

INSTITUTO NACIONAL DE ESTADISTICA



# Wage Structure Survey (WSS)

Methodology

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## Introduction

The project on wage structure and distribution statistics was started in 1994-1995 by the National Statistics Institute (INE) with the objective of filling gaps in existing information and fulfilling the Community regulation passed in 1995 to carry out such survey.

The initial project only considered the preparation of the Wage Structure Survey with reference to the year 1995. Once the results were obtained, the viability of the survey was verified, along with its high quality and wealth of information, thereby embarking on a study and discussion process with all Member States in conjunction with Eurostat, culminating in the passing of new Community regulations to perform this type of survey periodically. In this way, the undertaking of this statistical process is anticipated following the publication referring to the year 2002, and at four-yearly intervals.

The Wage Structure Survey is, therefore, carried out within the framework of the European Union (EU), with common criteria of methodology and content, in order to obtain comparable results regarding the level, structure and distribution of wages between Member States. To do this, the same reference period, coverage scope, information requested and characteristics thereof, data collection method, representation and processing and transmission of results are used, in accordance with EU regulations no. 530/1999 and no. 1738/2005, which all Member States must comply with. However, the survey is also adapted to the specific case of each country.

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## Methodological Description

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### 1 Objectives

The Wage Structure Survey is a four-yearly investigation into the structure and distribution of wages, carried out in all Member States of the European Union.

The main new feature it provides compared to other surveys on this subject is that wages are collected in the questionnaire individually, and together with these, a large amount of variables related to the worker. This allows establishing relationships between wages and some of the variables that may contribute to determining their amount, such as the level of studies attained, seniority, type of contract or occupation, among others.

In addition, the wage level is related to other variables collectively affecting workers of an establishment or a company: the market for which the company is producing, whether or not there is a collective agreement, and its scope where applicable, or whether it is publicly or privately owned.

Another contribution of the survey is that not only are average earnings values provided, but also their distribution. Consequently, this facilitates the study of wage inequality. The tables largely provide percentiles<sup>1</sup>.

The principal objectives of the survey may be summarised as twofold:

- Knowledge of wage levels, not only average levels but also their distribution.
- The determination of the wage structure, both from the point of view of composition and of the variables that have an influence on wages and to what extent.

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### 2 Scope, coverage and reference period

The geographical scope of the study encompasses the entire country.

The population scope is made up of all workers employed by others and rendering services at contribution centres, regardless of their size, and who have been affiliated to Social Security during the whole month of October for the relevant year. It excludes all chairpersons, members of administrative boards and, in general, all personnel whose remuneration is not mainly in the form of wages but rather commissions or benefits.

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<sup>1</sup> The distribution value is said to occupy percentile x if the x% of the population researched has a value equal to or lower than x.

As per sectorial coverage, the survey studies contribution centres whose economic activity is included in the three large sectors: Industry, Construction and Services, and in particular, workplaces with economic activities considered in sections C to K and M to O of the CNAE-93.

The survey excludes agricultural, livestock and fishing activities, Public Administration, Defence and compulsory Social Security, domestic personnel and extraterritorial bodies.

The survey distinguishes between two reference periods. Most of the questions refer to October during the reference year. This month has the advantage of being considered "normal" in all EU countries, in the sense that this is not affected much by seasonal variations or by payments which fall due in more than one month's time, such as Christmas bonuses. Other data refers to the whole of 2006. Monthly and annual earnings are obtained in this manner.

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### **3 Concepts and definitions**

#### **Wage concepts**

In general, throughout this publication, we refer to wage earnings or simply earnings, which include the total wage payments in cash and remunerations in kind. The gross accrued income is used, that is, before Social Security contributions on behalf of the worker have been deducted, or income tax payments made.

On the other hand, delays corresponding to previous years are not included, nor are non-wage payments, such as allowances, compensation or travel expenses.

The following concepts are of note within salary payments:

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

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

Wage supplements, which are defined as the set of remunerations paid at a higher level than basic remunerations (base wage and extraordinary 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. The most important of these are: 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 night time 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 certain minimum achievements that are awarded each month.

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

- Fixed extraordinary payments: basically consisting of extra bonuses or 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 employees' participation in the company's profit. Most collective agreements establish in advance a known amount that can amount to one month's salary.
- Variable extraordinary payments: Payments for incentives or outcomes, i.e. payments that are linked to individual or company results. The sum is not known beforehand, since it depends on performance, goals achieved, 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.
- Payments in kind (this variable was only taken into account in 2006): this entails the consideration of all wage payments made to the worker by any means other than monetary, such as goods, rights, benefits or services paid in exchange for the work performed.

As a whole, three types of wage earnings are published:

- Earnings per hour. This is necessary for studying, under equal conditions, workers with different working days, especially part-time workers.
- Monthly earnings. It is of unquestionable interest as a reference variable for payments. The accrued amount is usually received on a monthly basis in Spain. The monthly wage has been requested in the questionnaire, distinguishing between: the base salary, overtime payments, extraordinary payments and the total of wage supplements, distinguishing in turn from this total supplements for working shifts, weekends or nights, and variable salary supplements (in other words, monthly supplements that have no fixed amount, since they are related to the quantity or quality of work or company profits).

Income tax withholdings have also been requested, as have Social Security contributions corresponding to the worker, in order to obtain the net earnings available in the reference month.

- Annual earnings. This includes gross total earnings, including payments in kind, and distinguishing between fixed and variable extraordinary payments. This is the variable used for the wage comparison according to worker characteristics.

The survey is aimed at all workers affiliated to Social Security during the month of October of the reference year. This fact, together with fact that the month of October is not characterised by either payments or periods of absence of a seasonal nature (payments due that do not follow a monthly basis or holiday periods), makes it possible to obtain "normal or ordinary" monthly earnings, minimising the incidences in response to the questionnaire, due to the start or end of the labour activity during this month.

For an adequate interpretation of the earnings, we must bear in mind that it does not include the earnings of any second and third jobs for the same worker, but instead includes those earnings in the company through which the worker has been selected. Furthermore, in order to be able to draw comparisons between workers, monthly earnings of those who have not received a full month's wages due to unpaid leave have been adjusted, taking into account the days of full wages. Likewise, in order to obtain comparable annual earnings, wages have been adjusted for workers who have not been in the workplace an entire year. For this purpose, they are assigned equivalent annual wages that they would have been paid had they worked for the entire year under the same conditions.

Finally, earnings per hour have been estimated as monthly earnings divided by hours worked (normal and extraordinary) in the reference month.

### **Working time**

This variable is among the most difficult to obtain from a statistical perspective. The concept internationally accepted as the optimum one is that of hours effectively worked, which is basically made up of the hours in a normal working day (those entailed by the worker's usual working day), plus extra hours, minus hours lost for a wide variety of reasons.

This survey is not intended to exhaustively investigate work time, since this would have excessively overloaded the questionnaire, and for this reason a more straightforward solution has been adopted that is common to all European Union countries and consists of only taking normal hours plus overtime hours. Only where the worker is absent during the reference period, the number of hours collected differs from the hours effectively worked. In practice, the method used in case of absence is as follows:

- If the absences do not affect the wages (as in the case of remunerated absences such as annual holidays), it is considered that the worker has carried out the normal working day given that the wages correspond to a normal month's work.
- If the absences affected the wages, only the wages corresponding to the period not affected by such absences is considered, and is adjusted to the entire

reference period (consequently, the period considered for the calculations is that really worked).

### **Occupation**

The classification of occupations used is the current National Classification of Occupations.

### **Organisational responsibility and supervision of other workers**

The aim of this variable (studied since 2002) is to ascertain whether or not supervision of other worker's work thus supplements the Occupation variable information.

Not all employees included in large group 1 of the NCO have a supervisory role (they may be dedicated to the design, planning or organisation of the large operational lines of the company without being directly in charge of staff). Conversely, many employees whose occupation belongs in group 2 or 3 (professionals and technicians) have the aforementioned duties. In fact, this type of responsibility may occur in any occupation, including unskilled workers.

### **Level of studies**

This is perhaps the most important contribution of this type of survey. Its inclusion gives rise to a whole host of crossed tables of indisputable interest, such as the cross of studies with occupation, which enables analysis of the subsample.

This is also the variable which has posed the most technical problems in the survey, since the person responsible for providing the information is generally not the actual worker and is thus unaware of the qualifications held by the latter.

The National Classification of Education 2000 (CNED 2000) has been used and adapted to the International Standard Classification of Education (ISCE-97) required by the Regulation.

The categories considered for this variable are:

- Without studies or incomplete primary
- Complete primary education
- 1st Cycle Secondary education
- 2nd Cycle Secondary education
- Intermediate vocational training (VTI)
- Advanced vocational training (VTII)
- University diplomas
- Higher degrees (including doctorates)

### **Type of working day**

Two types of working day are considered: full-time and part-time. In accordance with the current labour legislation, a part-time worker is defined as any worker whose habitual working day is shorter than the working day of a comparable full-time worker. The latter is defined, in turn, as a full-time worker of the same company and workplace, with the same type of work contract, and carrying out identical or similar work. If there are no comparable full-time workers in the company, the full-time working day foreseen in the applicable collective agreement is considered, or failing that, the maximum legal working day.

In practice, the type of working day appears in the work contract, and is requested from informants.

### **Type of work contract**

The EU Regulation requires information on three general types of work contract: indefinite duration, temporary or determined duration, and apprenticeship contracts.

Although each country has its own employment regulation and the case of Spain is particularly complex, these three large groups are common in all EU States. However, the results gathered from apprentices in 2004 (last year in which specific data was gathered for this type of contract) produces the following conclusions: Workers with apprentice contracts form a group with specific characteristics within the labour market, since they are not very representative of the labour market and are concentrated largely in educational and special group social services (disabled persons, drug addicts...) activities in which the wages fulfil a social function.

This is why workers with apprenticeship contracts were no longer included after 2006, and only indefinite and determined duration contracts are considered.

### **Other variables considered**

Other features associated with the worker taken into account, which require no comment but which are equally important when explaining salary differences, are sex, age, nationality and years of service in the company.

In addition to the previous characteristics, directly associated to each worker, information has also been collected on the variables regarding the Social Security contribution account, such as the main activity, the number of workers, the type of property (public or private), its main market and the type of collective agreement, since these are considered to be directly related to the wages received by workers.

This list is not exhaustive, nor is it intended to be. When designing a survey, a compromise must always be reached between the quality of the information desired and the effort that this requires. On designing the questionnaire, a number of variables of indisputable interest have deliberately been excluded. These would add variety to the wage differences. The set of variables

considered, however, is in response to a strict selection process, as a result of the consensus among EU Member States.

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## **4 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 on 31 October each year. This framework has the advantage of being constantly updated, in addition to the fact that its unit is the survey unit itself.

The Directory of Social Security Contribution Accounts classified within the study's economic activity divisions is obtained from the Register, and the contribution account sample is obtained from this Directory.

### **Sampling plan**

The random unit selection procedure corresponds to a stratified two-stage sampling, in which the first stage units are the Social Security contribution accounts, and the second stage units are the workers.

The first-stage units are classified into 26 activity groups (sections and subsections of CNAE-93, letters C, D, E, F, G, H, I, J, K, M, N and O) which are regarded as independent populations for sampling purposes. Each activity is stratified by Autonomous Community (18 in total, considering the whole formed by Ceuta and Melilla) and by eight size intervals, these being as follows:

1. 1 to 4 workers
2. 5 to 9 workers
3. 10 to 19 workers
4. 20 to 49 workers
5. 50 to 99 workers
6. 100 to 199 workers
7. 200 to 499 workers
8. More than 500 workers

The last stratum is investigated exhaustively. Sample sizes per stratum are obtained by prefixing an admissible error of 5% in the scope of activity and Autonomous Community.

The list of units selected in the first stage was sent back to the Social Security General Treasury, which obtained the list of workers who were making social security contributions during the whole of October during the reference year. Workers were selected from this list, the second-stage units.

## Estimators

Separated ratio estimators are used, with the auxiliary variable being the number of workers in each establishment, according to the directory of Social Security Contribution Accounts.

The estimators for the economic data of worker  $j$  of establishment  $i$ , in activity  $r$ , of size  $h$  and Autonomous Community  $t$  are formed as follows:

The elevation factors of the first and second stages are, respectively:

$$F_{1j} = \frac{\sum_{i=1}^{N_{rh}} D_i}{\sum_{i=1}^{n_{rh}} D_i} \quad \text{and} \quad F_{2j} = \frac{B_i}{b_i}$$

where,  $D_i$  is the number of workers in the directory in  $i$ ,  $B_i$  is the number of workers in establishment  $i$  affiliated to Social Security during the entire month of October in the reference year and  $b_i$  is the number of workers according to the sample collected.

Then:

$$G\hat{H}_C = \frac{\hat{X}_C}{\hat{Y}_C} \quad \text{and} \quad G\hat{T}_C = \frac{\hat{X}_C}{\hat{Z}_C}$$

are the earnings per hour and the earnings per worker for any cell  $C$  of the table to be created (by activity, occupation, sex, Autonomous Community, etc.).

Where:

$$\hat{X}_C = \sum_{j \in C} F_{1j} * F_{2j} * X_j \quad \text{(Annual earnings)}$$

$$\hat{Y}_C = \sum_{j \in C} F_{1j} * F_{2j} * Y_j \quad \text{(Hours)}$$

$$\hat{Z}_C = \sum_{j \in C} F_{1j} * F_{2j} \quad \text{(Workers)}$$

$j$  refers to the Registers that fulfil the conditions of cell  $C$ .

## Sample errors

Calling  $h$  the crossing of the Autonomous Community, activity and size variables, gives:

$$\varepsilon(\hat{X}_C) = \sqrt{\hat{V}(\hat{X}_C)} / \hat{X}_C * 100$$

where,

$$\hat{V}(\hat{X}_C) = \sum \hat{V}(\hat{X}_{Ch}), \quad \hat{X}_{Ch} = \sum_{j \in h, C} F_{1j} * F_{2j} * X_j \quad \text{and}$$

$$\hat{V}(\hat{X}_{Ch}) = \frac{N_h(N_h - n_h)}{n_h} * \frac{\sum_{i=1}^{n_h} (\hat{X}_{C_i} - R_{C_h} * D_i)^2}{n_h - 1} + \frac{N_h}{n_h} * \sum_{i=1}^{n_h} \frac{B_i(B_i - b_i)}{b_i} * S_{C_i}^2$$

where

$$\hat{X}_{C_i} = \frac{B_i}{b_i} * \sum_{j=1}^{b_i} X_j \quad \text{where,} \quad X_j = 0 \text{ if } j \notin C$$

$$R_{C_h} = \frac{\sum_{i=1}^{n_h} \hat{X}_{C_i}}{\sum_{i=1}^{n_h} D_i}$$

$$S_{C_i}^2 = \frac{\sum_{j=1}^{b_i} (X_j - \frac{\sum_{j=1}^{b_i} X_j}{b_i})^2}{b_i - 1}$$

Tables of the most relevant estimator variation coefficients are published.

## 5 Peculiarities of each reference year

### Population scope

In 1995 the population scope was formed by all workers employed by others in contribution centres of 10 or more workers and who are recorded on the payroll on 31 October 1995.

In 2002, instead of taking workers on the payroll on 31 October as the reference, it was the workers who were registered throughout the entire month of October who were considered. This step was taken in order to minimise the number of workers who started or finished working during the month and therefore obtain the monthly wages in order to obtain the annual figures. The reason for choosing the month of October is that it is a "normal" month in all EU countries regarding seasonal variations, as explained in Section 2.

In 2006 the scope investigated increased by also including workers for contribution centres with 1 to 9 workers.

### **Coverage by sectors**

In 1995 only centres with economic activities comprised in sections C to K of the CNAE-93 were considered.

2002 saw the inclusion of units whose main activity was that included in the following CNAE-93 sections: M, Education; N, Health and veterinary activities, social services; O, Other social activities and services provided to the community; personal services.

In 2006 the same sector coverage was used as for the 2002 survey.

### **Wage concepts**

The 1995 survey was aimed at all workers registered on 31 October 1995. Therefore, the figures for annual earnings must be interpreted with caution. It does not indicate what a worker has earned in a year, but what the worker has earned in the company selected for 1995. This can be of importance in the case of temporary workers, especially if we take into account that 23% of the annual wages included in the survey correspond to a full year's work. There are salaries corresponding to only a few days work in the entire year, thus producing very low annual earnings. A worker in such conditions may have been working throughout 1995 for another company, but such worker's earnings will not be recorded unless also contributing to Social Security for the other company in October 1995.

After 2002, in order to be able to draw comparisons between workers, monthly earnings of those who have not received a full month's wages due to unpaid leave have been adjusted, taking into account the days of full wages. Likewise, in order to obtain comparable annual earnings, wages have been adjusted for workers who were not at the workplace for an entire year. To do this they are assigned equivalent annual wages that they would have been paid, had they worked for the entire year under the same conditions.

One of the novelties of the 2002 survey was the inclusion Stim the variable *Contract included in a Job Creation Scheme*, indicating whether or not the contract was covered by any Government Job Creation Scheme. 2002 was the only year in which said variable was analysed.

Finally, remuneration in kind was not considered until the 2006 survey, and was not taken into account in the 2 previous surveys.

### **Sampling plan**

#### **1995**

The final sample size was 19,070 Social Security contribution accounts and 185,226 workers, distributed with optimum allocation according to the size stratum to which the contribution account belongs.

The following tables show a summary of the sample sizes per Autonomous Community and branches of activity.

**Table 1. Sample sizes by section and activity subsections of the CNAE-93**

	Units	Employees
<b>ALL ACTIVITIES</b>	<b>19,070</b>	<b>185,226</b>
C. Mining and quarrying industries	410	3,470
<b>D. Manufacturing industry</b>	<b>10,219</b>	<b>97,723</b>
DA. Food, Beverage and Tobacco Industry	1,262	13,003
DB. Textile and clothing industry	817	7,906
DC. Leather and footwear industry	476	3,487
DD. Wood and cork industry	627	4,490
DE. Paper industry; publishing, graphic arts and reproduction	779	7,721
DF. Refinement of petroleum and treatment of nuclear fuels	53	1,100
<b>DG. Chemical industry</b>	<b>722</b>	<b>8,015</b>
DH. Rubber and plastic material transformation industry	566	4,922
DI. Other non-metallic ore product industries	926	8,589
DJ. Metallurgy and manufacture of metallic products	1,044	10,071
DK. Construction of machinery and mechanical equipment industry	719	6,565
DL. Electrical, electronic and optical material and equipment industry	747	7,662
DM. Manufacture of transport material	673	7,886
<b>DN. Various manufacturing industries</b>	<b>808</b>	<b>6,306</b>
E. Production and distribution of electrical energy, gas and water supply	512	5,624
F. Construction	1,503	13,855
G. Trade and repairs	1,792	18,016
H. Accommodation	1,145	10,320
I. Transport, storage and communications	1,186	11,894
J. Financial intermediation	1,181	13,686
K. Real estate and rental activities; business services	1,122	10,638

**Table 2. Sample sizes by Autonomous Community**

	Units	Employees
<b>NATIONAL TOTAL</b>	<b>19,070</b>	<b>185,226</b>
Andalucía	1,576	15,883
Aragón	1,038	9,413
Asturias (Principado de)	829	7,206
Balears (Illes)	730	5,977
<b>Canarias</b>	<b>1,018</b>	<b>9,323</b>
Cantabria	588	4,831
Castilla y León	1,001	8,751
Castilla-La Mancha	1,163	11,169
Cataluña	2,175	26,041
Comunitat Valenciana	1,609	15,877
Extremadura	561	4,314
Galicia	1,197	11,192
Madrid (Comunidad de)	1,939	23,200
Murcia (Región de)	889	7,183
Navarra (Comunidad Foral de)	771	6,631
País Vasco	1,315	13,437
Rioja (La)	575	4,153
Ceuta and Melilla	96	645

The following tables show the response rates, which were very high.

**Table 3. Sample collection and response rates by section and activity subsections of the CNAE-93**

	Units	Rate	Employees	Rate
ALL ACTIVITIES	18,139	95.1	177,168	95.6
C. Mining and quarrying industries	395	96.3	3,371	97.1
D. Manufacturing industry	9,763	95.5	93,714	95.9
DA. Food, Beverage and Tobacco Industry	1,212	96.0	12,512	96.2
DB. Textile and clothing industry	771	94.4	7,485	94.7
DC. Leather and footwear industry	452	95.0	3,344	95.9
DD. Wood and cork industry	604	96.3	4,338	96.6
DE. Paper industry; publishing, graphic arts and reproduction	747	95.9	7,424	96.2
DF. Refinement of petroleum and treatment of nuclear fuels	52	98.1	1,035	94.1
DG. Chemical industry	699	96.8	7,863	98.1
DH. Rubber and plastic material transformation industry	537	94.9	4,689	95.3
DI. Other non-metallic ore product industries	880	95.0	8,243	96.0
DJ. Metallurgy and manufacture of metallic products	996	95.4	9,569	95.0
DK. Construction of machinery and mechanical equipment industry	685	95.3	6,232	94.9
DL. Electrical, electronic and optical material and equipment industry	711	95.2	7,331	95.7
DM. Manufacture of transport material	643	95.5	7,568	96.0
DN. Various manufacturing industries	774	95.8	6,081	96.4
E. Production and distribution of electrical energy, gas and water supply	490	95.7	5,413	96.2
F. Construction	1,387	92.3	12,867	92.9
G. Trade and repairs	1,702	95.0	16,968	94.2
H. Accommodation	1,091	95.3	9,946	96.4
I. Transport, storage and communications	1,126	94.9	11,773	99.0
J. Financial intermediation	1,137	96.3	13,256	96.9
K. Real estate and rental activities; business services	1,048	93.4	9,860	92.7

**Table 4. Sample collection and response rates by Autonomous Community**

	Units	Rate	Employees	Rate
NATIONAL TOTAL	18,139	95.1	177,168	95.6
Andalucía	1,513	96.0	15,357	96.7
Aragón	1,000	96.3	9,190	97.6
Asturias (Principado de)	783	94.5	6,852	95.1
Balears (Illes)	695	95.2	8,748	96.2
Canarias	909	89.3	8,412	90.2
Cantabria	563	95.7	4,588	95.0
Castilla y León	1,127	96.9	10,935	97.9
Castilla-La Mancha	966	96.5	8,470	96.8
Cataluña	2,052	94.3	24,780	95.2
Comunitat Valenciana	1,539	95.6	15,296	96.3
Extremadura	539	96.1	4,157	96.4
Galicia	1,154	96.4	10,784	96.4
Madrid (Comunidad de)	1,784	92.0	21,562	92.9
Murcia (Región de)	868	97.6	7,073	98.5
Navarra (Comunidad Foral de)	754	97.8	6,530	98.5
País Vasco	1,242	94.4	12,722	94.7
Rioja (La)	562	97.7	4,083	98.3
Ceuta and Melilla	89	92.7	629	97.5

## 2002

The final sample size was of 23,156 Social Security contribution accounts, of which 368 were for apprentices, and 231,401 for workers, of which 1535 were apprentices, distributed with optimal allocation according to the size stratum to which the contribution account belongs. As mentioned above, apprentices were surveyed separately and a specific table plan was prepared for them.

Shown below are the sample sizes by sections and subsections of the CNAE-93 and by Autonomous Community, without taking into account the apprentices.

**Table 1. Sample sizes by section and activity subsections of the CNAE-93**

	Units	Employees
<b>ALL ACTIVITIES</b>	<b>22,788</b>	<b>229,866</b>
C. Mining and quarrying industries	442	3,583
CA. Extraction of Energy products	67	820
CB. Extraction of other ores except energy products	375	2,763
D. Manufacturing industry	9,230	87,955
DA. Food, Beverage and Tobacco Industry	1,119	11,315
DB. Textile and clothing industry	710	6,255
DC. Leather and footwear industry	367	2,771
DD. Wood and cork industry	611	4,709
DE. Paper industry; publishing, graphic arts and reproduction	716	6,771
DF. Refinement of petroleum and treatment of nuclear fuels	43	758
DG. Chemical industry	594	6,278
DH. Rubber and plastic material transformation industry	534	5,263
DI. Other non-metallic ore product industries	806	7,399
DJ. Metallurgy and manufacture of metallic products	1,091	10,322
DK. Construction of machinery and mechanical equipment industry	691	6,365
DL. Electrical, electronic and optical material and equipment industry	648	6,788
DM. Manufacture of transport material	577	7,205
DN. Various manufacturing industries	723	5,756
E. Production and distribution of electrical energy, gas and water supply	437	4,829
F. Construction	1,940	17,316
G. Trade and repairs	1,942	20,181
H. Accommodation	1,372	12,492
I. Transport, storage and communications	1,334	13,653
J. Financial intermediation	817	10,768
K. Real estate and rental activities; business services	1,799	21,103
M. Education	1,172	11,498
N. Health and veterinary activities, social services	1,117	15,371
O. Other social activities and services provided to the community; personal services	1,186	11,117

**Table 2. Sample sizes by Autonomous Community**

	Animal	Employees
<b>NATIONAL TOTAL</b>	<b>22,788</b>	<b>229,866</b>
Andalucía	1,965	20,483
Aragón	1,170	11,082
Asturias (Principado de)	938	8,823
Balears (Illes)	927	8,231
Canarias	1,142	11,263
Cantabria	708	6,372
Castilla y León	1,349	13,146
Castilla-La Mancha	1,167	10,799
Cataluña	2,650	30,817
Comunitat Valenciana	1,992	20,225
Extremadura	738	6,302
Galicia	1,401	13,667
Madrid (Comunidad de)	2,315	28,012
Murcia (Región de)	1,060	9,566
Navarra (Comunidad Foral de)	889	8,457
País Vasco	1,536	16,042
Rioja (La)	658	5,197
Ceuta and Melilla	183	1,382

In terms of field incidents, of the 22,788 units selected, there were 22,568 surveyable companies (21,621 surveyed and 947 refusals). Of the non surveyable companies, which totaled 220, 189 were unreachable, 25 closed and 6 were erroneously included.

The response rate was therefore very high, as can be seen below.

**Table 3. Sample collection and response rates by section and activity subsections of the CNAE-93**

	Animal	Rate	Employees	Rate
<b>ALL ACTIVITIES</b>	<b>21,621</b>	<b>94.88</b>	<b>215,697</b>	<b>93.84</b>
C. Mining and quarrying industries	426	96.38	3,365	93.92
CA. Extraction of Energy products	66	98.51	763	93.05
CB. Extraction of other ores except energy products	360	96.00	2,602	94.17
D. Manufacturing industry	8,873	96.13	83,694	95.16
DA. Food, Beverage and Tobacco Industry	1,064	95.08	10,584	93.54
DB. Textile and clothing industry	672	94.65	5,845	93.45
DC. Leather and footwear industry	350	95.37	2,618	94.48
DD. Wood and cork industry	596	97.55	4,579	97.24
DE. Paper industry; publishing, graphic arts and reproduction	690	96.37	6,467	95.51
DF. Refinement of petroleum and treatment of nuclear fuels	43	100.00	741	97.76
DG. Chemical industry	579	97.47	6,039	96.19
DH. Rubber and plastic material transformation industry	509	95.32	5,019	95.36
DI. Other non-metallic ore product industries	783	97.15	7,130	96.36
DJ. Metallurgy and manufacture of metallic products	1,055	96.70	9,857	95.50
DK. Construction of machinery and mechanical equipment industry	669	96.82	6,093	95.73
DL. Electrical, electronic and optical material and equipment industry	619	95.52	6,459	95.15
DM. Manufacture of transport material	552	95.67	6,813	94.56
DN. Various manufacturing industries	692	95.71	5,450	94.68
E. Production and distribution of electrical energy, gas and water supply	416	95.19	4,632	95.92
F. Construction	1,748	90.10	15,527	89.67
G. Trade and repairs	1,850	95.26	18,947	93.89
H. Accommodation	1,287	93.80	11,560	92.54
I. Transport, storage and communications	1,250	93.70	12,545	91.88
J. Financial intermediation	796	97.43	10,437	96.93
K. Real estate and rental activities; business services	1,655	92.00	19,057	90.30
M. Education	1,138	97.10	11,115	96.67
N. Health and veterinary activities, social services	1,065	95.34	14,462	94.09
O. Other community, social and personal service activities region; personal services	1,117	94.18	10,356	93.15

**Table 4. Sample collection and response rates by Autonomous Community**

	Units	Rate	Employees	Rate
NATIONAL TOTAL	21,621	94.88	215,697	93.84
Andalucía	1,864	94.86	19,143	93.46
Aragón	1,132	96.75	10,600	95.65
Asturias (Principado de)	910	97.01	8,464	95.93
Balears (Illes)	863	93.10	7,692	93.45
Canarias	1,070	93.70	10,407	92.40
Cantabria	675	95.34	6,046	94.88
Castilla y León	1,295	96.00	12,447	94.68
Castilla-La Mancha	1,124	96.32	10,302	95.40
Cataluña	2,520	95.09	29,000	94.10
Comunitat Valenciana	1,912	95.98	19,186	94.86
Extremadura	715	96.88	6,088	96.60
Galicia	1,354	96.65	13,155	96.25
Madrid (Comunidad de)	2,187	94.47	26,394	94.22
Murcia (Región de)	1,006	94.91	9,017	94.26
Navarra (Comunidad Foral de)	813	91.45	7,533	89.07
País Vasco	1,368	89.06	13,903	86.67
Rioja (La)	645	98.02	5,049	97.15
Ceuta and Melilla	168	91.80	1,271	91.97

**2006**

The final sample size was 30,346 Social Security contribution accounts and 261,309 workers, distributed with optimum allocation according to the size stratum to which the contribution account belongs.

**Table 1. Sample sizes by section and activity subsections of the CNAE-93**

	Units	Employees
ALL ACTIVITIES	30,346	261,309
C. Mining and quarrying industries	3,793	3,793
CA. Extraction of Energy products	103	837
CB. Extraction of other ores except energy products	468	2,956
D. Manufacturing industry	10,651	89,275
DA. Food, Beverage and Tobacco Industry	1,264	11,623
DB. Textile and clothing industry	698	5,154
DC. Leather and footwear industry	345	2,106
DD. Wood and cork industry	664	4,534
DE. Paper industry; publishing, graphic arts and reproduction	882	7,134
DF. Refinement of petroleum and treatment of nuclear fuels	70	842
DG. Chemical industry	670	6,529
DH. Rubber and plastic material transformation industry	600	5,506
DI. Other non-metallic ore product industries	883	7,673
DJ. Metallurgy and manufacture of metallic products	1,296	10,899
DK. Construction of machinery and mechanical equipment industry	755	6,443
DL. Electrical, electronic and optical material and equipment industry	908	7,143
DM. Manufacture of transport material	700	7,539
DN. Various manufacturing industries	916	6,150
E. Production and distribution of electrical energy, gas and water supply	569	5,152
F. Construction	2,872	21,552
G. Trade and repairs	2,919	24,700
H. Accommodation	1,760	14,053
I. Transport, storage and communications	1,898	16,256
J. Financial intermediation	1,217	11,745
K. Real estate and rental activities; business services	3,080	28,432
M. Education	1,379	13,560
N. Health and veterinary activities, social services	1,402	18,954
O. Other social activities and services provided to the community; personal services	2,028	13,837

The following tables show the sample sizes by sections and subsections of the CNAE-93 and by Autonomous Community.

**Table 2. Sample sizes by Autonomous Community**

	Units	Employees
<b>NATIONAL TOTAL</b>	<b>30,346</b>	<b>261,309</b>
Andalucía	2,604	23,114
Aragón	1,559	12,634
Asturias (Principado de)	1,277	9,798
Balears (Illes)	1,261	9,295
Canarias	1,533	12,583
Cantabria	1,005	7,405
Castilla y León	1,812	15,408
Castilla-La Mancha	1,597	12,794
Cataluña	3,396	34,046
Comunitat Valenciana	2,581	22,717
Extremadura	1,124	7,657
Galicia	1,887	15,875
Madrid (Comunidad de)	2,982	32,465
Murcia (Región de)	1,442	10,925
Navarra (Comunidad Foral de)	1,189	9,543
País Vasco	1,968	17,490
Rioja (La)	933	6,071
Ceuta and Melilla	196	1,489

Of the 30,346 units selected, those surveyable were 29,517 (27,301 surveyed and 2,216 refusals). Of the 829 unsurveyable companies, 725 were unreachable, 57 were closed or without business activity, and 47 were erroneously included or outside of the scope.

The response rate was of 90%, in both the first and second stages.

**Table 3. Sample collection and response rates by section and activity subsections of the CNAE-93**

	Units	Rate	Employees	Rate
<b>ALL ACTIVITIES</b>	<b>27,301</b>	<b>89.97</b>	<b>235,272</b>	<b>90.04</b>
C. Mining and quarrying industries	523	91.59	3,545	93.46
CA. Extraction of Energy products	96	93.20	789	94.27
CB. Extraction of other ores except energy products	427	91.24	2,756	93.23
D. Manufacturing industry	9,838	92.37	82,438	92.34
DA. Food, Beverage and Tobacco Industry	1,186	93.83	10,910	93.87
DB. Textile and clothing industry	631	90.40	4,691	91.02
DC. Leather and footwear industry	316	91.59	1,911	90.74
DD. Wood and cork industry	624	93.98	4,297	94.77
DE. Paper industry; publishing, graphic arts and reproduction	795	90.14	6,495	91.04
DF. Refinement of petroleum and treatment of nuclear fuels	68	97.14	821	97.51
DG. Chemical industry	617	92.09	6,018	92.17
DH. Rubber and plastic material transformation industry	549	91.50	4,988	90.59
DI. Other non-metallic ore product industries	832	94.22	7,237	94.32
DJ. Metallurgy and manufacture of metallic products	1,216	93.83	10,243	93.98
DK. Construction of machinery and mechanical equipment industry	699	92.58	5,838	90.61
DL. Electrical, electronic and optical material and equipment industry	811	89.32	6,405	89.67
DM. Manufacture of transport material	634	90.57	6,769	89.79
DN. Various manufacturing industries	860	93.89	5,815	94.55
E. Production and distribution of electrical energy, gas and water supply	538	94.55	4,856	94.25
F. Construction	2,393	83.32	18,304	84.93
G. Trade and repairs	2,653	90.89	22,482	91.02
H. Accommodation	1,530	86.93	12,299	87.52
I. Transport, storage and communications	1,666	87.78	14,535	89.41
J. Financial intermediation	1,116	91.70	11,047	94.06
K. Real estate and rental activities; business services	2,686	87.21	24,103	84.77
M. Education	1,268	91.95	12,363	91.17
N. Health and veterinary activities, social services	1,284	91.58	16,976	89.56
O. Other community, social and personal service activities region; personal services	1,806	89.05	12,324	89.07

**Table 4. Sample collection and response rates by Autonomous Community**

	Units	Rate	Employees	Rate
NATIONAL TOTAL	27,301	89.97	235,272	90.04
Andalucía	2,250	86.41	20,120	87.05
Aragón	1,443	92.56	11,649	92.20
Asturias (Principado de)	1,213	94.99	9,337	95.29
Balears (Illes)	1,096	86.92	8,314	89.45
Canarias	1,288	84.02	10,781	85.68
Cantabria	960	95.52	7,051	95.22
Castilla y León	1,681	92.77	14,340	93.07
Castilla-La Mancha	1,466	91.80	11,759	91.91
Cataluña	2,992	88.10	29,950	87.97
Comunitat Valenciana	2,305	89.31	20,322	89.46
Extremadura	1,016	90.39	6,877	89.81
Galicia	1,722	91.26	14,346	90.37
Madrid (Comunidad de)	2,574	86.32	28,189	86.83
Murcia (Región de)	1,389	96.32	10,550	96.57
Navarra (Comunidad Foral de)	1,069	89.91	8,672	90.87
País Vasco	1,805	91.72	16,120	92.17
Rioja (La)	865	92.71	5,676	93.49
Ceuta and Melilla	167	85.20	1,219	81.87

## 6 Results

The survey results are published in the form of a results preview, 18 months after the reference year, at the same time they are transmitted to Eurostat. Once the validation process between Eurostat and the INE has concluded, the final results are published in detail, and may be viewed at:

<http://www.ine.es/jaxi/menu.do?type=pcaxis&path=/t22/p133&file=inebase&L=1>