INe

INSTITUTO NACIONAL DE ESTADISTICA

Final Quality Report

Survey on Income and Living Conditions Spain (Spanish ECV 2010)

Madrid, December 2012

CONTENTS

INTRODUCTION

This Report complies with Article 16 of the Regulation of the European Parliament and of the Council of 16 June 2003 concerning Community statistics on income and living conditions (EU-SILC).

Article 16 requires that by the end of the year N+2 Member States produce a final quality report on the longitudinal component of the statistical operation.

To implement Article 16, the Commission made a Regulation on the detailed content of the intermediate and final quality reports. The Commission also drew up a technical document to further specify and clarify the content of quality reports.

This Report provides information on accuracy, comparability and coherence with external sources.

The gross and net figures are provided for the 2010 Spanish microdata.

1. EUROPEAN UNION COMMON LONGITUDINAL INDICATORS

1.1. European Union common longitudinal indicators based on the longitudinal component of EU-SILC

The programs of the longitudinal indicators haven't been developed in INE.

1.2. Other indicators

Not applicable

2. ACCURACY

2.1. Sample design

The sample design has not changed since the beginning of the survey.

2.1.1. Type of sample design

The Survey on Income and Living Conditions (Spanish "ECV") is an annual survey with a rotational-group design. The sample comprises four independent sub-samples, each of which is a four-year panel. Each year, the sample is rotated in one of the panels.

Each sub-sample is selected following a two-stage design; the first-stage units are stratified. The first stage is made up of census sections. The second stage comprises main family addresses. There was no sub-sampling within those units; all households usually residing in those addresses were surveyed.

2.1.2. Sampling units

The first-stage units are census sections. Each section is made up of around 400 addresses.

The second-stage units are the principal family addresses selected for the sample in the census section.

2.1.3. Stratification and sub-stratification criteria

In each Autonomous Community [self-ruling region], first-stage units were **stratified** by the size of the municipality to which the census section belonged.

The following strata were considered:

Stratum 0: Municipalities of over 500,000 population.

Stratum 1: Provincial capitals (other than the above).

Stratum 2: Municipalities of over 100,000 population (other than the above).

Stratum 3: Municipalities of 50,000 to 100,000 population (other than the above).

Stratum 4: Municipalities of 20,000 to 50,000 population (other than the above).

Stratum 5: Municipalities of 10,000 to 20,000 population.

Stratum 6: Municipalities of under 10,000 population.

An independent sample was designed in each Autonomous Community to represent it, because one of INE's survey objectives is to provide data at this level of disaggegration.

2.1.4. Sample size and allocation criteria

To achieve the survey objective of producing acceptably reliable estimates at both the national and at the Autonomous Community (regional) level, we selected in 2004 a sample of 16,000 addresses spread over 2000 census sections.

We distributed the sample across Autonomous Communities by allocating one part uniformly and another part in proportion to Autonomous Community size. The uniform part accounted for about 40% of sections.

Table I. Sample distribution by Autonomous Community

Autonomous Community	Number of census sections	Number of addresses
Andalusia	240	1,920
Aragon	88	704
Asturias (Principality of)	84	672
Balearic Islands	72	576
Canary Islands	96	768
Cantabria	60	480
Castile-León	132	1,056
Castile-La Mancha	96	768
Catalonia	224	1,792
Valencia	156	1,248
Extremadura	76	608
Galicia	132	1,056
Madrid (Community of)	192	1,536
Murcia (Region of)	76	608
Navarre (Autonomous Community)	60	480
Basque Country	120	960
La Rioja	60	480
Ceuta and Melilla (Autonomous Cities)	36	288
Total	2,000	16,000

In each section, besides the eight addresses selected originally, a further eight were selected as substitutes in case any problem arose with the addresses chosen originally.

The number of sections in each Autonomous Community and stratum group was always a multiple of four, to ensure that all rotations had the same notional-sample distribution across Autonomous Communities and strata. Therefore the number of units considered in the new sub-sample in the current survey is ¼ of the figures included in the table above.

In order to achieve the minimum effective sample size included in the Regulation, the initial sample in the new-subsample is 4.000 dwellings. The response rate (including frame invalid addresses – non-residential, unoccupied, etc. -) is about 60%. As substitutions are admitted the final sample in the new-sub-sample is about 4.000 households.

For the other 3 sub-samples (panel component), the sample will consist of the households from the previous wave: 4.000 + 3.600 + 3.100 = 10.700 households. Since the estimated response rate is about 85%, the final sample in these three groups will be close to 9.100 households.

The design effect in relation to the 'risk of poverty rate' variable is about 1,4 (using wave 1 data). Therefore the final effective sample size is approximately (4.000 + 9.100) / 1,4 = 9.350 households. Comparing this figure with the minimum effective sample size included in the Regulation, 6.500, we see that the minimum sample size is achieved by far in Spain.

2.1.5. Sample selection schemes

Census sections were selected in each stratum by a probability in proportion to size (family dwellings). In each section, addresses were selected with equal probability by systematic sampling initiated at random. This procedure produces self-weighted samples in each stratum.

2.1.6. Sample distribution over time

There is no itemised distribution for sample collection in the period February-July 2010. The income reference period is fixed (year 2009).

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Sample distribution (collected household questionnaire) over the time


                              Number     Percentage

February      21 to 31            33          0.2
March         1 to 10           825          6.1
              11 to 20          989          7.3
              21 to 31         1297          9.5
April         1 to 10           930          6.8
              11 to 20         1608         11.8
              21 to 31         1515         11.1
May           1 to 10          1372         10.1
              11 to 20         1704         12.5
              21 to 31         1121          8.2
June          1 to 10          1295          9.5
              11 to 20          633          4.7
              21 to 31          235          1.7
July          1 to 10           39          0.3
              11 to 20            1          0.0
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2.1.7. Renewal of sample: Rotational groups

As indicated earlier, the sample design takes the form of four annual panels: individuals in each panel remain in the sample for four consecutive years. Therefore we divided, in wave 1, the 2000 sections into four groups – called rotational groups – corresponding to the four panels of the sample. Each sub-sample had 500 sections

Every year, we replace all the sample of addresses in the sections belonging to a given rotational group (the sections don´t change, new addresses are selected). Hence the year's sample has a three-quarters overlap with the previous year's sample.

The number of sections in each Autonomous Community and stratum group was always a multiple of four, to ensure that all rotations had the same notional sample distribution across Autonomous Communities and strata.

The numbers used in the variable DB075 (rotational group) is 1,2,3 and 4. In the 2010 survey, the rotational group of the new sub-sample is "2".

2.1.8. Weightings

The complete weighting procedure is described.

2.1.8.1. Weightings in a NEW rotational group

In the first year for the rotational group t, only cross-sectional factors and estimates need be considered. , for t=1, 2, ….

Step 1. Design factor

$$\hat{Y}^{(1,t)} = \sum_h \sum_{j,i \in h} \frac{V_h^{(t-1)}}{vt_h^t} y_{hji}^t = \sum_h \sum_{j,i \in h} \frac{V_h^{(t-1)}}{8 \cdot n_h^t} y_{hji}^t$$

Where:

t is the rotational group;
h is the stratum to which section j belongs;
j is the section;
i is a household.
$V_h^{(t-1)}$ is the total addresses in the municipal register file for t-1 in stratum h.

n_h^t is the allocation of sections in stratum h and rotational group t.

vt_h^t is the initial number of addresses in stratum h in rotational group t, which, by design, is $8 \cdot n_h^t$.

y_{hji}^t is the value of the study variable in household i, section j, stratum h, rotational group t.

Therefore, for a household i, section j, stratum h, turn t, the design factor is:

$$w_{hji}^t = \frac{V_h^{(t-1)}}{8 \cdot n_h^t}$$

Given that $n_h^1 = n_h^2 = n_h^3 = n_h^4$, as indicated regarding rotational groups, the design factor does not depend on the rotational group.

Step 2. Non-response adjustments

We adjust for non-response by multiplying the above factor by $\dfrac{vt_h^t}{ve_h^t}$. This provides an estimate of the

inverse probability of response in the stratum, where ve_h^t is the actual number of addresses in stratum h and rotational group t. We thus have:

$$\hat{Y}^{(2,t)} = \sum_h \hat{Y}_h^{(2,t)} = \sum_h \sum_{j,i \in h} \frac{V_h^{(t-1)}}{ve_h^t} y_{hji}^t$$

Step 3. Adjustments to external data (ratio estimator)

Using projected population as at the time of the survey as an auxiliary variable, we obtained a separate ratio estimator the chief purpose of which was to enhance the estimate produced by the previous steps

by bringing the population figure at the time of sample selection up to date to the time of survey performance. The population figure used refers to 15 February of the current year.

The expression of the estimator is:

$$\hat{Y}^{(3,t)} = \sum_{h} \frac{\hat{Y}_h^{(2,t)}}{\hat{P}_h^{(2,t)}} P_h$$

i.e.,

$$\hat{Y}^{(3,t)} = \sum_{h} \frac{\sum_{j,i \in h} \frac{V_h^{(t-1)}}{ve_h^t} y_{hji}^t}{\sum_{j,i \in h} \frac{V_h^{(t-1)}}{ve_h^t} p_{hji}^t} \cdot P_h = \sum_{h} \sum_{j,i \in h} \frac{P_h}{\sum_{j,i \in h} p_{hji}^t} y_{hji}^t$$

Which can be written down as:

$$\hat{Y}^{(3,t)} = \sum_{k} w_k^t \cdot y_k^t$$

Where the subscript k represents sample households, and:

$$w_k^t = \frac{P_h}{\sum_{ji \in h} p_{hji}^t} = \frac{P_h}{p_h^t} \quad \text{if household k is in stratum h.}$$

p_h^t is the sample population of stratum h, turn t.

P_h is the projected population of stratum h.

y_k^t is the value of the study variable in household k, rotational group t.

Step 4. Adjustments to external data (calibration)

The above factor is weighted to adjust estimated distribution to the population distribution by Autonomous Community, age group and gender provided by the Demographic Projections Unit.

We have also adjusted the estimated distribution of households by size to our estimate in the first quarter of the current year for the Labour Force Survey (*Encuesta de Población Activa* - EPA).

For the calibration we used the CALMAR macro designed by the French Institut National de Statistique et Études Economiques (INSEE). We opted for the truncated Logit method with values LO=0.1, UP=10. We considered the following twenty-two groups: Males and females aged 0-15, 16-19, 20-24, 25-34, 35-44, 45-49, 50-54, 55-59, 60-64, 65-74, 75 years and over.

Household distribution by size was: households of 1, 2, 3 or 4 or more members.

In Ceuta and Melilla adjustment groups were fewer because of the small sample size. Specifically, household distribution was not adjusted, and we only considered the following age and gender groups: males and females aged 0-15, 16-24, 25-49, 50-64, 65-74, 75 years and over.

The obtained factor, WH_k^t , is the household factor. We allocated to all household members their respective household factor $WP_i^t = WH_k^t$, if $i \in k$.

2.1.8.2. Weightings in a PANEL rotational group

As in the previous step, where weigths in a new rotational group were calculated, the construction of the weights in a panel rotational group is done in several steps.

Step 1. Calculation of the basic panel weight

This weight is calculated in each rotational group independently. It collects the inclusion probabilities and non-response or attrition of the panel sample.

For households in the component panel (rotating groups already investigated in previous waves) the basic panel weight is only calculated for the panel persons of the household.

It is calculated from the final cross-sectional weight obtained for the household in wave t-1 ($WP_i = WH_k$, si $i \in k$), adjusting due to the attrition of the sample. The adjustment is the inverse of the response probability inside the rotational group, region, age group and gender.

Non-panel persons have a basic panel weight equal to zero.

Step 2. Calculation of the household weight in each rotational group

The household weight of household h is:

$$w_h^t = \frac{\sum_{j \in h} d_j}{n_h}$$

where:

d_j : is the basic panel weight of the panel person j of the household h.

n_h : is the number of persons (panel and non-panel) aged 14 or more in wave 1, of the household h.

The sum is only for the panel persons of the household.

2.1.8.3. Common weightings in NEW and PANEL rotational groups

After having applied the corresponding weightings in the new and panel sub-samples, some other steps need be considered.

Common step 1. Final cross-sectional weights

The four rotational groups are grouped together. Finally, the factors of the four groups are grouped together by weighting them by the actual number of sample households in each group, by Autonomous Community.

Thus:

$$WH_k = \frac{n_{ca}^t}{n_{ca}} WH_k^t$$

This is the household factor and also the factor for each household member.

Where n_{ca}^t represents the number of sample households in the Autonomous Community ca and rotational group t, and n_{ca} represents the household sample size in the Autonomous Community ca ($n_{ca} = \sum_{t=1}^{4} n_{ca}^t$).

From 2005 onwards $\frac{n_{ca}^t}{n_{ca}}$ will be ¼ and calibration will be carried out at this stage.

Common step 2. Factor for persons aged 16 and over

The factor is calculated on the basis of the factor for all household persons, in two steps:

1. Correction of non-response in Individual Questionnaires. Using the factor WP_i^t, we construct the **factor for persons aged 16 and over completing the Individual Questionnaire**, correcting non-response in Individual Questionnaires:

$$WCI_i^t = \frac{\sum_{j \in G_i} WP_j^t}{\sum_{j \in G_i} WP_j^t \cdot R_j} \cdot WP_i^t$$

Where:

- Variable R takes the value 1 for individual j if he/she has completed the questionnaire, and 0 if not.
- G_j is the set of individuals in the same Autonomous Community and age and gender group as questionnaire i. The age and gender groups considered are the 22 groups mentioned for the general case outlined in step 4[1].

2. Grouping of the four rotational groups. Finally, the factors of the four rotational groups are grouped together by weighting them by the number of Individual Questionnaires in each group, by Autonomous Community.

The factor for persons aged 16 or over completing the Individual Questionnaire is:

$$WCI_i = \frac{ci_{ca}^t}{ci_{ca}} WCI_i^t \text{ for t = 2004 and } WCI_i = \frac{\sum_{j \in G_{i_i}} WP_j}{\sum_{j \in G_{i_i}} WP_j \cdot R_j} \cdot WP_i \text{ for t > 2004}$$

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[1] Except in Cantabria and the Autonomous Community of Madrid, where groups have been brought together owing to the small sample size.

Where ci_{ca}^t represents the number of sample Individual Questionnaires in the Autonomous Community ca and rotational group t, and ci_{ca} represents the actual number of sample Individual Questionnaires in the Autonomous Community ca ($\left(ci_{ca} = \sum_{t=1}^{4} ci_{ca}^t \right)$).

2.1.8.4. Final longitudinal weights

The longitudinal analysis is done only for persons and for a concrete period of time.

Taking into account the sample design main characteristics, this analysis covers up to 4 years, since this is the maximum number of periods the households stay in the sample.

The elevation calculation process is similar to the one applied in the cross-sectional.

2.1.9. Substitutions

2.1.9.1. Method of selection of substitutions

As in previous years, in the new sub-sample, in each section, besides the eight addresses selected originally, a further eight were selected in the section as substitutes in case any problem arose with the addresses chosen originally.

Hence the common variable of an address selected originally and its prospective substitute is the census section. There is not other common variable.

There have been multiple substitutions in the sense that further substitutions (until the list of eight substitutes is completely used) have been made for failed substitutions.

The total number of households in D-file in the new sub-sample is 6403 (4003 are original households and 2400 are substituted households). This number includes the substituted households not accepted for database (failed substituted units).

Number of original dwellings and original households in the new sub-sample

	Original units
	Number
Dwellings	4000
Households in same dwelllings	3
Total households	4003

Number of original households in the new sub-sample

	Original units
	Number
Households accepted for database	2576
Households failed	1427
Total households	4003

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Number of original households in the new sub-sample not accepted in database by colaboration
of the susbstituted unit


                                                      Original
                                                       units

                                                      Number

Failed original households successfully subsistuted     1305
Failed original households not successfully subsistuted  122
Total failed original households                        1427


Number of substituted households in the new sub-sample


                                                    Substituted
                                                       units

                                                      Number

Substituted dwelling accepted in DB                    1305
Households in same dwelllings                             1
Other substituted household accepted in DB               16
Failed substituted household                           1078
Total substituted households                           2400
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There are "Other substituted household accepted in database" because some hosueholds initilally rejected (and carried out the process of substitutions) were finally recovered.

In the tables related to substitutions the original household is linked only to the final substituted household (there can be some intermediate substituted failed households in between).

2.1.9.2. Main characteristics of substituted units compared to original units, by region (NUTS 2), if available

In this point the information is very limited. There are some variables that have been collected using a short questionnaire in field when an original unit has not been accepted, but the non-response rate has been very high.

2.1.9.3. Distribution of substituted units by record of contact at address (DB120), household questionnaire result (DB130) and household interview acceptance (DB135) of the original units

In this table the original household is linked only to the final substituted household (there can be some intermediate substituted failed households in between).

Distribution of substituted units by record of contact at address, household questionnaire result and household interview acceptance of the original units

	Original units Number	Original units Percentage	Substituted units Number	Substituted units Percentage
DB120 = 21	47	3.3	42	3.2
DB120 = 22	11	0.8	10	0.8
DB120 = 23	453	31.7	404	31.0
DB130 = 21	509	35.7	467	35.8
DB130 = 22	376	26.3	353	27.0
DB130 = 23	17	1.2	16	1.2
DB130 = 24	14	1.0	13	1.0
Total	1427	100.0	1305	100.0

2.2. Sampling errors

For 2010 the data are:

Number of observations

	Number of observations before imputation (partial or total information)	Number of observations after imputation
Total disposable household income	13266	13597
T. d. h. income before s. tr. other than old_age and surv. ben.	13183	13597
T. d. h. income before s. tr. including old_age and surv. ben.	12893	13597
Net income from rental of a property or land	908	937
Family/children-related allowances	609	617
Social exclusion not elsewhere classified	375	376
Housing allowances	201	212
Regular inter-household cash transfer received	452	468
Net interest, div., profit from capital invest. in uninc. business	2873	3851
Net income received by people aged under 16	417	421
Regular taxes on wealth	0	0
Regular inter-household cash transfer paid	856	883
Repayments/receipts for tax adjustments	9439	10005

	Number of observations before imputation (partial or total information)	Number of observations after imputation
Net cash or near cash employee income	12747	13828
Net non-cash employee income	1505	1785
Net cash profits or losses from self-employment	1728	2121
Net pension from individual private plans	200	227
Net unemployment benefits	2810	2874
Net old-age benefits	6185	6370
Net survivors benefits	484	492
Net sickness benefits	330	342
Net disability benefits	739	760
Education-related allowances	700	721

Number of observations (before and after imputation) by household size (equivalised disposable income)

	Number of observations before imputation (partial or total information)	Number of observations after imputation
Total	36059	36922
1 member	2497	2577
2 members	7948	8138
3 members	9004	9184
4 and more members	16610	17023

Number of observations (before and after imputation) by age (equivalised disposable income)

	Number of observations before imputation (partial or total information)	Number of observations after imputation
Total	36059	36922
0 le age le 24	9508	9735
25 le age le 34	4617	4719
35 le age le 44	5502	5640
45 le age le 54	5368	5513
55 le age le 64	4402	4532
65 le age	6662	6783

Number of observations (before and after imputation) by sex (equivalised disposable income)

	Number of observations before imputation (partial or total information)	Number of observations after imputation
Total	36059	36922
Males	17542	17961
Females	18517	18961

Mean of household income components

	Mean
Total disposable household income	25937
T. d. h. income before s. tr. other than old_age and surv. ben.	23952
T. d. h. income before s. tr. including old_age and surv. ben.	19021
Net income from rental of a property or land	6641
Family/children-related allowances	2746
Social exclusion not elsewhere classified	4022
Housing allowances	1722
Regular inter-household cash transfer received	5774
Net interest, div., profit from capital invest. in uninc. business	950
Net income received by people aged under 16	990
Regular taxes on wealth	.
Regular inter-household cash transfer paid	3197
Repayments/receipts for tax adjustments	-428

Mean of personal income components

	Mean
Net cash or near cash employee income	15353
Net non-cash employee income	1624
Net cash profits or losses from self-employment	8387
Net pension from individual private plans	6033
Net unemployment benefits	4631
Net old-age benefits	11541
Net survivors benefits	6870
Net sickness benefits	4900
Net disability benefits	8894
Education-related allowances	1310
Gross monthly earnings for employees	1779

Mean of the equivalised disposable income by household size

	Mean
Total	14687
1 member	13211
2 members	15548
3 members	15800
4 and more members	13836

Mean of the equivalised disposable income by age

	Mean
Total	14687
0 le age le 24	13661
25 le age le 34	16201
35 le age le 44	15219
45 le age le 54	15295
55 le age le 64	16053
65 le age	12838

Mean of the equivalised disposable income by sex

	Mean
Total	14687
Males	14847
Females	14532

Standard error

Mean	Standard error
Total disposable household income	2,09
T. d. h. income before s. tr. other than old_age and surv. ben.	2,10
T. d. h. income before s. tr. including old_age and surv. ben.	2,18
Net income from rental of a property or land	3,46
Family/children-related allowances	1,25
Social exclusion not elsewhere classified	3,11
Housing allowances	1,59
Regular inter-household cash transfer received	20,34
Net interest, div., profit from capital invest. in uninc. business	0,69
Net income received by people aged under 16	0,88
Regular taxes on wealth	0,00
Regular inter-household cash transfer paid	1,26
Repayments/receipts for tax adjustments	0,17

Mean of personal income components

Mean	
Net cash or near cash employee income	1,16
Net non-cash employee income	0,67
Net cash profits or losses from self-employment	5,06
Net pension from individual private plans	6,66
Net unemployment benefits	0,82
Net old-age benefits	1,01
Net survivors benefits	2,43
Net sickness benefits	2,56
Net disability benefits	2,85
Education-related allowances	0,94
Gross monthly earnings for employees	0,13

Mean of the equivalised disposable income by household size

Mean	
Total	1,14
1 member	2,43
2 members	1,98
3 members	2,79
4 and more members	1,65

Mean of the equivalised disposable income by age

Mean

Total	1,14
0 le age le 24	1,61
25 le age le 34	2,43
35 le age le 44	2,15
45 le age le 54	1,98
55 le age le 64	2,57
65 le age	1,41

Mean of the equivalised disposable income by sex

Mean

Total	1,14
Males	1,19
Females	1,24

2.3. Non-sampling errors

2.3.1. Sampling frame and coverage errors

The sampling frame is the Municipal Register.

The sample selection frame was area-based and consisted of the list of census sections used in the Municipal Register (population register).

The new sample for SILC-2010 was obtained with the Register dated 04.03.2009.

The **Municipal Register** [*Padrón*] is an administrative record of the residents in a municipality. The Municipal Register is formed, maintained, reviewed and kept by each municipality. It is continually updated.

All persons residing in Spain must appear in the Municipal Register of the municipality where they usually live. A person living in more than one municipality must register only in the one where he/she lives longest in the year.

Municipal Register entries contain only the following mandatory details on each resident:

a) Name

b) Sex

c) Usual address

d) Nationality

e) Place and date of birth

f) Identity Card Number or, if foreign, an equivalent identifying document

The percentage of addresses does not exist or is non-residential address or is unoccupied is:

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Percentage of address does not exist or is non-residential or is unoccupied or not principal
residence (DB120 = 23) over the total original address (household) selected
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        Percentage

           11.3
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2.3.2.1. Measurement errors

We constructed the questionnaire so as to elicit sufficient information to determine the target variables set forth in the Commission Regulation. We did not include additional questions to cover other areas at the national level.

We applied the experience of previous operations to improve the questionnaire. Apart from the previous waves questionnaires, the experience of the European Community Household Panel and, more particularly, the experience of the Pilot Survey on Living Conditions (2002) has helped to the configuration of the current questionnaire.

The questionnaire design was worked on by experts of the originating unit and of the IT and Fieldwork departments. It was then reviewed by experts working on other surveys. The questionnaire was later tested by various people.

We have updated the questionnaire on an ongoing basis in response to the final reports of the 38 Area Heads in charge of fieldwork, and to follow Eurostat recommendations on some specific variables.

Training followed a cascade pattern. We first ran a course in Madrid for the 38 Area Heads, divided into 2 groups. At their Provincial Offices Area Heads then taught a one-week course to their staff using a range of training manuals.

A section was assigned to each interviewer and fieldwork began. Inspectors revisited some households on the basis of any difficulties found.

2.3.2.2. Processing errors

Questionnaires are completed by CAPI (Compute Aided Personal Interviewing). This procedure has been implemented since 2005 (in 2004 questionnaires were completed by PAPI).

As in previous years, after data collection, we then apply a range of checks developed at INE to ensure data consistency. The phases of these checks are:

1) Households coverage
2) Persons coverage
3) Inconsistencies among tables
4) Control of duplicates
5) Household identification check
6) Person identification check
7) Monitoring of flows, valid values and out-of-range values
8) Intra-year inconsistencies check
     8.1 Intra-questionnaire inconsistencies check
     8.2 Inter-questionnaire inconsistencies check
9) Follow-up of households and persons

We convert the data to the format required by Eurostat and apply the set of checks developed by Eurostat.

Due to the mode of collection (CAPI), some of the traditional sources of errors have disappeared or have been reduced.

The main source of error was flow path. Errors in direct questions on income were few.

2.3.3. Non-response errors

2.3.3.1. Achieved sample size

Longitudinal component. Achieved sample size

SILC 2007. Number of households for which an interview is accepted for the database (DB135 = 1). Rotational group breakdown

	Number
Group 3	3833
Total	3833

SILC 2007. Number of persons 16 years or older who are members of the households for which the interview is accepted for the database (DB135 = 1), and who completed a personal interview (RB250 = 11 to 13).

	Number
Group 3	8822
Total	8822

SILC 2008. Number of households for which an interview is accepted for the database (DB135 = 1). Rotational group breakdown

	Number
Group 3	3415
Group 4	3875
Total	7290

SILC 2008. Number of persons 16 years or older who are members of the households for which the interview is accepted for the database (DB135 = 1), and who completed a personal interview (RB250 = 11 to 13).

	Number
Group 3	7860
Group 4	8882
Total	16742

SILC 2009. Number of households for which an interview is accepted for the database (DB135 = 1). Rotational group breakdown

	Number
Group 1	3927
Group 3	3195
Group 4	3440
Total	10562

SILC 2009. Number of persons 16 years or older who are members of the households for which the interview is accepted for the database (DB135 = 1), and who completed a personal interview (RB250 = 11 to 13).

	Number
Group 1	8838

```
Group 3              7260
Group 4              7966
Total               24064
```

SILC 2010. Number of households for which an interview is accepted for the database (DB135 = 1). Rotational group breakdown

```
              Number

Group 1              3482
Group 3              3022
Group 4              3195
Total                9699
```

SILC 2010. Number of persons 16 years or older who are members of the households for which the interview is accepted for the database (DB135 = 1), and who completed a personal interview (RB250 = 11 to 13).

```
              Number

Group 1              7830
Group 3              6899
Group 4              7328
Total               22057
```

2.3.3.2. Unit non-response

```
Unit non-response. Rotational group
```

	Group 1 (2009)	Group 3 (2007)	Group 4 (2008)
Ra	0.99	0.98	0.98
Rh	0.70	0.63	0.65
NRh	30.48	37.96	36.41
Rp	0.99	0.99	0.99
NRp	1.30	0.70	0.57
NRp2	31.38	38.39	36.78

```
Ra-Proportion of address contact
Rh-Proportion of complete household interv. accepted for the database
NRh-Household non-response rate
Rp-Proportion of complete personal interv. within the households accepted for the database
NRp-Individual non-response rate
NRp2-Overall individual non-response rate
```

HOUSEHOLDS

```
Longitudinal component. Unit non-response. Waves 1 - 2. Households.
```

```
Household response rates: Comparison of results codes between wave 2 and wave 1 (SILC 2007- 2008). Rotational group and total
```

```
Group 3
```

	DB130=11 and DB135=1	DB130=11 and DB135=2	DB130=22	DB130=23	DB130=24	DB130=21	DB120=21	DB110=3,4,- 5,6,7	Total
DB130=11 and DB135=1	3338	3	110	12	16	299	.	55	3833
DB110=8 (wave 2)	77	1	12	2	.	7	14	.	113
Total	3415	4	122	14	16	306	14	55	3946

```
Total
```

	DB130=11 and DB135=1	DB130=11 and DB135=2	DB130=22	DB130=23	DB130=24	DB130=21	DB120=21	DB110=3,4,- 5,6,7	Total
DB130=11 and DB135=1	3338	3	110	12	16	299	.	55	3833
DB110=8 (wave 2)	77	1	12	2	.	7	14	.	113
Total	3415	4	122	14	16	306	14	55	3946

Wave response rates. Rotational group and total (SILC 2007- 2008). Percentages.

	Wave response rate	Refusal rate	No-contacted and others
Group 3	86.54	7.75	5.70
Total	86.54	7.75	5.70

Longitudinal follow-up rates. Rotational group and total (SILC 2007- 2008). Percentages.

	Longitudinal follow-up rate
Group 3	90.76
Total	90.76

Follow-up ratio. Rotational group and total (SILC 2007- 2008)

	Follow-up ratio
Group 3	0.93
Total	0.93

Achieved sample size ratio. Rotational group and total (SILC 2007- 2008)

	Achieved sample size ratio
Group 3	0.89
Total	0.89

Household response rates: Comparison of results codes between wave 2 and wave 1 (SILC 2008- 2009). Rotational group and total

Group 4

	DB130=11 and DB135=1	DB130=11 and DB135=2	DB130=22	DB130=23	DB130=24	DB130=21	DB120=21	DB110=3,4,-5,6,7	DB110=10	Total
DB130=11 and DB135=1	3381	2	80	14	7	310	.	80	1	3875
DB110=8 (wave 2)	59	.	8	.	2	7	10	.	.	86
Total	3440	2	88	14	9	317	10	80	1	3961

Total

	DB130=11	DB130=11						DB110=3,4,-

	and DB135=1	and DB135=2	DB130=22	DB130=23	DB130=24	DB130=21	DB120=21	5,6,7	DB110=10	Total
DB130=11 and DB135=1	3381	2	80	14	7	310	.	80	1	3875
DB110=8 (wave 2)	59	.	8	.	2	7	10	.	.	86
Total	3440	2	88	14	9	317	10	80	1	3961

Wave response rates. Rotational group and total (SILC 2008- 2009). Percentages.

	Wave response rate	Refusal rate	No-contacted and others
Group 4	86.85	8.00	5.15
Total	86.85	8.00	5.15

Longitudinal follow-up rates. Rotational group and total (SILC 2008- 2009). Percentages.

	Longitudinal follow-up rate
Group 4	89.91
Total	89.91

Follow-up ratio. Rotational group and total (SILC 2008- 2009)

	Follow-up ratio
Group 4	0.92
Total	0.92

Achieved sample size ratio. Rotational group and total (SILC 2008- 2009)

	Achieved sample size ratio
Group 4	0.89
Total	0.89

Household response rates: Comparison of results codes between wave 2 and wave 1 (SILC 2009- 2010). Rotational group and total

Group 1

	DB130=11 and DB135=1	DB130=22	DB130=23	DB130=24	DB130=21	DB120=21	DB110=3,4,-5,6,7	Total
DB130=11 and DB135=1	3396	107	14	8	324	.	78	3927
DB110=8 (wave 2)	86	4	1	.	10	10	.	111

```
Total                        3482       111        15         8       334        10        78       4038
```

Total

	DB130=11 and DB135=1	DB130=22	DB130=23	DB130=24	DB130=21	DB120=21	DB110=3,4,- 5,6,7	Total
DB130=11 and DB135=1	3396	107	14	8	324	.	78	3927
DB110=8 (wave 2)	86	4	1	.	10	10	.	111
Total	3482	111	15	8	334	10	78	4038

Wave response rates. Rotational group and total (SILC 2009- 2010). Percentages.

	Wave response rate	Refusal rate	No- contacted and others
Group 1	86.23	8.27	5.50
Total	86.23	8.27	5.50

Longitudinal follow-up rates. Rotational group and total (SILC 2009- 2010). Percentages.

	Longitudinal follow-up rate
Group 1	89.76
Total	89.76

Follow-up ratio. Rotational group and total (SILC 2009- 2010)

	Follow-up ratio
Group 1	0.92
Total	0.92

Achieved sample size ratio. Rotational group and total (SILC 2009- 2010)

	Achieved sample size ratio
Group 1	0.89
Total	0.89

Longitudinal component. Unit non-response. Waves t , t+1. Households.

Household response rates: Comparison of results codes between wave 2 and wave 3 (SILC 2008- 2009). Rotational group and total

Group 3

	DB130=11 and DB135=1	DB130=11 and DB135=2	DB130=22	DB130=23	DB130=24	DB130=21	DB120=21	DB110=3,4,-5,6,7	DB110=10	Total
DB130=11 and DB135=1	3025	2	69	16	2	232	.	66	3	3415
DB130=11 and DB135=2	4	.	.	.	.	.	.	.	.	4
DB130=22	77	.	18	1	1	16	.	9	.	122
DB130=23	7	.	.	2	1	2	.	2	.	14
DB130=24	8	.	.	.	.	8	.	.	.	16
DB110=8 (wave 3)	74	.	2	.	1	7	8	.	.	92
Total	3195	2	89	19	5	265	8	77	3	3663

Total

	DB130=11 and DB135=1	DB130=11 and DB135=2	DB130=22	DB130=23	DB130=24	DB130=21	DB120=21	DB110=3,4,-5,6,7	DB110=10	Total
DB130=11 and DB135=1	3025	2	69	16	2	232	.	66	3	3415
DB130=11 and DB135=2	4	.	.	.	.	.	.	.	.	4
DB130=22	77	.	18	1	1	16	.	9	.	122
DB130=23	7	.	.	2	1	2	.	2	.	14
DB130=24	8	.	.	.	.	8	.	.	.	16
DB110=8 (wave 3)	74	.	2	.	1	7	8	.	.	92
Total	3195	2	89	19	5	265	8	77	3	3663

Wave response rates. Rotational group and total (SILC 2008- 2009). Percentages.

	Wave response rate	Refusal rate	No-contacted and others
Group 3	87.22	7.23	5.54
Total	87.22	7.23	5.54

Longitudinal follow-up rates. Rotational group and total (SILC 2008- 2009). Percentages.

	Longitudinal follow-up rate
Group 3	89.89

```
Total                         89.89
```

Follow-up ratio. Rotational group and total (SILC 2008- 2009)

```
                        Follow-up
                          ratio

Group 3                    0.92
Total                      0.92
```

Achieved sample size ratio. Rotational group and total (SILC 2008- 2009)

```
                        Achieved
                      sample size
                         ratio

Group 3                    0.94
Total                      0.94
```

Household response rates: Comparison of results codes between wave 3 and wave 4 (SILC 2009- 2010). Rotational group and total

Group 3

	DB130=11 and DB135=1	DB130=22	DB130=23	DB130=24	DB130=21	DB120=21	DB110=3,4,- 5,6,7	DB110=10	Total
DB130=11 and DB135=1	2909	53	11	3	155	.	57	7	3195
DB130=11 and DB135=2	.	.	.	.	2	.	.	.	2
DB130=22	39	15	.	1	8	.	7	1	71
DB130=23	11	.	.	.	4	.	1	.	16
DB130=24	2	.	.	.	1	.	.	.	3
DB110=8 (wave 3)	61	3	.	.	9	1	.	.	74
Total	3022	71	11	4	179	1	65	8	3361

Group 4

	DB130=11 and DB135=1	DB130=11 and DB135=2	DB130=22	DB130=23	DB130=24	DB130=21	DB120=21	DB110=3,4,- 5,6,7	DB110=10	Total
DB130=11 and DB135=1	3071	1	76	12	2	215	.	61	2	3440
DB130=11 and DB135=2	1	.	.	.	.	.	.	1	.	2
DB130=22	42	.	24	.	1	15	.	6	.	88
DB130=23	7	.	.	1	.	2	.	4	.	14
DB130=24	3	.	.	.	.	4	.	2	.	9
DB110=8 (wave 3)	71	.	3	1	.	10	9	.	.	94
Total	3195	1	103	14	3	246	9	74	2	3647

Total

	DB130=11	DB130=11						DB110=3,4,-

	and DB135=1	and DB135=2	DB130=22	DB130=23	DB130=24	DB130=21	DB120=21	5,6,7	DB110=10	Total
DB130=11 and DB135=1	5980	1	129	23	5	370	.	118	9	6635
DB130=11 and DB135=2	1	.	.	.	.	2	.	1	.	4
DB130=22	81	.	39	.	2	23	.	13	1	159
DB130=23	18	.	.	1	.	6	.	5	.	30
DB130=24	5	.	.	.	.	5	.	2	.	12
DB110=8 (wave 3)	132	.	6	1	.	19	10	.	.	168
Total	6217	1	174	25	7	425	10	139	10	7008

Wave response rates. Rotational group and total (SILC 2009- 2010). Percentages.

	Wave response rate	Refusal rate	No-contacted and others
Group 3	89.91	5.33	4.76
Group 4	87.61	6.75	5.65
Total	88.71	6.06	5.22

Longitudinal follow-up rates. Rotational group and total (SILC 2009- 2010). Percentages.

	Longitudinal follow-up rate
Group 3	92.12
Group 4	90.49
Total	91.27

Follow-up ratio. Rotational group and total (SILC 2009- 2010)

	Follow-up ratio
Group 3	0.94
Group 4	0.93
Total	0.93

Achieved sample size ratio. Rotational group and total (SILC 2009- 2010)

	Achieved sample size ratio
Group 3	0.95
Group 4	0.93
Total	0.94

PERSONS

Longitudinal component. Unit non-response. Persons

Personal interview response rates: Rotational group and total. (SILC 2007- 2008).

Group 3

	Sample persons (rb100=1 and rb245 in (1,2,3)) from the sample forwarded from last wave (t-1)		
	RB250 = (11,12,13)	RB250=14	Total
RB110 in (1,2)	7654	23	7677

Total

	Sample persons (rb100=1 and rb245 in (1,2,3)) from the sample forwarded from last wave (t-1)		
	RB250 = (11,12,13)	RB250=14	Total
RB110 in (1,2)	7654	23	7677

Personal interview response rates: Rotational group and total. (SILC 2007- 2008).

Group 3

	Non-sample persons 16+		
	RB250 = (11,12,13)	RB250=14	Total
This wave	206	13	219

Total

Non-sample persons 16+

	RB250 = (11,12,13)	RB250=14	Total
This wave	206	13	219

Response rates for persons. Wave response rate. Rotational group and total. Percentages. (SILC 2007- 2008).

	Wave response rate of sample persons
Group 3	99.70
Total	99.70

Response rates for persons. Longitudinal follow-up rate. Rotational group and total. Percentages. (SILC 2007- 2008).

	Longitudinal follow-up rate	Rate (RB250=14)	Rate (RB250=21)	Rate (RB250=22)	Rate (RB250=23)	Rate (RB250=31)	Rate (RB250=32)	Rate (RB250=33)
Group 3	99.70	0.30	0.00	0.00	0.00	0.00	0.00	0.00
Total	99.70	0.30	0.00	0.00	0.00	0.00	0.00	0.00

Response rates for persons. Response rate for non-sample persons. Rotational group and total. (SILC 2007- 2008).

	Response rate for non sample persons
Group 3	94.06
Total	94.06

Achieved sample size ratio. Rotational group and total. (SILC 2007- 2008).

	Achieved sample size ratio for sample persons	Achieved sample size ratio for sample persons and co-residents
Group 3	86.76	89.10
Total	86.76	89.10

Personal interview response rates: Rotational group and total. (SILC 2008- 2009).

Group 4

	Sample persons (rb100=1 and rb245 in (1,2,3)) from the sample forwarded from last wave (t-1)		
	RB250 = (11,12,13)	RB250=14	Total
RB110 in (1,2)	7751	92	7843

Total

	Sample persons (rb100=1 and rb245 in (1,2,3)) from the sample forwarded from last wave (t-1)		
	RB250 = (11,12,13)	RB250=14	Total
RB110 in (1,2)	7751	92	7843

Personal interview response rates: Rotational group and total. (SILC 2008- 2009).

Group 4

	Non-sample persons 16+		
	RB250 = (11,12,13)	RB250=14	Total
This wave	215	12	227

Total

	Non-sample persons 16+		
	RB250 = (11,12,13)	RB250=14	Total
This wave	215	12	227

Response rates for persons. Wave response rate. Rotational group and total. Percentages. (SILC 2008- 2009).

	Wave response rate of sample persons
Group 4	98.83
Total	98.83

Response rates for persons. Longitudinal follow-up rate. Rotational group and total. Percentages. (SILC 2008- 2009).

	Longitudinal follow-up rate	Rate (RB250=14)	Rate (RB250=21)	Rate (RB250=22)	Rate (RB250=23)	Rate (RB250=31)	Rate (RB250=32)	Rate (RB250=33)
Group 4	98.83	1.17	0.00	0.00	0.00	0.00	0.00	0.00
Total	98.83	1.17	0.00	0.00	0.00	0.00	0.00	0.00

Response rates for persons. Response rate for non-sample persons. Rotational group and total. (SILC 2008- 2009).

	Response rate for non sample persons
Group 4	94.71
Total	94.71

Achieved sample size ratio. Rotational group and total. (SILC 2008- 2009).

	Achieved sample size ratio for sample persons	Achieved sample size ratio for sample persons and co-residents
Group 4	87.27	89.69
Total	87.27	89.69

Personal interview response rates: Rotational group and total. (SILC 2008- 2009).

Group 3

	Sample persons (rb100=1 and rb245 in (1,2,3)) from the sample forwarded from last

34

wave (t-1)

	RB250 = (11,12,13)	RB250=14	Total
RB110 in (1,2)	6733	97	6830

Total

Sample persons (rb100=1
and rb245 in (1,2,3))
from the sample
forwarded from last
wave (t-1)

	RB250 = (11,12,13)	RB250=14	Total
RB110 in (1,2)	6733	97	6830

Personal interview response rates: Rotational group and total. (SILC 2008- 2009).

Group 3

Non-sample persons 16+

	RB250 = (11,12,13)	RB250=14	Total
This wave	351	11	362

Total

Non-sample persons 16+

	RB250 = (11,12,13)	RB250=14	Total
This wave	351	11	362

Response rates for persons. Wave response rate. Rotational group and total. Percentages. (SILC 2008- 2009).

	Wave response rate of sample persons
Group 3	98.58
Total	98.58

Response rates for persons. Longitudinal follow-up rate. Rotational group and total. Percentages. (SILC 2008- 2009).

	Longitudinal follow-up rate	Rate (RB250=14)	Rate (RB250=21)	Rate (RB250=22)	Rate (RB250=23)	Rate (RB250=31)	Rate (RB250=32)	Rate (RB250=33)
Group 3	98.58	1.42	0.00	0.00	0.00	0.00	0.00	0.00
Total	98.58	1.42	0.00	0.00	0.00	0.00	0.00	0.00

Response rates for persons. Response rate for non-sample persons. Rotational group and total. (SILC 2008- 2009).

	Response rate for non sample persons
Group 3	96.96
Total	96.96

Achieved sample size ratio. Rotational group and total. (SILC 2008- 2009).

	Achieved sample size ratio for sample persons	Achieved sample size ratio for sample persons and co-residents
Group 3	87.97	90.13
Total	87.97	90.13

Personal interview response rates: Rotational group and total. (SILC 2009- 2010).

Group 1

	Sample persons (rb100=1 and rb245 in (1,2,3)) from the sample forwarded from last wave (t-1)		
	RB250 = (11,12,13)	RB250=14	Total
RB110 in (1,2)	7640	105	7745

Total

	Sample persons (rb100=1 and rb245 in (1,2,3)) from the sample forwarded from last wave (t-1)		
	RB250 = (11,12,13)	RB250=14	Total
RB110 in (1,2)	7640	105	7745

Personal interview response rates: Rotational group and total. (SILC 2009- 2010).

Group 1

	Non-sample persons 16+		
	RB250 = (11,12,13)	RB250=14	Total
This wave	190	10	200

Total

Non-sample persons 16+

	RB250 = (11,12,13)	RB250=14	Total
This wave	190	10	200

Response rates for persons. Wave response rate. Rotational group and total. Percentages. (SILC 2009- 2010).

	Wave response rate of sample persons
Group 1	98.64
Total	98.64

Response rates for persons. Longitudinal follow-up rate. Rotational group and total. Percentages. (SILC 2009- 2010).

	Longitudinal follow-up rate	Rate (RB250=14)	Rate (RB250=21)	Rate (RB250=22)	Rate (RB250=23)	Rate (RB250=31)	Rate (RB250=32)	Rate (RB250=33)
Group 1	98.64	1.36	0.00	0.00	0.00	0.00	0.00	0.00
Total	98.64	1.36	0.00	0.00	0.00	0.00	0.00	0.00

Response rates for persons. Response rate for non-sample persons. Rotational group and total. (SILC 2009- 2010).

	Response rate for non sample persons
Group 1	95.00
Total	95.00

Achieved sample size ratio. Rotational group and total. (SILC 2009- 2010).

	Achieved sample size ratio for sample persons	Achieved sample size ratio for sample persons and co-residents
Group 1	86.44	88.59
Total	86.44	88.59

Personal interview response rates: Rotational group and total. (SILC 2009- 2010).

Group 3

	Sample persons (rb100=1 and rb245 in (1,2,3)) from the sample forwarded from last wave (t-1)		
	RB250 = (11,12,13)	RB250=14	Total
RB110 in (1,2)	6283	71	6354

Group 4

	Sample persons (rb100=1 and rb245 in (1,2,3)) from the sample forwarded from last wave (t-1)		
	RB250 = (11,12,13)	RB250=14	Total
RB110 in (1,2)	6914	86	7000

Total

	Sample persons (rb100=1 and rb245 in (1,2,3)) from the sample forwarded from last wave (t-1)		
	RB250 = (11,12,13)	RB250=14	Total

```
 RB110 in (1,2)                 13197          157        13354
```

Personal interview response rates: Rotational group and total. (SILC 2009- 2010).

Group 3

```
                      Non-sample persons 16+

                        RB250 =
                      (11,12,13)   RB250=14      Total
 This wave                  518          13        531
```

Group 4

```
                      Non-sample persons 16+

                        RB250 =
                      (11,12,13)   RB250=14      Total
 This wave                  315          11        326
```

Total

```
                      Non-sample persons 16+

                        RB250 =
                      (11,12,13)   RB250=14      Total
 This wave                  833          24        857
```

Response rates for persons. Wave response rate. Rotational group and total. Percentages. (SILC 2009- 2010).

```
                       Wave
                      response
                      rate of
                       sample
                      persons

 Group 3                   98.88
 Group 4                   98.77
 Total                     98.82
```

Response rates for persons. Longitudinal follow-up rate. Rotational group and total. Percentages. (SILC 2009- 2010).

	Longitudinal follow-up rate	Rate (RB250=14)	Rate (RB250=21)	Rate (RB250=22)	Rate (RB250=23)	Rate (RB250=31)	Rate (RB250=32)	Rate (RB250=33)
Group 3	98.88	1.12	0.00	0.00	0.00	0.00	0.00	0.00
Group 4	98.77	1.23	0.00	0.00	0.00	0.00	0.00	0.00
Total	98.82	1.18	0.00	0.00	0.00	0.00	0.00	0.00

Response rates for persons. Response rate for non-sample persons. Rotational group and total. (SILC 2009- 2010).

	Response rate for non sample persons
Group 3	97.55
Group 4	96.63
Total	97.20

Achieved sample size ratio. Rotational group and total. (SILC 2009- 2010).

	Achieved sample size ratio for sample persons	Achieved sample size ratio for sample persons and co-residents
Group 3	90.94	93.68
Group 4	89.20	90.75
Total	90.02	92.15

2.3.3.3. Distribution of households by 'record of contact at address' (DB120), by 'household questionnaire result' (DB130) and by 'household interview acceptance' (DB135)

Longitudinal component. Distribution of households by DB100, DB120, DB130 and DB135

SILC 2007. Distribution of households by DB110

	Number	Percentage
Total	6745	100.0
DB110=9	6745	100.0

SILC 2007. Distribution of households by DB120

	Number	Percentage
Total	6745	100.0
DB120=11 (contacted)	6045	89.6
DB120=21 (can not be located)	126	1.9
DB120=22 (unable to access)	7	0.1
DB120=23 (not exists or non-res.)	567	8.4

SILC 2007. Distribution of households by DB130

	Number	Percentage
Total	6045	100.0
DB130=11 (household q. completed)	3833	63.4
DB130=21 (refusal to cooperate)	1228	20.3
DB130=22 (temporaly away)	846	14.0
DB130=23 (unable to respond)	52	0.9
DB130=24 (other reasons)	86	1.4

SILC 2007. Distribution of households by DB135

	Number	Percentage
Total	3833	100.0
DB135=1 (interview accepted)	3833	100.0

SILC 2008. Distribution of households by DB110

	Number	Percentage
Total	10604	100.0
DB110=1	3709	35.0
DB110=2	69	0.7
DB110=3	11	0.1
DB110=4	5	0.0
DB110=5	5	0.0
DB110=6	6	0.1
DB110=7	28	0.3
DB110=8	113	1.1
DB110=9	6658	62.8

```
SILC 2008. Distribution of households by DB120


                                     Number    Percentage

 Total                                 6840        100.0
 DB120=11 (contacted)                  6132         89.6
 DB120=21 (can not be located)          136          2.0
 DB120=22 (unable to access)              8          0.1
 DB120=23 (not exists or non-res.)      564          8.2

SILC 2008. Distribution of households by DB130


                                     Number    Percentage

 Total                                 9841        100.0
 DB130=11 (household q. completed)     7297         74.1
 DB130=21 (refusal to cooperate)       1267         12.9
 DB130=22 (temporaly away)             1094         11.1
 DB130=23 (unable to respond)            54          0.5
 DB130=24 (other reasons)               129          1.3

SILC 2008. Distribution of households by DB135


                                     Number    Percentage

 Total                                 7297        100.0
 DB135=1 (interview accepted)          7290         99.9
 DB135=2 (interview rejected)             7          0.1

SILC 2009. Distribution of households by DB110


                                     Number    Percentage

 Total                                13912        100.0
 DB110=1                               7139         51.3
 DB110=2                                146          1.0
 DB110=3                                 19          0.1
 DB110=4                                 18          0.1
 DB110=5                                 23          0.2
 DB110=6                                  6          0.0
 DB110=7                                 91          0.7
 DB110=8                                180          1.3
 DB110=9                               6286         45.2
 DB110=10                                 4          0.0

SILC 2009. Distribution of households by DB120


                                     Number    Percentage

 Total                                 6612        100.0
 DB120=11 (contacted)                  5881         88.9
 DB120=21 (can not be located)           77          1.2
 DB120=22 (unable to access)             15          0.2
 DB120=23 (not exists or non-res.)      637          9.6
 (Missing)                                2          0.0
```

```
SILC 2009. Distribution of households by DB130


                                   Number     Percentage

 Total                              13020         100.0
 DB130=11 (household q. completed)  10567          81.2
 DB130=21 (refusal to cooperate)     1361          10.5
 DB130=22 (temporaly away)            915           7.0
 DB130=23 (unable to respond)          67           0.5
 DB130=24 (other reasons)             110           0.8

SILC 2009. Distribution of households by DB135


                                   Number     Percentage

 Total                              10567         100.0
 DB135=1 (interview accepted)       10562         100.0
 DB135=2 (interview rejected)           5           0.0

SILC 2010. Distribution of households by DB110


                                   Number     Percentage

 Total                              11047         100.0
 DB110=1                            10310          93.3
 DB110=2                              230           2.1
 DB110=3                               15           0.1
 DB110=4                               19           0.2
 DB110=5                               46           0.4
 DB110=6                               21           0.2
 DB110=7                              116           1.1
 DB110=8                              280           2.5
 DB110=10                              10           0.1

SILC 2010. Distribution of households by DB120


                                   Number     Percentage

 Total                                510         100.0
 DB120=11 (contacted)                 489          95.9
 DB120=21 (can not be located)         20           3.9
 (Missing)                              1           0.2

SILC 2010. Distribution of households by DB130


                                   Number     Percentage

 Total                              10799         100.0
 DB130=11 (household q. completed)   9700          89.8
 DB130=21 (refusal to cooperate)     759           7.0
 DB130=22 (temporaly away)           285           2.6
 DB130=23 (unable to respond)         40           0.4
 DB130=24 (other reasons)             15           0.1
```

SILC 2010. Distribution of households by DB135

	Number	Percentage
Total	9700	100.0
DB135=1 (interview accepted)	9699	100.0
DB135=2 (interview rejected)	1	0.0

2.3.3.4. Distribution of persons for membership status (RB110)

```
Distribution of persons for membership status (RB110)

SILC 2008. Distribution of person for membership status (RB110)


                                 Number      Percentage

 Total                            20255         100.0
 Current hhd      RB110=1         19624          96.9
 members          RB110=2            97           0.5
                  RB110=3           250           1.2
                  RB110=4            73           0.4
 No current hdd   RB120=2 to 4     115           0.6
 members          RB110=6           64           0.3
                  RB110=7           32           0.2

SILC 2008. Distribution of person for membership status (RB110). RB110=5


                                 Number      Percentage

 Total                              254         100.0
 RB120=1 and current hhd member      97          38.2
 RB120=1 and no current hhd member   42          16.5
 RB120=2                              9           3.5
 RB120=3                             12           4.7
 RB120=4                             94          37.0

SILC 2009. Distribution of person for membership status (RB110)


                                 Number      Percentage

 Total                            29422         100.0
 Current hhd      RB110=1         28336          96.3
 members          RB110=2           172           0.6
                  RB110=3           501           1.7
                  RB110=4           116           0.4
 No current hdd   RB120=2 to 4     179           0.6
 members          RB110=6           98           0.3
                  RB110=7           20           0.1

SILC 2009. Distribution of person for membership status (RB110). RB110=5


                                 Number      Percentage

 Total                              403         100.0
 RB120=1 and current hhd member     154          38.2
 RB120=1 and no current hhd member   70          17.4
 RB120=2                             12           3.0
 RB120=3                             42          10.4
 RB120=4                            125          31.0
```

SILC 2010. Distribution of person for membership status (RB110)

		Number	Percentage
Total		27118	100.0
Current hhd	RB110=1	25504	94.0
members	RB110=2	284	1.0
	RB110=3	600	2.2
	RB110=4	231	0.9
No current hdd	RB120=2 to 4	310	1.1
members	RB110=6	152	0.6
	RB110=7	37	0.1

SILC 2010. Distribution of person for membership status (RB110). RB110=5

	Number	Percentage
Total	715	100.0
RB120=1 and current hhd member	260	36.4
RB120=1 and no current hhd member	145	20.3
RB120=2	22	3.1
RB120=3	66	9.2
RB120=4	222	31.0

2.3.3.5. Item non-response

Longitudinal component. Item non-response. Net amounts.

SILC 2007. Distribution of item non-response. Net amounts.

	% households having received an amount	% households with missing values (before imputation)	% households with partial information (before imputation)	% households with total information (before imputation)
Total disposable household income	99.6	5.3	40.0	54.7
T. d. h. income before s. tr. other than old_age and surv. ben.	98.5	5.9	39.0	55.1
T. d. h. income before s. tr. including old_age and surv. ben.	89.2	10.3	37.6	52.1
Net income from rental of a property or land	6.2	6.3	16.0	77.7
Family/children-related allowances	3.1	1.7	0.0	98.3
Social exclusion not elsewhere classified	0.6	4.3	0.0	95.7
Housing allowances	0.9	5.9	0.0	94.1
Regular inter-household cash transfer received	3.6	7.2	0.0	92.8
Net interest, div., profit from capital invest. in uninc. business	33.1	46.3	34.3	19.4
Net income received by people aged under 16	3.1	0.8	0.0	99.2
Regular taxes on wealth	3.7	38.7	11.3	50.0
Regular inter-household cash transfer paid	5.7	7.8	0.5	91.8
Repayments/receipts for tax adjustments	67.9	7.0	2.8	90.2

	% persons 16+ having received an amount	% persons with missing values (before imputation)	% persons with partial information (before imputation)	% persons with total information (before imputation)
Net cash or near cash employee income	46.3	14.3	0.0	85.7
Net non-cash employee income	0.7	21.2	0.0	78.8
Net cash profits or losses from self-employment	6.6	29.9	37.3	32.8
Net pension from individual private plans	0.5	13.3	0.0	86.7
Net unemployment benefits	4.6	7.8	0.0	92.2
Net old-age benefits	20.0	6.3	0.1	93.6
Net survivors benefits	1.6	2.8	0.0	97.2
Net sickness benefits	1.4	8.0	0.0	92.0
Net disability benefits	2.2	7.1	0.0	92.9
Education-related allowances	1.3	7.7	0.0	92.3

SILC 2008. Distribution of item non-response. Net amounts.

	% households having received an amount	% households with missing values (before imputation)	% households with partial information (before imputation)	% households with total information (before imputation)
Total disposable household income	99.3	3.3	42.0	54.7
T. d. h. income before s. tr. other than old_age and surv. ben.	98.5	3.9	41.4	54.8
T. d. h. income before s. tr. including old_age and surv. ben.	89.4	8.0	40.0	52.0
Net income from rental of a property or land	6.7	3.9	10.7	85.4
Family/children-related allowances	3.8	4.0	0.7	95.3
Social exclusion not elsewhere classified	0.6	2.2	0.0	97.8
Housing allowances	0.9	4.5	0.0	95.5
Regular inter-household cash transfer received	3.0	6.5	0.0	93.5
Net interest, div., profit from capital invest. in uninc. business	37.4	42.3	39.8	17.9
Net income received by people aged under 16	2.2	1.2	0.0	98.8
Regular taxes on wealth	3.4	32.9	13.3	53.8
Regular inter-household cash transfer paid	5.9	5.3	0.0	94.7
Repayments/receipts for tax adjustments	69.9	6.4	1.9	91.6

	% persons 16+ having received an amount	% persons with missing values (before imputation)	% persons with partial information (before imputation)	% persons with total information (before imputation)
Net cash or near cash employee income	46.8	12.0	0.0	88.0
Net non-cash employee income	0.8	21.6	0.0	78.4
Net cash profits or losses from self-employment	7.5	18.7	46.8	34.5
Net pension from individual private plans	0.6	10.4	0.0	89.6
Net unemployment benefits	5.1	5.6	0.1	94.3
Net old-age benefits	20.3	4.9	0.2	94.8
Net survivors benefits	1.5	2.7	0.0	97.3
Net sickness benefits	1.2	7.7	0.0	92.3
Net disability benefits	2.4	2.7	0.0	97.3
Education-related allowances	1.5	3.5	0.0	96.5

SILC 2009. Distribution of item non-response. Net amounts.

	% households having received an amount	% households with missing values (before imputation)	% households with partial information (before imputation)	% households with total information (before imputation)
Total disposable household income	99.4	2.8	34.6	62.6
T. d. h. income before s. tr. other than old_age and surv. ben.	98.4	3.3	34.0	62.8
T. d. h. income before s. tr. including old_age and surv. ben.	88.5	6.6	33.7	59.8
Net income from rental of a property or land	6.8	2.0	12.3	85.8
Family/children-related allowances	3.8	3.0	0.5	96.5
Social exclusion not elsewhere classified	0.9	0.0	0.0	100.0
Housing allowances	1.2	4.6	0.0	95.4
Regular inter-household cash transfer received	3.2	2.9	0.0	97.1
Net interest, div., profit from capital invest. in uninc. business	29.2	31.0	37.7	31.3
Net income received by people aged under 16	2.9	1.0	0.0	99.0
Regular taxes on wealth	3.0	27.6	13.7	58.7
Regular inter-household cash transfer paid	6.1	2.8	0.0	97.2
Repayments/receipts for tax adjustments	71.9	6.4	2.2	91.4

	% persons 16+ having received an amount	% persons with missing values (before imputation)	% persons with partial information (before imputation)	% persons with total information (before imputation)
Net cash or near cash employee income	46.4	11.1	0.0	88.9
Net non-cash employee income	0.9	16.8	0.0	83.2
Net cash profits or losses from self-employment	7.2	15.8	52.5	31.6
Net pension from individual private plans	0.7	9.6	0.0	90.4
Net unemployment benefits	7.4	4.7	0.1	95.3
Net old-age benefits	20.4	3.5	0.1	96.3
Net survivors benefits	1.6	1.5	0.0	98.5
Net sickness benefits	1.4	4.7	0.0	95.3
Net disability benefits	2.2	2.6	0.0	97.4
Education-related allowances	2.0	4.7	0.0	95.3

SILC 2010. Distribution of item non-response. Net amounts.

	% households having received an amount	% households with missing values (before imputation)	% households with partial information (before imputation)	% households with total information (before imputation)
Total disposable household income	99.5	1.8	30.6	67.6
T. d. h. income before s. tr. other than old_age and surv. ben.	98.2	2.4	30.2	67.5
T. d. h. income before s. tr. including old_age and surv. ben.	88.7	5.1	30.4	64.5
Net income from rental of a property or land	7.3	2.4	9.7	87.9
Family/children-related allowances	4.3	1.2	0.2	98.6
Social exclusion not elsewhere classified	2.9	0.4	0.0	99.6
Housing allowances	1.5	3.5	0.0	96.5
Regular inter-household cash transfer received	3.3	2.5	0.0	97.5
Net interest, div., profit from capital invest. in uninc. business	28.8	23.7	37.7	38.6
Net income received by people aged under 16	3.0	1.0	0.0	99.0
Regular taxes on wealth	0.0	.	.	.
Regular inter-household cash transfer paid	6.3	3.1	0.2	96.7
Repayments/receipts for tax adjustments	74.4	5.3	2.1	92.6

	% persons 16+ having received an amount	% persons with missing values (before imputation)	% persons with partial information (before imputation)	% persons with total information (before imputation)
Net cash or near cash employee income	44.4	6.5	0.0	93.5
Net non-cash employee income	0.8	10.1	0.0	89.9
Net cash profits or losses from self-employment	6.9	18.2	54.6	27.2
Net pension from individual private plans	0.8	11.1	0.0	88.9
Net unemployment benefits	9.0	2.1	0.0	97.9
Net old-age benefits	20.7	2.0	0.0	97.9
Net survivors benefits	1.6	0.9	0.0	99.1
Net sickness benefits	1.1	3.6	0.0	96.4
Net disability benefits	2.4	1.9	0.0	98.1
Education-related allowances	2.3	2.3	0.0	97.7

Longitudinal component. Item non-response. Gross amounts.

SILC 2007. Distribution of item non-response. Gross amounts.

	% households having received an amount	% households with missing values (before imputation)	% households with partial information (before imputation)	% households with total information (before imputation)
Total household gross income	99.5	6.2	56.0	37.8
Gross income from rental of a property or land	6.2	6.3	33.6	60.1
Gross family/children-related allowances	3.1	1.7	3.4	94.9
Gross social exclusion not elsewhere classified	0.6	4.3	0.0	95.7
Gross housing allowances	0.9	5.9	0.0	94.1
Gross regular inter-household cash transfer received	3.6	7.2	0.0	92.8
Gross interest, div., profit from capital invest. in uninc. business	33.1	46.3	34.9	18.8
Gross income received by people aged under 16	3.1	0.8	0.0	99.2
Gross regular taxes on wealth	3.7	38.7	11.3	50.0
Gross regular inter-household cash transfer paid	5.7	7.8	0.5	91.8

	% persons 16+ having received an amount	% persons with missing values (before imputation)	% persons with partial information (before imputation)	% persons with total information (before imputation)
Gross cash or near cash employee income	46.3	14.3	35.4	50.2
Gross non-cash employee income	0.7	21.2	0.0	78.8
Gross cash profits or losses from self-employment	6.6	20.0	46.2	33.8
Gross pension from individual private plans	0.5	13.3	6.7	80.0
Gross unemployment benefits	4.6	7.8	8.0	84.2
Gross old-age benefits	20.0	6.3	10.1	83.6
Gross survivors benefits	1.6	2.8	3.5	93.7
Gross sickness benefits	1.4	8.0	4.0	88.0
Gross disability benefits	2.2	7.1	4.5	88.4
Gross education-related allowances	1.3	7.7	0.0	92.3

SILC 2008. Distribution of item non-response. Gross amounts.

	% households having received an amount	% households with missing values (before imputation)	% households with partial information (before imputation)	% households with total information (before imputation)
Total household gross income	99.3	3.6	58.0	38.4
Gross income from rental of a property or land	6.7	3.9	26.0	70.1
Gross family/children-related allowances	3.8	4.0	4.0	92.0
Gross social exclusion not elsewhere classified	0.6	2.2	0.0	97.8
Gross housing allowances	0.9	4.5	0.0	95.5
Gross regular inter-household cash transfer received	3.0	6.5	0.0	93.5
Gross interest, div., profit from capital invest. in uninc. business	37.4	42.3	40.6	17.2
Gross income received by people aged under 16	2.2	1.2	0.0	98.8
Gross regular taxes on wealth	3.4	32.9	13.3	53.8
Gross regular inter-household cash transfer paid	5.9	5.3	0.0	94.7

	% persons 16+ having received an amount	% persons with missing values (before imputation)	% persons with partial information (before imputation)	% persons with total information (before imputation)
Gross cash or near cash employee income	46.8	12.0	35.7	52.3
Gross non-cash employee income	0.8	21.6	0.0	78.4
Gross cash profits or losses from self-employment	7.5	14.0	38.4	47.5
Gross pension from individual private plans	0.6	10.4	6.6	83.0
Gross unemployment benefits	5.1	5.6	4.8	89.6
Gross old-age benefits	20.3	4.9	9.9	85.2
Gross survivors benefits	1.5	2.7	5.4	91.9
Gross sickness benefits	1.2	7.7	2.9	89.4
Gross disability benefits	2.4	2.7	0.0	97.3
Gross education-related allowances	1.5	3.5	0.0	96.5

SILC 2009. Distribution of item non-response. Gross amounts.

	% households having received an amount	% households with missing values (before imputation)	% households with partial information (before imputation)	% households with total information (before imputation)
Total household gross income	99.0	3.2	53.0	43.8
Gross income from rental of a property or land	6.8	2.0	26.3	71.8
Gross family/children-related allowances	3.8	3.0	4.2	92.8
Gross social exclusion not elsewhere classified	0.9	0.0	0.0	100.0
Gross housing allowances	1.2	4.6	0.0	95.4
Gross regular inter-household cash transfer received	3.2	2.9	0.0	97.1
Gross interest, div., profit from capital invest. in uninc. business	29.2	31.0	39.4	29.6
Gross income received by people aged under 16	2.9	1.0	0.0	99.0
Gross regular taxes on wealth	3.0	27.6	13.7	58.7
Gross regular inter-household cash transfer paid	6.1	2.8	0.0	97.2

	% persons 16+ having received an amount	% persons with missing values (before imputation)	% persons with partial information (before imputation)	% persons with total information (before imputation)
Gross cash or near cash employee income	46.4	11.1	36.6	52.4
Gross non-cash employee income	0.9	16.8	0.0	83.2
Gross cash profits or losses from self-employment	7.2	15.0	37.5	47.5
Gross pension from individual private plans	0.7	9.6	4.8	85.5
Gross unemployment benefits	7.4	4.7	9.8	85.6
Gross old-age benefits	20.4	3.5	11.5	85.0
Gross survivors benefits	1.6	1.5	3.5	95.0
Gross sickness benefits	1.4	4.7	13.5	81.9
Gross disability benefits	2.2	2.6	0.0	97.4
Gross education-related allowances	2.0	4.7	0.0	95.3

SILC 2010. Distribution of item non-response. Gross amounts.

	% households having received an amount	% households with missing values (before imputation)	% households with partial information (before imputation)	% households with total information (before imputation)
Total household gross income	99.1	1.8	54.3	44.0
Gross income from rental of a property or land	7.3	2.4	23.0	74.6
Gross family/children-related allowances	4.3	1.2	5.5	93.3
Gross social exclusion not elsewhere classified	2.9	0.4	0.0	99.6
Gross housing allowances	1.5	3.5	0.0	96.5
Gross regular inter-household cash transfer received	3.3	2.5	0.0	97.5
Gross interest, div., profit from capital invest. in uninc. business	28.8	23.7	38.7	37.7
Gross income received by people aged under 16	3.0	1.0	0.0	99.0
Gross regular taxes on wealth	0.0	.	.	.
Gross regular inter-household cash transfer paid	6.3	3.1	0.2	96.7

	% persons 16+ having received an amount	% persons with missing values (before imputation)	% persons with partial information (before imputation)	% persons with total information (before imputation)
Gross cash or near cash employee income	44.4	6.5	43.0	50.5
Gross non-cash employee income	0.8	10.1	0.0	89.9
Gross cash profits or losses from self-employment	6.9	16.3	38.4	45.3
Gross pension from individual private plans	0.8	11.1	1.8	87.1
Gross unemployment benefits	9.0	2.0	14.0	84.0
Gross old-age benefits	20.7	2.0	12.7	85.3
Gross survivors benefits	1.6	0.9	6.0	93.1
Gross sickness benefits	1.1	3.6	21.0	75.4
Gross disability benefits	2.4	1.9	0.0	98.1
Gross education-related allowances	2.3	2.3	0.0	97.7

2.4. Mode of data collection

Questionnaires are completed by CAPI (Compute Aided Personal Interviewing). This procedure was been implemented in the 2005 operation (in 2004 questionnaires were completed by PAPI).

The main mode of data collection was personal interview with all household members who were aged 16 and above as at 31 December of the year before the year of interview.

If personal interview was impracticable because the subject was temporarily absent or was unable to respond, we would conduct a telephone interview or interview another household member and later corroborate the information with the subject.

The percentage of proxy interviews is very high in the Spanish SILC. It is related to the individual non-response.

One of the major concerns is the individual non-response after the bad results in 2004 survey (15.63 %). Since the 2005 survey an effort in fieldwork has been made to reduce this individual non-response. Once the individual non-response has been reduced, there is from 2005 a high rate of proxy interviews that we are trying to reduce.

```
Longitudinal component. Mode of data collection

SILC 2007. Distribution of household members aged 16 and over by RB245.


                               Number     Percentage

 Total          Total             8884        100.0
                RB250=11          8822         99.3
                RB250=14            62          0.7
 Sample         Total             8884        100.0
 persons        RB250=11          8822         99.3
                RB250=14            62          0.7

SILC 2007. Distribution of household members aged 16 and over by RB260.


                               Number     Percentage

 Total          Total             8821        100.0
                RB260=2           4899         55.5
                RB260=3            306          3.5
                RB260=5           3616         41.0
 Sample         Total             8821        100.0
 persons        RB260=2           4899         55.5
                RB260=3            306          3.5
                RB260=5           3616         41.0
```

SILC 2008. Distribution of household members aged 16 and over by RB245.

```
                             Number     Percentage

Total          Total              16829        100.0
               RB250=11           16742         99.5
               RB250=14              87          0.5
Sample         Total              16610        100.0
persons        RB250=11           16536         99.6
               RB250=14              74          0.4
Co-residents   Total                219        100.0
               RB250=11             206         94.1
               RB250=14              13          5.9
```

SILC 2008. Distribution of household members aged 16 and over by RB260.

```
                             Number     Percentage

Total          Total              16742        100.0
               RB260=2             9408         56.2
               RB260=3              746          4.5
               RB260=5             6588         39.4
Sample         Total              16536        100.0
persons        RB260=2             9339         56.5
               RB260=3              738          4.5
               RB260=5             6459         39.1
Co-residents   Total                206        100.0
               RB260=2               69         33.5
               RB260=3                8          3.9
               RB260=5              129         62.6
```

SILC 2009. Distribution of household members aged 16 and over by RB245.

		Number	Percentage
Total	Total	24396	100.0
	RB250=11	24064	98.6
	RB250=14	332	1.4
Sample persons	Total	23807	100.0
	RB250=11	23498	98.7
	RB250=14	309	1.3
Co-residents	Total	589	100.0
	RB250=11	566	96.1
	RB250=14	23	3.9

SILC 2009. Distribution of household members aged 16 and over by RB260.

		Number	Percentage
Total	Total	24064	100.0
	RB260=2	13499	56.1
	RB260=3	1039	4.3
	RB260=5	9526	39.6
Sample persons	Total	23498	100.0
	RB260=2	13295	56.6
	RB260=3	1010	4.3
	RB260=5	9193	39.1
Co-residents	Total	566	100.0
	RB260=2	204	36.0
	RB260=3	29	5.1
	RB260=5	333	58.8

```
SILC 2010. Distribution of household members aged 16 and over by RB245.


                         Number     Percentage

Total         Total         22355        100.0
              RB250=11      22057         98.7
              RB250=14        298          1.3
Sample        Total         21298        100.0
persons       RB250=11      21034         98.8
              RB250=14        264          1.2
Co-residents  Total          1057        100.0
              RB250=11       1023         96.8
              RB250=14         34          3.2


SILC 2010. Distribution of household members aged 16 and over by RB260.


                         Number     Percentage

Total         Total         22057        100.0
              RB260=2       13101         59.4
              RB260=3        3981         18.0
              RB260=5        4975         22.6
Sample        Total         21034        100.0
persons       RB260=2       12718         60.5
              RB260=3        3740         17.8
              RB260=5        4576         21.8
Co-residents  Total          1023        100.0
              RB260=2         383         37.4
              RB260=3         241         23.6
              RB260=5         399         39.0
```

2.5.   Imputation procedure

The imputation in the Spanish SILC uses a methodology similar to the one used by Eurostat for the ECHP. The reference of the procedure applied is described in the document SILC136.

The statistical imputation software used has been IVE-ware. This software is easy to use and has been used in ECHP with satisfactorily results. The IVE-ware approach consists of a multivariate model involving a multiple regression sequence. For each variable the best regression method is chosen according to the nature of the variable being imputed. The continuous variable, that is the case in income variables, is imputed with a normal linear regression model.

Before imputation, in the checking phase, some points need to be solved. In case that the filter of an income component is "missing", it is checked if there are some other signs, from other variables, to correct this filter. The same procedure is used to determine the number of months that the unit has received an income component.

In the imputation phase the first step is to determine if a variable should be imputed or not determining the value of the filter for the income component. If the filter variable is set to "No" the rule is that no imputation needs to be done. If instead the answer to the filter variable is "missing", after the checking phase, then "No" is imputed to the filter. If the filter is "Yes" and there is not enough information then imputation is needed.

Once the filter is known the following step is the calculation of the amount of the income component. If there is enough information to calculate the target variable then it is calculated. The amounts of the previous wave are used when available. If the amount cannot be calculated then it is imputed with the restriction of an interval. This interval can be specified in the questionnaire or, if this doesn´t exist, an interval is calculated using information of the distribution of the collected values. After a logarithmic transformation the imputation is carried out jointly with others components collected at the same level (household or individual). All records with missing values, for income components, are imputed.

The method to solve the within-household non-response is based on the imputation of a personal income to the persons without individual questionnaire. The imputed personal income is the mean of personal incomes of the group to which the person belongs. Groups are formed with available information (using R-file) for all persons (sex, age, activity, etc.).

```
Cross-sectional component.

SILC 2010. Percentage of imputation per household income components (average of the ratio of
imputation over all units)
```

	Percentage
Total disposable household income	7.42
T. d. h. income before s. tr. other than old_age and surv. ben.	7.98
T. d. h. income before s. tr. including old_age and surv. ben.	10.67
Net income from rental of a property or land	0.40
Family/children-related allowances	0.07
Social exclusion not elsewhere classified	0.01
Housing allowances	0.08
Regular inter-household cash transfer received	0.12
Net interest, div., profit from capital invest. in uninc. business	12.04
Net income received by people aged under 16	0.03
Regular taxes on wealth	0.00
Regular inter-household cash transfer paid	0.20
Repayments/receipts for tax adjustments	4.65

SILC 2010. Percentage of imputation per personal income components (average of the ratio of imputation over all units)

	Percentage
Net cash or near cash employee income	3.49
Net non-cash employee income	0.09
Net cash profits or losses from self-employment	2.70
Net pension from individual private plans	0.09
Net unemployment benefits	0.21
Net old-age benefits	0.60
Net survivors benefits	0.03
Net sickness benefits	0.04
Net disability benefits	0.07
Education-related allowances	0.07
Gross monthly earnings for employees	3.62

Longitudinal component.

SILC 2007. Percentage of imputation per household income components (average of the ratio of imputation over all units)

                                                                        Percentage

 Total disposable household income   12.92
 T. d. h. income before s. tr. other than old_age and surv. ben.   13.41
 T. d. h. income before s. tr. including old_age and surv. ben.   16.89
 Net income from rental of a property or land   0.59
 Family/children-related allowances   0.05
 Social exclusion not elsewhere classified   0.03
 Housing allowances   0.05
 Regular inter-household cash transfer received   0.26
 Net interest, div., profit from capital invest. in uninc. business   20.53
 Net income received by people aged under 16   0.03
 Regular taxes on wealth   1.50
 Regular inter-household cash transfer paid   0.45
 Repayments/receipts for tax adjustments   5.25

SILC 2007. Percentage of imputation per personal income components (average of the ratio of imputation over all units)

                                                                        Percentage

 Net cash or near cash employee income   6.64
 Net non-cash employee income   0.16
 Net cash profits or losses from self-employment   2.83
 Net pension from individual private plans   0.07
 Net unemployment benefits   0.36
 Net old-age benefits   1.27
 Net survivors benefits   0.05
 Net sickness benefits   0.11
 Net disability benefits   0.16
 Education-related allowances   0.10

SILC 2008. Percentage of imputation per household income components (average of the ratio of imputation over all units)

	Percentage
Total disposable household income	10.31
T. d. h. income before s. tr. other than old_age and surv. ben.	10.96
T. d. h. income before s. tr. including old_age and surv. ben.	14.94
Net income from rental of a property or land	0.44
Family/children-related allowances	0.17
Social exclusion not elsewhere classified	0.01
Housing allowances	0.04
Regular inter-household cash transfer received	0.19
Net interest, div., profit from capital invest. in uninc. business	22.95
Net income received by people aged under 16	0.03
Regular taxes on wealth	1.17
Regular inter-household cash transfer paid	0.32
Repayments/receipts for tax adjustments	4.87

SILC 2008. Percentage of imputation per personal income components (average of the ratio of imputation over all units)

	Percentage
Net cash or near cash employee income	5.61
Net non-cash employee income	0.18
Net cash profits or losses from self-employment	2.57
Net pension from individual private plans	0.07
Net unemployment benefits	0.29
Net old-age benefits	1.02
Net survivors benefits	0.04
Net sickness benefits	0.10
Net disability benefits	0.07
Education-related allowances	0.05

SILC 2009. Percentage of imputation per household income components (average of the ratio of imputation over all units)

	Percentage
Total disposable household income	9.52
T. d. h. income before s. tr. other than old_age and surv. ben.	9.96
T. d. h. income before s. tr. including old_age and surv. ben.	13.05
Net income from rental of a property or land	0.34
Family/children-related allowances	0.12
Social exclusion not elsewhere classified	0.00
Housing allowances	0.06
Regular inter-household cash transfer received	0.09
Net interest, div., profit from capital invest. in uninc. business	13.73
Net income received by people aged under 16	0.03
Regular taxes on wealth	0.88
Regular inter-household cash transfer paid	0.17
Repayments/receipts for tax adjustments	5.03

SILC 2009. Percentage of imputation per personal income components (average of the ratio of imputation over all units)

	Percentage
Net cash or near cash employee income	5.14
Net non-cash employee income	0.15
Net cash profits or losses from self-employment	2.62
Net pension from individual private plans	0.07
Net unemployment benefits	0.35
Net old-age benefits	0.73
Net survivors benefits	0.02
Net sickness benefits	0.07
Net disability benefits	0.06
Education-related allowances	0.09

SILC 2010. Percentage of imputation per household income components (average of the ratio of imputation over all units)

	Percentage
Total disposable household income	6.43
T. d. h. income before s. tr. other than old_age and surv. ben.	6.93
T. d. h. income before s. tr. including old_age and surv. ben.	9.81
Net income from rental of a property or land	0.37
Family/children-related allowances	0.05
Social exclusion not elsewhere classified	0.01
Housing allowances	0.05
Regular inter-household cash transfer received	0.08
Net interest, div., profit from capital invest. in uninc. business	11.71
Net income received by people aged under 16	0.03
Regular taxes on wealth	0.00
Regular inter-household cash transfer paid	0.20
Repayments/receipts for tax adjustments	4.42

SILC 2010. Percentage of imputation per personal income components (average of the ratio of imputation over all units)

	Percentage
Net cash or near cash employee income	2.88
Net non-cash employee income	0.08
Net cash profits or losses from self-employment	2.74
Net pension from individual private plans	0.08
Net unemployment benefits	0.19
Net old-age benefits	0.42
Net survivors benefits	0.01
Net sickness benefits	0.04
Net disability benefits	0.04
Education-related allowances	0.05

2.6. Imputed rent

The variable **imputed rent** (HY030) is calculated using the stratified-method rent (HY030e) and the subjective rent (HH061). These two concepts of renting are added up proportionally to build the imputed rent as follows:

HY030 = 0,70*HY030e + 0,30*HH061

The variable subjective rent (HH061) is obtained from the questionnaire, however the 70% of the imputed rent is calculated by means of an stratified method that will be explained later.

The selected variables

In order to calculate the imputed rent, by means of the stratified model, the following variables are used:

- Type of dwelling
- Degree of urbanization
- Number of rooms in the dwelling
- Time period in the dwelling (year of purchase or contract)

Indeed, to avoid the sample size for some variables, such as number of rooms, type of dwelling and year of contract, from being too small, some groups were made.

Groups for:
- ***Type of dwelling***: type 1 (house), type 2 (flat in a less-than-ten dwelling building) and type 3 (flat in a more-than-nine dwelling building).
- ***Degree of urbanization***: densely-populated, half densely-populated and sparsely-populated areas.
- ***Number of rooms in the dwelling***: less than 4, 4, 5, and more than 5.
- ***Time period in the dwelling***: before 1988, between 1988 and 2000 and beyond 2000.

The strata

Our initial data set contains those households having a market-price rent, and we split them into groups according to some specification on some variable above mentioned. Then, each of these groups is again split into other groups according to any other variable not used before in previous division, in an nested way. The aim is to construct homogeneous stratums with a minimum sample size.

Once the stratification is done, each non market-price-rented household is assigned to one strata, and therefore the imputed rent value for this household, will be the strata mean rent.

Only when the household is a lower market price rent, the final imputed rent will be the strata mean rent minus the current rent.

Strata 1 • Densely-populated area • Before 1988 • Type of dwelling: I and II	**Strata 2** • Densely-populated area • Before 1988 • Type of dwelling: III • Rooms: <= 4	**Strata 3** • Densely-populated area • Before 1988 • Type of dwelling: III • Rooms: >= 5
Strata 4 • Densely-populated area • Within (1988,2000) • Type of dwelling: I and II • Rooms: <= 4	**Strata 5** • Densely-populated area • Within (1988,2000) • Type of dwelling: I and II • Rooms: >= 5	**Strata 6** • Densely-populated area • Within (1988,2000) • Type of dwelling: III
Strata 7 • Densely-populated area • Beyond 2000 • Type of dwelling: I	**Strata 8** • Densely-populated area • Beyond 2000 • Type of dwelling: II	**Strata 9** • Densely-populated area • Beyond 2000 • Type of dwelling: III • Rooms: < 4
Strata 10 • Densely-populated area • Beyond 2000 • Type of dwelling: III • Rooms: 4	**Strata 11** • Densely-populated area • Beyond 2000 • Type of dwelling: III • Rooms: >= 5	**Strata 12** • Half densely-populated area • Type of dwelling: I
Strata 13 • Half densely-populated area • Type of dwelling: II • Rooms: <= 4	**Strata 14** • Half densely-populated area • Type of dwelling: II • Rooms: >= 5	**Strata 15** • Half densely-populated area • Type of dwelling: III
Strata 16 • Sparcely-populated area • Type of dwelling: I • Rooms: <=4	**Strata 17** • Sparcely-populated area • Type of dwelling: I • Rooms: >= 5	**Strata 18** • Sparcely-populated area • Type of dwelling: II • Before 2001
Strata 19 • Sparcely-populated area • Type of dwelling: II • Beyond 2000	**Strata 20** • Sparcely-populated area • Type of dwelling: III	

2.7.   Company cars

The method used to impute the value to the use of a company car is based in the Spanish Fiscal procedure to tax this non-cash income. We have two cases:

- The car is given to the employee. A market value is assigned depending of the value of the car supposing it is new and the age of the car, depreciating 20 % of this value for each year. The information about the value (supposing the car is new) and the age of the car is asked to the respondent. If the car is 5 or more years old no amount is imputed.

- Only the use of the car is provided to the employee. The imputed income is 20% of the market value of the car supposing it is new. The value is adjusted proportionally with the percentage of private use. The information about the value (supposing the car is new), the age of the car and percentage of use is asked to the respondent. If the car is 5 or more years old no amount is imputed.

3. COMPARABILITY

3.1.   Basic concepts and definitions

- Reference population. (No differences between national and EU-SILC concept.)

The target population was members of private households residing at main family addresses, and the households themselves.

Although all persons formed part of the target population, not all were surveyed exhaustively: only those who were aged 16 or over as at 31 December of the year before the year of interview.

- Private household definition. (No differences between national and EU-SILC concept.)

An individual or a group of people occupying in common a main family address or a part of it, and consuming and/or sharing food or other goods paid for out of a common budget.

- Household membership.

We have tried to implement in the field the definition of 'household member' given in the Commission Regulation. But, owing to the large number of possible special cases, and so as to reduce the number of related items on the questionnaire, there may be differences in some marginal cases.

To identify those differences, we provide a table below in which the left column itemises groups of people deemed household members under the definition given in the Regulation. On the right of the table we indicate whether such persons are household members under the definition used for the Spanish questionnaire.

Next we provide a reciprocal table in which the left column itemises groups of people deemed household members under the definition used for the Spanish questionnaire, while the right column indicates whether they are household members under the definition given in the Regulation.

STANDARD DEFINITION OF HOUSEHOLD MEMBER ACCORDING TO EU-SILC (under Regulation)	DIFFERENCES FROM NATIONAL DEFINITION
Present: - Usually resident at the address - Related to other household members - Share expenses	(No differences between national and EU-SILC concept.)
Present: - Usually resident at the address - Not related to household members - Share expenses	(No differences between national and EU-SILC concept.)
Present: - Resident boarders, lodgers, tenants - Have no private address elsewhere - Share expenses	(No differences between national and EU-SILC concept.)
Present: - Resident boarders, lodgers, tenants - Actual or intended length of stay is 6 months or more - Share expenses	• *Have other address they treat as their usual residence.* ***Not a member of the interviewed household.*** • Otherwise: No differences between national and EU-SILC concept.
Present: - Visitors - Have no private address elsewhere - Share expenses	No differences between national and EU-SILC concept.

Present: - Visitors - Actual or intended length of stay is 6 months or more - Share expenses	• *Have other address they treat as their usual residence.* **Not a member of the interviewed household.** • Otherwise: No differences between national and EU-SILC concept.
Present: - Live-in domestic employees, au pairs - Have no private address elsewhere - Share expenses	No differences between national and EU-SILC concept.
Present: - Live-in domestic employees, au pairs - Actual or intended length of stay is 6 months or more - Share expenses	• *Have other address they treat as their usual residence.* **Not a household member.** • Otherwise: No differences between national and EU-SILC concept.
Absent: - Temporarily absent owing to holiday leave, work reasons, studies and similar - Have no private address elsewhere - Actual or intended length of stay is less than 6 months - Share expenses	No differences between national and EU-SILC concept.
Absent: - Temporarily absent owing to holiday leave, work reasons, studies and similar - Have no private address elsewhere - Actual or intended length of stay is more than 6 months - Very close ties to household - Share expenses	No differences between national and EU-SILC concept.

Absent: - Children of the household - Receiving education away from home - Have no private address elsewhere - Treat this address as their main residence - Share expenses	No differences between national and EU-SILC concept.
Absent: - Persons with ties to the household away for extended periods for work reasons - Have no private address elsewhere - Must be a household member's partner or child - Treat this address as their main residence - Share expenses	No differences between national and EU-SILC concept.
Absent: - Temporarily absent persons with ties to the household - In hospital, clinic or other institution - Have financial ties to the household - Actual or intended length of absence must be less than 6 - Share expenses (financial ties)	No differences between national and EU-SILC concept.

Conclusion:

If a person is a household member according to the definition in the Regulation, he/she is also a household member under the national definition, except in the following group:

- Resident boarders, lodgers, tenants, visitors or domestic servants present at the place of interview
- Actual or intended length of stay is 6 months or more
- Have other address they treat as their usual residence and do not have close ties to household
- Share expenses

Under the Regulation, persons meeting the above conditions are treated as members of the household in which they are present. But they are not considered household members in the Spanish survey because priority is given to the fact that they have another address they regard as their usual residence. Due to the lack of sources is difficult to assess the impact of this difference, but we think it is marginal.

NATIONAL DEFINITION OF HOUSEHOLD MEMBER (Cases contemplated in the Spanish version of the questionnaire)	DIFFERENCES FROM STANDARD DEFINITION OF HOUSEHOLD MEMBERS ACCORDING TO EU-SILC (under Regulation)
Present: - Has no other address he/she treats as usual residence - Shares income or expenditures with the household	No differences between national and EU-SILC concept.
Absent: - In hospital, clinic or other institution, such as nursing home, prison, etc. - Total length of stay to be less than 6 months - Considers this his/her usual residence - Shares income or expenditures with the household	No differences between national and EU-SILC concept.
Absent: - Work reasons - Considers this his/her usual residence - Shares income or expenditures with the household	No differences between national and EU-SILC concept.
Absent: - Study reasons - Considers this his/her usual residence - Shares income or expenditures with the household	No differences between national and EU-SILC concept.

Absent:
   -   Travel
   -   Considers this his/her usual residence
   -   Shares income or expenditures with the household
	No differences between national and EU-SILC concept.

Conclusion:

If a person is a household member according to the national definition, he/she is also a household member under the Regulation definition.

- Income reference period.

The income reference period is the previous calendar year.

- Period for taxes on income and social insurance contributions.

We considered taxes received/paid during the income reference period. In the case of tax adjustments, these taxes usually refer to income received in previous years of the income reference period. For example in 2010 survey, only refunds/payments for tax adjustments (personal income tax – Spanish IRPF) paid/received in 2009 were provided. These taxes normally refer to income received in 2008, but there may be instances of income received in previous years.

- Reference period for taxes on wealth.

We considered the tax received/paid during the income reference period. Taxes on wealth has been suppressed for the income reference period in the 2010 survey.

- Lag between income reference period and current variables.

From 31 December of the year prior to the survey to the time of data collection (March-June). The lag thus ranged from 2 to 6 months.

- Total duration of the data collection of the sample.

March to June of the survey year.

- Basic information on activity status during the income reference period.

We used the definition given in document SILC065.

- Definition of "number of rooms" (HH030)

In 2004 and 2005 survey we tried to follow the definition given in Doc 65. From the 2006 survey, kitchens of at least 4 square meters are included.

3.2. Components of income

3.2.1. Differences between the national definitions and standard EU-SILC definitions, and an assessment, if available, of the consequences of the differences mentioned, for the following target variables:

- Total household gross income.

Provided for this survey.

- Total disposable household income.

(No differences between national and EU-SILC concept.)
Negative values are permitted.

- Total disposable household income, before social transfers other than old-age and survivors' benefits.

(No differences between national and EU-SILC concept.)
Negative values are permitted.

- Total disposable household income, before social transfers.

(No differences between national and EU-SILC concept.)
Negative values are permitted.

- Imputed rent.

Provided since the 2007 survey.

- Income from rental of property or land. (No differences between national and EU-SILC concept.)

(No differences between national and EU-SILC concept.)

- Family/children-related allowances.

(No differences between national and EU-SILC concept.)

- Social exclusion payments not elsewhere classified.

(No differences between national and EU-SILC concept.)

- Housing allowances.

(No differences between national and EU-SILC concept.)

- Regular inter-household cash transfers received.

(No differences between national and EU-SILC concept.)

- Interest, dividends, profit from capital investments in unincorporated businesses.

(No differences between national and EU-SILC concept.)

- Interest paid on mortgages.

Provided since the 2007 survey.

- Income received by people aged under 16.

(No differences between national and EU-SILC concept.)

- Regular taxes on wealth.

Taxes on wealth has been suppressed for the income reference period in the 2010 survey.
(No differences between national and EU-SILC concept.)

- Regular inter-household transfers paid.

(No differences between national and EU-SILC concept.)

- Tax on income and social insurance contributions.

Provided for this survey.

- Refunds/receipts for tax adjustments (personal income tax – IRPF).

(No differences between national and EU-SILC concept.)

- Cash or near-cash employee income.

(No differences between national and EU-SILC concept.)

- Non-cash employee income.

(No differences between national and EU-SILC concept.)

- Employers' social insurance contributions.

Provided since the 2007 survey.
Only the compulsory social contributions are included. The voluntary social contributions are excluded.
According to the Labour Cost Survey (2008) the employers contributions to private plans are a 3% of the compulsory contributions.

- Cash profits or losses from self-employment (including royalties).

(No differences between national and EU-SILC concept.)

- Value of goods produced for own consumption.

Provided since the 2007 survey.

- Unemployment benefits.

(No differences between national and EU-SILC concept.)

- Old-age benefits.

(No differences between national and EU-SILC concept.)

- Survivors' benefits.

(No differences between national and EU-SILC concept.)

- Sickness benefits.

(No differences between national and EU-SILC concept.)

- Disability benefits.

(No differences between national and EU-SILC concept.)

- Education-related allowances.

(No differences between national and EU-SILC concept.)

- Contributions to individual private pension plans.

(No differences between national and EU-SILC concept.)

- Pension from individual private plans (other than those covered under ESSPROSS).

(No differences between national and EU-SILC concept.)

3.2.2. The source or procedure used for the collection of income variables

As in previous years, we used personal interview as the method to collect income variables.

3.2.3. The form in which income variables at component level have been obtained

As in previous years, we gave respondents the option of reporting income gross and/or net (of tax on income at source and, if applicable, of social contributions) at component level. The interviewee normally states income net at source although in some cases gives too gross. The form in which the net amounts are recorded in database are net of tax on income at source and, if applicable, of social contributions.

3.2.4. The method used for obtaining income target variables in the required form

As in previous years:

Net amounts. Target income variables were reported net of tax on income at source and, where applicable, net of social contributions.

Gross amounts. Target gross income variables have also been obtained, reported directly by the respondent or using a net-to-gross conversion model.

This model is based on social security contributions and tax retentions. There are four possible conversion types to be applied to each of the income components:
Type I includes components having social security contributions and tax withholding at source, type II includes components having tax withholding at source, type III includes a flat rate tax retention, and type IV makes gross equal to net.

Social security contributions are calculated from gross income, employment, activity and education level. In turn, the tax withholding at source is obtained applying the taxation rules at source.

3.3. Tracing rules

Standard EU-SILC tracing rules are applied.

4. COHERENCE

4.1 Comparison of income target variables and number of persons who receive income from each 'income component', with external sources

Comparison with external sources is difficult because the definitions used do not match. The difficulty stems from the definition of the income component itself, which affects comparison of the number of people receiving a given income component, and affects comparison of the amount.

A very large proportion of social transfers, for instance, depends on Autonomous Communities (self-ruling region), and so it is very hard to bring all the available information together.

Nevertheless, we provide a range of tables to offer a guide to the structure of income distribution using other sources and some information about the activity status.

The available results from external sources come from:

- EU-SILC 2009 (previous year SILC)
- Labour Force Survey (LFS)
- INE National Accounts
- The *Boletín de Estadísticas Laborales* (labour statistics journal) of the Ministry of Labour and Social Affairs (social benefits)
- Tax Authorities sources

Starting with the current Survey on Income and Living Conditions (SILC) results, the following table itemises number of recipients, average income, average monthly income (taking account of 14 annual pay packets) and total income by component. Figures are given net (net of income tax at source and, where applicable, net of social contributions) and gross.

To make it easier to compare social transfers, we have removed the constraint that all survivors' and disability benefits for persons aged 65 and above are treated as old-age benefits.

SILC 2010. Source: Spanish Living Conditions Survey (SILC 2010). Adult recipients by income type (net figures)

	Recipients (thousands)	Average income 2009 (euros)	Average monthly income 2009 (euros)	Total income 2009 (millions of euros)
Cash employee income	18.427	15.353	1.097	282.908
Non-cash employee income	2.663	1.624	116	4.325
Cash profits or losses from self-employment	2.689	8.387	599	22.554
Unemployment benefits	3.963	4.631	331	18.351
Old-age benefits	5.744	12.133	867	69.691
Survivors benefits	1.722	8.153	582	14.044
Disability benefits	1.083	9.068	648	9.819

SILC 2010. Source: Spanish Living Conditions Survey (SILC 2010). Adult recipients by income type (gross figures)

	Recipients (thousands)	Average income 2009 (euros)	Average monthly income 2009 (euros)	Total income 2009 (millions of euros)
Cash employee income	18.427	18.626	1.330	343.235
Non-cash employee income	2.663	1.624	116	4.325

Cash profits or losses from self-employment	2.689	11.765	840	31.638
Unemployment benefits	3.963	4.761	340	18.870
Old-age benefits	5.744	12.815	915	73.610
Survivors benefits	1.722	8.319	594	14.330
Disability benefits	1.083	9.150	654	9.907

SILC 2010. Source: Spanish Living Conditions Survey (SILC 2010). Recipient households by income type (net figures)

	Recipient households (thousands	Average income 2009 (euros)	Total income 2009 (millions of euros)
Income from rental of a property or land	1.081	6.641	7.178
Interest, div., profit from capital invest.	4.308	950	4.091

SILC 2010. Source: Spanish Living Conditions Survey (SILC 2010). Recipient households by income type (gross figures)

	Recipient households (thousands	Average income 2009 (euros)	Total income 2009 (millions of euros)
Income from rental of a property or land	1.081	7.418	8.018
Interest, div., profit from capital invest.	4.308	1.106	4.765

The results for the activity are:

SILC 2010. Source: Spanish Living Conditions Survey (SILC 2010). Adults by activity status (thousands)

	Persons (thousands)	Adults (percentages)
Total	38.450,8	100.0
Employment	17.787,2	46.3
Unemployment	3.889,3	10.1
Inactive population	16.694,4	43.4
Missing	80,0	0.2

SILC 2009

These results for the previous year are:

SILC 2009. Source: Spanish Living Conditions Survey (SILC 2009). Adult recipients by income type (net figures)

	Recipients (thousands)	Average income 2008 (euros)	Average monthly income 2008 (euros)	Total income 2008 (millions of euros)
Cash employee income	19.098	15.414	1.101	294.383
Non-cash employee income	2.850	1.586	113	4.518
Cash profits or losses from self-employment	2.905	9.492	678	27.575
Unemployment benefits	3.165	3.932	281	12.444
Old-age benefits	5.824	11.952	854	69.603
Survivors benefits	1.643	7.875	563	12.938
Disability benefits	973	9.320	666	9.068

SILC 2009. Source: Spanish Living Conditions Survey (SILC 2009). Adult recipients by income type (gross figures)

	Recipients (thousands)	Average income 2008 (euros)	Average monthly income 2008 (euros)	Total income 2008 (millions of euros)
Cash employee income	19.098	18.627	1.331	355.749
Non-cash employee income	2.850	1.586	113	4.518
Cash profits or losses from self-employment	2.905	12.596	900	36.594
Unemployment benefits	3.165	4.022	287	12.730
Old-age benefits	5.824	12.655	904	73.697
Survivors benefits	1.643	8.008	572	13.157
Disability benefits	973	9.390	671	9.136

SILC 2009. Source: Spanish Living Conditions Survey (SILC 2009). Recipient households by income type (net figures)

	Recipient households (thousands	Average income 2008 (euros)	Total income 2008 (millions of euros)
Income from rental of a property or land	1.043	6.562	6.847
Interest, div., profit from capital invest.	4.565	975	4.450

SILC 2009. Source: Spanish Living Conditions Survey (SILC 2009). Recipient households by income type (gross figures)

	Recipient households (thousands	Average income 2008 (euros)	Total income 2008 (millions of euros)
Income from rental of a property or land	1.043	7.351	7.670
Interest, div., profit from capital invest.	4.565	1.143	5.217

We can observe a reduction in the average income in some components. We also observe an increase of the number of recipients of unemployment benefits.

<u>LFS</u>

The number of persons by activity status according to the LFS (first quarter of 2010) is:

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                              Persons      Adults
                            (thousands) (percentages)

Total                        38.450,8       100.0
Employment                   18.394,2        47,8
Unemployment                  4.612,7        12,0
Inactive population          15.444,0        40,2
```

In the Spanish SILC there is some underreporting of the number of persons in employment.

<u>INE National Accounts</u>

To compare with the results for other components of income we can use the interim National Accounts 2009. The following table presents data on "Accounts for the total economy and institutional sectors" ("Table of current accounts and accumulated accounts") of the household sector (millions of euros).

D.11.	Wages and salaries	411.003
B.3b	Gross mixed income	166.972
D.621	Social security benefits in cash	133.494
D.41	Interest	19.518
D.42	Income distributed by corporations	23.475
D.45	Income from land	827

To compare National Accounts and SILC data, account must be taken of the fact that the definition of income components and amount values (net/gross) are not always the same.

Concerning the employee income the amount for SILC is: 343.235 + 4.325 = 347.560 (survey 2010). For NA the employee income is 411.003 (year 2009).

'Net cash profits or losses from self-employment', 'income from rental of a property or land' and 'net interest, dividends, profit from capital investment in unincorporated business' are very poorly picked up by interview, so comparison is not possible. 'Income from rental of a property or land' under SILC is treated as mixed income in NA.

The differences between National Accounts and SILC are less with regard to figures on social benefits.

<u>Labour statistics journal (social benefits)</u>

For social transfers we have the following data from the *Boletín de Estadísticas Laborales* (labour statistics journal) of the Ministry of Labour and Social Affairs.

Social Security pension contributions 2009

Pensions by scheme, class, years, number and average figure
Units: Number: thousands of pensions. Average figure: euros per month

	2009	
	Number	**Average figure**
TOTAL		
Total	8.531,93	754,06
Permanent disability	920,86	831,49
Retirement	5.038,86	854,12
Widowhood	2.270,28	553,89
Orphanhood	264,20	339,71

Benefits not tied to contributions 2009

Beneficiaries of benefits not tied to contributions by mode, class and year

Units: Number of beneficiaries (annual average)

	2009
SOCIAL SECURITY PENSIONS NOT TIED TO CONTRIBUTIONS (1)	458.034
Disability	197.126
Retirement	260.908

Comparing the number of benefits payees by type, we find the largest differences relate to survivors' benefits, 1.722 as against 2.270,28+264,20 (= 2.534,48). The largest differences in average amount are found in disability pensions (but it should be borne in mind that the average amount of pensions not tied to contributions is unknown).

The available statistics on unemployment refer only to the average annual number of beneficiaries of unemployment benefits and subsidies (2.681.223 in 2009). Other benefits and the turnover of unemployed workers in the year are not reflected, therefore.

Tax Authorities sources

In relation to Fiscal sources the Tax Agency produces yearly the publication *Mercado de Trabajo y Pensiones en Las Fuentes Tributarias 2009* (Labour market and Pensions in Tax Sources). The reference period is the year 2009 and the amounts in the fiscal sources are gross.

Number of persons with employee income and amount annual average

	Employees	Income (annual average) euros
Total	18.451.827	19.085

There are not important differences between the two sources (SILC and Fiscal sources).

Number of persons with pensions income and amount annual average

	Pensioners	Pension (annual average) euros
Total	8.996.206	11.364

There are not important differences between the two sources (SILC and Fiscal sources) if we consider in EU-SILC together old-age, survivors and disability benefits.

Number of persons with unemployment benefits and amount annual average

	Unemployed	Benefits (annual average) euros
Total	5.525.758	4.010

The difference between the two sources (SILC and Fiscal sources) can be explained if EU-SILC, perhaps, is not able of collecting cases of very short periods of unemployment.