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DIVISION OF POPULATION AND
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HOUSEHOLD'S SURVEYS UNIT

STATISTICS ON INCOME AND LIVING CONDITIONS (EU-SILC) 2006

INTERMEDIATE QUALITY REPORT

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INTRODUCTION

With the Amsterdam Treaty the program of social action in all member states for the years 1998-2000 was defined as well as the legal frame ruling the production of Social Statistics. The fields of poverty and social exclusion were of high priority in the political agenda of the European Council in Lisbon, in March 2000 as well as in the proposal of Commission for a communal program for encouraging co-operation among the member states against social exclusion.

During the European Council of Lisbon (March 2000) several requests were submitted concerning the quality improvement of statistical data and among other things were discussed the effacement of absolute poverty, the cooperation program among member states against social exclusion as well as the constitution of structural indicators, such as indicators of unequal income distribution, poverty percentages before and after social transfers, intergenerational poverty, etc.

In December 2000, at the European Council that took place in Nice, France, the leaders of all member states confirmed the decision of Lisbon, that the battle against poverty and social exclusion is won using open methods of co-ordination and co-operation. Basic elements of this rapprochement are the determination of commonly accepted targets for the European Union and the elaboration of proper national action plans for the achievement of these targets, as well as the regular report and recording of the progress being made.

The Greek Survey on Income and Living Conditions is part of the European Statistical Program and has replaced since 2003 the European Community Household Survey.

Basic aim of the survey is the study, both at European and national level of households' living conditions in relation to their income. The survey is the reference for comparative statistics on income distribution and social exclusion in the European Union.

With the survey examined are specific socio-economic magnitudes affecting population's living conditions. With collected information our country calculates the structural indicators for social cohesion and produces systematic statistics on income inequalities, inequalities on households' living conditions, poverty and social exclusion.

More specifically from the survey are calculated 8 of overarching indicators, 13 of social inclusion indicators and 9 of pension adequacy indicators, concerning poverty and social inequality. These indicators, among other things, contribute in the configuration and practice of social politics in our country.

For the pre-mentioned reasons information is gathered, for the households as well as for their members, concerning:

- Income from any source (work, property, social benefits, etc.)
- Occupation
- Living conditions (dwelling's quality, amenities, etc.)
- Educational level
- Health status for all members of the household

According to the methodology for measuring poverty, the poverty line is calculated with its relative concept and it is defined at 60% of the median total equivalized disposable income of

the household, using modified OECD equivalized scale. 'Equivalent size' refers to the OECD modified scale which gives a weight of 1.0 to the first adult, 0.5 to other persons aged 14 or over who are living in the household and 0.3 to each child aged under 14.

As total equivalized disposable income of the household is considered total net income (that is income after deducting taxes and social contributions) received from all household members.

More specifically the income components included in the survey are:

- Income from work
- Income from property
- Social transfers and pensions
- Monetary transfers from other households and
- Imputed income from the use of company car

Income components, such as imputed rent from ownership-occupancy, indirect social transfers, income in kind and loan interest can possibly influence significantly the results and will be included in the survey from the year 2007, onwards.

The survey is being conducted upon the decision of the Ministry of Economy and Finance, and according to the contract having been signed between Commission and the National Statistical Service of Greece, in the framework of Regulation (EC) No 1177/2003 of the European Parliament and of the Council concerning Community Statistics on Income and Living Conditions (EU-SILC).

The survey consists of two components the cross-sectional and the longitudinal. The first one referring to a specific time period, while the second to the changes occurring in three or four years time.

This document provides common cross-sectional EU indicators based on the cross-sectional component of EU-SILC, a description of the accuracy, precision, the comparability and the coherence of the Greek SILC 2006-survey data, according to article 16 of the EC regulation No 1777/2003 of the European Parliament and of the Council concerning Community Statistics on Income and Living Conditions (EU-SILC).

It is structured following the guidelines in the Commission Regulation (EC) no. 28/09.01.2004 (annex III). The report is divided in three chapters:

- (1) Common Cross-sectional European Union Indicators
 - (2) Accuracy
 - (3) Comparability
 - (4) Coherence
 - (5) Conclusion
- References

Data from the ad-hoc module '**Social Participation**' and the questionnaires (in English) are annexed to this report (see annexes 1 and 2).

1. COMMON CROSS-SECTIONAL EUROPEAN UNION INDICATORS

1.1. Common cross-sectional EU indicators based on the cross-sectional component of EU-SILC

The common cross sectional EU indicators refer to those indicators adopted in the Council of the open method of coordination, based on the cross sectional sample of year 2006. The indicators below have been calculated using the Eurostat SAS program.

1.1.1. Portfolio of Overarching Indicators calculated from SILC

Table 1. [OV-1a] At-risk-of-poverty threshold (illustrative values)

Type of household	Euro	PPS
One person household	5,910.00	6,762.00
Household with 2 adults and 2 dependent children	12,411.00	14,201.00

Table 2. [OV-1a] At-risk-of-poverty rate after social transfers (by age and gender). %

Age	Total	Female	Male
Total	20.5	21.4	19.5
0-17	22.6	-	-
18-64	18.4	19.0	17.8
65+	25.6	27.3	23.4

Table 3. [OV-1b] Relative median at-risk-of-poverty gap after social transfers (by age and gender). %

Age	Total	Female	Male
Total	25.8	25.8	25.8
0-17	24.8	-	-
18-64	27,3	26,4	28,0
65+	24,4	25,4	21,7

Table 4. [OV-11] In-work at-risk-of-poverty rate (by gender). %

Total	Female	Male
13.9	12.5	14.7

Table 5. [OV-2] Inequality of income distribution S80/S20 income quintile share ratio

<i>S80/S20 quintile share ratio</i>	6.1
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Table 6. [OV-7a] Relative median income ratio

<i>Relative median income ratio AGE65 /45 to 54</i>	0.79
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Table 7. [OV-7b] Aggregate replacement ratio

Aggregate replacement ratio	0.49
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Table 8. [OV-C11] At-risk-of-poverty rate before social transfers (by age and gender). %

Age	Total	Female	Male
Total	40.5	42.9	38.0
0-17	27.0	-	-
18-64	43.4	45.8	40.9
65+	82.4	84.0	80.4

1.1.2. Streamlined Social Inclusion Portfolio: Social Inclusion indicators calculated from EU-SILC

Table 9. [SI-P1] At-risk-of-poverty threshold (illustrative values)

Type of household	Euro	PPS
One person household	5,910.00	6,762.00
Household with 2 adults and 2 dependent children	12,411.00	14,201.00

Table 10. [SI-P1] At Risk-of-poverty rate by gender and selected age groups. %

Age	Total	Female	Male
Total	20.5	21.4	19.5
0-17	22.6	-	-
18-64	18.4	19.0	17.8
65+	25.6	27.3	23.4

Table 11. [SI-P3] Relative median at-risk-of-poverty gap, by age and gender. %

Age	Total	Female	Male
Total	25.8	25.8	25.8
0-17	24.8	-	-
18-64	27.3	26.4	28.0
65+	24.4	25.4	21.7

Table 12. [SI-S1] At-risk-of-poverty rate, by age and gender. %

Age	Total	Female	Male
Total	20.5	21.5	19.5
0-15	21.5	21.9	21.1
0-17	22.6	-	-
16+	20.3	21.4	19.2
18+	20.0	21.0	19.0
0-64	19.3	20.0	18.7
16-64	18.8	19.5	18.1
18-64	18.4	19.0	17.8
16-24	25.1	26.5	23.7
25-49	16.9	17.9	15.9
50-64	19.2	18.9	19.5
65+	25.6	27.3	23.5

Table 13. [SI-S1a] At-risk-of-poverty rate, by household type. %

Household type	%
Other households without dependent children	15.1
Three or more adults with dependent children	29.6
Single person	24.6
Single parent, with at least 1 dependent child	28.1
1 adult, 65 years and over	34.0
1 adult younger than 65 years	15.1
Single female	27.9
Single male	17.9
2 adults, 1 dependent child	15.3
2 adults, 2 dependent children	20.7
2 adults, no dependent children, both under 65	15.7
2 adults, no dependent children, at least one adult 65 years and over	24.3
Households with dependent children	22.7
Households without dependent children	18.6
Total	20.6

Table 14. [SI-S1b] At-risk-of-poverty rate, by work intensity of the household. %

Household type by work intensity	%
Household without dependent children W=0	26.9
Household without dependent children $0 < W < 1$	13.9
Household without dependent children W=1	10.9
Household with dependent children W=0	52.2
Household with dependent children $0 < W < 0.5$	50.8
Household with dependent children $0.5 < W < 1$	25.2
Household with dependent children W=1	11.8

Table 15. [SI-S1c] At-risk-of-poverty rate, by most frequent activity status and by gender. %

Activity status	Total	Female	Male
Total	20.3	21.5	19.0
At work	13.9	12.5	14.7
Not at work: total	26.0	26.5	25.3
Not at work: Unemployed	33.3	29.5	38.7
Not at work: Retired	24.3	27.1	22.0
Not at work: Other inactive	26.0	25.8	27.0

Table 16. [SI-S1d] At-risk-of-poverty rate, by accommodation tenure status and by gender and selected age groups. %

Accommodation tenure status	Age	Total	Female	Male
Owner	total	21.0	22.0	20.0
Rent	total	18.0	18.0	18.0
Owner	0-17	23.0	-	-
Rent	0-17	21.0	-	-
Owner	18-64	19.0	20.0	18.0
Rent	18-64	17.0	17.0	17.0
Owner	65+	27.0	28.0	24.0
Rent	65+	16.0	17.0	15.0

Table 17. [SI-S1e] Dispersion around the at-risk-of-poverty threshold [by gender and selected age group]. %

Threshold	Age	Total	Female	Male
40% of median	Total	8.0	8.0	8.0
	0-17	9.0	-	-
	18-64	8.0	8.0	8.0
	65+	8.0	9.0	6.0
50% of median	Total	13.0	14.0	13.0
	0-17	15.0	-	-
	18-64	12.0	12.0	12.0
	65+	16.0	18.0	14.0
70% of median	Total	28.0	29.0	27.0
	0-17	30.0	-	-
	18-64	25.0	26.0	25.0
	65+	35.0	36.0	33.0

Table 18. [SI-C1] Inequality of income distribution S80/S20 income quintile share ratio

S80/S20 quintile share ratio	6.1
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Table 19. [SI-C2] Inequality of income distribution Gini coefficient

Gini coefficient	34.3
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Table 20. [SI-C6] At-risk-of-poverty rate before social transfers, by gender and selected age groups (except pensions). %

Age	Total	Female	Male
Total	23.4	24.7	22.0
0-15	23.7	24.3	23.2
0-17	24.8	-	-
16+	21.5	22.3	20.7
18+	26.1	26.1	26.1
16-64	23.3	24.8	21.8
18-64	27.3	26.4	28.0
65+	30.0	32.9	26.4

Table 21. [SI-C8] In-work at-risk-of-poverty rate. %

Type of work	%
Full time	13.0
Part time	26.0

1.1.3. Portfolio of Pension Indicators calculated from SILC - Adequacy of pensions

Table 22. [PN-P1] At-risk-of-poverty rate of older people. %

Age	Total	Female	Male
0-64	19.0	20.0	19.0
65+	26.0	27.0	23.0

Table 23. [PN-P2] Relative median income ratio of elderly people (65+)

Relative median income ratio AGE65 /45 to 54	Total	Female	Male
	0.49	0.49	0.57

Table 24. [PN-P3] Aggregate replacement ratio

Aggregate replacement ratio	Total	Female	Male
	0.79	0.73	0.87

Table 25. [PN-S1] At-risk-of-poverty rate of older people . %

Age	Total	Female	Male
0-59	19.0	20.0	19.0
0-74	20.0	20.0	19.0
60+	25.0	26.0	23.0
75+	33.0	34.0	33.0

Table 26. [PN-s2] Relative median income ratio of elderly people (60+)

Relative median income ratio AGE65 /45 to 54	Total	Female	Male
	0.82	0.76	0.89

Table 27. [PN-S4] Inequality of income distribution S80/S20 income quintile share ratio

Inequality of income distribution	Age	S80/S20
	0-64	6.4
	65+	4.8

Table 28. [PN-S5] Relative median at-risk-of-poverty gap of elderly people. %

Age	Total	Female	Male
65+	24.0	25.0	22.0
75+	26.0	29.0	23.0

Table 29. [PN-S7] At-risk-of-poverty rate of older people by accommodation tenure status. %

Accommodation tenure status	Age	Total
Owner	60+	26.0
Rent		17.0
Owner	65+	27.0
Rent		16.0
Owner	75+	35.0
Rent		21.0

Table 30. [PN-S8] Dispersion around the at-risk-of-poverty threshold. %

Threshold	Age	%
50% of median	60+	16,0
	65+	16,0
	75+	22,0
70% of median	60+	33,0
	65+	35,0
	75+	41,0

1.1.4. Other indicators

Table 31. Mean equivalized income

Mean equivalized income	Euro
	11,469.58

Table 32. The unadjusted gender pay gap. %

The unadjusted gender pay gap	9
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1.2. Distribution of poor population

Table 33. Risk-of-poverty rate by age and gender. %

Total	Female	Male
100.0	53.8	46.2

Table 34. Risk-of-poverty rate by age and gender. %

	0 - 15	0 - 64	16+	16 - 64	16 - 24	25-49	50-64	65+
Total	16.2	76.9	83.7	60.6	13.2	30.9	16.5	23.0
Female	15.1	74.4	84.8	59.3	13.0	30.5	15.8	25.5
Male	17.5	79.7	82.4	62.2	13.4	31.3	17.4	20.2

Table 35. Risk-of-poverty rate by most frequent activity and gender. %

Activity status	Total	Female	Male
Total	100.0	100.0	100.0
At work	32.5	20.6	46.7
Not at work: total	67.5	79.4	53.3
Not at work: Unemployed	9.1	8.7	9.6
Not at work: Retired	25.7	23.6	28.1
Not at work: Other inactive	32.8	47.1	15.7

Table 36. Risk-of-poverty rate by household type. %

Household type	Total
Other households without dependent children	17.0
Three or more adults with dependent children	14.3
Single person	8.9
Single parent, with at least 1 dependent child	2.2
1 adult, 65 years and over	6.2
1 adult younger than 65 years	2.7
Single female	6.7
Single male	2.1
2 adults, 1 dependent child	7.5
2 adults, 2 dependent children	24.7
2 adults, no dependent children, both under 65	6.6
2 adults, no dependent children, at least one adult 65 years and over	13.6
Households with dependent children	53.8
Households without dependent children	46.1

Table 37. Risk-of-poverty rate by household type, single households. %

Total	Female	Male	<65	65+
100.0	74.2	25.8	25.0	75.0

Table 38. Risk-of-poverty rate by tenure status. %

Total	Owner or rent-free	Tenant
100.0	83.3	16.7

Table 39. Risk-of-poverty rate by work intensity. %

Household type by work intensity	%
Total	100.0
Household without dependent children W=0	10.1
Household without dependent children $0 < W < 1$	17.1
Household without dependent children W=1	7.6
Household with dependent children W=0	6.5
Household with dependent children $0 < W < 0.5$	9.9
Household with dependent children $0.5 < W < 1$	33.9
Household with dependent children W=1	14.8

1.3. Social exclusion indicators

Table 40. Fulfillment of basic needs. %

Fulfillment of basic needs	Total population	Population in risk-of-poverty	Population not in risk-of-poverty
Capacity to face unexpected financial expenses	33.1	56.0	27.2
Capacity to afford paying for one annual holiday away from home	51.3	79.5	44.0
Capacity to afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day	9.2	23.1	5.6

Table 41. Quality of life. %

Quality of life – Percentage of household that cannot afford:	Total population	Population in risk-of-poverty	Population not in risk-of-poverty
Color TV	0.5	1.9	0.1
Telephone (including mobile phone)	0.8	2.9	0.3
Computer	14.3	19.7	12.9
Washing machine	3.2	8.6	1.8
Car	11.1	17.7	9.4

Table 42. Ability to make ends meet. %

Ability to make ends meet	Total population	Population in risk-of-poverty	Population not in risk-of-poverty
With great difficulty	18.9	35.0	14.8
With difficulty	34.4	41.1	32.7
With some difficulty	27.4	18.3	29.8
Fairly easily	14.3	4.4	16.9
Easily	4.3	1.0	5.2
Very easily	0.6	0.2	0.7

Table 43. Lowest monthly income to make ends meet

Lowest monthly income to make ends meet in euro	Total population	Population in risk-of-poverty	Population not in risk-of-poverty
	1,920.95	1,476.13	2,036.33

Table 44. Financial burden of the total household cost. %

Financial burden of the total household cost	Total population	Population in risk-of-poverty	Population not in risk-of-poverty
A heavy burden	27.6	39.7	24.5
Somewhat a burden	64.6	59.1	66.1
Not a burden at all	7.7	1.2	9.4

Table 45. Financial burden of the repayment of debts from hire purchases or loans. %

Financial burden of the repayment of debts from hire purchases or loans	Total population	Population in risk-of-poverty	Population not in risk-of-poverty
Repayment is a heavy burden	8.0	8.8	7.8
Repayment is somewhat of a burden	17.5	9.1	19.6
Repayment is not a burden at all	2.8	1.2	3.2

Table 46. Physical and social environment. %

Physical and social Environment	Total population	Population in risk-of-poverty	Population not in risk-of-poverty
Problems with the dwelling: Too dark, not enough light	8.6	12.0	7.7
Noise from neighbors or from the street	20.7	16.6	21.7
Pollution, grime, or other environmental problems	17.4	11.7	18.8
Crime violence or vandalism in the area	9.1	6.8	9.6

Table 47. Housing and non-housing related arrears. %

Arrears on utility bills	Total population	Population in risk-of-poverty	Population not in risk-of-poverty
Rent or mortgage repayment	5.3	8.4	4.5
Utility bills (electricity, water, gas, etc.)	26.3	47.6	20.8
Credit cards payment or loan repayments for household items, holidays, etc.	10.1	10.7	9.9

Table 48. Housing conditions. %

Housing conditions	Total population	Population in risk-of-poverty	Population not in risk-of-poverty
Leaking roof, damp walls/ floors/ foundation or rot in window frames or floor	20.8	29.8	18.4
Ability to keep home adequately warm	13.6	27.3	10.0

Table 49. Amenities in the dwelling. %

Amenities in the dwelling	Total population	Population in risk-of-poverty	Population not in risk-of-poverty
Bath or shower in the dwelling	1.8	4.9	1.0
Indoor flushing toilet for sole use of households	3.5	8.9	2.1

1.4. Other social indicators

Table 50. General health for household members aged 16 and over. %

General health for household members aged 16 and over	Total population	Population in risk-of-poverty	Population not in risk-of-poverty
Very good	51.6	43.6	53.6
Good	25.2	23.7	25.6
Fair	14.0	18.2	13.0
Bad	6.3	10.5	5.2
Very bad	2.9	3.9	2.6

Table 51. Unmet need for medical examination or treatment for household members aged 16 and over. %

Unmet need for medical examination or treatment for household members aged 16 and over	Total population	Population in risk-of-poverty	Population not in risk-of-poverty
Doctors of any specialization	7.3	8.9	6.9
Dentists	7.1	9.3	6.5

Table 52. Highest ISCED level attained for household members aged 16 and over. %

Highest ISCED level attained for household members aged 16 and over	Total population	Population in risk-of-poverty	Population not in risk-of-poverty
Pre-primary education	2.9	6.0	2.1
Primary education	34.7	48.2	31.2
Lower secondary education	12.7	15.2	12.1
Upper secondary education	29.3	22.7	31.0
Post secondary non tertiary education	4.4	3.5	4.6
First stage of tertiary education (not leading directly to an advanced research qualification)	15.7	4.5	18.5
Second Stage of tertiary education (leading to an advanced research qualification)	0.3	0.0	0.4

2. ACCURACY

2.1. Sample design

2.1.1. Type of sample design

The two-stage area sampling was applied for the EU-SILC survey.

2.1.2. Sampling units

The sample of private households was selected in two stages. The primary units are the areas (one or more unified building blocks) and the ultimate sampling units selected in each sampling area are the households.

2.1.3. Stratification and sub-stratification criteria

There are two levels of area stratification in the sampling design. The first level is the geographical stratification based on the partition of the total country area into thirteen (13) standard administrative regions corresponding to the European NUTS II level. The two major city agglomerations of Greater Athens and Greater Thessalonica constitute separate major geographical strata.

The second level of stratification entails grouping municipalities and communes within each NUTS II administrative region by degree of urbanization, i.e., according to their population size. The scaling of urbanization was finally designed in four groups:

- ≥ 30.000 inhabitants
- 5.000-29.999 inhabitants
- 1.000-4.999 inhabitants
- 0-999 inhabitants

The number of the final strata in the thirteen (13) geographical regions was 50. The Greater Athens Area was divided into 31 strata of about equal size (equal number of households) on the basis of the lists of city blocks of the Municipalities that constitute it and taking into consideration socio-economic criteria. Similarly, the Greater Thessaloniki Area was divided into 9 equally sized strata. The two Major City Agglomerations account for about 38% of total population and for even larger percentages in certain socio-economic variables. Thus, the total number of strata of the survey was 90.

2.1.4. Sample size and allocation criteria

The initial sample size is 8.000 households (the sampling fraction is about 2‰). This fraction was the same in each geographical region.

As it was mentioned above, the geographical regions (NUTS II) in Greece are thirteen (13) in number. However, throughout this study the 2nd geographical region (Central Macedonia) was considered without Greater Thessalonica and the 9th geographical region (Attica) without the Greater Athens area, while either of these two major agglomerations was treated as a geographical region.

Table 53. Sample size and achieved response by NUTS2-units

NUTS2	Name	Drawn	Accepted (DB135=1)
GR11	Thraki and Anatoliki Macedonia	413	391
GR12	Kentriki Macedonia	1,257	1,103
GR13	Dytiki Macedonia	196	190
GR14	Thessalia	502	443
GR21	Ipeiros	212	187
GR22	Ionia Nisia	114	104
GR23	Dytiki Ellada	402	378
GR24	Stereia Ellada	324	291
GR25	Peloponnisos	355	332
GR30	Attiki	2,100	1,617
GR41	Voreio Aigaio	143	129
GR42	Notio Aigaio	189	173
GR43	Kriti	409	362
Total	Total	6,616	5,700

2.1.5. Sample selection schemes

1st stage of sampling

In this stage, from any ultimate stratum (crossing of Region with the degree of urbanization), say stratum h . n_h primary units were drawn (where the number n_h of draws was approximately proportional to the population size X_h of the stratum (number of households according to the last population census of the year 2001)).

Each area unit (primary unit) of the stratum had a selection probability proportional to its size. So, if X_{hi} was the number of households according to the 2001 population census- of the unit in the sample of order i , then the probability of being drawn was:

$$P_{hi} = \frac{X_{hi}}{X_h} \quad (1)$$

The total number of the primary sampling units is 1,056 areas.

As in each year the 25% of the sample households is replaced, the new households belong to different primary sampling units.

2nd stage of sampling

In this stage from each primary sampling unit (selected area) the sample of ultimate units (households) is selected. Actually, in the second stage we draw a sample of dwellings, However, in most cases, there is one to one relation between household and dwelling. If the selected dwelling constitutes of one or more households then all of them are interviewed.

Let M_{hi} be the number of households during the survey period in the i_{th} selected area of the stratum h . Out of them a systematic sample of m_{hi} households is selected with

equal probabilities. Each of m_{hi} households has the same chance to be included in the survey, equal to: $\frac{m_{hi}}{M_{hi}}$

In any selected primary unit, remains the determination of the sample size m_{hi} . The total number of households to be interviewed of the n_h selected primary sampling units will be $m_h = \sum_{i=1}^{n_h} m_{hi}$ (2)

i.e. finally by applying the two stage sampling procedure, from the stratum h the percentage of households $\frac{m_h}{M_h}$ is drawn.

In repeated sampling, the numerator of this fraction will vary from sample to sample; to be more specific the fraction $\frac{m_h}{M_h}$ is a random variable. Within each primary sampling unit the calculation of the sampling interval $\delta_{hi} = \frac{M_{hi}}{m_{hi}}$ is carried out, so that the following two desired conditions are satisfied.

a) The expected result $\frac{m_h}{M_h}$ is the predetermined over sampling fraction $\frac{1}{\lambda}$ in

each geographical region (NUTS II): $E\left(\frac{m_h}{M_h}\right) = \frac{1}{\lambda} = 2\%$

b) The estimator of the stratum total Y_h (for any characteristic) should be self-weighting. In other words, the calculated estimator is the result derived from the sum of the values of the characteristic over the m_h sample households by the overall raising factor λ , which is the same in each geographical region.

The conditions (a) and (b) are satisfied when:

$$\frac{1}{n_h} \cdot \frac{1}{P_{hi}} \cdot \frac{M_{hi}}{m_{hi}} = \lambda \quad (3) \Rightarrow$$

$$\frac{1}{n_h} \cdot \frac{1}{P_{hi}} \cdot \delta_{hi} = \lambda \Rightarrow$$

$$\delta_{hi} = \frac{M_{hi}}{m_{hi}} = \lambda \cdot n_h \cdot P_{hi} \quad (4)$$

2.1.6. Sample distribution over time

As the survey is annual, the sample of households is not distributed over time. The survey is carried from April to June of the year 2006 with reference period of data the previous year (2005).

Table 54. Sample distribution (household questionnaire) over time

Month	Date	Number	%
April	1 to 10	94	1.6
	11 to 20	163	2.8
	21 to 30	101	1.8
May	1 to 10	691	12.2
	11 to 20	867	15.3
	21 to 31	949	16.6
June	1 to 10	1,126	19.7
	11 to 20	912	16.0
	21 to 30	797	14.0

2.1.7. Renewal of the sample: rotational groups

The survey is a simple rotational design survey. The sample for any year consists of 4 replications, which have been in the survey for 1-4 years. With the exception of the first three years of survey, any particular replication remains in the survey for 4 years, each year, one of the 4 replications from the previous year is dropped and a new one is added. Between year T and T+1 the sample overlap is 75%; the overlap between year T and year T+2 is 50%; and it is reduced to 25% from year T to year T+3, and to zero for longer intervals.

2.1.8. Weightings

2.1.8.1. Design factor

For the computation of the sample household design weights as well for the computation of the cross sectional weights of the survey in general, the EC-Eurostat document EU-SILC Doc. 157/05 was used.

For the households in panel 6 – panel 6 replaced panel 2 and is of wave 1 – the household design weight (target variable DB080) is defined as the inverse of its probability of selection.

$$\frac{1}{n_h} \cdot \frac{1}{P_{hi}} \cdot \frac{M_{hi}}{m_{hi}} = DW_{hi} \quad (5)$$

M_{hi} = the number of households in the updated sampling frame in the **hi** area (primary unit).

M_{hi} = the number of selected households in the **hi** area (primary unit).

N_h = the sample size of primary units in the **h** stratum.

Phi = the selection probability of **hi** primary unit.

For households in panels 3, 4 and 5 the household design weights are defined by applying the general procedure of EU-SILC Doc.157/05 :

- Computation of panel person design weights
- Correction for non-response due to attrition
- Computation of sub-sample household weights
- Computation of sample household design weights

2.1.8.2. Non-response adjustments

Within each design stratum, the non-response adjustment of the responding households is carried out by the inverse of the response rate, so as to “make up” for non-responding cases in that stratum.

Target variable DB080 was adjusted for non-response for the variables DB120 (record of contact at address) and DB130 (household questionnaire result). The corrections were conducted at subsequent steps. The multiplication of DB080 with each one of the two corrections, results in a corrected DB080 weight that is used as initial weight in the calibration procedure referred in the following paragraph.

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

This involves the calibration of the household and personal weights in conjunction with external sources (Projections for population totals for year 2006). Thus, it enables the distribution of auxiliary variables on both household and individual level.

The auxiliary variables used at household level are the household size, the tenure status and the Geographical Region (NUTS II). Also, at personal level the auxiliary variable used is the distribution of population by age (five years age groups) and sex.

The weights obtained after this procedure of calibration are the household cross-sectional weights (variable: DB090). As all the household members reply to the household questionnaire, DB090 is also the weight of each member of the household (variable: RB050).

The last step involves the calculation of the personal cross sectional weights for household members aged of 16 and over (variable: PB040). The calibration procedure was applied again using as initial weights variable RB050 and as auxiliary variable the distribution of population aged 16 and over by age (five years age groups) and sex.

2.2. Sampling Errors

2.2.1. Estimation of survey characteristics

This paragraph presents the general procedure applied in order to estimate the survey characteristics and also the survey characteristics required for the calculations of standard errors and effective sample size for the common cross-sectional EU indicators based on the cross-sectional component of EU-SILC and for the equivalised disposable income.

Let y_{hij} be the value of the characteristic y for the sampling member of order j ($j = 1, 2, \dots, m_{hi}$) of the hi area. Moreover, Y_h stands for the stratum total, which results when adding the characteristic y from all household members included in the stratum h .

The form of the estimator on the basis of the two-stage design is:

$$\hat{Y}_h = \sum_{i=1}^{n_h} \sum_{j=1}^{m_{hi}} w_{hij} \cdot y_{hij} \quad (6)$$

where, w_{hij} stands for RB050 corrected for the effect of missing values (page 9 of the EU-SILC 131-rev/04 document).

For estimating the characteristic y in country level, all stratum estimates \hat{Y}_h should be added, as follows:

$$\hat{Y} = \sum_h \hat{Y}_h \quad (7)$$

The estimation of the number of households or household members X_h in stratum h is calculated using the formula:

$$\hat{X}_h = \sum_{i=1}^{n_h} \sum_{j=1}^{m_{hi}} w_{hij} \quad (8)$$

while the estimation of the relevant characteristic in country level is calculated by adding all strata estimations, that is:

$$\hat{X} = \sum_h \hat{X}_h \quad (9)$$

In order to estimate the variances of the required characteristics, the following steps should be implemented.

At the country level, for each class (let be h) defined by age-group and sex (class=age-group x sex) the $\sum_i w_{hi} = N_h$ =constant (known population), due to calibration process. As a result,

$$V(\hat{Y}) = \sum_h V(\hat{Y}_h) = \sum_h \sum_i w_{hi} \cdot (w_{hi} - 1) \cdot (y_{hi} - \bar{y}_h)^2 \quad (10)$$

Where:

w_{hi} : The extrapolation factor of the hi household member (RB050 corrected for the effect of missing values),

y_{hi} : The value of the variable y for the person hi and

$$\bar{y}_h : \text{The weighted mean of the class } h, \quad \bar{y}_h = \frac{\sum_i w_{hi} \cdot y_{hi}}{\sum_i w_{hi}}$$

The formulas above can also be used for the *equivalised disposable income*. Especially for the “Inequality of income distribution S80/S20 income quintile share ratio” R , expressed as

$$R = \frac{R1}{R2},$$

where

$$R1 = \frac{\sum (w_{hij} * (EQ_INC)_i)}{\sum_{personswithQPB=5} w_{hij}} \quad (11)$$

and

$$R2 = \frac{\sum (w_{hij} * (EQ_INC)_i)}{\sum_{personswithQPB=1} w_{hij}} \quad (12)$$

we can estimate the variance of $R = \frac{R1}{R2}$ using the following formulas.

For $\hat{R1}$ and $\hat{R2}$, the variances $V(\hat{R1})$ and $V(\hat{R2})$ are calculated using

$$V(\hat{R1}) = \frac{V(\hat{Y}) + \hat{R1}^2 \cdot V(\hat{X}) - 2 \cdot \hat{R1} \cdot Cov(\hat{Y}, \hat{X})}{\hat{X}^2} \quad (13)$$

(the same formula applies also for $R2$ using the relevant data for QPB=1)

where:

$$Cov(\hat{Y}, \hat{X}) = \sum_h Cov(\hat{Y}_h, \hat{X}_h) = \sum_h \sum_i w_{hi} \cdot (w_{hi} - 1) \cdot (y_{hi} - \bar{y}_h) \cdot (x_{hi} - \bar{x}_h) \quad (14)$$

where:

x_{hi} : The value of variable x . In case the denominator of a ratio is equal to an estimated number of household-members belonging to one sub-population, then

$$x_{hi} = \begin{cases} 1 & \text{if } hi \in U_d \\ 0 & \text{otherwise} \end{cases}$$

U_d : The specific subpopulation of interest ($U_d \subset U$ = whole population) and

$$\bar{x}_h = \frac{\sum_i w_{hi} \cdot x_{hi}}{\sum_i w_{hi}} \quad (15)$$

$$\text{Finally, } V(\hat{R}) = V(\hat{R1} / \hat{R2}) = \left(\frac{R1}{R2}\right)^2 \cdot (C_{\hat{R1}\hat{R1}} + C_{\hat{R2}\hat{R2}} - 2 \cdot C_{\hat{R1}\hat{R2}}) \quad (16)$$

where

$$C_{\hat{R1}\hat{R1}} = \frac{V(\hat{R1})}{R1^2} \quad (17)$$

$$C_{\hat{R2}\hat{R2}} = \frac{V(\hat{R2})}{R2^2} \quad (18)$$

$$C_{\hat{R1}\hat{R2}} = C_{\hat{Y1}\hat{Y2}} + C_{\hat{X1}\hat{X2}} - C_{\hat{Y1}\hat{X2}} - C_{\hat{Y2}\hat{X1}} \quad (19)$$

and

$$C_{\hat{Y1}\hat{Y2}} = \frac{Cov(\hat{Y1}, \hat{Y2})}{\hat{Y1}\hat{Y2}} \quad (20)$$

$$C_{\hat{X1}\hat{X2}} = \frac{Cov(\hat{X1}, \hat{X2})}{\hat{X1}\hat{X2}} \quad (21)$$

$$C_{\hat{Y1}\hat{X2}} = \frac{Cov(\hat{Y1}, \hat{X2})}{\hat{Y1}\hat{X2}} \quad (22)$$

$$C_{\hat{Y2}\hat{X1}} = \frac{Cov(\hat{Y2}, \hat{X1})}{\hat{Y2}\hat{X1}} \quad (23)$$

All the above covariances (20) to (23) are calculated with the use of the formula (15) and the relevant variables of QPB=5 and QPB=1 respectively.

For all other indicators, expressed as ratios, formulas (14) – (16) were used.

Furthermore, in order to estimate the sampling errors for the three following indicators

- Relative median at-risk-of-poverty gap by age and gender (Doc EU-SILC 131-rev/04 E.E.)
- Relative Median Income Ratio (Doc LC/16/07/EN)
- Aggregate Replacement Ratio (Doc LC/16/07/EN)

we implemented the Jackknife Method. According to this, the estimation of $\hat{\theta}_{gj}$ for each gj is carried out from the sample, after omitting the data from the j -th sampled cluster (primary sampling unit) in the g -th stratum (stratum = Region X Degree of Urbanization) ($j = 1, \dots, n_g$, $g = 1, \dots, 90$). It is achieved by letting $w_{gjk} = 0$, (k : the order of the individual in

the cluster), by changing w_{gik} ($i \neq j$) to $\frac{n_g}{n_g - 1} * w_{gik}$ and retaining the original weights w_{hik} for $h \neq g$. The jackknife weights $w_{hik(gj)}$ and the $\hat{\theta}_{gj}$ are calculated for each cluster (gj).

The variance estimation is given by

$$V(\hat{\theta}) = \sum_{g=1}^{90} \frac{n_g - 1}{n_g} \sum_{j=1}^{ng} (\hat{\theta}_{(gj)} - \hat{\theta})^2 \quad (24)$$

2.2.2. Standard Error and Effective Sample Size

Standard errors for all the required indicators were calculated in the form of coefficient of variation (CV).

For an estimate \hat{Y} , the coefficient of variation is defined as:

$$CV(\hat{Y}) = \frac{\sqrt{V(\hat{Y})}}{\hat{Y}} * 100 \quad (25)$$

Effective sample size was calculated as the ratio of the actual sample size to the design effect. The design effect was calculated as the ratio of the variance estimate produced for two-stage stratified sampling to the variance estimate produced under the assumption of simple random sampling.

The variance estimates under the assumption of simple random sampling were calculated using the formulas presented below. Concerning the symbolisms used in the formulas, the logic is the same as in the formulas for two-stage stratified sampling.

The variance estimator for \hat{Y} and \hat{X} yields respectively from (26) and (27):

$$Var(\hat{Y}) = \frac{N(N-n)}{n(n-1)} \cdot \left[\sum_{i=1}^n y_i^2 - \frac{\left(\sum_{i=1}^n y_i \right)^2}{n} \right] \quad (26)$$

$$Var(\hat{X}) = \frac{N(N-n)}{n(n-1)} \cdot \left[\sum_{i=1}^n x_i^2 - \frac{\left(\sum_{i=1}^n x_i \right)^2}{n} \right] \quad (27)$$

The variance estimator for ratios, e.g. \hat{Rl} (ratios are defined as in two-stage stratified sampling) is as follows:

$$Var(\hat{R1}) = \frac{1}{\hat{X}^2} \cdot \frac{N(N-n)}{n} \cdot [S_y^2 + R^2 \cdot S_x^2 - 2 \cdot R \cdot Cov(Y, X)] \quad (28)$$

where:

$$S_y^2 = \frac{1}{n-1} \cdot \left[\sum_{i=1}^n y_i^2 - \frac{\left(\sum_{i=1}^n y_i \right)^2}{n} \right] \quad (33), \quad S_x^2 = \frac{1}{n-1} \cdot \left[\sum_{i=1}^n x_i^2 - \frac{\left(\sum_{i=1}^n x_i \right)^2}{n} \right] \quad (29),$$

and

$$Cov(Y, X) = \frac{1}{n-1} \cdot \left[\sum_{i=1}^n y_i \cdot x_i - \frac{\left(\sum_{i=1}^n y_i \right) \cdot \left(\sum_{i=1}^n x_i \right)}{n} \right] \quad (30)$$

Finally, the coefficient of variation for “Inequality of income distribution S80/S20 income quintile share ratio” is calculated using the formulas (27) to (30) presented above.

Furthermore, in order to estimate the sampling errors for the three following indicators

- Relative median at-risk-of-poverty gap by age and gender (Doc EU-SILC 131-rev/04)
- Relative Median Income Ratio (Doc LC/16/07/EN)
- Aggregate Replacement Ratio (Doc LC/16/07/EN),

we implemented the Dependent Random Groups Technique. According to this technique, we first assumed that the sample of n individuals was selected from the whole population N by an equal probability sampling design. Afterwards, a random mechanism was used to divide the sample of n individuals into $A=10$ disjoint sub-samples, the random groups.

Let s be the sample drawn from the population U (s is called full sample), s was divided into $A=10$ disjoint random groups, $s_1, \dots, s_a, \dots, s_A$, that is $s = \bigcup_{a=1}^A s_a$. The s is of fixed size $n = 15190$ and the groups are of equal size $m = \frac{n}{A} = \frac{15190}{10} = 1519$. The sample s was divided into groups by a randomization device, so that each random group has the same sampling design as the initial sample (the sample s). The weights of the individuals of each random group were multiplied by 10, so as for each random group to produce results for the total population.

Let $\hat{\theta}_1, \dots, \hat{\theta}_a, \dots, \hat{\theta}_A$ the estimations of $\hat{\theta}$ where $\hat{\theta}_a$ is based on data from only the group s_a ($a = 1, \dots, 10$). The estimation of $\hat{\theta}$ is carried out by averaging the $\hat{\theta}_a$, that is $\hat{\theta} = \frac{1}{A} \sum_{a=1}^A \hat{\theta}_a$. (31)

The variance estimation of $\hat{\theta}$ is obtained using the following formula

$$V(\hat{\theta}) = \frac{1}{A(A-1)} \sum_{a=1}^A (\hat{\theta}_a - \hat{\theta})^2 \quad (32).$$

In the table 55 that follows the CV, the design effect, the actual sample size and the effective sample size are presented for all required indicators.

Due to high design effect, it is noticed that from the 2008 and in order to reduce the design effect and to achieve the minimum sample size according to regulation, the number of primary sampling units has been increased by 23% and additionally the number of secondary sampling units (households) by 25%.

Table 55. Coefficient of Variance, Design Effect, Actual and Effective Sample size per indicator

INDICATOR	CV %	Design Effect	Actual Sample Size	Effective Sample Size
At-risk-of-poverty rate (after social transfers)	1.86	1.4	15,190	11,156
At-risk-of-poverty rate by age and gender	1.86	1.4	15,190	11,156
At-risk-of-poverty rate by age and gender (female_0-15)	6.23	1.3	1,208	965
At-risk-of-poverty rate by age and gender (female_16-24)	6.97	1.4	770	541
At-risk-of-poverty rate by age and gender (female_25-49)	4.75	1.4	2,629	1,889
At-risk-of-poverty rate by age and gender (female_50-64)	6.89	1.5	1,415	923
At-risk-of-poverty rate by age and gender (female_>=65)	4.61	1.2	1,766	1,430
At-risk-of-poverty rate by age and gender (female_>=16)	2.76	1.4	6,580	4,857
At-risk-of-poverty rate by age and gender (female_16-64)	3.42	1.4	4,814	3,554
At-risk-of-poverty rate by age and gender (female_0-64)	3.00	1.3	6,022	4,476
At-risk-of-poverty rate by age and gender (female >=0)	2.53	1.3	7,768	5,762
At-risk-of-poverty rate by age and gender (female 0-17)	5.61	1.2	1,388	1,124
At-risk-of-poverty rate by age and gender (female 18-64)	3.55	1.4	4,634	3,341

Table 55 continued. Coefficient of Variance, Design Effect, Actual and Effective Sample size per indicator

INDICATOR	CV %	Design Effect	Actual Sample Size	Effective Sample Size
At-risk-of-poverty rate by age and gender (male 0-15)	6.24	1.3	1,276	996
At-risk-of-poverty rate by age and gender (male 16-24)	7.37	1.4	804	577
At-risk-of-poverty rate by age and gender (male 25-49)	5.32	1.5	2,553	1,660
At-risk-of-poverty rate by age and gender (male 50-64)	6.97	1.5	1,316	858
At-risk-of-poverty rate by age and gender (male >=65)	5.36	1.1	1,453	1,316
At-risk-of-poverty rate by age and gender (male >=16)	3.07	1.4	6,126	4,415
At-risk-of-poverty rate by age and gender (male 16-64)	3.68	1.4	4,673	3,291
At-risk-of-poverty rate by age and gender (male 0-64)	3.18	1.4	5,949	4,249
At-risk-of-poverty rate by age and gender (male >=0)	2.76	1.4	7,383	5,360
At-risk-of-poverty rate by age and gender (male 0-17)	5.69	1.2	1,466	1,179
At-risk-of-poverty rate by age and gender (male 18-64)	3.82	1.5	4,483	3,064
At-risk-of-poverty rate by age and gender (0-15)	4.41	1.3	2,484	1,962
At-risk-of-poverty rate by age and gender (16-24)	5.07	1.4	1,574	1,117
At-risk-of-poverty rate by age and gender (25-49)	3.55	1.5	5,182	3,549
At-risk-of-poverty rate by age and gender (50-64)	4.90	1.5	2,731	1,782
At-risk-of-poverty rate by age and gender (>=65)	3.50	1.2	3,219	2,728
At-risk-of-poverty rate by age and gender (>=16)	2.05	1.4	12,706	9,281
At-risk-of-poverty rate by age and gender (16-64)	2.51	1.4	9,487	6,848
At-risk-of-poverty rate by age and gender (0-64)	2.18	1.4	11,971	8,729
At-risk-of-poverty rate by age and gender (>=0)	1.87	1.4	15,151	11,133
At-risk-of-poverty rate by age and gender (0-17)	4.00	1.2	2,854	2,303
At-risk-of-poverty rate by age and gender (18-64)	2.60	1.4	9,117	6,407

Table 55 continued. Coefficient of Variance, Design Effect, Actual and Effective Sample size per indicator

INDICATOR	CV %	Design Effect	Actual Sample Size	Effective Sample Size
At-risk-of-poverty rate by most frequent activity status and gender	2.08	1.4	12,454	9,099
At-risk-of-poverty rate by most frequent activity status and gender (female_employed)	6.26	1.3	2,159	1,701
At-risk-of-poverty rate by most frequent activity status and gender (female_unemployed)	9.22	1.4	366	253
At-risk-of-poverty rate by most frequent activity status and gender (female_retired)	5.13	1.2	1,452	1,235
At-risk-of-poverty rate by most frequent activity status and gender (female_other inactive)	4.11	1.5	2,471	1,675
At-risk-of-poverty rate by most frequent activity status and gender (male_employed)	4.83	1.5	3,409	2,314
At-risk-of-poverty rate by most frequent activity status and gender (male_unemployed)	8.67	1.3	283	210
At-risk-of-poverty rate by most frequent activity status and gender (male_retired)	5.16	1.1	1,667	1,499
At-risk-of-poverty rate by most frequent activity status and gender (male_other inactive)	8.31	1.7	647	381
At-risk-of-poverty rate by most frequent activity status and gender (employed)	3.84	1.4	5,568	3,968
At-risk-of-poverty rate by most frequent activity status and gender (unemployed)	6.36	1.4	649	466
At-risk-of-poverty rate by most frequent activity status and gender (retired)	3.64	1.1	3,119	2,732
At-risk-of-poverty rate by most frequent activity status and gender (other inactive)	3.69	1.5	3,118	2,045
At-risk-of-poverty rate by household type	1.87	1.4	15,099	11,078
At-risk-of-poverty rate by household type (one person)	5.39	1.1	1,232	1,155

Table 55– continued. Coefficient of Variance, Design Effect, Actual and Effective Sample size per indicator

INDICATOR	CV %	Design Effect	Actual Sample Size	Effective Sample Size
At-risk-of-poverty rate by household type (2 ad, both<65, no dep children)	7.27	1.3	1,358	1,047
At-risk-of-poverty rate by household type (2 ad, at least one >65, no dep children)	4.42	1.1	2,010	1,837
At-risk-of-poverty rate by household type (other, without dep children)	5.53	1.9	3,013	1,587
At-risk-of-poverty rate by household type (single parent, >=1dep children)	11.44	1.3	256	201
At-risk-of-poverty rate by household type (2 ad, 1 dep child)	7.46	1.5	1,545	1,005
At-risk-of-poverty rate by household type (2 ad, 2 dep children)	4.00	1.6	2,716	1,751
At-risk-of-poverty rate by household type (2 ad, >=3 dep children)	4.46	0.5	1,003	2,025
At-risk-of-poverty rate by household type (other, with dep children)	4.38	1.2	1,966	1,623
At-risk-of-poverty rate by household type (without dep children)	2.80	1.4	7,613	5,561
At-risk-of-poverty rate by household type (with dep children)	2.49	1.4	7,486	5,525
At-risk-of-poverty rate by accommodation tenure status	1.86	1.4	15,190	11,156
At-risk-of-poverty rate by accommodation tenure status (owner or rent free)	2.02	1.3	12,857	9,605
At-risk-of-poverty rate by accommodation tenure status (tenant)	4.83	1.5	2,333	1,575
At-risk-of-poverty rate by work intensity of the household	2.15	1.4	12,767	9,175
At-risk-of-poverty rate by work intensity of the household (without dep children_WI=0)	6.01	1.2	1,017	833

Table 55 continued. Coefficient of Variance, Design Effect, Actual and Effective Sample size per indicator

INDICATOR	CV	Design Effect	Actual Sample Size	Effective Sample Size
At-risk-of-poverty rate by work intensity of the household (without dep children_0<WI<1)	6.39	2.0	2,674	1,353
At-risk-of-poverty rate by work intensity of the household (without dep children_WI=1)	7.54	1.2	1,667	1,401
At-risk-of-poverty rate by work intensity of the household (with dep children_WI=0)	7.04	1.7	306	185
At-risk-of-poverty rate by work intensity of the household (with dep children_0<WI<0.5)	5.01	1.2	609	493
At-risk-of-poverty rate by work intensity of the household (with dep children_0.5<W<1)	3.42	1.3	3,525	2,716
At-risk-of-poverty rate by work intensity of the household (with dep children_WI=1)	5.58	1.3	2,969	2,319
Inequality of income distribution S80/S20 income quintile share ratio	1.50	1.4	6,285	4,436
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits	1.70	1.3	15,190	11,261
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (female_0-15)	5.80	1.3	1,208	966
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (female_16-64)	3.12	1.4	4,814	3,421
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (female_>=65)	4.06	1.2	1,766	1,414
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (female_>=16)	2.50	1.3	6,580	4,919
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (male_0-15)	5.87	1.3	1,276	997
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (male_16-64)	3.37	1.5	4,673	3,170

Table 55continued. Coefficient of Variance, Design Effect, Actual and Effective Sample size per indicator

INDICATOR	CV %	Design Effect	Actual Sample Size	Effective Sample Size
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (male_>=65)	5.00	1.1	1,453	1,290
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (male_>=16)	2.82	1.4	6,126	4,455
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (0-15)	4.13	1.3	2,484	1,964
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (16-64)	2.29	1.4	9,487	6,594
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (>=65)	3.16	1.2	3,219	2,693
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (>=16)	1.87	1.4	12,706	9,389
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (female _0-15)	5.45	1.3	1,208	960
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (female _16-64)	2.31	1.4	4,814	3,513
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (female _>=65)	1.41	1.6	1,766	1,100

Table 55continued. Coefficient of Variance, Design Effect, Actual and Effective Sample size per indicator

INDICATOR	CV %	Design Effect	Actual Sample Size	Effective Sample Size
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (female ≥ 16)	1.48	1.2	6,580	5,491
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (male $0-15$)	5.56	1.3	1,276	1,009
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (male $16-64$)	2.58	1.5	4,673	3,193
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (male ≥ 65)	1.64	1.4	1,453	1,050
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (male ≥ 16)	1.72	1.3	6,126	4,891
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits ($0-15$)	3.89	1.3	2,484	1,971
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits ($16-64$)	1.72	1.4	9,487	6,712
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (≥ 65)	1.07	1.5	3,219	2,157
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (≥ 16)	1.12	1.2	12,706	10,405

Table 55continued. Coefficient of Variance, Design Effect, Actual and Effective Sample size per indicator

INDICATOR	CV %	Design Effect	Actual Sample Size	Effective Sample Size
Relative median at-risk-of-poverty gap by age and gender	5.09	1.4	15,190	11,225
Relative median at-risk-of-poverty gap by age and gender (0-15)	10.56	1.3	2,484	1,947
Relative median at-risk-of-poverty gap by age and gender (0-17)	5.70	1.3	2,854	2,215
Relative median at-risk-of-poverty gap by age and gender (16-64)	7.21	1.4	9,487	6,856
Relative median at-risk-of-poverty gap by age and gender (18-64)	4.39	1.4	9,117	6,578
Relative median at-risk-of-poverty gap by age and gender (16+)	4.88	1.4	12,706	9,291
Relative median at-risk-of-poverty gap by age and gender (18+)	5.66	1.4	12,336	9,018
Relative median at-risk-of-poverty gap by age and gender (65+)	8.45	1.4	3,219	2,425
Relative median at-risk-of-poverty gap by age and gender (female)	4.98	1.4	7,788	5,834
Relative median at-risk-of-poverty gap by age and gender (female_16_64)	7.32	1.4	4,814	3,562
Relative median at-risk-of-poverty gap by age and gender (female_18_64)	3.36	1.4	4,634	3,440
Relative median at-risk-of-poverty gap by age and gender (female_18+)	5.73	1.4	6,400	4,761
Relative median at-risk-of-poverty gap by age and gender (female_65+)	6.40	1.4	1,766	1,271
Relative median at-risk-of-poverty gap by age and gender (male)	5.94	1.4	7,402	5,387

Table 55continued. Coefficient of Variance, Design Effect, Actual and Effective Sample size per indicator

INDICATOR	CV %	Design Effect	Actual Sample Size	Effective Sample Size
Relative median at-risk-of-poverty gap by age and gender (male_16_64)	5.05	1.4	4,673	3,303
Relative median at-risk-of-poverty gap by age and gender (male_18_64)	6.95	1.4	4,483	3,147
Relative median at-risk-of-poverty gap by age and gender (male_16+)	6.48	1.4	6,126	4,409
Relative median at-risk-of-poverty gap by age and gender (male_18+)	6.75	1.4	5,936	4,253
Relative median at-risk-of-poverty gap by age and gender (male_65+)	17.20	1.2	1,453	1,217
Relative median income ratio	2.31	1.6	15,190	9,503
Relative median income ratio_female	1.85	2.0	7,788	3,950
Relative median income ratio_male	2.61	1.0	7,402	7,350
Aggregate replacement ratio	3.78	1.5	15,190	9,993
Aggregate replacement ratio_female	1.57	1.4	7,788	5,485
Aggregate replacement ratio_male	1.26	1.4	7,402	5,403
Gini Coefficient (inequality of income distribution)	0.83	2.6	15,190	5,823
Equivalised disposable income	0.72	1.4	15,190	10,778

2.3. Non- sampling errors

2.3.1.Sampling frame and coverage errors

EU-SILC is a household survey and, as it has already been mentioned, is carried out by applying the two-stage stratified sampling with Primary Sampling Unit (PSU) the area (one or more building blocks) and final unit the household. Thus, two frames are used, which are:

- the frame containing the PSUs (areas) and
- the frame of households within the selected PSUs.

The frame of PSUs is updated every ten (10) years through the general population census. Concerning the frame of households, within each selected PSU this is updated before the selection of the sampling households used for data collection.

So, any coverage problems that may arise is more possible to relate with the frame of PSUs. However, any such problems are corrected with the use of the calibration procedure already described.

2.3.2 Measurement and processing errors

2.3.2.1. Measurement errors

Measurement errors can occur from the questionnaire, the interviewers and their training, the respondents, the routing, and the skills testing before starting the fieldwork.

(1) The questionnaire

For building up the questionnaires we adopted the initially proposed questionnaires of Eurostat as the basis (documents EU-SILC055 and EU-SILC065). The structure of the questionnaires is similar to these ones. The majority of the questions are almost literally copied and translated.

In order to finalize the questionnaires, we took into account any observations made on the questionnaires of the previous years (pilot survey, EU-SILC 2003 – 2005), together with the experience from the ECHP projects.

Mainly the parts on self-employment income and taxes have been differently formulated.

The questionnaires for the 2006 survey were the same as those of 2004 and 2005 survey, except for some small changes in the wording.

(2) The interviewers and their training

All the external collaborators (interviewers) of Attiki Prefecture attended a three days training course before starting the fieldwork. Three days training was both on the basic concepts of the survey and the questionnaire completion and on the use and data entry in the electronic questionnaires.

Another three days training in Athens, followed for the Regional Offices Heads, which in turn trained both their personnel as well as the external collaborators.

Two manuals were distributed and explained during the training:

- A general guidelines' manual containing information about the objectives of the survey, the organization of the survey, legal and administrative aspects around the survey, fieldwork aspect (how to contact the household, how to introduce oneself who answers which questions, time delays, ...) and the content and correct completion of the questionnaires.
- A second manual on the use of portable PCs for the EU-SILC Computer Assisted Personal Interviews and about the data entry program itself.

It seems though that still some interviewers don't use the exact wording of the questions. Others skip questions, especially subjective ones (e.g. deprivation questions). Also, when the respondents didn't provide the figures the interviewers completed/imputed the figures themselves.

(3) The respondents

The respondents hesitate in providing income figures and in general deny consulting their tax return, in order to provide exact / correct amounts.

Income from interests, dividends in unincorporated businesses is in general not provided from the households, resulting thus in a significant underestimation of it.

There is a sense that still self-employment income has been under-estimated.

As far as the educational level is concerned, what has been often noticed is that, due to the fact that since the late 70's both the lower secondary education and the upper secondary education were named "secondary education" for persons born before 1960 answers have been confused.

The National Statistical Service of Greece made several plausibility checks. Especially for income data lower and upper bounds of the range in which an amount of income was accepted were applied. These checks were carried out during the survey conduction, as the guidelines of the survey included such bounds for specific income data and afterwards centrally by personnel of the NSSG. Whenever necessary, households were called back.

Changes occurring in persons' activity status longitudinally resulted in a number of inconsistencies. For example, persons having been working in year N-1 but retired in year N, persons being students in year N-1 and employed in year N, income in year N-1 from persons who died in year N, etc. may result in these inconsistencies representing though reality. In any case the pre-mentioned examples resulted both in under and over reporting of income.

(4) Errors in routing

No errors in routing were made.

(5) Skills testing before starting the fieldwork

Interviewers were both external collaborators and personnel of the National Statistical Service, all experienced with other household surveys carried out by our Institute, at a percentage of 90%. More specifically 50% of interviewers were personnel and the other 50% external collaborators.

2.3.2.2. Processing errors

Greece used the PAPI and CAPI– method to interview the persons. The electronic questionnaires were designed using Oracle - SQL.

(1) Data entry controls

As pre-mentioned several plausibility checks have been made, using the validation rules of doc. 65.

Additionally to Eurostat’s basic checks, checks were made with the data entry programs.

In general, data entry programs and post-data entry programs checks were made as following:

- Coverage
- *Checks on the number of questionnaires expected to be collected*
- Number of expected household questionnaires per area unit.
- Number of expected personal questionnaires per interviewed household.
- Number of split-off households.
- Number of tracing sheets and number of moved members.
- Deletion of duplicates
- Person identification check (household member check / person identification check on household register)
- Monitoring of flows, valid values and out of range values
- Intra-year inconsistencies check
- Intra-questionnaire inconsistencies check

Personal Register

- The specific childcare programs were cross-checked with the age of the child. For example for a three year-old child the interviewer could not register an answer to “number of hours spent per week in a program of obligatory educational level”.

Household Questionnaire

- In question 6 on tenure status, if there was an answer in “owned dwelling” or “rented for free” then there couldn’t be registered a positive answer in question 16 on “arrears on mortgage or rent payments”.
- In question 15 on “Capacity to afford paying for one week annual holiday away from home, have a meal with meat, chicken, fish every second year, etc.” if a positive answer existed in all four items then in question 17 on “ability to make ends meet” a positive answer wasn’t accepted in “with great difficulty”.
- In question 25 on social security benefits and specifically for the social solidarity allowance for pensioners up and down boundaries were inserted for the registration of the amount.

Personal Questionnaire

- The age in question 2 was cross-checked with the educational level attended in question 7.
- The age in question 2 was cross-checked with the educational level attained in question 8.
- Between questions 7 and 8 there was also made a cross-check, so that a person cannot attend a level of education being lower than the one having being finished.
- In questions 8 and 9 crosscheck was made between the age at which the person finished a specific educational level and the specific educational level having been attained. The age couldn't be less than the usual age at which the level is attained.
- In question 11 a person suffering from a chronic illness or condition couldn't answer in question 10 that has "very good health"
- In question 19 on basic activity status all the answers were crosschecked with the answer provided in the personal register.
- A more complicated cross-check was made in year of birth (question 2), age first job was undertaken (question 47) and years spend as employee or self-employed (question 48).
- In question 47 a person couldn't answer "have never worked" if there exists a positive answer in question 19 'working full or part time' or answer "yes" in question 22 'Have you ever worked?'.
- In question 49 when a person was employee, then in question 50 must answered "Yes" meaning that he/she had income from paid employment.
- The same check applied for the self-employed as well, then in question 77 must answered "Yes" meaning that he/she had income from self-employment.
- In question 116 the s/n of the member who made tax return with the respondent must exist in the register.
- In question 122 a message appeared on the screen if the answer did not correspond to the correct combinations of the answers on the questions 119 and 121.

In all the pre-mentioned checks the cursor couldn't continue to the next answer and a special notice appeared on the screen.

- Inter-questionnaire inconsistencies check
- In question 19 of the "Household questionnaire" on the existence in the household of a child aged less than 16, the program checked from the household register the ages and didn't allow a wrong answer.

Longitudinal checks

- Checks and comparison of demographic data register in the Personal Register with these of previous year.
- Check and comparison of citizenships and countries of birth with previous year.

(2) Codification

The codification of questions relating to occupation (ISCO), economic activity of the local unit (NACE), nationality was done by experienced personnel according to ISCO-88, NACE rev.2 and Doc 65/04.

(3) Other controls and other problems

Several plausibility checks have been made, most of them being the same as the ones SAS program applies. During the data processing of raw material ACCESS-2000 and win-SPSS 13 have been used.

2.3.3. Non-response errors

2.3.3.1. Achieved sample size

Table 56. Number of households for which an interview is accepted for the database. Rotational group breakdown and total

Rotational group	Households	%
1	1,313	23.0
2	1,381	24.2
3	1,801	31.6
4	1,205	21.2
Total	5,700	100.0

Table 57. Number of persons of 16 years or older who are members of the households for which the interview is accepted for the database, and who completed a personal interview. Rotational group breakdown and total

Rotational group	Households' members	%
1	2,890	23.0
2	3,052	24.2
3	3,889	30.8
4	2,775	22.0
Total	12,606	100.0

2.3.3.2. Unit non response

• Household non-response rates (NRh)

$$NRh = (1 - (Ra * Rh)) * 100 = 13.23\%$$

where

$$Ra = \frac{\text{Number of addresses successfully contacted}}{\text{Number of valid addresses selected}} \\ = \frac{\sum [DB120 = 11]}{\sum [DB120 = \text{all}] - \sum [DB120 = 23]} = \frac{6448}{6616 - 47} = 0,0981580 = 0,982$$

$$Rh = \frac{\text{Number of household interviews completed and accepted for the database}}{\text{Number of eligible households at contacted addresses}} =$$

$$= \frac{\sum [DB135 = 1]}{\sum [DB130 = all]} = \frac{5700}{6448} = 0,883995 = 0,884$$

$$NRh = (1 - 0.982 * 0.884) * 100 = 13.23\%$$

So, the household non-response rate is 13.23%

• *Individual non-response rates (NRp)*

$$NRp = (1 - (Rp)) * 100$$

Where

$$Rp = \frac{\text{Number of personal interview completed}}{\text{Number of eligible individual s}} = \frac{12,606}{12,706} = 0,9921$$

$$NRp = (1 - 0.9921) * 100 = 0.79\%$$

So, the individual non-response rate is 0.79%

• *Overall individual non-response rates (*NRp)*

$$*NRp = (1 - (Ra * Rh * Rp)) * 100 = (1 - (0.982 * 0.884 * 0.992)) * 100 = 3.89\%$$

So, the overall individual non-response rate is 3.89%

Table 58. Non- response. by rotational group and total

		Total	Rotation 1	Rotation 2	Rotation 3	Rotation 4
All households	Ra	0.982	0.976	0.973	0.980	0.966
	Rh	0.884	0.947	0.921	0.791	0.937
	NRh	13.23	7.57	10.39	22.48	9.49
	Rp	0.992	0.996	0.994	0.985	0.997
	NRp	0.8	0.4	0.6	1.5	0.3
	NRp2	13.89	7.94	10.92	23.64	9.76
Original units	Ra	No substitutions				
	Rh	No substitutions				
	NRh	No substitutions				
	Rp	No substitutions				
	NRp	No substitutions				
	NRp2	No substitutions				

Ra – address contact rate

Rh – proportion of complete household interviews accepted for data base

NRh – household non-response rate

Rp - proportion of complete personal interviews within households accepted for data base

NRp – individual non-response rate

NRp2 – overall individual non-response rate

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)

Table 59. Distribution of households by ‘record of contact at address’ (DB120), by ‘household questionnaire result’ (DB130) and by ‘household interview acceptance’ (DB135)

	Number of households	%
Total (DB120 =11 to 23)	6,495	100.0
Address contacted (DB120 =11)	6,448	97.5
Address non-contacted (DB120 =21 to 23)	47	0.7
Total address non-contacted	47	0.7
Address cannot be located (DB120 =21)	0	0.0
Address unable to access (DB120 =22)	0	0.0
Address does not exist (DB120 =23)	47	0.7

Table 60. Distribution of households by ‘household questionnaire result’ (DB130) and by ‘household interview acceptance’ (DB135)

	Number of households	%
Total	6,448	100.0
Household questionnaire completed (DB130 =11)	5,700	88.4
Interview not completed (DB130 =21 to 24)	748	11.6
Total interview not completed (DB130 =21 to 24)	748	100.0
Refusal to co-operate (DB130 =21)	434	58.0
Entire household temporarily away (DB130 =22)	274	36.6
Household unable to respond (DB130 =23)	28	3.7
Other reasons	12	1.7
Household questionnaire completed (DB135=1+2)	5,700	100.0
Interview accepted for database (DB135=1)	5,700	100.0
Interview rejected (DB135=2)	-	-

2.3.3.4. Distribution of substituted units

No substitution was applied in our survey

2.3.3.5. Item non-response

For the income variables the initial item non-response was approximately 0.2%. Mostly item non-response was observed in the self-employment income, however due to the limited percentage of non-response we decided to call back the households and their members in order to get the missing information. Hence, in our final data no items missing are included. Also, no imputation was made in the data, as partial information didn’t exist.

In the following table only the percentages of households (per income components collected or compiles at household level) / persons (per income components collected or compiled at personal level) having received an amount for each income component are presented.

Table 61. Item non-response

Total disposable household income	% of households having received an amount
Total disposable household income (HY020)	99.8
Total disposable household income before social transfers except old-age and survivor's benefits (HY022)	99.3
Total disposable household income before social transfers including old-age and survivor's benefit (HY023)	85.5
<i>Net income components at household level</i>	<i>% of households having received an amount</i>
Income from rental of a property or land (HY040N)	16.7
Family related allowances (HY050N)	9.3
Social exclusion not elsewhere classified (HY060N)	6.1
Housing allowance (HY070)	1.2
Interests, dividends, etc. (HY090N)	2.2
Regular inter-household cash transfer received (HY080)	10.1
Income received by people aged < 16 (HY110)	0.1
Taxes on wealth (HY120N)	0.8
Regular inter-household cash transfer paid (HY130)	7.5
Net income components at personal level	% of persons 16+ having received an amount
Employee cash or near cash income (PY010N)	33.9
Net non-cash employee income (PY020N)	0.5
Cash benefits or losses from self-employment (PY050N)	16.1
Pension from individual private plans (PY080N)	0.0
Unemployment benefits (PY090N)	2.4
Old age benefits (PY100N)	21.0
Survivor's benefits (PY110N)	4.1
Sickness benefits (PY120N)	0.5
Disability benefits (PY130N)	1.8
Education-related allowances (PY140N)	0.3
Gross monthly earnings for employees (PY200G)	31.2

2.3.3.6. Total item non-response and number of observations in the sample at unit level of the common cross-sectional European Union indicators based on the cross-sectional component of EU-SILC and for equivalised disposable income

Table 62. Item non-response and number of observations at unit level of the common cross-sectional European Union indicators and for equivalised disposable income

Indicator	Actual sample size	Effective sample size
Mean Equivalised disposable income	15,151	10,778
Risk of poverty threshold: one person household	1,232	1,155
Risk of poverty threshold: household with 2 adults and 2 dependent children	2,716	1,751
Risk of poverty rate by age and gender	15,190	11,156
Risk of poverty rate by most frequent activity and gender	12,454	9,099
Risk of poverty rate by household type	15,151	15,099
Risk of poverty rate by household type: Single households	1,232	1,155
Risk of poverty rate by tenure status	12,767	9,175
Risk of poverty rate by work intensity of the household	12,767	9,175
Risk-of-poverty rate by age and gender before all transfers	15,151	11,261
Risk-of-poverty rate by age and gender before all transfers (including pensions)	15,151	12,379
S80/S20 quintile share ratio	6,285	4,436
Gini coefficient	15,190	5,823

It is noted that following doc EU-SILC 131-rev/04, and more specifically according to the notice 4 in page 11 “people age –1 will be taken into account in the calculation of Female/males age 0”. According to the SAS program for the calculation of indicators the pre-mentioned people haven’t been included. Hence, a difference is present in table 62, compared to table 55 presenting the standard errors.

2.4. Mode of data collection

Mostly, computer assisted personal interviewing (PAPI) technique has been used. The other techniques used are the CAPI (more specifically face-to-face interviews with laptops) and CATI techniques, while the use of self-administered by the respondent technique is very limited (table 64).

• Distribution of household members aged 16 and over

In tables 63 and 64 the distributions of household members aged 16 and over by ‘data status (RB250) and by ‘type of interview’ (RB260) are presented.

Table 63. Distribution of household members (RB245=1¹)

Total	RB250=11 ²	RB250=21 ³	RB250=23 ⁴	RB250=31 ⁵	RB250=32	RB250=33
Total	12,606	3	16	71	8	2
%	99.2	0.0	0.1	0.6	0.1	0.0
Rotation 1	RB250=11	RB250=21	RB250=23	RB250=31	RB250=32	RB250=33
Total	2,890	-	2	11	-	-
%	99.5	-	0.1	0.4	-	-
Rotation 2	RB250=11	RB250=21	RB250=23	RB250=31	RB250=32	RB250=33
Total	3,052	-	3	16	-	-
%	99.4	-	0.1	0.5	-	-
Rotation 3	RB250=11	RB250=21	RB250=23	RB250=31	RB250=32	RB250=33
Total	3,889	2	10	39	8	2
%	98.5	0	0.3	1.0	0.2	0
Rotation 4	RB250=11	RB250=21	RB250=23	RB250=31	RB250=32	RB250=33
Total	2,775	1	1	5	-	-
%	99.8	0	0	0.2	-	-

¹ 1= Current households members aged 16 and over

² 11= Information completed only from interview

³ 21=Individual unable to respond (illness, incapacity, etc.) and no proxy possible

⁴ 23= Refusal to cooperate

⁵ 31=Person temporarily away and no proxy possible

Table 64. Distribution of household members (RB245=1)

Total	RB260=1 ⁶	RB260=2 ⁷	RB260=3 ⁸	RB260=4 ⁹	RB260=5 ¹⁰
Total	8,717	3,078	311	-	500
%	69.1	24.4	2.5	0	4.0
Rotation 1	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5
Total	1,846	797	109	-	138
%	63.9	27.5	3.8	0	4.8
Rotation 2	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5
Total	2,126	705	90	-	131
%	69.7	23.1	2.9	0	4.3
Rotation 3	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5
Total	2,822	918	34	-	115
%	72.6	23.6	0.8	0	3.0
Rotation 4	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5
Total	1,923	658	78	-	116
%	69.3	23.7	2.8	0	4.2

⁶ 1= Face to face interview - PAPI

⁷ 2= Face to face interview – CAPI

⁸ 3 = CATI

⁹ 4 = Self-administered by respondent

¹⁰ 5 = Proxy interview

2.5. Interview duration

The mean interview duration per household was estimated at 58.06 min. The average has been calculated according to the duration being registered in the questionnaires as the sum of the duration of the household interviews plus the sum of the duration of all personal interviews, divided by the number of household questionnaires completed and accepted for database. The time needed for the data entry of the questionnaires in the computer (PAPI interview) has not been taken into account.

3. COMPARABILITY

3.1 Basic concepts and definitions

The reference population

The reference population is all citizens officially living at Greek territory (population de facto). The source of our sample is the Census Population. This Census includes all private households and their current members residing in the territory, independently of any socio-economic characteristics they may have. Persons living in collective households and in institutions are excluded from the target population, as well as households having members diplomatic missionaries.

The private household definition

The definition of household that Eurostat recommends is used. Household is defined as a person living alone or a group of people who live together in the same dwelling and share expenditures including the joint provision of the essentials of living.

The household membership

All household members of 16 year and older at the time of the interview, are selected for a personal interview.

Subject to the further and specific conditions shown below, the following persons must if they share household expenses, be regarded as household members:

- Persons usually resident, related to other members
- Persons usually resident, not related to other members
- Resident boarders, lodgers, tenants
- Visitors
- Line-in domestic servants, au-pairs
- Persons usually resident, but temporarily absent from the dwelling (for reasons of holiday travel, work, education or similar)
- Children of the household being educated away from home
- Persons absent for long periods, but having household ties : persons working away from home
- Persons temporarily absent but having household ties: persons
- in hospital, homes or other institutions

Further conditions for inclusion as household members are as follows:

(a) Categories 3,4, and 5:

Such persons must currently have no private address elsewhere; or their actual or intended duration of stay must be six months or more.

(b) Category 6:

Such persons must currently have no private address elsewhere and their actual or intended duration of absence from the household must be less than six months.

(c) Category 7 and 8:

Irrespective of the actual or intended duration of absence, such persons must currently have no private address elsewhere, must be the partner or child of a household member and must continue to retain close ties with the household and must consider this address to be his/her main residence.

(d) Category 9:

Such person must have clear financial ties to the household and must be actually or prospectively absent from the household for less than six months.

- *Shares in household expenses*

Share in household expenses include benefiting from expenses (e.g. children, persons with no income) as well as contributing to expenses. If expenses are not shared, then the person constitutes separate household at the same address.

- *Usually resident*

A person shall be considered as a usually resident member of the household if he/she spends most of his/her daily rest there, evaluated over the past six months. Persons forming new households or joining existing households shall normally be considered as members at their new location; similarly, those leaving to live elsewhere shall no longer be considered as members of the original household. The abovementioned 'past six month' criteria shall be replaced by the intention to stay for a period of six months or more at the new place of residence.

- *Intention to stay for a period of six months or more*

Account has to be taken of what may be considered as 'permanent' movements in or out of households. Thus a person who has moved into a household for an indefinite period or with their intention to stay for a period of six months or more shall be considered as a household member, even though the person has not yet stayed in the household for six months, and has in fact spent a majority of that time at some other place of residence. Similarly, a person who has moved out of the household to some other place of residence with the intention of staying away for six months or more, shall no longer be considered as a member of the previous household.

- ***Temporarily absent in private accommodation***

If the person who is temporarily absent is in private accommodation, then whether he/she is a member of this (or other) household depends on the length of the absence. Exceptionally, certain categories of persons with very close ties to the household may be included as members irrespective of the length of absence, provided they are not considered members of another private household.

In the application of these criteria, the intention is to minimize the risk that individuals who have two private addresses at which they might potentially be enumerated are not double-counted in the sampling frame. Similarly, the intention is to minimize the risk of some persons being excluded from membership of any household, even though in reality they belong to the private household sector.

The income reference period used

The income reference period is a fixed twelve-month period, namely the previous calendar year. For SILC 2005; the income reference period is the year 2005.

The period for taxes on income and social insurance contributions

This is also fixed twelve-month period, namely the previous calendar year. For SILC 2006, the period is the year 2005.

The reference period on taxes on wealth

The reference period on taxes on wealth is the previous calendar year (2005).

The lag between the income reference period and current variables

The income reference period is the previous calendar year (year 2005) and the current variables refer to the fieldwork period (April - June 2006). Therefore the lag is at minimum 3 months and at maximum 6 months.

Total duration of the data collection of the sample

The interviews were carried out starting 1 April and ending 30 June.

Basic information on activity status during the income reference period

This information can be obtained by combining the answer for question 19 (PL030) with the answer for question 49 (calendar question),(PL210A—PL210K)

3.2 Components of income

3.2.1 Income definitions

Total household gross income

$$HY010G = PY010G + PY050G + PY090G + PY100G + PY110G + PY120G + PY130G + PY140G + HY040G + HY050G + HY060G + HY070G + HY080G + HY090G + HY110G.$$

We collected gross income for approximately the 20% of income variables but we didn't calculate total household gross income, so this factor is zero in total disposable household income.

Total household net income

$$HY010N = PY010N + PY050N + PY090N + PY100N + PY110N + PY120N + PY130N + PY140N + HY040N + HY050N + HY060N + HY070N + HY080N + HY090N + HY110N.$$

Total disposable household income

$$HY020 = HY010 - HY145 - HY130 - HY120$$

Total disposable household income, before social transfers other than old age and survivors' benefit

$$HY022 = HY020 - PY090N + PY120N + PY130N + PY140N - HY050N - HY060N - HY070N$$

Total disposable household income, before social transfers including old age and survivors' benefit

$$HY023 = HY020 - PY090N + PY120N + PY130N + PY140N + PY100N + PY110N - HY050N - HY060N - HY070N.$$

Imputed rent (HY030N)

Questions 8 or 9 (income ranges) of the household questionnaire. The respondent provides the figure and the interviewer checks the answer according to the rents prevailing in the specific area. However, we didn't count it in the total disposable household income.

Income from rental of property or land (HY040N)

Asked as Eurostat recommends, Income from rental of a property or land refers to the income received, during the income reference period, from renting a property (for example renting a dwelling –not included in the profit/loss of unincorporated enterprises- receipts from boarders or lodgers, or rent from land) after deducting costs such as mortgage interest repayments, minor repairs, maintenance, insurance and other charges.

Family/children related allowances (HY050N)

Family / children related allowance includes:

- Lifelong pension for mothers having more than 3 children
- Allowance for families having 3 children
- Allowance for families having more than 3 children
- Family allowances for public servants
- Incapacitated relatives care benefit
- Pregnancy-puerperal benefit
- Parental leave allowance
- Birth grant
- Marriage benefit (lump-sum)

The allowance for family public servants, the allowance for pregnancy-puerperal and the allowance for parental leave, if registered to the particular question, will not be included to the income of employees.

Social exclusion payments not elsewhere classified (HY060N)

Social benefits in the function 'social exclusion not elsewhere classified include:

- Assistance – lump sum – to poor households in mountainous and disadvantageous areas
- Allowances to children under 16 years old who live in poor households (pre-school and school allowance)
- Allowance to repatriates
- Allowance to refugees
- Allowance to persons released from prison
- Allowance to drug-addicts and alcoholics
- Allowances to long-standing unemployed aged 45-65
- Allowance of social solidarity for pensioners
- Assistance to households having faced earthquake, flood, etc.

Housing allowances (HY070N)

The housing allowances include:

- Benefits paid to bank clerks or public servants working in border areas, or to military servants
- Rent benefit, a means-tested transfer by a public authority to tenants, based on income
- Rent benefit, transfer by a public authority to households having faced an earthquake, flood, etc, independently of income
- Benefit to owner-occupiers: a means-tested transfer by a public authority to owner-occupiers to alleviate their current housing costs: in practice help with paying mortgages and/ or interest and/or rehabilitation subsidy and/or a building subsidy.
- Subsidy of interest rate for loans of first dwelling.

It excludes:

- Social housing policy organized through the fiscal system
- All capital transfers (in particular investment grants).

Regular inter - household cash transfers received (HY080N)

Regular inter-household cash transfers received refer to regular monetary amounts received, during the income reference period, from other households or persons. More specifically, we asked for “alimony –compulsory or voluntary”, “child support, for children residing away from home” and in general for any regular cash support.

Interest, dividends, profit from capital investments in incorporated businesses (HY090N)

Interests, dividends, profits from capital investment in an unincorporated business refer to the amount of interest from assets such as bank accounts, certificates of deposit, bonds, etc, dividends and profits from capital investment in an unincorporated business, in which the person does not work, received during the income reference period less expenses incurred.

Interest paid on mortgage (HY0100N)

Interest paid on mortgage is not collected.

Income received by people aged under 16 (HY0110N)

Income received by people aged under 16 is defined as the gross income received by all household members aged under sixteen during the income reference period. Income received from other household members for work in the family business is not included.

Regular taxes on wealth (HY0120N)

Regular taxes on wealth refers to taxes that are paid periodically on the ownership or use of land or buildings by owners. The regular taxes on wealth provided will be those paid during the income reference period.

Regular inter-household transfers paid (HY0130N)

Regular inter-household cash transfers paid refer to regular monetary amounts paid, during the income reference period to other households or persons. More specifically, we asked for “alimony –compulsory or voluntary”, “child support, for children residing away from home” and in general for any regular cash support.

Tax on income and social insurance contributions (HY0140N)

Tax on income refers to taxes on income, profits and capital gains. They are assessed on the actual or presumed income of individuals, households or tax-unit. They include taxes assessed on holdings of property, land or real estate when these holdings are used as a basis for estimating the income of their owners.

Taxes on income include:

- Taxes on individual, household or tax-unit income (income from self-employment, property, entrepreneurship, pensions, etc.) included taxes deducted by employers (pay-as-you earn taxes) other taxes at source and taxes on the income of owners of unincorporated enterprise paid during the income reference period.
- Tax reimbursement received during the income reference period related to tax paid for the income received during the income reference period or for income received in previous year. This value will be taken into account as a reduction of taxes paid.
- Any interest charged on arrears of taxes due and any fines imposed by taxation authorities.

Social insurance contributions refer to employees' and self-employed contributions paid during the income reference period to either mandatory government or employer-based insurance schemes (pension, health, etc.).

We have also taken into account of the money that people have received from the taxes or that people have paid to the taxes in 2005 (based on their income of the year 2004).

Repayments/receipts for tax adjustments (HY0145N)

Repayments/receipts for tax adjustments refer to the money paid to/received from Taxes Authorities related to the income received.

Cash or near-cash employee income (PY010N)

Employee cash or near cash income refers to the monetary component of the compensation of employees in cash payable by an employer on behalf of the employee to social insurance schemes or tax authorities.

Included are:

- Wages and salaries paid in cash for time worked or work done in main and any secondary or casual job(s)
- Overtime
- Commission and tips
- Piece rate payments
- Payments for fostering
- Profit sharing and bonuses
- Allowance for working in remote locations, for transport
- Remuneration for time not worked (e.g. holiday payments)
- Additional payments based on productivity
- Supplementary payments (e.g. thirteenth month payment)
- Marriage allowance
- Allowance to the workers in the building constructions

Excluded are:

- Reimbursements made by the employer for work-related expenses (e.g. business travel)
- Severance and termination pay to compensate employees for employment ending before the employee has reached the normal retirement age for that job and redundancy payments
- Allowances for purely work-related expenses such as those for travel and subsistence or for protective clothes

- Lump sum payments at the normal retirement date
- Union strike pay

Non-cash employee income (PY020N)

Gross non-cash employee income includes only the company car and associated costs (e.g. car insurance, taxes and duties), provided for either private use or both private and work use.

Information on the following items has also been collected, but not included, for:

- Free of charge or contribution meals within working hours
- Reduced values for electricity, telephone, water etc
- Produced goods provided free of charge or with reduced price to employees,

However they haven't been counted in the variable "non-cash employee income" except company car.

Employers' social insurance contribution (PY 035N)

Information on the items has been collected, but not included.

Cash profits or losses from self-employment (including royalties) (PY050N)

It includes:

- Net operating profit or loss accruing to working owners of, or partners in, an unincorporated enterprise, less interest on business loans.
- Royalties earned on writing, inventions, and so on not included in the profit/loss of unincorporated enterprises.
- Rentals from business buildings, vehicles, equipment, etc not included in the profit/loss of unincorporated enterprises, after deduction of related costs such as interest on associated loans, repairs and maintenance and insurance charges.

Value of goods produced for own consumption (PY070N)

The value of goods produced for own consumption refers to the value of food and beverages produced and also consumed within the same household.

The value of goods produced for own consumption are calculated as the market value of goods produced deducting any expenses incurred in the production, not being though counted in total income. The item however has not been included in the data files.

Unemployment benefits (PY090N)

- As unemployment benefits included are:
- Full unemployment allowance
- Partial unemployment allowance
- Early retirement for labour market reasons
- Allowance vocational training for unemployed
- Reimbursement due to dismissal from work
- Seasonal unemployment benefit for persons seasonally working (e.g. actresses, musicians, building workers, hotel staff, etc.)
- Allowance for young persons aged 20-29 years
- Allowance of military service

- Placement, resettlement or rehabilitation benefit
- Any other benefit replacing in whole or in part income lost by a worker due to loss of gainful employment.

Old-age benefit (PY100N)

Old age benefit includes:

- Old age pension from public sector
- Supplementary pension from public sector
- Early retirement pension due to resignation
- Care allowance
- Parallel pension from private sector (paid by the employer)
- Lump sum due to retirement
- National resistance pension
- Any other old age benefit providing a replacement income when the aged person retires from the labour market, or guarantee a certain income when a person has reached a prescribed age.

Survivors' benefits (PY110N)

It includes:

- Old age pension from public sector
- Supplementary pension from public sector
- Parallel pension from private sector (paid by the employer)
- Orphans pension
- Pension of war victims

Sickness' benefits (PY0120N)

Included are:

- Paid sick leave
- Benefit for working accidents
- Benefit for spa therapy, airing etc.
- Assistance for movement of sick persons

Disability benefits (PY0130N)

Included are:

- Disability pension
- Benefit for persons with special needs
- Care allowance for incapacitated persons
- Care allowance for incapacitated children
- Nutrition allowance for people suffering kidney's disease
- Any other cash benefit

Education-related allowances (PY0140N)

It includes:

- Benefit received for participation in research programs
- Scholarships

Gross monthly earnings from employees (PY0200G)

It refers to the monthly amount in the main job for employees. It includes usual paid overtime, tips, profit share, bonuses. Information on gross monthly earnings for employees has been used only for the calculation of gender pay gap.

3.2.2. Other definitions

Capacity to face unexpected financial expenses (HS060)

Household members' were asked if they had financial difficulties facing unexpected but necessary expenses, such as the repair or replacement of the refrigerator, the washing machine, the car, etc. As far as the amount of this unexpected expense is concerned, it shouldn't exceed 400€ (the monthly low income) and should be covered solely from members' savings and not from loans made from relatives, friends or bank.

3.2.3. Variables not being collected but imputed

Company car assessment (PY020)

The benefit for individuals of using a company car for private goals was not directly assessed at the interview but afterwards calculated by applying the depreciation method. According to doc. EU-SILC 130/04 the main idea of the method was to impute to the employee the amount the recipient would have to pay over the reference period to enjoy the same benefit from the use of own vehicle.

More specifically:

- $\text{Depreciation} = (\text{Purchase prices} - \text{selling prices at } X) / X.$
- Where X is the average age of a company car.

To calculate the “purchase price” and the “selling price”, the make, the model, the registration year and other characteristics of the car have been used. A list of prices or manufacturer's recommended retail prices have been used for a wide range of new cars. If a specific type of car was not included in the list, the RRP has been available from the manufacturer's website. If a RRP was not available in the country, then it was estimated based on the price of a similar car or the price relative to other cars in the country with the similar pricing structure. The list price included VAT and vehicle registration tax. For calculating the “average age of a company car” an average of 5 has been considered.

Housing cost (HH070)

This term housing cost refers to monthly costs connected with the households right to live in the accommodation. The costs of utilities (water, electricity, gas and heating) resulting from the actual use of the accommodation are also included.

A linear model estimated the housing cost in the EU-SILC survey. In detail, the parameters of the linear model were estimated using data from Household Budget Survey 2004/05. The independent variables that were used were: Actual rent paid, utility bills, repairs and other expenses, mandatory services and charges, mortgage interest payments.

The estimated linear model was applied to the data of EU-SILC producing estimates of the housing cost, of similar households.

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

All income variables were collected by interview

3.2.5. 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)

Table 65. The form in which income variables at component level have been obtained. %

Target variable	Variable name	Unit of measurement	Gross	Net of taxes on income at source and social contributions	Net and gross	Net of taxes on income at source	Net of social contributions	Unknown	How the amount is recorded
Employee Cash or near cash Income in reference period	PY010	Individual level	-	75.5	24.5	-	-	-	Net
Non-Cash Employee income (Company car)	PY020	Individual level			Imputation				Net
Net Cash Income benefits/Losses from self-employment (including profit/loss from unincorporated enterprise, royalties)	PY050	Individual level	3.2	75.0	-	7.1	2.8	11.9	Net
Property income (Regular pension from Private (non-ESSPROS) schemes))	PY080	Individual level	-	-	-	100	-		Net
Unemployment Benefits	PY090	Individual level	-	100	-	-	-	-	Net
Old-age benefits	PY100	Individual level	2.3	69.9	-	0.9	2.3	24.6	Net

Table 65 – continued. The form in which income variables at component level have been obtained. %

Target variable	Variable name	Unit of measurement	Gross	Net of taxes on income at source and social contributions	Net and gross	Net of taxes on income at source	Net of social contributions	Unknown	How the amount is recorded
Survivor's Benefits	PY110	Individual level	2.4	60.2	-	3.1	6.0	28.3	Net
Sickness Benefits	PY120	Individual level	-	100.0	-	-	-	-	Net
Invalidity Benefits	PY130	Individual level	2.4	66.5	-	1.2	6.9	23.0	Net
Education-related Allowances	PY140	Individual level	-	100.0	-	-	-	-	Net
Income from rental of a property or land	HY040	Household level	13.8	35.5	-	2.9	47.8	-	Net
Family/children related allowances	HY050	Household level	2.9	79.9	-	2.2	0.2	14.8	Net
Social exclusion not elsewhere classified	HY060	Household level	-	100.0	-	-	-	-	Net
Housing allowances	HY070	Household level	-	100.0	-	-	-	-	Net
Regular inter-household cash transfer received	HY080	Household level	6.6	-	-	62.1	-	31.3	Net
Net interest, dividends, profit from capital investments in unincorporated business	HY090	Household level	31.0	-	-	45.9	-	23.1	Net
Income received by people aged under 16	HY110	Household level	20.0	80.0	-	-	-	-	Net
Regular inter-household cash transfer paid	HY130	Household level	26.0	-	-	56.6	-	17.4	Net

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

Only net amounts are obtained and sent. However, this year (2006) we plan to design a model on net-gross and gross-net conversion of all income variables, also being the target aim of the survey.

3.3. Tracing rules

It has been applied the Commission regulation (EC) no 1982/2003 of 21 October 2003 regarding the tracing rules.

4. COHERENCE

Coherence refers to the comparison of target variables and of the number of persons who receive income from each income component, with external sources (both administrative data and data from other surveys) being considered as reliable.

4.1. Change between SILC 2006 and SILC 2005 by main income component

In general, in mean household disposable income of the reference years (2004 and 2005) there has been an increase (5,4 %) observed, where the taxable household income was increased by 6,1%, due to general problematic recording of self employed income (table 66).

Table 66 . Change between SILC 2006 and SILC 2005 by main income component

Income component	%
HY020N	5.4
HY022N	5.2
HY023N	5.4
PY010N	1.5
PY050N	2,0

4.2. Significant differences in some indicators between EU- SILC 2005 and 2006

Table 67 displays significant differences existing in some indicators of EU-SILC 2005 and EU-SILC 2006. The differences between indicators cannot totally be explained. However, it should be noted that:

- The increase can be attributed to the increase of the total poverty indicator.
- Concerning the decrease of the at risk poverty indicator at-risk-of-poverty rate by household type (single parent, ≥ 1 dep children), it can be attributed to the variable having no high frequency and as a result the changes from year to year may be due to the sample process (see the estimated CV).
- Concerning the increase of the poverty gap in age group 0-15, we consider it is due to the slight difference of the total poverty indicator.

Table 67. Significant differences in some indicators between SILC 2005 and SILC 2004

Indicators	Differences 2005/06	CV (%)
At-risk-of-poverty rate by household type (single parent, ≥ 1 dep children)	Decrease c. 12,5 (from 40,6 to 28,1)	11.44
At-risk-of-poverty rate by household type (2 adults, ≥ 3 dep children)	Increase c. 5.0 (from 31,8 to 36.8)	4.46
At-risk-of-poverty median gap, aged 0-15	Increase c. 3.6 (from 22.5 to 26.1)	-

4.3. Comparison of common indicators from EU-SILC 2006 and HBS 2004/05

- The risk-of-poverty indicator has been calculated from the HBS 2004/2005 data and has been found to be the same as the one of EU-SILC 2006, being approximately 20.0%.
- The poverty threshold is 5,910 € while according to the HBS 2004 data it is 5,430 €.
- Also, indicator S80/S20 is 6.1 while for the HBS 2004 it has been estimated to 5.9. Gini indicator is 34.3 and 33.7. respectively.

We note that for the Household Budget Survey the pre-mentioned indicators have been estimated from consumer expenditure and not from income.

4.4. Comparison of income target variables – EU SILC 2005 and 2006

Table 68. Comparison of income target variables – EU SILC 2005 and EU SILC 2006

	EU SILC 2005 (mean)	EU SILC 2006 (mean)	Sums 2005 (in million Euros)	Sums 2006 (in million Euros)
Total disposable household income (HY020)	19,267.85	20,315.72	76,985.14	81,456.13
Total disposable household income before social transfers except old-age and survivor's benefits (HY022)	18,740.54	19,712.77	74,878.25	79,038.61
Total disposable household income before social transfers including old-age and survivor's benefit (HY023)	14,295.98	15,072.19	57,119.92	60,432.14
Income from rental of a property or land (HY040N)	889.72	1,083.40	3,554.91	4,343.91

Table 68 continued. Comparison of income target variables – EU SILC 2005 and EU SILC 2006

	EU SILC 2005 (mean)	EU SILC 2006 (mean)	Sums 2005 (in million Euros)	Sums 2006 (in million Euros)
Family related allowances (HY050N)	121.24	130.15	484.41	521.85
Social exclusion not elsewhere classified (HY060N)	69.93	98.82	279.39	396.22
Housing allowance (HY070N)	11.03	16.16	44.06	64.81
Regular inter-household cash transfer received (HY080N)	357.16	432.57	1,427.05	1,734.41
Interests, dividends, etc. (HY090N)	40.65	68.53	162.41	274.80
Income received by people aged < 16 (HY110)	0.98	2.68	3.93	10.77
Taxes on wealth (HY120N)	4.66	4.82	18.62	19.36
Regular inter-household cash transfer paid (HY130N)	481.43	394.71	1,923.57	1,582.61
Net income components at personal level				
Employee cash or near cash income (PY010N)	4,212.87	4,276.55	37,772.18	38,830.92
Non cash income (PY020N)	9.87	9.80	88.47	89.02
Cash benefits or losses from self- employment (PY050N)	2,094.20	2,135.65	18,776.88	19,391.63
Pension from individual private plans (PY080N)	4.86	3.35	43.62	30.46
Unemployment benefits (PY090N)	50.91	47.37	456.49	430.16
Old age benefits (PY100N)	1,690.17	1,792.77	15,154.34	16,278.34
Survivor' benefits (PY110N)	295.76	262.62	2,651.85	2,384.59
Sickness benefits (PY120N)	9.42	9.13	84.42	82.92
Disability benefits (PY130N)	76.18	93.20	683.02	846.26
Education-related allowances (PY140N)	9.54	9.38	85.52	85.25
Gross monthly earnings for employees (PY200G)	1,188.21	1,224.34	3,354.46	3,467.83

Table 69. Comparison of the total equivalized disposable household income(deciles). EU-SILC 2005 and EU-SILC 2006

Total equivalised disposable household income			
	EU- SILC 2005	EU-SILC 2006	Gchange
Number of households	3,995,523	4,009,513	0,4
Mean	10,935.66	11,469.58	4,9
Standard deviation	7,696.10	8,466.50	10,0
10%	2,598.94	2,790.83	7,4
20%	4,868.15	5,111.92	5,0
30%	6,255.42	6,476.81	3,5
40%	7,457.24	7,692.86	3,2
50%	8,573.47	8,982,26	4,8
60%	9,911.44	10,354,54	4,5
70%	11,537.77	12,024,57	4,2
80%	13,709.78	14,218,37	3,7
90%	16,803.61	17,530,77	4,3
100%	27,676.34	29,445,96	6,4

Table 70. Comparison of the total equivalized disposable household income(quintiles). EU-SILC 2005 and EU-SILC 2006.

Total equivalised disposable household income			
	EU- SILC 2005	EU-SILC 2006	Gchange
Number of households	3,995,523	4,009,513	0,4
Mean	10,935.66	11,469.58	4,9
Standard deviation	7,696.10	8,466.50	10,0
20%	3,733.55	3,950.97	5,8
40%	6,856.33	7,087.84	3,4
60%	9,242.46	9,667.77	4,6
80%	12,623.78	13,121.60	3,9
100%	22,239.98	23,534.00	5,8

4.5. Comparison of income target variables and number of persons who receive income from each “income component”, with external sources

Table 71. Comparison of income target variables and number of persons who receive income from each “income component”, with external sources

Income component	Number of persons who receive from income component in survey data	Number of persons who receive from income component in administrative data	Notes
Employee cash or near cash income in reference period	3,078,675	2,940,000	The difference can be attributed either to farmers working with salaries/wages or to persons also working part time in secondary jobs and do not declare their income or to illegal immigrants
Non-cash Employee income (company car)	46,995	27,405 (HBS 2004/005)	
Net Cash Income benefits/Losses from self-employment (including profit/loss from unincorporated enterprise, royalties)	1,424,584	1,403,211 (administrative data)	

Table 71 - continued. Comparison of income target variables and number of persons who receive income from each “income component”, with external sources

Income component	Number of households that receive from income component in survey data	Number of households that receive from income component in administrative data	Notes
Property income ((Regular pension from Private (non-ESSPROS) schemes))	4,510	5,500	According to information from private insurance companies
Unemployment benefits	215,361	269,242 (HBS 2004) 300,000 (administrative data)	
Old-age benefits	1,905,784	2,138,110 (Association of personnel of social organizations)	
Survivor's Benefits	376,228		
Invalidity Benefits	162,271		
Sickness Benefits	41,402	28,014 (HBS 2004)	As also pre-mentioned sickness benefits are in a large percentage included in employees' income.
Education-related Allowances	24,223	23,142 (HBS 2004)	

Table 71- continued. Comparison of income target variables and number of persons who receive income from each “income component”, with external sources.

Income component	Number of households that receive from income component in survey data	Number of households that receive from income component in administrative data	Notes
Income from rental of a property or land	673,727	670,177 (Administrative data from tax returns)	
Regular taxes on wealth	30,947	38,808 (Administrative data from tax returns)	

Table 72. Comparison of income target variables and number of households and persons who receive income from each “income component”, EU – SILC 2005 and EU – SILC 2006.

Income component	Number of persons who receive from income component in survey data	Number of persons who receive from income component in administrative data
	EU- SILC 2005	EU- SILC 2006
Employee cash or near cash Income in reference period	3,092,817	3,078,675
Non-cash Employee income (company car)	49,607	46,995
Net Cash Income benefits/Losses from self-employment (including profit/loss from unincorporated enterprise, royalties)	1,443,189	1,463,604
Income component	Number of persons who receive from income component in survey data	Number of persons that receive from income component in administrative data
Property income ((Regular pension from Private (non-ESSPROS) schemes))	6,930	4,510
Unemployment Benefits	232,823	215,361
Old-age benefits	1,877,216	1,905,785
Survivor’s Benefits	398,609	376,229
Invalidity Benefits	131,291	162,271
Sickness Benefits	41,749	41,402
Education-related Allowances	14,855	24,223

Table 72 continued. Comparison of income target variables and number of households and persons who receive income from each “income component”. EU – SILC 2005 and EU – SILC 2006.

Income component	Number of households that receive from income component in survey data	Number of households that receive from income component in administrative data
Income from rental of a property or land	650,103	670,177
Family/children related allowances	372,981	373,356
Social exclusion not elsewhere classified	193,528	243,439
Housing allowances	33,976	47,789
Net interest, dividends, profit from capital investments in unincorporated business	104,612	87,465
Income received by people aged under 16	1,044	2,931
Regular taxes on wealth	2,7209	30,947
Regular inter- household cash transfer paid	352,746	301,964
Regular inter- household cash transfer received	361,012	406,207

- **Mean equivalized income**

The annual mean equivalized income of 2005 was calculated in the survey in 11,469.58 euro and from the Bank of Greece (estimated value) the respective amount (not including rural areas) was found to be 12,413.41 euro.

- **Family allowances**

We made comparisons for household family allowances, with administrative data and we found out that only the 80 % of them has been recorded. As far as the pension for mothers having more than 3 children is concerned it has been recorded accurately (Table 73).

Table 73. Comparison of number of persons who receive income from family allowances with external sources

Family allowances	Number of persons that received the family allowances in survey data	Number of persons received the family allowances in administrative data
Life long pension for mothers with more than 3 children	198,238	192,908
Allowance for mothers having more than 3 children	43,680	86,810
Allowance for mothers having third child	34,199	52,581
Total	276,117	332,299

- **Unemployment benefit**

Comparisons have been made for unemployment benefits with administrative data (approximately 300,000), while the survey were found 215,361 persons.

- **Social solidarity for pensioners**

As far as the social solidarity benefit for pensioners is concerned, according to administrative data 235,961 persons (information of the main insurance scheme IKA) received it in 2005 (EU-SILC 2006), while from the survey the relative number is 243,440 persons, having in mind that IKA gives that the 80% of that allowance.

- **ESPROSS**

In general, deviations from ESPROSS's data are accepted and are attributed to the fact that ESPROSS's data are from administrative data while the other are from a sample of households.

4.6. Comparison of other quality target variables

Below are presented tables proving that the most quality target variables are in coherence with variables collected from other surveys (LFS – 2nd quarter of 2006, HBS 2004/05) making thus the survey robust.

Table 74. Variable PL030: “Self-defined current activity status”
%

Self-defined current activity status	HBS 2004-2005	EU-SILC 2006	LFS 2006
At work (Full + Part time)	44.1	47.9	48.5
Unemployed	4.1	5.6	5.3
Non economically active	51.8	46.5	46.2

Table 75. Variable PL060: “Number of hours usually worked per week in main job”
%

	EU-SILC 2006	HBS 2004/05	LFS 2006
Number of hours usually worked per week in main job	42.7	42.2	42.7

Table 76. Variable PL130: “Number of persons working in the local unit”
%

Number of persons working in the local unit	EU-SILC 2006	LFS 2006
1-10 persons	59.5	56.7
11-19 persons	12.1	10.6
20-49 persons	9.7	7.1
50 persons or more	13.1	10.4
Don't know but fewer than 11 persons	1.8	5.7
Don't know but more than 10 persons	3.8	9.6

Table 77. PL040: “Status in employment”
%

Status in employment	HBS 2004-2005	EU-SILC 2006	LFS 2006
Self employed with employees	6.1	4.7	8.2
Self employed without employees	22.0	25.1	21.6
Employee	67.1	62.8	63.7
Family worker	4.8	7.4	6.5

Table 78. PE040: “Highest ISCED level attained”
%

Highest ISCED level attained	EU-SILC 2006	LFS 2006
Never attended any level of education	2.9	2.7
Primary education	34.7	33.6
Lower secondary education	12.7	11.9
Upper secondary education	29.3	29.4
Post secondary non tertiary education	4.4	5.9
First stage of tertiary education	15.7	16.4
Second stage of tertiary education	0.3	0.3

Table 79. PL050 : ‘Occupation’
%

Occupation	HBS 2004-2005	EU-SILC 2006	LFS 2005
Legislators and senior officials-Corporate managers	7.1	7.7	10.3
Physical, mathematical, engineering science and other professionals	11.4	15.4	14.2
Physical, engineering science associate professionals and other associate professionals	5.4	7.1	8.4
Office clerks and customer services clerks	14.7	9.8	11.7
Personal and protective services workers, models, salespersons and demonstrators miscellaneous	19.2	14.0	13.5
Skilled agricultural and fishery workers	11.0	15.1	11.6
Extraction and building trades workers, other craft and related trades workers. Metal machinery and related trades workers. Precision, handicraft, printing and related trades workers	15.7	16.0	14.7
Stationary-plant and related operators, drivers and mobile plant operators, machine operators and assemblers	6.0	6.3	7.7
Sales and services elementary occupations, agricultural, fishery and related labourers in mining, construction, manufacturing and transport	8.4	7.6	6.6
Armed forces	1.1	1.0	1.3

Table 80. PL110: “Economic activity”

%

Economic activity	HBS 2004-2005	EU-SILC 2006	LFS 2006
Agriculture, hunting and forestry	11.1	14.9	11.7
Fishing	0.3	0.3	0.3
Mining and quarrying	0.3	0.5	0.4
Manufacturing industry	11.5	10.6	12.7
Electricity, gas and water supply	1.2	1.1	0.9
Construction	9.4	8.4	8.1
Wholesale and retail trade	18.4	19.0	17.7
Hotels and restaurants	6.2	6.3	6.8
Transport, storage and communication	7.1	5.6	6.3
Financial intermediation	2.7	1.7	2.6
Real estate	5.5	6.1	6.4
Public administration	9.1	8.6	8.6
Education	6.1	7.0	7.4
Health and social work	4.5	5.1	5.1
Other community,social and personal service activities	3.7	3.2	3.4
Private households with employed persons	2.7	1.5	1.6
Extra-territorial organizations and bodies	0.2	0.1	0.0

Table 81. Household by size

%

Households type	HBS 2004-2005	EU-SILC 2006	LFS 2006
One person household	20.3	20.8	25.4
Two persons household	31.9	30.9	30.6
Three persons household	20.9	19.7	19.1
Four persons household	19.4	19.8	18.6
Five persons household	5.3	5.9	4.6
More than six persons household	2.2	2.8	1.7

Table 82. HH020: “Tenure status”

%

Tenure status	HBS 2004 -2005	EU-SILC 2006
Owner	80.0	83.7
Tenant	20.0	16.3

Table 83. HH080: “Bath or shower in dwelling”

%

Bath or shower in dwelling	HBS 2004 -2005	EU-SILC 2006
Yes	98.2	98.2
No	1.8	1.8

Table 84. HH090: “Indoor flushing toilet for sole use of household”

%

Indoor flushing toilet for sole use of household	HBS 2004 -2005	EU-SILC 2006
Yes	94.8	96.5
No	5.2	3.5

Table 85. HH010: “Dwelling type”

%		
Dwelling type	HBS 2004 -2005	EU-SILC 2006
Detached house	32.7	39.7
Semidetached house	10.8	10.7
Apartment or flat	56.0	49.5
Some other kind of accommodation	0.5	0.1

Table 86. “Non monetary household deprivation”

%		
Non monetary household deprivation	HBS 2004 -2005	EU-SILC 2006
Telephone	0.5	0.9
Colour TV	1.3	0.6
Computer	19.0	13.3
Washing machine	6.7	3.1
Car	15.0	10.8

Table 87. Variable PL015: “Have you ever worked” (for persons not working but having worked in the past)

%		
Have you ever worked	EU-SILC 2006	LFS 2006
Yes	62.2	52.8
No	37.8	47.2

The number of persons not working at present, but having worked in the past, estimated from the Labour Force Survey is considered as more accurate, than the one of the EU-SILC since the coefficient of variation of the specific characteristic from the EU-SILC is 1.4 while the one from the LFS is 0.7.

Table 88. Variable PL120: “Reason for working less than 30 hours per week”

%		
Reason for working less than 30 hours per week	EU-SILC 2006	LFS 2006
Number of persons working less than 30 hours per week	10.6	7.7

We consider EU-SILC data more qualitative, as the LFS surveys, in the past 3 years, show that the percentage of persons working less than 30 hours per week remains stable. Also, the LFS shows very low percentages of persons working in part time jobs, in retail commerce, hotels and restaurants and in education, while by inference it is accepted that the percentages are higher.

Table 89. Variable PL140: “Type of contract”

%

As far as the percentage of persons in permanent work is concerned the one calculated from the LFS is considered as more accurate, since the coefficient of variation of it is 0.4 while that of SILC 1.3.

Type of contract	EU-SILC 2006	LFS 2006
Permanent job / work contract of unlimited duration	76.2	89.1
Temporary job/work contract of limited duration	23.8	10.9

- Variable PL150: “Managerial position”

Since this is a rare characteristic in both surveys (EU-SILC and LFS) the estimation is not accurate.

Table 90. Comparison of labour participation

%

	Total		Male		Female	
	LFS	EU SILC	LFS	EU SILC	LFS	EU SILC
15-19 years	12.4	11.3	15.4	12.2	9.5	10.3
20-24 years	52.7	55.3	57.3	58.9	47.9	51.7
25-29 years	84.6	84.8	90.7	90.8	78.0	78.5
30-34 years	86.0	86.5	97.3	95.4	74.6	77.2
35-39 years	85.3	84.5	97.5	98.0	72.9	71.0
40-44 years	83.8	84.3	96.3	98.0	71.4	70.8
45-49 years	79.4	78.2	95.6	95.2	64.0	61.6
50-54 years	70.3	68.1	89.4	88.5	51.3	48.4
55-59 years	53.5	50.7	74.0	69.9	33.5	33.0
60-64 years	32.7	31.8	45.2	45.3	21.8	19.3
65 years +	4.4	3.6	7.4	6.1	2.1	1.6

5. CONCLUSIONS

Concluding, the EU-SILC project gave qualitative data, in coherence with data from administrative sources, where these data were available. The small deviations existing in specific income variables showed that in the years to come extra efforts should be made to collect social benefits more accurately.

As far as self-employment income and interest, dividends, profits from capital investments in unincorporated business, are concerned that there exists a general problem in the reliable data.

The National Statistical Service of Greece will keep on collecting qualitative data and producing the social structural indicators being absolutely necessary for policy making both at national and European level.

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- **Algorithms to compute Overarching Indicators based on EUSILC and adopted under the Open Method of Coordination (OMC)** doc EU-SILC LC/16/07/EN, 2007, Eurostat, Luxembourg
- **Commission Regulation (EC) No 13/2005 of 6 January 2005** implementing Regulation (EC) No 1177/2003 of the European Parliament and of the Council concerning Community statistics on income and living conditions (EU-SILC) as regards the list of target secondary variables relating to social participation

Social participation

Methological notes from Official Journal of the European Union and some results

For the purposes of this Regulation (COMMISSION REGULATION (EC) No 13/2005 of 6 January 2005, implementing Regulation (EC) No 1177/2003 of the European Parliament and of the Council concerning Community statistics on income and living conditions (EU-SILC) as regards the list of target secondary variables relating to ‘social participation’), the following unit, mode of data collection, reference periods and definitions shall applied.

1. UNIT

Information shall be provided for all current household members, or if applicable for all selected respondents, aged 16 years old and over.

2. MODE OF DATA COLLECTION

Owing to the characteristics of the information to be collected, only personal interviews (proxy interviews as an exception for persons temporarily away or incapacitated) or information extracted from registers are allowed.

3. REFERENCE PERIOD

- Last 12 months shall be used for variables related to participation in cultural events, and participation in formal and informal activities.
- Usual shall be used for variables related to integration with relatives and friends. Usual refers to the usual frequency with which the activities take place during a normal year.
- Current for the variable ‘Ability to ask any relative, friend or neighbour for help’.

4. DEFINITIONS

- (a) Relatives: shall be understood in the widest sense, and shall include father/mother/children, siblings, grandparents, aunts, uncles, cousins, nephews, nieces and families-in-law.
- (b) Friends: people the respondent gets together with in his/her spare time (i.e. after working hours, at weekends, or for holidays) and with whom the respondent shares private matters.
- (c) To get together means spending time with friends or relatives at home or elsewhere. It can be talking or doing some kind of activities together. Merely encountering someone by chance is not considered as ‘being together’.
- (d) Frequency of getting together/being in contact with friends and relatives: refers to the frequency with which the respondent gets together/is in contact with any relative/ friend. Not only the person that the respondent gets together/is in contact with most often, is to be considered. If the respondent meets his/her friends/relatives ‘once a year’ during holidays or feasts, the answer shall be ‘at least once a year’.
- (e) Informal voluntary activities: refers to activities that take place outside an organisational context and tend to be done on an individual basis. Informal voluntary activities include cooking for others; taking care of people in hospitals/at home; taking people for a walk; shopping, etc. It excludes any activity that a respondent undertakes for his/her household, in his/her work or within voluntary organisations.
- (f) Participation in cultural events: refers to going to the cinema, live performances, visiting cultural sites or attending live sports events, wherever these events take place and whether these activities are performed by professionals or amateurs. For live sports events and live performances, participation refers only to spectating.

Tables

Table 91. PS010. Number of times going to the cinema

Number of times going to the cinema	%
None	61.5
1-3 times	22.0
4-6 times	9.5
7-12 times	4.2
More than 12 times	2.8

Table 92. PS020. Number of times going to live performances (plays, concerts, operas, ballet and dance performance)

Number of times going to live performances	%
None	68.6
1-3 times	24.4
4-6 times	4.7
7-12 times	1.7
More than 12 times	0.6

Table 93. PS030. Numbers of visits to cultural activities

Numbers of visits to cultural activities	%
None	85.2
1-3 times	12.4
4-6 times	1.7
7-12 times	0.4
More than 12 times	0.3

Table 94. PS040. Number of times attending live sport events

Number of times attending live sport events	%
None	78.5
1-3 times	12.9
4-6 times	4.2
7-12 times	1.8
More than 12 times	2.5

Table 95. PS050. Frequency of getting together with relatives

Frequency of getting together with relatives	%
Daily	42.9
Every week (not every day)	28.9
Several times a month (not every week)	14.5
Once a month	7.4
At least once a year (less than once a month)	5.6
Never	0.8

Table 96. PS060. Frequency of getting together with friends

Frequency of getting together with friends	%
Daily	46.1
Every week (not every day)	33.5
Several times a month (not every week)	11.9
Once a month	4.9
At least once a year (less than once a month)	2.4
Never	1.3

Table 97. PS070. Frequency of contacts with relatives

Frequency of contacts with relatives	%
Daily	48.0
Every week (not every day)	30.7
Several times a month (not every week)	11.8
Once a month	5.3
At least once a year (less than once a month)	3.0
Never	1.1

Table 98. PS080. Frequency of contacts with friends

Frequency of contacts with friends	%
Daily	49.1
Every week (not every day)	31.5
Several times a month (not every week)	11.2
Once a month	4.0
At least once a year (less than once a month)	2.1
Never	2.2

Table 99. PS090. Ability to ask any relative, friend or neighbour for help

Ability to ask any relative, friend or neighbour for help	%
Yes	96.5
No	3.5

Table 100. PS100. Participation in informal voluntary activities

Participation in informal voluntary activities	%
Daily	0.6
Every week (not every day)	1.7
Several times a month (not every week)	2.9
Once a month	3.3
At least once a year (less than once a month)	10.5
Never	81.1

Table 101. PS110. Participation in activities of political parties or trade unions

Participation in activities of political parties or trade unions	%
Yes	5.0
No	95.0

Table 102. PS120. Participation in activities of professional associations

Participation in activities of professional associations	%
Yes	5.9
No	94.1

Table 103. PS130. Participation in activities of churches or other religious organisations

Participation in activities of churches or other religious organisations	%
Yes	29.1
No	70.9

Table 104. PS140. Participation in activities of recreational groups or organisations

Participation in activities of recreational groups or organisations	%
Yes	8.2
No	91.8

Table 105. PS150. Participation in activities of charitable organisations

Participation in activities of charitable organisations	%
Yes	3.2
No	96.8

Table 106. PS160. Participation in activities of other groups or organisations

Participation in activities of other groups or organisations	%
Yes	5.6
No	94.4

ANNEX 2. QUESTIONNAIRES