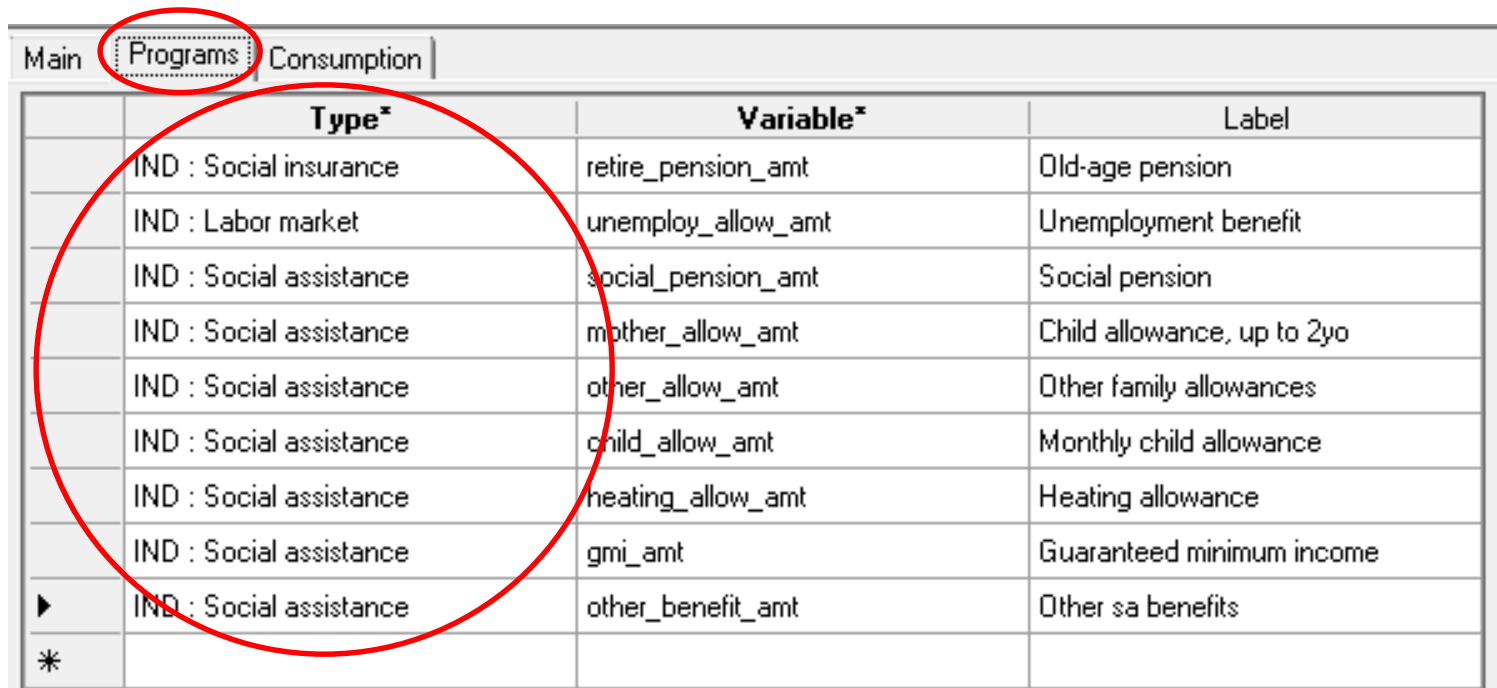
Level	Variable	Selected Value	Other Options
Household level variables	Household ID	hhid	Regions
	Urban	location	Ethnicity
	Household size		Special status
	Household weights	weight	Custom variable
Individual level variables	Household head		Education
	Age		Economic status
	Gender		Custom variable

ADePT-SP Steps

2. Specify variables

Tab 2. Program variables

- These are the programs which impact you are trying to measure
- Each program variable needs to be classified under a social protection program type: Social Insurance, Labor Market, Social Assistant or Remittances
- In addition, the level of the variable (individual or household) needs to be specified



	Type*	Variable*	Label
	IND : Social insurance	retire_pension_amt	Old-age pension
	IND : Labor market	unemploy_allow_amt	Unemployment benefit
	IND : Social assistance	social_pension_amt	Social pension
	IND : Social assistance	mother_allow_amt	Child allowance, up to 2yo
	IND : Social assistance	other_allow_amt	Other family allowances
	IND : Social assistance	child_allow_amt	Monthly child allowance
	IND : Social assistance	heating_allow_amt	Heating allowance
	IND : Social assistance	gmi_amt	Guaranteed minimum income
▶	IND : Social assistance	other_benefit_amt	Other sa benefits
*			

ADePT-SP Steps

2. Specify variables

Tab 3. Consumption variables

- In this tab you can rank households into poor or non-poor, quintile or decile groups by using either a monetary or non-monetary welfare aggregate
- If a monetary value is chosen, in the “total consumption” field a variable containing total consumption or total income can be selected

The screenshot shows the 'Consumption' tab in the ADePT-SP software. The 'Welfare aggregate' section has 'Monetary value' selected. The 'Total consumption' dropdown is set to 'aggregate'. The 'Pre-transfer adjustment of welfare' section has 'No adjustments (V0)' selected. The 'Number of quantiles' section has '5 (quintiles)' selected. The 'Poverty line(s)' section has 'Absolute' selected and the 'Reference' dropdown is set to 'Percentile' with a value of '10 20'.

ADePT-SP Steps

2. Specify variables

Tab 3. Consumption variables

The type of adjustment to the welfare aggregate or counterfactual welfare indicator should be selected in this tab. ADePT SP can rank the households using four simplified counterfactuals:

- No adjustments (post transfer or observed income or consumption) (V0)
- Net of all Social Protection Transfers (V1)
- Net of each Social Protection Transfers (V2)
- Net of all Social Assistance Transfers (V3)

The screenshot displays the 'Consumption' tab in the ADePT-SP software. The 'Welfare aggregate' section includes options for 'Monetary value' (selected) and 'Non-monetary value'. The 'Total consumption' is set to 'aggregate'. The 'Adult equiv. adjustment' and 'Other WA' are set to empty dropdowns. The 'Pre-transfer adjustment of welfare' section is circled in red, showing 'No adjustments (V0)' selected, with other options 'Net of all SP transfers (V1)', 'Net of each SP transfer (V2)', and 'Net of all SA transfers (V3)'. The 'Number of quantiles' section shows '5 (quintiles)' selected, with '10 (deciles)' also available. A checkbox for 'Use welfare ratio for quantiles' is unchecked. The 'Poverty line(s)' section shows 'Absolute' selected, with a reference of 'ae_povertyline' and a percentile of '10 20'.

ADePT-SP Steps

3. Select tables and charts

A total of 51 tables can be generated by ADePT, depending on the level of the dataset. You can select the tables and charts relevant to your analysis.

The screenshot displays the ADePT-SP interface for 'Social protection'. The top status bar indicates 'tables selected:41 | feasible:41 | total:51'. The main area shows a hierarchical tree view of tables and charts, with checkboxes indicating selection status. The tree is organized into several main categories:

- Original Data Report
- Direct and indirect beneficiaries (2/2/2)**
 - T12: Coady-Grosh-Hoddinott indicator
 - T13: Coady-Grosh-Hoddinott indicator, benefits' incidence
- Direct beneficiaries only (1/1/1)**
 - T12.1: Coady-Grosh-Hoddinott indicator
- Profile (10/10/19)**
 - TP1 : Profile by age and gender
 - TP2 : Profile by household head's age and gender
 - TP3 : Profile by education
 - TP4 : Profile by household head's education
 - TP5 : Profile by economic status
 - TP6 : Profile by household head's economic status
 - TP7 : Profile by custom individual characteristic
 - TP8 : Profile by custom individual characteristic of household head
 - TP9 : Profile by custom household characteristic
 - T1: Sample and Population Sizes
 - T2a: Population Demographics
 - T2b: Population Demographics, V2
 - T3_1 : Average Transfer Value, Per Capita
 - T4_1 : Average Transfer Value, Per Capita, Beneficiary Households Of Indicated Transfer Only
 - T5_1 : Coverage
 - T6_1 : Distribution of Beneficiaries
 - T7_1 : Distribution of Benefits (Targeting Accuracy)
 - T8_1 : Relative Incidence
 - T9_1 : Generosity
- Poverty (12/12/12)**
 - T19: Cost-Benefit Ratios
 - G3: Cost-Benefit Ratios
 - T3_2 : Average Transfer Value, Per Capita
 - T4_2 : Average Transfer Value, Per Capita, Beneficiary Households Of Indicated Transfer Only

ADePT-SP Steps

4. Generate Excel output tables

- The lower window to the right displays the “Generate” button, which activates once the tables have been selected
- Conditions can be specified to generate the tables (e.g. If gender ==1, etc.)
- The table description window displays the definition of the tables being generated
- Errors or other messages are displayed in the second tab

For all tables

Standard errors (slow)



Generate  

Table description and if-condition | Messages

Table presents the coverage of a program or combination of programs, where coverage is the proportion of direct and indirect beneficiaries, or for the second panel - direct beneficiaries only, in each group. Coverage is calculated for the total population and user-specified groups. Rows: social protection programs and groups of programs (all SP, SI, LM, SA). Columns: total population and groups like area of residence, regions

IF-condition **Set**

For all tables

Standard errors (slow)



Stop  

Table description and if-condition | Messages

Table presents the average per capita transfer value for the total population and other user-specified population groups. Rows: total population and groups like area of residence, regions Columns: Up to 20 social protection programs and groups of programs (all social protection; all social insurance; all labor market programs; all social assistance).

IF-condition **Set**

ADePT-SP Tables

ADePT generates an Excel file with the tables and charts displayed in individual tabs.

Copy of sp_out.xls [Compatibility Mode]

	A	B	C	D	E	F	G
1	Table 3_3 : Average Transfer Value, Per Capita						
2	<i>All households</i>						
3		Total	Q1	Q2	Q3	Q4	Q5
4	All social protection	48.3	67.7	61.9	50.3	37.4	24.1
5	All social insurance	43.4	59.7	56.6	46.8	33.1	20.8
6	Old age pension	37.4	52.0	49.1	40.2	28.6	17.2
7	Disability pension/allowance	4.7	6.0	5.9	5.3	3.6	2.7
8	Survivorship pension	1.3	1.7	1.6	1.3	0.8	0.8
9	All labor market programs	0.4	0.5	0.6	0.4	0.4	0.3
10	Unemployment benefit	0.4	0.5	0.6	0.4	0.4	0.3
11	All social assistance	4.5	7.6	4.7	3.2	3.9	3.0
12	Social assistance	0.2	0.5	0.1	0.0	0.1	0.1
13	Child allowance, up to 2 yo	1.6	1.9	1.7	1.2	1.9	1.4
14	Other family allowances	0.2	0.2	0.2	0.3	0.2	0.2
15	Monthly child allowance	1.3	1.6	1.2	1.2	1.4	1.1
16	Heating allowance	0.3	1.1	0.2	0.1	0.0	0.0
17	Guaranteed minimum income	0.7	2.1	0.7	0.3	0.0	0.2
18	Other sa benefits	0.3	0.3	0.6	0.2	0.2	0.0
19	All remittances	6.1	2.2	4.8	3.8	4.0	15.8
20	Remittances	6.1	2.2	4.8	3.8	4.0	15.8
22	Notes:						
23	Table entries are the average per capita transfer received by all households in a group. It does include households that did not receive the transfer.						
24	Averages are calculated setting as expansion factor the household expansion factor multiplied by the household size.						
25	Averages in LCU.						

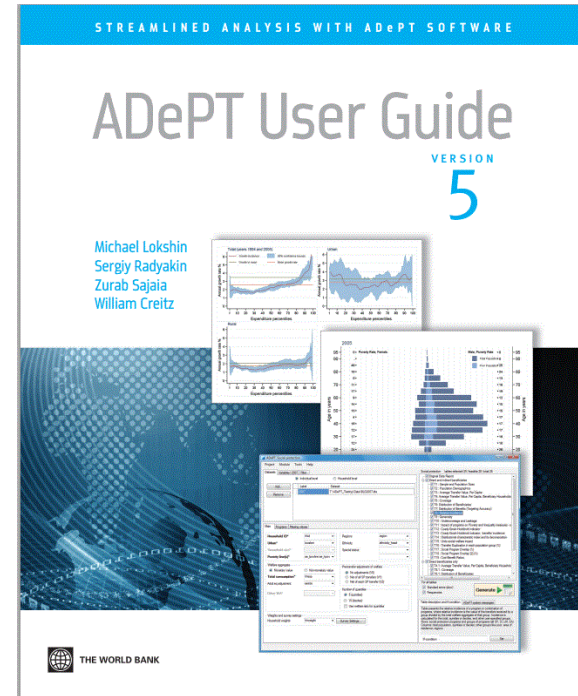
Trainings

If your country office is interested in a training on ADEPT Social Protection and/or Poverty (1/2 day to 3 day courses) Please contact:

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surveys.worldbank.org/adept



THANK YOU!