

# SILC\_ESQRS\_A\_4D\_2020\_0000

Reference Metadata in ESS Standard for Quality Reports Structure

(ESQRSSI)

Compiling agency: Eurostat, the statistical office of the European Union

## Eurostat metadata

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For any question on data and metadata, please contact: **<u>EUROPEAN STATISTICAL DATA SUPPORT</u>** 

1. Contact	
1.1. Contact organisation	Eurostat, the statistical office of the European Union
1.2. Contact organisation unit	Unit F4 - Income and living conditions; Quality of life
1.5. Contact mail address	2920 Luxembourg LUXEMBOURG
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## 2. Statistical presentation

## 2.1. Data description

The European Union Statistics on Income and Living Conditions (EU-SILC) is an instrument aiming at collecting timely and comparable cross-sectional and longitudinal multidimensional micro-data on income, poverty, social exclusion and living conditions. This instrument is anchored in the European Statistical System (ESS).

In addition, every year a list of secondary target variables (annual modules) is collected. In 2020, information on *Over indebtedness, consumption and wealth as well as labour* was collected (Eurostat website ad-hoc module information). In addition, an optional module on COVID-19 related variables was introduced. Overall, these variables complement nucleus variables, in particular the income related ones, and provide information on how the COVID-19 crisis impacted respondents income and living conditions.

The list of variables to be collected and transmitted to Eurostat are defined in the Commission regulation (Legislation - Income and living conditions - Eurostat (europa.eu)) and as well described in the methodological guidelines of the operation year (circabc).

Annex 1 EU-SILC implementation by country provides an overview for the EU-SILC implementation across countries until 2020.

The data collection for EU-SILC 2020 was affected by COVID -19 implications in many countries. Overall, to complete the data collection, countries had to introduce ad-hoc measures (e.g. changes in the mode of collection, questionnaires, sample, fieldwork period, etc.). For more information, see section **3.3 Data collection** and **Annex 8 Data Covid-19**.

## 2.2. Classification system

*The classifications used in EU-SILC are described in the methodological guidelines 2020 operation as well in the EU-SILC methodology.* 

The classifications used in the EU-SILC results are based on international systems.

- The country codes conform to the <u>ISO 3166</u> (International Organisation of Standardisation), with the exception of the United Kingdom which is coded as UK.
- The regional codes are the <u>NUTS 2</u> and the corresponding statistical regions for the EFTA and Candidate Countries.
- Country names are based on the <u>SCL Geo Code</u>.
- The education variables (the level currently attended and the level reached) are based on ISCED 2011.
- The classification of occupation uses ISCO-88 (Com).
- The classification of economic activity uses <u>NACE</u> (Rev. 1.1 until 2007, Rev. 2 from 2008 onwards). See details on the <u>transition between NACE Rev. 1.1 and Rev. 2</u>.

The recommendations made by the United Nations in the Canberra Group Handbook on Household Income Statistics are also considered. For more details on the classification used, please see Eurostat's metadata server <u>RAMON</u>.

## 2.3. Coverage – sector

Data refers to private households.

### 2.4. Statistical concepts and definitions

Countries follow the framework Regulation (<u>Regulation (EC) n° 1177/2003</u>) and regulation on definitions (<u>Regulation (EC) n°1980/2003 of 21 October 2003</u>, amended by <u>Regulation (EC) n° 676/2006</u>) of 2 May 2006), compassing comparable and timely cross-sectional and longitudinal data on income and on the level and composition of poverty and social exclusionat national and European levels.

The EU-SILC shall cover cross-sectional data on income, poverty, social exclusion, and other living conditions as well as longitudinal data restricted to income, labour, and a limited number of non-monetary indicators of social exclusion for both households and individuals.

*Private household* means a person living alone or a group of people who live together in the same private dwelling and share expenditures, including the joint provision of the essentials of living. EU-SILC implementing regulation number 1983/2003 on updated definitions, defines households in terms of sharing household expenses and (for non-permanent members) in terms of duration of stay and (for temporarily absent members) in terms of duration of absence.

*Sample household:* means a household containing at least one sample person. A sample household shall be included in EU- SILC for the collection or compilation of detailed information where it contains at least one sample person aged 16 or more.

*Cross-sectional data* means the data pertaining to a given time or a certain time-period. Cross-sectional data may be extracted either from a cross-sectional sample survey with or without a rotational sample or from a pure panel

sample survey (on condition that cross-sectional representativeness is guaranteed); such data may be combined with register data (data on persons, households or dwellings compiled from a unit-level administrative or statistical register).

*Longitudinal data* means the data pertaining to individual-level changes over time, observed periodically over a certain duration. Longitudinal data may come either from a cross-sectional survey with a rotational sample in which individuals once selected are followed up, or from a pure panel survey; it may be combined with register data.

*Gross income* means the total monetary and non-monetary income received by the household over a specified "income reference period", before deduction of income tax, regular taxes on wealth, employees', self-employed and unemployed (if applicable) persons' compulsory social insurance contributions and employers' social insurance contributions, but after including inter-household transfers received.

*Disposable income* means gross income less income tax, regular taxes on wealth, employees', self-employed and unemployed (if applicable) persons' compulsory social insurance contributions, employers' social insurance contributions and inter- household transfers paid.

*Equivalence scale:* To take into account the impact of differences in household size and composition, the total disposable household income is "equivalised". The equivalised income attributed to each member of the household is calculated by dividing the total disposable income of the household by the equivalisation factor. Equivalisation factors can be determined in various ways. Eurostat applies an equivalisation factor calculated according to the OECD-modified scale first proposed in 1994 - which gives a weight of 1.0 to the first person aged 14 or more, a weight of 0.5 to other persons aged 14 or more and a weight of 0.3 to persons aged 0-13.

Countries are asked to provide information on the main income variables in their national quality reports. Even if with different levels of comparability, all the main income variables are collected for most countries. **Annex 7 Income variables** provides an overview for the 2020 operation of the income components by country, both for household and for personal income components. The information was gathered from the national quality reports and direct exchanges with countries. When there is no information on a given variable in the national quality report, Eurostat has assumed that the country follows the standard definition, i.e. it is fully comparable.

## 2.5. Statistical unit

Private households and individuals living in private households.

### 2.6. Statistical population

The reference population of EU-SILC is all private households and their current members residing in the territory of the Member States (MS) at the time of data collection. All household members are surveyed, but only those aged 16 and more are interviewed. Persons living in collective households and in institutions are generally excluded from the target population.

## 2.7. Reference area

The data refers to the Member States, Norway, Switzerland, Albania, Serbia, Montenegro, North Macedonia and Turkey; National territory and NUTS II level.

EU-SILC may exclude small parts of the national territory amounting to no more than 2% of the national population and the national territories. National territories that may be excluded are the French Overseas Departments and territories, the Dutch West Frisian Islands, with the exception of Texel, the entire Irish offshore islands, with the exception of Achill, Bull, Cruit, Gorumna, Inishnee, Lettermore, Lettermullan and Valentia.

## 2.8. Coverage – Time

Annual data, reference year 2020.

The incomes are collected for a fixed period of 12-months, the previous calendar year based on accrual principle for all countries, including Ireland that up until 2019 collected income information for the 12-month period immediately preceding the sample household's interview date.

EU-SILC was launched in the countries in different times starting from 2003.

## EU-SILC Implementation by countries



### 2.9. Base period

Not applicable

## 3. Statistical processing

Detailed information concerning sampling frame, sampling design, sampling units, sampling size, weightings and mode of data collection can be found in this section. Such information is mainly used for the computation of the accuracy measures.

## 3.1. Source data

EU-SILC combines data from survey and administrative data. While most of countries use survey and administrative data combined, others use only survey data (e.g. Germany, Czechia, Croatia, Greece, Luxembourg, Portugal, Romania, Serbia, Slovakia, Albania and Montenegro). The Framework Regulation calls for the selection of nationally representative probabilistic samples. Data are to be based on a nationally representative probability sample of the population residing in private households within the country, irrespective of language, nationality, or legal residence status. All private households and all persons aged 16 and over within the household are eligible for the operation. Persons living in collective households and in institutions are generally excluded from the target population.

Precision requirements are set via the prescription of minimum effective sample sizes that are specified in the EU-SILC framework regulation 1177/2003. They should be carefully designed to ensure representativity - and are to be increased by participant countries to the extent that their national sample is not determined on a simple random basis, to reflect likely levels of non-response, or to reflect any specific national requirements. Separate values are specified for the cross-sectional and longitudinal elements.

The longitudinal samples will be followed-up over time in accordance with tracing rules specified in EU-SILC implementation regulation 1982/2003.

The sampling frame as well as methods of sample selection should ensure that every individual and household in the target population is assigned a known probability of selection that is not zero. Annex 2 Sampling frame summarizes the information provided by countries in their 2020 National Quality Reports.

## 3.1.1. Sampling

All countries adopted for their 2020 operation at least four-year rotational design recommended by Eurostat. More details on this topic can be found consulting the national quality reports and **Annex 3 Sampling design** of this report.

### 3.1.2. Sampling unit

Concerning the sampling unit, it can be the address/dwelling, the household, or the individual in accordance with the design chosen by the country. In the case of a sample of dwellings /addresses, if more than one household share the

same dwelling, dwellings must be regarded as clusters of households. Households are clusters of individuals and all members aged 16 and over at the end of the income reference period of a selected household are eligible for inclusion in the sample. Countries that carry out a sampling of individuals, instead, only select persons of age 16 and over and the household is defined as the household of which the selected person is a member at the beginning of the survey. Nordic countries (Denmark, Iceland, Sweden, Norway and Finland) as well as the Netherlands and Slovenia select a sample of individuals, while twelve other countries (Lithuania, Germany, Austria, Czechia, Spain, Poland, Portugal, Romania, France, Latvia, and Croatia) select a sample of dwellings or addresses. The remaining eleven countries select a sample of households. More information is reported in **Annex 3 Sampling design**.

### 3.1.3. Sampling rate and sampling size

Concerning the SILC instrument, three different sample size definitions can be applied:

- the actual sample size, which is the number of sampling units selected in the sample;
- the achieved sample size, which is the number of observed sampling units (household or individual) with an accepted interview; and
- the effective sample size, which is defined as the achieved sample size divided by the design effect with regards to the at- risk-of poverty rate indicator.

The Framework Regulation and its updates define the minimum effective sample size, which is the size that would be required if the survey was based on a simple random sampling. The actual sample sizes have to be larger to the extent that the design effect exceeds 1.0 in order to compensate the loss of effectiveness namely by the use of complex sampling design. The design effect is the ratio of the actual variance, under the sampling method actually used, to the variance computed under the assumption of simple random sampling.

Please see Annex 5 Sampling size and Non-response rate 2020 to get additional information.

### **3.2.** Frequency of data collection

EU-SILC data are collected annually in each country.

### 3.3. Data collection

In general, five different ways to collect data are allowed: Paper-Assisted Personal Interview (PAPI), Computer-Assisted Personal Interview (CAPI), Computer-Assisted Telephone Interview (CATI), Computer-Assisted Web Interview (CAWI), and self-administrated questionnaire.

In 2020, the COVID-19 crisis and the period of lockdown influenced EU-SILC data collection. The main issue was that statistical offices were not able to conduct face-to-face interviews (PAPI, CAPI) with households during the lockdown period. Consequently, countries had to introduce ad-hoc measures. Regarding data collection, many countries decided to change the mode of data collection from personal interviews to telephone interviews or web based interviews and/or extend the fieldwork period.

Annex 6 Fieldwork and mode of data collection shows the different modes of data collection used by the countries for the 2020 cross-sectional operation. Figures are obtained adding up the number of interviews carried out by each mode of data collection by each country and dividing it by the total of the interviews carried out in each country. Most of the countries use several modes of data collection, mainly CATI and CAPI, while PAPI, CAWI and self-administered modes are used respectively by fewer countries. In some countries, PAPI and CAPI remained the main data collection modes (e.g. Romania, Slovakia, Greece, Czechia, Austria, Bulgaria, Hungary, Croatia, Luxembourg, Estonia, France, and Italy). However, given the difficulties in collecting data from the 1st wave panel sample in other countries, several countries increased their share of CATI, which became the main data collection mode for Poland, Lithuania, Ireland, Spain, Cyprus, Belgium, Latvia, and Portugal.

Annex 6 also summarizes the fieldwork period by country, where the figures correspond to the information on the month of the household interview (HB050). Fieldwork duration for the 2020 operation varies a lot between countries; it lasted from less than three months (France, Poland, Serbia, Bulgaria, Denmark, Hungary, Montenegro, and Romania) to more than 7 months (Sweden, Slovenia, Germany, Belgium, and Ireland). In addition, almost all countries started data collection before June (except Malta, Greece, Albania, Luxembourg, Poland, Serbia, Spain, and Italy) and many of them finished the fieldwork period by end of August. Countries that finished later are: Slovenia, Portugal, Germany and Cyprus that ended data collection in September; Malta in October; Albania, Greece, Belgium, and Luxembourg in November and finally Poland, Serbia, Ireland, Spain, and Italy in December.

Countries provided information on the impact of COVID - 19 on data collection and data quality in the *E-Survey on the impact of COVID-19 on the 2020 and 2021 EU-SILC data collection* and in the national quality reports. **Annex 8 Data COVID - 19** offers a summary of the information reported by the countries.

### 3.4. Data validation

There is a comprehensive validation procedure applied prior to finalisation of the EU-SILC database for each crosssectional and longitudinal "wave" (year of survey plus any re-working of prior year data). Source data is initially reviewed at national level. It is subsequently submitted to Eurostat for multilateral validation together with detailed quality report, as many bilateral contacts as necessary. All Member States validate the data before sending them to Eurostat. At the end of the data processing at the national level, the complete checking procedure that is applied at Eurostat is carried out using SAS software, followed by the calculation of indicators. A commented summary of the error report produced by the checking tool is submitted to Eurostat. The rules that Eurostat applies are the same as those that countries apply when running the checking tool.

## 3.5. Data compilation

Estimates at aggregate level (e.g. EU-27) are calculated as the population-weighted arithmetic average of individual national figures.

## 3.5.1. Weighting procedure

Weights are provided by each country in their data files. Eurostat does not calculate weights as calibration, and nonresponse adjustments are performed at the level of Member States. There are three types of weights: cross-sectional personal weights, cross-sectional household weights, and longitudinal personal weights. More details are available in the national quality reports.

Additional weights are used in some of the ad-hoc modules to adjust for non-response or non-using proxy.

### **3.5.2. Estimation and imputation**

Eurostat calculates all the aggregates from the microdata. Population-weighted arithmetic averages are applied for the aggregates. The EU-SILC weights (i.e. sum of national population living in private households, broken down by the required dimensions of the indicators) are used for this exercise. Eurostat does not receive, and does not publish, aggregates calculated by the NSIs.

More information on the estimation and imputation procedures applied in each country are available in the national quality reports.

## 3.6. Adjustment

Missing survey data are imputed using procedures specified in EU-SILC implementation regulation 1981/2003. This includes income data, household composition data and other elements.

## 4. Quality management

### 4.1. Quality assurance

EU-SILC is based on a framework Regulation (1177/2003) that defines the scope, definitions, time reference, characteristics of the data, data required, sampling, sample sizes, transmission of data, publication, access for scientific purposes, financing, reports and studies. In addition, Eurostat and Member States have developed the technical aspects of the instrument, in particular one Regulation on Quality Reports (28/2004).

Eurostat and Member States have carried out several methodological studies on different areas. The following is a non-exhaustive list of the topics analysed: household definition, negative income, imputation techniques, treatment of lump sum, Imputed rent, status of private pension plans in income, mode of data collection, administrative versus survey data, comparison with other sources (LFS, NA, HBS...).

### 4.2. Quality management – assessment

The access to the EU database is also ruled by Regulation so that accessibility of output for researchers is guaranteed. In addition, countries should report to Eurostat any deviation from the standards, which should be described in their national quality reports. Data are accompanied with quality reports analysing the accuracy, coherence and comparability of the data. Output standardisation is achieved by defining the format (list and content of target variables and data format) and the timetable of data transmission. This is complemented by Eurostat consistency and integrity checks on the micro data so that minimum output quality standard is reached.

## 5. Relevance

### 5.1. Relevance - User Needs

The relevance of an instrument has to be assessed in the light of the needs of its users. As for EU-SILC, the main users are the following:

- Institutional users like DG EMPL of the Commission and the Social Protection Committee, in charge of the monitoring of social protection and social inclusion, or other Commission services, DG SANTE, DG ENER, DG JRC, DG ECFIN, DG JUST, DG HOME and other institutional users;
- Statistical users in Eurostat or in Member States to feed sectorial or transversal publications;
- Researchers having access to microdata;
- End users including the media interested in living conditions and social cohesion in the EU.

## 5.2. Relevance - User Satisfaction

Eurostat carried out an online general User Satisfaction Survey (USS) in the period between April and July 2019 to obtain a better knowledge about users, considering their needs and satisfaction with the services provided by Eurostat.

The quality of Eurostat's data fares very well compared with other statistical data producers. The majority of participants perceived the quality as better or the same, resulting in a combined share of 66.8%. Among other positive sides of Eurostat, users highlighted better quality and reliability of the data provided; more complete, more timely and harmonised data; better coverage and comparability; better metadata; friendly and easier to use interface; and the independence from national politics. The importance of statistics has increased through the years, with more than three quarters of participants (77.3%) in 2019 reporting to be either "essential" or "important" for their work, reaching its highest value ever.

"Population and social conditions" remained one of the dominating areas across all user types as most frequently used. More than one third of users (44.3%) stated they used in their daily or weekly activities, 28.4% on a monthly basis. "Population and social conditions" received the highest positive evaluation of data quality (59.9% of "very good/good" answers) with the highest positive evaluation and even higher for the domain "Living conditions and social protection" (62.8%).

The aspect of information timeliness reflects the length of time between its availability and the event or phenomenon it describes. According to the results, on average 51.7% of users saw timeliness of "Population and social conditions" as "very good" or "good", 23.0% as "adequate" and 20.5% as "poor" or "very poor. Timeliness this time is not the quality dimension, of the three investigated, with the best performance as in the past, because respondents judged comparability slightly better.

Completeness is the extent to which all statistics that are needed are available. It is usually described as a measure of the amount of available data from a statistical system compared to the amount that was expected to be obtained. The results of user views on data completeness in 2019, on average "Population and social conditions" 51.3% assess as "very good/good". Comparability is the extent to which differences between statistics from different geographical areas, non-geographic domains or over time can be attributed to differences between the true values of statistics with 54.1% of the respondents being satisfied.

The survey has shown that EU-SILC is of very high relevance for users. For the majority, both aggregates and micro-data were important or essential in their work irrespective of the purpose of their use. The use of the ad-hoc modules was less widespread than the use of the primary variables. Nevertheless, there was high interest to repeat these modules in order to have the possibility of comparing data over time.

Moreover, some users emphasized their strong need for more detailed micro-data, which is not possible under new legal framework taking place from 2021; the NUTS 2 division will be possible for main indicators.

Poverty, wellbeing, material deprivation and child poverty, the particular topics that Eurostat indicated as potential areas of expansion of EU-SILC, attracted the attention of many users, showing Eurostat's good understanding of their needs. 'Databases' and 'the main tables' have the highest views (49.3%) and the tables and datasets in the sections "Income distribution and monetary poverty" are extracted mostly from users (52.5%). Most of them considered additional breakdowns of the disseminated poverty indicators as most important. Additionally, needs expressed spontaneously by users referred most to data on income and benefits but also to household characteristics, health, social and living conditions, education and labour status character is tics. Finally, users were satisfied with overall quality of the service delivered by Eurostat, which encompasses data quality and the supporting service provided to them.

## 5.3. Completeness

EU-SILC covers only people living in private households (all persons aged 16 and over within the household are eligible for the operation), i.e. persons living in collective households and in institutions are generally excluded from the target population. EU-SILC may exclude small parts of the national territory amounting to no more than 2% of the national population and the national territories. National territories that may be excluded include the French Overseas Departments and territories, the Dutch West Frisian Islands, with the exception of Texel, the all Irish offshore islands with the exception of Achill, Bull , Cruit, Gorumna , Inishnee, Lettermore, Lettermullan and Valentia , and finally the Scotland north of the Caledonian Canal, the Scilly Islands.

## **5.3.1.** Data completeness – rate

Data have to be transmitted according to methodological guidelines of the operation year. When a variable is not collected, or is missing, the respective flag has to be used.

## 6. Accuracy and reliability

The concept of accuracy refers to the precision of estimates computed from a sample rather than from the entire population. Accuracy depends on sample size, sampling design effects and structure of the population under study. In addition to that, sampling errors and non-sampling errors need to be taken into account. Sampling error refers to the variability that occurs at random because of the use of a sample rather than a census and non-sampling errors are errors that occur in all phases of the data collection and production process.

## 6.1. Accuracy – overall

According to the Regulation 1982 /2003 on sampling and tracing rules, for all components of EU-SILC (whether survey or register based), the cross-sectional and longitudinal (initial sample) data are to be based on a nationally representative probability sample of the population residing in private households within the country, irrespective of language, nationality or legal residence status. The sampling frame and methods of sample selection should ensure that every individual and household in the target population is assigned a known and non-zero probability of selection.

Regulation 1177/2003 defines the minimum effective sample sizes to be achieved, i.e. the actual sample sizes will have to be larger to the extent that the design effect exceeds 1.0 and to compensate for all kinds of non-response. Furthermore, the sample size refers to the number of valid households, which are households for which, and for all members of which, all or nearly all the required information has been obtained. The allocation of the effective sample size is done according to the size of the country and ensuring minimum precision criteria for the key indicator at national level (absolute precision of the at-risk-of-poverty rate of 1 p.p. for the value of poverty rate being 15%).

## 6.2. Sampling error

EU-SILC is a complex survey involving different sampling design in different countries. In order to harmonize and make sampling errors comparable among countries, Eurostat (with the substantial methodological support of Net-SILC2) has chosen to apply the linearization technique coupled with the ultimate cluster approach for variance estimation. Linearization is a technique based on the use of linear approximation to reduce non-linear statistics to a linear form, justified by asymptotic properties of the estimator. This technique can encompass a wide variety of indicators, including EU-SILC indicators. The Ultimate cluster approach is a simplification consisting in calculating the variance taking into account only variation among Primary Sampling Unit (PSU) totals. This method requires first stage sampling fractions to be small, which is nearly always the case. This method allows a great flexibility and simplifies the calculations of variances. It can also be generalized to calculate variance of the differences of one year to another.

The main hypothesis on which the calculations are based is that the "at risk of poverty" threshold is fixed. According to the characteristics and availability of data for different countries we have used different variables to specify strata and cluster information. In particular, countries have been split into 3 groups:

- BE, BG, CZ, IE, EL, ES, FR, IT, LV, HU, PL, PT, RO, SI, HR, AL, ME, MK, RS, and TR whose sampling design could be assimilated to a two stage stratified type we used DB050 (primary strata) for strata specification and DB060 (Primary Sampling Unit) for cluster specification;
- DK, DE, EE, CY, LT, NL, AT, SK, FI, CH whose sampling design could be assimilated to a one stage stratified type we used DB050 for strata specification and DB030 (household ID) for cluster specification;
- MT, SE, IS, NO, LU whose sampling design could be assimilated to a simple random sampling, we used DB030 for cluster specification and no strata.

These calculations do not take into account calibration and this in some cases may lead to overestimation of sampling errors. In addition to that, the value of the indicators may be different form the values published on Eurostat website due to data revisions.

### **6.2.1.** Sampling error – indicators

See **Annex 4 Sampling Errors** which shows the estimates for the leading indicator "People at-risk of poverty or social exclusion (AROPE)" and its components namely: At-risk of poverty rate, People living in household with very low work intensity and severe material deprivation rate.

### 6.3. Non-sampling error

Non-sampling errors are basically of 4 types:

- Coverage errors: errors due to divergences existing between the target population and the sampling frame.
- Measurement errors: errors that occur at the time of data collection. There are a number of sources for these errors such as the survey instrument, the information system, the interviewer and the mode of collection
- Processing errors: errors in post-data-collection processes such as data entry, keying, editing and weighting
- Non-response errors: errors due to an unsuccessful attempt to obtain the desired information from an eligible unit. More details on this topic can be found consulting the national quality reports.

## 6.3.1. Coverage error

Coverage errors include over-coverage, under-coverage and misclassification:

- Over-coverage: relates either to wrongly classified units that are in fact out of scope, or to units that do not exist in practice;
- Under-coverage: refers to units not included in the sampling frame;
- Misclassification: refers to incorrect classification of units that belong to the target population. More details on this topic can be found consulting the national quality reports.

### 6.3.1.1. Over-coverage - rate

More details on this topic can be found consulting the national quality reports.

#### 6.3.2. Measurement error

Generally, measurement errors arise from the questionnaire, the interviewer, the interviewee and the data collection method used.

It is vital in a survey like EU-SILC, which collects a multitude of complex income components, that the questionnaire is constructed so that the interviewee can provide as quickly as possible all the correct information.

Even though most of the countries carefully designed their questionnaire, due to the complexity and the sensitivity of the survey, interviewees may not want or not be able to give information about all their incomes. For instance, income from capital or self-employment income may be under-reported. Besides, EU-SILC collects non-monetary income components that could have an unfamiliar terminology to some people. The risk of confusion on the information to report is then higher than with more conventional monetary income components.

The most frequently reported measurement errors on which information is given by countries in their 2020 national quality report are the following:

- questionnaire (design, content, wording);
- mode of the data collection;
- training of interviewers/ interviewers' errors at the stage of collecting information;
- respondents' misunderstanding of questions and inaccurate sometimes false answers; and
- quality control with re-interviews and record check studies.

More details on this topic are available in the national quality reports.

#### 6.3.3. Non-response error

Two main types of non-response errors are considered: unit non-response and item non-response. Unit non-response refers to the absence of information for the whole unit (households and/or persons) selected into the sample. Item non-response refers to the situation in which a sample unit has been successfully enumerated, but not all required information has been obtained.

#### 6.3.3.1. Unit non-response - rate

The Commission Regulation 28/2004 defined indicators aimed at measuring unit non-response in EU-SILC. They are respectively:

Address contact rate (Ra): the ratio of the number of addresses successfully contacted, to the number of valid addresses selected.

Household response rate (Rh): the ratio of the number of household interviews completed (and accepted in the database), to the number of eligible households at the contacted addresses.

Individual response rate (Rp): the ratio of the number of personal interviews completed (and accepted in the database), to the number of eligible individuals in completed households.

Non-response is cumulative at the three stages (address contact, household interview and personal interview), so that the overall non-response rates for households and individual interviews are defined, respectively, as follows:

Overall household interview non-response rate: NRh = 1 - (Ra\*Rh)

Overall personal interview non-response rate: \*NRp = 1 - (Ra\*Rh\*Rp)

Table 5 in **Annex 5 Sample size and non-response rate** shows the different response rates for related to SILC 2020 operation, considering the whole sample and the new entries, by country.

The use of models integrating external control variables is desirable in order to correct for non-response and most of the countries apply either a standard post-stratification based on homogeneous response groups or a more sophisticated logistic regression model.

#### 6.3.3.2. Item non-response - rate

The computation of item non-response is essential to fulfil the precision requirements concerning publication as stated in the Commission Regulation No 1982/2003. Item non-response rate is calculated for the main income variables both at household and personal level and results are included in each national report. The problem of item non-response is usually dealt with imputation. This technique aims to 'fill the holes' in a distribution. However, it has to be kept in mind that imputed values are not exact values and often depend on a model that could not be a perfect description of the reality. Imputation can have a significant effect on the overall accuracy: it generally skews a sample distribution so estimates will be biased. Furthermore, variance estimates assuming that imputed values are exact ones will generally be biased.

### 6.3.3.2.1. Item non-response rate by indicator

More details on this topic is available in the national quality reports.

#### 6.3.4. Processing error

Processing errors are mainly related to data entry and coding process and the editing controls as well. More details on this topic can be found consulting the national quality reports.

## 7. Timeliness and punctuality

## 7.1. Timeliness

Regulation (EC) No 1177/2003 states that: "[...] The extreme deadline for the transmission of micro-data to Eurostat shall be 30 November (N+ 1) for Member States where data are collected at the end of year N or through a continuous survey or through registers and 1 October (N+1) for other Member States". Indicators based on national SILC data are published on Eurostat website soon after its delivery and acceptance. In general it takes place in the course of year N+1 (where N = year of data collection) in case of indicators based on cross-sectional data and starting from the second half of year N+1 in case of indicators based on longitudinal data. EU aggregates and indicators for all countries based on SILC cross-sectional data for year are published by mid-December of year N+1 at the latest, while EU aggregates and indicators for all countries based on SILC longitudinal data are published by mid-April N+2. However, countries have put significant effort to improve the timelines over the last years with help of EU Funding and the data are delivered to Eurostat more timely than foreseen in Regulation.

In addition, anonymized EU cross-sectional microdata files to be used for research purposes are available on 01 /03/N+2 and longitudinal ones on 01/08/N+2.

## 7.2. Punctuality

All indicators were uploaded on the Eurostat Website as soon as they were validated and revised on the Eurostat Website regularly every 2nd week and in exceptional cases (e.g. before publications) more often. Indicators based on national SILC data are published on Eurostat website after their delivery, validation, acceptance by Eurostat and approval of dissemination by the country.

The 2020 cross-sectional Users' database was released in beginning of November 2020 with 2020 microdata of 28 countries included. The longitudinal part was firstly released at end of March 2021 with 2020 microdata of 28 countries. Both releases contained updated cross-sectional and longitudinal datasets of the previous waves as well. In general, the anonymized cross-sectional microdata files to be used for research purposes are available in the beginning of November year N+1 and the longitudinal ones in the beginning of April year N+2.

## 8. Coherence and comparability

According to the Regulation (EC) No 1177/2003 of the European Parliament and of the Council concerning EU-SILC: "Comparability of data between Member States shall be a fundamental objective and shall be pursued through the development of methodological studies from the outset of EU-SILC data collection, carried out in close collaboration between the Member States and Eurostat". Although the best way for keeping the comparability of data is to apply the same methods and definitions of variables, small departures of the definitions given by Eurostat are allowed in EU-SILC. Article 16 in the mentioned Regulation states that "Small departures from common definitions, such as those relating to private household definition and income reference period, shall be allowed, provided they affect comparability only marginally. The impact of comparability shall be reported in the quality reports."

The coherence of two or more statistical outputs refers to the degree to which the statistical processes, by which they were generated, used the same concepts and harmonization methods.

### 8.1. Comparability – geographical

To ensure comparability of data and/or indicators, i.e. to ensure quality of data as defined by Eurostat, EU-SILC has adopted for an ex-ante output harmonization strategy. When using output harmonization survey design and methods are flexible as long as the output requirements are met. Countries have to define suitable national concepts and measurement procedures with which the international concept can be portrayed. There are two different strategies depending on when the survey design is planned: with ex-ante harmonization, the surveys are created by the countries having in mind the output to produce; with ex-post harmonization, countries can adapt surveys already in place to produce comparable outcomes. EU- SILC is based on a common framework defined by harmonized lists of target primary and secondary variables, common concepts, a recommended design, common requirements (for imputation , weighting, sampling errors calculation) and classifications aiming at maximising comparability of the information produced. To anchor EU-SILC in the National Statistical System, survey design is flexible. The framework can be seen as a trade off in terms of standardisation of surveys leading to a good degree of comparability and flexibility allowing country's specificities to be taken into account in order to maximise quality of data. Eurostat and Member States work together to develop common guidelines and procedures aimed at maximising comparability.

The EU-SILC common framework aims ensuring standardisation at different levels. Conceptual standardisation is achieved because the common concepts/definitions underlying each measure/variable, the scope and time reference are defined and documented. Implementation and process standardisation is achieved by editing recommendations about collection unit to be considered, sample size to be achieved for each country, a recommended design for implementing EU-SILC (the so called 4-year rotational panel which almost all countries are using), common requirements for sampling and tracing rules for the longitudinal components, common requirement for imputation and weighting procedures. international classifications aiming at maximising comparability of the information produced are also enforced. Specific fieldwork aspects are also controlled by the framework to limit the use of proxy interviews; to limit the use of controlled substitutions, to limit the interval between the end of the income reference period and the time of the interview, to limit to the extent for the total fieldwork of one-shot surveys, to define precise follow up rules of individuals and households in case of refusals, non- contact.

EU-SILC flexibility is a key aspect allowing for adaptation to national specificities in terms of infrastructure and measurement. The most important element of the flexibility is related to the data sources (administrative or interview) to be used. Eurostat encouraged the use of existing ones, whether they are surveys or registers. A second aspect of the flexibility is related to the survey and sampling design. The only constrain is that, for both, the cross-sectional and longitudinal components, all household and personal data have to be linkable at micro level. Countries can use survey vehicles already in place, set up a new survey possibly drawing on one recommended by Eurostat. Sampling design can draw on expertise for social survey at national level. The third element of flexibility relates to the measure of self-employment income for which the diversity of the source and practice did not allow to find common harmonised solutions.

## 8.1.2. Reference population

Most countries follow the standard definitions for **reference population**, except for Estonia, Sweden, Bulgaria, Greece, Finland, Norway, and Luxembourg. See the list below for the information reported for these countries:

- Estonia: persons living in collective households are included in the reference population.
- Sweden: the entire Swedish population, except for short term-migrants (people who stay in the country for no longer than 3-12 months).
- Bulgaria: all citizens officially living in Bulgarian territory (population de facto).
- Greece: all citizens officially living in Greek territory (population de facto).
- Finland: private household population permanently resident (the census definition) in Finland on 31 December the income reference year (EU-SILC survey year 1).
- Norway: persons aged 16 years or more at December 31 N-1 who are living outside an institution.

Most countries follow the standard definition for **household membership**, except for Spain, the Netherlands, Portugal, and Norway. See the list below for the information reported for these countries:

- Spain: the reference in the definition of 'household member' is to apply the definition given in the Commission Regulation. But, owing to the large number of possible special cases, and so as to reduce the number of related items on the questionnaire, there may be differences in some marginal cases. After an analysis it is possible to conclude the following. If a person is a household member according to the definition in the Regulation, he/she is also a household member under the national definition, except in the following group:
  - Resident boarders, lodgers, tenants, visitors or domestic servants present at the place of interview
  - Actual or intended length of stay is 6 months or more
  - Have other address they treat as their usual residence and do not have close ties to household
  - Share expenses

Under the Regulation, persons meeting the above conditions are treated as members of the household in which they are present. However, they are not considered household members in the Spanish survey because priority is given to the fact that they have another address they regard as their usual residence. Due to the lack of sources is difficult to assess the impact of this difference, but we think it is marginal.

- Netherlands: there are some minor differences in the treatment of special categories like lodgers or people temporarily away (e.g. students). These people are only included as a household member if they are registered at the households' address. According to the EU-definitions resident boarders, lodgers and tenants should be included if they share expenses, have no private address elsewhere or their actual/intended duration of stay must be six months or more. Statistics Netherlands does not apply this limit of six months.
- Portugal: on the contrary of EU-SILC concept, "persons absent for long periods, but having household ties: persons working away from home" were not considered as household members if the absence was for more than 6 months; the income obtained from them was considered as a private transfer.
- Norway: persons will be considered as household members if they spend most of their nights at the address of the household.

As for the **private household** definition, the exceptions is Montenegro, for which the following definition is used for EU-SILC 2019. See the list below for the information reported for the country:

- private household entails families living together, persons living alone or other communities of persons living

and spending together their income for living (dwelling, food, etc.), regardless whether if all members are in place where the household is settled down or some of them staying longer in another settlement, i.e. abroad for the purposes of work, studying or other reasons.

## 8.1.3. Reference Period

For all countries, the reference period for both income and taxes is the previous calendar year based on accrual principle except for Ireland, which considers the twelve month immediately before the date of interview. See the National Quality reports for further information.

## 8.2. Comparability - over time

Since 2005, comparability over time is ensured by a common data source (EU-SILC). Due to transition between end-ECHP (European Community Household Panel) and start-EU-SILC, there are further disruptions in series between 2001 and 2005. For detailed information about significant changes and breaks in time series, as well as other changes considered relevant, please see the <u>overview of breaks in series</u>.

### 8.3. Coherence - cross domain

Regulation 1177/2003 calls for a comparison between EU-SILC and external sources for all income target variables and the number of people who receive income from each income component. The main sources for comparisons are the Household Budget Survey (HBS), the Labour Force Survey (LFS) and the National Accounts. In addition, some countries compared the data with administrative sources or even with other sources. Additional information can be found in the national quality reports: National Quality Reports.

EU-SILC follows international standards: ISCO, NACE, ISCED, NUTS, degree of urbanisation, Canberra recommendations for income data.

The sets of weights available in EU-SILC datasets have been obtained using calibration techniques, which ensure basic coherence of estimates obtained from EU-SILC micro datasets and demographic counts.

## **8.5.**Coherence - National Accounts

Additional information can be found in the national quality reports: National Quality Reports.

## 9. Accessibility and clarity

In accordance with Commission Regulation (EU) No 557/2013, the Commission has released SILC anonymized micro-data on CIRCABC via encrypted zip file. In addition, agreed indicators on social inclusion and additional indicators as well as are available to the external users free of charge on Eurostat website -mainly in the SILC dedicated section but not only.

### **9.1.** Dissemination format - News release

For EU-SILC, no release calendar is available. Indicators based on national SILC data are published soon after their delivery and acceptance. In general, it takes place in the course of year N+I (where N = year of data collection) in the case of indicators based on cross-sectional data, and starting from the second half of year N+I in the case of indicators based on longitudinal data.

EU aggregates and indicators for all countries based on SILC cross-sectional data for year N are published by mid-December of year N+1, at the latest. EU aggregates and indicators for all countries based on SILC longitudinal data are published by mid-April N+2.

For more information, see the Eurostat website: <u>European Union Statistics on Income and Living Conditions</u> – <u>Access to microdata - Eurostat (europa.eu)</u>

## 9.2. Dissemination format – Publications

The following publications are disseminated in the EU-SILC dedicated section: statistics explained articles, statistical publications, news releases, statistical working papers / manuals and guidelines. Further information can be found in the Eurostat website: <u>Publications - Income and living conditions - Eurostat (europa.eu)</u>

## 9.3. Dissemination format - online database

Detailed description of indicators available on-line can be found in the following document "<u>Working Paper on EU-SILC datasets</u>" and "<u>European Union Statistics on Income and Living Conditions - Access to microdata - Eurostat (euro12a.eu</u>)".

## 9.4. Dissemination format - microdata access

In accordance with Commission Regulation (EU) No 557/2013, the Commission has released SILC anonymized micro-data on CIRCABC via encrypted zip file.

For more information, refer to <u>access to microdata</u> and <u>Publications on the basis of European microdata CROS</u> (europa.eu).

## 9.6.Documentation on methodology

Quality reports as well as list of variables collected and transmitted to Eurostat (Cross-sectional and Longitudinal), refer to the main document of the 2020 operation year: <u>Methodological guidelines 2020 operation</u>

Detailed description on indicators calculation: Methodological Paper on EU-SILC datasets

EU-SILC regulations:

- The Framework Regulations (regulation EC 1177/2003 of European parliament and Council adopted on 16 June 2003 and published in the OJ on 3 July 2003;
- Definitions: <u>Regulation (EC) n° 1980/2003 of 21 October 2003</u>, amended by <u>Regulation (EC) n° 676/2006 of 2</u> <u>May 2006</u>;
- Fieldwork aspects and imputation procedures: <u>Regulation (EC) n° 1981/2003 of 21 October 2003;</u>
- Sampling and tracing rules: <u>Regulation (EC) n° 1982/2003 of 21 October 2003;</u>
- List of target primary variables: <u>Regulation (EC) n° 1983/2003 of 21 October 2003;</u>
- Content of intermediate and final quality reports: <u>Regulation (EC) n° 28/2004 of 5 January 2004;</u>
- 2020 module list of target secondary variables on over-indebtedness, consumption and wealth as well as labour <u>Commission Regulation (EU) N° 2019/414 of 14 March 2019</u>.

More information can be found in Eurostat website.

## 10. Cost and Burden

EU-SILC was designed to keep respondent burden controlled to avoid high non-response rate and to ensure good quality of the information collected. The target is to limit the total length of interviewing household in average below 60 minutes. Significant decrease of interview duration is observed in countries using administrative data. **Annex 6 Mode of data collection and fieldwork** provides more information about the length of interview by countries.

## 11. Confidentiality

<u>Regulation (EC) No 223/2009</u> on European statistics (recital 24 and Article 20(4)) of 11 March 2009 (OJ L 87, p. 164) stipulates the need to establish common principles and guidelines. It ensures the confidentiality of data used for the production of European statistics and the access to those confidential data, with due account for technical developments and the requirements of users in a democratic society.

## **11.1.** Confidentiality – policy

<u>Regulation (EC) No 223/2009</u> on European statistics (recital 24 and Article 20(4)) of 11 March 2009 (OJ L 87, p. 164) stipulates the need to establish common principles and guidelines ensuring the confidentiality of data.

### **11.2.** Confidentiality - data treatment

EU-SILC microdata do not contain any administrative information such as names or addresses that would allow direct identification. For more details, see <u>access to microdata</u>. In order to ensure disclosure control and confidentiality of EU- SILC microdata when disseminating them to the researchers via the UDB, some variables collected were removed or changed. On the other hand, in order to ease the use of the data, some variables were added. For more details see: <u>User Database (UDB)</u>.

Publication rules are:

- estimates should not be published if it is based on fewer than 20 sample observations or if the non-response for the item concerned exceeds 50%;
- estimates should be published with a flag 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%;
- estimates shall be published in the normal way when based on 50 or more sample observations and the item non-response rate for the variable(s) used does not exceed 20%.

## 12. Comment

Annex 1- EU SILC implementation by country

Annex 2 - Sampling frame

Annex 3 - Sampling design

Annex 4 - Sampling errors

Annex 5 - Sampling size and Non-response rate Annex 6 - Mode of data collection Annex 7 - Income variables Annex 8 - Data Covid-19 2020

## **Related metadata**

## Annexes

Annex 1- EUSILC Implementation 2020 Annex 2 -Sampling frame 2020

Annex 3 -Sampling design 2020 Annex 4 - Sampling errors 2020

Annex 5 - Sampling size and Non response rate 2020

Annex 6 - Mode of data collection and fieldwork 2020

Annex 7 - Income variables 2020

Annex 8 - Data Covid-19 2020

## Annex 1: EU-SILC implementation by country

Countries	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
EU-27																		
Belgium																		
Bulgaria																		
Czechia																		
Denmark																		
Germany																		
Estonia																		
Ireland																		
Greece																		
Spain																		
France																		
Croatia																		
Italy																		
Cyprus																		
Latvia																		
Lithuania																		
Luxembourg																		
Hungary																		
Malta																		
Netherlands																		
Austria																		
Poland																		
Portugal																		
Romania																		
Slovenia																		
Slovakia																		
Finland																		
Sweden																		
Montenegro																		
North Macedonia																		
Iceland																	?	?
Turkey																		
Serbia																		
Albania																		
Norway																		
Switzerland																		
Kosovo																	?	?
United Kingdom																		
						Full	implen	nentati	on									
						Test	impler	nentati	on									

## Annex 2: Sampling frame 2020

File	Content
SILC_ESQRS_BE_2020	In Belgium, the sampling frame is the Central Population Register. This Register includes all private households and their current members residing in the territory. Persons living in collective households and in institutions are excluded from the target population. The Central Population Register of 30 November 2019 was used. Updating actions: Central Population Register is updated two times during a month. The changes were communicated to the interviewers.
SILC_ESQRS_BG_2020	The sample for EU-SILC 2020 are selected from the sampling frame based on the Population Census 2011. The data base includes all private households and their current members residing in the country. Persons living in collective households and in institutions are excluded from the target population. Student's and worker's hostels are excluded at the first stage of selection of PSU, because student's and worker's households rarely stay on the same addresses and are difficult to trace. The frame is regularly updated according to the administrative changes made. Household data within the selected PSUs are updated according to the Information System "Demography" data (ISD). The longitudinal component consists of the sub-samples R1, R2, R3, R5 and R6. All personal/household income variables were collected by interview. In some cases, where the information on income component is unavailable a register to obtain missing value information is used. The National Social Security Institute keeps a register of all persons for whom employers pay social insurance contributions and of all self-insured persons. This register contains some data on personal income but it is generated by a labour activity of the persons and moreover, this is only the income on which the person was insured. From Social Assistance Agency obtained on income from social benefits
SILC_ESQRS_CZ_2020	<ul> <li>Census Enumeration Districts (CEUs) constitute the first-stage sampling units. CEUs are small geographical areas covering the whole territory of the country. They are used as enumeration districts during the census, but their use is more general. Continuously updated geographical register is maintained by the CZSO, where these units form the basic geographical layer, on which subsequent aggregations are based. This register is the base for an integrated hierarchical geographical information system and is the base for databases of regional indicators and statistical data.</li> <li>For each CEU, a list of all buildings is maintained in the register. This list is updated from administrative data of the construction authorities (new buildings', flats' or commercial premises' acceptation protocols, demolitions' protocols). For each building, the number of dwelling units is recorded.</li> <li>CEUs vary considerably in size measured in number of dwelling units in them. Before drawing of the first stage sample, the sampling frame of CEUs had to be adjusted in two ways:</li> <li>As noted above, CEUs have wider use than sampling of dwellings and there are CEUs not containing any buildings dwellings (like industrial areas, railway stations and the like). These CEUs, where the number of dwellings is zero, are dropped from the sampling</li> </ul>

File	Content
	<ul> <li>frame.</li> <li>In order to enable incorporation of small census enumeration units into the sampling process (to reach the required full geographical coverage of the national territory), small CEUs (with less than 20 inhabited dwellings) were merged with adjacent CEUs and this larger merged CEU entered the first stage of sampling. Therefore, in some cases, the 10 dwellings sampled in the second stage belong to two, in exceptional cases even more, real administrative CEUs. The survey design variable DB060 (PSU) is later coded according to this adjusted structure of the sampling frame, to keep the dwellings together as they were actually sampled.</li> <li>In the second stage, 10 dwellings were sampled in each sampled CEU. CZSO's regional fieldwork units (each covering one of the 14 NUTS3 administrative regions) received the list of selected dwellings (address + identification number of the flat in buildings with more than one flat). Before the actual fieldwork, the regional fieldwork units' staff carried out identification of the selected dwellings and filled in the contact names on the list of selected dwellings for interviewers.</li> <li>The ultimate sampling unit was the dwelling, i.e. all persons with usual residence in that dwelling (their only place of residence or their main place of residence, according to the EU-SILC definition) were included in the survey. This includes also foreign nationals and subtenants living in the selected dwelling.</li> <li>The household definition is based on the sharing of expenditures concept – based on the declaration of the persons in sampled dwelling unit that they permanently live together and finance together expenditures to cover their needs.</li> </ul>
SILC_ESQRS_DK_2020	<ul> <li>Data on household composition, current labour market participation and subjective questions are based on interviews. Objective data on housing, education, basic demographics and incomes are based on administrative registers.</li> <li>From 2016 the Danish sample is a two-stage sample. First, the addresses are selected, secondly a person above the age of 13 living registered at the address is selected to be the selected respondent. Data based on The Central Personal register (CPR) is used as the sampling frame. The sample has been stratified at the NUTS2-level and by income.</li> <li>The selected respondent is in most cases the respondent of the household questionnaire. Answers by other members of the household are accepted.</li> <li>Only households where statistics Denmark is able to identify the personal ID (CPR) for all adult members is included in the final survey data.</li> <li>The questionnaire consists of different parts.</li> <li>a) Questions relating to defining households</li> <li>b) Questions about the household members</li> <li>d) Detailed questions about the selected person; including detailed labour information and health information</li> <li>e) The ad-hoc module on Over indebtedness, consumption and wealth as well as labour</li> <li>DSTsurvey - Statistics Denmark office for surveys - has conducted the interviews. 81 per cent of the questionnaires has been filled by</li> </ul>

File	Content
	respondents in self-administered web-interviews. The remaining 19 per cent have been filled via telephone interviews.
SILC_ESQRS_DE_2020	EU-SILC 2020 was integrated as a module into the German Microcensus, a highly reliable random sample covering one percent of the German population and carried out with legal obligation to respond, sampling units are areas (clusters). Every household in the sampled area is mandatory to participate in the survey. The sampling population for the EU-SILC sample comprises private households in their main residences. All sample persons of a household has to be followed-up over time. The advantage of the new design is a better coverage of the population structure in Germany.
SILC_ESQRS_EE_2020	Sampling frame for selection of new part of the sample is Statistical Population Register of Estonia. Following persons are not considered permanent residents of Estonia: persons, who have already left Estonia, persons permanently residing abroad and persons, who reside in Estonia temporarily (3–12 months), but whose permanent residence is abroad. Records of the Population Register are updated both in real-time and regularly from administrative sources.
SILC_ESQRS_IE_2020	The sampling frame (for the 2020 SILC) was the register of all private dwellings occupied on the night of the 2016 Census of Population for waves 1, 2 and 3 and the 2011 Census of Population for waves 4 and 5. The final sampling frame used for sample selection excludes all the Island communities, and individuals living in public institution (e.g. prisons, hospitals, nursing homes, etc.), communal accommodation and persons of no fixed abode.
SILC_ESQRS_EL_2020	<ul> <li>Sampling frame and coverage errors</li> <li>EU-SILC survey is based on a two-stage stratified sampling of households from a frame of sampling which has been created on the basis of the results of the 2011 population census and covers completely the reference population. The frame of PSUs is updated every ten (10) years through the general population census. Concerning the frame of households, within each selected PSU this is updated before the selection of the sampling households used for data collection. So, any coverage problem that may arise is more possible to relate with the frame of PSUs.</li> <li>Coverage problems encountered were:</li> <li>Some houses were used as secondary residence, so they were out of scope of the survey.</li> <li>Some houses were impossible to be located due to incomplete information regarding their addresses.</li> <li>Housing units built after March 2020, were not included in our sampling frame.</li> <li>The number of the above cases was (76) and such cases are corrected with the use of the calibration procedure applied as it is described in the respective paragraph.</li> </ul>

File	Content					
SILC_ESQRS_ES_2020	The sampling frame is the The sample selection fran- register). The new sample for SILC- The Municipal Register [ maintained, reviewed and All persons residing in Sp than one municipality mus Municipal Register entries a) Name b) Sex c) Usual address d) Nationality e) Place and date of birth f) Identity Card Number of	The sampling frame is the Municipal Register. The sample selection frame was area-based and consisted of the list of census sections used in the Municipal Register (population register). The new sample for SILC-2020 was obtained with the Register dated 01.01.2020. The Municipal Register [ <i>Padrón</i> ] is an administrative record of the residents in a municipality. The Municipal Register is formed, maintained, reviewed and kept by each municipality. It is continually updated. All persons residing in Spain must appear in the Municipal Register of the municipality where they usually live. A person living in more than one municipality must register only in the one where he/she lives longest in the year. Municipal Register entries contain only the following mandatory details on each resident: a) Name b) Sex c) Usual address d) Nationality e) Place and date of birth f) Identity Card Number or, if foreign, an equivalent identifying document				
SILC_ESQRS_FR_2020	As of 01/08/2022, the quality report for France was not fully validated, therefore, the information below is provisory and subject to change. Please note that the information was originally provided in French and was freely translate to English. French data come from SRCV instrument: the majority of data from SRCV survey. Amounts of income and social benefits are obtained by matching administrative data (fiscal and social sources).					
SILC_ESQRS_HR_2020	The sampling frame for both stages was the 2011 Census data. The next table shows eligibility rates for ultimate selection units – addresses (more households can be on one address) selected in 2019 by two statistical regions: Eligibility rates					
	Statistical Regions					
	(NUTS-2)	Selected addresses	Eligible addresses	Eligibility rate (%)		
	Republic of Croatia	5.516	5.121	92,84		
	Adriatic Croatia	2.296	2.162	94,16		

File			Content		
	Continental Croatia It is much more difficult to	3.220 measure under-coverage	2.959 and we are not able to assess its e	91,89 extent.	
SILC_ESQRS_IT_2020	The sampling frame is con the Italian acronym for lis The sample of the househo The sample of the househo The sample of the househo The sample of the househo The sample of the househo	nposed of registers of the resisters of municipal registry) works of municipal registry) works belonging to the rotation of the rotation of the selonging to the s	nunicipalities. The sample is extr hich represents the population at onal group with DB075=4 was ex onal group with DB075=1 was ex onal group with DB075=2 was ex onal group with DB075=3 was ex onal group with DB075= 5 was ex	racted from LAC (Liste Ana the end of the income refer xtracted and validated in Ap xtracted and validated in Ap xtracted and validated in Fe xtracted and validated in Ju extracted and validated in Ju	agrafiche Comunali, i.e. ence period. pril 2016. pril 2017. ebruary 2018. ne 2019. ine 2020.
SILC_ESQRS_CY_2020	Sampling frame and cov For 2020, the list of house constructed houses (build Cyprus (E.A.C.) with a lis 2018. The E.A.C. distingu electricity consumer regist connections represented o 1. The frame of the 2 to be used for othe 2. Some houses inclu 3. Some houses liste 4. Housing units bui	erage errors holds from the 2011 Censu after 2011 up to Septembe t of domestic electricity co ishes domestic consumers ered by the E.A.C. corresp ne new household. Covera 2011 Census of Population or purposes other than house ided in the E.A.C. list wer d by the E.A.C. were impose t after September 2018, w	us of Population was used as sam r 2018). The Statistical Service o onsumers, which contained all the from other consumers (e.g. indus oonds to the statistical definition of ge problems encountered were: was somehow outdated and as a sing. e used as secondary residence, so ossible to be located due to incom ere not included in our sampling	pling frame with a supplem f Cyprus was provided by t e new connections of electri strial, etc.). It has been estal of a housing unit. Each of the result some housing units we othey were out of scope of the plete information regarding frame.	entary list of newly he Electricity Authority of city between 2012 and plished that each domestic hese new electricity meter were found to be empty or the survey. g their addresses.
SILC_ESQRS_LT_2020	The sampling frame of EU	-SILC is the Population R	egister updated regularly.		
SILC_ESQRS_LV_2020	Two sampling frames wer were used as a sampling fr 2000. The list contained in At the second stage a sam	e built for each sampling s rame. All territory of Latvi formation about the numb pling frame was built from	tage. At the first stage counting a a was divided in small territories er of households in each counting the Population Register, Statistic	reas from the list of the Pop (smaller than LAU 2) during g area. cal register of dwellings and	pulation Census 2000 ng the Population Census I Statistical register of

File	Content
	households. The second stage sampling frame was built by using a copy of the Population Register given in November 2019. Both statistical registers of dwellings and households were updated by using the Population Register. Thus the time lag between the last update of registers and the moment of the actual EU-SILC survey sampling was around 4 months. Because of possible risk of low response rates because of Covid-19 crisis it was decided to add 5th wave households in EU-SILC 2020, but only as part of cross-sectional component.
SILC_ESQRS_LU_2020	The sampling frame for the wave 2015 comes from the administrative sources of the Luxemburgish Social Security. The database includes all the residents who are affiliated to the Luxemburgish Social Security. In the 2015 EU-SILC operation, a sample (DB075=2) was selected from a register including all the affiliated people in December 2014. Up to 2015, sampling units were "fiscal" households. From 2016 onwards, the EU-SILC sample is drawn from Luxembourg's National Population Register (RNPP - Registre National des Personnes Physiques). The RNPP covers the entire population residing within the national territory of Luxembourg, no matter its location, age or citizenship.
SILC_ESQRS_HU_2020	In 2020 the sampling frame was the list of occupied dwelling units in census 2011 dataset.
SILC_ESQRS_MT_2020	The database based on the 2011 Census of Population & Housing, that is held and maintained by NSO through annual updates, provides a comprehensive count of all persons living in Malta and Gozo. As a result, this database is considered to be the most adequate source to be used for the Maltese EU-SILC sample selection and served as sampling frame for the new waves as from SILC 2013. Previously, the 2005 Census of Population & Housing including annual updates was used. Nonetheless in cross-sectional SILC 2020, 38 households from the sample resulted to be ineligible addresses, corresponding to 2.4 per cent of the total selected sample.
SILC_ESQRS_NL_2020	The sampling frame is the Dutch Population register (Basisregistratie Personen (BRP)). The sampling design can be classified as a stratified random sampling design.
SILC_ESQRS_AT_2020	The sampling frame of the first wave households of EU-SILC 2020 was based on the the ZMR. The ZMR is a continuously updated population register based on the registration of the main residence. It contains information on the person (date and place of birth,etc.) and on the address(es) of a person. The ZMR is administrated by the Federal Ministry of the Interior (BMI). Data of the ZMR are delivered quarterly to Statistics Austria. In order to facilitate more complex sampling and estimation procedures of the ZMR information needed for sampling was enriched by socioeconomic and -demographic variables from administrative registers. Linkage was carried out by a pseudonymized key (bereichsspezifisches Personenkennzeichen - bPK).

File	Content
	In 2020, 3,927 addresses were selected at the beginning of the fieldwork to constitute the rotational group 4 (and 1,309 addresses were drawn as a reserve). The reference date for the sampling of EU-SILC 2020 was the 30th of September 2019. Addresses sampled in the previous waves of EU-SILC 2016-2019, in the first three waves of the HBS 2019/20 and the first quarter of the Microcensus 2020 and new rotation of the second quarter were excluded from the sampling frame. This was carried out by using socio-demographic variables in combination with the available income information on the sampling frame. This so-called "rich frame" was used to train a machine learning model for estimating the AROPE for the whole frame. This predicted AROPE was then used as stratification variable.
SILC_ESQRS_PL_2020	As of 01/08/2022, the quality report for Poland was not fully validated, therefore, the information below is provisory and subject to change
	The sample for EU-SILC 2020 consisted of four panel subsamples. The new subsample was not selected due to pandemic situation, and the old subsample (to be surveyed for the fifth time) was used instead of the newly drawn.
SILC_ESQRS_PT_2020	<ul> <li>As of 01/08/2022, the quality report for Portugal was not fully validated, therefore, the information below is provisory and subject to change</li> <li>A description of the sampling frame (reference period, updating actions, quality review actions)</li> <li>Before 2013 the sampling frame was the Master Sample 2001 (MS). From 2013 to 2015 two sampling frames coexisted: the MS and the new sampling frame drawn from the National Dwellings Register (NDR). As from 2016 all units are selected from the NDR.</li> <li>The MS was designed and selected using the information of the 2001 Census of Population and Housing (Census 2001). It was constituted by private dwellings and it excluded collective households and institutions since they represented 1% of the total population residing in Portugal. The MS had almost 750 thousand private dwellings (535 thousand of which were of usual residence, the remaining being vacant, seasonal or for secondary use).</li> <li>The current sampling frame was selected from the NDR which in turn uses information collected in the 2011 Census. It is also constituted by private dwellings of usual residence and excludes collective households and institutions. Its size is approximately 1,4 million dwellings of usual residence.</li> <li>Both sampling frames are stratified one-stage cluster samples. In each stratum (NUTS 3) the clusters were constructed differently:</li> <li>In MS they were geographical areas constituted by one or more contiguous statistical sections (census enumeration areas).</li> <li>In the new sampling frame the clusters were constituted by one or more contiguous grid INSPIRE[1]cells with 1 Km2 of area.</li> <li>There is no information about coverage problems in both sampling frames.</li> <li>[1] Oficial GRID developped by EUROSTAT for the European territory - Grid_ETRS89_LAEA_1K.</li> </ul>

File	Content
SILC_ESQRS_RO_2020	Starting with 2015, the household surveys carried out by NSI-Romania are based on the use of Multifunctional Sample of Territorial Areas, so called the master sample new EMZOT. It is a database including approximately 1.500.000 dwellings, selected according to probabilistic criteria, serving as sampling frame for all household surveys, in 2015-2024. For the wave 1, wave 2, wave3 and wave4 (subsample selected in 2017, 2018, 2019 and 2020), a master sample database named "new EMZOT" is used. In the first stage, a stratified random sample of 792 areas, Primary Sampling Units (PSUs), was designed after the 2011 Population and Dwelling Census. The PSUs were sampled with probability proportional to the size (number of permanent dwellings). The new EMZOT sample has 450 PSUs selected from urban area and 342 PSUs selected from rural area. In the second stage, a fix number of dwellings are systematically selected from each PSU of EMZOT.
SILC_ESQRS_SI_2020	The basis for the sampling frame is the Central Register of Population (CRP), which is linked to the Register of Territorial Units. The sampling frame constitutes persons aged 16 years or more on 31st of December 2019. Besides the CRP we also use the frame of enumeration areas. Since some enumeration areas do not have enough inhabitants, those enumeration areas were linked with neighbouring areas into larger territorial units – i.e. sampling units, which were the sampling frame in the first stage. As the additional source we also use the list of addresses of different types of institutions. With this information we are able to exclude in advance from the sampling frame most of persons which live in the collective households. However, there are still some of these persons detected later in the stage of data collection and these persons are in the analyses considered as out-of-scope units (over-coverage).
SILC_ESQRS_SK_2020	The fullest list of households sharing of expenditures and permanently occupied dwellings and houses is available on the base of data from the 2011 Population and Housing Census (acronym - SODB).
SILC_ESQRS_FI_2020	<b>Description of the sampling frame</b> The sampling frame consists of total data based on the Population Information System of the Digital and Population Data Services Agency (DVV) and Statistics Finland's population and dwelling data resource. The Population Information System is a compilation of local registers kept up by population register districts. It covers basic data on all Finnish citizens and aliens permanently resident in Finland. Persons living in private households, institutions, persons living temporarily abroad and without a postal address are also included in the Population Information System. The persons who do not belong to the target population are excluded from the sampling frame. Finland uses a unified identification code system across register sources, which means that every person residing in Finland has a unique identification code and dwelling has a domicile code. Each person has been registered in the municipality where he/she has a permanent place of residence. The domicile code is the link between a person and his/her permanent dwelling. Persons without an address are registered in municipal registers as homeless persons. A person with a permanent address may also have a registered temporary address. The sampling frame is formed before the end of the statistical reference year, as a result of which the sampling frame contains slight error. The sampling frame is checked from the updated total data and an imperfection is corrected before the sample selection. In the interviews, when persons not belonging to the target population in the reference time, so-called under-coverage, are removed from the survey population. There is a small number of sample persons belonging to under-coverage left outside the sampling frame, which synchronizes

File	Content
	with the register at a delay. Excluded from the accepted sample in the interviews are persons absent from the household, e.g. persons residing abroad for more than a year if their household resident in Finland considers that the person was not a part of the household in question during the reference year. The population for the statistical reference year is revised after the reference period of the statistics approximately three months later in the data of Statistics Finland's statistics on household dwelling units and the total data of the income distributions statistics. The data are used in the calibration of the accepted sample in the interview, with which it is made to correspond to the population. The sampling frame is used for different sampling purposes, one of them is the Finnish EU-SILC integrated with the Income Distribution Statistics on sample data, construction of the household-dwelling units and for stratification. Information about the frame: reference period, updating actions, quality review actions Im general, the Population Information System of the Digital and Population Data Services Agency is exhaustive and up-to-date as regards persons. Information on population changes: births, deaths, migration, immigration and emigration, marriages, divorces, adoptions and changes of names are updated in real-time. Statistics Finland uses the data weekly for it's population and dwelling data resource used for statistical purposes, e.g. for publishing monthy preliminary statistics on population by sex in the municipalities of Finland. The system is maintained by notifications of changes made by population districts authorities. The inhabitants themselves are responsible only of the coange of fine eventy of entry of the nove. Specifying all the family or household members involved in the move. Those emigration source of the change of address in the country of entry. According to angerement between the Nordic countries, the population neities of the country of entry of the year), the population is correct

File	Content	
	number of such over-coverage sample persons was 117.	
SILC_ESQRS_SE_2020	The Total Population Register (TPR) is kept at Statistics Sweden since 1968. TPR is an extract from the population register at the Tax Authorities and all individuals residing in Sweden shall be registered at the property unit in the parish where they live. Each individual in TPR has a unique personal identity number. TPR receives daily updates on births, deaths, changes in marital status, and changes in citizenship, national migration, immigration and emigration from the Tax Authorities. Received information is checked mechanically with respect to the validity of the codes and the logical contents of the information and quality tests comprises, among other things, regional codes, connections between age and marital status, etc. TPR is used as the sampling frame for the selection of the sample of selected respondents/households. Data refers to the third quarter of the precedent year of the survey year. Persons aged less than 16 years of age are excluded from the frame.	
SILC_ESQRS_NO_2020	The sampling frame is a copy of the central population register called BEREG. This register i daily updated with information from local population register offices.	
SILC_ESQRS_CH_2020	All waves were drawn from the SRPH survey frame.	
SILC_ESQRS_ME_2020	As of 01/08/2022, the quality report for Montenegro was not fully validated, therefore, the information below is provisory and subject to change The source of the data for SILC is questionnaires, i.e. based only on a survey. The list of households sharing expenditures and permanently occupied dwellings and houses, was available from Population Census 2011. This list is not updated on a regular basis.	
SILC_ESQRS_RS_2020	The sampling frame is the <i>The Census of Population, Households and Dwellings</i> in the Republic of Serbia, carried out in 2011. Target population consists of all persons living in private households in the Republic of Serbia. Persons living in collective households and in institutions are generally excluded from the target population.	
SILC_ESQRS_TR_2020	NA Information available for SILC ESQRS 2019: The sampling frame of the first wave households of SILC 2019 was composed by the registers of Address Based Population Register (ABPR) and National Adress database. The sample of the households belonging to the rotational group with DB075=1 was extracted in February 2016. The sample of the households belonging to the rotational group with DB075=2 was extracted in February 2017.	

File	Content
	The sample of the households belonging to the rotational group with DB075=3 was extracted in February 2018. The sample of the households belonging to the rotational group with DB075=4 was extracted in February 2019. By 2007, the sampling frame of the survey is based on Address Based Population Register and National Address Database. The sampling frame of blocks (PSU's), including the household addresses, was determined from this register. The households are defined in this frame so that in each household belonging to the "National Address Database", at least 1 person is registered in the "Address Based Register System".
SILC_ESQRS_AL_2020	The database based on the 2011 Census of Population & Housing, provides a comprehensive count of all persons living in Albania. As a result, this database is considered to be the most adequate source to be used for the Albanian SILC sample selection and served as sampling frame, from which a total of 8878 households were selected for SILC 2020 sample.

## Annex 3: Sampling design 2020

File	Content
SILC_ESQRS_BE_ 2020	<b>Type of sampling design</b> The Belgian EU-SILC 2020 survey is based on a stratified 2-stage sampling scheme drawn in 2004, followed by rotation since 2005. Until SILC 2018 rotation allowed to replace roughly one fourth of the sample each year. With SILC 2019 a first step was made towards a 6-year panel instead of a 4-year panel. Normally the rotational group started in 2015 would have been dropped for SILC 2019. However, this group remained in the survey as the fifth wave. With SILC 2020 a full 6-year panel is in place. The rotational group started in 2015 participated then as the sixth wave. Hence, households (ignoring split-offs) participating in 2020 have been drawn for participation in 2015, 2016, 2017, 2018, 2019 or 2020. <b>Stratification and sub stratification criteria</b> The main stratification criterion is the NUTS2 level. The 11 sampling strata are the 10 Belgian provinces (5 in Flanders – coded BE21-BE25 – and 5 in Wallonia – coded BE31 to BE35) and the Brussels Capital Region (BE10). Further implicit stratification is obtained by sorting PSUs (sub-municipalities) on mean income and sorting SSUs (households) in selected PSUs on age of reference person.
	Sample selection schemes Sampling units and 2-stage sampling in 2004 In 2004, when organizing EU-SILC for the first time (ignoring the pilot survey in 2003), 2-stage sampling has been applied in each sampling stratum.
	The primary sampling units (PSUs) in stage 1 are the municipalities, or parts thereof in the larger ones. In each stratum, the PSUs in the frame are first descendingly sorted by average income; next, a fixed number of times a PSU is drawn according to a systematic PPS (probability proportional to size) selection scheme, where size is measured as the number of private households. This systematic sampling method generally causes some PSUs being selected repeatedly (e.g. Schaerbeek, a rather large municipality in stratum BE10, turns out to be drawn 6 times). In total, i.e. in all 11 sampling strata together, 275 PSU draws were made in 2004, once and for all (i.e. for the whole duration of EU-SILC). Stage 2 – Secondary Sampling Units
	The secondary sampling units (SSUs) in stage 2 are private households. According to each single PSU draw, a group (generally of fixed size) of households is selected in this stage; notice that a group of households corresponds to each PSU draw. In 2004, 40 households have been selected for each PSU draw (i.e. in each group); e.g. in Schaerbeek, 6 times 40 households were drawn. Systematic selection of households has been applied, after sorting the households in selected PSUs by age of reference person. Within each group, the selected households were numbered 1 to 40; households 1-10 constitute the first rotational group or replication, households 11-20 constitute the second rotational group or replication, and so on. The first replication was meant to participate in 2004 only, the second until 2005, and so on. The initial household sample in 2004 was self-weighting, by the combination of (systematic) PPS sampling of sub-municipalities (PSUs) – size of PSUs being the number of private households – and (systematic) sampling of private households (SSUs), as explained. <i>Renewal of the sample by rotation, since 2005</i>

Since 2005, a rotation scheme has been applied. Details for each year, from 2005 to 2020, can be found in the corresponding Quality Reports (https://statbel.fgov.be/fr/themes/menages/pauvrete-et-conditions-de-vie/risque-de-pauvrete-ou-dexclusion-sociale/plus).

SILC 2005 - SILC 2018: The rotation pattern is such that the overlap between samples in any two successive years is roughly 75%, and that the sample is completely renewed after 4 years. Hence four replications or rotational groups in each year, one of which is replaced the year after. Since 2005, each new replication remains in the survey during the next 4 years, and since 2007, each of the four replications is in the survey during four consecutive years.

SILC 2019: With SILC 2019 a first step was made towards a 6-year panel. SILC 2019 more specifically consists of 5 rotational groups. As before, a new group entered. At the start of 2019, the replication that is in the survey since 2015 would under the old scheme entirely (i.e. irrespective of whether the households are responding or not) be dropped. However, under this new scheme they were kept in the survey as the fifth wave. So, the four replications which entered into the survey in 2015, 2016, 2017 and 2018, respectively, are retained (including their split-offs); the households belonging to these four replications will be designated 'old' hereafter.

SILC 2020: With SILC 2020 the full a 6-year panel is in place. As before, a new group entered. At the start of 2020, the replication that is in the survey since 2015 would under the old scheme entirely (i.e. irrespective of whether the households are responding or not) be dropped in 2019, but was kept then in the survey as the fifth wave, and was also kept in 2020 als the sixth wave. So, the five replications which entered into the survey in 2015, 2016, 2017, 2018, and 2019 respectively, are retained (including their split-offs); the households belonging to these five replications will be designated 'old' hereafter.

The supplementary sample, i.e. the new replication that was added, is obtained by selecting, for each PSU draw, a fixed number of new households from the corresponding PSU. This selection is done again by systematic sampling, after sorting the households in each PSU on age of reference person. The number of new households for each PSU draw, is determined by considering some (expected) attrition of old households, some (expected) nonresponse for new households, and the required/desired minimum and maximum numbers of responding households, given some precision and budget constraints.

Hence, the (cross-sectional) sample of SILC 2020 consists of

"old" households: drawn between 2015 and 2019; and

"new" households: drawn in 2020.

## New sampling method for Brussels from 2016 onwards

In the framework of Eurostat's evolving requirements, Statbel decided to modify the sampling design for the Brussels region as from SILC 2016. In order to improve the precision of the poverty indicators, we modified the sampling design for Brussels, by stratifying now according to the tax data of households in Brussels. Starting with a primary and then secondary unit drawing, as for the whole country, we have chosen to proceed with a stratified sampling based on the new administrative data available. We opted for stratification at household level using fiscal data instead of primary sampling units of geographical units for Brussels. We therefore decided to break down the households of Brussels into 5 tax quantiles, plus 1 strata for household without tax information.

SILC\_ESQRS\_BG Type of sampling design 2020 Six-year rotation panel is

Six-year rotation panel is used for EU-SILC2020 in Bulgaria. It contains 6 independent sub-samples and follows stratified two-stage cluster sampling design.

Separated strata are formed based on the country administrative-territorial division. All private households in the country are covered.

Up to 2015, the survey "Statistics on income and living conditions" is carried out on a four-year rotating panel of private households. The sample size every year is around 7300 addresses/ private households which are distributed in all areas of the country. All members of a sampled household that are at the age of 16 or more are also surveyed. Each year one rotational group is dropped and replaced by another.

Since 2015, with the financial support of the European Commission, households from the 9th and 10th rotational groups are followed for the fifth (5) and sixth (6) consecutive year respectively.

In 2020 a new rotational group with 2680 households was introduced

## Stratification and sub stratification criteria

The general population and administrative-territorial division by statistical districts of the settlement, comprises all the households in the country. Register prepared for the Population Census 2011 was used as sampling frame for selection last rotational group (R4). The sampling frame is annually updated with data from the Information System "Demography" data (ISD). Information about new born and died persons is used for actualization of sampling frame.

The sample is stratified by administrative-territorial districts in the country (NUTS3) and the household's location. As a result 56 strata are formed (28 of urban and 28 of rural population). Municipalities and settlements are ranged according to the number of their population within each stratum.

## Sample selection schemes

The number of census enumeration units (PSU) is calculated for each strata included in the sample.

The clusters on the first stage are chosen with probability proportion to population size (number of households) in the PSUs. Systematic sampling of secondary units (households) in each primary unit selected is applied. Each PSU contains 5 households

## Sample distribution over time

The survey is carried from April to June of the year 2020 with reference period of data the previous calendar year (2019).

Sample distribution (household questionnaire) over time

%

Month	Data	Number	r
april	1 - 10	6	0.1
	11 - 20	14	0.2
	21 - 31	306	4.2
may	1 - 10	321	4.4
	11 - 20	1040	14.2
	21 - 30	1371	18.7
june	1 - 10	2128	29.1
	11 - 20	1445	19.8
	21 - 31	682	9.3
	Total	7313	100

SILC_ESQRS_CZ_ 2020	<b>Type of sampling design</b> The survey was carried out on the whole territory of the Czech Republic. The sample size of newly selected dwelling (first wave in 2020) was 4 750 dwellings. Dwellings were selected using stratified two-stage sampling design. At the first sampling stage small geographical areas (CEUs – Census Enumeration Units) were selected by probability sampling. In the second stage selection a sample of 10 dwellings was drawn from each CEU.
	In 2020, the total sample size was 10 736 dwellings (10 769 households) from which 4 750 addresses were newly selected, 6 622 dwellings were revisited from previous waves and 65 dwellings into which from the previous year moved some sample persons. The new sample was allocated to the strata using proportional algorithm (proportionally to the number of dwellings in the sampling frame).
	<ul> <li>Stratification and sub stratification criteria</li> <li>The sampling of CEUs is stratified by region (NUTS4) and municipality size with following four categories:</li> <li>below 2 000 inhabitants</li> <li>2 000 – 9 999 inhabitants</li> <li>10 000 – 49 999 inhabitants</li> <li>50 000 and more inhabitants</li> <li>Sample selection schemes</li> <li>In the first stage, CEUs were sampled with probability proportional to size (number of dwellings). Simple random sampling without replacement is used for sampling of constant number of 10 dwellings in each sampled CEU.</li> <li>Sample distribution over time</li> <li>Due to the limited duration of the fieldwork period, the survey was organized as a one-short survey. The fieldwork started on the 1st February and</li> </ul>
	were scheduled to end on the 24th May. Due to the COVID-19 pandemic, the survey deadline was postponed until the 26th July 2020. Sample was not distributed into separate waves over the duration of the fieldwork.
SILC_ESQRS_DK _2020	Type of sampling design         Stratified sample on NUTS 2 Regions and income groups - 2 stage sampling         Stratification and sub stratification criteria         The sample is stratified on NUTS2 regions (aiming to limit standard errors in smaller regions) and income groups (aiming to limit standard errors in lower income groups)         Sample selection schemes         2 stage sampling. First, the address is selected. Then a person above the age of 13 is selected to be the SR for the household.         Sample distribution over time         All invitations are send out in February. The interview period ends in May.

SILC_ESQRS_DE	Type of sampling design
_2020	The German EU-SILC sample corresponds to a one stage cluster sample consisting of four rotation groups with one quarter leaving the sample
	every year and another one joining.
	Sample frame is the German Census of 2011. The addresses were stratified by a combination of technical (building size classes) and regional
	(districts/counties or summaries of districts) information as described below. Based on the stratification, addresses were clustered into artificially
	delimited areas (selection areas; in German called "Auswahlbezirke") that consist of around 9 dwellings or respectively 15 persons.
	Based on the specifications of the census, like clustering, the selected units were sampled and all sampling information, including rotation group
	allocation, was determined. Due to legislation only 20% of the sampling frame was stored. Based on the determined sampling variables, the
	sample districts were assigned to Microcensus and SILC- subsample. These variables are assigned as random numbers by permutation and are
	stratification and sub-stratification criteria
	a) Stratification variables referring to building size classes:
	The first stratum includes smaller buildings with 1 to 4 apartments. They are grouped into sample districts with a guideline value of 12
	apartments, in the order of the house numbers within the street, if necessary also across streets.
	The second stratum includes medium-sized buildings with 5 to 10 apartments. These buildings each form their own selection districts.
	The third stratum includes buildings with 11 or more apartments. These are divided into sections with a guide size of 6 apartments.
	There are two more strata: Stratum N°4 includes the population in communal accommodation, which is divided into selected units with a
	reference size of 15 people. Another stratum N°5 serves for updating the basic selection. This annual update of the selection takes place via the
	reports on the construction activity statistics (socalled building permits). The new buildings registered there are divided into the three initial size
	classes mentioned.
	b) Regional stratification variables: There are 242 regional strate (districts or groups of districts), which as a rule should have at least 200,000 inhobitants. The technique of selection
	i e the sorting zone formation and selection per zone ensures a stratification-like effect for these regions
	Sample size and allocation criteria:
	Sampling is done on the level of areas not on households, therefore the sample size can only be estimated and corresponds to around 40000
	households. The sample size was determined in order to meet precision requirements of council regulation No 2019/1700 and takes into account
	the estimated design effect of German EU-SILC sample.
	Sample distribution over time
	The first longitudinal data for the new redesigned German EU-SILC will be with EU-SILC 2021 survey available.
SILC ESORS EE	Type of sampling design
2020	The decision of the second s
	The design used is one-stage stratified unequal probability sampling of households, with a household selected with probability proportional to the
	number of persons aged 14+ in it. It is because a sample of persons aged 14+ (so called address-persons) is selected first with equal probabilities
	within strata, and then the household of the selected person is identified, and all eligible persons in the household are interviewed. Stratification is
	done by geographical region.
	Stratification and sub stratification criteria

Geographical stratification was used. The counties (and capital Tallinn) were grouped into three strata by the population size:
big counties:Tallinn, Harju (excludingTallinn), Ida-Viru, Lääne-Viru, Pärnu,Tartu;
small counties: Jõgeva, Järva, Lääne, Põlva, Rapla, Saare, Valga, Viljandi, Võru;
Hiiu county formed a separate stratum as the smallest county with the population size times smaller of the next smallest.
Sample selection schemes
Systematic sampling of address-persons in each stratum. For households this procedure results in unequal probability sampling with inclusion
probabilities proportional to household size (number of persons aged 14+ in it).
Sample distribution over time
Fixed income reference period was used and therefore the sample was not principally divided into months or weeks. The fieldwork period was from February to May 2020. For the convenience of fieldwork administration, the sample was allocated into the four months with proportions approx. 3:3:3:1. When allocating households into the months of fieldwork period, uniform workload of interviewers was targeted. Actual month of interview is nevertheless different from the month the household was allocated to.
The SILC sample is a rotational sample. In 2014, SILC introduced both a new sample and a new sampling methodology. The sample is designed to ensure every household in the target population has a known, non-zero and equal probability of being included in the sample.
There is both a cross-sectional and a longitudinal element to the SILC sample. Households interviewed for the first time are Wave 1 households. Households who are interviewed in subsequent years are Wave 2 households (2nd year in the sample), Wave 3 households (3rd year in the sample), Wave 4 (4th year in the sample) or Wave 5 (5th and final year in the sample).
Type of sampling design
The two-stage area sampling was applied for the EU-SILC survey.
Stratification and sub stratification criteria
The sampling design involves two levels of area stratification of the target population: (i) the first level is geographical stratification based on the partition of the total country area into the thirteen standard administrative regions, corresponding to the European NUTS II level. Stratification by region, implemented also in the original design of the SILC, is necessary for achieving specified precision at regional level. (ii) The second level of stratification involves grouping, within each region, municipalities and communes into four categories by degree of urbanization, i.e., according to their population size. The four degrees of urbanization are delineated in Table 1. The two major city of ex-agglomerations of Athens and Thessalonica constitute two separate major geographical strata within the regions of Attiki and Kentriki Makedonia, respectively. Thus, the total number of strata in the thirteen regions, excluding the cities of Athens and Thessalonica are further partitioned into 31 and 9 substrata (administrative subdivisions), respectively, on the basis of the city blocks of the municipalities that constitute them. Thus, the total number of strata for this survey is 90.

Stratum Degree of Urbanization	
1	30,000 residents or more
2	5,000 – 29,999 residents
3	1,000 – 4,999 residents
4	0 – 999 residents

The number of the final strata in the thirteen (13) Regions is 50. The former Greater Athens Area was divided into 31 strata on the basis of the lists of city blocks of the Municipalities that constitute it and taking into consideration socio-economic criteria. Similarly, the former Greater Thessaloniki Area was divided into 9 strata. The two Major former City Agglomerations account for about 35.5% of total population and for even larger percentages in certain socio-economic variables. Thus, the total number of final strata of the survey is 90.

The initial sample size is 17,073 households, 4.2‰ of the total population of households (4,115,678).

## 1st stage of sampling

Selection algorithm

The random selection of the specified number of PSUs is carried out separately in each stratum in the following steps.

1. Before the selection, list all PSUs in the stratum in random order;

2. for each PSU in the stratum, cumulate the population sizes (number of private households) for PSUs up to and including itself, e.g., for PSU i calculate the total  $T_i = N_1 + N_2 + \dots + N_i$ , where  $N_1, N_2, \dots, N_i$  denote sizes of PSUs in the particular stratum;

3. determine the range corresponding to each PSU in the stratum, that is, from (but not including) the cumulative sum for the previous PSU to the cumulative sum for the current PSU, e.g., for PSU i the range is  $(T_{i-1}, T_i]$ ;

4. divide the total cumulative size by the number n of PSUs to be sampled, to get the sampling interval (SI);

5. determine a random start, r, between 1 and SI;

6. select those n PSUs whose range contains the random numbers r, r+SI, r+2SI, ..., r+(n-1)SI.

By design, the total number of selected PSUs in each stratum is a multiple, say d, of 4, so that each rotating panel is composed of 4d PSUs. The selected PSUs are assigned to the four panels as follows. Assume that all 4d selected PSUs are listed in the order of their selection. Then the d PSUs assigned to the i-th panel (i=1,2,3,4) are those in the sequence of selection i, i+4, i+2\*4, ..., i+(d-1)\*4. For example, in a stratum with 12 selected PSUs, the four panels will be formed by the PSUs according to the sequences of selection (1, 5, 9), (2, 6, 9), (3, 7, 11), (4, 8, 12), respectively.

## Sample rotation

Annually, a newly rotating-in panel is formed by another d PSUs in each stratum, which are selected as follows. The d PSUs of the outgoing panel are located in the full randomized list of PSUs in the stratum. For each of these, the next PSU on the list is chosen as its replacement, and all these four replacements form the new panel.

In this stage, from any final stratum, say stratum h,  $n_h$  primary units were drawn. The number  $n_h$  of draws was approximately proportional to the population size  $N_h$  of the stratum (number of households according to the last population census of the year 2011).

## 2nd stage of sampling

In the second sampling stage, a systematic random sample of households is drawn, with a pre-fixed sampling rate, from the current population of households (based on a list constructed in the field, updating the list of the Census 2011) of each selected PSU.

Sample distribution over time

In this stage, from each primary sampling unit (selected area) the sample of ultimate units (households) is selected. Actually, in the second stage we draw a sample of dwellings. However, in most cases, there is one-to-one relation between household and dwelling. If the selected dwelling consists of one or more households then all of them are interviewed.

## **Probabilities of selection**

For the two-level stratification scheme described above, the lowest-level strata we will be referred to as final strata. Given the sample allocation to the final strata, the survey design determines the selection probabilities for the two stages as follows.

Let  $N_h$  denote the number of private households in final stratum h of region R, according to the Census 2011, and let  $n_{1h}$  denote the number of PSUs to select from the same stratum for the sample of all four panels. Next let  $n_h$  denote the sample size for stratum h and let  $n_{hi}$  denote the number of households to select from PSU i in stratum h. Then, with the number  $n_{hi}$  kept constant for all PSUs in the stratum, the number of PSUs in stratum h is

$$n_{1h} = \frac{n_h}{n_{hi}}.$$

Now let  $N_{hi}$  denote the number of private households in PSU *i* in stratum *h* (in region *R*) according to Census 2011. Then the probability of selecting PSU *i* in stratum *h* in the first stage, proportionally to the size of the PSU, is

$$\pi_{ki} = n_{1k} \frac{N_{ki}}{N_k}.$$

The conditional probability  $p_{j/hi}$  of selecting household *j* in the second stage, given that PSU *i* is selected, is the sampling rate  $l_{hi}$  used to systematically select households for that PSU. Then the unconditional probability of selecting household *j* in PSU *i* in stratum *h* is

$$\pi_{hij} = \pi_{hi}\pi_{j/ki} = n_{1h}\frac{N_{hi}}{N_h}\lambda_{hi}.$$

Now, to make the probabilities of selection of all households in region R equal, the sampling rate  $l_{hi}$  should satisfy the condition

$$\pi_{hij} = n_{1h} \frac{N_{hi}}{N_h} \hat{\lambda}_{hi} = \frac{n^R}{N_R},$$

where  $n_R$  is the total sample size for region R (sum of the adjusted sample sizes for all strata of the region) and  $N_R$  is the total population size of region R. This implies that

$$\hat{\lambda}_{\rm hi} = \frac{1}{n_{\rm th}} \frac{N_{\rm h}}{N_{\rm hi}} \frac{n^{\rm R}}{N_{\rm R}} \, . \label{eq:lambda_hi}$$

Note that because of the aforementioned rounding,  $l_{hi}$  is not exactly equal to  $n_{hi'}N_{hi}$ .

The fixed sampling rate  $l_{hi}$  is to be applied to the updated number of households of the selected PSU, denoted by  $M_{hi}$ . Thus, the number of households that will be selected will be  $m_{hi} = \lambda_{hi}M_{hi}$ , rounded to the nearest integer, and may be larger or smaller than  $n_{hi}$  depending on whether

 $M_{hi}$  is larger or smaller than  $N_{hi}$ . In case that  $m_{hi}$  is significantly larger than  $n_{hi}$ , thereby increasing the cost and the operational burden, as well as the intracluster correlation, it may be decided to sample the planned number  $n_{hi}$  of households. This can be done by dropping at random, using systematic subsampling,  $m_{hi} - n_{hi}$  of the selected households. This is equivalent to having initially sampled systematically with the adjusted (smaller) sampling rate  $\lambda_{hi} N_{hi}/M_h$ , or with larger sampling interval. On the other hand, if  $m_{hi}$  is smaller than  $n_{hi}$ , and with possible nonresponse yielding a too small sample, it may be decided to sample the planned number hi n of households. Again, this would be equivalent to having initially sampled systematically with the larger sampling rate  $\lambda_{hi} N_{hi}/M_{hi}$ . Such stabilization of the sample size should take place only if numerous instances of extreme deviation from the expected sample size are encountered.

Since every person of a selected household is included in the sample, computing the selection probability of a given person is equivalent to computing the probability that the person's household is selected. Consequently, all members of a household have the same selection probability As the survey is annual, the sample of households is not distributed over time. The 2020 survey was carried out from July to November 2020 with reference period the previous year (2019).

Month	Date	Number	%
	1 to 10	0	0.0
July	11 to 20	633	4.2
	21 to 31	2,789	18.5
	1 to 10	2,187	14.5
August	11 to 20	1,436	9.5
	21 to 31	1,453	9.6
	1 to 10	2,012	13.3
September	11 to 20	1,424	9.4
	21 to 30	1,098	7.3
	1 to 10	956	6.3
October	11 to 20	603	4.0
	21 to 31	354	2.3
	1 to 10	124	0.8
November	11 to 20	16	0.1
	21 to 30	1	0.0
Total		15,086	100.0

	In 2019 the sample design based on the results of the "Study of the current sampling design of the Survey of Income and Living Conditions (SILC) with the objective to increase/adjust the sample at regional (NUTSII) level" in order to improve the estimates of regional EU-SILC indicators. The new design will be introduced gradually with the annual replacement of the outgoing panel, starting in 2019, and be fully implemented in four years when all four new panel samples will have been selected. Until then the old and the new designs will be running in combination, providing sufficient precision at both national and regional level. The objective of the redesign is that when fully implemented the new design will satisfy the precision requirements with a smaller sample than the current one.
SILC_ESQRS_ES_ 2020	Type of sampling design         The Survey on Income and Living Conditions (Spanish "ECV") is an annual survey with a rotational-group design. The sample comprises four independent sub-samples, each of which is a four-year panel. Each year, the sample is rotated in one of the panels.         The new sub-samples, each of which is a four-year panel. Each year, the sample is rotated in one of the panels.         The new sub-samples is selected following a two-stage design; the first-stage units are stratified. The first stage is made up of census sections. The second stage comprises main family addresses. There was no sub-sampling within those units; all households usually residing in those addresses were surveyed.         The other sub-samples are formed with the households of the previous waves that have collaborated. In the 2020 survey the split-off households are not followed in the panel component (in the COVID-19 crisis context, together with the change of the Data Collection program and the mode of data collection, it has only been possible to develop the procedure to follow the movement of the entire household, but not the case of the split-off households.).         Since the 2016 survey a supplementation of the sample (224 census sections) is added in Catalonia in the new-subsample for the cross-sectional operation. This sample will not followed up in the subsequent years.         The sample size will be duplicated in the context of the precision requirements introduced in the allocation by Autonomous Communities) in the period 2019-2021. <i>Renewal of sample: Rotational groups</i> As indicated earlier, the sample had 500 sections. Every year, we replace all the sample of addresses in the sections belonging to a given rotational group i (the sections don't cha
Stratum 0: Municipalities of over 500,000 population.

Stratum 1: Provincial capitals (other than the above).

Stratum 2: Municipalities of over 100,000 population (other than the above).

Stratum 3: Municipalities of 50,000 to 100,000 population (other than the above).

Stratum 4: Municipalities of 20,000 to 50,000 population (other than the above).

Stratum 5: Municipalities of 10,000 to 20,000 population.

Stratum 6: Municipalities of under 10,000 population.

An independent sample was designed in each Autonomous Community to represent it, because one of INE's survey objectives is to provide data at this level of disaggregation.

#### Sample selection schemes

To achieve the survey objective of producing acceptably reliable estimates at both the national and at the Autonomous Community (regional) level, we selected, in wave 1 (survey 2004), a sample of 16,000 addresses spread over 2000 census sections. We distributed the sample across Autonomous Communities by allocating one part uniformly and another part in proportion to Autonomous Community size. The uniform part accounted for about 40% of sections.

In each section, besides the eight addresses selected originally, a further eight were selected as substitutes in case any problem arose with the addresses chosen originally. The number of sections in each Autonomous Community and stratum group was always a multiple of four, to ensure that all rotations had the same notional-sample distribution across Autonomous Communities and strata. Therefore, the number of units considered in the new sub-sample in the current survey is <sup>1</sup>/<sub>4</sub> of the figures included in the table above.

In the new sub-sample, census sections were selected in each stratum by a probability in proportion to size (family dwellings). In each section, addresses were selected with equal probability by systematic sampling initiated at random. This procedure produces self-weighted samples in each stratum.

Since the 2014 survey substitutions are eliminated. In each section twelve sections are selected instead of eight.

# Method of selection of substitutions

As in previous years, in the new sub-sample, in each section, besides the eight addresses selected originally, a further eight were selected in the section as substitutes in case any problem arose with the addresses chosen originally. Hence, the common variable of an address selected originally and its prospective substitute is the census section. There is not other common variable. There has been multiple substitutions in the sense that further substitutions (until the list of eight substitutes is completely used) have been made for failed substitutions.

Since the 2014 survey substitutions are eliminated. In each section, twelve sections are selected instead of eight.

# Sample distribution over time

In the 2020 survey there was a significant delay in the data collection (there were some difficulties in the procedure of the new subcontracting, due to administrative reasons). There is no itemised distribution for sample collection in the period September-December 2020 (the sample supplementation of Catalonia was also in the period September-December 2020). Some interviews were completed in 2021 due to some delays.

SILC\_ESQRS\_FR\_<br/>2020As of 01/08/2022, the quality report for France was not fully validated, therefore, the information below is provisory and subject to change.Please note that the information was originally provided in French and was freely translate to English.

	Type of sampling designThe survey sample is draw from the OCTOPUSSE master sample, which is based on two lists of dwellings (those in large municipalities (of 10,000 inhabitants or more) and those in small municipalities) from the last annual population census survey available.Stratification and sub stratification criteriaThe sampling of dwellings is stratified, at several stages: depending on the strata, there are two or three stages of sampling.Sample selection schemesThe sample of SILC dwellings is drawn with equal probabilities (rate f) with the exception of secondary listed dwellings which are drawn with probability f/4 and vacant listed dwellings, which are drawn since 2006, at rate f for vacant urban dwellings and at rate f/18 for vacant rural dwellings (rate f/2 until 2005).Sample distribution over timeThe sample is of the rotating type: each year, nine sub-samples are questioned, each drawn according to the method explained above. Each sub-sample is therefore a panel questioned nine years in a row. The draws of the sub-samples are independent from one year to the next
SILC_ESQRS_HR _2020	Type of sampling design         The sample design for EU-SILC 2020 was two-stage stratified design. In each stratum primary sampling units (PSUs) were systematically selected with probability proportional to size, and in the second stage 7 addresses (occupied dwellings) were randomly selected in each PSU. The sample was divided into 4 subsamples (rotational groups), each by itself representative of the whole population and similar in structure to the whole sample.         Stratification and sub stratification criteria         The sampling frame of segments for the first stage is divided into 8 strata. 6 strata are defined by 3 groups of counties (NUTS-3) and the types of municipality. The type of municipality can be city or municipality. Separate 2 strata are Grad Zagreb county and city of Rijeka and city of Split together.         In Croatia there are two statistical regions (NUTS-2):         1. Continental Croatia         2. Adriatic Croatia.         5 strata belong to Continental Croatia region and 3 strata belong to Adriatic Croatia region.         Beside explicit stratification, implicit stratification according to counties (NUTS-3) and municipalities was applied. It means that the list of segments within strata was sorted according to counties and municipalities before selection.         Sample selection schemes         The sampling frame was divided into 8 strata. In the first stage we have selected segments as PSUs. The PSUs were systematically selected with probability proportional to size in each stratum (the measure of size was the number of private households according to the 2011 Census). Before selection of PSUs, segments were sorted according to counties and municipalities. In the second stage 7 addresses (occu

	Describe addresse and the Sample EU-SILe one rota	ed selectes in the number <b>distrib</b> C 2020 tional g	ction sche same str of occup <b>ution ove</b> sample w roup was	eme is r atum. U ied dwe er time vas divic selected	not self-w Jnequal s Illings in <b>- Renew</b> s led into 4 d in 2019	veighting selection selected al of san 4 rotation 9 and a ne	g becaus probabi segment <b>aple: ro</b> t al group ew rotati	e of diff lities of a s and oth tational os. One r onal gro	Yerent sat addresse her discru groups otational up was s	mpling f s were a epancies l group v elected i	fractions consequ s in the 2 was selec in 2020.	between strata and unequal selection probabilities of thence of differences between the number of households 2011 Census data. Exted in 2017, one rotational group was selected in 2018, All rotational groups are similar in structure.
SILC_ESQRS_IT_ 2020	Type of Two-sta househo The PSU Four mu Municip Stratific constant Municip sample of Seconda Sample PSU are inside ea Househo No subs Rotation each gro Group A six-year	<b>sampli</b> ge samplids. Js are stanicipali palities a <b>cation a</b> ation of t (this gu palities v palities v palit	ng design bling desi tratified a ities are so are cluster and sub so primary uarantees whose siz pling un n scheme d with pro- tum. selected of unit no gn is used included pt instead n panel b	n gn: The ccordin elected tratifica samplin self-we es are h its are n s obability with equ on-respondent for how in the s of drop egins to	first stag g to their in each si useholds, ation crift g units b ighting d igher that not strat y proport ual proba onse has b useholds. ample fo oped and b be fully	ge units ( size in t tratum. househo teria y the nun lesign in n a thres ified. ional to bility by been app In 2020 r four wa one-fifth operatio	or prima erms of olds are of mber of each reg hold are their size systema lied. the who aves of t of the s nal.	the numl clusters of inhabitar inhabitar inhabitar inhabitar inhabitar self-repu e (numbe atic samp le sampl he survej ample is	ling unit ber of res of individ nts so that resenting er of resi- bling in e e is comp y. 2020 i renewed	s PSU) a sidents. a duals. at the tot g units i.e dents) by each sele posed of s a trans l with th	are the m Stratifica al numbe e. are stra y means cted mun five rota e selection e selection	nunicipalities, and the second stage units (SSU) are the ation is carried out inside each administrative region. er of inhabitants in each stratum is approximately ata themselves and included with certainty in the of a systematic sampling method by Madow (1949) nicipality from municipality registers. ational groups. As shown in the table below, until 2019 ar when the panel duration is extended to 5 years. on of the rotational group E1. From 2021 onward the
		А	В	С	D	E	F	G	Н			]
	2019	A4	B3	C2	D1							
	2020	A5	B4	C3	D2	E1						]

	2021	A6	B5	C4	D3	E2	F1					7
	2022		B6	C5	D4	E3	F2	G1				-
	2023			C6	D5	E4	F3	G2	H1			-
	2024			-	D6	E5	F4	G3	H2		11	-
SILC_ESQRS_CY	Sample The sam	distribu nple is no <b>sampli</b> i	<b>ition ov</b> ot distrib ng desig	er time outed ove n	er time.							
_2020	The long years 20 drawn w The cross sample a The sam <b>Stratifie</b>	gitudinal 018, 2019 vith the s ss-sectio added in nple desi cation a	l compor 9 and 20 ample o nal comp 2020. gn was o <b>nd sub s</b>	nent of E 20 and c f 2017, t ponent o one-stage	U-SILC of the rotat he rotat f EU-SI e stratifi <b>ation cr</b> i	2020 as ational gro LC 2020 cation. i <b>teria</b>	s transm group R2 oup R1 v ) include	itted to I 2 for the vith the s ed the ro	EUROST years 20 sample of tational g	AT cons 19 and 2 2018 and roups of	sists of 1 2020. Th nd the r f R1, R2	otational groups R4 for the years 2017-2020, R1 for the e rotational group R4 for the years 2017-2020 was otational group R2 with the sample of 2019. e, R3 and R4. The rotational group R3 was the new sub-
	Geograp i.e. 1) L 8) Pafos	phical str efkosia V s Urban,	atificatio Urban, 2 9) Pafos	on criter ) Lefkos Rural.	ia were ia Rural	used for , 3) Ami	the samp nochost	ple selec os Rural	ction. The (1), 4) La	househ arnaka U	olds we Jrban, 5	re stratified in 9 strata based on District (Urban / Rural), ) Larnaka Rural, 6) Lemesos Urban, 7) Lemesos Rural,
	<sup>(1)</sup> Ammo	ochostos	Urban i	s an area	not und	ler the et	ffective	control o	of the Go	vernmer	nt of the	Republic of Cyprus.
	Sample	selectio	n schem	ies								
	The sam	iple was	selected	from ea	ch strat	um with	simple r	andom s	sampling.			
	<b>Sample distribution over time</b> The survey for the year 2017 was carried out from the 13th of February 2017 to the 30th of June 2017, while the survey for the year 2018 was carried out from the 12th of February 2018 to the 30th of June 2018. The survey for the year 2019 was carried out from the 11th of February 2019 to the 30th of June 2019 and the survey for the year 2020 was carried out from the 9th of March 2020 to the 30th of September 2020											
	Substitut No subs Method Not app Renewa The yea	titons titution of selec licable. I of sam r 2005 w	procedun tion of s ple: rota vas the in	res were <i>ubstitute</i> <i>utional g</i> nitial yea	applied. es roups ur of the	survey.	The sam	ple in th	ne first ro	und was	divideo	in 4 sub-samples as it was based on a rotational design

of 4 replications with a rotation of one replication per year. Each subsample was separately selected so as to represent the whole population. Every year one sub-sample is dropped and substituted by a new one. For 2017 one specific sub-sample, pre-selected from 2013 (R4) was dropped and substituted by a new one (R4). For 2018 the rotational group 1 (R1), was dropped and substituted by a new one (R1). For 2019 the rotational group 2 (R2), was dropped and substituted by a new one (R2). For 2020 the rotational group 3 (R3), was dropped and substituted by a new one (R3).

The size of each Rotational Group for the 2020 survey (longitudinal component) is shown in the table below:

# Used addresses and accepted interviews (R4 - R1 - R2)

	2017		20	18	20	)19	2020		
	Used addresses	Accepted interviews	Used addresses	Accepted interviews	Used addresses	Accepted interviews	Used addresses	Accepted interviews	
R4	1.650	1.107	1.118	1.006	1.045	965	981	937	
R1	na	na	1.700	1.136	1.157	1.067	1.100	1.040	
R2	na	na	na	na	1.800	1.137	1.151	1.060	
Total	1.650	1.107	2.818	2.142	4.002	3.169	3.232	3.037	

#### SILC\_ESQRS\_LT\_ **Type of sampling design** 2020 For the first time househol

For the first time households which were selected for the survey in 2005 divided into 4 rational groups. One of these groups was dropped out after 2005 operation and not included to the survey of 2006 according to the original integrated design. A new sub-sample of households was selected to the sample of year 2006. For new sample stratified sample design was used. Population register was used as a sampling frame. Simple random sample of persons was used in each stratum. The second group was dropped out after 2006 operation and not included to the survey of year2007. Anew sub-sample of households was selected to the sample of year 2007 according the same rules as selected a new sub-sample before and so was in every following year. And so on.

#### Stratification and sub stratification criteria

While selecting the new rotational group of the sample the country were grouped into 25 strata: 5 largest cities, other cities and rural area by county (a total of 10 counties). Simple random sample of non–institutional persons aged 16 and over was selected from the Population Register in each stratum. Household which lives in the selected person's address was surveyed.

#### Sample selection schemes

Within each of 25 strata simple random sample was used to select the person's address

Fixed income reference period was used and therefore the sample was not principally divided into months or weeks. Fieldwork period was from the January till the April

SILC_ESQRS_LU	Sample selection	on scheme									
_2020	All face-to-face That is why ST.	e surveys were sto ATEC decided to	opped during the conduct the SILC	lockdown period 2020 survey throu	in order to reduce ugh CATI interview	social interactior wing.	s between households and interviewers.				
	STATEC also decided not to select any new subsample in 2020 and to re-contact all the addresses that had participated in the 2019 surve main reason for that is telephone numbers were available for nearly all the 2019 households, while a significant share of new addresses, would have been drawn in 2020 would not have had any telephone number to be used for contact purposes.										
	Therefore, the I	LU-SILC 2020's d	atabase is compos	sed of:							
	847 addresses w	who participated in	the survey for th	e first time in 2010	б;						
	815 addresses who participated in the survey for the first time in 2017;										
	943 addresses v	who participated in	the survey for th	e first time in 2018	3;						
	1 299 addresses	who participated	in the survey for	the first time in 20	19;						
	Before 2020, the Luxembourg, the sample was allow More information	Before 2020, the new SILC subsample used to be stratified according to the 12 geographical regions (canton) of the Grand-Duchy of Luxembourg, the canton of Luxembourg being further split into the city of Luxembourg and the rest. Thus, 13 stratum groups were defined. The sample was allocated among the strata proportionally to their size in number of individuals aged 18+.									
	Wore morman					s years.					
SILC_ESQRS_LV	Type of sampli	ng design									
_2020	A stratified two unit size was ca	-stage sampling w rried out at the fir	vas used for the E st stage and a sim	U-SILC survey in ple random sample	Latvia. A systemating was carried out	ic sampling with it at the second stag	inclusion probabilities proportional to the ge.				
	Stratification a	nd sub stratifica	tion criteria								
	The stratification Territories and '	on was made dep Territorial Units (	pending on the t CATTU) of Latvi	ype of municipalities a was used for stra	ty (Riga, cities, t tification.	owns, rural areas	). The Classification of Administrative				
	Sample selection	on schemes									
	In the first stage their population	e 1 351 Populatior size.	n Census counting	g areas (PSUs) wer	e selected by syste	matic sampling w	ith inclusion probabilities proportional to				
	A simple rando was used to sele	m sampling witho	out replacement v	vas used to select	9 271 dwellings (S	SUs) in the samp	led PSUs. A non-proportional allocation				
	Sample distrib	ution over time									
	A sample distr successfully int	ibution over time erviewed in each	e was not used month of fieldwor	because the EU-S rk is shown below	ILC survey is orgin Table.	ganized on an ar	nnual basis. The number of households				
	Longitudinal 20	)17 - 2019. Cross-	sectional 2020								
	Month	2017	2018	2010	2020	Total					
		2017	2010	2019	2020	1 Otal					

				1							
		number	%	number	%	number	%	number	%	number	%
	February	0	0.0	208	6.9	346	8.6	571	9.4	1125	7.6
	March	391	23.9	258	8.5	410	10.2	501	8.2	1560	10.6
	April	496	30.3	833	27.5	853	21.3	1079	17.7	3261	22.1
	May	435	26.6	924	30.5	896	22.3	1798	29.5	4053	27.4
	June	313	19.1	805	26.6	1181	29.4	627	10.3	2926	19.8
	July	2	0.1	0	0.0	325	8.1	1081	17.7	1408	9.5
	August	0	0.0	0	0.0	0	0.0	438	7.2	438	3.0
	TOTAL	1637	100.0	3028	100.0	4011	100.0	6095	100.0	14771	100.0
SILC_ESQRS_HU _2020	J <b>Type of samp</b> In 2020, a new selection. At s random sampl <b>Stratification</b>	bling design v rotational g tage 1, we have the of househo and sub stra	roup (n ive a str lds. atificat	umber 20) ratified san	with 20 pple of 1	088 househ localities w	olds wa vith pps	s introduce selection.	ed. The At stag	new sub-s e 2, (in the	ample i sample
SILC_ESQRS_HU _2020	J <b>Type of samp</b> In 2020, a new selection. At s random sampl <b>Stratification</b> At stage 1 the the number of the charachter <b>Sample select</b> At stage 1, loc replacement.	bling design v rotational g tage 1, we have e of househo and sub stra population o which is 91. istic of the have calities were s	roup (n ive a str lds. <b>atificat</b> f localit Smalle ead of h	umber 20) ratified san <b>ion criteri</b> ties is strati r localities ousehold y l with pps y	with 20 nple of 2 a ified. E are stra vithin e without	088 househ localities w ach of the 1 atified by N each locality replaceme	olds wa vith pps larger lo IUTS-3 y. nt. At s	as introduce selection. ocalities is regions ar tage 2 hour	ed. The At stag a stratu nd the si seholds	new sub-s e 2, (in the m of its ow ize of local within eac	ample i sample vn. The ity. At h strata
SILC_ESQRS_HU _2020	<ul> <li>J Type of samp In 2020, a new selection. At s random sampl Stratification At stage 1 the the number of the charachter Sample select At stage 1, loc replacement.</li> </ul>	bling design v rotational g tage 1, we have e of househo and sub stra population o which is 91. istic of the have calities were se	roup (n ive a str lds. <b>atificat</b> f localit Smalle ead of h selected	umber 20) ratified san <b>ion criteri</b> ties is strati r localities tousehold w l with pps w	with 20 nple of 3 a ified. E are stra within e without	088 househ localities w ach of the l atified by N each localit replaceme	olds wa vith pps arger lo NUTS-3 y. nt. At s	as introduce selection. ocalities is regions ar tage 2 hous	ed. The At stag a stratu nd the si seholds	new sub-s e 2, (in the m of its ow ize of local within eac	ample i sample vn. The ity. At h strata
SILC_ESQRS_HU _2020	J <b>Type of samp</b> In 2020, a new selection. At s random sampl <b>Stratification</b> At stage 1 the the number of the charachter <b>Sample select</b> At stage 1, loc replacement. Size of rotatio	bling design v rotational g tage 1, we have e of househo and sub stra population o which is 91. istic of the here calities were se anal groups 2017	roup (n ave a str lds. atificat f localit Smalle ead of h selected	umber 20) ratified san <b>ion criteri</b> ties is strati r localities iousehold v l with pps v 2018	with 20 pple of 2 a ified. E are stra vithin e without	088 househ localities w ach of the l atified by N each locality replaceme 2019	olds wa vith pps larger lo IUTS-3 y. nt. At s	as introduce selection. Decalities is regions ar tage 2 hous 2020	ed. The At stag a stratu nd the si seholds	new sub-s e 2, (in the m of its ow ize of local within eac	ample i sample /n. The ity. At h strata
SILC_ESQRS_HU _2020	<ul> <li>J Type of samp In 2020, a new selection. At s random sampl Stratification At stage 1 the the number of the charachter Sample select At stage 1, loc replacement.</li> <li>Size of rotation</li> <li>Rotational group</li> </ul>	bling design v rotational g tage 1, we have e of househo and sub stra population o which is 91. istic of the have tion schemes calities were s onal groups 2017 oup 14	roup (n ive a str lds. <b>atificat</b> f localit Smalle ead of h selected	umber 20) ratified sam ion criteria ties is strati r localities tousehold w l with pps w 2018	with 20 pple of 3 affied. E are stra within e without	088 househ localities w ach of the l atified by N each localit replaceme 2019 -	olds wa vith pps larger lo NUTS-3 y. nt. At s	as introduce selection. ocalities is regions ar tage 2 hous 2020 -	ed. The At stag a stratu nd the si seholds	new sub-s e 2, (in the m of its ow ize of local within eac	ample i sample vn. The ity. At h strata
SILC_ESQRS_HU _2020	<ul> <li><b>Type of samp</b> In 2020, a new selection. At s random sampl <b>Stratification</b> At stage 1 the the number of the charachter <b>Sample select</b> At stage 1, loc replacement.</li> <li>Size of rotation</li> <li>Rotational gro Rotational gro</li> </ul>	bling design v rotational g tage 1, we have e of househo a and sub stra population o which is 91. istic of the he tion schemes calities were s anal groups 2017 oup 14 oup 15	roup (n ive a str lds. atificat f localif Smalle ead of h selected	umber 20) ratified san ion criteria ties is strati r localities iousehold v l with pps v 2018 87-	with 20 pple of 1 a ified. E are stra vithin e without	088 househ localities w ach of the l atified by N each locality replaceme 2019 -	olds wa vith pps larger lo tUTS-3 y. nt. At s	as introduce selection. Decalities is regions ar tage 2 hour 2020 - -	ed. The At stag a stratu nd the si seholds	new sub-s e 2, (in the m of its ow ize of local within eac	ample i sample vn. The ity. At h strata
SILC_ESQRS_HU _2020	<ul> <li>J Type of samp In 2020, a new selection. At s random sampl Stratification At stage 1 the the number of the charachter Sample select At stage 1, loc replacement.</li> <li>Size of rotation Rotational gro Rotational gro Rotational gro</li> </ul>	bling design v rotational g tage 1, we have e of househo and sub stra population o which is 91. istic of the have calities were se anal groups 2017 oup 14 oup 15 oup 16 oup 17	roup (n ive a str lds. atificat f localin Smalle ead of h selected 14 19 21	umber 20) ratified san <b>ion criteri</b> ties is strati r localities ousehold w l with pps w 2018 87- 017 .83	with 20 pple of 1 a ified. E are stra within e without	088 househ localities w ach of the I atified by N each localit replaceme 2019 - 1922- 2197	olds wa vith pps arger lo IUTS-3 y. nt. At s	as introduce selection. Decalities is regions ar tage 2 hour 2020 - -	ed. The At stag a stratu nd the si seholds	new sub-s e 2, (in the m of its ow ize of local within eac	ample i sample /n. The ity. At h strata
SILC_ESQRS_HU _2020	<ul> <li>J Type of samp In 2020, a new selection. At s random sampl Stratification At stage 1 the the number of the charachter Sample select At stage 1, loc replacement.</li> <li>Size of rotation Rotational gro Rotational gro Rotational gro Rotational gro Rotational gro</li> </ul>	bling design v rotational g tage 1, we have e of househo and sub stra population o which is 91. istic of the have tion schemes calities were s anal groups 2017 pup 14 pup 15 pup 16 pup 17 pup 18	roup (n ave a str lds. atificat f localit Smalle ead of h selected 14 19 21 25	umber 20) ratified san ion criteria ties is strati r localities iousehold w l with pps w 2018 87- 017 83 555	with 20 pple of 1 a ified. E are stra vithin e without	088 househ localities w ach of the l atified by N ach locality replaceme 2019 - 1922- 2197 2563 2439	olds wa vith pps larger lo UTS-3 y. nt. At s 1541 1785	as introduce selection. Decalities is regions ar tage 2 hour 2020	ed. The At stag a stratu nd the si seholds 1524	new sub-s e 2, (in the m of its ow ize of local within eac	ample i sample vn. The ity. At h strata

	Rotational group Total sample	20 8142	9121	6911	2088 6530	
SILC_ESQRS_MT _2020	Type of samplin The integrated, recommendation oldest panel is of waves of the sur A single-stage sa from a register maintained and which 1,090 wer Stratification an This section is n Sample selection A one-stage sam to the sample to years from 2017 SILC 2020 was Sample distribut Data collection of The addition tim	ng design or rotational, as with respect dropped and rep vey and informat ampling design of persons and updated on a re- re interviewed for nd sub stratific ot applicable sin n schemes pling design is be interviewed. to 2019 togeth the second, third ution over time was carried out te period was all	design has been to both cross-sec laced by a new ation is collected is used for EU-S households white gular basis by N for the first time is <b>ation criteria</b> nee stratified sam implemented in Thus, in cross- er with the new 1 or fourth (and 1 between July 20 lotted to increase	en adopted for Mal- octional and longitud panel of households over a period of four ILC in Malta. The ne ch is based on the O NSO. The remaining n 2018, 1000 househ ppling is not used for Malta. Simple randor sectional SILC 2020 panel chosen to be in ast) time they were b	ta's EU-SILC. This desig inal operations. The system . In this way, each group of consecutive years. we panel (amounting to 1,50 Census of Population and H g total sample of household olds in 2017 and 866 housel SILC in Malta. m sampling is used each yea the complete sample was m neterviewed for the first time being contacted to complete 020. The data collection wa hich in turn would yield in b	n with 4 sub-samples complies with Eurostat n of rotational panels implies that each year the of households is included in the sample for four 04 households in SILC 2020) is selected randomly Housing that was held in 2011. This database is s for SILC 2020 numbered 2,956 households, of holds in 2017. ar to select the new panel of dwellings to be added tade up of the 3 panels chosen in each of the three e in 2020. For households in the three old panels, the survey. as in full swing between mid-July and December. etter statistical results.
SILC_ESQRS_NL _2020	<b>Type of samplin</b> The EU-SILC su sectional and lon groups. Group F sample persons in In order to impre wave. From 201 (CAWI and CAT had been contact the redesign, as in The sampling for random sampling	ng design arvey is an annu- ngitudinal prima R1 (DB075=1) of n group R3 wer ove the timelin 6 onwards, the FI) as a main fe ted by phone to the starting date rame is the Dut g design.	al survey with a consists of samp e interviewed for ess and the onco- first wave was ature. Sample per conduct the inter- of the field wor ch Population r	a four-year rotational les by a single operat le persons who were r the first time in 202 oming revision of EU conducted as a stand ersons were invited to erview by means of C k changed from July egister (Basisregistra	panel and has been carried ion. The cross-sectional sar drawn in 2018. Group R2 20 and sample persons in gro J-SILC, Statistics Netherlar l-alone survey with a new so o fill in the questionnaire by CATI. The timeliness of the to March. tie Personen (BRP)). The s	out as an integrated survey, covering both cross- nple of EU-SILC 2020 consists of four rotational has entered the survey for the first time in 2019, oup R4 in 2017. Inds has redesigned the data collection in the first sampling design and mixed mode data collection means of CAWI. Subsequently, non-respondents data transmissions was also took into account in sampling design can be classified as a stratified

#### Stratification and sub stratification criteria

Stratification involves the division of the population into sub-groups, or strata, from which independent samples are taken. In the new sampling design for the first wave in 2016, a stratified sampling frame of persons aged 16 and over was constructed. Sample persons were divided into 21 strata. These strata were defined on the basis of household income, age and number of household members belonging to the target population:

Ten deciles of the equivalised household income

The number of household members aged 16 or over, two classes: 1, > 1

Age, two classes : 16, > 16

Within each income decile, sample persons were classified according to the number of persons aged 16 and over in the household. A distinction was made between households with 1 and households with two or more members aged 16 and over. At the sampling stage, the inclusion probability for sample units in the first group was twice as large as that of sample units in the second group. In this way, the sample design resembles a household sample with regard to (first order) inclusion probabilities. Households with only one person aged 16 or over have the same inclusion probability as households with two people in the target population.

The inclusion probabilities of the sample design were inversely proportional to pre-estimated response probabilities per stratum. Sample persons aged 16 were oversampled with a factor 2. This prevents them from being under-represented in the panel and in the cross-sectional component **Sample selection schemes** 

		HB050 Month of h	view		Total				
		February	March	April	May	June			
	DB075 Rotation group1 (2018)	171	791	866	538	149	2515		
	2 (2019)	225	1102	1358	823	319	3827		
	3 (2020)	239	1514	1516	765	391	4425		
	4 (2017)	167	727	914	456	180	2444		
	Total	802	4134	4654	2582	1039	13211		
ILC_ESQRS_AT	Type of sampling design								
2020	EU-SILC in Austria uses an integrated rotational design meaning that each year about one fourth of the sample is replaced by a new rotational group. Beginning in 2004, EU-SILC 2020 was the 17th year of EU-SILC in Austria as a panel. Each rotational group of the sample 2020 entered the survey in a different year: 2017 (R1), 2018 (R2), 2019 (R3) and 2020 (R4).								
	Stratification and sub stratification of	criteria							
	The first wave sample of EU-SILC 20	20 is a one-stage stratifi	ed probability s	ample. The s	sample of t	he first way	ve was stratified according to 18		

#### Sample distribution over time

S

	strata that where comprised of the 9 Austrian provinces (NUTS 2 units) subdivided into 2 groups that were defined by an estimation of the main indicator "at risk of poverty or social exclusion" (AROPE). To accomplish this a machine learning model (random forest) for estimating AROPE for the entire rich frame was applied and thus making it possible to use this estimated dichotomous variable as a sub-stratification criterion. As in the first wave sample of the previous year, for EU-SILC 2020 the aim of a sub-stratification according to characteristics that are highly correlated with the main income based indicators of EU-SILC was to achieve a more efficient sample resulting in a smaller standard error. <b>Sample selection schemes</b>
	The first wave sampling process was carried out according to a stratified one-stage probability sample with systematic sample selection without replacement and disproportional allocation. It was planned to select 3,927 addresses for the first wave rotational group of 2020 (R4/20). The number of selected households was determined as approximately 0.1% of all eligible addresses. The starting point in the development of the first wave sample was a proportional allocation by province. However, different expected response rates should be taken into account by the sampling design. The expected response rates of the first wave sample of 2020 by province were estimated as the mean response rates of the first wave sample of EU-SILC 2016-2019. For provinces with comparatively low response rates an oversample was applied and for provinces with comparatively high response rates an under sample was carried out. So the resulting sample selection scheme facilitated a disproportional allocation in order to compensate for different response rates in different provinces. <b>Sample distribution over time</b>
	The fieldwork of EU-SILC 2020 was carried out exclusively by Statistics Austria. The fieldwork period for the operation 2020 started in March and was concluded in July.
SILC_ESQRS_PL_ 2020	Below is a description of the selection of individual sub-samples used until 2019. In 2020, a new sub-sample was not drawn.
	Type of sampling design
	A two-stage sampling scheme with different selection probabilities at the first stage was used. Primary sampling units (PSU) were enumeration census areas. At the second stage dwellings were selected. All the households from the selected dwellings were supposed to enter the survey. Prior to selection, primary sampling units were stratified.
	Stratification and sub stratification criteria
	The strata were the voivodships (NUTS2) and within the voivodships primary sampling units were classified by class of locality. In urban areas census areas were grouped by size of town. Big cities formed independent strata, but in the five largest cities districts were treated as strata. In rural areas strata were represented by rural gminas (NUTS5) of a subregion (NUTS3) or of a few neighbouring powiats (NUTS4). Altogether, 267 strata were distinguished.
	Sample selection schemes
	It was estimated that in the first year of the survey (2005) the sample should comprise about 24 000 dwellings. Proportional allocation of dwellings to particular strata was applied. In the following years, the allocation of newly drawn subsamples proportionally between voivodships was modified due to the necessity of obtaining reliable data (compliant with Eurostat recommendations) at the NUTS 2 level; as a result, this allocation has approximately become proportional to the square root of the number of dwellings in the population. The number of dwellings selected from a particular stratum (in every NUTS 2 level) was in proportion to the number of dwellings in the stratum. Furthermore, the number of the first-stage units selected from the strata was obtained by dividing the number of dwellings in the sample by the number of dwellings

determined for a given class of locality to be selected from the first-stage unit.

In towns with at least 100 000 inhabitants 3 dwellings per PSU were selected, in towns with 20-100 thousand inabitants -4 dwellings per PSU, in towns with less than 20 000 inhabitants -5 dwellings per PSU, respectively. In rural areas 6 dwellings were selected from each PSU.

In the first year of the survey 5912 census areas and 24044 dwellings were selected for the sample. Census areas were selected according to the Hartley-Rao scheme. Prior to selection, census areas were put in random order for each stratum separately and then the determined number of PSUs was selected with probabilities proportionate to the number of dwellings. Then, from each of the selected census areas dwellings were selected using the simple random selection without replacement procedure.

The selected sample of primary sampling units was divided into four subsamples, equal in size. Starting from 2006 one of the subsamples is eliminated and replaced with a new one, selected independently as described above. In 2020 subsample 7 was replaced by subsample 3 consisting of 1942 census areas and 5372 dwellings.

From 2017, some methodological modifications were introduced, as described below.

A sample of reserve dwellings was scheduled for the new sample, which would allow an increase in the number of research carried out within regions in subsequent editions of the study (NTS 2). The larger sample carried out at the level of NUTS2 classification results from the need to meet the precision requirements for selected indicators, which are analyzed by Eurostat [1]. After the analysis of historical data, it was assumed that in the class of locality "over 20 thousand. inhabitants ", 12 reserve dwellings will be drawn to each address from the main sample; for the class of locality "less than 20 thousand. inhabitants ", 10 reserve dwellings will be drawn; for the remaining class of rural areas a random selection of 6 reserve addresses was established.

In determining the size of the new subsample in the regions (NUTS 2 level), a mathematical model was used, which included the following elements:

- limitations for standard errors of AROPE indicator (people at risk of poverty or social exclusion) from Eurostat regulation, which should be met in 2020 year;
- the model of dependence of the estimated value of standard errors of the AROPE indicator from the number of households with completed interviews in each region;
- historical data on the completeness rates for the subsamples surveyed in previous years;
- expected impact of the planned use of the reserve dwellings.

#### Sample distribution over time

In the first year of the survey the selected sample of primary sampling units were divided into four subsamples, equal in size. Starting from 2006 one of the subsamples is eliminated and replaced with a new one, selected independently.

#### Substitution (only in new subsample)

If the household from the selected dwelling refused to enter the survey substitution from reserve sample was applied (only for new subsample). The survey from 2018 introduces the sorting of addresses from the reserve list due to the distance between the reserve address and address from main sample. This solution was introduced due to a decrease in the interviewer burden because of the travelling time between the addresses (in particular in rural areas) and travel costs in the case of the need for multiple visits at the same address (no contact with the respondent or completion of the interview).

	Changes in subsamples in 2020 In 2020, due to the difficulties in conducting field surveys in connection with the coronavirus pandemic, subsample 7 was eventually used (to be surveyed for the fifth time) instead of the newly drawn subsample. The negative consequence of such a decision was a significant reduction in the number of households where it would be possible to carry out the survey - the number of households to be surveyed for the fifth time was 2561 (the initial sample size of subsample 7, newly drawn for the survey carried out in 2016 year, was equal to 7950 dwellings, however, for 4 consecutive years, there were natural phenomena of refusal and exclusion of households from the surveyed population). The use of subsample 7 allowed for the interviews (in pandemic conditions) of about 2,000 households from this part of the entire sample, which constituted about 43% of the number of households expected to be surveyed for the initially planned subsample 3 (in the case of a normal situation, analogous to the previous years). After taking into account all panel subsamples, the interviews were completed for approximately 76% of households compared to the expected value according to the theoretical model used. [1] Annex II to the draft regulation of the European Parliament and of the Council establishing a common framework for European statistics relating to persons and households, based on data at individual level collected from samples.
SILC_ESQRS_PT_ 2020	As of 01/08/2022, the quality report for Portugal was not fully validated, therefore, the information below is provisory and subject to change <b>Type of sampling design (stratified, multi-stage, clustered)</b> Households are selected by stratified two-stage sampling, from a sampling frame of dwellings of usual residence. The longitudinal nature of the sample, as well as the limitation of the statistical burden on respondents, are ensured by setting up an annual rotational scheme involving four independent sub-samples, each one being replaced every year. Hence, each household is interviewed four times at most, and thus the overlapping of <sup>3</sup> / <sub>4</sub> of respondents vis-à-vis the previous year is guaranteed. Up to 2012 the sample was selected exclusively from the Master Sample (MS). However, from 2013 onwards a gradual transition of the latter to the new sampling frame was initiated, based on the National Dwellings Register (NDR). This transition took place over four years: between 2013 and 2015 dwellings selected from both sampling frames co-existed in the sample. As from 2016, the survey annual sample, i.e. all four sub-samples is selected from the sampling frame based on the NDR. Sampling selection follows a NUTS 2 stratified multistage sampling design, with primary sampling units (INSPIRE grid cells of 1km2) being selected with probability proportional to the number of dwellings of usual residence, and secondary sampling units (dwellings) selected systematically in each primary sampling unit. All households and individuals residing in the selected dwellings are interviewed.
	Sample selection schemes The sample selection is different for the MS and for the new sampling frame: In the MS, the 542 areas were drawn in each stratum systematically with a sampling interval given as the ratio between the number of areas defined to the EU-SILC and the number of areas in the MS. The dwellings were selected in block in order to reduce the travel costs. In each area the dwellings are arranged according to their census enumeration, ensuring that the units are geographically closer. The first dwelling of the block was selected at random and we assume that all dwellings have equal probability of being selected. In the new sampling frame the 624 PSU were drawn in each stratum with PPS (number of private dwellings of usual residence). The dwellings

were selected systematically in each PSU.

# Sample distribution over time

A rotational design comprising four panels is used (the design recommended by Eurostat). Each of the panels is kept in the sample for four consecutive years before being replaced by another panel of the same size. Exception is made for the first three years where one panel is surveyed only once, one panel two times and one panel three times.

This design ensures an overlap of 75% between two consecutive years, 50% between three consecutive years and finally 25% between four years. At the first year (2004) the total sample size was 6504 dwellings, a value calculated to achieve a national representativeness for the poverty rate. Three dwellings per panel were allocated to each of the 542 areas selected for the EU-SILC.

Region	Areas	2004-2008
Norte	133	1596
Centro	111	1332
Lisboa	121	1452
Alentejo	65	780
Algarve	47	564
R. A. Açores	32	384
R. A. Madeira	33	396

Sample size by NUTS 2

From the second year onwards, the sample size is a random variable because of the tracing rules (Commission Regulation (EC) No 1982/2003). The sample size comprises the three-fourths of the sample that are to be follow-up, plus one-fourth of new dwellings entering the sample (in this case 3 dwellings are drawn in each area).

Due to losses in the sample, in 2009 the sample size was revised in order to ensure, in 2012, the minimum effective sample size (4,500 households) required by the regulation. Thus, from 2009 till 2012 had been added a top-up sample with the new panel.

#### 1st revison of sample size, by NUTS 2 (2009-2012)

Region	Areas	2009	2010	2011	2012
Norte	133	1729	1862	1995	2128
Centro	111	1554	1776	1998	2109
Lisboa	121	1694	1936	2057	2299

Alentejo	65	910	975	1105	1235
Algarve	47	611	658	705	799
R. A. Açores	32	416	448	480	512
R. A. Madeira	33	429	495	528	561
Total	542	7343	8150	8868	9643

From 2013 onwards the transition between sampling frames implied adjustments in the number of PSU (from 542 to 624) and in the sample size (each new rotation has 2409 dwellings).

2nd revison of sample size, by NUTS 2 (2013-2014)

Region	PSU	2013	2014
Norte	162	2082	2036
Centro	102	2064	2019
Lisboa	120	2294	2289
Alentejo	84	1246	1322
Algarve	69	827	855
R. A. Açores	42	510	508
R. A. Madeira	45	564	534
Total	624	9587	9563

In 2015, a new gradual increase started to be implemented in order to achive a full NUTS 2 representative sample in 2018. For its determination, we considered: a relative sampling error of 10.4% (corresponding to an absolute error of 2,5 pp); a 24% benchmark for the at-risk-of-poverty and social exclusion rate; a sample design effect of 1.6; a sample correction rate equal to the average response rate obtained in the ICOR by region for the period 2008-2012 (ranging from 34% to 93%).

	3rd revisio	n of sample size, by	NUTS 2		
Região	PSU	2015	2016	2017	≥2018
Norte	162	2 152	2 268	2 4 3 0	2 592
Centro	102	2 178	2 448	2 652	2 856
Lisboa	120	2 645	2 880	3 1 2 0	3 360

				Ale	ntejo	84			1	669	2 016	2 352	2 2	688	
				Alg	arve	69			1	315	1 728	2 160	) 2	592	
				Aço	ores	42				968	1 428	1 890	) 2	352	
				Mac	leira	45			1	122	1 710	2 295	5 2	880	
				Tota	al	624	ļ		12	049	14 478	16 899	) 19	320	
SILC_ESQRS_RO _2020	[1] Oficial <b>Type of sa</b> The sampli <b>Stratificat</b> Stratification rural area) <b>Sample sel</b> The survey	GRID de mpling of ing plan ion and on conce and cour lection so	eveloppe design is a two-s sub stra rns only aty (NUT chemes integrat	d by EU stage pro <b>tificatio</b> the first CS 3 leve ed four	ROSTA obability <b>n criteri</b> stage sa el). vears rot	T for the samplin a mpling. ational r	e Europe ag of hou There a panel des	an territo sing unit re 88 stra	ory - Grid s (dwell ata, the c	d_ETR ings). criteria e-fourt	RS89_LAI	EA_1K. ng the are	a where	e a certa l each v	ain PSU is located (urban or ear. The total sample for the
	year 2020 i	is made b	by the su	b-sampl	es S2, S3	s, S4 and	l S1.S4	0,				<b>F</b>	1	J	I
								Yea	rs						
		2007	2008	2009	2010	2011	2012	2013	2014	2015	5 2016	2017	2018	2019	2020
		<b>S</b> 1													
		<b>S</b> 2	<b>S</b> 2												
	Cub	\$2	\$2	53											
	Sub	33	33	35	<b>G</b> 4										
	-samples	84	84	<b>S</b> 4	84										
			<b>S1</b>	<b>S</b> 1	<b>S</b> 1	<b>S</b> 1									
				<b>S2</b>	S2	S2	S2								
					<b>S</b> 3	<b>S</b> 3	<b>S</b> 3	<b>S</b> 3							
						<b>S4</b>	<b>S</b> 4	<b>S</b> 4	<b>S</b> 4						
	11														

	S1		51	<b>S</b> 1	<b>S</b> 1					
		5	<b>S2</b>	S2	S2	S2				
				<b>S3</b>	<b>S</b> 3	<b>S</b> 3	<b>S</b> 3			
					<b>S4</b>	<b>S</b> 4	<b>S</b> 4	<b>S</b> 4		
						<b>S1</b>	<b>S</b> 1	<b>S</b> 1	<b>S</b> 1	
							<b>S2</b>	S2	S2	S2
								<b>S</b> 3	<b>S</b> 3	<b>S</b> 3
									S4	S4
									54	S1
										51
	Sample distribution over time									
	The sample is not distributed over time.									
SILC_ESQRS_SI_	Type of sampling design									
2020	Type of sampling design (stratified, multi-stage, clustered)									
	As in previous year the sample design for Slovenian EU (PSUs) were firstly systematically selected, and in the second	J-SILC	2020 ge 7 p	) was tw ersons v	vo-stage were sele	stratifie	d desig	n. In ea U.	ch strat	um primary sampling units
	We have used rotational design, meaning that three wave using the described design.	es were	e pres	erved fr	om the	previous	year ar	nd just o	one wav	e was additionally selected
	Sampling units (one stage, two stages)									
	In the first stage primary sampling units were selected. Primary sampling units are clusters of enumeration areas, which are approximately of the same size. In the second stage 7 persons were selected in each of the selected primary unit. Unit of observation are selected persons living private households in Slovenia and their households. The data are collected from all household members who were on 31st December 2019 age 16 years or more. The selected person is also the sample person; other household members are not sample persons.						ch are approximately of the e selected persons living in a 31st December 2019 aged			
	Stratification and sub stratification criteria									
	The sampling frame of persons aged 16 years or more is divided into 6 strata, which are defined according to the size of the settlement and the proportion of agricultural households in the settlement:						ze of the settlement and the			
	The first stratum includes settlements with fewer than 2.00	0 inha	bitant	s and wi	ith less th	han 30%	of agric	cultural	househo	lds;
	The second stratum includes settlements with fewer than 2	.000 ir	habit	ants and	with at	least 309	% agricu	iltural h	ouseholo	ls;
	The third stratum includes settlements which have from 2.	000 to	10.00	0 inhabi	tants;					
	The fourth stratum includes settlements which have from 1	0.000	to 80.	000 inh	abitants;		、 、			
	The fifth stratum is Maribor (the second largest city in Slo	venia v	with a	pprox. 9	3.000 in	habitant	s);			

The sixth stratum is Ljubljana (Slovenia's capital with approx. 250.000 inhabitants).

When selecting the primary sampling units, explicit stratification according to the type of settlement was used (6 strata). Since we wanted to maintain regional representativeness, implicit stratification according to the statistical region was applied. It means that the list of units within strata was sorted according to statistical regions. In Slovenia there are 12 statistical (NUTS3) regions:

Pomurska

Podravska

Koroška

Savinjska

Zasavska

Spodnjeposavska

Jugovzhodna Slovenija

Osrednjeslovenska

Gorenjska

Notranjsko-kraška

Goriška

Obalno-kraška

# Sample selection schemes

The sampling frame was divided into 6 strata and each stratum was sorted by 12 statistical regions. This way we implicitly stratified the sample also by statistical region. Persons aged 16 years were oversampled. In each sampling unit, persons aged 16 years and others were separately selected.

# Sample distribution over time

Fieldwork for CAPI interviewing lasted from January until September 2020 and for CATI interviewing lasted from February to May 2020. The units which were interviewed by CATI mode were randomly distributed over the interviewing time period. For the "CAPI mode units" the interviewers only got the last date, till when they had to send completed data to the office. In the framework of the given time period, the actual date of interview was solely interviewers decision. Interviewers got in advance complete list of households which they had to interview. The distribution when interview took place is described in item "basic concepts and definitions", where is also detailed description of the dates of interviewing because of pandemic COVID-19.

#### Number of successful interviews by month of interview - only longitudinal units

	Year 2017	Year 2018	Year 2019	Year 2020
January	130	740	557	111
February	1109	1899	2810	3092
March	1021	967	1955	822

April	541	602	592	1
May	317	624	614	385
June	196	483	417	63
July	0	0	0	467
August	0	0	0	372
Septemb	ber 0	0	0	212

# Renewal of sample: rotational groups

The sampling frame has a four-year rotational design. Persons and their households remain in the sample for four years or four waves; each year one quarter of the sample is replaced. One quarter of the sample is dropped and one quarter is added each year. Each quarter of the sample is called a rotational group and has to be representative for the target population.

# Number of PSU and selected persons by rotational groups

Year	DB075	PSU	Number of selected persons					
2017	3	834	5834					
2018	3	808	3314					
2018	4	792	5539					
2019	1	804	5624					
2019	3	781	2530					
2019	4	748	2941					
2020	1	767	2951					
2020	3	745	2020					
2020	4	736	2207					
Source: Lo	ongitudinal d	atabase	2017-2020					
Rotational	l design 2017	-2020 b	y DB075 is in annex.					
New entries in 2020 are households where rotational group is 2 (DB075=2).								
Because o	of missing sor	ne form	ulas in the text, we add attachment with full text.					
True of a								
Type of sampling design								
i wo-stage straumed sampling was used in EU SILC 2020. The proportional number of nousenoids was selected by simple random sampling in individual strate								
Household	ds with rotati	on groui	ns 4, 1 and 2 in 2019 year were included into sample in FU SILC 2020 survey. Households included to 3-st rotation					
group were excluded and substituted by new households for EU SILC 2020 Repeatedly stratified sampling was used for selection these new								
	Year 2017 2018 2018 2019 2019 2019 2020 2020 2020 2020 Source: L Rotational New entri Because of <b>Type of s</b> Two-stage individual Household group wet	YearDB075201732018320184201912019320194202012020320204Source: Longitudinal design 2017New entries in 2020 arBecause of missing sorType of sampling desiTwo-stage stratified saindividual strata.Households with rotatigroup were excluded a	YearDB075PSU $2017$ 3834 $2018$ 3808 $2018$ 4792 $2019$ 1804 $2019$ 3781 $2019$ 4748 $2020$ 1767 $2020$ 3745 $2020$ 4736Source: Longitudinal databaseRotational design 2017-2020 bNew entries in 2020 are houselBecause of missing some formType of sampling designTwo-stage stratified samplingindividual strata.Households with rotation groupgroup were excluded and sub-					

	<ul> <li>households and the proportional number of households was selected by simple random sampling in individual strata.</li> <li>Stratification and sub stratification criteria</li> <li>There are two criteria of area stratification in the sampling design: <ul> <li>geographical stratification (8 standard administrative regions corresponding to the European NUTS 3 level.)</li> <li>degree of urbanization: 7 groups according to population size of municipalities and communes (number of inhabitants in municipalities and communes)</li> <li>Totally 48 final strata were created (variable DB050) by using of those two stratification criteria.</li> </ul> </li> <li>Sample selection schemes</li> <li>The information about population, which was obtained from sampling frame, the information about updating of sampling frame and the rules for</li> </ul>
	<ul> <li>proportional stratified sampling was used in creating of sample selection scheme for new rotational group.</li> <li>In selection of households for the new rotational group we proceeded by analogy as in the first year of survey, i.e. in EU SILC 2005:</li> <li>- up-to date sampling frame (list of households sharing of expenditures) was created,</li> <li>- strata were created (households sharing of expenditures from list were put in strata by region and level of urbanisation of municipalities),</li> <li>- required number of selected households sharing of expenditures for new rotational group was approximately 1 500 households,</li> <li>- probability of sampling for given number of households sharing of expenditures was appointed,</li> <li>- random numbers from interval (0,1) were generated in each strata for each unit, which was not included in sampling in previous period,</li> </ul>
	<ul> <li>- units with random number lower or equal than was probability of sampling were included into sampled population.</li> <li>Sample distribution over time</li> <li>Survey was carried out from in the period from 3 February to 17 July 2020.</li> </ul>
SILC_ESQRS_FI_ 2020	Type of sampling design Two-phase stratified sampling design.Stratification and sub stratification criteria Socio-economic groups (12 groups) categorized by an income class. The socio-economic groups are constructed by information on the taxable income type and level of the person with the highest income in the household-dwelling unit (entrepreneurs as an exception).Sample selection schemes 

	collection of the sample extends from the beginning of January to end of May in the following year (survey year).
SILC_ESQRS_SE_ 2020	<ul> <li>Type of sample design</li> <li>Stratified sample with simple random sampling within strata. Allocation is proportional to the size of strata. The sampling design was changed for the 2012 process.</li> <li>Stratification and sub stratification criteria</li> <li>The sample is stratified by age in eight strata according to age: 16-23 years, 24-33 years, 34-43 years, 44-53 years, 54-63 years, 64-73 years, 74-83 years and 84 years and older.</li> <li>Sample selection schemes</li> <li>Random sample of individuals.</li> </ul>
SILC_ESQRS_NO _2020	<ul> <li>Type of sampling design         Up until 2008, the sample for EU-SILC in Norway was composed of an old sample for a longitudinal survey established in 1997, and a new sample with a different design in 2003 (se quality report for 2007). From 2008 on, the sample is selected only according to the new design because all respondent from the old sample were rotated out.     </li> <li>The sample in 2020 is now according to the rules for simple random sampling in one stage. There is still a systematic element, that stems from the arrangement of the population register.</li> <li>Stratification and sub stratification criteria</li> <li>The primary stratification criterion for the period 2003-2006 was age. The design chosen implicated that age was the central criterion for representativity. The sample was drawn as a proportion of the population within one-year groups. Based on experience from analysing cross sectional EU-SILC data from 2003 to 2006, this way of stratification was problematic because the rotational groups were biased.</li> <li>In 2007, the representativity based on one-year age groups was bandoned, and the new rotational groups are drawn as the proportion p of the population 16 years and over. In addition, each existing rotational group is then supplemented with new 16 year olds and new immigrants to ensure representativity. The same system has been used in 2020. The sample is drawn from the population register, and this register is arranged to graphical representativity. This is done by municipality and postal codes. As in the old part of the sample, the register is arranged by family number and personal code within the family before the actual selection of units.     </li> <li>Sample selection schemes</li> <li>The sample for the Norwegian EU-SILC before 2007 consisted of an existing sample for a longitudinal and a new sample selected according to a new design. For information on the old selection schemes, se previous intermediate quality reports.</li> <l< td=""></l<></ul>

	divided into 36 periodical groups with different start of the interviewing but similar end of interviewing. Interviewing of all groups ended 26 June 2020.
SILC_ESQRS_CH _2020	Type of sampling design         Proportional, stratified design         Stratification and sub stratification criteria         The seven major geographical regions (level NUTS2)         Sample selection schemes         Distribution of the sample within each stratum is defined by the size of these strata in the sampling frame. The sample is formed on a rotating basis. Every year, four sub-samples are surveyed. A little more than one-quarter of the sample is renewed every year to replace households that have finished their 4 year cycle.         Fieldwork for the SILC survey was carried out by a private research institute, Demoscope, between January and June
SILC_ESQRS_ME _2020	As of 01/08/2022, the quality report for Montenegro was not fully validated, therefore, the information below is provisory and subject to change Type of sampling design The sample was created using two-stage stratified random sampling, with the enumeration areas being the primary sampling units and households as secondary units. The sample size requirements set by Eurostat for the cross-sectional component was 3,250 households. This target was achieved in the 2020 data collection. Households with rotation groups 1, 3 and 4 in 2019 year were included into sample in EU SILC 2020 survey. Households, included to 2nd rotation group, were excluded and substituted by new households for EU SILC 2020. Repeatedly stratified sampling was used for selection of these new households and the proportional number of households was selected by simple random sampling (detailed scheme is in 3.1.3. Sample size and allocation criteria). The design with 4 sub-samples complies with Eurostat recommendations with respect to both cross-sectional and longitudinal operations. The system of rotational panels implies that each year the oldest panel is dropped and replaced by a new panel of households. In this way, each group of households is included in the sample for four waves of the survey and information is collected over a period of four consecutive years. Total sample of households for SILC 2020 numbered 5,663 households (with split off). Stratification and sub stratification criteria There are two criteria of area stratification in the sampling design:     geographical stratification (4 regions in Montenegro)     type of settlement (2 groups, urban and rural). Eight final strata were therefore derived (variable DB050), from which stratified sampling was carried out. The two stage sample was selected. At the first stage of the sample selection, the PSUs were selected by using the "probability proportion to size (PPS)" method. The number of households     a size measure. At the second stage, simple random sample of households     was se

	<ul> <li>Sample selection schemes</li> <li>An integrated design ('the rotational design') was applied. Rotational design refers to the sample selection based on a number of subsamples, each of them similar in size and design and representative of the whole population. From one year to the next, some subsamples are retained, while others are dropped and replaced by new replications.</li> <li>Sample distribution over time</li> <li>Data collection was carried out over a period of two months (middle of the June till middle of the August), with prolongation of one month for some municipalities.</li> </ul>
SILC_ESQRS_RS_ 2020	<ul> <li>Type of sampling design The sample is based on two-stage stratified random sampling design. Stratification and sub stratification criteria Stratification was done according to the type of settlement (urban and other) in four Regions (Belgrade, Vojvodina, Sumadija and Western Serbia and Southern and Eastern Serbia). Sample selection schemes Sample consists of four independent sub-samples (rotational groups), same size and design, representative for the whole population. Primary sampling units (enumeration districts), were selected systematically with probability proportional to size within each stratum. Size measure for each ED was number of households, according to the Census 2011. Second stage units, households were selected randomly with equal probabilities. Every year one rotational group from the previous year is dropped from the sample and new one is added. Sample distribution over time The sample is not distributed over time.</li></ul>
SILC_ESQRS_TR_ 2020	<ul> <li>NA</li> <li>Information available for SILC ESQRS 2019:</li> <li>Type of sampling (stratified, multi stage, clustered) design</li> <li>The Survey on Income and Living Conditions is an annual survey with a rotational-group design. The sample comprises four independent sub- samples, each of which is a four-year panel. Each subsample is selected as to represent the whole country. Each year, the sample is rotated with one of the panels. The 75% of the sampling size is foreseen to leave in the frame of the panel from one year to another. The aim of this follow-up rule is to reflect the changes in the target population and to analyse longitudinally the conditions and income variables of the individuals over time.</li> <li>The EU-SILC 2019 Turkey survey follows a stratified multi-stage cluster sampling, which is also the case of the beginning year (2006) of the survey.</li> <li>The sample is selected following a two-stage design:</li> <li>The first stage: Blocks, which constitute approximately 100 (between 80 and 120) household addresses.</li> </ul>

	The second stage: The households from the selected blocks at the first stage. In the beginning year of SILC Turkey (2006) the sampling frame of the survey was obtained from Enumeration Listings based on 2000 General Population Census. The blocks (PSU's), only including the household addresses, were determined from this listing. By 2007, the sampling frame of the survey is based on Address Based Population Register and National Address Database. The sampling frame of blocks (PSU's), including the household addresses, was determined from this register. The households are defined in this frame so that in each household belonging to the "National Address Database", at least 1 person is registered in the "Address Based Register System". Each block constitutes approximately 100 (between 80 and 120) household addresses. "Probability Proportional to Size" (PPS) selection was used for selecting the blocks. The number of household addresses in each block has been defined as the measure of size in the PPS selection. At the second stage, households (SSU's) were selected by "systematic selection" from the sampled blocks.
SILC_ESQRS_AL _2020	The sampling frame for the new rotational group selected in 2020, for the both stages, was the 2011 Census data. The PSUs are called segments. Segments are area units that consist of 120 private households according to the Census 2011. They were derived from one or more enumeration districts used in the 2011 Census and belonging in the same municipality. In each stratum PSUs were systematically selected with probability proportional to size (the measure of size was the number of private households in PSU), and in the second stage 12 addresses (occupied dwellings) were selected in each selected PSU. All private households in selected addresses construct a sample of households.
	The database based on the 2011 Census of Population & Housing, provides a comprehensive count of all persons living in Albania. As a result, this database is considered to be the most adequate source to be used for the Albanian SILC sample selection and served as sampling frame, from which a total of 8878 households were selected for SILC 2020 sample.
	<ul> <li>Concerning the SILC instrument, three different sample size definitions can be applied:</li> <li>the actual sample size which is the number of sampling units selected in the sample</li> <li>the achieved sample size which is the number of observed sampling units (household or individual) with an accepted interview</li> <li>the effective sample size which is defined as the achieved sample size divided by the design effect with regards to the at-risk-of poverty rate indicator</li> <li>For SILC data 2020, INSTAT follows strictly the precision requirements set via the prescription of minimum effective sample sizes as specified in the SILC framework regulation 1177/2003.</li> <li>Regarding the information about the minimum effective sample size ALBANIA has:</li> <li>Households- Cross-sectional: 4200 HH</li> <li>Households- Longitudinal: 3000 HH</li> </ul>

Persons	aged 16+ - Cro	oss-sectional:	11000 ind	lividuals	
Persons	aged $16+$ - log	ngitudinal: 80	)00 individ	uals	
The long 1982/200	gitudinal samj )3.	ples are follo	owed-up o	ver time in	accordance with the tracing rules specified in EU-SILC implementation regulation
The arch	ived sample s	ize for SILC	2020 in Al	bania is:	
Rotatio	n 1 Rotati	on 2 Rota	tion 3 R	otation 4	Total sample
					achieved
1299	187	2 20	010	2111	7292
Regardir	g the number	of sampling	units select	ted in the long	gitudinal part the table below shows longitudinal sample size 2017-2020:
Longitu	Rotation 1 (4 years)	Rotation 2 (3 years)	Rotation (2 years	3 Totals	
2017	2304	0		0 2304	
2018	1687	3144		0 4831	
2019	1559	2303	314	4 7006	
2020	1390	2055	231	3 5758	

# Annex 4: Sampling errors 2020

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Table I	- <b>Peo</b>	nle st-	risk o	t nove	rtv or	SOCIAL	exclusion
I HOIV I	1.00	pic ac	I IOIL O	I PUIC	LUY OI	JUCIAL	CACIUSION

Country	Percent	Standard Error	Variance	Lower CL	Upper CL
BE	18.9	1.3	1.6	16.4	21.4
BG	32.1	0.9	0.8	30.2	33.9
CZ	11.9	0.5	0.3	10.9	12.9
DK	15.9	0.6	0.4	14.7	17.2
DE	21.6	0.3	0.1	20.9	22.3
EE	23.3	0.6	0.4	22.0	24.5
IE	20.0	0.8	0.7	18.4	21.6
EL	28.8	0.7	0.5	27.5	30.2
ES	26.4	0.7	0.5	25.1	27.8
FR	18.2	0.7	0.5	16.9	19.6
HR	23.2	0.7	0.5	21.8	24.6
ІТ	25.3	0.6	0.4	24.1	26.5
СҮ	21.3	0.9	0.8	19.5	23.0
LV	26.0	0.8	0.6	24.4	27.5
LT	24.8	0.9	0.9	23.0	26.6
LU	20.9	1.1	1.2	18.8	23.0
HU	17.8	0.7	0.5	16.4	19.1
MT	19.0	0.9	0.7	17.3	20.7
NL	16.1	0.5	0.2	15.1	17.1
AT	17.5	0.8	0.6	16.0	19.0
PL	17.3	0.5	0.2	16.4	18.3
РТ	19.8	0.6	0.4	18.6	21.0
RO	30.4	1.1	1.3	28.2	32.6
SI	15.0	0.4	0.2	14.2	15.9
SK	14.8	0.7	0.5	13.4	16.2
FI	16.0	0.5	0.3	15.0	17.0
SE	17.9	0.6	0.4	16.7	19.1
СН	18.1	0.8	0.7	16.6	19.7
NO	15.9	0.6	0.3	14.8	17.0
ME	30.9	1.4	1.9	28.2	33.5
МК	39.8	2.6	6.9	34.6	45.1
RS	29.8	0.9	0.9	28.0	31.6
TR	41.5	0.4	0.2	40.7	42.3
AL	43.4	1.0	0.9	41.5	45.3

Note: The following countries reported that Eurostat methodology is not used to calculate standard errors: Austria, Belgium, Bulgaria, Czechia, Latvia, Lithuania, Hungary, Portugal, Serbia and Romania. Therefore, the standard error estimations available in their National Quality Reports may differ from the ones presented in the table above. Source: Micro-database (April 2022).

Country	Gender	Percent	Std. Error	Lower CL	Upper CL
BE	Male	18.4	1.3	15.8	21.0
BE	Female	19.5	1.3	16.9	22.0
BG	Male	29.8	1.0	27.8	31.8
BG	Female	34.2	1.0	32.3	36.0
CZ	Male	9.5	0.5	8.5	10.5
CZ	Female	14.2	0.6	13.0	15.4
DK	Male	15.6	0.8	14.1	17.1
DK	Female	16.2	0.8	14.8	17.7
DE	Male	20.8	0.4	20.0	21.5
DE	Female	22.4	0.4	21.6	23.1
EE	Male	21.6	0.7	20.2	23.1
EE	Female	24.8	0.7	23.4	26.1
IE	Male	19.0	0.9	17.2	20.8
IE	Female	21.0	0.9	19.3	22.8
EL	Male	27.8	0.7	26.3	29.2
EL	Female	29.9	0.7	28.5	31.3
ES	Male	25.6	0.8	24.2	27.1
ES	Female	27.2	0.7	25.7	28.6
FR	Male	17.7	0.7	16.3	19.1
FR	Female	18.7	0.7	17.3	20.1
HR	Male	22.2	0.8	20.6	23.8
HR	Female	24.2	0.7	22.7	25.6
IT	Male	24.1	0.7	22.8	25.3
IT	Female	26.5	0.6	25.2	27.7
СҮ	Male	20.2	1.0	18.3	22.2
СҮ	Female	22.2	1.0	20.3	24.2
LV	Male	23.3	0.9	21.5	25.1
LV	Female	28.2	0.8	26.6	29.9
LT	Male	22.2	1.2	19.9	24.5
LT	Female	27.1	1.0	25.1	29.0
LU	Male	20.7	1.2	18.2	23.1
LU	Female	21.1	1.2	18.7	23.6
HU	Male	17.7	0.7	16.3	19.1
HU	Female	17.8	0.7	16.3	19.3
MT	Male	17.6	0.9	15.8	19.3
MT	Female	20.5	1.0	18.5	22.5
NL	Male	15.7	0.6	14.6	16.8
NL	Female	16.5	0.6	15.4	17.6
AT	Male	17.0	0.9	15.2	18.8
AT	Female	17.9	0.8	16.3	19.4

# Table 2 - People at-risk of poverty or social exclusion by gender

Country	Gender	Percent	Std. Error	Lower CL	Upper CL
PL	Male	16.5	0.5	15.5	17.5
PL	Female	18.2	0.5	17.2	19.2
РТ	Male	19.4	0.7	18.0	20.7
РТ	Female	20.2	0.7	18.9	21.4
RO	Male	28.8	1.2	26.5	31.0
RO	Female	31.9	1.2	29.5	34.2
SI	Male	14.1	0.5	13.1	15.2
SI	Female	16.0	0.5	15.0	17.0
SK	Male	14.5	0.8	12.9	16.0
SK	Female	15.1	0.7	13.7	16.6
FI	Male	16.2	0.6	14.9	17.4
FI	Female	15.8	0.6	14.6	17.0
SE	Male	16.8	0.7	15.4	18.2
SE	Female	19.0	0.8	17.5	20.4
СН	Male	17.4	0.9	15.8	19.1
СН	Female	18.8	0.9	17.1	20.6
NO	Male	14.7	0.7	13.4	16.0
NO	Female	17.1	0.8	15.6	18.6
ME	Male	30.9	1.4	28.1	33.7
ME	Female	30.8	1.4	28.0	33.6
МК	Male	40.0	2.7	34.6	45.4
МК	Female	39.7	2.6	34.5	44.9
RS	Male	29.0	1.0	27.1	30.9
RS	Female	30.6	1.0	28.6	32.5
TR	Male	40.2	0.4	39.4	41.1
TR	Female	42.8	0.4	41.9	43.6
AL	Male	42.3	1.0	40.2	44.3
AL	Female	44.5	1.0	42.5	46.5

Note: The following countries reported that Eurostat methodology is not used to calculate standard errors: Austria, Belgium, Bulgaria, Czechia, Latvia, Lithuania, Hungary, Portugal, Serbia and Romania. Therefore, the standard error estimations available in their National Quality Reports may differ from the ones presented in the table above. Source: Micro-database (April 2022).

Country	Age group	Percent	Std. Error	Lower CL	Upper CL
BE	0-17	20.3	2.1	16.2	24.4
BE	18-64	18.3	1.2	15.9	20.7
BE	65+	19.4	1.3	16.8	22.0
BG	0-17	33.3	1.9	29.4	37.1
BG	18-64	25.9	1.0	24.0	27.9
BG	65+	48.3	0.9	46.5	50.1
CZ	0-17	13.0	1.1	10.9	15.1
CZ	18-64	10.3	0.5	9.2	11.4
CZ	65+	15.7	0.6	14.5	16.9
DK	0-17	12.4	1.6	9.4	15.5
DK	18-64	18.5	0.7	17.1	19.9
DK	65+	11.7	0.7	10.4	13.1
DE	0-17	22.7	0.9	21.0	24.4
DE	18-64	21.1	0.4	20.4	21.8
DE	65+	22.0	0.5	21.0	22.9
EE	0-17	17.8	1.2	15.6	20.1
EE	18-64	18.8	0.7	17.5	20.1
EE	65+	42.5	1.2	40.2	44.8
IE	18-64	19.2	0.9	17.4	20.9
IE	0-17	23.2	1.5	20.3	26.0
IE	18-64	19.2	0.9	17.4	20.9
EL	65+	20.1	0.7	18.8	21.4
EL	0-17	30.4	1.3	27.8	33.0
EL	18-64	31.6	0.8	30.1	33.1
ES	0-17	31.1	1.3	28.5	33.7
ES	18-64	26.9	0.7	25.4	28.3
ES	65+	20.5	0.9	18.8	22.3
FR	0-17	21.6	1.2	19.1	24.0
FR	18-64	19.4	0.7	18.0	20.7
FR	65+	11.8	0.8	10.3	13.3
HR	0-17	20.2	1.5	17.3	23.0
HR	18-64	20.6	0.8	19.1	22.1
HR	65+	33.8	0.9	32.0	35.6
IT	0-17	28.2	1.2	25.8	30.5
IT	18-64	26.8	0.7	25.4	28.2
IT	65+	19.4	0.6	18.2	20.6
СҮ	0-17	23.4	1.8	19.8	27.0
CY	18-64	20.0	0.9	18.1	21.8
CY	65+	24.0	1.2	21.8	26.3
LV	0-17	20.1	1.4	17.3	22.8

# Table 3 - People at-risk of poverty or social exclusion by age

Country	Age group	Percent	Std. Error	Lower CL	Upper CL
LV	18-64	21.9	0.8	20.3	23.5
LV	65+	43.7	1.2	41.3	46.1
LT	0-17	23.7	2.0	19.7	27.6
LT	18-64	20.4	1.0	18.4	22.3
LT	65+	39.4	1.3	36.8	41.9
LU	0-17	24.2	2.3	19.8	28.7
LU	18-64	22.5	1.2	20.3	24.8
LU	65+	7.3	1.2	4.9	9.6
HU	0-17	17.7	1.5	14.8	20.6
HU	18-64	17.5	0.7	16.0	18.9
HU	65+	18.8	0.8	17.2	20.4
МТ	0-17	21.8	1.7	18.4	25.2
MT	18-64	15.7	0.9	14.0	17.5
MT	65+	28.4	1.3	25.9	30.8
NL	0-17	15.8	1.1	13.6	18.1
NL	18-64	17.4	0.5	16.3	18.5
NL	65+	12.2	0.7	10.9	13.5
AT	0-17	22.2	1.9	18.5	25.8
AT	18-64	16.9	0.8	15.4	18.5
AT	65+	14.5	0.8	12.9	16.2
PL	0-17	15.8	0.8	14.3	17.3
PL	18-64	17.2	0.5	16.1	18.2
PL	65+	19.5	0.6	18.3	20.6
PT	0-17	21.6	1.4	19.0	24.3
РТ	18-64	19.1	0.7	17.8	20.5
РТ	65+	20.2	0.8	18.6	21.7
RO	0-17	36.3	2.5	31.5	41.2
RO	18-64	28.2	1.1	26.0	30.4
RO	65+	31.5	1.1	29.4	33.6
SI	0-17	12.2	0.8	10.6	13.8
SI	18-64	14.1	0.5	13.1	15.0
SI	65+	21.1	0.8	19.5	22.8
SK	0-17	19.2	1.5	16.2	22.3
SK	18-64	14.0	0.7	12.6	15.4
SK	65+	13.1	0.9	11.4	14.8
FI	0-17	15.0	1.3	12.4	17.5
FI	18-64	16.8	0.6	15.8	17.9
FI	65+	14.7	0.9	12.9	16.4
SE	0-17	20.0	1.3	17.5	22.5
SE	18-64	17.9	0.7	16.6	19.2
SE	65+	15.5	1.0	13.6	17.5
СН	0-17	22.4	2.2	18.0	26.8

Country	Age group	Percent	Std. Error	Lower CL	Upper CL
СН	18-64	15.0	0.7	13.6	16.4
СН	65+	25.0	1.0	23.1	26.9
NO	0-17	16.3	1.3	13.8	18.9
NO	18-64	17.9	0.6	16.7	19.1
NO	65+	8.7	0.9	6.8	10.5
ME	0-17	38.6	2.2	34.3	42.9
ME	18-64	29.8	1.3	27.2	32.5
ME	65+	22.1	1.3	19.5	24.7
МК	0-17	46.4	3.3	39.9	53.0
МК	18-64	39.8	2.6	34.5	45.0
МК	65+	31.5	2.2	27.2	35.8
RS	0-17	29.9	1.7	26.5	33.3
RS	18-64	30.3	1.0	28.3	32.3
RS	65+	28.3	1.0	26.3	30.3
TR	0-17	48.9	0.6	47.8	50.1
TR	18-64	39.8	0.4	39.0	40.6
TR	65+	30.9	0.7	29.5	32.2
AL	0-17	48.4	1.5	45.4	51.3
AL	18-64	42.5	1.0	40.5	44.5
AL	65+	40.0	1.3	37.5	42.4

Note: The following countries reported that Eurostat methodology is not used to calculate standard errors: Austria, Belgium, Bulgaria, Czechia, Latvia, Lithuania, Hungary, Portugal, Serbia and Romania. Therefore, the standard error estimations available in their National Quality Reports may differ from the ones presented in the table above. Source: Micro-database (April 2022).

Country	Percent	Standard Error	Variance	Lower CL	Upper CL
BE	14.1	1.1	1.2	11.9	16.3
BG	23.8	0.9	0.7	22.2	25.5
CZ	9.5	0.5	0.2	8.6	10.4
DK	12.1	0.6	0.4	10.9	13.3
DE	16.1	0.3	0.1	15.5	16.7
EE	20.7	0.6	0.4	19.6	21.9
IE	13.8	0.7	0.5	12.4	15.2
EL	17.7	0.6	0.4	16.4	18.9
ES	21.0	0.7	0.4	19.7	22.3
FR	13.8	0.6	0.4	12.6	15.0
HR	18.3	0.6	0.4	17.1	19.5
IT	20.0	0.6	0.3	18.9	21.1
СҮ	14.3	0.8	0.6	12.8	15.8
LV	21.6	0.7	0.5	20.1	23.0
LT	20.9	0.9	0.8	19.2	22.6
LU	17.4	1.1	1.1	15.3	19.4
HU	12.3	0.5	0.3	11.2	13.3
МТ	16.9	0.8	0.7	15.3	18.5
NL	13.4	0.5	0.2	12.4	14.3
АТ	13.9	0.7	0.5	12.6	15.3
PL	14.8	0.4	0.2	14.0	15.7
РТ	16.2	0.6	0.3	15.0	17.3
RO	23.4	1.0	1.1	21.3	25.4
SI	12.4	0.4	0.2	11.5	13.2
SK	11.4	0.7	0.5	10.1	12.7
FI	12.2	0.5	0.2	11.3	13.2
SE	16.1	0.6	0.4	14.9	17.3
СН	15.5	0.8	0.7	13.9	17.1
NO	12.7	0.5	0.3	11.7	13.8
ME	22.6	1.3	1.7	20.0	25.2
МК	21.9	2.2	4.9	17.5	26.3
RS	21.7	0.8	0.7	20.1	23.3
TR	23.0	0.4	0.1	22.3	23.7
AL	21.8	0.8	0.6	20.3	23.4

# Table 4 – At-risk of poverty rate

Note: The following countries reported that Eurostat methodology is not used to calculate standard errors: Austria, Belgium, Bulgaria, Czechia, Latvia, Lithuania, Hungary, Portugal, Serbia and Romania. Therefore, the standard error estimations available in their National Quality Reports may differ from the ones presented in the table above. Source: Micro-database (April 2022)

Country	Gender	Percent	Std. Error	Lower CL	Upper CL
BE	Male	13.8	1.1	11.5	16.0
BE	Female	14.4	1.1	12.2	16.7
BG	Male	21.7	0.9	19.9	23.5
BG	Female	25.8	0.9	24.1	27.6
CZ	Male	7.2	0.5	6.3	8.1
CZ	Female	11.7	0.6	10.6	12.8
DK	Male	12.0	0.7	10.6	13.4
DK	Female	12.1	0.7	10.7	13.5
DE	Male	15.3	0.3	14.6	16.0
DE	Female	16.8	0.3	16.1	17.5
EE	Male	18.9	0.7	17.5	20.3
EE	Female	22.3	0.7	21.0	23.7
IE	Male	13.1	0.8	11.5	14.7
IE	Female	14.4	0.8	12.9	15.9
EL	Male	17.5	0.7	16.1	18.8
EL	Female	17.8	0.6	16.6	19.0
ES	Male	20.2	0.7	18.8	21.6
ES	Female	21.7	0.7	20.3	23.1
FR	Male	13.2	0.7	12.0	14.5
FR	Female	14.3	0.6	13.0	15.5
HR	Male	17.0	0.7	15.6	18.3
HR	Female	19.6	0.7	18.3	20.9
IT	Male	18.9	0.6	17.7	20.1
IT	Female	21.1	0.6	19.9	22.3
СҮ	Male	13.3	0.8	11.7	14.9
СҮ	Female	15.3	0.9	13.6	17.0
LV	Male	19.1	0.9	17.4	20.8
LV	Female	23.7	0.8	22.2	25.2
LT	Male	18.4	1.1	16.2	20.7
LT	Female	23.1	0.9	21.3	24.9
LU	Male	17.0	1.2	14.7	19.3
LU	Female	17.7	1.2	15.4	20.1
HU	Male	12.4	0.6	11.3	13.6
HU	Female	12.1	0.6	11.0	13.2
МТ	Male	15.6	0.8	13.9	17.3
MT	Female	18.3	1.0	16.4	20.2
NL	Male	13.0	0.5	12.0	14.1
NL	Female	13.7	0.5	12.6	14.8
AT	Male	13.6	0.8	12.0	15.2
AT	Female	14.3	0.7	12.9	15.7

# Table 5 - At-risk of poverty rate by sex

Country	Gender	Percent	Std. Error	Lower CL	Upper CL
PL	Male	13.9	0.5	13.0	14.9
PL	Female	15.7	0.5	14.7	16.6
РТ	Male	15.6	0.7	14.3	16.8
РТ	Female	16.7	0.6	15.5	17.9
RO	Male	22.1	1.1	19.9	24.2
RO	Female	24.6	1.1	22.5	26.8
SI	Male	11.6	0.5	10.6	12.5
SI	Female	13.1	0.5	12.2	14.0
SK	Male	11.1	0.7	9.6	12.5
SK	Female	11.7	0.7	10.3	13.1
FI	Male	12.4	0.6	11.2	13.6
FI	Female	12.1	0.6	11.0	13.2
SE	Male	15.0	0.7	13.7	16.3
SE	Female	17.2	0.7	15.8	18.6
СН	Male	15.0	0.8	13.4	16.7
СН	Female	16.0	0.9	14.3	17.7
NO	Male	11.3	0.6	10.2	12.5
NO	Female	14.1	0.7	12.7	15.5
ME	Male	23.0	1.4	20.2	25.8
ME	Female	22.2	1.3	19.6	24.9
МК	Male	21.8	2.3	17.2	26.4
МК	Female	22.0	2.2	17.6	26.3
RS	Male	21.3	0.9	19.5	23.0
RS	Female	22.1	0.9	20.4	23.8
TR	Male	22.4	0.4	21.7	23.2
TR	Female	23.5	0.4	22.8	24.3
AL	Male	21.4	0.8	19.7	23.0
AL	Female	22.3	0.8	20.7	24.0

Note: The following countries reported that Eurostat methodology is not used to calculate standard errors: Austria, Belgium, Bulgaria, Czechia, Latvia, Lithuania, Hungary, Portugal, Serbia and Romania. Therefore, the standard error estimations available in their National Quality Reports may differ from the ones presented in the table above. Source: Micro-database (April 2022)

Country	Age group	Percent	Std. Error	Lower CL	Upper CL
BE	0-17	15.6	1.8	12.0	19.2
BE	18-64	12.2	1.0	10.2	14.2
BE	65+	18.7	1.3	16.2	21.2
BG	0-17	28.3	1.9	24.5	32.0
BG	18-64	17.5	0.9	15.8	19.2
BG	65+	38.3	0.9	36.6	40.0
CZ	0-17	11.1	1.0	9.1	13.1
CZ	18-64	7.3	0.5	6.3	8.2
CZ	65+	14.7	0.6	13.6	15.9
DK	0-17	10.0	1.5	7.0	13.0
DK	18-64	13.1	0.7	11.8	14.4
DK	65+	10.9	0.7	9.6	12.3
DE	0-17	15.4	0.8	13.9	16.9
DE	18-64	14.9	0.3	14.3	15.6
DE	65+	20.0	0.5	19.0	20.9
EE	0-17	15.2	1.1	13.1	17.3
EE	18-64	15.8	0.6	14.6	17.1
EE	65+	41.4	1.2	39.1	43.7
IE	18-64	12.2	0.8	10.7	13.7
IE	0-17	15.5	1.3	12.9	18.0
IE	18-64	12.2	0.8	10.7	13.7
EL	65+	13.0	0.5	12.0	14.1
EL	0-17	20.9	1.2	18.4	23.3
EL	18-64	18.4	0.7	17.1	19.7
ES	0-17	27.4	1.3	24.8	30.0
ES	18-64	19.8	0.7	18.5	21.2
ES	65+	18.8	0.9	17.1	20.5
FR	0-17	17.9	1.2	15.6	20.2
FR	18-64	13.5	0.6	12.3	14.7
FR	65+	10.3	0.7	9.0	11.6
HR	0-17	16.8	1.3	14.2	19.4
HR	18-64	14.5	0.6	13.3	15.8
HR	65+	31.0	0.9	29.2	32.8
IT	0-17	25.1	1.2	22.7	27.4
ІТ	18-64	19.9	0.7	18.6	21.2
IT	65+	16.8	0.6	15.6	17.9
СҮ	0-17	16.1	1.7	12.8	19.3
СҮ	18-64	12.0	0.8	10.5	13.5
СҮ	65+	21.9	1.1	19.6	24.1
LV	0-17	15.8	1.3	13.3	18.4

# Table 6 - At-risk of poverty rate by age

Country	Age group	Percent	Std. Error	Lower CL	Upper CL
LV	18-64	16.9	0.7	15.5	18.4
LV	65+	40.9	1.2	38.5	43.3
LT	0-17	20.0	1.9	16.4	23.7
LT	18-64	16.3	0.9	14.5	18.2
LT	65+	36.0	1.3	33.5	38.5
LU	0-17	23.1	2.3	18.6	27.5
LU	18-64	17.6	1.1	15.5	19.7
LU	65+	7.3	1.2	4.9	9.6
HU	0-17	9.5	1.1	7.4	11.6
HU	18-64	12.2	0.6	11.0	13.4
HU	65+	15.0	0.7	13.5	16.4
MT	0-17	20.4	1.7	17.1	23.7
MT	18-64	13.5	0.8	11.8	15.1
MT	65+	26.3	1.2	23.9	28.7
NL	0-17	14.1	1.1	11.9	16.3
NL	18-64	13.7	0.5	12.7	14.7
NL	65+	11.6	0.7	10.3	12.9
AT	0-17	18.4	1.8	14.9	21.9
AT	18-64	12.7	0.7	11.3	14.0
AT	65+	14.1	0.8	12.5	15.6
PL	0-17	13.5	0.7	12.1	14.9
PL	18-64	14.2	0.5	13.3	15.2
PL	65+	18.2	0.6	17.1	19.3
PT	0-17	19.1	1.3	16.5	21.7
PT	18-64	14.9	0.6	13.7	16.1
PT	65+	17.5	0.7	16.1	19.0
RO	0-17	30.1	2.5	25.3	35.0
RO	18-64	21.0	1.0	19.1	22.9
RO	65+	24.5	1.0	22.6	26.4
SI	0-17	10.5	0.8	9.0	12.1
SI	18-64	10.8	0.4	9.9	11.7
SI	65+	19.4	0.8	17.8	21.0
SK	0-17	17.0	1.5	14.0	19.9
SK	18-64	10.3	0.6	9.1	11.6
SK	65+	9.5	0.7	8.0	10.9
FI	0-17	11.6	1.2	9.2	14.0
FI	18-64	11.8	0.5	10.8	12.8
FI	65+	13.9	0.9	12.2	15.7
SE	0-17	18.7	1.3	16.2	21.2
SE	18-64	15.4	0.6	14.1	16.7
SE	65+	15.3	1.0	13.4	17.2
СН	0-17	19.8	2.3	15.4	24.2

Country	Age group	Percent	Std. Error	Lower CL	Upper CL
СН	18-64	11.7	0.7	10.4	13.1
СН	65+	24.8	1.0	22.9	26.7
NO	0-17	14.1	1.2	11.6	16.5
NO	18-64	13.5	0.6	12.4	14.6
NO	65+	8.5	0.9	6.7	10.3
ME	0-17	32.6	2.2	28.3	37.0
ME	18-64	20.5	1.2	18.1	22.9
ME	65+	15.5	1.1	13.3	17.6
МК	0-17	30.5	2.7	25.1	35.8
МК	18-64	21.2	2.2	16.8	25.7
МК	65+	13.5	1.7	10.1	16.8
RS	0-17	24.2	1.6	21.1	27.4
RS	18-64	20.9	0.9	19.2	22.6
RS	65+	22.0	0.9	20.2	23.8
TR	0-17	33.3	0.6	32.2	34.4
TR	18-64	19.2	0.3	18.5	19.8
TR	65+	17.5	0.6	16.4	18.6
AL	0-17	28.4	1.3	25.8	30.9
AL	18-64	21.6	0.8	19.9	23.2
AL	65+	13.8	0.9	12.0	15.6

Note: The following countries reported that Eurostat methodology is not used to calculate standard errors: Austria, Belgium, Bulgaria, Czechia, Latvia, Lithuania, Hungary, Portugal, Serbia and Romania. Therefore, the standard error estimations available in their National Quality Reports may differ from the ones presented in the table above. Source: Micro-database (April 2022)
Country	Percent	Standard Error	Variance	Lower CL	Upper CL
BE	3.9	0.5	0.2	3.0	4.9
BG	19.4	0.8	0.7	17.8	20.9
CZ	2.4	0.2	0.1	1.9	2.9
DK	2.4	0.3	0.1	1.8	3.0
DE	5.6	0.2	0.0	5.2	6.0
EE	2.8	0.3	0.1	2.3	3.3
IE	4.1	0.4	0.2	3.3	5.0
EL	16.6	0.6	0.4	15.4	17.8
ES	7.0	0.4	0.2	6.1	7.8
FR	4.8	0.3	0.1	4.1	5.5
HR	6.9	0.4	0.2	6.2	7.7
IT	5.9	0.3	0.1	5.2	6.5
СҮ	8.3	0.7	0.5	6.9	9.6
LV	7.3	0.4	0.2	6.5	8.1
LT	7.7	0.6	0.4	6.5	8.9
LU	1.7	0.4	0.1	0.9	2.4
HU	8.0	0.6	0.4	6.8	9.2
МТ	3.3	0.4	0.2	2.5	4.1
NL	2.1	0.3	0.1	1.6	2.6
AT	2.7	0.4	0.2	1.9	3.5
PL	2.6	0.2	0.0	2.3	3.0
РТ	4.6	0.3	0.1	4.0	5.2
RO	15.2	1.1	1.2	13.1	17.4
SI	3.0	0.2	0.0	2.6	3.4
SK	5.9	0.4	0.2	5.0	6.8
FI	2.6	0.2	0.1	2.1	3.0
SE	1.8	0.2	0.1	1.3	2.3
СН	1.3	0.5	0.3	0.3	2.3
NO	2.0	0.3	0.1	1.5	2.5
ME	13.5	1.1	1.2	11.3	15.7
МК	28.7	2.8	7.7	23.2	34.2
RS	13.5	0.7	0.5	12.1	15.0
TR	27.4	0.4	0.1	26.6	28.1
AL	34.7	1.0	0.9	32.8	36.5

## Table 7 - Severe material deprivation rate

Note: The following countries reported that Eurostat methodology is not used to calculate standard errors: Austria, Belgium, Bulgaria, Czechia, Latvia, Lithuania, Hungary, Portugal, Serbia and Romania. Therefore, the standard error estimations available in their National Quality Reports may differ from the ones presented in the table above. Source: Micro-database (April 2022)

Country	Gender	Percent	Std. Error	Lower CL	Upper CL
BE	Male	4.0	0.5	3.0	5.1
BE	Female	3.8	0.5	2.9	4.8
BG	Male	18.4	0.9	16.7	20.2
BG	Female	20.2	0.8	18.6	21.8
CZ	Male	2.2	0.3	1.7	2.7
CZ	Female	2.6	0.3	2.1	3.1
DK	Male	2.6	0.4	1.9	3.3
DK	Female	2.2	0.3	1.6	2.7
DE	Male	5.8	0.2	5.3	6.3
DE	Female	5.4	0.2	5.0	5.9
EE	Male	2.6	0.3	2.0	3.2
EE	Female	2.9	0.3	2.4	3.5
IE	Male	3.7	0.4	2.8	4.5
IE	Female	4.6	0.5	3.6	5.6
EL	Male	16.1	0.7	14.8	17.5
EL	Female	17.0	0.6	15.8	18.3
ES	Male	6.9	0.5	6.0	7.8
ES	Female	7.0	0.5	6.1	7.9
FR	Male	4.4	0.4	3.7	5.1
FR	Female	5.2	0.4	4.4	5.9
HR	Male	7.1	0.5	6.2	8.1
HR	Female	6.8	0.4	6.0	7.6
IT	Male	6.0	0.4	5.3	6.8
IT	Female	5.7	0.3	5.0	6.4
СҮ	Male	8.3	0.7	6.9	9.8
СҮ	Female	8.2	0.8	6.7	9.7
LV	Male	6.9	0.5	5.9	7.8
LV	Female	7.6	0.5	6.7	8.5
LT	Male	7.2	0.7	5.7	8.6
LT	Female	8.2	0.7	6.8	9.6
LU	Male	1.9	0.5	0.9	2.8
LU	Female	1.5	0.3	0.8	2.1
HU	Male	7.8	0.6	6.6	9.0
HU	Female	8.1	0.7	6.8	9.4
МТ	Male	3.0	0.4	2.2	3.8
MT	Female	3.6	0.5	2.6	4.6
NL	Male	2.2	0.3	1.6	2.8
NL	Female	2.1	0.3	1.5	2.6
AT	Male	2.9	0.5	1.8	3.9
AT	Female	2.5	0.3	1.8	3.1

# Table 8 - Severe material deprivation rate by sex

Country	Gender	Percent	Std. Error	Lower CL	Upper CL
PL	Male	2.7	0.2	2.2	3.1
PL	Female	2.6	0.2	2.2	2.9
РТ	Male	4.7	0.4	3.9	5.4
РТ	Female	4.5	0.3	3.9	5.1
RO	Male	14.8	1.0	12.7	16.8
RO	Female	15.7	1.2	13.4	18.0
SI	Male	3.0	0.3	2.4	3.5
SI	Female	3.1	0.2	2.6	3.5
SK	Male	5.9	0.5	5.0	6.9
SK	Female	5.9	0.5	5.0	6.8
FI	Male	2.7	0.3	2.1	3.3
FI	Female	2.5	0.3	1.9	3.0
SE	Male	2.0	0.3	1.5	2.6
SE	Female	1.6	0.3	1.1	2.1
СН	Male	1.1	0.4	0.4	1.9
СН	Female	1.5	0.7	0.1	2.8
NO	Male	2.3	0.3	1.6	2.9
NO	Female	1.8	0.3	1.1	2.4
ME	Male	13.1	1.0	11.0	15.1
ME	Female	14.0	1.3	11.5	16.4
МК	Male	29.0	2.8	23.3	34.6
МК	Female	28.4	2.8	22.9	33.9
RS	Male	13.0	0.8	11.4	14.5
RS	Female	14.0	0.8	12.4	15.6
TR	Male	27.2	0.4	26.4	28.0
TR	Female	27.6	0.4	26.8	28.4
AL	Male	34.1	1.0	32.1	36.1
AL	Female	35.2	1.0	33.3	37.1

Note: The following countries reported that Eurostat methodology is not used to calculate standard errors: Austria, Belgium, Bulgaria, Czechia, Latvia, Lithuania, Hungary, Portugal, Serbia and Romania. Therefore, the standard error estimations available in their National Quality Reports may differ from the ones presented in the table above. Source: Micro-database (April 2022)

Country	Age group	Percent	Std. Error	Lower CL	Upper CL
BE	0-17	4.6	0.8	2.9	6.2
BE	18-64	4.4	0.5	3.4	5.4
BE	65+	1.5	0.3	0.9	2.1
BG	0-17	20.0	1.7	16.6	23.3
BG	18-64	16.2	0.8	14.6	17.8
BG	65+	27.8	0.9	26.1	29.5
CZ	0-17	3.1	0.5	2.2	4.1
CZ	18-64	2.4	0.3	1.9	3.0
CZ	65+	1.5	0.2	1.1	2.0
DK	0-17	2.2	0.8	0.6	3.8
DK	18-64	2.9	0.3	2.3	3.5
DK	65+	1.1	0.2	0.6	1.5
DE	0-17	5.9	0.5	5.0	6.9
DE	18-64	6.1	0.2	5.7	6.5
DE	65+	3.9	0.2	3.4	4.4
EE	0-17	2.1	0.4	1.2	3.0
EE	18-64	2.8	0.3	2.2	3.4
EE	65+	3.4	0.4	2.5	4.2
IE	18-64	4.3	0.4	3.4	5.1
IE	0-17	5.4	0.8	3.9	7.0
IE	18-64	4.3	0.4	3.4	5.1
EL	65+	11.6	0.5	10.6	12.7
EL	0-17	19.4	1.3	16.9	21.9
EL	18-64	17.6	0.7	16.3	18.9
ES	0-17	9.0	0.8	7.4	10.5
ES	18-64	7.5	0.5	6.6	8.5
ES	65+	3.2	0.3	2.6	3.9
FR	0-17	5.7	0.6	4.6	6.9
FR	18-64	5.3	0.4	4.5	6.1
FR	65+	2.4	0.3	1.8	3.0
HR	0-17	4.7	0.7	3.4	6.0
HR	18-64	6.7	0.5	5.8	7.6
HR	65+	9.5	0.6	8.3	10.6
IT	0-17	5.7	0.6	4.5	6.8
IT	18-64	6.6	0.4	5.8	7.4
IT	65+	4.1	0.3	3.5	4.7
СҮ	0-17	11.8	1.5	8.8	14.8
СҮ	18-64	8.5	0.7	7.0	9.9
СҮ	65+	2.9	0.5	2.0	3.7
LV	0-17	6.3	0.8	4.8	7.8

# Table 9 - Severe material deprivation rate by age

Country	Age group	Percent	Std. Error	Lower CL	Upper CL
LV	18-64	7.1	0.4	6.2	8.0
LV	65+	8.8	0.6	7.6	10.1
LT	0-17	8.6	1.6	5.4	11.7
LT	18-64	6.7	0.6	5.5	7.8
LT	65+	10.2	0.8	8.6	11.8
LU	0-17	1.3	0.5	0.3	2.4
LU	18-64	2.1	0.5	1.1	3.1
LU	65+	· .			
HU	0-17	11.0	1.3	8.4	13.6
HU	18-64	7.5	0.6	6.3	8.7
HU	65+	6.7	0.5	5.7	7.7
MT	0-17	3.9	0.8	2.2	5.5
MT	18-64	3.0	0.4	2.1	3.8
MT	65+	4.0	0.6	2.9	5.1
NL	0-17	2.7	0.7	1.3	4.0
NL	18-64	2.4	0.3	1.9	2.9
NL	65+	0.8	0.2	0.5	1.1
AT	0-17	4.5	1.0	2.4	6.5
AT	18-64	2.6	0.4	1.8	3.4
AT	65+	1.0	0.2	0.6	1.5
PL	0-17	2.3	0.3	1.7	2.9
PL	18-64	2.6	0.2	2.2	3.1
PL	65+	2.9	0.2	2.4	3.3
PT	0-17	3.9	0.5	2.9	4.9
PT	18-64	4.4	0.4	3.7	5.2
PT	65+	5.5	0.4	4.6	6.3
RO	0-17	21.4	2.5	16.4	26.4
RO	18-64	13.7	1.0	11.8	15.6
RO	65+	14.2	0.9	12.5	16.0
SI	0-17	2.4	0.4	1.7	3.1
SI	18-64	2.9	0.2	2.4	3.4
SI	65+	4.0	0.4	3.2	4.8
SK	0-17	6.4	0.9	4.7	8.0
SK	18-64	5.8	0.5	4.9	6.7
SK	65+	5.7	0.6	4.7	6.8
FI	0-17	2.2	0.5	1.1	3.2
FI	18-64	3.2	0.3	2.6	3.7
FI	65+	1.3	0.3	0.7	1.8
SE	0-17	3.0	0.6	1.8	4.1
SE	18-64	1.9	0.2	1.4	2.3
SE	65+	0.3	0.1	0.1	0.6
СН	0-17	2.6	1.9	0.0	6.3

Country	Age group	Percent	Std. Error	Lower CL	Upper CL
СН	18-64	1.2	0.3	0.6	1.8
СН	65+	0.3	0.1	0.0	0.6
NO	0-17	2.2	0.6	1.0	3.3
NO	18-64	2.4	0.3	1.9	3.0
NO	65+	0.4	0.2	0.0	0.7
ME	0-17	17.0	1.9	13.1	20.8
ME	18-64	12.6	1.0	10.5	14.6
ME	65+	12.1	1.1	10.0	14.2
МК	0-17	32.0	3.6	24.8	39.1
МК	18-64	28.3	2.8	22.7	34.0
МК	65+	25.9	2.1	21.8	30.1
RS	0-17	12.3	1.4	9.6	15.0
RS	18-64	13.3	0.8	11.7	14.9
RS	65+	15.1	0.8	13.5	16.7
TR	0-17	33.7	0.6	32.6	34.9
TR	18-64	25.5	0.4	24.7	26.3
TR	65+	20.8	0.6	19.6	22.0
AL	0-17	37.5	1.5	34.5	40.5
AL	18-64	33.4	1.0	31.5	35.4
AL	65+	36.0	1.2	33.5	38.4

Note: The following countries reported that Eurostat methodology is not used to calculate standard errors: Austria, Belgium, Bulgaria, Czechia, Latvia, Lithuania, Hungary, Portugal, Serbia and Romania. Therefore, the standard error estimations available in their National Quality Reports may differ from the ones presented in the table above. Source: Micro-database (April 2022)

Country	Percent	Standard Error	Variance	Lower CL	Upper CL
BE	11.9	1.1	1.1	9.9	14.0
BG	8.5	0.8	0.6	7.0	10.0
CZ	4.4	0.4	0.1	3.7	5.1
DK	9.1	0.6	0.4	8.0	10.3
DE	9.0	0.3	0.1	8.4	9.7
EE	4.7	0.4	0.1	4.0	5.4
IE	11.3	0.7	0.5	9.8	12.7
EL	12.6	0.5	0.3	11.6	13.6
ES	9.9	0.5	0.2	9.0	10.8
FR	8.8	0.5	0.3	7.8	9.9
HR	8.6	0.5	0.3	7.6	9.6
ІТ	11.0	0.4	0.2	10.1	11.9
СҮ	5.6	0.5	0.3	4.5	6.6
LV	7.9	0.6	0.3	6.8	9.0
LT	7.3	0.6	0.4	6.1	8.5
LU	7.9	0.8	0.6	6.4	9.5
HU	5.0	0.5	0.2	4.1	5.9
MT	5.4	0.6	0.3	4.3	6.6
NL	8.9	0.5	0.2	8.0	9.9
AT	7.1	0.6	0.3	6.0	8.2
PL	4.3	0.2	0.1	3.8	4.7
РТ	5.1	0.4	0.1	4.3	5.8
RO	6.3	0.7	0.5	5.0	7.7
SI	4.8	0.3	0.1	4.2	5.4
SK	4.3	0.4	0.2	3.5	5.1
FI	9.9	0.5	0.3	8.9	11.0
SE	8.5	0.6	0.3	7.4	9.6
СН	5.5	0.5	0.2	4.6	6.4
NO	8.7	0.5	0.3	7.6	9.7
ME	14.8	1.0	1.0	12.8	16.8
МК	15.1	2.0	4.0	11.1	19.1
RS	16.2	0.9	0.8	14.5	17.9
TR	11.2	0.3	0.1	10.7	11.7
AL	11.6	0.6	0.4	10.4	12.8

## Table 10 - Low work intensity

Note: The following countries reported that Eurostat methodology is not used to calculate standard errors: Austria, Belgium, Bulgaria, Czechia, Latvia, Lithuania, Hungary, Portugal, Serbia and Romania. Therefore, the standard error estimations available in their National Quality Reports may differ from the ones presented in the table above. Source: Micro-database (April 2022)

Country	Gender	Percent	Std. Error	Lower CL	Upper CL
BE	Male	11.6	1.0	9.5	13.6
BE	Female	12.3	1.2	10.1	14.6
BG	Male	8.5	0.8	7.0	10.1
BG	Female	8.5	0.8	6.9	10.1
CZ	Male	3.8	0.4	3.0	4.6
CZ	Female	5.0	0.4	4.2	5.9
DK	Male	8.7	0.7	7.4	10.0
DK	Female	9.6	0.7	8.2	11.1
DE	Male	8.7	0.4	8.0	9.4
DE	Female	9.4	0.4	8.7	10.1
EE	Male	5.6	0.4	4.7	6.5
EE	Female	3.7	0.4	2.9	4.4
IE	Male	10.6	0.8	9.1	12.1
IE	Female	11.9	0.8	10.3	13.6
EL	Male	11.5	0.6	10.4	12.6
EL	Female	13.7	0.6	12.6	14.9
ES	Male	9.7	0.5	8.7	10.8
ES	Female	10.1	0.5	9.1	11.1
FR	Male	8.3	0.6	7.1	9.4
FR	Female	9.4	0.6	8.2	10.6
HR	Male	8.7	0.6	7.5	9.8
HR	Female	8.5	0.6	7.4	9.6
IT	Male	10.2	0.5	9.2	11.1
IT	Female	11.8	0.5	10.9	12.8
СҮ	Male	5.3	0.6	4.1	6.5
СҮ	Female	5.8	0.6	4.6	7.0
LV	Male	7.8	0.6	6.7	9.0
LV	Female	7.9	0.7	6.6	9.2
LT	Male	7.7	0.7	6.3	9.0
LT	Female	6.9	0.8	5.3	8.6
LU	Male	7.2	0.8	5.5	8.8
LU	Female	8.7	1.0	6.7	10.7
HU	Male	4.8	0.5	3.9	5.8
HU	Female	5.2	0.5	4.2	6.3
MT	Male	4.7	0.6	3.6	5.9
MT	Female	6.2	0.8	4.7	7.7
NL	Male	8.7	0.6	7.6	9.7
NL	Female	9.3	0.6	8.1	10.4
AT	Male	7.0	0.7	5.7	8.3
AT	Female	7.2	0.6	6.0	8.4

# Table 11 - Low work intensity by sex

Country	Gender	Percent	Std. Error	Lower CL	Upper CL
PL	Male	4.1	0.3	3.6	4.6
PL	Female	4.4	0.3	3.8	5.0
РТ	Male	5.2	0.5	4.2	6.1
РТ	Female	5.0	0.4	4.2	5.8
RO	Male	5.3	0.7	4.0	6.6
RO	Female	7.4	0.9	5.7	9.1
SI	Male	5.0	0.4	4.2	5.8
SI	Female	4.6	0.3	3.9	5.3
SK	Male	4.6	0.5	3.7	5.5
SK	Female	4.0	0.4	3.2	4.8
FI	Male	10.5	0.6	9.3	11.8
FI	Female	9.3	0.6	8.1	10.5
SE	Male	8.1	0.6	6.9	9.3
SE	Female	8.9	0.7	7.5	10.2
СН	Male	5.3	0.6	4.2	6.4
СН	Female	5.7	0.5	4.8	6.7
NO	Male	8.3	0.6	7.1	9.5
NO	Female	9.0	0.7	7.6	10.4
ME	Male	14.3	1.0	12.5	16.2
ME	Female	15.3	1.2	13.0	17.7
МК	Male	15.2	2.2	10.9	19.5
МК	Female	15.1	1.9	11.2	18.9
RS	Male	15.9	0.9	14.1	17.7
RS	Female	16.5	1.0	14.6	18.4
TR	Male	9.7	0.3	9.2	10.2
TR	Female	12.8	0.3	12.3	13.4
AL	Male	10.5	0.6	9.3	11.8
AL	Female	12.7	0.7	11.4	14.1

Note: The following countries reported that Eurostat methodology is not used to calculate standard errors: Austria, Belgium, Bulgaria, Czechia, Latvia, Lithuania, Hungary, Portugal, Serbia and Romania. Therefore, the standard error estimations available in their National Quality Reports may differ from the ones presented in the table above. Source: Micro-database (April 2022)

Country	Age group	Percent	Std. Error	Lower CL	Upper CL
BE	0-17	10.8	1.5	7.7	13.8
BE	18-59	12.4	0.9	10.6	14.3
BG	0-17	10.6	1.4	7.8	13.4
BG	18-59	7.9	0.6	6.7	9.1
CZ	0-17	4.1	0.6	2.9	5.2
CZ	18-59	4.5	0.4	3.8	5.2
DK	0-17	6.1	1.1	3.9	8.3
DK	18-59	10.3	0.6	9.2	11.4
DE	0-17	9.5	0.7	8.2	10.9
DE	18-59	8.9	0.3	8.3	9.4
EE	0-17	3.1	0.5	2.1	4.1
EE	18-59	5.2	0.4	4.5	5.9
IE	0-17	12.3	1.1	10.1	14.5
IE	18-59	10.8	0.7	9.4	12.2
EL	0-17	7.9	0.7	6.4	9.4
EL	18-59	14.1	0.5	13.1	15.1
ES	0-17	7.2	0.7	6.0	8.5
ES	18-59	10.8	0.5	9.8	11.7
FR	0-17	8.1	0.8	6.6	9.6
FR	18-59	9.2	0.5	8.1	10.2
HR	0-17	6.5	0.9	4.7	8.3
HR	18-59	9.3	0.5	8.3	10.2
IT	0-17	7.5	0.6	6.2	8.8
IT	18-59	12.1	0.5	11.2	13.0
СҮ	0-17	3.8	0.9	2.0	5.7
СҮ	18-59	6.1	0.5	5.1	7.1
LV	0-17	7.1	0.9	5.2	8.9
LV	18-59	8.2	0.5	7.2	9.2
LT	0-17	7.0	1.2	4.7	9.2
LT	18-59	7.4	0.5	6.3	8.5
LU	0-17	5.4	1.5	2.5	8.2
LU	18-59	8.8	0.8	7.3	10.3
HU	0-17	5.3	0.8	3.7	6.9
HU	18-59	5.0	0.4	4.2	5.7
MT	0-17	6.4	1.1	4.3	8.5
MT	18-59	5.2	0.5	4.1	6.2
NL	0-17	7.2	0.9	5.4	9.0
NL	18-59	9.6	0.5	8.7	10.5
AT	0-17	6.5	1.2	4.2	8.8
AT	18-59	7.3	0.5	6.3	8.3

# Table 12 - Low work intensity by age

Country	Age group	Percent	Std. Error	Lower CL	Upper CL
PL	0-17	2.9	0.3	2.2	3.5
PL	18-59	4.7	0.3	4.2	5.2
РТ	0-17	4.0	0.7	2.7	5.3
РТ	18-59	5.4	0.4	4.7	6.1
RO	0-17	6.0	1.2	3.6	8.5
RO	18-59	6.5	0.6	5.2	7.7
SI	0-17	2.2	0.4	1.4	2.9
SI	18-59	5.7	0.3	5.0	6.4
SK	0-17	3.7	0.6	2.5	5.0
SK	18-59	4.5	0.4	3.7	5.2
FI	0-17	7.6	1.0	5.6	9.6
FI	18-59	10.8	0.5	9.9	11.8
SE	0-17	8.9	1.0	7.0	10.9
SE	18-59	8.3	0.5	7.3	9.3
СН	0-17	4.4	0.9	2.7	6.2
СН	18-59	5.9	0.4	5.0	6.7
NO	0-17	6.6	0.9	4.8	8.5
NO	18-59	9.5	0.5	8.4	10.5
ME	0-17	13.9	1.6	10.8	17.0
ME	18-59	15.2	0.9	13.4	17.0
МК	0-17	16.1	2.5	11.1	21.0
МК	18-59	14.8	1.9	11.1	18.6
RS	0-17	13.8	1.4	11.1	16.4
RS	18-59	17.0	0.8	15.3	18.6
TR	0-17	8.1	0.3	7.5	8.7
TR	18-59	12.7	0.3	12.2	13.3
AL	0-17	11.6	0.9	9.8	13.4
AL	18-59	11.6	0.6	10.4	12.8

Note: The following countries reported that Eurostat methodology is not used to calculate standard errors: Austria, Belgium, Bulgaria, Czechia, Latvia, Lithuania, Hungary, Portugal, Serbia and Romania. Therefore, the standard error estimations available in their National Quality Reports may differ from the ones presented in the table above. Source: Micro-database (April 2022)





## Table 1 – Actual and achieved sample size, 2020

00000	Sample size				
DB020	Actual	Achieved			
BE	11347	7088			
BG	9060	7313			
CZ	11412	8618			
DK	11238	6562			
DE	41501	25336			
EE	8117	6434			
IE	10184	4243			
EL	17073	15086			
ES	26815	15043			
FR	15927	10899			
HR	11744	7716			
IT	29880	14241			
СҮ	5032	4192			
LV	9300	6095			
LT	7192	5146			
LU	3904	2783			
HU	8352	6530			
MT	4460	3826			
NL	23442	13211			
AT	9069	6021			
PL	20475	15281			
РТ	18874	11367			
RO	7913	7356			
SI	13028	8539			
SK	6957	5542			
FI	13121	9474			
SE	12050	5781			
СН	13310	8156			
NO	11747	6031			
ME	5663	4198			
МК	6045	5410			
RS	5969	4956			
TR	27437	25706			
AL	8900	7292			

Source: Micro-database (April 2022)

## Table 2 – Other statistics on sample size by countries, 2020

		Total sample	Last rotational group				
Country	Achieved Sample Size Households 2019	Achieved Sample Size Households 2020	Ratio 2020/2019	Persons 16 and over 2020	Last Rotational Group	N of households	% of total sample
BE	6787	7088	1.04	13113	6	1094	15.4
BG	7340	7313	1.00	14661	4	1507	20.6
CZ	8707	8618	0.99	15812	4	2370	27.5
DK	5817	6562	1.13	11548	1	2704	41.2
DE	12364	25336	2.05	44298	4	5667	22.4
EE	6265	6434	1.03	12411	4	1911	29.7
IE	4183	4243	1.01	8341	5	1586	37.4
EL	17914	15086	0.84	28878	1	2973	19.7
ES	15887	15043	0.95	31618	4	6592	43.8
FR	11737	10899	0.93	19925	3	5520	50.6
IT	20831	14241	0.68	25814	5	3663	25.7
СҮ	4211	4192	1.00	9269	3	1155	27.6
LV	5279	6095	1.15	11074	4	1609	26.4
LT	5131	5146	1.00	9881	3	1415	27.5
LU	3842	2783	0.72	6022	2	855	30.7
HU	6911	6530	0.94	12229	3	2088	32.0
MT	3785	3826	1.01	8323	4	1159	30.3
NL	13764	13211	0.96	24419	3	4425	33.5
AT	5983	6021	1.01	10409	4	1982	32.9
PL	19874	15281	0.77	32490	2	6184	40.5
РТ	13570	11367	0.84	24236	4	3889	34.2
RO	7282	7356	1.01	15535	1	1911	26.0
SI	8590	8539	0.99	20994	2	3014	35.3
SK	5591	5542	0.99	12026	3	1563	28.2
FI	9646	9474	0.98	18434	3	2885	30.5
SE	5621	5781	1.03	11152	3	1699	29.4
NO	6080	6031	0.99	11751	2	1743	28.9
СН	7341	8156	1.11	15177	1	3133	38.4
HR	7879	7716	0.98	16658	1	2207	28.6
AL	NA	7292	NA	19116	4	2111	28.9
RS	5130	4956	0.97	13223	3	1372	27.7
ME	4315	4198	0.97	10256	2	1253	29.8
МК	NA	5410	NA	14496	4	1557	28.8
TR	24923	25706	1.03	63953	4	6361	24.7

Source: Micro-database (August 2022)

## Table 3 – Non-response rate by country, 2020

Country	Address contact rate		Household response rate		Individual response rate		Household non-response rate		Overall individual non- response rate		Last Rotational
	Total	New entries	Total	New entries	Total	New entries	Total	New entries	Total	New entries	Group
BE	97.8	97.7	63.8	27.5	99.9	99.9	37.7	73.2	37.8	73.2	6
BG	98.0	98.0	85.5	62.0	99.5	99.2	16.2	39.3	16.7	39.8	4
CZ	89.6	89.4	80.0	55.7	100.0	100.0	28.3	50.2	28.3	50.2	4
DK	87.4	86.9	63.9	42.2	100.0	100.0	44.2	63.4	44.2	63.4	1
DE	100.0	100.0	64.3	58.5	99.6	99.7	35.8	41.5	36.0	41.7	4
EE	93.8	93.6	84.0	69.9	97.1	96.8	21.2	34.5	23.5	36.7	4
IE	98.4	98.4	49.0	31.6	100.0	100.0	51.8	69.0	51.8	69.0	5
EL	98.5	98.4	89.6	72.3	99.7	99.7	11.8	28.8	12.0	29.0	1
ES	82.5	82.2	62.9	55.2	98.7	98.6	48.1	54.7	48.8	55.3	4
FR	79.5	79.0	84.5	79.4	98.5	98.7	32.9	37.3	33.9	38.1	3
IT	99.5	99.5	53.6	50.8	100.0	100.0	46.7	49.5	46.7	49.5	5
СҮ	98.7	98.6	90.4	78.4	100.0	100.0	10.8	22.7	10.9	22.7	3
LV	99.4	99.3	67.5	45.4	96.6	95.7	32.9	54.9	35.2	56.9	4
LT	66.8	66.6	87.7	70.2	100.0	100.0	41.4	53.2	41.4	53.2	3
LU	94.6	89.5	74.3	70.5	100.0	100.0	29.7	36.9	29.7	36.9	2
HU	99.8	99.8	80.4	71.0	98.8	98.1	19.8	29.1	20.8	30.5	3
MT	97.5	97.5	87.8	81.1	100.0	100.0	14.4	20.9	14.4	20.9	4
NL	100.0	100.0	58.1	38.9	100.0	100.0	41.9	61.1	41.9	61.1	3
AT	99.9	99.9	69.7	48.6	99.7	100.0	30.4	51.5	30.6	51.5	4
PL	95.5	95.2	83.5	81.4	88.8	87.8	20.3	22.4	29.3	31.9	2
РТ	78.1	77.4	71.2	62.5	99.2	98.9	44.4	51.6	44.9	52.1	4
RO	97.0	97.0	95.2	85.5	99.9	100.0	7.7	17.1	7.7	17.1	1
SI	89.8	89.6	73.8	63.2	100.0	100.0	33.7	43.3	33.7	43.3	2
SK	100.0	100.0	80.0	57.7	100.0	100.0	20.0	42.3	20.0	42.3	3
FI	100.0	100.0	72.9	53.1	100.0	100.0	27.2	47.0	27.2	47.0	3
SE	77.9	76.6	52.6	60.3	100.0	100.0	59.1	53.9	59.1	53.9	3
NO	100.0	100.0	52.0	59.7	100.0	100.0	48.0	40.4	48.0	40.4	2
СН	71.4	70.6	75.6	67.7	98.3	98.4	46.0	52.2	47.0	52.9	1
HR	74.2	74.1	78.8	57.2	98.8	98.8	41.6	57.6	42.3	58.1	1
AL	99.0	99.0	90.1	83.0	100.0	100.0	10.8	17.9	10.8	17.9	4
RS	98.7	99.0	85.9	71.7	99.9	100.0	15.2	29.0	15.3	29.0	3
ME	99.6	99.6	83.4	60.0	99.4	99.2	16.9	40.2	17.4	40.7	2
МК	97.4	97.5	91.1	81.7	99.9	99.9	11.4	20.4	11.5	20.4	4
TR	99.4	99.3	97.3	93.5	99.9	99.9	3.3	7.2	3.4	7.3	4

Source: Micro-database (April 2022)

## Table 4 – Proxy interviews, 2020 cross sectional data

Country	Number of proxy interviews	% of proxy interviews on total sample
BE	574	8.1
BG	1726	23.6
CZ	2568	29.8
DK	112	1.7
DE	3370	13.3
EE	1641	25.5
IE	1426	33.6
EL	724	4.8
ES	5190	34.5
FR	2627	24.1
IT	3176	22.3
СҮ	717	17.1
LV	1591	26.1
LT	1626	31.6
LU	1108	39.8
HU	1378	21.1
MT	1194	31.2
NL	0	0.0
AT	542	9.0
PL	5089	33.3
РТ	5172	45.5
RO	802	10.9
SI	1981	23.2
SK	914	16.5
FI	1052	11.1
SE	92	1.6
NO	0	0.0
СН	481	5.9
HR	3272	42.4
AL	3114	42.7
RS	729	14.7
ME	1700	40.5
МК	1737	32.1
TR	2828	11.0

Source: Micro-database (April 2022)

### Annex 6: Fieldwork and mode of data collection

Country	ΡΑΡΙ	САРІ	CATI	Self-administered	CAWI	PAPI proxy	CAPI proxy	CATI proxy	Self-administered proxy	CAWI proxy
BE		11.4	80.5				0.7	7.4		
BG		76.4					23.6			
CZ	38.8	25.5	6.0		•	15.1	11.0	3.7		•
DK			18.9		79.4			0.6		1.1
DE		0.9	8.1	31.1	46.7		0.3	3.3	5.7	4.0
EE		42.6	30.0		1.9		14.8	10.7		•
IE		27.0	39.3		•	•	12.4	21.2		•
EL	73.2	•	22.0		•	2.8	•	2.0		•
ES		•	65.5					34.5		
FR		75.9	•		•	•	24.1			•
ІТ		17.8	59.9		•		3.1	19.2		
СҮ		5.2	77.7		•		0.4	16.7		
LV	0.8	2.3	64.7	0.0	6.1	0.1	0.1	22.8	0.0	3.1
LT	3.9	11.9	40.9		11.8	1.4	3.2	23.6		3.4
LU		60.2			•		39.8			
HU		69.8	3.7		5.4	•	20.2			0.9
МТ			68.8					31.2		
NL			24.9		75.1					
AT		52.7	38.3		•		3.9	5.1		
PL	0.3	3.4	62.8	0.1	•	0.1	1.4	31.8	0.0	
PT		22.0	32.5		•	•	45.5			•
RO	89.1	•	•		•	10.9	•			•

# Table 1 – Mode of data collection by country, 2020 cross sectional data

Country	ΡΑΡΙ	САРІ	CATI	Self-administered	CAWI	PAPI proxy	CAPI proxy	CATI proxy	Self-administered proxy	CAWI proxy
SI	•	37.2	39.6		•	•	12.0	11.2		•
SK	83.1	•		0.4		16.5				•
FI		0.7	88.1				0.0	11.1		•
SE			98.4					1.6		•
NO		0.0	100.0							
СН		•	94.1					5.9		•
HR		57.6					42.4			
AL		57.3					42.7			
RS		85.3					14.7			•
ME	58.1	1.4				39.4	1.1			•
МК	67.9	•	•		•	32.1	•	•		•
TR	•	89.0	•		•	•	11.0	•		•

Source: Micro-database (April 2022)





Source: 2020 National quality reports (August 2022)

Country (*)	2020	2019	2018	2017	2016
BE	NA	NA	37.8	40.1	34.6
BG	64.7	66.5	66.8	71.3	73.2
CZ	43.5	41.9	45.2	52.1	50.8
DK	17.4	15.7	17.2	19.1	19
DE	93.7	97.7	95.5	97.7	95.7
EE	47.1	50.7	53.6	53.7	49.1
IE	42.9	55	56.2	48	44
IT	38.6	26.2	27.6	21.4	23.5
EL	56	55.5	58.7	60.5	56.4
ES	28.5	28.7	25.5	27.5	25.3
FR	46.9	52.9	53.1	56.8	52.1
СҮ	51.3	54.1	54.6	58.2	55.4
LV	24.6	27.1	31.2	34.9	32.9
LT	56.9	54.5	54.7	62	56.8
LU	39.3	63.9	61.3	57.9	55
HU	78.6	54.7	61.6	49	56.1
MT	38.1	53.4	51.3	44.3	41.4
NL	17.8	18	18.3	19.4	18.4
AT	49.5	48.1	66.3	46.3	43.4
PL	82.6	93.5	102.5	98.8	95.3
РТ	45	31	30.8	30.7	30.5
RO	61.2	59.9	60.4	58.8	61
SI	22.6	17.3	19.7	21.6	15.9
SK	60.3	63.5	67.1	64.6	63.8
FI	33.5	26.6	29.3	34.7	27.7
SE	22.7	19.1	21.5	21.7	18.8
IS	NA	NA	30	42.7	25.5
NO	57.9	44.4	56.8	58.6	NA
СН	68.9	64.2	63.6	68.5	63.7
HR	144.2	150.4	157.2	155.1	130.6
AL	36.8	37.8	49.7	35.8	74.4
RS	60.4	53.8	50.1	42.3	39.6
ME	28	26.9	24.7	27.4	26.7
МК	41.6	47.4	41.8	44.5	43.7
TR	32.7	34.1	27.8	28.4	31.8

Table 2 – Average interview duration, cross-sectional data sets 2016-2020

Note: The mean interview duration per household is calculated as the sum of the duration of all household interviews plus the sum of the duration of all personal interviews, divided by the number of household questionnaires completed. Only households accepted for the database have to be considered (The SAS programs are available in CIRCABC as 'QR\_Interview\_dur').

(\*) The average interview duration reported in the national quality reports from Czech Republic, Germany, Ireland, Italy, France, Luxembourg, Hungary, Malta, and Norway seem to be based on calculations that differ from the centralized approach suggested by Eurostat.

Source: Micro-database (August 2022).

### Annex 7: Income Variables 2020

### Table 1 - Income variables asked at household level and reported deviations from EU-SILC definitions

Income variables	Deviations from EU-SILC definitions
Total hh gross income (HY010)	:
Total disposable hh income (HY020)	:
Total disposable hh income before social transfers other than old-age and survivors' benefits (HY022)	Largely comparable: Latvia
Total disposable hh income before all social transfers (HY023)	Largely comparable: Latvia, Netherlands
Imputed rent (HY030)	Largely comparable: Hungary, Latvia, Poland, Switzerland Partially comparable: Czechia Not collected: Malta, Serbia
Income from rental of property or land (HY040)	:
Family/ Children related allowances (HY050)	Largely comparable: Netherlands, Poland, Norway
Social exclusion payments not elsewhere classified (HY060)	:
Housing allowances (HY070)	Largely comparable: Norway Not collected: Romania
Regular inter-hh cash transfers received (HY080)	Largely comparable: Netherlands, Sweden
Interest, dividends, profit from capital investments in incorporated businesses (HY090)	:
Interest repayments on mortgage (HY100)	Largely comparable: Latvia, Sweden
Income received by people aged under 16 (HY110)	Not collected: Czechia
Regular taxes on wealth (HY120)	<i>Not collected</i> : Austria, Belgium, Switzerland, Luxembourg, Malta, Norway, Serbia
Regular inter-hh transfers paid (HY130)	Largely comparable: Netherlands, Sweden
Value of goods produced for own consumption (HY170)	<i>Not collected:</i> Belgium, Denmark, Finland, Latvia, Malta, the Netherlands, Sweden, Slovenia, Slovakia, Romania, Norway, Switzerland

Note: as of 01/08/2022, the quality reports for Poland, Portugal, France and Montenegro were not fully validated, and the quality reports for North Macedonia and Turkey were not yet available for validation. Source: 2020 National quality reports

### Table 2 - Income variables asked at personal level and reported deviations from EU-SILC definitions

Income variables	Deviations from EU-SILC definitions
Cash or near-cash employee income (PY010)	Largely comparable: Italy, Netherlands, Poland, Norway, Switzerland
Other non-cash employee income (PY020)	Not collected: Switzerland, Austria
Income from private use of company car (PY021)	Not collected: Switzerland, Serbia
Employers' social insurance contributions(PY030)	Largely comparable: Finland, Norway Not collected: Germany, Malta, Romania
Cash profits or losses from self- employment (PY050)	Largely comparable: Italy, Poland, Norway
Unemployment benefits (PY090)	Largely comparable: Netherlands
Old-age benefits (PY100)	Largely comparable: Romania, Slovenia
Survivors' benefits (PY110)	Largely comparable: Poland, Slovenia
Sickness benefits (PY120)	Largely comparable: Poland Not collected: Italy
Disability benefits (PY130)	Largely comparable: Slovenia
Education-related allowances (PY140)	:
Gross monthly earnings for employees (PY200)	Largely comparable: Switzerland Not collected: Belgium, Cyprus, Czechia, Germany, Estonia, Spain, Finland,
	Malta, Romania, Sweden, Montenegro, Norway

Note: as 01/08/2022, the quality reports for Poland, Portugal, France and Montenegro were not fully validated, and the quality reports for North Macedonia and Turkey were not yet available for validation. Source: 2020 National quality reports.

#### Annex 8: Data COVID-19 2020

#### E-Survey on the impact of COVID-19 on the 2020 and 2021 EU-SILC data collection

The COVID-19 crisis and lockdown influenced the 2020 data collection for most of the countries. In October 2020, Eurostat launched an e-survey to receive information on the impact of COVID-19 pandemic on the data collection and data quality in 2020 and 2021. The survey took place from the end of October until the beginning of November and most EU and EFTA countries provided answers. They were Belgium, Bulgaria, Czechia, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, Netherlands, Austria, Poland, Romania, Slovenia, Slovakia, Sweden, Finland, Iceland, Norway, and Switzerland.

Regarding data collection, the following main findings were observed:

- From the 29 countries that participated in the survey, 12 countries reported to have postponed or extended the fieldwork as compared to initially foreseen. Hungary and Latvia were the only countries that did fieldwork before the spring lockdown.
- Most countries introduced ad hoc measures during the 2020 data collection. Most common measures taken were **change of fieldwork period** and **change of mode of data collection**, but some countries introduced changes in the questionnaires, used additional administrative registers and historical data, changed the reference period for some variables, and introduced changes in the sample.
- For most of the countries, the overall household response rate was as usual and not impacted by the situation and the first wave response rates were the most affected.
- Most of the countries did not expected problems with data quality for the 2020 EU-SILC data due to the COVID-19 crisis, but Belgium, Germany, Ireland, Greece, France, Latvia, Luxembourg, Malta, Poland, Slovenia, and Finland reported to expect that the quality of data might be affected.
- Belgium, Germany, Ireland, Poland, and Slovenia reported to expect that the quality of regional indicators might be affected.

#### National Quality reports 2020

More information regarding the measures implemented by each country were provided in the national quality reports. Countries were asked to complement the regular quality reports 2020 with additional information on **changes of fieldwork period**, in respect to lockdown (Table 1), and **changes of reference periods** used for variables related to childcare, labour information, and current education and highest level attained (Table 2).

Interview period	Countries
Before the lockdown	Hungary
Before and during the lockdown	Denmark, France*, Croatia, Latvia, the Netherlands, Sweden, Switzerland, Norway
During and after the lockdown	Albania, Bulgaria
Before, during, and after the lockdown	Austria, Belgium, Cyprus, Czechia, Germany, Estonia, Finland, Ireland, Lithuania, Slovenia, Slovakia
After the lockdown	Greece, Spain, Italy, Luxembourg, Romania, Serbia
Not applicable	Malta, Poland*

#### Table 1 - Influence of COVID-19 on fieldwork period in respect to lockdown

Note: as 01/08/2022, the quality reports for Poland, Portugal, France and Montenegro were not fully validated, and the quality reports for North Macedonia and Turkey were not yet available for validation. Source: 2020 National quality reports and (\*) e- survey on Influence of COVID-19 on EU-SILC data collection in 2020 and 2021.

### Table 2 - Influence of COVID-19 on reference period for selected variables

Variables	Deviations from EU-SILC definitions in Doc065
RL010: education at pre-school /-number of hours education during usual week	Usual week before the lockdown: Albania, Austria, Cyprus, Greece, Finland, Slovenia
RL020: education at compulsory school /-number of hours education during usual week	Usual week before the lockdown: Albania, Austria, Cyprus, Greece, Slovenia
RL030: childcare at centre –based services/-number of hours education during usual week	Usual week before the lockdown: Albania, Austria, Cyprus, Greece, Finland, Slovenia
RL040: child care at day-care centre/-number of hours education during usual week	Usual week before the lockdown: Albania, Austria, Cyprus, Greece, Slovenia
RL050: child care by professional child-minder at child's home or at child-minder's /-number of hours education during usual week home	Usual week before the lockdown: Albania, Austria, Cyprus, Greece, Slovenia
RL060: child care by grand-parents, other household members/-number of hours education during usual week	Usual week before the lockdown: Albania, Austria, Cyprus, Greece, Slovenia
PL040: Status in employment	Current before the lockdown: Austria
PE010: Current education activity	Current before the lockdown: Albania
PE020: ISCED level currently attended	Current before the lockdown: Albania
HC010 Food at home	<i>Typical month:</i> Austria, Greece, Italy, the Netherlands, Romania, Sweden, Slovenia
HC020 Food or drink outside home	<i>Typical month:</i> Austria, Greece, Spain, Finland, Italy, the Netherlands, Romania, Sweden, Slovenia
HC030 Public transport	<i>Typical month:</i> Albania, Austria, Greece, Spain, Finland, Italy, the Netherlands, Romania, Sweden, Slovenia
HC040 Private transport	<i>Typical month:</i> Albania, Austria, Greece, Spain, Finland, Italy, the Netherlands, Romania, Sweden, Slovenia
HC050 Savings (in a typical month)	Last month: Denmark, Estonia

Note: as 01/08/2022, the quality reports for Poland, Portugal, France and Montenegro were not fully validated, and the quality reports for North Macedonia and Turkey were not yet available for validation. Source: 2020 National quality reports.