2008 Labour Cost Survey of Spain

Quality Report

Labour Market Statistics Directorate
National Statistical Institute of Spain
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0. Introduction

In Spain, since 1988 to 2000, annual data on labour cost were provided by the fouryearly Labour Cost Survey. Four Labour Cost Surveys were undertaken, all in collaboration with the Statistical Office of the European Communities (Eurostat), following the Regulations in force at each moment.

Since 2001, an annual survey is conducted to obtain annual data. This survey with reference period year t, is collected during three consecutive months of the year $t+1$ jointly with the Quarterly Labour Cost Survey, adding an annual questionnaire to the quarterly ones. This way, short-term data are adjusted with the annual questionnaire to obtain annual data and the coherence between short term and structural data is assured. The period of time selected to collect annual data has changed, during the years 2001 to 2004 the annual data were collected during the months April, May and June; since year 2005 the months are February, March and April. Therefore, the annual data for 2008 were collected during the months February-April of 2009.

The annual data provide information on all the variables requested by the Commission Regulation n° 1737/2005 except for those related with apprentices because apprentices are out of the scope of the quarterly and annual surveys.

Apprentices are not a representative group of employees in the Spanish labour market. It is very difficult to obtain accurate figures due to the number of apprentices is such a small. Until the LCS 2004 an specific survey was carried out every four years to obtain their figures. The problems detected in the estimation process of this category in LCS-2004 and the evolution of the number of apprentices since then justify the exclusion of this kind of employees in the LCS-2008. This issue will be deeply explained under point 2.1.1. of this document.

The aim of this document is to be used to evaluate the quality of the survey. The structure of this report follows the content of Commission Regulation (EC) No. 698/2006 of 5 May 2006 Implementing Council Regulation (EC) No. 530/1999 as regards quality evaluation of structural statistics on labour costs and earnings.

1. Relevance

This survey is of much importance for institutional and private bodies. Their main users may be classified in the following groups:

- International Organisations: European Union Institutions, OECD, International Monetary Fund, International Labour Organisation, etc.

- Public Organisms: different Ministries such as those of Economy and Labour, the National Statistical Institute itself for several of its units (such as National Accounts), Bank of Spain, etc.

- Social Institutions such as the Trade Unions and the Political Parties

- Research Centres and Universities

- The media

No survey has been carried out among users to know their needs of information and whether they are satisfied with the published results. This may be accounted

for by the lack of contact with most users since the remittance of results is often impersonal, and by the fact that most results are looked for in INTERNET.

The only known opinion on this matter is that of users requesting a more detailed information to be prepared individually, or of those who are in doubt about the survey and its methodology.

The latter cases acquaint us with the great variety of users wishes, from the information needed to carry out economic and employment policies to that required for any kind of research or even decisions regarding the location of future industries.

In general, these users are satisfied with the results obtained, although they would like them to be more detailed from the geographical as well as the labour cost components and the economic activities viewpoints.

2. Accuracy

2.1   Sampling errors

Methodology used for variance estimation

The estimators used for the survey are separate ratio estimators, the number of employees in the directory being used as an auxiliary variable. The calculation of the variance has been made by estimating it from the variances in each stratum of the ratio estimator, by means of the generally used linear approach.

Expression of the variance

$$\hat{V}\left(\hat{X}_{rij}\right) = \frac{E_{rij}\left(E_{rij} - e_{rij}\right)}{e_{rij}} \cdot \frac{\sum_{k}^{e_{rij}}\left(x_{rijk} - R_{rij} \cdot d_{rijk}\right)^2}{e_{rij} - 1}$$

Where

$$R_{rij} = \frac{\sum_{k}^{e_{rij}} x_{rijk}}{\sum_{k}^{e_{rij}} d_{rijk}}$$

Where

$\hat{X}$,   estimated total of the variable (A1,B1,D1, etc.)

X,   value of the variable in each questionnaire.

E,   number of centres in the directory.

e,   number of centres in the sample.

d,   number of employees in the centres of the sample.

r,   region.

i,   economic activity (NACE rev.1).

j,   size of the unit.

k,   unit of the sample.

	Numerator	Denominator	Coeficient of variation
TOTAL	1882941112	420129526175	0,45

Nace Sections	Numerator	Denominator	Coeficient of variation
B	37631658	1460612307	2,58
C	494115505	70540656059	0,70
D	87741215	2979069371	2,95
E	51754290	4202488532	1,23
F	836861335	52836773178	1,58
G	1073663622	59619867234	1,80
H	388717601	21521490114	1,81
I	431729219	18216485640	2,37
J	186121610	15639094805	1,19
K	419511536	23788764222	1,76
L	101993170	2388149007	4,27
M	434311014	21383727643	2,03
N	526469288	24002753546	2,19
O	541607426	36300963394	1,49
P	339406460	17339356086	1,96
Q	250231674,7	36999195314	0,68
R	119354758,5	4193519623	2,85
S	133911075,9	6716560100	1,99

NUT's 1	Numerator	Denominator	Coeficient of variation
ES1	354049975	33327351934	1,06
ES2	399855011	47895338208	0,83
ES3	996356058	84851046897	1,17
ES4	435427160	39083725168	1,11
ES5	1145672840	1,32501E+11	0,86
ES6	843395608	66803856797	1,26
ES7	230597408	15666791199	1,47

Size band (1)	Numerator	Denominator	Coeficient of variation
1-4	633628596,1	41953924995	1,51
5-9	763546967,6	34256703147	2,23
10-19	829579105,8	42052713976	1,97
20-49	924504957,9	64752273036	1,43
50-99	714102224,3	43760999792	1,63
100-199	856266706,7	41721461901	2,05
200-499	446278954,9	53906504746	0,83
500 +	122003916,9	97724944581	0,12

(1) These are the size bands used in the stratification scheme

In this way, the variation coefficients have been obtained according to the structures of Tables A, B and C of Variable D (tables requested by EUROSTAT) as upper bound of the variation coefficients of the annual labour cost variables per employee (D/(A11+A121+A131)) and the hourly labour costs (D/B1):

2.2 Non-sampling errors

2.2.1 Coverage errors

The population is formed by all employees working for an employer during the year 2008.

The framework used for the selection was the General Register of Accounts of Social Security Contributions, held by the Ministry of Employment and Social Affairs. When the Register is received from the Social Security, a first debugging is made prior to the selection of the sample, which implies several stages:

- To eliminate economic activities regarding agricultural activities, livestock, fishery, households with domestic employees and extra-territorial organisms since these are not part of the survey.

- To eliminate the units that belong to the special regime of Social Security sales agents, whose main compensation consists in commissions on sales and who, consequently cannot be surveyed either.

After this, the sample is selected and the questionnaires are sent to the selected units; the data collection and debugging reveal the errors in the surveyed units.

Overcoverage errors

The data collection showed that 347 units were inactive or closed down in 2008, which is 1% of the total sample selected.

When the questionnaires come back and processing is started, one of the rules is to verify whether the activity has been classified accurately. 18 erroneously classified contribution accounts have thus been found (0,05% of the sample selected).

In these cases new units have been selected.

Under-coverage errors

The main difference between the reference population and the study population is that the first does not include the apprentices. The labour legislation on apprentices in Spain establishes very low labour costs (both wages and social contributions). As a consequence, the number of apprentices is very small. Thus, at the end of the year 2008 the number of apprentices was 49.747 from a total of 12.631.891 employees in the activities included in the survey (it represents 0,4% of the total).

Moreover, the problem with apprentices is that, due to their particular type of contract, the Social Security General Treasury registers them, for control, in a different affiliation file, with different characteristics, that make difficult to use it jointly with the general file. On the other hand, because of it is such a small group, a random selection does not assure to obtain representative separate figures for this collective. This fact makes necessary a great effort carrying out a specific survey for the apprentices to assure the results.

This effort is not corresponded with the small figures obtained as was showed in the experience from the 2002 SES and 2004 LCS. On the other hand, a significant proportion (one third approximately) of apprentices estimated by the 2004 LCS survey were, in practice, scholarship employees, circumstance not

known before selecting the sample, and their inclusion in the final figures distorts the apprentices' figures. Consequently the apprentices are not included in the LCS 2008. There is a more detailed study of apprentices in annex I.

Section O is partly covered by the survey. The employees under the Social Security General Scheme and subjected to the general rules of employment law, just like all other employees in the rest of the sections of NACE Rev.2. are included in the present survey.

2.2.2- Measurement and processing errors

Questions that were difficult to answer because of their characteristics:

The employer's total expenditure is asked on different labour cost concepts for all the employees belonging to the unit surveyed.

However, for the local units it has been difficult to answer the questions on "Direct Social Benefits, "Voluntary Contributions" and "Other Expenditures", and what is available is the enterprise's total amount. When this information was not available and it was hard to calculate, it was allowed to answer the enterprise's data, as well, as the total employees of the enterprise.

These data are used to calculate the average expenditure per employee of the enterprise and to gross it up to the number of employees in the surveyed local unit.

Errors in the data collection method

Before sending the questionnaires, the telephone numbers and addresses for the contribution accounts were checked and updated.

When they were ready, they were mailed to the contribution accounts. They were to be mailed back to the statistical office in the enclosed postage paid envelope.

Often the respondents wished to send their questionnaires by electronic mail, to which purpose a registration and transmission format on Internet was designed.

Debugging errors

After receiving the questionnaires, the statistical offices recorded them. To this end, a computer application was created, which recorded and at the same time made a first debugging for the questionnaire's internal consistency.

This first debugging consists in using filters referring to errors that allow separating valid questionnaires from those with inconsistencies to be revised.

The filters are of two kinds: those detecting type I and type II errors.

Type I errors:

If they are not thoroughly corrected, the questionnaire cannot be considered as valid.

Type II errors:

They affect norms that have to be complied with towards the coherence of the data. The non-satisfaction of these norms does not necessarily mean that the questionnaire is not valid, but it should be explained why an error is stated. In cases of doubts, a telephone call is made to the respondent for him to elucidate them.

The questionnaires are filtered a first time during the recording and a second time by the team responsible for the results of the survey (this team is different from the recording one), after which the explanations are checked again.

There are more than 200 rules that are checked in each questionnaire.

The processing, grossing up and tabulation of the data have been programmed and supervised by two different teams. After the tabulation, the results obtained were analysed in order to know whether they were coherent.

2.2.3- Non-response errors

- **Unit response rate**

The unit response rate is calculated as the ratio, expressed as a percentage, of the number of responses to the total number of in-scope respondents. The following table shows the response rate by Nace sections and size of the unit.

Sample collected and response rate

Nace Sections	Strata													
	1-9		10-49		50-249		250-499		500-999		+1000		Total	
	Units	Rate	Units	Rate	Units	Rate	Units	Rate	Units	Rate	Units	Rate	Units	Rate
B	183	88,1	167	92,3	99	94,1	18	100,0	11	100,0	4	100,0	482	90,8
C	2653	93,1	2622	95,8	1913	95,3	685	95,8	378	96,7	425	98,2	8676	94,8
D	79	95,9	50	95,6	34	97,4	15	99,2	30	93,3	96	100,0	304	96,4
E	375	91,5	238	95,9	170	96,9	98	98,5	35	94,3	136	96,0	1052	94,7
F	1930	84,6	1143	91,1	714	92,2	142	93,0	87	88,7	201	90,0	4217	88,5
G	980	93,8	482	96,1	374	96,2	141	94,0	104	96,7	456	94,9	2537	95,0
H	667	91,6	331	92,6	283	94,6	79	95,5	67	97,6	297	97,2	1724	93,3
I	489	90,1	246	95,8	208	92,5	64	90,6	50	92,5	124	93,0	1181	92,1
J	594	88,8	503	94,1	395	94,4	127	94,7	127	92,3	218	96,8	1964	92,4
K	440	93,0	131	97,5	133	96,9	103	97,7	126	95,0	456	97,6	1389	95,5
L	568	87,3	139	91,0	64	86,6	27	100,0	2	100,0	16	93,8	816	88,0
M	1659	93,3	767	95,8	433	96,6	135	94,1	92	93,3	194	93,3	3280	94,5
N	651	90,4	427	94,5	413	94,4	209	92,2	174	93,6	716	92,7	2590	92,9
O	32	94,3	92	95,1	133	92,9	72	92,6	77	87,6	398	87,1	804	91,2
P	144	93,2	106	96,1	131	94,9	23	92,7	32	90,0	201	87,7	637	93,1
Q	280	94,8	275	95,4	266	95,7	113	94,4	77	96,4	524	95,4	1535	95,4
R	672	87,9	478	92,8	305	94,1	53	93,9	15	90,0	24	100,0	1547	91,0
S	914	92,5	376	95,1	257	94,2	77	96,6	25	97,6	56	100,0	1705	93,6
Total	13310	91,1	8573	94,6	6325	94,8	2181	94,7	1509	94,0	4542	93,8	36440	93,2

- **Item imputation rate**

There is not item imputation due to partial non-response is not allowed by the collect procedure. All the variables are inter-related by validation criteria and a

system of filters is available to assure the questionnaire's internal consistency and to prevent the lack of essential data. The omitted data or data "rare" are requested again to the informant.

- **Overall imputation rate**

There are two cases:

- The quarterly questionnaires are imputed. There are around 4% of quarterly questionnaires imputed each quarter.

  It is imputed the same number of employees, the same number of hours worked and the cost variables of the previous year (except the payments to employees leaving the enterprise) updated according to the pay rise agreed in the collective agreements (the pay rises are obtained from the Collective Agreements Statistic elaborated monthly by the Ministry of Labour and Social Affairs). (More detail in Quality Report of LCI).

- There was no response or an incidence in the sample, the value of the analysis variables for each 'empty' sampling unit or unit without information was imputed using the information obtained for the stratum to which the unit belonged.

  The imputation criterion was to assign the value of the variable per employee obtained for the total of units that responded in this stratum to the omitted unit and multiply it by the number of employees in the missing unit. For example, if we wanted to impute the value of total payroll for the empty unit, we would calculate the total payroll per employee obtained in the stratum of that unit and multiply the resulting figure by the number of employees in the unit.

  This form of imputation only requires replacing the raising factors obtained with the selected sample with the ones that result from the effective sample.

2.2.4- Model assumption errors

- The period requested in the annual questionnaire was the 2008 calendar year.

  In the event that an enterprise's accounting period exceeded the year, we asked it to adjust the information to the calendar year. This did not happen often as wage payments to employees and payments of compulsory social contributions are usually made on a monthly basis.

- Payments for days not worked (D.1113):

  Spanish payment practices do not allow for a concept equivalent to variable D.1113; wages are established according to a period of time (whether by hour, day, week or month) and the characteristics of the job. Vacations and time off without losing payment are agreed upon in contracts or collective bargaining agreements. This variable was therefore estimated indirectly as follows:

  1. The questionnaires' information was used to obtain wages and salaries paid in cash that correspond to the variables D. 11111 + D.1113

2. Payments for overtime taken were subtracted from the questionnaires. (So, D.11111+D.1113- overtime payments)

3. Overtime and hours not paid as salary, such as hours not worked due to illness, maternity leave or for technical, economic, organisational or production-based reasons (with or without a workforce reduction/layoff plan) were subtracted from the total of hours paid.

4. The quotient between 2 and 3, which would be the wage paid per-hour independently of whether or not it was worked, was obtained.

5. The above result was multiplied by the hours not worked but paid by the employer, such as vacations, public holidays, time off for getting married, having a baby, moving home, the death or serious illness of a family member, to attend exams, visits to the doctor, breastfeeding, union representation, etc.

6. The result from 5) above corresponded to the variable D.1113, while D.11111 was the same as 2-5 plus payments for overtime.

This way, D.1113 is estimated but total labour cost is not affected by this calculations.

- As it has been said above (see Overall imputation rate item), the unit no response is made replacing the raising factors obtained with the selected sample with the ones that result from the effective sample.

3. Timeliness and punctuality
3.1 Punctuality

The collection of the annual questionnaires was carried out during four months: March - June 2009. As it was mentioned above, the questionnaires were sent jointly with the quarterly questionnaires of the Quarterly Labour Cost Survey. The sample units is the same for both surveys.

The quarterly sample is distributed in three monthly sub-samples along of the quarter, of such form that the first sub-sample will be interviewed all the first months of each quarter, the second sub-sample will be interviewed the second month of each quarter and the third sub-sample the last month of each quarter. This way each sub-sample is interviewed four times per year (for more information about the quarterly survey see the LCI Quality Report 2008).

The annual sample was distributed in the same way:

Collection Calendar

Sub-sample	Reference Period of QLCS	Remittance of the questionnaires	Collection in the province office	Reception in central office
Month 2	February	Beginning of March	At the end of March	17 April
Month 3	March	Beginning of April	At the end of April	15 May

| Month 1 | April | Beginning of May | At the end of May | 17 June |

There was a final sending of questionnaires from the province offices on 3 July.

The stages of the collection period are the following:

1. Remittance In a first stage of 2 or 3 days, the material was forwarded to the respondent units. In general terms, each mailing contains the following documents:

- A questionnaire that must be remitted in a delay not surpassing 15 days after it is received.

- A letter from the General Director that besides indicating the purpose of the survey, informs on the laws that oblige to complete the questionnaires and on those regarding Statistical Confidentiality.

- A postage paid envelope bearing the address where the respondent has to send the filled in questionnaire. The questionnaire can be fill in by INTERNET using the identification number of the unit and a control digit of the survey included in the paper questionnaire.

2. Contacts and claims: This stage is essential for a fluent and efficient collection, whose percentage of success is very high.

The most useful tool for this activity was the telephone.

Telephone contacts may occur in both directions. To foster the respondents' willingness to call the NSI, they are provided whenever possible (in some of the documents forwarded to them) with a free telephone number. The calls are preferably answered by the interviewer in charge of obtaining their questionnaires. If this is not possible, any person tasked with the collection will resolve the respondent's doubt or duly take the message (indicating the enterprise's National Register Number (NIF), its address, name of the person who calls, contact telephone number, identification number in the survey and other comments).

There is also a free fax number that may come in handy to receive questionnaires and written communications.

Each interviewer must contact the enterprises assigned to him and request their questionnaire.

3. Claim with acknowledgement of receipt: All the respondent units which had not remitted their filled in questionnaire by the end of the above stage (the deadline for respondent to reply), received by registered mail and with an acknowledgement of receipt, a second questionnaire with the mention "Claim of compulsory statistical data" (document PS2)

4. Advise note: After 15 days from 3, a letter is sent advising the amount of penalty.

Stage following the collection of questionnaires

One of the Interviewer's tasks is the recording and debugging of all the incoming questionnaires.

The general rule is that the questionnaires must be recorded at the latest from 3 to 5 days following their arrival, to facilitate consultations with the enterprise as soon as possible after they were filled in.

As to the debugging of errors, all computer applications classify the errors in two large blocks: type I or big errors and type II or small errors. Type I errors are so important that they invalidate the questionnaire. Type II errors may arise from specific circumstances of the enterprise's activity, from its activity during the data reference period or from any specific event of the respondent unit.

The first debugging should be carried out at the latest from 8 to 10 days after the recording, that is 10-15 days after the questionnaires are received.

The second debugging of all the units was completed at the beginning of July 2009. The tabulation was prepared during July and the publication of national data without apprentices was on 28 July 2009. The information is available on INTERNET (www.ine.es) and on electronic support.

The first remittance of data to Eurostat was done on 6 May 2010.

4. Accessibility and clarity

Press release was sent to main official users and the press.

There are available for free on the INE-web site:

- Methodological document.

- Detailed set of tables.

Special demands of information are possible on request after an availability study. These demands are not free. The prices of INE Dissemination Products are determined in such a way that the necessary costs for their elaboration are covered. Prices are regulated by the Resolution of private prices of INE Dissemination Products.

The main results of the annual data for the year t are remitted to the respondents of the annual questionnaire of the year t + 1 in a special bulletin for informants.

5. Comparability

5.1 Geographical comparability

There are no differences between national and European concepts regarding statistical units and classification of activities.

Most of the effort made by the unit responsible for Labour Cost Statistics went on the detailed study of the variables contained in Commission Regulation No. 17376/2005 and its comparison with labour laws and forms of retribution in force in Spain in the year 2008. From this comparative study we obtained a version of the annual questionnaire adapted to the reality of the country which allowed us to

obtain the variables as defined in the above-mentioned regulation without producing deviations. However, the following points should be taken into account:

- The survey of this year 2008 includes Section O, that is optional in the Regulation. But section O is partly covered. The directory used to obtain the frame is the Register of Contribution Accounts covering employees registered with Social Security, more specifically, the contribution accounts under the Social Security General Scheme, including the coalmining Special Scheme.

Public employees can be classified in two main groups according to the Social Security Scheme they belong:

- Employees of the Social Security Administration, autonomous bodies, local government and Autonomous Communities and those working in the Central Government that are not career civil servants come under the Social Security General Scheme, which is the register used in the survey.

- Career civil servants in Central Government, armed forces personnel and justice and Parliament officials come under the State Employee Pension Scheme, whereby the State assures them protection against the risks of old age, disability, death and survival. For healthcare, temporary disability benefits, etc., such employees are covered by public-employee mutual societies. These employees are not covered by the survey.

The quarterly labour cost survey is complemented with administrative data to obtain the labour cost index of this section O quarterly. The DARETRI system was created by Order PRE/390/2002 of 22 February 2002. Its purpose is to collect pay data on Central Government public-sector employees. The DARETRI system captures automatically the compensation data of the personnel working in the Central Government. Unfortunately, this source cannot be used in the LCS because the breakdowns of the variables are enough for the index but not for the LCS. The figures from the quarterly data show that section O in the LCS cover the 70% of the employment and 63.2% of the total labour costs of this section.

Annual average from quarterly data. Year 2008

	Total monthly labour cost	%	Number of employees	%
	Thousand euros			
Total Section O	4755450,083	100	1480358,30	100
Employees under Social Security General Scheme	3007203,974	63,2	1038213,64	70,1
Employees under State Employee Pension Scheme	1748246,1	36,8	442144,66	29,9

- Payments for days not worked (D.1113):

Spanish payment practices do not allow for a concept equivalent to variable D.1113; wages are established according to time worked (whether by hour, day, week or month) and the characteristics of the job. Vacations and time off without losing payment are agreed upon in contracts or collective bargaining agreements. This variable was therefore estimated using a model (see 2.2.4).

- D.4 Taxes paid by employers:

This variable was invalid because it does not exist in Spain.

- Apprentices:

As it has been mentioned in point 2.1.1., the reference population does not include the apprentices because of the number of apprentices is very small. Thus, at the end of the year 2008 the number of apprentices was 49.747 from a total of 12.631.891 employees in the activities included in the survey (it represents 0,4% of the total). An specific survey for apprentices was carried put in 2000 and 2004 but not in 2008. There is a more detailed study of apprentices in annex I.

5.2.   Comparability over time

The different surveys since 1988 have been improved from a sectorial viewpoint: activities that formerly were not part of the Services sector are now included, so that since 2000 survey, only the General Government (Section L of NACE rev.1) activity in said sector remains to be researched upon. This activity has been included partly in the 2008 survey as it was mentioned above.

Another important difference is the use of the 2009 National Classification of Economic Activities (CNAE-09), that is the national version of NACE 2, in the survey 2008. The 1993 Classification of Economic Activities (CNAE-93) was used in 1996, 2000 and 2004 surveys instead of the CNAE-74 in the 1988 and 1992 surveys. That is why a strict comparison of results in the services sector or of the activity divisions or branches in general is not possible.

Moreover, the small statistical units (units belonging to enterprises with less than 10 employees) have been included since the data for 2004. So, the coverage of the data has been improved and also the comparability with the data from the quarterly labour cost survey and the labour cost index.

6. Coherence

6.1 Coherence with statistics from labour force survey

The average actual hours worked in the main job per year of the Labour Force Survey (LFS) has been estimated as the annual average of the quarterly data of the actual hours worked in the main job in the reference week in 2008 for employees multiplied by 52 weeks in the year. The results are shown in the following table.

The figures are lower in the LCS for all economic activities, being the highest difference for section I (-13,3%) and the lowest for section O (-2,2%). The reasons for the differences:

- Both surveys are different, with a different frame , a different sample design, etc.

- LFS is a household survey and in these kind of surveys is generally admitted that hours worked are apparently overestimated.

- LCS is a local unit survey and in these kind of surveys is generally admitted that hours worked may be underestimated, specifically the unpaid hours worked are not well collected.

Hours actually worked per year and per employee

Nace Sections	LFS	LCS	LCS/LFS*100
B	1970,8	1695,9	-13,9
C	1846,0	1685,6	-8,7
D	1866,8	1692,8	-9,3
E	1808,3	1602,1	-11,4
F	1961,7	1752,2	-10,7
G	1795,3	1671,8	-6,9
H	1857,7	1675,2	-9,8
I	1846,0	1600,7	-13,3
J	1803,1	1697,7	-5,8
K	1826,5	1647,5	-9,8
L	1822,6	1655,9	-9,1
M	1768,0	1680,1	-5,0
N	1600,3	1540,3	-3,8
O	1622,4	1586,3	-2,2
P	1337,7	1225,0	-8,4
Q	1649,7	1480,3	-10,3
R	1544,4	1429,0	-7,5
S	1705,6	1579,4	-7,4
Total	1758,4	1622,3	-7,7

6.2 Coherence with structural business statistics

The most important differences between the SBS and the LCS are the following:

-   In the Structural Business Surveys (SBS), the statistical unit is the enterprise and the framework is the Central Business Register (DIRCE). The LCS's statistical unit is the local one determined by the contribution account and the frame is the Directory of Social Security Contribution Accounts. A Social Security Contribution Account is made up of a number of employees who develop their work in one or various work centres that belong to the same enterprise within the same province, which develops the same principle activity and can be unequivocally identified using an account code for Social Security referring to the compulsory social contributions of those employees.

-   The SBS stratified sampling uses expansion estimators, one of the stratification variables being the enterprises' size according to the number of employees. For the calculation of the grossing up factor, the number of enterprises in the register is taken. In the LCS separate ratio estimators are used, the auxiliary variable being the number of employees in the Directory of Social Security Contribution Accounts.

The SBS data correspond to the results for the year 2008. Data for sections B-E and G-N plus division 95 are from surveys of INE and data for section F are from a business survey elaborated by the Ministry of Fomento.

- Data from SBS include the payments to employees leaving the enterprise in wages and salaries meanwhile LCS includes these kind of payments in Employers' imputed social contributions.

Nace Sections	SBS	LCS	LCS/SBS*100
B	27958,8	26846,0	-4,0
C	26763,0	23638,6	-11,7
D	52508,7	49275,9	-6,2
E	26429,5	22133,4	-16,3
F	22184,4	20487,2	-7,7
G	20158,4	18185,3	-9,8
H	25484,8	22270,0	-12,6
I	15163,6	13798,7	-9,0
J	33763,1	31139,9	-7,8
L	22996,6	20047,9	-12,8
M	26810,7	25291,1	-5,7
N	14884,0	15448,3	3,8
95 DIVISION	19548,6	19326,8	-1,1
Total	22347,7	20402,8	-8,7

The LCS shows values that are all lower than the SBS data, except for section N. These differences are more important in sections C, E, H and L where the he payments to employees leaving the enterprise have been important in 2008. Other reasons for the different results are:

- The varying statistical units, since the SBS classify enterprises according to their main activity and may often be made up by several local units with different activities.

- The varying frameworks and estimators also give rise to different results. The LCS framework contains all the local units with employees incorporated in the Social Security. The employer's payment of the employee's compulsory social contributions is a requisite of the survey, since these contributions will be received from the Social Security Registers. The annual business surveys include all remunerated employees, regardless of how their remuneration is, of their type of contract and of their being incorporated or not in the Social Security.

6.3 Coherence with Labour Cost Index

The first problem to compare the results from the LCS 2004 and the LCS 2008 is that the economic classification used in each survey is different. We have estimated the hourly labour cost from LCS 2008 in NACE Rev.1.1 to compare with the previous survey and the LCI transmitted in the same classification.

The following table shows the growth rate from the LCS 2008 and the LCS 2004 and the growth rate from the total labour cost series of unadjusted LCI.

Hourly labour costs

Nace 1 Sections	LCS 2004	LCS 2008	Growth rate	LCI growth rate 2004-2008
C	19,4	21,8	12,2	15,5
D	16,3	19,2	18,0	18,4
E	28,5	32,5	14,1	14,4
F	13,3	16,1	21,3	20,9
G	12,6	14,6	15,9	15,3
H	10,1	11,8	16,3	16,2
I	16,9	19,5	15,4	16,0
J	29,8	34,6	16,2	16,3
K	14,2	17,0	20,0	19,2
L	-	-	-	-
M	19,1	22,4	17,0	17,3
N	18,1	21,8	20,5	22,5
O	13,4	15,6	16,6	18,2
Total	15,0	17,8	18,4	18,2

The growth rates are quite similar in both sources. The coverage is the same; almost all the informants are in both surveys, because of the annual survey for year t is collected jointly with the quarterly survey of year t + 1. The differences are due to some exceptional costs (as early retirements, pension funds, etc.) that were not included in the quarterly questionnaire.

6.4 Coherence with national Accounts

The National Accounts data correspond to the National Accounts of Spain. Base year 2000. Account Series 1995-2009. The 2008 data are advance data.

Compensation per employee

Nace 1 Sections	NA	LCS 2008	LCS/NA*100
C	40026,2	36657,2	-8,4
D	30195,2	32406,6	7,3
E	50762,6	53265,7	4,9
F	29983,7	27743,9	-7,5
G	22259,6	24294,4	9,1
H	25117,0	18611,6	-25,9
I	30157,0	32283,1	7,1
J	59276,2	56359,2	-4,9
K	33083,2	27187,5	-17,8
L	33735,0	34936,9	3,6
M	39051,4	27470,5	-29,7
N	36110,8	32247,8	-10,7
O	24516,6	23542,6	-4,0
Total	30733,5	29171,4	-5,1

Both sources of information are very similar in industry and construction (sections C-F) and transport, communications , financial intermediation, public administration

and other community, social and personal service activities (sections I-J, L and O). The rest of the activities have figures that are higher in NA data than in the LCS data. The main reason for this, is that NA data include all the employees regardless of how their remuneration is (for example, commissions), of their type of contract and of their being incorporated or not in the Social Security, and the data are also adjusted by what is known as the exhaustivity of the GDP.

This last adjustment affects specially to services activities (sections H,K M and N). The NA compensation of employees includes tips that are not in the LCS and that are considerable, mainly, for sections H and O. Sales representatives and other persons who are wholly remunerated by way of fees or commission may be important in sections G and K and they are included in NA but not in LCS.

Sections M-N are formed by units belonging to private and public sectors but public sector has an important weight. It is possibly a problem of different classification in the register used for public units. Salaries may be paid by a unit belonging to section L (administration) while the real activity may belong to another NACE section, for example M (education). Moreover, in these sections, as in the case of section L, are two kinds of employees: those under Social Security General Scheme that is the frame of the survey and career civil servants in Central Government, armed forces personnel and justice and Parliament officials under the State Employee Pension Scheme that are exclude from the survey. Mainly in education this kind of employees could be of some importance.