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

April 29, 2010
Forewords
Objectives of CONEVAL

Regulate and coordinate the evaluation of social development policies and programs

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

<table>
<thead>
<tr>
<th>Grado de ingreso social</th>
<th>Total de municipios</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muy bajo</td>
<td>897</td>
</tr>
<tr>
<td>Bajo</td>
<td>192</td>
</tr>
<tr>
<td>Medio</td>
<td>597</td>
</tr>
<tr>
<td>Alto</td>
<td>500</td>
</tr>
<tr>
<td>Muy alto</td>
<td>146</td>
</tr>
</tbody>
</table>
Transparency and dissemination

- Generation based on public access data bases
- Publication of all necessary guidelines 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
Concept and definition of poverty

- Available resources to satisfy basic needs
- Rights and guarantees for social development
- Economic wellbeing
- Social rights
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
Wellbeing

Population

Universal human rights
- Food access

Individual guarantees
- Education
- Health
- Social security
- Dwelling

Social rights
Multidimensional poverty

- Vulnerable people by social deprivations
- Multidimensional poverty
- Extreme multidimensional poverty
- Vulnerable people by income
- Population without deprivations and adequate level of economic wellbeing

Wellbeing

Income

Deprivations

Social rights

C*=3

C=1
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 official 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
Principles

Transparency
- Public access to SCM, 2008
- Diffusion of the methodology
- Statistical routines

Technical rigor
- Contact with users and specialists
- External estimation, UNDP Mexico
- Statistical validation of indicators

Contact with users and specialists
External estimation, UNDP Mexico
Statistical validation of indicators
Technical rigor
Statistical software

- Wide usage among specialized public
- Undemanding data entry
- Straightforward data manipulation
- Simple data analysis
- High quality of results

SPSS and STATA
Easy and replicable programming
Dimension-specific complexity
Territorial context indicators treatment
Statistical software differences
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
Specific functionalities of SPSS:
- Direct input of DBF files
- Interface
- Graphics edition
- Report of results
Principal results
Social rights

Deprivations

With at least one social deprivation
77.2 %
82.4 millions
2.4 average deprivations

No Deprivations

22.8 %
24.3 millions

Wellbeing

Income

Deprivations

Social rights

77.2 %
82.4 millions
2.4 average deprivations

22.8 %
24.3 millions

CONEVAL
Consejo Nacional de Evaluación de la Política de Desarrollo Social
MODERATE POVERTY
33.7%
36.0 millions
2.0 Deprivation average

EXTREME POVERTY
10.5%
11.2 millions
3.9 Deprivation average

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

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Total of States</th>
</tr>
</thead>
<tbody>
<tr>
<td>[20% - 40%)</td>
<td>14</td>
</tr>
<tr>
<td>[40% - 60%)</td>
<td>14</td>
</tr>
<tr>
<td>[60% - 80%]</td>
<td>4</td>
</tr>
</tbody>
</table>

Average number of deprivations of the population in multidimensional poverty

### Percentage of population with social deprivations Mexico, 2008

<table>
<thead>
<tr>
<th>Social deprivation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to social security</td>
<td>64.7</td>
</tr>
<tr>
<td>Access to health services</td>
<td>40.7</td>
</tr>
<tr>
<td>Educational backwardness</td>
<td>21.7</td>
</tr>
<tr>
<td>Access to food</td>
<td>21.6</td>
</tr>
<tr>
<td>Housing access to basic services</td>
<td>18.9</td>
</tr>
<tr>
<td>Quality of living spaces</td>
<td>17.5</td>
</tr>
</tbody>
</table>

Thanks!
Contact information

Consejo Nacional de Evaluación de la Política de Desarrollo Social (CONEVAL)

Boulevard Adolfo López Mateos No. 160
Col. San Ángel Inn,
Delegación Álvaro Obregón,
CP. 01060, México, D.F.

+52 (55) 5481-7200

www.coneval.gob.mx