

# How to use ADePT for Social Protection Analysis



Pension Core Course  
Washington D.C. - May 2015



**THE WORLD BANK**  
IBRD • IDA

# Objective

To learn how to use ADePT Social Protection while analyzing the performance of specific SPL programs



# Agenda

1. Introduction to exercise
2. Familiarize with social protection functions and programs
3. Familiarize with ADePT SP
4. Analyze tables and interpret results

# Background

The government of Welfare Republic is committed to reduce poverty and inequality among its citizens.

To do so, the government will conduct an assessment of its Social Protection System and evaluate its performance and impact.

The president has asked a group of experts to analyze each of the main Social Protection programs available in the country and to provide recommendations to improve the overall system.



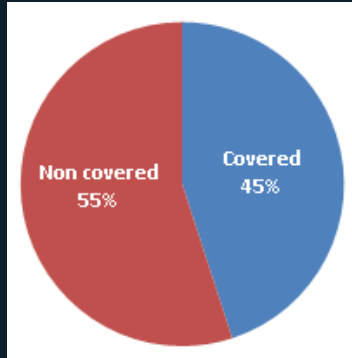
# Social Protection Programs

- Contributory pensions (old age, disability and survival pensions)
- Other social insurance
- Passive labor market programs (unemployment benefits)
- Active labor market programs (job training)
- Unconditional cash transfers and allowances
- Conditional cash transfers
- Non-contributory social pensions
- Food and in-kind transfers
- School feeding
- Fee waivers and targeted subsidies
- Other social assistance

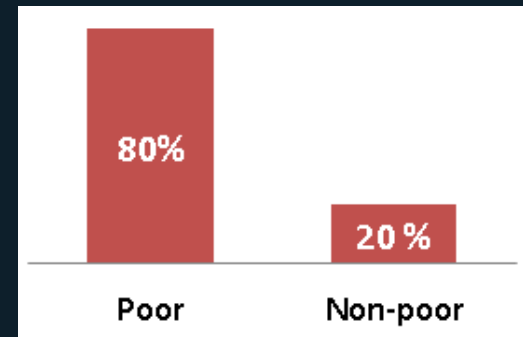


# Criteria for Analysis (Indicators)

- Coverage



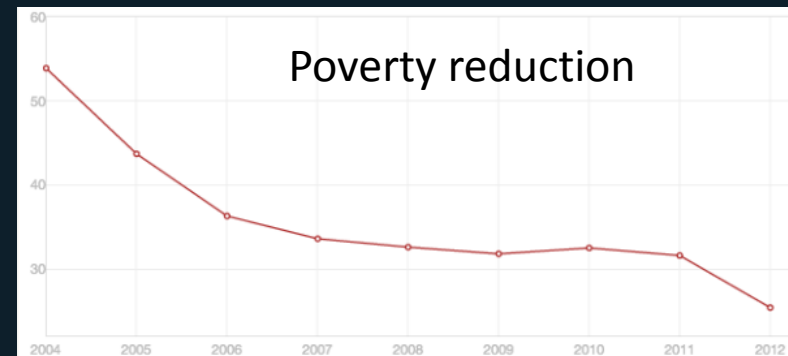
- Targeting performance



- Benefit Level/Adequacy



- Impact and Efficiency



# Understanding SPL Functions

- **Social insurance**  
Contributory programs



- **Labor market programs**  
Contributory and non-contributory programs

- **Social Assistance**  
Non-contributory programs



# Mapping SPL programs

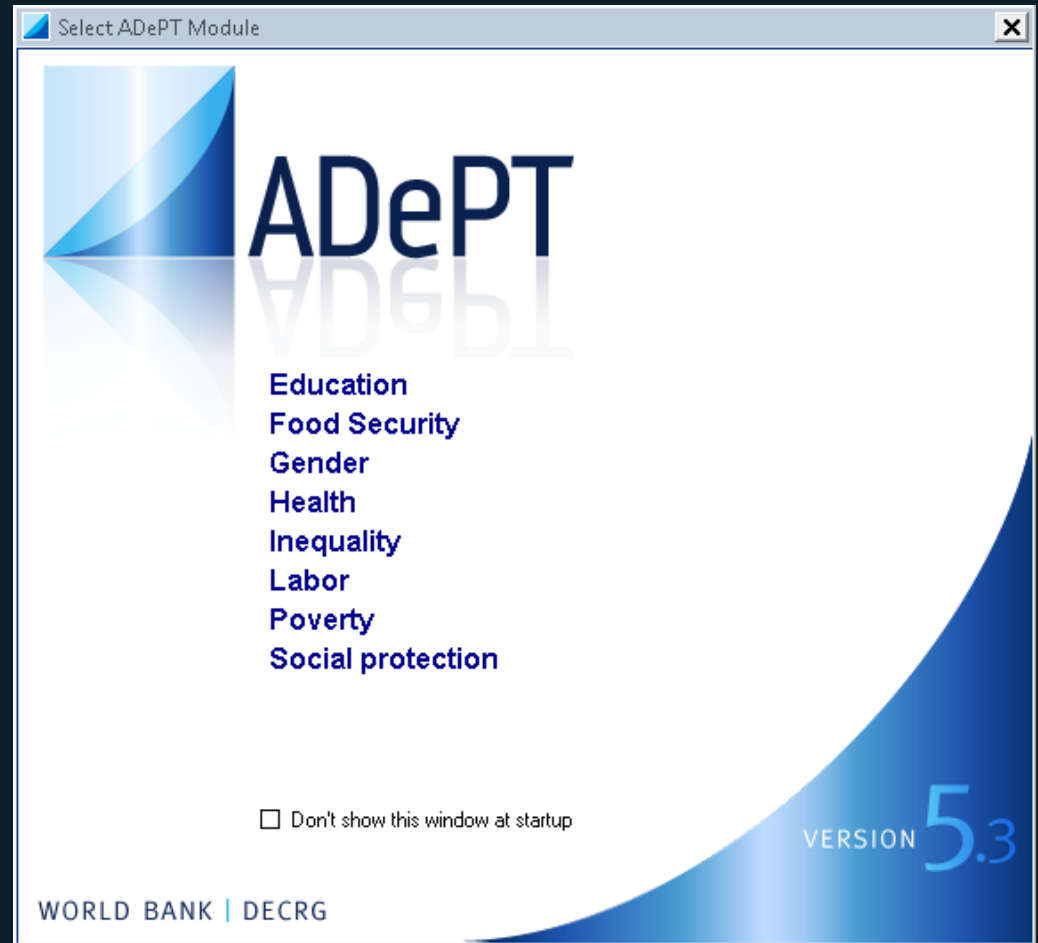
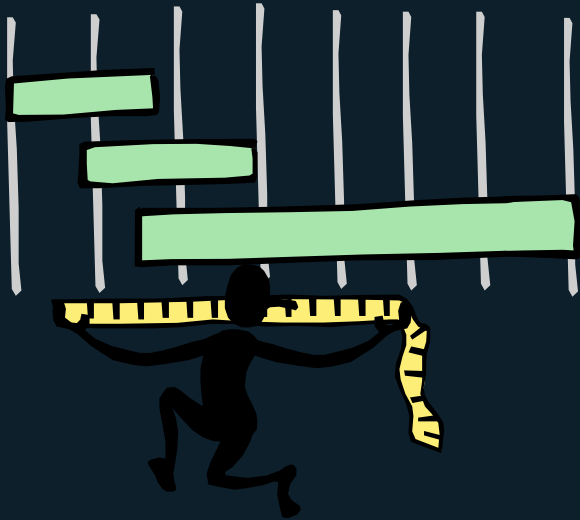
- **Social Insurance**
  - Contributory pensions
  - Other social insurance
- **Labor Market Programs**
  - Passive labor market programs
  - Active labor market programs
- **Social Assistance**
  - Unconditional cash transfers and allowances
  - Conditional cash transfers
  - Non-contributory social pensions
  - Food and in-kind transfers
  - School feeding
  - Fee waivers and targeted subsidies
  - Other social assistance



**SOCIAL PROTECTION**



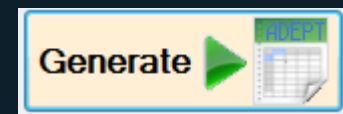
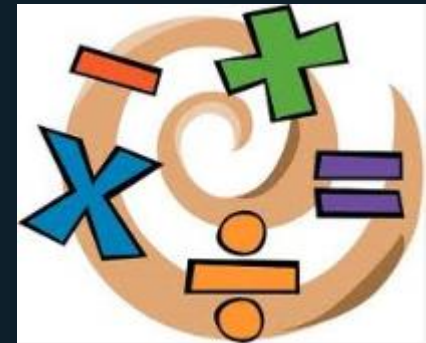
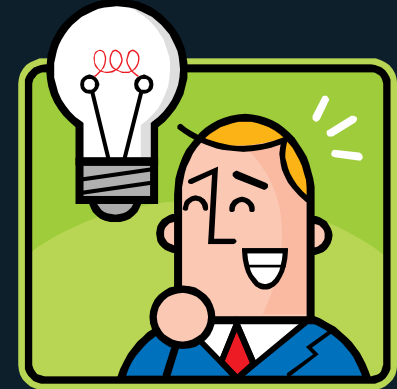
# Experts get their big calculators and start measuring!





# Steps

1. Create needed variables in dataset
2. Load data set into ADePT
3. Tell ADePT what is what
4. Select tables and charts
5. Click on **“Generate”** to get tables and charts!



# Data Sources

**WELFARE REPUBLIC  
NATIONAL STATISTICAL OFFICE  
NATIONAL HOUSEHOLD SURVEY 2009**

PSU Serial number _____ Team number _____ Household number _____	Numerator name: _____ Supervisor name: _____
Geographic codes: Code            Name Region _____ Distric _____ City _____ Town _____ Village _____	Dates of visit Month   Date    Year 1st. Visit _____ 2009 2nd. Visit _____ 2009 3rd. Visit _____ 2009 4th. Visit _____ 2009



## INPUTS

### Household Survey Data

#### Dataset in STATA or SPSS

Variables needed (mandatory):

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

**ADePT**



## OUTPUTS

### Excel Tables with indicators

#### 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

**Plus: statistics, profiles, demographics, charts**

# Sample ADePT Table

Table 5\_3 : Coverage

	Quintiles of per capita consumption					
	Total	Q1	Q2	Q3	Q4	Q5
<b>Direct and indirect beneficiaries</b>						
<b>All social protection</b>	<b>92.7</b>	<b>97.5</b>	<b>97.4</b>	<b>95.7</b>	<b>91.6</b>	<b>81.1</b>
<b>All social insurance</b>	<b>41.2</b>	<b>36.8</b>	<b>43.3</b>	<b>45.5</b>	<b>42.1</b>	<b>38.1</b>
Contributory pensions	23.8	14.6	22.9	27.5	27.4	26.5
Other social insurance	27.1	28.8	30.7	30.3	25.7	19.9
<b>All labor market programs</b>	<b>21.6</b>	<b>12.1</b>	<b>17.3</b>	<b>20.0</b>	<b>25.6</b>	<b>33.1</b>
Passive labor market programs	0.2	0.3	0.5	0.2	0.1	0.1
Active labor market programs	21.4	11.8	17.0	19.8	25.5	33.1
<b>All social assistance</b>	<b>83.2</b>	<b>95.6</b>	<b>93.8</b>	<b>90.1</b>	<b>80.7</b>	<b>55.7</b>
Cash transfer, allowances, last resort programs	44.7	64.1	58.3	50.0	35.7	15.4
Conditional cash transfer programs	12.2	26.5	16.7	10.7	5.3	1.6
Non-contributory social pensions	11.5	12.5	16.2	14.2	9.7	4.8
Food and in-kind transfers	65.4	84.4	78.7	70.8	58.1	34.9
School feeding	40.1	66.1	52.4	40.3	28.4	13.4
Public works & food for work	0.0	0.0	0.0	0.0	0.0	0.0
Fee waivers and targeted subsidies	38.9	44.8	43.7	42.7	38.6	24.7
Other social assistance programs	14.1	22.5	17.9	13.5	10.1	6.3
<b>All remittances</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Domestic private transfers	0.0	0.0	0.0	0.0	0.0	0.0
International private transfers	0.0	0.0	0.0	0.0	0.0	0.0

# Key Indicators for Analysis

## 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

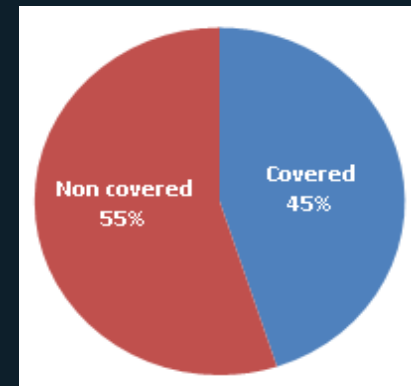


# Coverage

It is the percentage of the population that benefits from a program

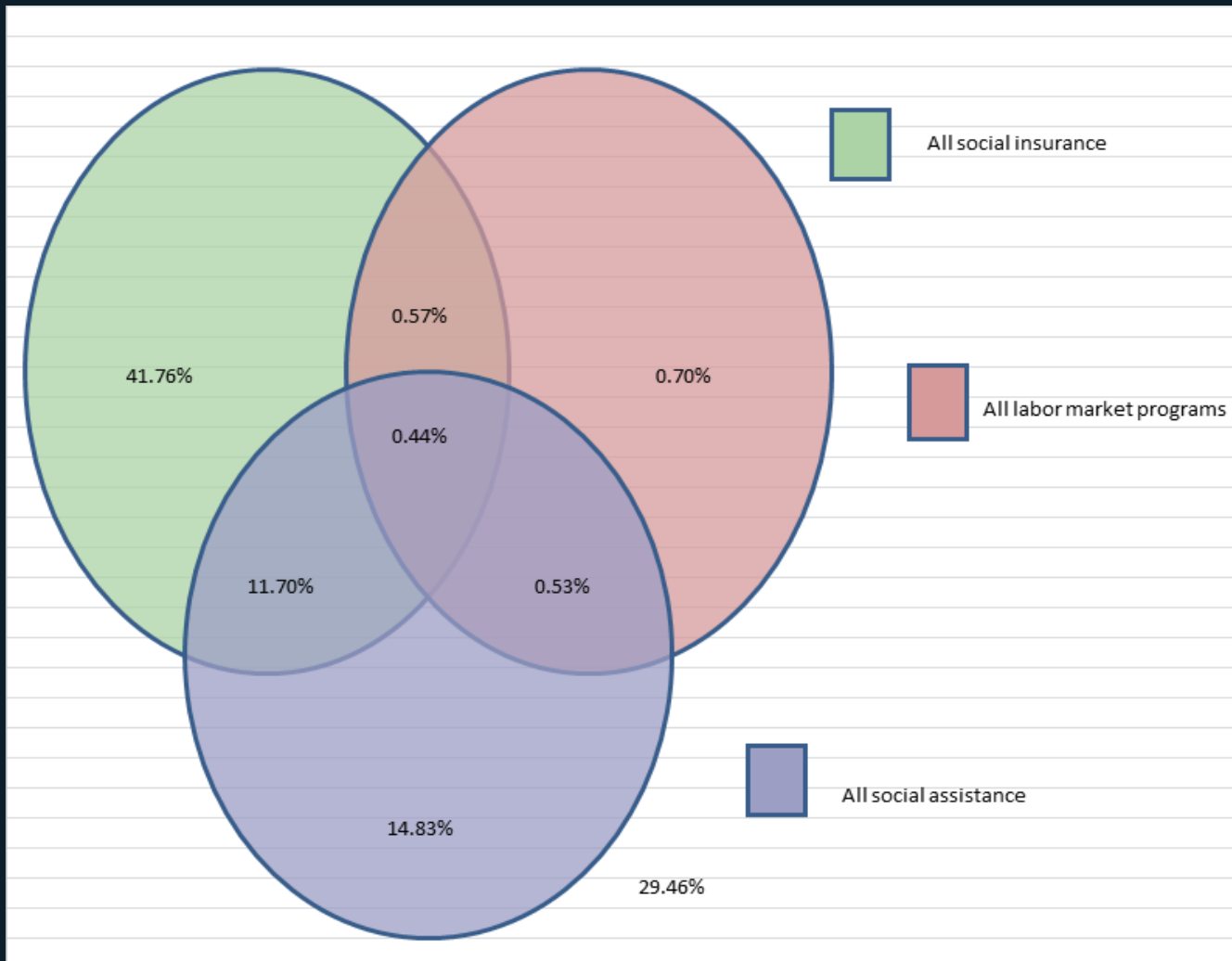
$$\text{Coverage} = \frac{\text{Number of beneficiaries in the total population (or group *)}}{\text{Total population (or group)}}$$

Group refers to subsamples of the population, i.e.: income groups (quintiles, deciles, poor, non poor), geographical groups (rural vs urban), gender groups (male vs. female), employed, etc.



# Program Overlap

It is the share of households receiving 2 or more programs

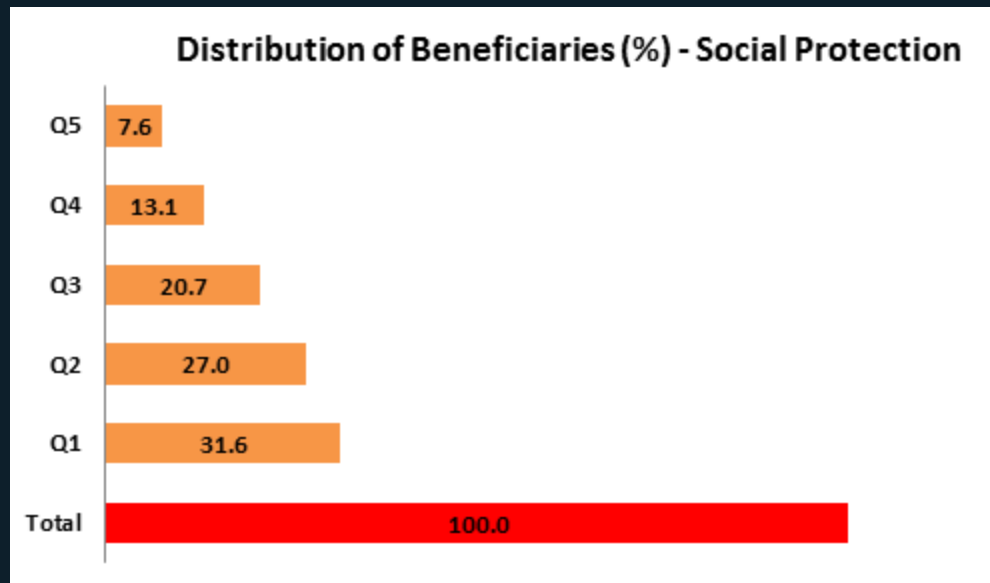




# Distribution of Beneficiaries (Beneficiary Incidence)

It is the proportion of beneficiaries in a group\* (with respect to total beneficiaries)

$$\text{Beneficiarie incidence} = \frac{\text{Number of beneficiaries in a group}}{\text{Program total number of beneficiaries}}$$

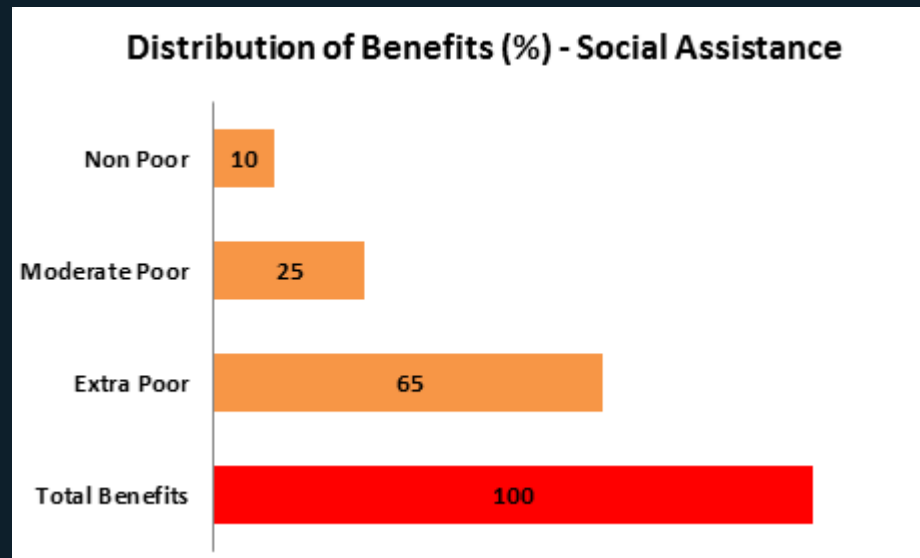


Group refers to subsamples of the beneficiaries that belong to specific groups, i.e.: income groups (quintiles, deciles, poor, non poor), geographical groups (rural vs urban), gender groups (male vs. female), etc.

# Distribution of Benefits (Benefits incidence)

It is the proportion of benefits received by a group

$$\text{Benefits incidence} = \frac{\text{Amount of benefits received by a group}}{\text{Program total benefits}}$$



# Average per capita transfer

Average per capita transfer received from a program

$$\text{PC Transfer} = \frac{\text{Total transfer received}}{\text{Household size}}$$



# Generosity of Benefits (Adequacy)

It is the share of the transfers with respect to total consumption or income of a group

$$\text{Generosity} = \frac{\text{Amount of transfers received by a group}}{\text{Total income or consumption of the beneficiaries in the group}}$$

Total Income



# Program Impact

The incidence of benefits and beneficiaries, along with the generosity of benefits, determine the impact of a program terms of:

- Poverty headcount reduction
- Poverty gap reduction
- Inequality reduction (Gini)



# Benefit- Cost Analysis

It is the poverty gap reduction for each \$1 spent in the social program

Benefit Cost

Analysis

$$= \frac{\text{Poverty Gap without transfer} - \text{Poverty gap with transfer}}{\text{Total amount spent in the program}}$$



# Questions

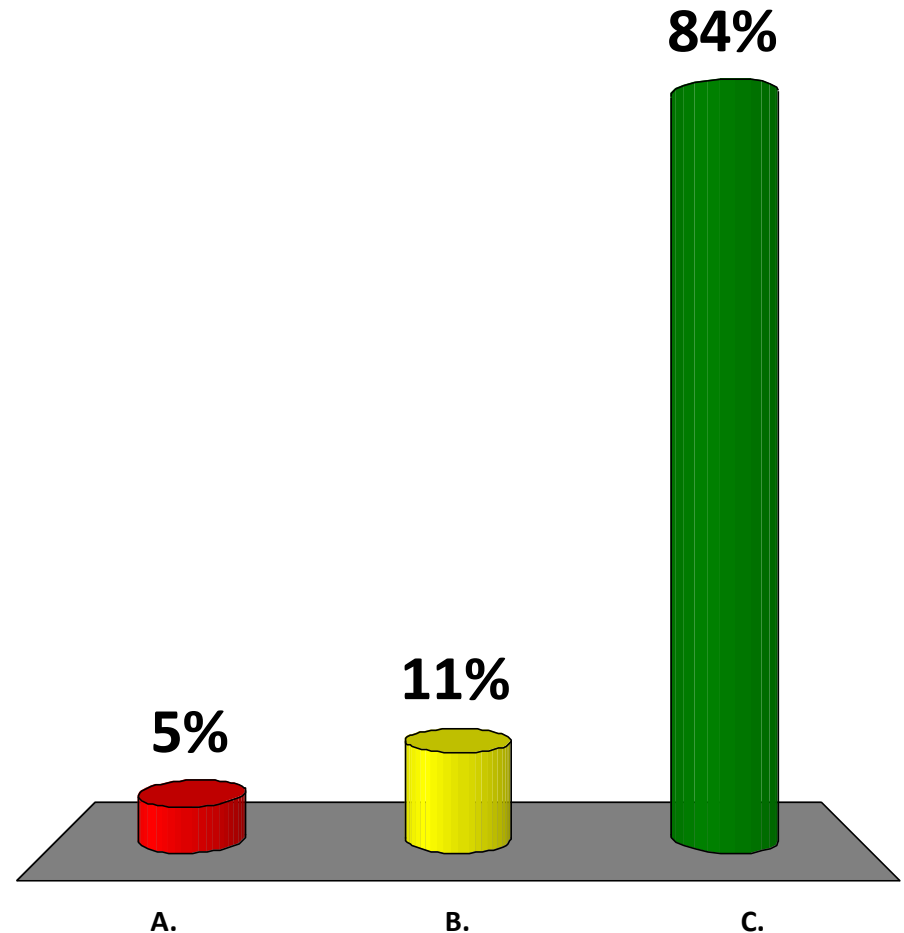
## Coverage



1. Which program has the highest coverage (total population)?
  - A) Contributory pensions
  - B) Active labor market programs
  - C) Food and in-kind transfers
2. What percentage of the population in the poorest quintile is covered by cash transfer programs?
  - A) 64.1%
  - B) 22.9%
  - C) 26.5%
3. What is the program overlap between SI, LM and SA programs?
  - A) 1.08%
  - B) 6.96%
  - C) 11.04%

# COVERAGE: Which program has the highest coverage (total population)?

- A. Contributory pensions
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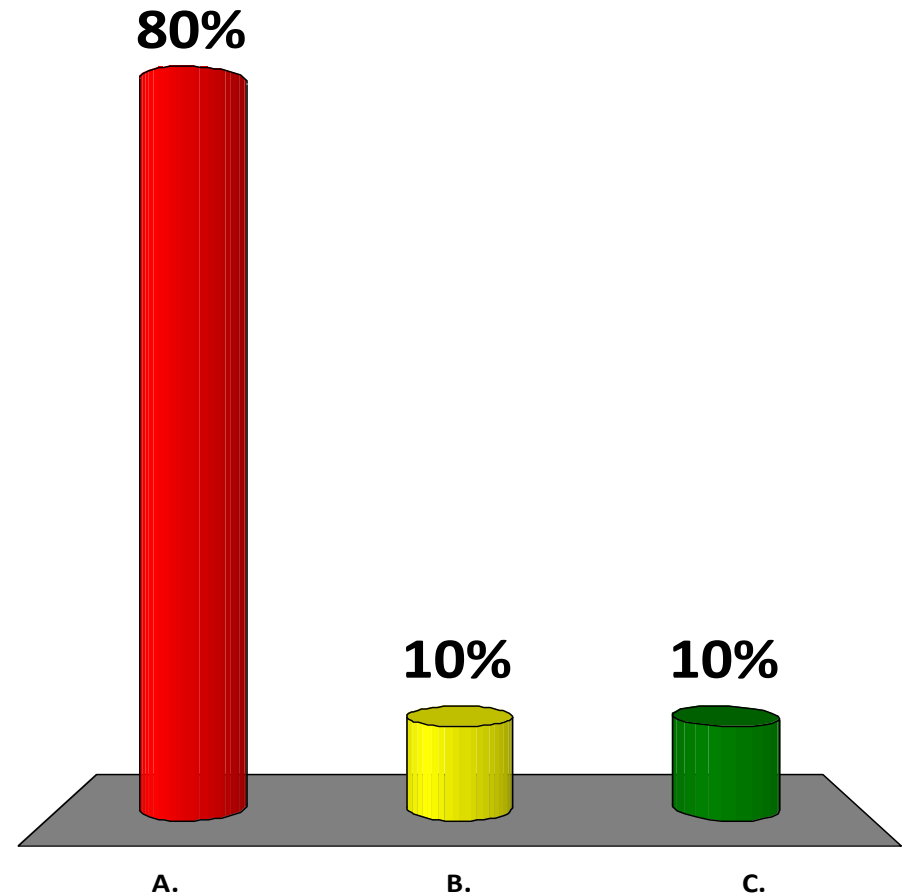


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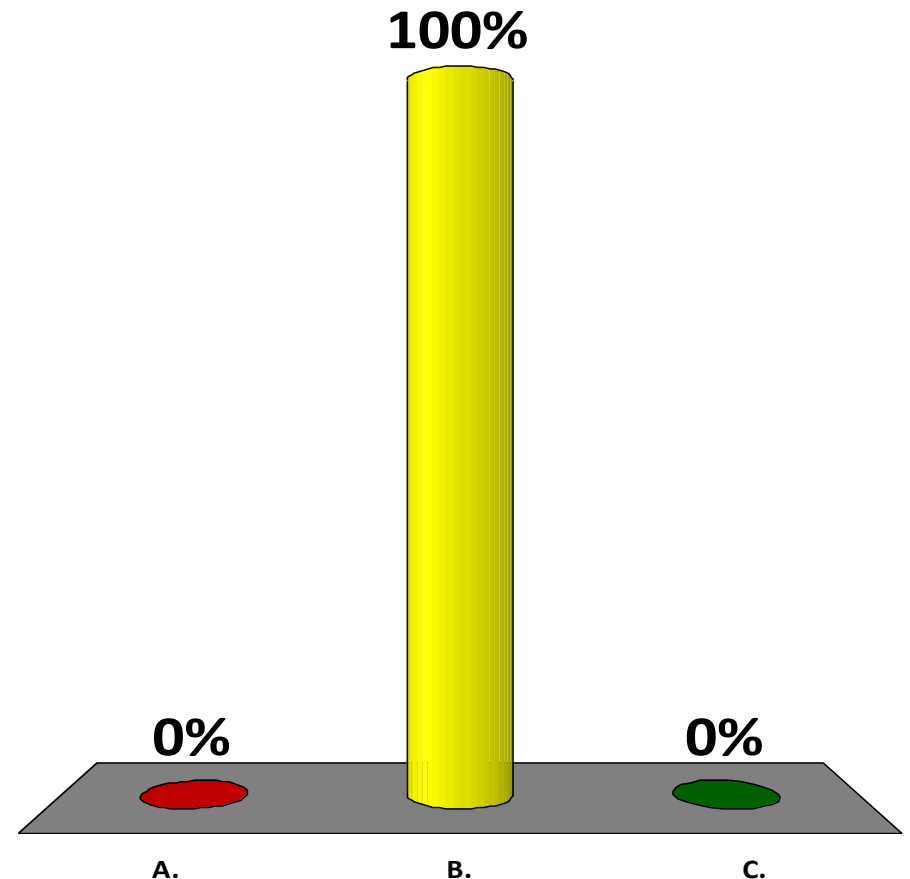
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# Questions

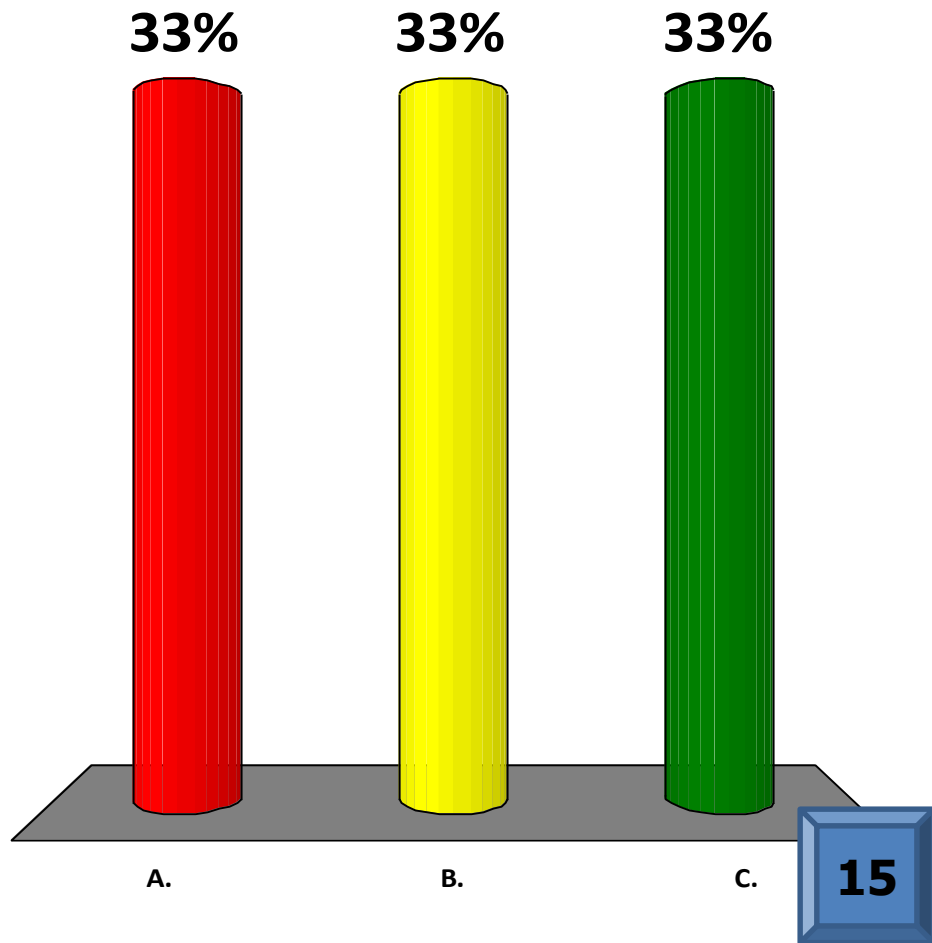


## Beneficiary incidence

1. What proportion of the total beneficiaries of social protection belongs to the poorest quintile?
  - A) 21.1%
  - B) 11.2%
  - C) 23%
  
2. What proportion of the total beneficiaries of contributory pensions belongs to the richest quintile?
  - A) 14.7%
  - B) 18.5%
  - C) 22.3%

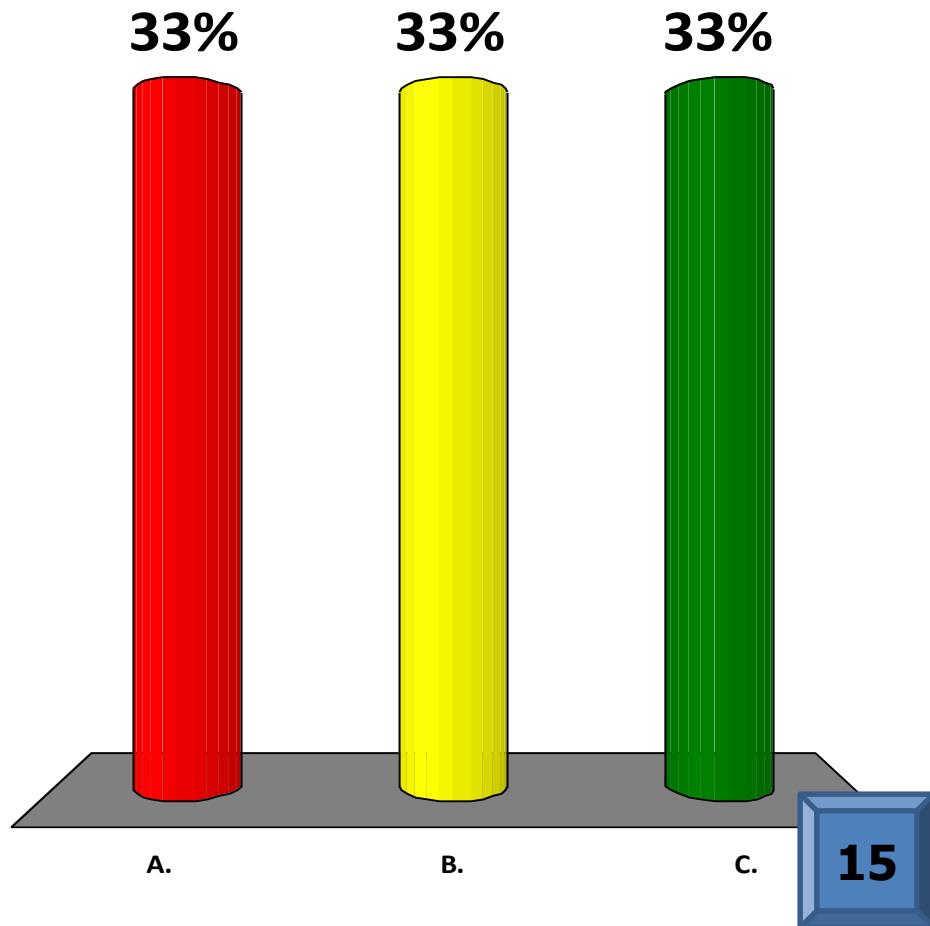
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# Questions



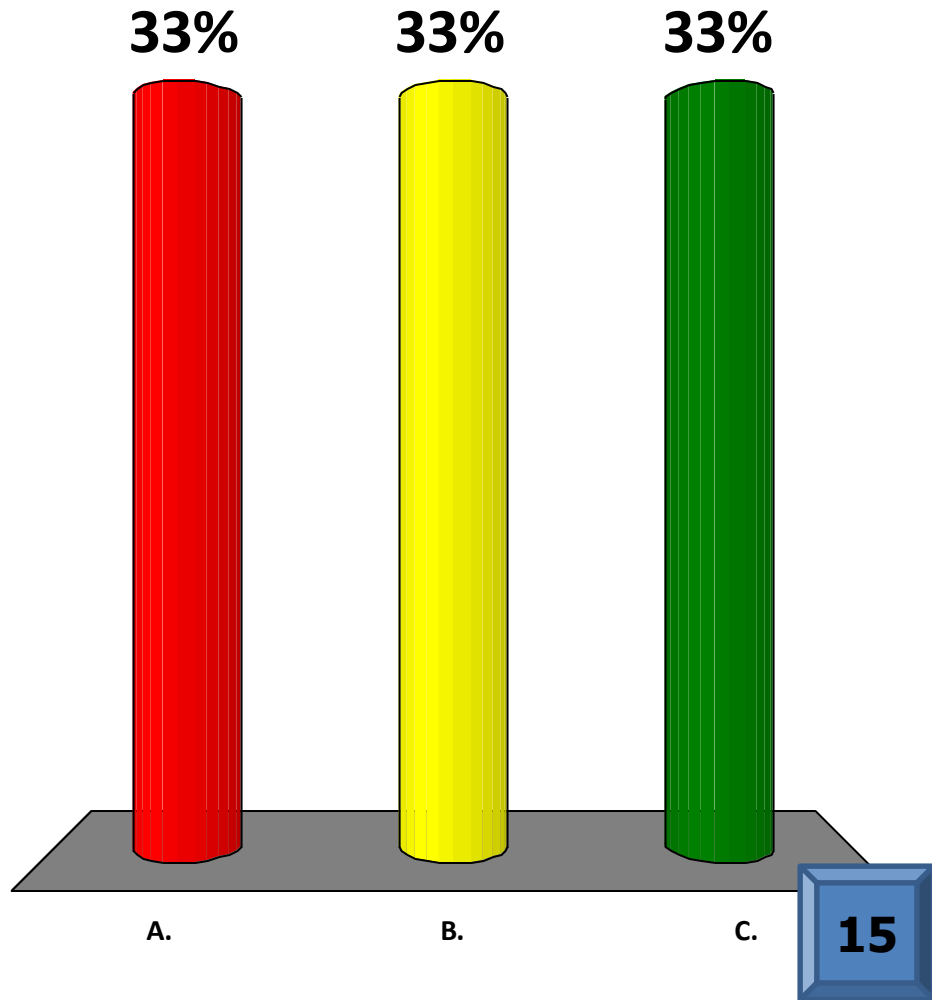
## Benefits incidence

1. What percentage of the cash transfer benefits is received by the third quintile?
  - A) 17.4%
  - B) 21.2%
  - C) 16.7%
  
2. What social assistance program is more progressive? (hint: the program has the highest proportion of benefits going to the poorest quintile)?
  - A) Cash transfer, allowance, last resort programs
  - B) Conditional cash transfer programs
  - C) Non-contributory social pensions



# BENEFITS INCIDENCE: What percentage of the cash transfer benefits is received by the third quintile

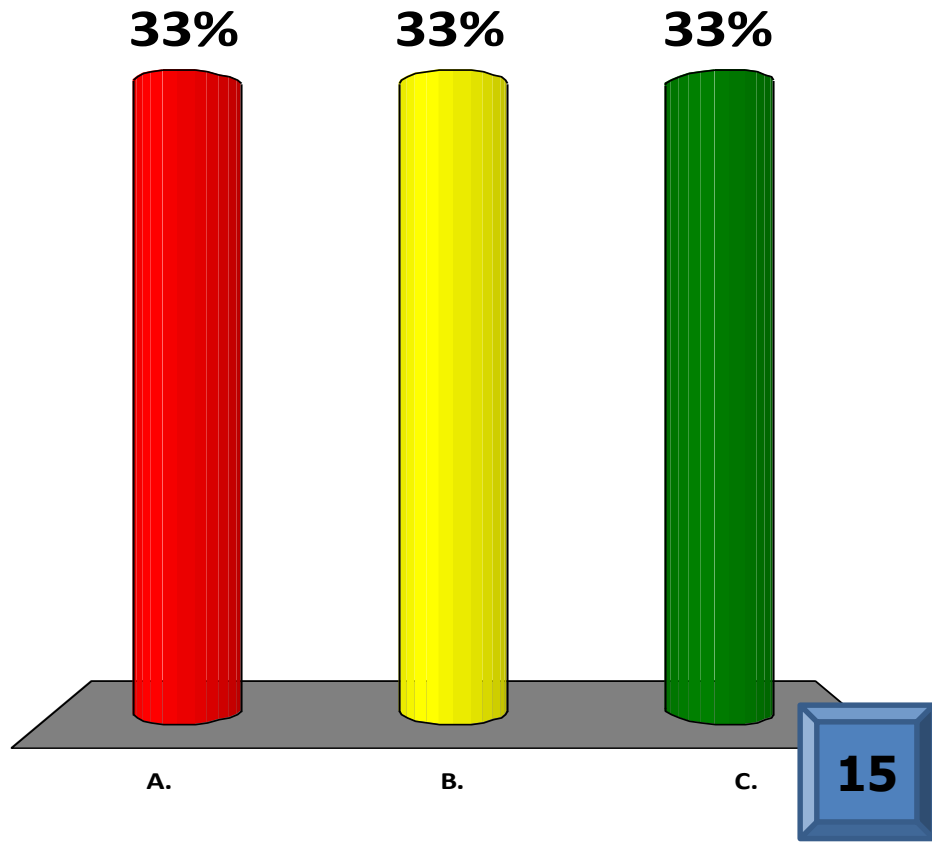
- A. 17.4%
- B. 21.2%
- C. 16.7%



# BENEFITS INCIDENCE: What social assistance program is more progressive?

(hint: the program has the highest proportion of benefits going to the poorest quintile)

- A) Cash transfer, allowance, last resort programs
- B) Conditional cash transfer programs
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# Questions

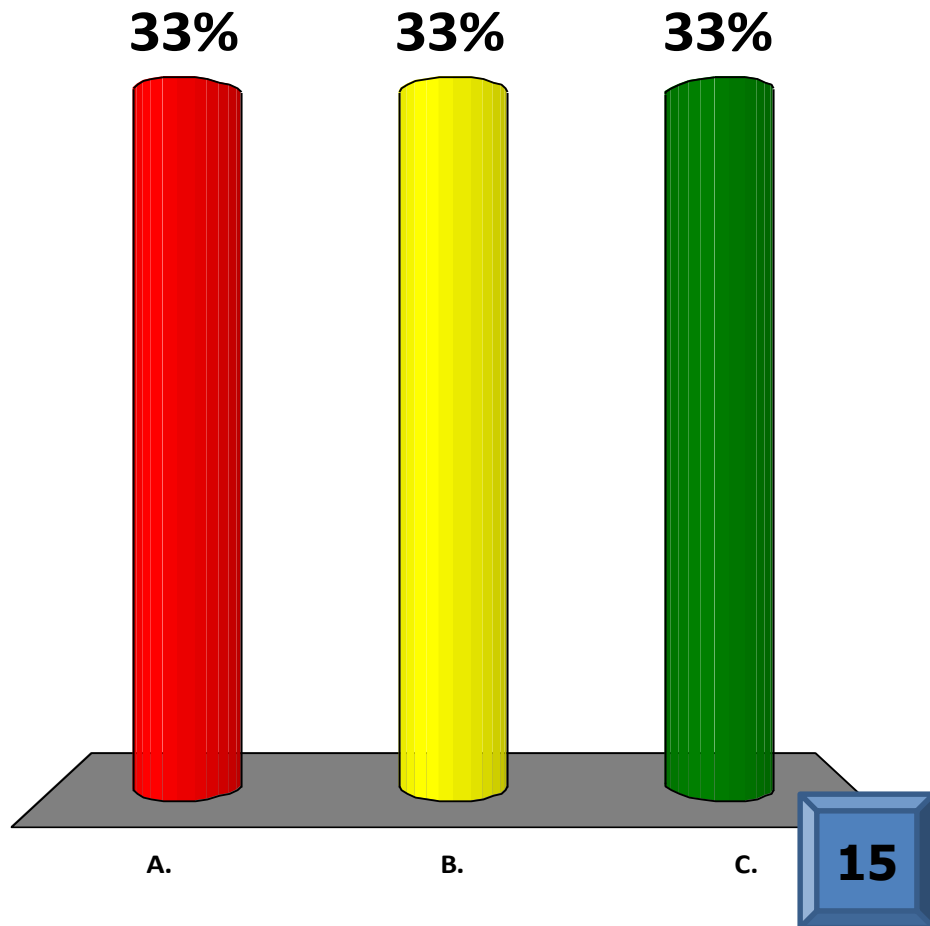


## Adequacy

1. What is the share of contributory pensions with respect to the total income of the poorest quintile?
  - A) 46.5%
  - B) 17.0%
  - C) 38.8%
  
2. What is the share of non-contributory pensions with respect to the total income of the poorest quintile?
  - A) 38.8%
  - B) 46.5%
  - C) 18.8%

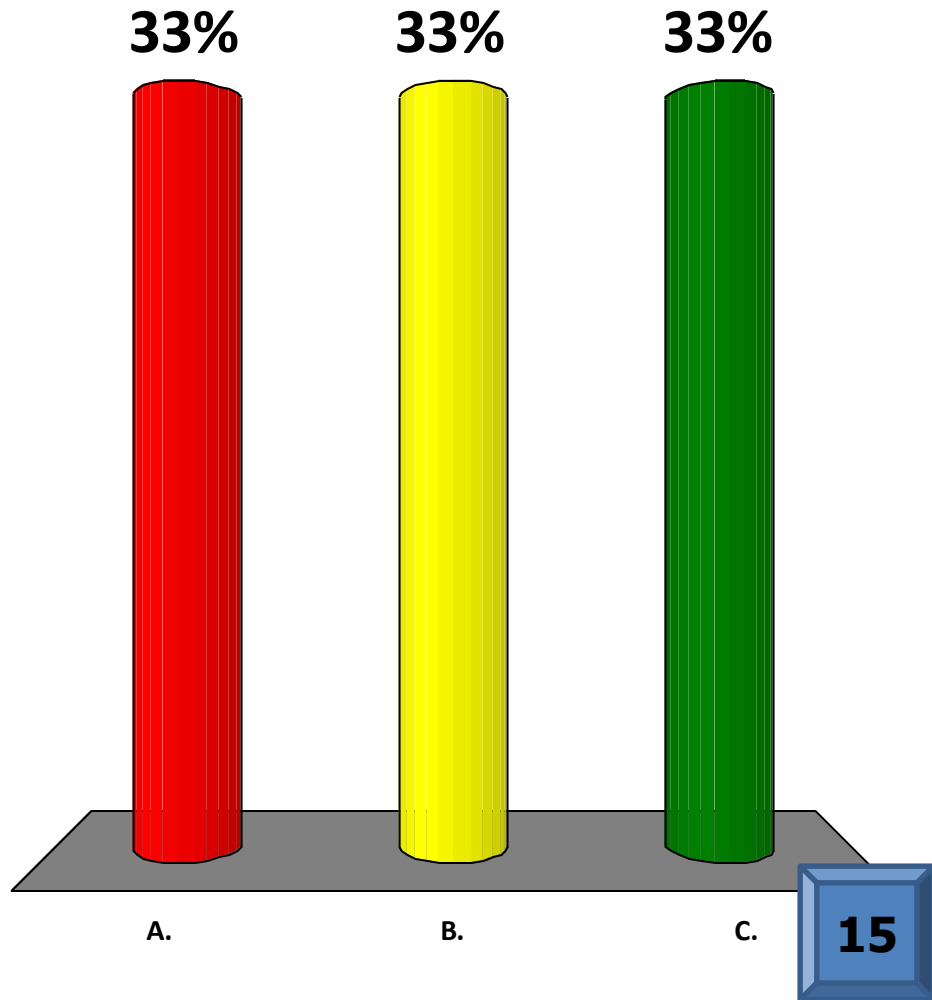
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ADEQUACY: What is the share of non-contributory pensions with respect to the total income of the poorest quintile?

- A. 38.8%
- B. 46.5%
- C. 18.8%





# ADePT Training

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:

Ruslan Yemtsov

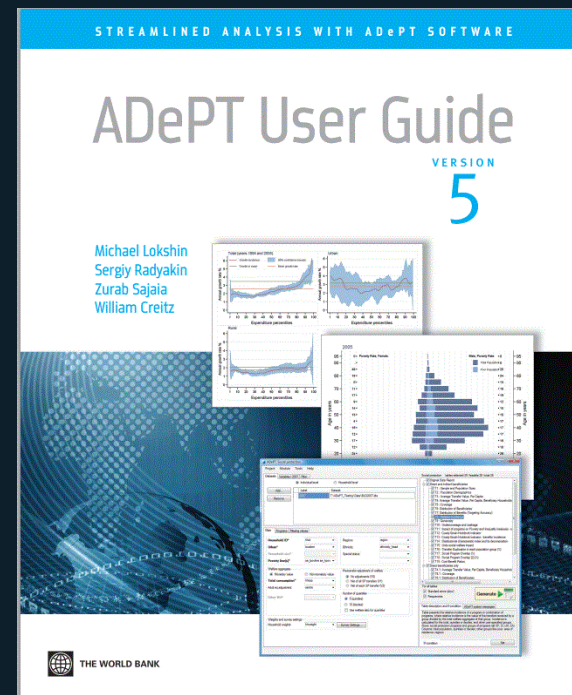
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THANK YOU!

