

## Conceptual Note

# Indicators in CEPALSTAT Estimated from the Household Survey Database (BADEHOG)<sup>1</sup>

### Household Survey Databank (BADEHOG)

The Social Statistics Unit of the Statistics Division of ECLAC administers the Household Survey Databank (BADEHOG), a repository of household surveys from eighteen Latin American countries with data available since the 1990s. These surveys—produced by national statistical offices or other public institutions—are collected and harmonized by ECLAC to facilitate comparative analysis and to identify priority areas for statistical development across the region.

The core of BADEHOG comprises multi-purpose surveys that countries use officially to estimate income-poverty and inequality indicators. These surveys also provide information on a broad range of social dimensions—employment, education, housing conditions and access to basic services, use of information and communication technologies, among others.

Also, BADEHOG has progressively expanded its thematic coverage by incorporating additional survey types, including income and expenditure surveys, living-conditions surveys, employment surveys (where they differ from multi-purpose instruments), and time-use surveys. Its geographic coverage is likewise being extended to encompass English-speaking Caribbean countries.

ECLAC undertakes a rigorous harmonization process for all variables contained in these surveys, to generate comparable socioeconomic indicators across countries. This process entails the creation of variables with standardized response categories, grounded in a detailed analysis of the questionnaires and methodologies employed in each country.

The database is updated annually, according to the availability of new surveys. In those countries where surveys are conducted more frequently (monthly, quarterly or semi-annually), the annual grouping of data is used when possible; otherwise, the survey closest to the end of the calendar year is used.

Using the harmonized variables, the Statistics Division produces annual estimates of indicators covering multiple thematic areas. These indicators can be disaggregated by key demographic characteristics—age, sex, ethnic-racial self-identification, income quintile, and other relevant attributes of households and their members.

---

<sup>1</sup> Social Statistics Unit. Statistics Division. June 2025 version.

The estimated indicators are disseminated through CEPALSTAT and different ECLAC institutional publications, such as the Statistical Yearbook for Latin America and the Caribbean and the Social Panorama of Latin America and the Caribbean.

**Table 1**  
**Multipurpose household surveys available in BADEHOG, 2000 to 2023**

Countries	Surveys	Geographic coverage	Years	Collection Period
Argentina	Permanent Household Survey	Urban area	2000 to 2017	Fourth quarter
	Permanent Household Survey	Urban area	2018 to 2023	Second semester
Bolivia (Plurinational State of)	Household Survey	National	2002	November to December
	Continuous Household Survey	National	2004 to 2021	November
Brazil	National Household Survey	National	2001 to 2015	September
	National Continuous Household Survey	National	2016 to 2023	Annual
Chile	National Socioeconomic Characterization Survey	National	2003 to 2022	November to January
Colombia	Continuous Household Survey	National	2002 to 2008	Annual
	Great Integrated Household Survey	National	2008 to 2023	Annual
Costa Rica	Multi-Purpose Household Survey	National	2000 to 2009	July
	National Household Survey	National	2010 to 2023	July
Ecuador	National Survey of Employment, Unemployment and Under employment in urban and rural areas	National	2001 to 2020	December
			2021 to 2023	Annual
El Salvador	Multi-Purpose Household Survey	National	2001 to 2023	Annual
Guatemala	National Survey of Living Conditions	National	2002, 2006 and 2014	Different periods
Honduras	Permanent Multi-Purpose Household Survey	National	2001 to 2023	May or June
Mexico	National Survey of Household Income and Expenditure Socioeconomic Conditions Module of the National Survey of Household Income and Expenditure National Survey of Household Income and Expenditure. New series	National	2002-2006	Third trimester
			2008 to 2014	August to November
			2016 to 2022	August to November
Nicaragua	National Household Survey on the Measurement of Living Standards	National	2005, 2009 and 2014	Different periods
Panama	Labour Market Survey	National	2001 to 2013 and 2023	August
	Multi-Purpose Survey	National	2014 to 2019 and 2022	March
	Labour Market Survey	National	2021	October
Paraguay	Permanent Household Survey	National	2001 and 2002	November to December
	Permanent Household Survey	National	2003 to 2021	October to December
	Permanent Quarterly Continuous Household Survey	National	2022 to 2023	Annual
Peru	National Household Survey on Living Conditions and Poverty	National	2001-2003	Fourth quarter

Countries	Surveys	Geographic coverage	Years	Collection Period
	National Household Survey on Living Conditions and Poverty	National	2004 to 2023	Annual
Dominican Republic	National Labor Force Survey	National	2001 to 2015	October
	National Continuous Labor Force Survey	National	2016 to 2023	Annual
Uruguay	Continuous Household Survey	Urban area	2001-2005	Annual
	Continuous Household Survey	National	2007 to 2020, 2022 and 2023	Annual
	Continuous Household Survey	National	2021	Second semester
Venezuela (Bolivarian Republic of)	Sample Household Survey	National	2001 to 2014	Second semester

Source: Economic Commission for Latin America and the Caribbean, based on the Household Survey Databank (BADEHOG).

## Measurement of household income

### Concept of income

Household income is defined as the set of monetary and in-kind items received on a regular basis, either by the household as a whole or by one of its members, excluding sporadic or extraordinary earnings (ECE, 2011). There are different notions of income:

- total income, which includes primary income (such as wages or asset rents) plus current transfers received.
- disposable income, which is obtained by subtracting direct taxes, social security contributions and transfers made to other households from total income.
- adjusted disposable income, which adds to disposable income an estimate of the value of in-kind social services received by the household (such as education or public health).

Although the latter concept is the most comprehensive for assessing welfare, its measurement is constrained by the lack of precise data on in-kind services. Consequently, the household income aggregate used by ECLAC in its poverty and inequality estimates correspond primarily to **total income**, supplemented by net-of-tax wage and salary information where available. This aggregate ensures the greatest possible comparability among countries in the region, at least until household surveys advance towards full measurement of disposable income.

### Income components

The estimation of income in household surveys is based on the total income received by households, which comprises five principal sources: wages and salaries, capital income, pensions, transfers, and imputed rent.

#### *Compensation*

Compensation encompasses the income received by individuals engaged in economic activities, whether as employees or self-employed people. Both cash and kind wages and salaries are included. In addition, secondary income—monetary and/or in-kind—earned by individuals undertaking more

than one economic activity is also considered. The sum of these components constitutes total income from compensation.

### *Capital Income*

Capital income is classified into two categories:

- Financial capital: includes income generated by interest, dividends and profits.
- Non-financial capital: includes income derived from the rent of land, housing or other property.

The sum of both constitutes the total income from capital.

### *Retirements*

This category includes income obtained from contributory retirements and pensions, both domestic and foreign, regardless of whether it comes from the public or private sector.

### *Transfers*

Transfers are income that households receive without directly carrying out a market transaction with the person who delivers the resource. These include:

- Public social programs: subsidies, economic aid, vouchers and other forms of assistance from the State. They can be unconditional, conditional on certain behaviors (such as school attendance or health checks), or associated with a work benefit, as in temporary employment programs. They can be monetary or goods in kind.
- Non-profit organizations: financial support from foundations, NGOs, or other charities.
- Transfers between households: remittances sent by people residing in another country or within the same country.
- Alimony: payments intended for the support of children, former spouses, or other relatives.
- Other private transfers: donations, scholarships and any other income for which no consideration is required.

Transfers may constitute a significant proportion of income for certain population groups, particularly those in vulnerable circumstances or with limited access to other income sources.

### *Imputed rent*

Imputed rent represents the estimated value of occupying owner-occupied housing, as if the household were paying rent to reside in it. This component enables a more accurate comparison of living standards between homeowners and renters and is therefore included in the estimation of total household income.

According to the current ECLAC's methodology for measuring income poverty, a cutoff is applied to the maximum value of imputed rent, so that it does not exceed the total amount of other income received by the household.

## Missing data treatment

During the estimation process, the absence of responses for certain income variables may be detected. This occurs, for example, when employed individuals do not report labor income or retirees fail to declare the value of their pension. In such cases, a non-response adjustment procedure is applied to the compensation and pension variables using the hot-deck imputation method, which assigns missing values based on observed data from individuals with similar characteristics within the same dataset.

Regarding imputed rent, if the information is missing, it is estimated as a percentage of total income, based on relationships observed in the same survey or, failing that, by referencing another survey that includes this variable when the multi-purpose survey does not directly capture the data.

## Total income and per capita income

The sum of the different components allows for the estimation of total household income and household per capita income; the latter is defined as the ratio of total household income to the number of household members.

## Measurement of income poverty

The Statistics Division of ECLAC produces annual estimates of extreme poverty and poverty using the information available in BADEHOG. The purpose of these indicators is to provide estimates with the greatest possible comparability across countries and over time for various analytical purposes.

These estimates are not intended to replace the official figures reported by individual countries, as they serve different objectives. The methodology employed is detailed in the document *Income-Poverty Measurement: Methodological Update and Results* (ECLAC, 2018).

## Poverty lines definition

Poverty lines denote the minimum household-income threshold required to satisfy the basic needs of all household members. They comprise two components:

- Food component: represents the cost of a basic food basket, built from a selection of products that meet the nutritional requirements of the population.
- Non-food component: considers the additional resources needed to cover other basic needs, such as housing, clothing, transportation, education, etc.

The extreme poverty line is defined solely by the value of the basic food basket. The overall poverty line is calculated by multiplying the extreme poverty line by the Orshansky coefficient - that is the ratio of total household expenditure to food expenditure—which varies by country and by geographic area (urban or rural).

## Update of the poverty lines

The values of the extreme poverty and poverty lines are updated annually based on the variation of the Consumer Price Index (CPI):

- The food component is adjusted according to the variation in the CPI of food.
- The non-food component is updated based on the variation in the CPI of non-food goods and services.

## Poverty indicators estimation

The methodological approach classifies an individual as poor when their household's per capita income falls below the poverty line.

This methodology enables comparative analyses across countries and the assessment of poverty trends in diverse geographic and socio-demographic contexts.

## Measurement of multidimensional poverty

Since 2025, ECLAC produces a regional estimate of the Multidimensional Poverty Index for Latin America (MPI-LA), based on BADEHOG surveys.

The MPI-LA comprises four dimensions and twelve deprivation indicators, as summarized in Table 2. Each indicator carries equal weight (1/12). A household must experience deprivation in at least four indicators to be classified as multidimensionally poor, which corresponds to deprivation across more than one dimension. The methodology is described in detail in "[Índice de pobreza multidimensional para América Latina](#)" (ECLAC, 2025).

**Table 2**

**Dimensions and indicators of the Multidimensional Poverty Index for Latin America (MPI-LA)**

<b>Dimension</b>	<b>Indicator</b>	<b>Definition</b>
Housing	Housing conditions	Unrecoverable or untreated roof, wall or floor materials No electricity in the home Toxic cooking fuel
	Overcrowding	The number of individuals per room exceeds the requirement based on household composition
	Internet	No internet at home (either fixed or via mobile phone)
Health	Water	Piped water supply located outside the household premises (urban area). Water obtained from unprotected wells, mobile sources, rainwater, or surface sources
	Sanitation	No sanitary facility, or shared with other households

			Waste disposal system not connected to sewer network or septic tank (urban area) Waste disposal system is a cesspit, untreated latrine, or discharges onto the ground surface, into a river, or into the sea
	Health insurance		No one in the household has health insurance (contributory or non-contributory).
	Non-attendance school lag	or	At least one household member between the ages of 4 and 17 does not attend a school or preschool, or is lagging (more than 2 years)
Education	Low educational achievement		No adult in the household has attained the educational level required for their age.
	Illiteracy		At least one person aged 10 or older in the household is unable to read and write
	Labor participation	market	At least one household member (aged 20 to 64) is unemployed or engaged exclusively in domestic and care work (in households with children or older adults).
Employment and pensions	Quality of employment		All employed household members are in one of the following situations: They do not contribute to any pension system. Their labor income is insufficient (below the CEPAL poverty line). Their labor income is insufficient (below the CEPAL poverty line).
	Pension		At least one household member aged 65 or over either does not receive a pension or receives a pension that is insufficient (below the CEPAL poverty line)

Source: Economic Commission for Latin America and the Caribbean (ECLAC), Multidimensional Poverty Index for Latin America (in Spanish only), ECLAC Methodologies, No. 7 (LC/PUB.2025/3-P), Santiago, 2025.

## Indicator topics

The harmonization of variables in the region's household surveys enables the production of comparable indicators across countries and over time in a variety of thematic areas. These include:

- **Poverty:** extreme poverty and monetary poverty; poverty gap and adjusted gap measures; multidimensional poverty; population without any personal income.
- **Income distribution:** income shares by quintile and decile; income ratios between groups; inequality indices such as Gini, Theil, and Atkinson, among others.
- **Education:** literacy rates; school attendance; average years of schooling; levels of educational attainment; proportion of the population neither studying nor working.

- **Employment:** labor force participation and employment rates; distribution across sectors of activity; hours worked; coverage by pension systems; unemployment rates; average earnings; and unpaid domestic work.
- **Health:** due to the limited data availability in multipurpose surveys, only the proportion of the population without medical insurance coverage is estimated.
- **Housing and basic services:** home ownership; overcrowding conditions; access to potable water, sanitation services, and electricity; and type of fuel used for cooking.
- **Household structure:** identification of the principal income earner; average household size; distribution by household type.
- **Information and communications technologies:** access to and use of the Internet, as well as computer usage.

## Regional averages

Household-survey-based indicators available in CEPALSTAT may incorporate regional averages calculated from the 18 Latin American countries for which survey data are available.

Depending on the nature of the indicator, simple averages, weighted averages, or both are presented. The simple average corresponds to the arithmetic average of the values of each country for a given year, assigning the same weight to each country, regardless of its population size. The weighted average is calculated using the number of people corresponding to each disaggregation of the indicator, adjusted according to national population projections.

For most indicators, the most recent data available in the reference year of the regional average is used. For example, the 2023 regional average considers 2022 surveys for countries such as Chile and Mexico, which do not have survey data for 2023.

An exception to this rule applies to monetary poverty incidence indicators, for which a projected estimate of the poverty level is produced for each year, even in the absence of an updated survey.

Some regional averages may exclude certain countries due to lack of available information. For example, the averages for rural areas do not include Argentina, since its household survey only covers urban areas. When the number of countries included in the regional average is less than the total number of countries with available surveys, this situation is clarified in the notes associated with the data in CEPALSTAT.

## Comparability of the series

Household survey series may present discontinuities in time comparability due to changes in methodology, geographic coverage or the way of collecting information on different topics. In general, when a series presents breaks in comparability, these are indicated by explanatory notes associated with the data in CEPALSTAT.

It is recommended that users pay special attention to these warnings in order to ensure proper and informed use of the information, especially when series are not strictly comparable over time.

## Quality of indicators

Indicators estimated from household surveys are subject to sampling error. When this error is high, it is considered that the indicators produced for a specific disaggregation are not representative of the population. For this reason, the data published in CEPALSTAT are accompanied by notes that warn users about the limitations in their representativeness, allowing them to make informed decisions about their use.

Data are non-representative in the following situations:

- The denominator of the indicator includes less than 100 sample cases.
- The denominator includes between 100 and 2,000 sample cases, and:
  - The indicator has an incidence between 20 and 80, and the coefficient of variation (CV) is greater than 0.2.
  - The indicator has an incidence of less than 20 or greater than 80, and the coefficient of logarithmic variation is greater than 0.175.

It should be noted that not all household survey databases include the information on the sample design necessary to adequately calculate the coefficient of variation. In these cases, the sampling error is estimated by means of a generalized function of variance

## Final comments

Multipurpose household surveys in Latin America and the Caribbean share certain methodological elements, but they are not fully standardized instruments. For this reason, the construction of comparable indicators from this source requires a rigorous process of harmonization, which includes the organization of microdata files under a common structure and the standardization of the response categories of the relevant variables. This work is dynamic and constantly developing, with the aim of optimizing processes, improving the quality of estimates and expanding the range of topics that can be addressed through surveys.

## References

Economic Commission for Latin America and the Caribbean (ECLAC), Income poverty measurement: Updated methodology and results, ECLAC Methodologies, No. 2 (LC/PUB.2018/22-P), Santiago, 2019.

Economic Commission for Latin America and the Caribbean (ECLAC), Multidimensional Poverty Index for Latin America (in Spanish only), ECLAC Methodologies, No. 7 (LC/PUB.2025/3-P), Santiago, 2025.

Economic Commission for Europe (ECE) (2011), Canberra Group Handbook on Household Income Statistics, Second Edition, Ginebra.