EU statistics on income and living conditions (EU-SILC) methodology - definition of dimensions

Statistics Explained

This article has been archived.

This article is part of the Eurostat online publication EU statistics on income and living conditions (EU-SILC) methodology , which offers a description of the dimensions along with the EU-SILC indicators are disseminated in Eurostat's dissemination database within the overall domain of Income and living conditions . Since the indicators are of multidimensional structure are analysed simultaneously along several dimensions, and published in separate datasets along with different combinations of dimensions. The articles presents these dimensions and provides information on their methodological limitations.

Age

In EU-SILC, age is defined as the age calculated at the end of the income reference period. Age is broken down in the following groups:

- Total
- Less than 3 years (Y_LT3)
- From 3 years to minimum compulsory school age (Y3-CSA)
- From minimum compulsory school age to 12 years (CSA-Y12)
- Less than 6 years (Y_LT6)
- From 6 to 10 years (Y6-10)
- From 6 to 11 years (Y6-11)
- From 11 to 15 years (Y11-15)
- From 12 to 17 years (Y12-17)
- Less than 16 years (Y_LT16)
- From 16 to 24 years (Y16-24)
- From 16 to 64 years (Y16-64)
- From 16 years and over (Y_GE16)
- Less than 18 years (Y_LT18)
- From18 to 24 years (Y18-24)
- From18 to 34 years (Y18-34)
- From 18 to 54 years (Y18-54)
- From 18 to 59 years (Y18-59)

- From 18 to 64 years (Y18-64)
- From 18 years or over (Y_GE18)

  From 20 to 64 years (Y20-64)
- From 25 to 34 years (Y25-34)
- From 25 to 49 years (Y25-49)
- From 25 to 54 years (Y25-54)
- From 25 to 59 years (Y25-59)
- From 35 to 44 years (Y35-44)
- From 45 to 54 years (Y45-54)
- From 50 to 59 years (Y50-59)
- From 50 to 64 years (Y50-64)
- From 55 to 59 years (Y55-59)
- From 55 to 64 years (Y55-64)
- From 55 years and over (Y_GE55)
- Less than 60 years (Y_LT60)
- From 60 years or over (Y_GE60)
- Less than 65 years (Y_LT65)
- From 65 to 74 years (Y65-74)
- From 65 years or over (Y_LT65)
- From 70 years and over (Y_GE70)
- Less than 75 years (Y_LT75)
- From 75 years and over (Y_GE75)

With regard to its calculation, the following methodological issues should be taken into consideration:

1.
Age calculation method is the same for the majority of the Member States apart from Ireland and the United Kingdom.

→ Additional information about the calculation of the variable: Age , Child age (CHILDAGE) .

Activity status

The most frequent activity status is the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. The following classification is used for activity status in EU-SILC datasets:

- Population (POP)
- Employed persons (EMP)
- Employees (SAL)
- Employed persons except employees (NSAL)
- Not employed persons (NEMP)
- Unemployed persons (UNE)

- Retired persons (RET)
- Other inactive persons (NAC_OTH)

With regard to its calculation, the following methodological issues should be taken into consideration:

1. The most frequent activity status is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. Consequently, where an individual provides information on his activity status over 12 months, his most frequent activity status will be the status he declares to have occupied for at least 7 months. Individuals who have spent only half or less than the total number of declared months in any activity status are excluded from the computation. People with less than 7 months declared in the calendar of activities are excluded.
2. The activity statuses cannot be considered as a perfectly hierarchical structure. Due to the construction of the activity statuses, the subset of the total population 'employed persons' will contain more than the sum of 'employees' and 'employed persons except employees'. The same holds for the subset 'not employed persons'. That is, the breakdowns of 'employed persons' and 'not employed persons' are not exhaustive. This is the case because persons who spend less than half of the reported time in two or more breakdowns of 'employed persons' or 'not employed persons' may qualify as being 'employed person' or 'not employed person' but not any of the breakdowns.
3. The most frequent activity status for each month is based on a self-assessment by the interviewees. Therefore, it may not be entirely consistent with the ILO coding that is applied in the European Union Labour Force Survey.
4. Activity status is measured at the individual level.

→ Additional information about the calculation of the variable: Activity Status (ACTSTA) .

Citizenship

Citizenship is defined as the particular legal bond between the individual and his/her State acquired by birth or naturalisation, whether by declaration, choice, option, marriage or other means according to the national legislation. It generally corresponds to the country issuing the passport. The following classification is used for citizenship in EU-SILC datasets:

- Reporting country (NAT)
- Foreign country (FOR):
- EU-28 -countries except reporting country (EU28_FOR)
  - EU27 -countries except reporting country (EU27_FOR)
  - Non EU28-countries nor reporting country (NEU28_FOR)
  - Non EU27-countries nor reporting country (NEU27_FOR)

With regard to its calculation, the following methodological issues should be taken into consideration:

1. For persons with multiple citizenship and where one of the citizenship is the one of the country of residence, this latter citizenship is recorded/coded.
2. Citizenship is referred to the current (at the time of survey) national boundaries and not the boundaries at the time of the reference period. In the case of citizenships that no longer exist, the present-day borders of the country are used.
3. Current EU-SILC question only explores the stock of non-EU nationals, with no information on how long they have been in the country.
4. The EU-SILC only covers private households, with persons living in collective households and in institutions for asylum seekers and migrant workers excluded from the target population
5. There is no information on ethnic status of respondents. So ethnic minorities, including the Roma cannot be identified in EU-SILC. In addition, the categorization of the groups into "EU" and "non-EU" is rather broad and the groups distinguished are too large and heterogeneous.

→ Additional information about the calculation of the variable: Citizenship Group (CITIZEN) , Citizenship of parents .

Country of birth

Country of birth is defined as the country of residence of the mother at the time of birth. The following classification is used for the country of birth in EU-SILC datasets:

- Reporting country (NAT)
- Foreign country (FOR):

- EU-28 -countries except reporting country (EU28_FOR)
  - EU27 -countries except reporting country (EU27_FOR)
  - Non EU28-countries nor reporting country (NEU28_FOR)
  - Non EU27-countries nor reporting country (NEU27_FOR)

With regard to its calculation, the following methodological issues should be taken into consideration:

1. Country of birth is referred to the current (at the time of survey) national boundaries and not to the boundaries in place at the time of birth.
2. In the case of countries that no longer exist (such as parts of the former Soviet Union or others), the present-day borders of the country are used.
3. For person born in a place that currently belongs to a country different from the country that the place belonged to at the time of birth, the 'country' which the place belonged to currently (at the time of the survey) is recorded.
4. For people born in a place which is now outside the national territory but who feel that they have always been a national citizen, the country of birth should be recorded as according to this citizenship.
5. Current EU-SILC question only explores the stock of non-EU nationals, with no information on how long they have been in the country.
6. Unlike citizenship, a person's country of birth does not change. The distribution by country of birth is therefore influenced not just by recent migration, but by patterns of migration flows that may have taken place many years previously. Thus, the predominant countries of birth of migrants in a country may reflect particular migration flows that took place decades earlier.
7. Patterns of migration may also reflect past colonial and linguistic links, as seen in the long history of migration from the Indian subcontinent to the United Kingdom, in migration between Ireland and the United Kingdom, between Brazil and Portugal and between Ecuador and Spain and in migration from Suriname to the Netherlands.
8. Migrants — and more particularly recently arrived migrants — are likely to be under- covered by EU-SILC. Some migrants will have been missed from the sampling frame (which is designed to ensure a representative coverage of the overall population, rather than specifically migrants). These coverage problems may be hard to assess and correct because of a lack of reliable information on the numbers of migrants inspecific areas
9. In Member States in which the number of migrants is very small EU-SILC, given its nature as sample survey, is not capable of fully capturing the characteristics of the people concerned.
10. There is no information on ethnic status of respondents. In addition, the categorisation of the groups into "EU" and "non-EU" is rather broad and the groups distinguished are too large and heterogeneous.

→ Additional information about the calculation of the variable: Country of Birth Group (C_BIRTH) , Country of birth of parents .

Degree of urbanisation

The following classification degree of urbanisation (DEGURBA) of the area where the respondent's household belongs are considered:

- Densely-populated area (alternative name: cities) - DEG1
- Intermediate urbanised area (alternative name: towns and suburbs) - DEG2

- Thinly-populated area (alternative name: rural area) - DEG3

With regard to its calculation, the following methodological issues should be taken into consideration:

1. There is no single, universally preferred definition of rural areas, nor is there a single rural definition that can serve all policy purposes. EU-SILC survey uses a definition based on human density.
2. Following the human density criterion is possible urban areas to be characterised as rural, especially in the case of densely populated areas that are part of regions dominated by mountains with small unincorporated communities.
3. Narrowly defined definitions can direct attention to specific populations; they also have the potential consequence of eliminating from policy eligibility places that should be covered.
4. The proposed 3-category breakdown, focusing on population density rather than on land use, has been retained by the Task Force because it is an acceptable compromise from a user point of view, because it doesn't necessitate additional burden on respondents or statistical offices and because this classification is currently already in use in several harmonised social surveys.

→ Additional information about the calculation of the variable: Degree of urbanisation (DEG_URB) .

Duration in childcare

Duration in childcare refers to the time spent in either formal or other type of childcare. The following classification for duration in childcare is used in EU-SILC datasets.

- Zero hours (H0)
- From 1 to 29 hours (H1-29)
- 30 hours or over (H_GE30)

With regard to its calculation, the following methodological issues should be taken into consideration:

1. Comparability is restricted across countries because of differences among countries due to the age of admission to compulsory primary education. This kind of lack of comparability will be quite difficult to reduce or eliminate, as it would imply a harmonisation of the national educational systems. In addition, the comparability is also restricted due to different length of maternity leave in the countries.
2. Formal childcare refers to the regulated childcare away from the child's home.
3. Formal childcare duration, which is used in this dataset, consists of the aggregate of the four EU – SILC variables: education at pre – school (RL010), education at compulsory education (RL020), childcare at centre – based services outside school hours (RL030) and childcare at day – care centre (RL040).
4. Formal childcare hours (Formal_Hours), which is used in this dataset, consists of the aggregate of the four EU – SILC variables: education at pre – school (RL010), education at compulsory education (RL020), childcare at centre – based services outside school hours (RL030) and childcare at day – care centre (RL040).
5. Other childcare duration, which is used in this dataset, consists of the aggregate of the two EU – SILC variables: child care by a professional child-minder at child's home or at child-minders's home (RL050), child care by grand-parents, other household members (outside parents), other relatives, friends or neighbours (RL060).

Duration in poverty

The dimension duration in poverty concerns the number of years spent in poverty within a four-year period, and is classified as follows in EU-SILC datasets.

- 1 year (Y1)
- 2 years (Y2)
- 3 years (Y3)

- 4 years (Y4)
- Never (NEV)

With regard to its calculation, the following methodological issues should be taken into consideration:

1. Income poverty risk at a given point in time may not necessarily imply low living standards in the short term, for example if the persons at-risk have access to savings, to credit, to private insurance, tax credits, to financial assistance from friends and relatives etc. In particular, the cumulative impact of extended periods at risk is to be further assessed.

Dwelling type

The following classification is used for dwelling type in EU-SILC datasets:

- Total (TOTAL)
- House (HOUSE)
- Detached house (HOUSE_D)
- Semi-detached house (HOUSE_SD)
- Flat (FLAT)
- Flat in a building with less than ten dwellings (FLAT_LT10)
- Flat in a building with ten or more dwellings (FLAT_GE10)
- Others (OTH)

With regard to its calculation, the following methodological issues should be taken into consideration:

1. Building is generally defined as a room of suite of rooms and its accessories (e.g. lobbies, corridors) in a permanent building or structurally separated part thereof which by the way it has been built, rebuilt, or converted is designed for habitation by one private household. It should have separate access to the street, direct or via a garden or grounds, or to a common space within the building (staircase, passage, gallery, etc.), but it need not necessarily have a bathroom or toilet available for the exclusive use of its occupants. Accommodations that are situated in buildings that are for use other than housing (schools) and fixed habitation like a hat or cave are included.
2. A building with two entrances will be considered as one single building if one can access all apartments from both entrances; otherwise, it will be two separate buildings.
3. House means that no internal space or maintenance and other services are normally shared with other dwellings. Sharing of a garden or other exterior areas is not precluded.
4. Apartments or flats in a building normally share some internal space or maintenance and other services with other units in the building.
5. Other kinds of accommodation includes accommodations that are situated in buildings that are for use other than housing (schools, . . .) and fixed habitations like a hut or a cave.

Education level

Educational level (attainment) of a person is the highest level of an educational programme the person has successfully completed and the study field of this programme.The expression 'level successfully completed' is associated with obtaining a certificate or a diploma when there is a certification. In cases where there is no certification, successful completion must be associated with full attendance or acquired competences to access the upper level. Persons who have not completed their studies should be coded according to the highest level they have completed. The classification used is the International Standard Classification of Education (ISCED) classification is used for the educational attainment of the respondent coded according to the seven ISCED-97 categories.

With regard to its calculation, the following methodological issues should be taken into consideration:

1. ISCED refers to the International Standard Classification of Education, developed by UNESCO. The version of the classification that is applied for this indicator follows the 1997 version of ISCED.
2. Due to the diversity of national education systems (with regard to curricula, compulsory schooling ages, equivalences between qualifications-and other elements) one should be careful in making cross-country comparisons.

Health status

The following classification is used for health status in EU-SILC:

- Very good (VGOOD)
- Good (GOOD)
- Fair (FAIR)
- Bad (BAD)
- Very bad (VBAD)

With regard to its calculation, the following methodological issues should be taken into consideration:

1. The measurement of self-perceived health is, by its very nature, subjective. The notion is restricted to an assessment coming from the individual and not from anyone outside that individual, whether an interviewer, health care worker or relative.
2. Self-perceived health is influenced by impressions or opinions from others, but is the result after these impressions have been processed by the individual relative to their own beliefs and attitudes. The reference is to health in general rather than the present state of health, as the question is not intended to measure temporary health problems. It is expected to include the different dimensions of health, i.e. physical, social and emotional function and biomedical signs and symptoms.

Highest education level of parents

Highest educational level of children's parents refers to children (persons aged 0-17) living in a household with one or both parents and to the highest level of education attained by (at least one of) the parents. The ISCED classification is used for the educational attainment of the parents.

The methodological issues referring to the dimension of parents highest educational level are:

1. Highest educational level of children's parents refers to children living in a household with one or both parents and to the highest level of education attained by (at least one of) the parents. Data are classified according to the International Standard Classification of Education (ISCED): low education corresponds to ISCED levels 0-2 (pre-primary, primary and lower secondary education); medium education corresponds to ISCED levels 3 and 4 (upper secondary and post-secondary non-tertiary education) and high education corresponds to ISCED levels 5 and 6 (tertiary education).
2. In face of the diversity of national education systems (with regard to curricula, compulsory schooling ages, equivalences between qualifications and other elements) one should be careful in making cross-country comparisons.
3. Persons who have never been in education (and/or illiterate) are excluded from the calculation of the indicator.

→ Additional information about the calculation of the variable: Highest Education Level of Children's Parents (HHISCED) .

Household type

The following classification for the household type is used in EU-SILC datasets.

- Total (TOTAL)
- Single Person (A1)
- One adult younger than 65 (A1_LT65)
- One adult older than 65 (A1_GE65)
- Single person with dependent children (A1_DCH)
- Single male (A1M)

- Single female (A1F)
- Two adults (A2)
- Two adults, no dependent children, younger than 65 years (A2_2LT65)
- Two adults, no dependent children, at least one adult 65 years or more (A2_GE1_GE65)
- Two adults with one dependent child (A2_1DCH)
- Two adults with two dependent children (A2_2DCH)
- Two adults with three or more dependent children (A2_GE3DCH)
- Two or more adults without dependent children (A_GE2_NDCH)
- Two or more adults with dependent children (A_GE2_DCH)
- Three or more adults, no dependent children (A_GE3)
- Three or more adults with dependent children (A_GE3_DCH)
- Households without dependent children (HH_NDCH)
- Households with dependent children (HH_DCH)
- Others (not possible to determine type) (UNK)

With regard to its calculation, the following methodological issues should be taken into consideration:

1. The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category “one adult, older than 65 years” and in the category “single person”.
2. The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
3. The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.
4. All persons aged less then 18 are considered as dependent children, plus those economically inactive aged 18-24 living with at least one of their parents.

→ Additional information about the calculation of the variable: Household type (HHTYP) .

Household type (children living with parents) The following classification for the household type for children living with parents is used in EU-SILC datasets.

- Child living with both married parents
- Child living with both parents cohabiting
- Child not living with parents
- Child living with a single parent

With regard to its calculation, the following methodological issues should be taken into consideration:

1. The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

→ Additional information about the calculation of the variable: Household type (HHTYP) .

Income quantile

Income quantile groups are computed on the basis of the total equivalised disposable income attributed to each member of the household.

In EU-SILC datasets, different cut-point values (the so-called cut-off points) of income are identified, dividing the survey population into equal groups. The quantiles used in EU-SILC datasets include: the median, tertiles, quintiles , deciles, and percentiles.

With regard to quintiles, the following methodological issues should be taken into consideration:

1. Income quintile groups are computed on the basis of the total equivalised disposable income attributed to each member of the household.
2. Persons have to be sorted according to their Equivalised disposable Income (EQ_INC) (after social transfers) (sorting order: lowest to highest value, household identification number and personal identification number).
3. The first quintile group represents 20 % of the population with the lowest income (an income smaller or equal to the first cut-off value), and the fifth quintile group represents the 20 % of population with the highest income (an income greater than the fourth cut-off value).

→ Additional information about the calculation of the variable: Income quantile .

Income transition from the previous year situation

The income transition classification is used in EU-SILC datasets:

- Transition to 1 income decile up (TO_1UP)
- Transition to more than 1 income decile up (TO_GT1UP)
- Transition to 1 income decile down (TO_1DW)
- Transition to more than 1 income decile down (TO_GT1DW)
- No change (NO_CHG)

NUTS region

NUTS region refers to the region of residence of the household at the date of interview. The standard nomenclature of territorial units for statistics (NUTS) is used.

The complete listing of NUTS regions is accessible under the following link: Complete listing of NUTS

With regard to its calculation, the following methodological issues should be taken into consideration:

1. One should be careful in making cross-country comparisons, because the number of regions per countries varies a great deal.
2. One issue in developing regional indicators concerns the choice of the type of units to serve as 'regions'. For a number of substantive and practical reasons, geographical-administrative regions, specifically NUTS regions at various level of classification, appear as the most appropriate choice for EU countries.
3. NUTS units are not defined in exactly the same way in different countries and can differ greatly in size and homogeneity.
4. From an analytical point of view, 2-digit level of NUTS is recommended. Note that for 1 in 3 EU countries the 2 digit level corresponds to the country level.

→ Additional information about the calculation of the variable: Nuts region .

Self-defined current economic status

The following classification is used for self-defined current economic status in EU-SILC datasets:

- Employee working full-time
- Employee working part-time
- Self-employed working full-time (including family worker)
- Self-employed working part-time (including family worker)
- Unemployed
- Pupil, student, further training, unpaid work experience
- In retirement or in early retirement or has given up business
- Permanently disabled or/and unfit to work
- In compulsory military community or service
- Fulfilling domestic tasks and care responsibilities
- Other inactive person

With regard to its calculation, the following methodological issues should be taken into consideration:

1. The adjusted self – defined current economic status variable is slightly different categorisation of the EU – SILC variable PL031 ('Self –defined current economic status'). The adjusted variable PL31 allows for 9 categories instead of the 11 categories of the initial variable PL031.
2. The target variable captures the person's own perception of their main activity at present. It differs from the ILO concept to the extent that people's own perception of their main status differs from the strict definitions used in the ILO definitions. For instance, many people who would regard themselves as full-time students or homemakers may be classified as ILO- employed if they have a part-time job. Similarly, some people who consider themselves 'unemployed' may not meet the strict ILO criteria of taking active steps to find work and being immediately available.
3. The self-declared main activity status is, in principle, the status that most time was spent on, but no criteria have been specified explicitly.

→ Additional information about the calculation of the variable: Self-defined working status (SELF_WSTATUS) .

Subjective and non-monetary indicator of making ends meet

The following levels of ability to make ends meet are used (SUBJNMON) in EU-SILC datasets:

- households making ends meet with great difficulty, with difficulty or with some difficulty (EM_GSD)
- households making ends meet fairly easily, easily or very easily (EM_FVE)
- households making ends meet with great difficulty (EM_GD)
- households making ends meet with difficulty (EM_D)
- households making ends meet with some difficulty (EM_SD)
- households making ends meet fairly easily (EM_FE)
- households making ends meet easily (EM_E)
- households making ends meet very easily (EM_VE)

With regard to its calculation, the following methodological issues should be taken into consideration:

1. The ability to make ends meet (HS120) aims to assess the respondent's feeling about the level of difficulty experienced by the household in making ends meet.
2. This assessment is based on the household's total income.

Tenure status

The following classification for the accommodation tenure status is used in EU-SILC datasets:

- Total (TOTAL)
- Owner, with mortgage or loan (OWN_L)
- Owner, no outstanding mortgage or housing loan (OWN_NL)
- Tenant, rent at market price (RENT_MKT)
- Tenant, rent at reduced price or free (RENT_FR)

With regard to its calculation, the following methodological issues should be taken into consideration:

1. The accommodation tenure status is assigned to each household member.
2. The variables used are HH020/HH021 in combination with HY100G/HY100N for distinguishing between owners with and without mortgage.

→ Additional information about the calculation of the variable: Tenure status (TENSTA_2) and (TENSTA).

Work intensity of the household

The following classification is used for the work intensity levels of the household in EU-SILC datasets:

- Work intensity other than very low [0.2 - 1] (NVLOW)
- Very high work intensity [0.85 - 1] (VHIGH)
- High work intensity [0.55 - 0.85] (HIGH)
- Medium work intensity [0.45 - 0.55] (MED)
- Low work intensity [0.2 -0.45] (LOW)
- Very low work intensity [0 - 0.2] (VLOW)

With regard to its calculation, the following methodological issues should be taken into consideration:

1. For each working age person (aged 18 to 64) in the household that is not classified as a dependent child, two figures are computed, using the calendar of activities of the previous year:

a) the number of months in the previous year which the person has given information about his/her activity status (the 'workable' months)

b) the number of months in the previous year for which the person has been classified as 'at work'

2. 'At work' comprises:

a) In paid employment, whether full-time or part-time

b) Including paid apprenticeship or training under special schemes related to employment

c) In self-employment (with or without employees)

d) Including unpaid work in family enterprise

3. Work intensity is measured at the household level.
4. When work intensity of the household can not be calculated then it is not included in the calculation of low work intensity

→ Additional information about the calculation of the variable: Work intensity (WI) .

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_-_definition_of_dimensions