

# EU statistics on income and living conditions (EU-SILC) methodology - private households

Statistics Explained

This article is part of a [set of articles](#) describing the methodology applied for the computation of the statistical indicators pertinent to the subject area of [Private households \(ilc\\_lvph\)](#) within the overall domain of [Income and living conditions](#). For these indicators, the article provides a methodological and practical framework of reference. The indicators relevant to the subject area of private households are the following:

- Average household size
- Distribution of households

Moreover, since the datasets are of multidimensional structure and can be analysed simultaneously along several dimensions, the separate [datasets](#) are presented along with the different combinations of dimensions.

## Description

- The **average household size** refers to the weighted average (effective) household size, where the weight is the household cross-sectional weight (DB090).
- The **distribution of households** along with the [dimensions](#) with which is disseminated, refers to the share of households in the relevant household type as percentage of total households.

## Statistical population

The statistical population consists of all persons living in private [private households](#). Persons living in [collective households and in institutions](#) as well as people with missing values for household type and for any of the different dimensions that the indicators are presented, are excluded from calculations.

## Reference period

All indicators are collected and disseminated on an annual basis and refer to the survey year.

The reference period for all dimensions along with the indicators are disseminated is the survey year, except for age and income. As far as age is concerned, it refers to the age of the respondent at the end of the income reference period. The income reference period is a fixed 12-month period (such as the previous calendar or tax year) for all countries except the United Kingdom, for which the income reference period is the current year, and Ireland, for which the survey is continuous and income is collected for the last twelve months.

## Unit of measurement

The average household size is given as a (weighted) average.

The distribution of households is made available as a percentage.

## Dimensions

The separate datasets provide each indicator along with the [Geopolitical entity](#) and [time](#) dimensions and the dimensions presented below.

The distribution of households is presented along with the following dimensions:

- household type
- household size
- household type and income group
- number of children

## Calculation method

### 1. Average household size :

The weighted average household size (AHHSIZ) is calculated as follows.

The weight variable used is the Household Cross Sectional Weight (DB090).

$$[\mathit{A}HHSIZ = \frac{\sum_{\text{limits}_{\text{forall}\{i\}}\{DB090\_i}} \text{times ;HHSIZE\_i}}{\sum_{\text{limits}_{\text{forall}\{i\}}\{DB090\_i}}}]$$

No methodological issues pertain to the calculation of the weighted average household size.

### 2. Distribution of households :

The distribution of households (DISHH) broken down by each combination of [dimensions](#) (k)  $(DISHH_{(at\_k)})$

is calculated as the percentage of households in each k over the total population of households.

The weight variable used is the Household Cross Sectional Weight (DB090).

$$\begin{aligned}
 & \text{[math]DISHH}_{\{at} \\
 & \quad \text{\_k}\} = \\
 & \quad \text{frac}\{ \\
 & \quad \text{sum} \\
 & \quad \text{limits}_{\{ \\
 & \quad \text{forall}\{i \\
 & \quad \text{\_k}\}\text{DB090}_i\}\{ \\
 & \quad \text{sum} \\
 & \quad \text{limits}_{\{ \\
 & \quad \text{forall}\{i \\
 & \quad \text{\_k}\}\text{DB090}_i\} \\
 & \quad \text{times } 100\text{[math]}
 \end{aligned}$$

No methodological issues pertain to the calculation of the distribution of households.

However, there are some methodological limitations that pertain to the following dimensions accompanying the indicators: age and household type.

## Main concepts

For the production of the indicators relevant to the subject area of private households, the variables listed below are also involved in computations:

Equivalent Household size (EQ\_SS), equivalent disposable Income (EQ\_INC), number of children (NUM\_OF\_CHLD).

## SAS program files

SAS programming routines developed for the computation of the EU-SILC datasets on private households along with the different dimensions, are listed below.

Dataset	SAS program file
Average household size ( <a href="#">ilc_lvph01</a> )	_lvph01.sas
Distribution of households by household type from 2003 onwards ( <a href="#">ilc_lvph02</a> )	_lvph02.sas
Distribution of households by household size ( <a href="#">ilc_lvph03</a> )	_lvph03.sas
Distribution of households by household type and income level ( <a href="#">ilc_lvph04</a> )	_lvph04.sas
Distribution of households with children by number of children ( <a href="#">ilc_lvph05</a> )	_lvph05.sas

## See also

- [EU statistics on income and living conditions \(EU-SILC\) methodology](#) (overview of all articles)
- [Living conditions in Europe - housing](#)

## Main tables

- [Income and living conditions \(t\\_ilc\)](#)

## Database

- [Living conditions and welfare \(livcon\)](#)

[Income and living conditions \(ilc\)](#)

[Living conditions \(ilc\\_lv\)](#)

[Private households \(ilc\\_lvph\)](#)

## Dedicated section

[Income and living conditions \(ilc\)](#)

## Publications

- [European social statistics \(2013\)](#) — Statistical books
- [Housing conditions in Europe \(2009\)](#) — Statistics in focus 4/2011
- [Income and living conditions in Europe \(2010\)](#) — Statistical books
- [Combating poverty and social exclusion](#)
- [Household structure in the EU - Working paper \(2010 edition\)](#)
- [The continuity of indicators during the transition between ECHP and EU-SILC](#)
- [Comparative EU quality reports](#)
- [Modules: assessment of implementation](#)

## Methodology

- [Income and living conditions \(ilc\)](#) (ESMS metadata file — [ilc\\_esms](#))
- [The production of data on homelessness and housing deprivation in the European Union: survey and proposals](#)

## Other information

- [Regulation 1177/2003](#) of 16 June 2003 concerning Community statistics on income and living conditions (EU-SILC)
- [Summaries of EU Legislation: EU statistics on income and living conditions](#)
- [Regulation 1553/2005](#) of 7 September 2005 amending Regulation 1177/2003 concerning Community statistics on income and living conditions (EU-SILC)
- [Regulation 1791/2006](#) of 20 November 2006 adapting certain Regulations and Decisions in the fields of ... statistics, ..., by reason of the accession of Bulgaria and Romania

## External links

- [Employment and Social Situation Quarterly Review — September 2013](#)
- [Employment and Social Developments in Europe \(2013\)](#)
- [OECD — Housing](#)
- [United Nations — Housing and its environment](#)

*View this article online at [http://ec.europa.eu/eurostat/statistics-explained/index.php/EU\\_statistics\\_on\\_income\\_and\\_living\\_conditions\\_\(EU-SILC\)\\_methodology\\_-\\_private\\_households](http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_statistics_on_income_and_living_conditions_(EU-SILC)_methodology_-_private_households)*