

**Documentation of statistics for
Survey on Living Conditions (SILC) 2023**

1 Introduction

In Denmark EU-SILC (Statistics on income and living conditions) is a combination of survey and register data. The purpose of EU-SILC is to provide a statistics on the populations income, living conditions and risk of social exclusion. Statistics Denmark only disseminate a small part of EU-SILC. The survey is primarily disseminated by Eurostat.

The survey is conducted in all EU member states once a year following the same guidelines. In Denmark the survey has been conducted since 2004.

2 Statistical presentation

SILC consists of data on the composition of the households and their living conditions including questions on how easy it is for the household to make ends meet and the financial burden of the housing costs. Further information is collected on health and position on the labour market etc. These interview questions are then supplemented by a lot of register based information, mainly on incomes, demographics, housing and education.

2.1 Data description

The Survey on living conditions is based on a sample of 6,215 completed interviews with Danish households in 2022. The participating households include about 11,800 persons. It's a longitudinal survey based on 4 year panels.

The results of the survey are primarily disseminated by [Eurostat](#). Statistics Denmark only publish a few indicators:

In the Statbank tables SILC1P-4P you will find data on the interview question:

- "Thinking of your household's total income, to what extent is your household able to make ends meet, namely, to pay for its usual necessary expenses?"

The data can be grouped by age, sex, socioeconomic status, income and household type.

In the Statbank tables SILC1B-4B you will find data on the interview question:

- "Please think of your total housing costs including mortgage repayment (installment and interest) or rent, insurance, maintenance and service charges. To what extent are these costs a financial burden to your household?"

The data can be grouped by age, sex, socioeconomic status, income and household type.

Additionally you can find the poverty indicator Economically vulnerable and its components in SILC1A with the possibility to group by sex or age. The interview questions are:

- "Thinking of your household's total income, to what extent is your household able to make ends meet, namely, to pay for its usual necessary expenses?"
- "Has the household in 20xx [last year] been in arrears, i.e. has been unable to pay one or more of the following expenses on time due to financial difficulties? Rent or mortgage repayment, utility bills (heating, electricity, gas, water) or hire purchase instalments or other loan payments"
- "Can your household afford an unexpected required expense of 10,000 DKK and pay through its own resources?"
- "Does your household have a car for private use? If you do not have a car: Would you like to have it but cannot afford it?"
- "Can your entire household afford to go for a week's annual holiday, away from home? (Including stays in a second dwelling or with friends/relatives)"

2.2 Classification system

Classifications in the Statbank: Socioeconomic status: Children, Students, Employed, Non-working incl. disability pensioners, Old-age pensioners incl. voluntary early retirement. Children are defined as persons under the age of 16 years.

Type of household: Single persons without children, Single persons with children, Couples without children, Couples with children, Other types of households. Children are defined as persons under the age of 16. Households with children above the age of 15 as well as households with more than two adults are placed in Other types of households.

Incomes: The quintiles are defined based on equivalised disposable income from the previous year.

2.3 Sector coverage

Household sector - only private households. Collectives, institutions etc. are not included

2.4 Statistical concepts and definitions

Equalised disposable income: The total income of a household, after tax and other deductions, that is available for spending or saving, divided by the number of household members converted into equalised adults. Household members are equalised or made equivalent by weighting each according to their age.

2.5 Statistical unit

Persons

2.6 Statistical population

Persons who live in Denmark.

2.7 Reference area

Denmark.

2.8 Time coverage

These statistics cover the time period from 2004 and onwards.

2.9 Base period

Not relevant for this statistics.

2.10 Unit of measure

Percent of total number of persons in private households.

2.11 Reference period

The reference year in publications and the StatBank is the year in which the interview was conducted. Age is the age of the person on the 31st December the year before and the incomes are the yearly income in the year before.

2.12 Frequency of dissemination

Annually

2.13 Legal acts and other agreements

The data collection adhere to Law on Statistics Denmark and the [EU-regulation](#).

2.14 Cost and burden

As the participation is voluntary there is no information on the response burden. As register based data is used very much and the sample size has been minimized, the overall burden for Danish Households will be much smaller than in countries where register based data is not available.

2.15 Comment

Additional information on the survey is available on [Eurostats Website](#)

3 Statistical processing

The subjective data from the interviews are combined with the register based data using the Central personal Register. To adjust for non-response bias, weights are computed and assigned to respondents. This ensures that the survey population match the Danish population on demographics and income levels.

3.1 Source data

The EU-SILC is a survey which combines interviews with administrative data from the registers at Statistics Denmark.

The primary source for SILC data is interviews with 6,200 households from a sample of 12.100 households. This sample is a combination of persons who participated the previous years and 7.000 added households. The interview data are combined with administrative registers to form the EU-SILC datasets. Denmark uses a selected respondent model and only interview one person per household. The selected respondent is asked personal questions, question related to the household and labor market status for all household members.

From 2016 the sample is stratified on Regions. From 2020 the sample is stratified on both Regions and the income intervals 0-60 per cent of the median, 60-100 per cent of the median and above 100 per cent of the median.

The target population is "persons living in Denmark", while the survey population is "persons living in private households in Denmark". Thus, persons living in institutions, prisons and the homeless are not included in the survey.

3.2 Frequency of data collection

Survey data is collected every year from February to May.

3.3 Data collection

80 per cent of the interview data is collected via web interviews, the rest is collected via telephone interviews. If the selected respondent have not responded within a shorter period a letter are mailed out reminding on the survey. If this does not give any reply the respondent are called by phone and the interview is conducted. Afterwards the data are supplemented by register based data.

3.4 Data validation

The interview data are validated at the interviewing where not existing codes cannot be used and warnings minimize the risk of incorrect data input. When asked to provide amounts, i.e. the monthly rent, filters give the respondent the option to change his answer, if the answer differs to much from the norm. Software with a range of data check provided by Eurostat ensures data are internally and externally consistency.

3.5 Data compilation

The respondents are assigned weights to correct for non-response bias. The weights are constructed using register data. The household respondent defines the composition of his/her own household. Assisted by an anonymous personal identifier the survey data are linked with registers that provides data on age, income, education etc. for all household members.

3.6 Adjustment

Not relevant for this statistics.

4 Relevance

SILC is primarily used by Eurostat and the European commissions. Users of the statistics published in Denmark are mainly the press.

4.1 User Needs

The primary purpose of SILC is to provide comparable statistics on Incomes and living conditions between European countries. In Denmark only a small part of SILC is published. Many of the subjects covered by SILC i.e. incomes are covered by full population registers in Denmark. Thus for Denmark it's always recommended to use our full population registers unless you are doing international comparisons. The same goes for other areas for which full population registers exist. The most important users of the SILC are Eurostat and other European Commissions. In Denmark the primary users are the press and the ministry of Social Affairs.

Statistics Denmark has received financial contribution from the EU in order to implement the changes to the Survey on Income and Living Conditions (SILC) as well as the rolling modules from 2021-2023 necessitated by the IESS regulation.

4.2 User Satisfaction

User satisfaction are not measured systematically in Denmark. Feedback in Eurostat is mainly focused on timeliness and further needs for improved regional data. Danish users have the option to comment on SILC at an annual user committee meeting, covering many different statistics. Apart from this we occasionally are in contact with users by phone, if they have questions regarding the statistics we published.

4.3 Data completeness rate

Statistics Denmark comply with the EU regulation and adhere to the Eurostat guidelines for the indicators disseminated in Denmark.

5 Accuracy and reliability

Data are based on a survey; hence there is some statistical uncertainty; especially on subgroups. In addition to sampling errors there might be a slight risk of bias. A calibration of the survey is carried out in order to limit any bias and make sure that the sample reflects the population on factors such as demographics and incomes. For the published variables the effect and risk of bias is assumed to be negligible due to the strong correlation with incomes.

5.1 Overall accuracy

As SILC is based on a sample of persons/household there are some statistical uncertainty related to the data. This is partly due to the presence of statistical uncertainty and partly due to the risk of biases. A calibration of the survey is carried out in order to limit any bias and make sure that the sample reflects the population on factors such as demographics and incomes. For the published variables on making ends meet, the burden of housing costs and economically vulnerable, the effect and risk of bias is assumed to be negligible due to the strong correlation with incomes.

The exclusion of persons not living in private households probably results in underestimation of social exclusion.

5.2 Sampling error

The following confidence intervals is calculated on the total sample in 2022. If smaller sub-populations for instance a specific age-group is selected, then the standard errors will be relatively larger, due to the smaller sample size.

Table 95 pct. confidence intervals, 2022-data:

Ability to make end meet

Indicator	CI-lower limit	CI- upper limit	Very hard, hard	11.3	10.4	12.3	Somewhat hard	17.7					
16.6	18.8	Somewhat easy	28.2	27.0	29.4	Easy	25.8	24.7	26.9	Very easy	17.0	16.0	17.9

5.3 Non-sampling error

The response rate is about 40 per cent. This does leave a risk of bias as certain groups got lower response rates than others. The survey is calibrated to match the population on age and income, but there may still be an underrepresentation among immigrants, sick people .

Persons living in institutions or prisons and the homeless are not included in the survey. The exclusion of these groups probably results in underestimation of social exclusion.

The target population is "persons living in Denmark". This is the population directly or indirectly referred to in publications. The survey population differs from this by only including "persons living in private households in Denmark". Thus, persons living in institutions or prisons and the homeless are not included in the survey. Addresses with more than 10 adults and respondents who answer that they don't live in a private household are excluded from the survey. The exclusion of these groups probably results in underestimation of social exclusion. The survey population is defined by Eurostat and is hence the same in all countries.

Statistics Denmark use the Selected respondent model. Thus only one person answers the interview and his answers on household level questions are used to characterize the entire household. The majority of "Under 20 year olds" are children living at home.

5.4 Quality management

Statistics Denmark follows the recommendations on organisation and management of quality given in the Code of Practice for European Statistics (CoP) and the implementation guidelines given in the Quality Assurance Framework of the European Statistical System (QAF). A Working Group on Quality and a central quality assurance function have been established to continuously carry through control of products and processes.

5.5 Quality assurance

Statistics Denmark follows the principles in the Code of Practice for European Statistics (CoP) and uses the Quality Assurance Framework of the European Statistical System (QAF) for the implementation of the principles. This involves continuous decentralized and central control of products and processes based on documentation following international standards. The central quality assurance function reports to the Working Group on Quality. Reports include suggestions for improvement that are assessed, decided and subsequently implemented.

5.6 Quality assessment

The survey is mostly compliant with Eurostat standards on data quality and timeliness. However the sample size is rather small and the response rates are low. Thus users have to be aware of statistical uncertainty, especially when analyzing results on minor sub-populations.

5.7 Data revision - policy

Statistics Denmark revises published figures in accordance with the [Revision Policy for Statistics Denmark](#). The common procedures and principles of the Revision Policy are for some statistics supplemented by a specific revision practice.

5.8 Data revision practice

SILC is revised following validation by Eurostat. Following the national publication, which is based on structural data, longitudinal data are sent to Eurostat, where they are validated. After this validation, there is a correspondence between Eurostat and Statistics Denmark, which can lead to corrections in various places in the basic data. This can lead to changes in both data and weights, which can lead to minor changes in the published figures.

6 Timeliness and punctuality

The data are usually published in December or January following the interview period. There is a risk of delays, due to the many different data sources used to compile SILC - which may not be available in due time.

6.1 Timeliness and time lag - final results

The data is published in December in the reference year or in January the following year.

In recent years the publication has been moved from September 2016 (SILC 2015) to May 2017 (SILC 2016) to December 2017 (SILC 2017). SILC 2018 was published in December 2018. SILC 2019 was published in January 2020. The 2020-data was released in February 2021. The delay was caused due to extended deadlines for filing the final tax statements due to COVID-19.

The 2022-data was released according to plan in December 2022.

6.2 Punctuality

SILC data are usually published in December of the survey year or January the following year. This fulfills the requirements set by Eurostat.

7 Comparability

The published indicators are assumed comparable over time and between countries participating in the EU-SILC.

7.1 Comparability - geographical

The few indicators published by Statistics Denmark adhere to Eurostat guidelines and are internationally comparable.

7.2 Comparability over time

The guidelines from Eurostat may change from time to time. But for the data published in Denmark no changes have been made in the guidelines or in the question phrasings since 2004. From 2013 the respondents has been interviewed on the web and by phone. Prior to 2013 the interviews was mainly conducted by phone. No attempt has been made to asses the effect of the updated data collection mode.

In 2020 Statistics Denmark has revised the income definitions used for SILC. Once the work is finalized more information on the revision will be uploaded to <http://www.dst.dk>. The revision should not substantially affect the indicators published in the [statbank](#)

In 2015 a revision of the SILC has been carried out. The revision mainly affects incomes and is not expected to have substantial effect on the indicators published in the Danish statbank. Read more about the [Revision](#) in Danish.

7.3 Coherence - cross domain

The Statbank indicators is strongly correlated with incomes and housing costs. However note that the indicators are subjective and thus may not follow trends in for example the incomes. Statistics Denmark have also published a statistics on Quality of Life in Denmark in 2015, this covers some of the same topics as SILC.

SILC in general has it's main focus on incomes. It is worth noting that the national Danish estimates for mean disposable income, inequality etc. differs from Eurostats SILC, due to differences in the definition in family and the income concepts. More information is available in Danish [here](#).

The household composition is defined by the respondent at the time of the interview and does not match the national household definitions in the registers. Likewise socio-economic status are in register-based statistics imputed via registers, while they in SILC represent the status given by the respondent at the time of the interview. There are also some differences between national income concepts and the concepts used in SILC. Among other imputed rent and interest paid on mortgages are not included in the disposable income for SILC.

Data for SILC is a mix between interview and register data. The register variables is often from the latest available reference time prior to the time of the interview.

7.4 Coherence - internal

Information retrieved from register-based sources is based on those persons who have answered the survey questionnaire.

8 Accessibility and clarity

Some main figures are published in Nyt fra Danmarks Statistik and in the statbank. Eurostat publish many figures in the [Eurostat database](#).

8.1 Release calendar

The publication date appears in the release calendar. The date is confirmed in the weeks before.

8.3 User access

Statistics are always published at 8:00 a.m. at the day announced in the release calendar. No one outside of Statistics Denmark can access the statistics before they are published.

8.2 Release calendar access

The Release Calendar can be accessed on our English website: [Release Calendar](#).

8.4 News release

[Nyt fra Danmarks Statistik](#).

8.5 Publications

[Statistical Yearbook](#).

8.6 On-line database

The statistics are published in the StatBank under the subject [Survey on Living Conditions](#)

8.7 Micro-data access

Researchers can get access to anonymised micro-data from well as well as data from the other countries participating in the EU-SILC. Find out more on the [Eurostat web-page](#).

8.8 Other

Eurostat does most of dissemination of SILC. For more details visit the [Eurostat website](#)

8.9 Confidentiality - policy

[Data Confidentiality Policy](#) for Statistics Denmark.

8.10 Confidentiality - data treatment

If a tabel cell in the statbank consist on answers from less than 200 persons the result will not be published in the statbank, as this would result in to large statistical uncertainty. This criteria ensures that

8.11 Documentation on methodology

The SILC-Methodology is determined by Eurostat. Read more about SILC guidelines on the [Eurostat website](#)

8.12 Quality documentation

Results from the quality evaluation of products and selected processes are available in detail for each statistics and in summary reports for the Working Group on Quality.

9 Contact

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