HELLENIC REPUBLIC

MINISTRY OF ECONOMY AND FINANCE

**GENERAL SECRETARIAT OF
THE NATIONAL STATISTICAL SERVICE
OF GREECE**

GENERAL DIRECTORATE OF STATISTICAL SURVEYS
DIVISION OF POPULATION AND
LABOUR MARKET STATISTICS
HOUSEHOLD'S SURVEYS UNIT

**STATISTICS ON INCOME AND LIVING CONDITIONS (EU-SILC)
2007**

INTERMEDIATE QUALITY REPORT

PIRAEUS, DECEMBER 2008

EU- SILC 2007: Intermediate Quality Report, Greece

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 (ECHP).

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 9 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, income in kind and loan interest can possibly influence significantly the results and are included in the survey from this 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 administrative data and 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 **'Housing Adequacy'** 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 2007, with reference income period the previous calendar 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	6,120.00	6,973.00
Household with 2 adults and 2 dependent children (younger than 14 years)	12,852.00	14,644.00

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

Age	Total	Female	Male
Total	20	21	20
0-17	23	-	-
18-64	19	19	18
65+	23	25	21

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

Age	Total	Female	Male
Total	26	26	26
0-17	29	-	-
18-64	26	26	25
65+	24	24	24

Table4. [OV-9] *At-risk-of-poverty rate ancored at a fixed moment in time (2005) after social transfers (by age and gender).* %

Age	Total	Female	Male
Total	17	17	16
0-17	19	-	-
18-64	15	16	15
65+	19	20	16

Table 5. *[OV-11] In-work at-risk-of-poverty rate (by gender). %*

Total	Female	Male
14	12	16

Table 6. [OV-2] Inequality of income distribution S80/S20 income quintile share ratio

S80/S20 quintile share ratio	6

Table 7 . [OV-7a] Relative median income ratio

Relative median income ratio AGE65 /45 to 54 (Persons aged 65 years and over compared to persons aged between 45 and 54 years)	0.80

Table 8 . [OV-7b] Aggregate replacement ratio

	Total	Female	Male
Aggregate replacement ratio	0.40	0.42	0.46

Table 9. [OV-C11] At-risk-of-poverty rate before social transfers (by age and gender). %

Age	Total	Female	Male
Total	42	44	40
0-17	30	-	-
18-64	34	36	32
65+	82	84	79

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

Table 10. [SI-P1] At-risk-of-poverty threshold (illustrative values)

Type of household	Euro	PPS
One person household	6,120.00	6,973.00
Household with 2 adults and 2 dependent children	12,852.00	14,644.00

Table 11. *[SI-P2]* At Risk-of-poverty rate by gender and selected age groups. %

Age	Total	Female	Male
Total	20	21	20
0-17	23	-	-
18-64	19	19	18
65+	23	25	21

Table 12. [SI-P3] Relative median at-risk-of-poverty gap, by age and gender. %

Age	Total	Female	Male
Total	26	26	26
0-17	29	-	-
18-64	26	26	25
65+	24	24	24

Table 13. [SI-S1] At-risk-of-poverty rate, by age and gender.%

Age	Total	Female	Male
Total	20	21	20
0-17	23	-	-
18-24	24	26	22
25-49	18	18	17
50-64	18	18	18
65+	23	25	21

Table 14. [SI-S1a] At-risk-of-poverty rate, by household type. %

Household type	%
Total	20
Households with no dependent children	18
One adult younger than 64 years	22
One adult older than 65 years	33
Single female	29
Single male	25
Two adults, at least one aged 65 years and ov	15
Two adults younger than 65 years	21
Three or more adults	15
Households with dependent children	23
Single parent with dependent children	34
Two adults with one dependent child	20
Two adults with two dependent children	22
Two adults with three or more dependent children	30
Three or more adults with dependent children	23

Table 15. [SI-S1b] At-risk-of-poverty rate, by work intensity of the household by gender and selected age. %

Household type	Work intensity	Age	Total	Female	Male
Household without dependent children	Max work	Total	26	9	9
	Some work		16	16	16
	None work		25	26	24
Household with dependent children	Max work	Total	12	13	11
	Some ge 05		26	26	25
	Some lt 05		51	51	51
	None work		47	48	47
Household without dependent children	Max work	0-17	-	-	-
	Some work		-	-	-
	None work		-	-	-
Household with dependent children	Max work	0-17	12	-	-
	Some ge 05		27	-	-
	Some lt 05		65	-	-
	None work		58	-	-
Household without dependent children	Max work	18-64	9	9	9
	Some work		15	15	16
	None work		26	25	27
Household with dependent children	Max work	18-64	11	12	11
	Some ge 05		25	26	24
	Some lt 05		46	46	47
	Nonework		48	52	42
Household without dependent children	Max work	65+	9	8	11
	Some work		17	22	13
	None work		23	28	20
Household with dependent children	Max work	65+	22	26	15
	Some ge 05		18	18	16
	Some lt 05		47	52	-
	None work		21	31	9

Table 16. [SI-S1c] At-risk-of-poverty rate, by most frequent activity status and by gender. %

Activity status	Total	Female	Male
At work	14	12	15
Not at work: total	25	26	23
Not at work: Unemployed	35	31	41
Not at work: Retired	22	25	19
Not at work: Other inactive	25	25	27

Table 17. [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	20	20	19
Rent	total	23	23	23
Owner	0-17	22	-	-
Rent	0-17	28	-	-
Owner	18-64	18	18	17
Rent	18-64	23	24	22
Owner	65+	24	26	21
Rent	65+	14	13	16

Table 18. [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	8	7
	0-17	10	-	-
	18-64	7	8	7
	65+	7	7	6
50% of median	Total	13	14	13
	0-17	15	-	-
	18-64	12	13	12
	65+	15	16	13
70% of median	Total	28	27	29
	0-17	32	-	-
	18-64	25	26	25
	65+	34	36	31

Table 19. [SI-C1] Inequality of income distribution S80/S20 income quintile share ratio

S80/S20 quintile share ratio	6

Table 20. [SI-C2] Inequality of income distribution Gini coefficient

Gini coefficient	34.3

Table 21. [SI-C5] *At-risk-of-poverty rate ancored at a fixed moment in time (2005) after social transfers (by age and gender).* %

Age	Total	Female	Male
Total	17	17	16
0-17	19	-	-
18-64	15	16	15
65+	19	20	16

Table 22. [SI-C6] At-risk-of-poverty rate before social transfers, by gender and selected age groups (except pensions). %

Age	Total	Female	Male
Total	24	25	23
0-17	27	-	-
18-64	22	22	21
65+	28	31	24

Table 23. [SI-C8] In-work at-risk-of-poverty rate (by full time/part time work). %

Type of work	%
Full time	13
Part time	27

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

Table 24. [PN-P1] At-risk-of-poverty rate of older people. %

Age	Total	Female	Male
0-64	20	20	19
65+	23	25	21

Table 25. [PN-P2] Relative median income ratio of elderly people (65+)

	Total	Female	Male
Relative median income ratio of elderly people (65+)	0.80	0.74	0.94

Table 26. [PN-P3] Aggregate replacement ratio

	Total	Female	Male
Aggregate replacement ratio	0.40	0.42	0.46

Table 27. [PN-S1] At-risk-of-poverty rate of older people . %

Age	Total	Female	Male
0-59	20	20	19
0-74	19	20	19
60+	22	23	21
75+	31	32	31

Table 28. [PN-s2] Relative median income ratio of elderly people (60+)

	Total	Female	Male
	0.84	0.76	0.98

Table 29. [PN-S4] Inequality of income distribution S80/S20 income quintile share ratio

	Age	S80/S20
Inequality of income distribution S80/S20 income quintile share ratio	0-64	6.3
	65+	4.8

Table 30. [PN-S5] Relative median at-risk-of-poverty gap of elderly people. %

Age	Total	Female	Male
65+	24	24	24
75+	26	28	25

Table 31. [SI-S6] At risk of poverty rate for pensioners. %

At risk of poverty rate for pensioners	Total	Female	Male
	22	25	19

Table 32. [PN-S7] At-risk-of-poverty rate of older people by accommodation tenure status. %

Accommodation tenure status	Age	Total
Owner	60+	23
Rent		14
Owner	65+	24
Rent		14
Owner	75+	33
Rent		13

Table 33. [PN-S8] Dispersion around the at-risk-of-poverty threshold. %

Threshold	Age	%
50% of median	60+	15
	65+	15
	75+	22
70% of median	60+	32
	65+	34
	75+	42

Table 34. [PN-P9] Gender differences in the at risk of poverty rate of older people

Age	Gender differences
0-64	-3
65+	6

Table 36. [PN-P9] Gender differences in the relative median income ratio of older people

Household type	Gender differences
Single person (Persons aged 65 years and over compared to persons aged less than 65 years)	-0.12

Table 37. [PN-P9] Gender differences in the relative median income ratio of older people

Household type	Gender differences
Single person (Persons aged 60 years and over compared to persons aged less than 60 years)	-0.06
Single person (Persons aged 70 years and over compared to persons aged less than 75 years)	-0.18

1.1.4. Other indicators

Table 34. Mean equivalized income

Mean equivalized income	Euro
	12,130.28

Table 35. The unadjusted gender pay gap. %

The unadjusted gender pay gap	9

1.2. Distribution of poor population

Table 36. Risk-of-poverty rate by age and gender. %

Total	Female	Male
100.0	54	46

Table 37. Risk-of-poverty rate by age and gender. %

	0 – 15	0 - 64	16+	16 - 64	16 - 24	25-49	50-64	65+
Total	17	79	83	62	13	33	16	21
Female	16	77	82	60	12	33	16	24
Male	18	82	84	64	13	34	17	18

Table 38. Risk-of-poverty rate by most frequent activity and gender. %

Activity status	Total	Female	Male
At work	34	22	49
Not at work: total	66	78	51
Not at work: Unemployed	10	9	10
Not at work: Retired	24	23	25
Not at work: Other inactive	32	46	16

Table 39. Risk-of-poverty rate by household type. %

Household type	Total
Other households without dependent children	17
Three or more adults with dependent children	16
Single person	10
Single parent, with at least 1 dependent child	3
1 adult, 65 years and over	6
1 adult younger than 65 years	4
Single female	7
Single male	3
2 adults, 1 dependent child	10
2 adults, 2 dependent children	25
2 adults, no dependent children, both under 65	17
2 adults, no dependent children, at least one adult 65 years and over	12
Households with dependent children	54
Households without dependent children	46

Table 40. Risk-of-poverty rate by tenure status. %

Total	Owner or rent-free	Tenant
100.0	79	21

Table 41. Risk-of-poverty rate by work intensity. %

Household type by work intensity	%
Household without dependent children W=0	10
Household without dependent children 0<W<1	19
Household without dependent children W=1	7
Household with dependent children W=0	6
Household with dependent children 0<W<0.5	33
Household with dependent children 0.5<W<1	12
Household with dependent children W=1	14

Table 42. At risk of poverty rate befor social transfers (by age and gender). *%*

Age	Total	Female	Male
0-15	17	16	18
16+	61	59	64
16-64	83	84	82
65+	22	25	18

Πίνακας 43. At risk of poverty rate befor social transfers (by age and gender) except pensions. *%*

Age	Total	Female	Male
0-15	11	10	11
16+	54	52	55
16-64	89	90	89
65+	36	38	33

1.3. Social exclusion indicators

Table 44. 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	31,7	58,4	24,6
Capacity to afford paying for one annual holiday away from home	48,7	77,4	41,2
Capacity to afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day	8,3	31,5	2,2

Table 45. 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	0,4	1,0	0,3
Telephone (including mobile phone)	0,6	1,8	0,3
Computer	47,4	54,4	45,5
Washing machine	2,4	4,6	1,8
Car	16,5	25,6	14,1

Table 46. 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	19,7	36,9	15,2
With difficulty	33,4	38,2	32,1
With some difficulty	27,0	18,9	29,1
Fairly easily	13,1	4,2	15,5
Easily	5,7	1,6	6,8
Very easily	1,1	,1	1,3

Table 47. Lowest monthly income to make ends meet

Lowest monthly income to make ends meet	Total population	Population in risk-of-poverty	Population not in risk-of-poverty
	2009,17	1581,46	2121,63

Table 48. 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	28,5	40,2	25,4
Somewhat a burden	65,4	55,9	67,9
Not a burden at all	6,1	4,0	6,7

Table 49. 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	8,9	7,7	9,3
Repayment is somewhat of a burden	16,3	10,3	17,8
Repayment is not a burden at all	2,8	,9	3,3

Table 50. 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	7,9	11,0	7,1
Noise from neighbors or from the street	21,9	18,2	22,9
Pollution, grime, or other environmental problems	19,1	14,4	20,4
Crime violence or vandalism in the area	10,5	8,8	11,0

Table 51. 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	7,5	13,4	5,9
Utility bills (electricity, water, gas, etc.)	16,7	46,4	8,9
Credit cards payment or loan repayments for household items, holidays, etc.	10,9	10,0	11,1

Table 52. 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	19,9	27,2	18,8
Ability to keep home adequately warm	15,3	31,8	11,2

Table 53. 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	1,6	3,4	1,1
Indoor flushing toilet for Sole use of households	3,6	8,6	2,3

1.4. Other social indicators

Table 54. 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	53,5	47,1	55,1
Good	23,1	21,8	23,5
Fair	14,6	17,9	13,8
Bad	6,0	9,8	5,1
Very bad	2,7	3,5	2,6

Table 55. Unmet need for medical examination or treatment for household members aged 16 and over. %

Unmet need for medical examination or treatment	Total population	Population in risk-of-poverty	Population not in risk-of-poverty
Doctors of any specialization	6,7	11,6	5,5
Dentists	7,1	11,5	6,0

Table 56. Highest ISCED level attained for household members aged 16 and over. %

Highest ISCED level attained	Total population	Population in risk-of-poverty	Population not in risk-of-poverty
Pre-primary education	2,9	5,9	2,2
Primary education	33,5	44,8	30,7
Lower secondary education	12,5	16,2	11,5
Upper secondary education	30,0	23,7	31,5
Post secondary non tertiary education	4,0	2,8	4,3
First stage of tertiary education (not leading directly to an advanced research qualification)	16,8	6,4	19,4
Second Stage of tertiary education (leading to an advanced research qualification)	0,4	0,1	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 57. Sample size and achieved response by NUTS2-units

NUTS2	Name	Drawn	Accepted (DB135=1)
GR11	Thraki and Anatoliki Macedonia	438	411
GR12	Kentriki Macedonia	1269	1097
GR13	Dytiki Macedonia	209	193
GR14	Thessalia	484	423
GR21	Ipeiros	204	190
GR22	Ionia Nisia	119	102
GR23	Dytiki Ellada	405	371
GR24	Sterea Ellada	345	296
GR25	Peloponnisos	359	322
GR30	Attiki	2231	1592
GR41	Voreio Aigaio	149	133
GR42	Notio Aigaio	197	171
GR43	Kriti	396	342
Total	**Total**	**6805**	**5643**

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

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: $\dfrac{m_{hi}}{M_{hi}}$

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

$$m_h = \sum_{i=1}^{n_h} m_{hi} \quad (2)$$

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

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

a)   The expected result $\dfrac{m_h}{M_h}$ is the predetermined over sampling fraction $\dfrac{1}{\lambda}$ in each geographical region (NUTS II): $E\left(\dfrac{m_h}{M_h}\right) = \dfrac{1}{\lambda} = 2‰$

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:

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

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

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

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 2007 with reference period of data the previous year (2006).

Table 58. Sample distribution (household questionnaire) over time

Month	Date	Number	%
April	1 to 10	43	0,8
	11 to 20	115	2,0
	21 to 30	248	4,4
May	1 to 10	633	11,2
	11 to 20	637	11,3
	21 to 31	929	16,5
June	1 to 10	1172	20,8
	11 to 20	1141	20,2
	21 to 30	725	12,8

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.

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

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

Mhi = the number of selected households in the **hi** area (primary unit).

Nh = 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 2007). 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 ($j = 1, 2, \ldots, m_{hi}$) 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:

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

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:

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

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,

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

Where:

w_{hi} : Te 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

$\overline{y}_h$: The weighted mean of the class h,

$$\overline{y}_h = \frac{\sum_i w_{hi} \cdot y_{hi}}{\sum_i w_{hi}}$$

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

$$R1 = \frac{\displaystyle\sum_{personswithQPB=5}(w_{hij} * (EQ\_INC)_i)}{\displaystyle\sum_{personswithQPB=5} w_{hij}} \qquad (11)$$

and

$$R2 = \frac{\displaystyle\sum_{personswithQPB=1}(w_{hij} * (EQ\_INC)_i)}{\displaystyle\sum_{personswithQPB=1} w_{hij}} \qquad (12)$$

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

we can estimate the variance of using the following formulas.

For $\hat{R}1$ and $\hat{R}2$, the variances $V(\hat{R}1)$ and $V(\hat{R}2)$ are calculated using

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

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

where:

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

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

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

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

$$\overline{x}_h = \frac{\displaystyle\sum_i w_{hi} \cdot x_{hi}}{\displaystyle\sum_i w_{hi}} \qquad (15)$$

Finally, $\qquad V(\hat{R}) = V(\hat{R}1/\hat{R}2) = (\frac{R1}{R2})^2 \cdot (C_{\hat{R}1\hat{R}1} + C_{\hat{R}2\hat{R}2} - 2.C_{\hat{R}1\hat{R}2}) \qquad (16)$

where

$$C_{\hat{R}1\hat{R}1} = \frac{V(\hat{R}1)}{R1^2} \quad (17)$$

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

$$C_{\hat{R}1\hat{R}2} = C_{\hat{Y}_1\hat{Y}_2} + C_{\hat{X}_1\hat{X}_2} - C_{\hat{Y}_1\hat{X}_2} - C_{\hat{Y}_2\hat{X}_1} \quad (19)$$

and

$$C_{\hat{Y}_1\hat{Y}_2} = \frac{Cov(\hat{Y}_1, \hat{Y}_2)}{\hat{Y}_1\hat{Y}_2} \quad (20)$$

$$C_{\hat{X}_1\hat{X}_2} = \frac{Cov(\hat{X}_1, \hat{X}_2)}{\hat{X}_1\hat{X}_2} \quad (21)$$

$$C_{\hat{Y}_1\hat{X}_2} = \frac{Cov(\hat{Y}_1, \hat{X}_2)}{\hat{Y}_1\hat{X}_2} \quad (22)$$

$$C_{\hat{Y}_2\hat{X}_1} = \frac{Cov(\hat{Y}_2, \hat{X}_1)}{\hat{Y}_2\hat{X}_1} \quad (23)$$

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)

we implemented the Jacknife 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) ($j=1,...,n_g$, $g=1,...,90$). 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

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

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 $\widehat{Y}$, the coefficient of variation is defined as:

$$CV\left(\widehat{Y}\right) = \frac{\sqrt{V\left(\widehat{Y}\right)}}{\widehat{Y}} *100 \qquad (25)$$

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 $\widehat{Y}$ and $\widehat{X}$ yields respectively from (26) and (27):

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

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

The variance estimator for ratios, e.g. $\widehat{R}1$ (ratios are defined as in two-stage stratified sampling) is as follows:

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

where:

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

and

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

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 design effect for the two following indicators:

- Relative median at-risk-of-poverty gap by age and gender (Doc EU-SILC 131-rev/04 E.E.) (*1)

- Relative Median Income Ratio (Doc LC/16/07/EN) (*2)

that both involve medians and where

$$(*1) = V(RRPG) = V(\frac{ARPT - EQ\_INCpoor}{ARPT}) = V(\frac{EQ\_INCpoor}{ARPT}) = V(\frac{R3}{R4})$$

$$R3 = \frac{\sum\limits_{personswithEQ\_INC<EQ\_INCpoor}(w_{hij} * (EQ\_INC)_i)}{\sum\limits_{personswithEQ\_INC<ARPT} w_{hij}}, \quad R4 = \frac{\sum\limits_{personswithEQ\_INC<ARPT}(w_{hij} * (EQ\_INC)_i)}{\sum\limits_{allpersons} w_{hij}}$$

and

$$(*2) \; V(RMIR) = V(\frac{EQ\_INC_{MEDIAN(65+)}}{EQ\_INC_{MEDIAN(60-64)}}) = V(\frac{R5}{R6})$$

$$R5 = \frac{\sum\limits_{personsaged(65+)withEQ\_INC<medianEQ\_INCofthisgroup}(w_{hij} * (EQ\_INC)_i)}{\sum\limits_{allpersonsaged(65+)} w_{hij}},$$

$$R6 = \frac{\sum\limits_{personsaged(0-64)withEQ\_INC<medianEQ\_INCofthisgroup}(w_{hij} * (EQ\_INC)_i)}{\sum\limits_{allpersonsaged(0-64)} w_{hij}},$$

we calculated the design effects of R3,R4,R5 and R6 separately and we took into account the fact that $deff(R) = deff(\frac{R1}{R2})$ equals $deff(R1-R2) \approx \frac{1}{2}(deff(R1) + deff(R2))$ (Kish L., 1995:

Methods for Design Effects. Journal of Official Statistics 1995, 11, 55-77).

In the table 59 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 od secondary sampling units (households) by 25%.

Table 59. 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	1.3	14,793	11,413
At-risk-of-poverty rate by age and gender	1.86	1.3	14,793	11,413
At-risk-of-poverty rate by age and gender (female_0-15)	6.06	1.2	1,125	912
At-risk-of-poverty rate by age and gender (female_16-24)	7.11	1.3	727	558
At-risk-of-poverty rate by age and gender (female_25-49)	4.56	1.3	2,552	1,962
At-risk-of-poverty rate by age and gender (female_50-64)	7.01	1.5	1,411	968
At-risk-of-poverty rate by age and gender (female_>=65)	4.84	1.2	1,750	1,521
At-risk-of-poverty rate by age and gender (female_>=16)	2.78	1.3	6,440	5,057
At-risk-of-poverty rate by age and gender (female_16-64)	3.37	1.3	4,690	3,719
At-risk-of-poverty rate by age and gender (female_0-64)	2.95	1.3	5,815	4,613
At-risk-of-poverty rate by age and gender (female >=0)	2.53	1.3	7,549	5,932
At-risk-of-poverty rate by age and gender (female 0-17)	5.65	1.2	1,302	1,106
At-risk-of-poverty rate by age and gender (female 18-64)	3.45	1.3	4,513	3,493

Table 59 *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)	5.99	1.2	1,251	1,018
At-risk-of-poverty rate by age and gender (male 16-24)	7.27	1.3	737	560
At-risk-of-poverty rate by age and gender (male 25-49)	5.07	1.5	2,468	1,644
At-risk-of-poverty rate by age and gender (male 50-64)	7.09	1.5	1,354	923
At-risk-of-poverty rate by age and gender (male >=65)	5.55	1.0	1,418	1,449
At-risk-of-poverty rate by age and gender (male >=16)	3.06	1.3	5,977	4,471
At-risk-of-poverty rate by age and gender (male 16-64)	3.60	1.4	4,559	3,332
At-risk-of-poverty rate by age and gender (male 0-64)	3.10	1.3	5,810	4,320
At-risk-of-poverty rate by age and gender (male >=0)	2.73	1.3	7,210	5,445
At-risk-of-poverty rate by age and gender (male 0-17)	5.45	1.2	1,420	1,183
At-risk-of-poverty rate by age and gender (male 18-64)	3.74	1.4	4,390	3,130
At-risk-of-poverty rate by age and gender (0-15)	4.26	1.2	2,376	1,931
At-risk-of-poverty rate by age and gender (16-24)	5.08	1.3	1,464	1,118
At-risk-of-poverty rate by age and gender (25-49)	3.40	1.4	5,020	3,593
At-risk-of-poverty rate by age and gender (50-64)	4.98	1.5	2,765	1,891
At-risk-of-poverty rate by age and gender (>=65)	3.66	1.1	3,168	2,932
At-risk-of-poverty rate by age and gender (>=16)	2.06	1.3	12,417	9,533
At-risk-of-poverty rate by age and gender (16-64)	2.46	1.3	9,249	7,043
At-risk-of-poverty rate by age and gender (0-64)	2.14	1.3	11,625	8,930
At-risk-of-poverty rate by age and gender (>=0)	1.86	1.3	14,759	11,385
At-risk-of-poverty rate by age and gender (0-17)	3.93	1.2	2,722	2,287
At-risk-of-poverty rate by age and gender (18-64)	2.54	1.3	8,903	6,619

Table 59 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	1.3	12,175	9,343
At-risk-of-poverty rate by most frequent activity status and gender (female_employed)	6.30	1.3	2,140	1,692
At-risk-of-poverty rate by most frequent activity status and gender (female_unemployed)	8.71	1.3	346	258
At-risk-of-poverty rate by most frequent activity status and gender (female_retired)	5.37	1.1	1,435	1,263
At-risk-of-poverty rate by most frequent activity status and gender (female_other inactive)	4.11	1.3	2,411	1,806
At-risk-of-poverty rate by most frequent activity status and gender (male_employed)	4.66	1.4	3,262	2,325
At-risk-of-poverty rate by most frequent activity status and gender (male_unemployed)	8.86	1.5	238	158
At-risk-of-poverty rate by most frequent activity status and gender (male_retired)	5.39	1.0	1,693	1,692
At-risk-of-poverty rate by most frequent activity status and gender (male_other inactive)	7.98	1.6	650	395
At-risk-of-poverty rate by most frequent activity status and gender (employed)	3.75	1.4	5,402	3,984
At-risk-of-poverty rate by most frequent activity status and gender (unemployed)	6.21	1.4	584	418
At-risk-of-poverty rate by most frequent activity status and gender (retired)	3.82	1.1	3,128	2,920
At-risk-of-poverty rate by most frequent activity status and gender (other inactive)	3.67	1.4	3,061	2,169
At-risk-of-poverty rate by household type (one person)	4.99	1.0	1,280	1,239

Table 59– 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	1.86	1.3	14,750	11,370
At-risk-of-poverty rate by household type (2 ad, both<65, no dependent children)	6.86	1.1	1,314	1,158
At-risk-of-poverty rate by household type (2 ad, at least one >65, no dependent children)	4.55	0.9	1,992	2,111
At-risk-of-poverty rate by household type (other, without dependent children)	5.65	1.9	2,970	1,550
At-risk-of-poverty rate by household type (single parent, >=1 dependent child)	10.04	1.2	251	213
At-risk-of-poverty rate by household type (2 ad, 1 dependent child)	5.99	1.3	1,545	1,193
At-risk-of-poverty rate by household type (2 ad, 2 dependent children)	3.89	1.5	2,704	1,865
At-risk-of-poverty rate by household type (2 ad, >=3 dependent children)	5.85	0.6	888	1,516
At-risk-of-poverty rate by household type (other, with dependent children)	4.79	1.2	1,806	1,564
At-risk-of-poverty rate by household type (without dependent children)	2.81	1.3	7,556	5,741
At-risk-of-poverty rate by household type (with dependent children)	2.46	1.3	7,194	5,616
At-risk-of-poverty rate by accommodation tenure status	1.86	1.3	14,793	11,413
At-risk-of-poverty rate by accommodation tenure status (owner or rent free)	2.07	1.3	12,654	10,095
At-risk-of-poverty rate by accommodation tenure status (tenant)	4.20	1.5	2,139	1,456
At-risk-of-poverty rate by work intensity of the household	2.12	1.3	12,420	9,345
At-risk-of-poverty rate by work intensity of the household (without dependent children_WI=0)	6.07	1.1	1,019	907

Table 59 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 dependent children_0<WI<1)	5.90	1.9	2,623	1,404
At-risk-of-poverty rate by work intensity of the household (without dependent children_WI=1)	8.25	1.2	1,668	1,375
At-risk-of-poverty rate by work intensity of the household (with dependent children_WI=0)	7.98	1.7	309	182
At-risk-of-poverty rate by work intensity of the household (with dependent children_0<WI<0.5)	4.57	1.2	583	481
At-risk-of-poverty rate by work intensity of the household (with dependent children_0.5<W<1)	3.44	1.3	3,271	2,600
At-risk-of-poverty rate by work intensity of the household (with dependent children_WI=1)	5.66	1.2	2,947	2,403
Inequality of income distribution S80/S20 income quintile share ratio	1,51	1,3	5.952	4.572
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits	1.67	1.3	14,793	11,485
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (female_0-15)	5.46	1.2	1,125	900
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (female_16-64)	3.07	1.3	4,690	3,543
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (female_>=65)	4.17	1.2	1,750	1,494
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (female_>=16)	2.49	1.3	6,440	5,086
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (female_ 0-17)	5.11	1.2	1,302	1,092
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (female18-64)	3.14	1.3	4,513	3,524

Table 59 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 before social transfers by age and gender_ except old age and survivors benefits (male_0-15)	5.41	1.2	1,251	1,029
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (male_16-64)	3.26	1.4	4,559	3,197
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (male_>=65)	5.10	1.0	1,418	1,407
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (male_>=16)	2.78	1.3	5,977	4,511
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (male_ 0-17)	4.95	1.2	1,420	1,195
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (male_ 18-64)	3.37	1.4	4,390	3,184
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (0-15)	3.84	1.2	2,376	1,930
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (16-64)	2.24	1.4	9,249	6,733
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (>=65)	3.24	1.1	3,168	2,864
At-risk-of-poverty rate before social transfers by age and gender_ except old age and survivors benefits (>=16)	1.85	1.3	12,417	9,605
At-risk-of-poverty rate before social transfers by age and gender _except old age and survivors benefits (0-17)	3.56	1.2	2,722	2,287
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (18-64)	2.30	1.3	8,903	6,704
At- risk-of –poverty rate before social transfers by age and gender_ including old age and survivors benefits	**1.05**	**1.2**	**14,793**	**12,631**

Table 59 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 before social transfers by age and gender including old age and survivors benefits (female_0-15)	5.20	1.3	1,125	839
At- risk-of –poverty rate before social transfers by age and gender including old age and survivors benefits (female_16-64)	2.20	1.3	4,690	3,627
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (female _>=65)	1.34	1.4	1,750	1,257
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (female _>=16)	1.42	1.1	6,440	5,725
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (female _0-17)	4.85	1.3	1,302	1,026
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (female _18-64)	2.23	1.2	4,513	3,620
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (male _0-15)	5.09	1.2	1,251	1,040
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (male _16-64)	2.45	1.4	4,559	3,217
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (male _>=65)	1.68	1.3	1,418	1,068
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (male _>=16)	1.66	1.2	5,977	4,961
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (male _0-17)	4.67	1.2	1,420	1,203
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (male _18-64)	2.51	1.4	4,390	3,216
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (0-15)	3.64	1.3	2,376	1,868

Table 59 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 before social transfers by age and gender including old age and survivors benefits (16-64)	1.64	1.4	9,249	6,846
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (>=65)	1.05	1.4	3,168	2,332
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (>=16)	1.08	1.2	12,417	10,709
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (0-17)	3.36	1.2	2,722	2,224
At-risk-of-poverty rate before social transfers by age and gender including old age and survivors benefits (18-64)	1.67	1.3	8,903	6,840
Relative median at-risk-of-poverty gap by age and gender	**5.00**	**1.3**	**14,793**	**11,349**
Relative median at-risk-of-poverty gap by age and gender (0-15)	9.04	1.2	2,376	1,942
Relative median at-risk-of-poverty gap by age and gender (0-17)	4.88	1.2	2,722	2,297
Relative median at-risk-of-poverty gap by age and gender (16-64)	7.47	1.4	9,249	6,782
Relative median at-risk-of-poverty gap by age and gender (18-64)	4.61	1.3	8,903	6,666
Relative median at-risk-of-poverty gap by age and gender (16+)	4.93	1.3	12,417	9,477
Relative median at-risk-of-poverty gap by age and gender (18+)	5.79	1.3	12,071	9,206
Relative median at-risk-of-poverty gap by age and gender (65+)	8.51	1.1	3,168	2,957
Relative median at-risk-of-poverty gap by age and gender (female)	4.88	1.3	7,565	5,931
Relative median at-risk-of-poverty gap by age and gender (female_16_64)	7.31	1.3	4,690	3,596

Table 59 continued. 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 (female_18_64)	3.37	1.3	4,513	3,475
Relative median at-risk-of-poverty gap by age and gender (female_16+)	4.48	1.3	6,440	5,037
Relative median at-risk-of-poverty gap by age and gender (female_18+)	5.77	1.3	6,263	4,886
Relative median at-risk-of-poverty gap by age and gender (female_65+)	6.84	1.1	1,750	1,531
Relative median at-risk-of-poverty gap by age and gender (male)	5.98	1.3	7,228	5,415
Relative median at-risk-of-poverty gap by age and gender (male_16_64)	5.44	1.4	4,559	3,199
Relative median at-risk-of-poverty gap by age and gender (male_18_64)	7.64	1.4	4,390	3,099
Relative median at-risk-of-poverty gap by age and gender (male_16+)	6.74	1.3	5,977	4,438
Relative median at-risk-of-poverty gap by age and gender (male_18+)	7.06	1.3	5,808	4,315
Relative median at-risk-of-poverty gap by age and gender (male_65+)	15.22	1.0	1,418	1,473
Relative median income ratio	2.28	1.3	14,793	10,968
Relative median income ratio_female	1.79	1.4	7,565	5,516
Relative median income ratio_male	2.58	1.3	7,228	5,458
Gini Coefficient (inequality of income distribution)	0.81	2.7	14,793	5,397
Equivalised disposable income	0.72	1.3	14,793	11,280

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 – 2006), 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 2007 survey were the same as those of 2004-2006 survey, except for some small changes in the wording. The major changes concern on additional questions using in the net/gross/net conversion model (see www.statistics.gr/social statistics/ statistical data/ income and living conditions/metadata and questionnaires or on CIRCA). We did not include additional questions to cover other areas at the national level.

(2) The interviewers and their training

All the external collaborators (interviewers) of Attiki Prefecture attended a four days training course before starting the fieldwork. Four 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.

The training in Athens, Thessalonica, Patras (major regional offices in the country), followed by 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.

Unfortunately, after four years 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 despite to increase in EU SILC 2007.

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

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 70%. 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. Due to the mode of collection (CAPI), THE errors were few than the other surveys.

(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
- Controlling of the amount of income components and especially of social transfers

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 23 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 114 the s/n of the member who made tax return with the respondent must exist in the register.
- In question 128 a message appeared on the screen if the answer did not correspond to the correct combinations of the answers on the questions 115 and 117.

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.1 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, ORACLE (golden 3.2) and win-SPSS 13 have been used.

2.3.3. Non-response errors

2.3.3.1. Number of households for which an interview is accepted for the database

Table 60. Number of households for which an interview is accepted for the database. Rotational group breakdown and total

Rotational group	Households	%
1	1,194	21.2
2	1,213	21.5
3	1,563	27.7
4	1,673	29.6
Total	5,643	100.0

Table 61. 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	3,158	21.3
2	3,247	22.0
3	4,165	28.2
4	4,223	28.5
Total	14,793	100.0

2.3.3.2. Unit non response

- *Household non-response rates (NRh)*

NRh = (1-(Ra * Rh)) * 100 = 16.73%

where

$$Ra = \frac{\text{Number of addresses successfully contacted}}{\text{Number of valid addresses selected}}$$

$$= \frac{\sum[DB120 = 11]}{\sum[DB120 = \text{all}] - \sum[DB120 = 23]} = \frac{6651}{6805 - 34} = 0,982277 = 0,982$$

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

$$= \frac{\sum[DB135 = 1]}{\sum[DB130 = all]} = \frac{5643}{6651} = 0,848443 = 0,848$$

NRh=(1-0.982*0.884)*100= 16.73%

So, the household non-response rate is 16.73%

- *Individual non-response rates (NRp)*

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

$$Rp = \frac{\text{Number of personal interview completed}}{\text{Number of eligible individual s}} = \frac{12,346}{12,417} = 0,9943$$

NRp=(1-0.9943)*100=0.57%
So,the individual non-response rate is 0.57%

• *Overall individual non-response rates (*NRp)*
*NRp=(1-(Ra*Rh*Rp))*100=(1-(0.982*0.848*0.994))*100= 17.23%

So, the overall individual non-response rate is 17.23%

Table 62. Non- response. by rotational group and total

		Total	Rotation 1	Rotation 2	Rotation 3	Rotation 4
All households	Ra	0.982	0.980	0.970	0.977	0.991
	Rh	0.848	0.917	0.892	0.879	0.757
	NRh	16.73	10.1	13.6	14.2	25.0
	Rp	0.994	0.992	0.997	0.993	0.995
	NRp	0.6	0.8	0.3	0.7	0.5
	NRp2	17.23	10.85	13.76	14.71	25.34
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 63. 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)	6,695	100.0
Address contacted (DB120 =11)	6,651	99.3
Address non-contacted (DB120 =21 to 23)	44	0.7
Total address non-contacted	44	0.7
Address cannot be located (DB120 =21)	10	0.2
Address unable to access (DB120 =22)	0	0.5
Address does not exist (DB120 =23)	34	0.7

Table 64. Distribution of households by 'household questionnaire result' (DB130) and by 'household interview acceptance' (DB135)

	Number of households	%
Total	6,651	100.0
Household questionnaire completed (DB130 =11)	5,643	84.8
Interview not completed (DB130 =21 to 24)	1008	15.2
Total interview not completed (DB130 =21 to 24)	1008	100.0
Refusal to co-operate (DB130 =21)	562	55.7
Entire household temporarily away (DB130 =22)	353	35.0
Household unable to respond (DB130 =23)	63	6.3
Other reasons	30	3.0
Household questionnaire completed (DB135=1+2)	5,643	100.0
Interview accepted for database (DB135=1)	5,643	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 0.3%. 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 65. Item non-response

Total disposable household income	% of households having received an amount
Total disposable household income (HY020)	99.7
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)	84.2
Net income components at household level	*% of households having received an amount*
Income from rental of a property or land (HY040N)	17.7
Family related allowances (HY050N)	13.1
Social exclusion not elsewhere classified (HY060N)	5.8
Housing allowance (HY070)	1.1
Interests, dividends, etc. (HY090N)	3.4
Regular inter-household cash transfer received (HY080)	10.1
Income received by people aged < 16 (HY110)	0.0
Taxes on wealth (HY120N)	0.8
Regular inter-household cash transfer paid (HY130)	9.7
Net income components at personal level	% of persons 16+ having received an amount
Employee cash or near cash income (PY010N)	30.5
Net non-cash employee income (PY020N)	3.4
Cash benefits or losses from self-employment (PY050N)	16.8
Pension from individual private plans (PY080N)	0.1
Unemployment benefits (PY090N)	2.5
Old age benefits (PY100N)	25.4
Survivor's benefits (PY110N)	4.6
Sickness benefits (PY120N)	0.5
Disability benefits (PY130N)	2.1
Education-related allowances (PY140N)	0.2
Gross monthly earnings for employees (PY200G)	28.2

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 66. 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	14,793	11,280
Risk of poverty threshold: one person household	1,280	1,239
Risk of poverty threshold: household with 2 adults and 2 dependent children	2,704	1,865
Risk of poverty rate by age and gender	14,793	11,413
Risk of poverty rate by most frequent activity and gender	12,175	9,343
Risk of poverty rate by household type	12,750	11,370
Risk of poverty rate by household type: Single households	1,280	1,239
Risk of poverty rate by tenure status	14,793	11,413
Risk of poverty rate by work intensity of the household	12,420	9,345
Risk-of-poverty rate by age and gender before all transfers	14,793	11,845
Risk-of-poverty rate by age and gender before all transfers (including pensions)	14,793	12,631
S80/S20 quintile share ratio	5.952	4.572
Gini coefficient	14,793	5,397

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.

2.4. Data collection mode

Mostly, paper 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 68).

Distribution of household members aged 16 and over

In tables 67 and 68 the distributions of household members aged 16 and over by 'data status (RB250) and by 'type of interview' (RB260) are presented.

Table 67. Distribution of household members (RB245=1)

	Total	RB250= 11	RB250 =21	RB250 =22	RB250= 23	RB250= 31	RB250 =32	RB250 =33
Total		12,346	5	1	17	43	4	1
%		99.4	0.0	0.0	0.1	0.3	0.0	0.0
	Rotation 1	RB250=1 1	RB250 =21	RB250= 22	RB250=2 3	RB250= 31	RB250= 32	RB250 =33
Total		2,614	1	1	6	12	1	-
%		99.2	0.0	0.0	0.2	0.5	0.0	-
	Rotation 2	RB250=1 1	RB250 =21	RB250= 22	RB250=2 3	RB250= 31	RB250= 32	RB250 =33
Total		2,702	1	-	1	7	-	-
%		99.7	0.0	-	0.0	0.3	-	-
	Rotation 3	RB250=1 1	RB250 =21	RB250= 22	RB250=2 3	RB250= 311.0	RB250= 32	RB250 =33
Total		3,455	1	-	2	19	1	1
%		99.3	0.0	-	0.1	0.5	0.0	0.0
	Rotation 4	RB250=1 1	RB250 =21	RB250= 22	RB250=2 3	RB250= 31	RB250= 32	RB250 =33
Total		3,575	2	1	8	5	2	-
%		99.5	0.1	0.0	0.2	0.1	0.1	-

Table 68. Distribution of household members (RB245=1)

	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5
Total		9,372	1,728	244	262	740
%		75.9	14.0	2.0	2.1	6.0
	Rotation 1	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5
Total		1,931	388	71	27	197
%		73.9	14.8	2.7	1.0	7.5
	Rotation 2	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5
Total		1,977	430	71	48	176
%		73.2	15.9	2.6	1.8	6.5
	Rotation 3	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5
Total		2,691	441	78	65	180
%		77.9	12.8	2.3	1.9	5.2
	Rotation 4	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5
Total		2,773	469	24	122	187
%		77.6	13.1	0.7	3.4	5.2

2.5. Interview duration

The mean interview duration per household was estimated at 59 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. Note that we did not include additional questions to cover other areas at the national level.

Table 69. **Interview duration**

	HB100- Number of minutes to complete to household questionnaire
Mean	18,5
Maximum	60
Minimum	10
	PB120-Minutes to complete the personal questionnaire
Mean	18,5
Maximum	60
Minimum	10
Mean of inteview durarion	59

3. COMPARABILITY

There are no differences between national and EU-SILC concept.

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 missioners.

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 no 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 2007; the income reference period is the year 2006.

The period for taxes on income and social insurance contributions

This is also fixed twelve-month period, namely the previous calendar year. For SILC 2007, the period is the year 2006.

The reference period on taxes on wealth

The reference period on taxes on wealth is the previous calendar year (2006).

The lag between the income reference period and current variables

The income reference period is the previous calendar year (year 2006) and the current variables refer to the fieldwork period (April - June 2007). 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 Aprlil and ending 30 June of 2007.

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

HY010 = PY010G + PY050G + PY090G + PY100G + PY110G + PY120G + PY130G + PY140G + HY040G + HY050G + HY060G + HY070G + HY080G + HY090G + HY110 G.

Total disposable household income

HY020 = HY010 – HY140G– HY130G – HY120G+HY145G

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

HY022 = HY020 - PY090G+ PY120G + PY130G + PY140G - HY050G - HY060G - HY070G

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

HY023 = HY020 - PY090G+ PY120G + PY130G + PY140G + PY100G + PY110G - HY050G - HY060G -HY070G.

Imputed rent (HY030G)

The imputed rent refers to the value that shall be imputed for all households that do not report paying full rent, either because they are owner-occupiers or they live in accommodation rented at a lower price than the market price, or because the accommodation is provided rent-free.
The imputed rent shall be estimated only for those dwellings (and any associated buildings such a garage) used as a main residence by the households.

The value to impute shall be the equivalent market rent that would be paid for a similar dwelling as that occupied, less any rent actually paid (in the case where the accommodation is rented at a lower price than the market price), less any subsidies received from the government or from a non-profit institution (if owneroccupied or the accommodation is rented at a lower price than the market price), less any minor repairs or refurbishment expenditure which the owner-occupier households make on the property of the type that would
normally be carried out by landlords.

The market rent is the rent due for the right to use an unfurnished dwelling on the private market, excluding charges for heating, water, electricity, etc.

Income from rental of property or land (HY040G)

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 (HY050G)

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
- Lump sum due to birth of third, four etc. child
- 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 (HY060G)

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 (HY070G)

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 (HY080G)

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.

Regular inter - household cash transfers received (HY081G)

This variable includes only alimony –compulsory or voluntary received.

Interest, dividends, profit from capital investments in incorporated businesses (HY090G)

Interests, dividends, profits from capital investment in an unincorporated business refer to the mount 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 (HY0100G)

Interest paid on mortgage refers to the total gross income, before deducting any tax credit or tax allowance of mortgage interest on the main residence of the household during the income reference period.

It excludes:

- Any other mortgage payments, either interest or principal, made at the same time, such as mortgage protection insurance or home and contents insurance
- Payments on mortgages to obtain money for housing purposes (repairs, renovations etc.) or for non housing purposes
- Repayments of the principal or capital sum

Income received by people aged under 16 (HY0110G)

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 (HY0120G)

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 (HY0130G)

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.

Regular inter - household cash transfers paid (HY131G)

This variable includes only alimony –compulsory or voluntary paid

Tax on income and social insurance contributions (HY0140G)

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 2006 (based on their income of the year 2005).

Repayments/receipts for tax adjustments (HY0145)

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 (PY010G)

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 (PY020G)

Gross non-cash employee income includes:

Information on the following items has also beeen collected and included, for:

- company car and associated costs
- 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

Non-cash employee income (PY021G)

This variable 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.

Employer's social insurance contribution (PY030G)

Employers' contributions are defined as payments made, during the income reference period, by employers for the benefits of their employees to insurers.

Cash profits or losses from self-employment (including royalties) (PY050G)

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 (PY070G)

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 has t been included in the data files.

Pension from individual private plans (PY080G)

Regular pensions from private plans (other than those covered under ESSPROS

Unemployment benefits (PY090G)

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 (PY100G)

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 marker, or guarantee a certain income when a person has reached a prescribed age.

Survivors' benefits (PY110G)

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 (PY0120G)

Included are:

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

Disability benefits (PY0130G)

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 (PY0140G)

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 492€ (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

Imputed rent (HY030G)

We calculate the imputed rent using the self assesement method and the stratidication method.

With the first method, the respondent provides the figure and the interviewer checks the answer according to the rents prevailing in the specific area.

Also, for calculation of the imputed rent we developed the stratification method using the following variables:
- *Dwelling type* (Detached house, Semi-detached or groups of similarly dwellings, Apartment or flat in a building with less than 10 dwellings, Apartment or flat in a building with 10 dwellings or more, Some other kind of accommodation, please specify)
- *Number of rooms*
- Tenure status (Owned, Rented, sub-rented with rent at prevailing or market price (Included are cases where rent is recovered from housing benefit), Rented at a reduced price (lower price than the market price), Provided rent-free (from the employer, relatives, etc.))
- *For owned dwelling*
  Year of purchase/inhabit main dwelling
  Monthly Imputed rent for the dwelling (if the household renting a similar dwelling)
  Approximate range for imputed rent (if the household does not know)
  Mortgage loan (paid interest)
- *For dwelling rented with rent lower than the market price*
  Year of sign the rent contract for the main dwelling
  Rent per month for the main dwelling
  Monthly Imputed rent for the dwelling (if it is provided this reduced price)
   Approximate range for imputed rent (if the household does not know)

- *For provided rent-free dwelling*
  Year of movement in the dwelling

Monthly Imputed rent for the dwelling (if the household renting a similar dwelling)
Approximate range for imputed rent (if the household does not know)

- *Other variables*
  Dwelling amenities, balcony, veranda, garage/ parking, elevator, swimming pool, garden and also dwelling area.

It is noted that in the files we completed the variable with the results of statitification method.

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

Interest paid on mortgage (HY0100G)

For calculation of interest paid on mortgage we use the model of "Separation of the interest component from total mortgage payment: illustrative model that proposed by Euorostat (see EU SILC Doc. 105- How to separate interest from principal")

The variables used are:

P_0 the amount originally borrowed (principal)
T   the term of the loan (number of years over which it is to be repaid)
t   current duration of the mortgage (time since the loan was taken out)
P_t the amount of principal (loan) outstanding at time t
Y   the mortgage payment (annualised), the total amount including principal and interest
I   the interest rate (annualised).

Company car assessment (PY021)

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:

1   Depreciation = (Purchase prices – selling prices at X) / X.

2   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.

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)

The interviewers and the respondents have the option of reporting income gross or net (of tax on income at source and, if applicable, of social contributions) at component level. The form in which the net amounts are recorded in database are net of tax on income at source and of social contributions.

Table 70. 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 70 – *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

The basic requirement in EU-SILC (EU Statistics on Income and Living Conditions) concerning income variables is to record gross income in specified detail at the personal and income component level, but disposable income only as a set of three variable at the total household level. There may be severe practical difficulties for some Member States, including Greece, in collecting income data exactly in this form, whether the data are obtained from registers or directly from respondents in sample surveys.

Net amounts of the target income variables were reported net of tax on income at source and net of social contributions. Gross amounts of the target gross income variables have also been obtained using a net-to-gross conversion model Sienna Microsimulation Model(SM2)

The **main idea** on which the model is constructed is the following: from the incomplete information collected in the survey (some incomes are collected gross, other are collected net, net of taxes, net of social insurance contribution or net of both) and knowing the taxation system of the country, the total gross "real" taxable income is calculated (by imputing taxes at source, social insurance contributions, deductions and tax credits) in order to calculate the "real" income taxes which should be paid for the "complete" gross taxable income.

A ratio between the total tax due and taxable income is calculated and a supplementary amount (representing the proportion of that income component in the total real tax due) is added to (or deducted from) all the income components collected by the survey in different ways (gross or net).

In this way the model obtains the main income typologies: gross income, net income, income taxes and social contributions.

The SM2 system has been implemented in the form of SAS programs. On the input side, a large body of programs was developed to construct the required auxiliary variables for the application of the model using the data available in EU_SILC UDB and PDB. These programs are specific to the particular data sources used (EU-SILC) by University of Siena (V. Verma, G. Betti, F. Ballini). However, they identify the set of auxiliary variables which are needed for the implementation of the model under the existing national fiscal system, which are equally relevant for application under EU-SILC. They have also developed numerous routines which apply the specified social insurance contribution and tax rules using the above mentioned auxiliary variables as inputs. Again, these are largely independent, for greek fiscal system, of the particular data source used, and hence equally relevant for application under EU-SILC. These specific routines for Greece were 'called' by a core program using SAS macros, and an important aim of the SM2 system has been to make this core highly standardised to permit easy adaptation and application in the multi-country context of EU-SILC.

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 2007 and SILC 2006 by main income component

In general, in mean household disposable income of the reference years (2006 and 2007) there has been an increase (4,1%) observed, where the taxable household income was increased by 6,7%, due to general problematic recording of self employed income and some other income components (e.g. regular inter-household cash transfers)- (table 71).

Table 71 . Change between SILC 2007 and SILC 2006 by main income component

Income component	%
HY020	4,1
HY022	3,9
HY023	2,2
PY010N	4,0
PY050N	3,6

4.2. Significant differences in some indicators between EU- SILC 2007 and 2006

Table 72 displays significant differences existing in some indicators of EU-SILC 2006 and EU-SILC 2007. The differences between indicators cannot totally be explained. However, it should be noted that:

- Concerning the decrease of the at risk poverty indicator at-risk-of-poverty rate by household type (single parent, >=1dep 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=10.04).
- Concerning the increase of the poverty of tenants , it can be attributed to the fact that the number of students that they are poor has been increased and usually rent house. Note that the households with one member has been increased. This can be attributed to the fact that the most of the students have only income from regular inter – household cash transfers received (HY080) that it was <u>approximately</u> the same (about 6000 euro) with the previous year. This year they were under the threshold of poverty (6120 euro). In contrary, the previous year were not poor (EU SILC 2006: poverty line in 5910 euro)
- Concerning the decrease poverty rate by work intensity of the household (with depedent children_WI=0), it can be attributed to the the sample process (see the estimated CV=7.98).
- Concerning the increase of the poverty gap in age group 0-15, it is due to the the sample process (see the estimated CV=9.04).

Table 72. Significant differences in some indicators between SILC 2006 and SILC 2007

Indicators	Differences 2006/07	CV (%)
At-risk-of-poverty rate by household type (single parent, >=1dep children)	Increαse c. 6 (from 28 to 34)	10.04
At-risk-poverty-rate by tenure status, tenants	Inrceace c. 5 (from 18 to 23)	4.20
At-risk-of-poverty rate by work intensity of the household (with depedent children_WI=0)	Decrease. c 4.5 (from 52.2 to 47.7)	7.98
At-risk-of-poverty median gap, aged 0-15	Inrceace c. 4 (from 26 to 30)	9.04

- *Arrears on utility bills (HS020)*

The great differences, betweem EU SILC 2006 and 2007, can be attributed to fact that we applied latest Eurostat's guidelines, both in the questionnaire and the interviewers' guidelines.

- *Arrears on hire purchase instalments or other loan payments(HS030)*

The great differences that exist but they are attributed to the data of the previous years. In the previous years persons not having hire purchase instalments or other loan payments answered "No" in respective question, but the correct answer should be "not applicable/ no hire purchase instalments or other loan payments". This year the correct answer has been recording and this causes the differences. In a forthcoming revision we intend to correct this variable.

4.3. Comparison of income target variables – EU SILC 2006 and 2007

Table 73. Comparison of income target variables – EU SILC 2006 and EU SILC 2007

	EU SILC 2006 (mean)	EU SILC 2007 (mean)	Sums 2006 (in million Euros)	Sums 2007 (in million Euros)
Total disposable household income (HY020)	20,315.72	21,140.37	81,456.13	85,189.81
Total disposable household income before social transfers except old-age and survivor's benefits (HY022)	19,712.77	20,487.07	79,038.61	82,557.21
Total disposable household income before social transfers including old-age and survivor's benefit (HY023)	15,072.19	15,404.04	60,432.14	62,073.98
Income from rental of a property or land (HY040N)	1,083.40	1,109.67	4,343.91	44.716,71
Family related allowances (HY050N)	130,15	137.31	521.85	553.31
Social exclusion not elsewhere classified (HY060N)	98,82	98,98	396.22	398.87
Housing allowance (HY070N)	16,16	23.61	64.81	95.15
Regular inter-household cash transfer received (HY080N)	432.57	450.04	1,734.41	1,813.54
Interests, dividends, etc. (HY090N)	68.53	90,07	274.80	362,95
Income received by people aged < 16 (HY110)	2.68	0,80	10.77	32,31
Taxes on wealth (HY120N)	4.82	6,17	19.36	24,87
Regular inter-household cash transfer paid (HY130N)	394.71	456,27	1,582.61	1,838.69
Net income components at personal level				
Employee cash or near cash income (PY010N)	4,276.55	4453,10	38,830.92	40.666.64
Non cash income (PY021N)	9.80	11,10	89.02	101,40
Cash benefits or losses from self-employment (PY050N)	2,135.65	2214,43	19,391.63	20,222.59
Pension from individual private plans (PY080N)	3.35	3,67	30.46	33.55
Unemployment benefits (PY090N)	47.37	51,02	430.16	465.95
Old age benefits (PY100N)	1,792.77	1970,71	16,278.34	18.00
Survivor' benefits (PY110N)	262.62	279,65	2,384.59	2,553,00
Sickness benefits (PY120N)	9.13	10,17	82.92	92,87
Disability benefits (PY130N)	93.20	103,49	846.26	945,09
Education-related allowances (PY140N)	9.38	9,94	85.25	90,82
Gross monthly earnings for employees (PY200G)	1,224.34	1312,46	3,467.83	3,752.02

Table 74. Comparison of the total equivalized disposable household income(deciles). EU-SILC 2006 and   EU-SILC 2007

Total equivalised disposable household income

	EU- SILC 2006	EU-SILC 2007	Ghange
Number of households	4,009,513	4,029,722	0,50
Mean	11,469.58	11989,93	4,54
Standard deviation	8,466.50	9247,76	9,23
10%	2,790.83	2880,74	3,22
20%	5,111.92	5318,80	4,05
30%	6,476.81	6677,65	3,10
40%	7,692.86	7951,02	3,36
50%	8,982,26	9242,99	2,90
60%	10,354,54	10758,60	3,90
70%	12,024,57	12447,92	3,52
80%	14,218,37	14813,28	4,18
90%	17,530,77	18327,78	4,55
100%	29,445,96	31500,03	6,98

Table 75. Comparison of the total equivalized disposable household income(quintiles). EU-SILC 2006 and   EU-SILC 2007

Total equivalised disposable household income

	EU- SILC 2006	EU-SILC 2007	Ghange
Number of households	4,009,513	4,029,722	0,50
Mean	11,469.58	11989,93	4,54
Standard deviation	8,466.50	9247,76	9,23
20%	3,950.97	4107,58	3,96
40%	7,087.84	7318,36	3,25
60%	9,667.77	10000,05	3,44
80%	13,121.60	13629,88	3,87
100%	23,534.00	24913,57	5,86

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

Table 76. 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	3,091,401	3,002,475	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
Net Cash Income benefits/Losses from self-employment (including profit/loss from unincorporated enterprise, royalties)	1,541,012	1,435,240	
Property income ((Regular pension from Private (non-ESSPROS) schemes))	8,985	7,923	According to information from private insurance companies

Table 76 - 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
Unemployment benefits	234,641	300,000	
Old-age benefits	1,972,739	1,515,660	The amounts are comparable as in the survey included are also benefits except for pensions <u>and</u> also there are pensioners – farmers. invalidated. etc.- not being obligated to make tax return
Survivor's Benefits	394,117		
Invalidity Benefits	42,670		
Income from rental of a property or land	720,239	577,052	The difference is attributed to the fact thatin administrative data is not included the rent of land and mobile property
Regular taxes on wealth	33,990	44,112	
Social exclusion not elsewhere classified	209,089	253,540	The difference is attributed to the fact that many social exclusion benefits concern fringe groups. not being easily declared in the survey.

Table 76- 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
Housing allowances	62,464	100,000 (administrative data)*	.

Table 77. Comparison of income target variables and number of households and persons who receive income from each "income component", EU – SILC 2006- 2007.

Income component	Number of persons who receive from income component in survey data	Number of persons who receive from income component in survey data
	EU- SILC 2006	EU- SILC 2007
Employee cash or near cash Income in reference period	3,078,675	3,091,401
Non-cash Employee income (company car)	46,995	48,371
Net Cash Income benefits/Losses from self-employment (including profit/loss from unincorporated enterprise, royalties)	1,463,604	1,541,012
Property income ((Regular pension from Private (non-ESSPROS) schemes))	4,510	8,985
Unemployment Benefits	215,361	234,641
Old-age benefits	1,905,785	1,972,739
Survivor's Benefits	376,229	394,117
Invalidity Benefits	41,402	42,670
Sickness Benefits	162,271	182,888
Education-related Allowances	24,223	20,664

Table 77 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 persons who receive from income component in survey data
	EU SILC 2006	EU SILC 2007
Income from rental of a property or land	670,177	720,239
Family/children related allowances	373,356	473,214
Social exclusion not elsewhere classified	243,439	209,089
Housing allowances	47,789	62,464
Net interest, dividends, profit from capital investments in unincorporated business	87,465	138,971
Income received by people aged under 16	2,931	576
Regular taxes on wealth	30,947	33,990
Regular inter- household cash transfer paid	301,964	365,852
Regular inter- household cash transfer received	406,207	390,538

- **Mean equivalized income**

The annual mean equivalized income of 2006 was calculated in the survey in 12,130.28 euro and from the Bank of Greece (estimated value) the respective amount (not including rural areas) was found to be 12,918.00 euro.

- **Family allowances**

We made comparisons for household family allowances, with administrative data and we found out that only the 72,5 % of them has been recorded.   As far as the pension for mothers having more than 3 children is concerned it has been recorded accurately, 82% (Table 78).

Table 78. 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	Recorded in survey/recorded in administrative data %
Life long pension for mothers with more than 3 children	156,279	189,570	82,4
Alowance for mothers having more than 3 children	43,045	83,817	51,4
Allowance for mothers having third child	37,408	52,971	70,6
Total	236,732	326,358	72,5

- **Unemployment benefit**

Comparisons have been made for unemployment benefits with administrative data (approximately 300,000), while the survey were found 232,823 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 2006 (EU-SILC 2007), while from the survey the relative number is 209,089 persons, having in mind that IKA gives that the 80% of that allowance.

- **ESSPROS**

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

4.5. 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 2007, HBS 2004/05) making thus the survey robust.

Table 79. Variable PL030: "Self-defined current activity status"
%

Self-defined current activity status	HBS 2004-2005	EU-SILC 2007	LFS 2007
At work (Full + Part time)	44.1	43.7	49.0
Unemployed	4.1	4.6	4.8
Non economically active	51.8	51,7	46.2

Table 80. Variable PL060: "Number of hours usually worked per week in main job"
%

	EU-SILC 2007	HBS 2004/05	LFS 2007
Number of hours usually worked per week in main job	42.2	42.2	42.3

Table 81. Variable PL130: "Number of persons working in the local unit"
   %

Number of persons working in the local unit	EU-SILC 2007	LFS 2007
1 person	16,9	16,5
2 persons	13,9	14,3
3 persons	8,4	7,8
4 persons	5,3	5,5
5 persons	4,4	4,5
6 persons	2,5	2,6
7 persons	1,1	1,6
8 persons	1,7	1,6
9 persons	0,6	0,7
10 persons	2,6	1,9
11-19 persons	10,1	10,3
20-49 persons	10,0	7,2
50 persons or more	13,6	10,4
Don't know but fewer that 11 persons	4,4	5,6
Don't know but more than 10 persons	4,6	9,7

Table 82. PL040: "Status in employment"
   %

Status in employment	HBS 2004-2005	EU-SILC 2007	LFS 2007
Self employed with employees	6.1	5,3	8.2
Self employed without employees	22.0	25,0	21.3
Employee	67.1	62,5	64.1
Family worker	4.8	7,3	6.4

Table 83. PE040: "Highest ISCED level attained"
%

Highest ISCED level attained	EU-SILC 2007	LFS 2007
Never attended any level of education	2,9	6.3
Primary education	33,5	28.9
Lower secondary education	12,5	12.1
Upper secondary education	30,0	29.6
Post secondary non tertiary education	4,0	6.0
First stage of tertiary education	16,8	16.8
Second stage of tertiary education	0,4	0.3

Table 84. PL050 : 'Occupation'
%

Occupation	HBS 2004-2005	EU-SILC 2007	LFS 2007
Legislators and senior officials-Corporate managers	7.1	6.4	10.4
Physical, mathematical, engineering science and other professionals	11.4	12.0	14.3
Physical, engineering science associate professionals and other associate professionals	5.4	5.6	8.7
Office clerks and customer services clerks	14.7	10.3	11.3
Personal and protective services workers, models, salespersons and demonstrators miscellaneous	19.2	14.5	14.0
Skilled agricultural and fishery workers	11.0	18.6	11.2
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	16.9	15.2
Stationary-plant and related operators, drivers and mobile plant operators, machine operators and assemblers	6.0	6.4	7.3
Sales and services elementary occupations, agricultural, fishery and related labourers in mining, construction, manufacturing and transport	8.4	8.5	6.4
Armed forces	1.1	0,9	1.3

Table 85. PL110: "Economic activity"

%

Economic activity	HBS 2004-2005	EU-SILC 2007	LFS 2007
Agriculture, hunting and forestry	11.1	12.3	11.2
Fishing	0.3	0.3	0.3
Mining and quarrying	0.3	0.6	0.4
Manufacturing industry	11.5	11.3	12.4
Electricity, gas and water supply	1.2	0.9	0.9
Construction	9.4	8.3	8.7
Wholesale and retail trade	18.4	19.5	17.7
Hotels and restaurants	6.2	6.5	7.0
Transport, storage and communication	7.1	5.8	5.9
Financial intermediation	2.7	2.3	2.5
Real estate	5.5	6.4	6.5
Public administration	9.1	8.5	8.7
Education	6.1	6.4	7.3
Health and social work	4.5	5.1	5.3
Other community,social and personal service activities	3.7	3.9	3.6
Private households with employed persons	2.7	2.0	1.5
Extra-territorial organizations and bodies	0.2	0.1	0

Table 86. Household by size

%

Households type	HBS 2004-2005	EU-SILC 2007	LFS 2007
One person household	20.3	22.7	25.9
Two persons household	31.9	30.3	30.7
Three persons household	20.9	20.0	19.4
Four persons household	19.4	19.6	18.1
Five persons household	5.3	4.9	4.6
More than six persons household	2.2	2.4	1.4

Table 87. HH020: "Tenure status"

%

Tenure status	HBS 2004 -2005	EU-SILC 2007
Owner	80.0	79.7
Tenant	20.0	20.3

Table 88. HH080: "Bath or shower in dwelling"

%

Bath or shower in dwelling	HBS 2004 -2005	EU-SILC 2007
Yes	98.2	98.4
No	1.8	1.6

Table 89. HH090: "Indoor flushing toilet for sole use of household"

%

Indoor flushing toilet for sole use of household	HBS 2004 -2005	EU-SILC 2007
Yes	94.8	96.4
No	5.2	3.6

Table 90. HH010: "Dwelling type"

%

Dwelling type	HBS 2004 -2005	EU-SILC 2007
Detached house	32.7	35.0
Semidetached house	10.8	9.7
Apartment or flat	56.0	55.2
Some other kind of accommodation	0.5	0.1

Table 91. "Non monetary household deprivation"

%

Non monetary household deprivation	HBS 2004 -2005	EU-SILC 2007
Telephone	0.5	0,4
Colour TV	1.3	0,6
Computer	19.0	47,4
Washing machine	6.7	2,4
Car	15.0	16,5

Table 92. Variable PL015: "Have you ever worked" (for persons not working but having worked in the past)

%

Have you ever worked	EU-SILC 2007	LFS 2007
Yes	63,0	55.6
No	37,0	44.4

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 1.2 while the one from the LFS is 0.7.

Table 93. Variable PL120: "Number of persons working less than 30 hours per week". %

Working less than 30 hours per week	EU-SILC 2007	LFS 2007
Number of persons working less than 30 hours per week	4.9	5.0

Table 94. Variable PL140: "Type of contract"
    %

Type of contract	EU-SILC 2007	LFS 2007
Permanent job / work contract of unlimited duration	76,2	88.9
Temporary job/work contract of limited duration	23,8	11.1

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 1.5.

Table 95. Comparison of labour participation
    %

Age	Total		Male		Female	
	LFS	EU SILC	LFS	EU SILC	LFS	EU SILC
15-19 years	11.5	12,5	14.0	14,1	9.2	10,9
20-24 years	51.5	52,1	55.6	52,2	47.2	52,0
25-29 years	84.5	82,7	90.5	89,6	77.8	75,3
30-34 years	85.4	85,4	97.3	96,4	73.4	73,7
35-39 years	86.1	84,8	97.4	97,8	74.4	71,7
40-44 years	84.1	83,1	96.7	97,0	71.6	69,4
45-49 years	79.8	79,2	95.0	93,6	64.9	65,0
50-54 years	70.6	69,6	89.3	86,6	52.5	53,1
55-59 years	54.9	53,2	75.5	70,0	35.1	37,6
60-64 years	31.5	32,6	43.6	43,1	20.6	23,0
65 years +	4.5	3,6	7.3	5,4	2.3	2,2

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.

REFERENCES

1 **Regulation (EC) no 1177/2003 of the European Parliament and of the council of 16 June 2003. concerning Community statistics on income and living conditions (EU-SILC). Office Journal of the European Union, L 165, volume 46, Brussels, 2003**

2 **Quality evaluation criteria and content of the intermediate and final quality report of EU-SILC instrument, Commission** regulation (EC) No 28/2004.

3 **Updated definitions of EU-SILC instrument, Commission** regulation (EC) No 1980/2003

4 **Fieldwork aspects and the imputation procedures of EU-SILC instrument,** Commission regulation (EC) No 1981/2003

5 **Sampling and racing rules of EU-SILC instrument,** Commission regulation (EC) No 1982/2003

6 **List of target secondary variables of EU-SILC instrument relating to the Intergenerational transmission of poverty,** Commission regulation (EC) No 16/2004

7 **List of target primary variables of EU-SILC instrument, Commission** regulation (EC) No 1983/2003

8 **Description of target variables,** doc EU-SILC 65/04, European Commission, Eurostat, Directorate E: Social and regional statistics and geographical information system, Unit E-2: Living conditions, 2004

9 **Common Cross-sectional EU indicators based on EU-SILC; the gender pay gap,** doc EU-SILC 131-rev/04, Working Group on Statistics on Income and Living Conditions 29-30 March 2004, Eurostat, Luxembourg

9 **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

10 **Commission Regulation (EC) No 315/2006 of 22 February** 2006 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 housing conditions

11 **Doc. EU-SIL 133/04 : Income in EU-SILC: NET/GROSS/NET CONVERSION.** Report on common structure of the model; model description and application to the ECHP data for France, Italy and Spain.

ANNEX I.

Housing Adequacy- Housing Conditions

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

For the purposes of this (EC) No 315/2006 of 22 February 2006 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 housing conditionsthe following unit, mode of data collection, reference periods and definitions shall applied.

For the purposes of this Regulation, the following units, modes of data collection, reference periods and definitions shall

apply.

1. **Units**

The target variables relate to two types of units:

— household (*all variables except Change of dwelling*)

— the household respondent (*change of dwelling*)

2. **Modes of data collection**

For all target variables the mode of data collection is personal interview with the household respondent or register.

3. **Reference periods**

The target variables relate to three types of reference periods:

— usual: an ordinary winter/summer, in the area where the dwelling is located (*dwelling comfortably warm during winter*

time. Dwelling comfortably cool during summer time)

— last two years (*changed dwelling*)

— current (*all other variables*)

4. **Definitions**

1. *Shortage of space in dwelling*

(a) Shortage of space: the variable refers to the respondent's opinion/feeling about shortage of space in dwelling.

5. *Dwelling installations and facilities*

(a) Electrical installations: wiring, contacts, sockets and other permanent electrical installations in the dwelling.

(b) Plumbing/water installations: pipes, taps, drainage and outlets.

(c) Central heating or similar: a housing unit is considered as centrally heated if heating is provided either from a community heating centre or from an installation built in the building or in the housing unit, established for heating purposes, without regard to the source of energy. Fixed electrical radiators, fixed gas heaters and similar are included. The heating shall be available in most rooms.

(d) Other fixed heating: a housing unit is considered heated by 'other fixed heating' when the heating is not considered as 'central heating/or similar'. It includes stoves, heaters, fireplaces and similar.

(e) No fixed heating: no fixed heating system or heating device. Portable heating.

(f) Air conditioning facilities: systems for controlling, especially lowering, the temperature and humidity of an enclosed space; systems that keep air cool and dry. Simple fans are not considered as air conditioning.

(g) Adequate: sufficient to satisfy the general requirements/needs of the household. An installation which is permanently out of order is considered as no installation. Inadequate installations can be: installations in bad condition, dangerous installations, installations which are regularly out of order, where there is not enough electrical power/pressure for the water to be used, the water is not drinkable, or there is limited availability. Minor temporary problems such as a blockage in the outlet do not mean that the installation is inadequate.

23.2.2006 EN Official Journal of the European Union L 52/17

6. *Accessibility of basic needs*

(a) Accessibility: this shall relate to the services used by the household having regard to the financial, physical, technical and health conditions. The accessibility of the services is to be assessed in terms of physical and technical access, and opening hours, but not in terms of quality, price and similar aspects.

(b) Grocery services: services which can provide most of the daily needs.

(c) Banking services: withdraw cash, transfer money and pay bills.

(d) Postal services: send and receive ordinary and parcel post.

(e) Public transport: bus, metro, tram and similar.

(f) Primary health care services: general practitioner, primary health centre or similar.

(g) Compulsory schools: if more than one child in the household is in compulsory school the respondent should refer to the one with the most difficulty.

7. *Overall satisfaction with dwelling*

(a) Overall satisfaction with dwelling: the variable refers to the respondent's opinion/feeling about the degree of satisfaction with the dwelling in terms of meeting the household needs/opinion on the price, space, neighbourhood, distance to work, quality and other aspects.

8. *Change of dwelling*

(a) Family-related reasons: change in marital/partnership status. To establish own household. To follow partner/parents. To obtain better school or care facilities for children or other dependants.

(b) Employment-related reasons: start new job or transfer of existing job. Looking for work or made redundant. To be closer to work/easier to commute. Retirement.

(c) Housing-related reasons: desire to change accommodation or tenure status. Wanting new or better house/ apartment. Seeking better neighbourhood/less crime.

(d) Eviction/distraint: forced to move for legal reasons.

(e) Landlord did not prolong the contract: non renewal of contract, short-term contract.

(f) Financial reasons: problems paying rent/mortgage.

(g) Other reasons: to attend or leave college/university, health and other reasons.

(h) The reference period is 'the last two years'. If there have been several changes of dwelling, the main reason for the most recent change should be given.

Tables

Table 96. MH010- Short space in the dwelling

%

Yes	21,5
No	78,5

Table 97. *MH020* - Adequate electrical installations

%

Yes	94,5
No	5,5
No electricity/installations	0,0

Table 98. *MH030* - Adequate plumbing/water installations

%

Yes	92,4
No	7,5
No running water/installations)	0,1

Table 99. *MH040* - Dwelling equipped with heating facilities

%

Yes — Central heating or similar	71,8
Yes — Other fixed heating	17,2
No — No fixed heating	10,9

Table 100. *MH050* - Dwelling comfortably warm during winter time

%

Yes	82,8
No	17,2

Table 101. *MH060-* Dwelling equipped with air conditioning facilities
  %

Yes	49,2
No	50,8

Table 102. *MH070 -* Dwelling comfortably cool during summer time
  %

Yes	68,8
No	31,2

Table 103. *MH080 -* Overall satisfaction with dwelling
  %

Very dissatisfied	2,2
Somewhat dissatisfied	10,7
Satisfied	68,9
Very satisfied	18,2

Table 104. *MH090* Accessibility of grocery services
  %

With great difficulty	3,7
With some difficulty	8,6
Easily	45,9
Very easily	41,7
Not used by household	0,1

Table 105. *MH0100* - Accessibility of banking services
%

With great difficulty	9,9
With some difficulty	19,7
Easily	40,2
Very easily	29,4
Not used by household	0,8

Table 106. *MH0110* - Accessibility of postal services
%

With great difficulty	7,8
With some difficulty	18,3
Easily	44,7
Very easily	27,7
Not used by household	1,5

Table 107. *MH0110* - Accessibility of public transport
%

With great difficulty	5,1
With some difficulty	13,0
Easily	40,7
Very easily	35,8
Not used by household	5,4

Table 108. *MH0120* **-** Accessibility of health care services
%

With great difficulty	7,2
With some difficulty	17,7
Easily	46,5
Very easily	28,2
Not used by household	0,4

Table 109. *MH0140* - Accessibility of compulsory school
%

With great difficulty	1,9
With some difficulty	3,9
Easily	21,5
Very easily	18,5
Not used by household	54,2

Table 110. *MH0150* - Change of dwelling
%

Yes	7,1
No	92,9

Table 111. *MH0160* - Main reason for change of dwelling

%

Family related reasons	24,7
Employment related reasons	14,8
Housing related reasons	38,4
Eviction/distrain	0,7
Landlord did not prolong the contract	3,9
Financial reasons	6,9
Other	10,6

ANNEX 2. questionnaires

www.statistics.gr/social statistics/ statistical data/ income and living conditions/metadata
and questionnaires or on CIRCA).