#### Structure of Earnings Survey (SES) 2006 – Synthesis of Quality Reports

Council Regulation (EC) No 530/1999 and Commission Regulation 698/2006

## 1. Relevance (optional)

To assess the situation as regards labour costs and earnings by providing detailed, accurate and harmonised data on the level and composition of labour costs and on the structure and distribution of employees' earnings for policy-making and research purposes.

In addition to Eurostat (the main user of SES data) and other European Union Institutions, most common users are usually students and researchers, trade unions, government bodies and policy makers, general public and the media.

- BE: One main interest in SES is that together with the Labour Force Survey (LFS) earnings are linked to personal characteristics such as highest level of education obtained and profession.
- IE: The purpose of the annual NES is to provide more detailed structural information on workplace issues, including earnings and factors influencing them.
- EL: SES depicts the allocation of earnings, evaluated according to special characteristics of persons employed, broken down by various sectors of economic activity.
- HU: It serves as a common database for social partners participating in bargaining processes and wage negotiations.

Users' needs and satisfaction (optional item)

Most important and less relevant parts						
	Most important	Less relevant	Gaps			
	years of service with	economic and financial	total length of service of			
Belgium	enterprise	control (A14)	a wage earner.			
			more detailed breakdown with			
			respect to activity and wage			
			components and also to include			
			more variables related to employee			
Spain	-	-	such as family situation etc.			
	the most popular					
	variables are sector,					
	occupation and					
Luxembourg	educational level	-	-			
	comparison and trends of	-	limitations occur when one is willing			
	earnings by occupations		to compare data with other surveys			
Poland	and type of activity		due to differences in methodology			
			availability of data on regular and			
Portugal	-	-	irregular bonuses by type of bonus			
Slovenia	gender pay gap (GPG)	-	-			
			it might be useful to offer more exact			
			information about employees' duty,			
			task and competence as well as			
			more exact information about			
Finland	-	-	earnings composition			

#### 2. Accuracy

## 2.1. Sampling Errors

## 2.1.1. Sampling technique

- BE: A stratified random sample of local units based on economic activity, region of local unit and number of employees was set, followed by a proportional selection of employees by the local unit according to total number of employees.
- CZ: Enterprises listed on the Business Register are selected using stratification sampling and population is then created by active enterprises (stratified by industry, size group and region) employing more than ten employees.
- DK: Enterprises are selected from the continuously-updated Business Register.
- DE: Sample is based on Business Register except for NACE Rev. 1.1 Section M where data was generated using pay roll statistics and wage settlements.
- EE: Stratified two-stage sample is set by first selecting enterprises and institutions, stratified according to kind of activity and number of employees, followed by a random sample of employees selected by birthday rule.
- IE: A sample of employers (with more than three employees), followed by a second-stage selection (using certain criteria from payrolls) of employees within these enterprises.
- EL: Three-phased stratified random sample is organised by first selecting enterprises from the business register, a sample of local units is selected from these enterprises and finally a sample of employees is selected for the survey.
- ES: The sample is based on employees registered on the Social Security Register in the month of October 2006.
- FR: A stratified random sample is generated to create subsets of the population which aims to improve the accuracy of the estimates.
- IT: A two-stage sample (stratified sample for enterprises with 10 to 249 employees and census survey for bigger enterprises) was drawn on the basis of enterprises as primary units and employees (drawn according to Pareto sampling) as final units.
- CY: A stratified sample (probability proportional to size), followed by a second stage simple random sample was drawn.
- LV: A two-stage random sample of local units from enterprises (stratified by size group, NACE classification and region) registered in the Business Register in 2006.
- LT: A two-stage cluster sample, stratified by economic activity at 2-digit level, legal form of entity and size class was used.
- LU: A sample of local units is drawn out of which a sample of salaried workers is chosen.
- HU: All employers with more than 50 employees are obliged to report about a sample of their employees whereas for employers having less than 50 employees, a 20% random sample is chosen from the business register of the CSO.
- MT: A sample of enterprises (whose reference matched the Business Register and the company reference at the National Public Employment Office) was identified, out of which the Office identified the names of employees on whom data was to be collected.
- NL: Information for SES 2006 was acquired from administrative sources.
- AT: Two-stage stratified sample based on Business Register.
- PL: Two-stage sampling, first defined by NACE section, ownership of sector (public or private) and number of persons employed, followed by random sample of employees.
- PT: Population consists of all employees in local units of national territory, belonging to private sector enterprises with 10 employees or more and according to NACE section.

- RO: Information was collected in terms of geographic location, country level, economic activity and size class of the enterprise.
- SI: Systematic sample selection was applied by sorting the units within each stratum in 5-digit NACE Rev. 1.1 codes in order to ensure implicit stratification at the lowest level of activity.
- SK: No information has been documented in this regard.
- FI: Data is based on national Structure of Earnings Statistics and includes a 25% random sample of employments in national earnings data. Data supplied to Eurostat does not cover enterprises employing less than 10 employees.
- SE: A stratified random sample of enterprises is drawn from a frame including the private sector whereas the public sector is fully covered in the sample, out of which a simple random sample of employees is drawn.
- UK: The survey is based on a 1% sample of employees from the UK 'Pay As You Earn' (PAYE) tax register held by the HM Revenue & Customs. All employees with National Insurance numbers ending in particular pair of digits are selected and questionnaires are sent to their employers.
- NO: The statistics are constructed by compiling several separate sample surveys based on stratified random sampling of clusters (sampling unit) defined by NACE section.
- TR: A two-stage stratified random sample was used by selecting local units out of which employees were selected for interviewing.
- IS: Data for private sector and municipalities is taken from the monthly Icelandic Survey on Earnings, Wages and Labour cost (ISWEL) survey which is based on a stratified cluster sample with enterprise as the sample unit and employee as the observation unit. In addition, full coverage data was acquired directly from the Ministry of Finance.

#### 2.1.2. Different sources used

- BE: Two important administrative sources were used: The national register of enterprises (DBRIS) and the earnings and working hours database of the National Office for Social Security (ONSS).
- CZ: The two main sources used are the Business Register and the RARIS register which allows deciding whether an enterprise belongs to business or non-business sphere.
- DK: The Central Business Register is the main source of selecting the target population.
- DE: Sample is based on the Business Register except for NACE Rev. 1.1 Section M which data is generated using pay roll statistics and wage settlements. EE:No information has been documented.
- IE: The sampling frame is obtained from the CSO's Central Business Register.
- EL: Sampling was acquired from the Business Register.
- ES: The framework is obtained from the social security register of contributions accounts.
- FR: SES 2006 data was acquired differently to SES 2002. It is now the product of the annual survey on manpower cost and wage structure (ECMOSS).
- IT: The survey has been designed on the Statistical Register on Active Business (ASIA) resulting on information drawn from statistical and administrative sources.
- CY: SES 2006 was based on probability sampling. Thus no lack of precision due to non-probability sampling occurred in the survey.
- LV: Only enterprises registered as active on the Business Register in 2006 are included.
- LT: The survey was conducted by a sampling method based on the data of the Statistical Register of Economic Entities.

- LU: The second-stage sample was directly drawn from social security records using simple random sampling.
- HU: The latest updated version of the CSO's business register is used.
- MT: For those enterprises which were not provided with a list of employees to cover (thus had to choose the sample themselves), a set of instructions how the selection process should be done, was provided in order to minimise bias. A number of variables were retrieved using administrative sources in order to minimise respondents' burden.
- NL: The sources used for SES 2006 data were the Register on Jobs and Wages (RJW2006), the Population Register (PR 2006) and the Labour Force Survey.
- AT: Data is acquired from survey data and use of social security files and tax information and education register. Results were subject to plausibility checks.
- PL: SES 2006 data was acquired through survey of local units in the Business Register.
- PT: The framework was built from the Business Register of Enterprises. Data was acquired by combining three sources; administrative sources providing micro data on enterprises, local units and employees, a specific survey to collect missing information, and dataset for public bodies of NACE Rev. 1.1 Sections M, N and O.
- RO: The sampling frame used was built using the Romanian Business Register and contained information related to the reference period, namely calendar year of 2006.
- SI: Data collection was taken over by the Agency of the Republic of Slovenia for Public Legal Records and Related Services (AJPES), which collected the data with a special electronic questionnaire.
- SK: Since 2002, SES has been joined with a quarterly statistical sample survey, the Average earnings information system.
- FI: The survey frame was formed from an updated national enterprise register.
- SE: The sample from private sector was drawn from the Business Register in August 2006.
- UK: SES data is taken from the Annual Survey of Hours and Earnings (ASHE).
- NO: The population of all surveys is based on the Norwegian Central Register of Enterprises and Establishments.
- TR: The sampling framework was based on the 2005 Business Register of enterprises.
- IS: The data is gathered from the ISWEL survey, Pay As You Earn (PAYE) register data and information from the Ministry of Finance.

#### 2.1.3. Variance

Coefficient of variation 'Gross monthly earnings' for the whole population (%)					
Belgium 0.84					
Czech Republic	0.007				
Denmark	Not documented				
Germany	0.04				
Estonia	0.84				
Ireland	Not documented				
Greece	0.90				
Spain	0.45				
France	Information available at NACE section level.				
Italy	Information available at NACE section level.				
Cyprus	1.00				

Latvia	1.86				
Lithuania	0.50				
Luxembourg	0.83				
Hungary	0.89				
Malta	0.50				
Netherlands	0.20				
Austria	1.00				
Poland	0.40				
Portugal	0.01				
Romania	Information available at NACE section level.				
Slovenia	0.70				
Slovakia	Information available at NACE section level.				
Finland	0.09				
Sweden	0.004				
United Kingdom	Information available at NACE section level.				
Norway	Information available at NACE section level.				
Turkey	1.90				
Iceland	Not documented				

#### 2.2. Non-sampling errors

#### 2.2.1. Coverage errors

- BE: No differences between the reference and study population can be mentioned.
- CZ: Coverage errors, occurring due to delays between grossing-up and setting of sampling frame have been eliminated by the system of data collection.
- DK: Errors in coverage are attributed to the processing of data.
- DE: Non-coverage of private businesses in NACE Section M entails under-coverage for M80.1 and M.80.4. Moreover, it can be assumed that employees with extremely high earnings (> 1 million Euro) were under-covered (362 employees in SES2006 versus 1345 in the earnings tax register 2004). EE: The sample (selected from the May 2006 Register) contained an element of under-coverage (due to delay between sample selection and data collection) and over-coverage (new born enterprises not yet active in 2006).
- IE: Non-relevant or duplicate companies in the sample are removed once discovered.
- EL: Over coverage problems resulted due to enterprises which were selected from the Business Register but which did not actually exist at the time of survey. Under coverage refers to units missing from the sample frame. Moreover some sampling units changed design strata after data collection due to miss-classification problems.
- ES: Employees included in the sample are identified by their affiliation number. Out of the 29517 units surveyed, 27301 answered, 725 were not located, 57 were inactive or closed down and 47 were erroneously classified.
- FR: Enterprises with less than 10 employees have not been covered by the survey.
- IT: The sample list resulted in 2.4% units out of scope, 6% in wrong addresses and 0.6% units with a status change, summing up to a final list error of 9%.
- CY: Misclassifications due to incorrect classification of units that belong to the target population were corrected in order to obtain a more realistic representation of the labour market. Under coverage errors (due to newborn enterprises not included in the sample) was assumed to be negligible since the sampling frame was constructed at a period fairly close to the reference period. 94 units identified as dead or inactive and 305 units identified as out of scope were the result of over-coverage errors which units had to be removed from the sample.
- LV: The one year time lag between the last update of sampling frame and moment of sampling is the main reason of over-coverage (10.5%) and under-coverage (13.5%).
- LT: Over coverage was observed in 31 cases (0.3% of the sample) which relate to units being out of scope. This could be explained by the lack of relevant information in the Statistical Register of Economic Entities.
- LU: No information has been documented.
- HU: Under or over coverage may happen because of misclassification by bands of the number of employees. Misclassification can also happen if the main activity of local unit is wrongly classified in the particular NACE code.
- MT: Coverage errors are related to misclassification of NACE category or size class and over-coverage errors of units included in the sample but which were no longer active. These were corrected by reclassification (in case of misclassification) or exclusion from the sample (in case of ineligible units).

- NL: The SES 2006 is not based on a single questionnaire but on a combination of three sources; the Population Register, the Labour Force Survey and a new Register on Jobs and Wages which is based on a combination of the 'register of persons insured under the employee insurance schemes' and the 'Tax register of earnings.'
- AT: Under-coverage in NACE Sections M and N are mainly as regards public sector areas.
- PL: Over coverage errors (constituting 2.2% of selected sample) relate to units present in the frame but which do not belong to the target population or which do not exist (anymore) in practice. Units which should have been included in the frame, but were not, caused under coverage elements.
- PT: Information on activity, region and number of employees in the sampling frame is comprehensibly updated annually. In relation to over coverage, only 3 local units were found to be of a NACE section not covered by the survey and one local unit resulting in out of scope (having less than 10 employees). It was not possible to access information about under-coverage. SES data were re-weighted (on the basis of an updated register) after corrections of the above.
- RO: The main over / under coverage problems are related to the information quality concerning size class of enterprise by number of employees.
- SI: There were no differences between reference and study population. On total there was 1.24% (among enterprises) and 1.97% (among employees) of over coverage. Some responses were also received from units not in the sample, but which were in the frame. Under coverage was not detected.
- SK: The sample was created random sampling within stratum with an estimated number of inactive units. Units with more than 500 employees were fully included.
- FI: The data covers also those local units in activities defined in the regulation that do not belong to enterprises included in the survey frame. Over coverage ration was deemed significant and hence no specific measures were conducted.
- SE: Units selected had 10 or more employees and an economic activity within NACE Rev. 1.1 Section C to O. Even though the frame is set up close in time to the reference month, over coverage (1%) occurred whereas under coverage analysis was not done.
- UK: Areas of under coverage are explored because of self-employed and employees working in small businesses paid under the tax threshold or cash-in-hand which do not appear on the PAYE register. People outside the scope of SES (i.e. agricultural industries) which are also chosen by ASHE, are removed from the dataset.
- NO: Errors in stratification variables, NACE activity and number of employees in the frame population could be a source of error. Hence, local units in the sample are asked to control to pre-printed code of activity on the form and correct it if believed to be incorrect. Due to a time lag in registration of new units, problems of under and over coverage may arise, but whose effect on the statistics is minimal if these errors are fairly constant.
- TR: The overall misclassification rate was 28%. Over coverage occurred due to 14.2% units of the sample being out of scope. Under coverage was not possible to obtain since no external sources were used to compare frame information.
- IS: As the ISWEL sample is based on the PAYE data, errors in NACE classification in the latter can have an impact on the ISWEL survey coverage.

#### 2.2.2. Measurement of processing errors

- BE: No such errors to be mentioned here.
- CZ: Errors identified after triple automatic checks and a visual check, are dealt by either contacting the respondent or processing the company directly. A final data check is done before data is sent to Eurostat.
- DK: Continuous checks and validation codes are applied throughout the data processing.
- DE: The questionnaire was designed to fit to companies' payroll accounting to facilitate replying to the questionnaire. As regards ISCO and ISCED codification, some imprecision may occur for the number of weeks worked during the year.
- EE: Logic tests were applied in order to identify all errors of magnitude, mainly the number of hours worked in the reference month (especially in the field of education). After contacts with respondents and corrections were made, logic tests were applied once again.
- IE: An informative leaflet is provided with the questionnaire with the aim of minimising errors. However, forms are still scanned and verified and when errors are identified, follow-ups and contact with the enterprise are made in order to correct these errors.
- EL: In order to ensure high quality information, data were acquired through face-to-face interviews by experienced permanent staff who attended a one-day training seminar prior data collection. At Central offices, data collected was also checked and logical controls were applied to identify possible measurement errors.
- ES: Questionnaires undergo a series of checks (more than 400 rules) in order to assure non-missing data, coherence among individual characteristics and economic data.
- FR: To avoid measurement and processing errors, INSEE has built an application that monitors software data. This software ensures data consistency (detecting outliers) and orders of magnitude.
- IT: Measurement errors have been detected with selective editing procedures including scatter plot and histograms of monthly hours, gross monthly and annual earnings.
- CY: Explanatory notes providing detailed explanations on all variables, as well as guiding on what to include or exclude from each variable, were provided with the aim of minimising errors. Additionally, data was collected by trained interviewers but nevertheless consistency checks were designed to identify inconsistencies in the data, which might have resulted from wrong information provided by the enterprises.
- LV: In addition to detailed instructions supplemented with questionnaires, validation programs were created, comparing data with variables from other surveys.

  Arithmetical and logical controls were also run ensuring data verification.
- LT: First data control consisted of logic controls in which on average 0.72 errors per questionnaire were corrected. Most erroneous indicators were 'annual days of absence', 'number of hours paid' and 'number of paid annual leave actually taken.' Second data control involved re-contact with enterprises and required corrections were made.
- LU: Internal quality and plausibility checks were done in order to detect incoherencies stemming from typos and misunderstanding of questionnaires. Errors were followed-up and corrected directly with local units or automatically based on provisions from the Labour and Social Security acts.
- HU: Measurement errors are checked and amended through a lengthy and thorough editing process. Missing variables are sometimes asked again from respondents and duplicate records are excluded. Logical checks are also run in order to identify possible errors.

- MT: In addition to detailed explanations and additional assistance from staff working within the Labour Market and Education Statistics Unit, a number of enterprises were also assisted on-site. Each incoming questionnaire was checked thoroughly by trained statisticians using a number of validations and inconsistency checks.
- NL: For grossing, data from the new Register on Jobs and Wages was used.
- AT: To prevent measurement errors, detailed explanations were included in the questionnaire. A hotline, which recorded about 3,000 briefings, was also set up for further assistance. Incoming data was subject to plausibility checks to identify errors.
- PL: Detailed explanatory notes are attached to the questionnaire in order to increase clarity and minimise errors. The variables most often corrected are; overtime hours, basic wages, prizes and bonuses and annual bonuses calculated in the 1/12<sup>th</sup> amount for the month of October. Other causes of errors (on the respondents' side) are incomplete information for time consuming questionnaires. Finally, arithmetical and logical controls are applied in order to identify and correct wrongly inputted figures.
- PT: There were no major errors in administrative source data as enterprises are familiar to such data requirements and have a better knowledge of the classifications involved.
- RO: In addition to detailed explanatory notes annexed to the questionnaires, respondents were guided and sometimes assisted by statisticians in filling the questionnaires. An IT application was establish to identify any kind of errors or non-correlations occurring during data collection or data entry. After validation, data were analysed and corrected where necessary.
- SI: Logic controls built in the electronic questionnaire classified mistakes as soft or hard, which questionnaire could not be transferred if the latter occurred and companies corrected the errors themselves. Where a lot of soft mistakes were detected, companies were contacted again and data was double checked.
- SK: Errors in the data was repeatedly requested for correction. Data were evaluated and revised on the basis of global and plausibility checks.
- FI: The validation has been mainly based on imputation of missing or conflicting variables. A significant share of observations, not accepted by national or Eurostat validation, have been rejected.
- SE: Besides the questionnaire, respondents receive guidance with explanations including FAQs and contact information for further help. All data has been validated through logical tests and respondents were contacted to validate errors and correct data.
- UK: Validation checks referred to as selective editing are done in order to identify potential errors in the data collected. The system ranks all potential errors based on the level of impact that the data item would have on aggregate statistics. Errors with the highest selective editing scores are validated after companies are contacted to check values.
- NO: Measurement errors are identified and corrected by automated logical computer controls as well as manual checks of extreme outliers in comparison to previous years.
- TR: The draft questionnaire was designed and testes through a pilot study and it was finalised according to feedback received. Data collection was performed through regular mail, face to face interview and electronic mail. Data entry was performed by regional offices and was followed by coherence and inconsistency checks.
- IS: The main concern relate to the educational level and length of service in the enterprise, which variables are coded in ISWEL but accuracy is not satisfactory. For better estimation of the two, data was acquired from other sources.

#### 2.2.3. Non-response errors

Unit response rates (by country), are provided in the Annex.

#### 2.2.4. Model assumption errors

- BE: No such errors can be reported.
- CZ: Grossing-up procedures are made in a way that Economical Subjects (ESs) that cannot be incorporated (new-born enterprises) are represented by subjects incorporated.
- DK: Since earnings data in Denmark is collected for a full year, some assumptions must be made. These apply to; the number of hours paid, earnings related to overtime and special payments made for shift work in the reference month, distinguishing between full-time and part-time employees and data for collective pay agreements.
- DE: For NACE Section M, assumptions on staff registers data may entail some biases.
- EE: The main error is probably made by assuming that the distribution of non-respondents is similar to that of respondents.
- IE: No model-related assumptions are made.
- EL: No models were used in the survey.
- ES: The accounting or fiscal year coincides with the calendar year in Spain.
- FR: Firms with less than 10 employees are not covered in the survey.
- IT: Key variables on monthly and annual earnings have been estimated according to deterministic model based on auxiliary variables (average monthly and annual earnings by position in the business) available from Social Security database.
- CY: No imputation methods were employed in SES 2006 but grossing-up factors were adjusted in order to correct unit non-response. However it could be assumed that these factors did not significantly affect estimated of survey variables as non-response rate was quite low (16.54%).
- LV: Design weights (equal for all local units within same stratum) were calculated according to sample design and adjusted using data response level in each stratum.
- LT: In case of item non response, observed in the level of education, sex, date of birth and date of entry to enterprise, random imputation was used in the case of the former and for the rest, missing variables were imputed through administrative sources.
- LU: Model assumption errors do not apply in this case.
- HU: No model assumptions are used for the Structure of Earnings Survey 2006.
- MT: All units operated on a calendar year (October used as a reference month) basis.
- NL: Data used refers to employees working in December 2006 hence employees who left enterprises during 2006 were not included in the SES data.
- AT: Correction of non response was done by adapting the sample and data extrapolation.
- PL: No combinations between survey data and registered data have been done. All data comes from survey results.
- PT: No information has been documented in this regard.
- RO: No combination between survey data and register data have been undertaken as all data is obtained from the survey. In Romania fiscal year fully corresponds to calendar year and hence no adjustment of this kind was necessary to make.
- SI: No models have been used.

- SK: Data collected related to the calendar year and all size groups and NACE Rev.1.1 branches were covered.
- FI: Modelling is not used in SES 2006.
- SE: Reference month in Sweden is September, which is considered to be a representative month since it does not include public holidays or lot of absences due to vacation. No adjustment from fiscal to calendar year is done. Identity numbers of individuals or enterprises is used to link data collected from administrative registers with individual or enterprise data.
- UK: Since respondents in higher earning occupations are less likely to respond, a weighting system is applied, using 108 weighting classes based on occupation (9 classes), age (3 classes), gender (2 classes) and geographic location (2 classes).
- NO: The month of September is also chosen as a reference month in addition to October, both considered as representative.
- TR: No information has been documented.
- IS: No information has been documented.

#### 3. Timeliness and punctuality

Countries sending their data to Eurostat according the deadline stipulated by the Regulation (18 months from the end of reference year).						
data delivered to Eurostat <u>before</u> 30th June 2008	BE, CZ, DK, DE, FR, LV, LU, HU, AT, PL, RO, SI, SK, FI, SE, UK, NO					
of which revisions were sent in following months	CZ, DK, DE, FR, LV, LU, HU, AT, PL, RO, SI, SK, FI, SE					
data delivered to Eurostat after 30th June 2008	BG, EE, IE, EL, ES, IT, CY, LT, MT, NL, PT, TR, IS					
of which revisions were sent in following months	EE, IE, EL, ES, IT, CY, LT, MT, PT, TR, IS					

# 4. Accessibility and clarity

Belgium	Together with the questionnaire, respondents receive the main results from the previous year. Results are also available at <a href="http://www.statbel.fgov.be/ses">http://www.statbel.fgov.be/ses</a>
Czech Republic	Results are available on http://www.czso.cz/csu/2007edicniplan.nsf/p/3109-07
	In addition to key figures (annually published), SES detailed statistics are published in
Denmark	"Statistiske Efterretninger" (Statistical News) series on <a href="http://www.dst.dk">http://www.dst.dk</a>
Germany	All relevant information is available on <a href="http://www.destatis.de">http://www.destatis.de</a>
Estonia	Results and metadata are available on www.stat.ee
	All relevant information is available at: www.cso.ie/releasespublications/pr_earns.htm
Ireland	or www.cso.ie/releasespublications/documents/earnings/nes2006/nesoct2006.pdf
	Short description on methodology used, definition of core variables, the questionnaire
Greece	itself and some tables with results of the survey are available at www.Statistics.Gr
Spain	Results and methodological documents are available for free on <a href="http://www.ine.es">http://www.ine.es</a>
	SES 2006 and ECMOSS (2006 and 2005) results are available at:
	http://www.insee.fr/fr/themes/document.asp?reg_id=0&ref_id=SALFRA08ae
France	http://www.insee.fr/fr/ffc/docs_ffc/ref/SALFRA08af.PDF
Italy	Online dissemination of SES 2006 main results is available at www.istat.it
Cyprus	Results are published on <a href="http://www.mof.gov.cy/cystat">http://www.mof.gov.cy/cystat</a> under labour statistics theme.
Latvia	It has been envisaged to publish selected tables of data collection on www.csb.gov.lv
	On same day of publication, users can familiarise themselves with results on the
Lithuania	website of Statistics Lithuania; <a href="http://db1.stat.gov.lt/statbank">http://db1.stat.gov.lt/statbank</a>
	In addition to several news releases and the statistical yearbook of Luxembourg, a
	more complete set of results is available on
Luxembourg	http://www.statistiques.public.lu/fr/publications/conjoncture/bulletinStatec/
	Some of the most important results are available for everybody, free of charge, on the
Hungary	Hungarian Public Employment Service's website www.afsz.hu
Malta	Results are published in the form of a news release, disseminated to the media and
Malta	on <a href="http://www.nso.gov.mt">http://www.nso.gov.mt</a> Results are accessible via StatLine, the electronic databank of Statistics Netherlands;
	http://statline.cbs.nl/StatWeb/publication/?VW=T&DM=SLNL&PA=71498NED&D1=a&
Netherlands	D2=a&D3=4,9-22&D4=0&HD=090325-1229&HDR=T&STB=G1,G2,G3
Austria	Results are available at www.statistik.at
rastra	Data are well documented in the form of publications, information service from the
Poland	Data Dissemination Division and chapters on SES in Yearbooks and www.stat.gov.pl
Portugal	Results are disseminated and a Publication is available on http://www.ine.pt
1 Ortugui	For the first time, SES 2006 data were disseminated through a press release,
	containing the main results, conclusions and relevant methodological explanations.
Romania	The press release is also available on <a href="http://www.insse.ro">http://www.insse.ro</a> for interested users.
	Data were first published as provisional in First Release and more detailed results in
Slovenia	Rapid Reports on <u>www.stat.si</u>
	In addition to key information published in the national yearbook, data are also
Slovakia	available on www.statistics.sk
	Data are published twice a year as a statistical release on www.stat.fi and yearly as a
Finland	printed publication in the Wages, Salaries and Labor Cost publication series.
	Statistics Sweden does not publish results from SES and no results are sent to the
Sweden	reporting units.
United Kingdom	Full results of the ASHE are published on <a href="http://www.statistics.gov.uk/ashe">http://www.statistics.gov.uk/ashe</a>
	Reference to the statistics are available by NACE section and for all employees on
Norway	http://www.ssb.no/english/subjects/06/05
Total	Selected tables and metadata are available in Turkish and English on
Turkey	www.turkstat.gov.tr/VeriBilgi.do?tb_id=27&ust_id=8
Iceland	Data and metadata are published on <u>www.statice.is</u>

#### 5. Comparability

## 5.1. Geographic comparability

- BE: Data for education professionals does not include the several non-paid hours per week which professionals spend in preparing lessons and correcting exams of students.
- CZ: There is no calendar month for earnings, but the average month is considered as more comparable with other EU countries.
- DK: Internal technical match problems (number of employees in the population in relation to number of employees in the sample) might arise due to grossing-up factors.
- DE: As for NACE Section M, employees belonging to public administration were allocated to the highest enterprise size class (1000+ employees).
- EE: The only exception with respect to the regulation is that 'gross annual earnings' do not include remuneration in kind due to Estonian legislation.
- IE: All classifications and definitions are as stated in the regulation.
- EL: Variables collected were fully in line with definitions mentioned in the regulation.
- ES: The only difference with national and European concepts is that apprentices are not included in the SES 2006 reference population.
- FR: All variables, size dimensions and NACE classifications are according to regulation.
- IT: No restriction on NACE coverage was performed. All mandatory variables have been surveyed and provided to Eurostat.
- CY: Statistical units, economics activities covered and definitions of variables were all according to the Regulations.
- LV: There are no differences between Latvian and European concepts.
- LT: All mandatory and optional indicators collected were according to Regulations.
- LU: European concepts on the definition of statistical units, populations, reference times, classifications and definitions of variables have been used.
- HU: National concepts, terms and definitions, and industrial classifications are all equivalent to the European defined ones. The only is that annual data collection for the scope of SES is collected for the month of May instead of October.
- MT: National concepts applied were in line with the Commission Regulation.
- NL: There are no differences between national classification and Eurostat's classifications. All variables refer to 2006, except for occupation and education.
- AT: NACE Sections M, N and O (public sector) are not covered.
- PL: To complete data by ISCED level, necessary assessments were taken. Type of economic activity of NACE 12 and NACE 91 are not covered and Occupation code ISCO 88 is not covered in SES 2006.
- PT: Classifications and definitions are in accordance with European requirements. No separate information is available on employees' characteristics for variable "payments for shift work."
- RO: There are no deviations from European concepts in terms of statistical units, population, reference times, classifications and definition of variables.
- SI: Because of national purposes, some exceptions to EU Regulations occurred. Payments paid by the employer at a reduced rate were deducted from total payments, holiday bonus is excluded from annual earnings data and wages in kind are not collected because these kind of payments are not treated as wage in Slovenia. Finally, classifications of education and occupations, which were not fully comparable, were converted into ISCED 97 and ISCO 88.

- SK: Partial differences in the structure of earnings of the Slovak Republic in comparison with the European Union result from the specific structure of the Slovak wage system.
- FI: Definitions applied follow European practice as closely as possible.
- SE: Due to problems related with survey design, Statistics Sweden can only collect data on enterprises, however all local units in each enterprise are surveyed. SES includes only employees aged between 18 and 64 years where age is set in the reference month.
- UK: No information has been documented.
- NO: The statistical units, reference population and classifications used are all according to the international standards.
- TR: Eurostat definitions and classifications were adopted, with the exception that the month of November was used as a reference month.
- IS: Most of the variables collected comply with the regulation with the exception of some incoherencies due to specific characteristics of the Icelandic labour market.

## 5.2. Comparability over time

- BE: Strong improvements in administrative sources have been made since SES 2002. The main difference was that economic activities within local units were clearly defined.
- CZ: Reference population has been extended to include employees in ESs with less than 10 employees. Only employees with at least 30 scheduled working hours a week covered. In comparison to SES 2002, data for business and non-business enterprises started to be collected separately (resulting in a remarkable decrease in sampling errors), regular and irregular bonuses are now distinguished in input data, and part-time employment and absences were also added instead of estimated or converted respectively.
- DK: No information has been document since this section was optional.
- DE: Incomparabilities may occur due to specific allocation keys applied in the Social Security files used.
- EE: No specific changes in definitions, coverage and methods occurred since SES 2002.
- IE: The only new category introduced from the previous survey was 'place of residence.'
- EL: No changes in definitions between SES 2002 and SES 2006. Both surveys were compatible with European concepts.
- ES: As a consequence of the inclusion of enterprises employing less than 10 employees in SES 2006, there is a decrease in average earnings compared to SES 2002. To compare homogeneously with SES 2002 it is necessary to exclude small enterprises (1-9 employees).
- FR: The field remained the same as in SES 2002 with the exception that in 2006, NACE Sections M, N and O were surveyed.
- IT: Improvements, with special reference to the adoption of new ISCO classification still under study.
- CY: The coverage of the survey was extended from enterprises employing 2 or more employees to 1 or more and the inclusion of NACE Section L.
- LV: The sampling unit in 2002 was the enterprise whereas in 2006 it was the local unit.
- LT: Data is totally (and only) comparable to 2002 when excluding individual enterprises.
- LU: NACE Rev. 1.1 Sections M, N and O (optional) have been included in SES 2006.
- HU: Results earlier than SES 2002 are not fully comparable as information on wages and earnings of part-time workers and some other variables were not collected.
- MT: All variables for SES 2006 did not deviate from the Community legislation.

- NL: Whereas SES 1995 and 2002 data were compiled from Survey on Employment and Earnings (SEE), the LFS and Insured Persons Register, SES 2006 data sources were the new Register on Jobs and Wages (RJW) and the LFS.
- AT: Not entirely comparable, mainly due to modifications of regulations, differences in statistical units and extrapolations.
- PL: Whereas SES 1999 covered units employing 6 and more employees, data for October 2001, 2002, 2004 and 2006 is comparable to level or earnings by occupations and earnings structure for units employing 10 employees or more.
- PT: Statistical units and definition of common variables are identical to previous surveys.
- RO: The improvements made in comparison with SES 2002 (the first time the survey was done) refer to the inclusion of apprentices and the detailed methodological notes accompanying the survey questionnaire.
- SI: Almost all methods used are the same as in 2002 with the exception that SES 2006 all employees were selected in the sample and data was collected through an electronic questionnaire which ran logic tests simultaneously with data entry.
- SK: The enlargement of the sample since 2004 resulted in higher data representativeness, comparability and completeness.
- FI: Concepts and definitions were practically unchanged to the annual SES concepts. SES 2006 introduced hourly earnings for teachers in the local government sector. Some minor updates in the production process have been applied as well.
- SE: The survey in 2006 was extended to include data from the public sector.
- UK: The ASHE was introduced to collect data for SES and a back series is available to 1997 in order to compare data with the previous source of data (NES). An automatic coding tool for occupations was also introduced in 2006 which led to two published versions of data, one comparable with 2005 and the other with 2007 methodology.
- NO: The statistics are comparable from 1997 and there have not been any changes in definitions of variables since then. Ongoing improvements in applied methods did not affect comparability.
- TR: Comparability is not possible since SES (2006) was conducted for the first time.
- IS: No major changes in methods or definition of variables were undertaken.

## 6. Coherence

Belgium	he Labour Force Survey (LFS) data  No information has been documented.					
Deigium	Most important methodological inconsistency is the distinguishing and					
Czech Republic	differences in population coverage.					
Denmark	No information has been documented.					
Germany	No information has been documented.					
Comany	Differences in 'gross annual earnings' by NACE section can be found					
Estonia	in the country's specific table.					
Ireland	Results are not directly comparable with other CSO quarterly surveys.					
Greece	No information has been documented.					
Spain	No information has been documented.					
France	No information has been documented.					
Italy	No information has been documented.					
Cyprus	No information has been documented.					
Latvia	No information has been documented.					
Lithuania	No information has been documented.					
Luxembourg	No information has been documented.					
Hungary	No information has been documented.					
Malta	No information has been documented.					
Netherlands	No information has been documented.					
Austria	No information has been documented.					
	The two data sources do not correspond well to each other due to					
	differences in coverage, method of data collection, reference period					
Poland	and limitation of breakdown data.					
Portugal	No information has been documented.					
Romania	No information has been documented.					
Slovenia	No information has been documented.					
<b>.</b>	The differences between the two are influenced by different					
Slovakia	methodologies of the two.					
	The numbers of wage and salary earners are nearly identical when					
	compared with employer sector-specific statistics on wages and salaries, but a certain degree of disparity in coverage becomes evident					
Finland	in comparison between LFS and SES.					
Sweden	No information has been documented.					
United Kingdom	No information has been documented.					
Childa Kinguom	The population of the two surveys does overlap, but the source of					
	information and sampling methods are different. Furthermore, the two					
Norway	surveys have different reference periods and sources of control.					
Turkey	No information has been documented.					
Iceland	No information has been documented.					

Coherence with I	National Accounts (NA) data for variable ' gross annual earnings'
Polaium	Comparison seems to be rather difficult because received earnings in
Belgium	NA also contain information about earnings of independents.
Czech Republic	NA covers whole national economy including "shadow economy."
	Despite similar figures, the general picture is that NA figures are
Donmark	primarily higher than in SES. However there is no connection between
Denmark	the size of NACE section and yearly earnings' differences.
Carra an	Depending on the NACE section considered, the variations are
Germany	between -2.8% and -25.3%.
Estonia	No information has been documented.
Ireland	No information has been documented.
	Since differences in coverage result in higher figures for National
•	Accounts, coherence is achieved in the majority of NACE sections
Greece	when remuneration per person is calculated for both surveys.
	NA figures are greater than those from SES in all sections (between
	20 and 40%) because the variable 'compensation of employees'
Spain	includes employers' social contributions.
France	No information has been documented.
Italy	No information has been documented.
	Main reason for differences between the two (3.9% overall) is due to
	different methodology used when recording wages and salaries for the
	government (which National Accounts data, acquired from government
Cyprus	budget includes pensions payable to retired government employees).
	Whereas SES includes employees on the main job and secondary job,
	NA covers only the main job and self-employed persons (not included
	in SES). Wages in SES are calculated and adjusted to full-time basis
Latvia	whereas in NA this procedure is not done.
	Main differences of results are due to rate of black economy, wages
	and salaries in kind, gratuities and daily allowances which are included
Lithuania	in NA but not taken into account in SES.
	As far as the NA data are concerned, the line labelled "TOTAL"
	corresponds to the total of the sectors mentioned in the label rather
Luxembourg	than the total economy.
	In almost all NACE sections, 'compensation per employee' figures from
	NA are much higher than the SES average. These differences can be
Hungary	due to different NACE coverage and methodologies used.
	Variations between the two are the result of the micro business effect
<b>.</b>	(enterprises employing less than 10 employees) which is taken into
Malta	account in NA averages but not in SES.
	Comparison between the two is difficult because of conceptual
NI-dll-	differences between both sources. Number of employees in NA was
Netherlands	almost 3% higher (in sections C to O) than in SES.
Austria	Different methodological concepts.
	The two surveys do not correspond well because of differences in
Poland	components and in population coverage.
	The reasons for differences are due to differences in definitions of
	variables, and also the scope of the two surveys. SES covers local
5	units with enterprises employing 10 employees or more whereas NA
Portugal	covers total size class.
	Differences between the two data sources are mainly due to different
	coverage between SES (data referring to enterprises with at least 10
Romania	employees) and NA (containing also small enterprises).
	Beside different data sources, differences between SES and NA data
	are because in Slovenia, among some other payments under D.11,
<b>.</b> .	holiday bonus, payments for meals and transport to and from work and
Slovenia	payments in kind are not part of the wage system
Slovakia	No information has been documented.

Finland	Differences in Gross Annual Earnings for SES and NA are provided.
Sweden	A significant difference between sources used is that whereas SES data includes only enterprises with 10 employees or more, NA data also includes smaller firms.
United Kingdom	No information has been documented.
Norway	Discrepancies can mostly be explained through differences in definitions and reference periods between the two sources.
Turkey	Comparison is not possible because different classifications are used by SES (NACE Rev. 1.1) and NA (ISIC Rev. 2). In addition, information on the number of employed persons is not available.
Iceland	Data from NA are not available.

#### **Annex: Overview of deliverables**

Country	Size coverage		NACE Rev.1.1 Sections covered		Sampling		Data collection		Bosponso roto	
•	1+	10+	C to O	M, N, O (opt)	C to O (excl. L)	enterprises	local Unit	annual Data	dedicated Survey	Response rate
BE		$\sqrt{}$	$\sqrt{}$	V				$\sqrt{}$		83.11%
BG	-	-	-	-	-	-	-	-	-	-
CZ						$\sqrt{}$		quarterly for 10+	small enterprises	82.20%
DK						$\sqrt{}$		$\sqrt{}$		100.00%
DE		$\sqrt{}$						$\sqrt{}$	V	98.10%
EE	$\sqrt{}$		$\sqrt{}$	V		$\sqrt{}$			V	73.90%
IE	3+		$\sqrt{}$	V		$\sqrt{}$				75.00%
EL		V		V	V		V		V	63.70%
ES				V	V		V		V	90.00%
FR		V		V	V	$\sqrt{}$			V	78.90%
IT		V		V	V	$\sqrt{}$	V		V	36.30%
CY				V		$\sqrt{}$			V	83.46%
LV				V			V		V	91.00%
LT	V			V		$\sqrt{}$	V		V	91.20%
LU				V	V		V		V	83.00%
HU	5+		$\sqrt{}$	V			V	V		99.90%
MT		V		V	V	$\sqrt{}$			V	71.28%
NL				V		$\sqrt{}$		$\sqrt{}$		NA
AT		V		V	V		V		V	97.60%
PL				V			V		V	75.50%
PT		V		V	V		V	$\sqrt{}$	V	65.80%
RO		V		V			V		V	85.00%
SI				V		$\sqrt{}$			V	80.30%
SK				V			V	quarterly		92.50%
FI	5+			V		$\sqrt{}$	V	V		83.00%
SE		V		V		$\sqrt{}$		V	V	85.10%
UK	$\sqrt{}$		$\sqrt{}$	V		register of	employees	$\sqrt{}$		84.00%
NO	3+			V	V	Ī	1 1	V	V	94.30%
CH	-	-	-	-	-	-	-	-	-	-
HR	-	-	-	-	-	-	-	-	-	-
TR		V		V	V		V		V	77.80%
IS		V		), F, G, I, J, L, M	and N	V		monthly		NA