



Final Quality Report

Survey on Income and Living Conditions Spain (Spanish ECV 2009)

Madrid, December 2011

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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 2009 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 disaggregation.

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 $\frac{1}{4}$ 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-sub-sample 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 2009. The income reference period is fixed (year 2008).

Sample distribution (collected household questionnaire) over the time

		Number	Percentage
February	21 to 31	5	0.0
March	1 to 10	443	3.3
	11 to 20	1025	7.7
	21 to 31	1523	11.4
April	1 to 10	987	7.4
	11 to 20	1332	10.0
	21 to 31	1649	12.3
May	1 to 10	901	6.7
	11 to 20	1697	12.7
	21 to 31	1286	9.6
June	1 to 10	1393	10.4
	11 to 20	725	5.4
	21 to 31	302	2.3
July	1 to 10	86	0.6
	11 to 20	6	0.0

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 2009 survey, the rotational group of the new sub-sample is "1".

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 $\frac{vt_h^t}{ve_h^t}$. 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:

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

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 weights 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 1/4 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 4¹.

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:

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

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 ($ci_{ca} = \sum_{t=1}^4 ci_{ca}^t$).

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 6286 (4007 are original households and 2279 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 dwellings	7
Total households	4007

Number of original households in the new sub-sample

	Original units
	Number
Households accepted for database	2619
Households failed	1388
Total households	4007

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

	Original units
	Number
Failed original households successfully subsistuted	1296
Failed original households not successfully subsistuted	92
Total failed original households	1388

Number of substituted households in the new sub-sample

	Substituted units
	Number
Substituted dwelling accepted in DB	1295
Households in same dwellings	1
Other substituted household accepted in DB	12
Failed substituted household	971
Total substituted households	2279

There are "Other substituted household accepted in database" because some hosueholds initilally rejected (and carried out the process of substitutions) were finally recovered. At the end the maximum number of units accepted for database must not exceed 8 (the number of original units selected).

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	Original units	Substituted units	Substituted units
	Number	Percentage	Number	Percentage
DB120 = 21	30	2.2	28	2.2
DB120 = 22	6	0.4	5	0.4
DB120 = 23	395	28.5	364	28.1
DB130 = 21	508	36.6	490	37.8
DB130 = 22	379	27.3	349	26.9
DB130 = 23	24	1.7	22	1.7
DB130 = 24	46	3.3	38	2.9
Total	1388	100.0	1296	100.0

2.2. Sampling errors

For 2009 the data are:

Number of observations

	Number of observations before imputation (partial or total information)	Number of observations after imputation
Total disposable household income	13023	13360
T. d. h. income before s. tr. other than old_age and surv. ben.	12966	13360
T. d. h. income before s. tr. including old_age and surv. ben.	12614	13360
Net income from rental of a property or land	895	917
Family/children-related allowances	495	508
Social exclusion not elsewhere classified	115	115
Housing allowances	158	166
Regular inter-household cash transfer received	436	450
Net interest, div., profit from capital invest. in uninc. business	2737	3937
Net income received by people aged under 16	385	388
Regular taxes on wealth	314	421
Regular inter-household cash transfer paid	797	815
Repayments/receipts for tax adjustments	9077	9667
	Number of observations before imputation (partial or total information)	Number of observations after imputation
Net cash or near cash employee income	12812	14272
Net non-cash employee income	1441	1850
Net cash profits or losses from self-employment	1908	2255
Net pension from individual private plans	192	211
Net unemployment benefits	2206	2309
Net old-age benefits	6095	6302
Net survivors benefits	492	498
Net sickness benefits	400	420
Net disability benefits	668	680
Education-related allowances	589	618
Gross monthly earnings for employees	10492	10944

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	35812	36769
1 member	2317	2388
2 members	7805	7952
3 members	8906	9139
4 and more members	16784	17290

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	35812	36769
0 le age le 24	9506	9781
25 le age le 34	4628	4766
35 le age le 44	5522	5659
45 le age le 54	5288	5470
55 le age le 64	4304	4439
65 le age	6564	6654

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	35812	36769
Males	17352	17816
Females	18460	18953

Mean of household income components

	Mean
Total disposable household income	26383
T. d. h. income before s. tr. other than old_age and surv. ben.	24858
T. d. h. income before s. tr. including old_age and surv. ben.	19970
Net income from rental of a property or land	6562
Family/children-related allowances	2639
Social exclusion not elsewhere classified	1742
Housing allowances	2058
Regular inter-household cash transfer received	3792
Net interest, div., profit from capital invest. in uninc. business	975
Net income received by people aged under 16	1122
Regular taxes on wealth	1352
Regular inter-household cash transfer paid	3262

Repayments/receipts for tax adjustments

-374

Mean of personal income components

Mean

Net cash or near cash employee income	15414
Net non-cash employee income	1586
Net cash profits or losses from self-employment	9492
Net pension from individual private plans	7154
Net unemployment benefits	3932
Net old-age benefits	11341
Net survivors benefits	7032
Net sickness benefits	4618
Net disability benefits	9341
Education-related allowances	1392
Gross monthly earnings for employees	1775

Mean of the equivalised disposable income by household size

Mean

Total	14882
1 member	13400
2 members	15998
3 members	15605
4 and more members	14146

Mean of the equivalised disposable income by age

Mean

Total	14882
0 le age le 24	13858
25 le age le 34	16979
35 le age le 44	15572
45 le age le 54	15504
55 le age le 64	15777
65 le age	12530

Mean of the equivalised disposable income by sex

Mean

Total	14882
Males	15117
Females	14653

Standard error

Mean	Standard error
Total disposable household income	1,97
T. d. h. income before s. tr. other than old_age and surv. ben.	1,97
T. d. h. income before s. tr. including old_age and surv. ben.	2,14
Net income from rental of a property or land	3,26
Family/children-related allowances	1,15
Social exclusion not elsewhere classified	2,25
Housing allowances	3,01
Regular inter-household cash transfer received	1,99
Net interest, div., profit from capital invest. in uninc. business	0,76
Net income received by people aged under 16	0,93
Regular taxes on wealth	1,58
Regular inter-household cash transfer paid	1,56
Repayments/receipts for tax adjustments	0,20

Mean of personal income components

Mean

Net cash or near cash employee income	1,14
Net non-cash employee income	0,90
Net cash profits or losses from self-employment	3,61
Net pension from individual private plans	9,21
Net unemployment benefits	0,91
Net old-age benefits	1,14
Net survivors benefits	3,35
Net sickness benefits	3,07
Net disability benefits	3,64
Education-related allowances	0,93
Gross monthly earnings for employees	0,14

Mean of the equivalised disposable income by household size

Mean

Total	1,04
1 member	2,66
2 members	2,26
3 members	2,08
4 and more members	1,62

Mean of the equivalised disposable income by age

Mean

Total	1,04
0 le age le 24	1,46
25 le age le 34	2,37
35 le age le 44	2,13
45 le age le 54	1,86
55 le age le 64	2,42
65 le age	1,32

Mean of the equivalised disposable income by sex

Mean

Total	1,04
Males	1,16
Females	1,07

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-2009 was obtained with the Register dated 02.02.2008.

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:

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

Percentage

9.9

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).

In the 2009 survey, the variables PL100 (Total number of hours usually worked in second third jobs) and PL120 (Reason for working less than 30 hours) have not been properly recorded in some cases due to internal errors in the software. In these records we have let the value to missing.

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 2006. Number of households for which an interview is accepted for the database (DB135 = 1). Rotational group breakdown

	Number
Group 2	3650
Total	3650

SILC 2006. 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 2	8202
Total	8202

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

	Number
Group 2	3052
Group 3	3833
Total	6885

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 2	7068
Group 3	8822
Total	15890

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

	Number
Group 2	2922
Group 3	3415
Group 4	3875
Total	10212

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 2	6741
Group 3	7860
Group 4	8882
Total	23483

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

Number	
Group 2	2798
Group 3	3195
Group 4	3440
Total	9433

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 2	6353
Group 3	7260
Group 4	7966
Total	21579

2.3.3.2. Unit non-response

Unit non-response. Rotational group

	Group 2 (2006)	Group 3 (2007)	Group 4 (2008)
Ra	0.97	0.98	0.98
Rh	0.58	0.63	0.65
NRh	43.13	37.96	36.41
Rp	0.97	0.99	0.99
NRp	3.04	0.70	0.57
NRp2	44.86	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 2006- 2007). Rotational group and total

Group 2

	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	2998	4	142	26	21	380	.	78	1	3650
DB110=8 (wave 2)	54	.	12	.	3	4	6	.	.	79
Total	3052	4	154	26	24	384	6	78	1	3729

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	2998	4	142	26	21	380	.	78	1	3650
DB110=8 (wave 2)	54	.	12	.	3	4	6	.	.	79
Total	3052	4	154	26	24	384	6	78	1	3729

Wave response rates. Rotational group and total (SILC 2006- 2007). Percentages.

	Wave response rate	Refusal rate	No- contacted and others
Group 2	81.84	10.30	7.86
Total	81.84	10.30	7.86

Longitudinal follow-up rates. Rotational group and total (SILC 2006- 2007). Percentages.

	Longitudinal follow-up rate
Group 2	87.42
Total	87.42

Follow-up ratio. Rotational group and total (SILC 2006- 2007)

	Follow-up ratio
Group 2	0.89
Total	0.89

Achieved sample size ratio. Rotational group and total (SILC 2006- 2007)

	Achieved sample size ratio
Group 2	0.84
Total	0.84

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 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

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

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

Household response rates: Comparison of results codes between wave 2 and wave 3 (SILC 2007- 2008). Rotational group and total

Group 2

	DB130=11 and DB135=1	DB120=22	DB130=22	DB130=23	DB130=24	DB130=21	DB120=21	DB110=3,4,- 5,6,7	DB110=10	Total
DB130=11 and DB135=1	2745	.	54	18	14	167	.	51	3	3052
DB130=11 and DB135=2	3	.	.	.	1	.	.	.	.	4
DB130=22	88	.	23	4	3	27	.	9	.	154
DB130=23	9	.	2	6	.	4	.	5	.	26
DB130=24	16	.	1	.	.	5	.	2	.	24
DB110=8 (wave 3)	61	1	9	.	.	8	11	.	.	90
Total	2922	1	89	28	18	211	11	67	3	3350

Total

	DB130=11 and DB135=1	DB120=22	DB130=22	DB130=23	DB130=24	DB130=21	DB120=21	DB110=3,4,- 5,6,7	DB110=10	Total
DB130=11 and DB135=1	2745	.	54	18	14	167	.	51	3	3052
DB130=11 and DB135=2	3	.	.	.	1	.	.	.	.	4
DB130=22	88	.	23	4	3	27	.	9	.	154
DB130=23	9	.	2	6	.	4	.	5	.	26
DB130=24	16	.	1	.	.	5	.	2	.	24
DB110=8 (wave 3)	61	1	9	.	.	8	11	.	.	90
Total	2922	1	89	28	18	211	11	67	3	3350

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

	Wave response rate	Refusal rate	No- contacted and others
Group 2	87.22	6.30	6.48
Total	87.22	6.30	6.48

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

	Longitudinal follow-up rate
Group 2	90.40
Total	90.40

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

	Follow-up ratio
Group 2	0.93
Total	0.93

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

	Achieved sample size ratio
Group 2	0.96
Total	0.96

Household response rates: Comparison of results codes between wave 3 and wave 4 (SILC 2008- 2009). Rotational group and total

Group 2

	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	2693	45	7	4	124	.	45	4	2922
DB120=22	.	.	.	1	.	.	.	.	1
DB130=22	39	10	1	.	8	.	5	.	63
DB130=23	9	2	1	.	3	.	3	.	18
DB130=24	8	1	.	.	4	.	1	.	14
DB110=8 (wave 3)	49	9	.	1	8	6	.	.	73
Total	2798	67	9	6	147	6	54	4	3091

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	68	15	2	232	.	68	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	88	18	5	265	8	79	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	5718	2	113	22	6	356	.	113	7	6337
DB130=11 and DB135=2	4	.	.	.	.	.	.	.	.	4
DB120=22	.	.	.	.	1	.	.	.	.	1
DB130=22	116	.	28	2	1	24	.	14	.	185
DB130=23	16	.	2	3	1	5	.	5	.	32
DB130=24	16	.	1	.	.	12	.	1	.	30
DB110=8 (wave 3)	123	.	11	.	2	15	14	.	.	165
Total	5993	2	155	27	11	412	14	133	7	6754

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

	Wave response rate	Refusal rate	No- contacted and others
Group 2	90.52	4.76	4.72
Group 3	87.22	7.23	5.54
Total	88.73	6.10	5.17

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

	Longitudinal follow-up rate
Group 2	92.94
Group 3	89.83
Total	91.26

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

	Follow-up ratio
Group 2	0.95
Group 3	0.92
Total	0.93

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

	Achieved sample size ratio
Group 2	0.96
Group 3	0.94
Total	0.95

PERSONS

Longitudinal component. Unit non-response. Persons

Personal interview response rates: Rotational group and total. (SILC 2006- 2007).

Group 2

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)	6856	47	6903
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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)	6856	47	6903
----------------	------	----	------

Personal interview response rates: Rotational group and total. (SILC 2006- 2007).

Group 2

Non-sample persons 16+

RB250 =
(11,12,13) RB250=14 Total

This wave	212	2	214
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Total

Non-sample persons 16+

RB250 = (11,12,13)	RB250=14	Total
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This wave	212	2	214
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Response rates for persons. Wave response rate. Rotational group and total. Percentages. (SILC 2006- 2007).

Wave
response
rate of
sample
persons

Group 2	99.32
Total	99.32

Response rates for persons. Longitudinal follow-up rate. Rotational group and total. Percentages. (SILC 2006- 2007).

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 2	99.32	0.68	0.00	0.00	0.00	0.00	0.00
Total	99.32	0.68	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 2006- 2007).

Response
rate for non
sample
persons

Group 2	99.07
Total	99.07

Achieved sample size ratio. Rotational group and total. (SILC 2006- 2007).

	Achieved sample size ratio for sample persons	Achieved sample size ratio for sample persons and co-residents
Group 2	83.59	86.17
Total	83.59	86.17

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	205	13	218
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Total

Non-sample persons 16+

RB250 =
(11,12,13) RB250=14 Total

This wave 205 13 218

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 94.04
Total 94.04

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	89.08
Total	86.76	89.08

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

Group 2

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)	6161	26	6187

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)	6161	26	6187

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

Group 2

Non-sample persons 16+

RB250 =
(11,12,13) RB250=14 Total

This wave	353	4	357
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Total

Non-sample persons 16+

RB250 =
(11,12,13) RB250=14 Total

This wave 353 4 357

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

Wave
response
rate of
sample
persons

Group 2 99.58
Total 99.58

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 2	99.58	0.42	0.00	0.00	0.00	0.00	0.00	0.00
Total	99.58	0.42	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 2007- 2008).

Response
rate for non
sample
persons

Group 2 98.88
Total 98.88

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 2	89.86	92.16
Total	89.86	92.16

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 2

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)	5793	58	5851
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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)	6734	97	6831
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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)	12527	155	12682
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Personal interview response rates: Rotational group and total. (SILC 2008- 2009).

Group 2

Non-sample persons 16+

RB250 =			
(11,12,13)	RB250=14	Total	

This wave	458	24	482
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Group 3

Non-sample persons 16+

RB250 =			
(11,12,13)	RB250=14	Total	

This wave	350	11	361
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Total

Non-sample persons 16+

RB250 =			
(11,12,13)	RB250=14	Total	

This wave	808	35	843
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Response rates for persons. Wave response rate. Rotational group and total. Percentages. (SILC 2008- 2009).

Wave
response
rate of
sample
persons

Group 2	99.01
Group 3	98.58
Total	98.78

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 2	99.01	0.99	0.00	0.00	0.00	0.00	0.00	0.00
Group 3	98.58	1.42	0.00	0.00	0.00	0.00	0.00	0.00
Total	98.78	1.22	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 2	95.02
Group 3	96.95
Total	95.85

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 2	90.69	92.73
Group 3	87.97	90.13
Total	89.20	91.33

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 2006. Distribution of households by DB110

	Number	Percentage
Total	6937	100.0
DB110=9	6937	100.0

SILC 2006. Distribution of households by DB120

	Number	Percentage
Total	6937	100.0
DB120=11 (contacted)	6257	90.2
DB120=21 (can not be located)	153	2.2
DB120=22 (unable to access)	8	0.1
DB120=23 (not exists or non-res.)	519	7.5

SILC 2006. Distribution of households by DB130

	Number	Percentage
Total	6257	100.0
DB130=11 (household q. completed)	3655	58.4
DB130=21 (refusal to cooperate)	1193	19.1
DB130=22 (temporaly away)	1200	19.2
DB130=23 (unable to respond)	48	0.8
DB130=24 (other reasons)	161	2.6

SILC 2006. Distribution of households by DB135

	Number	Percentage
Total	3655	100.0
DB135=1 (interview accepted)	3650	99.9
DB135=2 (interview rejected)	5	0.1

SILC 2007. Distribution of households by DB110

	Number	Percentage
Total	10474	100.0
DB110=1	3497	33.4
DB110=2	74	0.7
DB110=3	9	0.1
DB110=4	3	0.0
DB110=5	11	0.1
DB110=6	1	0.0
DB110=7	54	0.5
DB110=8	79	0.8
DB110=9	6745	64.4
DB110=10	1	0.0

SILC 2007. Distribution of households by DB120

	Number	Percentage
Total	6898	100.0
DB120=11 (contacted)	6192	89.8
DB120=21 (can not be located)	132	1.9
DB120=22 (unable to access)	7	0.1
DB120=23 (not exists or non-res.)	567	8.2

SILC 2007. Distribution of households by DB130

	Number	Percentage
Total	9689	100.0
DB130=11 (household q. completed)	6889	71.1
DB130=21 (refusal to cooperate)	1612	16.6
DB130=22 (temporaly away)	1000	10.3
DB130=23 (unable to respond)	78	0.8
DB130=24 (other reasons)	110	1.1

SILC 2007. Distribution of households by DB135

	Number	Percentage
Total	6889	100.0
DB135=1 (interview accepted)	6885	99.9
DB135=2 (interview rejected)	4	0.1

SILC 2008. Distribution of households by DB110

	Number	Percentage
Total	13954	100.0
DB110=1	6822	48.9
DB110=2	146	1.0
DB110=3	22	0.2
DB110=4	7	0.1
DB110=5	21	0.2
DB110=6	9	0.1
DB110=7	63	0.5
DB110=8	203	1.5
DB110=9	6658	47.7
DB110=10	3	0.0

SILC 2008. Distribution of households by DB120

	Number	Percentage
Total	7007	100.0
DB120=11 (contacted)	6287	89.7
DB120=21 (can not be located)	147	2.1
DB120=22 (unable to access)	9	0.1
DB120=23 (not exists or non-res.)	564	8.0

SILC 2008. Distribution of households by DB130

	Number	Percentage
Total	13109	100.0
DB130=11 (household q. completed)	10219	78.0
DB130=21 (refusal to cooperate)	1478	11.3
DB130=22 (temporaly away)	1183	9.0
DB130=23 (unable to respond)	82	0.6
DB130=24 (other reasons)	147	1.1

SILC 2008. Distribution of households by DB135

	Number	Percentage
Total	10219	100.0
DB135=1 (interview accepted)	10212	99.9
DB135=2 (interview rejected)	7	0.1

SILC 2009. Distribution of households by DB110

	Number	Percentage
Total	10717	100.0
DB110=1	10043	93.7
DB110=2	200	1.9
DB110=3	26	0.2
DB110=4	22	0.2
DB110=5	37	0.3
DB110=6	13	0.1
DB110=7	115	1.1
DB110=8	253	2.4
DB110=10	8	0.1

SILC 2009. Distribution of households by DB120

	Number	Percentage
Total	453	100.0
DB120=11 (contacted)	427	94.3
DB120=21 (can not be located)	24	5.3
(Missing)	2	0.4

SILC 2009. Distribution of households by DB130

	Number	Percentage
Total	10470	100.0
DB130=11 (household q. completed)	9437	90.1
DB130=21 (refusal to cooperate)	729	7.0
DB130=22 (temporaly away)	243	2.3
DB130=23 (unable to respond)	41	0.4
DB130=24 (other reasons)	20	0.2

SILC 2009. Distribution of households by DB135

	Number	Percentage
Total	9437	100.0
DB135=1 (interview accepted)	9433	100.0
DB135=2 (interview rejected)	4	0.0

2.3.3.4. Distribution of persons for membership status (RB110)

Distribution of persons for membership status (RB110)

SILC 2007. Distribution of person for membership status (RB110)

		Number	Percentage
Total		19442	100.0
Current hhd members	RB110=1	18860	97.0
	RB110=2	66	0.3
	RB110=3	260	1.3
	RB110=4	53	0.3
No current hhd members	RB120=2 to 4	139	0.7
	RB110=6	43	0.2
	RB110=7	21	0.1

SILC 2007. Distribution of person for membership status (RB110). RB110=5

		Number	Percentage
Total		229	100.0
RB120=1 and current hhd member		62	27.1
RB120=1 and no current hhd member		28	12.2
RB120=2		9	3.9
RB120=3		11	4.8
RB120=4		119	52.0

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

		Number	Percentage
Total		28579	100.0
Current hhd members	RB110=1	27439	96.0
	RB110=2	174	0.6
	RB110=3	485	1.7
	RB110=4	151	0.5
No current hhd members	RB120=2 to 4	176	0.6
	RB110=6	104	0.4
	RB110=7	50	0.2

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

		Number	Percentage
Total		451	100.0
RB120=1 and current hhd member		169	37.5
RB120=1 and no current hhd member		106	23.5
RB120=2		18	4.0
RB120=3		20	4.4
RB120=4		138	30.6

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

		Number	Percentage
Total		26528	100.0
Current hhd members	RB110=1	25043	94.4
	RB110=2	236	0.9
	RB110=3	642	2.4
	RB110=4	172	0.6
No current hhd members	RB110=2 to 4	254	1.0
	RB110=6	146	0.6
	RB110=7	35	0.1

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

		Number	Percentage
Total		598	100.0
RB120=1 and current hhd member		211	35.3
RB120=1 and no current hhd member		133	22.2
RB120=2		23	3.8
RB120=3		64	10.7
RB120=4		167	27.9

2.3.3.5. Item non-response

Longitudinal component. Item non-response. Net amounts.

SILC 2006. 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	7.5	36.8	55.7
T. d. h. income before s. tr. other than old_age and surv. ben.	98.8	8.2	36.0	55.8
T. d. h. income before s. tr. including old_age and surv. ben.	86.3	11.7	36.7	51.6
Net income from rental of a property or land	5.1	20.0	9.2	70.8
Family/children-related allowances	3.0	5.6	0.0	94.4
Social exclusion not elsewhere classified	0.5	5.3	0.0	94.7
Housing allowances	0.6	13.0	0.0	87.0
Regular inter-household cash transfer received	2.2	17.5	0.0	82.5
Net interest, div., profit from capital invest. in uninc. business	25.6	48.6	31.8	19.6
Net income received by people aged under 16	3.4	3.3	0.0	96.7
Regular taxes on wealth	3.5	44.1	10.2	45.7
Regular inter-household cash transfer paid	5.8	5.6	0.0	94.4
Repayments/receipts for tax adjustments	65.4	9.7	2.8	87.5
		% 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	45.0	23.1	0.0	76.9
Net non-cash employee income	0.5	25.0	0.0	75.0
Net cash profits or losses from self-employment	7.6	31.5	38.8	29.8
Net pension from individual private plans	0.5	17.1	0.0	82.9
Net unemployment benefits	4.3	7.4	0.3	92.3
Net old-age benefits	19.8	9.7	0.2	90.1
Net survivors benefits	1.5	12.5	0.0	87.5
Net sickness benefits	1.7	12.8	0.0	87.2
Net disability benefits	1.8	4.0	0.0	96.0
Education-related allowances	1.0	4.8	0.0	95.2

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	4.2	39.6	56.2
T. d. h. income before s. tr. other than old_age and surv. ben.	98.7	4.7	38.6	56.7
T. d. h. income before s. tr. including old_age and surv. ben.	89.1	9.1	37.4	53.5
Net income from rental of a property or land	6.5	5.6	14.3	80.2
Family/children-related allowances	3.3	4.4	0.0	95.6
Social exclusion not elsewhere classified	0.7	2.0	0.0	98.0
Housing allowances	1.0	11.6	0.0	88.4
Regular inter-household cash transfer received	3.4	6.5	0.0	93.5
Net interest, div., profit from capital invest. in uninc. business	33.4	43.4	36.4	20.2
Net income received by people aged under 16	3.2	0.4	0.0	99.6
Regular taxes on wealth	3.8	37.3	12.5	50.2
Regular inter-household cash transfer paid	5.8	6.0	0.5	93.5
Repayments/receipts for tax adjustments	68.6	6.9	2.4	90.7
		% 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	46.1	12.3	0.0	87.7
Net non-cash employee income	0.8	14.3	0.0	85.7
Net cash profits or losses from self-employment	7.1	30.3	36.0	33.7
Net pension from individual private plans	0.6	9.9	0.0	90.1
Net unemployment benefits	4.7	7.3	0.0	92.7
Net old-age benefits	20.1	4.8	0.2	95.1
Net survivors benefits	1.6	2.0	0.0	98.0
Net sickness benefits	1.6	6.0	0.0	94.0
Net disability benefits	2.2	5.8	0.0	94.2
Education-related allowances	1.7	5.8	0.0	94.2

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	99.4	2.9	42.1	54.9
T. d. h. income before s. tr. other than old_age and surv. ben.	98.6	3.5	41.5	55.0
T. d. h. income before s. tr. including old_age and surv. ben.	89.8	7.6	40.1	52.3
Net income from rental of a property or land	7.0	3.8	11.4	84.8
Family/children-related allowances	3.7	3.7	0.5	95.8
Social exclusion not elsewhere classified	0.6	1.6	0.0	98.4
Housing allowances	0.9	4.2	0.0	95.8
Regular inter-household cash transfer received	3.0	5.5	0.0	94.5
Net interest, div., profit from capital invest. in uninc. business	37.5	41.3	40.3	18.4
Net income received by people aged under 16	2.4	1.7	0.0	98.3
Regular taxes on wealth	3.6	30.4	13.9	55.7
Regular inter-household cash transfer paid	5.8	4.9	0.2	94.9
Repayments/receipts for tax adjustments	70.7	6.2	1.9	91.9

	% 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	46.9	10.8	0.0	89.2
Net non-cash employee income	0.8	18.9	0.0	81.1
Net cash profits or losses from self-employment	7.7	19.6	47.7	32.7
Net pension from individual private plans	0.6	9.5	0.0	90.5
Net unemployment benefits	5.2	4.9	0.2	95.0
Net old-age benefits	20.2	4.1	0.3	95.6
Net survivors benefits	1.5	2.0	0.0	98.0
Net sickness benefits	1.4	7.6	0.0	92.4
Net disability benefits	2.4	2.2	0.0	97.8
Education-related allowances	1.6	2.9	0.0	97.1

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	99.5	1.9	33.4	64.7
T. d. h. income before s. tr. other than old_age and surv. ben.	98.5	2.3	32.9	64.8
T. d. h. income before s. tr. including old_age and surv. ben.	88.9	5.5	32.6	61.9
Net income from rental of a property or land	7.3	2.2	11.7	86.1
Family/children-related allowances	3.6	1.2	0.3	98.5
Social exclusion not elsewhere classified	1.0	0.0	0.0	100.0
Housing allowances	1.1	2.8	0.0	97.2
Regular inter-household cash transfer received	3.3	3.2	0.0	96.8
Net interest, div., profit from capital invest. in uninc. business	30.5	29.8	35.7	34.5
Net income received by people aged under 16	2.9	0.0	0.0	100.0
Regular taxes on wealth	3.4	25.1	15.5	59.4
Regular inter-household cash transfer paid	6.1	1.6	0.0	98.4
Repayments/receipts for tax adjustments	73.0	5.9	2.1	92.0

	% 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	7.9	0.0	92.1
Net non-cash employee income	0.9	16.6	0.0	83.4
Net cash profits or losses from self-employment	7.5	14.4	55.2	30.4
Net pension from individual private plans	0.7	7.5	0.0	92.5
Net unemployment benefits	7.6	3.9	0.1	96.1
Net old-age benefits	20.7	2.7	0.2	97.2
Net survivors benefits	1.6	0.6	0.0	99.4
Net sickness benefits	1.3	3.9	0.0	96.1
Net disability benefits	2.2	0.8	0.0	99.2
Education-related allowances	2.0	3.8	0.0	96.2

Longitudinal component. Item non-response. Gross amounts.

SILC 2006. 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	8.8	53.0	38.2
Gross income from rental of a property or land	5.1	20.0	27.6	52.4
Gross family/children-related allowances	3.0	5.6	0.0	94.4
Gross social exclusion not elsewhere classified	0.5	5.3	0.0	94.7
Gross housing allowances	0.6	13.0	0.0	87.0
Gross regular inter-household cash transfer received	2.2	17.5	0.0	82.5
Gross interest, div., profit from capital invest. in uninc. business	25.6	48.6	37.0	14.3
Gross income received by people aged under 16	3.4	3.3	0.0	96.7
Gross regular taxes on wealth	3.5	44.1	10.2	45.7
Gross regular inter-household cash transfer paid	5.8	5.6	0.0	94.4
		% 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	45.0	23.1	34.3	42.6
Gross non-cash employee income	0.5	25.0	0.0	75.0
Gross cash profits or losses from self-employment	7.6	20.4	49.5	30.1
Gross pension from individual private plans	0.5	17.1	7.3	75.6
Gross unemployment benefits	4.3	7.4	5.2	87.4
Gross old-age benefits	19.8	9.7	7.5	82.8
Gross survivors benefits	1.5	12.5	3.1	84.4
Gross sickness benefits	1.7	12.8	2.7	84.5
Gross disability benefits	1.8	4.0	4.7	91.3
Gross education-related allowances	1.0	4.8	0.0	95.2

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	4.8	55.9	39.3
Gross income from rental of a property or land	6.5	5.6	30.7	63.7
Gross family/children-related allowances	3.3	4.4	1.8	93.8
Gross social exclusion not elsewhere classified	0.7	2.0	0.0	98.0
Gross housing allowances	1.0	11.6	0.0	88.4
Gross regular inter-household cash transfer received	3.4	6.5	0.0	93.5
Gross interest, div., profit from capital invest. in uninc. business	33.4	43.4	37.0	19.6
Gross income received by people aged under 16	3.2	0.4	0.0	99.6
Gross regular taxes on wealth	3.8	37.3	12.5	50.2
Gross regular inter-household cash transfer paid	5.8	6.0	0.5	93.5
		% 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	46.1	12.3	33.9	53.8
Gross non-cash employee income	0.8	14.3	0.0	85.7
Gross cash profits or losses from self-employment	7.1	19.9	46.4	33.7
Gross pension from individual private plans	0.6	9.9	4.4	85.7
Gross unemployment benefits	4.7	7.3	5.8	86.9
Gross old-age benefits	20.1	4.8	8.8	86.4
Gross survivors benefits	1.6	2.0	5.5	92.5
Gross sickness benefits	1.6	6.0	2.8	91.2
Gross disability benefits	2.2	5.8	4.1	90.1
Gross education-related allowances	1.7	5.8	0.0	94.2

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	99.4	3.1	58.1	38.8
Gross income from rental of a property or land	7.0	3.8	25.7	70.5
Gross family/children-related allowances	3.7	3.7	3.4	92.9
Gross social exclusion not elsewhere classified	0.6	1.6	0.0	98.4
Gross housing allowances	0.9	4.2	0.0	95.8
Gross regular inter-household cash transfer received	3.0	5.5	0.0	94.5
Gross interest, div., profit from capital invest. in uninc. business	37.5	41.3	41.1	17.7
Gross income received by people aged under 16	2.4	1.7	0.0	98.3
Gross regular taxes on wealth	3.6	30.4	13.9	55.7
Gross regular inter-household cash transfer paid	5.8	4.9	0.2	94.9
		% 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	46.9	10.8	34.9	54.3
Gross non-cash employee income	0.8	18.9	0.0	81.1
Gross cash profits or losses from self-employment	7.7	15.4	38.8	45.8
Gross pension from individual private plans	0.6	9.5	6.1	84.4
Gross unemployment benefits	5.2	4.9	4.6	90.5
Gross old-age benefits	20.2	4.1	9.5	86.3
Gross survivors benefits	1.5	2.0	7.1	90.9
Gross sickness benefits	1.4	7.6	2.1	90.2
Gross disability benefits	2.4	2.2	0.0	97.8
Gross education-related allowances	1.6	2.9	0.0	97.1

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	99.1	2.1	52.3	45.6
Gross income from rental of a property or land	7.3	2.2	23.8	74.1
Gross family/children-related allowances	3.6	1.2	3.9	94.9
Gross social exclusion not elsewhere classified	1.0	0.0	0.0	100.0
Gross housing allowances	1.1	2.8	0.0	97.2
Gross regular inter-household cash transfer received	3.3	3.2	0.0	96.8
Gross interest, div., profit from capital invest. in uninc. business	30.5	29.8	37.3	32.9
Gross income received by people aged under 16	2.9	0.0	0.0	100.0
Gross regular taxes on wealth	3.4	25.1	15.5	59.4
Gross regular inter-household cash transfer paid	6.1	1.6	0.0	98.4
		% 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	7.9	36.0	56.1
Gross non-cash employee income	0.9	16.6	0.0	83.4
Gross cash profits or losses from self-employment	7.5	14.0	38.6	47.5
Gross pension from individual private plans	0.7	7.5	6.2	86.3
Gross unemployment benefits	7.6	3.9	9.1	87.0
Gross old-age benefits	20.7	2.7	11.4	86.0
Gross survivors benefits	1.6	0.6	5.4	94.1
Gross sickness benefits	1.3	3.9	12.4	83.7
Gross disability benefits	2.2	0.8	0.0	99.2
Gross education-related allowances	2.0	3.8	0.0	96.2

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 2006. Distribution of household members aged 16 and over by RB245.

		Number	Percentage
Total	Total	8459	100.0
	RB250=11	8202	97.0
	RB250=14	257	3.0
Sample persons	Total	8459	100.0
	RB250=11	8202	97.0
	RB250=14	257	3.0

SILC 2006. Distribution of household members aged 16 and over by RB260.

		Number	Percentage
Total	Total	8202	100.0
	RB260=2	4591	56.0
	RB260=3	279	3.4
	RB260=5	3332	40.6
Sample persons	Total	8202	100.0
	RB260=2	4591	56.0
	RB260=3	279	3.4
	RB260=5	3332	40.6

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

		Number	Percentage
Total	Total	16001	100.0
	RB250=11	15890	99.3
	RB250=14	111	0.7
Sample persons	Total	15787	100.0
	RB250=11	15678	99.3
	RB250=14	109	0.7
Co-residents	Total	214	100.0
	RB250=11	212	99.1
	RB250=14	2	0.9

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

		Number	Percentage
Total	Total	15889	100.0
	RB260=2	8767	55.2
	RB260=3	628	4.0
	RB260=5	6494	40.9
Sample persons	Total	15677	100.0
	RB260=2	8708	55.5
	RB260=3	623	4.0
	RB260=5	6346	40.5
Co-residents	Total	212	100.0
	RB260=2	59	27.8
	RB260=3	5	2.4
	RB260=5	148	69.8

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

		Number	Percentage
Total	Total	23604	100.0
	RB250=11	23483	99.5
	RB250=14	121	0.5
Sample persons	Total	23029	100.0
	RB250=11	22925	99.5
	RB250=14	104	0.5
Co-residents	Total	574	100.0
	RB250=11	557	97.0
	RB250=14	17	3.0
Missing	Total	1	100.0
	RB250=11	1	100.0

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

		Number	Percentage
Total	Total	23483	100.0
	RB260=2	13124	55.9
	RB260=3	1054	4.5
	RB260=5	9305	39.6
Sample persons	Total	22925	100.0
	RB260=2	12946	56.5
	RB260=3	1028	4.5
	RB260=5	8951	39.0
Co-residents	Total	557	100.0
	RB260=2	178	32.0
	RB260=3	26	4.7
	RB260=5	353	63.4
Missing	Total	1	100.0
	RB260=5	1	100.0

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

		Number	Percentage
Total	Total	21880	100.0
	RB250=11	21579	98.6
	RB250=14	301	1.4
Sample persons	Total	20810	100.0
	RB250=11	20556	98.8
	RB250=14	254	1.2
Co-residents	Total	1070	100.0
	RB250=11	1023	95.6
	RB250=14	47	4.4

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

		Number	Percentage
Total	Total	21579	100.0
	RB260=2	11826	54.8
	RB260=3	1039	4.8
	RB260=5	8714	40.4
Sample persons	Total	20556	100.0
	RB260=2	11474	55.8
	RB260=3	1001	4.9
	RB260=5	8081	39.3
Co-residents	Total	1023	100.0
	RB260=2	352	34.4
	RB260=3	38	3.7
	RB260=5	633	61.9

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

	Percentage
Total disposable household income	8.91
T. d. h. income before s. tr. other than old_age and surv. ben.	9.32
T. d. h. income before s. tr. including old_age and surv. ben.	12.45
Net income from rental of a property or land	0.36
Family/children-related allowances	0.10
Social exclusion not elsewhere classified	0.00
Housing allowances	0.06
Regular inter-household cash transfer received	0.10
Net interest, div., profit from capital invest. in uninc. business	13.72
Net income received by people aged under 16	0.02
Regular taxes on wealth	0.86
Regular inter-household cash transfer paid	0.13
Repayments/receipts for tax adjustments	4.80

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	4.73
Net non-cash employee income	0.15
Net cash profits or losses from self-employment	2.59
Net pension from individual private plans	0.06
Net unemployment benefits	0.34
Net old-age benefits	0.69
Net survivors benefits	0.02
Net sickness benefits	0.06
Net disability benefits	0.04
Education-related allowances	0.09
Gross monthly earnings for employees	3.52

Longitudinal component.

SILC 2006. Percentage of imputation per household income components (average of the ratio of imputation over all units)

	Percentage
Total disposable household income	17.80
T. d. h. income before s. tr. other than old_age and surv. ben.	18.24
T. d. h. income before s. tr. including old_age and surv. ben.	20.46
Net income from rental of a property or land	1.13
Family/children-related allowances	0.16
Social exclusion not elsewhere classified	0.03
Housing allowances	0.08
Regular inter-household cash transfer received	0.38
Net interest, div., profit from capital invest. in uninc. business	16.55
Net income received by people aged under 16	0.11
Regular taxes on wealth	1.56
Regular inter-household cash transfer paid	0.33
Repayments/receipts for tax adjustments	6.85

SILC 2006. Percentage of imputation per personal income components (average of the ratio of imputation over all units)

	Percentage
Net cash or near cash employee income	10.40
Net non-cash employee income	0.13
Net cash profits or losses from self-employment	3.52
Net pension from individual private plans	0.08
Net unemployment benefits	0.33
Net old-age benefits	1.94
Net survivors benefits	0.19
Net sickness benefits	0.22
Net disability benefits	0.07
Education-related allowances	0.05

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

	Percentage
Total disposable household income	11.18
T. d. h. income before s. tr. other than old_age and surv. ben.	11.56
T. d. h. income before s. tr. including old_age and surv. ben.	15.28
Net income from rental of a property or land	0.58
Family/children-related allowances	0.15
Social exclusion not elsewhere classified	0.01
Housing allowances	0.12
Regular inter-household cash transfer received	0.22
Net interest, div., profit from capital invest. in uninc. business	20.20
Net income received by people aged under 16	0.01
Regular taxes on wealth	1.49
Regular inter-household cash transfer paid	0.35
Repayments/receipts for tax adjustments	5.20

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	5.69
Net non-cash employee income	0.11
Net cash profits or losses from self-employment	3.06
Net pension from individual private plans	0.06
Net unemployment benefits	0.34
Net old-age benefits	0.97
Net survivors benefits	0.03
Net sickness benefits	0.09
Net disability benefits	0.12
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	9.62
T. d. h. income before s. tr. other than old_age and surv. ben.	10.24
T. d. h. income before s. tr. including old_age and surv. ben.	14.24
Net income from rental of a property or land	0.47
Family/children-related allowances	0.15
Social exclusion not elsewhere classified	0.01
Housing allowances	0.04
Regular inter-household cash transfer received	0.17
Net interest, div., profit from capital invest. in uninc. business	22.74
Net income received by people aged under 16	0.04
Regular taxes on wealth	1.14
Regular inter-household cash transfer paid	0.28
Repayments/receipts for tax adjustments	4.77

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	5.06
Net non-cash employee income	0.15
Net cash profits or losses from self-employment	2.71
Net pension from individual private plans	0.06
Net unemployment benefits	0.26
Net old-age benefits	0.86
Net survivors benefits	0.03
Net sickness benefits	0.11
Net disability benefits	0.05
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	7.38
T. d. h. income before s. tr. other than old_age and surv. ben.	7.80
T. d. h. income before s. tr. including old_age and surv. ben.	11.01
Net income from rental of a property or land	0.36
Family/children-related allowances	0.05
Social exclusion not elsewhere classified	0.00
Housing allowances	0.03
Regular inter-household cash transfer received	0.11
Net interest, div., profit from capital invest. in uninc. business	13.79
Net income received by people aged under 16	0.00
Regular taxes on wealth	0.92
Regular inter-household cash transfer paid	0.10
Repayments/receipts for tax adjustments	4.70

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	3.66
Net non-cash employee income	0.16
Net cash profits or losses from self-employment	2.61
Net pension from individual private plans	0.05
Net unemployment benefits	0.30
Net old-age benefits	0.56
Net survivors benefits	0.01
Net sickness benefits	0.05
Net disability benefits	0.02
Education-related allowances	0.08

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:

$$\text{HY030} = 0,70 * \text{HY030e} + 0,30 * \text{HH061}$$

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 strata 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.

<p><u>Strata 1</u></p> <ul style="list-style-type: none"> ▪ Densely-populated area ▪ Before 1988 ▪ Type of dwelling: I and II 	<p><u>Strata 2</u></p> <ul style="list-style-type: none"> ▪ Densely-populated area ▪ Before 1988 ▪ Type of dwelling: III ▪ Rooms: <= 4 	<p><u>Strata 3</u></p> <ul style="list-style-type: none"> ▪ Densely-populated area ▪ Before 1988 ▪ Type of dwelling: III ▪ Rooms: >= 5
<p><u>Strata 4</u></p> <ul style="list-style-type: none"> ▪ Densely-populated area ▪ Within (1988,2000) ▪ Type of dwelling: I and II ▪ Rooms: <= 4 	<p><u>Strata 5</u></p> <ul style="list-style-type: none"> ▪ Densely-populated area ▪ Within (1988,2000) ▪ Type of dwelling: I and II ▪ Rooms: >= 5 	<p><u>Strata 6</u></p> <ul style="list-style-type: none"> ▪ Densely-populated area ▪ Within (1988,2000) ▪ Type of dwelling: III
<p><u>Strata 7</u></p> <ul style="list-style-type: none"> ▪ Densely-populated area ▪ Beyond 2000 ▪ Type of dwelling: I 	<p><u>Strata 8</u></p> <ul style="list-style-type: none"> ▪ Densely-populated area ▪ Beyond 2000 ▪ Type of dwelling: II 	<p><u>Strata 9</u></p> <ul style="list-style-type: none"> ▪ Densely-populated area ▪ Beyond 2000 ▪ Type of dwelling: III ▪ Rooms: < 4
<p><u>Strata 10</u></p> <ul style="list-style-type: none"> ▪ Densely-populated area ▪ Beyond 2000 ▪ Type of dwelling: III ▪ Rooms: 4 	<p><u>Strata 11</u></p> <ul style="list-style-type: none"> ▪ Densely-populated area ▪ Beyond 2000 ▪ Type of dwelling: III ▪ Rooms: >= 5 	<p><u>Strata 12</u></p> <ul style="list-style-type: none"> ▪ Half densely-populated area ▪ Type of dwelling: I
<p><u>Strata 13</u></p> <ul style="list-style-type: none"> ▪ Half densely-populated area ▪ Type of dwelling: II ▪ Rooms: <= 4 	<p><u>Strata 14</u></p> <ul style="list-style-type: none"> ▪ Half densely-populated area ▪ Type of dwelling: II ▪ Rooms: >= 5 	<p><u>Strata 15</u></p> <ul style="list-style-type: none"> ▪ Half densely-populated area ▪ Type of dwelling: III
<p><u>Strata 16</u></p> <ul style="list-style-type: none"> ▪ Sparcely-populated area ▪ Type of dwelling: I ▪ Rooms: <=4 	<p><u>Strata 17</u></p> <ul style="list-style-type: none"> ▪ Sparcely-populated area ▪ Type of dwelling: I ▪ Rooms: >= 5 	<p><u>Strata 18</u></p> <ul style="list-style-type: none"> ▪ Sparcely-populated area ▪ Type of dwelling: II ▪ Before 2001
<p><u>Strata 19</u></p> <ul style="list-style-type: none"> ▪ Sparcely-populated area ▪ Type of dwelling: II ▪ Beyond 2000 	<p><u>Strata 20</u></p> <ul style="list-style-type: none"> ▪ 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

<p>Present:</p> <ul style="list-style-type: none"> - Usually resident at the address - Related to other household members - Share expenses 	<p>(No differences between national and EU-SILC concept.)</p>
<p>Present:</p> <ul style="list-style-type: none"> - Usually resident at the address - Not related to household members - Share expenses 	<p>(No differences between national and EU-SILC concept.)</p>
<p>Present:</p> <ul style="list-style-type: none"> - Resident boarders, lodgers, tenants - Have no private address elsewhere - Share expenses 	<p>(No differences between national and EU-SILC concept.)</p>
<p>Present:</p> <ul style="list-style-type: none"> - Resident boarders, lodgers, tenants - Actual or intended length of stay is 6 months or more - Share expenses 	<ul style="list-style-type: none"> • <i>Have other address they treat as their usual residence.</i> <i>Not a member of the interviewed household.</i> • Otherwise: No differences between national and EU-SILC concept.
<p>Present:</p> <ul style="list-style-type: none"> - Visitors - Have no private address elsewhere - Share expenses 	<p>No differences between national and EU-SILC concept.</p>

<p>Present:</p> <ul style="list-style-type: none"> - Visitors - Actual or intended length of stay is 6 months or more - Share expenses 	<ul style="list-style-type: none"> • <i>Have other address they treat as their usual residence.</i> Not a member of the interviewed household. • Otherwise: No differences between national and EU-SILC concept.
<p>Present:</p> <ul style="list-style-type: none"> - Live-in domestic employees, au pairs - Have no private address elsewhere - Share expenses 	<p>No differences between national and EU-SILC concept.</p>
<p>Present:</p> <ul style="list-style-type: none"> - Live-in domestic employees, au pairs - Actual or intended length of stay is 6 months or more - Share expenses 	<ul style="list-style-type: none"> • <i>Have other address they treat as their usual residence.</i> Not a household member. • Otherwise: No differences between national and EU-SILC concept.
<p>Absent:</p> <ul style="list-style-type: none"> - 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 	<p>No differences between national and EU-SILC concept.</p>
<p>Absent:</p> <ul style="list-style-type: none"> - 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 	<p>No differences between national and EU-SILC concept.</p>

<p>Absent:</p> <ul style="list-style-type: none"> - Children of the household - Receiving education away from home - Have no private address elsewhere - Treat this address as their main residence - Share expenses 	<p>No differences between national and EU-SILC concept.</p>
<p>Absent:</p> <ul style="list-style-type: none"> - 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 	<p>No differences between national and EU-SILC concept.</p>
<p>Absent:</p> <ul style="list-style-type: none"> - 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) 	<p>No differences between national and EU-SILC concept.</p>

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)**

<p>Present:</p> <ul style="list-style-type: none"> - Has no other address he/she treats as usual residence - Shares income or expenditures with the household 	<p>No differences between national and EU-SILC concept.</p>
<p>Absent:</p> <ul style="list-style-type: none"> - 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 	<p>No differences between national and EU-SILC concept.</p>
<p>Absent:</p> <ul style="list-style-type: none"> - Work reasons - Considers this his/her usual residence - Shares income or expenditures with the household 	<p>No differences between national and EU-SILC concept.</p>
<p>Absent:</p> <ul style="list-style-type: none"> - Study reasons - Considers this his/her usual residence - Shares income or expenditures with the household 	<p>No differences between national and EU-SILC concept.</p>

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 2009 survey, only refunds/payments for tax adjustments (personal income tax – Spanish IRPF) paid/received in 2008 were provided. These taxes normally refer to income received in 2007, 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.

- 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.

(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 2007 (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 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

The results for the activity are:

SILC 2009. Source: Spanish Living Conditions Survey (SILC 2009). Adults by activity status (thousands)

	Persons (thousands)	Adults (percentages)
Total	38.408,6	100.0
Employment	18.235,5	47.5
Unemployment	3.453,2	9.0
Inactive population	16.616,3	43.3
Missing	103,6	0.3

SILC 2008

These results for the previous year are:

SILC 2008. Source: Spanish Living Conditions Survey (SILC 2008). Adult recipients by income type (net figures)

	Recipients (thousands)	Average income 2007 (euros)	Average monthly income 2007 (euros)	Total income 2007 (millions of euros)
Cash employee income	19.387	14.849	1.061	287.868
Non-cash employee income	2.785	1.670	119	4.651
Cash profits or losses from self-employment	2.969	10.626	759	31.548
Unemployment benefits	2.120	4.131	295	8.757
Old-age benefits	5.614	11.225	802	63.012
Survivors benefits	1.624	7.490	535	12.163
Disability benefits	1.015	8.308	593	8.433

SILC 2008. Source: Spanish Living Conditions Survey (SILC 2008). Adult recipients by income type (gross figures)

	Recipients (thousands)	Average income 2007 (euros)	Average monthly income 2007 (euros)	Total income 2007 (millions of euros)
Cash employee income	19.387	18.163	1.297	352.109
Non-cash employee income	2.785	1.670	119	4.651
Cash profits or losses from self-employment	2.969	13.285	949	39.442
Unemployment benefits	2.120	4.239	303	8.987
Old-age benefits	5.614	11.847	846	66.508
Survivors benefits	1.624	7.600	543	12.341
Disability benefits	1.015	8.378	598	8.504

SILC 2008. Source: Spanish Living Conditions Survey (SILC 2008). Recipient households by income type (net figures)

	Recipient households (thousands)	Average income 2007 (euros)	Total income 2007 (millions of euros)
Income from rental of a property or land	1.048	6.688	7.010
Interest, div., profit from capital invest.	5.506	653	3.594

SILC 2008. Source: Spanish Living Conditions Survey (SILC 2008). Recipient households by income type (gross figures)

	Recipient households (thousands)	Average income 2007 (euros)	Total income 2007 (millions of euros)
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Income from rental of a property or land	1.048	7.490	7.851
Interest, div., profit from capital invest.	5.506	769	4.234

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.

LFS

The number of persons by activity status according to the LFS (first quarter of 2009) is:

	Persons (thousands)	Adults (percentages)
Total	38.408,6	100,0
Employment	19.090,8	49,7
Unemployment	4.010,7	10,4
Inactive population	15.307,1	39,8

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

INE National Accounts

To compare with the results for other components of income we can use the interim National Accounts 2008. 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	410.587
B.3b	Gross mixed income	184.781
D.621	Social security benefits in cash	116.983
D.41	Interest	29.146
D.42	Income distributed by corporations	23.493
D.45	Income from land	824

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: $355.749 + 4.518 = 360.267$ (survey 2009). For NA the employee income is 410.587 (year 2008).

‘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.

Labour statistics journal (social benefits)

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 2008

Pensions by scheme, class, years, number and average figure

Units: Number: thousands of pensions. Average figure: euros per month

	2008	
	Number	Average figure
TOTAL		
Total	8.390,80	719,68
Permanent disability	906,83	801,83
Retirement	4.936,84	814,84
Widowhood	2.249,90	529,01
Orphanhood	259,42	325,04

Benefits not tied to contributions 2008

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

Units: Number of beneficiaries (annual average)

	2008
SOCIAL SECURITY PENSIONS NOT TIED TO CONTRIBUTIONS (1)	464.724
Disability	199.410
Retirement	265.314

Comparing the number of benefits payees by type, we find the largest differences relate to survivors' benefits, 1.643 as against 2.249,90+259,42 (= 2.509,32). 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 (1.814.632 in 2008). 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 2008* (Labour market and Pensions in Tax Sources). The reference period is the year 2008 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	19.310.627	18.996

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	8.837.596	11.069

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	4.486.292	3.285

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.