A Methodology for the Measurement of Multidimensional Poverty

June, 2010
New Methodology, why?

- It’s a mandate from Congress (Social Development Law)
- The Law creates Coneval (The National Council for the Evaluation of Social Policies) for this purpose, in order to have an autonomous institutions measuring poverty
- The Law indicates the methodology should use at least 8 dimensions
- Besides normative issues, it was essential to include multiple dimensions in order to understand better the social problems in the country
New Methodology, how?

- The process started in 2006

- Permanent advise from national and international experts: D. Gordon, S. Chakravarty, James Foster, E. Thorbecke, S. Alkire, ECLAC, F. Bourguignon.

- Since Congress asked for the methodology, Coneval adopted a method using public elements, along with academic ones

- The methodology was issued on 10 December 2009
Advantages of this methodology

- The methodology has a social rights perspective
- It’s possible to see clearer the interaction between social policy and economic policy
- We can analyze different sub-populations:
  - Indigenous People
  - Elderly population
  - Children
  - States
  - Municipalities (2010)
Advantages

- **Poverty** becomes visible, but now the **vulnerable** population is also visible

- The methodology makes clearer than before the policies that must be simultaneously applied to improve social development:
  - Social and economic policies
  - Universal and targeted policies
  - Complementary actions instead of isolated actions
Measuring poverty by mandate of the Law

Social Development Law

Dimensions for poverty measurement

- Current income per capita
- Educational gap
- Access to health services
- Access to social security
- Quality of living spaces
- Housing access to basic services
- Access to food
- Degree of social cohesion
Methodological approach

- Poverty Measurement

- Social Rights
  - Constitutional guarantees
  - Poverty associated with social deprivation

- Economic Wellbeing
  - Economic policy and income have impact on social development
What are the main features of the new methodology?

- Education
- Health
- Social Security
- Housing
- Basic services
- Feeding
Poverty identification

Population with deprivations

Economic wellbeing line

MULTIDIMENSIONAL POVERTY

Deprivations
Social Rights

EWL
Definition of multidimensional poverty

“A person is considered to be in multidimensional poverty when she/he has at least one social deprivation and insufficient income to satisfy its needs”
Poverty identification

- **EWL (Extreme Poverty Line)**
- **MWL (Minimum Well-being Line)**
- **Vulnerable people by social deprivations**
- **Vulnerable people by income**

Population without deprivations and adequate level of economic wellbeing

Deprivations
Social Rights

Public policy
Examples

She is 15 years old
She quitted school to help her family
She lives in a house with one bedroom for 8 people
She completed the 1st year of secondary school and does not have social security
Sometimes her family eats once a day due to lack of resources

Wellbeing

Income

Deprivations

Social Rights

EXTREME POVERTY
He works as a manual worker.
His house has no tap water.
His income is below the wellbeing line.
He completed primary school.

MODERATE POVERTY
Examples

- Self-employed
- Earns an average of 2,400 dlls monthly
- He does not have social security
- He will turn 62 years old

Chart showing vulnerable by social deprivation.
Examples

- Her sales fell
- She owns her home which has all services
- She pays voluntary social security. She finished high school
- For the last four months her company costs are larger than her income

Vulnerable by income
Poverty Identification

Deprivations
Social Rights

EWL
Intensity of poverty (Foster-Alkire)
Intensity of poverty

Deprivations
Social Rights

EWL
MWL
We can have this type of society:
Social Rights
Deprivations

Social dispersion: inequality, polarization

...or one like this one:

EWL
MWL

Deprivations
Social Rights

6 5 4 3 2 1 0
MULTIDIMENSIONAL POVERTY IN MEXICO
Total Population 2008 (106,680,526)

- **Vulnerable people by social deprivations**
  - 33.0%
  - 35.2 millions
  - 2.0 Deprivations

- **MULTIDIMENSIONAL POVERTY**
  - $H = 44.2\%$
  - 47.2 millones
  - $I = 0.20$
  - 2.7 Average Deprivations

- **No deprivations, adequate level of income**
  - 18.3%
  - 19.5 millions

- **Vulnerable people by income**
  - 4.5%
  - 4.8 millions

Fuente: estimaciones del CONEVAL con base en el MCS-ENIGH 2008.
Intensity of poverty (Foster-Alkire)

- Incidence: \( H = \frac{q}{n} = \frac{47.2}{106.7} = 0.44 \)

- Average Proportion of deprivations: \( A = \frac{d_q}{D} = \frac{2.7}{6} = 0.45 \)

- Intensity: \( I = AH = 0.45 \times 0.44 = 0.20 \)

\[
I = \frac{d_q}{D} \frac{q}{n} = \frac{Nr \text{ of deprivations of the poor}}{Nr \text{ of potential deprivations for all}}
\]

\[
I = \frac{127.4 \text{ million}}{640.2 \text{ million}} = 0.20
\]
Total Population 2008 (106,680,526)

**Vulnerable people by social deprivations**

- **MODERATE POVERTY**
  - 33.0%
  - 35.2 millions
  - 2.0 Average Deprivations

- **EXTREME POVERTY**
  - 10.5%
  - 11.2 millions
  - 3.9 Average Deprivations

- **Multidimensional poverty**
  - 4.5%
  - 4.8 millions

Indigenous people 2008 (6,829,067)

- **Moderate Poverty**
  - 36.5% (2.8 million people)
  - Average Deprivations: 3.1

- **Extreme Poverty**
  - 39.2% (2.7 million people)
  - Average Deprivations: 4.2

- **Vulnerable people by income**
  - 20.0% (1.4 million people)
  - Average Deprivations: 2.8

- **Vulnerable people by social deprivations**
  - 36.5% (2.5 million people)
  - Average Deprivations: 3.1

- **Multidimensional poverty**
  - 75.7% (5.2 million people)

Indigenous and non-indigenous population

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

<table>
<thead>
<tr>
<th></th>
<th>Without deprivations, adequate level of wellbeing</th>
<th>Vulnerable by income</th>
<th>Vulnerable by social deprivation</th>
<th>Moderate poverty</th>
<th>Extreme poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>33</td>
<td>33.7</td>
<td>6.3</td>
<td>10.5</td>
<td>39.2</td>
</tr>
<tr>
<td>Non-indigenous</td>
<td>33.9</td>
<td>33.5</td>
<td>6.5</td>
<td>8.5</td>
<td>36.5</td>
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<tr>
<td>Indigenous</td>
<td>4.5</td>
<td>4.7</td>
<td>20</td>
<td>20</td>
<td>1.2</td>
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</tbody>
</table>

Percentage of population in multidimensional poverty according to age group

Multidimensional poverty by State

Average number of deprivations of the population in multidimensional poverty

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Total of States</th>
</tr>
</thead>
<tbody>
<tr>
<td>[0.0 - 2.5)</td>
<td>17</td>
</tr>
<tr>
<td>[2.5 - 3.0)</td>
<td>10</td>
</tr>
<tr>
<td>[3.0 - 4.0]</td>
<td>5</td>
</tr>
</tbody>
</table>

## 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 gap</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>

Contribution of deprivations by State, 2008

Contribución de cada indicador de carencia social a la intensidad de la pobreza multidimensional, México, 2008

Fuente: estimaciones del CONEVAL con base en el MCS-ENIGH 2008.
Gini Index

What policies should be carried out?

Economic Policies:
- Economic growth
- Job creation
What policies should be carried out?

Social Policies:
- Health
- Education
- Housing
Social dispersion: inequality, polarization

Policies to promote social cohesion:

- Non discrimination
- Social networks
- No monopolies
- Better services for poor people
- Redistributive taxes
What policies should be carried out?

Targeted policies

• Social Programs for the population in poverty
What policies should be carried out?

Universal policies
- Social Security
- Education for all
- Access to health services
- Economic growth
Poverty if there were universal coverage for health services and social security

Fuente: estimaciones del CONEVAL con base en el MCS-ENIGH 2008.
Using the methodology

- Social programs are changing the way they identify their beneficiaries.
- Other Ministries, besides the Ministry of Social Development, understand better their role in reducing poverty in Mexico.
- The Strategy for poorer municipalities is using the methodology to target their programs.
- Coneval is evaluating social programs (ex post and ex ante) using this approach.
The methodology in Mexico

It is a historic contribution to social policy, since it will allow further study of poverty beyond income, by adding together social deprivations from a social rights perspective.

With this methodology is possible to improve the relationship between public policies and the different needs of the population.

www.coneval.gob.mx
Educational gap

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Total of States</th>
</tr>
</thead>
<tbody>
<tr>
<td>[10% - 20%)</td>
<td>13</td>
</tr>
<tr>
<td>[20% - 25%)</td>
<td>11</td>
</tr>
<tr>
<td>[25% - 40%)</td>
<td>8</td>
</tr>
</tbody>
</table>

Lack of access to health services

Lack of access to social security

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Total of States</th>
</tr>
</thead>
<tbody>
<tr>
<td>[40% - 60%)</td>
<td>15</td>
</tr>
<tr>
<td>[60% - 70%)</td>
<td>7</td>
</tr>
<tr>
<td>[70% - 90%]</td>
<td>10</td>
</tr>
</tbody>
</table>

Lack of quality living spaces

Lack of access to housing basic services

Lack of access to food

Contact information

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