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### 1 Introduction

The present report is the Quality Report on the European Union Labour Force Survey (EU-LFS) for the year 2012.

The quality concept applied in this report is in conformity with the definition developed by the European Statistical System. In this definition quality consists of the following components: relevance, accuracy, timeliness and punctuality, accessibility and clarity, comparability and coherence. Each quality component consists also of several sub-components. Each of the quality components is explained shortly at the start of each section in the following report(<sup>1</sup>).

The individual country quality reports that were delivered to Eurostat during summer 2013 constitute the main source for the present report. Other sources that have been used or consulted are meta-data information collected by Eurostat, national quality reports from previous years, websites of the individual countries, the LFS datasets for 2012 and the documentation of the public free data set maintained by Eurostat.

The present quality report follows closely the standard Quality Report format that has been developed within Eurostat. In many instances, however, it is impossible to present the data exactly as prescribed by the standard Eurostat format, as this is geared to report homogeneous production processes within each country. This is not the case for the EU-LFS, which is the result of the collection of national data sets from NSIs. In some cases the information from the individual countries was not sufficient to provide an exact summary.

The quality reports provide also information on unemployment statistics at regional level, as the reporting of quality is a joint effort of the units within Eurostat dealing with labour force surveys and with regional employment and unemployment. The last chapter of the present report covers the regional aspects.

This quality report complements the methodological working paper describing the characteristics of the national surveys in the Member States, Candidate Countries and the EFTA countries, also available on the Eurostat website( $^2$ ).

Eurostat wishes to thank the many experts in the countries participating in the conduct of the EU-LFS, providing the data and descriptions as well as their support necessary for this report.

<sup>(&</sup>lt;sup>1</sup>) Most of the introductory texts shortly explaining each quality component are taken from the 'ESS Standard for Quality Reports', available at:

http://epp.eurostat.ec.europa.eu/portal/page/portal/ver-1/quality/documents/ESQR\_FINAL.pdf (<sup>2</sup>) Available at:

http://epp.eurostat.ec.europa.eu/portal/page/portal/product\_details/publication?p\_product\_code=KS-TC-13-003

## 2 Overview of designs and methods of the EU-LFS in 2012

#### 2.1 Coverage

This document covers all the thirty-three countries (participating countries) providing Eurostat with micro-data from their labour force surveys in 2012: the 28 Member States of the European Union, three EFTA countries (Iceland, which at the same time is a candidate country, Norway and Switzerland), and two candidate countries, i.e. the former Yugoslav Republic of Macedonia(<sup>3</sup>) and Turkey. All the territories of participating countries are covered, except for Cyprus which only covers the areas under the control of the government of the Republic of Cyprus, and except for the French overseas departments  $(DOM)(^4)$ .

The EU-LFS covers persons in private households. However, in several countries also members of collective households are sampled, either directly (register based sampling frames) or indirectly through their relationship with the sampled household.

In Eurostat datasets all age groups are represented for all participating countries, with the exception of Iceland, Norway, Sweden and Switzerland, which only provide data respectively for those aged 16-74, 15-74 (Norway and Sweden) and 15 and more.

#### 2.2 Legal basis

The EU-LFS is based on European legislation since 1973. The principal legal act is the Council Regulation (EC) No. 577/98. The regulations are an important element assuring the quality of the EU-LFS. They stipulate the rules and guidelines to assure the comparability of the results by regulating the survey designs, the survey characteristics, methods and the decision making processes of the EU-LFS. A detailed overview on the EU-LFS regulations is published in Statistics Explained "EU-LFS – main features and legal basis".

In addition to European regulations, many participating countries have their own national legislation for the conduct of a labour force survey. Information on the national laws or regulations is not collected for this report.

#### 2.3 Compulsory participation

In 2012 the participation in the EU-LFS was compulsory in thirteen participating countries (Belgium, Germany, Greece, Spain, France, Italy, Cyprus, Malta, Austria, Portugal, Slovakia, Norway and Turkey), and voluntary in the other  $countries(^5)$ .

#### 2.4 Reference week

The EU-LFS is designed as a continuous quarterly survey with interviews spread uniformly over all weeks of a quarter. Each reference week starts on Monday and ends on

<sup>(&</sup>lt;sup>3</sup>) In some tables of this report the abbreviation MK is used for the former Yugoslav Republic of Macedonia. This is a provisional code which does not prejudice in any way the definitive nomenclature for this country, which will be agreed following the conclusions of negotiations currently taking place on this subject at the United Nations.

<sup>(&</sup>lt;sup>4</sup>) The French overseas departments (*Département d'outre-mer* - DOM) only have a partial coverage over time, as data collection only refers to quarter 2. In the present document only data for Metropolitan France are presented.

<sup>(&</sup>lt;sup>5</sup>) Switzerland changed the participation from compulsory to voluntary in the third quarter 2012.

Sunday. The first week of a year or quarter is defined as the week that includes the first Thursday of the year or the quarter. All countries conduct the LFS as a continuous survey, except Turkey. Turkey, although producing quarterly results, only covers the first week of each month for the time being.

#### 2.5 Periodicity of the results

All participating countries in the EU-LFS in 2012 produce quarterly estimates (<sup>6</sup>).

#### 2.6 Sampling designs

The sampling designs in the EU-LFS are very varied. Most NSIs use some kind of multistaged stratified random sample design, especially those that do not have central population registers available.

#### Bases used for the sample

Population registers and the latest Population Census or list of addresses used in that Census are the two main sources for the sampling frame. Other sources include lists of addresses from, e.g., the Postal Authorities or Utility databases. Belgium, Estonia, Italy, Lithuania, Luxembourg, Austria, Norway, Finland, Sweden, Iceland, and Slovenia use the Population Registers as the sole basis while the Netherlands complete this information with postal data, Denmark with other registers, Latvia and Spain with Census information. Germany grounds the sample frame on the 1987 Census in the western part(<sup>7</sup>) and on the Central Population Register, based on the 1981 Census, in the east, both updated by the Register of new dwellings. France uses the tax register.

Sampling stages and primary sampling units (PSU)

Denmark, Germany, Luxembourg, Malta, Austria, Slovenia, Finland, Sweden, the United Kingdom, Iceland, Estonia, Lithuania and Norway use a single stage sampling or single stage cluster sampling design. All other countries use a two or three stage sampling design, usually selecting municipalities, administrative districts or census enumeration areas in the first stage<sup>(8)</sup>.

#### Ultimate sampling units

Three types of ultimate sampling units are employed: 1) households, 2) dwellings/ addresses and 3) persons. Germany, France, Portugal and Romania sample clusters of dwelling units. In samples of dwellings or addresses, usually all persons and thus all households residing within the dwelling/address are interviewed. When persons constitute the primary sampling units, the selected persons either constitute the final sample (Finland, Sweden, Denmark, Iceland, and Switzerland) or the sampled persons lead to a final sample comprised of the sampling units and their household members (Estonia, Lithuania, Norway and Slovenia).

<sup>(&</sup>lt;sup>6</sup>) Under Regulation (EC) No 577/98 a specific variables, referred to as structural variables, need to be surveyed only as annual averages with reference to 52 weeks rather than as quarterly averages (see chapter 2.10).

<sup>(&</sup>lt;sup>7</sup>) The continuous population updating procedure which updates last German census in 1987 in the western part and the Central Population Register in the east by using statistics on births, deaths and migration provides population figures used for calibration. These old updated bases which are used also as sample frame for dwellings not built after 1987 and 1981 respectively may lead to some bias in LFS results.

<sup>(&</sup>lt;sup>8</sup>) Ireland is a special case, using a two-stage cluster design (see EU-LFS quality report 2009).

#### Overall sampling rate

The theoretical sampling rate per quarter (ultimate sampling units) of the EU-LFS is 0.51 % (EU-28: 0.54 %). Luxembourg (4.0%) and Malta (2.3%) have by far the highest sampling rates per quarter, followed by Iceland (1.9 %) and Sweden (1.7%) while most other participating countries have sampling rates of 1 % or less. On average, the achieved quarterly sample in 2012 in all participating countries was 1.804 million individuals (EU-28: 1.508 million), of which 1.396 million were in the age group 15-74 years (EU-27: 1.165 million). The achieved sample in the EU-LFS is thus approximately 0.31 % of the total population.

#### Stratification

All countries, except Lithuania, Luxembourg, Malta and Iceland, stratify the sample frame prior to the sampling. All countries but Denmark use the region, either at NUTS 2, NUTS 3, and NUTS 4 level or nationally defined areas, as stratification variable. The degree of urbanization (France, Spain, Ireland, Cyprus, Latvia, Poland, Slovenia, Bulgaria) or the classification in "urban / rural area" (Romania) is also a common stratification variable. Other stratification variables include for example register status of individuals in employment/unemployment registers (Denmark) and auxiliary information about the characteristics (size, type) of the primary sampling units (Spain, France, Italy, Hungary).

#### 2.7 Rotation schemes

All participating countries except Belgium and Luxembourg use a rotating panel design for the samples. The number of panels (waves) ranges from two to eight. All panel designs foresee an overlap between one quarter and the successive one, except for Germany, which only has a year-to-year overlap. The most common panel design with a quarterly overlap in 2012, adopted by 13 participating countries, is 2-(2)-2, where sampled units are interviewed for two consecutive quarters, than stay out of the sample for the next two quarters and are included again two more times afterwards. Other widespread rotation patterns, each used by six countries, are in for 5 and in for 6 waves, where each panel is interviewed consecutively for five or six quarters before permanently leaving the sample. Three other rotation schemes are used by one or maximum two countries.

Depending on the national priorities with regard to the desired precision of change estimates, levels or annual averages, the number of waves and skip patterns lead to different outcomes of overlaps between two successive quarters or between the same quarters in two successive years. All panel designs with a quarter-to-quarter overlap foresee an overlap of 50 % or more(<sup>9</sup>) of the sample between two successive quarters. There is less emphasis on overlap between corresponding quarters in two successive years. Two countries, Belgium and Luxembourg, have no overlap; six countries have an overlap of 20 % while most other countries have an overlap ranging from 33 % to 50 %. Germany has 75 % overlap with the previous year.

#### 2.8 Calculation of the weighting factors

Council Regulation (EC) No 577/98 on the EU-LFS stipulates that weighting factors should take into account 'in particular the probability of selection and external data relating to the distribution of the population being surveyed, by sex, age (five-year age groups) and

 $<sup>(^9)</sup>$  These percentages are only theoretical; the actual overlaps are lower due to non-response and panel attrition.

region (NUTS 2 level), where such external data are held to be sufficiently reliable by the Member States concerned' (Article 3(5)).

The methods of calculating the weights differ considerably between countries. Two main methods are used, depending on the detail of the external information and whether or not this external information can be cross-tabulated: 1) inverse of the selection probabilities adjusted a posteriori to the population's distribution by sex, age groups and other external (administrative) sources, and 2) different variations of adjusting to marginal totals, including generalized calibration and generalized regression. Most of the countries adjust for non-response either directly in the weighting process or in a preliminary step before adjusting the weights to external sources.

Due to the complexity and number of factors taken into account in some of the weighting calculations, the requirement of the Regulation to use five-year age groups is not implemented in all countries. Almost all countries adjust the weighting factors to regional levels. These regions may, however, not necessarily correspond to the NUTS 2 regional classification.

All countries with the exception of Croatia use data on sex in the weighting process. Croatia does not either use age in calculating the weighting factors while five countries (Germany, Greece, Hungary, Malta, and Slovenia)(<sup>10</sup>) use broader age groups than fiveyear ones. All countries that have NUTS 2 regions defined use at least NUTS 2 regions for calculating the weights, but twenty-one countries (Bulgaria, the Czech Republic, Germany, Croatia, Estonia, Greece, Spain, Ireland, former Yugoslav Republic of Macedonia, Italy, Hungary, Latvia, Lithuania, Malta, Slovakia, Slovenia, Portugal, Finland, Sweden, Switzerland, and Norway) use a more detailed regional classification (NUTS 3 or LAU1; groups of NUTS 3).

Denmark, Finland, Sweden and Norway use register statistics on employment/ unemployment directly for weighting. In other countries, different external distributions or sources are frequently used both for weighting and stratification, such as urban/rural distinction, nationality, ethnicity, and size classes of regions or local areas.

Sixteen countries, namely Belgium, Germany, Estonia, Ireland, Malta, Lithuania, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden, the United Kingdom, Iceland, Norway and Switzerland, gross the sample to the total population, i.e. including people living in institutional households, although some of them do not (Belgium, Ireland, Malta, Slovenia and Switzerland) or only partially (Portugal, Romania, Slovakia) cover the institutional population in data collection.

#### 2.9 Data collection methods

Four modes of data collection exist for the EU-LFS: personal visits, telephone interviews, web interviews and self-administered questionnaires. Seventeen countries conduct the first wave always or mainly via personal visit, while subsequent waves are interviewed with telephone, if available. Germany collects data mainly with face-to-face interviews (using CAPI); persons not available for the interviewer or refusing oral interviews are in a few cases interviewed by telephone or more frequently fill in self-administered postal questionnaires. Denmark collects data for the core-LFS with telephone interviews (CATI), but for the household subsample computer assisted web interviews (CAWI) are used. Belgium conducts the interviews by means of face-to-face (CAPI), but in households of retired persons, interviews can be conducted by telephone. The Netherlands uses computer

<sup>(&</sup>lt;sup>10</sup>) Luxembourg, Poland, and Turkey use the five-year age groups up until the 60-64 years old.

assisted web interviews (CAWI), interviews by means of face-to-face (CAPI) and telephone interviews (CATI). Six countries (Luxembourg, Finland, Sweden, Iceland, Norway and Switzerland) rely solely on telephone interviews. Italy and Portugal use a mixed mode CAPI-CATI: CAPI mainly for first wave and CATI mainly for later waves. Five countries (Bulgaria, Ireland, Romania, Croatia and Turkey) collect data using only face-to-face interviews. Among those Ireland and Turkey using computerized questionnaires (CAPI).

Most countries conduct the interview only with computerized questionnaires. Four (Malta, Germany, Estonia and Poland) use both computerized and paper questionnaires and five countries (Bulgaria, Greece, Romania, Croatia) rely solely on paper questionnaires.

Due to the different data collection mode information on how long the interview lasted per household or person are hardly comparable. On average the overall time to collect the information for the household is around 30 minutes for the first waves and 20 minutes for the subsequent waves.

#### 2.10 Use of subsamples to survey structural variables

In 2012, nine countries (Bulgaria, Czech Republic, Spain, France, the Netherlands, Finland, the United Kingdom, Norway and Switzerland) use a subsample to survey all or some of the thirty-nine structural variables, taking advantage of this possibility offered by Regulation (EC) No 2257/2003. The subsample coincides with one rotation panel in total sample, except for France, Norway, which use both the first and the last survey waves, and Switzerland, which uses the first and the penultimate wave.

Regulation (EC) No 377/2008 stipulates that the estimates produced from the yearly subsample should be consistent with those obtained as annual averages of the full quarterly samples, at least as regards the ILO labour force status broken down by sex and 10-year age groups. This requirement aims at ensuring the consistency of the main indicators (e.g. the employment or the unemployment rates) and their break-downs produced from the two different databases. In 2012, such consistency is ensured by all countries with small deviations for France and the Netherlands.

#### 3 Relevance

Relevance is the degree to which statistics meet current and potential user needs. It depends on whether all statistics that are needed are produced and the extent to which concepts used (definitions, classifications etc.) reflect user needs. It can be assessed by analyzing the different users, who they are, what needs they have, whether they are satisfied etc.

Most EU statistics are compiled according to regulations containing a defined list of variables, which reflect in particular the most relevant institutional users' needs. Examining the completeness of the statistics measured against the relevant regulation is therefore a way to assess the actual relevance of those statistics.

#### 3.1 The users

Eurostat does not carry out regular satisfaction surveys targeted only at users of labour markets statistics. In 2011 Eurostat carried out a LFS Rolling Review through its Quality Assurance Framework which included a user survey. Most users stressed the importance of the EU-LFS results. The results were acknowledged as essential both for the European Commission and its agencies and for international organisations. The data are equally important or even essential for most users from universities, research institutes and businesses(<sup>11</sup>).

For major topics of interest, the instrument of ad hoc modules has proven to be useful and flexible in addition to the standard EU-LFS. Some users, however, seek for more timely data release, at least of a few main indicators. The availability of a release calendar for the main indicators produced by the EU-LFS, even with conservative delays, has been favorably received by users.

#### 3.2 Completeness

Since 2005, all Member States of the EU conduct a continuous survey and provide quarterly results. In 2010 Switzerland was the last participating country which moved to a continuous survey. Thus, since 2010 all ESS countries provide quarterly and annual data.

Even if otherwise adhering to the EU-regulations on the EU-LFS, countries do not always provide data for all the variables. The reason can be for example the (temporary) inability to implement the variable in the national questionnaire.

A special case is the coverage of the household variables by the countries sampling individuals, i.e. the Nordic countries and Switzerland. In 2012 no coverage of such variables was undertaken by Iceland and Switzerland (derogation), while Denmark, Finland and Sweden covered them in special household datasets. Norway only covered household information on the family members of working age, but provided no information on other possible members of the household (i.e. children under the age of 15).

A country by country and variable by variable analysis of the situation is provided in the Annex. Tables 3.1 and 3.2 summarize the completeness of data.

Number of compulsory variables with 100 % item non-response(1)	Number of participating countries	Of which: EU-28 Member States
0	22	21
1-4	7	6
5-9	3	1
10+	1	0
Total	33	28

**Table 3.1** Completeness of the EU-LFS variables, 2012

(1) Not including variables that are empty because the filtering variable excluded any response. The variable INCDECIL is not included. The INCDECIL data may be forwarded to Eurostat within twenty-one months of the end of the reference period.

<sup>(11)</sup>http://epp.eurostat.ec.europa.eu/portal/page/portal/quality/evaluation/domain\_specific\_results

Column number( <sup>2</sup> )	Brief description	Number of countries	Of which EU-28
Col_001/2	Sequence number in the household	3	1
Col_017/18	Nationality	1	0
Col_028	Continuing receipt of the wage or salary	2	2
Col_029/31	Economic activity of the local unit	1	1
Col_039/40	Country of place of work	5	2
Col_041/42	Region of place of work	4	2
Col_055	Contract with a temporary employment agency	4	2
Col_056	Shift work	1	0
Col_057	Evening work	1	0
Col_058	Night work	1	0
Col_059	Saturday work	1	0
Col_060	Sunday work	1	0
Col_067/68	Unpaid overtime in the reference week in the main job	1	0
Col_073/74	Number of hours that the person would like to work in total	2	0
Col_075	Working at home	1	0
Col_080/81	Economic activity of the local unit (in the second job)	1	1
Col_093	Professional status in last job	1	1
Col_094/95	Economic activity of the local unit in which person last worked	2	1
Col_096/98	Occupation of last job	2	1
Col_101	Type of employment sought	2	1
Col_102	Duration of search for employment	1	0
Col_103	Contacted public employment to find work	1	0
Col_104	Contacted private employment agency to find work	2	0
Col_105	Applied to employers directly	1	0
Col_106	Asked friends, relatives, trade unions etc.	1	0
Col_107	Inserted or answered advertisements in newspapers or journals	1	0
Col_108	Studied advertisements in newspapers or journals	2	0
Col_109	Took a test, interview or examination	2	1
Col_110	Looked for land, premises or equipment	10	8
Col_111	Looked for permits, licenses, financial resources	13	9
Col_112	Awaiting the results of an application for a job	5	4
Col_113	Waiting for a call from a public employment office	9	6
 Col_114	Awaiting the results of a competition for recruitment to the public sector	17	12
Col_115	Other method used	8	7
 Col_117	Availability to start working within two weeks	1	0
 Col_118	Reasons for not being available to start working within 2 weeks	3	1
	Situation immediately before person started to seek employment (or was		
Col_119	waiting for new job to start)	3	2
Col_120	Need for care facilities	1	0
Col_121	Registration at a public employment office Year when highest level of education or training was successfully	4	2
Col_142/145	completed	1	0
Col_146	Situation with regard to activity one year before survey	1	1
	Economic activity of the local unit in which person was working one year		
Col_148/149	before survey	1	1
Col_150/151	Country of residence one year before survey	2	1
Col_152/153	Region of residence (within Member State) one year before survey	3	2
	Degree of urbanisation	3	0

**Table 3.2** Compulsory EU-LFS variables having one or more country returning 100 % non-response or constant value(1), 2012

(1) Excluding variables which are constant by default such as country, reference year, region (if NUTS 2 is the whole country). The variable INCDECIL is not included. The INCDECIL data may be forwarded to Eurostat within twenty-one months of the end of the reference period.

(<sup>2</sup>) According to Commission Regulation (EC) No. 377/2008.

# 4 Accuracy

The accuracy of statistical outputs in the general statistical sense is the degree of closeness of estimates to the true values. Statistics can be different from the true values because of random variability (the statistics change from implementation to implementation of the survey due to random effects) and/or bias (the average of the possible values of the statistics from implementation to implementation is not equal to the true value due to systematic effects).

Several types of error, stemming from all survey processes, contribute to the error of the statistics (their bias and variability). A certain typology of errors is widely adopted in statistics. **Sampling errors** affect only sample surveys; they are due to the fact that only a subset of the population, usually randomly selected, is surveyed. **Non-sampling errors** affect sample surveys and complete enumerations alike and comprise: 1. Coverage errors; 2. Measurement errors; 3. Processing errors; 4. Non-response errors.

#### 4.1 Sampling errors

Sampling errors affect only sample surveys and arise from the fact that not all units of the frame population are surveyed. The *frame* is a device that permits access to population units, such as a list of households with addresses. *Frame population* is the set of population units which can be accessed through the frame and the survey's conclusions apply to this population. Official surveys, like the EU-LFS, use probability sampling. This makes it possible to quantify the sampling errors and can be expressed in terms of confidence intervals. Table 4.1 provides the estimates and 95 % confidence limits for the annual results 2012 reached for the five main indicators. For example, interval 216,961 – 218,061 covers the true value of employed persons on aggregated EU-28 level with a 95 % probability.

	Number of employed	Number of part- time employed	Number of unemployed	Rate of unemployment	Average number of hours actually worked( <sup>2</sup> )
	(x1000)	(x1000)	(x1000)	(%)	(Hrs.)
EU-28	217 511 ±550	43 362 ±447	25 342 ±216	10.4 ±0.10	37.0 ±0.05
EA-17	140 584 ±239	30 324 ±137	17 882 ±128	11.3 ±0.12	36.5 ±0.05
EEA	220 264 ±550	44 122 ±448	25 436 ±216	10.4 ±0.10	37.0 ±0.05
BE	4 524 ± 26	1 136 ± 20	369 ± 13	7.5 ±0.3	37.0 ±0.2
BG	2 934 ± 74	72 ± 7	410 ± 22	12.3 ±0.6	40.2 ±0.1
CZ	4 890 ± 36	283 ± 12	367 ± 14	7.0 ±0.3	40.2 ±0.1
DK	2 689 ± 10	691 ± 10	219 ± 6	7.5 ±0.2	35.3 ±0.1
DE	40 080 ±110	10 685 ± 67	2 317 ± 38	5.5 ±0.1	35.8 ±0.1
EE	624 ± 13	65 ± 5	71 ± 6	10.2 ±0.8	38.8 ±0.3
IE	1 838 ± 12	442 ± 9	316 ± 10	14.7 ±0.5	35.2 ±1.1
EL	3 763 ± 77	291 ± 16	1 204 ± 40	24.2 ±0.6	41.2 ±0.2
ES	17 282 ± 85	2 548 ± 46	5 769 ± 78	25.0 ±0.3	37.4 ±0.1
FR	25 798 ±126	4 644 ± 73	2 824 ± 58	9.9 ±0.2	36.9 ±0.2
HR	1 446 ± 56	121 ± 17	272 ± 18	15.8 ±0.9	39.1 ±0.4
IT	22 899 ± 90	3 906 ± 60	2 744 ± 48	10.7 ±0.2	36.5 ±0.1
CY	389 ± 8	42 ± 3	52 ± 4	11.8 ±0.8	38.9 ±0.3
LV	876 ± 11	82 ± 6	155 ± 7	15.0 ±0.6	39.2 ±0.3
LT	1 276 ± 37	121 ± 12	197 ± 17	13.4 ±1.1	38.8 ±0.4
LU	236 ± 4	45 ± 2	13 ± 1	5.1 ±0.5	38.4 ±0.3
HU	3 878 ± 27	271 ± 12	476 ± 18	10.9 ±0.4	38.8 ±0.1
MT	173 ± 3	24 ± 1	12 ± 1	6.4 ±0.5	38.1 ±0.3
NL	8 424 ± 50	4 198 ± 33	469 ± 11	5.3 ±0.2	32.0 ±0.2
AT	4 184 ± 39	1 074 ± 22	189 ± 10	4.3 ±0.2	36.8 ±0.2
PL	15 591 ± 73	1 235 ± 35	1 749 ± 42	10.1 ±0.2	40.3 ±0.1
PT	4 635 ± 48	664 ± 26	860 ± 31	15.7 ±0.6	38.4 ±0.2
RO	9 263 ±187	945 ± 65	701 ± 37	7.0 ±0.5	39.4 ±0.2
SI	924 ± 16	90 ± 5	90 ± 5	8.8 ±0.5	39.0 ±0.2
SK	2 329 ± 18	97 ± 7	378 ± 12	14.0 ±0.6	39.6 ±0.2
FI	2 483 ± 13	374 ± 10	207 ± 6	7.7 ±0.2	36.5 ±0.1
SE	4 657 ± 16	1 231 ± 18	404 ± 7	8.0 ±0.1	36.1 ±0.2
UK	29 428 ±438	7 986 ±418	2 511 ±158	7.9 ±0.5	35.7 ±0.3
IS	168 ± 2	36 ± 1	11 ± 1	6.0 ±0.5	39.8 ±0.3
NO	2 585 ± 11	725 ± 14	83 ± 5	3.1 ±0.2	34.7 ±0.1
СН	4 408 ± 34	1 582 ± 26	193 ± 10	4.2 ±0.2	37.0 ±0.1
MK	651 ± 25	42 ± 3	292 ± 17	31.0 ±1.4	41.7 ±0.4
TR	24 819 ±448	2 988 ±128	2 202 ± 63	8.2 ±0.2	48.1 ±0.2

Table 4.1	Confidence	limits( <sup>1</sup> ),	annual	average	2012
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(1)The confidence limits at 95 % level of significance.

 $\binom{2}{2}$  By people who worked at least one hour in the reference week. The hours are calculated as the sum of actual hours in the main and second job.

Note: Confidence limits for the EU aggregates are Eurostat's own approximation.

Source: EU-LFS Standard Quality Report

#### 4.2 Non-sampling errors

#### Coverage errors

*Coverage errors* (or frame errors) are due to divergences between the target population and the frame population. Possible divergence types are undercoverage (i.e. the frame population does not include all units of the target population), overcoverage (i.e. the frame population includes units which do not belong to the target population) and misclassification (i.e. units in the frame population which belong to the target population but are wrongly classified). Table 4.2 summarizes the information on the coverage errors given by the participating countries.

	Under- coverage	Over- coverage	Misclas- sification	Comments
BE	< 0,5 %	→0	→0	Undercoverage: Households, all members of which are 77 years o older and collective households (about 0.15 % of all households) are excluded before draw.
				Delay between draw of household (from NPR, kept up to date 'permanently') and fieldwork: between 2 and 6 months.
BG		10%		Overcoverage: The sample is drawn from the lists of household obtained from Population Census. During the survey field wor problems are found on: non-occupied houses or houses used for othe purposes one household (according to the Census list) divided into two or more separate households or the opposite.
CZ				Undercoverage: Households are selected once a year from th Register of Census Areas. Due to differences in time span there is no the current information about addresses or flats. The sampling fram contains only private households. Persons living in institutiona households are not covered. Overcoverage: Not existing or not inhabited flats remain in the Register of Census Areas.
DK	→0	→0	→0	
DE				Undercoverage: Homeless people and other people without registered residence (e.g. people living in huts, caravans) are out of the frame Apart from that German LFS is an area sample. All inhabited dwellings belong to the frame. Thus, changes of the population (e.g. by immigration, emigration) are included in the frame automatically. Mair problem: The basis (census 1987) annually updated by the register on new dwellings is very old. The census 2011 will give the German LFS a better frame quality. A revision is expected with the LFS 2013.
EE				Undercoverage: In 2012, 9,147 households of 13,909 households sampled for the survey, were interviewed. Among the households not interviewed in 505 cases (3.6% of total number of sampled households) the reason was an error or inaccuracy of the frame (person emigrated or left the county, person deceased, wrong address, etc). By counties the share of frame errors varied from 1.5% to 6.0%
IE				Undercoverage: Our frame is the Census of population and as such we have no quality concerns regarding our frame.
EL	1.0%	8.4%		Undercoverage: Population living in collective households or in dwellings outside the borders of built areas is not covered. Frames are compiled at census, and sampling rates are based at census population. Frames are updated at the first time when the primar sampling units are selected but not at subsequent waves <i>Overcoverage</i> : The sample in Greek LFS is a sample of dwellings. The percentage of over-coverage is computed as the percentage of dwellings that are either used as 'secondary residence' of the household or they are used solely for business purposes (e.g. a doctor's office)
ES		21.4 %	NA	Undercoverage Percentage calculated as 'omitted' dwellings detecte in the 'quality control survey' (see the website for reference on fram errors, chart 2 in chapter 3). Measures of impact not availabl Overcoverage: Average of the four quarter percentages of dwelling out of frame ('no encuestables') The touristic areas are more prone t higher rates <i>Misclassification:</i> The dwelling cannot be 'wrong classified and within the target population, at the same time.
FR				Undercoverage: The new sample (selected from tax registers) does not cover very new buildings (less than 2 years old); yet this is taken int account in the weighting procedure since the calibration method use the number of newly-built dwellings.
HR	:	:	:	Undercoverage: Starting from the first half-year 2002, the sampl frame for the LFS is based on the Census 2001 data. This sampl frame includes addresses of private households on the whole territor of Croatia; hence the LFS results relate to the whole country. As th Census database was not updated since 2001, it is becoming obsolete and some problems regarding migration and/or newly built dwelling will be present in a larger extent, until the new sample frame from th base of the Census 2011 is being selected, therefore until 2014.
IT	:	1.5 %	1.4 %	Undercoverage: Households are selected once a year from the municipalities' registry offices; they cover the whole reference population. The data might contain errors as for information such a addresses (due for instance to recent change of the address), wron inclusions (recent emigration) and missed inclusions (recent immigration). As for the survey's management strategies, Istat require

**Table 4.2** Frame quality, coverage rates and methodological notes

	Under-	Over-	Misclas-	Comments
	coverage	coverage	sification	that each non-responding household be replaced with a household having similar characteristics of the first one, in order to maintain as much as possible the sample representativeness and to minimize the impact of unit non-response. No more than 3 replaces are admitted.
CY	2.0 %			Undercoverage: In the first stage of the sample design a number of primary sampling units (PSUs) were drawn in 2005 from the Census of Population frame of 2001. In a post enumeration survey conducted after the census an undercoverage of 2.0 % was estimated. The selected PSUs were again enumerated completely in 2005. In the 2nd stage of the sample design a number of households were selected from the updated PSUs. Updating to include newly constructed dwellings is carried out on an annual basis. Although the selected PSUs was based on the distribution of households as enumerated in the 2001 Census. This assumes that the development of the selected PSUs was the same as in the rest of the areas which were not selected and this might not be completely true. <i>Overcoverage:</i> The sample size per year is approximately 18 400 dwelling units containing approximately 3400 households per quarter. The difference is empty houses.
LV		6.0 %		Undercoverage: The shortcoming is that the number of households in counting areas has not been updated from year 2000. In general the list of counting areas covers all territory of Latvia, but there could be some territories not covered by the list. It is due to active building of new dwellings in previously unoccupied areas during the last years. <i>Overcoverage:</i> Overall in the year 6.0% of overcoverage from sample. Main reason of it are, rarely updated register were can be old information. Also other reasons will be checked.
LT				Overcoverage: Among not interviewed households, in 1576 cases (5% of total number of sampled households) the reason was an error or inaccuracy of the frame (imprecise address, the premises at the indicated address are non-residential (a hairdresser's, shop, etc.), the building was knock down, etc.). Some persons do not live in Lithuania for a time or move across the country without declaration of their living place.
LU				Undercoverage: Households with no telephone will not be in the frame.
HU				Undercoverage: Hard-to-access groups are characterized either by extremely bad traffic conditions to get to their place or by collective reluctance usually within a small community towards being interviewed. Though the effect of these factors cannot be estimated, it is supposed to be not significant.
MT				Undercoverage: The sampling frame being used covers private households. Hence persons living in institutional households are not being covered. Since the 2011 Census is being used as a sampling frame, households created after 2011 are not well represented. However, these changes are minimal as the reference year for LFS is 2012 <i>Overcoverage:</i> There is over-representation for households created prior to 2011 and for households which were present in 2011 and no longer exist after 2011.
NL	:	:	:	
AT	:	:	:	Undercoverage: From 2004 onwards the sample for the Austrian LFS is drawn from the Austrian Register of Residents. This register was set up in 2002; still the composition of the households is not always recorded correctly. However as we are sampling households not persons this does not cause serious problems for the results of the survey. The sample is drawn three months before the start of the quarter. This results in a time lag of three to six months. Therefore dwellings where persons moved in after the due date for the survey are not covered. This results in undercoverage of recent migrants.
PL	:	12.4%:	:	Undercoverage: New dwellings underrepresented in the sample - dwellings are selected once a year from the register of housing units and due to differences in time span there is not the current information about addresses or flats, also population living in collective (institutional) households staying/or planning to stay in this places for over a year, homeless people and other people without registered residence (e.g. people living in huts, caravans) are out of the frame, emigrants staying abroad for more than one year. <i>Overcoverage</i> consist of dwellings: in which inhabitants are not present for a long time, not inhabited or inhabited seasonally, changed into inhabitable space (for example shop), in liquidation, not found (incorrect address)

	Under- coverage	Over- coverage	Misclas- sification	Comments
PT	<u>;</u>	17.1 %	:	Undercoverage: The sampling frame doesn't cover the individuals living in collective dwellings. This population represents less than approximately 1%.
RO	3.2 %	Q1: 2.7 % Q2: 3.1 % Q3: 3.1 % Q4: 3.1 %	:	Undercoverage: Due to the lack of appropriate information, the new dwellings, built after 2002 Census of the Population and Dwellings, that could possibly constitute a sampling frame of the new dwellings, have not been taken into account. Thus, an updates has be done for the PSU included in EMZOT, on the basis of a micro-census type survey (2006). The micro-census has aimed in particular the updating of the addresses of the dwellings. Under-coverage rate was estimated as the ratio between number of new permanent dwellings, built in the period end of 2002 year (the year of the census)- end of 2011 year (Source: Romanian Statistical Yearbook, 2012), and number of dwellings at the end of 2011 year (Source: Romanian Statistical Yearbook, 2012). Thus, it was assumed that the proportion of the new dwellings in total dwellings should be the same in the master sample. <i>Overcoverage:</i> Overcoverage rates were estimated on the basis of the survey samples, as ratio between number of not-eligible dwellings and number of sampled dwellings.
SI	<b>→</b> 0	→0	→0	<i>Undercoverage:</i> Register of private households would be better sampling frame, but we do not have it and we adjust data for unequal probability of selection of households. <i>Overcoverage:</i> Data is weighted to total population, because there are no reliable data about collective household's population.
SK				Undercoverage: The LFS sample is based on a Population Census conducted once every ten years (last time in 2001). There is the lack of information on new statistical units during a rather long period. Errors as for information on addresses of dwellings; missing coverage of collective households, persons living in convents, partially student halls of residence (although they are surveyed via other members of the households), members of the Slovak embassies and institutions abroad. Under-coverage comprises people born abroad and living in collective houses. <i>Overcoverage:</i> Mainly young residents working temporarily abroad can stay to live there. <i>Misclassification:</i> Misclassification by incorrect identification is negligible
FI	→0	1.4%		Undercoverage: The sampling frame used is the total population database maintained by Statistics Finland. It is based on the Population Information System of The Population Register Centre and updated regularly. Undercoverage fairly small (no large-scale immigration). Overcoverage: Mostly emigration in wave 1, deaths and emigration for later waves.
SE	1 %	0.2 %	:	Undercoverage: The LFS sample is drawn once a year and the sampled persons are interviewed eight times during a two year period. No additional sample selection is made in order to update the sample with immigrants during this two-year period. The average time span between sample selection and the reference week is about 19 months, which means an under-coverage of about 50000 persons or 1 % of the population. This under-coverage is judged to have marginal effects on the LFS-estimates. <i>Overcoverage:</i> There is a certain over coverage in RTB and consequently in the sampling frame. The over coverage consists of people born abroad who left Sweden without reporting this to the Swedish authorities. When these persons are included in the sample there are no information that they have moved out from Sweden. They cannot be reached for interview and will be classified as non-response. According to evaluation-studies made this overcoverage is mainly concentrated to non-Nordic immigrants and is of a magnitude of 25,000-50,000 persons in the total population (0.2 %).
UK	Approx. 1.5 %			Undercoverage: The LFS coverage omits communal establishments, excepting NHS housing and students in halls of residence. Members of the armed forces are only included if they live in private accommodation. The LFS, by not sampling from communal establishments, excludes approximately 1.5 % of the total GB population.
IS	$\rightarrow 0$	$\rightarrow 0$	→0	No significant problems
NO				Undercoverage: Do not include those 75 years and older. Imputes as outside the labour force. Number of persons employed about 0.25 per cent too low. <i>Misclassification:</i> Using family as a proxy for household at the moment
СН				<i>Undercoverage:</i> Undercoverage of household without a fix phone number. Overcoverage: Overcoverage of persons having a second residence with a fix phone number.

	Under- coverage	Over- coverage	Misclas- sification	Comments
МК		Q1: 8.3 % Q2: 9.0 % Q3: 9.6% Q4: 9.1 %		<i>Overcoverage:</i> Over-coverage rates were estimated on the basis of the survey samples, as ratio between number of not-eligible dwellings and number of sampled dwellings.
TR	:	0.9 %	:	Undercoverage: Together with the establishment of National Address Database, frame errors are minimised since the database is regularly being updated and during the sample selection current database is taken for each quarter. Overcoverage: In the survey, over-coverage was determined due the reason that some addresses were miscoded in the database or the types were changed later on. Such non-eligible addresses (establishments, warehouses, parcels, etc.) are considered in the calculation of the overcoverage ratio.

Note: (:) indicates that information is not provided. *Blank* indicates that information is not available to NSI. *Source*: EU-LFS Standard Quality Report

#### Measurement errors

*Measurement errors* are errors that occur during data collection and cause the recorded values of variables to be different from the true ones. Their causes are commonly categorized as:

- *Survey instrument*: the form, questionnaire or measuring device used for data collection may lead to the recording of wrong values.
- *Respondent*: respondents may, consciously or unconsciously, give erroneous information.
- Interviewer: interviewers may influence the answers given by respondents.

No regular estimates of these errors are available. However, the number of proxy interviews and statistics on the last updates of the questionnaire are all related to the error sources listed above (Table 4.3).

	% of proxy interviews (unweighted)(¹)	Date of last update of the questionnaire	Date of the last pilot survey in order to test the questionnaire	Number of respondents to the pilot survey
EU-28	30.0			
BE	20.7	Nov. 2011 (for the reference year 2012)	No pilot survey for the changes in 2012	-
BG	35.3	Q1 2011	2007	approx. 1060
CZ	45.9	31.12.2011	2001	891
DK	5.4	September 2012	Q4 2010 (for household interviews)	1000
DE	25.9	Yearly	No pilot surveys, only yearly conducted cognitive pretests	-
EE	32.0	January 2012	Sept-Oct 2011	104
IE	48.3	Q2 2012.	:	:
EL	41.0	January 2011	No pilot survey	-
ES( <sup>2</sup> )	52.7	2005	2004	3.500 households were interviewed.
FR	31.4	Q1 2012	2005	Around 250
HR	46.1	2007	No pilot survey	-
IT	40.0	January 2012 for Q1, Q3 and Q4 - April 2012	Nov. 2044	
CY	16.0 32.4	for AHM in Q2 September 2007	Nov. 2011 Oct. 2007	1,000 households
LV	33.3	Nov. 2011	May 2005 testing of CAPI	
LT	31.6	Dec. 2011	April 2010	35
LU	43.8	Yearly update	•	
HU	44.4	August 2010	October 2010	About 300
MT	51.2	End of 2011	No pilot survey was carried out	NA
NL	48.8	:	:	:
AT	23.8	Q1 2012	Test of changes in the questions on hours worked finalized in Nov. 2008	151 Persons
PL	40.9	Q1 2011	No pilot survey	
PT	48.7	2011	From 3rd quarter 2009 to 2nd quarter 2010	Around 40 000 individuals by quarter
RO	27.9	August 2011	:	:
SI	54.4	2012	-	-
SK	44.0	2012	1992	
FI	3.9	May 2012	:	:
SE	2.7	January 2012	March and June 2004.	1400
UK( <sup>2</sup> )	35.0	January 2012	August 2011	800 households sampled for the Dress Rehearsal. Achieved sample = 520 households.
IS( <sup>2</sup> )	2.4	:	Nov. and Dec. 2002	:
NO	14.3	Q1 2006	No pilot survey	-
СН	1.7	March 2010	Dec. 2009	Around 100
MK	52.2	October 2008	No pilot survey	-
TR	38.0	2009	2003	Around 100 households

#### Table 4.3 Share of proxy interviews and last update of the questionnaire

(1) 15-74 years respondents; (2) 16-74 years respondents

Notes: (-) indicates that the item is not applicable and (:) indicates that information is not provided. *Blank* indicates that information is not available to NSI. *Source*: EU-LFS Standard Quality Report

#### Processing errors

Between data collection and the beginning of statistical analysis for the production of statistics, data must undergo a certain processing: coding, data entry, data editing, imputation, etc. Errors introduced at these stages are called *processing errors*. No estimates can be produced indicating the rate of processing errors in the EU-LFS.

#### Non-response errors

Non-response is the failure of a survey to collect data on all survey variables, from all the population units designated for data collection in a sample or complete enumeration. The difference between the statistics computed from the collected data and those that would be computed if there were no missing values is the *non-response error*.

Tables 4.4 shows non-response rates, but they are not fully comparable. Most of the countries calculate non-response on the basis of the household unit, except Denmark, Finland, Sweden, Iceland, Norway and Switzerland, which calculate non-response on person basis. The treatment of non-response in the follow-up waves is also different between countries. Some participating countries do not take previous non-response into account when calculating the non-response in later waves, whereas others do. Thus the former countries may show lower non-response rates on the average than the latter.

	Total				Wave	es			
		1	2	3	4	5	6	7	8
BE	32.0	32.0							
BG	21.5	29.3	20.8	19.6	16.0				
CZ	19.3	22.2	19.1	18.5	18.4	18.2			
DK	47.3	47.1	49.0	47.7	45.3				
DE( <sup>1</sup> )	1.8	1.8							
EE	31.8	43.3	37.9	18.5	16.6				
IE	20.3	24.1	19.0	19.3	19.6	19.4			
EL	25.0	28.7	26.4	25.2	24.3	23.7	21.9		
ES	15.5	15.5	11.2	12.2	11.6	12.1	12.4		
FR	15.3	19.3	15.7	15.1	14.2	13.5	14.1		
HR	24.8	22.9	24.4	25.4	26.6				
IT	10.7	24.5	5.8	4.9	3.5				
CY	3.3	1.8	2.0	2.2	2.9	3.1	3.6		
LV	34.4	36.0	30.0	31.0	26.0				
LT	17.3	25.6	19.5	16.7	14.6				
LU	71.8	71.8							
HU	16.2	31.1	23.7	14.9	11.1	9.0	7.9		
MT	26.7	31.7	21.9	25.6	27.9				
$NL(^2)$	20.9	42.1	15.2	10.7	5.1	4.4			
AT	6.5	4.5	6.6	6.6	6.5	6.5			
PL	24.2	28.9	24.2	22.3	21.6				
PT	15.4	10.2	14.4	15.3	17.0	17.8	17.8		
RO	8.9	11.3	9.8	7.7	6.9				
SI( <sup>3</sup> )	23.7	34.5	25.9	16.4	14.4	11.0			
SK	7.8	13.5	:	:	:	:			
FI	26.1	27.1	25.8	25.6	26.0	25.9			
SE	27.2	30.2	27.2	26.9	27.4	27.5	27.1	26.6	24.6
UK	43.1	40.1	37.7	42.3	45.9	48.9			
IS	16.8	15.8	16.4	17.1	17.6	17.0			
NO	19.5	25.0	22.0	21.0	20.0	19.0	17.0	17.0	15.0
СН	17.1	35.5	7.2	8.2	3.9				
MK	18.0	20.7	26.6	16.4	17.1				
TR	9.7	11.0	8.8	9.7	9.4				

Table 4.4 Rates of non-response by wave. Annual average 2012

(<sup>1</sup>) Survey waves are on annual basis.

<sup>(2)</sup> Households in the first wave, thereafter persons.

(<sup>3</sup>) Conditional non-response in waves 2-5. The non-respondents from previous waves are excluded from the sample in subsequent waves (waves 2-5)

Note: (:) indicates that information is not available.

Source: EU-LFS Standard Quality Report

# 5 Timeliness and punctuality

The *timeliness* of statistical outputs is the length of time between the event or phenomenon they describe and their availability.

*Punctuality* is the time lag between the release date of data and the target date on which they were scheduled for release as announced in an official release calendar, laid down by Regulations or previously agreed among partners.

According to Council Regulation (EC) No 577/98 data shall be delivered to Eurostat within twelve weeks from the end of a reference quarter. Table 5.1 shows that data are transmitted to Eurostat for most countries in the third month after the end of the quarter. First national releases of data in the majority of the participating countries are in the first two months after the end of the quarter.

A release calendar for the EU-LFS main indicators is in place, foreseeing the release of the main indicators four weeks after the data delivery deadline. In addition Eurostat continually updates the Eurostat online database with new data after final data processing in Eurostat. Timeliness and punctuality of the transmission to Eurostat and Eurostat's dissemination of the national data have further improved in 2012.

		Number of countries			
Number of calendar days from end of reference period	2011	2012			
	All	All	EU-27	Euro area	
Transmission to Eurostat					
<31	1	1	1	1	
31-60	7	10	7	2	
61-90	23	22	20	13	
91+	2	0	0	0	
Total	33	33	28	16	
Average number of calendar days	69	66	66	67	
Eurostat's dissemination of national data (web site)					
<31	0	0	0	0	
31-60	5	6	5	2	
61-90	20	23	21	14	
91+	8	4	2	0	
Total	33	33	28	16	
Average number of calendar days	80	76	75	76	

**Table 5.1** Transmission to Eurostat and Eurostat's dissemination of LFS data by number of calendar days from the end of the reference period 2012 – quarterly LFS data (results)

Source: EU-LFS Standard Quality Report

# 6 Accessibility and clarity

Accessibility and clarity refer to the simplicity and ease with which users can access statistics, with the appropriate user information and assistance: a global context which finally enables them to make optimum use of the statistics.

In 2012 Eurostat published quarterly and annual results as well as an analysis of indicators to supplement the unemployment rate in its series *Statistics in Focus*.

Eurostat also publishes annually a compendium describing the main characteristics of the national surveys.

The Eurostat public website is free of charge and includes main indicators, derived from the Labour Force Survey, as well as detailed, constantly updated main results from the EU-LFS. All data on the website are supplemented by meta-data in Euro SDMX Metadata Structure (ESMS), giving basic information on the background and a summary of the methodology. More detailed information can be found at the dedicated EU-LFS web page and at the EU-LFS (Statistics Explained).

Through direct queries, customized tabulations of EU-LFS results are available to users in electronic format. Eurostat extracts around 1500 direct queries each year. These data are also produced free of charge.

Since 2011 researchers can get anonymised datasets containing microdata free of charge if certain conditions are fulfilled. Data from all Member States and from Iceland, Norway and Switzerland are available in this format. In 2012 around 200 researchers or research groups worked with EU-LFS microdata (new contracts and amendments).

## 7 Comparability

Comparability refers to statistical outputs comprising the same data items (say employment data) but for different reference periods, regions or domains, where the aim is to combine them to make comparisons over time, or across regions, or across domains. It can be said that it is the extent to which differences between statistics are attributed to differences between the true values of the statistical characteristics.

#### 7.1 Comparability over time

For a detailed overview on the availability of quarterly EU-LFS microdata and the uniform spreading of the sample over the whole year, please consult: EU Labour Force Survey EU — Methodology (Statistics Explained).

Every year, a certain number of changes are introduced in some national LFSs, to take into account changes introduced at European level, to better align the national surveys to the already existing EU regulations or methodological guidelines, or to take into consideration national needs. These changes can concern the conceptual level (i.e. concepts and definitions used by the LFS, the survey coverage, i.e. the target population, the legislation, the classifications used, the geographical boundaries) or the measurement level (i.e. the sampling frame, the sample design, the rotation pattern, the questionnaire, the instructions to interviewers, the survey modes, the weighting scheme, the use of auxiliary information).

Table 7.1 reports the changes to the national labour force surveys introduced in 2012 by the participating countries. Such changes normally may introduce some discontinuity in the time-series.

#### Table 7.1 Improvements or changes compared to previous year

	Change
	Changes to sampling frame, sample design or target population
PL	Since the 3rd quarter of 2012 persons not present in a household, i.e. staying abroad or living in institutional household for 12 months or longer have been excluded from the survey range (until the 2nd quarter 2012 the duration was longer than 3 months) - methodological changes due to harmonization of the population covered with the survey with the Eurostat recommendations
BG	The sample (gradually implemented since the third quarter of 2012) is based on 2011 Population Census. The change in the sampling design consists of disaggregation of stratification variable "Type of place of residence" into 3 categories (instead of former 2): -town which is administrative center of NUTS 3 district, -other town, -village
FR	As from Q4 2011, tax registers are the only bases used as sampling frame
MT	Census 2011 was used which is a new sampling frame compared to census 2005 which was used for 2006 - 2011 data collection
IT	In 2012 a new stratification of the municipalities was made, to take into account updated information on their population. Consequently a new selection of the municipalities has been done, the new selected municipalities entered in the sample in the third quarter 2012. In the same time, due to budget cuts, in 2012 the theoretical sample size was reduced by about 9% respect to 2011 one.
	Changes to questionnaire or national explanatory notes
NL	Together with the introduction of web interviewing (for the first wave in Q4), a new questionnaire and codification system for ISCED, ISCO and NACE was introduced.
BE	Changes on the household questionnaire in 2012.
EL	The "wage bands" that define deciles in the relevant question for variable INCDECIL have been adapted to 2010 SILC results. Questions on work-related non formal educational activities were added in the questionnaire, which are addressed to all employed persons.
SK	Improvements in the questionnaire in 2012 to better transcode the EU list of variables.
PL	Some changes in the questionnaire (WISHMORE and WAYMORE).
FI	Variable TEMPREAS has been changed to a quarterly variable. Change to LAU2 classification in variable DEGURBA.
IE	The various work pattern questions have been brought into line with the explanatory notes from Eurostat. Information regarding the single size of the LocalUni is now provided. The reasons for having a temporary job are now in line with Eurostat.
	Changes to weighting schemes
BG	A new weighting procedure have been used from the first quarter of 2012.Census 2011 based population data were used. The population estimates used in calibration are updated each quarter. Estimated number of persons living in collective households was excluded from the population data.
LV	Starting from the 1st quarter of 2012 data of the Labour Force Survey will be calculated in compliance with the population number acquired within the framework of the Population and Housing Census 2011.
	Extrapolation of the Labour Force Survey data for the first time is based only on number of persons living in private households. Persons living in collective households are excluded.
PL	Generalization of the survey results on the general population was carried out with the use of the data on the population of Poland aged 15 years and more coming from the balances compiled on the basis of the results of the National Census of Population and Housing 2011 (new weights coming from this census).
	Other changes
IT	Starting from 2012 the new classification NUTS-2010 has been adopted: three new provinces have been defined (ITC4D Monza e della Brianza, ITI35 Fermo, ITF48 Barletta-Andria-Trani) at Nuts3 level and seven municipalities passed from Nuts2 ITE3 Marche to ITD5 Emilia Romagna.
BE	The introduction of a new contact sheet in 2012.
DE	From 2012 the full sample was used for the data collecting off all LFS variables
HU	Transition from paper-pencil questionnaires to CAPI (laptop), what could affect comparability with a previous reference time. However, mode affect wasn't estimated.
NL	As from the 4th quarter of 2012 CAWI is introduced in the first wave. At first everyone is approached by CAWI. People who don't respond are re-approached by CATI or CAPI, depending on availability of a phone number
LV	For 2012 Q4 accuracy was calculated in a different way than previously. LV used program SUDAAN previously, but starting from 2012 Q4 we use program R. The most important is that we use Ultimate cluster method instead of Jackknife method. This method already is used for other household surveys.
IE	Results now revised to reflect 2011 Census of Population. Method of suppression for results/flagging of reliability changed.
-	

Source: EU-LFS Standard Quality Report

#### 7.2 Comparability over space

A common framework regulation(<sup>12</sup>), common variable definition(<sup>13</sup>), common explanatory notes(<sup>14</sup>) and common regulation(<sup>15</sup>) regarding the definition of unemployment and the twelve principles of questionnaire construction go a long way to ensure comparability of the statistics between the participating countries. This is, however, mainly true for the main characteristics, employment and unemployment where particular definitions and sequence of questions are part of the EU legislation. For other variables, each country has the responsibility to ensure that the national survey provides data that are compatible with the EU definitions and of the same quality.

As most of the variables are defined in accordance with recommendations of the International Labour Organisation (ILO) and other international organizations, the main statistics from the EU-LFS are directly comparable to those of other industrialized countries, especially those of the other members of the OECD.

Over the last years, Eurostat has commissioned several reports to examine the degree to which the participating countries adhere to the common set of definitions. The most recent study of this kind was carried out on the 2008 questionnaires. As a general conclusion it emerges that, in spite of the progress regarding the adherence to the EU regulations, principles and guidelines (i.e. the explanatory notes), the national questionnaires still largely differ even in the collection of key variables such as WSTATOR (*Labour status in the reference week*). Hence, even if labour market statistics are subject to quite comprehensive international definitions, principles and guidelines, which make it one of the most harmonised statistical domains not only in Europe but worldwide, there is still room for further improvement of cross-country comparability(<sup>16</sup>).

This applies also to the variable INCDECIL on income deciles, which was introduced as mandatory in 2009. At present, the comparability of this variable is still low, which is due to several elements: some countries ask information on monthly pay directly to the interviewees, while others retrieve it from national registers. Some countries ask the exact amounts while other ones collect the information in earning bands. Some countries define the deciles based on external sources, while others do it on the basis of the collected data. Some countries collect net, others gross income. Finally, the treatment of bonuses, allowances and fringe benefits is likely not fully homogeneous across countries. Work is on-going to reduce these disparities and improve the comparability of the variable. The dissemination of INCDECIL is pending on a quality assessment of the results by Eurostat.

<sup>(&</sup>lt;sup>12</sup>) Council Regulation (EC) No 577/98.

<sup>(&</sup>lt;sup>13</sup>) Commission Regulation (EC) No 377/2008.

<sup>(&</sup>lt;sup>14</sup>) EU Labour Force Survey Explanatory Notes, available at:

http://epp.eurostat.ec.europa.eu/portal/page/portal/employment\_unemployment\_lfs/publications/methods (<sup>15</sup>) Commission Regulation (EC) No 1897/2000.

<sup>(&</sup>lt;sup>16</sup>) A Task Force coordinated by Eurostat is currently working to identify shortcomings and propose possible improvements for the cross-country comparability of the national Labour Force Surveys in the EU.

# 8 Coherence

The coherence of two or more statistical outputs refers to the degree to which the statistical processes by which they were generated used the same concepts - classifications, definitions, and target populations – and harmonized methods. Coherent statistical outputs have the potential to be validly combined and used jointly. It is, however, generally easier to show cases of incoherence than to prove coherence. The following sections assess coherence with similar data from two other sources, the population statistics and the employment data from national accounts. Other comparisons are possible, such as with employment data from the Structural Business Statistics and the Labour Cost Survey.

#### 8.1 Coherence with population statistics

The coherence with population statistics is of importance for the users, as often the most recent population estimates are available from the EU-LFS statistics. These two statistics are, however, not fully comparable.

Differences that need to be considered are:

- The EU-LFS statistics cover only the population in private households, while population statistics cover the whole population, including those living in collective households (e.g. conscripts).
- Sometimes the rules for defining the usual resident population differ in the LFS from the rules in population statistics.
- Population statistics usually refer to particular dates, e.g. 1st January or mid-year for population level and characteristics. The EU-LFS statistics generally refer to the average quarterly or annual situation.

Moreover, most of the participating countries carried out a population census in the 2001 round. New censuses often result in new weights, new sample frames or new sample designs. By 2004 all of the participating countries had revised the weights to reflect new population estimates. Re-weighting of previous data series have, however, not always been implemented. Most countries conducted a new population census in 2011. The results of the 2011 census lead to a retrospective revision of the weights in some countries.

	Po	pulation 15-6 1/1/2012	64	LFS an	nual average 2012	Relative difference [(L-P)/P*100]			
	Total	Men	Women	Total	Men	Women	Total	Men	Women
EU-28	335 469.9	167 737.9	167 732.0	332 496.7	166 034.2	166 462.7	-0.9	-1.0	-0.8
BE	7 284.0	3 668.0	3 616.0	7 242.0	3 638.7	3 603.2	-0.6	-0.8	-0.4
BG	4 966.2	2 501.4	2 464.8	4 923.6	2 475.9	2 447.7	-0.9	-1.0	-0.7
CZ	7 262.8	3 675.8	3 586.9	7 229.2	3 660.2	3 569.0	-0.5	-0.4	-0.5
DK	3 626.0	1 826.4	1 799.5	3 610.9	1 819.6	1 791.3	-0.4	-0.4	-0.5
DE	54 131.1	27 403.4	26 727.7	53 893.8	27 175.8	26 718.1	-0.4	-0.8	0.0
EE	891.1	437.5	453.6	896.7	431.0	465.8	0.6	-1.5	2.7
IE	3 048.6	1 514.7	1 533.9	3 042.0	1 510.0	1 532.0	-0.2	-0.3	-0.1
EL	7 302.1	3 646.1	3 656.0	7 222.8	3 625.7	3 597.1	-1.1	-0.6	-1.6
ES	31 613.2	15 978.8	15 634.4	30 906.4	15 527.5	15 378.9	-2.2	-2.8	-1.6
FR( <sup>1</sup> )	40 763.9	20 169.7	20 594.2	39 999.7	19 669.8	20 330.0	-1.9	-2.5	-1.3
HR	2 865.5	1 431.8	1 433.6	2 754.3	1 377.2	1 377.1	-3.9	-3.8	-3.9
IT	38 698.2	19 210.6	19 487.5	39 602.8	19 723.8	19 879.0	2.3	2.7	2.0
CY	609.3	295.6	313.8	585.4	278.3	307.1	-3.9	-5.8	-2.1
LV	1 373.1	662.7	710.4	1 352.2	648.0	704.1	-1.5	-2.2	-0.9
LT	2 016.2	972.2	1 044.0	2 006.5	968.0	1 038.5	-0.5	-0.4	-0.5
LU	361.6	184.0	177.6	355.0	179.9	175.1	-1.8	-2.2	-1.4
HU	6 815.7	3 367.2	3 448.5	6 715.7	3 295.6	3 420.1	-1.5	-2.1	-0.8
MT	287.2	146.1	141.2	288.4	146.7	141.7	0.4	0.4	0.4
NL	11 117.3	5 595.5	5 521.9	10 992.2	5 518.8	5 473.4	-1.1	-1.4	-0.9
AT	5 687.6	2 843.9	2 843.8	5 666.3	2 820.5	2 845.8	-0.4	-0.8	0.1
PL	27 394.5	13 649.4	13 745.1	25 697.4	12 819.0	12 878.4	-6.2	-6.1	-6.3
PT	6 961.9	3 395.0	3 566.8	7 038.4	3 491.6	3 546.8	1.1	2.8	-0.6
RO	13 768.2	6 843.8	6 924.3	14 928.3	7 449.8	7 478.5	8.4	8.9	8.0
SI	1 416.3	728.0	688.4	1 414.7	727.2	687.6	-0.1	-0.1	-0.1
SK	3 881.1	1 944.5	1 936.6	3 881.0	1 944.5	1 936.5	0.0	0.0	0.0
FI	3 532.6	1 786.7	1 746.0	3 504.8	1 763.6	1 741.2	-0.8	-1.3	-0.3
SE	6 113.9	3 107.0	3 006.9	6 114.0	3 107.2	3 006.8	0.0	0.0	0.0
UK	41 680.7	20 752.1	20 928.5	40 632.2	20 240.3	20 391.9	-2.5	-2.5	-2.6
IS	213.0	107.8	105.1	201.8	102.1	99.7	-5.2	-5.3	-5.2
NO	3 294.3	1 685.4	1 608.9	3 308.0	1 693.1	1 614.9	0.4	0.5	0.4
СН	5 394.9	2 718.7	2 676.1	5 369.0	2 705.2	2 663.8	-0.5	-0.5	-0.5
МК	1 462.7	741.2	721.5	1 464.0	742.0	722.0	0.1	0.1	0.1
TR	50 347.0	25 440.3	24 906.7	49 432.5	24 653.5	24 779.0	-1.8	-3.1	-0.5

(<sup>1</sup>) Not including the overseas departments of France. Source: Eurostat (online data codes: demo\_pjan and Ifsa\_pganws), 13 January 2014 and 21 October 2013 (extracted).

#### 8.2 Coherence with other employment estimates

#### Coherence of employment for LFS and National Accounts

Key concepts used in National Accounts, such as domestic employment, have no correspondence in the EU-LFS, which uses instead number of persons employed based on residency within the national border (national employment). There are also differences in coverage, where the EU-LFS covers the age groups 15 and older in private households only, while the national accounts cover all persons regardless of age or type of residence. In addition, the EU-LFS doesn't consider conscripts and unpaid trainees as employed whereas these are explicitly or implicitly accounted for in the National Accounts. The reference period for the measurement could also contribute to some differences. The LFS estimates represent one average of all the weeks in the year (for annual results) or the quarter (for quarterly results). National Accounts stock estimates refer to the mid of the year (for annual accounts) or mid of the quarter (for quarterly accounts).

As expected, the employment estimates based on the LFS data usually lie somewhat below the estimates of employment as estimated by National Accounts. This emerges from table 8.2, where the data are grouped on the basis of the importance of the LFS in the production of the National accounts data. National Accounts estimates on employment are in general higher, especially in countries with a considerable percentage of irregular economy. For three countries, however, the opposite is true.

Admittedly the coverage, measurement and conceptual differences mentioned above only account for a relatively small part of the difference between the two estimates. As a rule of thumb, relative differences higher than 1.5 % need to be explained by other reasons. This would concern fourteen participating countries as shown in table 8.2. Germany, France and Italy are responsible for the bulk of the absolute difference between the National Accounts employment estimates and the LFS employment, while in relative terms Bulgaria, Greece, France, Italy, and the former Yugoslav Republic of Macedonia show the highest discrepancies, with a distance of more than  $5.0\%(^{17})$ . When comparing data from LFS and National Account, users are also interested in whether the two sources show the same trend or not, i.e. change from one period to another. Table 8.2 also compares the data on employment growth in 2012. The results show that both sources are broadly comparable as regards the direction of the employment growth for the EU-28 and that the differences are mostly marked in the size of the growth figures.

The reasons for the disparities, either in levels or in the direction of the employment growth are not fully known. In general, the actual sources of incoherence are quite diverse across countries. The issue of incoherence between the LFS and National Accounts employment estimates has been addressed by a Eurostat-coordinated Task Force on the Quality of the Labour Force Survey. By the use of reconciliation tables, a range of potential sources of incoherence on the LFS side was identified, either related to a biased measurement of specific areas of employment, such as marginal employment, employment in black labour activities, employment in private households, illegal immigrants, or emerging from data collection, as in the case of non-response and proxy interviews. National Accounts combines data from all available data sources in the country. This method allows better average of the non-observed economy. For this reason, National Accounts estimates are frequently higher than LFS employment estimates. In addition, it can be pointed out that LFS estimates are subject to sampling error, both with regard to levels and changes between periods (cf. tables 4.1). When changes between periods are

<sup>(&</sup>lt;sup>17</sup>) Data for the former Yugoslav Republic of Macedonia, which usually shows also a relative large gap between LFS and NA data, are not available for 2012; no data is available for Turkey.

small, this may result in diverging trends between the National Accounts' and the LFS' figures, just because for the LFS the changes are within the margin of error. As regards National Accounts, some indicative reasons for incoherence can be mentioned: National Accounts may use sources different than LFS (or LFS combined with other sources) to estimate employment; National Accounts may introduce adjustments to reach consistency between the employment reported by its sources and other related variables, like salaries or production; the national accounts approach, by comparing and combining different sources, is also more prone than LFS to identify and address underreporting or systematic biases. All in all, national accounts are judged more suitable to measure employment levels, employment growth and industry breakdowns. LFS is more adequate to measure participation in the labour market (i.e. employment rates, activity rates, etc.), or to analyse the situation of specific socio-economic groups of the population (e.g. by age, gender or educational level).

#### Coherence of employment for LFS and Business Statistics

Business statistics, whether structural business statistics (SBS) or short-term business statistics (STS), are focused on production-related variables like output, turnover or value added, but they also produce some estimates of employment. These estimates may be and frequently are different from LFS. The main reasons for the differences are:

- *Different scope*: business surveys gather information on production units operating in the territory whereas LFS gathers information on people living in the country. Cross-border workers, or seasonal workers, are correspondingly recorded in different countries.
- Different coverage: the LFS does not collect information for people living in collective households (business statistics do not exclude the information). The LFS covers all economic activities and all firm sizes, whereas business statistics typically do not gather information on agriculture, Government or some service activities. In addition, business registers used to compile business statistics may not include small enterprises below a certain threshold or may leave out employment not included in the payroll or in the accounting books such as family workers.
- *Different units*: business surveys estimate the number of jobs whereas LFS counts jobholders. Business surveys rarely have access to jobholders' features like age, gender, etc. for which LFS is the only source.

**Table 8.2** Employment (national concept) 2012 in two different datasets on the Eurostat website.

 Levels and growth rates

		2012 level	s		2011	-2012 growth r	ates			
	Labour force survey	National accounts	LFS-NA	(LFS - NA)/NA *100	Labour force survey	National accounts( <sup>1</sup> )	LFS-NA			
	(x1000)	(x1000) LFS as their only so	(x1000)	(%)	(%)	(%)	p.p.			
	for conceptual a	lignment to ESA95				LFS IS Only at	ijusieu			
EE	624.4	628.3	-3.9	-0.6	2.5	2.8	-0.3			
IE	1 837.8	1 838.5	-0.7	0.0	-0.6	-0.6	0.0			
CY	388.6	378.5	10.1	2.7	-2.4	-4.2	1.8			
LT	1 275.7	1 276.0	-0.3	0.0	1.8	1.8	0.0			
HU	3 877.9	3 877.9	0.0	0.0	1.7	1.7	0.0			
PL	15 590.7	15 591.0	-0.3	0.0	0.2	0.2	0.0			
UK	29 428.1	29 519.0	-90.9	-0.3	1.2	1.2	0.0			
	2 Countries using r basis	mainly LFS, but repl	acing it in a few ii	ndustries (or l	abour statu	s), on a case-b	oy-case			
BG	2 934.0	3 281.9	-347.9	-10.6	-1.1	-4.3	3.2			
EL	3 763.0	4 076.2	-313.2	-7.7	-8.0	-8.3	0.3			
LV	875.6	888.9	-13.3	-1.5	1.6	2.9	-1.3			
RO	9 262.8	9 482.8	-220.0	-2.3	1.4	1.3	0.1			
	3 Countries not usi	ng LFS, or making	minimal use of it							
BE	4 523.9	4 636.0	-112.1	-2.4	0.3	0.2	0.1			
CZ	4 890.1	5 028.0	-137.9	-2.7	0.4	0.4	0.0			
FR( <sup>1</sup> )	25 798.4	27 387.7	-1 589.3	-5.8	0.1	0.0	0.1			
LU	236.1	229.7	6.4	2.8	5.0	2.5	2.5			
SI	923.8	946.6	-22.8	-2.4	-1.3	-0.5	-0.8			
IS	167.9	169.3	-1.4	-0.8	1.1	1.2	-0.1			
	4 Countries combin					ource among o	thers.			
		her heterogeneous								
ES	<b>4a</b> 17 282.0	Countries giving pr 17 768.5	-486.5	ur suppiy sou -2.7	rces (i.e. Lr -4.5	-3) -4.2	-0.3			
HR	1 445.9	1 429.5	16.4	1.1	-3.1	-3.9	0.8			
IT	22 898.7	24 473.4	-1 574.7	-6.4	-0.3	-0.2	-0.1			
PT	4 634.7	4 679.4	-44.7	-1.0	-4.2	-4.2	0.0			
SK	2 329.0	2 329.0	0.0	0.0	0.6	-1.0	1.6			
FI	2 483.2	2 515.0	-31.8	-1.3	0.4	0.0	0.4			
SE	4 657.1	4 627.6	29.5	0.6	0.7	0.7	0.0			
NO	2 585.4	2 682.0	-96.6	-3.6	2.0	2.2	-0.2			
СН	4 408.1	:	:	:	1.0	:	:			
	4b	Countries not givin	g precedence to a	any labour sid	e					
DE	40 080.0	41 545.0	-1 465.0	-3.5	0.9	1.1	-0.2			
AT	4 183.7	:	:	:	1.0	:	:			
	4c Countries giving precedence to labour demand sources (i.e. employment registers									
		and/or enterprise s	urveys)							
DK	2 688.6	2 769.0	-80.4	-2.9	-0.5	1.2	-1.7			
MT	172.6	171.9	0.7	0.4	2.4	2.3	0.1			
NL	8 424.2	8 546.0	-121.8	-1.4	0.7	-0.2	0.9			
MK	650.5		:	:	0.8	:	:			

(<sup>1</sup>) The National Accounts estimates include the French overseas departments (DOM), which are not covered by the LFS. (:) indicates that information is not available

Source: Eurostat Labour Force Survey, Annual averages (online data code: lfsi\_emp\_a). Extraction 1 February 2013 and Eurostat National Accounts, national concept (online data code: nama\_aux\_pem). Extraction 13 March 2013

## 9 Regional labour market statistics<sup>(18)</sup>

#### 9.1 Introduction

The EU-LFS is designed to give accurate quarterly information at national level and accurate annual information at NUTS 2 regional level. Microdata including the NUTS 2 level codes are provided by all the participating countries with a good degree of geographical comparability, which allows the production and dissemination of a wide set of comparable indicators. Eight countries, namely Estonia, Cyprus, Luxembourg, Malta, Latvia, Lithuania, Iceland and the former Yugoslav Republic of Macedonia comprise a single NUTS 2 region, i.e. the national result is also the NUTS 2 result (as well as the NUTS 1 result).

For the purposes of regional analyses as well as for monitoring the progress towards regional cohesion, data at NUTS 3 level are also often requested by users. However, as the transmission of data at NUTS 3 level has no legal basis, the figures are provided by participating countries on a voluntary basis with the purpose of deriving other regional aggregations. Therefore, available NUTS 3 data is currently only used for publication at a more aggregated level. For example, unemployment and employment figures are disseminated for rural, intermediate and urban areas as well as metropolitan regions, which are based on data of groups of NUTS 3 regions.<sup>(19)</sup>

The compilation of NUTS 2 figures is well specified in the EU-LFS. As this is not the case for the NUTS 3, the sources and compilation methods for this dataset are described below.

#### 9.2 Sources for NUTS 3 level labour market statistics

Traditionally, NUTS 3 level data were sent to Eurostat in the form of tables computed directly by the countries. In recent years Eurostat has encouraged the participating countries to provide NUTS 3 codes in the LFS microdata, thus giving a clear indication about the LFS being the preferred source.

In 2012, 19 Member States (Austria, Belgium, Bulgaria, Denmark, Estonia, Finland, France, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Malta, the Netherlands, Slovakia, Spain, Sweden and the United Kingdom) as well as Norway sent the NUTS 3 codes in the LFS microdata. Seven of these countries, namely Austria, Ireland, Latvia, Slovakia, Spain, Sweden and United Kingdom, also transmitted tabulated results. Five countries, Czech Republic, Germany, Poland, Romania and Slovenia, only transmit tabulated results. For most countries the only source is the LFS, and the aggregated tables are based on the LFS results. For Austria, Denmark, France, Germany, and Slovenia instead, the tables are based on other reliable sources (registers, small area estimation, etc.) or a combination of LFS and other sources. For two Member States, Cyprus and Luxembourg, the NUTS 3 level does not differ from the NUTS 1 and the NUTS 2 level. In 2012, for Croatia, Switzerland, Iceland and Candidate countries, no NUTS 3 data were

<sup>(&</sup>lt;sup>18</sup>) The chapter 9 was jointly written by Units F3 and E4.

<sup>(&</sup>lt;sup>19</sup>) For a detailed description of this regional typologies, see:

http://epp.eurostat.ec.europa.eu/portal/page/portal/rural\_development/methodology http://epp.eurostat.ec.europa.eu/portal/page/portal/region\_cities/metropolitan\_regions

available. Portugal has sent to Eurostat tabulated results by NUTS 3 level only for the labour force population (active population).

#### 9.3 Current developments

Given the growing demand for comparable regional data, Eurostat started encouraging countries to provide NUTS 3 codes in LFS microdata. The number of countries providing this information is increasing year after year. Although some countries do not transmit NUTS 3 codes yet, efforts will continue in order to obtain coverage as wide as possible. The idea is that in the future only countries using sources different from the LFS deliver aggregated tables. However, due to non-sampling errors and the combined use of LFS data with the information from registers, it is currently very difficult to assess the accuracy of NUTS 3 level labour market data according to scientific standards.

Eurostat is currently assessing the issues concerning NUTS 3 data. In addition to analyzing further indicators/breakdowns which could be published by regional typologies, Eurostat in co-operation with Member States will investigate the potential of increasing the use of small area estimation techniques to enhance the reliability and availability of NUTS 3 level data in the future.

# Annex I: Item non-response compared to the variables defined by the Commission Regulation (EC) No 377/2008 and clarifications provided by Member States

	Variable status	Column	Identifier	Q1	Q2	Q3	Q4	Short comments on reasons for non-available statistics and prospects for future solutions
BE	compulsory	Col_073/74	HWWISH	89.6	89.4	90.5	89.8	HHWISH is only asked to persons who declared to wish to work more.
		Col_116	WANTWORK	41.3	40.3	44.3	44.1	We don't ask 'wantwork' to all persons with seekwork =3. We have no info about 'wantwork' for persons with statbit=2 & seekwork=3 neither for persons with seekwork = 3 but who are (early) retired. 99% or more of the item non-response concerns (early) retired persons. We can consider them as not willing to work anymore since they don't seek work.
		Col_195	INTWAVE		С	С	С	Only one wave in 2012
BG	compulsory	Col_082/83	HWACTUA2	12.1	16.4	23.2	13.2	Respondents meet difficulties to answer the question, especially self-employed. More than a half of non-responded persons were self-employed on the second job.
		Col_110 - Employed	METHODH				С	This method is rarely used by empl. persons to find other job
		Col_111 - Employed	METHODI	С	С		С	This method is rarely used by empl. persons to find other job
		Col_113 - Employed	METHODK	С				This method is rarely used by empl. persons to find other job
		Col_114 - Employed	METHODL	С		-		This method is rarely used by empl. persons to find other job
		Col_115 - Employed	METHODM	С	С		с	Only methods corresponding to variables from METHODA (col_103) to METHODI (col_111) are considered as active methods.
		Col_115 - Not employed	METHODM	С	С		с	Only methods corresponding to variables from METHODA (col_103) to METHODI (col_111) are considered as active methods.
CZ	compulsory	Col_111 - Employed	METHODI				с	The influence of grant project "Pilot studies and quality improvement of the LFS and its modules" realised in 4th quarter of 2012.
		Col_123	EDUCSTAT	15.4	15.6	15.8	15.9	only persons aged 15-69
DK	compulsory	Col_023	PROXY	10.5	10.5	10.5	10.5	In the Danish LFS the variable covers only population 15-74
		Col_162/163	INTWEEK	29.3	29.3	29.2	29.2	In the Danish LFS the variable covers only population 15-74
		Col_084	EXISTPR	25.9	26.3	26.3	26.0	In the Danish LFS the variable covers only population 15-74
		Col_114 - Employed	METHODL	-	-	-	-	Extremely rare answer option, which in effect makes little sense nationally
		Col_123	EDUCSTAT	10.5	10.5	10.5	10.5	In the Danish LFS the variable covers only population 15-74

#### Quarterly data 2012

	Variable status	Column	Identifier	Q1	Q2	Q3	Q4	Short comments on reasons for non-available statistics and prospects for future solutions
DE	compulsory	Col_114 - Employed	METHODL				С	
		Col_195	INTWAVE	100	100	100	100	This variable is not filled because there are no intra- annual waves in the German LFS.
	optional	Col_021/22	COUNTRYB	100	100	100	100	This variable is not filled in 2012 for legal reasons.
EE	compulsory	Col_054	TEMPDUR		10.3			Includes answers "Do not know"
		Col_110 - Employed	METHODH			С		Due to small absolute numbers very few cases, if any
		Col_110 - Not employed	METHODH			-	С	Due to small absolute numbers very few cases, if any
		Col_111 - Employed	METHODI	с	С	С	С	Due to small absolute numbers very few cases, if any
		Col_113 - Employed	METHODK	С	С	С	С	Due to small absolute numbers very few cases, if any
		Col_114 - Employed	METHODL	с		-		Due to small absolute numbers very few cases, if any
		Col_114 - Not employed	METHODL	С		С		Due to small absolute numbers very few cases, if any
		Col_115 - Employed	METHODM	с	С	С	С	Due to small absolute numbers very few cases, if any
		Col_115 - Not employed	METHODM	С			С	Due to small absolute numbers very few cases, if any
IE	compulsory	Col_054	TEMPDUR	53.5	38.8	39.5	42.8	Persons are asked the question and the level of non-response generally reflects people not knowing what the duration of temporary employment will be
		Col_073/74	HWWISH		11.7	10.7	10.4	Will examine how to fix the relevant filter
		Col_115 - Employed	METHODM	С				Variable captured as of Q2 2012
		Col_115 - Not employed	METHODM	С				Variable captured as of Q2 2012
EL	compulsory	Col_039/40	COUNTRYW	с	С	С	с	It is quite rare the incidence of persons residing in Greece and working abroad.
ES	compulsory	Col_054	TEMPDUR	15.8	15.3	14.9	15.7	respondent 'don't know'
		Col_073/74	HWWISH	83.9	83.5	83.8	83.3	Most of the blanks come from people that don't wish to work more/less hours (perhaps the filter for this variable should be changed or add proper categories). Other option is to code the number of hours HHWISH from HWUSUAL.
		Col_115 - Employed	METHODM	С	С	С	С	No 'other' active method in the survey
		Col_115 - Not employed	METHODM	С	С	С	С	No 'other' active method in the survey
		Col_124	EDUCLEVL	28.9	11	12.3	11.1	People aged 15.
		Col_129/131	COURLEN	33	33.8	42.9	33.6	People aged 15 plus 'don't know' number of hours

	Variable status	Column	Identifier	Q1	Q2	Q3	Q4	Short comments on reasons for non-available statistics and prospects for future solutions
FR	compulsory	Col_028	SIGNISAL			С	С	
		Col_054	TEMPDUR	11	10.9		10.9	
		Col_065/66	HWOVERP	18.5	18.6	14.9	18.4	
		Col_067/68	HWOVERPU	18.5	18.6	14.9	18.4	
		Col_073/74	HWWISH	16.4	16.4	16.6	16.4	
		Col_080/81	NACE2J2D	10.4				
		Col_112 - Employed	METHODJ	С	С	С	С	
		Col_112 - Not employed	METHODJ	С	С	С	С	
		Col_113 - Employed	METHODK	С	С	С	С	
		Col_113 - Not employed	METHODK	С	С	С	С	
		Col_114 - Employed	METHODL	С	С	С	С	
		Col_114 - Not employed	METHODL	C	C	C	С	
115		Col_162/163	INTWEEK	10.2	10.2	10.5		
HR	compulsory	Col_065/66	HWOVERP	98.6	97.2	96.1	96.9	
		Col_073/74	HWWISH	92.8	92.8	92.5	93	
		Col_101 - Employed	SEEKTYPE	100	100	100	100	
		Col_101 - Not employed	SEEKTYPE	100	100	100	100	
		Col_129/131	COURLEN		•	11.4	•	The questions on WISHMORE
IT	compulsory	Col_073/74	HWWISH			15.9		HWWISH in the IT questionnair are referred to the wish of working more than the actual number of hours. Most of the item non-responses are due to persons that did not want to wo at all in the reference week (coo "0" is not available); they are mainly concentrated in the 3rd quarter in which there are summer holidays. A little percentage of item non- responses is due to "don't know answers.
		Col_101 - Employed	SEEKTYPE	21.9	21	24	23.9	Item non-responses are due to persons that do not have preferences about an employment as self-employed o employee.
		Col_101 - Not employed	SEEKTYPE	22.1	25.9	25.7	25.1	Item non-responses are due to persons that do not have preferences about an employment as self-employed o employee.
CY	compulsory	Col_039/40	COUNTRYW		С	С		Country is always CY
		Col_041/42	REGIONW		С	С	С	NUTS 2 is the whole of CY
		Col_110 - Employed	METHODH				С	Rare method to use for searching
		Col_111 - Employed	METHODI				С	Rare method to use for searching
		Col_111 - Not employed	METHODI		С	С		Rare method to use for searching
		Col_115 - Employed	METHODM	С			С	Rare method to use for searching

	Variable status	Column	Identifier	Q1	Q2	Q3	Q4	Short comments on reasons for non-available statistics and prospects for future solutions
LV	compulsory	Col_023	PROXY	12.2	11.7	11.9	11.8	There aren't interviewed persons aged 75 or more included in filter (col.023).
		Col_084	EXISTPR	22.1	22	22.5	22.6	There aren't interviewed persons aged 75 or more included in filter (col.24-5).
		Col_111 - Employed	METHODI			С	С	Infrequent method used to find work.
		Col_123	EDUCSTAT	12.2	11.7	11.9	11.8	There aren't interviewed persons aged 75 or more included in filter (col.123).
		Col_128	COURATT	12.2	11.7	11.9	11.8	There aren't interviewed persons aged 75 or more included in filter (col.128).
		Col_137/138	HATLEVEL	12.2	11.7	11.9	11.8	There aren't interviewed persons aged 75 or more included in filter (col.137/138).
LT	compulsory	Col_041/42	REGIONW	С	С	С	С	
		Col_110 - Employed	METHODH	С	С	С		
		Col_111 - Employed	METHODI			С		
		Col_114 - Employed	METHODL			С		
LU	compulsory	Col_089/90	MONTHPR				11.4	NA
		Col_195	INTWAVE		С	С	С	
HU	compulsory	Col_047/48	MSTARTWK		11.4	16.2	21.9	EU-Filter: REFYEAR, YSTARTWK
		Col_084	EXISTPR	16.2	16.8	16.7	17.1	EU Filter: WSTATOR 3-5 HU Questionnaire: Persons on lay-off are not asked about existence of previous employment experience. Number of persons on lay-off is much lower, then in EU-calculation.
		Col_089/90	MONTHPR			13.6	17.6	EU-Filter: REFYEAR ,YEARPR
		Col_110 - Employed	METHODH	С	С	С	С	What does "C" mean?
		Col_123	EDUCSTAT	9.2	9.3	9.1	9.5	There is an upper-age limit (74 years) in HU-LFS for this variable.
		Col_128	COURATT	9.2	9.3	9.1	9.5	There is an upper-age limit (74 years) in HU-LFS for this variable.
		Col_137/138	HATLEVEL	9.2	9.3	9.1	10.1	There is an upper-age limit (74 years) in HU-LFS for this variable.
MT	compulsory	Col_054	TEMPDUR	· ·	-	15.2		
		Col_082/83	HWACTUA2		22.6			Will advise interviewers to provide more information on this variable.
		Col_112 - Employed	METHODJ	С	С	С	С	Not included in the questionnaire
		Col_112 - Not employed	METHODJ		С	С		Not included in the questionnaire
		Col_113 - Employed	METHODK	С	С	С	С	Not included in the questionnaire
		Col_113 - Not employed	METHODK	· ·	С	С		Not included in the questionnaire
		Col_114 - Employed	METHODL	С	С	С	С	Not included in the questionnaire
		Col_114 - Not employed	METHODL		С	С		Not included in the questionnaire

	Variable status	Column	Identifier	Q1	Q2	Q3	Q4	Short comments on reasons for non-available statistics and prospects for future solutions
NL	compulsory	Col_029/31	NACE3D	10.1			100	30 May 2013 a new dataset has been delivered incl. this variable
		Col_054	TEMPDUR	71.8	70.5	69.8	76.5	
		Col_080/81	NACE2J2D	17.7	17.3	17.1	100	30 May 2013 a new dataset has been delivered incl. variable
		Col_112 - Employed	METHODJ	с	С	С	С	
		Col_112 - Not employed	METHODJ	С	С	С		
		Col_114 - Employed	METHODL	С	С	С	С	
		Col_114 - Not employed	METHODL	С	С	С	-	
	optional	Col_021/22	COUNTRYB	10.5	<u> </u>		10.7	
PT	compulsory	Col_054	TEMPDUR	11.9	14	15	14.6	NC
		Col_115 - Employed	METHODM	С	С	С	С	NC
		Col_115 - Not employed	METHODM	С	С		С	NC
RO	compulsory	Col_110 - Employed	METHODH	С	С	С	С	According to the survey results this is not a popular search method among employed
		Col_111 - Employed	METHODI	С			С	According to the survey results this is not a popular search method among employed
SI	compulsory	Col_065/66	HWOVERP	86.9	89.8	91.1	86.3	
		Col_067/68	HWOVERPU	93.3	94.4	95.3	92.4	
		Col_073/74	HWWISH	78.4	85	86	80.8	
		Col_110 - Employed	METHODH		-		С	
		Col_111 - Employed	METHODI				С	
		Col_114 - Employed	METHODL	С	С	С	С	
		Col_114 - Not employed	METHODL	С	С	С	С	
SK	compulsory	Col_028	SIGNISAL			С	С	Item was evaluated
		Col_101 - Employed	SEEKTYPE		15.3	13.1	13.9	Missing of appropriate code for those who are looking for any job (no preference between self- employed, employees) causes higher value of the non-resp. rate
		Col_101 - Not employed	SEEKTYPE	15.9	16.3	15.7	15.2	Missing of appropriate code for those who are looking for any job (no preference between self- employed, employees) causes higher value of the non-resp. rate
		Col_110 - Employed	METHODH	-		С	С	Methods used in job seeking have the same question "State all methods you used during the last 4 weeks to find work"
		Col_111 - Employed	METHODI	С		С	С	Methods used in job seeking have the same question "State all methods you used during the last 4 weeks to find work"
		Col_114 - Employed	METHODL	С	С	С	С	Methods used in job seeking have the same question "State all methods you used during the last 4 weeks to find work"
		Col_115 - Employed	METHODM	С	С	С	С	Methods used in job seeking have the same question "State all methods you used during the last 4 weeks to find work"
		Col_115 - Not employed	METHODM	С	С	С	С	See comment above

	Variable status	Column	Identifier	Q1	Q2	Q3	Q4	Short comments on reasons for non-available statistics and prospects for future solutions
FI	compulsory	Col_112 - Employed	METHODJ	С	С			Passive job search methods are asked only if none of the active methods have been used.
		Col_112 - Not employed	METHODJ	С			с	Passive job search methods are asked only if none of the active methods have been used.
		Col_113 - Employed	METHODK	с		-	с	Passive job search methods are asked only if none of the active methods have been used.
		Col_114 - Employed	METHODL	С	С	С	С	NA
		Col_114 - Not employed	METHODL	С	С	С	С	NA
SE	compulsory	Col_001/2	HHSEQNUM	С	С	С	С	The household supplement for the Swedish LFS is added to the 8th rotation where all household members are included in the sample. Persons aged 15-74 years of age are interviewed with regard to the labour market. Data for 2012 has been delivered to Eurostat separately from individual data.
		Col_054	TEMPDUR	14.9	14	12.9	15.8	Respondents do not always remember start and end of work
		Col_102 - Employed	SEEKDUR		10.2	11.5	11.1	High item non response. People tend to forget how long they have been looking for work.
		Col_102 - Not employed	SEEKDUR	23.2	35.7	17.2	16.5	High item non response. People tend to forget how long they have been looking for work.
		Col_114 - Employed	METHODL		С			Very infrequent that this variable has value 1. Checked against micro-data.
		Col_114 - Not employed	METHODL				с	Very infrequent that this variable has value 1. Checked against micro-data.
UK	compulsory	Col_054	TEMPDUR	52.7	52.7	51.3	54.6	There is a high-level of non- response due to a relatively small proportion of the employed sample working in a temporary job in the reference week.
		Col_065/66	HWOVERP	90.8	90.8	91.1	90.9	There is a high level of non- response due to a relatively small proportion of the employed sample working overtime in the reference week
		Col_067/68	HWOVERPU	83.5	83.9	85.3	84.4	There is a high level of non- response due to a relatively small proportion of the employed sample working overtime in the reference week
		Col_073/74	HWWISH	88.5	88.6	88.5	88.8	This variable is only computed for those who wish to work more hours. The high level of non- response is due to only 4% of the sample wishing to work more hours
		Col_109 - Employed	METHODG	С	С	С	С	The UK-LFS does not collect information on whether respondents took a test, interview or examination. Only "no" responses can be computed.

	Variable status	Column	Identifier	Q1	Q2	Q3	Q4	Short comments on reasons for non-available statistics and prospects for future solutions
		Col_109 - Not employed	METHODG	С		С	С	The UK-LFS does not collect information on whether respondents took a test, interview or examination. Only "no" responses can be computed.
		Col_113 - Employed	METHODK	С	С	С	С	The UK-LFS does not collect information on whether respondents are waiting for a call from a public employment office
		Col_113 - Not employed	METHODK	С		С	С	The UK-LFS does not collect information on whether respondents are waiting for a call from a public employment office
		Col_114 - Employed	METHODL	С	С	С	С	The UK-LFS does not collect information on whether respondents are awaiting results of a competition for recruitment to the public sector
		Col_114 - Not employed	METHODL	С		С	С	The UK-LFS does not collect information on whether respondents are awaiting results of a competition for recruitment to the public sector
		Col_124	EDUCLEVL	13.6	14.2	18.7	15	
		Col_129/131	COURLEN	69.6	70.3	70.9	70.8	The high level of non-response is due to the fact that not all people who have completed a course in the last 4 weeks are asked how many hours of instruction that have attended in total
		Col_137/138	HATLEVEL	10.8	11	11.1	10.9	The highest level of qualification is not asked of women aged 60- 99 who are not working. Men aged 65-99 who are not working are also not asked to give their highest level of qualification.
IS	compulsory	Col_001/2	HHSEQNUM	С			С	
		Col_032/35	ISCO4D		18.7			
		Col_039/40	COUNTRYW	C	C	С	· .	
		Col_041/42	REGIONW	C	С	С		
		Col_054 Col_065/66	TEMPDUR HWOVERP	12.8 66.8	67	71.9	66.3	
		Col_067/68	HWOVERPU	66.4	66.3	71.9	65.9	
		Col_069/70	HOURREAS	13	13.3	13.1	13.9	
		Col_073/74	HWWISH	99.9	100	100	100	
		Col_101 - Employed	SEEKTYPE	100	100	100	100	
		Col_101 - Not employed	SEEKTYPE		18.6		•	
		Col_102 - Employed	SEEKDUR	100	100	100	100	
		Col_102 - Not employed Col 103 -	SEEKDUR		17.9			
		Employed Col_104 -	METHODA	C	C		C	
		Employed Col 105 -	METHODB	С	С	•	С	
		Employed	METHODC	С	С		С	

	Variable status	Column	Identifier	Q1	Q2	Q3	Q4	Short comments on reasons for non-available statistics and prospects for future solutions
		Col_106 -	METHODD	С	С		С	
		Employed Col_107 -	METHODE	С	С		C	
		Employed Col_108 -	METHODF	С	С		С	
		Employed Col_109 -	METHODG	С	С		С	
		Employed Col_109 - Not	METHODG	С		С	С	
		employed Col_110 - Employed	METHODH	С	С		С	
		Col_111 - Employed	METHODI	С	С		С	
		Col_112 - Employed	METHODJ	С	С		С	
		Col_113 - Employed	METHODK	С	С		С	
		Col_113 - Not employed	METHODK	С		С	С	
		Col_114 - Employed	METHODL	С	С		С	
		Col_114 - Not employed	METHODL	С		С	С	
		Col_115 - Employed	METHODM	С	С		С	
		Col_116	WANTWORK	21.8	32.6	27.9	23.2	
		Col_117 - Employed	AVAILBLE	С	С	С	С	
		Col_124	EDUCLEVL		14.8	36.1		
		Col_168	DEGURBA	100	100	100		
NO	compulsory	Col_039/40	COUNTRYW	С	С	С	С	
		Col_047/48	MSTARTWK	25.9	31.1	34.5	37.6	
		Col_054	TEMPDUR	40.1	39.6	37.9	41.5	
	1	Col_071	WISHMORE	· · ·	11.2	13.5	13.4	I.
		Col_076	LOOKOJ		10.1	12.7	12.2	
		Col_082/83	HWACTUA2		10.1	11.8	10.8	
		Col_102 - Employed	SEEKDUR	11.2		•	11.1	
		Col_102 - Not employed	SEEKDUR			10.2		
		Col_111 - Employed	METHODI	С				
		Col_111 - Not employed	METHODI		С	С	· .	
		Col_114 - Employed	METHODL	С	С	С	•	
		Col_114 - Not employed	METHODL	С	С	С		
СН	compulsory	Col_001/2	HHSEQNUM	С	С	С	С	In Switzerland only one person per household is interviewed (see derogation in annex II). For this person HHSEQNUM automatically equals 1.
		Col_080/81	NACE2J2D			11.7		A second job often consists in an employment in a private household or in a small busines enterprise that does not figure in the register which is used to derive the economic activity according to NACE.
		Col_101 - Not employed	SEEKTYPE		10.6			Filter error in questionnaire, corrected for 2013.

	Variable status	Column	Identifier	Q1	Q2	Q3	Q4	Short comments on reasons for non-available statistics and prospects for future solutions
		Col_102 - Not employed	SEEKDUR		10.9			Filter error in questionnaire, corrected for 2013.
		Col_110 - Employed	METHODH	С				In Q1 no employed respondent declared to have used this method.
		Col_110 - Not employed	METHODH	С	С	С	С	No respondent not employed declared to have used this method.
		Col_111 - Not employed	METHODI	С		С	С	In Q1/3/4 no respondent not employed declared to have used this method.
		Col_113 - Employed	METHODK				С	In Q4 no employed respondent declared to have used this method.
		Col_114 - Employed	METHODL	С	С	С	С	METHODL is not relevant for Switzerland.
		Col_114 - Not employed	METHODL	С	С	С	С	METHODL is not relevant for Switzerland.
MK	compulsory	Col_041/42	REGIONW	С	С	С	С	
		Col_114 - Employed	METHODL	С	С	С		Awaiting the results of a competition for recruitment to the public sector. We plan to introduce this variable in the future.
		Col_114 - Not employed	METHODL	С		С	С	Awaiting the results of a competition for recruitment to the public sector. We plan to introduce this variable in the future.
		Col_168	DEGURBA	100	100	100	100	Degree of urbanisation. We plan to introduce this variable in the future.
	optional	Col_021/22	COUNTRYB					information is not collected two age group and the item non- response for 15-74 years old is 0%
TR	compulsory	Col_017/18	NATIONAL	100	100	100	100	According to the 2010 Address Based Population Registration System; 99.7 % of population has Turkish Nationality. So, it is not easy to cover non-nationals with a sample survey.
		Col_039/40	COUNTRYW	С	С	С	С	There are very few people who are working abroad and at the same time considered as household member since Turkey is a very broad country. This may only occur in border cities, but not common. So, this variable is not asked.
		Col_067/68	HWOVERPU	100	100	100	100	Only total overtime is asked in the questionnaire (paid+unpaid). Since it is not possible to distinguish paid and unpaid overtime. Total overtime is given in HWOVERP and this variable is coded as blank.
		Col_073/74	HWWISH	100	100	100	100	This variable was dropped out from the questionnaire in 2009 since it was observed that, results were not reliable. Respondents replied this question as they understand (some give the hours that would like to work in total while others only give the additional hours).

Variable status	Column	Identifier	Q1	Q2	Q3	Q4	Short comments on reasons for non-available statistics and prospects for future solutions
	Col_104 - Employed	METHODB	С	С	С	С	For employed people all the methods are not asked in same detail, some of them are grouped looking at the frequency (for example, Public Employment Office and Private Employment Offices are combined in one code). So, while constituting the METHOD variables, there are some blank codes for employed people.
	Col_108 - Employed	METHODF	С	С	С	С	For employed people all the methods are not asked in same detail, some of them are grouped looking at the frequency (for example, Public Employment Office and Private Employment Offices are combined in one code). So, while constituting the METHOD variables, there are some blank codes for employed people.
	Col_111 - Employed	METHODI	С	С	С	С	For employed people all the methods are not asked in same detail, some of them are grouped looking at the frequency (for example, Public Employment Office and Private Employment Offices are combined in one code). So, while constituting the METHOD variables, there are some blank codes for employed people.
	Col_113 - Employed	METHODK	С	С	С	С	For employed people all the methods are not asked in same detail, some of them are grouped looking at the frequency (for example, Public Employment Office and Private Employment Offices are combined in one code). So, while constituting the METHOD variables, there are some blank codes for employed people.
	Col_114 - Employed	METHODL	С	С	С	С	For employed people all the methods are not asked in same detail, some of them are grouped looking at the frequency (for example, Public Employment Office and Private Employment Offices are combined in one code). So, while constituting the METHOD variables, there are some blank codes for employed people.
	Col_168	DEGURBA	100	100	100	100	For employed people all the methods are not asked in same detail, some of them are grouped looking at the frequency (for example, Public Employment Office and Private Employment Offices are combined in one code). So, while constituting the METHOD variables, there are some blank codes for employed people.

Note: 'C' All records have the same value Source: Joint Standard Quality Report for Labour Force Survey and Regional Labour Market Statistics – Annual quality reports 2012

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	Variable status	Column	Identifier	2012	Short comments on reasons for non- available statistics and prospects for future solutions
BE	compulsory	Col_019/20	YEARESID	14.5	A new YEARESID variable will be delivered to ESTAT in September 2013. This new variable is based on Register data and should replace the current version, which is based on a question from the questionnaire.
		Col_051	FTPTREAS	10.8	A new FTPTREAS variable will be delivered to ESTAT in September 2013.The high number of missing on this variable made us aware of a mistake in the construction of the ESTAT variable. The addition of a new answering category in the questionnaire had not been taken into account in the program that recodes national variables into ESTAT variables. The true number of missing on this variable will therefore be much lower.
		Col_118 - Not employed	AVAIREAS	89.8	(Early) retired persons are asked if they are searching a job. If not, they are not asked if they want a job. So we don't know for these persons if they are available.
		Col_139/141	HATFIELD	59.6	A new HATFIELD variable will be delivered to ESTAT in September 2013. From 2012, the field of education is coded on a much more detailed level than before. However, this change of coding scheme has not been taken into account in the program that creates the ESTAT variables. This explains the high number of missing, which should be much lower for the new HATFIELD variable.
	optional	Col_125/127	EDUCFILD	52.9	A new EDUCFILD variable will be delivered to ESTAT in September 2013.From 2012, the field of education is coded on a much more detailed level than before. However, this change of coding scheme has not been taken into account in the program that creates the ESTAT variables. This explains the high number of missing, which should be much lower for the new EDUCFILD variable.
		Col_133/134	COURFILD	61.4	A new COURFILD variable will be delivered to ESTAT in September 2013. From 2012, the field of education is coded on a much more detailed level than before. However, this change of coding scheme has not been taken into account in the program that creates the ESTAT variables. This explains the high number of missing, which should be much lower for the new COURFILD variable.
BG	compulsory	Col_055	TEMPAGCY	С	
		Col_118 - Employed	AVAIREAS	31	Persons who are employed but temporary absent from work (e.g. on parental leave) - cases with SIGNISAL=3, were not asked this question due to the limitations of paper questionnaire. The future decision will depend on the existence of variable SIGNISAL.
		Col_154/155	INCDECIL	10.3	Data are collected by interview. Many people are not willing to provide information on wages.
	optional	Col_136	COURWORH	100	The variable is not available in the national LFS.

	Variable status	Column	Identifier	2012	Short comments on reasons for non- available statistics and prospects for future solutions
CZ	compulsory	Col_154/155	INCDECIL	100	Dataset with this variable will be sent during the next year (imputation).
	optional	Col_125/127	EDUCFILD	100	Czech LFS does not survey this variable
		Col_132	COURPURP	100	Czech LFS does not survey this variable
		Col_133/134	COURFILD	100	Czech LFS does not survey this variable
		Col_136	COURWORH	100	Czech LFS does not survey this variable
DK	compulsory	col_142/145	HATYEAR	21.1	Undercoverage of register
		col_146	WSTAT1Y	10.6	In the Danish LFS the variable covers only population 15-74
		col_154/155	INCDECIL	7.2	
	optional	col_132	COURPURP	100	Not compulsory
		col_133/135	COURFIELD	100	Not compulsory
		col_136	COURWORH	100	Not compulsory
DE	compulsory	Col_036	SUPVISOR	40.6	
		Col_049	WAYJFOUN	18.1	
		Col_053	TEMPREAS	33.6	
		Col_055	TEMPAGCY	22.2	
		Col_096/98	ISCOPR3D	100	
		Col_120	NEEDCARE	30.7	
		Col_121	REGISTER	93.7	
		Col_142/145	HATYEAR	11.8	
	optional	Col_122	MAINSTAT	100	
		Col_125/127	EDUCFILD	100	
		Col_136	COURWORH	100	
EE	compulsory	Col_053	TEMPREAS	15.6	In the Eurostat's study "Analysis of questionnaires, explanatory notes and transcodification programmes for the national Labour Force Surveys", it was pointed out that in the Estonian transcodification program, the EU LFS option 3 (Person did not want a permanent job) of the variable TEMPREAS includes persons having "no preference" (D15=3) between both categories "Did not want permanent job" and "Wanted permanent job, but have not found?". To correct it, persons having "no preference" (D15=3) are coded as "blank" since 2010.
IE	compulsory	Col_053	TEMPREAS	27.4	
		Col_093	STAPROPR	100	Not currently collected
		Col_100	SEEKREAS	21.9	
		Col_118 - Employed	AVAIREAS	97.4	
		Col_119	PRESEEK	100	Not currently collected
		Col_121	REGISTER	100	Not currently collected
		Col_146	WSTAT1Y	100	Not currently collected
		Col_150/151	COUNTR1Y	100	Not currently collected
		Col_152/153	REGION1Y	100	Not currently collected
		Col_154/155	INCDECIL	63.8	

	Variable status	Column	Identifier	2012	Short comments on reasons for non- available statistics and prospects for future solutions
	optional	Col_132	COURPURP	45.9	
		Col_133/134	COURFILD	100	Not currently collected
		Col_136	COURWORH	19	
EL	compulsory	Col_053	TEMPREAS	12.4	In the Greek Questionnaire there is the (residual) answer category "Did not specify the reason" (which is converted in "No answer"). It should be tested if the exclusion of this answer category would reduce the non-response in this variable
		Col_118 - Employed	AVAIREAS	18.7	In the Greek Questionnaire there is the (residual) answer category "Did not specify the reason" (which is converted in "No answer"). It should be tested if the exclusion of this answer category would reduce the non-response in this variable
		Col_154/155	INCDECIL	19.2	ii is a sensitive question in which people tend to refuse to answer
ES	compulsory	Col_118 - Employed	AVAIREAS	22.5	
		Col_118 - Not employed	AVAIREAS	11.3	In these cases the respondent declared not knowing if was or not available to start working within two weeks and because of that he/she didn't answered the reasons for not being available to start working within 2 weeks. The question is that all these records suffered an imputation in the editing and imputation process and because of that they fulfill the filter to v53 but they don't have any answer.
		Col_154/155	INCDECIL	100	It will be provided from registers in due time.
	optional	Col_132	COURPURP	13.1	People aged 15.
		Col_133/135	COURFILD	13.1	People aged 15.
		Col_136	COURWORH	100	Not provided
FR	compulsory	Col_049	WAYJFOUN	34.4	
		Col_091/92	LEAVREAS	35.4	
		Col_096/98	ISCOPR3D	86.1	
		Col_100	SEEKREAS	46.7	
		Col_118 - Employed	AVAIREAS	16.3	
		Col_119	PRESEEK	100	Information not available in the questionnaire
HR	compulsory	Col_118 - Employed	AVAIREAS	67	
		Col_118 - Not employed	AVAIREAS	81.8	
		Col_150/151	COUNTR1Y	11.4	
		Col_152/153	REGION1Y	11.4	
		Col_154/155	INCDECIL	23.1	
	optional	Col_133/134	COURFILD	100	

	Variable status	Column	Identifier	2012	Short comments on reasons for non- available statistics and prospects for future solutions
IT	compulsory	Col_150/151	COUNTR1Y	12.7	Item non-response is due to people aged less than 15 years, for which this information is not collected in the national questionnaire
		Col_152/153	REGION1Y	12.7	Item non-response is due to people aged less than 15 years, for which this information is not collected in the national questionnaire
CY	compulsory	Col_055	TEMPAGCY	С	No such agencies in Cyprus
LV	compulsory	Col_146	WSTAT1Y	11.9	There aren't interviewed persons aged 75 or more included in filter (col.146).
	optional	Col_122	MAINSTAT	11.9	There aren't interviewed persons aged 75 or more included in filter (col.122).
LT	compulsory	Col_152/153	REGION1Y	С	
		Col_154/155	INCDECIL	21.7	
LU	compulsory	Col_053	TEMPREAS	10.9	NA
		Col_121	REGISTER	10.8	NA
HU	compulsory	Col_154/155	INCDECIL	100	According to the Regulation (EC) No 1372/2007 of the European Parliament and the Council of 23 October 2007 amending Council regulation (EC) No 577/98 on the organisation of a labour force sample survey in the Community transmission of the results "where administrative data are used to supply data corresponding to the survey characteristic wages from the main job, "may be forwarded to Eurostat within twenty-one months of the end of the reference period". And data always are transmitted to Eurostat to the end of the requested period.
MT	compulsory	Col_049	WAYJFOUN	45.8	
		Col_118 - Employed	AVAIREAS	84.1	Values were left empty due to routing of the questionnaire
MT	optional	Col_125/127	EDUCFILD	100	Not included in the questionnaire
		Col_132	COURPURP	100	Not included in the questionnaire
		Col_133/134	COURFILD	100	Not included in the questionnaire
		Col_136	COURWORH	100	Not included in the questionnaire
NL	compulsory	Col_051	FTPTREAS	11.1	
		Col_053	TEMPREAS	31	
		Col_093	STAPROPR	60.8	
		Col_094/95	NACEPR2D	100	30 May 2013 a new dataset has been delivered including this variable
		Col_096/98	ISCOPR3D	77.2	
		Col_118 - Not employed	AVAIREAS	32.3	
		Col_119	PRESEEK	63.9	
		Col_146	WSTAT1Y	16.5	
		Col_148/149	NACE1Y2D	100	30 May 2013 a new dataset has been delivered including this variable
		Col_154/155	INCDECIL	100	This variable will be delivered subsequently
	optional	Col_133/134	COURFILD	11.1	
AT	compulsory	Col_121	REGISTER	100	Delivered yearly
		Col_154/155	INCDECIL	100	Delivered yearly

	Variable status	Column	Identifier	2012	Short comments on reasons for non- available statistics and prospects for future solutions
PL	compulsory	Col_154/155	INCDECIL	24.5	We are taking in account to apply imputation method for this variable in future.
PT	compulsory	Col_154/155	INCDECIL	11.7	NC
	optional	Col_125/127	EDUCFILD	100	NC
		Col_132	COURPURP	100	NC
		Col_133/134	COURFILD	100	NC
		Col_136	COURWORH	100	NC
RO	compulsory	Col_118 - Not employed	AVAIREAS	34.5	In Romanian LFS, for persons left abroad for a long period of time only few variables are collected (i.e. age, sex, level of education etc.), WSTATOR is automatically coded as 5 but no further questions are asked. Following Eurostat practice, for variable not accepting a blank value, they are automatically coded (for example "no" for SEEKWORK and AVAILABLE) while for the rest of variables they are coded as blank. The situation will improve in the future.
SI	compulsory	Col_016	MARSTAT	13	
		Col_049	WAYJFOUN	23.2	
		Col_096/98	ISCOPR3D	57.3	
		Col_118 - Employed	AVAIREAS	100	
		Col_154/155	INCDECIL	100	
	optional	Col_125/127	EDUCFILD	100	
		Col_133/134	COURFILD	100	
SK	compulsory	Col_154/155	INCDECIL	36.2	Item was evaluated
FI	compulsory	Col_142/145	HATYEAR	10.9	
		Col_146	WSTAT1Y	17.3	The non-response rate is 4.8 for the right target group with the yearly weighting factor COEFFY: INTWAVE=5 and HHLINK=1 and age=15-74.
		Col_150/151	COUNTR1Y	40.5	The non-response rate is 6.4 for the right target group with the yearly weighting factor COEFFY: INTWAVE=5 and HHLINK=1 and age=15-74.
		Col_152/153	REGION1Y	40.5	The non-response rate is 6.4 for the right target group with the yearly weighting factor COEFFY: INTWAVE=5 and HHLINK=1 and age=15-74.
		Col_125/127	EDUCFILD	78.2	Optional variable, field only for general programmes, the rest are vocational.
					Optional variable.
	optional	Col_133/134	COURFILD	100	

	Variable status	Column	Identifier	2012	Short comments on reasons for non- available statistics and prospects for future solutions
SE	compulsory	Col_118 - Employed	AVAIREAS	46.7	The variable has been adjusted 2010
		Col_121	REGISTER	19.7	The high non-response is due to employed who doesn't look for another job.
		Col_142/145	HATYEAR	25.3	Register variable. Register quality
		Col_146	WSTAT1Y	43.7	A new solution of collecting the data was used during 2007. Some smaller improvements have been done since then.
		Col_154/155	INCDECIL	100	Register variable.
SE	optional	Col_125/127	EDUCFILD	100	Optional. Will not be collected
		Col_132	COURPURP	100	Optional. Will not be collected
		Col_133/134	COURFILD	100	Optional. Will not be collected
		Col_136	COURWORH	100	Optional. Will not be collected
UK	compulsory	Col_053	TEMPREAS	30	The current calculation of TEMPREAS assigns WHYTMP6 = 5 (some other reason) to blank (no answer). Eurostat codification only allows the four values covered by the first four response categories. It is not clear how those who answer 'some other reason' should be coded.
		Col_055	TEMPAGCY	98.8	TEMPAGCY is derived from NSI var. TMPCON (contract with employment agency). TMPCON only asked if HOWGET = 5 (private employment agency). If filter HOWGET = 5 included in DV then item non response falls to < 2%.
		Col_077	LOOKREAS	82	Error in code; estimated actual INR < 0.1%. Code corrected for 2013 Q1.
		Col_118 - Employed	AVAIREAS	0	
		Col_118 - Not employed	AVAIREAS	0	
		Col_120	NEEDCARE	0	
		Col_142/145	HATYEAR	22	1) Year is not recorded for qualifications attained outside UK. 2) Respondents with no qualifications are coded to ISCED 22 (HATLEVEL = ?), Year not recorded or inferred. 3) An error in the code for HATYEAR resulted in a small number of respondents who attained highest qualification in 2011-13 being set to missing.
		Col_154/155	INCDECIL	100	
	optional	Col_122	MAINSTAT	100	Not currently calculated on UK LFS.
		Col_125/127	EDUCFILD	16.8	
		Col_132	COURPURP	72.2	
		Col_136	COURWORH	72.1	
IS	compulsory	Col_019/20	YEARESID	58.4	
		Col_053	TEMPREAS	34.2	
		Col_055	TEMPAGCY	С	
		Col_075	HOMEWK	10.4	
		Col_093	STAPROPR	65.6	
		Col_094/95	NACEPR2D	48.9	
		Col_096/98	ISCOPR3D	10.7	
		Col_100	SEEKREAS	25.5	
		Col_118 - Employed	AVAIREAS	100	
		Col_118 - Not employed	AVAIREAS	70.4	

	Variable status	Column	Identifier	2012	Short comments on reasons for non- available statistics and prospects for future solutions
		Col_121	REGISTER	70.9	
		Col_150/151	COUNTR1Y	58.3	
		Col_152/153	REGION1Y	58.3	
		Col_154/155	INCDECIL	100	
	optional	Col_122	MAINSTAT	16.1	
		Col_125/127	EDUCFILD	С	
		Col_133/134	COURFILD	100	
NO	compulsory	Col_049	WAYJFOUN	30.6	
		Col_051	FTPTREAS	23.7	
		Col_053	TEMPREAS	13.4	
		Col_094/95	NACEPR2D	100	
		Col_096/98	ISCOPR3D	100	
		Col_100	SEEKREAS	25.5	
		Col_118 - Employed	AVAIREAS	17.8	
		Col_119	PRESEEK	23.1	
		Col_121	REGISTER	100	
		Col_142/145	HATYEAR	100	
		Col_150/151	COUNTR1Y	100	
		Col_152/153	REGION1Y	100	
		Col_154/155	INCDECIL	100	
	optional	Col_122	MAINSTAT	100	
		Col_125/127	EDUCFILD	100	
		Col_132	COURPURP	100	
		Col_133/134	COURFILD	100	
		Col_136	COURWORH	100	
СН	compulsory	Col_049	WAYJFOUN	11.1	Filter error, adaptation of questionnaire planned.
		Col_053	TEMPREAS	30	A considerable amount of respondents have indicated "other reasons" (without specification). As TEMPREAS does not have such a residual category, these respondents have to be coded "blank".
		Col_094/95	NACEPR2D	12	A major part of the non-response in NACEPR2D is due to the fact that the loca unit indicated by respondents does not (or not anymore) figure in the register which is used to derive the economic activity according to NACE.
		Col_118 - Not employed	AVAIREAS	18.7	Filter error, adaptation of questionnaire planned.
		Col_120	NEEDCARE	32.1	Filter error, adaptation of questionnaire planned.
		Col_139/141	HATFIELD	12.8	Filter error, adaptation of questionnaire planned.
		Col_142/145	HATYEAR	22.7	Filter error, adaptation of questionnaire planned.
	optional	Col_072	WAYMORE	31.3	Filter error, adaptation of questionnaire planned.
		Col_125/127	EDUCFILD	100	Not asked in the SLFS.
		Col_132	COURPURP	34.7	Filter error, adaptation of questionnaire planned.
		Col_133/134	COURFILD	100	Not asked in the SLFS.
		Col_136	COURWORH	100	Not asked in the SLFS.

	Variable status	Column	Identifier	2012	Short comments on reasons for non- available statistics and prospects for future solutions
МК	compulsory	Col_016	MARSTAT	15.6	Marital status is the conjugal status of each individual in relation to the marriage laws of the country
		Col_019/20	YEARESID	15.6	Year of residence for person not born in the country
		Col_053	TEMPREAS	11.9	All employee persons answered this variable
		Col_075	HOMEWK	100	This variable will be introduced next year.
		Col_118 - Employed	AVAIREAS	62.6	One part of employed who didn't seek for a job we miss to ask "if they want to work" in the next year we will correct this.
		Col_118 - Not employed	AVAIREAS	94.3	Not employed who are: pensioners; disabled and persons who have already found a job didn't answer questions for this variable. In the future we will try to clear this.
		Col_119	PRESEEK	100	This variable is planned to be introduced in the future.
		Col_120	NEEDCARE	100	This variable is planned to be introduced in the future.
		Col_121	REGISTER	80.4	For this variable we didn't collect information for persons who are not registered in our employment agency because they can't apply for benefit.
		Col_150/151	COUNTR1Y	16.8	For this variable we collect the information for persons 15-79; for other persons we didn't have an information. In the future we plan to improve this.
		Col_152/153	REGION1Y	16.8	For this variable we collect the information for persons 15-79; for other persons we didn't have an information. In the future we plan to improve this.
		Col_154/155	INCDECIL	100	This variable will be introduced in the future
	optional	Col_122	MAINSTAT	100	The variable is optional but will be introduced in the future.
TR	compulsory	Col_055	TEMPAGCY	100	This variable is not asked since temporary working agencies are not common in Turkey for the moment.
		Col_056	SHIFTWK	100	Dropped in 2009 since they were found unsuitable for country situation.
		Col_057	EVENWK	100	Dropped in 2009 since they were found unsuitable for country situation.
		Col_058	NIGHTWK	100	Dropped in 2009 since they were found unsuitable for country situation.
		Col_059	SATWK	100	Dropped in 2009 since they were found unsuitable for country situation.
		Col_060	SUNWK	100	Dropped in 2009 since they were found unsuitable for country situation.
		Col_118 - Employed	AVAIREAS	С	This variable is not available for employed since 2009. It had been asked until 2009 and found unnecessary when examined the frequency.
		Col_121	REGISTER	100	This question is not asked since the coverage of unemployment benefits is very limited in Turkey (around 10% of registered unemployed are receiving unemployment benefit at the current situation).
	optional	Col_122	MAINSTAT	100	These optional variables are not asked for the moment since these are not critical at national level.
		Col_133/134	COURFILD	100	
		Col_136	COURWORH	100	

Note: 'C' All records have the same value

Source: Joint Standard Quality Report for Labour Force Survey and Regional Labour Market Statistics – Annual quality reports 2012

## Annex II: Data presentation and abbreviations

## Data presentation

The following symbols are used, where necessary:

- : Not available;
- Not applicable.

## Geographical aggregates and country codes

EU-28 EU-25 EU EA-17 EA EEA	European Union of 28 Member States European Union of 25 Member States European Union Euro area of 17 Member States Euro area
EEA	European Economic Area
BE	Belgium
BG	Bulgaria
CZ	Czech Republic
DK	Denmark
DE	Germany
EE	Estonia
IE	Ireland
EL	Greece
ES	Spain
FR	France
HR	Croatia
IT	Italy
CY	Cyprus
LV	Latvia
LT	Lithuania
LU	Luxembourg
HU	Hungary
MT	Malta
NL	Netherlands
AT	Austria
PL	Poland
PT	Portugal
RO	Romania
SI	Slovenia
SK	Slovakia Finland
FI SE	Finland Sweden
UK	United Kingdom
IS	Iceland
NO	Norway

СН	Switzerland
$MK(^{1})$	the former Yugoslav Republic of Macedonia
TR	Turkey

(<sup>1</sup>) Provisional ISO code which does not prejudge in any way the definitive nomenclature for this country, which is to be agreed following the conclusion of negotiations currently taking place on this subject at the United Nations.

European Commission

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