

# Methodological description

## 1. Scope, coverage and reference period

**The statistical unit** of the Labour Cost Survey is the Social Security Contribution Account, a concept traditionally used in salary and labour cost surveys both by the INE and by other organisations with interests in this issue.

The Social Security Contribution Account is composed of a group of workers employed by others who develop their labour activity in one or several work places belonging to the same company, located in the same province, generally performing the same main activity and with homogeneous characteristics as regards social security contributions. These aspects allow a fair regionalisation of the data. This unit does not coincide exactly with the company or the establishment or work place, although in many cases it does coincide with the latter.

In some cases, the informant unit does not coincide with the statistical unit or the unit of the survey and instead the company centralises all information on its associated contribution accounts.

**The population scope** under study is the Social Security Contribution Accounts, regardless of their size and belonging to companies with 10 or more workers.

**The population group** comprises all workers employed by others regardless of their type of contract or working day. It excludes all persons whose pay stems mainly from company profits or sales commissions; therefore, members of the Board of Directors and those who receive a wage exclusively from sales commissions are excluded.

**The geographical scope** includes the whole national territory, with information broken down by Autonomous Community and the information for Ceuta and Melilla is included together.

### **Sectorial Scope**

The contribution accounts whose economic activity is classified in the three large sectors are researched: industry, construction and the services sector, in particular those work places with economic activities included in sections C to K and from M to O of the NCEA-93.

Agricultural, farming and fishing activities, Public Administration, defence and obligatory social security activities, domestic personnel and extraterritorial organisations are excluded from the survey.

**The reference period** for labour cost statistics information collection is the complete or calendar year of 2000, which also coincides with the so-called 2000 financial year.

## 2. Definitions

### **Labour cost and its components**

**Labour cost** is defined as the cost incurred by the employer for the use of labour and consists of the following sections: pay for work undertaken or for incomplete work time that is paid, bonuses and rewards independent of ordinary and extraordinary payments, payments in kind and, in general, any other type of payment for work carried out by the worker. The labour cost also includes social security contributions paid by the employer, voluntary employer contributions for plans, pension plans and various types of insurance for their workers, as well as direct contributions to workers and their family members for different eventualities: retirement, death, invalidity or survival. Also included are compensations for dismissal, vocational training, transport and corporate costs, as well as costs incurred for the supply of work wear and various implements and tools.

The cost is measured in net terms for the employer; in other words, deducting the various subsidies received, tax deductions granted and worker contributions if applicable.

The survey defines the labour cost amounts in detail, of which four are negative and make up the subsidies section; this labour cost structure is constant in all the results tables and is obtained in both absolute values (euros), as well as a percentage value of the gross labour cost.

The first important block of labour cost components corresponds to the **wages and salaries** amount, which is defined as the ensemble of direct payments made up of the total payments in money and in kind, as well as both ordinary and extraordinary payments paid to workers for work carried out or for contracted working time, however it is quantified (per task or service, piecework or for time) and accrued (per hour, day, week or month). This section groups together the **wages and salaries in cash**, which are the total of salary payments in cash made by the company during 2000 to the group of workers in the selected contribution centre. The gross accrued income is counted, in other words, before worker social security contributions have been deducted and income tax payments made. Neither allowances nor travel costs are included.

Within the **wages and salaries in cash** section, the following concepts are highlighted:

**Base salary**, which is the basic and fixed part of the salary and which is defined as the minimum payment agreed in collective agreements and generally calculated in euros/month or ptas/day. If there is no collective agreement or other agreement between the employer and worker, the base salary is understood to be the Interprofessional Minimum Wage (IMW).

**Overtime payments** correspond to both structural and non-structural overtime payments at a price that should be the equivalent of at least one normal hour. Work that represents additional work undertaken outside normal working hours is therefore paid. Overtime may also be offset with time off. Overtime payment is open to collective negotiation and can, as usually happens, be established at a higher rate than a normal hour's payment.

**Salary supplements**, which are defined as the ensemble of remunerations paid at a higher level than basic remunerations (base salary and extra payments) that the employer usually pays in accordance with the collective agreement. They can be of different types, do not usually have the same name and can be called bonuses, premiums, supplements or rewards. Including: *personal supplements*, where the worker's seniority or continued service is valued, or the worker's qualifications, both academic and professional, knowledge of languages, IT, etc.; *supplements related to the job*, which are set in terms of the specific circumstances in which the job is carried out. There are nighttime bonuses, bank holiday bonuses, as well as those for danger, difficulty and toxicity. Other bonuses include *supplements for quality and quantity of work*, which reward attendance and punctuality and productivity incentives that reward work performance above the minimum set, but which are rewarded each month.

**Special payments**, which include all payments with a due date later than the current payment period (generally the month), even though they are of an irregular nature. Distinction is made between two basic categories:

**Fixed extraordinary payments:** Basically made up of *extraordinary bonuses* or *extra Christmas or summer payments* (regulated by law) and *profit bonuses*. The amount is known in advance and does not depend on the worker's or the company's results. The amount granted in the special Christmas and summer payments is set out in the collective agreements and usually corresponds to a normal month's salary. Profit bonuses reward the workers' participation in the company's profit. In the majority of agreements and collective agreements, a known amount is set in advance that can amount to one month's salary.

**Variable ordinary payments:** *Payments for incentives or results* are payments linked to individual or company results. The sum is not known beforehand, but depends on performance, goals obtained, level of production achieved, etc. These payments should not be confused with other fixed supplements or with overtime payments, as in these cases the amount is known in advance.

Another item within wages and salaries is *the payments to worker savings plans*, which include payments made by the company to set up special funds in order to buy shares in the company and other financial assets for workers, even when workers do not have direct access to these assets. These should however not be confused with pension plan contributions.

**Payments in kind** include the valuation of goods given by the employer to their workers or the cost incurred by the employer in acquiring these goods. Distinction is made between:

*Company products*, which are goods and services from the company given free of charge or below the market price. The amount to be taken into consideration will be equivalent to the cost of the product when it is given free of charge, or the difference between the cost price and the price charged to the worker if the sales price is lower than the cost price. Any other compensatory payment for profit in kind that is not enjoyed will also be taken into consideration.

*Housing* includes the imputed cost of workers using housing owned or rented by the company. Added to this is the assistance given to workers to buy or rent a house.

The other large block of labour costs is made up of the so-called "*non-wage costs*", headed up by the **obligatory social security contributions**, which are legally established employer contributions to the social security system for workers in order to cover the benefits set up by the system. These are benefits resulting from illness, occupational accidents, invalidity, retirement, death, survival, unemployment, vocational training, wage guarantee or any other eventuality covered by the social security system. The employer makes the contributions through self-payments on official documents set out for this purpose (tc1 & tc2), calculating the quotas/amount on salary bases via a contribution type expressed as a percentage of the base.

*As with the 1996 survey, all information corresponding to obligatory social security contributions has been obtained from administrative files (that contain the tc1s of the accounts selected in the sample in magnetic form) provided by the Social Security General Treasury with a view to reducing the huge statistical burden that companies carry.*

The items that make up these obligatory contributions are:

**Common eventualities**, which correspond to non-professional eventualities within the general contributions and cover retirement, temporary incapacity, invalidity and death or survival arising from common illness or a non-occupational accident, as well as social services and health care in the aforementioned cases and in the case of maternity.

**Overtime hours** are contributions for this concept, including both structured overtime or overtime carried out for reasons beyond control, as well as unstructured overtime or voluntary overtime without the need for justification. The overtime limit is set at 80 hours a year.

**Training and work experience** are contributions that cover common eventualities for workers of the contribution centre working on a training or work experience contract and to whom some kind of reduction in social security contributions is applicable. These workers are differentiated from the other workers by the different rates applied in the calculation of quotas/amounts.

**Common services** include contributions from companies collaborating in the management of the temporary incapacity eventuality through occupational accident or occupational disease.

**Occupational accident (OA) and Occupational Illness (OI)** include contributions corresponding to professional eventualities arising from occupational accidents and occupational disease.

**Unemployment, the Wage Guarantee Fund (FOGASA) and vocational training (VT)** are contributions where the aim is to cover this type of eventuality.

Another large group of employer contributions for workers that forms part of the non-wage costs are **voluntary contributions**, which include employer contributions to private social security circuits or other insurance companies with the aim of covering, improving or complementing the benefits set out by the social security system. These contributions are not obligatory and are usually set out in collective agreements via negotiation. Only employer contributions are considered, including:

**Pension plans and funds**, which include the total amount of contributions that the company or pension plan or fund promoter makes to banks, pension funds and/or plans for their workers, who are contributors to the plan or fund. The contributions can be clearly defined, and in this case, the benefits to be received by the beneficiaries will be predetermined. These can be in absolute terms or according to wage, seniority, supplements or other points of reference. A mixed criterion can also be given, which combines the two aforementioned criteria. The pension plan and fund benefits cover all or some of these eventualities: retirement, total or permanent invalidity in terms of the usual job, or absolute or permanent invalidity in terms of all jobs and the death and survival of the contributor or beneficiary.

**Health, maternity or accident insurance** are amounts paid by the employer to private medical societies as payment for health care coverage for workers and their families that improves or increases the INSALUD coverage. Direct payments to workers for any of these causes are not included.

**Other plans or insurance** includes the total amount of payments made by the company for other voluntary corporate benefits that are not paid directly to the workers, such as group life insurance premiums, unemployment insurance and other insurance not previously mentioned.

The next chapter within the non-wage costs section refers to so-called **direct corporate contributions**, which are payments that the company makes directly to workers or their

family, or also to ex-workers, to help them in particular circumstances and as a supplement to particular social contributions. These include:

**Temporary Incapacity (TI)**, which includes the total of the following two payments.

**Temporary Incapacity benefit payments (TI)**, which are payments made as part of the TI benefit that the employer pays during the first 15 days of sick leave and that are not covered by social security.

**TI supplement**, which includes the amounts added by the employer, either voluntarily or in accordance with the collective agreement to the TI benefits and which are paid by either the employer or the social security. These amounts help make up the value of the affected worker's salary to 100% or lower of the normal salary.

**Unemployment** is the payment made voluntarily by the employer as a supplement to the INEM's benefit for workers affected by temporary suspension or a reduction in working hours in the case of a labour force adjustment plan, so that they can retain their wages or part of them.

**Retirement** is an amount paid to ex-workers that aims to complement the social security pension or private insurance and which is either paid just once, or periodically with a view to mitigating, in part or in whole, the difference between the salary prior to retirement and the pension received. Also included in this section are payments for "voluntary redundancy with incentive payments".

**Death and survival** are the amounts paid directly by the company to a surviving spouse and to the children of the dead worker, as a supplement to the widows and orphans' subsidies and pensions.

**Invalidity or disabilities** are the amounts paid by the company to complement workers' or ex-workers' invalidity or disability subsidies or pensions. These can be paid just once or periodically.

**Family assistance** is an amount paid directly to workers affected by certain family eventualities, such as marriage, birth, nursery costs, children's studies or other similar events.

**Medical assistance** are monetary payments received by workers directly from the company that correspond to costs incurred by workers in relation to health care that fall outside the sphere of social security.

Another labour cost component is the **dismissal compensation**, which includes the total of payments made for dismissal compensations and contract expiry, as well as the wages received during the dismissal process, the so called "processing wages", which the employer must pay in this situation. Including:

**Compensation for individual dismissal**, which are the amounts paid to workers as a result of their contract expiring. Causes: unfair dismissal, mutual agreement or expiry of temporary job contracts.

**Compensation for group dismissals**, which are payments made as a result of the expiry of work contracts due to financial, technical, organisational or production reasons, with or without a labour force adjustment plan.

**Vocational training costs** are those paid for providing knowledge and training in vocational techniques to workers. This training is linked to the job and is of interest to the company. Costs incurred from assisting workers who are undertaking regulated training will not be considered. The following are considered to be vocational training costs: *costs relating to the maintenance, adaptation and equipment of buildings and facilities used for training, participation in courses, fees and allowances of external*

*trainers (never of workers from the company), training materials and the amount paid to the training companies, but always in gross terms without deducting subsidies and aid received from the INEM or other public training organisations.*

**Transport costs** are costs incurred by the company for the free or reduced cost transport of workers, from their homes to their place of work. Costs relating to maintenance staff and drivers are not included when these workers belong to the company's staff, nor the amounts paid directly to workers as compensation when they use transport not belonging to the company.

**Corporate costs** are the ensemble of costs of a varied nature with the aim of improving the quality of life of workers via corporate activities driven by working groups. **Costs derived from the maintenance or adaptation of canteens for workers' use, as well as indirect payments made to these workers in the form of meal tickets, maintenance and repair costs of buildings and facilities used for nurseries, sporting and cultural activities and recreational services, study aid and grants for workers, help with children and Christmas hampers** are highlighted. The cost of personnel in charge of these services when they belong to the company are not included.

**Compensation payments**, which include amounts received by workers to reimburse or compensate them for detriments suffered while working for the company or to advance them the amount necessary to cover a cost incurred for this reason. Including: *transport allowance, currency devaluation, wear and tear of tools or the acquisition of work wear, etc.*

**Other costs** correspond to amounts paid by the employer when meeting the needs of employing new staff, using recruitment agencies, placing job adverts in the press, paying travel or accommodation expenses for candidates or renting facilities for carrying out interviews. Likewise, costs not picked up in other sections will be included.

**Subsidies** are the ensemble of refunds received by the employer from public organisations. They are negative and therefore reduce the gross labour cost. They are divided into:

**Contracting subsidies**, which are amounts received directly by the company in the form of a subsidy for the creation of employment and only for this concept.

**Subsidies in social security contributions**, which include subsidies derived from reductions and discounts in the contributions made to the social security.

**Vocational training subsidies** are the total amount received by the company from the INEM or any other public organisation as payment for vocational training for the company's staff.

**Tax deductions** are the amounts that persons liable for Corporate Tax and Income Tax, who carry out business, professional or artistic activities, deduct from the aforementioned taxes for the creation of employment.

**Net cost** is the gross labour cost minus subsidies.

## **Survey design**

### **Survey framework**

The starting point is the General Register of Social Security Contribution Accounts, issued by the Social Security General Treasury and updated as of December 1999: a framework, where the advantage is its continual updating, as well as the fact that its unit is also the survey's unit.

From the Register, the Directory of Social Security Contribution Accounts belonging to companies with more than 10 workers classified in the study's economic activity divisions is obtained, from which the contribution accounts sample is obtained.

### **Sampling plan**

The sampling type used corresponds to *stratified random sampling with optimum allocation*, where the units are the contribution accounts.

The stratification criterion is created considering three variables: The Autonomous Community (18 in total, Ceuta and Melilla are considered together), economic activity on a NACE-93 division level (54 divisions) and unit size (seven strata sizes).

The survey units, in other words, the contribution accounts that belong to companies with 10 and more workers are stratified in accordance with the number of employees, which are grouped in the following way:

Stratum	Number of workers
0	from 1 to 9
1	from 10 to 19
2	from 20 to 49
3	from 50 to 99
4	from 100 to 199
5	from 200 to 499
6	more than 500

Stratum 0 made up part of the population, but it was not researched and was estimated together with stratum 1. The reason for this was that there were not many contribution accounts belonging to companies with more than 10 workers who had less than this number of workers and this would have meant a considerable increase in the information load for informants. The last stratum was researched exhaustively. Apprentices made up a separate stratum and this was researched separately.

The sample sizes were obtained by prefixing an admissible standard relative error for the labour cost variable of 3% at a national level for each of the 54 NCEA-93 divisions covered and of 10% at an Autonomous Community and sections and subsections of the NCEA-93 level. The definitive sample size was determined at 21,562 contribution accounts.

In the following tables, the sample designs are presented both by economic activities at different breakdown levels and size, as well as by Autonomous Community level and size.

**Table 1. Sample design. By Autonomous Community and unit size. All activities**

Autonomous Communities	Strata <sup>1</sup>				
	Total	1	2	3	Apprentices
National total	21,562	10,833	5,601	3,529	1,599
Andalucía	2,073	93	479	35	307
Aragón	1,001	57	26	13	23
Asturias	838	47	21	11	30
Baleares	796	50	20	67	27
Canarias	1,103	59	31	16	29
Cantabria	644	38	16	64	26
Castilla-La Mancha	1,099	59	30	11	83
Castilla y León	1,255	66	35	18	47
Cataluña	2,673	1,058	64	66	307
C. Valenciana	1,922	94	48	28	211
Extremadura	682	42	14	65	42
Galicia	1,394	67	39	19	136
Madrid	2,314	89	56	64	214
Murcia	943	534	252	101	56
Navarra	727	406	213	95	13
País Vasco	1,448	700	438	262	48
La Rioja	491	341	131	19	-
Ceuta y Melilla	159	126	26	7	-

<sup>1</sup> Strata: **1** Units from 10 to 49 workers; **2** Units from 50 to 199 workers; **3** Units of more than 200 workers.



**Table 2. Sample design. By NCEA-93 divisions and unit size**

NCEA-93 divisions	Strata <sup>1</sup>				
	Total	1	2	3	Apprentices
Total	21,562	10,833	5,601	3,529	1,599
Industry	8,325	4,187	2,260	1,159	719
10	81	46	23	12	-
11 * <sup>2</sup>	18	12	3	3	-
13	37	25	5	5	2
14	241	169	46	5	21
15	790	364	238	145	43
16	48	18	13	15	2
17	326	170	80	41	35
18	412	226	110	28	48
19	292	177	75	6	34
20	422	275	87	21	39
21	263	109	89	39	26
22	381	201	108	39	33
23	53	29	11	12	1
24	435	176	129	102	28
25	375	168	117	57	33
26	551	287	155	67	42
27	279	107	82	63	27
28	638	337	177	59	65
29	489	253	125	72	39
30	61	41	8	7	5
31	378	165	104	78	31
32	134	56	38	25	15
33	154	80	38	15	21
34	313	90	89	103	31
35	210	87	58	41	24
36	486	286	118	28	54
37	69	57	8	-	4
40	192	77	57	50	8
41	197	99	69	21	8
Construction	1,569	924	413	134	98
Services	11,668	5,722	2,928	2,236	782
50	660	452	129	16	63
51	998	565	249	108	76
52	1,105	486	236	265	118
55	943	518	255	107	63
60	645	369	147	95	34
61	39	30	3	6	-
62	107	44	33	25	5
63	431	231	123	47	30
64	272	91	64	98	19
65	495	106	145	227	17
66	304	159	90	49	6
67	129	84	27	8	10
70	277	193	60	4	20
71	217	149	36	7	25
72	306	148	86	53	19
73	122	68	39	11	4
74	1,354	523	412	373	46
80	894	465	204	149	76
85	929	251	211	425	42
90	233	88	88	47	10
91	381	212	92	45	32
92	521	295	137	59	30
93	306	195	62	12	37

<sup>1</sup> Strata: 1 Units from 10 to 49 workers; 2 Units from 50 to 199 workers; 3 Units of more than 200 workers.

<sup>2</sup> Given statistical secrecy, division 12 is joined to division 11

## Estimators

*Separated ratio estimators* have been used, taking the number of workers in the Social Security Directory of Contribution Accounts as the auxiliary variable.

If we call stratum  $h$  from selection as defined, due to the crossing of the branch of activity, Autonomous Community and size variables, any questionnaire  $k$  chosen in a stratum  $h$  has a raising factor  $F_h$  defined by:

$$F_h \equiv \frac{D_h}{d'_h}$$

where:

$D_h$ , is the worker total according to the directory, in the **directory centres** of stratum  $h$ .

$d'_h$ , is the worker total, according to the directory, in the **centres of the sample questioned** in stratum  $h$ .

The estimate therefore of the total of one variable  $X$  (no. of workers, hours effectively worked or total labour cost) for any scope  $G$  is :

$$\hat{X}_G = \sum_h \sum_{k \in G} F_h X_{kh}$$

where  $X_{kh}$  is the value of  $X$  of the questionnaire  $k$  chosen in stratum  $h$ .

A quotient estimate of separated ratio estimators (cost per worker or cost per hour) is carried out using the ratio of the respective totals.

In this way,

$$\hat{Z}_G = \frac{\hat{X}_G}{\hat{Y}_G} = \frac{\sum_h \sum_{k \in G} F_h X_{kh}}{\sum_h \sum_{k \in G} F_h Y_{kh}}$$

where,

$\hat{Z}_G$ , is the estimate of labour cost per worker in scope  $G$ .

$\hat{X}_G, \hat{Y}_G$ , are the estimators of total cost and the total workers in said scope  $G$  respectively.

The cost per hour estimate is done in a similar way.

### Collection methods and fieldwork

Data collection was carried out during September and December of 2001.

In terms of the collection method, the information provided directly by employers was requested via a postal questionnaire. The unit in charge of carrying out the fieldwork managed the collection and initial filtering of all requested information by post, phone and fax.

Companies where more than one sample unit was selected were offered the option of centralising the data collection.

**Table 3. Sample collected and response rate. By NCEA-93 divisions and unit size**

NCEA-93 divisions	Strata <sup>5</sup>									
	Total		1		2		3		Apprentices	
		Rate		Rate		Rate		Rate		Rate
Total	18,516	85.9	9,132	84.3	4,858	86.7	3,173	89.9	1,353	84.6
Industry	7,345	88.2	3,656	87.3	2,003	88.6	1,069	92.2	617	85.8
10	67	82.7	33	71.7	22	95.7	12	100.0	-	-
11 <sup>*1</sup>	15	83.3	10	83.3	2	66.7	3	100.0	-	-
13	35	94.6	24	96.0	5	100.0	5	100.0	1	50.0
14	214	88.8	152	89.9	41	89.1	4	80.0	17	81.0
15	730	92.4	328	90.1	223	93.7	138	95.2	41	95.3
16	27	56.3	13	72.2	7	53.8	5	33.3	2	100.0
17	296	90.8	155	91.2	72	90.0	40	97.6	29	82.9
18	347	84.2	183	81.0	98	89.1	25	89.3	41	85.4
19	260	89.0	156	88.1	70	93.3	6	100.0	28	82.4
20	371	87.9	237	86.2	76	87.4	20	95.2	38	97.4
21	234	89.0	93	85.3	82	92.1	37	94.9	22	84.6
22	331	86.9	171	85.1	96	88.9	34	87.2	30	90.9
23	43	81.1	24	82.8	11	100.0	8	66.7	-	-
24	381	87.6	152	86.4	113	87.6	97	95.1	19	67.9
25	322	85.9	143	85.1	98	83.8	54	94.7	27	81.8
26	492	89.3	253	88.2	140	90.3	64	95.5	35	83.3
27	226	81.0	88	82.2	66	80.5	53	84.1	19	70.4
28	575	90.1	305	90.5	156	88.1	57	96.6	57	87.7
29	441	90.2	232	91.7	107	85.6	67	93.1	35	89.7
30	51	83.6	33	80.5	7	87.5	6	85.7	5	100.0
31	342	90.5	150	90.9	92	88.5	73	93.6	27	87.1
32	114	85.1	46	82.1	34	89.5	23	92.0	11	73.3
33	141	91.6	75	93.8	33	86.8	13	86.7	20	95.2
34	292	93.3	81	90.0	81	91.0	100	97.1	30	96.8
35	179	85.2	73	83.9	49	84.5	37	90.2	20	83.3
36	432	88.9	254	88.8	108	91.5	25	89.3	45	83.3
37	62	89.9	50	87.7	8	100.0	-	-	4	100.0
40	160	83.3	63	81.8	46	80.7	44	88.0	7	87.5
41	165	83.8	79	79.8	60	87.0	19	90.5	7	87.5
Construction	1,251	79.7	721	78.0	324	78.5	123	91.8	83	84.7
Services	9,920	85.0	4,755	83.1	2,531	86.4	1,981	88.6	653	83.5
50	569	86.2	389	86.1	114	88.4	16	100.0	50	79.4
51	853	85.5	472	83.5	218	87.6	95	88.0	68	89.5
52	943	85.3	403	82.9	192	81.4	240	90.6	108	91.5
55	795	84.3	428	82.6	224	87.8	91	85.0	52	82.5
60	552	85.6	296	80.2	134	91.2	92	96.8	30	88.2
61	34	87.2	25	83.3	3	100.0	6	100.0	-	-
62	94	87.9	39	88.6	28	84.8	25	100.0	2	40.0
63	367	85.2	192	83.1	112	91.1	42	89.4	21	70.0
64	230	84.6	72	79.1	52	81.3	92	93.9	14	73.7
65	464	93.7	103	97.2	140	96.6	205	90.3	16	94.1
66	265	87.2	141	88.7	77	85.6	42	85.7	5	83.3
67	115	89.1	72	85.7	25	92.6	8	100.0	10	100.0
70	216	78.0	149	77.2	48	80.0	4	100.0	15	75.0
71	182	83.9	128	85.9	30	83.3	5	71.4	19	76.0
72	246	80.4	117	79.1	66	76.7	47	88.7	16	84.2
73	116	95.1	63	92.6	38	97.4	11	100.0	4	100.0
74	1,071	79.1	391	74.8	337	81.8	309	82.8	34	73.9
80	785	87.8	409	88.0	185	90.7	128	85.9	63	82.9
85	832	89.6	222	88.4	186	88.2	386	90.8	38	90.5
90	182	78.1	57	64.8	74	84.1	44	93.6	7	70.0
91	319	83.7	180	84.9	79	85.9	34	75.6	26	81.3
92	438	84.1	246	83.4	119	86.9	50	84.7	23	76.7
93	252	82.4	161	82.6	50	80.6	9	75.0	32	86.5

<sup>1</sup> Given statistical secrecy, division 12 is joined to division 11

**Table 4. Sample collected and response rate. By Autonomous Communities and unit size. All activities**

Autonomous Communities	Strata <sup>1</sup>									
	Total	1		2		3		Apprentices		
		Rate	Rate	Rate	Rate	Rate	Rate	Rate		
National total	18,516	85.9	9,132	84.3	4,858	86.7	3,173	89.9	1,353	84.6
Andalucía	1,727	83.3	742	79.6	400	83.5	326	91.8	259	84.4
Aragón	899	89.8	514	88.8	241	91.3	125	92.6	19	82.6
Asturias	756	90.2	425	89.3	193	89.4	109	94.0	29	96.7
Baleares	654	82.2	401	79.9	167	83.5	62	92.5	24	88.9
Canarias	880	79.8	453	75.6	264	84.3	140	86.4	23	79.3
Cantabria	562	87.3	336	86.4	146	88.5	60	93.8	20	76.9
Castilla-La Mancha	977	88.9	531	89.2	276	89.9	100	87.7	70	84.3
Castilla y León	1,133	90.3	593	88.8	327	91.3	170	93.4	43	91.5
Cataluña	2,276	85.1	879	83.1	547	84.9	599	90.2	251	81.8
C. Valenciana	1,626	84.6	771	81.9	420	86.2	259	91.5	176	83.4
Extremadura	621	91.1	385	90.2	139	93.9	60	92.3	37	88.1
Galicia	1,220	87.5	590	88.1	346	87.6	162	83.9	122	89.7
Madrid	1,923	83.1	712	80.0	464	82.1	566	87.8	181	84.6
Murcia	805	85.4	448	83.9	219	86.9	88	87.1	50	89.3
Navarra	629	86.5	344	84.7	193	90.6	83	87.4	9	69.2
País Vasco	1,247	86.1	592	84.6	374	85.4	241	92.0	40	83.3
La Rioja	451	91.9	313	91.8	121	92.4	17	89.5	-	-
Ceuta y Melilla	130	81.8	103	81.7	21	80.8	6	85.7	-	-

<sup>1</sup> Strata: **1** Units from 10 to 49 workers; **2** Units from 50 to 199 workers; **3** Units of more than 200 workers.

In terms of *field incidents*, of the 21,562 units selected, *there were 20,049* surveyable companies (18,516 surveyed and 1,533 refusals). Of the *non-surveyable companies*, which totalled 1,513, *1,201* were *unreachable*, *254* *closed* and *58* were *erroneously included*. In table format:

<b>Unsurveyable</b>		
	Unreachable	1,201
	Erroneously included	58
	Closed	254
	<b>Total</b>	<b>1,513</b>
 <b>Surveyable</b>		
	Surveyed	18,516
	Refusals	1,533
	<b>Total</b>	<b>20,049</b>

**Response rate:**

The *response rate of the surveyable sample* is very high:

$Rr = (surveyed / surveyable) \times 100 = (18,516 / 20,049) \times 100 = 92.4 \%$ , while the response rate of the sample selected is:  $(18,516 / 21,562) \times 100 = 85.9 \%$

**Quality of estimates: Sampling errors**

Variation coefficients are calculated for the annual labour cost total variables, both at an NCEA-93 division level, as well as at an Autonomous Community level, by expressing the separated ratio estimate variance.

## Main results

In 2000, the labour cost per worker was **23,183.45€** in gross terms; if the **244.24€** received from Public Administrations for subsidies is deducted, we are left with a net cost of **22,939.21€**. From the sections making up the gross cost, the wages and salaries (**17,158.56€**) section clearly stands out as do the obligatory social security contributions (**4,984.50€**), which together make up 95.51% of this cost. The remaining components only represent 4.49%, which means a change in the growing trend shown by the weight of these costs in previous surveys.

Under the **wages and salaries** heading, there are three salary concepts of a very different nature.

- a) The first of these is made up of the salaries in cash, which amount to 17,101.98€ representing 73.77% of the average labour cost; the so-called ordinary salary stands out within this salary concept and refers to the stable part of the salary that is received periodically in all payments carried out during the year (monthly, weekly, etc.) and that at 15,049.51€ represents 64.91% of the labour cost. The extraordinary payments amount to 2,052.47€, with a weight of 8.85%. Under this heading and for the first time with regards previous surveys, two components can be highlighted. The first of these includes the fixed extraordinary payments, in other words, those payments that are paid at set dates throughout the year. These dates and the amount to be paid are known (for example, the extraordinary payments at Christmas and in summer), which represent the main part of the extraordinary payments with 1,559.42€ per worker per year and 6.73% of the total cost. The second component is made up of the variable extraordinary payments. Neither the amount (given that they are linked to the company's or the worker's results) nor the moment in which they are paid is known. They amount to 493.05€ on average per worker per year, representing just 2.13% of the total cost.
- b) The second element consists of the payments to savings plans that are contributions to special funds for the buying of holdings in the company or other financial assets for workers. 54.10€ is set aside per worker on average, which represents 0.23% of the gross cost.
- c) The third salary concept analysed includes the payments in kind that represent on average 2.48€ per worker, an irrelevant amount with regards the total cost.

In the ensemble of **obligatory social security contributions**, those that cover common contingencies constitute more than two thirds and amount to 3,438.86€ per worker per year on average, which is equal to 14.83% of the gross cost. The next most important element is made up of unemployment, the Wage Guarantee Fund and vocational training, which amount to 1,123.32€ per worker per year, or 4.85% of the cost. The third obligatory contribution is the one that covers occupational accidents and occupational illnesses. On average, 382.5€ per worker was contributed (1.65% of the gross cost). Contributions for overtime hours (both structural and non-structural) have risen to 28.41€ per worker per year, which constitutes 0.12% of the cost. The remaining contributions have an insignificant weight in terms of the gross cost. 10.88€ per worker has been contributed for contributions to common services. On average, 0.53€ was contributed per worker

for training and work experience contracts, which shows the low level of validity of this type of contract during the reference period.

**Voluntary contributions** equalled 160.78€ on average for each worker, constituting 0.69% of the gross cost. Of this total, 114.46€ was reserved for pension plans and funds, 21.83€ was used to pay health, maternity or accident insurance and 24.49€ went to pay other plans and Insurance.

Costs for **direct corporate contributions** amounted in total to 302.49€ per worker, representing 1.3% of the cost. Of these contributions, those that are of greatest importance are those for labour incapacity, which include obligatory contributions paid for by the company and those that accompany these contributions that are paid for by social security and which totalled 142.97€. Retirement contributions equal 121.16€ on average per worker. 2.28€ per worker was paid on average for unemployment contributions (when employment regulation in the company applies). 6.93€ per worker was allocated on average to cover contributions for death and survival, 5.64€ was paid for invalidity and disability, 5.54€ for family assistance and 17.97€ for medical assistance.

**Compensations for dismissal** are calculated at 280.59€ on average per worker taking into account staff groups - not just dismissed workers -, and represent 1.21% of the labour cost.

In terms of **vocational training** 95.38€ per worker a year was spent, which amounts to 0.41% of the total.

Worker **transport costs** to the place of work amounted to 19.75€ per worker.

**Corporate costs** reached 26.21€ per worker on average and include the costs of canteen, cultural and recreational services, as well as nurseries, grants and social action funds.

**Compensation payments** due to currency devaluation, wear and tear of tools, acquisition of work clothes, distance allowance, etc, were 99.22€ per worker per year.

The final gross cost component consists of **other costs** and represents 55.97€ per worker per year.

Within the **subsidies** section, those relating to reductions, discounts and subsidies applied to the payment of obligatory social security contributions stand out and amount to an average of 170.24€ per worker in the reference period. As employment subsidies from Public Administrations, employers received 42.61€ on average for each worker included in the company's staff in 2000. Vocational training subsidies amounted to 21.29€ per worker and tax deductions for the creation of jobs represented a reduction of 10.20€ from the total cost.

## **Sectorial analysis**

### **1) By activity sectors**

The **construction** sector has the lowest gross labour cost at 20,537.86€ per worker per year, which is 5,794.07€ less than the average cost in **industry** (26,331.93€ per worker a year) and 1,784.06€ less than the average cost in the **services** sector, which is 22,321.92€ per worker a year.

These differences are reduced slightly if we analyse the net costs, as it is the construction sector that receives the least subsidies from Public Administrations. Companies in the construction sector received on average 185.81€ per worker in subsidies, whereas companies in industry received 255.19€ and the services sector received 249.78€.

If we analyse the percentage structure of the labour cost components, we can see that in the construction sector, **wages and salaries**, plus obligatory social security contributions amount to 96.26% of the total gross cost, whereas in the services sector it is 95.63% and 95.02% in industry. Therefore, the remaining costs have a lesser weight in construction at 3.7%, followed by the services sector at 4.37% and Industry at 4.98%.

The construction sector has the lowest levels of wages and salaries (14,909.54€ gross per worker per year) and proportionally less weight (72.6%). Despite having higher wages and salaries (19,278.40€), industry's weight in the percentage structure is of a medium level (73.21%). In the services sector, each worker receives on average 16,659.60€, which translates as 74.63% of the gross cost.

In terms of the level of ordinary salaries and extraordinary payments, the same order as for the wages and salaries is kept. In terms of their weight with regards the gross cost however, this order is inverted for the ordinary salaries, with the construction sector showing the greatest weight (66.08%), followed by the services sector (65.14%) and then industry (64.16%). The extraordinary payments have a greater weight in the services sector and industry (9.21% and 8.91% respectively) as opposed to the construction sector (6.45%).

When looking at the **obligatory social security contributions**, we note that industry contributed the most per worker in 2000 (5,743.07€), which represents 21.81% of the cost. The services sector contributed 4,688.27€ per worker on average, which is the lowest contribution level of the three sectors and its weight in terms of the cost is also the lowest (21.0%). On the contrary, obligatory contributions in the constructions sector amount to 4,858.51€ per worker, with greater weight in terms of the percentage structure (23.66%) given the higher percentage of contributions for occupational accidents and occupational illness.

With regards the other labour cost components, it is worth noting that the construction sector nearly always has a lower structural weight and its level is also lower in absolute figures. In this way for example, voluntary contributions represent 0.26% of the gross cost in construction, whereas they represent 0.74% in industry and the services sector. This translates as 53.77€ per worker per year in construction, 193.85€ in industry and 165.47€ in the services sector.

Differences within the construction sector are perhaps even greater in the direct corporate contributions section: they represent 0.56% of the total cost, whereas in industry and the services sector this figure is 1.4%. In absolute figures, these contributions amount to 378.42€ in industry, 303.03€ in the services sector and 115.65€ in the construction sector.

Compensation for dismissal rises to 407.58€ in industry, 266.48€ in construction and 229.78€ in the services sector, which represents 1.5, 1.3 and 1.0% of the gross cost respectively.

In 2000, the cost of vocational training was 106.37€ per worker in industry and 102.34€ in the services sector; in the construction sector, the level of this cost



was just 28.70€ per worker. Percentage-wise, the cost of vocational training represents 0.4% in Industry, 0.14% in the construction sector and 0.46% in the services sector.

Transport costs have a greater weight in industry (0.2% of the gross cost), followed by construction (0.1%) and the services sector, where this weight is insignificant. In absolute values, they amount to 47.58€ per worker per year in industry; 18.86€ in construction and 8.24 in the services sector.

Corporate costs constitute 37.12€ per worker per year in industry (0.14%), 25.41€ in the services sector (0.11%) and just 4.39€ in the construction sector. Compensatory expenses are however higher in the construction sector with 232.10€ per worker per year, followed by the services sector with 85.79€ and industry with 76.32€. These amounts represent 1.13% in construction, 0.38% in the services sector and 0.29% in industry.

Other Costs rise to 63.22€ per worker per year in industry, 53.99€ in the services sector and 49.86€ in construction. All have the same weight in terms of the gross labour cost (0.24%).

## 2) By activity divisions

If we breakdown the analysis by divisions, we see that the greatest **gross cost** is in division 23, coke oven plants, petroleum refinement and the treatment of nuclear fuels with 55,167.11€ per worker per year, followed by division 11, extraction of petroleum and natural gas with 48,090.07€ and division 40, production and distribution of electricity, gas, steam and hot water with 47,689.48€.

The costs per worker in division 65 are also notable: bank services and financial intermediation (45,988.59€) and in division 30, manufacturing of office machines and IT equipment (39,500.87€).

On the contrary, the lowest gross costs are in division 93, various personnel services activities (12,768.0€), division 18, clothing and fur industry (14,092.38€) and in the accommodation and catering section (15,080.05€ per worker per year). Similarly, there are low costs in division 19, the leather and footwear industry with 15,261.23€, followed by division 52, retail trade with 16,589.99€ and division 74, other business activities with 17,114.70€, where legal, accounting and auditing services, market research and opinion polls, technical architectural and engineering assessments, technical analysis and trials, publicity, selection and recruitment of personnel, surveillance and security, industrial cleaning activities, photo developing laboratories, bottling and packing activities by third persons, translation and the organisation of fairs and exhibitions are included.

In connection with the previous paragraph, the highest **wages and salaries** are reached in division 23, coke oven plants, petroleum refinement and the treatment of nuclear fuels with 39,728.81€. Following this are the wages and salaries paid in division 40, production and distribution of electricity, gas, steam and hot water with 34,949.02€, division 11, extraction of petroleum and natural gas with 33,737.07€, division 65, financial intermediation (33,433.50€) and divisions 33, 30, 67 and 62, where the wages and salaries reach a very similar level that exceeds 29,000€. Proportionally, the wages and salaries have a greater weight in division 67, activities auxiliary to financial intermediation (79.94%), followed by

division 33, manufacturing of medical-surgical, precision, optical and watchmaking equipment and instruments (78.45%) and division 62, air and space transport (77.34%).

In parallel with the labour cost level, we also see that the lowest wages and salaries are in division 93, various personnel services activities (9,494.42€), division 18, the clothing and fur industry (10,661.88€) and the accommodation and catering sector (11,196.82€ per worker per year). Other particularly low wages and salaries are in division 19, the leather and footwear industry with 11,393.35€, followed by division 52, the retail trade with 12,445.08€ and division 74, other business activities with 12,812.41€.

Nevertheless, the lowest weight relating to wages and salaries is in division 13, extraction of metallic ores (64.4% of the gross cost). Likewise, the wages and salaries in division 32 have little weight: manufacturing of electronic material; the manufacturing of radio, television and communications equipment and apparatus (69.09% of the total cost) and division 10, extraction and agglomeration of anthracite, coal, lignite and peat (69.3%).

The highest ordinary wages reach 31,990.12€ in division 23, followed by division 40 with 30,320.46€, division 11 with 28,188.55€, division 62 with 27,859.76€ and division 65 with 26,328.22€. By far the highest weight in ordinary wages with regards the gross labour cost is in division 62 however, representing 73.5%, followed by divisions 19, 73, 85, 80, 18 and 93, with very similar percentages that are greater than 68%.

The lowest ordinary wages reach a level of 8,723.99€ in division 93. Other divisions with very low wages are 18 with an ordinary wage of 9,657.22€, as well as division 55 with 10,209.70€ and division 19 with 10,730.10€. The lowest weights in the ordinary salary section of the gross labour cost are in division 64 (56.01%) and division 67 (56.8%), followed by division 65 (57.25%) and divisions 13, 23, 41 and 11. None of these exceed the 59% barrier.

The highest extraordinary payments are found in division 67 with 8,397.79€, where the significance of the extraordinary payments variable should be highlighted, which represent the greatest value of all divisions by far and which amount to 4,756.96€ (12.77% of the gross labour cost) as opposed to the fixed extraordinary payments at 3,640.83 (9.78% of the gross labour cost). These results are followed by division 23 with 7,416.59€ of which 5,933.94 are fixed extraordinary payments. This is the highest in all divisions and constitutes 10.76% of the gross labour cost. Extraordinary payments are also quite high in division 65 with 6,706.94€ and in division 66 with 5,322.99€. These are followed by division 11 with 5,337.72€ and division 64 with 5,153.57€. In keeping with the previous paragraph, the extraordinary payments have the highest weight with regards the gross labour cost in section J, where division 67 has 22.55%, division 66 15.39% and division 65 14.58%. They are followed by division 64 with 14.06%. Divisions 23 and 24 also have some of the highest percentages with both exceeding 13%.

The lowest extraordinary payments are undoubtedly in division 19 with 643.42€ and division 93 with 768.32€. Division 55 with 955.18€ follows. Division 62 has lower weighting in terms of the gross labour cost with a value of 3.25%. This is followed by divisions 19, 16 and 10, which do not exceed 5%.

The highest **obligatory social security contributions** are in division 23, petroleum refinement (9,193.15€ per worker per year). Following this are the contributions in division 10, coal mining (8,958.73€), followed by division 40, production and distribution of electricity and gas (8,599.02€), division 61, maritime transportation services (8,194.84€ per worker) and finally division 65 with 8,083.08€. The remaining divisions' contributions are lower than 8,000€.

If we analyse the percentage structure of the cost components of each of the divisions studied, we see that the greatest weight of obligatory social security contributions is in division 10, coal mining, where the contributions constitute 26.18% of the gross cost and division 14, extraction of non-metallic and non-energy giving ores with 25.10%. The lowest percentages within this component are in division 11, extraction of petroleum and natural gas (15.05%) and in divisions 23, 33 and 67, where the percentage is 16.67%.

The lowest contribution levels are in division 93, various personnel services activities (2,914.92€ per worker in 2000), followed by division 18, clothes and fur industry (3,124.39€) and section H, accommodation and catering (3,405.7€).

The differences in quantity and weight of the **voluntary contribution** costs are very considerable. In this way for example, division 40, production and distribution of electricity and gas, particularly stands out, as 2,449.45€ was paid on average per worker for voluntary contributions (pension plans, health insurance and other insurance plans), with this amount representing 5.14% of the total cost of a worker in 2000. Levels of voluntary contributions are also significant in division 41, collection, treatment and distribution of water, with 1,868.98€ per worker and a weight of 5.53%, in division 23, petroleum refinement, with 1,702.86€ and a weight of 3.09% of the cost, division 11, extraction of petroleum and natural gas, with 1,587.94€ and a weight of 3.3%, division 65, financial intermediation, with 1,495.20€ and 3.25% of the cost and division 64, post and telecommunications services with 1,246.87€ and 3.45%. At the other end of the scale is division 18, clothing and fur industry, where the average voluntary contribution is 9.61€ per worker per year, representing an insignificant 0.1% of the total cost. Other divisions with low voluntary contributions include division 85, health and veterinary activities and social services, with 11€ per worker per year and an insignificant weight with regards the cost and the accommodation and catering section with 14.39€ and 0.1%.

There are also marked differences between divisions in terms of the total costs for **direct corporate contributions** and their significance within the gross cost. The highest expenses for these contributions are located in division 13, Extraction of metallic ores, with 2,869.79€ on average per worker per year, followed by division 27, metallurgy, with 2,079.18€, division 23, petroleum refinement, with 1,898.80€ and division 65, financial intermediation, with 1,811.69€. This part of the cost is proportionally more significant in division 13, extraction of metallic ores, with 7.47% of the gross cost, followed by division 27, metallurgy, with 6.06%, division 64, post and telecommunications, with 4.69% and division 65, financial intermediation, with 3.94%.

Those divisions with a lower cost in direct corporate contributions are divisions 18, clothing and fur industry, with 74.79€ per worker per year, division 19, leather and footwear industry, with 81.03€ and division 36, production of furniture and other industries, with 97.34€. In parallel with these low costs, it can be seen that the lowest weightings with regards direct corporate contributions

coincide with these divisions, representing 0.53% of the total costs in all divisions.

Another section of the labour cost where there are significant inequalities between economic activity divisions is the **compensation for dismissal** section. The most exceptional case is division 11, extraction of crude petroleum and natural gas, where the average compensation for dismissal in 2000 was 4,265.25€ per employed worker, not per dismissed worker-. A long way from this is division 32, production of electronic material (2,331.93€ per worker per year), division 13, extraction of metallic ores, 2,244.48€) and division 24, chemical industry (1,069.72€). Faced with these figures, the compensation for dismissal paid per employed worker in division 85, health and veterinary activities, social services (41.91€), division 10, coal mining (42.58€) and division 64, post and telecommunications (52.06€) is almost insignificant.

In keeping with all of this, we note that the greatest weight of compensation for dismissal of the gross cost is in division 11, extraction of crude petroleum and natural gas (8.87%), division 32, production of electronic material (7.1%), division 13, extraction of metallic ores (5.84%) and division 24, chemical industry (3.08%); whereas the lowest weight appears in division 10, coal mining, (an insignificant 0.12%), in division 64, post and telecommunications services (0.14%) and in division 85, health and veterinary activities, social services (0.18%).

In terms of the **remaining labour cost components**, only the vocational training costs in division 64, post and telecommunications with the amount of 674.23€ (1.84% of the gross cost), in division 72, IT activities (1.16% of the cost) and in division 30, production of office machines and IT equipment (1.07% of the cost), deserve some attention. It is also worth noting the transport costs in division 13, extraction of metallic ores (0.66%), in division 34, automobile industry (0.56%), in division 23, petroleum refinement (0.56% of the gross cost), as well as the corporate costs in division 23, petroleum refinement (1.38% of the cost). In terms of compensatory costs, division 90, public health (1.45%) and construction (1.13%) stand out.

In terms of the component that lessens the gross cost to achieve the net cost, in other words, subsidies, these are much higher in division 61, maritime transport (9.71% of the gross cost and an amount of 3,594.62€ per worker on average a year) than in other divisions. There is a big gap between this and division 30, production of office machines and IT equipment (1.4% of the gross cost and an amount of 552.50€ (per worker on average per year).

## Analysis by size

### 1) Unit size

**Units of 200 and more workers** with 27,940.33€ per worker per year have by far the highest gross labour cost. These are followed by the **units of 50 to 199 workers** with 22,998.54€ per worker per year and **units of 1 to 49 workers** with 19,428.81€ per worker per year, which have the lowest labour cost.

This order is inverted when analysing the amounts received from Public Administrations for subsidies. Units of 1 to 49 workers receive the most on average, 265.07€ per worker per year, followed by units of 50 to 199 workers

with 248.93€ and units of 1 to 200 workers receive the least with 215.28€ per worker per year.

If we analyse the percentage structure of the labour cost components, we see that in units of 1 to 49 workers wages and salaries plus the obligatory social security contributions constitute 97.05% of the total gross cost, whereas in units of 50 to 199 workers these components amount to 95.5% and in units of 200 and more workers, they constitute 94.2%. The remaining costs therefore have a lower weight. In units of 1 to 49 workers, they amount to 2.95%, followed by units of 50 to 199 workers at 4.5% and units of 200 and more workers at 5.8%.

Units of 1 to 49 workers have the lowest level of **wages and salaries** (14,532.20€ gross, per worker per year) and the greatest weight proportionally (74.80% of the gross labour cost). Units of 50 to 199 workers are at an intermediate level, both in terms of absolute value and weight (16,950.52€ and 73.70% respectively). Units of 200 and more workers have the highest wages and salaries (20,541.34) and their weight is the lowest of the strata, constituting 73.52% of the gross cost.

In terms of **obligatory social security contributions**, it is important to note that it is the units of 200 and more workers where the highest contribution per worker is recorded (5,777.97€), the lowest weighting in the percentage structure at 20.68% of the cost. This is followed at an intermediate level by the units of 50 to 199 workers, where 5,014.62€ was contributed on average per worker, locating the weighting at an intermediate level also (21.80%). Finally, units of 1 to 49 workers contribute most per worker per year at 4,323.44€. The weighting however is the greatest in the percentage structure (22.25%).

In terms of the other labour cost components, it is important to note that units of 1 to 49 workers almost always have a lower weighting and their level in absolute figures is also lower. In this way for example, voluntary contributions represent 0.27% of the gross cost in units of 1 to 49 workers, whereas they represent 0.59% in units of 50 to 199 workers and 1.11% in units of 200 and more workers. This translates as a cost of 52.47€ per worker per year in units of 1 to 49 workers, 136.25€ in units of 50 to 199 workers and 311.52€ in units of 200 and more workers.

In terms of Direct Corporate Contributions, the difference with regards units of 200 and more workers are even bigger: they represent 2.15% of the total cost, as opposed to 0.58% in units of 1 to 49 workers. In absolute figures, these contributions amount to 601.60€ in units of 200 and more workers, 209.01€ in units of 50 to 199 workers and 113.13€ in units of 1 to 49 workers.

In contrast to the above, where the biggest companies reach the highest levels in almost all concepts, it is worth highlighting the fact that units of 50 to 199 workers present the highest levels of compensation for dismissal, with 377.50€. This is followed by units of 200 and more workers with 294.18€ and units of 1 to 49 workers with 214.19€, which constitutes 1.64, 1.05 and 1.10% of the gross cost respectively.

Units of 200 and more workers have the highest levels of vocational training costs, where they amount to 162.49€ per worker, followed by units of 50 to 199 workers with 93.05€ and units of 1 to 49 workers, where the level of this cost is less than 42.25€ per worker. Percentage-wise, the cost of vocational training represents 0.58%, 0.40% and 0.22% respectively.

Transport costs have a higher weighting in units of 200 and more workers (0.12% of the gross cost), followed by units of 50 to 199 workers (0.09%) and then by units of 1 to 49 workers (0.04%). In absolute values, this amounts to 34.76€ per worker per year in units of 200 and more workers: 19.79€ in units of 50 to 199 workers and 7.56€ in units of 1 to 49 workers.

Corporate expenses constitute 51.59€ per worker per year in units of 200 and more workers (0.18%), 20.53€ in units of 50 to 199 workers (0.09%) and just 8.85€ in units of 1 to 49 workers. Compensation payments however, are higher in units of 50 to 199 workers with 114.89€ per worker per year, followed by units of 1 to 49 workers with 98.44€ and units of 200 and more workers with 89.16€; which represents 0.50% in units of 50 to 199 workers, 0.51% in units of 1 to 49 workers and 0.32% in units of 200 and more workers.

Other costs reach 75.72€ per worker per year in units of 200 and more workers (0.27%), 62.38€ in units of 50 to 199 workers (0.27%) and 36.28€ in units of 1 to 49 workers (0.19%).

## 2) Company size

If we analyse the gross labour cost and its various components according to company size, we see that in general the results are very similar to the analysis carried out according to unit size.

If in the study of unit size, the **gross labour cost** was higher in larger units, then the same happens with company size. Companies of 500 and more workers with 27,750.71€ per worker per year have the highest gross labour cost. These companies are followed by those of 250 to 499 workers with 25,851.61€ per worker per year, companies of 50 to 249 workers with 22,462.59€ per worker per year and companies of 1 to 49 workers with 18,567.89€ per worker per year with the lowest gross labour cost.

The smallest companies however do not demonstrate the highest values in terms of subsidies, as was the case in the unit size study. On the contrary, companies of 250 to 499 workers receive on average the most subsidies with 285.70€ per worker per year, followed by companies of 50 to 249 workers and companies of 1 to 49 workers that receive the same amount give or take a cent, which is approximately 248.00€. Companies of 500 and more workers receive the least in terms of subsidies with 228.00€ per worker per year.

If we analyse the percentage structure of the labour cost components, we see that **wages and salaries** plus contributions constitute a higher percentage in smaller companies than in the larger ones. In companies of 1 to 49 workers, wages and salaries plus the obligatory social security contributions constitute 97.4% of the total gross cost. In companies of 50 to 249 workers 96.1%, whereas in companies of 250 to 499 workers, this component constitutes 94.56%, which is very similar to the weighting in companies of 500 and more workers, where it is 94.11%. The remaining costs therefore have a lower weighting in companies of 1 to 49 workers with 2.6%, followed by companies of 50 to 249 workers with 3.9% and by companies of 250 to 499 workers and companies of 500 and more workers with 5.44% and 5.89% respectively.

Companies of 1 to 49 workers have the lowest wages and salaries levels (13,924.60€ gross per worker per year) and proportionally the greatest weighting (74.99%). The second lowest level is found in companies of 50 to 249 workers

with 16,635.08€ per worker per year and which proportionally is weighted second as well with 74.06%. After this are the companies of 250 to 499 workers with 18,904.51€ per worker per year. The highest wages and salary levels are found in companies of 500 and more workers with 20,399.05€ per worker per year. In both cases the wages and salaries have a very similar weighting, which is also the lowest (73.13% and 73.51% respectively). In terms of **obligatory social security contributions**, it is important to note that it is in companies of 500 and more workers, where the highest contributions per worker in 2000 are registered (5,715.82€ per worker per year). This item represents the lowest weighting in the percentage structure with 20.60% of the cost. Following these companies at an intermediate level are companies of 250 to 499 workers, where 5,539.17€ per worker was contributed on average, placing the weighting in the second lowest position as well (21.43%). Companies of 50 to 249 workers and companies of 1 to 49 workers are those that contribute the least per worker per year with 4,951.44€ and 4,161.63€. Their weighting however is the greatest in the percentage structure and very similar (22.04% and 22.41%).

With regards the other labour cost components, companies of 1 to 49 workers nearly always have a lower structural weighting and their level in absolute figures is also lower.

Voluntary contributions, direct corporate contributions, vocational training costs, corporate costs and compensation payments all show similar patterns to the previous study of unit size. There are some small differences however with the studies on unit size and company size.

For example, in the transport costs variable, there is a higher weighting in companies of 250 to 499 workers (0.15% of the gross cost) and in companies of 500 and more workers (0.10%). In companies of 1 to 249 workers, it is insignificant. In absolute values, the figures amount to 39.05€ per worker per year in companies of 250 to 499 workers, 28.85€ in companies of 500 and more workers, 17.03€ in companies of 50 to 249 workers and just 8.32€ in companies of 1 to 49 workers.

Compensation payments are highest in larger companies and they drop with company size until we reach companies of 1 to 49 workers, which represent the lowest cost in this section. This is something that didn't happen in the study of unit size.

Another difference is with the other costs section, where the amounts are highest in companies of 250 to 499 workers with 77.81€ per worker per year (0.30%), followed by companies of 500 and more workers with 68.89€ (0.25%), companies of 50 to 249 workers with 61.02€ (0.27%) and companies of 1 to 49 workers with 34.95€ (0.19%).

## **Territorial analysis**

The territorial analysis is fundamentally focused on cost aspects of the labour factor, which are different in the different Autonomous Communities. This is largely explained by the different sectorial structures present, which provide different employment makeups in each territory.

**The first** difference can be seen when comparing the labour cost per worker per year in the **País Vasco (27,273.14€)** with **Murcia (18,464.17€)**. We can see that

there is a difference of 8,809€ between the cost of a worker in the Autonomous Community with the highest labour cost and the Autonomous Community with the lowest labour cost. This difference is explained by the different productive structures in these territories, which means that in the País Vasco there is a higher concentration of activities with high labour costs and better-qualified workers. Other Autonomous Communities with high labour costs are Madrid (27,174.24€ (on average per worker in 2000), Navarra (25,307.02€ (per worker) and Cataluña (24,569.70€ (per worker), whereas the lowest levels are found in Extremadura (18,615.57€), Castilla-La Mancha (19,293.18€) and Canarias (19,744.02€).

If we examine the cost components, we see that the level of **wages and salaries** is in keeping with the total costs. The highest wage costs are in Madrid (20,353.41€ per worker per year), País Vasco (20,047.03€ (per worker) and Navarra (18,651.03€ per worker), whereas the lowest costs are in Murcia (13,777.03€ per worker), Extremadura (13,806.03€) and Castilla - La Mancha (14,147.35€).

Workers in the País Vasco receive more **social security** contributions than any other worker in any other territory (5,911.50€ on average a year), including more than a worker in Madrid (5,367.28€ a year), where salaries are on average higher. This could be due to industrial activities where the contribution levels are higher than in the services sector and the industrial sector has a high weighting in the País Vasco in terms of employment, whereas in Madrid, the services sector employs more people. If we analyse this in terms of percentage structure, we clearly see that Madrid is the Autonomous Community where the least is contributed in proportion to the total cost (19.8%), whereas the País Vasco has an obligatory contributions percentage (21.7) that is above even the national average (21.5). Notwithstanding, obligatory social security contributions have a lower weighting within the gross cost in La Rioja (22.9%), Asturias (22.8%) and Murcia (22.6%) with contribution levels at 4,761.17€, 5,439.38€ and 4,176.05€ per worker respectively. The lowest obligatory contribution levels are obviously found in Communities with low gross cost and the lowest wages: Murcia (4,176.05€ per worker), Extremadura (4,181.38€) and Canarias (4,303.77€).

In terms of **voluntary contributions**, we observe that the highest levels are also in Madrid (228.91€ per worker per year) and the País Vasco (206.70€), whereas the lowest levels are found in Ceuta y Melilla (48.94€) and Murcia (66.28€). Percentage-wise, these voluntary contributions don't reach 1% of the gross cost in any Community. Canarias stands out with 0.9% of the gross cost and Madrid, Castilla y León, Castilla - La Mancha and País Vasco with 0.8%.

The País Vasco has the highest **direct corporate contributions** (586.36€ on average per worker in 2000), followed by Cantabria with 351.71€ per worker and Ceuta y Melilla with 342.07€. Almost in parallel with this, the País Vasco registers the highest weighting of this cost component (2.2%), then Ceuta y Melilla (1.7%) and Cantabria (1.6%).

In terms of **compensation for dismissal**, once again Madrid stands out as the Autonomous Community with the highest costs for this section per worker employed (471.60€, which represents 1.7% of the total cost), followed by Cataluña (373.79€, which represents 1.5%). In last place is the compensation paid in Murcia (77.08€ per worker employed in 2000), which constitutes 0.4% of the gross cost.



**Vocational training costs** are highest in Madrid (182.22€ per worker per year), País Vasco (110.55€ per worker) and Cantabria (109.12€ per worker). The lowest levels of expenditure on vocational training are found in the Autonomous Communities of Ceuta y Melilla (33.02€) and Murcia (39.39€).

In terms of **transport costs** of workers to their place of work, the highest levels are recorded in Aragón (43.76€ on average per worker in 2000), Navarra (40.28€). The amounts in Ceuta y Melilla are insignificant (0.87€).

**Compensation payments** range from 40.49€ in Asturias and 6.25€ in Murcia. Corporate costs constitute an amount of 171.17€ on average per worker in Ceuta y Melilla, as opposed to 34.97€ in Navarra.

**Other costs** represent 200.86€ in Canarias whereas they reach 25.63€ in Murcia.

With regards the **subsidies** linked to employment, companies in Navarra received 407.62€ on average per registered worker, followed by La Rioja with 319.54€. The least subsidies were received in Ceuta y Melilla with 106.87€ per worker employed.

## Apprentices

The **gross labour cost** of apprentices is 6,438.18€ on average per worker per year, which constitutes 27.77% of the gross labour cost of other workers. The explanation for this is the special treatment that this type of contract receives in employment legislation, where the ultimate aim is to train workers. This means that the wages and obligatory contributions are much lower than for other types of contract.

By cost components, the **wages and salaries** amount to 6,063.37€, which constitutes 94.18% of the total gross cost.

**Obligatory social security contributions** equal 353.39€, representing 5.49% of the cost, given that for this type of contract a fixed quota is paid that is much less than when the General Social Security System regulations are applied.

Finally, the **compensation for dismissal** equals 21.42€, which constitutes 0.33% of the cost. Subsidies amount to 250.43€, which is 3.89% of the total.

When looking at **activity by sectors**, the construction sector has the lowest level with 5,704.29€ per worker per year, followed by the services sector with 6,321.99€ and industry has the highest value with 6,984.93€.

Subsidies are considerably lower in the construction sector with 112.06€ per worker per year, followed by the services sector and industry with 262.39€ and 289.52€ respectively. In fact, the subsidies weighting in terms of the gross labour cost is considerably lower in construction with 1.96%, followed by the services sector and industry with similar weightings of 4.14%.

The construction sector has the lowest wages and salaries in terms of gross cost weighting with 92.98%. The services sector follows with 94.26% of the gross labour cost and industry has the highest value with 94.47%. In the percentage structure of obligatory social security contributions however, the construction sector has by far the greatest weighting (6.47% of the gross labour cost), followed by the services sector with 5.54%. Industry has the lowest weighting with 5.04%.

With regards compensation for dismissal, the levels are low in all sectors, but the lowest is 12.44€ per worker in the services sector, followed by 31.51€ in construction and finally 33.90€ in industry.

When presenting the data **by Autonomous Community**, La Rioja and País Vasco are grouped together in order to maintain statistical secrecy. The same happens with the data from Andalucía and Ceuta y Melilla.

The first difference can be seen when comparing the labour cost per worker per year in the Comunidad de Asturias (7,729.62€) with the Comunidad de Baleares (5,285.38€). We can see that there is a difference of 2,444.24€ between the cost of a worker in the Autonomous Community with the highest labour cost and the Autonomous Community with the lowest labour cost.

This difference is repeated in wages and salaries, but the social contributions are however very similar in all Communities (the difference between the highest and the lowest is 51.05€ due to the aforementioned explanation of paying a fixed contribution amount for apprentice contracts, independently of the salary received).

Compensation for dismissal is very low in all Autonomous Communities and ranges from 50.92€ per worker per year in Baleares to the Comunidad de Aragón, where compensation for dismissal was not paid to apprentices.

In terms of subsidies, Asturias stands out with the highest levels (374.90€) and Navarra with the lowest (44.25€).

## Temporal analysis

There are some limitations to a four-yearly temporal analysis of structural statistics in terms of the development in levels. These limitations arise from the long period of time between statistics - four years -, which means that the different cost sections are not comparable.

On the other hand, methodological changes have been made which affect the survey's sectorial coverage as well as the definitions in some sections. In this way, the sectorial field has improved in successive surveys since 1988 with the inclusion of activities that were not previously considered in the services sector. As a result, in this 2000 survey only Public Administration activities (NCEA-93 75) are still to be researched in this sector. Another significant difference is the use of the 1993 Classification of Economic Activities (NCEA-93) in the last two surveys, as opposed to the use of the NCEA-74 in the 1988 and 1992 surveys. It is for this reason that a strict comparison of the service sector results is not possible, nor is it possible to provide details of divisions or branches of activity in general.

With these limitations in mind however, it is interesting to analyse the development of the labour cost structure, as in this way, we can see the weighting development of the different amounts with regards the total.

In this respect, we see that the **wages and salaries** represent 73.52% of the total gross cost in 1988, 74.23% in 1992, 74.30% in 1996 and 74.01% in 2000, signifying that this section has retained its importance almost constantly during the twelve years. By activity sectors however, the fall in wages and salaries in the construction sector with regards the total cost stands out.

In terms of the **obligatory social security contributions**, we see a change in this last survey's trend with respect to previous surveys. From 1988 to 1996, they had increasingly less weighting in the labour cost structure, given that they constituted 22.41% of this cost in 1988, 21.03% in 1992 and they reached 20.02% in 1996. This amounts to a reduction of approximately one percentage point every four years. In 2000 however, obligatory social security contributions have a weighting of 21.50%, an increase of almost one and a half percentage points. Furthermore, this increase is widespread across all branches of activity and in particular, in the construction sector where there is an increase of more than two points. Bearing in mind that the types of social security contribution haven't changed since 1995, this increase is largely due to the fact that the wages and salaries of the jobs created during these years are mainly subject to the current bases and types of contribution. Moreover, the increase in educational and personnel services activities (sections M and O of the NCEA-93) in the services sector, where social security contributions have a higher weighting than the average, stress this trend in this sector.

As a result of the aforementioned (maintenance of the wages and salaries weighting and the increase in obligatory social security contributions), the remaining labour costs have a lower weighting in the total cost structure, except in the construction sector where there is a slight increase.

Developments in **voluntary contributions** are however different. The fall that started in 1996 seems to be sustained. Percentage-wise, these contributions constituted 0.33 in 1988; they rose to 0.81 in 1992, dropped to 0.77 in 1996 and to 0.69 in 2000. We note that they have decreased slowly in the last two surveys. By activity sectors however, the weighting has increased with regards 1996 in industry and marginally in construction. The lowest weighting is in the services sector, where the fall has been significant.

The significance of **direct corporate contributions** varies from one survey to another. As a percentage, this section had a weighting of 1.58 in 1988, which fell in 1992 to 1.35. In 1996, it rose to 1.50 and fell again in 2000 to 1.30. This development is repeated by activity sectors.

The development study in terms of the **compensation for dismissal** weighting shows the employment situation in the survey's reference period. In this way, the weighting of this component in the percentage structure has changed from 0.72% in 1988, to 1.61% in 1992, to 2.15% in 1996 and then a fall to 1.21% in 2000. In other words, in these last four years, employment development has been positive and is reflected in a lower weighting in this section, both in terms of the total and activity sectors.

**Vocational training costs** seem to have remained stable since 1996, following a significant rise from 1988 to 1992. The percentage structure has developed in the following way: 0.16% in 1988, 0.31% in 1992, 0.46% in 1996 and 0.41 % in 2000.

**Transport costs** have changed from 0.29% in 1988, to 0.17% in 1992 and 0.19% in 1996, to being insignificant in 2000 at 0.09 %.

Percentage-wise, **corporate costs plus other costs** constitute 0.93% of the gross cost in 1988, 0.46% in 1992, 0.60% in 1996 and 0.78% in 2000. Even though it appears that these figures are returning to the significance reached in 1988, it is

important to note that in 2000, compensatory costs have been broken down from the remaining costs, which could affect the result.

The labour cost component that reduces the gross cost in terms of obtaining the net cost, the **subsidies linked to employment**, shows an important change with respect to 1996 and is even greater than the weighting reached in 1988. In this year, subsidies constituted 0.95% of the gross cost, moving from 0.66% in 1992 and 0.37% of the gross cost in 1996. In 2000, the weighting is 1.05%, which is explained by the increase in reductions and discounts in social security contributions included in employment promotion programmes for specific groups (long-term employed, unemployed women and young people, etc.).

### Analysis of the levels between the 1996 and 2000 surveys

As stated above, it is not possible to make a strict comparison between the results of the 1996 and 2000 surveys, as they are not homogeneous in terms of the research's sectorial scope. In fact, if we compare the absolute values, the labour costs per worker per year have changed from 22,940.76€ in 1996 to 23,183.45€ in 2000, in other words, they have increased by 242.69€, which constitutes growth of just over 1%; these figures are affected however by the inclusion of the education and personnel services branches of activity in the 2000 survey, as these activities have lower than average labour costs. If we remove these branches of activity from the 2000 Labour Cost survey in order to make the branches included in both surveys homogeneous, **the labour cost in 2000 amounts to 23,481.06€, which constitutes an increase of 2.36%.**

**Table 1**

		Labour Cost Survey 1996	Labour Cost Survey 2000 (all branches)	Labour Cost Survey 2000 (homogeneous branches with 1996)	Variation rate 2000/1996
<b>Total labour cost</b>		22,940.76	23,183.45	23,481.06	2.36
<b>Wages and salaries</b>		17,045.97	17,158.55	17,292.89	1.45
<b>Obligatory social security contributions</b>		4,592.67	4,984.52	5,042.73	9.80
<b>Other costs</b>		1,302.12	1,040.38	1,145.44	-12.03
<b>Net cost</b>		22,856.18	22,939.21	23,234.94	1.66

By cost components, wages and salaries have increased by 1.45%, whereas the obligatory social security contributions have increased by 9.8% and other costs

have fallen -12.03%. The significant increase in subsidies explains why the net cost increase is 1.66%.

This uneven increase between wages and salaries and obligatory social security contributions is explained by the different employment makeup in both surveys. **Thus, during the years between surveys, which have been years of employment, creation focused particularly on the construction and services sectors, activities that have traditionally had lower wages and salaries and lower weightings in obligatory social security contributions.**

The fall in the remaining labour cost components is basically due to the reduction in compensation for dismissal, as a result of the good employment situation during these years and, to a lesser extent, the fall in direct corporate contribution costs.

**Table 2**

	1996			2000		
	Industry	Construction	Services	Industry	Construction	Services
Total labour cost	25,258.7	20,354.0	21,756.7	26,331.93	20,537.86	22,521.73
Wages and salaries	18,498.7	15,385.2	16,311.6	19,278.40	14,909.54	16,705.77
Obligatory social security contributions	5,216.4	4,282.8	4,198.7	5,743.07	4,858.51	4,676.23
Other costs	1,543.6	685.9	1,246.5	1,310.46	769.81	1,139.73

By activity sectors, the gross labour cost grows 4.25% in industry, followed by the services sector with 3.52% and 0.9% in construction.

Wages and salaries increase 4.22% in industry and 2.42% in the services sector and decrease 3.09% in construction.

Obligatory social security contributions however grow more significantly in construction at 13.44%, followed by the services sector at 11.37% and industry at 10.1%. This increase in obligatory social security contributions, which is greater than the increase in wages, is explained by the fact that there has been an increase in employment with average remuneration that is lower than the contribution wage bases, which produces average wages and salaries that do not increase much with respect to the 1996 survey, whereas the social contributions have increased.

Other costs fall 15.11% in industry, 8.56% in the services sector and increase 12.23% in the construction sector, given a significant increase in voluntary contributions and other costs in this case. The increase in vocational training

costs in the services sector (28.5%) is worth highlighting, even though its weighting in terms of the total is not very large.