

QUALITY REPORT
FINAL LONGITUDINAL SURVEY 2004-2005

1. COMMON LONGITUDINAL EUROPEAN UNION INDICATORS BASED ON THE LONGITUDINAL COMPONENT OF EU-SILC

Not available at this stage of process.

2. ACCURACY

2.1. Sampling design for the first wave of the longitudinal component

2.1.1 Type of sampling (stratified, multi-stage, clustered)

Two stage sampling design: The first stage units (or primary sampling units PSU) are the municipalities, the second stage units (SSU) are the households.

The PSU are stratified according to their size in terms of number of residents. Stratification is carried out inside each administrative region. Four municipalities are selected in each strata.

Use of clustering:

Municipalities are clusters of households, households are clusters of individuals.

2.1.2 Sampling units (one stage, two stages)

Primary sampling units are the municipalities.

Secondary sampling units are the households selected from municipalities' registers with systematic sampling and not selected with PPS.

Extracted sample – year 2004 (three longitudinal components)

Sample size (number of SSU)	Number of PSU	Number of SSU (Total)	Average number of SSU for each PSU
<5	0	0	--
6-25	43	1004	23.3
26-50	496	14558	29.4
51-75	40	2342	58.6
76-100	8	683	85.4
101-200	12	1630	135.8
201-500	5	1772	354.4
>500	2	1815	907.5
Total	606	23804	39.3

2.1.3 Stratification and sub-stratification criteria

Stratification of primary sampling units by the number of inhabitants so that the total number of inhabitants in each stratum is approximately constant (this guarantees self-weighting design in each region).

Municipalities which sizes are higher than a threshold are self-representing units i.e. are strata themselves and included with certainty in the sample of PSU.

Secondary sampling units are not stratified.

2.1.4 Sample size and allocation criteria

Sample size have been determined on the basis of expected deff reported in table 1 for macroregions (North, Centre, South). Data of ECHP for years 1995-1999, have been the basis for the evaluation of deff, results on income and poverty have been averaged over the 5 available years. National intra-classes correlation coefficient inside households, ρ_{SR} , and inside municipality, ρ_{NSR} , have been estimated on the basis of the above averages; then following formula to evaluate *deff* has been applied:

$$deff_r = \frac{n_r}{N_r^2} \left\{ \frac{N_{r,SR}^2}{n_{r,SR}} (1 + \rho_{SR} (\bar{b}_{r,SR} - 1)) + \frac{N_{r,NSR}^2}{n_{r,NSR}} (1 + \rho_{NSR} (\bar{b}_{r,NSR} - 1)) \right\}$$

where n_r and N_r are sample and population dimension of administrative regions, $\bar{b}_{r,SR}$ is the average household dimension and $\bar{b}_{r,NSR}$ is the average number of individuals selected in each municipalities.

On the basis of survey on income of year 2003, the following response rates have been estimated:

- T(reg) for regions by municipality type (municipality type: metropolitan, over 50.000 residents and others);
- T(mr) for macro-regions by municipality type.

Then to smooth the estimates, $T(c) = 0.25 * T(\text{reg}) + 0.75 * T(\text{mr})$, has been applied to inflate the achieved sample size so that

$$n(\text{sel}) = n(\text{ach}) / T(c).$$

The sample inside macro-regions has been allocated by means of a generalized version (Falorsi et al, 1998 and Falorsi e Russo, 2003.) of Bethel methods (Bethel 1989), with iterative procedure that re-calculate at each step deff and sampling dimensions to satisfy given requirements.

Allocation inside regions averaging proportional and uniform allocation.

Table 1

Macroregions	Deft income	Deft poverty	Deff incombe	Deff poverty
1	2.64	1.59	6.97	2.54
2	2.26	1.43	5.09	2.05
3	2.69	1.61	7.24	2.61
Italy	2.61	1.58	6.84	2.50

Table 2

Macroregion	Households	Selected households	CV% income	CV% povertà rate
1	10,583,085	12,513	1.5	4.3
2	4,226,377	6,320	1.7	4.3

3	7,197,453	6,668	2.2	2.8
Italy	22,006,915	25,501	1.1	2.1

The sampling size of each rotational group is one-fourth of the above size.

2.1.5 Sample selection schemes

PSU are selected with probability proportional to their size (number of residents) by means of systematic sampling method by Madow (1949) inside each stratum.

Households are selected with equal probability by systematic sampling in each selected municipality from municipality-registers.

2.1.6 Sample distribution over the time

The sample is not distributed over time.

2.1.7 Renewal of sample: Rotational groups

Rotational design is used for households; the whole sample is composed of four rotational groups. Each group is included in the sample for four waves of the survey. Each year one fourth of the sample is renewed, replacing the group entered in the sample four years before.

	A	B	C	D	E	F	G	H	I
T	A4	B3	C2	D1					
T+1		B4	C3	D2	E1				
T+2			C4	D3	E2	F1			
T+3				D4	E3	F2	G1		
T+4					E4	F3	G2	H1	
T+5						F4	G3	H2	I1

Each group is associated to one municipality of the strata. The self-representative municipalities are enclosed in each of the rotational groups: in such case the households referring to these municipalities are divided in 4 independent samples.

2.1.8. Weightings

FOR THE FIRST WAVE OF THE EU-SILC LONGITUDINAL COMPONENT

2.1.8.1 Design factor

In case of the individuals at the first wave, the base weight is equal to the cross-sectional weight, and is the same for all the household components. The design weight of each household was given by the inverse of its inclusion probability and was calculated taking into account the population of the stratum, the population and the number of households in the extracted municipalities and the number of extracted households in the municipality.

Let p_{ji} be the design weight of the generic household j in the municipality i :

$$p_{ji} = \frac{1}{\pi_{hi}} = n_h \frac{P_h M_{hi}}{P_{hi} m_{hi}}$$

where :

h is the stratum index;

i is the municipality index;

π_{hi} is the inclusion probability of the households resident in the municipality i of the stratum h ;

n_h is the number of sample municipalities in the stratum h ;

P_h is the population resident in the stratum h ;

P_{hi} is the population in the municipality i of the stratum h ;

M_{hi} is the number of households resident in the municipality i of the stratum h ;

m_{hi} is the number of sample households in the municipality i of the stratum h .

2.1.8.2 Non-response adjustments

For the first wave of the longitudinal sample, we observe two different non-response level: individual-level and household-level.

Concerning with the individual-level non-response, the records of the non-respondent individual belonging to respondent households were totally imputed.

Concerning with the non-response adjustment at the household level, the base weights were adjusted by a correction factor for total non-response worked out as the reciprocal of the response ratio for subgroups of households identified by the information we had on the extracted sample (for the households at wave 1). The groups are identified by segmentation obtained with a chi-squared decision tree.

The re-calculated weight $\hat{p}_{j,k}$ for the generic household j in the sub-group k is:

$\hat{p}_{jk} = p_{jk} \frac{N_{Ek}}{N_{Ok}}$, where p_{jk} is the design weight, N_{Ek} is the number of households extracted in the sub-group k , and N_{Ok} is the number of respondent households.

The information used are:

territorial domain (NUTS II level), demographic size of the municipalities, number of household components and nationality of the householder (gathered from demographic registers), type of income sources (gathered from fiscal registers).

A first stage of calibration procedure was adopted to assure the same structure as the population of the Labour Force Survey with regard to the education and professional position of the population. This is due to the fact that in Italy the non-response in an income survey is correlated with the position in the labour market (especially for self-employed) and with the education level of the respondents.

2.1.8.3 Adjustments to external data (level, variables used and sources)

After the non-response adjustments, the final weights were obtained applying a calibration of the household weights to external data sources (registers). Let $X_1, X_2 \dots X_p$ denote the external (known) variables

The calibration procedure consists of calculating the household weights ψ_j , such as:

- The calibrated weights are “not very different” from the weights \hat{p}_j
- The totals X_r of the calibration variables are exactly estimated by the same totals in the sample obtained with the weights ψ .

The external known totals regarding the households at the first participation are the following:

For the entering rotational sub-group (db075=4, the one going to complete the first longitudinal sample):

- 1) Distribution of the population by sex and five age-groups at NUTS I level. The age groups are: 0-15, 16-25, 26-45, 46-65, 65+ at the end of the income reference period (year t-1);
- 2) Amount of non-national population at NUTS I level (year t-1).
- 3) Distribution of the population by demographic size of the municipality at Nuts I level (year t-1) (three classes).
- 4) Number of households at NUTS I level at the time of the survey (year t)

For the entire sample (including db075=1, the one not included in the longitudinal sample):

- 1) Distribution of the population by sex and fourteen 5-years age-groups at NUTS I level (year t-1). The age groups are: 0-15, 16-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75+ at the end of the income reference period (year t-1);
- 2) Distribution of the population by sex and five age-groups at NUTS II level (year t-1). The age groups are: 0-15, 16-25, 26-45, 46-65, 65+ at the end of the income reference period (year t-1);
- 3) Distribution of non-national population by sex and by UE and non UE distribution at NUTS I level (year t-1).
- 4) Distribution of the population by demographic size of the municipality at Nuts I level (year t-1) (six classes).
- 5) Number of households at NUTS II level at the time of the survey (year t)

2.1.8.4 Final longitudinal weights

For the first wave (i.e. year=2004) of each panel, the base weight is equal to the cross-sectional weight. We applied an integrative calibration, that means that we used both household and personal variables in the procedure. The calibration is performed at household level using the household variables and the individual variables in their aggregate form as calibration variables. This technique ensures that members in the same household all receive the same weight. A trimming procedure was applied to avoid extreme values of weights.

FOR THE SECOND WAVE OF THE EU-SILC LONGITUDINAL COMPONENT

2.1.8.5 Non-response adjustments

In the longitudinal component of the survey we observe non-response at individual-level. Concerning with the non-response adjustment at the individual level, the base weights were adjusted by a correction factor for total non-response worked out as the reciprocal of the response ratio for subgroups of individuals identified by the information gathered from the previous year of survey. The groups are identified by segmentation obtained with a chi-squared decision tree.

The re-calculated weight $\hat{p}_{j,k}$ for the generic individual j in the sub-group k is:

$$\hat{p}_{jk} = p_{jk} \frac{N_{Ek}}{N_{Ok}}$$
, where p_{jk} is the base weight of the previous year, N_{Ek} is the number of individuals interviewed in the sub-group k , and N_{Ok} is the number of respondent individuals.

The information used to identify the sub-groups are:

territorial domain (NUTS II), demographic size of the municipalities, number of household components, type of income sources, level of household income, nationality, sex, age, education and professional condition of the household components.

2.1.8.6 Adjustments to external data

No adjustment to external data was applied for the individuals participating not for the first time.

2.1.8.7 Final longitudinal weights

The longitudinal weight is only at individual level and is equal to the base weight at the first year of participation corrected for non-response.

2.1.8.8 Final household cross-sectional weights

In case of the households at the second, third or fourth wave, an indirect sampling of households is done through the panel of persons aged 14+ at the time of the panel selection. In this case, the inclusion probabilities cannot be calculated. Then, the solution consists of applying the Weight Share Method. Within a household, each member has been assigned a weight coming from the final cross-sectional weight of the precedent year of survey corrected for unit non-response, except for co-residents from whom the weight is =0. Average of these weights over all the household members (including co-residents) is assigned to each member (including co-residents).

After the non-response adjustments, the final weights were obtained applying a calibration of the household weights to external data sources (registers). Let $X_1, X_2 \dots X_p$ denote the external (known) variables

The calibration procedure consists of calculating the household weights ψ_j , such as:

- The calibrated weights are “not very different” from the weights \hat{p}_j
- The totals X_r of the calibration variables are exactly estimated by the same totals in the sample obtained with the weights ψ .

The external known totals are the following:

For the entire sample:

- 1) Distribution of the population by sex and fourteen 5-years age-groups at NUTS I level (year t-1). The age groups are: 0-15, 16-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75+ at the end of the income reference period (year t-1);
- 2) Distribution of the population by sex and five age-groups at NUTS II level (year t-1). The age groups are: 0-15, 16-25, 26-45, 46-65, 65+ at the end of the income reference period (year t-1);
- 3) Distribution of non-national population by sex and by UE and non UE distribution at NUTS I level (year t-1).
- 4) Distribution of the population by demographic size of the municipality at Nuts I level (year t-1) (six classes).
- 5) Number of households at NUTS II level at the time of the survey (year t)

For the entering rotational sub-group (at first wave):

- 1) Distribution of the population by sex and five age-groups at NUTS I level. The age groups are: 0-15, 16-25, 26-45, 46-65, 65+ at the end of the income reference period (year t-1);
- 2) Amount of non-national population at NUTS I level (year t-1).
- 3) Distribution of the population by demographic size of the municipality at Nuts I level (year t-1) (three classes).
- 4) Number of households at NUTS I level at the time of the survey (year t)

For the other sub-groups:

- 1) Population at NUTS I level (year t-1)
- 2) Number of households at NUTS I level (year t);

2.1.9. Substitutions

In Italy no substitution of unit non-response has been applied.

2.2. Sampling errors

With reference to the longitudinal component of the survey - year 2004-2005-, standard errors were calculated for the mean of the income components (listed in Table 1) and for the mean of the Equivalised disposable income by household size, population age groups, population by sex (see Table 1).

Table 1. Mean, number of observations and standard errors

Income components	Mean	Number of observations		Standard error
		Before imputation	After imputation	
Total disposable household income	27723.16	15825	15825	208.51
Total disposable household income before social transfers other than old-age survivors' benefits	26379.35	15825	15825	211.07
Total disposable household including old-age survivors' benefits	19030.06	15825	15825	196.79
Net income components at household level				
Income from rentals of properties or lands	6663.06	1016	1100	534.38
Family/children related allowances	1004.12	4091	4311	23.78
Social exclusion	9727.79	123	149	1283.15
Housing allowances	1603.22	201	265	156.63
Transfers received	4793.4	641	708	349.71
Interest, dividends, profits	955.02	6038	7809	45.94
Interest repayments on mortgage	2226.05	88	1747	88.54
Income of people aged less than 16	2790.89	90	117	515.27
Regular taxes on wealth	365.95	10187	10589	6.07
Transfers paid	4071.4	595	647	313.06
Repayments/receipts for tax adjustment	278.99	5931	6479	34.50
Net income components at personal level				
Employee cash or near-cash income	15521.1	12664	13186	147.39
Non cash employee income	1380.14	318	318	99.51
Contributions to individual private pension plan	1612.12	2129	2470	60.20
Cash benefit or losses from self-employment	15383.69	4624	5932	486.22
Pension from individual private plans	3555.04	43	52	809.23
Unemployment benefits	3233.29	2772	2863	176.70
Old-age benefits	12270.6	9375	9686	146.43
Survivor' benefits	6326.95	570	586	357.51
Disability benefits	5612.31	1065	1145	266.38
Education related allowances	3944.54	168	193	608.04
Gross monthly earnings of employees	1751.12	9215	11034	18.56

(Follows) Table 1. Mean, number of observations and standard errors

Equivalised disposable income	Mean	Number of observations		Standard error
		Before imputation	After imputation	
<i>Subclasses by household size</i>	14645.01	3962	3932	336.20
1 household member	17673.65	4474	4474	334.91
2 household members	18532.78	3437	3437	393.21
3 household members	16209.73	3952	3952	308.83
4 and more				
<i>Population by age group</i>				
<25	15318.13	9567	9551	187.36
25-34	17718.77	5373	5379	202.83
35-44	17228.39	6172	6177	232.49
45-54	18412.65	5461	5461	236.04
55-64	19522.42	5118	5121	285.31
65+	14713.93	7607	7609	150.97
<i>Population by sex</i>				
Male	17334.96	19028	19028	135.47
Female	16257.88	20270	20270	129.41

2.3 Non sampling errors

2.3.1. Sampling frame and coverage errors

The sampling frame is composed by the registers of the municipalities.

The sample of the households belonging to the first rotational group was extracted in July 2005 and validated within September 2005; the one belonging to the second rotational group was extracted in July 2006 and validated within September 2006, while the others households were extracted in June 2004.

The sampling frame is updated in continuous way by the municipalities in interactive modality.

2.3.2. Measurement and processing errors

2.3.2.1. Measurement errors

We consider that the following sources of measurement errors are likely to affect the collected data:

1. *respondents*: (i) memory effect, because information is collected according to respondents memories (official documentation about income is not required; external sources of information, as administrative registers, are used when available); (ii) omission, because respondents might not be willing to provide correct information about income or other living conditions; (iii) proxy effect, because in a few cases some individuals are allowed to provide information about other household members;
2. *interviewers*, who might provide the respondents with an incorrect interpretation of the questions, or might mistake when filling the questionnaire. Istat territorial offices are firstly trained and provided with training tools (e.g. instruction manuals, or presentations). Then, they are responsible for the interviewers training: they establish the timing and the duration of the training meetings, as well as provide support during the field work and

control for the quality of the interviewers' work. Training strategies have been outlined also on the experience of pilot surveys;

3. *data entry* personnel, who might enter incorrect information, although some automatic controls are implemented in the registration software;

4. *questionnaire*. The final version of the questionnaire, as used in the survey 2006, is based on (i) the first two waves of SILC surveys; (ii) the support of experts working in other research institutes; and (iii) a cognitive laboratory on self-employment. Information is collected through three main questionnaires: the first one collects information about each household member's demographic characteristics, and child care; the second one collects information at household level; the third one collects information at individual level (about individual aged 16 and over).

2.3.2.2. Processing errors

Description of data entry procedure

Data entry procedure is realised through a software application implemented using Blaise. The procedure contains automatic controls about: range of variable, main routes of questionnaire and any logical controls referred to internal inconsistency of collected information. Every control is set-up like "soft" in order to reduce typing errors. Furthermore, the procedure provides for "hard" control in order to compare register and questionnaire information about household's composition.

Coding controls

Coding controls are implemented in post-data-collection-process based on donor method.

Main errors detected in the post data collection process

Main errors detected are:

- Missing value.
- Value outside acceptance range.
- Incoherence value compared to other information in the same record.

2.3.3 Non-response errors

2.3.3.1. Achieved sample size

Table 1. Number of Households for which an interview is accepted for the database (DB135 = 1). Longitudinal component by wave.

	2004	2005
DB135 = 1	18302	15838

Table 2. Number of persons 16 years or older, number of sample persons (RB100 = 1) and number of co-residents (RB100 = 2), who are members of the households for which the interview is accepted for the database (D135 = 1), and who completed a personal interview (RB250 = 11 to 13). Longitudinal component by wave.

	DB135 = 1 & RB250 = 11 to 13	
	2004	2005
RB100 = 1	39268	33449
RB100 = 2	.	573
Total	39268	34022

2.3.3.2 Unit non-response

2004		2005	
TYPE OF RATE	VALUE	TYPE OF RATE	VALUE
RA	0.98851	RA	0.99397
RH	0.80896	RH	0.87334
NRH	20.0332	NRH	13.1929
RP	1	RP	1
NRP	0	NRP	0
NRP_OVERALL	20.0332	NRP_OVERALL	13.1929

WAVE RESPONSE RATE	84.6
REFUSAL RATE	6.9
NO-CONTACTED AND OTHERS RATE	7.6
LONGITUDINAL FOLLOW-UP RATE	89.7
FOLLOW-UP RATIO	92.0
ACHIEVED SAMPLE SIZE RATIO	84.6

WAVE RESPONSE RATE OF SAMPLE PERSONS	85.7
WAVE RESPONSE RATE OF CO-RESIDENTS	NA
LONGITUDINAL FOLLOW-UP RATE	85.7
ACHIEVED SAMPLE SIZE RATIO FOR SAMPLE PERSONS	84.4
ACHIEVED SAMPLE SIZE RATIO FOR SAMPLE PERSONS & CO-RESIDENTS	85.9
ACHIEVED SAMPLE SIZE RATIO FOR CO-RESIDENTS SELECTED IN THE FIRST WAVE	NA
WAVE RESPONSE RATE FOR NON-SAMPLE PERSONS	100.0

2.3.3.3 Distribution of households by household status, by record of contact at address, by household questionnaire result and by household interview acceptance

Table 1. Distribution of households by DB110, DB120, DB130 and DB135 in wave t

Household Status		db110								Tot
		1	2	3	4	5	6	7	8	
N		17311	366	60	43	124	6	392	477	18779
%		92.2	1.9	0.3	0.2	0.7	0	2.1	2.5	100

Record of Contact at Address		db120					Tot
		11	21	22	23		
N		824	3	2	13	843	
%		0.1	97.7	0.4	0.2	1.5	

Household Questionnaire Result		db130					Tot
		11	21	22	23	24	
N		15838	1299	609	151	238	18135
%		87.3	7.2	3.4	0.8	1.3	100

Household Interview Acceptance		db135	Tot
N		15838	15838
%		100	100

2.3.3.4 Distribution of persons for membership status

Table 1. Distribution of households by DB110, DB120, DB130 and DB135 in wave t

Current household members		No current household members						Tot	
		rb110				rb120	rb110		
		1	2	3	4	2-4	6	7	
N		38878	422	785	215	163	230	16	41331
%		94.1	1	1.9	0.5	0.4	0.6	0	100

Table 2. Distribution of persons moving out by variable RB120

		rb120			Tot
		1	2	3	
N		622	18	145	785
%		79.2	2.3	18.5	100

2.3.3.5 Item Non-response

Table 1.1. Item non-response for income variables at household level. Every available wave of the longitudinal component

Item non-response	2004			2005		
	(A)	(B)	(C)	(A)	(B)	(C)
	% of households having received an amount	% of households with missing values (before imp.)	% of households with partial information (before imp.)	% of households having received an amount	% of households with missing values (before imp.)	% of households with partial information (before imp.)
Total disposable household income	99.63	1.36	55.80	99.67	0.72	70.55
Total disposable household income before social transfers other than old-age and survivors' benefits	99.24	2.11	52.52	99.34	0.85	68.20
Total disposable household income including old-age and survivors' benefits	93.85	3.87	50.66	93.86	1.98	43.56
<i>Net income components at household level</i>						
Income from rentals of properties or lands	7.31	1.48	0.38	6.95	0.53	0.13
Family/children related allowances	27.59	2.43	0.94	27.31	2.10	1.06
Social exclusion	1.08	1.08		0.94	0.16	0.00
Housing allowances	1.64	1.64		1.69	0.47	0.09
Transfers received	4.84	0.93	0.05	4.48	0.42	0.08
Interest. dividends. Profits	50.48	12.52	2.20	49.34	11.19	2.01
Interest repayments on mortgage	11.04	11.04		10.94	10.41	0.16
Income of people aged less than 16	0.68	0.28	0.08	0.73	0.16	0.06
Regular taxes on wealth	66.28	3.96	2.63	66.90	2.54	1.29
Transfers paid	4.31	0.51	0.01	4.10	0.33	0.01
Repayments/receipts for tax adjustment	40.63	4.05	1.45	40.93	3.47	1.40

Table 1.2. Item non-response for income variables at personal level. Every available wave of the longitudinal component

Item non-response	2004			2005		
	(A)	(B)	(C)	(A)	(B)	(C)
	% of households having received an amount	% of households with missing values (before imp.)	% of households with partial information (before imp.)	% of households having received an amount	% of households with missing values (before imp.)	% of households with partial information (before imp.)
<i>Net income components at personal level</i>						
Employee cash or near-cash income	40.04	10.51	11.27	39.52	1.63	13.66
Non cash employee income	0.83	0.00	0.00	0.96	0.00	0.00
Contributions to individual private pension plan	8.12	0.99	0.00	7.38	1.01	0.00
Cash benefit or losses from self-employment	17.42	3.76	0.06	17.67	3.90	0.15
Pension from individual private plans	0.35	0.00	0.00	0.24	0.17	0.02
Unemployment benefits	8.58	0.35	0.10	8.69	0.47	0.08
Old-age benefits	28.26	0.08	0.05	28.02	1.12	17.64
Survivor' benefits	1.80	0.00	0.00	1.69	0.08	0.59
Disability benefits	3.53	0.01	0.00	3.32	0.29	1.12
Education related allowances	0.66	0.13	0.01	0.57	0.07	0.00

2.4. Mode of data collection

Table 1. The distribution of individuals aged 16 and over by data status (RB250) and by type of interview (RB260) for each wave of the longitudinal component.

2004	RB250	RB100			
		Sample person			
		RB260			
Rotational Group (DB075)	11	Face to face interview-PAPI	Proxy interview	Missing	Total
2	12917	10366	2020	531	12917
	32.89	80.25	15.64	4.11	100.00
3	13016	10447	1958	611	13016
	33.15	80.26	15.04	4.69	100.00
4	13335	10671	2092	572	13335
	33.96	80.02	15.69	4.29	100.00
Total	39268	1714	31484	6070	39268
	100	4.36	80.18	15.46	100.00

2005	RB250	RB100								
Rotational Group (DB075)	11	Sample person			Co-resident			Total		
		RB260								
		Face to face interview-PAPI	Proxy interview	Missing	Face to face interview-PAPI	Proxy interview	Missing	Face to face interview-PAPI	Proxy interview	Missing
2	11147 32.76	9137 83.27	1737 15.83	99 0.9	121 69.54	39 22.41	14 8.05	9258 83.05	1776 15.93	113 1.01
3	11392 33.48	9265 82.73	1825 16.3	109 0.97	127 65.8	50 25.91	16 8.29	9392 82.44	1875 16.46	125 1.10
4	11483 33.75	9306 82.52	1865 16.54	106 0.94	141 68.45	52 25.24	13 6.31	9447 82.27	1917 16.69	119 1.04
Total	34022 100	27708 82.84	5427 16.22	314 0.94	389 67.89	141 24.61	43 7.5	28097 82.58	5568 16.37	357 1.05

2.5. Imputation procedure

The imputation procedure for each quantitative variable is implemented by using the IMPUTE module of the software Iweware, as recommended by EUROSTAT.

The imputation procedure for the qualitative variables is based on a ‘hot deck’ stochastic technique that imputes each missing or inconsistent answer by replacing it with a correct value, taken from the ‘nearest donor’ (i.e. from a record randomly selected within a group of statistical units similar to the one that presents missing or erroneous answers). In a preliminary step, a set of explicit consistency rules is used to check for logical inconsistencies between the reported answers. The set is then expanded by using the Fellegy-Holt algorithm, in order to account for all the implicit rules (i.e. those logically implied by the explicit ones).

2.6. Imputed rent

Not available before 2007.

2.7. Company cars

The monetary value of company cars is taken from the tables published in the Italian Automobile Club (ACI) for tax purposes. The ACI values are econometric estimates of the user cost.

3. COMPARABILITY

3.1. Basic concepts and definitions

The national concepts used, **the differences between the national concepts and standard EU-SILC concepts**, and an assessment, **if available**, of the consequences of the differences mentioned.

- The reference population: same definition as standard EU-SILC;
- the private household definition: in accordance with the Commission Regulation (EC) N° 1980/2003 (Annex I, paragraph 1.1), that allow to the Member States for using the common household definition defined in their own national statistical system, in EU-SILC Italy uses

the following Italian household definition: “*cohabitants related through marriage, kinship, affinity, adoption, patronage and affection*”;

- the household membership: the Italian EU-SILC does not include live-in domestic personnel, au pairs. Concerning these persons, only some socio-demographic information are collected (date of birth, sex, marital status, duration of stay in the household). The number of these persons included in the sample was 35 (0,1% with respect to the total number of households and 0,06% w.r.t. interviewed individuals).
- the income reference period(s) used: same definition as standard EU-SILC;
- the period for taxes on income and social insurance contributions: *no income taxes and social security contributions at source available in the Italian EU-SILC before 2007*;
- the reference period for taxes on wealth: same definition as standard EU-SILC;
- the lag between the income reference period and current variables: *in the Italian EU-SILC 2004 current period is about 10 months after the end of the income reference period*;
- the total duration of the data collection of the sample: *2 months, starting from the transmission of questionnaires to interviewers until their return back*.
- basic information on activity status during the income reference period: same to the standard EU-SILC concept;

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 will be reported for the following target variables:

- total household gross income: same definition as standard EU-SILC;
- total disposable household income: same definition as standard EU-SILC;
- total disposable household income, before social transfers other than old-age and survivors' benefits: same definition as standard EU-SILC;
- total disposable household income, before social transfers including old-age and survivors' benefits: same definition as standard EU-SILC;
- imputed rent: *not available before 2007*;
- income from rental of property or land: same definition as standard EU-SILC;
- family/children-related allowances: same definition as standard EU-SILC;
- social exclusion payments not elsewhere classified: same definition as standard EU-SILC;
- housing allowances: same definition as standard EU-SILC;
- regular inter-household cash transfers received: same definition as standard EU-SILC;
- interest, dividends, profit from capital investments in unincorporated businesses: same definition as standard EU-SILC;
- interest paid on mortgages: *not available before 2007*;
- income received by people aged under 16: same definition as standard EU-SILC;
- regular taxes on wealth: same definition as standard EU-SILC;
- regular inter-household transfers paid: same definition as standard EU-SILC;
- tax on income and social insurance contributions: *not available before 2007*;
- repayments/receipts for tax adjustments: *repayments/receipts for tax adjustments are those paid in the $n+1$ year, where n is the income reference period. This is consistent with the (optional) definition of taxes as 'taxes due on the incomes of the reference period'. An accurate assessment of the differences between the two tax concepts will be feasible after 2008, when it is possible to compare the total taxes due on the incomes of the reference period with the total taxes paid during the same period for the individuals included in the first two-year panel*.
- cash or near-cash employee income: same definition as standard EU-SILC;

- non-cash employee income: *the value of the company car for personal use is the user's cost estimated by the ACI (Automobile Club Italiano);*
- employers' social insurance contributions: *not available;*
- cash profits or losses from self-employment (including royalties): *the standard procedure requires to collect the amount of money drawn out of self-employment activity only when the profit/loss resulting from accounting books or the taxable self-employment income (net of corresponding taxes) are not available. For the Italian EU-SILC, both administrative and survey micro-data are available, through an exact matching of tax and sample records. The income from self-employment is set equal to the maximum value between: (i) the (net) self-employment income resulting from the Tax Report and (ii) the (net) self-employment income reported by the interviewee. In the questionnaire, the self-employment income question is preceded by a 'reminder question' that provides a YES/NO list of the possible personal uses of earnings (consumption and saving). This departure from the standard definition is adopted in order to minimise either tax avoidance in the administrative data or under-reporting in the survey data, depending on which of the two is greater. With respect to the standard one, the procedure adopted for the Italian EU-SILC leads to more comparable data, under the assumption that other countries' self-employment incomes are not underestimated;*
- value of goods produced for own consumption: *not available before 2007;*
- unemployment benefits: same definition as standard EU-SILC;
- old-age benefits: same definition as standard EU-SILC;
- survivors' benefits: same definition as standard EU-SILC;
- sickness benefits, *paid sickness leaves of employees are included in the dependent employment incomes; the same holds true for self-employed;*
- disability benefits: same definition as standard EU-SILC;
- education-related allowances: same definition as standard EU-SILC;
- gross monthly earnings for employees: same definition as standard EU-SILC;

3.2.2. The source or procedure used for the collection of income variables *Paper and pencil interviews (PAPI) for all income variables, including the money drawn out of business by the self-employed. Administrative data have been linked to sample data and used for checking pensions and self-employment incomes.*

3.2.3. The form in which income variables at component level have been obtained (e.g. gross, net of taxes on income at source and social contributions, net of tax on income at source, net of social contributions): *all income variables at component level are net of taxes and social security contribution at source;*

3.2.4. The method used for obtaining income target variables in the required form (i.e. as gross values): *gross values not available before 2007;*

3.3. Tracing rules

They were adopted the standard EUSILC tracing rules.

3. COHERENCE

There is non external sources with which to compare EUSILC longitudinal component.