Structure of Earnings Survey for the year 2002

Implementation of the Commission Regulation 72/2002

Quality Report on the Structure of Earnings Survey 2002

December 2004

Quality Report: The Structure of Earnings Survey (SES) 2002 in Lithuania

COUNTRY: **LITHUANIA**

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PART A

Frequency distributions and the associated means and medians are provided in the Annex 1. Data broken down by NUTS level 1 are not provided due to Lithuania has no regions according to the NUTS level 1.

From the distributions of full-time employees presented in the Annex 1 apparent that significant part of Lithuanian employees work in Manufacturing (23.5 per cent). The biggest proportion of employees by occupation observed in the occupation of professionals (18.9 per cent). Most employees achieved general upper secondary (33.2 per cent) or higher university (28.8 per cent) education. The biggest part of employees are of age from 25 to 54 (80.4 per cent). And the largest part of employees work in the same enterprise less than 10 years (73.3 per cent). Similar tendencies observed in the distributions of the part-time employees.

PART B

1. Relevance (optional)

The Structure of Earnings Survey was conducted according to the Council Regulation (EC) No 530/1999 of 9 March 1999 and Commission Regulation (EC) No 1916/2000 of 8 September.

The Structure of Earnings Survey 2002 from the viewpoint of methodology and conception was new for Statistics Lithuania. It was the first time when data were collected from the local units and on the individual level (by employee).

The results of the Structure of Earnings Survey are necessary and relevant for estimation of development of the whole economy, preparation of forecasts of development of economy, estimation of degree of poverty and analyzing possibility to regulate or prepare recommendations for the value of the gross earnings.

Data were collected by the various broke downs and that is why various users are interested in the results of the survey. The main users in Lithuania are: the Ministry of Social Security and Labour, the Ministry of National Economy, the Ministry of Education and Science, the Ministry of Health Care, the Ministry of Finance, the Presidency, the Seimas and the Government of the Republic of Lithuania, the Bank of the Republic of Lithuania, the World Bank Group, International Monetary Fund, some scientific institutes and Universities. Other users are: researchers, media, employer's associations, trade unions and the Statistics Lithuania itself.

European institutions and foreign users as ILO are interested in the results of the Structure of Earnings Survey, too.

Statistics Lithuania transmitted the results of the Structure of Earnings Survey to Eurostat.

2. Accuracy

The Structure of Earning Survey data were collected from the survey (administrative sources were not used). All the variables requested under the Commission Regulation (EC) No 1916/2000 are obtained by the survey. Some variables are obtained from the local units and some of them are calculated at the Statistics Lithuania. SES 2002 was a sample survey, statistical unit – local unit, which employed one or more employees. Sole proprietorships were not included in the scope of the survey. The sample frame of the survey was made from Statistical Register of Economic Entities.

2.1. Sampling errors

Estimates were calculated using the Horvitz – Thompson estimators. The relative standard errors are calculated for all estimates (total and ratios).

2.1.1. Probability sampling

The sampling procedure used for the SES 2002 contains two stages. In the firs stage, a stratified random sample of local units is drawn. Stratification criteria used include economic activities C-O (at the 2-digit level of NACE Rev.1) and the number of employees by size group (1-9, 10-49, 50-99, 100-249, 250-499, 500-999, 1000 and >) in the local unit (region are not included because Lithuania belong to the single region according to NUTS 1 level). At the second stage, a simple random sample of employees is taken within each of the selected local units.

The selection procedure at the second stage is as follows. First of all the primary unit (a local unit, an enterprise, an institution or an organization) identifies it's size group according to an average number of employees. The number of employees to be selected depends on the size group of the local unit (see Table 1). Sample size of local units and the employees provided in the Table 2.

The employees are selected into the sample using the last two digits of their personal number. These digits are uniformly distributed. The number of employees to be sampled presented in the Table 1, more detailed scheme of the sample of employees presented in the Annex 3.

Table 1

Scheme of employees selection

No.	Size group of local unit by the number of employees	Last two digits of the personal number of an employee	Number of employees to be sampled
1	1-9	all	all
2	10-49	15 or 15, 16, etc.	10
3	50-99	15 or 15, 16, etc.	30
4	100-249	15 or 15, 16, etc.	40
5	250-499	15 or 15, 16, etc.	60
6	500-999	15 or 15, 16, etc.	100
7	1000 and more	15 or 15, 16, etc.	150

Table 2

Sample size of local units and the number of employees

NACE	Number of local units		Sample fraction of local units, in %	Number of employees			Fraction of employees in the sampled local units, in %	Fraction of employees foreseen to sample, in%
	Popula-tion	Sample		Popula-tion	In the sampled local units	Foreseen to survey		
Total	37669	8296	22.0	908424	546782	147496	60.2	16.2
C	88	40	45.5	2720	1806	670	66.4	24.6
D	4712	1449	30.8	201680	146329	32539	72.6	16.1
E	345	126	36.5	30564	25807	4082	84.4	13.4
F	1792	557	31.1	59832	34367	10709	57.4	17.9
G	12008	1472	12.3	117597	38581	16019	32.8	13.6
H	1269	239	18.8	14907	4526	2372	30.4	15.9
I	3549	694	19.6	69583	41394	10998	59.5	15.8
J	650	163	25.1	15589	9906	2783	63.5	17.9
K	3886	653	16.8	47209	21435	7917	45.4	16.8
L	1531	515	33.6	74816	50535	12872	67.5	17.2
M	3481	1387	39.8	146227	82015	25497	56.1	17.4
N	2027	526	25.9	90042	70867	14313	78.7	15.9
O	2331	475	20.4	37658	19214	6725	51.0	17.9

2.1.1.1. Bias (optional)

Unbiased estimators were used.

2.1.1.2. Variance

Coefficients of variation are presented in the Annex 2. Coefficients of variation broken down by NACE Rev. 1 and by NUTS level 1 are not provided (Lithuania has no partition into regions according to the NUTS level 1).

The accuracy of the estimates of the number of employees is required not to exceed 3 per cent by the kind of economic activity.

The coefficients of variation for part-time employees are bigger then for full-time employees. That occur because the number of part-time employees are less than full-time employees. Most of presented coefficients of variation stay within interval [0%; 3%] and only few of them are bigger than 10%. The biggest coefficients of variation occur in the broke downs in a small domains where even little non-response cause a big variance.

Estimators of parameters and variances

Local units serve as primary sample units - clusters. Simple random primary sample is selected from the each cell (stratum).

In order to simplify formulas, the estimators are presented for one separate stratum.

Notation:

N – population size – the number of secondary units;

L – the number of local units;

N_i - the number of secondary units in the *i-th* primary unit.

We have:

$$N = N_1 + N_2 + ... + N_L.$$

Let us denote by

n_I - the primary sample size;

n_i - the secondary sample size in the *i-th* primary unit;

y_k - the value of the observed population variable for the *k-th* population element.

The unbiased estimator of total:

$$t = \sum_{k=1}^{N} y_k$$

is

$$\hat{t} = \frac{L}{n_I} \sum_{i \in S_I} \frac{N_i}{n_i} \sum_{k \in S_{II}(i)} y_k = \frac{L}{n_I} \sum_{i \in S_I} \hat{t}_i.$$

Here $S_I(i)$ and $S_{II}(i)$ denote the primary sample set and secondary sample set in *i-th* the primary unit respectively.

The variance estimator of the total t is:

$$\hat{D}\hat{t} = \frac{L^2}{n_I}\left(1 - \frac{n_I}{L}\right)\hat{S}_I^2 + \frac{L}{n_I} \sum_{i \in S_I} \frac{N_i^2}{n_i}\left(1 - \frac{n_i}{N_i}\right)\hat{S}_i^2.$$

Here

$$\hat{S}_I^2 = \frac{1}{n_I - 1} \sum_{i \in S_I}\left(\hat{t}_i - \frac{1}{n_I}\sum_{i \in S_I}\hat{t}_i\right)^2.$$

$$\hat{S}_i^2 = \frac{1}{n_i - 1} \sum_{k \in S_{II}(i)} \left(y_k - \hat{\mu}_i\right)^2, \qquad \hat{\mu}_i = \frac{1}{n_i} \sum_{k \in S_{II}(i)} y_k.$$

Estimators of the ratio.

The ratio of the totals of two variables y and x

$$R = \frac{t_y}{t_x} = \frac{\sum_{k=1}^{N} y_k}{\sum_{k=1}^{N} x_k}$$

is estimated by

$$\hat{R} = \frac{\hat{t}_y}{\hat{t}_x}.$$

The approximate estimate of the variance of $\hat{R}$ is

$$\hat{D}\hat{R} = \frac{L(L - n_I)}{\hat{t}_x^2 n_I(n_I - 1)} \sum_{i \in S_I} \left(\hat{t}_{yi} - \hat{R}\hat{t}_{xi}\right)^2 + \frac{L}{\hat{t}_x^2 n_I} \sum_{i \in S_I} N_i(N_i - n_i)\frac{S_{ri}^2}{n_i}$$

Here $\hat{t}_x$, $\hat{t}_y$ denote the corresponding estimators of $t_x = \sum\limits_{k=1}^{N} x_k$, $t_y = \sum\limits_{k=1}^{N} y_k$,

$$\hat{S}_{ri}^2 = \frac{1}{n_i - 1}\sum_{i=1}^{n_i}\left(y_i - \hat{R}x_i\right)^2.$$

2.1.2. Non-probability sampling

Non-probability sampling was not used.

2.2. Non-sampling errors

2.2.1. Coverage errors

Over-coverage was observed in 16 cases of which 6 cases in section K, 9 cases in section O and one case in section M. Over-coverage relates to wrongly classified units that are in fact out of the scope in terms of kind of enterprise (6 cases) or the local unit has not hired employees (10 cases).

Table 3 shows the change of population due to misclassified economic activity.

Table 3

The number of wrongly classified local units by the economic activity

NACE	The number of local units		The ratio of the number of local units, in %
	By activity in the sample	By responded activity	
Total	8296	8296	100.0
C	40	41	102.5
D	1449	1456	100.5
E	126	128	101.6
F	557	552	99.1
G	1472	1465	99.5
H	239	243	101.7
I	694	697	100.4
J	163	162	99.4
K	653	656	100.5
L	515	518	100.6
M	1387	1384	99.8
N	526	525	99.8
O	475	469	98.7

2.2.2. Measurement errors

Data checking and logic tests were used in Statistics Lithuania after the data scanning. Re-contacts with the enterprises were used and needed corrections were made in the primary database. Total 125058 errors of respondents were corrected (81.5 per cent of total number of

questionnaires - 153376). 8342 errors of respondents at the level of local unit (106.3 per cent of total number of responded local units - 7846) and 116716 errors of respondents at the level of employee (80.2 per cent of total number of responded employees - 145530) were corrected. Data checking at the aggregated level were used again.

Assessment of errors of respondents was not used. It is supposed that after data verification the data are correct.

Table 4 shows the errors of respondents at the level of local unit and at the level of employee.

N^o of variable - the number of variable provided in the Questionnaire DUS-01 which presented in the Annex 3.

Table 4

Errors of respondents by variables

N^o of the variable	Name of the variable	Total number of errors of respondents	Errors of respondents compared to the total number of respondents %
	Total	**125058**	**81.5**
Information relating to the local unit			
	Total	**8342**	**106.3**
1	Form of ownership	444	5.7
2	The existence of collective pay agreements or contracts	6951	88.6
3	Total number of employees in the enterprise on 31 October 2002	451	5.7
4	Total number of employees in the local unit on 31 October 2002	496	6.3
Information relating to the employee			
	Total	**116716**	**80.2**
2	Gender	463	0.3
3	Date of birth	1814	1.2
5	Level of education	1633	1.1
6	Date of entry to the enterprise	2184	1.5
7	Date of dismissal from the enterprise	4097	2.8
8	Type of contract	2435	1.7
9	Fixed duration of the working time	3394	2.3
10	Gross remuneration in October 2002, in LTL	6533	4.5
10.1	Earnings related to over-time	2708	1.9
10.2	Special payments for shift work, night work, rest days and holidays	2407	1.7
11	Gross remuneration in 2002, in LTL	8961	6.2
11.1	Annual bonuses	1120	0.8

N^o of the variable	Name of the variable	Total number of errors of respondents	Errors of respondents compared to the total number of respondents %
12	Number of hours paid during October 2002	16380	11.3
12.1	Number of over-time	1574	1.1
13	Annual days of absence in 2002, in working days	15018	10.3
13.1	Number of paid annual holidays actually taken	10352	7.1
13.2	Annual days of sick leave	991	0.7
13.2.1	Annual days of sick leave paid by employer	779	0.5
13.3	Annual days of vocational training	435	0.3
13.4	Other days not worked but paid for	871	0.6
13.5	Other days not worked and not paid for	1907	1.3
14	Fixed number of annual leave paid in 2002, in working days	30660	21.1

2.2.3. Processing errors (optional)

Data identification errors due to scanning or coding of the occupation were the only processing errors in the Structure of Earnings Survey.

Total 19766 processing errors were corrected (12.9 per cent of total number of questionnaires - 153376) of which 157 - at the level of local unit (2 per cent of total number of responded local units - 7846) and 19609 measurement errors at the level of employee (13.5 per cent of total number of responded employees - 145530).

Assessment of bias or variance due to processing errors was not used. It is supposed that after data verification the data are true.

Table 5 shows the processing errors at the level of local unit and at the level of employee. N^o of variable - the number of variable provided in the Questionnaire DUS-01 which presented in the Annex 3.

Table 5

Processing errors by variables

N^o of the variable	Name of the variable	Total number of processing errors	Processing errors compared to the total number of respondents, %
	Total	**19766**	**12.9**

Nᵒ of the variable	Name of the variable	Total number of processing errors	Processing errors compared to the total number of respondents, %
	Information relating to the local unit		
	Total	**157**	**2.0**
1	Form of ownership	0	0.0
2	The existence of collective pay agreements or contracts	0	0.0
3	Total number of employees in the enterprise on 31 October 2002	77	1.0
4	Total number of employees in the local unit on 31 October 2002	80	1.0
	Information relating to the employee		
	Total	**19609**	**13.5**
2	Gender	0	0.0
3	Date of birth	935	0.6
4	Occupation	8080	5.6
5	Level of education	0	0.0
6	Date of entry to the enterprise	776	0.5
7	Date of dismissal from the enterprise	169	0.1
8	Type of contract	0	0.0
9	Fixed duration of the working time	0	0.0
10	Gross remuneration in October 2002, in LTL	1223	0.8
10.1	Earnings related to over-time	151	0.1
10.2	Special payments for shift work, night work, rest days and holidays	157	0.1
11	Gross remuneration in 2002, in LTL	1766	1.2
11.1	Annual bonuses	173	0.1
12	Number of hours paid during October 2002	1655	1.1
12.1	Number of over-time	183	0.1
13	Annual days of absence in 2002, in working days	2083	1.4
13.1	Number of paid annual holidays actually taken	475	0.3
13.2	Annual days of sick leave	70	0.0
13.2.1	Annual days of sick leave paid by employer	121	0.1
13.3	Annual days of vocational training	31	0.0
13.4	Other days not worked but paid for	20	0.0
13.5	Other days not worked and not paid for	113	0.1

N^o of the variable	Name of the variable	Total number of processing errors	Processing errors compared to the total number of respondents, %
14	Fixed number of annual leave paid in 2002, in working days	1428	1.0

2.2.4. Non-response errors

The overall sample fraction of local units in the observed activities (NACE, sections C-O) including all size groupss of enterprises is 22 per cent (8296 local units of total 37669 local units). Sampled local units cover 60.1 per cent (546782 employees of total 908424) of total employees. It was supposed to survey 16.2 per cent (147496) of total population of employees. In fact 145530 employees were surveyed.

Table 6 contains the fraction of responded local units.

Table 6

Response rates of local units by the NACE Rev.1 section and by the size of local unit, in %

NACE	Response rate by the size of local unit, in %						
	Total	**1-9**	**10-49**	**50-249**	**250-499**	**500-999**	**1000 and >**
C-O	**95.0**	**89.0**	**96.0**	**98.5**	**98.5**	**98.3**	**97.6**
C	97.5	100.0	94.7	100.0	-	-	-
D	93.6	81.8	94.7	98.1	97.5	97.4	94.7
E	98.4	93.8	97.5	100.0	100.0	100.0	100.0
F	94.1	85.5	93.8	98.2	94.4	100.0	-
G	92.3	87.4	94.7	96.7	100.0	0.0	100.0
H	89.5	88.6	90.8	84.2	-	-	-
I	92.1	88.8	92.7	95.3	100.0	100.0	100.0
J	95.1	87.5	96.3	100.0	100.0	100.0	-
K	93.4	89.9	95.2	98.1	90.9	-	-
L	100.0	100.0	100.0	100.0	100.0	100.0	100.0
M	99.3	95.7	99.6	99.3	100.0	100.0	100.0
N	99.0	97.3	99.4	99.4	100.0	100.0	100.0
O	95.2	91.9	95.1	100.0	100.0	100.0	-

In case of unit non-response the re-weighting is used for the estimates that concern with the first stage variables. Adjustments are made to take into account the changes in kind of activity, changes in the size group, merging or splitting of enterprises. In such cases the real inclusion probabilities are calculated. In case of non-response reporting units are not replaced.

Item non-response was observed only in the level of education. In this case the random imputation was used. The sample distribution of this variable in the respective strata was used to generate the missed values. The rate of non-response of the level of education is presented in the Table 7.

Table 7

The fraction of non-response of the level of education, by NACE

NACE	The fraction of non-response of the level of education, in %
Total	0.14
D	0.09
F	0.33
G	0.79
K	0.16
N	0.01

Two types of non-response reasons are determined: real and non-real reasons. Real reasons are as follow: bankruptcy of the enterprise, its liquidation, and suspension of the economic activity. Non-response to the questionnaire committed by an operating enterprise or not found enterprise is treated as non-real reason.

Statistics Lithuania is using internal classification of non-response reasons. This allows calculate more precise estimates. The real non-response reasons make up 2 per cent. Non-real reasons make up 3 per cent. More detailed information is given in the Table 8.

Table 8

The fraction of responded local units by the classification of non-response reasons

Code of non-response reasons	Title of non-response	Non-response	Non-response rate, in %
3+8+9+12+15	**Total non - response**	**412**	**5.0**
3+8+9	**Real reasons**	**162**	**2.0**
3	Dead enterprises	13	0.2
8	Creased trading	149	1.8
9	Reorganisation and creased trading		
12+15	**Non-real**	**250**	**3.0**
12	Not found enterprise	60	0.7
15	Non-response by an operating enterprise	190	2.3

2.2.5. Model assumption errors

The Structure of Earnings Survey 2002 covers all economic activities defined in sections C to O (NACE Rev. 1) at the two digit level, of which optional sections L, M, N and O. Section L was included at the three digit level.

Observation unit was local units of all types of ownerships irrespective of size of local unit. Sole proprietorships were not included in the scope of the survey.

The reference month October is representative month.

3. Timeliness and punctuality

The sample was drawn in March 2003. The legal background of this survey is the Orders of the Director General of the Department of Statistics. They are as follows:

• On the confirmation the organizational structure of the Structure of Earnings Survey and it's head and responsible persons. The order obligates the heads of Counties' Statistical Boards and the heads of District (Town) Statistical Divisions and appoints responsible persons to coordinate the survey (The Order No. 17 of the Director General of the Department of Statistics adopted on 27 January 2003);

• On the approval of the preparation and the detailed schedule of implementation of the Structure of Earnings Survey (The Order No. 40 of the Director General of the Department of Statistics adopted on 24 February 2003);

• On the approval of the statistical questionnaire DUS-01 and explanatory notes on the Structure of Earnings Survey (The Order of the Director General of the Department of Statistics No. 40 adopted on 24 February 2003);

• On the approval of the Board of Supervision to the Structure of Earnings Survey (The Order No. 50 of the Director General of the Department of Statistics adopted on 3 March 2003).

Statistics Lithuania installed an internal working group as well as a management board with the representatives from Statistics Lithuania, the Ministry of Social Security and Labour, the Ministry of National Economy and the Board of Social Insurance Fund.

Statistics Lithuania prepared the list of sampled units and sent to Territorial Statistical Offices on 25 March 2003.

District (Town) Statistical Divisions were involved in the SES. It was mentioned that 60 employees from District (Town) Statistical Divisions attended special training course (2 days) in March 2003. The SES was a postal survey, the trained specialists were responsible for the data collection and for the consultations of the enterprises. Also reporting units were having a possibility to submit the data on diskettes in special questionnaire prepared in the Statistics Lithuania.

The enterprises were asked for the SES to give a job description or a job title. The coding of the occupation was carried in Statistics Lithuania.

The survey started in April 2003. The employees of District (Town) Statistical Divisions provided the questionnaires to enterprises, consulted enterprises, collected and checked the questionnaires until the end of April 2003 (except the enterprises of Vilnius). Counties Statistical Boards collected questionnaires from the District (Town) Statistical Divisions and provided them to Statistics Lithuania until 14 May 2003 (except the Statistical Board of Vilnius County).

Vilnius County Statistical Board was not involved in the survey. Seven employees of the Department of Statistics worked with the enterprises of Vilnius town. They supplied the questionnaires to the enterprises, consulted the enterprises and collected filled questionnaires. The deadline for returning the questionnaires from Vilnius was 16 May.

7241 local units or 87.3% of all respondents returned the questionnaires until 14 May 2003. The collection of the questionnaires began on 23 April 2003 and ended on 18 August 2003. The term was prolonged to 140 enterprises. 381 local units returned questionnaires after the reminders were sent. The overall response rate of the local units made up 95.0%.

The main dates of the data processing of the Structure of Earnings Survey were as follows:

- The enterprises were consulted by phone from 31 March 2003 till 18 August 2003 (3428 calls were registered).

- Collection of the questionnaires from 31 March till 18 August 2003.

- Work with non-responded units: from 16 May 2003 till 18 August 2003.

- The first reminders to the non-responded units were sent on 5 June 2003 (total 584 reminders were sent).

- 381 local units returned questionnaires after the reminders were sent.

- Scanning the questionnaires: from 17 May 2003 till 25 June 2003 (only few questionnaires returned after 25 June 2003 and those questionnaires were entered).

- Verification of the scanned data: from 25 May 2003 till 30 June 2003.

- Coding of occupations from 13 June till 1 October 2003.

- Arithmetical-logical control: from 11 June 2003 till 15 November 2003.

- Secondary control of data, querying the data: from 1 December 2003 till 4 February 2004.

- Calculation of the estimates and standard errors, coherence with other surveys of wages and salaries: from February 2004 till May 2004.

- Data transmission to Eurostat on June 2004.

- Preparation of worksheets and tables for publication and issue of publications: till the end of December 2004:

  - First printed press release „What professions reimbursed best and does it depend on the education of employee?" released on 23 August 2004.

  - Second printed press release "What is the age of employees with biggest reimbursement and does it depend on the length of service in the enterprise" released on 20 September.

  - The first printed information "Structure of earnings by employee's occupation and level of education 2002" released on 30 September 2004 (57 pages).

  - The second printed information "Structure of earnings by employee's age and length of service 2002" released on 20 October 2004 (61 pages).

  - The first publication "Structure of earnings by employee's occupation and level of education 2002" released on 29 November 2004 (198 pages).

  - The second publication "Structure of earnings by employee's age and length of service 2002" released on 30 December (232 pages).

- Preparation of the Quality Report on the Structure of Earnings Survey and its transmission to Eurostat: 31 December 2004.

4. Accessibility and clarity

The main data on Structure of Earnings Survey are available on the website of Statistics Lithuania http://www.std.lt Information and publications disseminated to the main users, to the State institutions (according to the approved list), to the Statistical Boards of Counties and to subscribers. Also publications are disseminated through the Statistics Lithuania library. Special requests are prepared from the survey's results.

Results were not sent to the reporting units.

In the Annex 3 are provided the questionnaire of the Structure of Earnings Survey 2002, in the Annex 4 are provided the methodical explanations of the Structure of Earnings Survey 2002.

5. Comparability

5.1. Spatial comparability

All mandatory variables according to Commission Regulation (EC) No. 1916/2000 were collected in Statistics Lithuania.

Lithuania belongs to the one region and data on Structure of Earnings Survey at NUTS 1-digit level correspond to the data at the whole economy level. The survey represents the whole economy and economic activities. Such variables as "Number of months and days with whom annual earnings are related" and " Length of service in the enterprise" were calculated in Statistics Lithuania, taking into account the number of days of absence, date of entry and dismissal to the enterprise in 2002.

Statistics Lithuania according to Regulation collected 4 optional variables:

      1.6.   Total number of employees in the local unit on 31 October 2002.
      3.5.2. Annual days of sick leave.
      3.5.2.1 Annual days of sick leave paid by the employer.
      3.5.3 Annual days of vocational training.

Other optional variables were not collected.

In addition 12 national variables were collected:

1. The number of part-time employees in the enterprise on 31 October 2002.
2. The economic activity of the local unit according to the Lithuanian Classification of Economic Activity EVRK, which is based on the NACE Rev.1.
3. The number of part-time employees in the local unit on 31 October 2002.
4. Date of entry to the enterprise.
5. Date of dismissal from the enterprise.
6. Fixed duration of the working time (full-time or part-time).
7. Fixed duration of the working week (in hours).
8. Fixed duration of the working month (in hours).
9. Number of paid annual holidays actually taken for the corresponding period.
10. Other days not worked but paid for.
11. Other days not worked and not paid for.
12. Fixed number of annual leave paid in 2002, in working days.

5.2. Comparability over time

The Structure of Earnings Survey was carried out for the first time in Lithuania. The data were collected from the local units at the individual level. That is why it is not possible to compare the results over time.

6. Coherence

6.1 Coherence with the structure employees in the Labour Force Survey for the same reference period.

The main differences between the Structure of Earnings Survey and Labour Force Survey (LFS) are as follows:

1. In the SES the observed unit was the local unit and the sampled employee. In the LFS the observed unit is the household and the household members aged 15 and older.

2. In the SES the sampling frame of local units was based on the Statistical Register of Economic Entities; in the LFS the selection of households was accomplished using the Population Register.

3. Sole proprietorships were excluded in the SES; in the LFS all kinds of enterprises were included.

4. In the LFS the reference period was one week per quarter and the number of employees per week was converted into the number of employees per quarter. Whereas in the SES sampled local units selected employees from the list of employees on 31 October 2002.

5. Persons who were on child care leave till the child's age of three in 2002 were excluded in the SES (except those who were working though some time in 2002); all persons who were on child care leave till the child's age of three but the formal ties were not broken off with working place were included in the LFS.

Coherence with the distribution of the employees in the Structure of Earnings Survey and in the Labour Force survey is presented in the Annex 5 in the Tables 1 - 6.

In the Diagrams 1-2 are presented the per cent of the number of employees by age band compared to the total number of employees.
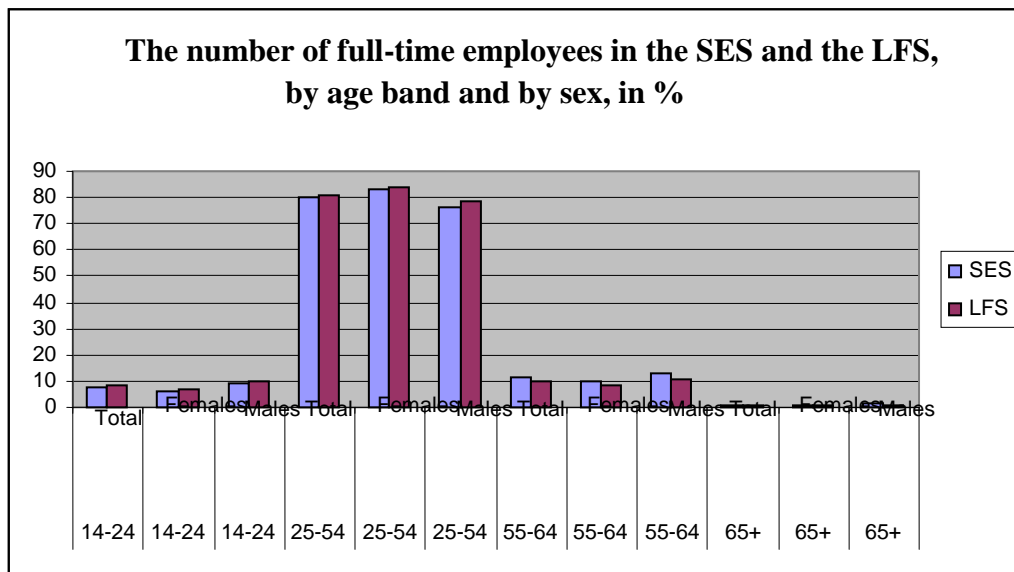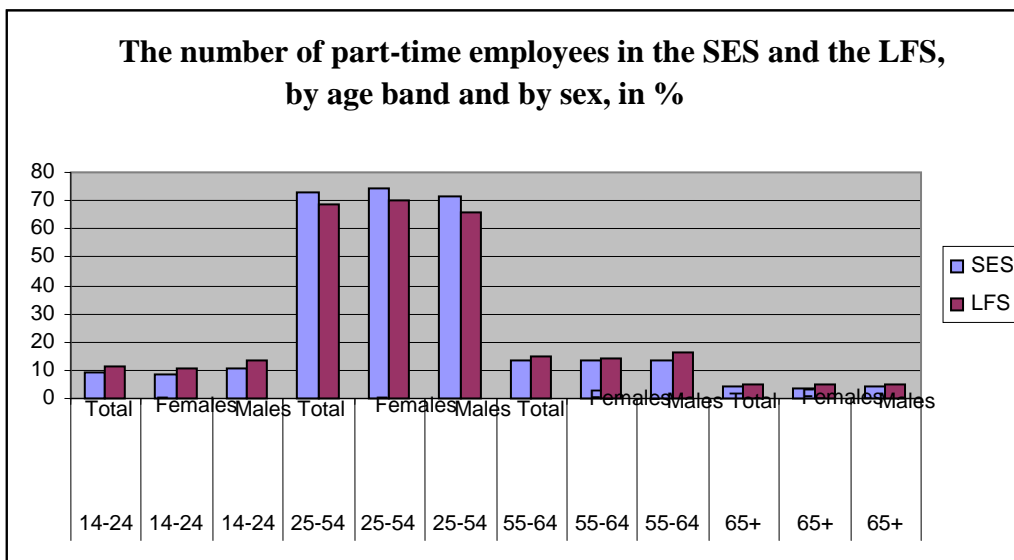
Diagram 1

The number of full-time employees in the SES and the LFS,
by age band and by sex, in %

Diagram 2

The number of part-time employees in the SES and the LFS,
by age band and by sex, in %

6.2   Coherence with absolute figures from the data of the Labour Force Survey for the same reference period (optional item)

Coherence with absolute figures from the Labour Force survey is presented in the Annex 5 in the Tables 7 - 8. In the Diagrams 3 – 5 are presented the data from the above mentioned tables. Significant differences occur for the part-time employees, that occur because of the number of part-time employees is quite low and even little change in absolute figures cause a big change in per cent.

In the SES were surveyed hours paid in the representative month. In the LFS were surveyed hours worked in the fourth quarter of 2002 which converted into the hours worked in the October 2002.
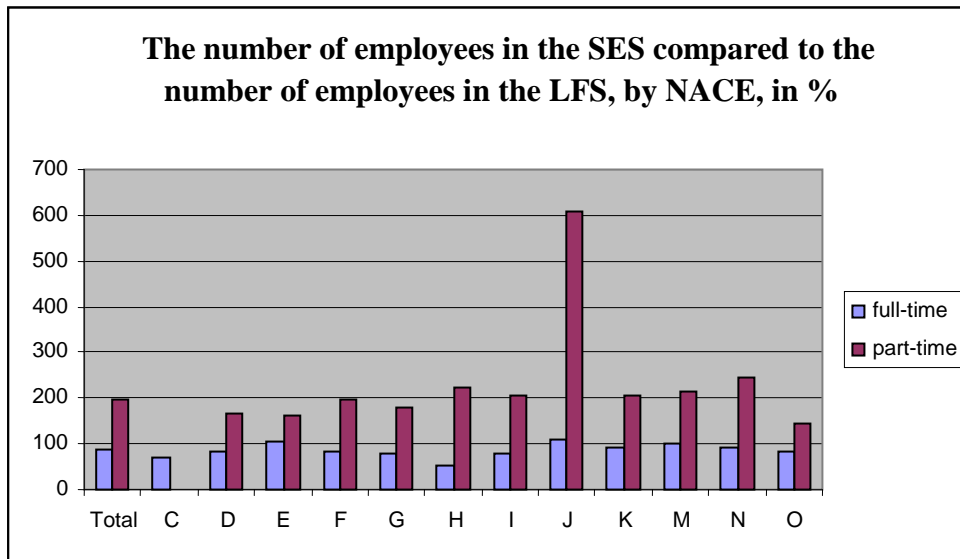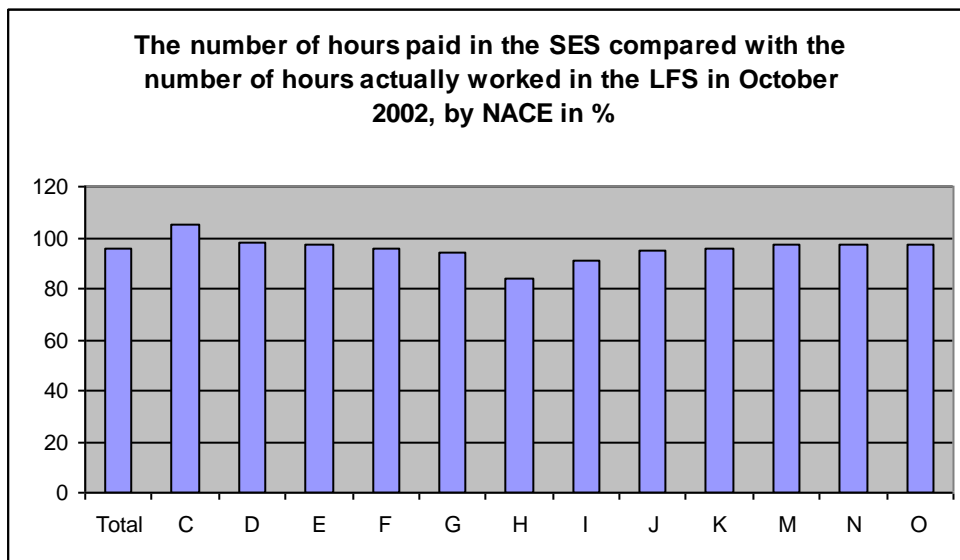
Diagram 3

The number of employees in the SES compared to the number of employees in the LFS, by NACE, in %

Diagram 4

The number of hours paid in the SES compared with the number of hours actually worked in the LFS in October 2002, by NACE in %

Diagram 5

The number of hours paid in the SES compared to the number of hours actually worked in the LFS in October 2002, by occupation in %
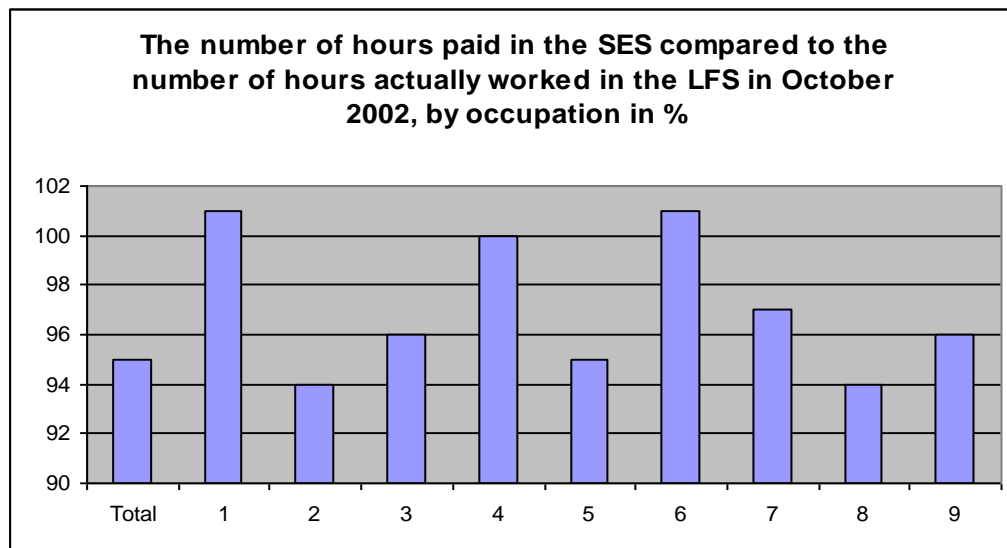

6.3 Coherence with Structural Business Statistics (SBS) for the same year: Regional data (optional item)

The main differences of the variable "gross wages and salaries" between SES and SBS:

1. The observed unit in the SES was the local unit, in the SBS the observed unit was an enterprise.

2. In the SBS the variable "gross wages and salaries" covered more components than in the SES, e.g. payments and compensations for leaving enterprise, compensations for unused annual leave, expenditure on business trips, wages and salaries in kind, meanwhile all these payments were not included in the SES.

The main differences for the variable "the number of employees" in the SES and in the SBS:

1. All persons who were on child care leave till the child's age of three were included in the SBS, in the SES persons who were on child care leave in 2002 but were working though some time in 2002 were included.

2. The Structural Business Survey covered complete enumeration of enterprises and only non-responded enterprises were estimated, meanwhile the Structure of Earnings survey was the sample survey.

In the Diagrams 6 are provided the ratio of the number of employees of the SES 2002 and the number of employees of the LFS 2002. In the Diagrams 7 are provided the ratio of the gross remuneration of the SES 2002 and gross remuneration of the LFS 2002.
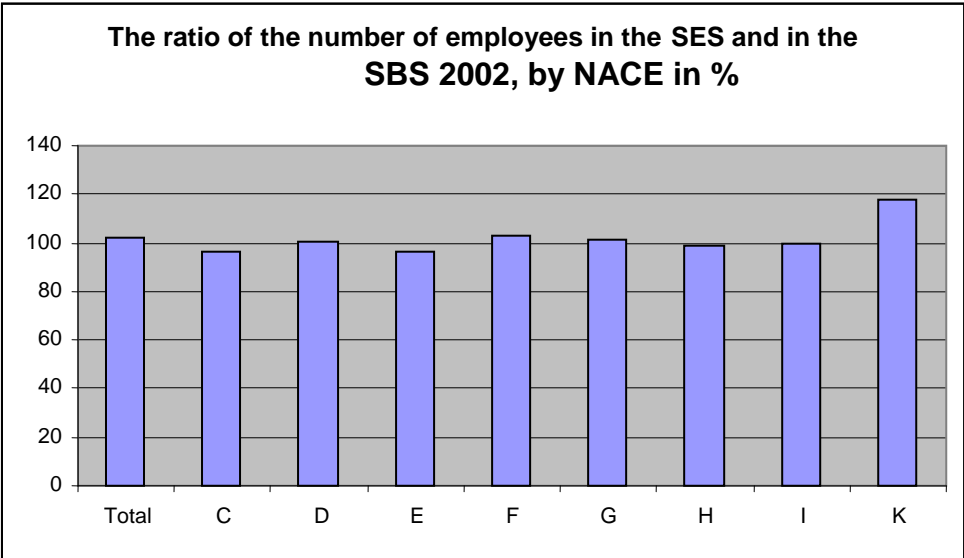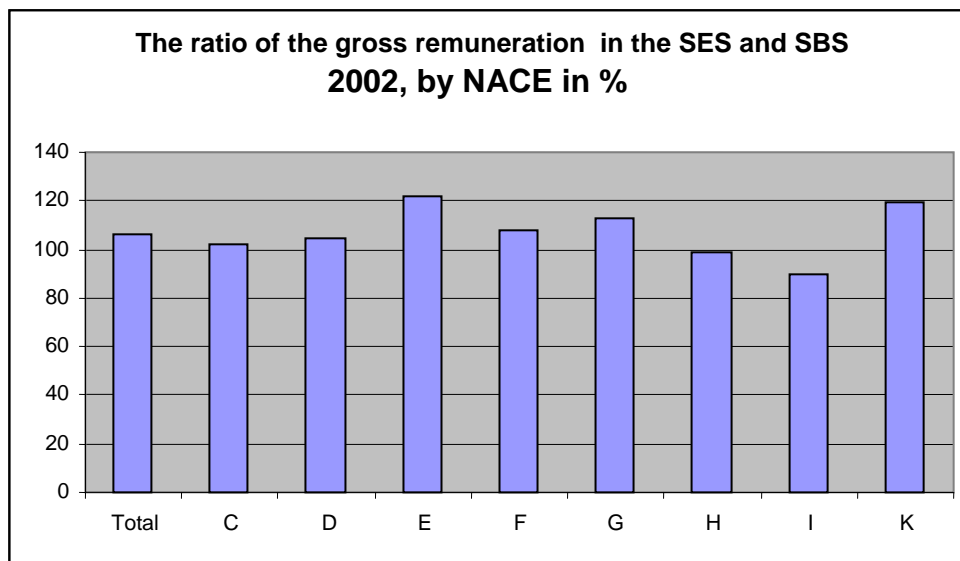
Diagram 6

The ratio of the number of employees in the SES and in the **SBS 2002, by NACE in %**

Diagram 7

The ratio of the gross remuneration in the SES and SBS
2002, by NACE in %

6.4 Coherence with Structural Business Statistics for the same year: national data by size class of enterprise (optional item)

## 6.5. Coherence with National Accounts (NA) for the same year: national data (optional item)

The coherence with the gross annual earnings with the National Accounts is provided in the Annex 5.

The main differences in coverage of the SES variable "gross remuneration" and the National accounts variable 'wages and salaries':

1. Expenditure on business trips was included in the National Accounts variable "wages and salaries" meanwhile the SES excluded this variable.

2. The National Accounts variable "wages and salaries" covered wages and salaries in kind, but the SES variable 'gross remuneration' covered only payments in cash.

3. The rate of black economy was estimated in the National Accounts variable 'wages and salaries' applying the special survey. The rate of black economy was not taken into account in the SES.

In the Diagrams 8 are provided the ratio of gross remuneration of the SES 2002 and gross remuneration of the LFS 2002.

Diagram 8

The ratio of the gross remuneration in the SES and NA 2002, by NACE, in %
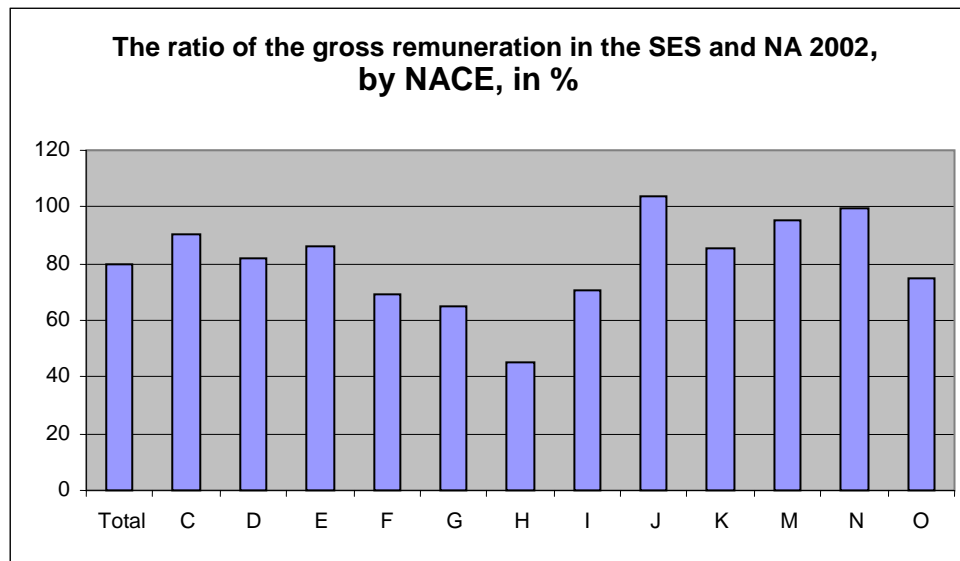
7. Completeness

All variables required in the Regulation are included in the Structure of Earnings Survey 2002 but some variables were calculated in the Statistics Lithuania. It was age, length of service in the enterprise and number of month to which the gross annual earnings relate. The formulas for calculation those variables are presented below:

w

Age

Was asked the date of birth and age was calculated in the whole years of employee on 31 October. That is if on 31 October the age of employee was 30 years and 9 month then the age of employee is 30 years.

Length of service in the enterprise

Was asked the date of entry to the enterprise and the date of dismissal from the enterprise and the length of service were calculated in the whole years of employee on 31 October. That is if on 31 October the length of service was 9 month then the length of service is 0 years.

Number of weeks/month to which the gross annual earnings relate

The number of month to which the gross annual earnings relate ($\tilde{M}$) was calculated as follow:

1. If year of entry to the enterprise not equal to 2002:

$$\tilde{M} = 12 - \left(\frac{1.4(ADS2 + ADS5 + NALP)}{30.4} \right);$$

2. If year of entry to the enterprise equal to 2002:

$$\tilde{M} = \frac{2002.12.31 - DEE + 1}{30.4} - \left(\frac{1.4(ADS2 + ADS5 + NALP)}{30.4} \right);$$

3. If year of entry to the enterprise not equal to 2002 and year of dismissal from the enterprise equal to 2002:

$$\tilde{M} = \frac{DDE - 2002.12.31 + 1}{30.4} - \left(\frac{1.4(ADS2 + ADS5 + NALP)}{30.4} \right);$$

4. If year of entry to the enterprise equal to 2002 and year of dismissal from the enterprise equal to 2002:

$$\tilde{M} = \frac{DDE - DEE + 1}{30.4} - \left(\frac{1.4(ADS2 + ADS5 + NALP)}{30.4} \right).$$

where

M – the number of month to which the gross annual earnings relate.

W – the number of weeks to which the gross annual earnings relate.

$$\tilde{M} = M + \frac{D}{30.4}$$ 30.4 – the average number of monthly days in 2002.

1.4=30.4/ 21.1   21.1 - the average number of monthly working days in 2002

ADS2 - annual days of sick leave

ADS5 - other days not worked and not paid

DEE - date of entry to the enterprise

DDE - date of dismissal from the enterprise

NALP - number of days of annual leave for the previous period

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22