



# METHODOLOGICAL EXPLANATION

## INCOME, POVERTY AND SOCIAL EXCLUSION INDICATORS

***This methodological explanation relates to the data releases:***

- Income, poverty and social exclusion indicators, Slovenia, annually (First Release)
- Income, poverty and social exclusion indicators, detailed data, Slovenia, annually (Electronic Release)

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## 1 PURPOSE

The purpose of publishing the data is to show the quality of life in Slovenia in view of allocation of disposable income among households, relative poverty and social exclusion for different socio-economic groups of persons and households and to highlight which groups of population are relatively worse off than the rest of the population and are thus more vulnerable to poverty, material deprivation and unemployment.

Key published statistics are:

- at-risk-of-poverty threshold
- at-risk-of-poverty rate (% and number of persons)
- at-risk-of-poverty or social exclusion rate (% and number of persons)
- severe material deprivation rate (% and number of persons)
- very low work intensity rate (% and number of persons)
- persistent at-risk-of-poverty rate (% and number of persons)
- S80/20 quintile share ratio
- Gini coefficient
- mean disposable income per household member
- mean equivalised disposable income per household member
- median disposable income per household member
- median equivalised disposable income

## 2 LEGAL BASIS

- [Annual Programme of Statistical Surveys \(LPSR\)](#) (only in Slovene)
- [National Statistics Act](#) (OJ RS, No. 45/95 and 9/01)
- [REGULATION \(EC\) No 1177/2003 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 June 2003 concerning Community statistics on income and living conditions \(EU-SILC\)](#) (CELEX: 32003R1177)
- Legal basis for ad hoc modules is listed in methodological explanations entitled »Living conditions« - hyperlink is listed in chapter »Other methodological materials«.

The Living Conditions Survey (SILC — Statistics on Income and Living Conditions) is a uniform source for calculating income, poverty and social exclusion indicators in the EU, so data from all EU Member States are directly comparable. In Slovenia, we started to implement it in 2005. The data source before the implementation of the SILC was the Household Budget Survey (HBS).

### **3 UNIT DESCRIBED BY THE PUBLISHED DATA**

Data on which the calculations are based refer either to households or to household members, while almost all of the indicators are defined at the level of an individual, i.e. they are calculated for a person and not for a household. The indicators are calculated with the help of weights for the total population living in private households in Slovenia.

Main observed characteristics of households are work intensity, accommodation tenure status, household type and disposable household income. Main observed characteristics of persons are age and gender, educational attainment level, most frequent activity status and income class. In most breakdowns the percentage and number of persons below the at-risk-of-poverty threshold are published.

### **4 SELECTION OF OBSERVATION UNIT**

Observation units are all household members who participated in the Living Conditions Survey (SILC). The survey only covers private households. Persons living in collective households (e.g. old people's homes, social-welfare institutions, student accommodations, prisons, monasteries, etc.) are not included in the survey.

The basic source for the sampling frame of the SILC is the Central Population Register, which is supplemented with the data from the Real Estate Register, the Register of Households and with the survey data from previous years. The sampling frame consists of persons who are at the time of sample selection residents of the Republic of Slovenia, are aged 16 or more and don't live in institutions (collective households).

Sample design is two-stage stratified sample. In each stratum we initially select the primary sampling units (PSU) and then in each selected PSU we select the persons. For selection of the PSUs explicit stratification by type of settlements (6 strata) and implicit stratification by NUTS3 regions is used. Each selected person leads us to the households in which we interview all household members (if the household is appropriate for interviewing).

Sample design is based on a four-year rotational scheme. Selected households are kept in the sample four consecutive years, meaning that each sample consists of four rotational groups. Each year one rotational group is excluded from the sample, while one new rotational group is included. Each rotational group must be representative for the target population.

Gross sample size is approximately 12,500 households. Because some of the selected households refuse to take part in the survey or cannot be contacted or are not eligible, the final, net sample consists of approximately 9,000 households and of approximately 28,000 persons.

**Table 1:** Number of households and persons participating in SILC

<b>SILC survey year</b>	<b>Number of households</b>	<b>Number of persons</b>
2005	8,287	27,679
2006	9,478	31,276
2007	8,707	28,570
2008	9,028	28,958
2009	9,282	29,576
2010	9,364	29,520
2011	9,247	28,747
2012	9,205	28,064
2013	9,001	27,265
2014	9,189	27,697
2015	8,685	26,150
2016	8,585	25,637
2017	8,801	26,306

Source: SURS

## 5 SOURCES AND METHODS OF DATA COLLECTION

The source for calculating the income, poverty and social exclusion indicators is data from the annual Living Conditions Survey (SILC — Statistics on Income and Living Conditions). It is a uniform source for calculating income, poverty and social exclusion indicators in the EU, which is based on European Commission regulations, so data from all EU Member States are directly comparable. In Slovenia, we started to implement it in 2005. The data source before the implementation of the SILC was the Household Budget Survey (HBS).

Data for the SILC survey come from two sources: **the Living Conditions Survey** (SILC survey year) and **the register and administrative data** for the year prior to the survey (income reference year). The data that refer to income and some other information are gathered from the existing registers and administrative records and we link them to the survey results. The use of registers and administrative sources not only facilitates the reduction of the reporting burden, but it also helps cut down the survey expenses.

**The questionnaire** contains three larger sets of questions. The first part contains the introductory questions, where we find out if the household is appropriate for interviewing (if the selected person lives at the address), and the so-called register of persons, where we collect the basic data about all persons living in the household. It is followed by questions for the household as a whole and at the end by questions for selected persons. In addition to the standard questions that are asked every year, we include an additional set of questions (ad hoc module) specific for each year, with which we collect data that further highlight the living conditions of people.

**Register and administrative data** used in this survey are submitted to the Statistical Office by institutions collecting the data for their purposes:

- Financial Administration of the Republic of Slovenia (FURS): income tax register and other sources

- Employment Service of Slovenia (ZRSZ): unemployment benefits, financial aid, register of unemployed persons
- Ministry of Labour, Family, Social Affairs and Equal Opportunities (MDDSZ): family income, social benefits
- Agency for Agricultural Markets and Rural Development (ARSKTRP): agricultural subsidies
- Pension and Disability Insurance Institute (ZPIZ): pensions and other sources
- Health Insurance Institute of Slovenia (ZZZS): status of inactive persons
- Ministry of the Interior (MNZ): Central Population Register (demographic data), Records of Households

The Statistical Register of Employment (SRDAP) and the Structure of Population (DEM-PREB/ČL) are own sources of SURS.

## 6 DEFINITIONS

**Households** are composed of families or other communities of persons who live together and spend their income together (for dwelling, food, other), irrespective of whether all members have permanent residence in the place in which the household is located, or whether - due to work, schooling or other reasons - some of the members for a longer period of time (up to 6 months) live elsewhere in Slovenia or abroad.

Students are household members if they live in a boarding home, in a rented dwelling, etc., and have regular contacts with household members. Students are not household members only in case they have their own household and come home only to visit. Students who study elsewhere (study exchange) and/or study abroad are household members in case the entire (not interrupted) duration of their absence is no longer than 6 months.

The Living Conditions Survey (SILC) only covers private households. People who live in collective households such as old people's homes, social-welfare institutions, student accommodations, prisons, monasteries, etc. are not included.

### RELATIVE POVERTY

The data on the at-risk-of-poverty rate are relative because the at-risk-of-poverty threshold is not predetermined, e.g. as a basket of goods or as an absolute amount necessary for survival. The threshold is calculated each year according to the methodology that is the same in all EU Member States. It depends on the amount and distribution of income among households and the number and age (adults, children) of household members covered by the survey. The threshold is determined by calculating for all households the disposable income per equivalent adult household member, attributing it to all household members and distributing all persons in the sample by the amount of this income. In determining the person in the middle of the distribution, we take into account weights with which the data on the number of persons in a sample are grossed up to the total population living in private households in Slovenia. Income of a person in the middle of the distribution is the median value and 60% of the median is determined as the at-risk-of-poverty threshold. So everyone living in households with income per equivalent adult member below the threshold is at-risk-of-poverty. The rate calculated in this way does not indicate absolute poverty but measures inequality within a population. It does not show how many people are actually poor but how many of them have income below the threshold; it reflects the distribution of income among the population and does not take into account price trends, housing conditions, wealth and other factors influencing people's living standard.

## INCOME

The calculations are based on annual disposable household income (income in cash). Disposable household income in cash includes net incomes of all household members (employee cash or near cash income, including supplement for meals and transport to work, cash benefits or losses from self-employment, pensions, unemployment benefits, sickness benefits, education-related allowances, family allowances and social benefits, interests, dividends, regular inter-household cash transfers received) less regular inter-household cash transfers paid and regular taxes on wealth, including compensation for the use of building land. To income in cash calculated in this way part of income in kind (benefit for the use of company car for private purposes and the value of withdrawals from a business by a self-employed person) is added.

For the 2005-2012 period, indicators for two concepts of income – i.e. »income in cash« and »income in cash + in kind« – were published in the SI-STAT Database. The latter differs from the former in including the value of products consumed from own production (garden, farm, orchard) into income. In view of the declining share of own production in household income, the declining difference in the at-risk-of-poverty rate between the two concepts of income and the harmonisation with Eurostat, which publishes only indicators for »income in cash« (i.e. excluding income in kind), from the release of the 2013 data on we also publish only indicators for »income in cash«. The tables for »income in cash + in kind« for the 2005–2012 period are still available under archive data (chapter: [Income and poverty indicators \(SILC\), income in cash + in kind, 2005–2012](#)).

The **AT-RISK-OF-POVERTY THRESHOLD** is defined as 60% of median equivalised disposable income of all households using the OECD modified equivalence scale. It is published for a one-person household, a two-person household (two adults) and a four-person household (two adults and two children under the age of 14).

The at-risk-of-poverty threshold for any household is calculated by multiplying the threshold for a one-person household by the number of equivalent adult members in that household. The threshold for two adults is calculated by multiplying the threshold for a one-person household by 1.5 and the threshold for two adults and two children is calculated by multiplying the threshold for a one-person household by 2.1.

The at-risk-of-poverty threshold is converted into euros and purchasing power standards by Eurostat exchange rate for the income reference year, which differs slightly from the exchange rate of the Bank of Slovenia. For SILC 2007 the data on income for 2006 were converted into euros. The income data from 2007 on (SILC 2008) are already in euros.

If the at-risk-of-poverty threshold in euros is compared between countries, the differences in price levels between countries are not taken into account. Therefore, it is converted from euros (EUR) into purchasing power standard (PPS). Spatial deflators and currency converters which eliminate the effects of the differences in price levels between countries are the purchasing power parities (PPPs). When countries have a common currency, PPPs only have the function of spatial price deflators. PPPs are expressed in different agreed currencies and one of these agreed currencies is the PPS. The PPS is an artificial, fictive currency which at the level of the EU equals one euro. For conversion of the at-risk-of-poverty threshold for 2005 and 2006 into PPS the exchange rate was used according to which 1 PPS equals 1 euro at the level of EU-25 and reflects the average price level in the EU-25; for the 2007–2013 period the

exchange rate was used according to which 1 PPS equals 1 euro at the level of EU-27 and reflects the average price level in the EU-27; from 2014 on the exchange rate was used according to which 1 PPS equals 1 euro at the level of EU-28 and reflects the average price level in the EU-28.

### **EQUIVALENCE SCALE**

In order to be able to compare the level of living for different households, we have to take into account their size and structure. For this reason we use equivalence scales, which take into consideration the economy of scale. We have used the OECD modified scale for the calculation of the income per equivalent adult member. The scale gives to the first adult in the household weight 1, to every other person aged 14 or more weight 0.5 and to children under 14 weight 0.3.

A four-member household of two adults and two children thus has 2.1 equivalent adult household members (calculation:  $1 \times 1 + 1 \times 0.5 + 2 \times 0.3 = 2.1$ ), a couple of adults without children has 1.5 equivalent adult household members (calculation:  $1 \times 1 + 1 \times 0.5 = 1.5$ ). Income per equivalent adult household member is calculated by adding income of all household members and dividing it by the number of equivalent adult household members.

### **AT-RISK-OF-POVERTY RATE**

**AT-RISK-OF-POVERTY RATE** is the percentage of persons living in households where the equivalised total disposable household income is below the threshold.

**AT-RISK-OF-POVERTY RATE BY MOST FREQUENT ACTIVITY STATUS** is calculated according to the prevailing activity status in the whole year, for persons aged 16 or more. People under the age of 16 are not taken into account in calculating this indicator. The prevailing activity status of a person is the status which a person had for at least seven months in the income reference year. Persons whose most frequent activity status was not determined for at least seven months in the year are excluded from the calculation of this indicator. Employed are those who were employees or self-employed for at least seven months in the year. Not employed are those who were unemployed, retired or other inactive for at least seven months in the year. Other inactive persons are homemakers, pupils, students, persons who are unable to work and other inactive persons.

Changes of this indicator are explained in detail in chapter Breaks in time series.

### **AT-RISK-OF-POVERTY RATE BY WORK INTENSITY OF THE HOUSEHOLD**

**The work intensity of the household** refers to the number of months that all working age (18-64, except dependent children) household members have been working during the income reference year as a proportion of the total number of months that could theoretically be worked by the same working age household members within the household. If the work intensity of the household is 0, no one of the working age household members worked even one month per year. If the work intensity of the household is 1, all working age household members worked all year. Partly work intensive households are those in which at least one working age member was working

at least part of the year (e.g. one person employed for the whole year, the other person employed for a part of the year and unemployed for a part of the year).

Work intensity of households is determined in view of the activity of adults; members able to work (in calculation dependent children and household members aged 64+ are not taken into account). The calculated work intensity of a household is given to all household members, irrespective of age, so that work intensity is the same for all members of the same household. After work intensity is determined for households, for calculating the at-risk-of-poverty rate all household members are taken into account. Households with only students (current activity status) aged 18-24 and households with only persons aged 64 years or more are not taken into account in calculating the indicator.

### **AT-RISK-OF-POVERTY RATE BY HOUSEHOLD TYPE**

**Household type** is defined according to the number of adults and the number of dependent children in the household. Dependent children are defined as household members below 18 years of age, or household members aged 18 to 24 if they are living with at least one parent and are not employed. All other household members are adults. A child between 18 and 24 years of age who is employed is counted as an adult.

**AT-RISK-OF-POVERTY RATE BY ACCOMMODATION TENURE STATUS OF THE HOUSEHOLD** is calculated for persons living in owned or rent-free apartments and for persons living in rented apartments. Users of apartments are persons living, for example, in apartments of relatives, acquaintances, friends, and not paying rent.

Changes of this indicator are explained in detail in chapter Breaks in time series.

The basic at-risk-of-poverty rate is calculated for the 60% at-risk-of-poverty threshold. The at-risk-of-poverty rates for 40%, 50% and 70% thresholds are shown in the indicator **DISPERSION AROUND THE AT-RISK-OF-POVERTY THRESHOLD**.

**AT-RISK-OF-POVERTY RATE ANCHORED AT A FIXED MOMENT IN TIME** is the percentage of persons whose equivalised disposable income in an income reference year (survey year – 1) was below the at-risk-of-poverty threshold from the base year (2005 or 2008).

**AT-RISK-OF-POVERTY RATE BEFORE SOCIAL TRANSFERS** is based on the same at-risk-of-poverty threshold as the at-risk-of-poverty rate, only social transfers (e.g. unemployment insurance, paid sick leave compensation, scholarship, child allowance, maternity leave compensation, adoptive parents' compensation, allowance for nursing a child, assistance for goods for a new-born child, large family allowance, fathers' compensation, parental allowance, financial social assistance, allowance for help and care, housing subsidies, disability benefits, old-age benefits, survivors' benefits) are subtracted from total income. It is calculated using two definitions of income, depending on whether pensions are considered as social transfers or not: only » family benefits, disability pensions and other social transfers« or »social transfers including all pensions (old-age and survivors' benefits)« are subtracted from total income.

**PERSISTENT AT-RISK-OF-POVERTY RATE** is the percentage of persons who were below the at-risk-of-poverty threshold in the last income reference year and at least two out of the preceding three years. For classifying persons above or below the at-risk-of-poverty rate in four consecutive years, the data for calculating the at-risk-of-poverty rate in an individual year (equivalised disposable income, household members, at-risk-of-poverty threshold) are used. The Persistent at-risk-of-poverty rate is calculated only for persons who were members of the household in all four years. In tables they are classified into age classes by age in the last year.

## **DISTRIBUTION OF INCOME**

**RELATIVE AT-RISK-OF-POVERTY GAP** is the difference between the at-risk-of-poverty threshold and median equivalised income of persons below the at-risk-of-poverty threshold, expressed as a percentage of the at-risk-of-poverty threshold.

**Inequality of income distribution** is measured by S80/S20 quintile share ratio and Gini coefficient. The higher they are the greater is the income inequality among households.

**S80/S20 QUINTILE SHARE RATIO** is the ratio between the sum of equivalised disposable household income of the top 20% of the income distribution to the bottom 20%. The persons are divided into five quintiles according to the disposable income per equivalent adult household member. The first quintile includes 20% of persons from the households with the lowest equivalised income; the fifth quintile includes 20% of persons from the households with the highest equivalised income.

**GINI COEFFICIENT** is the measure of income concentration. Its value is between 0 and 1 or between 0 and 100% when it is shown in percent. If its value was 0, income would be distributed equally (everyone would have the same income). If its value was 1 (or 100%), income would be distributed completely unequally (one person would have all the income). The closer the Gini coefficient is to 1 (or 100%), the more unequal the income distribution is, the closer the Gini coefficient is to 0, the more equal the income distribution is.

Income distribution is shown graphically with the Lorenz curve. To draw the curve, the horizontal x axis shows cumulative shares of persons (%) and the vertical y axis shows the cumulative share of income (%) available to these persons. The Gini coefficient equals the ratio of the area between the diagonal of perfect equality and the Lorenz curve to the area below the diagonal of perfect equality. The more the Lorenz curve draws closer to the diagonal, the more equal is the distribution of income among the observed population.

**AGGREGATE REPLACEMENT RATIO** is the ratio of the median income from pensions of retired persons aged 65-74 to the median income from earnings of persons aged 50-59. For this indicator personal (non-equivalised) income is used. Only persons who have been retired or employed for all the months in the income reference period are considered for this indicator. The ratio is calculated for gross and net income.

**RELATIVE MEDIAN INCOME RATIO** is the ratio of the median equivalised disposable income of persons aged above the specified age limit (e.g. age over 65) to the median equivalised disposable income of persons in complementary age groups (e.g. age under 65) or age group from 45 to 54 years.

#### **MEAN INCOME AND MEDIAN INCOME**

**Mean income per household member** is the ratio of the income in an individual breakdown to the number of persons (living in private households) in the same breakdown.

**Mean equivalised income per household member** is the ratio of the sum of equivalised income in an individual breakdown and the number of persons (living in private households) in the same breakdown. In calculating the average, for income before social transfers the same number of persons is taken into account as for income after social transfers in an individual breakdown.

For calculating the median income, persons in individual breakdowns are divided regarding equivalised income or income per household member from the lowest to the highest. **Median equivalised income** is equivalised income of the person in the middle of the distribution while **median income per household member** is income of the person in the middle of the distribution. In calculating the median, for income before social transfers the same number of persons is taken into account as for income after social transfers in an individual breakdown, so in some breakdowns for income before social transfers the value can be very low or even negative.

#### **MEAN DISPOSABLE HOUSEHOLD INCOME BY TYPE OF INCOME**

Household income is composed of several types of income: income from work (income from employment, income from self-employment), pensions, family and social benefits (unemployment benefits, disability benefits, scholarships, other social benefits) and other income (e.g. capital income, difference between inter-household transfers received and paid, income of children, regular taxes on wealth, difference between repayments and receipts of income tax).

**Mean income per household (by type of income)** is the ratio of the sum of an individual type of income and the number of private households in Slovenia.

**Mean income per household member (by type of income)** is the ratio of the sum of an individual type of income and the number of persons living in private households in Slovenia.

**Mean equivalised income per household member (by type of income)** is the ratio of the sum of an individual type of equivalised income and the number of persons living private households in Slovenia.

**MEAN DISPOSABLE HOUSEHOLD INCOME BY INCOME QUINTILES AND BY INCOME DECILES (by type of income)** is calculated in the same way as for Slovenia, but the sum of an individual type of income or equivalised income is divided by the number of persons in an individual quintile or decile.

**TOP CUT-OFF POINTS OF INCOME QUANTILES** (quintiles and deciles) are calculated for equivalised income and income per household member. All persons from the SILC survey are classified by equivalised income or income per household member from the lowest to the highest. Quintiles cover 20% of all persons each and deciles cover 10% of all persons each. The first quintile includes 20% of persons from the households with the lowest income; the fifth quintile includes 20% of persons from the households with the highest income. The first decile includes 10% of persons from the households with the lowest income; the tenth decile includes 10% of persons from the households with the highest income.

**DISTRIBUTION OF HOUSEHOLD DISPOSABLE INCOME BY INCOME QUANTILES** shows the structure of equivalised income and the structure of income per household member by quintiles and deciles.

### **MATERIAL DEPRIVATION**

**Material deprivation rate** is defined as the percentage of materially deprived persons. Materially deprived persons are those living in households that cannot afford at least three or at least four of the nine deprivation items due to lack of financial resources, irrespective of persons' preference with respect to these items. The percentage of persons materially deprived for at least four of the nine deprivation items is called "severe material deprivation rate" (also published in chapter EU 2020 indicators).

**Intensity of material deprivation** is defined as the mean number of items lacked by persons considered as deprived in the 'economic strain and durables' dimension. The calculation takes into account only persons with an enforced lack of at least three or at least four out of nine material deprivation items.

The nine items concerned are:

- 1) Arrears on mortgage or rent payments, utility bills, hire purchase instalments or other loan payments;
- 2) Capacity to afford paying for one week's (7 days) annual holiday away from home for all household members (including in own of trade-union holiday home/apartment, at friends, relatives, acquaintances);
- 3) Capacity to afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day;
- 4) Capacity to face unexpected financial expenses (without borrowing money or raising loans) – amount corresponding to the monthly national at-risk-of-poverty threshold of the previous year;
- 5) Household cannot afford a telephone (including mobile phone);
- 6) Household cannot afford a colour TV;
- 7) Household cannot afford a washing machine;
- 8) Household cannot afford a car and
- 9) Ability of the household to pay for keeping its home adequately warm.

**At-risk-of-poverty status** for these indicators is defined by whether the person is below or above the at-risk-of-poverty threshold. People are below the at-risk-of-poverty threshold if their equivalised disposable income is lower than the at-risk-of-poverty threshold and above the at-risk-of-poverty threshold if their equivalised disposable income is equal or above the at-risk-of-poverty threshold.

Changes of this indicators are explained in detail in chapter Breaks in time series.

## EU 2020 INDICATORS

**At-risk-of-poverty or social exclusion rate** is the percentage of people who are at risk of poverty or severely materially deprived or living in households with very low work intensity. Persons are only counted once even if they are present in two or three sub-indicators. The percentage of persons and estimated number of persons who are at-risk-of-poverty or social exclusion is published.

**At-risk-of-poverty rate** is the percentage of persons with an equivalised disposable income (after social transfers) below the risk-of-poverty threshold, which is set at 60% of the national median equivalised disposable income.

**Severe material deprivation rate** is the percentage of persons living in households whose living conditions are severely constrained by a lack of financial resources, irrespective of persons' preference with respect to these items. They experience at least four out of nine following deprivations items: cannot afford 1) to pay rent or mortgage, utility bills, loan payments, 2) to keep home adequately warm, 3) to face unexpected financial expenses, 4) to eat meat, fish or a protein equivalent every second day, 5) a week holiday away from home, 6) a car, 7) a washing machine, 8) a colour TV, or 9) a telephone. The deprivation items are the same as in the indicator "material deprivation rate".

**Very low work intensity rate** is the percentage of persons aged 0-59 living in households where the adults (aged 18-59) worked less than 20% of their total work potential (expressed in months) during the past year (income reference year); work intensity of these households was 0 to 0.2.

Households are first assigned their work intensity. In calculating work intensity for this indicator dependent children and household members aged 59+ are not taken into account. The calculated work intensity is assigned to all household members aged 0–59 (including dependent children), so that work intensity is the same for all members in the same household (except those aged 59+). In calculating the very low work intensity rate all persons aged 0–59 for whom we have the data on work intensity are taken into account. Households with students only (current activity status) aged 18–24 and households with persons over 59 only are not taken into account.

## OVERCROWDING

**Overcrowding rate** is the percentage of persons living in dwellings with not enough rooms in view of the number of household members. The dwelling is overcrowded if it does not have one room per household and at the same time one room per couple in the household, one room for each single person aged 18 or more, one room per pair of single persons of the same gender between 12 and 17 years of age, one room for each single person between 12 and 17 years of age and not included in the previous category, and one room per pair of children under 12 years of age. A kitchen is not counted as a room.

Changes of this indicator are explained in detail in chapter Breaks in time series.

## HOUSING DEPRIVATION

**Housing deprivation rate by item** is the percentage of persons who are deprived of each housing deprivation item. The indicator is calculated for the following items:

- 1) Bad dwelling conditions (the percentage of persons living in dwellings with leaking roof, damp walls/floor/foundation or rot in window frames/floor);
- 2) Bath or shower in the dwelling (the percentage of persons who do not have a bath or shower in the dwelling);
- 3) Indoor flushing toilet for sole use of the household (the percentage of persons who do not have indoor flushing toilet for sole use of the household);
- 4) Too dark dwelling (the percentage of persons considering their dwelling as too dark, not having enough daylight).

**Housing deprivation rate by number of items** is the percentage of persons deprived of 1, 2, 3 or 4 housing deprivation items. We also publish the percentage of persons who are not deprived of none of the mentioned four items (0 items).

Changes of this indicators are explained in detail in chapter Breaks in time series.

## HOUSING COSTS

**Housing cost overburden rate** is the percentage of persons living in households where the total housing costs (net of housing allowances) represent more than 40% of the total disposable household income (net of housing allowances). In the calculation of the housing cost burden all annual costs connected with the household's right to live in the accommodation are included (housing and mortgage interest payment, rental payments, structural insurance, regular maintenance and repairs, services and charges - sewage removal, refuse removal and the costs of utilities - water, electricity, gas, heating, etc.), net of housing allowances. Housing cost burden (the share of housing costs in the total disposable household income) is the same for all of the persons in the same household.

**Median of the housing cost burden distribution** is the median (middle value) of the distribution of the share of total housing costs (net of housing allowances) in the total disposable household income (net of housing allowances). 12% e.g. means that half of all persons spend more than 12% of disposable household income for housing costs and half spend less. All persons are distributed from the lowest to the highest housing cost burden. The share of the person in the middle of the distribution is the median of the housing cost burden.

## 7 EXPLANATIONS

### 7.1 CLASSIFICATIONS

The indicators are broken down by cohesion and statistical regions, in accordance with the Nomenclature of Territorial Units for Statistics in the European Union (NUTS). Data are published at NUTS 2 and NUTS 3. Interpretation of classifications is available at:

<http://www.stat.si/statweb/en/Methods/Classifications>

Indicators »At-Risk-of-Poverty or Social Exclusion Rate«, »At-Risk-of-Poverty Rate«, »Severe Material Deprivation Rate«, »Material Deprivation Rate«, »Very Low Work

Intensity Rate«, »At-Risk-of-Poverty Rate Before Social Transfers«, »Disposable Household Income« and »Overcrowding Rate« are published by cohesion and statistical regions (percentage and the number of people). Indicators by cohesion and statistical regions are published in chapters [At-risk-of-poverty rate](#), [Distribution of income](#), [Material deprivation](#), [EU 2020 indicators](#) and [Overcrowding](#).

## 7.2 DATA PROCESSING

In Living Conditions Survey data processing we use statistical data editing and weighting.

### WEIGHTING

With weighting adjustment we want to achieve representatives of the sample, so that the weighted data give us as good population estimates as possible.

The process of weighting depends on the sampling design, the unit nonresponse rate and available auxiliary variables used for calibration.

The final weight is the product of the sampling weight, the nonresponse weight and the calibration factor.

The weights are calculated at the level of the household, the person and the selected person. For each level we calculate:

- temporary and final weights
- cross-sectional and longitudinal weights

In the case of longitudinal weights we calculate:

- longitudinal weights for the 2-year panel
- longitudinal weights for the 3-year panel
- longitudinal weights for the 4-year panel

Specific, cross-sectional weights for the population aged 0-16 years (weight of children) are calculated separately.

### STATISTICAL DATA EDITING

Data are statistically edited with the combination of systematic corrections and imputation procedures. The following imputation methods are used: logical imputations, mean imputations, hot-deck imputations, and historical imputations. The process enables the calculation of quality indicators.

For more, see the general methodological explanations [Statistical data editing](#).

### 7.3 PRECISION

In statistical surveys different kinds of errors can occur (e.g. sampling error, non-response error, measurement error) influencing the accuracy of the statistical results. Errors deriving from the random mechanisms determine the precision of the statistical estimates. The Statistical Office of the Republic of Slovenia draws attention to less precise estimates by flagging them with a special sign or by not publishing them at all.

In publishing the indicators of income, poverty and social exclusion from SILC, Eurostat's rules of publishing are taken into account. The minimum precision requirement concerning publication of data collected is expressed in terms of number of sample observations on which statistics is based and the level of item non-response (additional to total non-response at unit level). An estimate is not published (N – too imprecise estimate to be published) if it is based on fewer than 20 sample observations or if the non-response for the item concerned exceeds 50%. An estimate is published with a flag (M – less precise estimate, to be used with caution) if it is based on 20 to 49 sample observations or if non-response for the item concerned exceeds 20% and is lower or equal to 50%. An estimate is published in the normal way when based on 50 or more sample observations and the item's non-response does not exceed 20%.

Less precise statistical estimates occur at the following indicators:

- at-risk-of-poverty rate by most frequent activity status
- at-risk-of-poverty rate by work intensity of the household
- at-risk-of-poverty rate by accommodation tenure status
- disposable household income by most frequent activity status, age and gender
- disposable household income by accommodation tenure status, age and gender
- overcrowding rate by household type
- overcrowding rate by accommodation tenure status
- housing cost overburden rate by household type

For more, see the general methodological explanations [Precision of statistical estimates](#).

### 7.4 OTHER EXPLANATIONS

Some totals of the published data do not add up due to rounding.

#### **At-risk-of-poverty threshold**

The source for the PPS exchange rate is Eurostat's table »Purchasing power parities (PPPs), price level indices and real expenditures for ESA2010 aggregates [prc\_ppp\_ind]«, for the aggregate »household final consumption expenditure«, published on the Eurostat website: economy and finance / prices / purchasing power parities. Exchange rates used were published on the Eurostat website during the preparation of the first release of indicators from the SILC for individual years.

**Table 2: Exchange rates used in SILC**

SILC survey year	1 EUR to SIT	1 PPS to SIT	1 PPS to EUR
2005	239.087	181.686	
2006	239.568	183.660	
2007	239.596	/	0.7667
2008	/	/	0.7902
2009	/	/	0.8230
2010	/	/	0.8438
2011	/	/	0.8458
2012	/	/	0.8582
2013	/	/	0.8296
2014	/	/	0.8312
2015	/	/	0.8165
2016	/	/	0.7953
2017	/	/	0.8163

Source: Eurostat

**At-risk-of-poverty rate anchored at a fixed moment in time (base year = 2005)**

The 2005 threshold (SIT 1,261,989 or EUR 5,278) is recalculated to the SILC survey year by means of the harmonized index of consumer prices (HICP). HICP for the SILC survey year for 2005-2014 is taken from Eurostat's web page: economy and finance / prices / harmonised indices of consumer prices / harmonised indices of consumer prices (2005=100) – annual data / COICOP: CP00 (All-items HICP) / annual average index.

**Table 3: Consumer price indices, used for the calculation of the at-risk-of-poverty threshold from the base year 2005 to the SILC survey year**

SILC survey year	HICP
2005	100.00
2006	102.54
2007	106.39
2008	112.28
2009	113.25
2010	115.62
2011	118.03
2012	121.35
2013	123.68
2014	124.14
2015	123.20
2016	122.98
2017	124.89

Source: Eurostat

#### At-risk-of-poverty rate anchored at a fixed moment in time (base year = 2008)

The 2008 threshold (EUR 6,536) is recalculated to the income reference year by means of the harmonized index of consumer prices (HICP). HICP for the income reference year (2007–2013) is taken from Eurostat's web page: economy and finance / prices / harmonised indices of consumer prices / harmonised indices of consumer prices (2005=100) – annual data / COICOP: CP00 (All-items HICP) / annual average index.

**Table 4:** Consumer price indices, used for the calculation of the at-risk-of-poverty threshold from the base year 2008 to the income reference year (SILC survey year – 1)

SILC survey year	SILC income reference year	HICP
2008	2007	100.00
2009	2008	105.54
2010	2009	106.45
2011	2010	108.68
2012	2011	110.94
2013	2012	114.06
2014	2013	116.25
2015	2014	116.67
2016	2015	115.71
2017	2016	115.54

Source: Eurostat

#### Persistent at-risk-of-poverty rate

**Table 5:** At-risk-of-poverty threshold for the calculation of the persistent at-risk-of-poverty rate

SILC survey year	Annual at-risk-of-poverty threshold (EUR)
2005	5,278
2006	5,590
2007	5,944
2008	6,536
2009	7,118
2010	7,042
2011	7,199
2012	7,273
2013	7,111
2014	7,146
2015	7,399
2016	7,396
2017	7,628

Source: SURS

### **Mean income and median income**

In calculating the average income per household member and the median income, we derive from the income for the entire household; it is not actual income of individual household members, since in the calculation all income of all household members as well as persons who had no income is taken into account.

The data on income for calculating poverty and social exclusion indicators for year t (SILC survey year) are from year t-1 (SILC income reference year).

**Mean income and median income** are calculated for household disposable income according to the following breakdowns: inclusion of social transfers and gender; income groups (above or below a certain amount of equivalised income) and gender; age and gender; educational attainment level, age and gender; most frequent activity status, age and gender of persons; accommodation tenure status of the household, age and gender of persons; cohesion regions and statistical regions.

### **The length of the time series**

The published results refer to individual survey years and entire country. Most of the indicators in the SI-STAT Database refer to 2005 and on. The indicators »Persistent At-Risk-of-Poverty Rate«, »Housing Cost Overburden Rate«, »Median of the Housing Cost Burden Distribution«, the data on household income and the indicators broken down by cohesion and statistical regions refer to 2008 and on. Due to the break in time series, the indicator »Overcrowding Rate« by cohesion and statistical regions refers to 2011 and on. Indicators from the Household Budget Survey (HBS) are published for the 1997-2004 period.

## **8 PUBLISHING**

Data are published:

### **Annually:**

- SI-STAT Database: Demography and social statistics – Level of Living – Poverty and social exclusion (SILC): [At-risk-of-poverty threshold](#), [At-risk-of-poverty rate](#), [Distribution of income](#), [Material deprivation](#), [EU 2020 indicators](#). Data are published in percent (% of persons) and absolute numbers (number of persons, currency unit), by age and gender, educational attainment level, most frequent activity status, work intensity of the household, household type, accommodation tenure status of the household, for income after social transfers and income before social transfers, by income groups. Data by cohesion and statistical regions are published according to the Nomenclature of Territorial Units for Statistics (NUTS) NUTS 2 and NUTS 3.
- SI-STAT Database: Demography and social statistics – Level of Living – Poverty and social exclusion (SILC): [Housing deprivation](#), [Overcrowding](#). Data are published in percent (% of persons) and absolute numbers (number of persons, currency unit), by age and gender, household type, accommodation tenure status of the household and household's income. Data by cohesion and statistical regions are published according to the Nomenclature of Territorial Units for Statistics (NUTS) NUTS 2 and NUTS 3.

- SI-STAT Database: Demography and social statistics – Level of Living – Poverty and social exclusion (SILC): [Housing costs](#). Data are published in percent (% of persons) and absolute numbers (number of persons, currency unit), by age and gender, household type, accommodation tenure status of the household and household's income.
- First Release (Quality of Life, Income, poverty and Social Exclusion): »Income, poverty and social exclusion indicators, Slovenia, annually«.
- Electronic Release (Quality of Life, Income, poverty and Social Exclusion): »Income, poverty and social exclusion indicators, detailed data, Slovenia, annually«.
- Special Release (Quality of Life, Income, poverty and Social Exclusion): »International Day for the Eradication of Poverty«.
- Statøbook.
- Institute of Macroeconomic Analysis and Development (IMAD).
- Social Protection Institute of the Republic of Slovenia (IRSSV).
- Eurostat: Official EU statistical data.
- The Organisation for Economic Co-operation and Development (OECD).
- Regions in Figures.
- Better, Worse, Average. Statistical Portrait of Slovenia in the International Community

Before the introduction of the Living Conditions Survey (SILC) the source for calculating income and poverty indicators was the Household Budget Survey (HBS). Tables for the 1997-2004 period were stored among archive data (chapter: [Income and poverty indicators \(HBS\), 1997–2004](#)).

## 9 REVISION OF THE DATA

### 9.1 PUBLISHING OF PRELIMINARY AND FINAL DATA

Data revision is planned. Due to the needs of users for timely information, provisional data are published in the First Release »Living conditions« that meet the criteria of the quality of official statistical data but do not meet the quality that can be met with complete coverage. In this release we publish only the data that are collected with a survey questionnaire. Later we add to these data additional data from registers and administrative sources, because recent, completed and more quality data respectively can significantly contribute to the quality of data-based decision-making and when due to publication deadlines determined by the European legislation less accurate data are published on the basis of incomplete coverage. The final data can be changed because of additional data and further statistical data processing.

In the First Release »Income, poverty and social exclusion indicators« and in the SI-STAT Database only final data are published. The only income, poverty and social

exclusion indicator that is published as provisional is »Severe Material Deprivation Rate« (in the First Release »Living conditions«).

## **9.2 BREAKS IN TIME SERIES**

### **Disposable household income**

Until 2012 we were publishing data on disposable household assets and income from the Household Budget Survey (HBS), the aim of which is primarily to measure household expenditure and is from 2010 on no longer conducted every year. Because SILC is the reference data source on income also at the EU level, from the first release of income data from SILC (19 February 2015) on the source of data on household income will be SILC and no longer the HBS. The data on income from the SILC were also published for the period before 2008. Due to methodological differences between the HBS and SILC, the data on income for the 2008–2012 period collected with these surveys are not directly comparable.

### **At-risk-of-poverty rate with breakdown by most frequent activity status**

The methodology for 2006 was improved compared to 2005 since for 2006 more sources were available to determine the monthly status of the persons in the sample than for the year before. Due to methodological improvements data for persons at work, the unemployed and other inactive persons from 2006 on are not completely comparable to data for 2005.

With the SILC survey in 2009 we changed the methodology of collecting data on the monthly activity status of persons in the income reference year. Due to the changed methodology, from 2009 on inactive persons are classified into individual categories in greater detail than covered by administrative sources; so data from administrative sources are combined with data from the questionnaire. Other inactive persons from administrative sources (homemakers, people unable to work, students and other inactive persons) are assigned the status regarding the response in the questionnaire. Before 2009 the source of data on monthly activity statuses was administrative. Due to this methodological change, in 2009 the share of unemployed persons is higher and the share of other inactive persons among all persons classified regarding the most frequent activity status is lower.

In releases before 12 December 2013 the indicator »At-Risk-of-Poverty Rate by Most Frequent Activity Status« included among not employed only persons who were unemployed for at least seven months in the year or retired persons who were retired at least seven months in the year or were inactive in some other way for at least seven months in the year. From the release of the SILC 2012 on we count as not employed also persons for whom for seven months of the year any combination of the mentioned statuses applied. In view of the slightly changed methodology, in the SI-STAT Database the entire time series of data on not employed persons was recalculated for this indicator for 2005–2011. In addition to persons who were employees or self-employed for at least seven months in the year, the employed are also persons for whom at least seven months any combination of the two statuses applied. In data on employed persons in the SI-STAT Database, we added breakdowns into employees and self-employed persons for 2005–2011.

In 2014 the question on the most frequent activity status was changed. Until 2013 we were asking what was the activity status of the interviewed person most of the time in

the previous year, while from 2014 we are asking what were the activity statuses of the interviewed person in the previous year and how many months did the person have each status, so that we can more precisely determine the most frequent activity status of a person and work intensity of the household.

### **At-risk-of-poverty rate by accommodation tenure status of the household**

In SILC 2005 the tenure status was weighted to the structure from the 2002 Population Census. Because 2002 is far from 2006, the SILC tenure status from 2006 on was not weighted to the structure from the 2002 Population Census. Therefore there is a significant change in the structure of persons and households according to tenure status: in 2006 the share of persons living in owned or rent-free apartments was much higher than in 2005 while the share of persons living in rented apartments was much lower. Due to this methodological change the at-risk-of-poverty rate with breakdown by tenure status from 2006 on is not completely comparable to data for 2005.

### **Material deprivation**

Until 2013, we were asking about arrears in paying instalments or any other payment of consumer loans (except housing or mortgage loans for the principal residence) together at the same time (with four questions); from 2014 on we are asking separate questions: arrears in paying instalments offered by various providers of goods and services, (four questions) and arrears in paying other consumer loans that have to be hired at a bank (four questions). Because both types of arrears are classified in the same material deprivation item, the change does not affect the rate and intensity of material deprivation.

In accordance with the regulation introduced in 2014 the questions on material deprivation were introduced into the questionnaire (7 variables: one at the household level, i.e. 'replacing worn-out furniture', and 6 at the personal level, i.e. 'some new clothes', 'two pairs of shoes', 'spending a small amount of money', 'getting together with friend/relatives for a drink/lunch', 'participation in leisure activities that have to be paid', 'internet connection for personal use at home'), that will be included in the calculation of the material deprivation rate by the new definition, with revised elements of material deprivation.

### **Overcrowding rate**

With the SILC survey for 2011 the methodology of calculating the indicator changed, so the data from 2011 on are not comparable with the data for the previous years. Until 2010 a kitchen was not counted as a room, whereas from 2011 on a kitchen is counted as a room if it measures at least 6 square metres and the household uses it as a dining room, a living room, a study, etc.

### **Housing deprivation**

Before 2008 we were asking only one question about bad dwelling conditions (leaking roof, damp walls/floors/foundation, or rot in window frames or the floor), while from 2008 on we are asking three separate questions, so the data from 2008 on are not completely comparable with the data for the previous years.

Until 2013, the question on too dark dwelling was slightly longer, so the data from 2014 on are not entirely comparable with the data for previous years.

28 November 2008

- In 2008 we changed the way of publishing indicators based on SILC. Up to 2008 the data were published for the income reference year (one year before the survey year), while from 2008 on the whole series is published for the survey reference year. With this change the way of publishing data is harmonized with Eurostat. So the data from SILC 2005 were published in our previous editions (before 2008) as data for 2004, in editions, published from 2008 on these data are published as data for 2005; the data from SILC 2006 were published in our previous editions (before 2008) as data for 2005, in editions, published from 2008 on these data are published as data for 2006.

30 December 2010

- In 2010 (SILC 2009) we slightly changed the methodology for calculating disposable household income. Income now includes also pensions from individual private plans, so we recalculated the entire series of indicators for 2005-2008 in the SI-STAT Database.
- The definition of dependent children was harmonised; it is now the same for all years. Dependent children are defined as household members below 18 years of age, or household members aged 18 to 24 if they are living with at least one parent and are not employed.
- In previous publications children born during the SILC implementation (in the SILC survey year) were considered to be household members for all years except for 2005. In recalculated data these children are considered to be household members for 2005 as well.

27 October 2011

- The procedure of calculating weights for households in 2010 included the data from the 2011 register-based population census. Due to the change in the data source for weighting, the number of households (especially one-member households) in the population increased.

30 June 2014, 11 September 2014

- In 2014 we slightly changed the methodology of calculating the indicator »Very Low Work Intensity Rate«. In calculating this indicator in addition to persons aged 59+ households with students aged 18–24 only are also not taken into account. The mentioned indicator by statistical regions for the 2008–2012 period has already been calculated according to the new method, so the data for Slovenia can be slightly (by 0.1 of a percentage point at the most) different from the already published data. By publishing data for 2013 in the SI-STAT Database, we recalculated the entire time series of this indicator (for 2005–2012).

Through the years in certain issues the wording of the questions has been slightly changed (mainly on the basis of cognitive testing). Usually the question is changed so that the conversion is not possible.

Methodological explanation on revision of statistical data is available on <http://www.stat.si/dokument/5299/RevisionOfStatisticalDataMEgeneral.pdf>.

## 10 OTHER METHODOLOGICAL MATERIALS

- Questionnaire (only in Slovene):
  - Življenjski pogoji (SILC),  
theme: Kakovost življenja, sub-theme: Življenjski pogoji  
<http://www.stat.si/StatWeb/glavnanavigacija/metode-in-klasifikacije/vprasaniki>
  
- Methodological explanations for Living conditions Survey (SILC):
  - Living conditions,  
theme: Quality of Life, sub-theme: Level of Living.  
<http://www.stat.si/StatWeb/en/Methods/QuestionnairesMethodologicalExplanationsQualityReports>