

# Structure of Earnings Survey 2014 (SES 2014) Synthesis of National Quality Reports

## **Table of Contents**

1 Introduction
2 SES – statistical concepts, definitions and classifications
2.1 Statistical concepts and definitions
2.2 Classifications 6
2.2.1 International standard classifications used
2.2.2 Enterprise size classes
3 Overview of designs and methods used for SES 2014
3.1 Coverage
3.2 Reference period
3.3 Sampling design and sampling frames
3.4 Methods of data collection and data sources
4 Relevance
5 Accuracy
5.1 Sampling errors
5.2 Non-sampling errors
5.2.1 Coverage errors
5.2.2 Measurement errors
5.2.3 Processing errors
5.2.4 Non-response errors
6 Timeliness and punctuality
7 Accessibility and clarity
8 Coherence and comparability
8.1 Comparability over time
Annex I: Legal basis

Annex II: SES 2014 overview	35
Annex III: Data transmission overview	35 <u>2</u>
Annex IV: Country abbreviations	39

## 1 Introduction

The Structure of Earnings Survey (SES) is a large enterprise survey, conducted in the Member States of the European Union (EU), in the European Union candidate countries and in the European Free Trade Association (EFTA) countries.

It provides comparable and EU-wide harmonised structural data on gross earnings, hours paid and annual days of paid holiday leave, as well as the detailed and comparable information at EU level on relationships between the level of earnings, individual characteristics of employees (sex, age, occupation, length of service, educational level) and their employer (economic activity, size of the enterprise, etc.) for reference year 2014. The statistics of the 2014 SES refer to enterprises with at least 10 employees in the areas of economic activity defined by sections B to S excluding O of NACE Rev.2. The inclusion of section O, as well as information on enterprises with less than 10 employees remains optional in the 2014 SES.

The SES represents a rich microdata source for European policy-making and research purposes. Access to microdata is granted to recognised researched entities, according to specific conditions and respecting statistical confidentiality.

The SES collects the earnings actually received by an employee of a business in the reference month and year. The information collected relates to the earnings paid to each "job holder". It does not cover earnings by the same employee elsewhere in a second or third job.

The data collection is based on legislation and data become available approximately 2 years after the end of the reference period. According to its legislation the survey is taking place every four years and its results are published on Eurostat's website.

The following report is the EU Quality Report of the 2014 Structure of Earnings Survey (SES 2014). It is mainly based on the national standard quality reports received by Eurostat from participating countries<sup>1</sup>.

The structure of this report follows the chapters on the quality of statistical outputs of the European Statistics Code of Practice of the European Statistical System. All quality concepts of statistical outputs are considered: *relevance*, *accuracy and reliability*, *timeliness and punctuality*, *coherence and comparability*, *accessibility and clarity*. Many concepts have sub-concepts which are explained at the beginning of each section. The acronym SES largely used in the report stands for Structure of Earnings Survey.

 $<sup>^{1}</sup>$  At the time of drafting this report, the Greek and Croatian quality reports were still missing.

## 2 SES – statistical concepts, definitions and classifications

## 2.1 Statistical concepts and definitions

**Employees** are all persons who have a direct employment contract with the enterprise or local unit and receive remuneration, irrespective of the type of work performed, the number of hours worked (full or part-time) and the duration of their contract (fixed or indefinite).

**Low-wage earners** are defined as those employees (excluding apprentices) earning two-thirds or less of the national median gross hourly earnings in that particular country.

**Median earning** is defined so that half of the population earns less than this value and the other half earns more.

The main indicators presented in Eurobase tables are split into 3 main subsets containing:

- ✓ Hourly gross earnings defined as gross earnings in the reference month divided by the number of hours paid during the same period. Number of hours paid includes all normal and overtime hours worked and remunerated by the employer during the reference month. Hours not worked but nevertheless paid are counted as 'paid hours' (e.g. for annual leave, public holidays, paid sick leave, paid vocational training, paid special leave, etc.).
- ✓ Monthly gross earnings in the reference month cover remuneration in cash paid before any tax deductions and social security contributions payable by wage earners and retained by the employer, and are restricted to gross earnings which are paid in each pay period during the reference month.
- ✓ Annual gross earnings also cover 'non-standard payments', i.e. payments not occurring in each pay period, such as: 13th or 14th month payments, holiday bonuses, quarterly or annual company bonuses and annual payments in kind. In the case of employees not having worked the whole year, annual data is adjusted to 52.14 weeks in order to account for earnings on an annual basis. On the other hand, employees working less than 30 weeks in a year are not taken into account in the calculation of annual earnings.

In the SES gross annual earnings cover remuneration in cash and in kind paid during the reference year before any tax deductions and social-security contributions payable by wage earners and retained by the employer. The main difference between annual and monthly earnings in the SES is that annual earnings are not only the sum of the direct remuneration, bonuses and allowances paid to an employee in each pay period. Annual earnings hence usually exceed the figure produced by multiplying the 'standard monthly package' by 12. The 'standard monthly package' includes those bonuses and allowances which occur in every pay period, even if the amount for these 'regular' bonuses and allowances varies, but excludes bonuses and allowances not occurring in every pay period. Furthermore, monthly earnings leave payments in

kind out of consideration. However, annual earnings also cover all 'non-standard payments', i.e. payments not occurring in each pay period, and payments in kind.

Part-timers are adjusted into full-time units (FTU) using variable B271, which record represents the share (in percentage) of a full-timer's normal hours.

#### 2.2 Classifications

#### 2.2.1 International standard classifications used

Data on earnings collected through SES are broken down by:

- ✓ Economic activity The Statistical classification of economic activities in the European Community, abbreviated as NACE, is the classification of economic activities in the European Union (EU); the term NACE is derived from the French Nomenclature statistique des activités économiques dans la Communauté européenne. Version currently in force is NACE Rev. 2 data are transmitted at the level of divisions (2-digit level)
- ✓ Occupation The International standard classification of occupations, abbreviated as ISCO, is an international classification under the responsibility of the International Labour Organization (ILO) for organising jobs into a clearly defined set of groups according to the tasks and duties undertaken in the job. Version currently in force is ISCO-08 data are transmitted at the two-digit level and, if possible, at the three-digit level for sections B to S. NACE section O remains optional
- ✓ **Education** The International Standard Classification of Education (ISCED), abbreviated as ISCED, is the reference international classification for organising education programmes and related qualifications by levels and fields. Version currently in force is ISCED 2011 **data are transmitted ONLY for the (4) main group codes (G1 G4):** 
  - G1 Group 1: Basic education (0 Less than primary; 1 Primary; 2 Lower secondary)
  - G2 Group 2: Secondary education (3 Upper secondary; 4 Post-secondary (non-tertiary))
  - G3 Group 3: Tertiary education (up to 4 years) (5 Short-cycle tertiary; 6 Bachelor or equivalent)
  - G4 Group 4: Tertiary education (more than 4 years) (7 Master or equivalent;
     8 Doctoral or equivalent)
- ✓ Regions The Nomenclature of territorial units for statistics, abbreviated NUTS (from the French version Nomenclature des Unités territoriales statistiques) is a geographical nomenclature subdividing the economic territory of the European Union (EU) into regions at three different levels (NUTS 1, 2 and 3 respectively, moving from larger to smaller territorial units). Above NUTS 1, there is the 'national' level of the Member

States. It is a common classification of territorial units for statistics. Version currently in force is NUTS 2013.

#### 2.2.2 Enterprise size classes

The size of the enterprise to which the local unit belongs (in terms of number of employees) should be assigned to one of the following bands:

Size code	Enterprise size
E1_9	less than 10 employees
E10_49	10 - 49 employees
E50_249	50 - 249 employees
E250_499	250 - 499 employees
E500_999	500 - 999 employees
E1000	1000 or more employees

Data for size band E1\_9 (less than 10 employees) remains optional.

## 3 Overview of designs and methods used for SES 2014

#### 3.1 Coverage

The survey has been implemented in 35 countries in total: all Member States of the European Union, candidate countries (Montenegro, the Former Yugoslav Republic of Macedonia and Serbia) and EFTA country (Iceland, Norway and Switzerland). All the territories of participating countries are covered.

The SES 2014 samples are composed of enterprises/ local units as described by <u>Commission Regulation (EU) No 1738/2005</u> in terms of size and economic sectors. Survey preparation, training, fieldwork and processing had been carried out by National Statistical Authorities (NSAs) –National Statistical Institutes – in permanent cooperation with and following the recommendations made by Eurostat.

## 3.2 Reference period

The reference year is 2014. For most countries, the financial year corresponds to the calendar year. In some countries, however, the accounting year does not necessarily coincide with the calendar year and therefore for these countries the financial year which gives the best match with the calendar year 2014 should be used.

The reference month is October for the majority of the countries, this being the month which is assumed to be least affected by absences related to annual leave or public holidays. The choice of another month is acceptable if the month can be justified as being representative.

Following table provides information on MSs which have chosen another month as reference:

Country	Reference month
CZ	'average month'
DK	'reference month'
DE	April
FR	'average month'
ни	May
SE	September
UK	April

## 3.3 Sampling design and sampling frames

The majority of National Statistics Authorities (NSAs) used a two-stage stratified random sample design. A *stratified sample* is a sample made of several layers or 'strata'. It is needed when it is important to take into account specificities of sub-groups within the sample assumed to be homogenous regarding the observed characteristics. Regions (NUTS 2, NUTS 3) or nationally defined areas, size groups of the enterprises and the economic sectors are common stratification variables. Random selection is performed in each stratum and sampling rates may differ from stratum to stratum. Two stages of sampling mean that first a random sample of enterprises/ local units is selected, followed by a sample of employees within the selected enterprise/ local unit.

The most commonly used source as the sampling frame was the business register/ database, with few exceptions:

Country	Sampling frame
DK	data is collected in a census of public and private sector enterprises with 10 employees and more
DE	data on NACE Rev.2 sections O and P (partially) are based on model-based estimations
ни	the compulsory annual Structure of Earnings Survey, with May being the reference month, includes a sample of employees working in enterprises with more than 50 employees, a 20% random sample of employees working in enterprises with less than 50 employees as well as 8% representative sample of micro enterprises (2-5 employees)
IE	no sampling is done, data on SES 2014 are purely based on administrative data
UK	no sampling is done, data on SES 2014 are purely based on administrative data (employees' register)

#### 3.4 Methods of data collection and data sources

In SES 2014, most of the countries used a stand-alone dedicated survey to collect required data – BG, DE, EE, ES, IT, CY, LV, LT, LU, MT, AT, PL, PT, RO, SI, SK, MK, TR.

Several countries (BE, CZ, DK, IE, FR, HU, NL, FI, SE, UK and NO) collect data on annual basis.

A combination of different methods (survey + use of administrative data) to collect the data was used in 7 countries: BE, IT, CY, LU, NL, PT and FI, while only 2 countries used purely administrative data: IE and UK.

The most common data collection method is paper/ pen interview but using the internet in different ways (e.g. web-survey) is also widespread.

More and more exploration and use of administrative data sources is being used in different countries. Following table gives an overview of different data sources used across different countries:

Country	Data source
	The Belgian SES makes use of three different administrative sources:
	•The national register of enterprises (DBRIS)
BE	•The earnings and working hours database of the National Office for Social Security (ONSS)
BE	•The national register of individuals (RN)
	A tailor-made questionnaire (NSI) is still necessary for obtaining the information that isn't available in existing datasets.
	ISPV in the business sphere has been taking place as a quarterly survey in enterprises with 10 or more employees (ISPV-MZS).
CZ	In the non-business spheres, the source of data has been Information System on Salary (ISP), which covers all ESs of the sphere, i.e. exhaustive survey. ISP is half yearly.
	In addition, a 2015 ad-hoc survey for ES with less than 10 employees was made for 2014 reference year (micro-subjects).
FR	The SES2014 is based on the following sources: the annual structure of earnings surveys (ESS 2013 and ESS 2014), the complementary four-yearly survey of central public service employees (FPE 2014) and exhaustive administrative sources - Annual Declarations of Social Data (DADS), The Public Service Employee Information System (SIASP)
IT	Intensive use of administrative and register data: RACLI Wage register (an extension of the Employment Register), Statistical register, social security monthly declarations for the public sector (module DMA 2)
LU	For the 2014 SES, there has been a major change in the survey methodology. Most variables have been drawn from social security records. Only those variables that are missing in these records (or are of questionable quality) have been asked directly to the enterprises using a reduced survey questionnaire.
	For the 2014 SES the following sources were used:
	1. Annual Survey on Employment and Earnings (ASEE 2014);
NL	2. Population Register (PR 2014; in Dutch: Gemeentelijke Basisadministratie persoonsgegevens, GBA);
	3. Labour Force Survey (LFS 2013, 2014 and 2015; in Dutch: Enquête beroepsbevolking, EBB).
PT	The Structure of Earnings Statistics 2014 in Portugal were obtained by combining three sources:  (a) an administrative source which provide micro data on enterprises, local units and employees, covering all the European required information on monthly earnings and hours paid, as well as the information characterizing the employee;
	(b) a specific survey to collect the missing information, regarding the variables on an annual

Country	Data source
	basis and also Social Security and Income taxes;
	(c) a specific survey for public bodies of Sections P, Q, R and S of NACE Rev. 2, to collect all required information, monthly and annual, on employees and wages.
UK	The data for the UK Structure of Earnings Survey (SES) is taken from the Annual Survey of Hours and Earnings (ASHE).

#### 4 Relevance

Relevance is the degree to which statistics meet current and potential user needs. It shows whether all statistics that are needed are produced and the extent to which concepts used (definitions, classifications etc.) reflect user needs.

The main users of SES data may be classified into the following categories:

- Policy makers: government institutions, ministries (education, labour and others), international institutions;
- Researchers entities: universities, research institutions, vocational institutions, students;
- Enterprises: enterprises, training companies, management consultants;
- Social actors: social partners (e.g. trade unions), multi-national organisations;
- Media.

Within their quality reports, countries have given their evaluation of the relevance of the main SES statistics at national level. Among users' needs and user satisfaction they have covered also completeness. Completeness means the extent to which all statistics that are needed are available. Simplified, countries have provided information about mandatory variables that haven't been transmitted. Following table presents country specifics:

Country	Mandatory / optional variables/ breakdowns not transmitted
SE	Mandatory variables 'Collective pay agreement' and 'Type of employment contract' are not provided. Data on these variables is not collected in the yearly surveys on earnings and is not to be found in other sources.
RO	The only <i>optional variable</i> not collected was "1.7 Affiliation of the local unit to a group of enterprises".
МК	Following <i>optional variables</i> are not available and not transmitted: affiliation of local units to a group of enterprise, citizenship and residence, other annual days of paid absence, annual payments in kind and management position.
PL	Optional variables missing in table A describing local units (they are not available from the Polish SES 2014):
	<ul> <li>A17 – affiliation of the local unit to a group,</li> <li>Key_B – Key identifying the enterprise.</li> </ul>
	Optional variables which are missing in table B describing sampled employees in local units (they are not available from the Polish SES 2014):
	B24 - management position/supervisory position,
	B29 - citizenship,
	B34 - other annual days of paid absence,  B413 - annual navasanta is bia days.
	B412 - annual payments in kind,  B423 - annual payments in kind,  B423 - annual payments in kind,  B426 - annual payments in kind,
	B423 - compulsory social contributions and taxes paid by the employer on behalf of the employee,
	the employee,

Country	Mandatory / optional variables/ breakdowns not transmitted
	B4231 - compulsory social security contributions,
	• B4232 – taxes
	Occupation code ISCO'08 0 (army forces) is not covered by the SES 2014.

## **5 Accuracy**

The accuracy of statistical outputs in the general statistical sense is the degree of closeness of computations or estimates to the exact or true values that the statistics were intended to measure. Variability (caused by random effects) and bias (average differences caused by systematic effects) are the reasons for differences between the statistical estimates and the true values.

Sampling errors apply only to sample surveys: they are due to the fact that only a subset of the population is selected, usually randomly. Non-sampling errors apply to all statistical processes and encompass: coverage errors, measurement errors, processing errors, etc.

## 5.1 Sampling errors

Sampling errors occur in situation when not all units of the frame population can be surveyed. The variability of an estimator around its expected value may be expressed by its variance, standard error, coefficient of variation or confidence interval. The indicators available from the national SES 2014 quality reports are coefficients of variation.

Coefficient of variation (CV) is the ratio of the square root of the variance of the estimator to its expected value. It is estimated by the ratio of the square root of the estimate of the sampling variance to its estimated mean. Both numerator and denominator of the ratio defining the coefficient of variation should be provided, together with the resulting coefficient of variation. The estimation of the sampling variance must take the sampling design into account.

According to Commission Regulation (EU) No 698/2006 countries should calculate and transmit the coefficient of variation shall be calculated and transmitted for the variables 'Gross earnings in the reference month' and 'Average gross hourly earnings in the reference month'.

Apart from the coefficients of variation for the population as a whole, separate coefficients of variation should also be made available for both variables for the following individual breakdowns:

- o full-time (separately for men and women) and part-time employees,
- o NACE section,
- o occupation (ISCO-88 at the 1-digit level),
- o age band (under 20, 20-29, 30-39, 40-49, 50-59, 60 and over),
- NUTS level 1 (if appropriate),
- level of education (ISCED 0 to 6),
- size band of the enterprise (1-9 (if appropriate), 10-49, 50-249, 250-499, 500-999, 1 000+).

The breakdown by level of education is optional.

For the coefficients of variation for the population as a whole for the variables 'Gross earnings in the reference month' and 'Average gross hourly earnings in the reference month' for SES 2014, by countries see *Annex II* of this document.

#### 5.2 Non-sampling errors

## 5.2.1 Coverage errors

Coverage errors (or frame errors) are due to divergences between the frame population and the target population. The *frame population* is the population used to draw the sample and the target population is a sub-set of the latter, which is of particular interest for the topics tackled by the survey. The estimates and conclusions from the survey are therefore made for the *target population*. Main types of coverage errors are under-coverage (target population units that are not accessible via the frame) and over-coverage (units accessible via the frame which do not belong to the target population). Multiple listings or misclassification are types of frame deficiency.

#### 5.2.2 Measurement errors

Measurement errors appear when the response provided differs from the real value in the data collection period; this type of errors can be related to the respondent, the interviewer, the questionnaire, the data collection method or the respondent's record-keeping system. The causes are commonly categorised 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.

Such errors may be random or they may result in a systematic bias if they are not random. This may cause both bias and extra variability of statistical outputs.

Among the measures taken to minimize wrong answers, one is that the questions can be tested in advance and additional explanations and clarifications can also be displayed along the questionnaire. To reduce measurement errors caused by the interviewers, emphasis on specific training for interviewers and supervision is given. These consist in controlling and monitoring of interviewer calls, provision of annual training and full instructions, etc. As for measurement errors attributed to the questionnaire, attention is given to continuous checking of its design by improving the questions, incorporating explanatory text, coding and testing.

#### 5.2.3 Processing errors

Between data collection and the beginning of the statistical analysis for the production of statistics, data must undergo certain processing: data entry, data editing, coding, etc. Errors introduced at these stages are called *processing errors*. Just as measurement errors, they affect individual observations causing bias and variation in the resulting statistics.

Following table gives an overview of treatment of measurement and processing errors across different countries:

Country	Measurement and processing errors
	Main sources of measurement and processing errors are:
	✓ The way of asking questions in the survey questionnaire. E.g. Annual days of holiday leave - in some cases respondents provided the number of days actually taken not the total number of days due to be taken.
BG	<ul> <li>✓ Respondents keep data differently and do not make further efforts to comply with statistical requirements, or do not understand or read the explanatory notes. Example for such errors is var. 3.2 which is among most corrected items (10.9% of cases) because instead of number of hours paid during the representative month respondents provided: paid days during the month; paid hours during the year; working hours per day; paid hours excluding paid overtime hours (when available).</li> <li>✓ Data entry errors - these errors had very low proportion compared to the first two types.</li> </ul>
	In the survey on micro-subjects, data were send electronically in 58 % cases and 42 % of respondents send data on paper questionnaires. The risk of wrong data was the biggest there. Revision was made by the processing firm during phone consultation with the respondent. In comparison with 2010 SES, the share of electronically sent data has risen by 20 p.p.
CZ	Triple automatic check is made during the data collecting and processing. In addition, a visual check is made after that. Any mistakes found are dealt with in relation to their importance – either by contacting the respondent or directly by the processing company. Some help is obvious with coding of occupational classification since this task is the most difficult for the respondent; consultations by telephone are provided. After data entering, additional checks are made on the levels of regions and individual professions. Some checks are also made accordingly on the level of ESs. On the aggregated level, we search for changes in time and look for explanations. An example can be earnings level in the individual occupation in region – in case on change more than 20 % y-o-y the enterprise data are analysed.
DK	Of the study population after the first process of validation, 11 percent is deleted as a consequence of validation process 2. The table below outlines the six most common measurement and processing errors during validation process 2 as a percentage of the study population after process 1. It is important to keep in mind that a single record can contain more than one error and thus add to the percentage count of more than one type of measurement error. Due to these reasons it is not possible to summarize the percentages in order to reach the 11 per cent erroneous data.
HU	In our survey measurement errors are reporting errors. The most important sources of these include:  ✓ Erroneous coding of the firm identification number or the activity code;  ✓ Data entry errors by respondents;
	<ul> <li>✓ Data entry errors during the recording process;</li> <li>✓ Possible errors during data transmission or transformation;</li> </ul>

Country	Measurement and processing errors
	✓ Possible errors during data processing at NLO;
	✓ Possible errors during the transformation of national codes of education into ISCED codes.
	A special feature of the survey in Hungary is that the majority of data in the budgetary sector come from a central payroll system. It means that theoretically measurement errors are not possible, unless some variables are missing from the central system or there are errors in the system. The central payroll system uses the same terms and definitions that are determined and used by the Central Statistical Office for statistical purposes.
NO	The increasing use of the electronic standard for reporting statistics has reduced the amount of measurement errors in reporting. This standard basically retrieves wage data directly from the enterprises' wage and personnel systems, thus eliminating several possible sources of error that arise when using traditional forms. On the other hand, new problems arise when making use of new methods of collection and processing. In general however, these problems have been more easily identified and corrected when making use of electronic solutions in data collection and processing.

## 5.2.4 Non-response errors

Non-response is the failure of a sample survey to collect data for all data items, from all the population units designated for data collection. Non-response causes both an increase in variance, due to the decrease in the effective sample size and/or due to the use of imputation and may cause bias as the non-respondents and respondents generally differ with respect to the characteristics of interest.

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*. There are two types of non-response:

- Unit non-response: no data are collected for a given enterprise in the sample which was meant to provide answers;
- Item non-response: data only on some but not all the survey variables are collected for a given enterprise of the survey.

One of the key elements for a successful data collection is a low non-response rate (especially for the unit non-response.

For the response rates, by countries see *Annex II* of this document.

Following table presents results of unit non-response rates across countries:

Country	Unit non-response rates
АТ	The unit non-response rate of 1.7% (199 enterprises) can be broken down further into 0.7% over-coverage (see point 6.3.1. Coverage errors) and 1.0% refusals.
CY	Unit non-réponse rate - entreprises=4,55% Unit non-response rate - employees=1,67%
DE	Unit non-response rate of the sample survey (main data source no. 1 in chapter 6.3.1.3): 2.3% of in-scope local units did not respond. About half of them were local units of enterprises with 1 to 9 employees.
IT	Private sector:  Unit non-response rate - enterprises=35.7%  Unit non-response rate - employees=27.0%
TR	The no-response rate of the survey is 8.9 %.

It is common practice to use techniques to get the lowest non-response rates possible, for example by sending a notice letter well in advance.

# **6 Timeliness and punctuality**

The *timeliness* of statistical outputs is the time lag 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.

Following table shows the fieldwork period for the SES 2014 for each country:

	Fieldwork		
Country	Start date	End date	
BE	January 2015	end of February 2015	
BG	May 2015	15 August 2015	
	ISPV-MZS: 25.1.2015	ISPV-MZS: 17.2.2015	
CZ	ISP: 10.2.2015.	ISP: 17.3.2015.	
	Micro subjects: 31.8.2015.	Micro subjects: 31.12.2015.	
DK	public sector: January 2014 (on monthly basis) private sector: January/February 2015	public and private sector: September 2015	
DE	January 2015.	31 March 2015	
EE	;	;	
EL	••	:	
ES	April 2015.	December 2015.	
FR	May 2015	mid-December 2015	
HR	:	;	
IE	:	;	
IT	12 January 2016	24 April 2016	
CY	March 2015	July 2015	
Ci	[phase 2: September 2015]	[phase 2: December 2015]	
LV	:	2 March 2015.	
LT	30 December 2014	15 March 2015	
LU	4th of June 2015	5th of March 2016	
HU	May 2014	companies with less than 300 employees: 27th June 2014 companies over 300 employees: 11th July 2014 budgetary institutions: 11th July 2014	
MT	March – April 2015	01/04/2015	
NL	January 2016	April 2016	
AT	13/04/2015	15/05/2015	
PL	1st of March 2015.	31st of March 2015.	
PT	:	:	
RO	February – March 2015	11th May 2015.	
SI	:	:	
SK	1 January 2015.	17 February 2015.	
FI	October 2014.	August 2015	
SE	:	:	
UK	24-28 April 2015	early-September 2015	
NO	August 20, 2014 [September 17, 2014]	September 5, 2014 { October 10, 2014]	

Source: SES 2014 national Standard Quality Reports

Data transmission overview by countries can be seen in Annex III of this document.

According to its legislation<sup>2</sup>, SES data have to be transmitted to Eurostat no later than 18 months after the end of the reference year, i.e. for 2014 data by the end of June 2016.

23 MSs did comply with the transmission deadline – they have transmitted their datasets for the first time by the deadline. Out of those 23, two have transmitted their data 2 months before deadline (DE and SE) and another four within 1 month before deadline (CZ, DK, RO and SK). Five MS's were delayed with their transmissions – BG and FR (less than a month), PT (1.5 months), HR (2 months) and EL (8 months).

# 7 Accessibility and clarity

Accessibility and clarity is the level of simplicity and ease when the users are trying to access statistics with the appropriate user information and assistance.

Eurostat published SES 2014 data in an <u>online database</u> organised in several dedicated subfolders containing data on the number of employees; hourly, monthly and annual earnings; hours paid and annual holidays.

The data are supplemented by <u>reference metadata</u> in Euro SDMX Metadata Structure (ESMS) format, giving background information on the survey and summarising methodological aspects.

Recognised research entities can request access to microdata by submitting their detailed research proposal to Eurostat Microdata Access team. Proposal is then sent to all Eurostat units concerned for validation. Once research proposal is evaluated on Eurostat's behalf the same research proposal is being sent to countries of researcher's interest specified in their proposal for bilateral consultations. More details can be found on Eurostat's dedicated web page.

Most of the participating countries published the main results of their national SES on their official websites. In several countries, the data can be found in statistical papers and press releases.

Following table provides useful hyperlinks to nationally published SES 2014 data by country:

Country	Nationally disseminated data (hyperlinks):
	News release:
	http://www.statistik.at/web_de/statistiken/menschen_und_gesellschaft/soziales/personen-einkommen/verdienststruktur/108975.html (in DE)
	http://www.statistik.at/web_en/statistics/PeopleSociety/social_statistics/108976.html (in EN)
AT	Publications:
	http://www.statistik.at/web_en/statistics/PeopleSociety/social_statistics/108976.html (in DE)
	http://www.statistik.at/web_en/statistics/PeopleSociety/social_statistics/personal_income/structure_of_earnings/index.ht
	ml (in EN)
	http://www.statistik.at/wcm/idc/idcplg?IdcService=GET_PDF_FILE&RevisionSelectionMethod=LatestReleased&dDocName=

<sup>&</sup>lt;sup>2</sup> See article 9 of Council Regulation (EC) No 530/1999 of 9 March 1999.

	110321 ('Statistische Nachrichten'; summary in EN)
	http://www.statistik.at/web_de/services/publikationen/6/index.html?includePage=detailedView&sectionName=Soziales&p
	ubld=645 ('Verdienststrukturerhebung 2014 – Struktur und Verteilung der Verdienste in Österreich', in DE)
	http://www.statistik.at/web_en/publications_services/statistisches_jahrbuch/index.html (Statistical Yearbook, chapters 'Income; earnings' and 'Employment and the labour market', in DE and tables also in EN)
	On-line Statistical Database:
	http://www.statistik.at/web_en/publications_services/statcube/index.html
	Microdata access:
	Access is not granted
	National metadata:
	http://www.statistik.at/web_de/dokumentationen/menschen_und_gesellschaft/Soziales/index.html
	('Verdienststrukturerhebung 2014', in DE)
	http://statbel.fgov.be/en/statistics/figures/
BE	Microdata access:
	Access is granted according to the Rules set by NSI and also available in EUROSTAT's as anonymised Scientific Use Files.
	Publications:
	http://www.nsi.bg/en/content/6520/structure-earnings-%E2%80%93-national-level-4-year-periodicity (in EN)
	On-line Statistical Database:
	https://infostat.nsi.bg/infostat/pages/module.jsf?x 2=95 (in BG and EN)
BG	Microdata access:
	Access is granted according to the Rules set by NSI and also available in EUROSTAT's as anonymised Scientific Use Files.
	National metadata:
	http://www.nsi.bg/sites/default/files/files/metadata/Labour Method 4.2 2014 EN.pdf
	Publications:
	https://www.czso.cz/csu/czso/structure-of-earnings-survey-2014 (tables in CZ and EN)
	Microdata access:
CZ	Access is granted in EUROSTAT's as anonymised Scientific Use Files.
	National metadata:
	http://www.ispv.cz/en/about-ispv.aspx
	News release:
	http://www.dst.dk/Site/Dst/Udgivelser/nyt/GetPdf.aspx?cid=20385 (in DK)
	Publications:
	https://www.dst.dk/pukora/epub/upload/17959/sy.pdf (in EN)
DK	On-line Statistical Database:
DK	http://www.statistikbanken.dk/statbank5a/default.asp?w=1920 (in DK and EN; key series are: Earnings; LONS20, LONS30, LONS40, LONS50 and LONS11)
	Microdata access:
	Access is granted according to the Rules set by NSI ( <a href="http://www.dst.dk/en/TilSalg/Forskningsservice">http://www.dst.dk/en/TilSalg/Forskningsservice</a> ) and also available in EUROSTAT's as anonymised Scientific Use Files.
	News release:
DE	
·	https://www.destatis.de/EN/PressServices/Press/pr/2016/04/PE16 121 621.html

	https://www.destatis.de/EN/PressServices/Press/pr/2016/09/PE16 322 621.html
	https://www.destatis.de/EN/PressServices/Press/pr/2016/10/PE16_383_622.html
	Publications:
	https://www.destatis.de/DE/Publikationen/Thematisch/VerdiensteArbeitskosten/VerdiensteBerufe/VerdienststrukturerhebungHeft1.html (in DE; Volume 16, Books 1 to 3)
	Microdata access:
	Access is granted according to the Rules set by NSI ( <a href="http://www.forschungsdatenzentrum.de/en/index.asp">http://www.forschungsdatenzentrum.de/en/index.asp</a> ) and also available in EUROSTAT's as anonymised Scientific Use Files.
	Publications:
	http://www.stat.ee/publication-2013_quarterly-bulletin-of-statistics-estonia-1-13 (in EE and EN)
	On-line Statistical Database:
EE	http://pub.stat.ee/px-web.2001/dialog/statfile1.asp (in EE and EN; under the heading 'Economy/ Wages and salaries and labour costs/ Earnings')
	Microdata access:
	Access is granted according to the Rules set by NSI ( <a href="http://www.stat.ee/dokumendid/51669">http://www.stat.ee/dokumendid/51669</a> ) and also available in EUROSTAT's as anonymised Scientific Use Files.
EL	-
	Publications:
	http://www.ine.es/CDINEbase/consultar.do?mes=&operacion=Encuesta+cuatrienal+de+estructura+salarial&id_oper=Ir&L=
ES	1
	Microdata access:
	Access is granted according to the Rules set by NSI and also available in EUROSTAT's as anonymised Scientific Use Files.
	http://www.stat.fi/til/pra/index_en.html
	On-line Statistical Database:
FI	http://www.stat.fi/til/pra/tau_en.html
	Microdata access:
	Access is granted according to the Rules set by NSI (throughout Statistics Finland Research Centre) and also available in EUROSTAT's as anonymised Scientific Use Files.
	National metadata:
	https://www.insee.fr/en/metadonnees/source/s1336
FR	https://www.insee.fr/en/metadonnees/source/s1059
	Microdata access:
	Access is granted according to the Rules set by NSI and also available in EUROSTAT's as anonymised Scientific Use Files.
HR	-
	https://eu.munka.hu/
HU	Microdata access:
	Access is granted according to the Rules set by NSI and also available in EUROSTAT's as anonymised Scientific Use Files.
	Publications:
	http://www.cso.ie/en/statistics/earnings/
IE	National metadata:
	http://www.cso.ie/en/methods/earnings/
L	

	Microdata access:
	Access is not granted
IT	Publications:
	http://www.istat.it/it/archivio/194951 (in IT)
	News release:
	https://osp.stat.gov.lt/en/informaciniai-pranesimai?eventId=93809
	Publications:
	https://osp.stat.gov.lt/en/statistikos-leidiniu-katalogas?publication=24218
LT	On-line Statistical Database:
L1	https://osp.stat.gov.lt/pradinis
	Microdata access:
	Access is granted in EUROSTAT's as anonymised Scientific Use Files.
	National metadata:
	https://osp.stat.gov.lt/en GB/darbo-apmokejimas-ir-darbo-sanaudos
	News release:
	http://www.statistiques.public.lu/fr/actualites/index.php
	Publications:
	http://www.statistiques.public.lu/en/publications/index.php
	http://www.statistiques.public.lu/stat/ReportFolders/ReportFolder.aspx?IF_Language=fra&MainTheme=3&FldrName=1&RF
LU	<u>Path=30</u>
	On-line Statistical Database:
	http://www.statistiques.public.lu/stat/ReportFolders/ReportFolder.aspx?IF_Language=fra&MainTheme=3&FldrName=1&RF
	Path=30
	Microdata access:
	Access is granted in EUROSTAT's as anonymised Scientific Use Files.
	On-line Statistical Database:
	http://data.csb.gov.lv/pxweb/en/Sociala/Sociala_ikgad_dsamaksa_strukt_2014/?tablelist=true&rxid=562c2205-ba57-4130-b63a-6991f49ab6fe
	Microdata access:
LV	Access is granted in EUROSTAT's as anonymised Scientific Use Files.
	National metadata:
	http://www.csb.gov.lv/en/statistikas-temas/metodologija/structure-earnings-survey-36972.html
MT	Microdata access:  Access is granted according to the Rules set by NSI and also available in EUROSTAT's as anonymised Scientific Use Files.
	,
	Microdata access:
NL	Access is granted in EUROSTAT's as anonymised Scientific Use Files.
	National metadata:
	https://www.cbs.nl/NR/rdonlyres/69E7EBEE-75C4-4FCF-9FE8-D59982DE2423/0/2005k2v4p039art.pdf
PL	http://stat.gov.pl/en/
	Microdata access:

	Access is granted in EUROSTAT's as anonymised Scientific Use Files.
	https://www.ine.pt/xportal/xmain?xpgid=ine_main&xpid=INE
PT	Microdata access:
	Access is granted in EUROSTAT's as anonymised Scientific Use Files.
	News release:
	http://www.insse.ro/cms/en/content/structure-earnings-october-and-year-2014
	Publications:
RO	http://www.insse.ro/cms/ro/content/disparit%C4%83%C5%A3i-salariale-factori-de-influen%C5%A3%C4%83-anul-2014 ( in
I NO	RO)
	Microdata access:
	http://www.insse.ro/cms/en/content/eurostat-access-microdata
	http://www.insse.ro/cms/en/content/nis-microdata-scientific-purposes
	Data are not published nationally.
SE	National metadata:
	http://www.scb.se/en/
	On-line Statistical Database:
	http://pxweb.stat.si/pxweb/Database/Demographics/Demographics.asp#07
SI	Microdata access:
31	Access is granted according to the Rules set by NSI and also available in EUROSTAT's as anonymised Scientific Use Files.
	National metadata:
	http://www.stat.si/StatWeb/File/DocSysFile/8333
	https://slovak.statistics.sk/wps/portal/ext/home/!ut/p/z1/04_Sj9CPykssy0xPLMnMz0vMAfljo8ziA809LZycDB0NLPyCXA0
	8QxwD3IO8TAwNTEz1wwkpiAJKG-AAjgZA_VFgJc7ujh4m5j4GBhY-
SK	7qYGno4eoUGWgcbGBo7GUAV4zCjijTDIdFRUBADse0bP/dz/d5/L2dBISEvZ0FBIS9nQSEh/
	Microdata access:
	Access is granted in EUROSTAT's as anonymised Scientific Use Files.
	On-line Statistical Database:
	https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/bulletins/annualsurveyofh
	oursandearnings/2015provisionalresults
UK	Microdata access:
	Access is granted according to the Rules set by NSI and also available in EUROSTAT's as anonymised Scientific Use Files.
	National metadata:
	https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/qmis/annualsurveyofhoursandearningslowpayandannualsurveyofhoursandearningspensionresultsqmi
	3andean mingstow payandamidatsurveyontour sandean migspension esuitsymi
	https://www.bfs.admin.ch/bfs/en/home/statistics/work-income/wages-income-employment-labour-
СН	costs.assetdetail.39770.html
	On-line Statistical Database:
	https://www.bfs.admin.ch/bfs/en/home/statistics/work-income/wages-income-employment-labour-costs.html
	https://www.bfs.admin.ch/bfs/en/home/statistics/work-income/wages-income-employment-labour-costs/wage-levels-switzerland/salarium.html
	SWILLETIATIU/Salatiutili.IILIIII

	Microdata access:
	Access is granted according to the Rules set by NSI and also available in EUROSTAT's as anonymised Scientific Use Files.
	National metadata:
	https://www.bfs.admin.ch/bfs/en/home/statistics/work-income.html
	Publications:
	Access is granted according to the Rules set by NSI
	On-line Statistical Database:
NO	http://www.ssb.no/en/statistikkbanken
INO	Microdata access:
	Access is granted according to the Rules set by NSI.
	National metadata:
	https://www.ssb.no/en/lonnansatt
	News release:
	http://www.stat.gov.mk/pdf/2015/4.1.15.99.pdf
	Publications:
	http://www.stat.gov.mk/publikacii/2.4.16.03.pdf
MK	On-line Statistical Database:
IVIK	http://makstat.stat.gov.mk/PXWeb/pxweb/en/MakStat/?rxid=46ee0f64-2992-4b45-a2d9-cb4e5f7ec5ef
	Microdata access:
	Access is granted according to the Rules set by NSI.
	National metadata:
	http://www.stat.gov.mk/MetodoloskiObjasSoop_en.aspx?id=113&rbrObl=14
	Publications:
	http://www.turkstat.gov.tr/PreHaberBultenleri.do?id=18861
TR	On-line Statistical Database:
	https://biruni.tuik.gov.tr/medas/?kn=103&locale=en

# 8 Coherence and comparability

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 as well as harmonised methods.

Coherent statistical outputs can be combined validly and used jointly. Basic infrastructure (like population, time period and geographical location) needs to be equivalent in both outputs in order to achieve coherence between them. *Comparability* occurs as a special case of coherence when two or more waves of the same survey are compared (comparability over time) or when a given wave of one survey is compared across countries or regions (spatial comparability).

The reasons for a lack of comparability or coherence can be summarised under two aspects: differences in concepts and differences in methods. To ensure comparability of data the same reference definitions should be used by countries.

#### 8.1 Comparability over time

Comparability over time is very important for all statistical outputs used and published in time series. It is influenced mainly by changes in definitions, coverage and methods as result of amendments of Community legislation as well as revisions of national methodologies. Following table gives an overview of important aspects of comparability over time by countries:

Country	Important aspects of comparability over time
Country	Important aspects of comparability over time  The changes to the definitions between the 2002, 2006, 2010 and 2014 surveys are mainly the result of amendments to legal acts and classifications (NACE, ISCO, and ISCED). Pursuant to Article 3 of Regulation (EC) No 530/1999, the inclusion of sections M – O of NACE Rev. 1 was optional for the SES 2002. Furthermore, derogation from Article 6 has been in force for Austria in 2002, whereby the statistical unit could relate to the enterprise rather than to the local unit. Coverage  • 2002 sections C-K of NACE Rev. 1  • 2006 sections C-K and M-O of NACE Rev. 1.1  • since 2010 B-N and P-S of NACE Rev. 2  Statistical units  • 2002 enterprises  • since 2006 enterprises/local units  Weighting
	• 2002 enterprises/employees
	• since 2006 local units/employees by sex
	Classifications
	• 2002 NACE Rev. 1, 2006 NACE Rev. 1.1 / since 2010 NACE Rev. 2
	• 2002 / 2006 ISCO-88, 2010 / 2014 ISCO-08
	• 2002 - 2010 ISCED 97, 2014 ISCED 11

Country	Important aspects of comparability over time
	The SES 2014 is completely comparable with the SES 2010; there the same method and data sources are used.
	Compared with the SES 2006, the SES 2010 used another classification for the variables concerning the economic activity of the local unit and for the occupation of the worker.  Because the economic activity is one of the three stratification criteria, this change in classification could influence the comparability of the results between these two reference years.
	Additionally, the surveys starting from reference years 2006 differ from the SES 2002 in two ways:
BE	1. In 2002, the main economic activity of the local unit was unknown. For this survey we worked with the assumption that the economic activity of the local unit was exactly the same as the activity of the enterprise to which it belonged. Since the SES 2006, this problem has been solved, so one enterprise could have local units executing different activities.
	2. In 2002, the definition of a local unit did not correspond with the concept used by Eurostat. According to the Belgian definition, a company could never have more than one local unit with the same economic activity in one municipality. This meant that in 2002 a company was supposed to count up the wage earners of all its local units in every municipality. In the meantime, the Belgian definition of a local unit was adapted to the European rules. Since the SES 2006, it is therefore possible that one enterprise has several local units with the same activity in the same municipality.
BG	The comparability over time is influenced mainly by changes in definitions, coverage and methods as result of amendments of Community legislation. The only change undertaken by NSI after SES2002 that influence comparability between the other rounds of the SES is the extension of coverage of the survey to the enterprises with 1 or more employees.
	The definitions of variables for SES 2014 were according to the requirements of the Regulation.  The coverage of the survey for 2014 was the same as that of year 2010. However, the change in the classification system for highest completed level of education (from ISCED-97 to ISCED 2011), creates some problems in the comparability between the 2 surveys. However, if the appropriate education groupings are used, comparability over time is still achieved.
СУ	As from the reference year of 2010, the classification systems for occupations and economic activities changed for all EU member states (from NACE Rev.1.1 to NACE Rev.2 and from ISCO-88 Com to ISCO-08). This means that comparability with the previous surveys of 2002 and 2006 is not ensured when comparing data using any of these two variables.
	In comparison with the survey of 2002, the coverage was extended. More specifically, the 2006, 2010, 2014 surveys cover all NACE sections requested by the regulation (compulsory and non-compulsory), including Public Administration and enterprises of all sizes, including 1 or more employees. The survey of 2002, covered enterprises with 2 or more employees and did not cover the non-compulsory sections of NACE.
	The time comparability of 2002, 2006, 2010 and 2014 SES are effected by following changes:
CZ	- changes of the definition of reference population - changes of the grossing up and weighting methodology

Country	Important aspects of comparability over time
	Changes of the definition of reference population
	• Reference population has been extended to include the employees of ESs with less than 10 employees. The ad-hoc surveys of micro-subjects have been carried out in the business sphere in 2007, 2011 and 2015. As for both 2011 and 2015, the micro-subject survey covered also the ESs in the sectors of Households and Non-profit organization.
	• Employees of non-profit organizations as well as of the entrepreneurs of the Households sector have been included in both 2010 and 2014 SES.
	Changes of the grossing up and weighting methodology
	• In contrast with 2006 and 2002, there is grossing up to the entire employees population (incl. sectors of Households and Non-profit organizations) made in the both 2010 and 2014 SES. The weights for the grossing up are harmonized with CZSO Enterprise Reporting.
	Comparability over time is limited and should be checked carefully.
	Do not compare between 2014 and before:
	• any total number or sum of jobs, hours or earnings (due to A and B below)
	• any rate of change of a total number or sum of jobs, hours or earnings (due to A and B below)
	• rate of change of mean earnings or hours of part-time employees (due to A below)
	• rate of change of mean earnings or hours when full-time and part-time employees are taken together (due to A below)
DE	• rate of change of mean earnings of full-time employees in section P (due to A 2 below)
	Background and explanations for the limited comparability
	For reference year 2014 the German SES sample survey was significantly improved to provide better data for the analysis of effects of the introduction of a general minimum wage in Germany 1 January 2015. Measures had been taken to reach full coverage of employee jobs and better coherence to other national statistics on employment.
	A) Changes in coverage limiting comparability over time
	B) Changes in methods limiting comparability over time
DK	Variable 2.5, highest successfully completed level of education and training, is now based on the International Standard Classification of Education 2011 instead of the 1997 version. There were some problems in making sure that all variables could be transformed to fit the new standard, and as a result a relatively large share of observations is excluded. The exact number of observations is reported under 6.3.2 Measurement Error. Comparisons between 2010 and 2014 figures for the variable highest successfully completed level of education and training should therefore be made with caution.
EE	Compared to the data of the previous period, there are no changes in coverage, definitions and methodology.
	Since the first Structural Earnings Survey was conducted the coverage of the following surveys has been extended including different groups of units.
ES	Thus, in first SES 1995 units with ten or more employees in the activities of industry, building, commerce, hotels and restaurants, transport, communications, finance institutions and insurance were included. The second, which referred to the 2002, broadened the coverage to

Country	Important aspects of comparability over time
	include the activities outlined in sections M, N and O of NACE Rev.1. The third with 2006 as a reference year has as a main characteristic to include the small units (those with less than 10 employees) in the same activities than in 2002. And finally, SES 2010 uses NACE Rev.2 and ISCO-08 as new classifications and includes partially section O. SES 2014 has the same scope and coverage as SES 2010.
	As a consequence of the inclusion of the small units since SES 2006, there is a decrease of the average earnings compared with the general SES 2002 results. It is necessary to eliminate the size 1-9 employees from SES 2006 to compare homogeneous results with SES 2002.
	The main difficulty to compare SES 2010 with the previous surveys is the change in the classifications used in last one. So, it is not possible to compare the results by economic activity or by occupation.
	SES 2010 and SES 2014 are fully comparable.
FI	Comparability over time is sound. Differing from the SES2002, the SES2006 contained hourly earnings for teachers working for the local government and the local government sector wage and salary earners with reduced wages. In addition to these revisions also minor updates to production were made, namely regarding the method of calculating payments of shift work and adjustment for non-response.
	SES2010 added to the coverage of employees for the first time data and earnings for air transport activities. SES2014 was produced akin to SES2010; however, there was a reduction of coverage regarding the shipping industry.
	Comparability between the SES2014 and SES2010 surveys
	1- Scope extension
	The scope of the survey was extended between 2010 and 2014:
	- to local units and employees in the Overseas Departments (except Mayotte)
	- to employees employed by central public services and paid by public administrative establishments: for example national public establishments of a scientific, cultural and professional nature (higher education), local public teaching establishments (secondary education)
	- to employees of social security organisms, who were considerably under-represented in the 2010 edition.
FR	Moreover, researchers in public research institutions were deleted from the SES2010 because their profession was coded with a single digit only. This is no longer the case in SES2014.
	2- Changes in data treatment
	In the ESS surveys
	- improvement in the calculation of hours worked and the hours paid
	- changes in ISCO coding
	- changes in the calibration processes
	In the FPE survey:
	- changes in the calibration margins:
	in 2014: age x sex; NUTS1 grouped into five zones; statutory category x status; ministries

Country	Important aspects of comparability over time
	grouped together, in 2010: status x category x sex; ministries x lle de France/Other regions; age; statutory category.
	- other changes in treatment:  * The statistical unit used in the 2014 local unit table always refers to "local units" (more precisely to "establishments" with a SIRET identifier) whereas in 2010, concerning the state public services, only "pseudo" local units are available.
	* Local unit size. The local unit size was not supplied in 2010 (because of the "pseudo-SIRET" used). It has been supplied for FPE 2014 and computed in the comprehensive DADS/SIASP combination.
	* Changes in the "bonuses and allowances not paid at each pay period" variable.
	* Overtime and associated earnings.
HU	SES data in Hungary are comparable since 2002 except for data by occupations and NACE classes. The Hungarian survey was harmonized with EU regulations in 2002. The scope of the survey was extended, new variables were introduced, and however, the definitions of old variables remained the same. When the ISCO and NACE classifications changed, we did not review the data retrospectively and did not publish data according to the new classification systems.
IE	There has been a significant change in the data provision method for the SES 2014. SES 2014 was provided entirely from Administrative data sources. 2011 – 2014 is based on SESADP.
IT	The SES 2014 is broadly comparable with the previous edition of SES (2010) for what concerns large breakdowns on earnings variables. However, since this edition has introduced a brand new questionnaire, a new sampling design and the procedures of E&I and estimation have been thoroughly modified from the previous edition some of estimates may have some problem of comparability.
	An area with an issue of comparability is the estimates on the number of employees.  Another area in which there might be problems of comparability is the public sector since for this edition the entire process is based on registers and administrative data. Together with the sources all the methods of derivation of the target variables have been changed.
LT	The time series of the indicator is not fully comparable. Data of the SES 2006 and 2002 are not directly comparable because the SES in 2002 did not cover individual enterprises. Data, excluding individual enterprises, are totally comparable. Surveys in 2002 and 2006 covered economic activities defined in sections from C to O of EVRK Rev. 1.1. The occupations of employees were classified according to the Lithuanian Classification of Occupations (LCO 2000 and LCO 2005), which is based on the International Standard Classification of Occupations (ISCO-88 and ISCO-88 (COM)). In the 2010 and 2014 surveys, statistical data were collected from economic activities from B to S according NACE Rev. 2. Occupations of employees are classified according to the Lithuanian Classification of Occupations LCO 2008, which is based on the International Standard Classification of Occupations (ISCO-08).  No specific changes in definitions, coverage and methods occurred in 2014 compared to
	previous surveys.

Country	Important aspects of comparability over time									
	Coverage  The Structure of Earnings Surveys of 1995, 2002, and 2006 cover the sections C to K of the NACE rev.1 classification. In 2006, the sections M, N and O have been added. In 2010, the NACE rev2 classification is used. The sections B to N and P to S have been covered. In 2014, as in 2010, there has been an experimental coverage of NACE section O (public administration) with the collection of data from the central governmental administration.									
	The change in method described in part 1 (Relevance) might have caused a break in series for some variables, so users should be cautious when comparing data between previous waves and the 2014 collection.									
LU	For section P (Education), there is clearly a break in series as section P covered only private educational institutions up to the 2010 collection, but covers also public educational institutions in 2014.									
	Survey design  The Structure of Earnings Surveys of 1995 onwards relies on a two-stage sample design. In a first stage a sample of local units is drawn, and in a second stage, the salaried workers are sampled within these local units.									
	In 1995 and 2002, the local units were asked in the second stage to draw themselves a representative sample of their workers, the size of this sample being fixed by STATEC.									
	In 2006, 2010 and 2014, the second-stage sample was directly drawn from social security records, using simple random sampling.									
	In Latvian SES 2002 the enterprises were used as sampling units instead of local units.									
LV	Sampling unit used in SES 2014 (as well as in 2006 and 2010) was local unit, whereas in 2002 it was enterprise, and indicators (wages and salaries, number of employees) were calculated in breakdown by regions of Latvia.									
	Unlike in previous survey, SES 2014 included employees working in ISCO-08 Major group 0 "Armed forces occupations", and SES 2014 was coded according to the new ISCED -2011.									
MT	All the variables for SES 2014 did not deviate from the Community legislation.									
	Methodology									
	In the 1995 SES the requisite data were compiled from Survey on Employment and Earnings (SEE 1995), Labour Force Survey (LFS 1994, 1995 and 1996) and the Insured Persons Register (1995).									
NL	For the 2002 SES the data were compiled form Survey on Employment and Earnings (SEE 2002) and Labour Force Survey (LFS 2000, 2001 and 2002).									
	With the 2006 SES we started with a new method, based on a new Register on Jobs and Wages (ASEE). The 2014 SES is based on the ASEE 2014 and the Labour Force Survey (LFS 2013, 2014 and 2015). The ASEE 2014 is based on (combination of) the 'Register of persons insured under employee insurance schemes' (in Dutch: Polisadministratie) and the 'Tax register of earnings'.									
PL	As for the comparability over time, we changed the size of units covered by the SES namely:  • the SES for October 1999 covered units employing 6 and more persons;  • the SES for October 2001, 2002, 2004, 2006, 2008, 2010, 2012 and 2014 covers units									

Country	Important aspects of comparability over time
	employing 10 and more persons.  Taking into account these circumstances we can state that changes in the size of units have the impact on the employees but they have not significant impact on the level of earnings by occupations and their structure. Thus, we can compare data for October 1999, 2001, 2002, 2004, 2006, 2008, 2010, 2012 and 2014 with regard to level of earnings by occupations and earnings structure.
PT	The coverage, statistical units and definition of the common variables are identical to those used for the previous 1995, 2002, 2006 and 2010 SES.  The variable "payments for shift work" was introduced in the administrative source from the year 2009 onwards but was not available before.  The variable "payments in kind" was transmitted to Eurostat for the year 2010 (and not in 2006), although there are very few responses available. Expenses such as "company cars" when they exist, are not considered to be of personal use to the employee but as used in the service of the company.  The data collection methodologies and procedures (administrative source combined with a specific survey to collect annual variables and information on income taxes and social security taxes, for the private sector) was also maintained.  Public institutions data was directly collected from the institutions for the year 2010 onwards, contrary to the year 2006, when they were estimated on the basis of an administrative instrument carried out for 2005.
RO	The Romanian Structure of Earnings Survey was carried out for the fourth time (with 2002, 2006, 2010 and 2014 as reference years). No significant changes in definitions, coverage or classifications (except ISCED 2011) used since the previous survey. The improvements made for SES 2014 in comparison with previous year refer only to more detailed methodological notes accompanying the survey questionnaire.
SE	Statistics Sweden has carried out the SES five times; for the reference years of 1995, 2002, 2006, 2010 and 2014. The survey design was rather different in 1995, surveying only a portion of employees in the sampled enterprises. In 2002 information from two surveys was used in combination with data from different administrative registers. The survey 2006 was extended to include the public sector.  Comparisons between the surveys should be done with caution, since the survey design has changed since 1995.  Since SES 2010 ISCO-08 is used for classifying occupations.  SES 2014 includes employees in the age of 18 to 66 years. SES 2002, 2006 and 2010 include employees in the age of 18 to 64 years.
SI	In comparison with previous SES almost all methods were the same. There were small changes in data collection regarding more logic controls.
SK	Since 2002, the SES has been interconnected with the annual statistical sample survey – Average earnings information system. The enlargement of the number of the statistical units occurred during the creation of the sample in 2002 - 2014. Scope of the sample has been enlarged from 2 500 units in 2002 to 8 195 units in 2014. The enlargement of the sample was

Country	Important aspects of comparability over time
	realised for the provision of higher data representativeness, comparability and completeness on the territorial basis as the SES data are used also in the regional statistics.
	The SES was adapted according to the Regulation (EC) No 1738/2005 and it was enlarged by variables as follows:
	1.5 Collective pay agreement
	2.3 Occupation in the reference month (ISCO-08)
	2.5 Highest successfully completed level of education and training (ISCED 2011)
	2.6 Length of service in the enterprise
	2.7.1 % share of a full - timer's normal hours
	2.8 Type of employment contract
	3.1 Number of weeks in the reference year to which the gross annual earnings relate
	3.2 Number of hours actually paid during the reference month
	3.2.1 Number of overtime hours paid in the reference month
	3.3 Annual days of holiday leave
	4.1 Gross annual earnings in the reference year
	4.1.1 Annual bonuses and allowances no paid in each pay period
	4.2 Gross earnings in the reference month
	4.2.1 Earnings related to overtime
	4.2.2 Special payments for shift work
	4.3 Average gross hourly earnings in the reference month
UK	Since 2011 ASHE has been based on the Standard Occupational Classification 2010 (SOC 2010), which replaced the Standard Occupational Classification 2000 (SOC 2000). This change affected the calibration weights for individual ASHE records. At UK level, the difference between the SOC 2000 estimate and the SOC 2010 estimate for full-time median gross weekly earnings in 2011 was 0.5%.

## **Annex I: Legal basis**

SES 2014 finds its legal basis in the following regulations:

- COUNCIL REGULATION (EC) No 530/1999 of 9 March 1999 concerning structural statistics on earnings and on labour costs
- Commission regulation (EC) No 1738/2005 of 21 October 2005 amending regulation (EC) no 1916/2000 as regards the definition and transmission of information on the structure of earnings
- COMMISSION REGULATION (EC) No 698/2006 of 5 May implementing Council Regulation (EC) No 530/1999 as regards quality evaluation of structural statistics on labour costs and earnings

In addition to these European regulations, technical document (Structure of Earnings Survey 2014 Eurostat's arrangements for implementing the Council Regulation 530/1999, the Commission Regulations 1916/2000 and 1738/2005) was prepared and made available to data providers. This document provides following information:

- ✓ main methodological information concerning definitions of variables
- √ sampling design
- ✓ scope of the survey
- ✓ technical format and transmission of the SES microdata
- ✓ description of data validation and rules applied in Eurostat when data is validated
- ✓ description of the treatment of confidentiality

# Annex II: SES 2014 overview

		Size coverage			Rev. 2 s covered	Sampli	ng		C	ata collection		Coefficient		
Country	Referent month	1+	10 +	B to S	B to S (excl. O)	enterprises	local Unit	annual data	dedicate d survey (every 4 years)	pure administrative data	combination: survey + administrativ e data	'Gross monthly earnings' for the whole population (%)	Gross hourly earnings' for the whole population (%)	Response rate
Belgium	October		٧		٧		٧	٧			٧	0.380	0.340	71.00%
Bulgaria	October	٧		٧			٧		٧			0.380	0.340	**97.90%
Czech	'average													
Republic	month'	٧		٧			٧	٧				0.007	0.007	87.80%
Denmark	'reference month'		٧	٧		٧		٧				not applicable	not applicable	100.00%
Germany	April	٧		٧			٧		٧			0.190	0.160	97.70%
Estonia	October	٧		٧		٧			٧			missing	missing	65.40%
Ireland	October	3+		٧		٧		٧		٧		3.400	missing	not applicable
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spain	October	٧		٧			٧		٧			0.400	0.350	90.20%
France	'average month'		٧	٧			٧	٧				0.002	0.002	87.00%
Croatia	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Italy	October		٧	٧		٧			٧		٧	0.400	0.400	64.30%
Cyprus	October	٧		٧		٧			٧		٧	0.700	0.700	95.45%
Latvia	October	٧		٧			٧		٧			1.200	1.020	89.40%
Lithuania	October	٧		٧		٧	٧		٧			0.800	0.700	97.60%
Luxembourg	October		٧		٧		٧		٧		٧	0.800	0.200	89.00%
Hungary	May	2+		٧			٧	٧				0.861	0.871	missing
Malta	October		٧	٧		٧			٧			0.200	0.180	65.00%
Netherlands	October	٧		٧		٧		٧			٧	0.200	0.100	not applicable
Austria	October		٧		٧	٧			٧			0.280	0.230	98.30%
Poland	October	٧		٧			٧		٧			0.943	0.955	64.30%

	Referent month	Size coverage  1+ 10 +			Rev. 2 s covered	Sampl	ing			Oata collection	Coefficient			
Country				B to S	B to S (excl. O)	enterprises	local Unit	annual data	dedicat ed survey (every 4 years)	pure administrative data	combination: survey + administrativ e data	'Gross monthly earnings' for the whole population (%)	Gross hourly earnings' for the whole population (%)	Response rate
Portugal	October		٧		٧	٧			٧		٧	0.100	0.100	60.60%
Romania	October		٧	٧		٧			٧			0.115	0.115	91.00%
Slovenia	October	٧		٧		٧	٧		٧			**0.600	**0.600	81.10%
Slovakia	October	٧		٧			٧		٧			*0.060	*0.060	96.80%
Finland	October	5+		٧			٧	٧			٧	0.090	0.110	84.00%
Sweden	Septembe		٧	٧		٧		٧				0.300	0.200	84.00%
United Kingdom	April	٧		٧		employees'	register	٧		٧		missing	missing	54.00%
Montenegro	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FYROM	October		٧		٧	٧			٧			0.650	0.640	75.60%
Albania	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Turkey	November	٧			٧		٧		٧			*0.530	*0.53	91.10%
Iceland	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Norway	Septembe r/ October	3+			٧	٧	٧	٧				missing	missing	93.00%
Switzerland	October	3+			٧	٧		bi-				0.690	0.490	82.00%

<sup>\*</sup> full-time employees only

<sup>\*\*</sup> for 10+

# **ANNEX III: Data transmission overview**

Situation as on: 30.08.2017.

	Data Tran	smission	Data provided			Cove	erage				Opti	ional v	ariables	delivere	d by the c	ountry	ESTAT_F3	After EBB report	Publication	Quality Report
SES 2014			·		class	NACE	Tab	le A				Tak	ole B			Validated	revised file/s sent (date)	published on	sent on	
	expected	delivered	Table A	Table B	1+	10+	Section O	1.6	1.7	2.4	2.9	3.4	4.1.2	4.2.3	4.2.3.1	4.2.3.2	APPENDED	reviseu me/s sem (uate)	(date)	Sent on
Belgium	30.06	28.06	٧	٧				٧									٧		08.07.	21.12.
Bulgaria	22.08	13.07	٧	٧	٧	٧	٧	٧					٧	٧	٧	٧	٧	13.07, 26.07	18.07.	27.12.
Czech Republic	27.05	24.05	٧	٧	٧	٧	٧				٧	٧					٧		08.07.	14.11.
Denmark	30.06	30.05	٧	٧		٧	٧										٧		08.07.	19.12.
Germany	30.06	27.04	٧	٧	٧	٧	٧			٧				٧	٧	٧	٧		08.07.	23.12.
Estonia	30.06	27.06	٧	٧	٧	٧	٧										٧	04.07., 11.07	13.07.	30.12.
Ireland	20.06	28.06	٧	٧	٧	٧	٧	٧									٧	30.06, 12.07	13.07.	22.11.
Greece	10.09.	24.02.17.	٧	٧													٧	04.04.17., 26.04.17.		-
Spain	30.06	24.06	٧	٧	٧	٧	٧	٧		٧	٧		٧	٧	٧	٧	٧	29.06	08.07.	22.12.
France	15.07	08.07.	٧	٧		٧	٧	٧	٧	٧							٧	19.07	20.07.	22.12.
Croatia	10.09.	01.09.	٧	٧													٧			-
Italy	30.06	30.06	٧	٧	٧	٧	٧		٧	٧	٧		٧				٧	01.07., 29.07	01.08.	[30.12.]; 30.01.17.
Cyprus	30.06	17.06	٧	٧	٧	٧	٧										٧	21.06	08.07.	28.12.
Latvia	30.06	30.06	٧	٧	٧	٧	٧	٧	٧								٧		08.07.	30.12.
Lithuania	29.06	29.06	٧	٧	٧	٧	٧	٧				٧					٧	30.06, 07.07	13.07.	15.12.
Luxembourg	15.06	28.06	٧	٧		٧				٧	٧						٧		08.07.	15.11.
Hungary	30.06	21.06	٧	٧	٧	٧	٧			٧							٧	06.07.	08.07.	15.12.
Malta	17.06	30.06	٧	٧		٧	٧										٧	01.07., 14.07, 27.07	01.08.	29.12.
Netherlands	30.06	24.06	٧	٧	٧	٧	٧										٧	24.06	08.07.	22.12.
Austria	30.06	29.06	٧	٧		٧					٧						٧		08.07.	20.12.
Poland	01.06.	17.06	٧	٧	٧	٧	٧	٧		٧	٧	٧	٧	٧	٧	٧	٧	29.07	01.08.	28.12.
Portugal	11.08	12.08	٧	٧			_						_							22.12.
Romania	30.06	30.05	٧	٧		٧	٧	٧		٧	٧	٧	٧	٧	٧	٧	٧	07.06.	08.07.	21.11.
Slovenia	30.06	27.06	٧	٧	٧	٧	٧										٧	30.06	08.07.	30.12.
Slovakia	31.05	30.05	٧	٧	٧	٧	٧				٧						٧	07.06.	08.07.	02.12.

	Data Transmission		Data provided			Cove	erage				Opti	ional v	ariables	delivere	d by the c	ountry	ESTAT_F3	After EBB report	Publication	Quality Report
SES 2014	Data Train	31111331011	zata provided		Size class		NACE	Table A					Tal	ole B			Validated		published on	
	expected	delivered	Table A	Table B	1+	10+	Section O	1.6	1.7	2.4	2.9	3.4	4.1.2	4.2.3	4.2.3.1	4.2.3.2	APPENDED	revised file/s sent (date)	(date)	sent on
Finland	30.06	30.06	٧	٧	٧	٧	٧				٧						٧	06.07.	08.07.	21.12.
Sweden	30.06	14.04	٧	٧		٧	٧		٧		٧		٧				٧	27.04	08.07.	10.11.
United Kingdom	30.06	23.06	٧	٧	٧	٧	٧										٧	24.06	08.07.	23.12.
Macedonia	30.06	06.06.	٧	٧		٧	٧	٧						٧	٧	٧	٧	7.06, 18.07	18.07.	27.12.
Turkey	30.04	28.04	٧	٧		٧			٧	٧							٧	03.06.	20.07.	24.11.
Serbia	30.06	29.06	٧	٧		٧				٧							٧	30.06	08.07.	-
Montenegro	30.06	24.06	٧	٧		٧				٧	٧	٧	٧		٧	٧	٧	12.07	13.07	-
Norway	30.06	23.06	٧	٧	٧	٧		٧									٧		08.07.	23.12.
Iceland	15.06	03.06.	٧	٧		٧	٧	٧	٧	٧	٧		٧	٧	٧	٧	٧		08.07.	-
Switzerland	30.06	30.06	٧	٧	٧	٧	٧	٧	٧	٧	٧			٧	٧	٧	٧	12.07	13.07.	05.05.17.

# **Annex IV: Country abbreviations**

- BE Belgium
- BG Bulgaria
- CZ Czech Republic
- DK Denmark
- DE Germany
- EE Estonia
- IE Ireland
- EL Greece
- ES Spain
- FR France
- TIN Traffice
- 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
- FI Finland
- SE Sweden
- UK United Kingdom
- NO Norway