EU statistics on income and living conditions (EU-SILC) methodology - introduction

This article is part of a Eurostat online publication European Union (EU) statistics on income and living conditions (EU-SILC) methodology offering an introduction to the main characteristics of the EU-SILC survey and explaining the increasing importance of the of income and living conditions statistics since the launch of the Europe 2020 Strategy for smart, sustainable and inclusive growth .

Scope and audience

Even though expert users may be aware of the origins of the EU-SILC data, knowledge about the processing methods applied by Eurostat for the computation of the disseminated EU-SILC indicators along with their descriptions as well as methodological and quality restrictions, is required for their proper interpretation. This publication provides expert users of EU-SILC data with a conceptual insight into the background of the data collected and describes the algorithms used for the computation of additional (derived) variables used to ease the statistical calculations as well as the methods applied for the computation of the published EU-SILC datasets. Descriptions of the algorithms and calculations are accompanied by a corpus of SAS scripts, which are made available in CIRCABC.

In addition to the methodology applied for the computation of the EU-SILC datasets, basic descriptions of the indicators and summary information on their features (e.g. dimensions with which the indicators are published, variables used for their computations, etc.) and actual methodological limitations are provided.

The publication has three specific objectives: first, to provide essential guidelines on the calculation of the disseminated EU-SILC statistics with the view to further improve the clarity of EU-SILC data; second to facilitate a proper use and interpretation of the EU-SILC statistics; and third, to provide a single point of reference on the computation of Eurostat EU-SILC datasets accessible to the audience interested in EU-SILC.

Main characteristics of EU-SILC

Statistics on income, social inclusion and living conditions cover objective and subjective aspects of these themes in both monetary and non-monetary terms for both households and individuals. They are used to monitor the Europe 2020 strategy in particular through its poverty reduction headline target.

The main source for the compilation of statistics on income, social inclusion and living conditions is the EU-Statistics on Income and Living Conditions (EU-SILC) instrument. It collects comparable multidimensional micro-data on: (a) income, (b) poverty, (c) social exclusion, (d) housing, (e) labour, (f) education, (g) health.

EU-SILC is organised under a framework regulation and is thus compulsory for all EU Member States . EU-SILC is based on the idea of a "common framework" in contrast with the concept of a "common survey". The common framework is defined by harmonised lists of target primary (annual) and secondary (every four years or less frequently) variables, by a recommended design for implementing EU-SILC, by common requirements (for imputation, weighting, sampling errors calculation), common concepts (household and income) and classifications (

ISCO , NACE , ISCED) aiming at maximising comparability of the information produced. The common framework is defined in the legislative background of the project, the Council and European Parliament framework Regulation, and the implementing Commission Regulations.

SILC provides two types of annual data:

- Cross-sectional data pertaining to a given time or a certain time period with variables on income, poverty, social exclusion and other living conditions, and

- Longitudinal data pertaining to individual-level changes over time, observed periodically over a four year period.

There are two kinds of variables in EU-SILC: the primary and secondary variables. The primary (target) variables are collected every year, whereas secondary variables are collected every five years or less frequently in the so-called ad-hoc modules . Both primary and secondary variables are collected at two different levels, the household and the individual level.

The different variables are distributed in four different files:

- Household Register (D)

- Personal Register (R)

- Household Data (H)

- Personal Data (P)

The household register file (D) must contain every selected household, including those where the address could not be contacted or those households that could not be interviewed. In the other files, records related to a household will only exist if the household has been contacted AND has a completed household interview in the household data file (H) and at least one member has complete data in the personal data file (P). This member must be the selected respondent if this mode of selection is used. The personal register file (R) must contain a record for every person currently living in the household or temporarily absent. In the longitudinal component it must also contain a record for every person registered in the R-file of the previous year or who has lived in the household for at least three months during the income reference period. The personal data file (P) must contain a record for every eligible person for whom the information could be completed from interview and/or registers.

The EU's 2020 targets and EU-SILC

At the European Council held in June 2010 the EU Member States endorsed a new 10-year strategy (following the Lisbon Strategy for the period 2000-2010) for reviving the economy of the European Union known as the Europe 2020 strategy. The Council confirmed five headline targets to constitute shared objectives guiding the action of Member States and the Union as regards promoting employment, improving the conditions for innovation, research and development, meeting the EU climate change and energy objectives, improving educational levels, and "promoting social inclusion in particular through the reduction of poverty". This fifth headline target focuses on lifting at least 20 million people out of risk of poverty and social exclusion. Progress towards this target for the Union as a whole will be monitored on the basis of a measure of the target population that incorporates three indicators (at-risk-of poverty , material deprivation , and jobless household), using data from EU-SILC, but Member States are free to set national targets on the basis of the most appropriate indicators, taking into account their national circumstances and priorities.

Looking at each element in turn, the at-risk-poverty distinguishes persons living in households with less than 60% of the national median (equivalised) income – in other words it is the most widely-used of the relative income poverty measures in the Laeken set. The nine items included in the common material deprivation indicator adopted in 2009 capture the second element, severe material deprivation . This indicator employs a threshold of 4, counting only those reporting at least 4 out of 9 deprivation items as severely deprived. The component relating to household joblessness is based on the " work intensity " indicator, based on the number of months spent at work over the previous 12 months period by household members aged 18 to 64 excluding dependent children. A threshold of 20% has been adopted to distinguish "low" work intensity, in other words those in households where (relevant) members were in work for a fifth or less of the available time in aggregate in the year.

The way these three indicators are combined to identify the target group is then that meeting any of the three

criteria – being either below the 60% median disposable income threshold, at or above the severe material deprivation threshold of 4, or in a household with work intensity below 20% threshold – suffices. In the EU as a whole, the agreed target is to lift at least 20 million of these people out of "the risk of poverty and exclusion".

Content of the online publication

EU statistics on income and living conditions methodology provide the methodological and practical framework for the computation and production of the disseminated EU-SILC indicators along with information on their quality and methodological limitations. The information provided in this set of articles is based on the Working Paper with the description of the EU-SILC datasets.

The online publication consists of three main parts: it starts with the variables' section , which presents the collected EU-SILC variables and the description of the additional variables introduced by Eurostat at the processing stage and continues on the second section on EU-SILC datasets disseminated in Eurostat's database. Under this section, concrete and separate descriptions for the set of statistical indicators calculated from the above-mentioned variables for all different combinations of dimensions is provided for each dataset, following a standard layout. These dimensions are either simple codelists or sets of classes that refer to formal and often hierarchical standardised classifications and are presented under the section definition of dimensions . The latter section also elaborates on the methodological issues that pertain to the calculation of dimensions.

See also

- EU statistics on income and living conditions (EU-SILC) methodology (overview of all articles)

Main tables

- Income and living conditions (t_ilc)

Database

- Living conditions and welfare (livcon), see:

Income and living conditions (ilc)

People at risk of poverty or social exclusion (Europe 2020 strategy) (ilc_pe)
Main indicator - Europe 2020 target on poverty and social exclusion (ilc_peps)

Dedicated section

Income and living conditions (ilc)

Publications

- 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)

- Operation guidelines

- Methodological guidelines and description of EU-SILC target variables

View this article online at `http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_statistics_on_income_and_living_conditions_(EU-SILC)_methodology_-_introduction`