

## Stata as a tool for transparency and statistics dissemination: measuring multidimensional poverty in México

April 29, 2010

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## **Forewords**



#### **Objectives of CONEVAL**

Regulate and coordinate the evaluation of social development policies and programs

**Evaluation** 

Set the guidelines and criteria for the definition, identification and measurement of poverty in Mexico

**Poverty** 



#### LGDS, Article 36

CONEVAL will use information generated by INEGI on, at least, the following indicators:

**Current Income per capita** 

Average Educational Gap in Households

**Access to Health Services** 

**Access to Social Security** 

**Housing Quality and Space** 

Access to Basic Housing Services

**Access to Food** 

**Level of Social Cohesion** 



### LGDS, artículo 37

Periodicity and Level of Disaggregation

State (32)

2 years

Minicipality (2454)

5 years

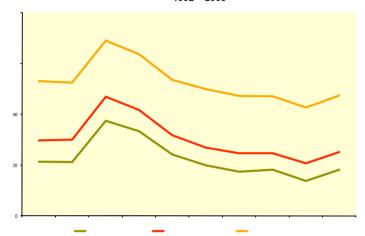


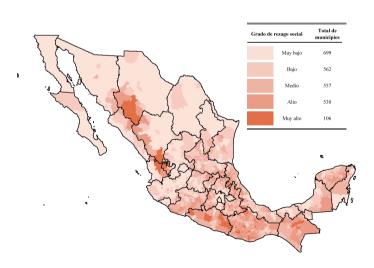
## First steps

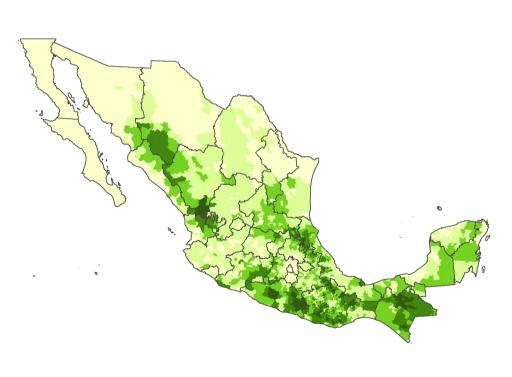


## **Income poverty**

#### Porcentaje de población en situación de pobreza por ingresos 1992 – 2008









## **Transparency and dissemination**

- Generation based on public access data bases
- Publication of all necessary guidlines and criteria to replicate the estimates
- Technical documentation
- Statistical routines in Stata and SPSS
- Technical consultancy to all interested public



# Multidimensional measurement of poverty in México



### **Development of the methodology**

#### **Two Research Agendas:**

## Methodological and Conceptual

- Conception and definition
- Principles and Methodological Criteria

### **Operative**

Design and generation of information sources

Variables, thresholds and indicators



## **Development of the methodology**

- First Stage:
  - Discussion sessions with national and international experts
- Second stage:
  - Specific methodological proposals
  - Discussion workshops and an international seminar
  - First institutional proposal



## **Development of the methodology**

- Third stage:
  - Seminars of internal discussion
  - Elaboration of a discussion draft
- Fourth stage:
  - National seminar
  - International seminar
- Presentation of the official methodology and 2008 measures

Available resources to satisfy basic needs

Rights and guarantees for social development

**Economic** wellbeing

E X



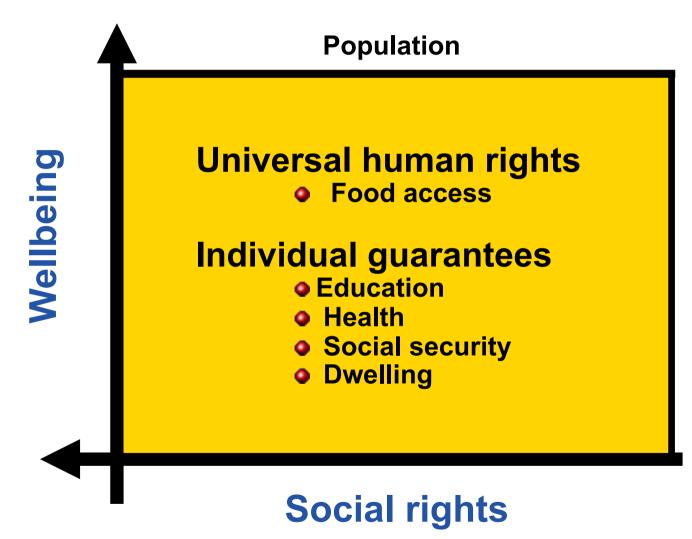
#### **Indicators development**

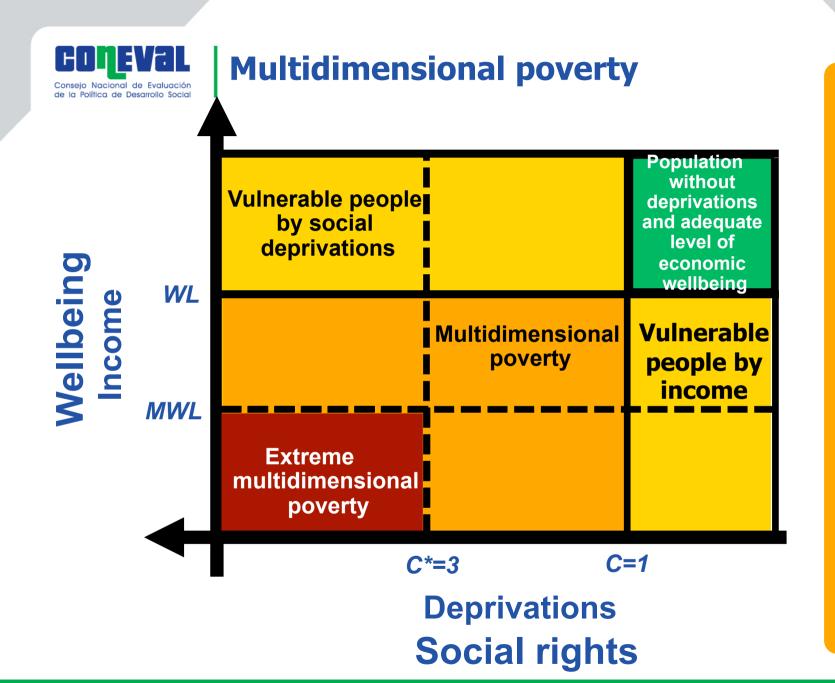
- Wellbeing
  - Wellbeing threshold
  - Minimum wellbeing threshold
- Social rights
  - Social deprivation index
    - Dwelling (2)
    - Health access
    - Social security access
    - Education gap
    - Food access

- Economies of scale
- Adult-equivalence
- Consumption patterns actualization

- Law-based
- Dichotomic indicators









## **Methodological characteristics**

- Interactions between social and economic policy
- Recognition of territorial aspects of poverty
- Based upon social justice and equality principles
- Measures of intensity and profundity
- Subpopulation analysis



## Socioeconomic Conditions Module, 2008



#### **Characteristics**

Colaboration with oficial statistics office

Based on a well known survey (ENIGH)

**State-level information** 

Sample size of 70,000 households

Incorporation of all the measured dimensions

Identification of indigenous population

Comparability with previous surveys



## **Measurement 2008**



## **Principles**

**Transparency** 



Public access to SCM, 2008



Difussion of the methodology



**Statistical routines** 



Contact with users and specialists



**External estimation, UNDP Mexico** 



Statistical validation of indicators





## Statistical software





Undemanding data entry

Straightforward data manipulation

Simple data analysis

High quality of results



## **Development**

Independent generation Efficients and equivalents Instructions followed to comparability Measurement





## **Statistical routines generation**

- Easy and replicable programming
- Dimension-specific complexity
- Territorial context indicators treatment
- Statistical software differences



### **Statistical software differences**

Memory (RAM)

Globals

Data format (.dbf)

User-based commands

Missing values treatment

Processing time

Tables and reports

Number of instructions

VS

**SPSS** 

**STATA** 



## **Software comparison**

- It is possible to make almost all the procedures in both softwares:
  - Example: reshape/casestovar
- Specific functionalities of Stata:
  - Access through internet to users-developed commands
  - Processing time

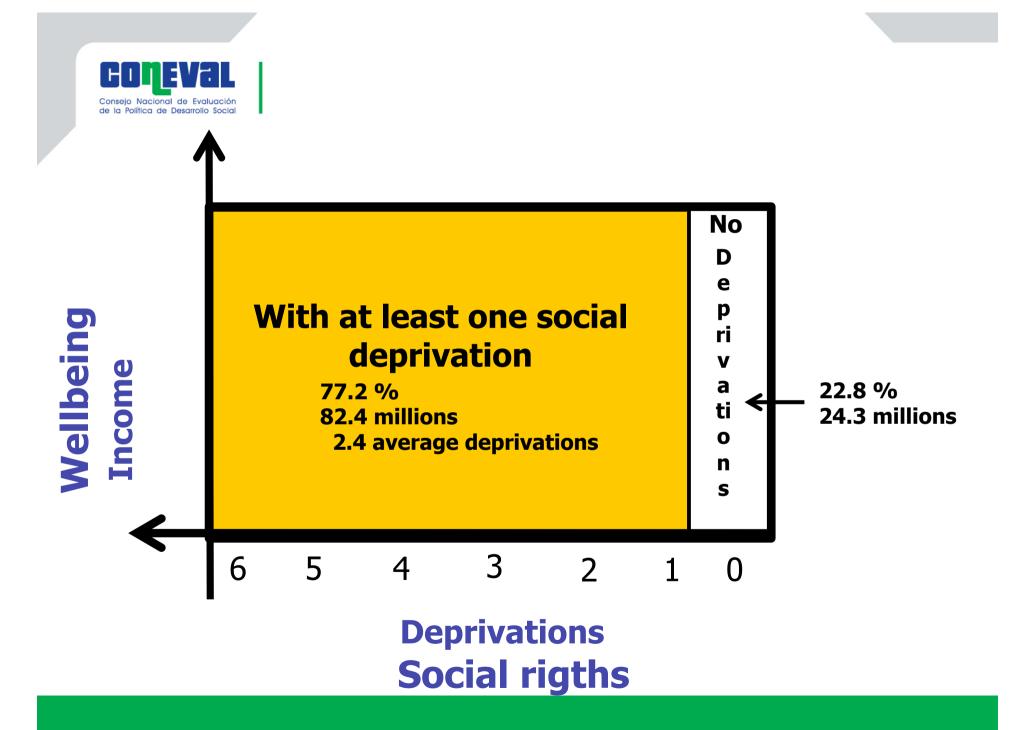


## **Statistical software comparison**

- Specific functionalities of SPSS:
  - Direct imput of DBF files
  - Interface
  - Graphics edition
  - Report of results

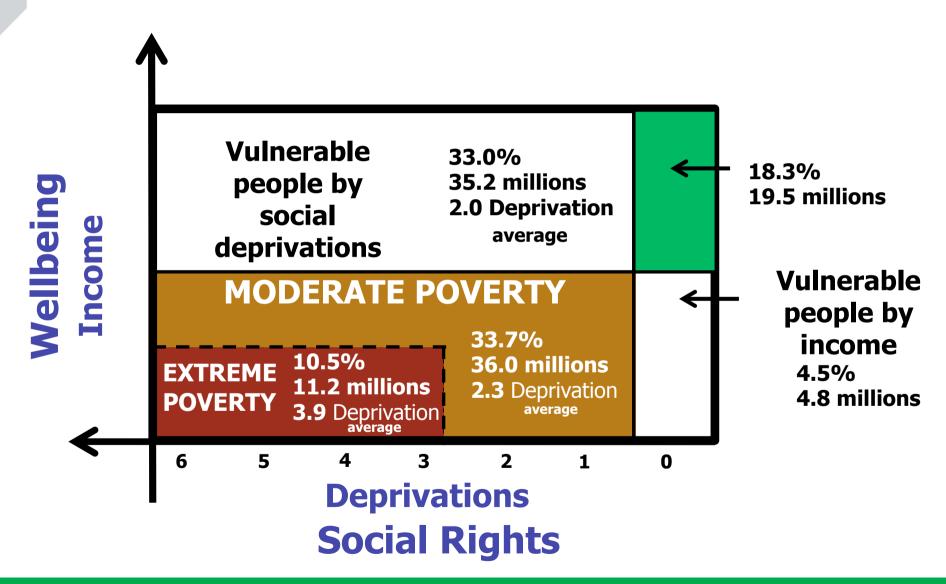


## **Principal results**





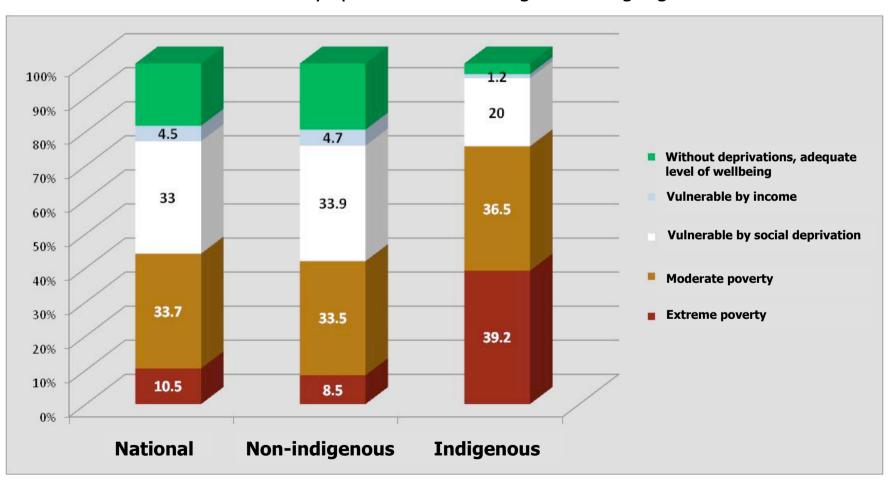
## **Total Population 2008 (106,680,526)**





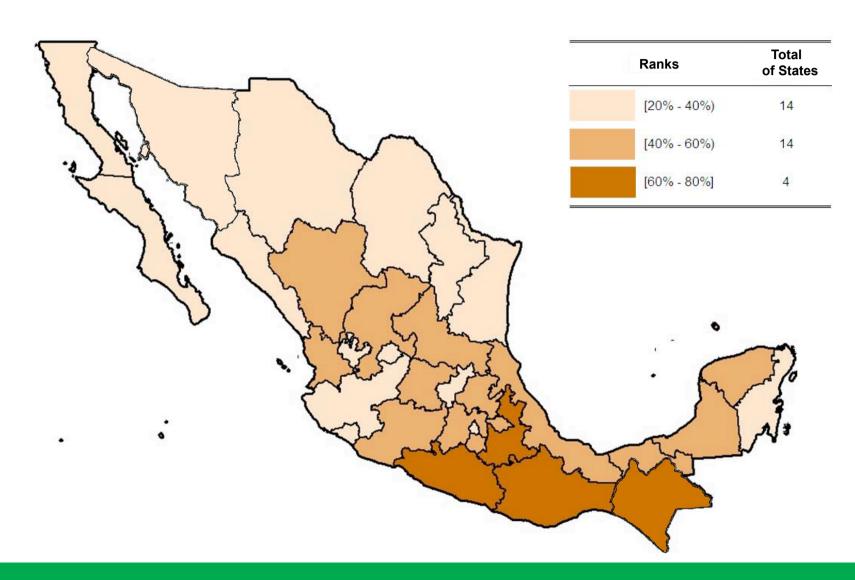
#### Indigenous and non-indigenous population

Percentage of population in multidimensional poverty depending on whether they speak or not an indigenous language



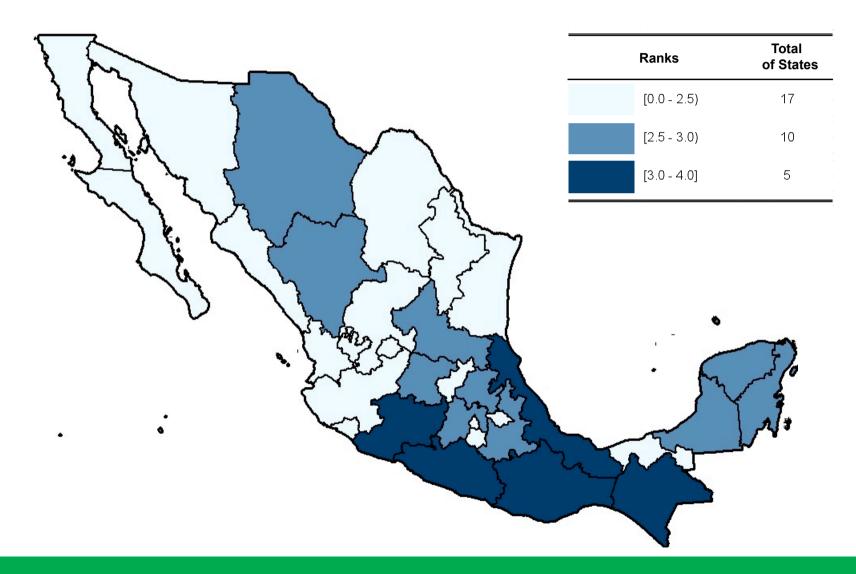


#### **Multidimensional poverty incidence by State**





## Average number of deprivations of the population in multidimensional poverty

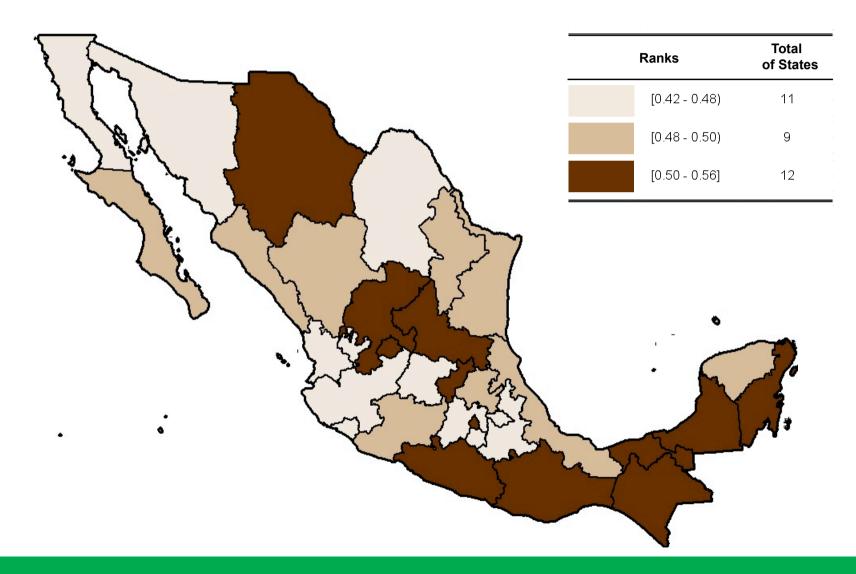




## Percentage of population with social deprivations Mexico, 2008

Social deprivation	Percentage
Access to social security	64.7
Access to health services	40.7
Educational backwardness	21.7
Access to food	21.6
Housing access to basic services	18.9
Quality of living spaces	17.5





## Thanks!



## **Contact information**

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