

SOCIAL PROTECTION AND JOBS

# 2019 CORE COURSES

OCT. 28–NOV. 8 | WASHINGTON DC



## Social Protection Policy and Program Analysis – Using Household Survey Data to Assess Welfare, Poverty and Program Efficiency and Effectiveness

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World Bank

Pensions Core Course

# Session objective

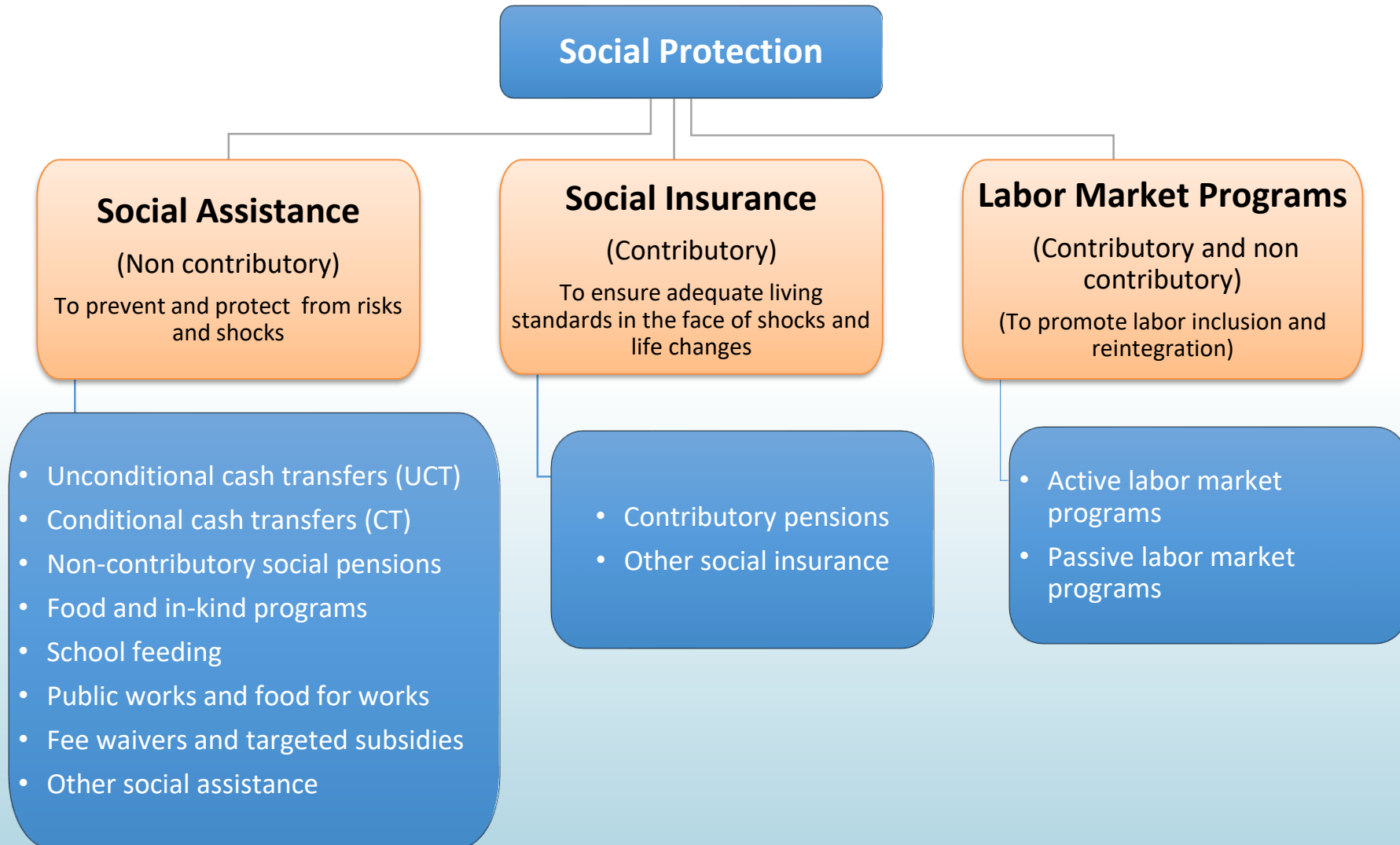
Learn how survey data can be used to improve *evidence-based* Social Protection and Labor policies:

- Analyze household survey data
- Interpret poverty and performance indicators
- Familiarize with ADEPT
- Understand and formulate SPL policy reforms

# AGENDA

1. Social Protection Framework
2. Overview of household survey data
3. Applications of household survey data:
  - Poverty analysis
  - Performance analysis for SPL policy
4. ADePT - Poverty & Social protection

# Social Protection Framework



# Why is it Important to Analyze Social Protection Programs?

**Social Protection has increasingly become an important tool to reduce poverty and improve resilience, equity and opportunity.**

As significant amount of public resources are devoted to these programs, it is crucial to analyze social protection to:

- **Promote evidence-base policy making:** Policymakers would like to track progress, and find answers to the questions such as: Is the targeting of programs improving? Are we achieving impact? How the performance of the country's SPL programs compares to that in countries? (benchmarking tool)
- **Increase accountability and transparency:** all citizen would like to know how public resources are spent and if the social investment is efficient and effective at reaching the intended results.

# Overview of Household Surveys for Program Analysis

Administrative and household survey data both provide useful information on social protection programs, but from a different perspective. While administrative data provides key information on program beneficiaries and spending, HH survey data is useful because it makes it possible to:

- ✓ Monitor programs
- ✓ Assess program performance
- ✓ Assess program impact
- ✓ Plan and simulate program reforms

# Administrative vs. Household Survey Data

Administrative and Household survey data both have pros and cons:

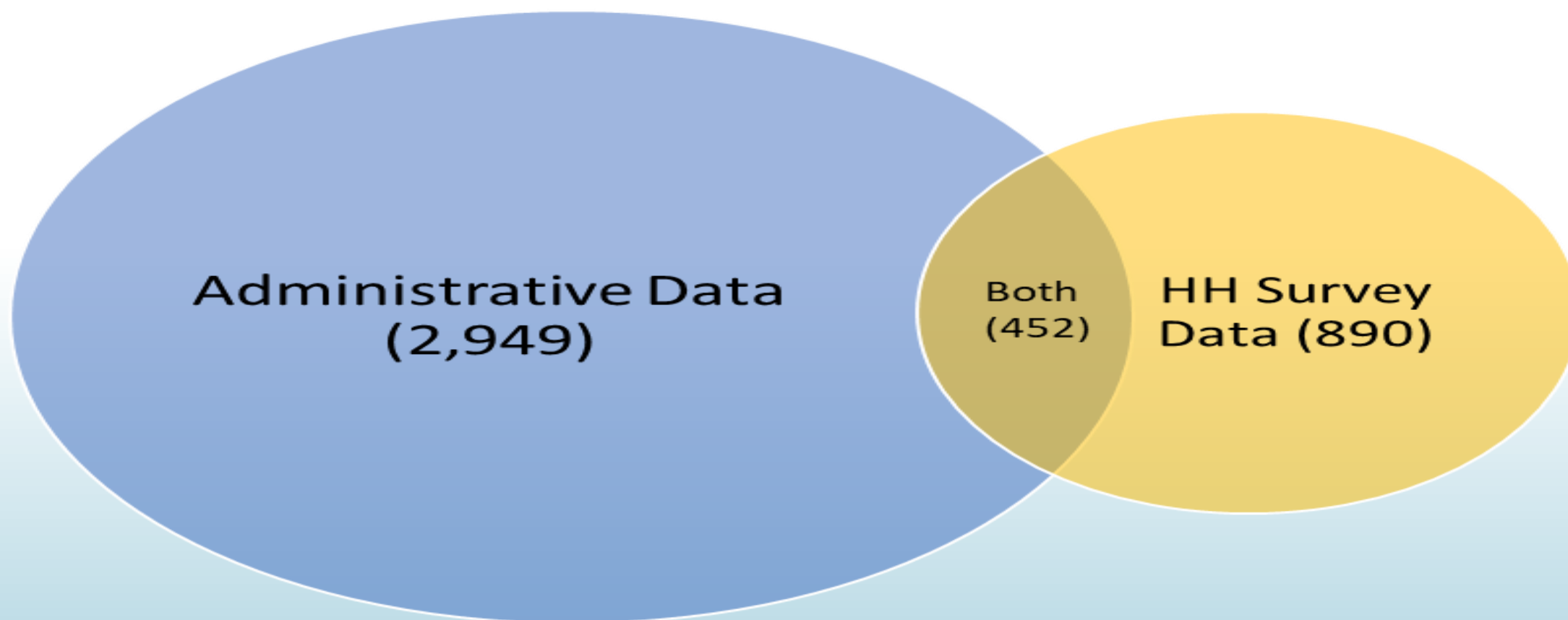
## Administrative data

- Limited population coverage - only “covered” (program beneficiaries) included/captured;
- + Comprehensive data on contributors, beneficiaries;
- + Cumulative (over life cycle);
- Narrow variables (e.g., age, gender, contribution);
- Data fragmentation;
- Double counting of beneficiaries if people receives more than one program.

## Household survey data

- + Entire population represented (covered and non-covered by programs);
- /+ Generally lack data on contributors, though extensive info on recipients/beneficiaries (and non-recipients);
- Static (single year, usually not panel, though can use multiple surveys);
- + Much more comprehensive (demographic, poverty, public & private transfers);
- **No all SP programs are included in surveys (!)**

The ASPIRE\* administrative data universe – captures almost 3,000 individual SSN/SA programs from 144 countries representing 80% of the global population → HH surveys capture only 1/3 of that!



\*ASPIRE: [Atlas of Social Protection: Indicators of Resilience and Equity](#)



# What is household survey data?

- Household survey → a tool to capture nationally representative data (sample) at the HH and individual level; it only captures what is asked in the survey instrument!
- Examples: LSMS, HBS, LFS, DHS, Census
- Organization: Household or individual level
- Timing: Generally collected ever 2-3 years, more frequent than census (~ 10 years)
- Information: Core demographics (e.g., age and gender), expenditure/ income, employment status, public and private transfers, etc.

# Example of a household survey

PUBLIC DISCLOSURE  
AUTHORIZED



United Republic of Tanzania  
National Bureau of Statistics

## NATIONAL PANEL SURVEY

*This information is collected under the Act of the Parliament (Act No. 1 of 2002)*  
*THIS INFORMATION IS STRICTLY CONFIDENTIAL AND IS TO BE USED FOR STATISTICAL PURPOSES ONLY.*

## COMMUNITY QUESTIONNAIRE

### SECTION A-1: COMMUNITY IDENTIFICATION

	CODE	NAME
1. REGION:	<input type="text"/>	.....
2. DISTRICT	<input type="text"/>	.....
3. WARD	<input type="text"/>	.....
4. VILLAGE/ENUMERATION AREA	<input type="text"/>	.....
5. MTAA NAME		.....

MARK BOX WITH AN 'X' AND  
NUMBER FORMS BELOW IF YOU  
USE MORE THAN THIS SINGLE  
FORM TO COLLECT INFORMATION  
FROM THIS HOUSEHOLD. IF SO,  
BE SURE TO MARK IN THE SAME  
WAY THE OTHER FORMS USED  
FOR THIS HOUSEHOLD

☐

FORM \_\_\_\_ OF \_\_\_\_ TOTAL

GPS, VILLAGE/BLOCK OFFICE	S	<input type="text"/>	<input type="text"/>	<input type="text"/>
	E	<input type="text"/>	<input type="text"/>	<input type="text"/>

# Example survey (cont'd)

INTRODUCTION TO THE HOUSEHOLD TO BE INTERVIEWED

**CONVEY THE FOLLOWING INFORMATION TO THE RESPONDENT:**

In 2008/2009, the National Bureau of Statistics in Tanzania selected over one hundred households in each region of the country to ask them questions about how they were living. The responses which were provided by the households to these questions were used to help the government of Tanzania do a better job in meeting the needs of all Tanzanians.

**NEW HOUSEHOLDS IN MOROGORO, DAR ES SALAAM AND PWANI:**  
Now in 2010/2011 we are expanding these efforts. Your household was selected as one of those to which the questions will be asked this time. You were not selected for any specific reason. Simply your name appeared on a list of all of the households in this area, and your name was chosen randomly.

**NPS HOUSEHOLDS:**  
Now in 2010/2011, we are returning the these same households to see how things are progressing.

**SPLIT-OFF HOUSEHOLDS:**  
At the time of that survey, one of your household members was living in a selected household, and we would like to see how things are progressing and how they, and the rest of their new household, are living now.

**ALL:**  
I would like to ask the questions in this form to you as head of household or spouse of the head. I will also need to ask questions to other members of your household, as well as weigh and measure the height of everyone who lives in your household. These questions will take several hours to complete. All of your answers will be held in confidence. The answers which you and the members of your household might give me will only be used by the NBS or under its supervision.

Before I start, do you have any questions or is there anything which I have said on which you would like any further clarification? May I proceed with interviewing you and members of your household?

TABLE OF CONTENTS

- SECTION A-1: HOUSEHOLD IDENTIFICATION
- SECTION A-2: SURVEY STAFF DETAILS
- SECTION B: HOUSEHOLD MEMBER ROSTER
- SECTION C: EDUCATION
- SECTION D: HEALTH
- SECTION E: LABOUR
- SECTION F: FOOD OUTSIDE THE HOUSEHOLD
- SECTION G. SUBJECTIVE WELFARE
- SECTION H. GOVERNANCE
- SECTION I: FOOD SECURITY
- SECTION J: HOUSING, WATER AND SANITATION
- SECTION K: CONSUMPTION OF FOOD OVER PAST ONE WEEK

- SECTION L: NON-FOOD EXPENDITURES – Past one week & one month
- SECTION M: NON-FOOD EXPENDITURES – Past twelve months
- SECTION N: HOUSEHOLD ASSETS
- SECTION O: ASSISTANCE AND GROUPS
- SECTION P: CREDIT
- SECTION Q: FINANCE
- SECTION R: RECENT SHOCKS TO HOUSEHOLD WELFARE
- SECTION S: DEATHS IN HOUSEHOLD
- SECTION V-1: HOUSEHOLD RECONTACT INFORMATION
- SECTION V-2: FILTER QUESTIONS
- SECTION U: ANTHROPOMETRY

# Example survey (cont'd)

**SECTION B: HOUSEHOLD MEMBER ROSTER**

IN ORDER TO MAKE A COMPREHENSIVE LIST OF HOUSEHOLD MEMBERS, USE THE FOLLOWING PROBE QUESTIONS:

FIRST, ASK NAMES OF ALL THE MEMBERS OF YOUR IMMEDIATE (NUCLEAR) FAMILY WHO NORMALLY LIVE AND EAT THEIR MEALS TOGETHER HERE. WRITE DOWN NAMES, SEX, AND RELATIONSHIP TO HOUSEHOLD HEAD

FILL IN QUESTIONS 1 TO 6

THEN, ASK NAMES OF ANY OTHER PERSONS RELATED TO YOU OR OTHER HOUSEHOLD MEMBERS WHO NORMALLY LIVE AND EAT THEIR MEALS TOGETHER HERE.

FILL IN QUESTIONS 1 TO 6

ALSO ASK OTHER PERSONS NOT HERE NOW WHO NORMALLY LIVE AND EAT THEIR MEALS HERE? FOR EXAMPLE, HOUSEHOLD MEMBERS STUDYING ELSEWHERE OR TRAVELING.

FILL IN QUESTIONS 1 TO 6

THEN, ASK NAMES OF ANY OTHER PERSONS NOT RELATED TO YOU OR OTHER HOUSEHOLD MEMBERS, BUT WHO NORMALLY LIVE AND EAT THEIR MEALS TOGETHER HERE, SUCH AS LIVE-IN SERVANTS.

FILL IN QUESTIONS 1 TO 6

IF MORE THAN 12 INDIVIDUALS, USE SECOND QUESTIONNAIRE. MAKE SURE TO MARK BOX ON FIRST PAGE OF BOTH QUESTIONNAIRES.

**Q.9 EXCEPTIONS**  
INFANTS LESS THAN 3 MONTHS  
NEW HOUSEHOLD MEMBERS  
BOARDING SCHOOL STUDENTS

INDIVIDUAL ID	1. NAME  LIST HOUSEHOLD HEAD ON LINE 1. MAKE A COMPLETE LIST OF ALL INDIVIDUALS WHO NORMALLY LIVE AND EAT THEIR MEALS TOGETHER IN THIS HOUSEHOLD, STARTING WITH THE HEAD OF HOUSEHOLD.  (CONFIRM THAT HOUSEHOLD HEAD HERE IS SAME AS HOUSEHOLD HEAD LISTED ON COVER.)	2. Sex  M...1 F...2	3. In what month and year was [NAME] born?  PUT "99" IF DON'T KNOW  YEAR MONTH	4. How old is [NAME]?  IF RESPONDENT DOESN'T KNOW, USE YEAR OF BIRTH TO CALCULATE AGE.  CHECK THAT AGE IN QUESTION 4 AND YEAR OF BIRTH IN QUESTION 3 ARE CONSISTENT.  YEARS	5. What is [NAME]'s relationship to the head of household?  HEAD.....1 SPOUSE.....2 SON/DAUGHTER.....3 STEP SON / DAUGHTER.....4 SISTER/BROTHER.....5 GRANDCHILD.....6 FATHER/MOTHER.....7 OTHER RELATIVE (SPECIFY).....8 LIVE-IN SERVANT.....9 OTHER NON-RELATIVES (SPECIFY).....10	6. IF THIS MEMBER WAS PRESENT AT LAST SURVEY, ENTER Y1 HH ID NUMBER FROM TRACKING FORM  ELSE, ENTER 99  NPS Y1 ROSTER ID	7. Did [NAME] eat meals in this household in the last 7 days?  YES... NO...	8. For how many days in the last month was [NAME] present?  DAYS	9. For the last 12 months has [NAME] stayed in this household for 3 months or more?  CROSS OUT ID CODE IN THE FLAP AND DO NOT ADMINISTER OTHER SECTIONS FOR INDIVIDUALS WITH CODE 2  YES...1 NO....2	INDIVIDUAL ID
1										1
2										2
3										3
4										4
5										5
6										6
7										7
8										8
9										9
10										10
11										11
12										12

# Individual level data

Household Identification	Individual Identification	STRATA	PSU	Urban location =1; Rural location=2	Household expansion factor	Household Size	Adult equivalent scale	Head of the household	Age of the household member	Total household income	Poverty line	Amount received from old age pensions	Participation in scholarship programs	Amount received by the household from Oportunidades	Amount received by the household from Pro-Campo
id_hh	id_ind	strata	psu	urban	hhweight	hhsz	adul_eq	head	age	hh_income	pob_ing	apos	becas_	toport	tprocam
20060150282	1	1	2	2	305	3	2	1	18	2459.34	938.61		0	180.49	
20060150282	2	1	2	2	305	3	2	0	18	2459.34	938.61		0	180.49	
20060150282	3	1	2	2	305	3	2	0	1	2459.34	938.61		0	180.49	
20060150280	1	1	2	2	305	7	6	1	56	9094.69	938.61		0		334.24
20060150280	2	1	2	2	305	7	6	0	53	9094.69	938.61		0		334.24
20060150280	3	1	2	2	305	7	6	0	29	9094.69	938.61		0		334.24
20060150280	4	1	2	2	305	7	6	0	26	9094.69	938.61		0		334.24
20060150280	5	1	2	2	305	7	6	0	15	9094.69	938.61		0		334.24
20060150280	6	1	2	2	305	7	6	0	13	9094.69	938.61		0		334.24
20060150280	7	1	2	2	305	7	6	0	7	9094.69	938.61		1		334.24
20060150030	1	1	1	1	777	4	3	1	77	18183.37	938.61	1403.81	0		
20060150030	2	1	1	1	777	4	3	0	51	18183.37	938.61		0		
20060150030	3	1	1	1	777	4	3	0	43	18183.37	938.61		0		
20060150030	4	1	1	1	777	4	3	0	9	18183.37	938.61		0		
20060150040	1	1	1	1	777	1	1	1	92	4458.78	938.61	1604.35	0		
20060150050	1	1	1	1	777	2	2	1	83	6397.05	938.61	1640.45	0		
20060150050	2	1	1	1	777	2	2	0	39	6397.05	938.61		0		
20060150060	1	1	1	1	859	5	2	1	41	12988.27	938.61		0		
20060150060	2	1	1	1	859	5	2	0	32	12988.27	938.61		0		
20060150060	3	1	1	1	859	5	2	0	11	12988.27	938.61		0		
20060140410	1	1	7	1	638	10	6	1	56	10730.62	938.61		0	514.18	
20060140410	2	1	7	1	638	10	6	0	58	10730.62	938.61		0	514.18	
20060140410	3	1	7	1	638	10	6	0	86	10730.62	938.61	1411.48	0	514.18	
20060140410	4	1	7	1	638	10	6	0	30	10730.62	938.61		0	514.18	
20060140410	5	1	7	1	638	10	6	0	29	10730.62	938.61		0	514.18	
20060140410	6	1	7	1	638	10	6	0	10	10730.62	938.61		0	514.18	
20060140410	7	1	7	1	638	10	6	0	9	10730.62	938.61		0	514.18	
20060140410	8	1	7	1	638	10	6	0	4	10730.62	938.61		0	514.18	

# Household level data

Household Identification	Individual Identification	STRATA	PSU	Urban location =1; Rural location=2	Household expansion factor	Household Size	Adult equivalent scale	Head of the household	Age of the household member	Total household income	Poverty line	Amount received from old age pensions	Participation in scholarship programs	Amount received by the household from Oportunidades	Amount received by the household from Pro-Campo
id_hh	id_ind	strata	psu	urban	hhweight	hhsz	adul_eq	head	age	hh_income	poverty_line	aops	becas	toport	torocam
20060150282	1	1	2	2	305	3	2	1	18	2459.34	938.61		0	180.49	
20060150280	1	1	2	2	305	7	6	1	56	9094.69	938.61		1		334.24
20060150030	1	1	1	1	777	4	3	1	77	18183.37	938.61	1403.81	0		
20060150040	1	1	1	1	777	1	1	1	92	4458.78	938.61	1604.35	0		
20060150050	1	1	1	1	777	2	2	1	83	6397.05	938.61	1640.45	0		
20060150060	1	1	1	1	859	5	2	1	41	12988.27	938.61		0		
20060140410	1	1	7	1	638	10	6	1	56	10730.62	938.61	1411.48	0	514.18	

# Applications of Household Survey Data

## (1) Socio-economic status and Poverty Analysis

- Demographics
- Living arrangements (household composition)
- Poverty estimations

## (2) Performance Analysis of Social Protection Programs

- Coverage
- Incidence of benefits and beneficiaries
- Level of benefits (adequacy, generosity)
- Poverty impact of SSN programs
- Program overlap
- Cost-benefit analysis

## (3) Simulation of program reforms

# Poverty Analysis

## What is 'poverty'?

- No common consensus exists, contentious;
- General agreement: insufficient resources leading to constrained choices;
- More narrow definition: lack of specific consumptions (e.g., too little food energy intake);
- Less narrow definition: Poverty as lack of “welfare”, lack of “capability” → inability to achieve certain level of “functioning” (“beings and doings”) (Amartya Sen)



# How poverty is commonly measured

- Individuals or households are ranked by income or consumption
- The measure of income or income is referred to as the “welfare aggregate”
- Poverty lines are then set either on a relative or absolute basis
- Those with income or consumption below a given poverty line are considered poor

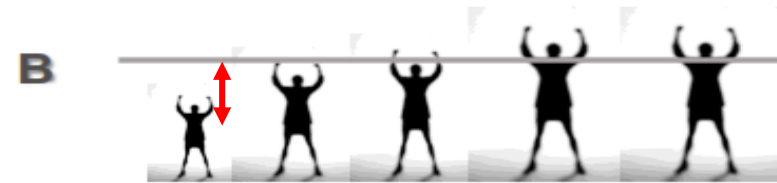
# Poverty measures

- A. **Poverty headcount** (FGT0) - % of individuals or households with welfare below the poverty line
- B. **Poverty gap** (FGT1) - the average distance of poor from the poverty line as share of poverty line
- C. **Poverty severity** (FGT2) – the squared distance from the poverty line

Poverty headcount = % below poverty line



Poverty gap: Avg. distance below line/line



Poverty severity: Distance squared



# “Absolute” vs. “relative” poverty?

- Absolute
  - Lower poverty line – based on food needs;
  - Upper poverty line – food and basic non-food needs;
  - Some international global measure (e.g., PPP \$1.90 per day);
- Relative
  - Welfare depends on relative income/expenditure (e.g., poorest 20% of population or 50% median income)

## Poverty by age, gender, etc.:

- Are elderly households more poor than non-elderly households? Or elderly individuals compared to children?
- Are women poorer than men?
- Who cares?
  - Profile population to understand best/ worst off
  - Inform allocation of fiscal resources
  - Design or reform programs
    - Social/basic/minimum pensions – adequacy focus for low-earners/poor
    - Savings/earnings-related – replacement rate focus

# Performance Analysis of Social Protection Programs

## Coverage

- Coverage
- Program duplication and overlap

## Targeting

- Distribution of beneficiaries
- Distribution of benefits

## Benefit Level

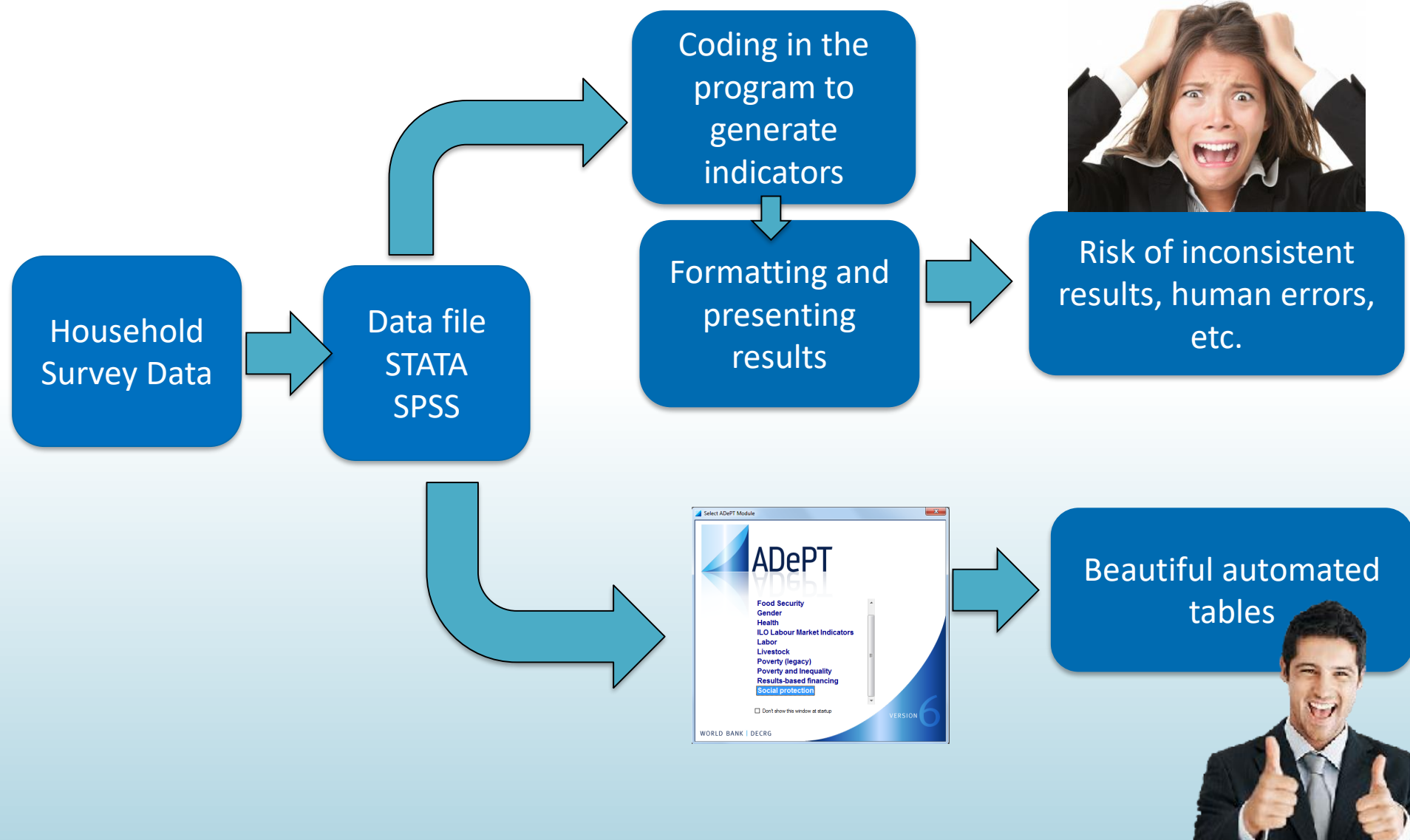
- Average per capita transfer
- Generosity/Adequacy

## Impact on poverty and inequality

- Poverty headcount, poverty gap, Gini reduction
- Cost-Benefit ratio

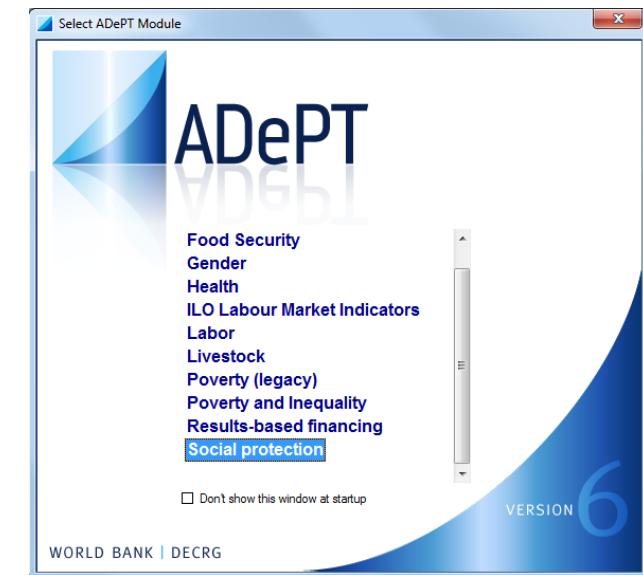


## Process to generate performance indicators



# 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

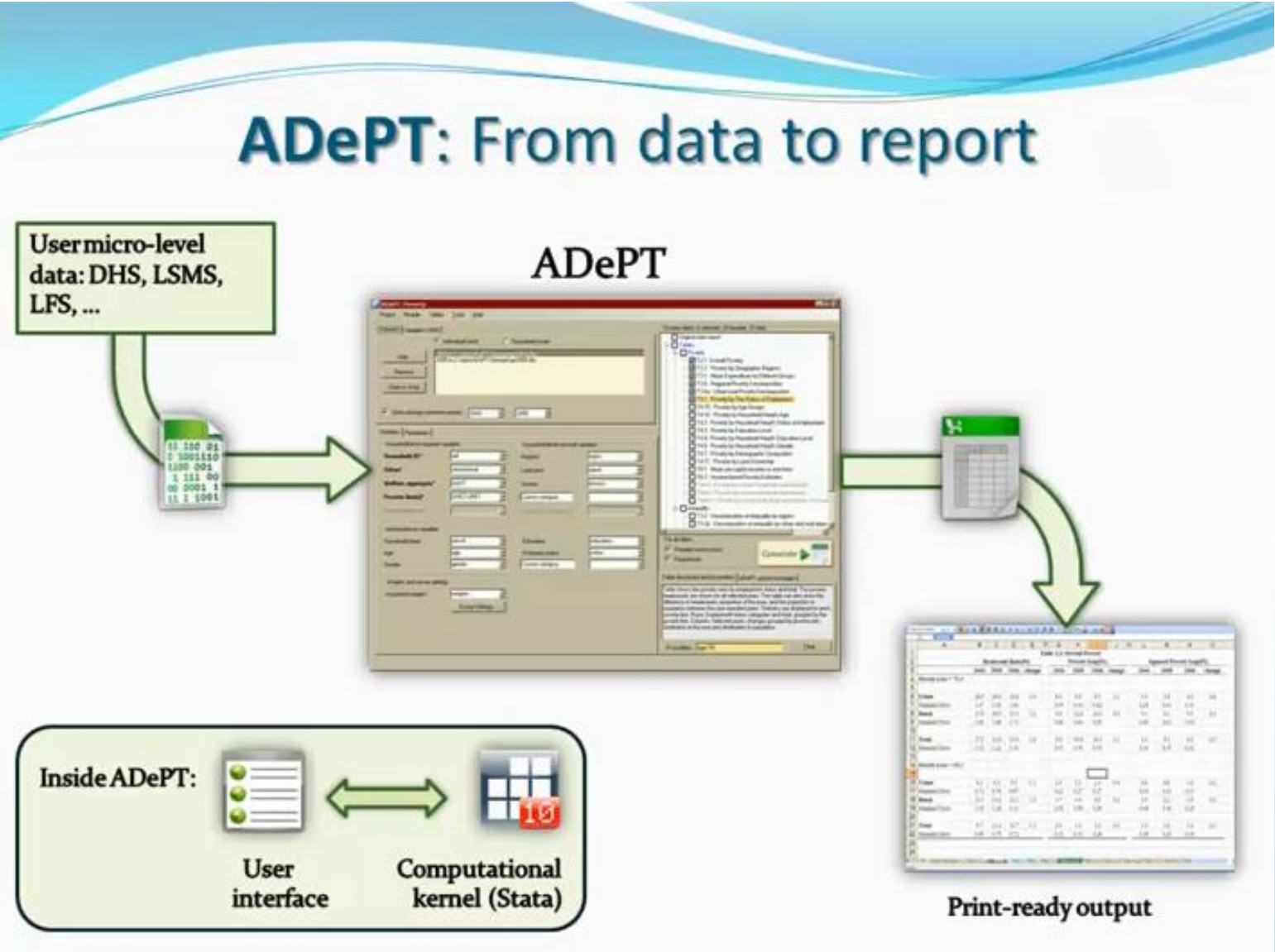
User requires knowledge of statistical packages -e.g. Stata and SPSS – to prepare the dataset. Construction of key variables is not trivial but a statistician can do it.

## 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** is **easy** to learn and use. It minimizes human errors in programming!

Download from [surveys.worldbank.org/adept](https://surveys.worldbank.org/adept)





# ADePT-SP Interface

Project

Module

Tools

Help

Datasets

Variables

Bulgaria

Individual level

Household level

Add...

Remove

Browse...

Label	Dataset
Bulgaria	C:\ADePT\example\adept_blg.dta

(1)

Load your dataset(s)

Main

Programs

Consumption

Household ID

hhid

Regions

Urban

location

Ethnicity

Household size

hhsize

Special status

Household weights

Household head

Education

Age

age

Economic status

Gender

gender

Custom variable

(2)

Tell ADePT what's what

Social protection

tables selected:29 | feasible:41 | total:51

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)

T1: Profile by age and gender

T6: Profile by household head's economic status

TP7: Profile by custom individual characteristic

TP8: Profile by custom individual characteristic of household

TP9: Profile by custom household characteristic

T1: Sample and Population Sizes

T2a: Population Demographics

T2b: Population Demographics, V2

For all tables

Standard errors (slow)

Generate

Table description and if-condition

Messages

Data Report presents information on variables selected for the analysis. For each variable it shows the number of observations with non-missing values.

(4)

Choose options and hit "Generate"

IF-condition

Set

26

## Trainings

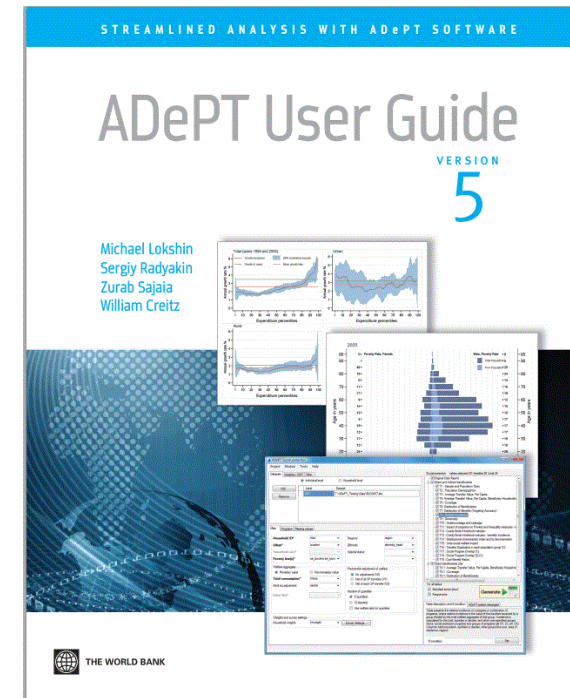
If your country office is interested in a training on ADEPT Social Protection and/or Poverty (1/2 day to 3 day courses) Please contact:

- Claudia Rodríguez  
[crodriguezalas@worldbank.org](mailto:crodriguezalas@worldbank.org)

Oleksiy Ivaschenko

- [oivaschenko@worldbank.org](mailto:oivaschenko@worldbank.org)

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THANK YOU!

