Towards comparable measures of income inequality and poverty

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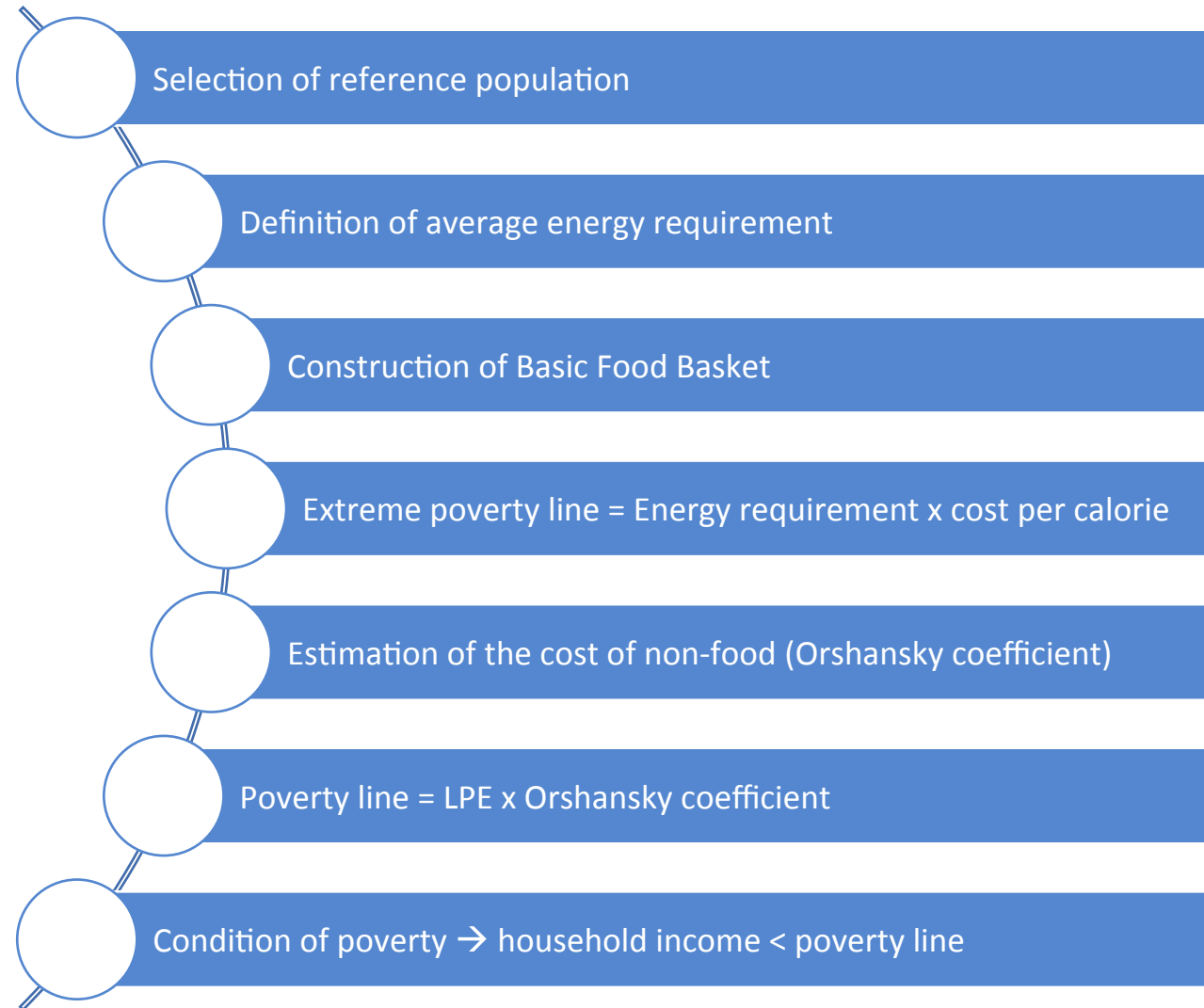
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Introducción

- Countries in the region measure poverty and inequality based on well-known and widely disseminated indicators.

- Countries regularly carry out household surveys that measure income and that allow these indicators to be calculated.

- However, current measurements have some limitations:
  - Heterogeneity in the application of methodologies
  - Insufficiency of the concept of income and other dimensions of well-being
  - Incompleteness of income distribution

- Some elements are proposed to advance in the comparability and completeness of the measurements.

Measuring monetary poverty in Latin America

- The predominant concept is "absolute monetary poverty".
- Measurements share a common methodological structure ...
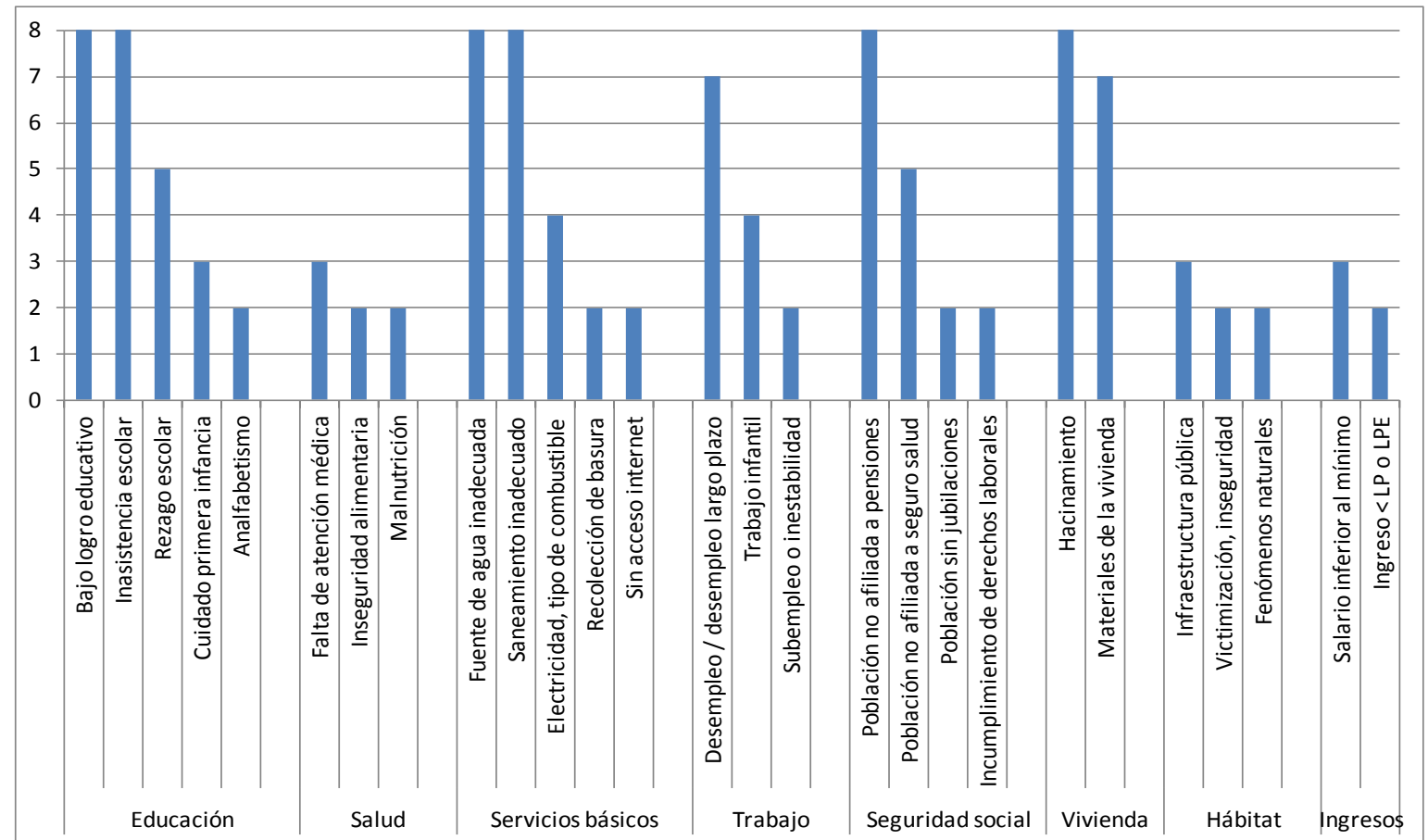- ... but different decisions in each stage of the method.

Selection of reference population

Definition of average energy requirement

Construction of Basic Food Basket

Extreme poverty line = Energy requirement x cost per calorie

Estimation of the cost of non-food (Orshansky coefficient)

Poverty line = LPE x Orshansky coefficient

Condition of poverty → household income < poverty line

Some differences in the poverty lines used in LA

Reference population
- Caloric sufficiency criterion
- Concordance with the poverty rate ("iterative")

Basic Food Basket
- Size of basket (between 30 and 110 products)
- Inclusion of out-of-household consumption
- Adjustments for nutritional considerations

Orshansky coefficient
- Observed, excluding products
- Observed, without excluding products
- Exogenous

Welfare indicator
- Income
- Consumption

Income reference unit
- Per capita
- Adult-equivalent

Price deflator
- Single deflator for LPE and LP (fixed CO)
- Differentiated deflators for LPE and LP (variable CO)

Measurement of multidimensional poverty in Latin America

- Heterogeneity also characterizes measurements of multidimensional poverty ...

- ... partly because of the need to adapt to national contexts,

- but also because of differences in the sources of information

Latin America (8 countries): Dimensions and indicators used in the multidimensional poverty indices

Regional comparability of monetary poverty

- ECLAC periodically measures poverty.
  - Methodological framework of absolute monetary poverty.
  - Based on the surveys of LA countries (Data Bank of Household Surveys of ECLAC).

- Regional context
  - Decades ago, it was necessary to fill the lack of information on the situation of poverty
  - Currently, measurements are intended to give a more comparable regional overview than that obtained directly from the measurements made in the countries

- Update process
  - Use of more recent information sources to build poverty lines
  - Review of some specific aspects of the methodology

Summary of changes in the ECLAC methodology

	Methodology 1991	Methodology 2007
Source of information	a) IE Surveys 1980s, 10 countries b) Recommendations for energy intake of FAO / WHO / UNU (1985)	a) IE Surveys 2005-2015, 18 countries b) Recommendations for energy intake of FAO / WHO / UNU (2001)
Reference population	First mobile quintile that achieves the average caloric intake	First mobile quintile that satisfies two conditions: - Less than 10% of households with critical needs - Have an average expenditure equal or higher to the poverty line
Basic food basket	Based on observed consumption - With nutritional adjustments - No food consumption outside the home	Based on observed consumption - With nutritional adjustments - With consumption of food outside the home
Orshansky coefficient	- Until 2006, unique value for all countries (2.0 urban and 1.75 rural) - As of 2007, variable value according to the evolution of prices (but not according to structure)	Different value for each country, according to the structure and the evolution of prices
Household income	- With correction for non-response - With adjustment to national accounts	- Upper limit to imputed rent - With correction for non-response - No adjustment to national accounts

Source: ECLAC (2017). Social Panorama of Latin America 2017

Measurement of income in household surveys in LA

- Household surveys in the region collect information on the components of income ...
- ... even though the number of questions for each component varies widely among countries.
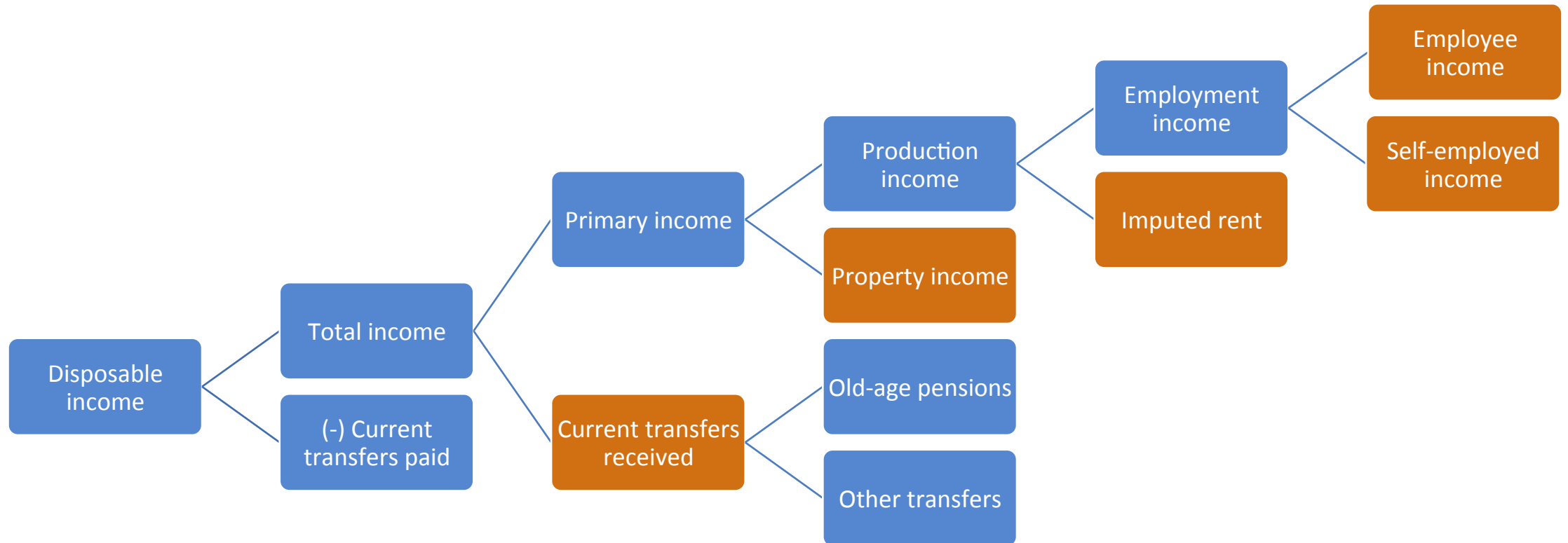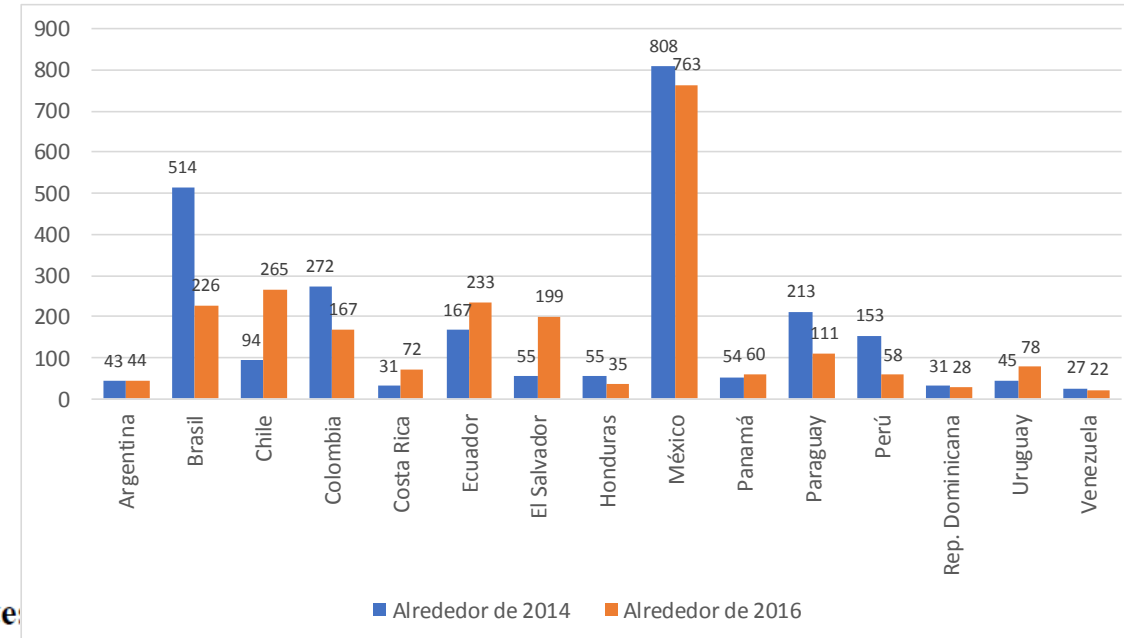
Relevant aspects of income measurement

- Completeness of the income sources
  - Wide heterogeneity in the way of surveying the sources of income between countries.
  - Insufficient level of detail for monetary transfers received.
- Adoption of the concept of "disposable income"
  - Lack of information on payment of taxes and transfers paid.
- Treatment of imputed rent
  - Measurement based only on self-declaration.
  - Its inclusion may introduce biases in the measurement of poverty.
- Social transfers in kind
  - The services provided free of charge by the State are part of a broader concept of income ("adjusted disposable income").
  - However, transfers of goods for the most vulnerable population are part of the disposable income.
  - Challenges: how to value those transfers? How to make them consistent with the poverty line?

Measurement of income inequality

- To measure inequality, the extremes of distribution are important ...

- ... but household surveys have limitations to measure extremes.

- Example: how "rich" are the income recipients captured by the surveys.

Latin America (15 countries): Ratio between the highest income and the median

	Argentina	Brasil	Chile	Colombia	Costa Rica	Ecuador	El Salvador	Honduras	México	Panamá	Paraguay	Perú	Rep. Dominicana	Uruguay	Venezuela
Alrededor de 2014	43	514	94	272	31	167	55	55	808	54	213	153	31	45	27
Alrededor de 2016	44	226	265	167	72	233	199	35	763	60	111	58	28	78	22

Ejemplo de variación en índices de desigualdad excluyendo valores poco frecuentes Paraguay 2014-2016

		Valor del índice de desigualdad				Variación entre opciones			
		Gini	Theil	Atkinson (1,0)	Atkinson (1,5)	Gini	Theil	Atkinson (1,0)	Atkinson (1,5)
2014	Todas las observaciones	0,508	0,604	0,367	0,473				
	Sin 1 más rico	0,497	0,533	0,353	0,461	-2%	-12%	-4%	-3%
	Sin 2 más ricos	0,494	0,52	0,349	0,458	-1%	-3%	-1%	-1%
2016	Todas las observaciones	0,481	0,474	0,331	0,437				
	Sin 1 más rico	0,481	0,474	0,331	0,437	0%	0%	0%	0%
	Sin 2 más ricos	0,481	0,474	0,331	0,437	0%	0%	0%	0%

	Variación 2014-2016			
	Gini	Theil	Atkinson 1.0	Atkinson 1.5
Todas las observaciones	-5%	-22%	-10%	-8%
Sin 1 más rico	-3%	-11%	-6%	-5%

Fuente: Atuesta y otros (2018). Herramientas para el análisis de las desigualdades y del efecto redistributivo de las políticas públicas.

Use of complementary sources of income

- Household surveys underestimate the magnitude of inequality, since they exclude higher incomes, either because of coverage problems or lack of response.

- The information from tax records and national accounts has been used to correct missing information in the surveys.

- Atuesta and others (2018): practical application of the inequality estimation complementing the information of the survey with data from administrative records on income tax (Chile)
  - Increase in the Gini index of 20% (0.451 to 0.542)

- Examples of participation of the richest 1% (see Social Panorama 2017):
  - Brazil: 11% survey only vs. 24% with tax data (Morgan, 2017)
  - Chile: 15% survey only vs. 21% with tax data (López, Figueroa and Gutiérrez, 2013)
  - Colombia: 14% survey only vs 20% with tax data (Alvaredo and Londoño, 2013)
  - Mexico: 9% survey only vs. 25% with national accounts (Castillo, 2015)
  - Uruguay: 9% survey only vs 14% with tax records (Burdín, Esponda and Vigorito, 2015)

- Even when the measurements are sensitive to the assumptions adopted, they provide a useful way to take better advantage of the available sources of information.

- Knowing the advantages and limitations of each source of information is necessary to achieve the best possible use of them.

Summing up ...

- Household surveys
  - Measure concept of "disposable income"
  - Adopt international "best practices" in income measurement
  - Expand dimensions and indicators on non-monetary dimensions of well-being
  - Reduce heterogeneity in the application of criteria for construction of poverty lines
- Take advantage of complementary sources of information on the distribution of income
  - Expand access to complementary sources (tax data and "institutional account of the household sector" of the National Accounts)
  - Identify the capacity of each source to measure the different income sources