

NATIONAL INSTITUTE OF STATISTICS OF ROMANIA

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

INTERMEDIATE QUALITY REPORT

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INTRODUCTION

The Romanian survey on income and living conditions, named Quality of life survey, represents the implementation of EU-SILC survey in Romanian statistical system. The main goal of this survey is to produce data regarding the income and living conditions in a standardized manner, in order to produce comparable estimates at EU level. In this way, the survey is the reference source for comparative statistics on income distribution and social exclusion in European Union.

In 2007, the survey was included in the Program of Statistical Researches of National Institute of Statistics. The survey implemented the methodology described in the EU-SILC Regulation (EC) no 1177/2003 of the European Parliament and of the Council concerning Community Statistics on Income and Living Conditions.

We designed this survey as a new harmonised survey in order to meet all EU-SILC requirements. An integrated design with a rotational sample was applied, in which the sample is divided in sub-samples, each of them similar in size and design and representative for the whole population. From one year to another three sub-samples are retained, one is dropped and one new sub-sample is included in the survey. In this way, the cross-sectional and longitudinal statistics are produced from the same set of sample observations.

This documents 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 Romanian SILC 2007 survey.

1. COMMON CROSS-SECTIONAL EUROPEAN UNION INDICATORS

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

1.1.1 Risk-of-poverty threshold (illustrative values)

(a) one person household: 252,33 lei

(b) household with 2 adults and 2 dependent children: 529,89 lei

1.1.2 Risk-of-poverty rate by age and gender

AGE GROUP	TOTAL	MALE	FEMALE
Total	25	24	25
0-17	33	-	-
18-64	21	22	21
65+	31	25	34

Risk-of-poverty rate by most frequent activity and gender

AGE GROUP	TOTAL	MALE	FEMALE
Total	25	24	25
At work	18	20	16
Not at work: total	28	26	29
Not at work: unemployed	46	53	31
Not at work: retired	23	21	24
Not at work: other inactive	33	26	35

Risk-of-poverty by household type (%)

HOUSEHOLD TYPE	
Total	25
Households without dependent children	22
One adult younger than 64 years	27
One adult older than 65 years	44
Single female	42
Single male	26
Two adults younger than 65 years	17
Two adults, at least one aged 65 years and over	26
Three or more adults	17
Households with dependent children	27
Single parent with dependent children	42
Two adults with one dependent children	15
Two adults with two dependent children	22
Two adults with three or more dependent children	55
Three or more adults with dependent children	27

Risk-of-poverty by tenure status (%)

	TOTAL	OWNER OR RENT-FREE	TENANT
Risk-of-poverty	25	25	11

Risk-of-poverty by work intensity

	TOTAL
Household without dependent children $W=0$	28
Household without dependent children $0 < W < 1$	14
Household without dependent children $W=1$	18
Household with dependent children $W=0$	79
Household with dependent children $0 < W < 0.5$	35
Household with dependent children $0.5 \leq W < 1$	28
Household with dependent children $W=1$	18

1.1.3 Dispersion around at-risk-of-poverty-threshold (%)

	TOTAL	MALE	FEMALE
At-risk-of-poverty rate at 40% of median	13	13	13
At-risk-of-poverty rate at 50% of median	19	18	19
At-risk-of-poverty rate at 70% of median	32	31	33

1.1.4 Relative median risk-of-poverty gap by age and gender (%)

	TOTAL	MALE	FEMALE
Total	35	35	35
0-17	40	-	-
18+			
18-64	35	36	35
65+	28	24	30

1.1.5 Risk-of-poverty by age and gender before all transfers

	TOTAL	MALE	FEMALE
Total	46	45	47
0-17	46	-	-
18-64	38	38	39
65+	83	85	82

1.1.6 S80/S20 quintile share ratio: 7.8

1.1.7 Gini coefficient: 38

1.2 Other indicators

Mean equivalised income: 13333,0 lei

2. ACCURACY

2.1 Sample design

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

The sampling plan is a two-stage probability sampling of housing units (dwellings).

2.1.2 Sampling units (one stage, two stage)

The primary sampling unit, corresponding to the selection of the *master sample*, is a group of census sections (census enumeration areas EAs).

The secondary (ultimate) sampling unit, corresponding to the selection of the survey sample, has been a fix number of dwellings from each PSU.

2.1.3 Stratification and sub-stratification criteria

Stratification concerns only the first stage sampling. There are 88 strata, the criteria used being the area where a certain PSU is located (urban or rural area) and county (NUTS 3 level).

2.1.4 Sample size and allocation criteria

The sample size was 9360 dwellings.

2.1.5 Sample selection schemes

In the first stage, a stratified random sample of 780 areas, Primary Sampling Units (PSUs), was designed after the 2002 census. The PSUs were sampled with probability proportional to size (number of permanent dwellings). This is the Multifunctional Sample of Territorial Areas, so called the master sample EMZOT. The EMZOT sample has 427 PSUs selected from urban area and 353 PSUs selected from rural area. In the second stage, 9360 dwelings are systematically selected from EMZOT - a constant number of 12 dwellings in each sampled PSUs. All households within each dwelling are included.

2.1.6 Sample distribution over time

The sample is not distributed over time.

2.1.7 Renewal of sample: Rotational groups

The survey uses the integrated four-years rotational panel design. One-fourth of the sample is replaced each year. Because the 2007 was the first year of the survey, no rotation was applied this year.

	Years					
	2007	2008	2009	2010	2011	2012
Sub-samples	S1					
	S2	S2				
	S3	S3	S3			
	S4	S4	S4	S4		
		S5	S5	S5	S5	
			S6	S6	S6	S6
				S7	S7	S7
					S8	S8
						S9

2.1.8 Weightings

Weighting factors have been calculated taking into account the units probability of selection, non-response adjustment and the calibration to external data relating to the distribution of persons in the target population. The weights are calculated in three steps. The first step assigns the inverse of the selection probabilities to each sampled dwelling unit. The second step adjusts for non-response. The third and final step consists of calibrating the secondary weights, for each wave, by region, to the best latest available population totals.

2.1.8.1 Design factor

Design factor of a dwelling is the inverse of its inclusion probability. Design factors for households and for individuals are the same because, in each selected dwelling, all persons are selected for the survey.

2.1.8.2 Non-response adjustments

In order to contra balance the non-respondent households, it is proceed at a re-weighting, by adjusting the weights of the respondent households with the inverse of the response rate. The non-response are not globally adjusted, at the entire sample level, but separately, on groups of households, groups generated by the variable considered as explicative variable of the non response: county (NUTS 3 level). This correspond to the so-called 'response-homogenous groups" method, which assumes that in a certain group all the units have the same probability. In order to minimize the effects induced by the presence of non-response another adjustment is done: re-weighting by calibration of the weights.

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

We applied an integrative calibration that means that we used both households and personal variables in the procedure. The calibration is performed at the household level using the household variables and individual variables in their aggregate form as calibration variables. This technique ensures that all members in the same household receive the same weight. Adjustments were made using the SAS macro CALMAR. Calibration variables were: “distribution of the population by age group, area of residence (urban \ rural) and gender” (except for groups “0 to 15 years old” and “75 years old and more”, groups were defined by intervals of ten years using Romanian Population Estimates at the end of the income reference period and “households totals by region”.

2.1.8.4 Final cross-sectional weights

Three cross-sectional weights were calculated:

- 1) Household cross-sectional weight (DB090)
- 2) Personal cross-sectional weight for all household members (RB050)
- 3) Personal cross-sectional weight for all household members aged 16 and over (PB040)

In each case, final cross-sectional weight is given by the product of the design factor, the non-response adjustment and the factor of adjustment to external data. All household members take the same cross-sectional weight, i.e., the household cross-sectional weight they belong to (RB050=DB090).

2.1.9 Substitutions

No substitution of unit non-response has been applied.

2.2 Sampling errors

Sampling errors were calculated for the common cross-sectional EU indicators based on the cross-sectional component of EU-SILC.

Particularly, sampling errors were estimated with the JRR method using the software developed by Siena University (EUSILC-Report 04 for the Intermediary Quality).

2.2.1 Standard errors and effective sample size

The following table contains respectively the value, the absolute sampling error, the Kish indices and the achieved sample size for each of the indicators:

	subpopulation	est	stat_se	kish	n
1	HCR, after social transfers: Age 0-15	0.336515	0.020223	1.121712	2699
2	HCR, after social transfers: Age 16-24	0.248208	0.018931	1.121846	2205
3	HCR, after social transfers: Age 25-49	0.210081	0.011995	1.123645	6619
4	HCR, after social transfers: Age 50-64	0.199342	0.011651	1.10681	4105
5	HCR, after social transfers: Age more then 64	0.306009	0.018774	1.111829	3591
6	HCR, after social transfers: Male	0.242512	0.012953	1.140303	9302
7	HCR, after social transfers: Female	0.25314	0.012455	1.132623	9969
8	HCR, after social transfers: Male Age 0-15	0.327197	0.020424	1.112271	1380
9	HCR, after social transfers: Male Age 16-24	0.26438	0.02184	1.138305	1205
10	HCR, after social transfers: Male Age 25-49	0.214338	0.012655	1.120399	3246
11	HCR, after social transfers: Male Age 50-64	0.194838	0.013361	1.114663	1922
	HCR, after social transfers: Male Age more then				
12	64	0.252821	0.017933	1.124263	1521
13	HCR, after social transfers: Female Age 0-15	0.346341	0.025096	1.130798	1319
14	HCR, after social transfers: Female Age 16-24	0.231282	0.019824	1.102704	1000
15	HCR, after social transfers: Female Age 25-49	0.205712	0.011847	1.125434	3373
16	HCR, after social transfers: Female Age 50-64	0.203383	0.011413	1.10015	2183
	HCR, after social transfers: Female Age more				
17	then 64	0.343453	0.021026	1.109308	2070
	HCR, after social transfers: Male Age more then				
18	16	0.225077	0.012742	1.142016	7922
	HCR, after social transfers: Female Age more				
19	then 16	0.23604	0.011212	1.122609	8650
20	HCR, after social transfers: Male Age 16-64	0.219859	0.012767	1.137167	6373
21	HCR, after social transfers: Female Age 16-64	0.210068	0.010483	1.131164	6556
22	HCR, after social transfers: Male Age 0-64	0.241101	0.013107	1.134073	7781
23	HCR, after social transfers: Female Age 0-64	0.235453	0.012692	1.137886	7899
	HCR, after social transfers: One person hh under				
24	65 years	0.272213	0.019581	0.992314	944
	HCR, after social transfers: One person hh				
25	65years and over	0.441935	0.021574	1.007566	1097
26	HCR, after social transfers: One person hh male	0.257621	0.02113	0.998955	716
27	HCR, after social transfers: One person hh female	0.418297	0.021214	1.004001	1325
28	HCR, after social transfers: One person hh total	0.362023	0.018384	1.000905	2041
	HCR, after social transfers: 2 adults, no				
29	dependant children, both adults under 65 years	0.169627	0.01552	1.026553	2442

	HCR, after social transfers: 2 adults, no				
30	dependant children, at least one adult 65 year	0.258028	0.029349	1.031476	2158
	HCR, after social transfers: Other hh without				
31	dependant children	0.168233	0.019387	1.102204	2536
	HCR, after social transfers: Single parent hh, one				
32	or more dependant children	0.4245	0.045216	1.146088	487
	HCR, after social transfers: 2 adults, one				
33	dependant child	0.149314	0.014894	1.091662	2688
	HCR, after social transfers: 2 adults, two				
34	dependant children	0.224328	0.019939	1.073987	2288
	HCR, after social transfers: 2 adults, three or				
35	more dependant children	0.548247	0.044909	1.096998	872
	HCR, after social transfers: Other hh with				
36	dependant children	0.267064	0.026443	1.07958	3759
	HCR, after social transfers: Hh without dependant				
37	children	0.219515	0.013908	1.083474	9177
	HCR, after social transfers: Hh with dependant				
38	children	0.265173	0.015441	1.115947	10094
	HCR, after social transfers: Accommodation				
39	tenure status: Owner or rent free	0.250769	0.01271	1.13692	18892
	HCR, after social transfers: Accommodation				
40	tenure status: Tenant	0.11298	0.026735	1.088318	379
	HCR, after social transfers: Main activity status:				
41	Employed	0.191347	0.013624	1.123802	8122
	HCR, after social transfers: Main activity status:				
42	Unemployed	0.421837	0.045286	1.142068	526
	HCR, after social transfers: Main activity status:				
43	Retired	0.228955	0.013995	1.103437	5240
	HCR, after social transfers: Main activity status:				
44	Other inactive	0.321622	0.015481	1.122011	5383
	HCR, after social transfers: Main activity status:				
45	Employed, Male	0.205333	0.014292	1.128411	4506
	HCR, after social transfers: Main activity status:				
46	Unemployed, Male	0.468045	0.05271	1.141828	365
	HCR, after social transfers: Main activity status:				
47	Retired, Male	0.2107	0.015871	1.117484	2282
	HCR, after social transfers: Main activity status:				
48	Other inactive, Male	0.299184	0.016751	1.118605	2149
	HCR, after social transfers: Main activity status:				
49	Employed, Female	0.173078	0.016602	1.112572	3616
	HCR, after social transfers: Main activity status:				
50	Unemployed, Female	0.312131	0.048792	1.138423	161
51	HCR, after social transfers: Main activity status:	0.242766	0.014398	1.095265	2958

	Retired, Female				
	HCR, after social transfers: Main activity status:				
52	Other inactive, Female	0.336714	0.017711	1.12452	3234
	HCR, after social transfers: Work intensity: hh				
53	without dependent children, w=0	0,276635869	0,019234055	1,094616807	1851
	HCR, after social transfers: Work intensity: hh				
54	without dependent children, 0<w<1	0,141637885	0,026702752	1,091466158	2397
	HCR, after social transfers: Work intensity: hh				
55	without dependent children, w=1	0,182537015	0,01780918	1,129725735	2576
	HCR, after social transfers: Work intensity: hh with				
56	dependent children, w=0	0,790438147	0,031306973	1,069525045	666
	HCR, after social transfers: Work intensity: hh with				
57	dependent children, 0<w<0.5	0,354206482	0,043932994	1,090711726	665
	HCR, after social transfers: Work intensity: hh with				
58	dependent children, 0.5<=w<1	0,278020042	0,02106671	1,107196077	3692
	HCR, after social transfers: Work intensity: hh with				
59	dependent children, w=1	0,179412466	0,016715033	1,113212614	5027
	HCR, before social transfers including pensions:				
60	Male Age 0-15	0.416163	0.028391	1.122698	1380
	HCR, before social transfers including pensions:				
61	Male Age 16-24	0.318142	0.026491	1.140174	1205
	HCR, before social transfers including pensions:				
62	Male Age 25-49	0.268963	0.020344	1.128245	3246
	HCR, before social transfers including pensions:				
63	Male Age 50-64	0.270524	0.019983	1.118446	1922
	HCR, before social transfers including pensions:				
64	Male Age more then 64	0.286853	0.020981	1.127874	1521
	HCR, before social transfers including pensions:				
65	Female Age 0-15	0.425689	0.031464	1.130147	1319
	HCR, before social transfers including pensions:				
66	Female Age 16-24	0.302528	0.022602	1.105731	1000
	HCR, before social transfers including pensions:				
67	Female Age 25-49	0.264222	0.020042	1.134753	3373
	HCR, before social transfers including pensions:				
68	Female Age 50-64	0.264496	0.018517	1.110599	2183
	HCR, before social transfers including pensions:				
69	Female Age more then 64	0.388948	0.023819	1.120217	2070
	HCR, before social transfers excluding pensions:				
70	Male Age 0-15	0.208105	0.021502	1.097186	1380
	HCR, before social transfers excluding pensions:				
71	Male Age 16-24	0.17049	0.016688	1.122789	1205
	HCR, before social transfers excluding pensions:				
72	Male Age 25-49	0.138217	0.01408	1.113216	3246

	HCR, before social transfers excluding pensions:				
73	Male Age 50-64	0.486082	0.020536	1.153742	1922
	HCR, before social transfers excluding pensions:				
74	Male Age more then 64	0.851617	0.012838	1.352898	1521
	HCR, before social transfers excluding pensions:				
75	Female Age 0-15	0.475772	0.031192	1.132637	1319
	HCR, before social transfers excluding pensions:				
76	Female Age 16-24	0.361068	0.022891	1.106944	1000
	HCR, before social transfers excluding pensions:				
77	Female Age 25-49	0.316489	0.020381	1.136913	3373
	HCR, before social transfers excluding pensions:				
78	Female Age 50-64	0.557144	0.020016	1.185694	2183
	HCR, before social transfers excluding pensions:				
79	Female Age more then 64	0.815936	0.013947	1.355081	2070
80	Median equivalised disposable income	5844.483	227.1274	1.154467	19271
81	At-risk-of-poverty threshold, one person hh	2568	113.6553	1.01071	2041
	At-risk-of-poverty threshold, hh 2 adults				
82	2dependent children	3546.479	131.2567	1.120383	2288
83	S80/S20	7.81565	0.407463	1.164964	19271
	Relative median at-risk-of-poverty gap: Male				
84	Age0-15	0.391111	0.024619	1.127405	1380
	Relative median at-risk-of-poverty gap: Male				
85	Age16-24	0.410116	0.025397	1.133908	1205
	Relative median at-risk-of-poverty gap: Male				
86	Age25-49	0.359624	0.021289	1.13715	3246
	Relative median at-risk-of-poverty gap: Male				
87	Age50-64	0.315774	0.023266	1.157496	1922
	Relative median at-risk-of-poverty gap: Male Age				
88	more then 64	0.24019	0.018192	1.125629	1521
	Relative median at-risk-of-poverty gap: Female				
89	Age 0-15	0.409261	0.0272	1.134053	1319
	Relative median at-risk-of-poverty gap: Female				
90	Age 16-24	0.378072	0.023317	1.105541	1000
	Relative median at-risk-of-poverty gap: Female				
91	Age 25-49	0.370251	0.020727	1.147604	3373
	Relative median at-risk-of-poverty gap: Female				
92	Age 50-64	0.301716	0.01781	1.161359	2183
	Relative median at-risk-of-poverty gap: Female				
93	Age more then 64	0.301047	0.018196	1.137807	2070
	Median income below the at-risk-of-poverty				
94	threshold	7004.189	102.6967	1.154467	19271
95	HCR P.L. as 50% median	0.187258	0.064449	1.139222	19271
96	HCR P.L .as 70% median	0.320941	0.009307	1.140439	19271

97	HCR P.L. as 40% median	0.129217	0.008935	1.142481	19271
98	Gini coefficient	0.37839	0.008408	1.183115	19271
99	Mean equivalised disposable income	7004.189	236.2408	1.177593	19271

2.3 Non-sampling errors

2.3.1 Sampling frame and coverage errors

Due to the lack of appropriate information, the new dwellings, built after 2002 Census of the Population and Dwellings, that could possibly constitute a sampling frame of the new dwellings, have not been taken into account. Thus, an updates has be done for the PSU included in EMZOT in 2007 year, on the basis of a micro-census type survey. The micro-census has aimed in particular the updating of the addresses of the dwellings.

Under-coverage rate was estimated as the ratio between number of new dwellings, built in the period end of 2002 year (the year of the census)- end of 2006 year and number of dwellings at the end of 2006 year (Source: Romanian Statistical Yearbook, 2007). Thus, it was assumed that the proportion of the new dwellings in total dwellings should be the same in the master sample. Under-coverage rate was 1,94%.

Over-coverage rate was estimated on the basis of the survey sample, as ratio between number of not-eligible dwellings (not valid addresses selected) and number of sampled dwellings (all addresses selected). Over-coverage rate was: 6,46% .

The percentage of not-existing adresses, or being non-residential or unoccupied or not the main addresses was equal in 2007 with 6,4% over the total number of selected adresses.

2.3.3.1 Achieved sample size

- **Number of households for which an interview is accepted for the database by rotational group**

ROTATIONAL GROUP	households	percentage
1	2016	25,1
2	2010	25,0
3	1983	24,7
4	2022	25,2
Total	8031	100,0

2.3.3.2 Unit non-response

Household non-response rates (*NRh*)

-Number of addresses successfully contacted (DB120 = 11): 8745

-Number of valid addresses selected (DB120 \diamond 23): 8785

Ra (address contact rate): **99.54%**

-Number of household interviews completed and accepted for database (DB135 = 1): 8031

-Number of eligible households at contact addresses (DB130 filled): 8845

Rh (proportion of complete household interviews accepted for database): **90.80%**

NRh (household non-response rate): **9.62%**

Individual non-response rates (*NRp*)

-Number of personal interviews completed (RB250 = 11 + 12 + 13): 17042

-Number of eligible individuals in the households whose interviews were completed and accepted for the database (RB245 = 1 + 2 + 3): 17073

Rp (proportion of complete personal interviews within the households accepted for the database): **99.82%**

NRp (individual non-response rate): **0.18%**

Overall individual non-response rates (*NRp)

Ra (address contact rate): **99.54%**

Rh (proportion of complete household interviews accepted for database):
90.80%

Rp (proportion of complete personal interviews within the households accepted for the database): **99.82%**

***NR** (overall individual non-response rate): **9.78%**

2.3.3.3 Distribution of households by “record of contact at adress” (DB120) by “household questionnaire result” (DB130) and by “household interview acceptance” (DB135)

Table 1A: Distribution of households by “record of contact at adress” (DB120)

	Number	%
Total	9392	100,0
Address contacted (DB120=11)	8745	93,1
Address non-contacted (DB120=21 U 22 U 23) from which:	647	6,9
- address cannot be located (DB120=21)	15	0,2
- address unable to access (DB120=22)	25	0,3
- address does not exist, is not residential address or unocuppied (DB120=23)	607	6,4

Table 1B: Distribution of households by “household questionnaire result” (DB130)

	Number	%
Total	8745	100,0
Household questionnaire completed (DB130=11)	8035	91,9
Interview not completed , from which:	710	8,1
- refusal to cooperate (DB130=21)	243	2,8
- entire household temporary away for duration of fieldwork (DB130=22)	240	2,7
- household unable to respond (DB130=23)	223	2,5
- other reasons (DB130=24)	4	0,1

Table 1C: Distribution of households by “household interview acceptance” (DB135)

	Number	%
Household questionnaire completed	8035	100,0
- interview accepted for the database (DB135=1)	8031	99,9
- interview rejected (DB135=2)	4	0,1

2.3.3.4 Item non-response

We have no item non-response due to the checking programs used at the county level which show these missings data and the supervisors have to solve it: first of all, the questionnaire is checked in order to find if it is an operator’s mistake and secondly, the household is asked again if the information was not supplied from the beginning.

2.3.2 Measurement and processing errors

2.3.2.1 Measurement errors

As in any other survey, there are 3 main sources of measurement errors:

- the questionnaires (1)
- the interviewers (2)
- the respondents (3)

(1) We used three types of questionnaires:

- the household file;
- the household questionnaire, with the detailed questions regarding the household;
- the individual questionnaire, which was fulfilled for each person 15 years or more, in order to record better the incomes of the people less than 16 years.

The questionnaires were designed with the occasion of 2004 and 2005 pilot tests and up-dated with the improvements based on the tests conclusions and the 2007 secondary module.

The structure of questionnaires was the following:

❖ **The household file** included:

- identification data;
- the household composition - name, identifier, date of birth, sex, the relatives' code (mother's, father's and husband's/wife's), sample-person or co-resident etc.;
- some questions about household identification ;

The household file is design and used all four years a person is included in the survey.

❖ **The household questionnaire** included:

- identification data;

- data regarding child care for all the children less than 12 years;
- questions regarding economic situation of the household (housing and non-housing related arrears, non-monetary household deprivation questions);
- housing conditions (including information about dwelling and dwelling environment, housing cost, amenities in the dwelling);
- taxes paid for the year 2006;
- household incomes in 2006;
- questions regarding the 2007 secondary module;

❖ **The individual questionnaire:**

- identification data;
- questions regarding the health status;
- level of education questions (the school attended currently and the highest level of education attended);
- detailed questions regarding employment/non-employment;
- individual incomes achieved in 2006.

In order to help the data collection activities, other materials were designed by the methodological team:

- the letter for the households – a paper sheet in which the objectives of the EU-SILC survey is presented, the importance of the people participation is highlighted and the confidentiality of the data is garrantied.
- the list of the dwelling and households included in the sample (LG) is a document with two parts: first one included the exact addressees selected to carry-out the interviews. The second part included the situation found on the field for each address. This document is very usefull for the interviewers and supwervisors in order to check the integrity of the data collected.

- (2) The interviewers make a special effort to learn the specific aspects of this survey, mainly the household membership status which differs from other previous surveys carried-out by NIS.

A handbook was prepared with all the information available to help the interviewers in the fields work activities. Explanations for a big number of questions from all the questionnaires were included. Aspects related to the follow-up of households/persons and the construction of identifiers were explained in this handbook also. A special section included some recommendations about the behaviour in the respondents' presence and the way the interviewers should convince population to participate to this survey.

Other aspects:

- co-resident and sample –person;
- presence in the household created confusion for the members who are abroad for an un-known period of time; in other surveys there was a special code – abroad – for these persons. The implication on household's income and the definition of the household (share of incomes or expenditures) made difficult to establish if these persons are or not the household members.

- (3) For respondents, the most difficult information to declare was the value of incomes in the previous calendar year, the social insurance contribution and the taxes on wealth. Another difficult answer was related to the housing cost, also the question was preceded by a helping question in which they were asked what kind of housing cost that household is actually paying, in order to be sure the respondent is thinking at the elements of the housing cost are recommended by EU-SILC methodology to be included here.

Another aspect which created some problems was the co-relation between the declaration of the marital status/consensual union between partners. There were cases in which one partner declared he is married and his/her partner declared he is in consensual union. These cases were solved by taking with priority the idea of a consensual union in the case the partners have not the same family name.

Some households found difficult to estimate the rent they would receive if they would rent the dwelling.

2.3.2.2 Processing errors

During the field work period and data processing period several checks were done. Data editing and cleaning was done in two steps: firstly, at the level of each county and secondly, after the counties' files will be sent to INS team, a second check was done by EU-SILC central team.

At the county level, after data collection, supervisors had the duty to check the integrity of the questionnaires (one household file and at least one household questionnaire per household and as many personal questionnaires as household members 15 years and more exists). During data entry, a checking software was applied at county level. The counties sent the files at central level and a new check was done on the national files.

The checking software included 3 types of checks: checks at each questionnaire level (household and personal questionnaires), checks for the correlation between the information included in household and personal questionnaires, and a third type of checks, integrity checks, if all the addresses included in the sample were visited (if questionnaires completed exist for each address included in the sample). Inside each type of questionnaire there were 2 types of logical conditions: to see if all the compulsory questions were fulfilled and to check if the answers were correct (for quantitative variables minimal and maximal limits were established, and for qualitative variables logical conditions were tested).

After the data files in the EUROSTAT format were obtained, a third data check was done, using the EUROSTAT software available on Circa user group.

The process of cleaning the data took a long time and imposed special efforts both from the county teams and central metodological team in order to obtain the 4 micro-data files in Eurostat format, due to the big number of variables and numerous

correlations between them. A more detailed analysis of the checking conditions should be made in the next waves in order to add more checks to the checking software.

2.4 Method of data collection

The method of data collection was face-to-face personal interviews, using paper questionnaires. The interviewers visited the addresses selected in the sample and fulfilled the questionnaires, based on the interviews. The household questionnaire was fulfilled by interview with the household head and individual questionnaire by interview with each household member 15 years old and more.

Table 2: Distribution of households members aged 16 years old and over by data status

	Number	%
Total	17073	
Information of interview completed	17042	99,9
- information completed only from interview (RB250=11)	17042	
- information completed only from registers (RB250=12)	na	na
- information completed both from interview and registers (RB250=13)	na	na
Interview not completed, though contact made	1	
- individual unable to answer and no proxy possible (RB250=21)	-	-
- failed to return the self-administrated questionnaire (RB250=22)	na	na
- refusal to cooperate (RB250=23)	1	
Individual not contacted because:	30	0,1
- person temporarily away and no proxy possible (RB250=31)	10	
- no contact for other reasons (RB250=32)	20	
Information not completed, reason unknow (RB250=33)	-	-

Table 3: Distribution of households members aged 16 years old and over by the respondent status

	Number	%
Total	19877	100,0
- Current household member aged 16 years and over (RB245=1)	17073	85,9
- Selected respondent (RB245=2)	na	na
- non-selected respondent (RB245=3)	na	na
- not eligible respondent (RB245=4)	2804	14,1

Table 4: Distribution of households members aged 16 years old and over by the type of interview

	Number	%
Total	17042	100,0
- Questionnaire completed –face-to-face interview PAPI (RB260=1)	13659	80,1
- Questionnaire completed –face-to-face interview CAPI (RB260=2)	na	na
- Questionnaire completed –CATI (RB260=3)	na	na
- Self-administrated by respondent (RB260=4)	na	na
- Proxy interview (RB260=5)	3383	19,9

The high number of the proxy interview was due to the fact that data collection period was in the holiday period. In the future waves a special emphasis will be given to this aspect in the training sessions and the phenomenon will be supervised more severe.

2.5 Interview duration

The average household interview duration was 24,7 minutes.

The average individual interview duration was 21,1 minutes.

2.6 Collection of variable company car

The following information were collected in the individual questionnaire:

- the type of the car;
- the model;
- the registration year;
- number of months in 2006 the car was at the disposal of the person for private use;

The company car value was calculated as:

Company car value = number of months*selling price*[1 – 100*(2007- registration year)/10]/12

The selling prices of the cars by type of car and producer were taken from the List of manufactures recommended retail prices of the Competition DG report.

1. COMPARABILITY

3.1 Basic concepts and definitions

3.1.1 The reference population

The reference population is all citizens officially living in Romania. Persons living in collective households and in institutions are excluded from the target population, as well as households having members diplomatic missionaries.

3.1.2 The dwelling definition

The dwelling is the unit formed by one or more rooms, having in general annexes (kitchen, bathroom etc.) or other utility spaces, the unit being independent from the functional point of view, having separate entrance from the space of the stairs, from the yard or from the street and which was build, transformed or arranged in order to be inhabited.

3.1.3 The household definition

Household is defined as a person living alone or a group of persons who live together in the same dwelling and share expenditures including the joint provision of the essentials of living.

3.1.4 The household membership

We used the same household membership definition as the Eurostat recommended in the document EU-SILC 065.

3.1.5 The income reference period

No departure from the common definition.

We used a fixed income reference period of twelve-month, more exactly the previous calendar year (January – December 2006).

3.1.6 The period for taxes on income and social insurance contribution

No departure from the common definition.

The repayments and receipts for tax adjustment referring to the income taxes recalculated for the global income gained in 2005 and they were collected if there were paid/received during the calendar 2006.

3.1.8 Total duration of data collection

Data collection period was 16-31 July.

3.2 Components of income

The main goal of this survey is a correct estimation of the gross and disposable income of the households. In order to achieve this goal, the household and individual questionnaires included a long list of income components, currently existing in Romania (45 income components in individual questionnaire and 19 income components in the household questionnaire). From all these elements we calculated income components at household and individual level corresponding to

the income variables for households and persons and in the final, we aggregated all in the gross (HY010) and disposable income (HY020) for each household who accepted the interview.

The total gross and disposable household incomes, as the each component of the total income were calculated in the following way:

❖ **Total household gross income**

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

❖ **Total household disposable income**

$$\text{HY020} = \sum \text{PY010N} + \sum \text{PY050N} + \sum \text{PY090N} + \sum \text{PY100N} + \sum \text{PY110N} + \sum \text{PY120N} + \sum \text{PY130N} + \sum \text{PY140N} + \text{HY050N} + \text{HY060N} + \text{HY070N} + \text{HY080N} + \text{HY090N} + \text{HY110N} \pm \text{HY145N} - \text{HY130}$$

❖ **Total household disposable income, before social transfers other than old age and survivors' benefits**

$$\text{HY022} = \text{HY020} - (\sum \text{PY090N} + \sum \text{PY120N} + \sum \text{PY130N} + \sum \text{PY140N}) - \text{HY050N} - \text{HY060N} - \text{HY070N}$$

❖ **Total household disposable income, before social transfers including old age and survivors' benefits**

$$\text{HY022} = \text{HY020} - (\sum \text{PY090N} + \sum \text{PY100N} + \sum \text{PY110N} + \sum \text{PY120N} + \sum \text{PY130N} + \sum \text{PY140N}) - \text{HY050N} - \text{HY060N} - \text{HY070N}$$

❖ **Imputed rent (HY030N)**

The value of imputed rent was estimated at the household level (and included in the personal file for only one person per household) from the household budget survey (HBS), using the stratification method. The HBS includes around 37000 households and it is conducted continuously during each year.

INCOME COLLECTED AT HOUSEHOLD LEVEL

❖ Income from rental of property or land (HY040N)

- rent received for renting land, buildings, dwellings or rooms

❖ Family/children related allowances (HY050N)

- Child allowance
- Complementary family allowance
- Allowance for new-born children
- Allowance for single-parent families
- Allowance paid to families which rise children in family placement
- Monthly social benefit for wives of people in compulsory military service
- Benefit for the maternal leave or for leave due to child care
- Benefit for leave due to child care

❖ Social exclusion payments not elsewhere classified (HY060N)

- Benefit for persons without incomes/ with low incomes
- Benefit for dwelling heating
- Emergency benefit for urgent situations (natural disasters etc.)

❖ Housing allowances (HY070N)

We didn't identify any allowance or benefit to be included in this category.

❖ Regular inter-household cash transfers received (HY080N)

❖ **Interest, dividends, profit from capital investments in unincorporated business (HY090N)**

- interests
- dividends
- profit from capital investments in unincorporated business

❖ **Income received by people aged under 16 (HY110N)**

- income received by people aged under 16 (collected in the household questionnaire);
- personal gross/net income of people 15 years old (collected in the personal questionnaire)

❖ **Regular inter-household transfers paid (HY130N)**

❖ **Tax on income and social insurance contribution (HY140N)**

- income tax retained at source for wages
- anticipated income tax for own account activities
- income tax retained at source for pensions
- regular taxes on wealth

The value of own consumption was estimated at the household level (and included in the personal file for only one person per household) from the household budget survey (HBS), using the stratification method. The HBS includes around 37000 households and it is conducted continuously during each year.

INCOMES COLLECTED AT PERSONAL LEVEL

❖ Employee cash or near cash income (PY010G/PY010N)

- Salaries and other employees rights

❖ Non-cash employee income (PY020G/PY020N)

- In-kind employee salaries
- Non-cash employee income

For these incomes we collected: net amount, if the income tax was retained at source, deduction and other amounts retained at source.

❖ Cash benefits or losses from self employment (PY050G/PY050N)

- Cash income received from agricultural associations
- Incomes from sales of agricultural products, animals and poultry
- Incomes from agricultural work carried-out for other households or persons
- Incomes from commerce
- Incomes from services carried-out
- Incomes from trade
- Incomes from liberal professions
- Incomes from royalties

For all these incomes we collected also: anticipated income tax and social contributions (unemployment, health and pension). The sums are collected in the form of profit or loss.

❖ Unemployment benefits (PY090G/PY090N)

- Unemployment benefit,
- Professional integration allowance or supporting allowance
- Compensatory payment for collective firing

❖ **Old age benefits (PY100G/PY100N)**

- Social insurance pension for old age limit
- Anticipated social insurance pension
- Social benefit (in the form of pension)
- Social insurance pension for farmers
- Pension for war invalids, war orphans and war widows (excluding survivors' pension)
- Social benefit for war's veterans and war's widows

❖ **Survivor's benefits (PY110G/PY110N)**

- Survival social insurance pension
- Allowance or other money rights for survivors of persons dead during 1989 Revolution
- Allowance in case of the death of a family member

❖ **Sickness benefits (PY120G/PY120N)**

- Sickness benefit

❖ **Disability benefits (PY130G/PY130N)**

- social insurance pension for work incapacity
- Special allowance for handicapped persons

❖ **Education-related allowances (PY140G/PY140N)**

- Scholarships
- Cash amount received by people attended high-school included in the program "Money for high-school"

❖ **Repayments/receipts for tax adjustment for the income achieved in 2005 (HY145N)**

3.2.2 The source or procedure for the collection of income variables

The source for the collection of income variables was paper and pencil interviews for all income variables, including the money drawn out of business by the self-employed. We did not use administrative records.

The use of the justificative documents regarding the incomes was the respondents' decision.

3.2.3 The form in which income variables at component level have been obtained

The majority of income components were recorded net and the gross variables were obtained by adding at the net values, the value of income tax retained at source and social contributions paid (in the case of wages, we add the value of other sums retained at source, too).

3.2.4 The method used for obtaining income target variables at the required form

The only income components calculated in the process of data editing were:

- the value of income tax retained at source for salaries (we have a flat rate of 16% for income tax), the respondents being asked only if they paid or not the income tax for wage;
- the exact value of the social insurance contribution retained at source for salaries, if this was declared in the form of an interval.
- the value of income tax retained at source and social insurance contributions for pensions (if the pension was bigger than 900 lei);
- the interest for dividends and money withdrawn from the banks;

4. COHERENCE

4.1 Comparison of income target variables with external sources

A very exact comparison between HBS and EU-SILC data is not possible due to some methodological differences, more exactly, differences at the level of income elements collected and included in the EU-SILC. The following table show the income estimations into these two surveys, regarding the incomes received from January to December 2006. When it was possible, the figures were recalculated for both HBS and EU-SILC in order to be as close as possible from the methodological point of view.

The figures presented in the following table are calculated as average per household. The differences between these two surveys it is possible to be due to the greater value of the income taxes and social insurance contributions for wages, own account activities and pensions in EU-SILC, where these elements are automatical calculated (if the person declared there were paid). In HBS the person should declare the value of these components in the diary.

		HBS 2006	EU- SILC	
1	TOTAL GROSS HOUSEHOLD INCOME (2+5+13+16+26 + 35)	HY010	13092.1	15672.5
2	Gross cash or non-cash employee income	PY010G	8208.6	10431.4 ¹
5	Gr oss profit or losses from self-employment	PY050G	1126.1	1436.4
13	Gross property income	HY040G	56.0	49.2
16	Gross income from cash transfers received (17+18+19+20+21+22+23+24 +25)		3309	3746.4
17	Family/children-related allowances	HY050G	415.9	386.4
18	Social exclusion not elsewhere classified	HY060G	96.7	99.9
19	Gross unemployment benefits	PY090G	84.6	58.8
20	Gross old-age benefits	PY100G	2183.6	2580.3
21	Gross survivor's benefits	PY110G	135.1	137.4
22	Gross sickness benefits	PY120G	2.5	4.3
23	Gross disability benefits	PY130G	376.2	357.7
24	Education-related allowances	PY140G	14.4	10.9
25	Regular inter-household cash transfers received	HY080G	na	110.7
26	Gross income received by people aged under 16	HY110G	na	9.1
35	Other cash incomes not else classified		392.4	na
29	Cash transfers paid (30+31+33+34)		2111.3	2840.5
30	Regular taxes on wealth	HY120N	2111.3	152.8

¹ excluding the value of the company car

31	Taxes on income and social contribution	HY140N		2655.6
33	Regular inter-household cash transfers paid	HY130N	<i>na</i>	35.2
34	Repayments/receipts for tax adjustments	HY145N	<i>na</i>	-3.1
<i>TOTAL DISPOSABLE HOUSEHOLD INCOME</i>		<i>HY020</i>	10980.8	12832