

# **Quality report: The Labour Cost Survey 2016 in Sweden**

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## **Quality Report: The Labour Cost Survey (LCS) 2016 in Sweden**

The aim of this report is to describe how the Labour Cost Survey (LCS) 2016 was conducted and the quality of survey in Sweden according to the instructions in the commission regulation No 698/2006 regarding quality of labour cost statistics.

The LCS is an EU-regulated survey that is conducted every four years. The Swedish LCS2016 was carried out during 2017, basically in full compliance with the Commission Regulation. The survey has also been carried out for the reference years 1997, 2000, 2004, 2008 and 2012. LCS2016 was conducted in a similar way as LCS2012 with no major changes.

The purpose of LCS is to measure the level and structure of the labour costs; within/between countries, between branches and within/between regions. Labour costs refer to the total expenditure borne by employers for the purpose of employing staff. That include employee compensation, which is mainly comprised of gross wages and salaries in cash and in kind and employers social security contributions. Vocational training costs, other expenditure-, such as recruitment costs and spending on working clothes, and employment taxes are also regarded as labour cost. Finally, subsidies received and related to labour cost are deducted.

The results of the survey are used for analyzing economic growth, employment and labour costs for different industries in different countries and regions. One of the main result from the survey is the average hourly labour cost.

Eurostat publish results by economic activity, size class and region for the member states. The labour cost is presented in total per year, per month and per hour, as well as per employee and per full-time equivalents. The distribution between the different labour cost items is also presented. Information of number of employees, hours worked and hours paid is presented for full- and part-time employees. The classification system that is used to present statistics by economic activity is NACE Rev.2 and for regional breakdown NUTS Level 1.

#### 1. Relevance

The results from LCS contribute with statistics for different economic analyses of the labour market, which is useful for both international and national decision-makers.

Main users are Eurostat and other EU institutions. Other users are for example the Central bank, researchers, media, employer's associations, trade unions, private companies, the National Mediation Office and Statistics Sweden (SCB). The National Mediation Office is responsible for the official salary and labour cost statistics in Sweden and SCB produce surveys like LCS on their commission.

The statistics on salaries and wages in Sweden are quite well comprehensive, with both monthly and yearly surveys. Statistics on the total labour cost are not that comprehensive, but LCS contributes with statistics in this area every four years. LCS is used for economic analyses on labour costs and no other survey than LCS measure the level and structure of labour costs in such detail. The data on national level broken down by branch of industry are used for comparison with other countries. Regional data, data by size class and data for apprentices are not so much used by the national users.

The national users seems to be satisfied with LCS and no major gap has been reported. SCB also assumes that the main user, Eurostat, is satisfied with the quality of the overall results of the Swedish LCS. Eurostat has though requested statistics concerning section O (Public administration and defence), since most of the other countries include that, although it is not mandatory according to the regulation.

Statistics Sweden have certified its production of statistics according to the ISO international standard 20252:2012 for marketing, opinion and social research.

# 2. Accuracy

The assessment made by Statistics Sweden is that the overall accuracy is high. The following can affect the accuracy of the statistics: sampling, measurement, coverage, non-response, model assumptions and data processing. For this survey the main sources of errors are likely to be sampling errors and measurement errors. The other errors are considered minor.

#### 2.1. Sampling errors

The target population for LCS is defined as all local units in NACE sections B-S excl. O belonging to an enterprise with at least 10 employees who have been active during 2016 in private or public sector. Section O (Public administration and defence; compulsory social security) and enterprises with less than 10 employees are optional and have not been included in the Swedish LCS. In appendix 6 the NACE sections and divisions are titled.

No data from registers were used, except from setting-up the frame. Two independent probability samples from the Business register were drawn; one for the Private sector (in this context defined as private enterprises, county councils and some state authorities) and one for the Public sector (municipalities and state authorities). Enterprises were sampled from the private sector and in the public sector local units constituted the sampling units.

The frame for the private sector and county councils was stratified by NACE on 2 digit level and size of enterprise, 6 size classes were used (10-19, 20-49, 50-99, 100-199, 200-499, 500 or more employees). In total 3 220 enterprises with 10 and more employees were sampled from the private sector.

Local units belonging to an organisation with 10 or more employees were included in the frame for the municipalities and state authorities. The frame was stratified by NACE on 2 digit level and size of local units, 8 size classes of local units (1-4, 5-9, 10-19, 20-49, 50-99, 100-199, 200-499, 500 or more employees). The public sector is concentrated in NACE sections O, P, Q and R. A sample consisting of 865 local units was drawn from the public sector.

The allocation of the sample size per strata was made using Neyman allocation in both sampling procedures. The largest size class was fully covered in both samples. In the tables below the sampling fractions are presented.

Population and sample sizes in private sector and county councils 2016

Size class of enterprise (number of employees)	Number of enterprises in the sample (n)	Number of enterprises in universe (N)	Sample fraction
10-19	583	22 628	2.6 %
20-49	663	13 080	5.1 %
50-99	487	3 947	12.3 %
100-199	538	2 136	25.2 %
200-499	347	598	58.0 %
500-	602	602	100.0 %
All	3 220	42 991	7.5 %

Population and sample sizes in public sector (municipalities and state) 2016

Size class of local unit (number of employees)			Sample fraction
1-4	135	4 262	3.2 %
5-9	132	5 795	2.3 %
10-19	138	6 570	2.1 %
20-49	150	5 042	3.0 %
50-99	105	2 549	4.1 %
100-199	87	1 068	8.1 %
200-499	42	147	28.6 %
500-	76	76	100.0 %
All	865	25 509	3.4 %

The sample size decreased for LCS2008 and has been kept at a minimum since then due to budget and with respect to response burden. The decrease was almost 20%. This was, to some degree, compensated for by a more efficient sampling design. For county councils, legal units were sampled instead of local units. Also, information about non-response and cy-values from previous survey contribute to the sampling design. For LCS2016 the total number of sampling units is 4085 (3220+865).

The following tables contain coefficients of variation (cv) for the key variables of the survey, Annual labour cost and Hourly labour cost<sup>1</sup>. The estimated cv's are produced using CLAN<sup>2</sup> under the H-T estimator. The cv's are estimated at the population level and by breakdowns according to NACE sections, size band and region respectively. The cv's are small on both NACE level, size level and region for the two variables. The cv for the combination of NACE and size are generally higher, see appendix 1.

<sup>&</sup>lt;sup>1</sup> Annual labour cost = D1+D2+D3+D4-D5, Hourly labour cost = (D1+D2+D3+D4-D5)/B1

D1(compensation of employees), D2(vocational training costs), D3(other expenditure paid by the employer), D4(tax), D5(subsidies received by the employer), B1(total hours actually worked)

<sup>&</sup>lt;sup>2</sup> CLAN is a macro, created in the SAS<sup>®</sup> software, developed at Statistics Sweden for point and variance estimation.

Section L (Real estate activities) shows the highest cv for both the variables. Since the *Hourly labour cost* is calculated as a ratio between *Total labour cost* (D) and *Total hours actually worked* (B1), the cv for this parameter tend to be smaller than the cv for the *Annual labour cost*.

Section Q (Human health and social work activities) is the largest section, containing 19% of the *Annual labour costs* and section C (Manufacturing) is the second largest with 17%.

About 15% of the *Annual labour costs* can be found in the northern region (SE3) of Sweden, 40% in the east region (SE1) and 45% in the south region (SE2).

46% of the Annual labour cost comes from enterprises with more than 1000 employees.

Coefficient of variation for Annual labour cost by NACE, 2016

NACE sections	Estimated value (SEK)	Standard Error (SEK)	Coefficient of variation (%)
В	6 050 550 000	72 990 601	1.2
С	317 126 441 078	2 783 267 807	0.9
D	20 422 643 387	432 275 677	2.1
Е	12 081 636 090	362 340 819	3.0
F	118 103 218 062	3 706 514 304	3.1
G	228 666 386 036	7 352 780 166	3.2
Н	91 695 349 857	2 073 750 541	2.3
1	31 019 958 251	1 474 483 310	4.8
J	120 772 053 735	5 116 426 440	4.2
K	77 474 189 137	2 155 568 643	2.8
L	28 560 898 494	1 584 494 823	5.5
M	119 043 015 493	3 213 914 936	2.7
N	84 980 310 997	2 167 179 248	2.6
Р	210 208 662 110	8 759 517 180	4.2
Q	359 127 868 999	8 493 111 057	2.4
R	25 741 093 364	1 015 515 993	3.9
S	28 854 256 379	1 515 583 601	5.3
B_S	1 879 928 531 470	16 819 554 243	0.9

Note: Annual labour cost = Code D (total labour cost), sum of the values of code D1, D2, D3, D4 minus D5 in Appendix 1 to Regulation (EC) No 1726/1999

Coefficient of variation for Annual labour cost by size band, 2016

Size band	Estimated value (SEK)	Standard Error (SEK)	Coefficient of variation (%)
10_49	372 719 574 087	9 819 459 557	2.6
50_249	360 624 985 336	6 661 998 706	1.8
250_499	136 660 145 307	2 401 186 319	1.8
500_999	153 466 008 040	6 058 826 879	3.9
1000	856 457 818 700	11 511 640 886	1.3
10-	1 879 928 531 470	16 819 554 243	0.9

Note: Annual labour cost = Code D (total labour cost), sum of the values of code D1, D2, D3, D4 minus D5 in Appendix 1 to Regulation (EC) No 1726/1999

Coefficient of variation for Annual labour cost by region, 2016

NUTS Region	Estimated value (SEK)	Standard Error (SEK)	Coefficient of variation (%)		
SE1 - Östra Sverige	853 132 421 037	17 636 892 854	2.1		
SE2 - Södra Sverige	749 390 469 127	16 904 084 640	2.3		
SE3 - Norra Sverige	277 405 641 306	11 246 417 512	4.1		
Sweden	1 879 928 531 470	16 819 554 243	0.9		

NUTS 1: **SE1** – Östra Sverige: Stockholm, Uppsala, Södermanland, Östergötland, Örebro, Västmanland **SE2** – Södra Sverige: Jönköping, Kronoberg, Kalmar, Gotland, Blekinge, Skåne, Halland, Västra Götaland **SE3** – Norra Sverige: Värmland, Dalarna, Gävleborg, Västernorrland, Jämtland, Västerbotten, Norrbotten

The *Hourly labour cost* was 357 SEK in 2016, a 10% increase from 2012. Section K (Financial and insurance activities) has the highest *Hourly labour cost* (584 SEK) and section I (Accommodation and food service activities) has the lowest (240 SEK). This means that the *Hourly labour cost* is 143% higher in section K than in section I. Sections with high *Hourly labour cost* tend to also have higher coefficient of variation.

Enterprises with 10-49 employees have the lowest *Hourly labour cost* and enterprises with 250-499 employees have the highest.

The east region of Sweden (SE1), which includes the capital of Sweden, has around 18% higher *Hourly labour cost* compared to the northern region (SE3).

Coefficient of variation for Hourly labour cost by NACE, 2016

			beincient of variation for Hourly labour cost by NACE, 2016						
NACE	Estimated value	Standard Error	Coefficient of						
sections	(SEK)	(SEK)	variation (%)						
В	452.81	1.39	0.3						
С	400.25	2.21	0.6						
D	476.37	4.92	1.0						
E	348.24	5.58	1.6						
F	354.06	4.48	1.3						
G	364.90	9.26	2.5						
Н	314.27	3.51	1.1						
1	239.97	3.91	1.6						
J	517.96	15.78	3.0						
K	583.83	15.29	2.6						
L	379.28	16.86	4.4						
М	469.90	6.57	1.4						
N	288.56	4.15	1.4						
Р	292.49	3.82	1.3						
Q	319.97	1.90	0.6						
R	296.55	5.51	1.9						
S	317.52	9.03	2.8						
B_S	356.57	1.82	0.5						

Note: Hourly labour cost = Code D (total labour cost), sum of the values of code D1, D2, D3, D4 minus D5, divided by the value of code B1, in Appendix 1 to Regulation (EC) No 1726/1999

Coefficient of variation for Hourly labour cost by size band, 2016

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	Size	Estimated value	Standard Error	Coefficient of			
	band	(SEK)	(SEK)	variation (%)			
	10_49	339.65	6.14	1	1.8		
	50_249	370.60	4.91	1	1.3		
	250_499	399.48	5.20	1	1.3		
	500_999	377.11	4.33	1	1.1		
	1000	349.18	1.74	C	).5		
	10	356.57	1.82	(	).5		

Note: Hourly labour cost = Code D (total labour cost), sum of the values of code D1, D2, D3, D4 minus D5, divided by the value of code B1, in Appendix 1 to Regulation (EC) No 1726/1999

Coefficient of variation for Hourly labour cost by region, 2016

NUTS Region	Estimated value (SEK)	Standard Error (SEK)	Coefficient of variation (%)
SE1 - Östra Sverige	381.52	3.87	1.0
SE2 - Södra Sverige	344.05	2.84	0.8
SE3 - Norra Sverige	323.34	2.73	0.8
Sweden	356.57	1.82	0.5

NUTS 1: **SE1** – Östra Sverige: Stockholm, Uppsala, Södermanland, Östergötland, Örebro, Västmanland **SE2** – Södra Sverige: Jönköping, Kronoberg, Kalmar, Gotland, Blekinge, Skåne, Halland, Västra Götaland **SE3** – Norra Sverige: Värmland, Dalarna, Gävleborg, Västernorrland, Jämtland, Västerbotten, Norrbotten

#### 2.2. Non-sampling errors

#### 2.2.1. Coverage errors

A lot of effort was made to prevent empty strata and response was given in all sampled strata in LCS2016. To keep the sample sizes down, some small NACE divisions were not sampled. The undercoverage because of this is approximately 0.1% of total number of employees. The estimates for division 09 and 39 are zero because no units were sampled in those small divisions, see appendix 3. The samples were drawn in March 2016.<sup>3</sup> This means that entities that began their business between March-December 2016 were not included in the frame or in the sample for LCS2016, and might have contributed to the under-coverage error. A general rate of under-coverage has not been calculated and studied, but there is no reason to believe that this is a major source of error.

The table below shows the over-coverage in the samples. The overall rate of over-coverage was 2.1%. In the private sector the rate was 1.2% and in the public sector 5.3%. In cases of over-coverage, new units have not been sampled. The following cases have been treated as over-coverage:

- Enterprises/local units who died during the early part of 2016.
- Enterprises/local units who were sleeping during 2016.
- Enterprises/local units who did not have any employees during 2016.
- Enterprises that was incorporated into another enterprise in the frame.

Over-coverage in the private sector and county councils, 2016

NACE Rev. 2	Number in universe (N)	Number in sample (n)	Number of over-coverage in sample	Rate of over-coverage in sample (%)
В	57	25	0	0.0
С	6 265	839	5	0.6
D	230	59	1	1.7
E	244	71	2	2.8
F	5 570	156	3	1.9
G	8 136	270	0	0.0
Н	2 814	189	2	1.1
1	3 437	119	3	2.5
J	2 211	218	4	1.8
K	609	126	0	0.0
L	925	60	0	0.0
М	3 506	301	5	1.7
N	2 573	252	7	2.8
Р	1 764	91	0	0.0
Q	2 064	210	3	1.4
R	968	119	3	2.5
S	1 618	115	0	0.0
All	42 991	3 220	38	1.2%

Over-coverage in public sector (municipalities and state authorities), 2016

	Over-coverage in public sector (municipalities and state authorities), 2016					
NACE Rev. 2	Number in universe (N)	Number in sample (n)	Number of over-coverage in sample	Rate of over-coverage in sample (%)		
С	5	0	0			
D	11	0	0			
E	434	90	1	1.1		
F	239	48	3	6.3		
G	5	0	0			
Н	119	44	2	4.5		
I	156	30	2	6.7		
J	12	0	0			
K	5	0	0			
L	146	38	3	7.9		
M	296	63	4	6.3		
N	201	33	3	9.1		
Р	11303	129	6	4.7		
Q	10359	257	12	4.7		
R	2151	133	10	7.5		
S	67	0	0			
All	25 509	865	46	5.3%		

<sup>&</sup>lt;sup>3</sup> A 'frozen' version of the Business register is created in March, May, August and November and used for sample surveys. LCS has used March version since 2004.

#### 2.2.2. Measurements and processing errors

The LCS is a tailor made sampling survey with data collection directly from the employers. In 2015, a project was undertaken to prepare and improve the questionnaire, the software production system and the guidance that was used in previous survey. The web-based questionnaire was updated and adjusted for LCS2016 and additional logical controls were introduced. If a control was triggered, the respondent had to correct or make a comment before the questionnaire could be submitted to SCB. When submitted, the questionnaire is subject to further control at SCB.

Since the variables are related to each other it is important that all the items for a sampled unit are consistent. For example the number of employees and number of hours worked need to correspond in a way that the average number of hours worked per employee is correct. Also, the hours worked need to correspond to the cost variables in the way that the average hourly labour cost is correct. If there were indications that a variable was not correct reported, that was checked and corrected.

The table below shows the percentage of cases variables were corrected after submission. The correction rate has decreased over time for most of the variables.

Variable	Definition	Corrected (%)			
		2004	2008	2012	2016
A1	Total number of employees	34.0	28.6	20.0	23.6
A11	Full-time employees	21.0	18.7	12.8	17.5
A12	Part-time employees	16.0	17.4	17.6	17.2
A121	Part-time employees converted into full-time units	39.0	34.6	32.0	24.8
B11	Hours actually worked by full-time employees	34.0	21.5	22.4	14.2
B12	Hours actually worked by part-time employees	27.0	20.5	22.4	13.0
C11	Paid hours for full-time employees	47.0	27.0	28.6	15.8
C12	Paid hours for part-time employees	35.0	28.3	31.6	17.7
D11111	Direct remuneration. bonuses and allowances paid in each pay period	43.0	21.2	14.5	15.7
D11112	Direct remuneration. bonuses and allowances not paid in each pay period	7.0	3.0	2.7	3.5
D1112	Payments to employees savings schemes	0.4	0.2	0.3	0.4
D1114	Wages and salaries in kind	17.0	7.9	5.5	6.1
D1224	Other imputed social contributions of the employer	19.0	7.7	7.3	7.1
D1211	Statutory social-security contributions	43.0	20.7	16.0	15.1
D1212	Collectively agreed. contractual and voluntary social-security contributions	23.7	34.8	35.7	19.5
D1221	Guaranteed remuneration in the event of sickness	30.0	12.4	7.4	9.1
D1223	Payments to employees leaving the enterprise	3.0	1.4	1.0	1.2
D2	Vocational training costs	20.0	8.0	7.9	8.2
D3	Other expenditure paid by the employer	12.3	8.0	6.6	8.1
D4	Taxes	50.0	34.2	33.9	24.4
D5	Subsidies received by the employer	9.0	9.0	3.1	3.2

The variables corrected most frequently in LCS2016 were A121 (part-time employees converted into full-time units) and D4 (taxes). That was expected, based on experiences from previous surveys, but both variables were corrected in fewer cases than in LCS2012.

The number of employees (A-variables) should be reported as an average. One common mistake is to report all employees that received a salary during 2016 and not the average number of employees.

Paid hours and hours actually worked are variables of most importance to the survey and quite often had to be adjusted or confirmed by the respondents. In many cases the respondents confused paid hours with hours actually worked and vice versa. Some found it difficult to split between part-time and full-time employees and some also found it difficult to report on hours actually worked at all and had to estimate the hours (in many cases in cooperation with Statistics Sweden.)

Some respondents also found it difficult to differentiate between statutory (D1211) and collectively agreed (D1212) social security contributions. Some reported the amount as a sum, and that had to be corrected. The high correction rate of D4 (taxes) can be explained by the fact that D4 relates to the amount reported as D1212 (collectively agreed contractual and voluntary social contributions).

The correction rate is lower for many variables 2016 compared to previous years. Possible reasons:

- some respondents have experience from participating in previous surveys
- some instructions were improved
- companies that provide personnel- and payroll software have had contacts with SCB when creating standard reports that can make it easier to respond to the variables asked for in LCS
- the logical controls that were integrated in the web questionnaire makes it possible for the respondents to correct some mistakes before sending the data to SCB. In 2004 only paper questionnaires were used and since 2008 the integrated controls have increased for each survey and the respondents have the possibility to correct more mistakes before data was transferred
- the sample size is smaller 2016, 2012 and 2008 compared to 2004, especially among the small enterprises, and small enterprises tend to make more mistakes when answering the questions

SCB has tried to minimise the risk for processing errors. For example by ensuring that critical steps in the production process are documented and that production of the results were compiled in close cooperation between subject matter specialist and the methodologist.

A minor cause of measurement error might have been that information about apprentices were not collected separately. The reason is that this form of employment is very rare in Sweden. A few apprentices can be found in some branches, for example in the construction industry, and are in those cases probably treated as regular employees. Since they are few they will not affect the estimates and it is not worth collecting them separately. This can change for next LCS, and will of course be considered if the situation changes.

#### 2.2.3. Non-response errors

The table below contains information about the number of units responding, not responding or are considered as over-coverage in the two samples.

	Private sample		Public sample		Total	
2016	Units	Rate	Units	Rate	Units	Rate
Response	2 920	90.7	793	91.2	3 713	90.9
Non-response	262	8.1	26	3.0	288	7.1
Over-coverage	38	1.2	46	5.3	84	2.1
Sample size	3 220	100	865	100	4 085	100

The response rate can be defined in different ways depending on how over-coverage is treated and the response rate is calculated in three different ways below.

• If the over-coverage is considered as non-response, the response rate is 90.9% using the following formula. (For 2008 the figure was 87.4% and for 2012 86.9%)

$$\left[\frac{n_{response}}{n}\right] * 100$$
  $\left[\frac{3713}{4085}\right] * 100 = 90.9\%$ 

• If the over-coverage is considered as response, the response rate can be expressed by this formula.

$$\left[\frac{n_{response} + n_{overcoverage}}{n}\right] * 100 \qquad \left[\frac{3713 + 84}{4085}\right] * 100 = 92.9\%$$

For 2016 the overall, non-weighted, response rate was 92.9% including 2.1% over coverage. Appendix 2 contain tables of unit response rates, broken down by the stratification used for the two samples. For the private sector and county councils the rate was 91.9% and for the public sector 97.0%, including over-coverage. The above formula was used to calculate the response rate in previous quality reports for LCS and the rate over time is presented in this table.

Year	Response rate incl. over coverage (%)	Over coverage (%)
2000	86.8	3.4
2004	87.5	2.9
2008	90.2	2.8
2012	89.5	2.5
2016	92.9	2.1

• If the over-coverage is excluded in both the numerator and the denominator the response rate can be expressed by the formula below. The response rate is calculated in this way in many of the labour market surveys in Sweden. The response rate is in this case 92.8%, which can be compared to 87.2% for 2004, 89.9% for 2008 and 89.2% for 2012.

$$\left[\frac{n_{response}}{(n - n_{overcoverage})}\right] * 100 \qquad \left[\frac{3713}{(4085 - 84)}\right] * 100 = 92.8\%$$

The method that has been used to reduce the size of the error resulting from non-response is reweighting within strata, i.e. imputation of mean value within the strata. This method has been used for each stratum where non-response has occurred. If this method is to work satisfactorily, nonresponse has to occur randomly within stratum. In the largest size class, one has to study the results carefully in case of non-response, because of possible large differences in the number of employees of enterprises concerned.

Item non-response were handled in the editing process using manual imputation. In some cases, the national monthly and yearly surveys for salary and wages have been used for comparison of average salary and used for imputation when there have been partial non-response and possible outliers. Also information from the Business register has in a few cases been used for imputation.

The response rate is high for LCS2016 compared to other similar surveys and previous LCS. Possible reasons for high and increased response rate:

- Some respondents have experience from participating in previous surveys.
- Because of the small sample size, there has been a lot of work and focus on *reminding* and urging the respondents to participate in the survey, to increase the overall response rate and reduce the risk to ending up with empty strata.
- The change in the *sample design*, implemented from 2008 and onwards, has probably had a positive impact on the response rate. The county councils are now sampled on enterprise level, not on local unit as it was 2004. Almost all local units in the county councils belong to section Q (Health care). The respondents usually find it easier to answer on enterprise level than on local unit level. Around 2 100 local units belong to the 20 county councils and all 20 have responded. Around 250 000 employees are working in the county councils.
- *PDF-file of the paper questionnaire together with instructions* for each variable were put on the website that was easy for the respondent to print out. This was done since no paper questionnaire were sent out and some respondents find it useful to have one to make notes on. This also meant that the payroll system providers easy could get access to the questionnaire and instruction and could create standard reports. That might have contributed to high response rate.
- Statistics Sweden also tried to *cooperate with the payroll system providers* and encourage the respondent to contact them. They may be able to help and some have built-up standard report for LCS. For LCS2016 they have had the possibility to get *newsletters* with information about the survey. In in some cases meetings and presentations were organised.

- The survey is *mandatory*, the companies are obliged to respond by law and may need to pay a fine if they fail to report.
- *LCS is only done every four years with a long collecting period*. The possibility to give the respondent more time, if they need that, contribute to a high response rate at the end. Also, the knowledge that they don't have to answerer next year have impact that they respond. On the other hand it is also a problem when a survey is only done every four years. The respondent are not used to the survey and need to put together new information that they sometime found time consuming.
- *Pre information* was sent to the units in the sample. That gave respondent the possibility to save data for 2016 and time to prepare for the survey. Statistics Sweden also got information about some over-coverage and contact persons by this procedure. This has most likely contributed to the high response rate.

#### 2.2.4. Model assumption errors

#### Estimates by region – new model from LCS2012

Sweden is divided into three regions according to NUTS level 1 since 2008. Regional data was therefore produced for LCS2008 for the first time. LCS-data are collected at enterprise level for the private sector and not on local unit. This is a problem when it comes to producing estimates by region and a model is needed. For enterprises with local units in more than one region, the number of employees at local unit level from the Business register (BR) was used, to perform the allocation of the enterprise data to the local units. This model is likely to function sufficiently for variables related to number of employees. For variables related to costs, it is likely to produce some bias. An enterprise with local units in more than one region will have the same average labour cost in all regions. Experiences from other surveys show that the average salary is higher in the Swedish capital, Stockholm, than in the rest of Sweden. Labour costs for the region containing Stockholm are likely to be underestimated, while the other regions are likely to be overestimated by this model.

For LCS2012 the model for producing regional data was improved. This model was also used for LCS2016. The new model is likely to give less bias in the regional estimates. The national survey for salaries and wages for private sector (SLP) was used for enterprises included in both SLP and LCS. In 2016 about 83% (2 677) of the enterprises were in both surveys. SLP has information for September about each employee in the enterprise and also information about in which local unit the employee works. Using this information, the average monthly salary and the number of employees by region for each enterprise were calculated. The cost variables in LCS were then distributed by the average salary per region for each enterprise. The number of employees and number of hours worked and paid was divided using the distribution of number of employees from SLP. For enterprises that were not in SLP the model used in LCS2008 was used. 543 enterprises did not match and 479 of those were located only in one region. This means that the 'old' model was used for less than 70 enterprises. The table below shows the number of enterprises in LCS, which matches SLP, by the number of regions the enterprises have local units in.

Number of regions	Number of enterprises by number of regions
0 no match	543
1	1 869
2	347
3	461
Total	3 220

The table below show the number of employees (according to the BR) in each region, divided by whether they stem from a single, two or three region unit. This is done in order to give a rough idea on how model dependent the regional estimates are.

Number of employees in each region by type of unit 2016

NUTS1	One region units	Two region units	Three region units	Total
SE1 - Östra Sverige – East Sweden	657 529	153 929	372 549	1 184 007
SE2 - Södra Sverige – South Sweden	678 316	136 486	289 729	1 104 531
SE3 - Norra Sverige – North Sweden	253 523	35 133	121 924	410 580
Total	1 589 368	325 548	784 202	2 699 118

NUTS 1: **SE1** – Östra Sverige: Stockholm, Uppsala, Södermanland, Östergötland, Örebro, Västmanland **SE2** – Södra Sverige: Jönköping, Kronoberg, Kalmar, Gotland, Blekinge, Skåne, Halland, Västra Götaland **SE3** – Norra Sverige: Värmland, Dalarna, Gävleborg, Västernorrland, Jämtland, Västerbotten, Norrbotten

Number of enterprises and employees in the population and in the sample by number of regions the enterprises has local units in 2016

Number of regions	Number of enter	prises	Number of employees	
(NUTS1)	Population (N)	Sample (n)	Population	Sample
1	39 688	2 284	1 589 368	563 260
2	2 083	401	325 548	207 212
3	1 220	535	784 202	701 654
Totalt	42 991	3 220	2 699 118	1 472 126

39 688 enterprises have local units in only one region. There are only 8% (3 303) of the enterprises that have local units in more than one region, but they employ more than one million persons. This means that 41% of the employees work in an enterprise with local units located in more than one region and are therefore included in the model used for the estimates on region. This indicate that the large enterprises tend to be located in more than one region more often than small enterprises. In the sample 936 enterprises (29%) were in more than one region.

#### New model for dividing the aggregate of the variables (D1113) and (D11111) in LCS2016

One experience from the first run of LCS was that the respondents found it difficult to separate their costs between D1113 (payments for days not worked) and D11111 (direct remuneration etc. paid in each pay period). Therefore, a decision was made for LCS2000, to stop collecting these items separately, but instead ask for the sum of D11111 and D1113. A model was developed for LCS2000 to separate the sum into the two variables, and the same model have been used until LCS2016, when the model was improved.

Employees in Sweden have the legal right to 25 vacation days per year. Holiday pay is statutory by 12% of the employee's wages. Collective or individual agreements may stipulate more vacation days and higher percentages. It is known that number of vacation days have increased over time in private sector, but that was not reflected in the model.

Therefore, the model has been modified leading to a re-distribution from D11111 to D1113 for LCS2016. The biggest differences between the old and new model is: a) how the payment for vacation is estimated and b) how public holidays are treated. With the old model a) was estimated using a global standard without differentiating for industry or institutional sector. In the new model a) is estimated based on information about number of vacation days from the yearly salary survey, which enables us to differentiate the calculations according to both NACE and institutional sector. In the old model b) the payments for public holidays was to a large extent treated as part of the compensation for days worked. In the new model this type of payment is to a larger extent treated as compensation for days not worked.

In the table below, the old and new model are compared based on data from LCS2016. The new model favors days not worked with around two percentage points compared to the old model.

The share, of the total compensation, for days not worked with the old and the new model

	Min and max (Section level)	Total
The old model	ca 6.4-8.7%	ca 7.9%
The new model	ca 8.4-11.5%	ca 10.2%

#### Other model assumptions errors

- Small enterprises with less than 10 employees and section O are optional, and have not been included or accounted for. About 20% of the employees in the private sector work in an enterprise with less than 10 employees. Section O represents about 5% of the total number of employees.
- No data is given for apprentices. The reason is that this form of employment is very rare in Sweden. So rare, that it was not considered worthwhile to specifically ask about apprentices.
- Respondents were asked to report data for 2016, but as a second choice they were given the possibility to report data for the fiscal year. Adjustments from fiscal year to calendar year have been made by SCB, when needed. For instance, if the fiscal year was 15 months, all figures except those concerning the average number of employees have been divided by 15 and multiplied by 12.
- In 2016, D11144 (stock options) was optional just as it was in the previous. Once again the question about stock options (D11144) was integrated with D11112 (direct remuneration, bonuses and allowances not paid in each pay period). Some respondents found it difficult to answer the question about stock options. Statistics Sweden does not know how many enterprises included stock options nor the magnitude of the value. The general opinion is still that stock options is a small part of D11112.
- Statistics Sweden noticed that *individually* agreed social security contributions are commonly used in Sweden. As in previous surveys, this variable was asked for separately. This cost has then been added to variable D1212 (collectively agreed, contractual and voluntary social security contributions), just like in the results of the previous surveys.

# 3. Punctuality and timeliness

## 3.1. Punctuality

The sample was drawn in March 2016 and pre information was sent out in April 2016 to the units in the sample. Some respondents have indicated that LCS is a quite difficult and burdensome survey and Statistics Sweden found it necessary to give pre information to the respondents about the survey, so they have the possibility to prepare and save data for the reference year.

Some discussions were held about the optimal time period for data collection. Normally, the enterprises are occupied with balancing their accounts in January and February. To avoid disturbing this important work, the data collection started on March 15<sup>th</sup> 2017 and respondents were given five weeks to respond.

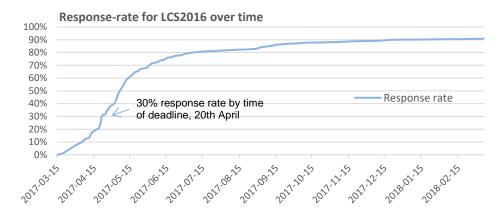
A modified and up-dated version of the web-based questionnaire that was used for previous survey was used for LCS2016. The respondents received instructions including the web address, user id and a password from Statistics Sweden and were asked to log in and respond to the questionnaire. The

respondent filled in the data on the web and some logical controls were made before the questionnaire was transmitted to Statistics Sweden. The number of logical controls in the web questionnaire have increased since last survey, and the respondent had to give more comments to the reported figures if they were outside certain limits. If a paper version of the questionnaire was requested, it was provided as a PDF-file at the website. The English version of the paper questionnaire and instructions can be found in appendix 4 and 5.

The non-response was relatively high, 70%, at the time of deadline 20<sup>th</sup> April. After deadline a lot of effort was made on collecting the missing questionnaires. Reminders was sent to all non-responding units and telephone reminders were done in May and June. In August a special request was sent to the large non-responding enterprises in the private sector. In September an order to pay a fine was sent to enterprises failing to respond. This was effective and in the end all those enterprises responded. From March and onwards there was an on-going process of studying, approving and coding questionnaires and contacting respondents when indications of possible errors were detected.

The data collection stopped in the beginning of 2018. The response rate was then 92.9%, including over-coverage, compared to 89.5% for LCS2012. During January – April 2018, the data were evaluated further at micro and macro level. The results of the Swedish LCS were forwarded to Eurostat in June 2018 as requested.

It has been possible to draw a timeline of the response rate for LCS2016, since data was recorded regularly. The graph below shows that the response rate was only around 30% by the date of deadline, but that was not a surprise based on experiences from previous surveys where the inflow pattern were similar. After reminders the inflow was 90.9% for LCS2016, which is little higher than previous years.



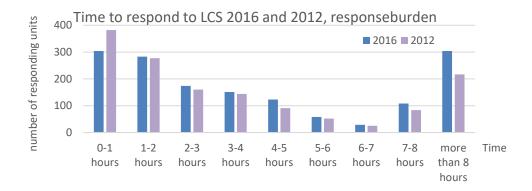
A voluntary question about the time spent completing the questionnaire has been included in the questionnaire since LCS2008. To include this question has become common practice in many of Statistics Sweden's surveys as a way of measuring response burden. About 40% of the respondents answered that question and the non-weighted average time for completing the questionnaire was 6 hours and 54 minutes. For the private sector this figure was 6 hours and 30 minutes and for the municipalities and governmental authorities 9 hours and 29 minutes.

Average time to complete the questionnaire

	Private	Public	Total
2008	4 hours 55 minutes	7 hours 8 minutes	5 hours 16 minutes
2012	5 hours 11 minutes	8 hours 20 minutes	5 hours 40 minutes
2016	6 hours 30 minutes	9 hours 29 minutes	6 hours 54 minutes

The response burden seems to have increased each year according to the answer to this question. The main reason is probably that more controls have been integrated in the web questionnaire every year and the respondent had to correct or give comments to their figures in larger extent. On the other hand, there have been less adjusted figures after transferring the data to Statistics Sweden. Also, some respondent maybe found it time consuming to not receive a paper questionnaire and they had to print it out themselves from the web since 2012.

The graph below shows the answers from the respondents grouped into time intervals 2012 and 2016. About 50% needed less than 3 hours to complete the questionnaire 2016.



#### 3.2. Timeliness

The tables for the Swedish LCS2016 were forwarded to Eurostat in June 2018 as stipulated by the regulation. Statistics Sweden awaiting results from Eurostat, and then plan to publish results with comparison with the other countries, similar to previous LCS.

# 4. Accessibility and clarity

#### 4.1. Accessibility

Eurostat publish results for LCS and on the website at Statistics Sweden is a link to Eurostat's website where the results for all countries can be found<sup>4</sup>. Some tables and graphs for LCS 2004, 2008 and 2012 are also published on the website at Statistics Sweden and results for 2016 will be published there as well. There will probably be seminars and articles where results from LCS2016 will be presented as it has been for previous surveys.

Results will not be sent to the reporting units. However, in the pre information, all sampled units received the main result of last LCS. The idea is to also give the sampled units in LCS2020, some results from LCS2016.

#### Confidentiality flags

The treatment of confidentiality is in line with the policy adopted by Statistics Sweden. The primary confidentiality flags have been set using the same methodology as for previous LCS. A cell is given a primary confidential flag if one or more of the following conditions occur:

<sup>&</sup>lt;sup>4</sup> Link to results for LCS at Statistics Sweden: <a href="https://www.scb.se/hitta-statistik/statistik-efter-amne/arbetsmarknad/loner-och-arbetskostnader/labour-cost-survey-lcs/">https://www.scb.se/hitta-statistik/statistik-efter-amne/arbetsmarknad/loner-och-arbetskostnader/labour-cost-survey-lcs/</a>

- The number of contributing units are less than four
- One observation accounts for more than 70 percent of the total estimate of number of employees (A1)
- Two observations account for more than 95 percent of the total estimate of number of employees (A1)

Eurostat request the secondary confidentiality flags to be set by the countries. This has been done, where needed, in such way that the estimates with the smallest value of the number of employees (A1) have been flagged with secondary confidentiality.

#### Completeness

The survey was carried out basically in full compliance with the Commission Regulation. With the survey design in use it though becomes difficult to calculate the number in universe(N) and number in the sample(n) for tables containing regional data and data by size class that is requested. A legal unit can operate in more than one region and on the other hand a local unit is to be attributed to the size class according to the legal unit to which it belongs. Because of this the number in universe(N) and number in the sample(n) have not been reported for tables containing regional or size class.

#### 4.2. Clarity

Beside this quality report, Statistics Sweden has additional documentation. Some of the metadata documentation is available for the users on the website. There is also a link to Eurostat where users can find the results. Also, seminars will probably be held to carry out the national statistics and inform about the survey.

# 5. Comparability

Comparability between the national and the European concept:

#### • Statistical units

The statistical unit should be a local unit belonging to an enterprise with 10 and more employees. For the private sector and the county councils, local units are not the statistical unit for LCS2016 in Sweden. In this case the legal unit is the statistical unit. For the public sector (municipalities and governmental authorities), local unit is the statistical unit.

#### Population

Enterprises with size class less than 10 employees and NACE section O are optional according to the EU-regulation. Since this is optional, this is not included in the LCS in Sweden because of response burden. Some variables should have been collected separately for apprentices. This has not been done since apprentices are not common in Sweden.

#### • Reference time

2016 is the reference year. Some respondents reported for the fiscal year instead and in cases when the fiscal year where shorter or longer than 12 month Statistics Sweden made adjustments from fiscal year to calendar year. For instance, if the fiscal year was 15 months, all figures except those concerning the average number of employees have been divided by 15 and multiplied by 12.

#### • Classification of variables

Most variables are collected in LCS. In chapter 2.2.4 information regarding some model assumptions can be found. For example are *Payments for days not worked* (D1113) and *Direct remuneration paid in each period* (D11111) asked for as an aggregate in LCS in Sweden and are divided by a model later on. The model have been improved for LCS2016 and the share that refers to D1113 is now larger.

#### 5.1. Geographical comparability

All EU-member states and some other European countries conduct LCS. Eurostat produce results for the different countries and for the EU as a whole. The number of countries that conduct LCS have increased which is worth to have in mind when analysing the results over time.

#### Region

Regional data on NUTS Level 1 is required. During the work with LCS1997, Statistics Sweden found that one of the major difficulties for the respondents was to report data at local unit level. Analyses was carried out to assess how different the Swedish LCS results would have been if data instead had been at enterprise level. There are basically two ways in which such a change can affect the results. First, data broken down by regions might be incorrect if data is given at the enterprise level. Before 2008 this problem did not exist since Sweden was one region at NUTS 1 level. Secondly, data broken down by NACE might be affected. However, the analyses indicated that this problem was minimal. Therefore, with the intention of making life easier for the respondents and thereby increasing the quality of the data, it was decided to sample enterprises instead of local units. Eurostat was informed about this change. This sampling design has been kept for the private sector since 2000. From 2008 both the private sector and county councils have been sampled at enterprise level. For the public sector, local units are still the sampling units.

Sweden is divided into three regions according to NUTS level 1 since 2008 and regional tables were produced for the first time for LCS2008. Since data for the private sector are collected on enterprise level and not on local unit level in Sweden, a model had to be used to split the enterprise data by region. For LCS2012 the model for producing regional data was improved utilizing information from the national yearly survey for salary and wages. The same model was also used for LCS2016. The model used to produce the regional data is described in chapter 2.2.4. Below is information about the counties that belongs to the regions.

NUTS 1:	County	Area code
SE1 – Östra Sverige:	Stockholm	01
(East Sweden)	Uppsala	03
	Södermanland	04
	Östergötland	05
	Örebro	18
	Västmanland	19
SE2 – Södra Sverige	Jönköping	06
(South Sweden)	Kronoberg	07
	Kalmar	08
	Gotland	09
	Blekinge	10
	Skåne	12
	Halland	13
	Västra Götaland	14
SE3 – Norra Sverige	Värmland	17
(North Sweden)	Dalarna	20
	Gävleborg	21
	Västernorrland	22
	Jämtland	23
	Västerbotten	24
	Norrbotten	25

#### 5.2. Comparability over time

Comparing statistics over time is sometimes challenging and knowledge about different circumstances over time is useful. Below are some changes that might have had impact on the comparability.

#### **Changes for LCS2016**

LCS2016 in Sweden was conducted in similar way as LCS2012 with no major changes. The following is though new for LCS2016, but are not likely to affect the overall comparability over time.

- *Improved model assumption for variables* D11111(Direct remuneration, bonuses and allowances paid in each period) and D1113 (Payments for days not worked), which is collected aggregated. The model to split the aggregate has been improved, using information about vacation days that now is included in the yearly salary survey. These variables are therefore not completely comparable between 2016 and previous years.
- Web questionnaire included more logical controls. More logical controls were introduced in the web-questionnaire and the respondent had the possibility to correct or comment on their figures if they stand out in more cases than before.
- *New production system*. The technology in the previous data processing system was old and had to be replaced.
- *Newsletters to payroll software providers*. Newsletters were sent to payroll software providers to inform them about LCS and that enterprises (their clients) will be asked to report LCS to SCB.
- *PDF-file of the questionnaire together with instructions* for each variable were put on the website. That meant that the payroll system providers got easy access to the questionnaire and instruction and could create standard reports.

#### LCS 1997-2016, NACE coverage

LCS was conducted for the first time for reference year 1997. The sample was drawn at local unit level for section C-K in NACE Rev.1. In 2000 two independent samples were drawn, one at enterprise level for NACE C-K in the private sector and one at local unit level for the public sector. In 2004 the sample was drawn in the same way, but sections M, N and O were included for the first time. The public sector represents approximately one third of the total economy and is dominating in those sections.

Since LCS2008 the NACE Rev.2 nomenclature is used, which was a major change and data before 2008 are not comparable by NACE. (LCS2008 were though double coded and results on section level were produced in NACE Rev.1 also.) The number of sections as well as number of divisions increased. 81 divisions are asked for in B-S excl. O. In NACE Rev.1 this number was 54, an increase by 27 divisions. In one of the requested tables, containing size and division, this means an increase from 270 till 405 groups. This makes the number of cells, for which estimates are required higher and put more strain on the survey design. Also, the sample size had to be smaller since LCS2008 due to budget restrictions and response burden.

#### **Sampling time-point**

Since LCS2004 the sample has been drawn in March the reference year. For LCS 1997 and 2000 the sample was drawn in November the year before the reference year. To draw the sample in the same year has resulted in less over-coverage.

#### Web-based survey

The collection method changed a lot for LCS2008 when the respondents had the possibility to use a web-based questionnaire for the first time. The respondents were given a web address, user id and password. They filled in their data and some logical controls were made before the questionnaire was sent to SCB. 88% of the questionnaires were collected this way for LCS2008 and 98% for LCS2012 and for LCS2016 only a few respondents did not use the web. The survey can therefore be considered as a web-based survey. The number of integrated logical controls in the questionnaire have also increased each year. Whether the change in collection method affected the statistics has not been thoroughly studied.

#### **Account files - SIE –file (Standard import export – file)**

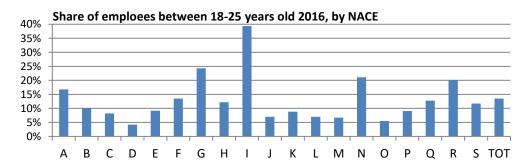
In LCS2012 a test was made where the respondents for the private sector where given the possibility to upload so called SIE-files, which are standardized reports generated from their accounting system. For this to work a key is needed between survey variables and the BAS nomenclature, a recommended standard for accounting. The respondents also need to follow the accounting recommendations fully. Information about number of employees or hours worked or paid are not in the file, which they needed to add. Only about 130 (4.6%) of the questionnaires in the private sector were collected this way 2012 and this collecting method was not used in 2016.

#### Social contributions by law

The employer pays statutory social contributions on the salary to the tax authority. The statutory contribution rate was 31.42% in 2016 and has been the same for many years as can be seen in this table.

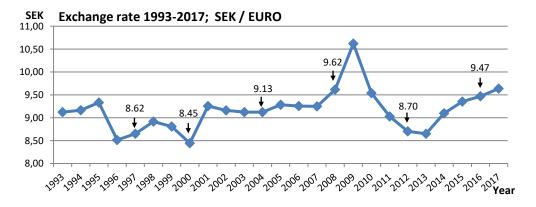
Statutory soc	ial contribution	ons on the gr	oss salary in	<b>%, 2000-2016</b>
2000	2004	2008	2012	2016
32.92%	32.70%	32.42%	31.42%	31.42%

In 2012 the statutory social contributions were lower for employees younger than 26 years, 15.49% compared to 31.42%. The rate for young employees 2016 was 25.46% during January-May and from June full social contribution was paid. For employees at the age 65-78 the statutory contribution and tax were 16.36%, and 10.21% for the ones older than 79. This can be useful information when analysing data. Most common age for retirement in Sweden is at 65, but it has become more common to work after 65. In 2016 about 1% of the employees are between 65-67. Most of them can be found in section P (Education) and Q (Human health and social work activities) where the share is almost 2% and the lowest in section I (Accommodation and food service activities), where the share is close to 0%. From the yearly national salary survey information regarding the share of different age groups can be estimated. In the graph below the share of young employees (18-25 years) by NACE is shown. The highest share can be found for section I, almost 40%.



#### **Exchange rate**

Results are presented both in Euro and in Swedish Krona (SEK). The results in Euro are influenced by the exchange rate and the graph below shows how the exchange rate has varied over time.



Below is an example that shows the increase of the *Hourly labour cost* for NACE section B-S excl. O from 2004 to 2016. Between 2012 and 2016 the *Hourly labour cost* increased by 10% when calculating in national currency and 1% when calculating in Euro. Between 2008 and 2012 the increase was 7% in national currency and 18% in Euro.

Hourly labour cost NACE Rev.2 B\_S. year (2004), 2008, 2012 and 2016

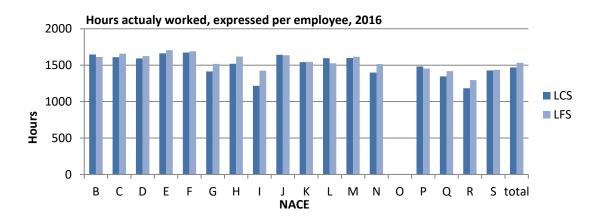
	SEK		EURO	
Year	Estimated value (SEK)	Change from previous survey %	Estimated value (Euro)	Change from previous survey %
2004 (C-O)	265		29.01	
2008	304	15 %	31.64	9 %
2012	324	7 %	37.26	18 %
2016	357	10 %	37.66	1 %
2004-2016		35 %		30 %

#### 6. Coherence

LCS-data transmitted to Eurostat are internally coherent. Before the results were sent to Eurostat, validations of the result were done, using the recommended checks; like check on relationship between variables, consistency checks and cross checks between tables. Below are comparisons between LCS and some other surveys.

- Labour Cost Survey vs. Labour Force Survey

The graph below shows a comparison of *Hours actually worked*<sup>5</sup> expressed per employee during 2016 according to LCS and the average actual hours worked in the main job per employee 2016 according to LFS (Labour Force Survey).

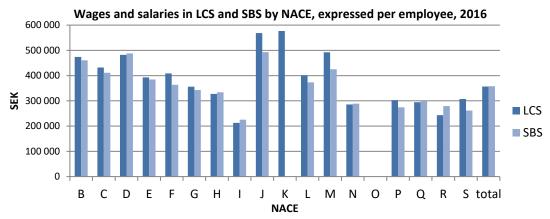


Things that differs between LFS and LCS is that LFS use the population register as a frame and cover the whole labour market and it is the employees that respond to the survey. LCS only covers enterprises with 10 and more employees and it is the employer that respond to the survey.

<sup>&</sup>lt;sup>5</sup> Code B1, divided by the value of code A1, in appendix 1 to Regulation (EC) No1726/1999. B1(number of hours actually worked), A1(number of employees)

- Labour Cost Survey vs. Structural Business Statistics

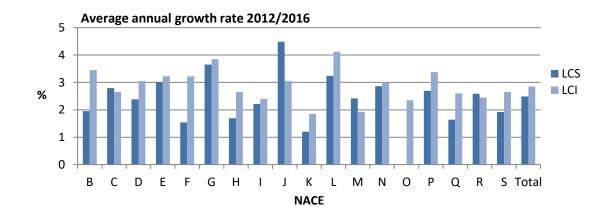
The graph below shows the Wages and salaries<sup>6</sup>, expressed per employee from the LCS compared to the SBS (Structural Business Statistics).



When comparing the LCS and the SBS one must know that there are a couple of significant differences between the two surveys. Firstly, enterprises with less than 10 employees are excluded in the LCS. Secondly, the public sector is not included in SBS, which can be good to keep in mind when analysing the data. In section P, Q and R the public sector are dominating and are not quite comparable. SBS includes just a very small group of enterprises in section K. Banking and insurance-companies are excluded for example. This makes K not comparable.

#### - Labour Cost Survey vs. Labour Cost Index

The graph below shows the *Average annual growth rates*<sup>7</sup> in national currency (SEK) for the *Hourly labour costs*<sup>8</sup> by NACE between year 2012 and 2016 in LCS and LCI (Labour Cost Index). LCI does not include Vocational training costs (D2), Other expenditure paid by the employer (D3) or Subsidies received by the employer (D5). Enterprises with less than 10 employees are also included in LCI.



<sup>&</sup>lt;sup>6</sup> Code D11, divided by the value of code A1, in appendix 1 to Regulation (EC) No1726/1999 D11(wages and salaries), A1(number of employees)

in LCS:((Hourly labour costs 2016 - Hourly labour costs 2012)/(Hourly labour costs 2012))/4

<sup>&</sup>lt;sup>7</sup> Average annual growth rates =

in LCI:((Average labour costs index 2016 - Average labour costs index 2012)/(Average labour costs index 2012))/4 (Data adjusted by working days for LCI is used, unadjusted is not available.)

<sup>&</sup>lt;sup>8</sup> Hourly labour cost: in LCS = (D1+D2+D3+D4-D5)/B1, in LCI = (D1+D3)/B1

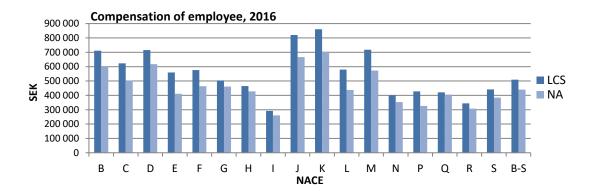
D1(compensation of employees), D2(vocational training costs), D3(other expenditure paid by the employer), D4(tax), D5(subsidies received by the employer), B1(total hours actually worked).

#### - Labour Cost up-dates - Annual data

Since LCS is only conducted every four years, Eurostat forecast the labour cost levels by NACE section for the years between using LCI. The levels from the latest conducted LCS is used as a base and updated according to the change in LCI. The forecast for 2016 have LCS2012 as a base. When comparing that forecast with results from the conducted LCS2016 there are of course differences. Things that can explain the differences are for example that both LCI and LCS are sample surveys with sampling errors. LCI include small companies but does not included items like costs for vocational training, other expenditure or subsidise. The total hourly labour cost were 367 SEK from the annual estimate and 357 SEK from the conducted LCS2016. The differences tend to be higher in the different NACE sections.

#### - Labour Cost Survey vs. National Accounts

The graph below shows *Compensation per employee*<sup>9</sup> during 2016 in LCS and National Accounts (NA). Compensation per employee includes salaries and social contributions but no taxes and the main explanation why the LCS-bars are higher than the NA-bars is differences in the definition of tax vs social contributions. NA changed the definition of social contributions vs. taxes because of ESA 2010 in 2014 back to 2012. In connection with the transition to ESA 2010, a stricter interpretation of what should be included in social contributions was introduced. Henceforth, only payroll taxes earmarked for its purpose, such as pension contributions are recognized as social contributions. A large part of the statutory social contributions, like parental and sick insurance contributions, are now considered as taxes instead and the compensation of employees is therefore lower in NA. LCS has not changed the definition of statutory social contributions vs tax and only the special wage tax is considered as tax. Eurostat discuss the borderline between social contributions and taxes in NA and will hopefully come up with recommendations how this should be treated. Another explanation why the LCS-bars are higher than NA-bars is that LCS excludes enterprises with less than 10 employees, and larger enterprises are considered to have slightly higher compensation per employee.



<sup>&</sup>lt;sup>9</sup> Code D1, divided by the value of code A1, in appendix 1 to Regulation No 1726/1999. D1(compensation of employees), A1(number of employees)

Appendix 1 Coefficient of variation by NACE, size-band and region

NACE		by NACE and size-bate Estimated value	Standard Error	Coefficient of
sections	Size band	(SEK)	(SEK)	variation (%)
В	10_49	373 465 000	72 990 601	19.5
<u>B</u>	50_249	481 873 000	0	0.0
<u>B</u>	250_499			
<u>B</u>	500_999	0	0	
B B	1000	6 050 550 000	72 000 601	1 2
С	10 10 49	6 050 550 000 50 359 072 619	72 990 601 1 763 083 906	1.2 3.5
C	50_249	75 141 225 976	1 907 462 302	2.5
C	250 499	37 913 532 482	999 851 185	2.6
C	500 999	40 395 249 000	0	0.0
C	1000	113 317 361 000	0	0.0
C	10	317 126 441 078	2 783 267 807	0.9
D	10 49	2 561 704 943	217 739 845	8.5
D	50_249	5 079 257 444	373 432 218	7.4
D	250_499	2 229 291 000	0	0.0
D	500_999	4 668 307 000	0	0.0
D	1000	5 884 083 000	0	0.0
D	10	20 422 643 387	432 275 677	2.1
E	10_49	1 736 320 433	230 412 713	13.3
E	50_249	4 289 701 862	150 607 540	3.5
E	250_499	1 382 718 000	33 573 435	2.4
E	500_999	992 939 935	211 077 204	21.3
E	1000	3 679 955 859	432 144 492	11.7
E	10	12 081 636 090	362 340 819	3.0
F	10_49	48 571 819 389	3 328 978 226	6.9
F	50_249	24 505 703 678	1 430 308 887	5.8
<u>F</u>	250_499	4 838 741 429	226 542 894	4.7
<u>F</u>	500_999	5 374 529 833	84 010 825	1.6
<u>F</u>	1000	34 812 423 733	792 164 042	2.3
<u>F</u>	10	118 103 218 062	3 706 514 304	3.1
G G	10_49 50_249	72 707 684 074 61 123 718 462	6 003 804 583 4 002 438 197	8.3 6.5
G	250 499	22 011 832 500	1 413 575 319	6.4
G	500 999	20 215 141 000	0	0.0
G	1000	52 608 010 000	0	0.0
G	1000	228 666 386 036	7 352 780 166	3.2
H	10_49	21 014 646 145	1 563 412 491	7.4
H	50_249	21 896 237 979	1 299 219 706	5.9
Н	250_499	5 771 785 000	409 121 873	7.1
Н	500_999	5 078 668 600	17 780 922	0.4
Н	1000	37 934 012 133	31 351 680	0.1
Н	10	91 695 349 857	2 073 750 541	2.3
1	10_49	15 509 863 656	1 431 517 238	9.2
1	50_249	7 657 795 357	304 482 631	4.0
1	250_499	1 470 083 524	152 401 594	10.4
I	500_999			
<u> </u>	1000	5 021 756 714	101 530 787	2.0
<u> </u>	10	31 019 958 251	1 474 483 310	4.8
J	10_49	36 395 306 179	4 769 601 383	13.1
J	50_249	30 354 322 207	1 766 962 694	5.8
J	250_499	11 706 311 350	553 683 129	4.7
J	500_999	12 680 099 000	0	0.0
J	1000	29 636 015 000	0 5 446 426 440	0.0
J	10 10	120 772 053 735	5 116 426 440	4.2
K K	10_49 50_249	11 396 781 442 14 877 104 249	1 844 078 864 854 693 905	16.2 5.7
K	250 499	10 266 744 446	717 877 182	7.0
K	500 999	10 200 / 44 440	111 011 102	
K	1000	36 760 057 000	0	0.0
K	1000	77 474 189 137	2 155 568 643	2.8
L	10 49	9 687 876 767	1 185 873 847	12.2
<u>-</u> I	50 249	9 489 013 394	944 675 665	10.0
L	250 499	5 234 941 833	401 862 995	7.7
L	500_999	0 207 071 000	-01 00Z 030	1.1
	000_000	<u></u>		
L	1000			

M	10_49	40 665 638 540	2 516 036 538	6.2
M	50 249	34 314 066 474	1 972 385 685	5.7
M	250 499	7 426 665 000	361 134 118	4.9
M	500 999	10 989 711 714	34 965 638	0.3
М	1000	25 646 933 765	279 807 848	1.1
M	10	119 043 015 493	3 213 914 936	2.7
N	10_49	15 731 238 798	1 583 481 702	10.1
N	50_249	18 810 413 898	1 383 773 579	7.4
N	250_499	9 131 586 676	519 103 683	5.7
N	500_999	6 466 180 250	24 506 568	0.4
N	1000	34 840 891 375	77 417 888	0.2
N	10	84 980 310 997	2 167 179 248	2.6
Р	10_49	12 481 323 030	1 058 467 812	8.5
Р	50_249	13 327 884 100	2 577 307 144	19.3
Р	250_499	4 660 325 000	925 503 449	19.9
Р	500 999	11 242 481 227	2 555 169 578	22.7
Р	1000	168 496 648 752	8 898 941 643	5.3
Р	10	210 208 662 110	8 759 517 180	4.2
Q	10_49	15 227 257 185	1 345 738 179	8.8
Q	50 249	20 717 217 381	1 621 815 200	7.8
Q	250_499	8 020 507 733	525 572 276	6.6
Q	500_999	23 960 429 730	5 484 813 398	22.9
Q	1000	291 202 456 970	7 213 722 293	2.5
Q	10	359 127 868 999	8 493 111 057	2.4
R	10_49	5 696 448 018	597 692 312	10.5
R	50_249	8 396 518 698	725 553 172	8.6
R	250_499	2 003 053 000	41 197 940	2.1
R	500_999	2 720 309 750	202 969 632	7.5
R	1000	6 924 763 897	533 711 083	7.7
R	10	25 741 093 364	1 015 515 993	3.9
S	10_49	12 603 127 870	1 379 764 661	10.9
S	50_249	10 162 931 176	621 509 377	6.1
S	250_499			
S	500_999	2 673 412 000	0	0.0
S	1000			
S	10	28 854 256 379	1 515 583 601	5.3
B_S	10_49	372 719 574 087	9 819 459 557	2.6
B_S	50_249	360 624 985 336	6 661 998 706	1.8
B_S	250_499	136 660 145 307	2 401 186 319	1.8
B_S	500_999	153 466 008 040	6 058 826 879	3.9
B_S	1000	856 457 818 700	11 511 640 886	1.3
B_S	10	1 879 928 531 470	16 819 554 243	0.9

<sup>.. =</sup> Data is confidential

Coefficient of variation by NACE and size band for Hourly labour cost, 2016

	of variation by	NACE and size ba		
NACE		Estimated value	Standard Error	Coefficient of
sections	Size band	(SEK)	(SEK)	variation (%)
В	10_49	307.15	24.63	8.0
В	50_249	395.21	0.00	0.0
В	250_499			
В	500_999	0.00	0.00	
В	1000		4.20	
B C	10 10 49	452.81 311.05	1.39 6.25	0.3
C	50 249	365.40	4.81	2.0
C	250_499	425.09	8.83	2.1
C	500_999	423.61	0.00	0.0
C	1000	471.69	0.00	0.0
C	10	400.25	2.21	0.6
D	10 49	435.73	20.64	4.7
D	50_249	419.62	13.82	3.3
D	250_499	484.55	0.00	0.0
D	500_999	513.27	0.00	0.0
D	1000	525.76	0.00	0.0
D	10	476.37	4.92	1.0
E	10_49	299.27	11.00	3.7
E	50_249	390.61	16.80	4.3
E	250_499	376.19	3.13	0.8
E	500_999	323.71	6.43	2.0
E	1000	329.56	4.80	1.5
E	10	348.24	5.58	1.6
F	10_49	320.26	7.87	2.5
F	50_249	369.70	11.85	3.2
<u>F</u>	250_499	402.19	7.40	1.8
<u>F</u>	500_999	385.72	2.98	0.8
<u>F</u>	1000	388.28	1.71	0.4
F	10	354.06	4.48	1.3
G	10_49	351.03	20.19	5.8
G	50_249	386.91	24.88	6.4
G	250_499	413.36	21.44	5.2
G G	500_999 1000	367.67 343.15	0.00	0.0
G	1000	364.90	9.26	2.5
<u> </u>	10_49	289.87	10.02	3.5
H	50_249	318.34	8.56	2.7
H	250_499	344.26	13.98	4.1
 H	500_999	335.44	0.21	0.1
H	1000	319.89	0.08	0.0
Н	10	314.27	3.51	1.1
I	10 49	224.07	6.26	2.8
I	50_249	254.19	5.67	2.2
I	250_499	274.34	9.71	3.5
I	500_999			
I	1000	261.39	1.02	0.4
T	10	239.97	3.91	1.6
J	10_49	533.62	51.38	9.6
J	50_249	493.80	15.24	3.1
J	250_499	492.90	20.54	4.2
J	500_999	583.35	0.00	0.0
J	1000	510.92	0.00	0.0
J	10	517.96	15.78	3.0
K	10_49	654.83	105.40	16.1
K	50_249	561.00	28.70	5.1
K	250_499 500_999	612.56 485.35	31.75 0.00	5.2
K				0.0
	1000	579.65	0.00	0.0
K	10 10	583.83	15.29	2.6
L	10_49 50_249	366.54	38.68	10.6
L	250 499	390.06 410.76	25.80 31.00	6.6 7.5
L	500_999			
L	1000			

M	10 49	450.24	13.76	3.1
M	50 249	519.47	15.58	3.0
M	250_499	440.54	18.33	4.2
M	500_999	461.56	0.42	0.1
M	1000	455.58	0.88	0.2
M	10	469.90	6.57	1.4
N	10_49	278.16	17.96	6.5
N	50_249	288.63	9.58	3.3
N	250 499	289.45	7.74	2.7
N	500_999	302.01	0.15	0.1
N	1000	290.81	0.22	0.1
N	10	288.56	4.15	1.4
Р	10_49	285.72	11.35	4.0
Р	50_249	296.85	16.34	5.5
Р	250_499	355.79	26.30	7.4
Р	500_999	324.60	3.73	1.1
Р	1000	289.33	4.36	1.5
Р	10	292.49	3.82	1.3
Q	10_49	278.18	8.93	3.2
Q	50_249	275.09	6.59	2.4
Q	250_499	275.99	7.50	2.7
Q	500_999	286.60	6.09	2.1
Q	1000	331.04	2.34	0.7
Q	10	319.97	1.90	0.6
R	10_49	256.94	12.63	4.9
R	50_249	338.29	14.47	4.3
R	250_499	300.54	2.21	0.7
R	500_999	333.38	8.51	2.6
R	1000	277.15	3.52	1.3
R	10	296.55	5.51	1.9
S	10_49	296.26	14.49	4.9
S	50_249	323.65	14.58	4.5
S	250_499			
S	500_999	387.78	0.00	0.0
S	1000			
S	10	317.52	9.03	2.8
B_S	10_49	339.65	6.14	1.8
B_S	50_249	370.60	4.91	1.3
B_S	250_499	399.48	5.20	1.3
B_S	500_999	377.11	4.33	1.1
B_S	1000	349.18	1.74	0.5
B_S	10	356.57	1.82	0.5

<sup>.. =</sup> Data is confidential

#### Coefficient of variation for Annual and Hourly labour cost by NACE, 2016

	ent of variation for Annual labour cos		,	Hourly labour cos	t	
NACE	Estimated value	Standard Error	Coefficient of	Estimated value	Standard	Coefficient of
Rev. 2	(SEK)	(SEK)	variation (%)	(SEK)	Error (SEK)	variation (%)
В	6 050 550 000	72 990 601	1.2	452.81	1.39	0.3
05	0	0		0.00	0.00	
06 07	5 320 385 000	0	0.0	0.00	0.00	0.0
08	730 165 000	72 990 601	0.0	472.25 348.32	0.00 12.07	0.0
09	730 103 000	0	10.0	0.00	0.00	3.3
C	317 126 441 078	2 783 267 807	0.9	400.25	2.21	0.6
10	22 694 192 127	1 175 054 528	5.2	336.59	7.78	2.3
11	2 538 367 200	17 647 398	0.7	391.75	0.75	0.2
12	1 084 354 500	2 593 746	0.2	466.17	3.40	0.7
13	2 031 559 600	112 556 326	5.5	337.03	10.47	3.1
14	294 409 000	23 144 705	7.9	298.76	6.59	2.2
15	211 347 500	13 086 510	6.2	274.21	3.44	1.3
16 17	14 377 840 687 17 855 981 298	328 636 827 340 357 023	1.9	343.17 424.89	6.68 5.83	1.9 1.4
18	4 478 185 483	211 915 209	4.7	327.99	12.48	3.8
19	2 278 674 000	0	0.0	516.30	0.00	0.0
20	12 846 239 405	690 168 787	5.4	473.10	19.18	4.1
21	10 304 067 600	46 412 398	0.5	545.82	2.22	0.4
22	10 492 482 524	641 593 568	6.1	359.07	9.92	2.8
23	10 037 158 914	336 479 161	3.4	361.35	4.86	1.3
24	18 671 907 214	575 489 444	3.1	420.24	10.64	2.5
25 26	28 848 159 569 24 571 759 933	1 312 772 494 503 757 575	4.6 2.1	331.60 544.34	6.35 8.50	1.9 1.6
27	13 536 069 571	291 241 998	2.1	400.20	9.27	2.3
28	42 363 845 062	1 241 143 215	2.9	397.40	7.16	1.8
29	47 600 879 970	834 552 080	1.8	429.31	6.40	1.5
30	13 305 575 300	68 290 980	0.5	473.78	2.46	0.5
31	5 264 640 486	188 495 983	3.6	304.93	4.48	1.5
32	4 587 521 300	299 997 533	6.5	403.46	11.47	2.8
33	6 851 222 833	565 483 791	8.3	366.35	11.29	3.1
D 35	20 422 643 387 20 422 643 387	432 275 677 432 275 677	2.1	476.37 476.37	4.92 4.92	1.0
E	12 081 636 090	362 340 819	2.1	348.24	5.58	1.0 1.6
36	1 694 154 900	63 795 856	3.8	360.08	5.27	1.5
37	1 830 893 943	70 500 548	3.9	343.48	4.58	1.3
38	8 556 587 248	349 643 576	4.1	347.01	7.70	2.2
39	0	0		0.00	0.00	
F	118 103 218 062	3 706 514 304	3.1	354.06	4.48	1.3
41	34 772 220 889	1 374 200 980	4.0	374.72	7.80	2.1
42	18 347 536 400 64 983 460 773	827 385 464 3 341 444 785	4.5 5.1	384.86 336.52	5.38 6.46	1.4
43 G	228 666 386 036	7 352 780 166	3.2	364.90	9.26	2.5
45	25 881 069 012	854 562 800	3.3	336.29	7.16	2.1
46	119 004 074 277	6 699 181 681	5.6	443.64	21.15	4.8
47	83 781 242 747	2 907 587 212	3.5	297.68	3.22	1.1
Н	91 695 349 857	2 073 750 541	2.3	314.27	3.51	1.1
49	46 815 330 350	1 930 609 829	4.1	284.64	4.48	1.6
50	2 962 352 100	336 659 145	11.4	517.36	44.35	8.6
51 52	4 193 438 450 24 333 979 457	48 048 789 673 685 030	1.1 2.8	494.80 378.02	7.14 7.43	1.4
53	13 390 249 500	60 724 035	0.5	274.81	0.88	0.3
I	31 019 958 251	1 474 483 310	4.8	239.97	3.91	1.6
55	11 324 320 881	646 970 247	5.7	263.05	6.23	2.4
56	19 695 637 370	1 324 964 350	6.7	228.44	4.74	2.1
J	120 772 053 735	5 116 426 440	4.2	517.96	15.78	3.0
58	17 271 203 157	1 223 640 622	7.1	454.38	17.23	3.8
59	3 331 861 171	262 937 176	7.9	393.53	18.10	4.6
60	4 568 927 500	8 243 696	0.2	460.63	0.78	0.2
61	17 654 571 800	384 573 625	2.2	486.12	5.66	1.2
62 63	71 113 681 507 6 831 808 600	4 917 160 849 533 808 523	6.9 7.8	558.04 524.78	27.80 19.12	5.0 3.6
13.3	0 03 1 600 000					
K	77 474 189 137	2 155 568 643	2.8	583.83	15.29	2.6

65	17 692 487 052	502 578 486	2.8	566.22	11.85	2.1
66	12 617 042 606	1 726 915 079	13.7	606.71	81.07	13.4
L	28 560 898 494	1 584 494 823	5.5	379.28	16.86	4.4
68	28 560 898 494	1 584 494 823	5.5	379.28	16.86	4.4
M	119 043 015 493	3 213 914 936	2.7	469.90	6.57	1.4
69	19 184 798 111	614 613 633	3.2	468.16	9.52	2.0
70	22 376 323 192	1 723 280 061	7.7	593.98	28.84	4.9
71	47 356 425 607	2 364 093 857	5.0	444.19	10.35	2.3
72	12 017 421 740	867 280 337	7.2	527.21	10.41	2.0
73	9 088 362 285	663 346 804	7.3	393.77	9.18	2.3
74	6 613 697 958	442 220 114	6.7	438.43	13.78	3.1
75	2 405 986 600	71 432 262	3.0	338.18	4.34	1.3
N	84 980 310 997	2 167 179 248	2.6	288.56	4.15	1.4
77	4 479 849 190	321 135 333	7.2	364.36	16.64	4.6
78	37 936 033 208	1 750 010 519	4.6	287.79	5.36	1.9
79	3 830 630 386	163 456 656	4.3	336.63	10.14	3.0
80	10 319 483 700	279 806 720	2.7	315.92	4.35	1.4
81	19 807 774 049	879 538 591	4.4	256.32	9.18	3.6
82	8 606 540 464	807 714 777	9.4	296.17	21.05	7.1
Р	210 208 662 110	8 759 517 180	4.2	292.49	3.82	1.3
85	210 208 662 110	8 759 517 180	4.2	292.49	3.82	1.3
Q	359 127 868 999	8 493 111 057	2.4	319.97	1.90	0.6
86	180 288 106 771	585 988 707	0.3	401.96	0.83	0.2
87	83 154 409 429	4 003 833 749	4.8	270.89	3.16	1.2
88	95 685 352 799	7 467 186 081	7.8	260.80	3.63	1.4
R	25 741 093 364	1 015 515 993	3.9	296.55	5.51	1.9
90	4 211 918 367	223 893 328	5.3	316.45	7.69	2.4
91	6 875 546 672	529 569 790	7.7	295.32	6.31	2.1
92	1 898 157 500	40 516 725	2.1	383.62	7.31	1.9
93	12 755 470 825	836 097 328	6.6	281.82	9.57	3.4
S	28 854 256 379	1 515 583 601	5.3	317.52	9.03	2.8
94	23 495 089 793	1 506 068 015	6.4	334.83	12.25	3.7
95	1 403 083 000	50 609 097	3.6	301.64	2.39	0.8
96	3 956 083 586	161 837 891	4.1	246.43	8.54	3.5
B_S	1 879 928 531 470	16 819 554 243	0.9	356.57	1.82	0.5

<sup>.. =</sup> Data is confidential

Coeffic	Coefficient of variation for Annual and Hourly labour cost by NACE and region, 2016								
		Annual labour cost			Hourly labour of				
NACE		Estimated value	Standard Error	Coefficient of	Estimated	Standard	Coefficient of		
Rev. 2	NUTS	(SEK)	(SEK)	variation (%)	value (SEK)	Error (SEK)	variation (%)		
В	SE1	462 798 357	0	0.00	500.56	0.00	0.0		
В	SE2	288 008 719	55 092 546	19.13	383.83	4.73	1.2		
В	SE3	5 299 742 923	76 623 285	1.45	453.46	2.47	0.5		
В	Total	6 050 550 000	72 990 601	1.21	452.81	1.39	0.3		
С	SE1	106 916 359 233	3 112 465 097	2.91	434.60	4.74	1.1		
С	SE2	158 057 941 559	4 025 858 290	2.55	383.73	3.66	1.0		
С	SE3	52 152 140 286	2 517 045 608	4.83	388.00	4.82	1.2		
С	Total	317 126 441 078	2 783 267 807	0.88	400.25	2.21	0.6		
D	SE1	8 920 808 779	572 394 419	6.42	510.33	6.98	1.4		
D	SE2	6 814 762 568	546 015 507	8.01	479.82	9.32	1.9		
D	SE3	4 687 072 041	569 926 169	12.16	418.95	11.91	2.8		
D	Total	20 422 643 387	432 275 677	2.12	476.37	4.92	1.0		
E	SE1	4 862 524 602	406 776 444	8.37	367.64	9.55	2.6		
E	SE2	5 459 745 692	438 618 964	8.03	340.41	9.72	2.9		
E	SE3	1 759 365 796	202 876 685	11.53	324.14	4.59	1.4		
Е	Total	12 081 636 090	362 340 819	3.00	348.24	5.58	1.6		
F	SE1	51 615 508 064	5 117 734 337	9.92	363.83	9.22	2.5		
F	SE2	46 274 326 508	4 436 866 857	9.59	349.69	6.77	1.9		
F	SE3	20 213 383 490	3 088 300 164	15.28	340.44	6.99	2.1		
F	Total	118 103 218 062	3 706 514 304	3.14	354.06	4.48	1.3		
G	SE1	108 489 873 966	7 886 719 339	7.27	387.67	16.19	4.2		
G	SE2	96 669 055 257	8 300 258 562	8.59	358.13	15.18	4.2		
G	SE3	23 507 456 813	3 240 442 340	13.78	305.79	6.22	2.0		
G	Total	228 666 386 036	7 352 780 166	3.22	364.90	9.26	2.5		
Н	SE1	36 570 971 331	2 583 724 440	7.06	326.81	6.27	1.9		
Н	SE2	37 980 119 396	2 979 548 627	7.85	317.67	7.69	2.4		
Н	SE3	17 144 259 130	2 978 696 832	17.37	284.26	4.00	1.4		
Н	Total	91 695 349 857	2 073 750 541	2.26	314.27	3.51	1.1		
1	SE1	14 799 364 048	1 710 015 587	11.55	246.87	7.45	3.0		
I	SE2	13 297 739 990	1 779 861 524	13.38	232.61	4.62	2.0		
I	SE3	2 922 854 214	590 017 781	20.19	240.54	7.80	3.2		
1	Total	31 019 958 251	1 474 483 310	4.75	239.97	3.91	1.6		
J	SE1	81 843 872 089	6 224 751 699	7.61	559.93	23.96	4.3		
J	SE2	32 292 379 793	2 783 266 167	8.62	451.53	9.91	2.2		
J	SE3	6 635 801 854	829 483 300	12.50	428.63	15.92	3.7		
J	Total	120 772 053 735	5 116 426 440	4.24	517.96	15.78	3.0		
K	SE1	56 636 642 867	2 498 029 926	4.41	645.41	22.61	3.5		
K	SE2	15 338 309 230	1 052 927 413	6.86	474.10	7.06	1.5		
K	SE3	5 499 237 040	511 748 898	9.31	436.63	6.67	1.5		
K	Total	77 474 189 137	2 155 568 643	2.78	583.83	15.29	2.6		
L	SE1	12 455 532 795	2 036 400 049	16.35	446.10	33.04	7.4		
<u>L</u>	SE2	10 246 353 598	1 435 731 370	14.01	358.31	13.93	3.9		
L	SE3	5 859 012 101	1 169 358 513	19.96	311.91	21.90	7.0		
L	Total	28 560 898 494	1 584 494 823	5.55	379.28	16.86	4.4		
M	SE1	63 579 799 901	3 528 752 082	5.55	478.14	9.47	2.0		
M	SE2	46 048 319 579	3 219 488 915	6.99	479.22	12.15	2.5		
M	SE3	9 414 896 014	844 732 667	8.97	387.84	9.08	2.3		
M	Total	119 043 015 493	3 213 914 936	2.70	469.90	6.57	1.4		
N	SE1	41 490 548 940	2 501 306 913	6.03	299.96	7.68	2.6		
N	SE2	34 557 215 504	2 209 138 912	6.39	278.68	3.85	1.4		
N	SE3	8 932 546 554	829 583 743	9.29	277.67	12.84	4.6		
N	Total	84 980 310 997	2 167 179 248	2.55	288.56	4.15	1.4		
Р	SE1	106 502 805 666	10 264 947 601	9.64	296.25	6.25	2.1		
Р	SE2	72 094 536 245	9 252 349 672	12.83	290.65	6.29	2.2		
Р	SE3	31 611 320 199	5 689 251 124	18.00	284.42	6.57	2.3		

Р	Total	210 208 662 110	8 759 517 180	4.17	292.49	3.82	1.3
Q	SE1	132 558 010 598	4 970 997 783	3.75	336.22	3.85	1.1
Q	SE2	153 500 697 844	7 341 116 245	4.78	315.56	3.61	1.1
Q	SE3	73 069 160 558	7 263 715 086	9.94	302.34	3.86	1.3
Q	Total	359 127 868 999	8 493 111 057	2.36	319.97	1.90	0.6
R	SE1	12 015 309 734	1 061 535 795	8.83	303.67	7.81	2.6
R	SE2	8 769 179 172	847 624 807	9.67	289.67	10.96	3.8
R	SE3	4 956 604 458	791 819 917	15.98	292.24	18.62	6.4
R	Total	25 741 093 364	1 015 515 993	3.95	296.55	5.51	1.9
S	SE1	13 411 690 068	1 959 094 121	14.61	348.40	16.82	4.8
S	SE2	11 701 778 474	1 429 302 698	12.21	300.28	8.70	2.9
S	SE3	3 740 787 837	1 020 047 465	27.27	278.94	12.50	4.5
S	Total	28 854 256 379	1 515 583 601	5.25	317.52	9.03	2.8
B-S	SE1	853 132 421 037	17 636 892 854	2.07	381.52	3.87	1.0
B-S	SE2	749 390 469 127	16 904 084 640	2.26	344.05	2.84	0.8
B-S	SE3	277 405 641 306	11 246 417 512	4.05	323.34	2.73	0.8
B-S	Total	1 879 928 531 470	16 819 554 243	0.89	356.57	1.82	0.5

NUTS 1: SE1 – Östra Sverige: Stockholm, Uppsala, Södermanland, Östergötland, Örebro, Västmanland SE2 – Södra Sverige: Jönköping, Kronoberg, Kalmar, Gotland, Blekinge, Skåne, Halland, Västra Götaland SE3 – Norra Sverige: Värmland, Dalarna, Gävleborg, Västernorrland, Jämtland, Västerbotten, Norrbotten

# Appendix 2

# **Response rate**

The tables below contain unit-response rates, broken down according to the two samples. The overall, *non-weighted*, response rate was 92.9%, *including* 2.1% over-coverage. For the private sector the response rate was 91.9% and for the public sector 97.0%.

Response rate from private sector 2016

Respons	Response rate from private sector 2016							
				employees				
NACE	10-19	20-49	50-99	100-199	200-499	500-	Total	
07		100		100	100	100	100	
08	43	63	100	100			65	
10	88	67	88	100	100	100	91	
11	100	100	100	100		100	100	
12	67	100	100	100		100	91	
13	100	100	100	100	100		100	
14	86	100	100	100			92	
15	80	100	100	100			91	
16	71	80	75	100	100	100	88	
17	100	100	100	100	100	100	100	
18	75	80	83	100	100	100	86	
19	100	100	100	100	100	100	100	
20	100	86	100	100	100	100	97	
21	100	100	100	100	100	100	100	
22	71	82	88	100	100	100	89	
23	83 67	100 100	100 86	100 100	100 100	100 100	97 93	
25 26	91	75 86	100 83	100 100	100 100	100 100	92 94	
27	100 57	100	86	100	100		89	
28	71	88	100	100	100	100 100	95	
29	100	100	100	100	100	100	100	
30	80	83	83	100	100	100	89	
31	86	78	83	100	83	100	87	
32	100	100	100	100	100	100	100	
33	86	75	50	100	100	100	82	
35	100	100	100	100	100	100	100	
36	100	100	100	100	100	100	100	
37	60	100	100	100	100		90	
38	83	100	100	100	100	83	94	
41	100	90	75	100	100	100	93	
42	83	86	50	100	67	100	83	
43	88	78	100	100	100	100	92	
45	90	83	89	100	100	100	93	
46	100	94	82	100	100	100	97	
47	46	82	67	100	100	100	90	
49	67	83	56	89	100	100	84	
50	83	86	100	80	100		88	
51	83	80	100	100	100	100	91	
52	100	100	100	100	100	100	100	
53	80	80		100	100	100	92	
55	70	71	78	100	100	100	81	
56	72	65	88	100	100	100	82	
58	100	80	100	100	100	100	96	
59	86	88	100	100	100	100	93	
60	100	67		100	100	100	92	
61	83	83	60	100	100	100	89	
62	78	91	100	100	100	100	95	
63	83	83	100	100	100	100	93	
64	71	100	100	100	100	100	96	
65	100	100	100	100	100	100	100	
66	100	91	100	100	100		98	
68	83	86	90	100	100	100	92	
69	100	100	71	100	100	100	95	
70	93	82	78	100	100	100	89	
71 72	78 100	100 100	89	100 100	100	100 100	96 97	
73			83 67		100	100		
/3	83	/6	ا 6/	100			81	

74	89	73	86	100		100	85
75	83	100	83	100		100	90
77	71	88	100	100	100	100	90
78	88	44	100	100	100	100	91
79	100	100	100	100	100		100
80	100	57	83	100	100	100	89
81	75	44	71	100	100	100	82
82	57	88	71	100	100	100	86
85	92	88	83	100	100	100	95
86	78	100	75	100	100	100	95
87	88	89	100	100	100	100	97
88	67	67	78	100	100	100	88
90	100	83	83	100	100	100	93
91	80	100	100	100	100	100	95
92	100	80	100	100	100	100	95
93	79	79	100	100	100	100	88
94	100	87	82	100	100	100	93
95	67	80	100	100	100	100	86
96	67	78	83	100	100	100	82
Total	84	85	88	100	99	100	92
NI . F	11	* 4 1 4		1 · NIACE OF			· NIACE OF

Note: Empty cells means it existed no enterprises (for example in NACE 07). All values concerning data in NACE 05 and 06 have been set to zero, since there existed no enterprises with 10 employees or more at the time of the sample and in division 09 and 39 some small units exist, but have not been sampled because of budget restriction and response burden. Under-coverage because of this is less than 0.01% of the sample from privet sector.

#### Response rate from public sector 2016

	Number of employees									
NACE	1-4	5-9	10-19	20-49	50-99	100-199	200-499	500-	Total	
36	100	100	100	83	100				97	
37	100	100	100	100	100				100	
38	100	100	100	100	100	100			100	
42	100	100	100	86	100	90	100	100	96	
50	100	100	100	100	100				100	
52	100	100	100	100	100	100			100	
56	100	100	86	88	100				93	
68	100	100	100	100	100	75	100		95	
72	100	100	100	100	100	100	100		100	
75	100	100	100	100			100		100	
81	83	100	100	100	100	100			97	
85	100	100	95	100	100	100	100	100	99	
86	100	100	100	100	100	100		100	100	
87	88	100	100	100	100	94	100	100	98	
88	100	100	100	100	100	100	73	88	92	
90	100	100	100	100	100	100			100	
91	100	86	100	83	100	100	100		95	
93	92	100	100	91	100	100	100		96	
Total	98	99	99	96	100	95	93	91	97	

Note: Empty cells means it existed no local units (for example in NACE 36). In division 16, 18, 32, 33, 35, 43, 45, 46, 47, 49, 55, 59, 62, 63, 64, 69, 70, 71, 74, 79, 80, 82, 94 and 96 some small local units exist, but were not sampled because of budget restriction and response burden. Under-coverage because of this is about 0.5% of the sample from public sector.

# Number in universe, sample and over-coverage Private sector 2016

Appendix 3

	sector 2016			
NACE	Number in	Number in	Number of over-	Rate of over-coverage
Rev. 2	universe (N)	sample (n)	coverage in sample	in sample (%)
7	5	5	0	0.0
8	59	22	0	0.0
9	3	0	0	
10	668	53	1	1.9
11	22	18	0	0.0
12	6	6	0	0.0
13	87	26	0	0.0
14	24	12	0	0.0
15	20	14	1	7.1
16	522	51	2	3.9
17	160	52	0	0.0
18	311	42	3	7.1
19	12	12	0	0.0
20	175	40	0	0.0
21	41	28	1	3.6
22	355	46	0	0.0
23	181	41	0	0.0
24	178	49	0	0.0
25	1 540	59	0	0.0
26	240	36	0	0.0
27	210	37	1	2.7
28	735	60	0	0.0
29	248	50	1	2.0
30	81	29	0	0.0
31	267	42	0	0.0
32	163	32	0	0.0
33	299	35	1	2.9
35	233	55	0	0.0
36	13	13	0	0.0
37	31	19	0	0.0
38	156	30	0	0.0
39	6	0	0	
41	1 108	42	0	0.0
42	165	33	0	0.0
43	3 640	69	1	1.4
45	1 026	58	1	1.7
46	3 689	89	0	0.0
47	3 324	107	2	1.9
49	2 065	59	2	3.4
50	68	29	0	0.0
51	44	24	2	8.3
52	489	46	1	2.2
53	38	28	3	10.7
55	761	49	0	0.0
56	1 914	62	1	1.6
58	498	51	0	0.0
59	145	30	2	6.7
60	12	12	0	0.0
61	107	35	0	0.0
62	1 151	59	0	0.0
63	118	30	0	0.0
64	200	43	1	2.3
65	104	37	0	0.0
	259			
66		38	0	0.0
68	833	57	0	0.0
69	415	38	0	0.0
70	711	54	0	0.0
71	986	62	2	3.2
72	186	33	1	3.0
73	534	53	0	0.0
74	239	31	0	0.0
75	73	23	0	0.0
77	192	30	1	3.3
78	527	54	0	0.0
70	327	J4	ı	0.0

80 81 82	106 911 308	35 49	2	5.7
	308		1	2.0
02				2.0
02		43	2	4.7
85	1 567	61	1	1.6
86	545	75	1	1.3
87	503	50	0	0.0
88	569	51	7	13.7
90	124	32	0	0.0
91	68	23	0	0.0
92	41	17	0	0.0
93	635	44	0	0.0
94	1 239	60	0	0.0
95	48	18	1	5.6
96	281	30	0	0.0
All	39 752	3 098	46	1.5%

In NACE 05 and 06 there existed no enterprises with 10 employees or more at the time of the sample and in NACE 09 and 39 some small enterprises exists, but have not been sampled because of budget restriction and response burden. Under-coverage because of this is about 0.01% in private sector.

#### Public sector 2016

NACE	Number in	Number in	Number of over-	Rate of over-coverage
Rev. 2	universe (N)	sample (n)	coverage in sample	in sample (%)
16	2	0	0	• • • • • • • • • • • • • • • • • •
18	1	0	0	
32	1	0	0	
33	1	0	0	
35	11	0	0	
36	123	29	1	3.4
37	191	33	0	0.0
38	120	28	0	0.0
42	237	48	3	6.3
43	2	0	0	
45	1	0	0	
46	1	0	0	
47	3	0	0	
49	17	0	0	
50	42	21	0	0.0
52	60	23	2	8.7
55	17	0	0	
56	139	30	2	6.7
59	2	0	0	
62	9	0	0	
63	1	0	0	
64	5	0	0	
68	146	38	3	7.9
69	2	0	0	
70	1	0	0	
71	20	0	0	
72	145	42	3	7.1
74	18	0	0	
75	110	21	1	4.8
79	57	0	0	
80	3	0	0	
81	133	33	3	9.1
82	8	0	0	
85	11 303	129	6	4.7
86	74	31	2	6.5
87	6 152	95	6	6.3
88	4 133	131	4	3.1
90	59	27	2	7.4
91	902	55	3	5.5
93	1 190	51	5	9.8
94	54	0	0	
96	13	0	0	F 20/
All	25 509	865	46	5.3%

Local units exist in some divisions, but have not been sampled because of budget restriction and response burden. Under-coverage because of this is about 0.5% in public sector.

#### Appendix 4

There is an obligation to provide information for this survey under the Official Statistics Act (2001:99) and the Official Statistics Ordinance (2001:100). Information provided to Statistics Sweden is confidential and protected under Chapter 24, Section 8 of the Public Access to Information and Secrecy Act (2009:400), The Board of Swedish Industry and Commerce for Better Regulation and the Swedish Association of Local Authorities and Regions have been consulted.

Labour Cost Survey	
2016	

#### DFO/FU2 Arbetskraftskostnader

Submission deadline: 2017-04-20. Log in to www.scb.se/lcs or send in the questionnaire in the enclosed pre-addressed envelope.

					Password:	
If ti	he rep It the	ting period: 2016-01-01 - 2016-12-3' porting period is other than the full year 2016, ple information refers to and comment the reason for ployees (for help with calculation, see instruct	ase fill in the period r the deviation.		y y m m d d y y m m	d d
	A.1	Average number of employees				
	A.2	Average number of full-time employees		1		
		Average number of part-time employees incl. seasonal employees and those paid by the Part-time employees converted into full-ti		1		
	71.4	two decimal places	inc units	4		
В.	Ηοι	IFS (for help with calculation, see instructions)		╛		
	B.1	Number of hours actually worked	Full-time employees			
			Part-time employees			
	B.2	Number of hours paid	Full-time employees			
		incl. paid absences, such as holidays	Part-time employees	╛		
c.	Wa	ges and salaries				If no cost, lease mark!
	C.1	Total cost of wages and salaries		1	1.	
		see 2016 tax declaration for reference		4		
		C.2 - Payment for hours worked and not	worked	╝		
		C.3 - Sick pay and remuneration over an				
	ich	benefits paid by the Swedish Socia		-1		_
	of which	C.4 - Bonuses, share of profits, employe	e stock options	┙		Ш
	0	C.5 - Redundancy pay		╝		
		C.6 - Payments into employee savings s	chemes			

D. Benefits, etc.				If no cost, please mark!
D.1 Benefits in kind and c	ash contributions	<del> </del>	SEK thousands	prease mark:
D.1 Benefits III killu allu c	asii contributions			
E. Social insurance cont	ributions		SEK thousands	If no cost, please mark!
E.1 Statutory employer's	social security contributions			
E.2 Employer contribu-	a. Collective agreement benefits	╫╌		
tions according to	b. Individual contractual benefits	╟┷		
contractual agreements	c. Other social insurance	╟┷┷		
E.3 Special payroll tax, et	c.	II , ,		
F. Other labour costs				If no cost,
		<b> </b>	SEK thousands	please mark!
F.1 Staff training costs				
F.2 Employer costs for co schemes	mpany medical and healthcare			
F.3 Costs for staff welfare	•	١.,		
F.4 Costs for staff recruitr	ment and work clothes etc.	1		
F.5 Other labour costs		╫┷		
				If no cost,
G. Subsidies			SEK thousands	please mark!
G.1 Subsidies to labour co	osts			
				J
H. Other				
H 1 How long time did it t	take to find the figures and fill out	1		
the questionnaire?	Optional question		Minute	5
	to comment submitted information, for example i			
	to new employment, termination or reorganisation deviating reporting period, difficulties with the pr			
Vous contact nesses				
Your contact person  Name (please write in block letters)			Phone number (including area co	ide)
E-mall				
C-IIIdil			Mobile phone	

Please save a copy of the questionnaire! Thank you for your participation!

#### Appendix 5

# **Instructions for the Labour Cost Survey 2016**

#### General information

The labour costs survey collects data about the total expenditure bome by an employer in order to have people employed. Data should be submitted about the number of employees, hours worked, salary, benefits in kind, social insurance contributions, other labour costs and subsidies. The objective is for example to measure the average labour cost per hour.

#### Who should be included?

Employees that you have paid labour costs for are to be reported.

The following should not be included:

- Hired personnel, board members, assisting family members, employees working on-board or abroad.
- Employees whose remuneration mainly consists of a share of the profits or a one-off payment.

#### Please note:

- If an item of information cannot be measured, an estimate should be provided.
- Verify that the submitted data are accurate and is reasonable for your operation, i.e. that hours and information about costs relate to the employees you are reporting. A number of average values will be calculated and available as data is entered on the website, for example salary per hour worked.

#### Survey unit

The reporting should refer to the specified company or workplace. The information provided about the stated business has been obtained from Statistics Sweden's Business Register. Contact Statistics Sweden if the company/workplace, for example, has been merged, closed down or in some other way is not consistent with the specified information.

#### Reporting period

The reporting period is the full year 2016. If your financial year is split, e.g. if it runs from 1 April to 31 March, add up the parts of the financial years that fall within 2016. If this is not possible, you may report the split financial year, selecting the financial year that falls for most part in 2016.

If your reporting period deviates from the full year 2016, please add a comment to that when you fill in the form.

#### Payroll and accounting systems

Payroll systems contain much of the data that is being requested. Some payroll systems allow extraction of data for statistical reporting. If you extract data from the payroll system, please be sure that the system has the correct settings. It may also be necessary to get some data from the accounting system. For more information on this and accounting guidelines, see the last page of this document.

#### A. Employees

#### A.1 Average number of employees (A.1=A.2+A.3)

Report the average number of employees during the year for whom you have paid labour costs. If possible, determine the number of employees each month throughout the year according to the payroll, and provide an average of them. Otherwise report the number of employees calculated as an average based on measurements at two or more points in time. Round off to the nearest integer.

Example: If seven persons were employed from January–March, nine persons from April–June and 14 persons in July–December, the average is:

(7+7+7+9+9+9+14+14+14+14+14+14)/12=11

#### A.2 Average number of full-time employees

State the average number of full-time employees that are included in A.1.

#### A.3 Average number of part-time employees

State the average number of part-time employees that are included in A.1. Seasonal workers and those paid by the hour should also be included

#### A.4 Number of part-time employees converted into full-time units

Calculate and add up the activity level of the employees reported in A.3 (part-time employees including seasonal workers and those paid by the hour). That means that two employees working at 50 percent and 70 percent together make up an activity level of 1.20 full-time employees.

If the activity level for part-time employees is not available, it can be calculated by dividing the part-time employee's agreed working hours by the full-time employees' agreed working hours. Next, add up the activity level of the part-time employees and report the total here.

Example 1: An employer has eight employees working 50 percent of full time and two employees working 80 percent of full time. Together, they correspond to 5.60 full-time employees. 8\*0.5+2\*0.8=5.60

Example 2: An employer had three part-time employees during the year. Their agreed working hours were 20, 30 and 32 hours per week, respectively. The latter worked for a period of six months. The working hours for a full-time employee are 40 hours per week. Together, these people equal 1.65 full-time employees.

$$\frac{20}{40} + \frac{30}{40} + \left(\frac{32}{40} * \frac{6}{12}\right) = 1.65 \text{ full - time units}$$

#### B. Hours

The number of hours actually worked and hours paid should be reported separately for the full-time and part-time employees reported in Section A. The difference between hours worked and hours paid is that hours paid also include paid absences such as holidays.

#### B.1 Number of hours actually worked

#### for full-time and part-time employees, respectively

#### To be included:

 hours worked during ordinary working hours, overtime, additional time and on-call duty, non-regulated working hours, shorter breaks, waiting- and travel time during ordinary working hours

#### Not to be included:

- holidays, sick leave, non-working days, leave of absence, care
  of children and any other absence for which remuneration is
  paid
- hours worked for which employees do not receive remuneration
- preparation and waiting time beyond ordinary working hours

If no information is available on the number of hours actually worked, it can be calculated in the following way for full-time and part-time employees, respectively:

agreed weekly working hours for full-time employment \* (A.2 or A.4)\*52.291

- + overtime during the year
- + on-call duty during the year
- hours of absence during the year (holiday, sick leave, etc.)
- = number of hours actually worked during the year

#### B.2 Number of hours paid

#### for full-time and part-time employees, respectively

Hours paid are B.1 plus paid absences such as holidays. Sum up the hours worked and not worked for which the employee has received remuneration.

#### To be included:

- hours worked during ordinary working hours, overtime, additional time, on-call duty, non-regulated working hours, shorter breaks, waiting- and travel time during ordinary working hours
- compensated absences such as public holidays, holidays, sick leave and paid leave of absence

#### Not to be included:

- waiting day before benefits are paid, preparation time, waiting time, travel time outside of ordinary working hours or overtime compensated with free time
- sick leave not compensated by the employer (as a rule, after 14 days of consecutive sick leave).

If no information is available on the number of hours paid, it can be calculated in the following way for full-time and part-time employees, respectively:

agreed weekly working hours for full-time employment \*(A.2 or A.4)\*52.291

- + overtime during the year
- + on-call duty during the year
- unpaid hours of absence during the year, such as
  - waiting day before benefits are paid
  - other unpaid sick leave
  - unpaid leave of absence

#### C. Wages and salaries

In Section C, the costs of wages and salaries in 2016 are to be reported for the employees reported in Section A.

#### C.1 Total cost of wages and salaries (CI=C2+C3+C4+C5+C6)

Report the total salary cost, which should be the sum of C.2 to C.6. Benefits should not be included here, but instead should be reported in Section D.

#### C.2 Payment for hours worked and not worked

Add up the salary for hours worked and salary for hours not worked. The reporting should include all *regular salaries* except the parts of a salary that are included in C.3-C.6

#### To be included:

#### Salaries for hours worked:

- fixed salary and allowances linked to the position or individual
- variable salary and variable allowances, for example commission, incentive pay, supplements for inconvenient hours, staggered working hours, overtime/additional time, on-call duty, waiting and preparation time, shift and piece work, supplements for hazardous work and special working conditions
- severance pay, supplement for reassignment

#### Salaries for hours not worked:

- salaries for holidays
- public holidays
- family-related matters
- compensation for absences such as training leading to broader professional competence

#### Not to be included in C2:

Sick pay and compensation over and above the Swedish Social Insurance Agency's benefits, bonuses, savings programmes, director's fees, redundancy pay, any types of benefits.

#### C.3 Sick pay and remuneration over and above the benefits paid by the Swedish Social Insurance Agency

Report the sick pay by the employer, such as sick pay for sick days 2-14. Note that it is not the sick deduction that is to be reported.

Remuneration paid by the employer in addition to the benefits paid by the Swedish Social Insurance Agency should also be included here, such as supplementary parental benefits and sick leave paid by the employer to the employee after day 14.

#### C.4 Bonuses, share of profits, employee stock options

Report any bonuses, shares of profits, employee stock options and other irregular payments that is paid without any legal obligation, such as a thirteenth monthly salary. Bonuses which are paid regularly every month should be reported under C.2. Regarding employee stock options, it is suitable to report the taxable part, i.e. the share value minus the redemption price.

#### C.5 Redundancy pay

Report redundancy pay to employees who have been made redundant or remuneration paid in lieu of notice.

#### C.6 Payments into employee savings schemes

Report transfers into savings schemes or funds for the purchase of the company's shares or other financial assets on behalf of the employee.

<sup>=</sup> number of paid hours during the year

<sup>&</sup>lt;sup>1</sup> Number of weeks in 2016

#### D. Benefits, etc.

#### D.1 Benefits in kind and cash contributions

Report the actual costs for benefits. If it is easier, you may instead report the value of the benefits calculated according to recommendations by the Swedish Tax Agency.

#### To be included:

- free/company cars, housing provided by the employer, free or subsidised meals, free travel to and from the workplace, beneficial loans to employees, etc.
- daily allowances over the standard (the taxable part) and other taxable parts of reimbursements
- cash remuneration such as remuneration for proposal activities, inventions, compensation/contributions to housing costs, meal costs, travel to/from the workplace, work clothes and gratuities
- costs that occur in cases where the employer provides the company's products free of charge or at a reduced price to employees.

The value of products, goods and services is calculated at the market value, which is according to the Swedish Tax Agency, corresponds to the regular price (including VAT) of the goods or services. The market value of tax exempt discounts should also be included. If benefits are received at a reduced price, the cost should be calculated as the difference between what the employee paid and the market value of the benefit.

#### E. Social insurance contributions

#### E.1 Statutory employer's social security contributions

Report the cost for the statutory social security contributions. These include general old-age pension and sick and parental insurances, which the employer is required to pay by law.

The statutory social security contributions for 2016 was 31.42 percent, but less for younger employees the first five month (24.46 percent). The contributions were also less for older employees (10.21 percent in pension fees + 6.15 percent in special payroll tax).

Please note that special payroll tax should be reported under E.3. Social security contributions associated with collective agreements should be reported under E2a.

#### E.2 Employer contributions according to contractual agreements

# E.2a Collective agreement benefits (pension and insurances premiums)

Report costs for social security contributions and insurances regulated by a collective agreement/affiliated collective agreement. That includes old-age pension fees (such as ITP), fees/premiums to labour market insurances (FORA, Collectum AFA, Alecta, etc.) and group insurances or other social costs associated with collective agreements.

Employers who finance old-age pension under its own management should report paid pensions and changes in pension liabilities. If the change in pension liabilities is negative, subtract the amount from the total.

Costs should refer to those who were employed in 2016 reported in Section A. Redemption of pension liabilities should not be included.

#### E.2b Individual contractual benefits

Report costs of complementary individual contractual benefits, such as individually covered pension insurances that have arisen by special agreement between employers and employees.

#### E.2c Other social insurance

Report costs of insurance premiums for sick pay or holiday pay costs or other social insurance costs not reported earlier under E.2a or E.2b.

#### E.3 Special payroll tax, etc.

Report any costs of special payroll tax, both on earned income (SLF) and pension costs (SLP). Tax on returns from pension funds and other taxes that may be regarded as labour costs should be included. The special payroll tax is 24.26 percent of the basis for taxation (SLF/SLP). A novelty in 2016 is that a special payroll tax of 6.15 percent of the gross pay is payable for employees aged over 65. The old-age pension fee should be reported under E1.

#### F. Other labour costs

#### F.1 Staff training costs

Report course fees, external teachers, hire of equipment, etc. Any contributions to staff training costs should be deducted. Salary costs for own staff who take part in training, costs for buildings or own equipment used for training should also not be included.

# F.2 Employer costs for company medical and healthcare schemes

Report the cost of company medical and healthcare schemes, free medicine, medical materials, treatment outside of business operations, eye glasses for computer terminals, etc.

#### F.3 Costs for staff welfare

Report costs for leisure activities, leisure establishments, health promotion funds, staff parties, trivial benefit, etc. Child care should also be included in the costs for staff welfare activities, as are staff curative activities, staff magazines, directly paid assistance with burials, holiday bonuses, etc. Provisions for staff funds should be reported here. Any reimbursements from a staff fund should be subtracted from the costs reported.

#### F.4 Costs for staff recruitment and work clothes

Report costs incurred in connection with recruitment of staff. For example costs for the applicant's travel from another town for the interview, contributions to accommodation in connection with recruitment, costs of language training before the employment begins, costs of recruitment advertisements and fees paid to recruitment consultants.

You should also state the costs for work clothes provided by the employer.

#### F.5 Other labour costs

Report any costs not mentioned earlier.

#### G. Subsidies

#### G.1 Subsidies to labour costs

Report all subsidies received that are intended to cover a part or all of the remuneration to employees. Subsidies can, for example, come from regional policy or labour market policy measures, be in the form of a standard subsidy per man year or be a subsidy to cover salary costs, such as wage subsidies. Compensation for high sick pay costs should be reported here. The subsidies should not relate to social security contributions or staff training costs. Reimbursements from social insurance institutions or extra insurance should not be reported here.

#### ACCOUNT GUIDELINES

Payroll systems generally contain much of the information requested, but information may also need to be collected from sources such as accounting systems.

Below are references to accounts for those who use the BAS accounting plans' standard accounts. The references should <u>only</u> be considered as guidelines and not complete sources for requested information. The accounts may contain parts of the information and it may be necessary to use supplementary information from other accounts and sources.

Note that most references are at sub-account level. If accounting is done on the main accounts or on accounts not in line with the intentions of the standard (the meaning of an account has changed), this has to be taken into account in the data collection. The same applies if accounts are used that are tailored to your activities.

If data is collected from both payroll and accounting system, ensure that the data is cohesive. The costs should relate to 2016 and the employees reported in Section A.

	BAS 2016	L-BAS 2013	Kommun-Bas 13:	Statlig baskontoplan
C.2 Payment for hours worked and hours not worked	7011, 7013, 7014, 7015, 7082, 7089, 7090, 7211, 7213, 7214, 7215, 7221, 7223, 7224, 7225, 7285, 7286, 7288, 7289, 7290, part of accounts: 7019, 7219, 7229	40, 411, 419	502, 503, 505, 511, 513, 519	401, 402, 403
C.3 Sick pay and remuneration over and above the benefits paid by the Swedish Social Insurance Agency	7081, 7083, 7281, 7282, 7283, 7284	412	512	-
C.4 Bonuses, share of profits, employee stock options	7012, 7016, 7212, 7216, 7222, part of accounts: 7019, 7219, 7229	-	-	-
C.5 Redundancy pay	7017, 7217, 7227	-	-	-
C.6 Payments into employee savings schemes	-	-	-	-
D.1 Benefits in kind and cash contributions	7310, 7322, 7324, 7332, 7380, 7390	4312, 4322, 433 alt. konto 434, 435, 4392	530, 541, 548, 5512, 5522, 5532, 5592, 5598	43221, 43222, 43223, 43231, 43232, 43233, 4332, 4333, 4334, 438, 439
E.1 Statutory employer's social security contributions	7510 exkl. 7516, part of account: 7520, 7560	4517	561	4511, 4512, 4513, 4514, 4518, 4519, 4541
E.2a Collective agreement benefits	7411, 7418, 7420, 7430, 7440, 7460, 7470, 7490, 7570, 7580	4411, 442, 447, 457	567, 568, 572, 574, 575	461, 462, 467, 468
E.2b Individual contractual benefits	7412	4413	571	463
E.2c Other social insurance	7590, 7650	459	569	-
E.3 Special payroll tax, etc.	part of account: 7520, 7530, 7550	453	part of account: 563	453, 455
F.1 Staff training costs	7610	461	765	48
F.2 Employer costs for company medical and healthcare schemes	7620	462	part of account: 645, 747	47
F.3 Costs for staff welfare	7630, 7670, 7692, 7693	463, 466, 469	711	493, 494, 496, 498
F.4 Costs for staff recruitment and work clothes	5480, 7350, 7691	464, 648	part of accounts: 648, 722	491
F.5 Other labour costs	7699	465	-	497
G.1 Subsidies to labour costs	part of account: 3980 (concerning subsidies for labour cost), 3988, 3997	part of account: 38 (concerning subsidies for labour cost), 382	part of account: 35 (concerning subsidies for labour cost)	-

BAS 2016 is available on the BAS website. L-BAS 2013 and Kommun-Bas 13 are available on the Swedish Association of Local Authorities and Regions website and basic classification of accounts for government agencies is available on the Swedish National Financial Management Authority website.

<sup>-</sup> Means that there are no BAS accounts that can be linked to this data. "Free accounts" may have been used to register costs, or the costs may have been registered as part of another BAS account. The current cost is to be reported for this data.

# Appendix 6

#### NACE REV. 2

NACE	REV. 2
Code	Title
В	Mining and quarrying
05	Mining of coal and lignite
06	Extraction of crude petroleum and natural gas
07	Mining of metal ores
08	Other mining and quarrying
09	Mining support service activities
С	Manufacturing
10	Manufacture of food products
11	Manufacture of beverages
12	Manufacture of tobacco products
13	Manufacture of textiles
14	Manufacture of wearing apparel
15	Manufacture of leather and related products
16	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
17	Manufacture of paper and paper products
18	Printing and reproduction of recorded media
19	Manufacture of coke and refined petroleum products
20	Manufacture of chemicals and chemical products
21	Manufacture of basic pharmaceutical products and pharmaceutical preparations
22	Manufacture of rubber and plastic products
23	Manufacture of other non-metallic mineral products
24	Manufacture of basic metals
25	Manufacture of fabricated metal products, except machinery and equipment
26	Manufacture of computer, electronic and optical products
27	Manufacture of electrical equipment
28	Manufacture of machinery and equipment n.e.c.
29	Manufacture of motor vehicles. trailers and semi-trailers
30	Manufacture of other transport equipment
31	Manufacture of furniture
32	Other manufacturing
33	Repair and installation of machinery and equipment
D	Electricity, gas, steam and air conditioning supply
35	Electricity, gas, steam and air conditioning supply
E	Water supply; sewerage, waste management and remediation activities
36	Water collection, treatment and supply
37	Sewerage  Western all actions to a definition and activities activities and activities activities activities and activities activities and activities activitie
38	Waste collection, treatment and disposal activities; materials recovery
39 <b>F</b>	Remediation activities and other waste management services  Construction
41	Construction of buildings
42	Civil engineering
43	Specialised construction activities
<b>G</b>	Wholesale and retail trade; repair of motor vehicles and motorcycles
45	Wholesale and retail trade and repair of motor vehicles and motorcycles
46	Wholesale trade, except of motor vehicles and motorcycles
47	Retail trade, except of motor vehicles and motorcycles
H	Transportation and storage
49	Land transport and transport via pipelines
50	Water transport
51	Air transport
52	Warehousing and support activities for transportation
53	Postal and courier activities

1	Accommodation and food service activities
55	Accommodation
56	Food and beverage service activities
<b>J</b>	Information and communication
58	Publishing activities
59	Motion picture, video and television programme production. sound recording and music publishing activities
60	Programming and broadcasting activities
61	Telecommunications
-	
62	Computer programming, consultancy and related activities  Information service activities
63 <b>K</b>	Financial and insurance activities
64	Financial service activities. except insurance and pension funding
-	
65	Insurance, reinsurance and pension funding, except compulsory social security
66	Activities auxiliary to financial services and insurance activities
60	Real estate activities  Real estate activities
68 <b>M</b>	Professional. scientific and technical activities
69	Legal and accounting activities
70	Activities of head offices; management consultancy activities
71	Architectural and engineering activities; technical testing and analysis
72	Scientific research and development
73	Advertising and market research
74	Other professional, scientific and technical activities
75	Veterinary activities
N	Administrative and support service activities
<b>N</b> 77	Administrative and support service activities  Rental and leasing activities
<b>N</b> 77 78	Administrative and support service activities  Rental and leasing activities  Employment activities
N 77 78 79	Administrative and support service activities  Rental and leasing activities  Employment activities  Travel agency, tour operator and other reservation service and related activities
<b>N</b> 77 78	Administrative and support service activities  Rental and leasing activities  Employment activities  Travel agency, tour operator and other reservation service and related activities  Security and investigation activities
N 77 78 79	Administrative and support service activities  Rental and leasing activities  Employment activities  Travel agency, tour operator and other reservation service and related activities  Security and investigation activities  Services to buildings and landscape activities
N 77 78 79 80 81 82	Administrative and support service activities  Rental and leasing activities  Employment activities  Travel agency, tour operator and other reservation service and related activities  Security and investigation activities  Services to buildings and landscape activities  Office administrative, office support and other business support activities
N 77 78 79 80 81 82 O	Administrative and support service activities  Rental and leasing activities  Employment activities  Travel agency, tour operator and other reservation service and related activities  Security and investigation activities  Services to buildings and landscape activities  Office administrative, office support and other business support activities  Public administration and defence; compulsory social security
N 77 78 79 80 81 82 <b>O</b> 84	Administrative and support service activities  Rental and leasing activities  Employment activities  Travel agency, tour operator and other reservation service and related activities  Security and investigation activities  Services to buildings and landscape activities  Office administrative, office support and other business support activities  Public administration and defence; compulsory social security  Public administration and defence; compulsory social security
N 77 78 79 80 81 82 0 84	Administrative and support service activities  Rental and leasing activities  Employment activities  Travel agency, tour operator and other reservation service and related activities  Security and investigation activities  Services to buildings and landscape activities  Office administrative, office support and other business support activities  Public administration and defence; compulsory social security  Public administration and defence; compulsory social security  Education
N 77 78 79 80 81 82 O 84 P 85	Administrative and support service activities  Rental and leasing activities  Employment activities  Travel agency, tour operator and other reservation service and related activities  Security and investigation activities  Services to buildings and landscape activities  Office administrative, office support and other business support activities  Public administration and defence; compulsory social security  Public administration and defence; compulsory social security  Education  Education
N 77 78 79 80 81 82 O 84 P 85 Q	Administrative and support service activities  Rental and leasing activities  Employment activities  Travel agency, tour operator and other reservation service and related activities  Security and investigation activities  Services to buildings and landscape activities  Office administrative, office support and other business support activities  Public administration and defence; compulsory social security  Public administration and defence; compulsory social security  Education  Education  Human health and social work activities
N 77 78 79 80 81 82 O 84 P 85 Q 86	Administrative and support service activities  Rental and leasing activities  Employment activities  Travel agency, tour operator and other reservation service and related activities  Security and investigation activities  Services to buildings and landscape activities  Office administrative, office support and other business support activities  Public administration and defence; compulsory social security  Public administration and defence; compulsory social security  Education  Education  Human health and social work activities  Human health activities
N 77 78 79 80 81 82 O 84 P 85 Q 86 87	Administrative and support service activities  Rental and leasing activities  Employment activities  Travel agency, tour operator and other reservation service and related activities  Security and investigation activities  Services to buildings and landscape activities  Office administrative, office support and other business support activities  Public administration and defence; compulsory social security  Public administration and defence; compulsory social security  Education  Education  Human health and social work activities  Human health activities  Residential care activities
N 77 78 79 80 81 82 O 84 P 85 Q 86 87 88	Administrative and support service activities  Rental and leasing activities  Employment activities  Travel agency, tour operator and other reservation service and related activities  Security and investigation activities  Services to buildings and landscape activities  Office administrative, office support and other business support activities  Public administration and defence; compulsory social security  Public administration and defence; compulsory social security  Education  Education  Human health and social work activities  Human health activities  Residential care activities  Social work activities without accommodation
N 77 78 79 80 81 82 O 84 P 85 Q 86 87 88 R	Administrative and support service activities  Rental and leasing activities  Employment activities  Travel agency, tour operator and other reservation service and related activities  Security and investigation activities  Services to buildings and landscape activities  Office administrative, office support and other business support activities  Public administration and defence; compulsory social security  Public administration and defence; compulsory social security  Education  Education  Human health and social work activities  Human health activities  Residential care activities  Social work activities without accommodation  Arts. entertainment and recreation
N 77 78 79 80 81 82 O 84 P 85 Q 86 87 88 R 90	Administrative and support service activities  Rental and leasing activities  Employment activities  Travel agency, tour operator and other reservation service and related activities  Security and investigation activities  Services to buildings and landscape activities  Office administrative, office support and other business support activities  Public administration and defence; compulsory social security  Public administration and defence; compulsory social security  Education  Education  Human health and social work activities  Human health activities  Residential care activities  Social work activities without accommodation  Arts. entertainment and recreation  Creative. arts and entertainment activities
N 77 78 79 80 81 82 0 84 P 85 Q 86 87 88 R 90	Administrative and support service activities  Rental and leasing activities  Employment activities  Travel agency, tour operator and other reservation service and related activities  Security and investigation activities  Services to buildings and landscape activities  Office administrative, office support and other business support activities  Public administration and defence; compulsory social security  Public administration and defence; compulsory social security  Education  Education  Human health and social work activities  Human health activities  Residential care activities  Social work activities without accommodation  Arts. entertainment and recreation  Creative. arts and entertainment activities  Libraries, archives, museums and other cultural activities
N 77 78 79 80 81 82 0 84 P 85 Q 86 87 88 R 90 91	Administrative and support service activities  Rental and leasing activities  Employment activities  Travel agency, tour operator and other reservation service and related activities  Security and investigation activities  Services to buildings and landscape activities  Office administrative, office support and other business support activities  Public administration and defence; compulsory social security  Public administration and defence; compulsory social security  Education  Education  Human health and social work activities  Human health activities  Residential care activities  Social work activities without accommodation  Arts. entertainment and recreation  Creative. arts and entertainment activities  Libraries, archives, museums and other cultural activities  Gambling and betting activities
N 77 78 79 80 81 82 0 84 P 85 Q 86 87 88 R 90 91 92	Administrative and support service activities  Rental and leasing activities  Employment activities  Travel agency, tour operator and other reservation service and related activities  Security and investigation activities  Services to buildings and landscape activities  Office administrative, office support and other business support activities  Public administration and defence; compulsory social security  Public administration and defence; compulsory social security  Education  Education  Human health and social work activities  Human health activities  Residential care activities  Social work activities without accommodation  Arts. entertainment and recreation  Creative. arts and entertainment activities  Libraries, archives, museums and other cultural activities  Gambling and betting activities  Sports activities and amusement and recreation activities
N 77 78 79 80 81 82 O 84 P 85 Q 86 87 88 R 90 91 92 93 S	Administrative and support service activities  Rental and leasing activities  Employment activities  Travel agency, tour operator and other reservation service and related activities  Security and investigation activities  Services to buildings and landscape activities  Office administrative, office support and other business support activities  Public administration and defence; compulsory social security  Public administration and defence; compulsory social security  Education  Education  Human health and social work activities  Human health activities  Residential care activities  Social work activities without accommodation  Arts. entertainment and recreation  Creative. arts and entertainment activities  Libraries, archives, museums and other cultural activities  Sports activities and amusement and recreation activities  Other service activities
N 77 78 79 80 81 82 O 84 P 85 Q 86 87 88 R 90 91 92 93 S 94	Administrative and support service activities  Rental and leasing activities  Employment activities  Travel agency, tour operator and other reservation service and related activities  Security and investigation activities  Services to buildings and landscape activities  Office administrative, office support and other business support activities  Public administration and defence; compulsory social security  Public administration and defence; compulsory social security  Education  Education  Human health and social work activities  Human health activities  Residential care activities  Social work activities without accommodation  Arts. entertainment and recreation  Creative. arts and entertainment activities  Libraries, archives, museums and other cultural activities  Sports activities and amusement and recreation activities  Other service activities  Activities of membership organisations
N 77 78 79 80 81 82 O 84 P 85 Q 86 87 88 R 90 91 92 93 S	Administrative and support service activities  Rental and leasing activities  Employment activities  Travel agency, tour operator and other reservation service and related activities  Security and investigation activities  Services to buildings and landscape activities  Office administrative, office support and other business support activities  Public administration and defence; compulsory social security  Public administration and defence; compulsory social security  Education  Education  Human health and social work activities  Human health activities  Residential care activities  Social work activities without accommodation  Arts. entertainment and recreation  Creative. arts and entertainment activities  Libraries, archives, museums and other cultural activities  Sports activities and amusement and recreation activities  Other service activities