

eurostat 

Labour force survey in the EU, EFTA and candidate countries

Main characteristics of national
surveys, 2021

2024 edition

 STATISTICAL
REPORTS



Labour force survey in the EU, EFTA and candidate countries

**Main characteristics of national
surveys, 2021**

2024 edition

This document should not be considered as representative of the European Commission's official position.

Luxembourg: Publications Office of the European Union, 2024



© European Union, 2024

The reuse policy of European Commission documents is implemented by Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39). Unless otherwise noted, the reuse of this document is authorised under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed provided appropriate credit is given and any changes are indicated.

For any use or reproduction of elements that are not owned by the European Union, permission may need to be sought directly from the respective rightholders. The European Union does not own the copyright in relation to the following elements:

cover © AdobeStock/David

Collection: Statistical reports

Population and social conditions

PDF

ISBN 978-92-68-14844-0

ISSN 2529-3222

doi:10.2785/822528

KS-FT-24-003-EN-N

Preface

This report describes the main characteristics of the European Union Labour Force Survey (EU-LFS) conducted in 2021 in the Member States of the European Union (EU), two EFTA countries (Norway and Switzerland) and two candidate countries (Serbia and Turkey).

All of these countries provide Eurostat with EU-LFS microdata. The purpose of this report is to inform about the technical features of the surveys carried out in these countries, in order to enable users to interpret the EU-LFS results accurately.

In all countries, the EU-LFS is organised and managed by the National Statistical Institutes.

The EU-LFS has been based on European legislation since 1973. The regulations are an important element assuring the quality of the EU-LFS.

In 2021, the Integrated European Social Statistics Framework Regulation (IESS FR) entered into force as [Regulation \(EU\) 2019/1700](#), and its [Implementing Regulation \(EU\) 2019/2240](#) for the Labour force domain.

The EU-LFS is designed as a continuous quarterly survey which measures the labour status and other characteristics

of the population in each quarter, by spreading the sample uniformly over all the weeks of the quarter.

The main characteristics of the national practices are presented in this report. The information is mostly organised along the same lines as in 'The European Union Labour Force Survey: Main Characteristics of the National Surveys 2020'. This will enable users to evaluate the degree of comparability achieved. Country sheets include a section on the main conceptual, methodological or organisational changes introduced in recent years, to allow the reader to have an idea of recent changes at a glance. Tables 1 to 3 (in Annex) provide summary information on some of the characteristics described in the report.

For more detailed information on the legal basis, results, common practices, methods and definitions of the European Union Labour Force Survey, including the new methodology from 2021 onwards, see the EU-LFS Statistics Explained website at: http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_labour_force_survey

Eurostat wishes to thank the experts responsible for the national labour force surveys in the EU Member States, the EFTA countries and the candidate countries for their help in compiling the data presented in this report.

List of abbreviations

CAPI	Computer Assisted Personal Interviewing
CATI	Computer Assisted Telephone Interviewing
CAWI	Computer Assisted Web Interviewing
EC	European Commission
EFTA	European Free Trade Association
EU	European Union
FSU	Final sampling unit
ILO	International Labour Organization
ISCED	International Standard Classification of Education
LFS	Labour Force Survey
NUTS	Nomenclature des unités territoriales statistiques / Nomenclature of Territorial Units for Statistics NUTS0-NUTS3, LAU
PAPI	Paper and Pencil Interviewing
PSU	Primary sampling unit
Q	Quarter

Contents

Preface	3
List of abbreviations	4
Contents	5
Summary	7
Characteristics of national surveys in 2021	8
BELGIUM (BE).....	8
BULGARIA (BG).....	11
CZECHIA (CZ).....	14
DENMARK (DK).....	16
GERMANY (DE).....	18
ESTONIA (EE).....	21
IRELAND (IE).....	23
GREECE (EL).....	25
SPAIN (ES).....	27
FRANCE (FR).....	29
CROATIA (HR).....	32
ITALY (IT).....	35
CYPRUS (CY).....	38
LATVIA (LV).....	40
LITHUANIA (LT).....	42
LUXEMBOURG (LU).....	44
HUNGARY (HU).....	46
MALTA (MT).....	49
NETHERLANDS (NL).....	51

AUSTRIA (AT).....	53
POLAND (PL).....	55
PORTUGAL (PT).....	58
ROMANIA (RO).....	60
SLOVENIA (SI).....	62
SLOVAKIA (SK).....	64
FINLAND (FI).....	66
SWEDEN (SE).....	68
NORWAY (NO).....	71
SWITZERLAND (CH).....	73
SERBIA (RS).....	75
TURKEY (TR).....	78
Glossary	81
Annex (Tables)	84

Summary

Description DE	Der vorliegende Bericht beschreibt die wichtigsten Merkmale der Arbeitskräfteerhebung in den Mitgliedstaaten der Europäischen Union sowie zwei EFTA-Ländern und zwei Beitrittskandidatenländern im Jahr 2021. Alle diese Länder stellen Eurostat AKE-Mikrodaten für die Veröffentlichung zur Verfügung. Dieser Bericht soll den Nutzern durch Informationen über die technischen Merkmale der Arbeitskräfteerhebungen der teilnehmenden Länder eine genaue Bewertung der AKE-Ergebnisse ermöglichen, nach dem Inkrafttreten der Verordnung (EU) 2019/1700 und ihrer Durchführungsverordnung (EU) 2019/2240 für den Bereich Arbeitskräfte.
Description EN	The present report describes the main characteristics of the Labour Force Survey (EU-LFS) in the Member States of the European Union, as well as two EFTA countries and two candidate countries in 2021. All these countries provide Eurostat with EU-LFS micro-data for publication. The aim of this report is to provide users with the means to accurately interpret the EU-LFS results by providing information regarding the technical features of the Labour Force Surveys carried out in these countries, following the entry into force of Regulation (EU) 2019/1700, and its Implementing Regulation (EU) 2019/2240 for the Labour force domain.
Description FR	Le rapport décrit les principales caractéristiques de l'Enquête sur les Forces de Travail (EFT) dans les États membres de l'Union européenne, deux pays de l'AELE et deux pays candidats en 2021. Tous ces pays fournissent à Eurostat les micro-données EFT à des fins de publication. L'objectif de ce rapport est de fournir aux utilisateurs les moyens de bien interpréter les résultats EFT, en donnant des informations concernant les caractéristiques techniques des enquêtes sur les forces de travail menées dans ces pays, suite à l'entrée en vigueur du règlement (UE) 2019/1700 et de son règlement d'exécution (UE) 2019/2240 pour le domaine des Forces de Travail.

Characteristics of national surveys in 2021

BELGIUM (BE)

Background

The LFS started in 1983 as an annual survey but has been continuous since January 1999 providing quarterly and yearly results. Major changes in recent years include the following:

- 2006: CAPI is introduced (but most of the interviews still in PAPI).
- 2008: The national questions and instructions about education and training take into account the Bachelor/Master structure of higher education. Therefore, a break is introduced between 2007 and 2008 for the level of education.
- 2009: Imputations of the earnings variable (net wages) based on the structure of an earnings survey.
- 2011: Final shift to CAPI as the main survey mode.
- 2017: Revision of the sampling design; introduction of 2-(2)-2 rotational scheme; introduction of CAWI; revision of the weighting procedure.
- 2020: Due to the COVID-19 pandemic, from March 2020, all the interviews in the first wave were carried out in CATI. From the second to the fourth wave, both CAWI and CATI were used.
- 2021: Implementation of Regulation (EU) 2019/1700 with revision of the questionnaire and update of the ICLS/ILO definitions of unemployment/employment. All the interviews in the first wave were still carried out in CATI.

Coverage

Population interviewed for employment status: 15-89 years old (people in households of which all members are 90 years or older, are excluded).

Population concept: Registered population.

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Family home.
- People working out of family home for an extended period for the purpose of work: Family home.
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: Family home.

Household concept: Housekeeping.

Household definition: Members living together in the same dwelling, sharing meals and expenditures (criteria not explicitly checked in sampling frame and during the interview).

Participation: Compulsory.

Description: The survey covers the entire country but only private households, where at least one person is younger than 89, are included in the survey. A household is the unit comprising either one person living alone or two or more persons living together in the same dwelling, sharing meals and expenditures.

Sampling strategy

Sampling design: Two stages stratified sampling plan.

Sampling frame: Population Register extended with information from tax and unemployment registers.

Sampling units: The PSU is the statistical section and the FSU is the household.

Sampling method: In the first stage of sampling, the PSUs are stratified by regions (NUTS2). In the second stage there is no stratification or sorting of FSUs.

Achieved sample size (quarterly average): 14 300 households.

Sampling rate: 0.14%.

Rotation scheme: 2-(2)-2.

Description: The frame of PSUs consists of geographic areas, which are either 'statistical sections' or unions of statistical sections within 'statistical letters' or sub-municipalities. In the first stage of sampling, the PSUs are explicitly stratified by NUTS2 regions (i.e. provinces, where the Brussels Capital Region and the German community are separate strata). The PSU sampling frame, within each stratum, is further sorted on (1) the quintile of the number of private households in the PSU, (2) the quintile of the unemployment rate in the PSU and (3) the quintile of the average household income in the PSU.

A systematic probability proportional to size sampling is applied in each first stage sampling stratum. The number of PSU draws or selections in each sampling stratum is fixed in advance, then the households are selected in the second stage. Larger PSUs can be selected more than once, while smaller PSUs are probably not selected. Basically, simple random sampling is applied to select households (FSUs) in each selected PSU.

A subsample is used to survey most of the structural variables under the Commission Regulation (EC) 2019/2240, for which only yearly results are required. The subsample is determined according to a wave approach, i.e., it includes the units of each full quarterly sample which, according to the rotation scheme, are interviewed for the first time (1st wave).

Data collection

Techniques adopted: CATI – CAWI – CAPI.

Interviews by technique distribution: CATI 60%, CAWI 40%, CAPI 0%.

Response rate: 79.1%.

Proxy rate (15-74 years): 26.9%.

Description: The EU-LFS is based on a mixed-mode design. Usually, detailed information (relating to individuals aged 15 years and older) is collected by CAPI in the three or four weeks following the reference week. Instead, for the COVID-19 pandemic, all interviews in the first wave were carried out in CATI. For the 2nd to the 4th wave, the data was collected using CAWI or CATI.

As part of the measures to limit the spread of the coronavirus, all face-to-face interviews have been temporarily replaced by telephone interviews since the first lockdown in March 2020. The follow-up surveys are conducted - as before the COVID-19 pandemic - by telephone or via the internet.

The non-response rate was 20.9% and refusals accounted for 4.0% of the interviewed population.

Weighting procedure

Method: Calibration, after correcting the sampling weights for non-response.

Variables used: Sex, age groups, regions (NUTS2), level of urbanisation, household type and origin (on the basis of the country of birth of the adult household members).

Reference population for weighting: Population living in private households.

Description: The two-step quarterly weighting model can be formulated as: $\langle \text{IND}; \text{STRAT12} \times \text{SEX} \times \text{AGECAT} + \text{RG_c}; \text{d/p}; \text{Lin} \rangle$.

1. The third component, d/p , in this formal representation of the weighting model, means that, in step one, the sampling weights d are corrected using estimated response probabilities p at household level; a random intercept logistic regression model, followed by smoothing, is used to estimate the p .
2. Proper calibration is applied to further adjust the corrected weights d/p . The first component IND indicates that calibration is done at the individual level. The second component is a formal expression for the linear structure of the calibration model in step two, indicating that calibration is to the joint distribution of variables STRAT12, SEX and AGECAT in the population; and the totals of calibrated weights for the rotation groups (RGs) involved in each quarterly sample are forced to be proportional to the initial sizes of these RGs (the notation RG_c stands for 'contrast constraints between RGs'). The fourth and last component, Lin, indicates the use of the linear method for calibration.

BULGARIA (BG)

Background

The LFS started in 1993, providing quarterly results from 2000 on based on a single reference week in the last month of the quarter. In 2003, the survey was redesigned as a continuous survey, providing quarterly results. Major changes in recent years include the following:

- 2006: A new LFS questionnaire is used since the Q1 2006, increasing the number of available variables. WSTATOR – Parental leave, newly introduced in Bulgaria, is taken into account to determine the ILO labour status and is considered as employment from which the person concerned was absent during the reference period.
- 2008: The wave approach is implemented in the national LFS at the beginning of the year. 25 variables are collected on an annual basis. The 3rd wave is used for data collection of annual variables. Sample size is increased by 1 504 households (to a total sample size of 19 504 households). Reference period is extended to all 13 weeks of the quarter. Several changes are introduced to the questionnaire to match more closely the list of EU-LFS variables and explanatory notes.
- 2012: Update of the sampling frame based on the Census of Population 2011. Changes in the weighting procedure.
- 2016: Sampling frame, based on the Census 2011 (last update in 2016, by using administrative data).
- 2021: Changes in the methodology of the Labour Force Survey, primarily related to the definitions of employment and unemployment in line with the implementation of Regulation (EU) 2019/1700 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 and subsequent Commission implementing regulations in the field of labour force statistics.

Coverage

Population interviewed for employment status: 15-89 years old.

Population concept: Usual residence (12 months).

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Term address.
- People working out of family home for an extended period for the purpose of work: Family home.
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: 'Most of the time' criteria.

Household concept: Housekeeping.

Household definition: A household is defined as one person, who lives in a self-contained dwelling, or two or more persons, who live together in one dwelling or part of a dwelling and have a common budget, regardless of the fact that some of them may not have kinship ties with each other.

Participation: Voluntary.

Description: The survey covers the whole country. Only private households are included. Persons living in student hostels or in workers' hostels are treated as private households.

The resident population includes all persons usually residing in Bulgaria, including persons temporarily abroad (less than one year). Foreign nationals, except diplomats working at the foreign embassies and members of their families, are included in the resident population if they have lived in Bulgaria for more than one year or if they intend to stay for at least a year. The survey covers all the members of the selected households including persons staying in hospitals or other health care

institutions for less than one year; students in secondary schools even though studying at different place; students at military schools; and persons left for temporal or seasonal work within the country.

Sampling strategy

Sampling design: Two stages stratified sampling plan.

Sampling frame: Census 2011 (updated in 2016).

Sampling units: The PSU is the Census enumeration district and the FSU is the household.

Sampling method: In the first stage of sampling, the PSUs are stratified by districts (corresponding to NUTS3 regions) and type of place of residence (district centre, other town and village). In the second stage, an equal number of households (8 per quarter) is randomly selected.

Achieved sample size (quarterly average): 13 700 households.

Sampling rate: 0.65%.

Rotation scheme: 2-(2)-2.

Description: The Labour Force Survey is based on a two stages stratified cluster sample. Clusters are the enumeration districts at the first stage and households at the second stage. In the first stage, 2 444 enumeration districts are selected with probability proportional to their size. In the second stage, within each PSU, an equal number of eight households are randomly selected.

The sample is stratified by districts (28 administrative districts at NUTS3 level), crossed with type of place of residence (three groups: district centre, other town and village). The total number of the strata is 83.

Since the third quarter of 2017, a new sample of PSUs and households (having the same sampling design) has been gradually implemented in the EU-LFS.

A sub-sample is used to survey most of the structural variables under the Commission Implementing Regulation (EC) 2019/2240, for which only yearly results are required. The sub-sample is determined according to a wave approach, i.e. it includes the units of each full quarterly sample which, according to the rotation scheme, are interviewed for the third time (3rd wave).

Data collection

Techniques adopted: PAPI – OTHER.

Interviews by technique distribution: PAPI 97.1%, OTHER 2.9%.

Response rate: 76.8%.

Proxy rate (15-74 years): 26.8%.

Description: The EU-LFS data is collected with face to face interviews by using PAPI. Another method is the telephone interview which is not assisted by the computer. All persons in the household aged 15-89 years are interviewed.

The non-response rate was 23.2% and refusals accounted for 4.2% of the interviewed population.

Weighting procedure

Method: Calibration.

Variables used: Sex, age group, region (NUTS3), type of place of residence (urban/rural).

Reference population for weighting: Population living in private households.

Description: The weights are calculated in three steps.

1. Initial weights are obtained as inverse of inclusion probability of each household.
2. The initial weights are multiplied by correction factor for households' non-response which is calculated as the ratio between the total number of selected households in a stratum and the number of interviewed households from the same stratum.
3. In the final step, the intermediate weights (corrected for non-response) are calibrated to the population estimates by the following variables: at national level by 5-year age group, sex and type of place of residence (urban/rural); at district level (NUTS3) by three age groups (0-14, 15-64, 65+), sex and type of place of residence (urban/rural).

For the calculation of the weights, the population estimates at the end of the previous quarter are used.

CZECHIA (CZ)

Background

The LFS has been conducted since December 1992 as a continuous quarterly survey, shifting from seasonal quarters to calendar quarters by the end of 1997. Major changes in recent years include the following:

2011: Implementation of the wave approach.

2021: Implementation of Regulation (EU) 2019/1700 (modification of the questionnaire according to the annexed flowchart, inclusion of questions with two-year/eight-year periodicity). Reduction of the number of questions for national purposes only.

Coverage

Population interviewed for employment status: 15 years and older.

Population concept: Usual residence (12 months).

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Family home.
- People working out of family home for an extended period for the purpose of work: Family home.
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: 'Most of the time' criteria.

Household concept: Housekeeping.

Household definition: Members living together in the same dwelling, sharing household expenditures.

Participation: Voluntary.

Description: The survey covers the whole country. Only private households are surveyed. The target population comprises all persons usually living in the selected dwellings, regardless of the type of stay (permanent, temporary or non-registered). Temporarily absent persons (for less than one year) and domestic servants are included. It does not cover persons (students, workers, migrants) living in collective accommodation. Lodgers are considered as independent budget-keeping households. People living abroad are excluded.

Sampling strategy

Sampling design: Two stages stratified sampling plan.

Sampling frame: Register of Census Areas, last updated in 2013.

Sampling units: The PSU is the Census area and the FSU is the dwelling.

Sampling method: In the first stage of sampling, the PSUs are sampled by probability proportional to their size. In the second stage, dwellings are randomly selected.

Achieved sample size (quarterly average): 23 357 households.

Sampling rate: 0.60%.

Rotation scheme: 5-.

Description: The strata consist of 77 districts with Prague considered as one district.

The PSUs are Census (enumeration) areas that are sampled (by randomised systematic sampling) with probability proportional to their size, i.e. the number of dwellings per Census area.

In the second stage, dwelling units are selected from the initial sample by simple random sampling.

The initial (1st wave) theoretical quarterly sample of PSUs is 1 130 Census areas (in total 5 650 Census areas), while the approximate final sample size is 33 900 dwelling units per quarter.

A sub-sample is used to survey some structural variables (mostly on atypical work, the situation one year before and others) for which only yearly results are required. The sub-sample is determined according to a wave approach, i.e. it includes the units of each full quarterly sample which, according to the rotation scheme, are interviewed for the first time (1st wave).

Data collection

Techniques adopted: CAPI – CATI – PAPI.

Interviews by technique distribution: PAPI 71.0%, CATI 22.7%, CAPI 6.3%.

Response rate: 76.3%.

Proxy rate (15-74 years): 41.3%.

Description: The EU-LFS is based on a mixed-mode design. On first visits, the data is collected by face-to-face interviews (PAPI and CAPI), with subsequent interviews being partly carried out by CATI. Some interviews are conducted through PAPI and the information collected is inserted into a computer immediately afterwards.

The non-response rate was 23.7% and refusals accounted for 17.2% of the interviewed population.

Weighting procedure

Method: Post-stratification.

Variables used: Sex, age group, district.

Reference population for weighting: Total resident population.

Description: The weights are based on post-stratification by 13 age groups, sex and the 77 districts. Demographic figures for each quarter in 2021 were forecasted from the definitive demographic data for end-of-year 2020, taken into account migration and natural development of the population.

DENMARK (DK)

Background

The LFS started in 1984 as an annual survey but has been organised as a continuous survey providing quarterly results since 1994. Major changes in recent years include the following:

- 2007: Sample size more than doubled.
Rotation scheme changed from 2-(3)-1 to 2-(2)-2.
More efficient use of auxiliary variables in the weighting procedures.
Face-to-face interviewing is used as a supplementary data collection method.
- 2009: Sample size increased to 40 000 per quarter.
Sampling scheme changed from three to seven strata.
- 2010: No more CAPI interviews are conducted.
Introduction of an extra module for the Danish Center for Social Science Research on the employment of disabled people in Q1.
- 2011: At the end of 2011, the weights were revised for the entire period back to 2007.
- 2015: A weighting method based on panels was implemented in Q3 2015, which only led to marginal changes in the data.
- 2016: Sample structure renovation and sample size reduction. Before 2016, individuals who had research protection were not interviewed, but this protection has been removed from Q1 2016. This effectively means an expansion of the number of people that actually can be interviewed. This is compensated by reducing the number of people who are drawn out to the sample.
Introduction of CAWI techniques also for core variables in the questionnaire.
- 2018: Full implementation of the sample size reduction with a quarterly sample size of 34 320 individuals.
- 2019: In September 2019, the weights were revised for the entire period back to 2008.
- 2021: Implementation of the Regulation (EU) 2019/1700: the population changed to also include the age group from 75-89 years. On a quarterly basis, the sample has thus increased from 34 320 people to 36 020 people. The weighting scheme has also been changed to include the age group 75-89 years.

Coverage

Population interviewed for employment status: 15-89 years.

Population concept: Registered population, including people living in institutions.

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Term address.
- People working out of family home for an extended period for the purpose of work: Term address.
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: 'Most of the time' criteria (registered address).

Household concept: Housekeeping.

Household definition: Members living together in the same dwelling and (if the household consists of more than eight people) with common housekeeping.

Participation: Voluntary.

Description: The entire country is covered, apart from Greenland and the Faroe Islands. The survey covers persons living in either private or collective households with domicile in Denmark according to the Central Population Register.

Sampling strategy

Sampling design: One stage stratified sampling plan.

Sampling frame: Population Register and other registers (enhanced with information from the labour market register and the income register).

Sampling units: The sampling unit is the individual.

Sampling method: The sample is stratified by gross income, net unemployment, socio-economic status and age. Individuals are interviewed for the core part of the EU-LFS, whereas all persons of the household in the 4th panel are interviewed for the household part.

Achieved sample size (quarterly average): 17 267 individuals (15-89)

Sampling rate: 0.77%.

Rotation scheme: 2-(2)-2.

Description: Stratification is overall based on employment and unemployment. The variables used for the delimitation are gross income, net unemployment from the unemployment register, socio-economic status and age. Persons aged 16-64 years that were registered as unemployed in a specific quarter prior to the survey quarter are selected with a higher probability than their relative proportion of the total population.

Data collection

Techniques adopted: CATI – CAWI.

Interviews by technique distribution: CAWI 52.7%, CATI 47.3%.

Response rate: 49.4%.

Proxy rate (15 - 89 years): 6.6%.

Description: The EU-LFS is based on a mixed-mode design. From 2016 both the core EU-LFS and the household subsample is based on a mix of modes where CATI is supplemented with CAWI.

The non-response rate was 50.6% in 2021 and refusals accounted for 16.8% of the total non-response.

Weighting procedure

Method: Calibration.

Variables used: Sex, age groups, region (NUTS2), socio-economic status, income, nationality, level of education, status in the unemployment register.

Reference population for weighting: Individuals aged 15-89 years.

Description: The strata are weighted separately. Weighting is performed by using a combination of sex, age group (15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-74, 75-89), socio-economic status, income, nationality, level of education, status in the unemployment register and region.

GERMANY (DE)

Background

The LFS is carried out as part of the annual micro-census, which is based on the 'micro-census law'. The micro-census has been carried out since 1957 in the old West Germany and, since 1991, in the new Bundesländer and East Berlin. In general, the micro-census is compulsory. Additionally, the questionnaire includes optional parts of the LFS and other special national programmes. Starting in 2005, the survey has been organised as a continuous survey covering all weeks of the year, providing quarterly results. The questionnaire was revised at the same time, especially questions relating to employment in the reference week. From 2020 on, the EU-Labour Force Survey (EU-LFS) has been integrated into the newly-designed German micro census as a subsample of it. Major changes in recent years include the following:

- 2006: Implementation of the wave approach.
- 2007: Questionnaire changed to better capture ILO employment.
- 2008: Questionnaire further changed to match more closely the EU-LFS operational guidelines for the definition of labour status.
- 2009: Respondents registered at the public employment office, but not looking for employment, are no longer classified as job seekers.
- 2012: The full sample is used for the EU-LFS data collection.
- 2014: Adaption of the extrapolation frame based on the 2011 Census data and, in this context, revision of LFS data for 2013, 2012 and 2011.
- 2020: Launch of the new German micro census.
- 2021: The questions on the ILO employment status were adjusted to meet the flow chart recommendations of the implementing regulation (EU) 2019/2240. Unlike previous years, the methodological effects of this adjustment make the results for the employed, unemployed and inactive persons comparable to a limited extent only.

Coverage

Population interviewed for employment status: 15 years and over.

Population concept: Registered population, including people living in institutions.

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Term address (if private).
- People working out of family home for an extended period for the purpose of work: Family home.
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: depends on whether the children are registered at the address and if they are perceived as part of the household by the adult members.

Household concept: Housekeeping.

Household definition: Members living together in the same dwelling with common housekeeping.

Participation: Compulsory.

Description: The survey covers private and collective households, except for military quarters. A private household comprises either a person living alone or two or more persons who live together or maintain a joint household. The members of a private household are characterised by the same dwelling and common housekeeping. Conscripts on compulsory military service and students are included in the household to which they belong. The resident population

(statistical population) includes all inhabitants with their main place of residence and their secondary residence in the territory of Germany. Foreign armed forces and members of the diplomatic corps and their families are excluded.

Sampling strategy

Sampling design: One stage cluster sample.

Sampling frame: Census 2011 updated with data from building licences since 2017.

Sampling units: Clusters (sampling districts) of dwellings, households and persons.

Sampling method: All households in the sampling districts and all persons in the households are surveyed.

Achieved sample size (quarterly average): 58 000 households.

Sampling rate: 0.10%

Rotation scheme: 2-(2)-2.

Description: The sampling method applied, i.e. sorting, defining zones and sampling within the zones, ensures an effect similar to stratification. The regional strata (see 'stratification') are grouped to 131 'adjustment strata', at least to the extent that an average of 500 000 inhabitants are obtained. Bound expansion is performed at that regional level. Before sampling, the sample districts are sorted in terms of region, i.e. within each stratum they are sorted by regional stratum subgroup, administrative district, community size class, community and sample district number. The sampling districts are stratified by region and size of the buildings. The stratification by size of the buildings is based on the size classes used to work out the sampling units.

The number of new households interviewed each quarter is approximately 38.000, which represents about 0.1% of the overall population (0.4% for the year).

All households and all persons in the households in a selected sampling district are interviewed.

Data collection

Techniques adopted: PAPI – CATI – CAWI – CAPI.

Interviews by technique distribution: CAWI 42.0%, PAPI 28.7%, CATI 22.3%, CAPI 1.0%, other 6.0%.

Response rate: 85.0%.

Proxy rate (15-74 years): 19.4%.

Description: The EU-LFS is based on a mixed-mode design. The field staff of the 14 statistical offices of the federal states comprises interviewers. A full multi-mode design (CAPI, CATI, PAPI, and CAWI) was implemented along with completely new and complex IT tools for survey management and data collection. In addition, technical issues during the system changeover have restricted the data collection since the beginning of 2020. Moreover, the COVID-19 pandemic has had a large impact on data collection processes.

The non-response rate was 15.0%.

Weighting procedure

Method: Post-stratification.

Variables used: Sex, age group, region NUTS2, nationality (group), education and employment status, number of private households, size of household.

Reference population for weighting: Population living in private households.

Description: A two stages adjustment procedure is used.

1. Due to COVID-19 and technical issues, it was not possible to access sufficient information on households who failed to respond. As a proxy, the structure of 2019 EU-LFS sample was adjusted by regional sampling ratios of 2020. The net-sample was calibrated to this proxy based on education (low, medium, high), nationality (German, non-German), age (65 and under, over 65) and household size (1 person or more). Non-response weights were calculated as the inverse of the received calibration weight.
2. The quarterly sample is stratified a posteriori by nationality, sex, age group, region NUTS-2, and employment status. The yearly sample is stratified by number of private households, size of household, employment status, age groups, nationality, sex, region NUTS-2.

ESTONIA (EE)

Background

The LFS started in 1997 as an annual survey and has been organised as a continuous quarterly survey since 2000. Major changes in recent years include the following:

- 2007: Quarterly sample size increased from 2 500 to 3 000 households.
- 2011: Quarterly sample size increased to 3 200 households.
- 2013: Quarterly sample size increased to 3 400 households and Census revisions (Population Census 2011).
- 2015: Frame errors are excluded from the sample which decreased to 3 250 households.
- 2017: Quarterly sample size increased to 4 000 households.
- 2018: Quarterly sample size increased to 4 500 households.
- 2021: Implementation of Regulation (EU) 2019/1700.

Coverage

Population interviewed for employment status: 15+ years.

Population concept: Usual residence (12 months), people living in private households.

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Family home (if they are economically dependent).
- People working out of family home for an extended period for the purpose of work: Family home (if they share income and family ties are kept).
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: Place of residence of principal legal guardian.

Household concept: Dwelling

Household definition: Members living together in the same dwelling and sharing joint financial and/or food resources.

Participation: Voluntary.

Description: The survey covers the whole country. The target population comprises all persons living in private households aged 15 and older with permanent residence in Estonia, i.e., those who have lived or intend to live in Estonia for more than one year.

The household is made up either of persons living alone or of two or more persons who share a household budget and usually occupy the same dwelling. Temporarily absent household members (absence shorter than one year for study, work, etc.) are included.

Sampling strategy

Sampling design: One stage stratified sampling plan.

Sampling frame: Population and housing Census 2011, Population register.

Sampling units: The sampling unit is the individual.

Sampling method: The sample is stratified by population size and inclusion probabilities. All household members are interviewed.

Achieved sample size (quarterly average): 4 700 households.

Sampling rate: 0.69%.

Rotation scheme: 2-(2)-2.

Description: The sampling design is a stratified systematic sampling of individuals. All persons aged 15 years and older belonging into the household of the selected individual are interviewed. The 15 counties of Estonia and Tallinn are divided into four strata according to the population size (I – Tallinn, II – four bigger counties, III – ten smaller counties, IV – Hiiu County). Different inclusion probabilities are used in the strata, the highest being for Hiiu County.

Data collection

Techniques adopted: CATI – CAWI.

Interviews by technique distribution: CATI 96.0%, CAWI 4.0%.

Response rate: 70.4%.

Proxy rate (15-74 years): 23.5%.

Description: The EU-LFS is based on a mixed-mode design. Data collection methods are CAWI (Computer-assisted web interviewing) and CATI (Computer Assisted Telephone Interviewing). CATI interviews are conducted by interviewers of the Interviewers Network Department of Statistics Estonia. The interview is normally conducted during the week which follows the reference week and not after two weeks following the reference week.

The non-response rate was 29.6% and refusals accounted for 15.5% of the interviewed population.

Weighting procedure

Method: Calibration.

Variables used: Sex, age groups, region (LAU), type of place of residence (urban/rural), national/non-national, from 2021 onwards also educational level (3 levels).

Reference population for weighting: Total resident population.

Description: The weights are calculated in a sequence of steps.

1. A stratified sampling method is used and the initial weight is inversely proportional to the inclusion probability for each stratum. The initial weight is also inversely proportional to the size of household.
2. For non-response adjustment, the non-response correction factors are computed. Homogeneous groups of respondents are formed on the basis of the household place of residence, according to the non-response rate in the region. Within each group, the correction factor is inversely proportional to the overall response rate in the region.
3. The weights are calibrated so that they produce exact population numbers in certain subgroups known from demographic data (excluding institutional population). For working-age persons, the subgroups by sex, age (5-year age groups), type of place of residence (urban/rural area), 15 counties (LAU) and the capital city), nationality (Estonians/non-Estonians) and educational level (primary, secondary, tertiary) are considered. For this purpose, the linear consistent weighting method is applied. For non-working-age persons, the non-response adjusted household's weights are calibrated by sex and 5-year age groups.

As of 2021, the data are calibrated for the calculation of weights in the following breakdowns:

- sex and age group (5-year groups);
- county of the place of residence of household;
- degree of urbanisation (urban or rural);
- ethnic nationality (as of 2005) (Estonians, non-Estonians);
- educational level (as of 2021) (three levels).

IRELAND (IE)

Background

Major changes in recent years include the following:

- 2009: Update of the survey to collect data on a calendar quarterly rather than a seasonal basis.
- 2012: The introduction of a new sample based on the 2011 Census of Population began in Q4 2012 using a wave approach (persons interviewed in the 1st wave were taken from the 2011 Census). In Q4 2013, the entire sample was based on the new 2011 sample.
- 2016: An additional new sample also based on the 2011 Census of Population was introduced incrementally from Q3 2016.
- 2017: Introduction of the new LFS which involves changes in sampling design, questionnaire, data collection technique and weighting procedure. The full series dating back to Q1 1998 was revised.
- 2018: The quarterly sample increased to 32 500 households from Q3 2018 onwards.
- 2019: An additional new sample based on the 2016 Census of Population was introduced incrementally from Q2 2019.
- 2021: New Framework Regulation governing the production of European Statistics on persons and households (Regulation (EU) 2019/1700) came into force on 01 January 2021. Implementing Regulation 2019/2240 applies to Labour Force Survey.

Coverage

Population interviewed for employment status: 15 years and over.

Population concept: Usual residence (12 months).

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Term address.
- People working out of family home for an extended period for the purpose of work: Term address.
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: 'Most of the time' criteria.

Household concept: Household dwelling unit.

Household definition: A person living alone or a group of persons who live together, providing oneself or themselves with the essentials for living.

Participation: Voluntary.

Description: Only private households are included. A person is defined to be a 'usual resident' of a private household if he/she lives regularly at the dwelling in question and shares the main living accommodation (i.e. kitchen, living room or bathroom) with the other members of the household.

Sampling strategy

Sampling design: Two-stage stratified sample.

Sampling frame: Population Census 2011 and 2016.

Sampling units: The PSU is a Census block, and the FSU is the household.

Sampling method: In the first stage of sampling, 1,300 blocks (small areas) are selected using Probability Proportional to Size (PPS) sampling. The EU-LFS sample is stratified using administrative county Pobal HP (Haase and Pratschke) Deprivation Index. The households are clustered into blocks containing a minimum of 60 occupied households on the night of the 2016 Census of Population.

Achieved sample size (quarterly average): 11 300 households (quarterly average).

Sampling rate: 0.70%.

Rotation scheme: 5-.

Description: The Labour Force Survey (EU-LFS) replaced the Quarterly National Survey from Q3 2017. A new independent sample based on the 2011 Census of Population was selected for the EU-LFS and this was introduced gradually from Q1 2016. An additional new sample based on the 2016 Census of Population was gradually introduced (over five quarters) from Q2 2019 and was fully active by Q2 2020.

A two-stage sample design is used. The sample frame is clustered into blocks (small areas) with each block containing a minimum of 60 occupied households on the night of the 2016 Census of Population. In the first stage, 1 300 blocks are selected using a probability proportional to population size. The sample, introduced in 2019, is also stratified by using administrative county data and the Pobal HP Deprivation Index. In the second stage, each block is split into rotation groups each containing 20 households.

Data collection

Techniques adopted: CAPI – CATI – OTHER.

Interviews by technique distribution: CATI 55.6%, CAPI 38.3%, OTHER 6.1%.

Response rate: 35.2%.

Proxy rate (15-74 years): 50.8%.

Description: At the beginning of Q1 2021, all face-to-face interviews were suspended as a result of COVID-19 restrictions, and all interviews were carried out using CATI from a dedicated call centre, upon the agreement of household members to conduct a telephone interview. When restrictions eased, Wave 1 interviews were a mixture of CAPI and CATI. All Wave 2 – 5 interviews were CATI.

The non-response rate was 64.8% and refusals accounted for 11.7% of the total non-response.

Weighting procedure

Method: Calibration.

Variables used: Sex, age groups, region (NUTS3), nationality.

Reference population for weighting: Total resident population.

Description: The survey results are weighted to match with population estimates broken down by age (5-year age groups), sex and region (NUTS3 regions). After that, results are calibrated on broad national totals by broad age groups (0-14 and 15+) and sex. The estimates are calculated as follows:

1. The previous quarters' population estimate or Census of population at regional level is used as the base population.
2. A quarter of this population is aged on by one year.
3. Births for the relevant period are added to each region (source: registered births).
4. Deaths for relevant period are subtracted from each region (source: registered deaths).
5. Net migration (inflows from other regions minus outflows to other regions plus inflows from abroad minus outflows to abroad) is added to each region (main source).

A non-response adjustment into the weighting procedure for the EU-LFS has been introduced since Q3 2017. The adjustment applies extra weight to the groups who are less likely to respond to the survey, in order to make the results from the achieved sample more representative of the target sample and target population.

GREECE (EL)

Background

The LFS started in 1981 as an annual survey covering all weeks of the second quarter. In 1998, it was redesigned as a continuous survey providing quarterly results. Major changes in recent years include the following:

- 2008: Households with all members aged 70 years or older are interviewed only in the 1st wave and no longer in all waves (except in the second quarter, when the age limit was set to 74 following the rules of the ad hoc module). NACE Rev2 for the classification of economic activity was also introduced.
- 2009: Questions for variables full time/part time, permanent/temporary, job search and participation to non-formal education are reformulated. Information on the regional level NUTS3 is included in the dataset. New primary sampling units were selected and new sampling frames were compiled for the 4/6 of the sample.
- 2011: Introduction of ISCO-08 for the classification of occupation.
- 2013: Introduction of CAPI as an additional mode of data collection.
- 2021: Regulation (EU) 2019/1700: Change in data collection mode (generalized use of CAPI); Adoption of the Eurostat's standard questionnaire for the employment status; Use of calibration in the computation of weights; Implementation of the wave approach in the data collection.

Coverage

Population interviewed for employment status: 15-89 years old.

Population concept: Usual residence (12 months).

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Term address.
- People working out of family home for an extended period for the purpose of work: Family home (only for sailors or fishermen).
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: Family home (time of interview).

Household concept: Housekeeping.

Household definition: Members living together in the same dwelling and sharing food and other essentials for living.

Participation: Voluntary.

Description: The survey covers only private households (group of persons who provide jointly at least the expenses for food). Included in the household are persons who have multiple residences, but stay in the household for 6 months or more; work during the week in another town but return regularly in the weekends in the household; are working in merchant shipping (considered members of the household irrespectively of the duration of absence) or are temporarily away (less than 6 months).

Sampling strategy

Sampling design: Two-stage stratified sampling plan.

Sampling frame: List of cities blocks, by enumeration district, compiled at the Census 2011, updated from Q1 2015 to Q3 2016 (rate of renewal was 1/6 per quarter). Lists that cannot produce new samples anymore are replaced starting from 2019.

Sampling units: The PSU is the block of buildings and the FSU is the dwelling.

Sampling method: In the first stage of sampling, the PSUs are selected with probability proportional to “size” (where the size is defined as the number of households residing in the building block at the time of last census). In the second stage, dwellings are systematically selected.

Achieved sample size (quarterly average): 20 500 households.

Sampling rate: 0.93%.

Rotation scheme: 6-.

Description: The sampling design is a two-stage stratified sampling of dwellings. At the first stage, a random selection of building blocks with probability proportional to their size (where the size is defined as the number of households residing in the building block at the time of last Census) is carried out. Then, within the blocks selected at first stage, a systematic sampling of dwellings is performed. All persons residing in the selected dwelling are interviewed for the EU-LFS survey.

Athens agglomeration is divided in 31 final strata and Thessaloniki agglomeration is divided in nine final strata. For these areas, the strata are defined by groups of municipalities. All other NUTS3 areas are divided in two or three final strata. The first stratum is composed by all settlements with population 10 000 persons or more, the second is composed by all settlements with population 2 000 – 9 999 persons and the third is composed by all settlements with population 1 – 1 999 persons.

Data collection

Techniques adopted: CAPI – OTHER.

Interviews by technique distribution: CAPI 75.6%, OTHER 24.4%.

Response rate: 53.1%.

Proxy rate (15-74 years): 46.6%.

Description: The EU-LFS is based on a mixed-mode design. In the 1st wave, interviews are carried out with Computer Assisted Personal Interview (though during the pandemic, only telephone contacts were possible). In the following waves, interviewers are free to choose the method of contact (either face-to-face or by phone).

The non-response rate was 46.9% and refusals accounted for 25.8% of the total non-response.

Weighting procedure

Method: Calibration.

Variables used: Sex, age groups, region (NUTS2).

Reference population for weighting: Population living in private households.

Description: Design weights are calculated as the inverse of probability selection of the household (computed from the total number of households during 2011 census, and the expected sample size). These weights are adjusted for non-response at primary unit level. Finally, the adjusted weights are calibrated to known totals by NUTS2 region, sex and age groups.

SPAIN (ES)

Background

The LFS was launched for the first time in 1964, referring to some quarters in each year until 1968. Between 1969 and 1974, it was biannual, but it became quarterly as of 1975 forward. In 1999, the survey was redesigned as a continuous survey providing quarterly results. Since 2005, the survey provides quarterly results for core variables and annual results for structural variables. Major changes in recent years include the following:

- 2005: Variable nationality (Spanish or foreigner) included as a new auxiliary variable for calibration.
- 2006: Implementation of the wave approach.
- 2014: Updated figures from 2002 onwards, according to the 2011 Census and new auxiliary variables for calibration. The new variables used for this calibration are size of the household (five groups) and three groups of age for each sex at NUTS3 level.
- 2021: Implementation of Regulation (EU) 2019/1700. The most important changes are:
 New definition of *household* based on the sharing of income or household expenses among the household members.
 New periodicity of variables. Apart from the quarterly and the annual ones, new biennial and eight-yearly variables are collected as part of the *structural variables*. The variables corresponding to the ad hoc modules will be collected with a four-year periodicity and the topic will be different each time.

Coverage

Population interviewed for employment status: 16 years and older.

Population concept: Usual residence (12 months).

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Family home.
- People working out of family home for an extended period for the purpose of work: Family home.
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: In case of joint custody, the place where the child is found at the reference date shall be considered as his or her usual residence.

Household concept: Dwelling.

Household definition: A person living alone or a group of persons who live together, providing oneself or themselves with the essentials of living.

Participation: Compulsory.

Description: The population residing in private households is covered, including servants. Persons living in collective institutions and persons who are temporarily absent are sampled via relatives living in private households. Foreign nationals are included in the resident population if they have lived or intend to live in Spain for more than one year.

Sampling strategy

Sampling design: Two stages stratified sampling plan.

Sampling frame: Population Census 2011 updated with registers and field work routes in order to update the new dwellings.

Sampling units: The PSU is the geographical area and the FSU is the private dwelling.

Sampling method: In the first stage of sampling, the PSUs are stratified by the population size of the municipality. In the second stage, dwellings are randomly selected.

Achieved sample size (quarterly average): 55 500 households.

Sampling rate: 0.36%.

Rotation scheme: 6-.

Description: The sampling is a two-stage sampling procedure with stratification of the PSUs. The PSUs are geographical areas in which all the country is split. These areas are stratified within each province using the population size of the municipality. Within each stratum, the areas are sub-stratified according to the socio-economic characteristics of the population. The FSUs are private households (dwelling units). Units are selected in such a way as to obtain self-weighted samples within each stratum. The PSUs are selected with probability proportional to the size and FSUs are selected with equal probability. A sub-sample is used to survey the structural variables under the Commission Implementing Regulation (EC) 2019/2240, for which only yearly results are required. The sub-sample is determined according to a wave approach, i.e. it includes the units of each full quarterly sample which, according to the rotation scheme, are interviewed for the sixth and last time (6th wave).

Data collection

Techniques adopted: CAPI – CATI – CAWI - OTHER.

Interviews by technique distribution: CATI 69.4%, CAPI 20.2%, CAWI 1.6%, OTHER 8.8%.

Response rate: 84.1%.

Proxy rate (15-74 years): 49.4%.

Description: All the information (except the one related to INCGROSS) is collected by interview.

The first interviews used to be personal interviews but, with the arrival of the pandemic, nearly all of them were carried out by phone. Interviews in the second and subsequent waves are carried out by telephone, except when the family wants a personal interview or there is no telephone. Apart from that, since 2020 the use of the CAWI system, although in a residual way, has appeared as part of the methods used to collect information.

The non-response rate was 15.1% and refusals accounted for 26.2% of the total non-response.

Weighting procedure

Method: Calibration.

Variables used: Sex, age groups, region (NUTS2/NUTS3), nationals/non-nationals, dwelling size.

Reference population for weighting: Population living in private dwellings.

Description: The design uses Ratio Estimator and the auxiliary variable is the Population Projection, living in private dwellings, at the stratum level.

1. Every quarter, population projections by age group (0-14 years and 15+ years) and Spanish provinces (in general corresponding to NUTS3 regions) are calculated. Projections by age and region are distributed by stratum in proportion to the population of each stratum. In each stratum, age group and region, the weighting is determined by the ratio of the projection to the sample size.
2. The sample is then calibrated in order to adjust to the population distribution. The auxiliary information used is based on population estimates by sex and 5-year age groups and dwelling size (five groups of 1, 2, 3, 4 and 5+ inhabitants) at NUTS2 level (Comunidades Autónomas), the nationality of the population aged 15 and more (national/non-national) at NUTS2 level and by sex and three aggregated age groups (15-29, 30-49, 50+) at NUTS3 level, and 15-24, 25-34, 35-44, 45-54, and 55+ at national level.
3. A linear weighting method is used, in which each member of the dwelling has the same weight.

FRANCE (FR)

Background

The LFS started in 1950 and was organised in 1954 as an annual survey. Since then, the survey was subjected to several changes. Major changes in recent years include the following:

- 2003: The survey is redesigned as a continuous survey, covering all weeks of the year.
- 2007: Change in the weighting scheme. Implementation of a supplementary non-response survey, whose results are incorporated in the final results from the LFS (via the weighting process).
- 2009: Increase of the sample size (+50%) and change of the sampling frame (from Census to housing tax register). First edition of an annual LFS in Mayotte.
- 2013: Substantial revision of the French LFS, including modifications of the questionnaire, improvements in the codification process (occupation, education level) and a redesign of the IT tool.
- 2014: Integration of the overseas departments (Guadeloupe, Martinique, Guyane, La Réunion), except Mayotte, into the French quarterly LFS. From 2014, an annual LFS is conducted in Mayotte each year.
- 2018: End of the supplementary non-response survey.
- 2019: Renewed sample for Metropolitan France (started in Q3 2019, completed in Q4 2020).
- 2021: Implementation of Regulation (EU) 2019/1700 with substantial revision of the French EU-LFS, including modifications of the questionnaire, internet as a new mode of collection and a revision of the weighting method.

Coverage

Population interviewed for employment status: 15-89 years old.

Population concept: Usual residence (12 months).

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Family home or own dwelling.
- People working out of family home for an extended period for the purpose of work: 'Most of the time' criteria.
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: Family home (night between last Wednesday and last Thursday, in case of joint custody and equality of time spent in both parents' home).

Household concept: Dwelling.

Household definition: Person living alone or group of persons living together, providing oneself or themselves with the essentials for living.

Participation: Compulsory.

Description: The EU-LFS covers private households living in their main residence in France, except Mayotte (which is covered by a specific annual survey). The resident population comprises persons living in the French metropolitan territory and in the overseas departments. All individuals aged 15-89 years old are surveyed in the household.

An annual LFS is carried out in Mayotte in Q2 with the same coverage (private households living in their main residence).

Sampling strategy

Sampling design: Two-stage stratified sampling plan in Metropolitan France.

In overseas departments, the sample is a one-stage stratified sample of dwellings.

Dwellings are uniformly distributed over reference weeks of the year.

Sampling frame: In Metropolitan France, the sampling frame is the demographic file of dwellings and individuals (Fideli). Fideli is built from several tax registers, including the housing-tax register.

For overseas departments, the base is the French annual population census.

Sampling units: Geographic sectors in Metropolitan France. EU-LFS sectors and primary units of the Master Sample used for other social surveys are coordinated: EU-LFS sectors are selected in the neighbourhood of the sampled PU, in order to avoid the travel costs to reach isolated EU-LFS sectors located far from the interviewer network. No PSU in overseas departments. The FSU is the dwelling.

Sampling method: For Metropolitan France: Stratification by NUTS2 and Balanced sampling. The stage sampling method guarantees that the sample of clusters really surveyed each quarter - and not only the sample of sectors (PSU) - is well stratified and balanced. For overseas departments: Stratification by small geographic areas (infra-NUTS3, infra-employment zone).

Achieved sample size (quarterly average): 48 689 dwellings.

Sampling rate: 0.21%.

Rotation scheme: 6-.

Description: For Metropolitan France, the sampling design consists in a selection of geographic sectors with a stratified and balanced method. The stratification is carried out by NUTS2. The balanced sampling uses the following variables: age/sex, type of household, QPV, income (total, unemployment benefits and wages). The sample is spatially balanced in order to limit spatial autocorrelation.

For overseas departments, the sample is composed of dwellings selected through a stratified systematic sampling (systematic sampling with equal inclusion probabilities, within geographic strata which form a partition of the territory).

For Metropolitan France, the sectors are cut into 6 clusters of nearby dwellings, in such a way that there are around 20 main residences in each cluster. Inside the sectors, each cluster is randomly assigned to a number between 1 and 6; this number determines when the cluster enters the sample, each cluster is interviewed 6 consecutive quarters and then replaced by another cluster of the same sector.

For overseas departments, dwellings are directly selected within strata through a systematic sampling with equal inclusion probabilities. Strata sample sizes are proportional to the total numbers of main residences in the strata.

For Metropolitan France and DOM, the sample is uniformly distributed among the 13 weeks of the quarter. Each cluster is committed to a fixed reference week.

A sub-sample is used for the yearly variables. The sub-sample is determined according to a wave approach, i.e., it includes the units of each full quarterly sample which, according to the rotation scheme, are interviewed for the first time (1st wave). Thus, the full sub-sample is spread over all the weeks of a year and has a size of 12 900 dwellings.

Data collection

Techniques adopted: CAPI – CATI – CAWI – OTHER

Interviews by technique distribution: CATI 44.9%, CAWI 25.8%, CAPI 8.6%, OTHER 20.7%.

Response rate: 74.3%

Proxy rate (15-74 years): 23.4%

Description: The EU-LFS is based on a mixed-mode design. Data collection is carried out under computer-assisted collection (CAPI), face-to-face for the first interview of the household, and by CATI or CAWI for the re-interviews.

The non-response rate was 25.7% and refusals accounted for 28.0% of the total non-response.

Weighting procedure

Method: Calibration

Variables used: For Metropolitan France: Individual characteristics (sex, age, region NUTS2), type of housing (primary residence, secondary residence, vacant), zone (urban/rural/other ; Paris, Île-de-France excluding Paris, ZEAT otherwise), QPV (yes/no), rented accommodation or property, type of housing (individual house, building), year of construction, sum of incomes received during the year (wages, retirement benefits, unemployment benefits, etc.), decile of activity income.

For overseas departments: individual characteristics (sex, age, region NUTS2, diploma), dwelling characteristics as type of housing, micro-region (infra-NUTS3), being respondent or not during the previous quarter.

Reference population for weighting: Population living in private households.

Description: Weighting procedures are different for Metropolitan France and overseas departments.

The quarterly core weights are derived from the household weights which are calculated as following:

For metropolitan France, a two-steps weighting method is applied: calibration and non-response model on variables from the sampling frame in the first step, calibration on external data (population by age, sex and region; number of dwellings) in the second step.

For overseas departments, a two-steps weighting method is also applied: non-response model on variables from the sampling frame in the first step, calibration on external data (population by age, sex and region; number of dwellings) in the second step.

Each respondent individual gets the household weight, normalized by dividing it by the number of respondents in the household and multiplying it by the total number of individuals in the household.

CROATIA (HR)

Background

The LFS was carried out for the first time in November 1996 and in June 1997. From 1998 to 2006, the survey was semi-annual, i.e. data was processed and published each half-year. Interviews were carried out every month on a part of the total sampled households. Since 2007, the survey is a continuous one, thus interviews cover all weeks of the year, producing quarterly results. Major changes in recent years include the following:

- 2007: Data available at NUTS2 level. Quarterly results available. Yearly sample size doubled. Rotation scheme changed to 2-(2)-2.
- 2014: Harmonization of educational variables (HATLEVEL, EDUCLEVL) according to ISCED 2011. Implementation of a new sample frame based on the Census 2011, new sample design and a new process of weighting the collected data. In order to achieve the consistency and comparability between the 2014 data and the already issued data for previous years, the data for the period from 2007 to 2013 has been revised in terms of weighting. Thus, the data has been weighted according to the 2011 Census data applying the calibration method.
- 2016: Implementation of the classification ISCED-F 2013. Replacement of the PAPI method of data collection with CAPI and CATI.
- 2021: Implementation of the new Regulation (EU) 2019/1700 of the European Parliament and of the Council concerning social statistics; analysis of the effects of this implementation on main indicators of employment and unemployment showed that there were no breaks in data series.

Coverage

Population interviewed for employment status: 15-89 years old.

Population concept: Usual residence (12 months).

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Private household they are living in. Students living in a dormitory are excluded from the target population. Students who study abroad but return to the family home daily are interviewed in family home.
- People working out of family home for an extended period for the purpose of work: Family home if the absence is less than 12 months and if they have lived in the family home for a continuous period of at least 12 months.
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: 'Most of the time' criteria.

Household concept: Housekeeping.

Household definition: A household is a small economic group of persons that is usually, a group of relatives. There are one-person and multi-person households, providing that the multi-person households consist of two or more persons who jointly reside in a housing unit or a part of it and share costs for food and basic household needs, or jointly contribute to the household income and/or mutually share all or a major part of household costs.

Participation: Voluntary.

Description: The EU-LFS covers the whole country since 2000. The target population comprises all persons who usually reside in Croatia or intend to stay in Croatia for at least 12 months. Only private households are surveyed. Household members are persons who lived in the household for a continuous period of at least 12 months before the reference time, or persons who arrived in the household in their place of usual residence, during the 12 months before the reference time, with the intention of staying there for at least one year.

Sampling strategy

Sampling design: Two-stage stratified sampling plan.

Sampling frame: Population Census 2011 (updated in 2021).

Sampling units: The PSU is the segment based on the enumeration area of the 2011 Census, and the FSU is the dwelling.

Sampling method: In the first stage of sampling, the PSUs are stratified by regions (NUTS2) and type of place of residence (urban/rural). In the second stage, dwellings are randomly selected.

Achieved sample size (quarterly average): 4 000 households.

Sampling rate: 0.70%.

Rotation scheme: 2-(2)-2.

Description: The sampling design is a two-stage stratified sample. First stage sampling is a list of area units called segments (PSU). They are defined according to the results of the Census 2011 which consist of a number of private households according to each enumeration area. Segments are selected by PPS systematic sampling. The size of a segment is measured by the number of private households in the segment according to the Population Census 2011.

The stratification is done by NUTS2 regions which are further divided in an urban and a rural part. Thus, the final number of strata is eight.

After selecting a sample of segments, 13 (number of weeks in a quarter) non-overlapping sub-samples of segments are selected from sample of segments by systematic sampling (for every week in the quarter).

Within the selected segments, dwellings are selected by a simple random sampling. All members of all private households in a dwelling are interviewed.

Data collection

Techniques adopted: CAPI – CATI.

Interviews by technique distribution: CATI 76%, CAPI 24%.

Response rate: 57.4%.

Proxy rate (15+ years): 51.3%.

Description: The EU-LFS is based on a mixed-mode design. Since the beginning of 2016, the earlier method of data collection 'on paper' has been replaced by new interview methods, namely CAPI and CATI. CAPI gathers data from all households selected to be sampled for the first time and households that either do not have a telephone/cell phone or do not want to be interviewed by phone. All households that agreed in the 1st wave to be surveyed by phone are interviewed by CATI.

Due to COVID-19 pandemic circumstances, CAPI method of data collection has been partially replaced by telephone interviewing using the standard CAPI questionnaire.

The non-response rate was 42.6% and refusals accounted for 51.0% of the total non-response.

Weighting procedure

Method: Calibration.

Variables used: Sex, age groups, regions (NUTS2-NUTS3), type of place of residence (urban/rural), household size.

Reference population for weighting: Population living in private households.

Description: The weights are calculated in several steps.

1. Design weights are calculated as the inverse value of the selection probabilities of choosing dwellings in a sample. The weights are equal for dwellings, households and persons in one segment, because all households and persons in each selected dwelling are interviewed.
2. Defined weighting groups regarding non-response and response rates are calculated for each of these groups. The urban part of each 21 county constitutes one group while the rural parts in each county form the second group. As there are 21 counties, multiplied by two groups (urban and rural), there are 42 groups within the counties to define and calculate non-response rates. Non-response weights are the inverse value of these response rates. They are also equal for each segment.

Calibration is used to adjust the weights. Distributions of 5-year age groups, sex, regions and household size for the sub-sample of respondents are calibrated through known auxiliary information from the Census 2011. It reduces sampling error, affecting the initial weights, but within the limits of previously defined constraints set in the CALMAR software. The bounded linear method is used for calibration. The lower limit is set on 0.5 and upper on 3.

ITALY (IT)

Background

The LFS was launched as a quarterly survey in 1959. Since Q1 2004, the survey is a continuous one, covering all the weeks of the year. The labour status for each interviewed person refers to a specific week (reference week), usually the one preceding the interview. Major changes in recent years include the following:

- 2006: Changes of the questionnaire were implemented to take into account the suppression of compulsory military or community service and to fully comply with the EU-LFS definition of unemployment.
- 2008: From Q1 2008, people aged 15 are classified outside the labour force, to comply with the national legislation which increased the number of years of compulsory education. Employment and participation rates are still computed with reference to the working age population 15-64 to keep comparability. As very few 15 year-old people are employed or unemployed, the impact on time-series is negligible.
- 2011: From Q1 2011, the households whose members are all outside the labour force, and aged 75 years or older, are no longer re-interviewed. This was the result of the fact that the transitions from outside the labour force to employment of people aged 75 years or older are almost null. Other reasons responded to the need of avoiding statistical burden on this target population and reducing the costs of data collection. In these cases, the information collected during the last available interview is duplicated for the next waves in which the household would be surveyed.
- 2012: A new stratification of the municipalities was made, to integrate updated information on their population and a reduction of the sample size by about 9% due to budget cuts. Consequently, a new selection of the municipalities was done and the new selected municipalities were adopted in the sample in Q3 2012. Due to the rotation scheme, for five quarters until Q3 2013, old and new sampling designs were overlapping.
- 2015: On January 2015, new population figures were available for the period 2002-2014, according to the results of the 2011 Population Census, Post Enumeration Survey of the 15th Italian population Census and administrative register updates for the post Census period. Consequently, LFS weights have been recalculated for the period Q1 2004 to Q3 2014.
- 2021: From Q1 2021, Regulation (EU) 2019/1700 is in force and new population figures, according to the results of the 2018 Continuous Population Census, have been used for estimation. Consequently, coherent time series have been back-calculated for the period 2004 –2020.

Coverage

Population interviewed for employment status: 15-89 years and older.

Population concept: Usual residence (12 months).

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Family home.
- People working out of family home for an extended period for the purpose of work: Family home.
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: Place where they spend most of the time, or place of presence at the time of interview if presence is equally shared.

Household concept: Housekeeping.

Household definition: Persons living alone or of two or more persons usually residing together in a housing unit or part of a housing unit and sharing income or household expenses with the other household members.

Participation: Compulsory.

Description: The target population is the resident population, which is the population recorded in the registry offices of the Italian municipalities. All the Italian regions are covered. Only private households are included in the sample. Non-resident households, people not living in private households and household members emigrated abroad, or absent from the selected household for more than one year, are not covered.

Persons who work away from the family home during the week and who usually return to the family home at weekends, shall consider the family home to be his or her place of usual residence.

Regardless of the duration of the absence, are included in the household: (a) persons who live outside their family home for the purpose of work shall consider their family home to be their place of usual residence in case they significantly contribute to the household income and are not usual residents of another private household; (b) students who are away from family home shall consider their family home to be their place of usual residence in case they benefit from the household income and are not usual residents of another private household.

Sampling strategy

Sampling design: Two-stage stratified sampling plan.

Sampling frame: Resident population and households register.

Sampling units: The PSU is the municipality, and the FSU is the household.

Sampling method: In the first stage of sampling, the PSUs are stratified by regions (NUTS3) according to their population size. In the second stage, households are randomly selected.

Achieved sample size (quarterly average): 55 200 households.

Sampling rate: 0.28%.

Rotation scheme: 2-(2)-2.

Description: Stratification of PSUs is carried out in each NUTS3 domain and is based on the population of the municipalities. Large municipalities, with population over a given threshold (also called self-representative municipalities), are always included in the sample. Smaller municipalities (non-self-representative) are grouped in strata, then one municipality in each stratum is selected with probability proportional to the population size.

The FSUs are the households, and they are randomly selected from the registry offices in all municipalities drawn at the first stage.

Data collection

Techniques adopted: CAPI – CATI.

Interviews by technique distribution: Due to the COVID-19 pandemic the prevailing technique was CATI.

Response rate: 76.6%.

Proxy rate (16+years): 36.1%.

Description: The EU-LFS is based on a mixed-mode design. CAPI is usually used in the 1st wave, whereas CATI is usually used in the later waves. Interviews are carried out by professional interviewers. Households without a telephone and non-Italian households are always interviewed by CAPI.

Considering the evolution of the pandemic in Italy and the restrictive measures imposed on personal contacts, according to Istat President resolution, the telephone mode continues to be the prevailing one, so, to conduct CAPI data collection, the interviewer contacts the household by telephone or, in the absence of a phone number, goes to the family home in order to obtain a telephone number where to conduct the interview. It is also possible to carry out the interview face to face; in this

case, the household will be able to express such preference, subject to the consent signed by the family and interviewer, and in full compliance with health protocols.

The non-response rate was 23.4% and refusals accounted for approximately 19.5% of the total non-response.

Weighting procedure

Method: Calibration.

Variables used: Sex, age groups, region (NUTS3), EU and not EU citizenship, number of households, metropolitan areas.

Reference population for weighting: Population living in private households.

Description: The calibration estimator is used to obtain EU-LFS estimates. Grossing-up weights are determined as follows:

1. Initial weights are obtained as the inverse of the inclusion probabilities of any household in the sample.
2. Correction factors for households' non-response are calculated as the reciprocal of the response ratios (computed for specific kinds of households and territorial domains). Following this, intermediate weights corrected for non-response are computed, thus multiplying initial weights by these correction factors.
3. Starting from the intermediate weights, final grossing-up weights are obtained solving a minimisation problem under constraints. The function to be minimised is the distance between final and intermediate weights. The constraints concern the estimates of some auxiliary variables that have to be equal to the totals in the reference population derived from external sources. Main constraints are population by sex and 14 age classes covering a 5-year width, at NUTS2 level; and population by sex and 5 age classes of different widths at NUTS3 level. The final weights ensure that all members of a given household have the same weight.

Due to the calibration estimator, by applying final grossing-up weights, the sample reproduces the same distribution of the population according to the chosen auxiliary variables.

The grossing-up weights are computed on a quarterly basis, whereas annual estimates are calculated as averages of the quarterly estimates.

CYPRUS (CY)

Background

The LFS was launched in 1999 as an annual survey in the second quarter of the year. Starting with Q2 2004, the survey was redesigned as a continuous survey providing quarterly results. Major changes in recent years include the following:

2013: Introduction of a new sample frame (Population Census 2011) and change of the sample design.

2016: Calibration is used for weighting from this year onwards.

2021: The Implementing Regulation (EU) 2019/2240 entered into force in accordance with Regulation (EU) 2019/1700.

Coverage

Population interviewed for employment status: 15-89 years old.

Population concept: Usual residence (12 months).

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Term address (if private address; students living abroad are excluded).
- People working out of family home for an extended period for the purpose of work: 'Most of the time' criteria.
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: Place where the child is found during the reference week.

Household concept: Housekeeping.

Household definition: Members living regularly together in the same dwelling, sharing household expenses, food and other essentials for living.

Participation: Compulsory.

Description: The survey covers the areas of Cyprus controlled by the Government of the Republic of Cyprus. Only private households are covered.

The resident population comprises persons who usually reside in Cyprus or intend to stay in Cyprus for at least 12 months. It excludes Cypriot students studying abroad as well as foreign armed forces and foreigners who work in embassies or diplomatic missions.

Sampling strategy

Sampling design: One stage stratified sampling plan.

Sampling frame: Population Census 2011 updated with register of domestic consumers of electricity, obtained from the Electricity Authority of Cyprus.

Sampling units: The sampling unit is the household.

Sampling method: The sample is stratified by regions (district level) and the type of place of residence (urban/rural areas).

Achieved sample size (quarterly average): 3 700 households.

Sampling rate: 1.30%.

Rotation scheme: 6-.

Description: The sample frame refers to the number of households enumerated in the Population Census of 2011. In 2014, 2016, 2018 and 2020 the Population Census of 2011 households frame was updated with the domestic consumers of electricity which were connected after the Census date. These were obtained from the Electricity Authority of Cyprus.

The sampling plan is stratified and within each stratum simple random sampling is applied. The variables used for stratification are the districts and the urban/rural areas within each district.

The final sampling unit within each stratum is the household. If the selected household does not exist anymore at the moment of the survey in the field, or the household moved in the meantime, the NEW household(s) staying at the same address is (are) interviewed.

Data collection

Techniques adopted: CATI.

Interviews by technique distribution: CATI 100%.

Response rate: 93.4%.

Proxy rate (15-74 years): 47.0%.

Description: The EU-LFS is normally based on a mixed-mode design. Data is collected by CAPI in the 1st wave. Data in the subsequent waves (2nd to 6th) is collected with CATI.

In 2021 all interviews were conducted using CATI due to the COVID-19 pandemic.

The non-response rate in 2021 was 6.6% and refusals accounted for 41.1% of the total non-response.

Weighting procedure

Method: Calibration.

Variables used: Calibration variables are sex, age groups and urban/rural areas, while stratification variables are regions (districts) and type of place of residence (urban/rural).

Reference population for weighting: Population living in private households.

Description: The design weights, i.e. the inverse of the probabilities of inclusion of the households in the sample, are calculated and adjusted for non-response in each stratum. Following that, the adjusted weights for non-response are calibrated.

LATVIA (LV)

Background

The LFS started in November 1995, producing results in May and November each year. In 2002, the survey was redesigned as a continuous survey and currently results are produced for each quarter. Major changes in recent years include the following:

- 2006: Data collection mode changed from PAPI to CAPI.
Changes of the questionnaire to better match the definition of unemployment of the EU-LFS.
- 2007: Sample size more than doubled, from 2 574 to 6 032 households.
Rotation scheme changed from 1-(1)-1-(1)-1 to 2-(2)-2. Since the 2nd quarter, CATI is introduced in combination with CAPI.
- 2010: The weighting at household level was introduced.
- 2013: The sampling design was revised. Sample size has gradually enlarged– it grew each quarter in comparison with previous quarter.
- 2014: Since the 2nd quarter, the sample size is stable around 7 488 households per quarter. The quarterly average statistical data on population living in private households is used in the weighting procedure. New information used in weighting procedure from The State Revenue Service.
- 2017: Introduction of sub-sampling for the yearly structural variables.
- 2018: CAWI mode introduced for 2nd to 4th wave in combination with CATI and CAPI.
- 2020: CAPI mode abandoned from March 13 with the aim to limit spread of COVID-19. From Q3 CAWI was introduced for 1st wave also.
- 2021: The Implementing Regulation (EU) 2019/2240 of 16 December 2019 entered into force.

Coverage

Population interviewed for employment status: 15-89 years.

Population concept: Usual residence (12 months).

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Family home.
- People working out of family home for an extended period for the purpose of work: Family home.
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: Family home.

Household concept: Housekeeping.

Household definition: Members living regularly together in the same dwelling, sharing household expenditures.

Participation: Voluntary.

Description: The survey covers the whole country. Only private households are surveyed.

The target population comprises all persons aged 15 to 89 years who are permanent residents in Latvia. Persons are excluded from the household, if they are not preserving family relations with the household for one year and more.

Sampling strategy

Sampling design: Two stages stratified sampling plan.

Sampling frame: First stage: list of sampling areas. Second stage: Demographic Statistics Data Processing System including data from Population register and the National Real Estate.

Sampling units: The PSU is the sampling area-territory and FSU is the dwelling.

Sampling method: In the first stage of sampling, the PSUs are stratified by type of territory (degree of urbanisation) and selected from each stratum using systematic sampling with probability proportional to size. In the second stage, dwellings are randomly selected.

Achieved sample size (quarterly average): 4 600 households.

Sampling rate: 0.88%.

Rotation scheme: 2-(2)-2.

Description: Two sampling frames are built for each sampling stage because a two stages sampling is used. At the first stage, the list of sampling areas is used as the sampling frame. At the second stage, the sampling frame is built from the Demographic Statistics Data Processing System. The Demographic Statistics Data Processing System includes data from the Population Register and the National Real Estate. The strata are defined by their degree of urbanization (Riga, cities, towns and rural areas). The sampling areas are selected from each stratum using systematic sampling with probability proportional to size. The FSUs are selected from the PSUs by a simple random sampling method in each sampled PSU. A sub-sample is used to survey most of the structural variables under the Commission Implementing Regulation (EC) 2019/2240, for which only yearly results are required. The sub-sample is determined according to a wave approach, i.e., it includes the units of each full quarterly sample which, according to the rotation scheme, are interviewed for the first time (1st wave).

Data collection

Techniques adopted: CATI – CAWI.

Interviews by technique distribution: CATI 93.6%, CAWI 6.4%.

Response rate: 61.4%.

Proxy rate (15-74 years): 39.0%.

Description: The EU-LFS is normally based on a mixed-mode design using CAPI, CATI and CAWI. CAWI was introduced in 2018. Face to face interviews by using portable computer (CAPI interviews) were stopped due to COVID-19. Telephone assisted interviews (CATI) were conducted by interviewers of the Interviewer's Co-ordination Section. All 4 interviews conducted in CAWI and CATI. The interview takes normally place during the week immediately following the reference week.

The non-response rate was 38.6% and refusals accounted for 23.5% of the total non-response.

Weighting procedure

Method: Calibration.

Variables used: Sex, age groups, region (NUTS3), type of municipality, employment agency registers, revenue service registers.

Reference population for weighting: Population living in private households.

Description: The initial weights are calculated according to the sample design, with all persons within the same PSU having equal design weights. The design weights are adjusted using the data of response level in each strata for each wave. These weights were then adjusted on the basis of demographic data, State Employment Agency and State Revenue Service information. For adjustment of the quarterly weights demographic data are broken down by type of municipality (Riga, cities, towns, rural areas), 14 age groups and sex as well as in NUTS 3 (6 regions), 3 age groups, eight cities of Republic, the information from the State employment agency by sex and 5 age groups and the information from the State Revenue Service by sex and 7 age groups. All persons within the same household have equal initial and final weights.

LITHUANIA (LT)

Background

The LFS started in April 1998 as a bi-annual survey with one reference week in both the second and fourth quarter. Since Q3 2002, the survey moved to a continuous design. Major changes in recent years include the following:

- 2006: Labour Exchange data (i.e., the registered employment/unemployment status) is no longer used as auxiliary information for the calculation of weights.
- 2007: Gradual increase of the theoretical sample size from 4 000 households (2006) to 7 000 (2007) to 8 000 (2008).
- 2015: CAWI data collection mode has been introduced.
- 2021: The national questionnaire updated to the Implementing Regulation (EU) 2019/2240 of 16 December 2019.

Coverage

Population interviewed for employment status: 15-89 years old.

Population concept: Usual residence.

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Family home.
- People working out of family home for an extended period for the purpose of work: Term address.
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: Family home.

Household concept: Housekeeping.

Household definition: Members living regularly together in the same dwelling, sharing household expenditures, food and other essentials for living.

Participation: Voluntary.

Description: The survey covers the whole country. Only private households are surveyed.

The target population comprises all persons usually living in the households of the selected dwellings, including those who are temporarily abroad for a period of less than a year. The population also includes foreign nationals who have been living in Lithuania for at least one year.

A household is a person living alone or a group of persons sharing the same living accommodation and expenditures, including collective provision of vital needs. Only the members actually living in the selected private household (family) are interviewed.

Sampling strategy

Sampling design: Simple random sampling.

Sampling frame: Population Register.

Sampling units: The sampling unit is the household.

Sampling method: The sample of a fixed number of persons of the sampling frame is selected by a simple random sampling including all members of their households.

Achieved sample size (quarterly average): 6 100 households.

Sampling rate: 1.00%.

Rotation scheme: 2-(2)-2.

Description: The sampling unit are persons living in the private household. All members of the selected persons' household are surveyed according to a one stage simple random sampling design.

The sample is constructed as follows: having selected a simple random sample of the fixed number of persons of the sampling frame, the members of their households are added. Even if, according to the address sampled, some or all of the people were not included in the list of the sample, all household members actually living at the address are interviewed. Thus, a cluster sample of persons is obtained. All people living at the selected address belong to the same cluster. The actual composition of the cluster is indicated during the survey.

Data collection

Techniques adopted: CAPI – CATI – CAWI – PAPI

Interviews by technique distribution: CATI 91.8%, CAPI 4.7%, CAWI 2.5%, PAPI 0.9%

Response rate: 78.0%.

Proxy rate (15-74 years): 34.5%.

Description: The EU-LFS is based on a mixed-mode design. At first, respondents can answer the EU-LFS questionnaire by CAWI. If they choose not to do so, interviews are conducted by CAPI or CATI according to the circumstances. The interview usually takes place during the week immediately following the reference week but never later than five weeks after.

The non-response rate was 22.0% and refusals accounted for 46.6% of the total non-response.

Weighting procedure

Method: Calibration.

Variables used: Sex, age groups, region (LAU), type of place of residence (urban/rural).

Reference population for weighting: Population living in private households.

Description: The weighting method for the Lithuanian EU-LFS is based on the generalised calibration method introduced by Deville and Särndal in 1992. The initial household weights are calculated considering the unequal selection probabilities of the households. Then, these are adjusted by using as auxiliary information the population data on 60 municipalities and the intersection of 13 age groups, sex and type of territory, urban/rural. All household members have the same sampling weight.

LUXEMBOURG (LU)

Background

In 2003, a new survey design was launched for the LFS, which is characterised by continuous data collection and by telephone interviews, replacing the annual spring survey dating from 1983. The survey yields annual results as an average of the whole year. Since 2007, the survey has been providing quarterly and annual results. Major changes in recent years include the following:

- 2007: Dissemination of quarterly results in addition to annual ones.
- 2015: Rotational scheme of household has been introduced. Data is collected also by CAWI. Instead of random dialling, a representative random sample is used.
- 2021: Implementation of Regulation (EU) 2019/1700.

Coverage

Population interviewed for employment status: 15 years and older.

Population concept: Registered population.

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: 'Most of the time' criteria.
- People working out of family home for an extended period for the purpose of work: Family home.
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: Family home.

Household concept: Housekeeping.

Household definition: Members living regularly together in the same dwelling, sharing food and other essentials for living.

Participation: Compulsory.

Description: The resident population comprises persons registered as residing in one of the municipalities. The sampling frame covers only private households in Luxembourg. Cross-border workers are not taken into account.

The household is defined as persons living together in the same household, subtenants and military personnel returning home at the weekend are excluded.

Sampling strategy

Sampling design: Simple random sampling.

Sampling frame: Population Register.

Sampling units: The sampling unit is the individual.

Sampling method: The individuals are selected from the national register of population by a simple random sampling.

Achieved sample size (quarterly average): 5 300 individuals aged 15-89.

Sampling rate: 1.50%.

Rotation scheme: 5-.

Description: A single stage random sample is applied. A representative random sample from the national people register (Registre national des personnes physiques) is selected. The sampling unit is the reference person of the household and all the individuals included in the households are considered as targets of the survey.

Data collection

Techniques adopted: CATI – CAWI.

Interviews by technique distribution: CAWI 80%, CATI 20%.

Response rate: 58.6%.

Proxy rate (15-74 years): 0%.

Description: The EU-LFS is based on a mixed-mode design. The data is collected by CATI and CAWI.

The non-response rate was 41.4% and refusals accounted for 4.7% of the total non-response.

Weighting procedure

Method: Post-stratification.

Variables used: Sex, age groups, nationality (national/foreigner).

Reference population for weighting: Population living in private households.

Description: Data from the survey is post-stratified by sex, age classes (0-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65+), and nationality (national/foreigner). All persons of these strata have the same weight, calculated by dividing the population in each stratum by the number of interviewed persons in the same stratum.

HUNGARY (HU)

Background

The LFS started in 1992 as a quarterly survey. Until 2002, the reference week in each month was the week which included the 12th day of the month. From 2003 to 2005, three weeks of each month were surveyed. Since the beginning of 2006, the survey is a continuous one, covering all weeks of the year. Interviews are done during the week immediately following the reference week. Major changes in recent years include the following:

- 2006: Changes in the questionnaire to fully harmonize with the list of EU-LFS variables and explanatory notes.
- 2009: The Hungarian activity classification (TEÁOR'08) is identical with the European one, NACE Rev.2. There is a break in the relevant time series between 2007 and 2008 due to the introduction of TEÁOR'08 in 2008.
- 2011: A team for central coding of occupations (according to the HSCO-08 and ISCO-08) has been established to ensure high quality of the data continuously. Until 2010, the classification of occupations was done based on HSCO-93, however from 1st January 2011 data have been published only on the basis of HSCO-08.
- 2012: Replacement of PAPI with CAPI for all waves.
- 2014: Grossing up of LFS data is based on the adjusted population number of the 2011 Census (December). Revisions back to 2006.
- 2015: Changes of the questionnaire concerning information of non-formal education (break in time series of lifelong learning indicator).
- 2018: Regarding the 2018 changes of the NUTS2 classification, the tables on regional LFS data have been modified back to 2006.
- 2021: Regulation (EU) 2019/1700 and the corresponding executive orders entered into force on 1 January 2021. Previous estimates have been modified according to the new methodology dating back preliminary to 2009.

Coverage

Population interviewed for employment status: 15-89 years.

Population concept: Usual residence (12 months).

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Family home (if they are members of the same income and consumption community).
- People working out of family home for an extended period for the purpose of work: Family home (if they contribute to family income).
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: 'Most of the time' criteria.

Household concept: Housekeeping.

Household definition: Members living regularly together in the same dwelling, sharing income, household expenditures, food and other essentials for living.

Participation: Voluntary.

Description: The survey covers the whole country and only private households are surveyed.

The inclusion or exclusion of the temporary absent persons – like persons living in student homes or worker homes – depends on their economic contribution to the household. For the person living abroad the same rule applies, they are

surveyed only if they are contributing to the common household budget. Lodgers and domestic servants are surveyed and registered as separate households, since they live in the sampled dwelling.

Sampling strategy

Sampling design: Two stages stratified sampling plan.

Sampling frame: Dwellings register.

Sampling units: The PSU is the locality and the FSU is the dwelling.

Sampling method: In the first stage of sampling, the PSUs are stratified by NUTS3 regions and size of localities. In the second stage, dwellings are selected by a systematic random sampling.

Achieved sample size (quarterly average): 24 700 households.

Sampling rate: 0.80%.

Rotation scheme: 6-.

Description: The EU-LFS sample is a two-stage stratified probability sample of dwellings based on the register of dwellings, last updated in 2021. The PSU is the locality, while the FSU is the dwelling.

The largest 175 localities are selected with probability equal to 1, they are certainly PSUs (self-representing towns) covering 60% of the whole population. The rest of the population of PSUs are stratified by NUTS3 regions and size of localities. PSUs are then selected with probability proportional to their size within strata. The FSUs are extracted with a systematic random selection from a list of dwellings sorted by address belonging to the sampled localities. All households residing in the selected dwelling are surveyed.

Data collection

Techniques adopted: CAPI – CATI.

Interviews by technique distribution: CATI 66.1%, CAPI 33.9%.

Response rate: 71.4%.

Proxy rate (15-74 years): 45.1%.

Description: The EU-LFS is based on a mixed-mode design. Data is collected by CAPI or CATI. Respondents participating for the first time are interviewed face-to-face. The following interviews can be conducted depending on the situation – by CATI or CAPI. Interviews are done during the week immediately following the reference week.

The non-response rate was 28.6% and refusals accounted for 33.3% of the total non-response.

Weighting procedure

Method: Calibration.

Variables used: Sex, age groups, region (NUTS3), number of households, percentages of the population living in major cities (county towns and those with county rights) and in the rest of NUTS 3 regions.

Reference population for weighting: Population living in private households.

Description:

1. The first adjustment for unit non-response at PSU level consists in the calibration of the response sample to the number of occupied dwellings by using the Census 2011 data.

2. Calibrated weights are then calculated with the method of iterative ranking at NUTS3 level to population control totals with absolute weight boundaries. All members in a sampled household have the same calibrated weight as the household.
3. Control totals are provided by population projection for the non-institutionalised population. It is based on the Census 2011 results which are adjusted by births, deaths, relocations within the country (each being monthly data) and migration (annual data) from official data sources.

MALTA (MT)

Background

The LFS started in 2000, providing quarterly results from 2001 on. The survey was redesigned as a quarterly continuous survey in 2004. At the same time, a new sampling frame was introduced. Major changes in recent years include the following:

- 2006: Weighting scheme changed to correct non-responses in successive waves.
- 2007: Quarterly sample size increased from 2 500 to 3 200 households.
- 2008: Rotation scheme changed from 2- to 2-(2)-2.
- 2012: New sampling frame based on the Census 2011. For the data collection 2006-2011, the Census 2005 was used.
- 2018: The weighting methodology was changed and time series of the main indicators were revised backward until 2012.
- 2019: New sampling frame based on a statistical population register, using a number of administrative sources.
- 2021: Implementation of Regulation (EU) 2019/1700, which resulted in changes in the data collection method for the 1st panel from PAPI to CAPI, changes in the questionnaire and the inclusion of the labour status flowchart.

Coverage

Population interviewed for employment status: 15-90 years old.

Population concept: Usual residence (12 months).

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Family home (if financially dependents).
- People working out of family home for an extended period for the purpose of work: Family home (if less than a year).
- People working away from family home but returning for weekends: 'Most of the time' criteria.
- Children alternating two places of residence: 'Most of the time' criteria.

Household concept: Housekeeping.

Household definition: Members living regularly together in the same dwelling, sharing income, household expenditures, food and other essentials for living.

Participation: Compulsory.

Description: The survey covers the whole country. Only private households are surveyed.

The survey covers private households, including people who are temporarily absent from their usual place of residence. Children or any other members who are living in another dwelling or institution are excluded.

Sampling strategy

Sampling design: Systematic random sampling.

Sampling frame: Population Register.

Sampling units: The sampling unit is the household.

Sampling method: The households are selected from the register of population by a systematic random sampling.

Achieved sample size (quarterly average): 2 300 households.

Sampling rate: 1.51%.

Rotation scheme: 2-(2)-2.

Description: The sampling plan is a one stage systematic random sample of households selected from a register of population. Eligible households are ordered by address details, number of males and number of females in household and number of persons aged 0-14, 15-24, 25-44, 45-64, and 65 and older. All persons living in the household are interviewed.

Data collection

Techniques adopted: CATI.

Interviews by technique distribution: CATI 100%.

Response rate: 76.3%.

Proxy rate (15-74 years): 41.5%.

Description: The EU-LFS is usually based on a mixed-mode design. Each household is contacted via ordinary mail to inform them about being chosen to participate in the EU-LFS. In the 1st wave, an interviewer who is assigned to a group of households carries out the interview in one of two ways i.e. in person via CAPI or by telephone.

In 2021, due to the COVID-19 pandemic, the majority of interviews for panel one were carried out over the phone as per Health authorities guidelines. Similarly, households that were then selected for the second to fourth panel, were also contacted by telephone or mobile number. For the latter panels, an interviewer is usually sent only when households do not provide a telephone number or do not have a telephone line or do not want to be interviewed over the phone.

The non-response rate was 23.7% and refusals accounted for 26.8% of the total non-response.

Weighting procedure

Method: Calibration.

Variables used: Sex, age groups, region (NUTS 4), nationality, registered employed non-nationals, number of households.

Reference population for weighting: Population living in private households.

Description: For weighting procedures, the design weights are computed through calibration with the logit method. The following benchmarks are used: panel, district of residence of respondents, number of households in Malta, nationality and registered employed non-nationals and nested demographics of sex and age groups. Household weights are the same as the yearly weights.

NETHERLANDS (NL)

Background

The LFS started in 1987 as an annual survey. In 2000, it was redesigned as a continuous quarterly survey. Major changes in recent years include the following:

- 2010: Revision of sampling design and weighting scheme.
- 2012: Introduction of CAWI data collection mode.
- 2015: The LFS weights were recalculated from 2011 onwards. Breaks in the series of unemployment, due to LFS redesigns in 2010 and 2012, were corrected in the new weights. Until this revision of weights, the series were continued on the levels for unemployment from before the redesigning.
- 2021: With the implementation of Regulation (EU) 2019/1700 and its implementing act for the EU-LFS, the Dutch EU-LFS has been fully redesigned. It moved from a sample of addresses to a sample of persons, the questionnaire has been redesigned and the processing of the data has been renewed.

Coverage

Population interviewed for employment status: 15 years and older.

Population concept: Registered population.

Place of residence for specific population subgroups:

- Primary/secondary students: 'Most of the time' criteria.
- Tertiary students: 'Most of the time' criteria.
- People working out of family home for an extended period for the purpose of work: 'Most of the time' criteria.
- People working away from family home but returning for weekends: 'Most of the time' criteria.
- Children alternating two places of residence: 'Most of the time' criteria.

Household concept: Housekeeping.

Household definition: Members living regularly together in the same dwelling, sharing household expenditures, food and other essentials for living.

Participation: Voluntary.

Description: The resident population comprises persons residing in the Netherlands. The survey covers only persons living in private households. The private household comprises either persons living alone or two or more persons, whether or not they are of the same family, who usually occupy the same dwelling and share a joint budget.

The survey is based on sliding reference weeks, meaning that respondents answer the questions about the current week.

Sampling strategy

Sampling design: Two stages stratified sampling plan.

Sampling frame: List of postal addresses and Population Register.

Sampling units: The PSU is the NUTS 3 corop region and the FSU is the person.

Sampling method: In the first stage of sampling, the PSUs are stratified by regions (NUTS3). In the second stage, mailing addresses are selected by a systematic random sampling.

Achieved sample size (quarterly average): 33 700 households.

Sampling rate: 1.13%.

Rotation scheme: 5-.

Description: In the first stage, municipalities per corop area are systematically selected with probabilities proportional to their population numbers, and for each municipality the number of persons to be drawn is determined. For each selected municipality, that number is one (the cluster size), or in the case of a self-selecting municipality, the product of the sampling fraction and the number of inhabitants.

The second stage consists of random sub-samples of persons from the target population with sizes determined in the first stage. The sub-samples are approximately self-weighted, which means that all persons in the target population have approximately the same probability of being in the sample.

A sub-sample is used to survey the structural variables (for which only yearly results are required) concerning, for example, atypical work, previous work experience of persons not in employment and modules. The sub-sample is determined according to a wave approach, i.e., it includes the units of each full quarterly sample which, according to the rotation scheme, are interviewed for the first time (1st wave). This corresponds to one fifth of each quarterly sample.

Data collection

Techniques adopted: CAPI – CATI – CAWI – OTHER

Interviews by technique distribution: CAWI 74.2%, CATI 21.1%, CAPI 2.3%, OTHER 2.4%.

Response rate: 50.0%.

Proxy rate (15-74 years): 0.0%.

Description: The EU-LFS is based on a mixed-mode design (CATI, CAPI, CAWI, OTHER). Initially, everyone is approached by CAWI. Non-respondents are re-approached by CATI or CAPI. When a telephone number is available, people are re-approached by CATI. When there is no telephone number available, the approach is face-to-face by CAPI. Interviews in the next four waves are carried out by CATI, and since 2021 also via CAWI. In the CATI questionnaire, data gathered in the preceding wave (CAWI, CATI or CAPI) is included (dependent interviewing approach).

The non-response rate was 50.0% and refusals accounted for 20.0% of the total non-response.

Weighting procedure

Method: Post-stratification.

Variables used: Sex, age groups, region (NUTS 3 Corop regions), ethnic background, household type, income, registration at the unemployment office.

Reference population for weighting: Population living in private households.

Description: Weighting of the respondents is done in two stages.

1. All respondents are assigned an inclusion weight. These are calculated to correct unequal inclusion probabilities due to the sampling method.
2. Final weights are determined. Biases due to non-response are reduced by means of information about sex, age, ethnic background, place of residence and some other regional classifications. In addition, administrative sources about the income and the registration at unemployment office are used. Furthermore, information on the correlation in the panel-overlap between subsequent quarters is used and all waves are weighted in one step.

AUSTRIA (AT)

Background

The LFS covering the whole questionnaire of the European Labour Force Survey started as an annual survey in March 1995. In 2004, the LFS was redesigned as a continuous survey, covering all weeks of the year. Key data on employment and unemployment has been collected within the Austrian micro-census quarterly since 1968, but ILO definitions have been used only from 1994 onwards. Major changes in recent years include the following:

- 2004: Replacement of PAPI with CATI for the 2nd to the 5th wave.
- 2006: Replacement of PAPI with CAPI for 1st wave.
- 2014: Change of the weighting scheme (Census 2011 and inclusion of register based information) and revision of weights for the period 2004-2013.
- 2018: New data collection tool called 'STATsurv' is used, an internal development.
- 2021: Implementation of Regulation (EU) 2019/1700. From the 2nd quarter of 2021, CAWI is also possible in the 2nd to the 5th wave.

Coverage

Population interviewed for employment status: 15 years and older.

Population concept: Usual residence.

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Term address (if they live in a private household, students from collective households are excluded).
- People working out of family home for an extended period for the purpose of work: Family home.
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: 'Most of the time' criteria.

Household concept: Housekeeping unit.

Household definition: Members living regularly together in the same housing unit and sharing food and other essentials for living.

Participation: Compulsory.

Description: Only the population in private households is included. The sampling frame covers all dwellings where at least one person has a registered main residence. A private household is either: (a) A one-person household that is a person who lives alone in a separate housing unit or who occupies, as a lodger, a separate room (or rooms) of a housing unit but does not join with any of the other occupants of the housing unit to form part of a multi-person household; or (b) A multi-person household that is a group of two or more persons who combine to occupy the whole or part of a housing unit and to provide themselves with food and possibly other essentials for living. Members of the group may pool their incomes to a greater or lesser extent. Those whose residence is not registered but have their centre of life in the sampled household during the reference week, are included.

Sampling strategy

Sampling design: One stage stratified sampling plan.

Sampling frame: Register of residents.

Sampling units: The sampling unit is the dwelling.

Sampling method: The sample is stratified by regions (NUTS2).

Achieved sample size (quarterly average): 20 374 households.

Sampling rate: 0.60%.

Rotation scheme: 5-.

Description: The sampling design is a stratified single random sample from the sampling frame, with each region ('Bundesland' - NUTS2) forming a stratum. The number of strata is 9 (number of Bundesländer in Austria). The sampling unit is the dwelling with at least one person with main residence. All people in the selected dwellings are surveyed.

Data collection

Techniques adopted: CAPI – CATI – CAWI – OTHER

Interviews by technique distribution: CAPI 24.0%, CATI 39.0%, CAWI 36.8%, OTHER 0.2%.

Response rate: 94.9 %.

Proxy rate (15-74 years): 18.3%.

Description: The EU-LFS is based on a mixed-mode design. First wave: Face-to-Face-Interviews, using CAPI (Computer assisted personal interviews). Second to fifth wave CAWI (Computer assisted web interviewing) or CATI (Computer assisted telephone interviewing). CAWI available from the second quarter of 2021 onwards.

The non-response rate was 5.1% and refusals accounted for 41.5% of the total non-response.

Weighting procedure

Method: Calibration.

Variables used: Sex, age groups, region (NUTS2), nationality, household size, and register based labour status.

Reference population for weighting: Population living in private households.

Description: The weights are calculated in two steps.

1. For each record a basic weight, which depends on the stratum and the domain, is calculated.
2. The weights are adjusted so that the resulting distribution is in accordance with the population within the federal regions (Bundesländer, NUTS2). Calibration is performed by iterative proportional fitting. The weights are adjusted in such a manner, that the figures correspond to the population with main residence at the beginning of each quarter minus persons in institutional households.

The following specifications are used for calibration:

- Total number of persons in private households in NUTS2 region b ($= 1, \dots, 9$), age class a ($1 = 0-2$ years, $2 = 3-5$ years, $3 = 6-9$, $4 = 10-14$, ... (5-year classes) ..., $18 = 80-84$, $19 = 85+$) and sex s ($= 1, 2$);
- Total number of persons in private households in NUTS2 region b ($= 1, \dots, 9$) with nationality n ($1 =$ Austria, $2 =$ EU-15 without Austria, $3 =$ EU from 2004 onwards, $4 =$ European non-EU states, $5 =$ Turkey, $6 =$ others);
- Total number of persons in private households in NUTS2 region b ($= 1, \dots, 9$) with register based labour status l ($1 =$ standard employment, $2 =$ non-standard employment, $3 =$ self-employment, $4 =$ unemployment, $5 =$ out of labour force) and sex s ($= 1, 2$);
- Total number of households in NUTS2 region b ($= 1, \dots, 9$) with g ($= 1, 2, \dots, 5+$) residents.

In the first step, a basic weight is calculated for each person. This is followed by a calibration procedure with iterative proportional fitting. Finally, each member of the household has the same weight.

POLAND (PL)

Background

The LFS started in May 1992 as a quarterly survey, using data collection in one reference week per quarter. Since Q4 1999, the survey covers all weeks of the year. Major changes in recent years include the following:

- 2006: Introduction of CAPI supplementing PAPI. Changes of the questionnaire in order to identify people absent from work (identification of lay-offs) more accurately and comply with the EU-LFS operational guidelines for the definition of labour status.
- 2009: Questionnaire changed to align more precisely to the EU-LFS operational guidelines for the definition of labour status.
- 2010: Sample size doubled in order to adjust precision to the requirement set out in Article 3.2 of the regulation.
- 2011: From Q1 2011 onwards, the occupational data is compiled in accordance with the Classification of Occupations and Specializations 2010 (KZiS 2010), being a national adaptation of ISCO-08. The KZiS 2010 replaced the KZiS 2007.
- 2012: From Q3 2012, generalization of the survey results on the population was carried out with the use of the data on the population of Poland aged 15 years and over coming from the balances compiled on the new basis of the results from the National Census of Population and Housing 2011.
- 2014: Introduction of CATI as a supplementary mode of data collection.
- 2015: From Q1 2015 onwards, data on occupation is compiled in accordance with the Classification of Occupations and Specializations 2014 (KZiS 2014) which replaced KZiS 2010.
- 2016: Since Q1 2016, all new samples (dwellings surveyed for the first time) are selected according to a new stratification scheme. As previously, the main division of strata is based on voivodships (highest administrative divisions) and strata within voivodships are created depending on the size of a place. However, also one or two of the biggest voivodship towns form the separate strata among these inter-voivodship strata. Moreover, the correction of weights respective to lack of responses is calculated at the voivodship level and calibration of results separately for all 16 voivodships – NUTS2 level (instead of country level).
- 2021: The changes introduced in the Polish EU-LFS since Q1 2021 that concerned mainly the subjective range of the survey as well as definitions and the way of specification of particular populations on the labour market, i.e. the employed, the unemployed and economically inactive persons – connected with coming into force of the Regulation (EU) 2019/1700 of the European Parliament and of the Council and its implementing acts for the labour force domain.

Coverage

Population interviewed for employment status: 15-89 years old.

Population concept: Usual residence (12 months).

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Term address.
- People working out of family home for an extended period for the purpose of work: 'Most of the time' criteria.
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: 'Most of the time' criteria.

Household concept: Housekeeping.

Household definition: Members living regularly together in the same dwelling, sharing income, household expenditures, food and other essentials for living.

Participation: Voluntary.

Description: The survey covers the whole country. The target population covers all persons aged 15 years and older with usual residence in Poland. Only private households are surveyed. Persons living in institutional households (army, hospital, prison, hostels, etc.) are excluded from the survey, if their length of stay in these institutions is planned to be one year or longer. The same applies to persons living permanently or temporarily in other countries.

Sampling strategy

Sampling design: Two stages stratified sampling plan.

Sampling frame: OBS - statistical sampling frame for social surveys.

Sampling units: The PSU is the Census cluster in towns and enumeration district in rural areas and the FSU is the dwelling.

Sampling method: In the first stage of sampling, the PSUs are stratified by regions (NUTS2) and type of place of residence (urban/rural). In the second stage, dwellings are randomly selected.

Achieved sample size (quarterly average): 30 000 households, theoretical sample size: 55 536 dwellings.

Sampling rate: 0.40%.

Rotation scheme: 2-(2)-2.

Description: The PSUs refer, with few exceptions, to Census clusters in towns and enumeration districts in rural areas. PSUs are stratified by urban/rural division of NUTS2 regions; stratification within NUTS2 regions depends on the size of the place, with rural areas included among the smallest ones. PSUs are sampled within strata with sampling probability proportional to the number of dwellings in a PSU. In the second stage, the dwelling units are sampled from selected PSUs stratified by size of the municipality.

Data collection

Techniques adopted: CATI.

Interviews by technique distribution: CATI 100 %.

Response rate: 64.8%.

Proxy rate (15-74 years): 42.1%.

Description: The EU-LFS is usually based on a mixed-mode design. The general rule is the collection of the data mainly by CAPI. In case of problems with the IT equipment or on respondents' request, paper questionnaires are used. In 2021, due to the COVID-19 pandemic, all EU-LFS data were collected by telephone interviews instead of face-to-face ones using CAPI application.

The non-response rate was 35.2% and refusals accounted for 34.4% of the total non-response.

Weighting procedure

Method: Calibration.

Variables used: Sex, age groups, region (NUTS2), 6 categories of place of residence (the rural area or one of the five town size classes), reference week.

Reference population for weighting: Population living in private households.

Description: The weights are computed using a four-step procedure.

1. The initial design weights are calculated for dwelling units, i.e. the inverse of the selection probabilities for the final sampling units in each stratum.

2. The weighted response rates are calculated for sampling units stratified a posteriori by six place-of-residence categories in each NUTS2 region.
3. The initial weights are adjusted by the response rates.
4. Final calibration to some constraints which include the population by the urban-rural division, sex, age, NUTS2 region and a constraint forcing equal representation of reference weeks in the quarterly estimates.

PORTUGAL (PT)

Background

The LFS started in 1983 as a quarterly survey. Since 1998, the survey is a continuous one yielding quarterly results. Major changes in recent years include the following:

2011: Implementation of CATI as one of the data collection mode and revision of the questionnaire.

2013-14: Implementation of a new sampling frame from the National Dwellings Register.

2021: Implementation of Regulation (EU) 2019/1700 implying a break in time series.

Coverage

Population interviewed for employment status: 16-89 years old.

Population concept: Usual residence (more than 6 months).

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Family home (in case they benefit from the household income and are not usual residents of any other private household and not living in a tertiary student hall of residence).
- People working out of family home for an extended period for the purpose of work: Family home (in case the person significantly contributes to the household income and is not a usual resident of any other private household).
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: Family home of the legal guardian contributing most or receiving child benefits; otherwise the family home at the time of interview.

Household concept: Housekeeping.

Household definition: A person living alone or a group of persons who live together, providing oneself or themselves with the essentials of living.

Participation: Compulsory.

Description: The whole geographical territory of Portugal is covered, i.e. mainland, Madeira and Acores. Only private dwellings are covered. Persons living as usual residents in collective dwellings are excluded.

The usual residence for all persons in the target population is established based on the 'most of the time' criterion, i.e., a person is assigned to the dwelling where he/she spends the majority of the year (more than 6 months). It means that, when a person regularly lives in more than one dwelling, the dwelling where one spends most of the year is taken as one's place of usual residence.

Sampling strategy

Sampling design: Stratified two-stage cluster sampling plan.

Sampling frame: National Dwelling Register (NDR). The NDR is composed by all private dwellings from Census 2011 (excluding collective households and institutions).

Sampling units: The PSU is the geographical area and the FSU is the dwelling.

Sampling method: In the first stage of sampling, the PSUs are stratified by regions (NUTS3). In the second stage, FSUs are selected by a systematic random sampling.

Achieved sample size (quarterly average): 13 489 households.

Sampling rate: 0.60%.

Rotation scheme: 6-.

Description: The sampling frame is stratified by NUTS3 and, in each stratum, the PSUs are selected systematically with probability proportional to the number of private dwellings as usual residence. The PSUs are composed by one or more contiguous grid INSPIRE cells with 1 km² of area, having at least 300 private dwellings as usual residence. In total, 1 254 PSUs are selected.

In the second stage, dwellings are selected by a systematic random sampling. For each rotation wave and NUTS 2 region, 300 dwellings are selected by each PSU. All persons living in the same dwelling are interviewed.

Dwellings are kept in the sample for six consecutive quarters before being replaced by an identical number of dwellings in the same PSU. One-sixth of the sample is replaced each quarter.

Data collection

Techniques adopted: CATI.

Interviews by technique distribution: CATI 100%.

Response rate: 53.4%.

Proxy rate (15-74 years): 51.1%.

Description: Until March 2020, the EU-LFS was based on a mixed-mode design. Following the COVID-19 pandemic and the measures adopted by the competent authorities, Statistics Portugal has decided, as of that date and until June 2022, to suspend the face-to-face collection mode, replacing it exclusively with the telephone interview one (CATI).

The non-response rate was 46.6% and refusals accounted for 3.9% of the total non-response.

Weighting procedure

Method: Calibration.

Variables used: Sex, age groups, region (NUTS2 and NUTS3).

Reference population for weighting: Total resident population.

Description: The weight is derived as the product of a design weight (which incorporates design information and non-response) and a factor that calibrates the sample to the independent demographic estimates using an a-posteriori stratification method by:

- NUTS2, sex and 5-year age groups;
- NUTS3 (or groups of NUTS3) by six age groups;
- NUTS3 (or groups of NUTS3) by sex.

ROMANIA (RO)

Background

The LFS started in 1993 with a pilot survey, followed by two annual surveys in 1994 and 1995. In 1996, a regular LFS started, providing quarterly results. Major changes in recent years include the following:

- 2006: Full and uniform coverage of the weeks of each quarter.
- 2014: National LFS is fully aligned to the definition of the resident population.
- 2021: Redesigned questionnaire and change in data collection mode (100% computer-assisted interviewing), in line with the implementation of Regulation (EU) 2019/1700.

Coverage

Population interviewed for employment status: 15-89 years old.

Population concept: Usual residence (12 months).

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Term address.
- People living out of family home for an extended period for the purpose of work: 'Most of the time' criteria.
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: The place where the child is found during the reference week.

Household concept: Housekeeping.

Household definition: Members living regularly together in the same dwelling, (usually linked by family ties) and sharing income, household expenditures, food and other essentials for living.

Participation: Voluntary.

Description: The whole country is covered and only private households are surveyed. The target population comprises persons residing in Romania.

The survey covers all members of the selected households. People are considered members of the household if they are usually resident at the household's address, provide themselves with food and other essentials for living and share income or household expenses. A person who lives alone or occupies a separate room in a dwelling (i.e. tenant), but who declares that he or she does not join with any of the other occupants of the housing unit to form part of a multi-person household, is considered to be a single-person household.

Sampling strategy

Sampling design: Two stage-stratified sampling plan.

Sampling frame: Multifunctional Sample of Territorial Areas (Master sample) updated after Census 2011.

Sampling units: The PSU is a group of Census section and the FSU is the dwelling.

Sampling method: In the first stage of sampling, the PSUs are stratified by regions (NUTS3) and type of place of residence (urban/rural). In the second stage, dwellings are selected by a systematic random sampling.

Achieved sample size (quarterly average): 22 700 households.

Sampling rate: 0.38%.

Rotation scheme: 2-(2)-2.

Description: The sampling plan is a two stage-probability sampling of housing units.

In the first stage, a stratified random sample of 792 areas (PSUs) was designed after the 2011 Census, using as stratification criteria the residence area (urban/rural) and county (corresponding to NUTS3 level) - 88 strata in all. This is the Multifunctional Sample of Territorial Areas, known as the master sample EMZOT. The EMZOT sample has 450 PSUs selected from urban area and 342 PSUs selected from rural area.

In the second stage, the dwellings are systematically selected from the initial sample of PSUs. The final quarterly sample consists of 28 512 dwelling units each quarter. All households within each sampling unit are included.

Data collection

Techniques adopted: CAPI.

Interviews by technique distribution: CAPI 100%

Response rate: 85.9%.

Proxy rate (15-74 years): 28.1%.

Description: The data are collected only by face-to-face interviews, assisted by computers (CAPI). The data is collected with identical questionnaires throughout the whole year.

The non-response rate was 14.1% and refusals accounted for 23.8% of the total non-response.

Weighting procedure

Method: Calibration.

Variables used: Sex, age groups, region (NUTS2), type of place of residence (urban/rural).

Reference population for weighting: Resident population living in private households.

Description: The weights are calculated in three steps.

1. The inverse of the selection probabilities to each sampled dwelling unit is built.
2. Adjustment for non-response, categorising the responding dwelling units by the following characteristics: county (NUTS3) and urban/rural residency.
3. Calibration of the secondary weights to the best latest available population totals by region, urban-rural residency, sex, 14 age groups (0-14, 15-19, ..., 70-74, 75 and older) and the household totals by region, using the SAS macro Calmar.

SLOVENIA (SI)

Background

The LFS started in 1993 as an annual survey, using four weeks in May as the reference period. Since Q2 1997, the LFS has been conducted as a continuous survey, providing quarterly results. Major changes in recent years include the following:

2008: New definition of resident population is introduced.

2021: As consequence of implementation of Regulation (EU) 2019/1700, EU-LFS was partly re-designed: target population was limited to private households only, and panel rotation scheme was adapted to the most frequent one (2-(2)-2), with a related update of the questionnaire. Publication of experimental national monthly unemployment statistics was introduced.

Coverage

Population interviewed for employment status: 15 years and older.

Population concept: Usual residence (12 months), population living in private households.

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Usual residence (according to demographers' definition).
- People working outside the family home for an extended period for the purpose of work: Usual residence (according to demographers' definition).
- People working away from family home but returning for weekends: Usual residence (according to demographers' definition).
- Children alternating two places of residence: Usual residence.

Household concept: Housekeeping.

Household definition: Members living regularly together in the same dwelling sharing income, household expenditures, food and other essentials for living.

Participation: Voluntary.

Description: Only population living in private households is included in the sampling frame. Only households with at least one member younger than 89 years are considered. A private household is made up of all people living in a dwelling.

Sampling strategy

Sampling design: One-stage stratified systematic random sampling plan.

Sampling frame: Central Population Register.

Sampling units: Individuals.

Sampling method: Sampling frame is stratified by (12) NUTS3 regions and (5) type of settlement.

Achieved sample size (quarterly average): 7 400 sampled households.

Sampling rate: 0.90% households

Rotation scheme: 2-(2)-2.

Description: The sampling method is a stratified systematic random sampling of individuals. All members of the household of the selected individual are included.

Strata are defined by NUTS3 regions and type of settlement, defining 46 strata in total. Stratum allocation is proportional to the population distribution.

Data collection

Techniques adopted: CAPI – CATI.

Interviews by technique distribution: CATI 67.6%, CAPI 32.4%.

Response rate: 49.4%.

Proxy rate (15-74 years): 52.1%.

Description: The EU-LFS is based on a mixed-mode design. The 1st wave is conducted in CAPI. All repeated interviews are carried out in CATI, if the household has a telephone, otherwise by CAPI. In 1st and 2nd quarter, all interviews were conducted by CATI, because of COVID-19 pandemic. Non-respondents from previous wave were not included in the data collection (and calculation of non-response) for the next wave.

The non-response rate was 50.6%. Refusals accounted for 11.0% of the interviewed population.

Weighting procedure

Method: Calibration.

Variables used: Sex, age groups, NUTS3 region, type of settlement.

Reference population for weighting: Total resident population.

Description: The data is weighted for unequal probability of selection of households and non-response, and calibrated according to the known population distribution: household size, age groups (0-14, 15-19, 20-29, 30-39, 40-49, 50-59, 60-69, 70+), sex and region (NUTS3 level). All weights are calculated on a household level; thus members of the same household have identical weights. Weights are benchmarked to population totals. People living in institutions are excluded from population totals.

SLOVAKIA (SK)

Background

The LFS started in 1993 as a continuous, quarterly survey using seasonal quarters. In 2000, the Slovakian LFS changed to calendar quarters. Major changes in recent years include the following:

- 2006: New structure of the national questionnaire.
- 2011: Implementation of CAPI as a new mode.
- 2012: Sampling frame based on Census of Population 2011.
- 2021: Implementation of Regulation (EU) 2019/1700 covering methodology, questionnaire, data collection, quality and technical items.

Coverage

Population interviewed for employment status: 15-89 years old.

Population concept: Usual residence (12 months).

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Family home.
- People working out of family home for an extended period for the purpose of work: Family home.
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: Term address.

Household concept: Housekeeping.

Household definition: Members living regularly together in the same dwelling sharing income, household expenditures, food and other essentials for living.

Participation: Compulsory.

Description: The whole country is covered. Only private households are surveyed. People living on their own constitute one-person households.

Since 2021, the target population of the EU-LFS survey has been all persons aged in Slovakia who are defined as usual residents. Usual residents are persons who have resided in their place of usual residence continuously for at least one year, or persons who have resided there less than one year but with the intention of staying in this place for at least one year.

Sampling strategy

Sampling design: Two stages stratified sampling plan.

Sampling frame: Population census 2011.

Sampling units: The PSU is the Census administrative units (CAU) and the FSU is the dwelling unit.

Sampling method: In the first stage of sampling, the PSUs are stratified by regions. In the second stage, dwellings are selected by simple random sampling.

Achieved sample size (quarterly average): 8 200 households.

Sampling rate: 0.60%.

Rotation scheme: 5-.

Description: The PSUs correspond to the Census Administrative Units. The selection probability of each CAU is proportional to its population size. Number of selected CAU in every district proportionally equals to the population as of December, 2011 in each district. Each PSU can be selected more than once. At the second stage, five dwelling units are selected from each instance of the PSU using a simple random sampling method.

Data collection

Techniques adopted: CAPI – CATI.

Interviews by technique distribution: CATI 78.2%, CAPI 21.8%.

Response rate: 76.5%.

Proxy rate (15-74 years): 51.3%.

Description: The EU-LFS is based on a mixed-mode design. In the 1st wave, the data is collected by face-to-face interviews (CAPI). All other interviews are mainly carried out by CATI.

The non-response rate was 23.5% and refusals accounted for 16.6% of the sampled population.

Weighting procedure

Method: Post-stratification.

Variables used: Sex, age groups, region (NUTS3).

Reference population for weighting: Total population.

Description: Data from the survey for all persons participating in the survey are weighted by administrative data on the total population living in private households as of Jan. 1, 2021 by region, sex and age groups. Grossing to the population is done at the level of individuals.

The population and the sample are the subject of a post-stratification by NUTS-3 administrative region (8 regions altogether), sex and five-year age groups. In each of the strata thus obtained, the weight $w(i)$ is assigned to each person in the sample:

$$w(i) = N(i)/n(i)$$

where

$N(i)$ – the number of persons in stratum i of the population (age 15+)

$n(i)$ – the number of persons in stratum i of the sample (age 15+)

The sum of weights represents the total population in private households.

FINLAND (FI)

Background

The LFS started in 1959. Finnish LFS data has been delivered to Eurostat since 1995. In the late 1990s and early 2000s, various kinds of methodological developments took place, and changes were introduced to the Finnish LFS to reflect EU harmonisation. Since 2000, the Finnish LFS is a strictly continuous survey. Major changes in recent years include the following:

- 2003: Implementation of Council Regulation 577/98 on Household Data.
- 2007: Implementation of the wave approach.
- 2008: Extension of the wave approach. Redesign of the questionnaire to tie in with Regulation 430/2005.
- 2021: Implementation of Regulation (EU) 2019/1700, renewing calibration and executing mixed mode data collection.

Coverage

Population interviewed for employment status: 15-89 years.

Population concept: Usual residence.

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Family home (if family ties are kept).
- People working out of family home for an extended period for the purpose of work: Family home (if family ties are kept).
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: Family home.

Household concept: Housekeeping.

Household definition: One-person household is a private household where a person usually resides alone, and a multi-person household is a private household where a group of persons usually reside together and share income or household expenses with other household members by providing themselves with essentials of living.

Participation: Voluntary.

Description: The EU-LFS covers entire country (including the Autonomous Territory of the Åland Islands) and all persons living in private households.

The target population comprises people aged 15 to 89 who are registered as permanently resident in Finland, including those who are temporarily abroad for a period of less than a year. It also includes foreign nationals who have been living in Finland for at least a year or intend to do so. The Finnish EU-LFS population may include some people living in a premises resembling institution. They have an address registered as a private household. Persons living in serviced flats usually form a private household, like living in a boarding house. Conscripts are excluded from the private household population.

The EU-LFS is a monthly survey of individuals with the reference weeks distributed uniformly throughout the month (4 or 5 reference weeks). The quarterly sample (usually 13 reference weeks) consists of three separate and independent monthly samples. The survey provides monthly, quarterly and annual results.

Sampling strategy

Sampling design: One-stage stratified sampling plan.

Sampling frame: Population Register.

Sampling units: The sampling unit is the individual.

Sampling method: The sample is stratified by regions (NUTS1) and age. Only the household member selected in the sampling procedure is interviewed.

Achieved sample size (quarterly average): 19 900 individuals aged 15-89 (excluding conscripts).

Sampling rate: 0.82%.

Rotation scheme: 3-(1)-2.

Description: The sampling design used in Finland is a stratified systematic sampling of persons where the strata are formed according to NUTS1 regions and age, with over-sampling from the Autonomous Territory of the Åland Islands.

In each stratum, systematic random selection is applied to the frame sorted according to the domicile code and personal identity number which yields implicit geographic stratification. So far, no indication of selection bias due to systematic sampling has been encountered, thus the selection procedure can be approximated by simple random sampling without replacement.

A sub-sample is used to survey some structural variables (mostly regarding relations between household members, atypical work, reasons for leaving last job/not seeking employment/not being available to start work within two weeks, situation one year before and others), in compliance with the Commission Regulation (EC) 2019/2240, for which only yearly results are required. The sub-sample is determined according to a wave approach, thus it includes the units of each full quarterly sample which, according to the rotation scheme, are interviewed for the fifth and last time (5th wave).

Data collection

Techniques adopted: CATI – CAWI – CAPI – OTHER.

Interviews by technique distribution: CATI 64.6%, CAWI 29.7%, CAPI 0.2%, OTHER 5.5%

Response rate: 51.9%

Proxy rate (15-74 years): 5.8%

Description: The EU-LFS is based on a mixed-mode design (CATI, CAPI, and CAWI). Interviews are carried out in Finnish, Swedish and English. Demographic information (sex, year of birth, marital status, nationality) and information about the highest level of completed education or training, and field of education are obtained, totally or partially from administrative sources (Population Register, Register of Completed Education and Degrees).

The non-response rate was 48.1% and refusals accounted for 48.4% of the total non-response.

Weighting procedure

Method: Calibration.

Variables used: Sex, age groups, region (NUTS3 and the greater Helsinki area/NUTS2), registered job seeker status, reference week, main type of economic activity, level of education, native language and monthly salary.

Reference population for weighting: Total population.

Description: The core EU-LFS is a monthly survey of individuals. The monthly weighting process is the basis for the quarterly weighting. So, an estimation weight of quarterly estimates (COEFFQ for individuals aged 15-89) is derived from the monthly estimation weight. Calibration and GREG estimation are applied to respondents of monthly data set. COEFFQ is derived from the monthly estimation weight by procedure, where COEFFQ is proportional to the number of reference weeks and population size in the relevant months assuring that all weeks of the quarter are equally represented.

Specific weighting procedures are adopted for the household sub-sample and for the sub-sample of structural variables collected by the wave approach.

SWEDEN (SE)

Background

The LFS started in 1959, with a quarterly survey introduced in 1963 and a monthly survey in 1970. Since 1993, the reference weeks are distributed uniformly throughout the year and the survey provides monthly, quarterly and annual results. In April 2005, a new questionnaire was introduced, together with a full renewal of the weighting scheme. Major changes in recent years include the following:

- 2009: A number of questions in the LFS were revised in order to minimise the risk of misclassification of the labour force status of sample persons due to the introduction of new programs at the public employment office, specifically phase 3 of the activity and development guarantee. The scope of this program was very limited during 2009, but it was expected to increase during 2010 because more people had finished the first two phases.
- 2010: The monthly sample was increased by 8 000 persons, from approximately 21 000 to 29 000. This change was requested by the Swedish government with the purpose of enabling a more detailed presentation of statistics concerning persons not at work and statistics on labour market flows.
- 2019: Revision of the LFS for the period July 2018 to September 2019, which consists of using only half of the sample, following the detection of quality deficiencies. As the resulting statistics are based on half of the sample, this increases the uncertainty, particularly at a more disaggregated level.
- 2021: Regulation (EU) 2019/1700 entered into force and brought a few minor definition changes concerning the employed and unemployed. Changes regarded the frame population, including people aged 15–89 years from 15–74 years previously, and in the flow of questions. New auxiliary information (AGI) in estimating statistical values has been introduced to improve precision in the EU-LFS. The changes have caused a break in the time series and, to link data backwards in time, double measurement have been carried out during 2021, whereby the data was collected through the new questionnaire for 80% of the sample, and for 20% of the sample through the old questionnaire.

Coverage

Population interviewed for employment status: 15–89 years.

Population concept: Registered population.

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Term address.
- People working out of the family home for an extended period for the purpose of work: Family home.
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: 'Most of the time' criteria.

Household concept: Housekeeping.

Household definition: Members living together in the same dwelling, sharing food and other essentials for living and household expenditures.

Participation: Voluntary.

Description: The survey population consists of individuals residing in private households aged 15–89 and who were in the Swedish population register on 31 December (reference year). However, people below the age of 15 do not take part in the survey until they turn 15. People who cannot work due to long-term health problems, and people not in employment who are aged 70 or older and who are not looking for work, are interviewed once a year and in the eighth survey round.

A household consists of either a person that lives alone or persons that live together and share household expenses. Collective households are not included. Members of the household are included in the 8th (last) wave according to EU definitions of economic households.

Sampling strategy

Sampling design: One stage stratified systematic sampling plan.

Sampling frame: Population Register.

Sampling units: The sampling unit is the individual.

Sampling method: The sample is stratified by county and sex. Only the household member selected in the sampling procedure is interviewed.

Achieved sample size (quarterly average): 20 800 individuals aged 15-89.

Sampling rate: 0.50%.

Rotation scheme: 8-.

Description: The total sample consists of two separate samples.

The sample is drawn at the end of the fourth quarter every year to update the sample with new sample persons. The total sample consists of two parts, one for the age group 15-74 and one for the age group 75-89.

The sample for the age group 15-74 is stratified according to county and sex. In this way, 48 strata are constructed. The inclusion probabilities are in general proportional to the size of the strata, although some small counties are overrepresented in the sample. The age group 16-64 is also over-represented. Systematic sampling is performed within strata.

No stratification is performed for the age group 75-89. Systematic sampling is used.

Data collection

Techniques adopted: CATI.

Interviews by technique distribution: CATI 100%.

Response rate (15-74 years): 48.3%.

Proxy rate (15-74 years): 1.9%.

Description: Information is collected by CATI. An interview with the sample person him/herself is preferred and conducted to the extent possible, given the time allowed to complete the interviews. Proxy interviews are conducted when the sample person is not available within the timeframe because of vacation, illness, etc. Data on sex, age, region, country of birth, industrial code, level and field of education and years of residence in Sweden is collected from administrative registers.

The non-response rate was 51.7% and refusals accounted for 31.7% of the total non-response.

Weighting procedure

Method: Generalised regression estimation - Calibration.

Variables used: Sex, age groups, region (NUTS3), country of birth, registered employment and unemployment.

Reference population for weighting: Total resident population.

Description: The estimates are built on regression estimators (GREG) with a set of auxiliary information. This auxiliary information varies over time and today's information is used based on the Total Population Register (TPR), the monthly employer reports at individual level (AGI) and the Swedish Public Employment Service's job-seeker register (SOK). This

auxiliary information consists of variables that are correlated with central EU-LFS variables as well as the breakdown into response and non-response.

Each month, the last wave of the individual EU-LFS sample is used as the starting point to identify households, for which data are to be collected. Thus, the sampling design is a two-phase design, where network sampling is used in the second phase. The weights are based on the calibration approach for two-phase sampling in Estevao and Särndal (2002). Design weights constructed according to the network sampling design and adjusted for non-response at the household level, are used as initial weights in the calibration. Only information at the individual level is used for the calibration.

NORWAY (NO)

Background

The LFS started in 1972 as a quarterly survey and was based on one reference week each quarter. As from the 2nd quarter of 1988 the data was collected monthly with one reference week each month. In 1996 the survey was redesigned as a continuous survey providing quarterly results, using the wave approach. Major changes in recent years include the following:

- 2006: The questionnaire was redesigned furtherly, to provide improved EU comparability of the ILO labour status. The lower age limit for participation was moved from 16 years to 15 years of age.
- 2018: The estimation method was updated.
- 2021: Implementation of Regulation (EU) 2019/1700, resulting in a change in content and methods: new sampling unit, new sampling plan, revision of questionnaire, updates in use of register information, and a new production system.

Coverage

Population interviewed for employment status: 15-89 years.

Population concept: Registered and legal population.

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Family home or term address (case-by-case decision).
- People working out of family home for an extended period for the purpose of work: Family home or term address (case-by-case decision).
- People working away from family home but returning for weekends: Family home or term address (case-by-case decision).
- Children alternating two places of residence: Term address.

Household concept: Housekeeping.

Household definition: Members living together in the same dwelling, usually linked by family ties or kinship.

Participation: Compulsory.

Description: The target population is the total population aged 15-89, residing in mainland Norway according to the Central Population Register. The survey covers only private households.

Sampling strategy

Sampling design: One stage stratified random sampling plan.

Sampling frame: Population Register and Household Register.

Sampling units: Persons and households.

Sampling method: The sample is stratified by age, region (NUTS2) and register labour market status. Reference persons are interviewed in all waves, and the additional household members are interviewed in one wave.

Achieved sample size (quarterly average): 18 087 households.

Sampling rate: 0.41%.

Rotation scheme: 8-.

Description: Inhabitants in all municipalities are randomly selected, on the basis of a register of persons and private households. Each family member aged 15-89 years old participates in the survey answering questions about their situation during a specified reference week.

The input data for the sampling frame is based on the Population register and Household register. The primary sources are continuously updated by the local registration offices. For EU-LFS use the sampling frame is updated quarterly. The sampling frame is stratified by age, region and register labour market status.

A sub-sample is used to survey the structural variables for which only yearly results are required. The sub-sample is the 2nd and 6th waves.

See [The Norwegian Labour Force Survey sampling design](#) for a full description.

Data collection

Techniques adopted: CATI.

Interviews by technique distribution: CATI 100%.

Response rate: 78.0%.

Proxy rate (15-74 years): 0%.

Description: All interviews are carried out by CATI. We use register information for coding of industry and education. Demographic data is coded directly from the Central Population Register.

The non-response rate was 22.0%. Refusals accounted for 2.2 % of the total interviews.

Weighting procedure

Method: Multiple model-calibration

Variables used: Age, sex, region, register labour market status, country of birth.

For a complete description see [New estimation methodology for the Norwegian Labour Force Survey](#)

Reference population for weighting: Total population.

Description: A one-step multiple model-calibration method (e.g. Montanari and Ranalli 2009) is used to calculate quarterly individual weights. There is no additional step to adjust for non-response with one-step approach (Lundström and Särndal 1999). Thus, design weights are directly used as initial weights in the calibration.

At first, monthly weights are calculated by applying calibration to data of each month of the quarter of interest, and then quarterly weights are calculated as a weighted average of monthly weights, where the weights are defined as proportional to the number of weeks of the associated month.

Model-calibration approach may provide better estimates with higher precision than the usual linear calibration method by enabling to describe the relationship between the output variable and the explanatory variables by a generalized linear model, which also captures linear regression (Wu and Sitter 2001).

The probabilities of being employed, unemployed and outside of labour force are predicted via a multinomial logistic regression model, and then these predicted probabilities are used as calibration variables in addition to other auxiliary variables obtained from register data (Oguz-Alper 2018).

Linear and integrative calibration is used to calculate the yearly and household weights.

SWITZERLAND (CH)

Background

The LFS was carried out for the first time in 1991 as an annual survey. It was conducted in the second quarter of each year (April-June), having the week before the interview as the reference week. In 2010, the LFS was redesigned as a quarterly survey, providing results as quarterly average. Major changes in recent years include the following:

- 2010: Shifting from an annual to a quarterly survey, making the participation compulsory and revising the questionnaire.
- 2012: Shifting from a compulsory to voluntary participation in Q3 2012.
- 2014: Introduction of a new sampling frame (Sampling Frame for Person and Household Surveys) in Q2 2014.
- 2021: Gradual shifting from a CATI-only to a CAWI/CATI mixed-mode survey with a prioritization of CAWI (CAWI-first approach). Encompassing revision of questionnaire wording and routing due to this shift in survey mode on the one hand as well as in consequence of the revision of the EU-LFS within the scope of implementation of Regulation (EU) 2019/1700 on the other hand.

Coverage

Population interviewed for employment status: 15-89 years (persons aged 75 to 89 are only interviewed once, i.e., in the first wave).

Population concept: Usual residence (12 months).

Place of residence for specific population subgroups:

- Primary/secondary students: Legal residence.
- Tertiary students: Legal residence.
- People working out of family home for an extended period for the purpose of work: Legal residence.
- People working away from family home but returning for weekends: Legal residence.
- Children alternating two places of residence: Legal residence.

Household concept: Close to the housekeeping concept.

Household definition: Members living regularly together and sharing the same registered main residence.

Participation: Voluntary.

Description: The survey population consists of all persons living in private households aged 15+ years. Persons aged 90 years or older are not interviewed in the Swiss EU-LFS, however, they still remain in the sample and socio-demographic information for these persons is derived from register data. Concerning their labour market status, they are all considered as outside the labour force. Only one person per household is selected for the interview.

The Swiss EU-LFS covers only the permanent resident population in Switzerland and excludes some types of foreign persons. The permanent resident population includes all persons officially residing in Switzerland for the entire year. This includes: Swiss citizens, foreign citizens holding a permanent residence permit or a residence permit valid for at least one year, international civil servants, diplomats and their family members.

Sampling strategy

Sampling design: Two stages stratified random sampling plan.

Sampling frame: Sampling Frame for Person and Household Surveys.

Sampling units: The PSU is the household and the FSU is the individual.

Sampling method: Both subsamples (standard and foreign persons) are stratified by regions (NUTS3 – canton). Only one household member is interviewed.

Achieved sample size (quarterly average): 31 167 individuals aged 15+.

Sampling rate: 0.54%.

Rotation scheme: 2-(2)-2.

Description: The sample for the Swiss EU-LFS is divided into two parts: a standard sample (containing both Swiss and foreign nationals) and an extra sample of foreign persons. Both subsamples are stratified by canton (NUTS 3 region) of residence: the size of each stratum is proportionate to the population size of the respective canton, except for the canton of Ticino (NUTS 3=CH07), for which the proportion of the sample is fixed at 6% of its population size. The base used for both sub-samples is the SFSO's Sampling Frame for Person and Household Surveys, which contains administrative data provided by cantonal and communal resident's register offices and covers 100% of Switzerland's permanent resident population. Initially, a random Poisson sample of households is drawn from the sampling frame. Subsequently, one person of each household in this first stage sample is selected by simple random sampling. Once a household has been selected for a survey conducted by the SFSO, it remains ineligible for any other SFSO-survey during four years (coordination methods are used to reach this goal).

A sub-sample is used to survey some structural variables under the Commission Regulation (EC) 2019/2240, for which only yearly results are required. The sub-sample is determined according to a wave approach, i.e., it includes the units of each full quarterly sample that, according to the rotation scheme, are interviewed for the first and the third time (1st and 3rd wave).

Data collection

Techniques adopted: CATI – CAWI - OTHER

Interviews by technique distribution: CATI 55.4 - CAWI 44.3% - OTHER 0.3%

Response rate: 79.0%.

Proxy rate (15-74 years): 1.1%.

Description: The data is collected by CAWI and CATI, whereas CAWI is prioritized. Part of the information on person and household characteristics is derived from register data. In the questionnaire, part of the data previously gathered in the preceding wave are included and asked to be confirmed (dependent interviewing). The questionnaire is available in four languages (German, French, Italian and English).

The non-response rate was 21.0% and refusals accounted for 7.8% of the total non-response.

Weighting procedure

Method: Calibration.

Variables used: Sex, age groups, region (NUTS3), nationality, residence permit, duration of residence, marital status, labour market status, number of jobs, income decile, grade of invalidity to work, reception of invalidity or old age pension, registration at public employment office, duration of registration at public employment office, economic activity of the local unit, legal form of the local unit.

Reference population for weighting: Population living in private households and in collective households.

Description: The weighting procedure is based on a two-phase process.

1. The design weights are obtained as the reciprocal of the inclusion probability of the sample units.
2. These weights are adjusted for non-response and finally the sample is calibrated on age, sex, canton of residence (NUTS3), and other variables (nationality, residence permit, duration of residence, marital status, labour market status, number of jobs, income decile, grade of invalidity to work, reception of invalidity or old age pension, registration at public employment office, duration of registration at public employment office, economic activity of the local unit, legal form of the local unit) using the calibration software CALMAR. Additionally, the household type is used for the adjustment of non-response.

SERBIA (RS)

Background

The LFS is conducted as a continuous quarterly survey throughout the year. The survey provides quarterly and annual (averages) results. Since 2008, the questionnaire has continuously been harmonised to reach compliance with latest Eurostat recommendations. From 2021 SORS is harmonized with the latest Regulation (EU) 2019/1700 of the European Parliament and of the Council, by which main category of labor force (employed, unemployed and outside the labor force) are changed. The main change, among others, relates to excluding those who produce goods and services for own final use from the category of employed persons and their distribution to unemployed and inactive. Major changes in recent years include the following:

- 2010: Delivery of microdata to Eurostat.
- 2010: LFS carried out on semi-annual basis. One fixed reference week per semester.
- 2012: Yearly sample increased to 20 048 households (1 432 households more than 2011).
- 2013: Sampling frame is the Population Census 2011. Yearly sample increased to 22 196 households. Adoption of ISCO-08 classification.
- 2014: LFS carried out quarterly. One fixed reference week per quarter. Sample revision including the introduction of the rotational pattern 2-(2)-2. Yearly sample increased to 44 660 households (sampling rate 1.8%). Weighting procedure changed. Adoption of ISCED 2011 classification. CAPI instead of PAPI introduced in the fourth quarter.
- 2015: LFS carried out continuously. Yearly sample increased to 54 578 households (yearly sampling rate 2.2%).
- 2016: Yearly sample increased to 67 150 households (yearly sampling rate 2.7%). Weighting procedure updated and back calculation of new weights performed back to 2014. Results in a break in Q1 2014. Adoption of ISCED-F 2013 classification.
- 2017: Yearly sample increased to 70 200 households (yearly sampling rate 2.8%).
- 2018: Yearly sample increased to 74 360 households (yearly sampling rate 3.0%).
- 2019: Yearly sample increased to 76 960 households (yearly sampling rate 3.1%).
- 2021: Redesign of EU-LFS questionnaire and methodology in accordance with Regulation (EU) 2019/1700. Back calculation of main indicators for period 2010-2020 in accordance with the new methodology.

Coverage

Population interviewed for employment status: 15 – 89 years.

Population concept: Usual residence (12 months).

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Family home if economically dependent, otherwise term address.
- People working out of family home for an extended period for the purpose of work: Family home if they considerably contribute to the income of the household and do not have another family, otherwise term address.
- People working away from family home but returning for weekends: Family home.
- Children alternating two places of residence: 'Most of the time' criteria.

Household concept: Housekeeping.

Household definition: Members living together in the same dwelling sharing income and household expenses.

Participation: Voluntary.

Description: The survey covers private households in the whole country.

Household members are family members or persons who declare to live together and jointly spend their income for basic living support (cost of housing, food, etc.). Single-person households are persons living alone and not members of any other household, for example tenants living in separate/divided dwellings, or sharing a room with another tenant but not sharing income but only paying for the housing. For temporary absent persons (less than one year), data is obtained from other family members. Persons absent more than one year are excluded, except in case when they considerably contribute to the income of the household. Data for students living elsewhere in the country is obtained from the original household, if they are economically dependent from that household. Institutional households are excluded.

Sampling strategy

Sampling design: Two stages stratified rotation panel.

Sampling frame: 2011 population Census.

Sampling units: The PSU is the enumeration district (ED) and the FSU is the household.

Sampling method: In the first stage of sampling, the PSUs are stratified by regions (NUTS3) and type of place of residence (urban/other). In the second stage the households are randomly selected.

Achieved sample size (quarterly average): 11 200 households.

Sampling rate: 0.80%.

Rotation scheme: 2-(2)-2.

Description: PSUs are selected systematically with probability proportional to their size (PPS) within each stratum (territory and settlement type) from the ED list. The size measure for each ED is the number of persons, aged 15 years and older. EDs for each rotation group are stratified according to the type of settlement (urban and other) and 25 areas (NUTS 3 level). EDs are sorted within each stratum according to the municipality and serial numbers. By using systematic selection on the sorted list, a high level of implicit geographical stratification and effective sample distribution is provided. FSUs are randomly selected, from the household list, obtained for each ED. The sample for each quarter consists of four rotational groups (sub-samples), with a 2-(2)-2 rotation scheme. The overlap between two consecutive quarters is 50%.

Data collection

Techniques adopted: CAPI – CATI.

Interviews by technique distribution: CATI 62%, CAPI 38%.

Response rate: 72.7%.

Proxy rate (15-74 years): 53.0%.

Description: The EU-LFS is based on a mixed-mode design. The data collection mode is CAPI in the 1st and the later waves if no phone contact is available. For the 2nd to the 4th waves, the data is collected by CATI, if a phone contact is available.

The non-response rate was 27.3%. Among the non-response, refusals amounted to 22.8%.

Weighting procedure

Method: Inverse of inclusion probability, then correction for non-response, then calibration.

Variables used: Sex, five-year age groups, NUTS3, number of households members (six groups).

Reference population for weighting: The reference population for calibration includes the population in collective households.

Description: The initial weight for households is equal to the inverse of inclusion probability (this inclusion probability is a product of inclusion probabilities from each stage), and corrects for non-response. In order to obtain estimates for the population that corresponds to the current demographics projections, a calibration procedure is performed based on the distribution of the population by sex, age (five-year age groups), level of territory (level NUTS3), and the distribution of households according to the number of household members (six groups) at the level of territory. The household and each person from that household have the same final weight.

TURKEY (TR)

Background

The LFS started in 1966. The regular annual LFS applying ILO recommendations started in October 1988. The Turkish LFS was carried out in April and October each year from 1989 to 1999 with major changes in design introduced in October 1994. From 2000 onwards, the survey has produced quarterly results. In 2004, the questionnaire was revised to comply with the Eurostat regulation. Between the years 2005 and 2020, monthly results published by using 3-month moving averages. Since 2014, the survey is conducted throughout the whole year (all 52 weeks). Major changes in recent years include the following:

- 2006: Delivery of microdata to Eurostat.
- 2009: Changes to the questionnaire, including: an improved verification of ILO labour status of seasonal workers; the deletion of some variables considered unsuitable for the country situation (ex; variables on atypical works); fine tunings on the wording of some questions, to better align with the Commission Regulation No. 1897/2000 and in particular to the twelve principles for the formulation of questions on labour status. Definition for resident population aligned to the Census 2011 recommendations, mainly regarding the treatment of students.
- 2014: Fully introduction of continuous survey, changes in the sampling design and in the weighting scheme.
- 2020: The sample design has been updated to meet the requirements of Eurostat's Implementation Regulation No. 2019/2240 and to produce independent main labour force indicators for the relevant month. Accordingly, the quarterly sample size was increased from 44 000 to 58 560 households without deteriorating the basic structure of the sample design.
- 2021: The questionnaire is revised to comply with the 19th ICLS Resolutions of the ICLS and the Implementing Regulation (EU) 2019/2240. Also, the results started to be published as independent monthly direct estimates.

Coverage

Population interviewed for employment status: 15 years and older.

Population concept: Usual residence (12 months).

Place of residence for specific population subgroups:

- Primary/secondary students: Family home.
- Tertiary students: Term address.
- People working out of family home for an extended period for the purpose of work: Family home (if less than one year).
- People working away from family home but returning within 15 days: Family home.
- Children alternating two places of residence: Family home.

Household concept: Dwelling.

Household definition: Members living together in the same dwelling.

Participation: Compulsory.

Description: All private households who are living in the territory of Turkish Republic are covered. Residents of schools (students living in dormitories), people living in rest/eventide homes and orphans home, special hospitals and military barracks (conscripts are excluded while army forces are included) are not covered (institutional population). The population surveyed comprises all persons in the country excluding residents of collective households. Small settlements (villages, districts, etc.) that have less than 20 households are not covered in the sampling frame (at most 1% of the population is excluded).

A household comprises one person or a group of persons with or without a family relationship who live in the same house or in the same part of the house, who meet their common requirements together and take part in household keeping activities. The condition of stay 12 months or intention to stay is required for inclusion in the household.

Sampling strategy

Sampling design: Two stages stratified sampling plan.

Sampling frame: National Addresses Database and Address Based Population Register System

Sampling units: The PSU is the cluster (block) consisting about 100 household addresses and FSU is the household address.

Sampling method: In the first stage of sampling, the PSUs are selected using probability proportional to size sampling. In the second stage the FSUs are selected using systematic sampling.

Achieved sample size (quarterly average): 50 287 households.

Sampling rate: 0.22%.

Rotation scheme: 2-(2)-2.

Description: The sampling frame consists household addresses from National Address Database in which at least 1 person is registered according to Address Based Register System Although National Address Database is continuously updated, the sampling frame is updated twice a year in February and August.

The sampling design is a two stage stratified cluster sampling with eight sub-samples. PSUs are selected with probability proportional to their household sizes from NUTS3 (Province) x Urban/Rural classes. At the first stage of sampling, the implicit strata are defined as 81 provinces and urban-rural areas (158 strata since each province has not a rural area). An urban area is defined as a settlement with more than 20 000 inhabitants, rural area is defined as a settlement with less than or equal to 20 000 inhabitants based on current Address Based Population Register System. The selection of the FSUs is based on the rotation pattern. When the PSU's are entered to the sample for the first time, 20 households are selected systematically and divided into two parts namely the sets A and B. Every quarter ten of those (one set A or B) are involved in the survey.

Data collection

Techniques adopted: CAPI - CATI.

Interviews by technique distribution: CATI 65%, CAPI 35%.

Response rate: 96.1%.

Proxy rate (15-74 years): 10.4%.

Description: The data is collected by CAPI-CATI. The first interviews are performed by CAPI technique. Interviews in the second and subsequent waves are mainly carried out by CATI.

Overall non-response rate was 3.9% and refusals accounted for 5.8% of the total non-response.

Weighting procedure

Method: Calibration.

Variables used: Sex, age groups, NUTS2 x type of place of residence (urban/rural), NUTS3 (province), household size.

Reference population for weighting: Population living in private households.

Description: Since 2021, independent monthly estimates have been published. The weighting procedure for monthly estimates is based on a three-phase process:

1. Initial weights (design weights) are calculated inversely proportional to their selection probabilities (proportional probability selection at the first stage, systematic at the second stage).
2. Non-response adjustment (excluding the out of scope units with their weights) of households is applied on the basis of blocks, thus initial weights are adjusted for non-response.
3. The weights are calibrated by the '15th of the relevant month projections' created on Address Based Population Register (non-institutional population). In the procedure, an integrated calibration method is applied. Furthermore, a trimming procedure is applied to avoid the use of extreme weights. In the calibration, "Age group by sex", "NUTS 2 by urban-rural", "NUTS 3", and "Household size" distributions are adjusted iteratively.

The quarterly weights are calculated by taking the weighted averages of the relevant months according to the number of weeks in the months. For the yearly weights, the initial weights, adjusted by the nonresponse of each month which were already calculated during the year, are defined as the input weights in the calibration procedure. After bringing together all data the weights are calibrated by the "1st of July of the related year population projections" based on Address Based Population Register (non-institutional population). Integrated calibration method is applied in the procedure. Also trimming procedure is applied to avoid the use of extreme weights. In the calibration, "Age group by sex", "NUTS 2 by urban-rural", "NUTS 3", and "Household size" distributions are adjusted iteratively.

Glossary

Target population

The target population is the population about which information is sought and estimates are required. For the EU-LFS, the target population consists of all persons residing in private households in the territory of the reporting country at the time of the data collection.

For all participating countries, with only some exceptions, the population interviewed about the employment status is generally between 15 and 89 years old.

Population concept

For the majority of the countries, the definition of the population currently relies on the concept of the 'usual residence', which is founded on UN recommendations where the 'usual residence' is the place where a person normally spends the daily period of rest, regardless of temporary absences for purposes of recreation, holidays, visits to friends and relatives, business, medical treatment or religious pilgrimage.

Article 2 of the [Regulation \(EC\) 2019/1700](#) and Articles 3 and 4 of the [Commission Implementing Regulation \(EU\) 2019/2181](#) define the concept of 'usual residence' and specify the rules for specific cases. Please note that these two regulations entered into force on January the 1st, 2021.

Specific population subgroups

Regarding specific population subgroups, the rules mentioned in Articles 3 and 4 of the [Commission Implementing Regulation \(EU\) 2019/2181](#), entering into force on January 1st 2021, should be understood as follows:

- 'Family home' means a housing unit occupied by the members of a multi-person household, as well as by a

person who spends some time elsewhere but retains close ties with the members of the multi-person private household, especially through family relationships or regular stays.

- 'Term address' is used for people who mainly live in a private household different from the household object of the survey. This concept is usually applied to tertiary students and, in specific circumstances, to persons outside the family home for an extended period of time for the purpose of work. People are out of scope if they live in a collective household.
- The 'most of the time' criteria is applied for persons outside the family home for an extended period of time (e.g. for the purpose of work). Their place of usual residence is the family home, if they significantly contribute to the household income and are not usual residents of any other private household. The 'most of the time' criteria is also applied for children alternating between two places of residence. In case of an equal amount of time spent there, the place in the reference week is to be chosen and, in specific circumstances, the place of usual residence of the guardian who receives the child benefit.

Household concept

The household concept mainly refers to housekeeping and dwelling concepts:

- The 'housekeeping' concept refers to persons who live together, providing oneself or themselves with the essentials of living; persons who usually reside together in a housing unit or part of a housing unit and share income or household expenses.
- The 'dwelling' concept refers to buildings, part thereof, other premises or living quarters used for human habitation and includes 'conventional dwellings' and 'other housing units' as defined in the Annex to [Commission Regulation \(EC\) No 1201/2009](#).

Sampling design

The sampling design specifies the way (rules and operations) the sample is drawn.

Stratification

Stratified random sampling is a method of sampling that involves the division of a reference population into smaller groups known as strata. In stratified random sampling, or stratification, the strata are formed based on members' shared attributes or characteristics. In general, not all the elements of the strata are sampled, but a further selection procedure is applied at the strata level.

Clustering

Cluster sampling or clustering is a sampling method in which the reference population is divided into groups (known as clusters) and a simple random sample of the groups is selected. Then, all the elements in each selected cluster are included in the sample.

Sampling frame

The sampling frame is the reference list(s) from which the sample (e.g. individuals, households, addresses or dwellings) is drawn.

Sampling unit

A sampling unit is one of the units into which the sampling frame is divided for the purpose of sampling, each unit being regarded as individual and indivisible when the selection is made. In case of two stage sample design the units selected in the first stage is called primary sample unit (PSU) while the final selected statistical unit is called final sampling unit (FSU)

In the context of the EU-LFS, final sampling units are generally dwellings, households, addresses or individuals.

Sampling rate

The sampling rate is the ratio between the size of the sample and the size of the reference population from which the sample was selected.

Rotation scheme

The sample rotation scheme specifies how often and for which reference quarters a sampling unit should provide information in the survey.

The schemes adopted by countries are:

- **2-(2)-2:** Each unit is interviewed four times in the course of six quarters. Respondents are interviewed in two consecutive quarters, then they are temporarily removed for the next two quarters and entered again for the following two quarters, thereafter being ultimately removed from the survey. It involves an overlap of 50% between consecutive quarters and 50% between the same quarters in consecutive years.
- **5-:** Each unit is interviewed five times in the course of five quarters. Sampling units are asked to take part in the survey for five consecutive quarters and are then replaced by other units. Thus, one fifth of the units in the survey is replaced each quarter and it involves an overlap of 80% between consecutive quarters and 20% between the same quarters in consecutive years.
- **6-:** Each unit is interviewed six times in the course of six quarters. Sampling units are asked to take part in the survey for six consecutive quarters and they are then replaced by other units. Thus, one sixth of the units in the survey is replaced each quarter and it involves an overlap of 83.3% between consecutive quarters and 33.3% between the same quarters in consecutive years.
- **4- On annual basis:** Each unit is interviewed once per year. Each sampling unit remains in the sample for four years and 25% of the sample is replaced each year.
- **3-(1)-2:** Each unit is interviewed five times in the course of six quarters. Respondents are interviewed in three consecutive quarters, then temporarily removed for the next quarter and entered again for the following two quarters, thereafter being definitively removed from the survey. It involves an overlap of 60% between consecutive quarters and 40% between the same quarters in consecutive years.
- **8-:** Each unit is interviewed eight times in the course of eight quarters. Sampling units are asked to take part in the survey for eight consecutive quarters and are then replaced by other units. Thus, one eighth of the units in the survey is replaced each quarter and it involves an overlap of 87.5% between consecutive quarters and 50% between the same quarters in consecutive years.
- **3-(2)-2:** Each unit is interviewed five times in the course of seven quarters. Respondents are interviewed in three consecutive quarters, then they are temporarily removed for the next two quarters and entered again for the

following two quarters, thereafter being definitively removed from the survey. It involves an overlap of 60% between consecutive quarters and 40% between the same quarters in consecutive years.

Data collection techniques

The different kinds of data collection modes used in the EU-LFS are the following:

- **PAPI (Paper and Pencil Interviewing):** PAPI is a face-to-face interviewing technique in which the interviewer enters the responses into a paper questionnaire. If no interviewer is present and respondents enter the answers themselves, it is considered a self-administered questionnaire.
- **CAPI (Computer Assisted Personal Interviewing):** CAPI is a face-to-face interviewing technique in which the interviewer uses a computer to administer the questionnaire. Responses are directly entered into the application and control and editing can be directly performed.
- **CATI (Computer Assisted Telephone Interviewing):** CATI is a telephone surveying technique in which the interviewer follows a questionnaire displayed on a screen. Responses are directly entered into the application. It is a structured system of interviewing that speeds up the collection, control and editing of the information collected.
- **CAWI (Computer Assisted Web Interviewing):** CAWI is an Internet surveying technique in which respondents follow a questionnaire provided on a website and enter the responses into the application themselves.

Proxy rate

The proxy rate is the percentage of proxy interviews among all interviews. A proxy interview is an interview with someone (e.g. one member of the household) other than the person for whom information is being sought.

Response rate

The response rate is the ratio of the number of units for which data (for at least some variables) has been collected to the total number of units designated for data collection. Most of the countries calculate non-response on the basis of the household unit, with the exception of Denmark, Estonia, Luxembourg, Netherlands, Finland, Sweden, Norway and Switzerland, which calculate non-response at the level of the individuals.

Weighting methods

The main methods adopted from the countries to compute weights are:

- **Post-stratification:** Post-stratification is applied to survey data by stratifying sample units after the data collection by using information collected in the survey and auxiliary information to adjust weights to population control totals or for non-response adjustment.
- **Calibration:** The calibration approach to estimate for finite populations consists of:
 - A computation of weights that incorporate specified auxiliary information and are restrained by calibration equation(s);
 - The use of these weights to compute linearly weighted estimates of totals and other finite population parameters: weight times variable value, summed over a set of observed units;
 - An objective to obtain nearly design unbiased estimates as long as non-response and other non-sampling errors are absent.
- **Generalised regression estimation:** Generalised regression estimator (GREG) is a model assisted estimation method designed to improve the accuracy of the estimates by means of auxiliary information. GREG estimator guarantees the coherence between sampling estimates and known totals of the auxiliary variables as well.

Annex (Tables)

TABLE 1:

Coverage of the EU-LFS by country, 2021

Country	Participation	Basis of sampling frame
Belgium	Compulsory	National Population Register NPR
Bulgaria	Voluntary	Population Census 2011
Czechia	Voluntary	Register of Census Areas
Denmark	Voluntary	Population Register and other registers
Germany	Compulsory	Census 2011 updated with data from building licenses (2017)
Estonia	Voluntary	Census 2011 + Population register
Ireland	Voluntary	Census 2016
Greece	Voluntary	Census 2011
Spain	Compulsory	Census 2011 + Population registers
France	Compulsory	FIDELI built from Tax registers + annual population census in overseas
Croatia	Voluntary	Census 2011
Italy	Compulsory	Resident population and households register
Cyprus	Compulsory	Census 2011 updated by electricity consumers register
Latvia	Voluntary	Population register and the National Real Estate
Lithuania	Voluntary	Population register
Luxembourg	Compulsory	Population Register
Hungary	Voluntary	Register of dwellings
Malta	Compulsory	Statistical population register
Netherlands	Voluntary	List of postal addresses and population register
Austria	Compulsory	Register of residents
Poland	Voluntary	OBS - statistical sampling frame for social surveys
Portugal	Compulsory	National Dwellings Register (NDR) (based on Census 2011)
Romania	Voluntary	Master sample updated by Census 2011
Slovenia	Voluntary	Central Population register
Slovakia	Compulsory	Census 2011
Finland	Voluntary	Population Information System
Sweden	Voluntary	Population Register

Country	Participation	Basis of sampling frame
Norway	Compulsory	Population and Household Register
Switzerland	Voluntary	Sampling Frame for Person and Household Surveys (register of residents)
Serbia	Voluntary	National Address Database
Turkey	Compulsory	National Address Database

TABLE 2:**Sampling designs of the EU-LFS by country, 2021**

Country	Sampling design	Primary sampling unit	Final sampling unit	Variables used for the stratification	Overall sampling rate per quarter, %
Belgium	Two stage stratified	Statistical section, or part of a sub-municipality consisting of several statistical sections	Households	NUTS 2 Regions	0.14
Bulgaria	Two stage stratified	Census enumeration districts	Households	Administrative districts (NUTS3), type of place of residence (urban/rural)	0.65
Czechia	Two stage stratified	Census areas	Dwellings	Region (districts, Prague 1 district)	0.60
Denmark	One stage stratified	-	Persons	Gross income, net unemployment from registers, socioeconomic status and age.	0.77
Germany	One stage cluster	Sampling districts	Dwellings, households and persons	Region and size of building	0.10
Estonia	One stage stratified	-	Persons	Group of regions by population size	0.69
Ireland	Two stage stratified	Census blocks (of 60 households)	Households	Pobal HP Deprivation Index	0.70
Greece	Two stage stratified	Blocks of buildings	Dwellings	Region (NUTS3) (2-3 strata for each) - Athens -Thessaloniki apart	0.93
Spain	Two stage stratified	Geographical areas	Dwellings	Population size of municipality	0.36
France	Two stage stratified (one stage stratified overseas)	Geographical sectors (No PSU overseas)	Dwellings	French region (NUTS2 - Metrop.) + infra NUTS3 (DOM)	0.21
Croatia	Two stage stratified	Segments based on Census areas	Dwellings	Region (NUTS2), urban/rural areas	0.70
Italy	Two stage stratified	Municipalities	Households	Size categories of municipalities within NUTS3 region	0.28
Cyprus	One stage stratified	-	Households	Districts, urban/rural	1.30

Country	Sampling design	Primary sampling unit	Final sampling unit	Variables used for the stratification	Overall sampling rate per quarter, %
Latvia	Two stage stratified	Sampling areas	Dwellings	Type of territory	0.88
Lithuania	Simple Random Sampling	-	Households	-	1.00
Luxembourg	Simple Random Sampling	-	Persons	-	1.50
Hungary	Two stage stratified	Localities	Dwellings	NUTS3 regions and size of localities	0.80
Malta	Systematic Random sampling	-	Households	-	1.51
Netherlands	Two stage stratified	NUTS3 - Corop regions	Persons	NUTS3 - Corop regions	1.13
Austria	One stage stratified	-	Dwellings	Region (Bundesländer - NUTS2)	0.60
Poland	Two stage stratified	Census clusters (towns) / enumeration districts (rural)	Dwellings	Region (NUTS2), urban/rural	0.40
Portugal	Two stage cluster	Geographical areas	Dwellings	Region (NUTS3)	0.60
Romania	Two stage stratified	Census sections	Dwellings	Region (NUTS3), urban/rural	0.38
Slovenia	Simple Random Sampling	-	Households	Region (NUTS3), type of settlement	0.90
Slovakia	Two stage stratified	Census administrative units	Dwellings	Region	0.60
Finland	One stage stratified	-	Persons	Region (NUTS1), age	0.82
Sweden	One stage stratified	-	Persons	Sex, County	0.50
Norway	One stage stratified	-	Persons	Age, region (NUTS 2), register labour market status	0.41
Switzerland	Two stage stratified	Households	Persons	Canton of residence	0.54
Serbia	Two stage stratified	Enumeration districts	Households	Region (NUTS3), urban/rural areas	0.80
Turkey	Two stage stratified	Household blocks	Household Address	Region (NUTS3), urban/rural areas	0.22

TABLE 3:**Rotation scheme, response and proxy rates, weighting and achieved sample in the EU-LFS by country, 2021**

Country	Rotation scheme	Response rate, %	Proxy rate, %	Achieved sample ⁽¹⁾ , households	Achieved sample ⁽¹⁾ , persons (15-89)	Variables of weighting
Belgium	2-(2)-2	79.1	26.9	14 300	27 300	Sex, age group, regions (NUTS2), household type and origin, level of urbanization
Bulgaria	2-(2)-2	76.8	26.8	13 700	26 900	Sex, age group, region (NUTS3), type of place of residence (urban/rural)
Czechia	5-	76.3	41.3	23 400	42 300	Sex, age group, district
Denmark	2-(2)-2	49.4	6.6	-	17 300	Sex, age group, socio-economic status, income, nationality, level of education, status in the unemployment register, region
Germany	2-(2)-2	85.0	19.4	58 000	100 300	Sex, age group, region NUTS2, nationality, education and employment status, number and size of household
Estonia	2-(2)-2	70.4	23.5	4 700	5 900	Sex, age group, region(LAU), urban/rural, national/non-national, educational level
Ireland	5-	35.2	50.8	11 300	22 800	Sex, age group, region (NUTS3), nationality
Greece	6-	53.1	46.6	20 500	38 200	Sex, age group, region (NUTS2)
Spain	6-	84.1	49.4	55 500	116 200	Sex, age group, region (NUTS2 & NUTS3), nationals/non-nationals, dwelling size
France	6-	74.3	23.4	48 700	84 500	Sex, age group, region (NUTS2), house characteristics and typology, other variables

1 Quarterly average 2021

Country	Rotation scheme	Response rate, %	Proxy rate, %	Achieved sample ⁽¹⁾ , households	Achieved sample ⁽¹⁾ , persons (15-89)	Variables of weighting
Croatia	2-(2)-2	57.4	51.3	4 000	8 600	Sex, age group, region (NUTS2-NUTS3), urban/rural, household size
Italy	2-(2)-2	76.6	36.1	55 200	108 100	Sex, age group, region (NUTS3), EU/non EU citizenship, number of households, metropolitan areas
Cyprus	6-	93.4	47.0	3 700	8 000	Sex, age group, (Districts, urban/rural)
Latvia	2-(2)-2	61.4	39.0	4 600	8 100	Sex, age group, region (NUTS3), type of municipality, employment agency reg, revenue service reg.
Lithuania	2-(2)-2	78.0	34.5	6 100	10 600	Sex, age group, municipality (LAU), urban/rural
Luxembourg	5-	58.6	0.0	-	5 300	Sex, age group, national / non-national
Hungary	6-	71.4	45.1	24 700	47 900	Sex, age group, region (NUTS3), number of households, urban/rural
Malta	2-(2)-2	76.3	41.5	2 300	5 100	Sex, age group, district (NUTS4), number of households, nationality and registered employed non-nationals
Netherlands	5-	50.0	0.0	-	33 700	Sex, age group, NUTS3, ethnic background, household type, income and registration at unemployment office
Austria	5-	94.9	18.3	20 400	36 800	Sex, age group, region (NUTS2), nationality (group), household size, register based labour status
Poland	2-(2)-2	64.8	42.1	30 000	61 800	Sex, age group, region (NUTS2), urban/rural, reference week
Portugal	6-	53.4	51.1	13 500	29 000	Sex, age group, region (NUTS2, NUTS3)

Country	Rotation scheme	Response rate, %	Proxy rate, %	Achieved sample ⁽¹⁾ , households	Achieved sample ⁽¹⁾ , persons (15-89)	Variables of weighting
Romania	2-(2)-2	85.9	28.1	22 700	49 500	Sex, age group, region (NUTS2), urban/rural, households total
Slovenia	2-(2)-2	49.4	52.1	7 400	16 100	Sex, age group, region (NUTS3), type of settlement
Slovakia	5-	76.5	51.3	8 200	17 400	Sex, age group, region (NUTS3)
Finland	3-(1)-2	51.9	5.8	-	19 900	Sex, age group, region (NUTS2/NUTS3), level of education, reference week, and other
Sweden	8-	48.3	1.9	-	20 800	Sex, age group, region (NUTS3), country of birth, registered employment / unemployment
Norway	8-	78.0	0.0	18 000	18 000	Sex, age group, region (NUTS2), employment status, country of birth, and other
Switzerland	2-(2)-2	79.0	1.1	-	31 100	Sex, age group, region (NUTS3), and other
Serbia	2-(2)-2	72.7	53.0	11 200	24 500	Sex, age group, region (NUTS3), household size
Turkey	2-(2)-2	96.1	10.4	50 300	122 200	Sex, age group, region (NUTS2/NUTS3), urban/rural, household size

GETTING IN TOUCH WITH THE EU

In person

All over the European Union there are hundreds of Europe Direct centres. You can find the address of the centre nearest you online (european-union.europa.eu/contact-eu/meet-us_en).

On the phone or in writing

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696,
- via the following form: european-union.europa.eu/contact-eu/write-us_en.

FINDING INFORMATION ABOUT THE EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website (european-union.europa.eu).

EU publications

You can view or order EU publications at op.europa.eu/en/publications. Multiple copies of free publications can be obtained by contacting Europe Direct or your local documentation centre (european-union.europa.eu/contact-eu/meet-us_en).

EU law and related documents

For access to legal information from the EU, including all EU law since 1951 in all the official language versions, go to EUR-Lex (eur-lex.europa.eu).

EU open data

The portal data.europa.eu provides access to open datasets from the EU institutions, bodies and agencies. These can be downloaded and reused for free, for both commercial and non-commercial purposes. The portal also provides access to a wealth of datasets from European countries.

Labour force survey in the EU, EFTA and candidate countries

This report describes the main characteristics of the European Union Labour Force Survey (EU-LFS) conducted in 2021 in the Member States of the European Union (EU), two EFTA countries (Norway and Switzerland) and two candidate countries (Serbia and Turkey).

All these countries provide Eurostat with EU-LFS micro-data for publication. The purpose of this report is to inform about the technical features of the surveys carried out in these countries, in order to enable users to interpret the EU-LFS results accurately.

In 2021, the Integrated European Social Statistics Framework Regulation (IESS FR) entered into force as Regulation (EU) 2019/1700 and its Implementing Regulation (EU) 2019/2240 for the labour force domain.

For more information

<https://ec.europa.eu/eurostat/>



Publications Office
of the European Union

ISBN 978-92-68-14844-0