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**HELLENIC STATISTICAL AUTHORITY**

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

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## INTRODUCTION

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

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

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

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

Basic aim of the survey is the study, both at European and national level of households' living conditions in relation to their income. The survey will be 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 calculated are 12 indicators, out of the 18 social cohesion indicators of Laeken, 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 equivalised scale. 'Equivalent size' refers to the OECD modified scale which gives a weight of 1.0 to the first adult, 0.5 to other persons aged 14 or over who are living in the household and 0.3 to each child aged under 14.

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

More specifically the income components included in the survey are:

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

Income components, such as imputed rent from ownership-occupancy, indirect social transfers, income in kind and loan interest are possible to influence significantly the results and are included in the survey from this year (2009), onwards.

The survey is being conducted upon the decision of the Ministry of Finance, and according to the contract having been signed among 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 refers to a specific time period, while the second to the changes occurring in a three or four years time period.

This document provides common longitudinal EU indicators based on the longitudinal EU-SILC sample, a description of accuracy, the comparability and the coherence with external sources, 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) and the commission regulation (EC) no. 28/09.01.2004 (annex III).

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. Longitudinal European Union Indicators
2. Accuracy
3. Comparability
4. Coherence
5. Conclusion

References

Annex<sup>1</sup>

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<sup>1</sup> The questionnaires reported in the final report of EU-SILC 2003 and in the intermediate report of EU-SILC 2004 -2009. Available also at web-site [www.statistics.gr](http://www.statistics.gr)

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

The longitudinal EU indicators refer to the indicators adopted from the Council of the open method of coordination, based on the longitudinal sample. These indicators (at-persistent-risk-of-poverty rate by age and gender, 60%, 70%, 50%, 40% of the median and mean), have been calculated, according to document EU-SILC 131-rev/04, from the EU-SILC longitudinal component after four (4) years of the panel survey (2006-2009). For the first time the longitudinal data set of the EU-SILC operation comprises a four years panel.

More specifically, the common longitudinal EU indicators based on the longitudinal component of EU-SILC are:

**Table 1. Persistent risk of poverty after social transfers by gender and age groups**

*Statistics on Income and Living Conditions 2006-2009*

%

At risk of poverty threshold	Age groups	Total population	Male	Female
60% of the <b>median</b> total equivalized disposable income	Total	15.4	15.0	15.8
	0-17	18.9	-	-
	18-24	13.5	14.3	12.6
	18-64	13.6	13.1	14.2
	18+	14.8	14.1	15.4
	25-49	13.8	12.8	14.8
	50-64	13.3	12.9	13.6
	65+	18.8	18.1	19.2

**Table 2. Persistent risk of poverty after social transfers by gender and age groups**

*Statistics on Income and Living Conditions 2006-2009*

%

At risk of poverty threshold	Age groups	Total population	Male	Female
60% of the <b>mean</b> total equivalized disposable income	Total	22.4	21.4	23.4
	0-17	27.7	-	-
	18-24	21.4	20.0	22.7
	18-64	19.8	18.4	21.2
	18+	21.4	20.1	22.7
	25-49	19.9	18.0	21.9
	50-64	18.7	18.4	19.0
	65+	27.0	26.7	27.3



**Table 3. Persistent risk of poverty after social transfers by gender, selected age groups  
and dispersion around the risk of poverty threshold. %**

*EU- Statistics on Income and Living Conditions 2006 -2009*

At risk of poverty threshold	Age groups	Total population	Male	Female
70% of the <b>median</b> total equivalized disposable income	Total	20.8	20.1	21.5
	0-17	25.6	-	-
	18-24	19.0	18.4	19.5
	18-64	18.2	17.1	19.3
	18+	19.9	18.8	21.0
	25-49	18.8	17.3	20.3
	50-64	16.4	15.8	17.0
	65+	26.0	25.4	26.4
50% of the <b>median</b> total equivalized disposable income	Total	8.1	7.9	8.4
	0-17	9.5	-	-
	18-24	6.4	6.6	6.2
	18-64	8.3	7.7	8.8
	18+	7.9	7.7	8.1
	25-49	8.0	7.4	8.6
	50-64	9.8	9.0	10.5
	65+	6.6	7.5	5.9

**Table 3. Persistent risk of poverty after social transfers by gender, selected age groups and dispersion around the risk of poverty threshold. %**

*EU- Statistics on Income and Living Conditions 2006 -2009*

At risk of poverty threshold	Age groups	Total population	Male	Female
40% of the <b>median</b> total equivalized disposable income	Total	3.5	2.9	4.0
	0-17	4.1	-	-
	18-24	2.5	1.9	3.0
	18-64	3.7	3.0	4.3
	18+	3.4	2.9	3.8
	25-49	3.6	2.5	4.7
	50-64	4.4	4.9	4.0
	65+	2.3	2.4	2.2

**Table 4. Persistent risk of poverty after social transfers by gender, selected age groups  
and dispersion around the risk of poverty threshold**

*Statistics on Income and Living Conditions 2006 -2009*

%

At risk of poverty threshold	Age groups	Total population	Male	Female
50% of the <b>mean</b> total equivalized disposable income	Total	14.1	13.5	14.6
	0-17	16.5	-	-
	18-24	12.0	12.8	11.2
	18-64	12.6	12.0	13.1
	18+	13.6	13.0	14.2
	25-49	12.6	11.8	13.4
	50-64	12.9	12.2	13.5
	65+	17.3	16.7	17.7
40% of the <b>mean</b> total equivalized disposable income	Total	6.8	6.8	6.9
	0-17	7.4	-	-
	18-24	5.7	5.2	6.2
	18-64	7.2	6.7	7.8
	18+	6.7	6.7	6.8
	25-49	6.9	6.4	7.4
	50-64	8.7	8.0	9.4
	65+	5.0	6.8	3.6

## **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 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:

- $\geq 30.000$  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 was 8.000 households (the sampling fraction is about 2‰). This fraction was the same in each Region.

As it was mentioned above, the Regions (NUTS 2) in Greece are thirteen (13) in number. However, throughout this study the 2<sup>nd</sup> Region (Central Macedonia) was considered without Greater Thessaloniki and the 9<sup>th</sup> Region (Attica) was considered without the Greater Athens area, while either of these two major agglomerations was treated as a separate Region.

**Table 1.** Sample size and achieved response by NUTS2-units  
**EU SILC 2006**

NUTS2	Name	Drawn	Accepted (DB135=1)
GR11	Thraki and Anatoliki Makedonia	119	111
GR12	Kentriki Makedonia	406	323
GR13	Dytiki Makedonia	50	45
GR14	Thessalia	158	119
GR21	Ipeiros	65	51
GR22	Ionia Nisia	35	29
GR23	Dytiki Ellada	122	111
GR24	Stereia Ellada	101	90
GR25	Peloponnisos	107	96
GR30	Attiki	920	629
GR41	Voreio Aigaio	49	42
GR42	Notio Aigaio	56	53
GR43	Kriti	136	102
<b>Total</b>	<b>Total</b>	2324	1801

*Table 2. Sample size and achieved response by NUTS2-units*

**EU SILC 2007**

NUTS2	Name	Drawn	Accepted (DB135=1)
GR11	Thraki and Anatoliki Makedonia	229	208
GR12	Kentriki Makedonia	704	597
GR13	Dytiki Makedonia	106	94
GR14	Thessalia	266	222
GR21	Ipeiros	111	99
GR22	Ionia Nisia	67	54
GR23	Dytiki Ellada	229	204
GR24	Stereia Ellada	202	164
GR25	Peloponnisos	210	186
GR30	Attiki	1537	1057
GR41	Voreio Aigaio	86	76
GR42	Notio Aigaio	110	93
GR43	Kriti	215	182
<b>Total</b>	<b>Total</b>	4072	3236

**Table 3.** *Sample size and achieved response by NUTS2-units*

**EU SILC 2008**

NUTS2	Name	Drawn	Accepted (DB135=1)
GR11	Thraki and Anatoliki Makedonia	356	324
GR12	Kentriki Makedonia	1142	969
GR13	Dytiki Makedonia	161	152
GR14	Thessalia	382	360
GR21	Ipeiros	167	151
GR22	Ionia Nisia	97	81
GR23	Dytiki Ellada	367	348
GR24	Stereia Ellada	280	267
GR25	Peloponnisos	336	312
GR30	Attiki	2195	1817
GR41	Voreio Aigaio	132	124
GR42	Notio Aigaio	165	155
GR43	Kriti	350	311
<b>Total</b>	<b>Total</b>	6130	5371

**Table 4.** Sample size and achieved response by NUTS2-units  
EU SILC 2009

NUTS2	Name	Drawn	Accepted (DB135=1)
GR11	Thraki and Anatoliki Makedonia	328	310
GR12	Kentriki Makedonia	980	890
GR13	Dytiki Makedonia	154	149
GR14	Thessalia	367	344
GR21	Ipeiros	153	150
GR22	Ionia Nisia	83	78
GR23	Dytiki Ellada	351	318
GR24	Stereia Ellada	268	249
GR25	Peloponnisos	316	296
GR30	Attiki	1828	1391
GR41	Voreio Aigaio	128	122
GR42	Notio Aigaio	156	143
GR43	Kriti	313	302
<b>Total</b>	<b>Total</b>	<b>5425</b>	<b>4742</b>

#### 2.1.5. Sample selection schemes

##### *1<sup>st</sup> 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 are drawn, where the number  $n_h$  of draws is 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 stratum  $h$  has a selection probability proportional to its size. So, if  $X_{hi}$  is the number of households (according to the 2001 population census) of the unit of order  $i$  in the sample of stratum  $h$ , then the selection probability of unit  $i$  is:



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

The total number of primary sampling units is  $n = \sum_{h=1}^{90} n_h = 1.056$  areas.

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

### ***2<sup>nd</sup> 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 correspondence between household and dwelling. If the selected dwelling consists 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 selected area  $i$  of stratum  $h$ . Out of them a systematic sample of  $m_{hi}$  households is selected with equal probabilities. Each of  $m_{hi}$  households has the same chance to be included in the survey, equal to:  $\frac{m_{hi}}{M_{hi}}$

The sample size  $m_{hi}$  is determined as follows: The total number of households to be interviewed from the  $n_h$  selected primary sampling units of stratum  $h$  is

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

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

In repeated sampling, the numerator of this fraction will vary from sample to sample; more precisely, the fraction  $\frac{m_h}{M_h}$  is a random variable. Within each primary sampling unit the

calculation of the sampling interval  $\delta_{hi} = \frac{M_{hi}}{m_{hi}}$  is carried out, so that the following two desired conditions are satisfied.

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

$$\text{Region (NUTS 2): } E\left(\frac{m_h}{M_h}\right) = \frac{1}{\lambda} = 2\%$$

- b) The estimator of the stratum total  $Y_h$  (for any characteristic) in stratum  $h$  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  $\lambda$ , which is the same in each Region.

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

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

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

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

#### 2.1.6. Sample distribution over time

As the survey is annual, the sample of households is not distributed over time. The survey is carried out during the 1<sup>st</sup> quarter of the year with reference period of data the previous year.

#### 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

For the computation of cross-sectional and longitudinal weights for both households and individuals the relevant EC-Eurostat documents were used (EUSILC Doc. 157/05 for the cross-

sectional weights, EUSILC Doc. titled “Longitudinal weighting” for the longitudinal weights and EUSILC Doc 65 as a supporting document).

The longitudinal period of this quality report refers to the period 2006-2009. The rotation panels this period comprises are depicted in the following scheme.

YEAR OF THE SURVEY	ROTATION PANEL									
	1	2	3	4	5	6	7	8	1	2
2003	1	2	3	4	5	6	7	8	1	2
2004		2	3	4	5	6	7	8	1	2
2005			3	4	5	6	7	8	1	2
2006				4	5	6	7	8	1	2
2007					5	6	7	8	1	2
2008						6	7	8	1	2
2009							7	8	1	2

As it is clear from the scheme above:

- the longitudinal component 2006-2009 of EU-SILC consists of rotation panels 7, 8 and 1 for a duration of 4, 3 and 2 years respectively (2006-2009 for rotation panel 7, 2007-2009 for rotation panel 8 and 2008-2009 for rotation panel 1).
- the cross-sectional component 2009 of EU-SILC consists of rotation panels 7 (wave 4), 8 (wave 3), 1 (wave 2) and 2 (wave 1).
- The first wave of the EU-SILC longitudinal component is the first year each rotation panel of the longitudinal component is in the survey, while the second and following waves are the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> year respectively for which the specific rotation panel is being surveyed.

Also in general the cross-sectional weights computed for the survey form the basis also for the computation of longitudinal weights and the methods and procedures used are identical. So, the computation of the longitudinal weight variables and the relevant procedure is a continuation of the cross-sectional procedure.

#### 2.1.8.1. Design factor

The design factor (target variable DB080) is computed according to the cross-sectional rationale of the survey. For the 2009 cross-sectional component and for panel 2 which is a panel of first wave, the household design weight,  $DW$ , is defined as the inverse of its probability of selection.

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

where

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

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

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

$P_{hi}$  = the selection probability of **hi** primary unit.

For the other panels of the cross-sectional component (7, 8 and 1) 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***

In each design stratum, the non-response adjustment of the responding households is derived as 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 was used as initial weight in the calibration procedure, already described in the intermediate quality report, for the cross-sectional component of the survey.

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

The adjustment to external data starting from the cross-sectional component of the survey and continuing to its longitudinal component, involves the calibration of the household and personal weights in conjunction with external sources (Projections for population totals for the respective year, e.g. 2009 for the 2009 cross-sectional component). 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 Region (NUTS 2). Also, at personal level the auxiliary variable used is the distribution of population by age (five years age groups) and sex.

Having in mind the cross-sectional component, 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 cross-sectional weight of each member of the household (variable: RB050).

The last step concerning the adjustment to external data involves the calculation of the personal cross-sectional weights for household members aged 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.

#### ***2.1.8.4. Final Longitudinal Weight***

Concerning the longitudinal component, longitudinal variables DB090, RB060 and PB050 are computed with the same way as the respective cross-sectional weights (DB090, RB050 and PB040). Then, longitudinal weight variables RB062 and RB063 are computed on the basis of RB060, but as indicated from the respective documents, they are computed only for year 2009 and panels “7,8,1” and “7,8” respectively.

#### ***2.1.8.5. Non-response adjustments***

Concerning the non-response adjustment for the second and following waves of the longitudinal component, especially concerning variables RB060 and PB050, the previous year’s respective values are corrected (inflated) with an adjustment coefficient in order to take into account the population “attrition”. This coefficient is computed for every year and panel separately based on the specific for that year and panel population characteristics. Also this coefficient is different for each one of the two variables RB060 and PB050 since those two refer to different populations (RB060 to all persons irrespectively of their age, while PB050 to adults that accepted to participate in the survey).

#### ***2.1.8.6. Adjustments to external data (level, variables used and sources)***

The adjusted weights described in the previous paragraph are calibrated according to external sources. For RB060 the auxiliary variables used are estimations of the population total for that year and this population distribution according to sex and age (five years) groups.

The estimated population value used is the one produced by summing up the corrected sample weights described in the previous paragraph 2.1.8.5, while the population distribution is identical to the distribution already known from the first wave of the panel.

The same procedure is applied for the variable PB050.

#### ***2.1.8.7. Final longitudinal weight***

As described in 2.1.8.6, the final longitudinal weights produced are RB060 and PB050. Tracing rules are applied through the duration of the longitudinal period. e.g. individuals with RB110=3,5,6,7 should have RB060=0. e.t.c.

#### ***2.1.8.8. Final household cross-sectional weight***

As already written, cross-sectional weights have been calculated from the beginning of the survey (first year for Greece is 2003), with the procedure already known and described not only in this report but also in the previous respective reports.

So, final cross-sectional weights DB090, RB050 and PB040 have been produced as already described.

#### ***An additional note for Longitudinal Weights 2006-2009***

At the beginning of paragraph 2.1.8 we noted that the cross-sectional weights and their calculation procedure is the basis for the production of the longitudinal weights. This note summarizes the procedure for the longitudinal weights described in the previous paragraphs. For the first wave of each panel in the longitudinal component the individual's weights sum up to the cross-sectional population of this year. This is because the initial to the calibration weights of the ¼ of the year's cross-sectional sample (the specific panel) have been multiplied by 4 in order to represent the whole sample and have then been used as initial weights in calibration procedure with auxiliary variables all those used for the cross-sectional component (household size, tenure status, households' population distribution according to Region and to the individuals' population distribution by sex and age groups). The same process has been applied for adult individuals (16+ years old).

In the 2<sup>nd</sup> and following waves the previous year's values are corrected as described in the respective paragraphs and then calibrated to the estimated year's longitudinal population, according to sex and age groups and always taking into account the tracing rule that should be followed.

For household longitudinal weights (variable DB090 which is also cross-sectional and longitudinal) the idea is different, since DB090 corresponds to a cross-sectional weight but for the longitudinal component only for the households present in the longitudinal file. So, for example, in the longitudinal component and in year 2007 for rotation panels 7 and 8, DB090 (longitudinal) sums up to the cross-sectional household population of 2007. The initial to the cross-sectional calibration procedure household weights are multiplied by an appropriate coefficient in order to represent the whole sample and are calibrated with the known cross-sectional calibration totals in

order to produce DB090 values for the longitudinal component. DB090 longitudinal values are only for one year and not traced for 2, 3 or 4 years in the longitudinal component.

## 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 the sampling errors required for the cross-sectional component of the survey.

Let  $y_{hij}$  be the value of the characteristic  $y$  (of the sampling household of order  $j$  in case of a household survey characteristic or for the sampling member of order  $j$  in case of a household member survey characteristic,  $j = 1, 2, \dots, m_{hi}$ ) of the  $hi$  area. Moreover  $Y_h$  stands for the stratum total, which is derived by adding the values of characteristic  $y$  from all households or household members included in stratum  $h$ .

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

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

For estimating the characteristic  $y$  at 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 by 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 at country level is calculated by adding all strata estimations, that is:

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

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

**a.** For every selected PSU  $i$  of the stratum  $h$ , we calculate the quantities  $T_{hi}$ , where:

$$T_{hi} = n_h \sum_{j=1}^{m_{hi}} w_{hij} y_{hij} \quad (10)$$

**b.** Since  $T_{hi}$  have been calculated for every PSU  $i$  ( $i = 1, 2, \dots, n_h$ ) of the stratum  $h$ , then :

$V\left(\hat{Y}_h\right)$  is calculated as:

$$V\left(\hat{Y}_h\right) = \frac{1}{n_h \cdot (n_h - 1)} \cdot \left[ \sum_{i=1}^{n_h} T_{hi}^2 - \frac{1}{n_h} \cdot \left( \sum_{i=1}^{n_h} T_{hi} \right)^2 \right] \quad (11)$$

and

$V\left(\hat{Y}\right)$  (country level) is calculated by adding  $V\left(\hat{Y}_h\right)$  for all strata  $h$ , that is:

$$V\left(\hat{Y}\right) = \sum_h V\left(\hat{Y}_h\right) \quad (12)$$

### 2.2.2. Standard Error

Standard errors of mean as well as coefficients of variation were calculated for the required characteristics for the cross-sectional component of the survey, year 2008.

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

$$CV\left(\hat{Y}\right) = \frac{\sqrt{V\left(\hat{Y}\right)}}{\hat{Y}} * 100 \quad (13)$$



The following tables present the mean, the number of observations before imputation, the standard error of mean and the coefficient of variation for the required characteristics (cross-sectional component).

**Table 5.** *The mean, the total number of observations (before and after imputation) and the standard errors for the following income components. Cross-sectional component, EU –SILC 2006*

<b>Income Components Description</b>	<b>Code</b>	<b>Mean</b>	<b>Number of observations Before Imputation</b>	<b>Standard Error (of mean)</b>	<b>CV (%)</b>
Total disposable household income	HY020	19,267.85	5,568	255.52	1.3
Total disposable household income before social transfers other than old-age and survivors' benefits	HY022	18,740.54	5,568	257.16	1.4
Total disposable household income including old-age and survivors' benefits	HY023	14,295.98	5,568	263.46	1.8
<b>Net Income Components at Household Level</b>					
Imputed rent	HY030N	3,371.95	5,568	60.25	1.8
Net income from rental of a property or land	HY040N	889.72	5,568	54.04	6.1
Family/children-related allowances	HY050N	121.24	5,568	7.43	6.1
Social exclusion not elsewhere classified	HY060N	69.93	5,568	4.85	6.9
Housing allowances	HY070N	11.03	5,568	2.20	19.9
Regular inter-household cash transfer received	HY080N	357.16	5,568	25.52	7.1
Net interest, dividends, profit from capital investments in unincorporated business	HY090N	40.65	5,568	7.69	18.9
Net income received by people aged under 16	HY110N	0.98	5,568	0.95	96.9
Regular taxes on wealth	HY120N	4.66	5,568	0.99	21.3
Regular inter-household cash transfer paid	HY130N	481.43	5,568	39.36	8.2
Repayments/receipts for tax adjustments	HY145N	562.10	5,568	33.65	6.0
<b>Net Income Components at Personal Level</b>					
Net cash or near cash employee income	PY010N	4,208.00	12,381	88.88	2.1
Net non-cash employee income	PY020N	9.85	12,381	1.62	16.5

**Table 5 continued.** *The mean, the total number of observations (before and after imputation) and the standard errors for the following income components. Cross-sectional component, EU –SILC 2006*

Income Components		Mean	Number of observations	Standard Error (of mean)	CV (%)
Description	Code		Before Imputation		
Contributions to individual private pension plans	PY035N	36.93	12,381	3.32	9.0
Net cash profits or losses from self-employment (including royalties)	PY050N	2,093.31	12,381	90.68	4.3
Value of goods produced for own consumption	PY070N	62.22	12,381	3.35	5.4
Net pension from individual private plans (other than those covered under ESPROSS)	PY080N	4.88	12,381	2.23	45.7
Net unemployment benefits	PY090N	50.79	12,381	4.07	8.0
Net old-age benefits	PY100N	1,698.69	12,381	53.24	3.1
Net survivor's benefits	PY110N	296.97	12,381	18.78	6.3
Net sickness benefits	PY120N	9.41	12,381	1.90	20.2
Net disability benefits	PY130N	76.31	12,381	7.46	9.8
Education-related allowances	PY140N	9.48	12,381	3.89	41.0

**Table 6.** Mean, total number of observations and sampling errors for equivalised disposable income breakdowns. Cross- sectional component, EU –SILC 2006

Equivalised disposable income	Mean	Number of observations	Standard Error (of mean)	CV (%)
		Before Imputation		

**Subclasses by household size**

1 household member	9,640.48	1,187	241.80	2.5
2 household members	10,643.41	1,685	203.11	1.9
3 household members	12,307.71	1,136	288.73	2.3
4 and more	11,090.50	1,560	242.46	2.2

**Population by age group**

<25	10,883.04	4,071	206.07	1.9
25 to 34	11,955.88	2,002	240.19	2.0
35 to 44	11,959.95	2,093	252.63	2.1
45 to 54	11,960.31	2,004	279.06	2.3
55 to 64	11,519.89	1,632	292.64	2.5
65+	9,330.34	3,095	175.37	1.9

**Population by sex**

Male	11,336.77	7,244	154.80	1.4
Female	10,957.84	7,653	150.10	1.4

**Table 7.** *The mean, the total number of observations (before and after imputation) and the standard errors for the following income components. Cross-sectional component, EU –SILC 2007*

Income Components		Mean	Number of observations Before Imputation	Standard Error (of mean)	CV (%)
Description	Code				
Total disposable household income	HY020	20,315.72	5,700	288.58	1.4
Total disposable household income before social transfers other than old-age and survivors' benefits	HY022	19,712.77	5,700	292.35	1.5
Total disposable household income including old-age and survivors' benefits	HY023	15,072.19	5,700	291.86	1.9
<b>Net Income Components at Household Level</b>					
Imputed rent	HY030N	1,083.40	5,700	77.78	7.2
Net income from rental of a property or land	HY040N	130.15	5,700	11.56	8.9
Family/children-related allowances	HY050N	98.82	5,700	6.88	7.0
Social exclusion not elsewhere classified	HY060N	16.17	5,700	2.51	15.5
Housing allowances	HY070N	432.57	5,700	32.60	7.5
Regular inter-household cash transfer received	HY080N	68.54	5,700	23.93	34.9
Net interest, dividends, profit from capital investments in unincorporated business	HY090N	2.69	5,700	1.69	63.1
Net income received by people aged under 16	HY110N	4.83	5,700	0.91	18.8
Regular taxes on wealth	HY120N	394.71	5,700	25.90	6.6
Regular inter-household cash transfer paid	HY130N	544.57	5,700	36.66	6.7
Repayments/receipts for tax adjustments	HY145N	1,083.40	5,700	77.78	7.2
<b>Net Income Components at Personal Level</b>					
Net cash or near cash employee income	PY010N	4,273.05	12,606	90.74	2.1
Net non-cash employee income	PY020N	9.78	12,606	1.52	15.5

**Table 7 continued.** *The mean, the total number of observations (before and after imputation) and the standard errors for the following income components. Cross- sectional component, EU –SILC 2007*

Income Components		Mean	Number of observations	Standard Error (of mean)	CV (%)
Description	Code		Before Imputation		
Contributions to individual private pension plans	PY035N	34.66	12,606	3.16	9.1
Net cash profits or losses from self-employment (including royalties)	PY050N	2,133.92	12,606	100.35	4.7
Value of goods produced for own consumption	PY070N	3.38	12,606	1.94	57.6
Net pension from individual private plans (other than those covered under ESPROSS)	PY080N	47.37	12,606	3.64	7.7
Net unemployment benefits	PY090N	1,800.02	12,606	55.04	3.1
Net old-age benefits	PY100N	263.69	12,606	15.88	6.0
Net survivor's benefits	PY110N	9.15	12,606	1.86	20.3
Net sickness benefits	PY120N	9.15	12,606	1.86	20.3
Net disability benefits	PY130N	93.26	12,606	8.62	9.2
Education-related allowances	PY140N	9.34	12,606	2.36	25.3

**Table 8.** Mean, total number of observations and sampling errors for equivalised disposable income breakdowns. Cross- sectional component, EU –SILC 2007

Equivalised disposable income	Mean	Number of observations	Standard Error (of mean)	CV (%)
		Before Imputation		

**Subclasses by household size**

1 household member	10,073.86	1,232	276.11	2.7
2 household members	11,320.33	1,737	222.40	2.0
3 household members	12,710.16	1,143	318.10	2.5
4 and more	11,655.28	1,588	280.85	2.4

**Population by age group**

<25	11,335.61	4,058	242.71	2.1
25 to 34	12,244.64	2,035	259.14	2.1
35 to 44	12,436.92	2,111	291.23	2.3
45 to 54	12,519.92	2,025	332.78	2.7
55 to 64	12,764.42	1,742	341.66	2.7
65+	9,719.20	3,219	178.54	1.8

**Population by sex**

Male	11,820.98	7,402	174.21	1.5
Female	11,512.87	7,788	176.95	1.5

**Table 9.** *The mean, the total number of observations (before and after imputation) and the standard errors for the following income components. Cross-sectional component, EU –SILC 2008*

Income Components		Mean	Number of observations Before Imputation	Standard Error (of mean)	CV (%)
Description	Code				
Total disposable household income	HY010	28,742.85	5,643	475.83	1.66
Total disposable household income before social transfers other than old-age and survivors' benefits	HY020	21,140.37	5,643	298.38	1.41
Total disposable household income including old-age and survivors' benefits	HY022	20,487.12	5,643	301.69	1.47
Total disposable household income including old-age and survivors' benefits	HY023	15,404.06	5,643	299.94	1.95
<b>Net Income Components at Household Level</b>					
Imputed Rent	HY030G	3,647.88	5,643	54.06	1.48
Gross income from rental of a property or land	HY040G	1,126.32	5,643	72.69	6.45
Family/children-related allowances	HY050G	148.61	5,643	9.70	6.53
Social exclusion not elsewhere classified	HY060G	98.98	5,643	7.64	7.72
Housing allowances	HY070G	23.61	5,643	3.23	13.66
Regular inter-household cash transfer received	HY080G	450.04	5,643	32.07	7.13
Gross interest, dividends, profit from capital investments in unincorporated business	HY090G	100.08	5,643	20.23	20.22
Gross income received by people aged under 16	HY110G	0.80	5,643	0.57	71.33
Regular taxes on wealth	HY120G	6.17	5,643	1.25	20.24
Regular inter-household cash transfer paid	HY130G	456.27	5,643	27.91	6.12
Gross income from rental of a property or land	HY140G	7,140.03	5,643	197.06	2.76
<b>Net Income Components at Personal Level</b>					
Gross cash or near cash employee income	PY010G	6,155.04	12,346	151.72	2.46
Gross non-cash employee income	PY021G	11.07	12,346	1.96	17.73

**Table 9 continued.** *The mean, the total number of observations (before and after imputation) and the standard errors for the following income components. Cross- sectional component, EU –SILC 2008*

Income Components		Mean	Number of observations	Standard Error (of mean)	CV (%)
Description	Code		Before Imputation		
Gross cash profits or losses from self-employment (including royalties)	PY050G	3,097.91	12,346	139.79	4.51
Gross unemployment benefits	PY090G	51.91	12,346	4.24	8.16
Gross old-age benefits	PY100G	2,168.31	12,346	67.33	3.11
Gross survivor's benefits	PY110G	289.43	12,346	16.68	5.76
Gross sickness benefits	PY120G	11.06	12,346	2.52	22.79
Gross disability benefits	PY130G	106.47	12,346	9.33	8.76
Education-related allowances	PY140G	10.00	12,346	3.49	34.91
Gross cash profits or losses from self-employment (including royalties)	PY050G	3,097.91	12,346	139.79	4.51



**Table 10.** Mean, total number of observations and sampling errors for equivalised disposable income breakdowns. Cross- sectional component, EU –SILC 2008

Equivalised disposable income	Mean	Number of observations	Standard Error (of mean)	CV (%)
		Before Imputation		

**Subclasses by household size**

1 household member	10,427.00	1,280	272.29	2.61
2 household members	12,417.83	1,710	298.39	2.40
3 household members	12,906.73	1,131	338.83	2.63
4 and more	11,988.56	1,522	268.02	2.24

**Population by age group**

<25	11,507.94	3,840	244.36	2.12
25 to 34	12,844.85	1,961	255.51	1.99
35 to 44	12,626.46	2,090	265.02	2.10
45 to 54	12,780.38	1,978	291.55	2.28
55 to 64	13,744.01	1,756	458.32	3.33
65+	10,482.77	3,168	206.23	1.97

**Population by sex**

Male	12,291.82	7,228	180.76	1.47
Female	11,972.18	7,565	183.92	1.54

**Table 11.** *The mean, the total number of observations (before and after imputation) and the standard errors for the following income components. Cross-sectional component, EU –SILC 2009*

Income Components		Mean	Number of observations Before Imputation	Standard Error (of mean)	CV (%)
Description	Code				
Total disposable household income	HY010	30,926.37	7,036	561.92	1.82
Total disposable household income before social transfers other than old-age and survivors' benefits	HY020	23,394.73	7,036	368.18	1.57
Total disposable household income including old-age and survivors' benefits	HY022	22,612.22	7,036	371.69	1.64
Total disposable household income including old-age and survivors' benefits	HY023	16,815.56	7,036	380.79	2.26
Net Income Components at Household Level					
Imputed Rent	HY030G	3,813.63	7,036	59.37	1.56
Gross income from rental of a property or land	HY040G	1,094.64	7,036	82.77	7.56
Family/children-related allowances	HY050G	177.36	7,036	11.67	6.58
Social exclusion not elsewhere classified	HY060G	156.71	7,036	13.34	8.51
Housing allowances	HY070G	23.91	7,036	3.87	16.17
Regular inter-household cash transfer received	HY080G	477.46	7,036	40.56	8.49
Gross interest, dividends, profit from capital investments in unincorporated business	HY090G	112.67	7,036	17.10	15.18
Gross income received by people aged under 16	HY110G	0.07	7,036	0.06	87.52
Regular taxes on wealth	HY120G	6.37	7,036	0.68	10.67
Regular inter-household cash transfer paid	HY130G	442.70	7,036	31.06	7.02
Gross income from rental of a property or land	HY140G	7,082.57	7,036	204.41	2.89
Net Income Components at Personal Level					
Gross cash or near cash employee income	PY010G	6,833.57	15,045	163.31	2.39
Gross non-cash employee income	PY021G	13.91	15,045	1.87	13.42

**Table 11 continued.** *The mean, the total number of observations (before and after imputation) and the standard errors for the following income components. Cross-sectional component, EU –SILC 2009*

Income Components		Mean	Number of observations	Standard Error (of mean)	CV (%)
Description	Code		Before Imputation		
Gross cash profits or losses from self-employment (including royalties)	PY050G	3,126.56	15,045	177.17	5.67
Gross unemployment benefits	PY090G				
Gross old-age benefits	PY100G	73.99	15,045	7.96	10.76
Gross survivor's benefits	PY110G	2,478.70	15,045	76.18	3.07
Gross sickness benefits	PY120G	342.40	15,045	20.47	5.98
Gross disability benefits	PY130G	5.67	15,045	1.62	28.53
Education-related allowances	PY140G	118.48	15,045	10.66	9.00

**Table 12.** Mean, total number of observations and sampling errors for equivalised disposable income breakdowns. Cross- sectional component, EU –SILC 2009

Equivalised disposable income	Mean	Number of observations	Standard Error (of mean)	CV (%)
		Before Imputation		

**Subclasses by household size**

1 household member	11,753.38	1,691	359.10	3.06
2 household members	13,805.30	2,154	395.87	2.87
3 household members	13,928.11	1,427	348.63	2.50
4 and more	13,501.45	1,764	310.39	2.30

**Population by age group**

<25	12,585.24	4,559	275.10	2.19
25 to 34	14,472.73	2,288	340.28	2.35
35 to 44	13,739.21	2,627	361.68	2.63
45 to 54	14,741.05	2,412	347.92	2.36
55 to 64	15,345.53	2,229	548.21	3.57
65+	11,669.83	3,920	175.01	1.50

**Population by sex**

Male	13,699.48	8,740	219.61	1.60
Female	13,316.05	9,295	208.77	1.57

Regarding the National Final Quality Report 2008 as stated in the Regulation 1177/2003, Member States must send for the EU-SILC cross-sectional component and for each wave of the EU-SILC longitudinal component, information on the mean, the total number of observations (before and after imputation) and the standard errors for the income components and for the breakdown of the equivalised disposable income.

For 2007 operation, Eurostat is preparing and will compute the standard errors for the longitudinal component and that they will be included in the Comparative EU Final Quality Report 2007, to be presented in the Working Group in June 2010. Standard errors for social cohesion indicators will be computed on the basis of Jackknife programs developed by Eurostat.

## **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:

1. the frame containing the PSUs (areas) and
2. 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***

As the EU-SILC project is an integrated model, both the cross-sectional component and the longitudinal component are in the same survey, issues on measurement errors reported in the intermediate report are valid, hence not reported again.

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

These errors arise from:

- the questionnaire
- the interviewers
- the respondents
- the routing
- the checks and codification
- data collection

#### (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 , 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, 2005 and 2006 survey, except for some small changes in the wording.

#### (2) The interviewers and their training

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

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

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

Two manuals were distributed and explained during the training:

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

### (3) The respondents

The respondents hesitate in providing income figures and in general deny consulting their tax return, in order to provide exact / correct amounts. Income from interests, dividends in unincorporated businesses is in general not provided from the households, resulting thus in a significant underestimation of it. There is a sense that still self-employment income has been under-estimated.

### (4) Errors in routing

No errors in routing were made

### (5) Checks and codification

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.

#### (6) Data collection

Proxy interviews are very under reported.

#### 2.3.3.2. Unit non response

-Response rate for households

- Wave response rates

In table 13, is presented the percentage of households successfully interviewed (DB 135=1) which were passed on to wave  $t$  (from wave  $t-1$ ) or newly created or added during wave  $t$ , excluding those out of scope (under the tracing rules) or non-existent.

**Table 13.** Percentage of households successfully interviewed in EU SILC 2005-2008

%

DB 110	Households successfully interviewed in EU SILC 2007	Households successfully interviewed in EU SILC 2008	Households successfully interviewed in EU SILC 2009
Household from previous wave - At the same address as last interview - Entire household moved to a private household within the country	87.8	90.5	89.2
Split-off household	100.0	96.9	94.4
New address added to the sample this wave or first wave	74.3	86.8	75.4



*-Longitudinal follow-up rate*

Percentage of households which are passed on to wave  $t+1$  for follow-up within the household received into wave  $t$  from wave  $t-1$  excluding those out of scope (under the tracing rules) or non-existent.

**Table 14.** Longitudinal follow-up rate

<i>Longitudinal follow-up rate</i>	EU- SILC 2007	EU- SILC 2008	EU- SILC 2009
	85.9	87.6	87.4

*-Follow-up ratio*

Number of households passed on from wave  $t$  to wave  $t+1$  in comparison to the number of households received for follow-up at wave  $t$  from wave  $t-1$ .

**Table 15.** Follow-up ratio

<i>Follow-up ratio</i>	t+1	t-1	ratio
EU SILC 2009	2,154	2,506	0.86
<i>Follow-up ratio</i>	t+1	t-1	ratio
EU SILC 2008	1,447	1,684	0.86
<i>Follow-up ratio</i>	t+1	t-1	Ratio
EU SILC 2007	1,563	1,819	0.86

*-Achieved households sample size ratio*

Ratio of the number of households accepted for the database (DB 135=1) in wave  $t$  to the number of households accepted for the database (DB 135=1) in wave  $t-1$ .

**Table 16.** *Achieved sample size ratio*

<i>Achieved sample size ratio</i>	EU SILC 2009	EU SILC 2008	Ratio
	4,742	5,371	0.88
<i>Achieved sample size ratio</i>	EU SILC 2008	EU SILC 2007	Ratio
	4,020	4,449	0.90
<i>Achieved sample size ratio</i>	EU SILC 2007	EU SILC 2006	Ratio
	3,970	4,495	0.88

*-Response rate for persons and Wave response rate*

In table 17, is presented the percentage of sample persons successfully interviewed (RB 250=11,12,13) among those passed on to wave  $t$  (from wave  $t-1$ ) or newly created or added during wave  $t$ , excluding those out of scope (under the tracing rules).

Percentage of co-residents selected in wave  $t$  successfully interviewed (RB 250=11,12,13) among those passed on to wave  $t$  (from wave  $t-1$ ).

**Table 17.** Percentage of sample persons and co-residents successfully interviewed in EU SILC 2007

%

Household status (DB 110)	Sample persons successfully interviewed in EU SILC 2007	Co-residents successfully interviewed in EU SILC 2007
Household from previous wave - At the same address as last interview - Entire household moved to a private household within the country	99.3	100.0
Split-off household	100.0	100.0
New address added to the sample this wave or first wave	99.5	-

**Table 18.** Percentage of sample persons and co-residents successfully interviewed in EU SILC 2008

%

Household status (DB 110)	Sample persons successfully interviewed in EU SILC 2008	Co-residents successfully interviewed in EU SILC 2008
Household from previous wave - At the same address as last interview - Entire household moved to a private household within the country	99.3	100.0
Split-off household	98.9	100.0
New address added to the sample this wave or first wave	99.5	-

**Table 19.** Percentage of sample persons and co-residents successfully interviewed in EU SILC 2009

%

Household status (DB 110)	Sample persons successfully interviewed in EU SILC 2009	Co-residents successfully interviewed in EU SILC 2009
Household from previous wave - At the same address as last interview - Entire household moved to a private household within the country	99.3	98.6
Split-off household	98.7	0.0
New address added to the sample this wave or first wave	98.6	0.0

*-Longitudinal follow-up rate*

Percentage of sample persons successfully interviewed (RB 250=11,12,13) in wave *t* out of all of sample persons selected, excluding those who have died or been found ineligible (out of scope).

**Table 20.** Longitudinal follow-up rate

<i>Longitudinal follow-up rate</i>	%
EU SILC 2009	99.3
<i>Longitudinal follow-up rate</i>	%
EU SILC 2008	99.4
<i>Longitudinal follow-up rate</i>	%
EU SILC 2007	99.4

*-Achieved personal sample size ratio*

In table 21, is presented the ratio of the number of completed personal interviews (RB 250=11,12,13) in wave  $t$  to the number of completed personal interviews in wave  $t-1$

This ratio will be defined for sample persons and for all persons including non-sample persons aged 16+ and for co-residents aged 16+ selected in first wave.

**Table 21.** *Ratio of the number of completed personal interviews in wave  $t$  to the number of completed personal interviews in wave  $t-1$*

	EU SILC 2009	EU SILC 2008	Ratio
All	10,207	8,748	116.7
Sample persons	10,135	8,580	118.1
Co-residents	72	168	42.9
	EU SILC 2008	EU SILC 2007	Ratio
All	8,748	8,771	99.7
Sample persons	8,580	8,464	101.4
Co-residents	168	307	54.7
	EU SILC 2007	EU SILC 2006	Ratio
All	8,771	8,717	100.6
Sample persons	8,464	8,526	99.3
Co-residents	307	191	160.7

*-Response rate for non-sample persons*

Ratio of the number of completed personal interviews (RB 250=11,12,13) of non sample persons aged 16+ in wave  $t$  to all non-sample persons aged 16+ listed in the households accepted for the database (DB 135=1) in wave  $t$  which were forwarded from wave  $t-1$  to wave  $t$  for follow-up but could not be successfully interviewed in wave  $t$ .

**Table 22 . Response rate for non-sample persons**

Response rate for non-sample persons	EU SILC 2009	EU SILC 2008	Ratio
	72	74	0.97
Response rate for non-sample persons	EU SILC 2008	EU SILC 2007	Ratio
	168	169	0.99
Response rate for non-sample persons	EU SILC 2007	EU SILC 2006	Ratio
	307	310	0.99

***2.3.3.3. Distribution of households by household status (DB 110), by record of contact at address (DB 120), by household questionnaire result (DB 130) and by household interview acceptance (DB 135).***

For each wave of EU SILC longitudinal component, the distribution of households by household status, by record of contact at address, by household questionnaire result and by household interview acceptance will be provided.

**Table 23.** *Distribution of households by household status, by record of contact at address, by household questionnaire result and by household interview acceptance*

Variable	Values	EU SILC 2006	EU SILC 2007	EU SILC 2008	EU SILC 2009
Household status (DB 110)	At the same address as last interview	-	1,723	3,104	5,156
	Entire household moved to a private household within the country	-	37	51	101
	Entire household moved to a collective household or institution within the country	-	1	4	7
	Household moved outside the country	-	-	4	10
	Entire household died	-	5	16	17
	Household does not contain sample person	-	-	2	3
	<i>Address not contacted (unable to access or lost, i.e. no record of what happened to the household)</i>	-	35	55	77
	Split-off household	-	18	32	54
	New address added to the sample this wave or first wave	2,324	2,253	2,862	-
	Fusion	-	-	-	-

**Table 23 continued.** Distribution of households by household status, by record of contact at address, by household questionnaire result and by household interview acceptance

Variable	Values	EU SILC 2006	EU SILC 2007	EU SILC 2008	EU SILC 2009
Record of contact at address DB 120	Address contacted	2,277	2,265	2,898	155
	Address cannot be located	-	9	14	-
	Address unable to access	-	-	3	-
	Address does not exist or is non-residential address or is unoccupied or not principal residence	47	34	30	-
Household questionnaire result (DB 130)	Household questionnaire completed	1,801	3,236	5,371	4,742
	Refusal to cooperate	276	420	346	299
	Entire household temporarily away for duration of fieldwork	178	255	235	226
	Household unable to respond (illness, incapacity, etc)	15	49	39	37
	Other reasons	7	28	11	7
Household interview acceptance (DB 135)	Interview accepted for database	1,801	3,236	5,371	4,742



#### 2.3.3.4. Distribution of persons for membership status (RB 110)

For the second and following waves of the EU-SILC longitudinal component, the distribution of persons by membership status will be provided.

**Table 24.** Distribution of persons by membership status.

Membership status (RB 110)	EU SILC 2006	EU SILC 2007	EU SILC 2008	EU SILC 2009
<i>Was in this household in previous waves or current household member</i>	4,739	8,270	13,662	11,865
Moved into this household from another sample household since previous wave	-	19	44	60
Moved into this household from outside sample since previous wave	-	64	98	139
Newly born into this household since last wave	-	35	63	106
Moved out since previous wave or last interview if not contacted in previous wave	-	48	153	214
Died	-	27	52	74
Lived in the household at least three months during the income reference period but was not recorded in the register of this household	-	8	4	-
Total	6,745	8,471	14,076	12,458

### 2.3.3.5 Item non-response

For income variables the following information will be provided for each wave of the EU SILC longitudinal component.

**Table 25.** *Percentage of households having received an amount*

	EU SILC 2006	EU SILC 2007	EU SILC 2008	EU SILC 2009
Disposable household income	% of households having received an amount	% of households having received an amount	% of households having received an amount	% of households having received an amount
Total disposable household income (HY020)	99.7	99.6	99.6	99.7
Total disposable household income before social transfers except old-age and survivor's benefits (HY022)	99.2	99.1	99.0	99.2
Total disposable household income before social transfers including old-age and survivor's benefit (HY023)	84.3	84.6	81.6	81.1
Net income components at household level	% of households having received an amount	% of households having received an amount	% of households having received an amount	% of households having received an amount
Income from rental of a property or land (HY040N)	16.8	17.4	15.9	16.3
Family related allowances (HY050N)	10.0	12.1	11.6	15.0
Social exclusion not elsewhere classified (HY060N)	5.2	5.1	5.5	7.0
Housing allowance (HY070N)	1.1	1.1	1.2	1.1
Regular inter-household cash transfer received (HY080N)	11.8	10.9	8.8	8.4
Interests, dividendes, etc. (HY090N)	2.1	2.7	6.4	6.6
Income received by people aged < 16 (HY110N)	0.1	0.1	0.0	0.0
Taxes on wealth (HY120N)	1.3	0.9	0.7	4.5
Regular inter-household cash transfer paid (HY130N)	9.7	10.1	7.8	7.9

**Table 26.** *Percentage of persons 16+ having received an amount*

	EU SILC 2006	EU SILC 2007	EU SILC 2008	EU SILC 2009
<i>Net income components at personal level</i>	<i>% of persons 16+ having received an amount</i>	<i>% of persons 16+ having received an amount</i>	<i>% of persons 16+ having received an amount</i>	<i>% of persons 16+ having received an amount</i>
Employee cash or near cash income (PY010N)	31.3	31.4	32.8	32.2
Net non-cash employee income (PY020N)	0.7	3.6	4.0	4.2
Cash benefits or losses from self-employment (PY050N)	15.3	16.0	15.7	16.2
Pension from individual private plans (PY080N)	0.0	0.1	0.1	0.1
Unemployment benefits (PY090N)	2.4	2.3	2.5	2.7
Old age benefits (PY100N)	23.7	24.6	24.6	26.3
Survivor's benefits (PY110N)	4.1	4.3	4.8	5.1
Sickness benefits (PY120N)	0.4	0.6	0.4	0.3
Disability benefits (PY130N)	2.2	2.1	1.9	2.1
Education-related allowances (PY140N)	0.2	0.2	0.2	0.2

## 2.4. Mode of data collection

For each wave of EU SILC longitudinal component the distribution of household members aged 16 or over by “data status” (RB 250) and by “type of interview” (RB 260) will be provided for each sample person, for co-residents and for the total.

**Table 27. Distribution of members aged 16+ by “data status” Member**

	Data status (RB 250)	EU SILC 2006	EU SILC 2007	EU SILC 2008	EU SILC 2009
Sample persons	Information completed only from interview	3,889	6,968	11,588	10,135
	Individual unable to respond and no proxy possible	2	3	3	5
	Refusal to cooperate	10	10	22	18
	Person temporarily away and no proxy possible	39	24	37	48
	No contact for other reasons	8	3	3	0
	Information not completed, reason unknown	2	1	2	0
Co-residents	Information completed only from interview	-	62	48	72
	Individual unable to respond and no proxy possible	-	-	-	1
	Refusal to cooperate	-	-	-	-
	Person temporarily away and no proxy possible	-	-	-	-
	No contact for other reasons	-	-	-	-
	Information not completed, reason unknown	-	-	-	-
Total	Information completed only from interview	3,889	7,030	11,636	10,207
	Individual unable to respond and no proxy possible	2	3	3	6
	Refusal to cooperate	10	10	22	18
	Person temporarily away and no proxy possible	39	24	37	48
	No contact for other reasons	8	3	3	0
	Information not completed, reason unknown	2	1	2	0

**Table 28.** *Distribution of members aged 16+ by “type of interview”*

Member	Type of interview (RB 260)	EU SILC 2006	EU SILC 2007	EU SILC 2008	EU SILC 2009
Sample persons	Questionnaire completed (face-to-face interview-PAPI)	2,822	5,422	9,185	7,871
	Questionnaire completed (face-to-face interview-CAPI)	918	905	1,206	1,107
	Questionnaire completed (CATI)	34	92	395	404
	Self-administered by respondent	-	187	9	0
	Proxy interview	115	362	793	753
Co-residents	Questionnaire completed (face-to-face interview-PAPI)	-	42	38	53
	Questionnaire completed (face-to-face interview-CAPI)	-	5	3	7
	Questionnaire completed (CATI)	-	10	2	4
	Self-administered by respondent	-	-	-	-
	Proxy interview	-	5	5	8
Total	Questionnaire completed (face-to-face interview-PAPI)	2,822	5,464	9,223	7,924
	Questionnaire completed (face-to-face interview-CAPI)	918	910	1,209	1,114
	Questionnaire completed (CATI)	34	102	397	408
	Self-administered by respondent	-	187	9	-
	Proxy interview	115	367	798	761

## 2.5. Imputation procedure

No imputation procedure was applied.

### **3. COMPARABILITY**

The definitions used are fully compared with Eurostat definitions.

#### **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 not shared, then the person constitutes separate household at the same address.

- *Usually resident*

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

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

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

- *Temporarily absent in private accommodation*

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



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

### **The income reference period used**

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

### **The period for taxes on income and social insurance contributions**

This is also fixed twelve-month period, namely the previous calendar year.

### **The reference period on taxes on wealth**

The reference period on taxes on wealth is the previous calendar year

### **The lag between the income reference period and current variables**

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

### **Total duration of the data collection of the sample**

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

### **Basic information on activity status during the income reference period**

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

## 3.2 Components of income

### 3.2.1 Income definitions

#### Total household gross income

$$\text{HY010} = \text{PY010G} + \text{PY050G} + \text{PY090G} + \text{PY100G} + \text{PY110G} + \text{PY120G} + \text{PY130G} + \text{PY140G} + \text{HY040G} + \text{HY050G} + \text{HY060G} + \text{HY070G} + \text{HY080G} + \text{HY090G} + \text{HY110G}.$$

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

#### Total disposable household income

$$\text{HY020} = \text{HY010} - \text{HY140G} - \text{HY130G} - \text{HY120G} + \text{HY145G}$$

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

$$\text{HY022} = \text{HY020} - \text{PY090G} + \text{PY120G} + \text{PY130G} + \text{PY140G} - \text{HY050G} - \text{HY060G} - \text{HY070G}$$

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

$$\text{HY023} = \text{HY020} - \text{PY090G} + \text{PY120G} + \text{PY130G} + \text{PY140G} + \text{PY100G} + \text{PY110G} - \text{HY050G} - \text{HY060G} - \text{HY070G}.$$

### **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 as 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 amount of interest from assets such as bank accounts, certificates of deposit, bonds, etc,

dividends and profits from capital investment in an unincorporated business, in which the person does not work, received during the income reference period less expenses incurred.

### **Interest paid on mortgage (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 2007 (based on their income of the year 2006).

### **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 been 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 market, 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 assessment method and the stratification 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 stratification 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)

We collected gross income for approximately the 30% of income variables but we didn’t calculate total household gross income, so this factor is zero in total disposable household income. From 2007, we collected only net income.

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

Only net amounts are obtained and sent. However, from 2007, we designed a model on net-gross and gross-net conversion of all income variables, also being the target aim of the survey.

### **3.3. Tracing rules**

The Commission Regulation (EC) no. 1982/2003 of 21 October 2003, regarding the tracing rules, has been adopted and applied.



#### **4. COHERENCE**

Comparison with external sources is difficult because the definitions used do not match.

#### **5. CONCLUSION**

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

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