REPUBLIC OF SLOVENIA

STATISTICAL OFFICE OF THE REPUBLIC OF SLOVENIA

FINAL QUALITY REPORT
EU-SILC-2005
Slovenia - draft

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CONTENTS

1 Common cross-sectional EU indicators

1.1 Common longitudinal European Union indicators based on the longitudinal component of EU-SILC

EU-SILC was conducted the first time in 2005 and because of this we could not calculate any longitudinal indicators. Instead of longitudinal we added cross sectional indicators for 2005.

Primary Laeken indicators of social cohesion

Indicator 1: At-risk-of-poverty rate by age and gender

	under 16 years	0-64	16+	16-64	16-24	25-49	50-64	65+	All ages
Males		10.5	10.4	10.3	9.7	9.6	12	11.2	10.6
Females		10.9	13.9	10.5	11.1	9	13.2	26.2	13.6
All	11.9	10.7	12.2	10.4	10.4	9.3	12.6	20.4	**12.1**

Indicator 1.a: At-risk-of-poverty rate by household type

all households without dependent children	15,6
one person household, total	44,1
one person household, male	35,1
one person household, female	48,5
one person household, under 65 years	43,0
one person household, 65 years or more	44,8
two adults no dependent children, both adults under 65 years	11,8
two adults no dependent children, at least one adult 65 years or more	12,1
other households without dependent children	5,8
all households with dependent children	9,9
single parent household, one or more dependent children	21,4
two adults, one dependent child	9,1
two adults, two dependent children	10,1
two adults, three or more dependent children	16,6
other households with dependent children	6,1

Indicator 1.b: At-risk-of-poverty rate by the work intensity of household

	WI = 0	0 < WI < 0.5	0.5 <= WI < 1	WI = 1
all households without dependent children	31,4	6,3		3,7
all households with dependent children	54	26,6	12,3	2,6

Indicator 1.c: At-risk-of-poverty rate by most frequent activity status and gender

	Age 16+			Age 16-64			Age 65+		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
at work	**4,6**	**5,1**	**4,0**	**4,6**	**5,1**	**4,0**	**.**	**.**	**.**
salary/wage employees	4,0	4,4	3,6	4,0	4,4	3,6	.	.	.
self-employed	13,1	13,2	13,1	13,2	13,2	13,1	.	.	-
not at work	**18,8**	**16,1**	**20,8**	**17,9**	**18,3**	**17,6**	**20,4**	**11,2**	**26,2**
unemployed	25,1	24,1	26,1	25,1	24,1	26,1	-	-	-
Retired	16,8	10,9	20,6	11,5	10,5	12,1	20,2	11,2	25,9
other inactive	20,8	21,2	20,5	20,6	21,2	20,1	(47,4)	.	(49,5)

-   no occurence of event

.   extremely inaccurate estimate

( ) less accurate estimate

Indicator 1.d: At-risk-of-poverty rate by accommodation tenure status by age and gender

		owner or rent-free	tenant
Age 0+	Total	10,8	25,7
	Males	9,1	25
	Females	12,3	26,4
Age 0-15	Total	9,8	28,4
Age 16+	Total	10,9	25,1
	Males	9,2	23,6
	Females	12,6	26,4
Age 16-64	Total	8,9	24,5
	Males	8,9	23,9
	Females	9	25,1
Age 65+	Total	19,8	29,5
	Males	10,7	(20,7)
	Females	25,6	33,6

( ) less accurate estimate

Indicator 2: At-risk-of-poverty rate threshold

	in SIT	in EURO*	in PPS*
Single person household	1261821	5278	6962
Household with 2 adults, two children	2649825	11083	14619

*Exchange rates for EUR and PPS: Eurostat, New Cronos.

Indicator 3: Inequality of income distribution S80/S20

S80 / S20   3,4

Indicator 4: Relative at-risk-of poverty gap by age and gender

	under 16 years	0-64	16+	16-64	65+	All ages
All	17,5	10,5	19,4	19,3	19,6	19,3
Males		10,9	20,7	21,5	16,6	20,4
Females		10,7	18,7	17,4	20,3	18,6

Secondary Laeken indicators of social cohesion

Indicator 13: Dispersion around the at-risk-of-poverty threshold by age and gender

		40% cut-off	50% cut-off	70% cut-off
Age 0+	Total	3,0	7,0	18,9
	Males	3,0	6,1	16,9
	Females	3,0	7,9	20,8
Age 0-15	Total	2,2	6,4	19,0
Age 16+	Total	3,1	7,1	18,9
	Males	3,2	6,1	16,6
	Females	3,1	8,1	21,0
Age 16-64	Total	2,8	5,9	16,5
	Males	3,2	6,2	16,3
	Females	2,3	5,6	16,7
Age 65+	Total	4,9	12,7	29,8
	Males	3,3	5,3	18,7
	Females	5,9	17,4	36,8

Indicator 14: At-risk-of-poverty rate anchored at a moment in time by gender

Total	6,1
Males	5,5
Females	6,6

Indicator 15: At-risk-of-poverty rate before social transfers by age and gender

	Age 0+			Age 0-15	Age 16+			Age 16-64			Age 65+		
	Total	Males	Females	Total	Total	Males	Females	Total	Males	Females	Total	Males	Females
old-age and survivor's pensions excluded from income	42,2	39,7	44,6	31,6	44,1	41,3	46,7	35,5	34,4	36,6	83,3	83,4	84
old-age and survivor's pensions included in income	25,8	24,5	27,1	27,5	25,5	24	26,9	23,9	23,6	24,3	32,8	26,4	36,8

Indicator 16: Gini coefficient

Gini 23,8

Other indicators

Indicator: Mean equivalised disposable income

	in SIT	in EURO*	in PPS*
Mean equivalised disposable income	2279660	9535	12577

*Exchange rates for EUR and PPS: Eurostat,
New Cronos.

2 Accuracy

2.1 Sample design

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

The sample design for Slovenian EU-SILC 2005 was two-stage stratified design. In each stratum primary sampling units (PSUs) were firstly systematically selected, and in the second stage 7 persons were selected in each PSU.

We have used rotational design; we have selected the sample on four (later on three) rotational groups and we maintained representativeness of each rotational group.

2.1.2 Sampling units (one stage, two stages)

In the first stage sampling units were selected, which are clusters of enumeration areas, which are approximately of the same size, and then in the second stage 7 persons were selected in the selected PSUs. Unit of observation are selected persons living in private households in Slovenia and their households. The data are collected from all household members who were on 31st December 2004 aged 16 years or more. The selected person is also the sample person; other household members are not sample persons.

2.1.3 Stratification and substratification criteria

The sampling frame of persons aged 16 years or more is divided into 6 strata, which are defined according to the size of the settlement and the proportion of agricultural households in the settlement:

1. The first stratum includes settlements with fewer then 2.000 inhabitants and with less then 30% of agricultural households;
2. The second stratum includes settlements with fewer then 2.000 inhabitants and with at least 30% agricultural households;
3. The third stratum includes settlements which have from 2.000 to 10.000 inhabitants;
4. The fourth stratum includes settlements which have from 10.000 to 80.000 inhabitants;
5. The fifth stratum is Maribor (the second largest city in Slovenia with approx. 93.000 inhabitants);
6. The sixth stratum is Ljubljana (Slovenia's capital with approx. 250.000 inhabitants).

When selecting the sampling units, explicit stratification according to the type of settlement was used (6 strata). Since we wanted to maintain regional representativeness, implicit stratification according to statistical region was applied. It means that the list of units within strata was sorted according to statistical regions. In Slovenia there are 12 statistical (NUTS3) regions:

1. Pomurska
2. Podravska
3. Koroška
4. Savinjska

5. Zasavska
6. Spodnjeposavska
7. Jugovzhodna Slovenija
8. Osrednjeslovenska
9. Gorenjska
10. Notranjsko-kraška
11. Goriška
12. Obalno-kraška

2.1.4 Sample size and allocation criteria

In Eurostat's document *SILC/138/04 Framework Regulation; Annex 2 on Sample Sizes*, the minimal net sample size is defined according to different sample design schemes. Since in Slovenia we have a sample of persons, but in the household only the selected person is the sample person who responds to "Social" variables, we have to obtain responses from at least 6750 selected persons and their households.

We have taken into account the expected non-response of 30%. Since we do not have SRS but two stage stratified design, we had to consider also the design effect (deff=1,4).

$$n = n_{eff} * 1 / Interviewing\_rate * deff = 6750 * 1 / 0,70 * 1,4 = 15000$$

The sampling frame was divided into 6 strata. In other surveys of persons and households at SORS we obtained different interviewing rates in the strata, therefore we decided to oversample strata where we expected lower response rates. For oversampling the data form the Labour Force Survey in 2003 were used. Table 1 shows how the structure alters because of the oversampling of some strata.

Table 1: Distribution of the settlements in six strata according to the number of inhabitants and the proportion of rural households in the settlement

Strata, distribution of settlements	Structure	Interviewing rate in LFS 2003	Altered structure due to oversampling
Fewer then 2000 inhab., not rural	29,2%	0,80	27,1%
Fewer than 2000 inhab., rural	23,4%	0,82	21,3%
From 2000 to 10000 inhab.	16,2%	0,72	16,7%
From 10000 to 80000 inhab.	13,4%	0,72	13,8%
Maribor	4,9%	0,72	5,1%
Ljubljana	12,9%	0,60	16,0%

In the first stage 1928 sampling units were selected, and then in each sampling unit 7 persons aged 16 years or more were selected. The selected persons define the households which we wanted to interview.

*N = number of PSUs * size of PSU = 1928 * 7 = 13496*

The sample size was thus 13496 persons.

2.1.5 Sample selection schemes

The sampling frame was divided into 6 strata and each stratum was ordered (sorted to 12 statistical regions). Within each stratum we systematically selected sampling units (in total 1928), and then in each sampling unit 7 persons were selected.

2.1.6 Sample distribution over time

Fieldwork lasted from 12th February until 12th June 2005. The sample was divided into 8 two-week periods; each interviewer covered two sampling units in one period, which were in close location.

2.1.7 Renewal of sample: rotational groups

The sampling frame has a four-year rotational design. Persons and their households remain in the sample for four years or four waves; each year one quarter of the sample is replaced. One quarter of the sample is dropped and one quarter is added each year. Each quarter of the sample is called a rotational group and has to be representative for the target population.
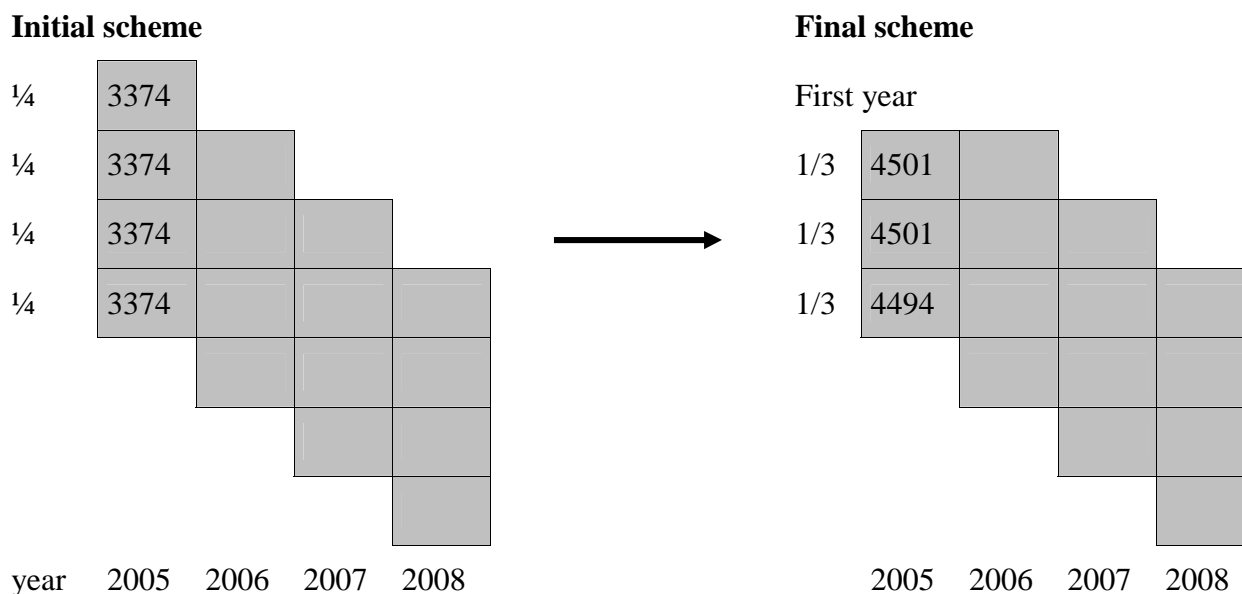
In 2005 the sample was selected for the first time. Although the sample was for all four rotational groups the first wave, the rotational groups were fictitiously divided into four waves. Because of very demanding organization of the fieldwork in the first wave, we have decided with the permission of Eurostat that we would not follow the sample person in the case he or she moves to another address in Slovenia but we treat such cases as non-response. Since we had in 2005 a lower interviewing rate than expected, we had to enlarge the sample for 2006; otherwise our sample size would be too small after four years for longitudinal analysis.

In 2006 we should have dropped out the fourth wave from 2005, but we have decided to keep the fourth wave and divide it into three parts and reallocate them to the remaining three waves form 2005. Therefore all households which responded in 2005 were in 2006 interviewed again.

Since we have decided this before data processing of the 2005 survey, we have decided to renumber initially selected sampling units in the way that we have instead of four three rotational groups and none of the rotational groups would dropped out in 2005. In 2006 only one new rotational group will be added, so that we have four rotational groups in 2006. This sampling scheme was taken into account in weighting.

Table 2: Sample in 2005 divided into 4 rotational groups

Rotational group	Number of PSUs	Number of selected persons	Number of PSUs after renumbering	Number of selected persons after renumbering
1	482	3374	643	4501
2	482	3374	643	4501
3	482	3374	642	4494
4	482	3374	-	-
Total	1928	13496	1928	13496

Initial scheme					**Final scheme**			

¼	3374				First year			
¼	3374				1/3	4501		
¼	3374				1/3	4501		
¼	3374				1/3	4494		

year 2005 2006 2007 2008   2005 2006 2007 2008

In 2005 none of the rotational groups were dropped. Four groups were reallocated to three. Thus we enlarged the size of each group, and therefore also the new part of the sample in 2006 could be larger. The following years we would maintain 4 rotational groups: one group will drop off and one will be added. Therefore we will have 75% of overlap in the sample.

2.1.8 Weighting

The goal of weighting is to improve representativeness of the sample so that the sample accurately reflects the population under study. Weighting is necessary since units were not selected with equal probability, because of the non-response of certain units in the sample, and because we adjusted the data to some known population values. Thus each unit in the sample represents a certain number of units in the population. If we do not consider weights when calculating certain statistics, the estimates about the population might be biased.

In EU-SILC the sample of persons aged 16 years or more was selected from the Central Register of Population. Sample persons and their households were interviewed.

2.1.8.1 Design factor

For each selected person the probability of selection could be calculated. The sampling weight for the sample person *PB070* is inversely proportional to the probability of selection and the weight is calculated when the person is selected in the sample. If we didn't consider differential response rates in the strata, we would obtain the sample which is proportional according to strata: we would select *n* persons among *N* persons in the sampling frame and therefore the probability of selection would be *n/N*, or the sample weight for the selected person would be *N/n*. Since we had to consider also oversampling of certain strata, the sampling weight for the person belonging to stratum h, h=1, 2,…,6, is calculated in the following way:

$$PB070 = N_h/n_h * \text{correction due to oversampling in stratum h}$$

The sum of weights *PB070* in the sample is the size of the sampling frame, this is 1684532 persons.

The sampling weight of the household of the selected person: *DB080*

Since households with more persons aged 16 years or more have a larger probability of selection then smaller households, this has to be corrected with weighting in such a way that all households have equal probability of being selected in the sample. Thus the probability of selection of the household is equal to the probability of selection of the person divided by the number of eligible persons (aged 16+) in the household M:

$$DB080 = PB070 / M_h$$

The sampling weight for the households has to be calculated for all households in the sample, not only for the responding households. Since for the households that did not respond we do not know their size, we have calculated the average size of the household of persons aged 16 or more according to different statistical regions and type of settlement (47 classes) and we imputed this value to households that did not respond. Thus we could calculate the probability of selection also for households that did not respond.

2.1.8.2 Non-response adjustments

Non-response of the households is different in different statistical regions and is also larger in urban than in rural settlements. Weights due to non-response were calculated in predefined classes that should be of appropriate size (not too small and not too big). Classes are defined according to strata, separately for eastern, western and central Slovenia (14 classes). The weight due to non-response is inversely proportional to the response rate within the class. Correction due to non-response is equal to the product of the sampling weight and the non-response weight.

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

Then we applied calibration of weights of the households with the help of external sources: we want to achieve accurate estimates, which means that weighted estimates should equal known population values. In Slovenia we have the possibility to use registers and also some aggregates for certain variables in the database are available. Therefore the weights are calibrated to these values. For the calibration of weights we used SAS Macro Calmar. From the database of persons the database of households was built. For the calibration the sampling weight due to unequal probabilities of selection and non-response was used. We have also prepared some variables for calibration at the level of the household (sex-age distribution, income, etc.), which concerns both households and individuals.

For the calibration we used:

1. for households:

- distribution of households according to the Census 2002 to statistical region and type of settlement,
- proportion of owner and renter households in the Census 2002,
- family/children related allowances.

Since we do not have a register of households, we used the data collected in the Census 2002. We supposed that the distribution of the households in the strata has not changed over the years.

2. for persons:
- sex-age distribution of the population in Slovenia on 31st December 2004 in predefined classes (age classes: 0-15, 16-19, 20-29, 30-39, etc.),
- employee cash or near cash income and sickness benefits,
- cash benefits or losses from self-employment,
- unemployment benefits,
- old-age benefits,
- education-related allowances.

We applied the estimated number of private households in Slovenia, i.e. 697113 households. Also this estimate was derived form the Census 2002, but the increase of the population until 31st December 2004 had to be accounted for.
Calibration was preformed for each rotational group separately; each group is representative for Slovenia.

2.1.8.4 Final longitudinal weight
In the first wave we do not provide final longitudial weight.

2.1.8.5 Non response adjustement
In the frist wavewe did adjust data because of nonresponse.

2.1.8.6 Adjustment to external data (level, variables used and sources)
In the frist wavewe did adjust data from external data.

2.1.8.7 Final longitudinal weight
In the first wave we do not provide final longitudial weight.

2.1.8.8 Final cross-sectional weight
The cross-sectional weight for the household *DB090* is equal to the calibrated weight divided to the number of rotational groups, in our case 3 rotational groups, so that the sum of weights is equal to the sum of the estimated number of households in Slovenia.

With the selected person also the household which has to be interviewed is defined. All household members have the same weight, this is the cross-sectional weight. The cross-sectional weight of the person *RB050*, which all persons get in the household register, and the cross-sectional weight of persons aged 16 years or more *PB040* in the person register are equal to the cross-sectional weight of the household.

$$RB050 = PB040 = DB090$$

The sum of weights *RB050* gives us the number of persons in private households in Slovenia at the end of 2004 (1952281 persons), while the sum of weights *PB040* in the persons register gives us the number of persons aged 16 years or more in private households at the end of 2004 (1646881 persons).

The cross-sectional weight for the selected person *PB060* is equal to the cross-sectional weight of the household of this person multiplied by the number of persons aged 16+:

$$PB060 = DB090 * M_h$$

The cross-sectional weight for children who were younger than 13 years on 31st December 2004 is *RL070*.

Weights are calculated in this way that we calculate for each age group a factor:

f_i =number of children in the population/weighted number of children in the survey, i=1,2,…,12.

With this factor we multiply the cross-sectional weight RB050 of a child in the corresponding age group.

$$RL070 = f_i * RB050 , \ i=1,2,...,12$$

The cross-sectional weight for persons who were on 31st December 2004 aged between 25 to 65 years is called *PM005*.

Since we calibrated the data to 10–year age groups and we did not consider the age group from 25 to 65 years as a special domain, the cross-sectional weight for persons aged from 25 to 65 years PM005 is equal to the cross-sectional weight of persons aged 16 years or more PB060.

2.1.9 Substitutions

In 2005 we did not have substitute units.

2.2 Sampling errors

2.2.1 Standard error and effective sample size

Variable	Description	Mean (weighted)	Number of observations before imputations (in the survey with value 0)	Number of observations after imputations (in the survey)
HY010	Total gross household income	5413574	8259	8287
HY020	Total disposable household income	4116063	8268	8287
HY022	Total disposable household income before social transfers except old age and survivor's benefits	3592078	8188	8241
HY023	Total disposable household income before social transfers including old-age and survivor's benefits	2748858	7780	8086
HY040G	Income from rental of a property or land – gross	17904	441	441
HY040N	Income from rental of a property or land – net	13504	441	441
HY090G	Interest, dividends, profit form capital investments in unincorporated business	27133	2284	2584
HY090N	Interest, dividends, profit form capital investments in	19533	2284	2584

Variable	Description			
	unincorporated business			
HY050G	Family/Children related allowances	141803	3751	3751
HY050N	Family/Children related allowances	123863	3751	3751
HY060G	Social exclusion not elsewhere classified	51577	1313	1333
HY060N	Social exclusion not elsewhere classified	51577	1313	1333
HY070G	Housing allowances	292		16
HY070N	Housing allowances	292		16
HY080G	Regular inter – household cash transfer received gross	16043	246	292
HY080N	Regular inter – household cash transfer received net	16043	246	292
HY100G	Interest repayments on mortgage gross	7283	95	168
HY100N	Interest repayments on mortgage net	7283	95	168
HY110G	Income received by people aged under 16 gross	5047	339	339
HY110N	Income received by people aged under 16 net	4279	339	339
HY120G	Regular taxes on wealth gross	11788	3964	6900
HY120N	Regular taxes on wealth net	11788	3964	6900
HY130G	Regular inter – household cash transfer paid – gross	23470	508	526
HY130N	Regular inter – household cash transfer paid - net	23470	508	526
HY140G	tax on income and social contribution	1262253	6528	6697
HY140N	tax on income and social contribution	1262253	6528	6697
HY145N	Repayments/receipts for tax adjustment	-33811	6776	6776

Variable	Description	Mean (weighted)	Number of observations before imputations (in the survey with value 0)	Number of observations after imputations (in the survey)
PY010G	Employee cash or near cash income gross	1555624	14493	15155
PY010N	Employee cash or near cash income net	1057018	14493	15155
PY020G	Non-Cash employee income net	5114	155	214
PY020N	Non-Cash employee income net	3835	155	214
PY035G	Contributions to individual private pensions plans gross	11949	2091	2758
PY035N	Contributions to individual private pensions plans gross	11949	2091	2758
PY050G	Cash benefits or losses from self-employment	92432	2436	3167
PY050N	Cash benefits or losses from self-employment	80743	2436	3151
PY070G	Value of goods produced by own consumption	62794	16045	16262
PY070N	Value of goods produced by own	62794	16045	16262

	consumption			
PY080G	Pension from individual private plans gross	816	93	93
PY080N	Pension from individual private plans net	816	93	93
PY090G	Unemployment benefits gross	11362	623	623
PY090N	Unemployment benefits net	7938	623	623
PY100G	Old age benefits gross	303631	4273	4273
PY100N	Old age benefits net	301209	4273	4273
PY110G	Survivor benefits net	55775	820	820
PY110N	Survivor' age benefits gross	55719	820	820
PY120G	Sickness benefits gross	34978	2228	2247
PY120N	Sickness benefits net	23343	2228	2247
PY130G	Disability benefits gross	107106	1800	1800
PY130N	Disability benefits net	100596	1800	1800
PY140G	Education related allowances gross	15534	1375	1375
PY140N	Education related allowances net	15534	1375	1375

Standard errors and achieved sampled size for some indicators were calculated by Eurostat:

Indicator	Value	Achieved sample size	Standard error	Standard error (after calibrating)	Confidence Interval at 95%		CV(%)	DEFF
					Lower	Upper		
At-risk-of-poverty rate after social transfers - total	12,2	27679	0,33	0,32	11,6	12,8	2,6	1,05
At-risk-of-poverty rate after social transfers - men total	10,6	13697	0,34	0,33	9,9	11,3	3,1	1,05
At-risk-of-poverty rate after social transfers - women total	13,7	13982	0,42	0,39	12,9	14,5	2,9	1,03
Inequality of income distribution S80/S20 income quintile share ratio	3,4	27679	0,04	0,04	3,3	3,5	1,1	1,02
Dispersion around the risk-of-poverty threshold - 40%	3,0	27679	0,17	0,17	2,7	3,3	5,6	1,02
Dispersion around the risk-of-poverty threshold - 50%	7,0	27679	0,26	0,25	6,5	7,5	3,6	1,01
Dispersion around the risk-of-poverty threshold - 70%	18,9	27679	0,38	0,37	18,2	19,6	1,9	1,03
Before social transfers except old-age and survivors' benefits At-risk-of-poverty rate before social transfers - total	25,9	27679	0,40	0,38	25,2	26,6	1,4	1,05
At-risk-of-poverty rate before social transfers - men total	24,5	13697	0,44	0,41	23,7	25,3	1,7	1,04
At-risk-of-poverty rate before social transfers - women total	27,1	13982	0,47	0,45	26,2	28,0	1,6	1,02
Before social including old-age and survivors' benefits At-risk-of-poverty rate before social transfers - total	42,2	27679	0,45	0,35	41,5	42,9	0,8	1,03
At-risk-of-poverty rate before social transfers - men total	39,7	13697	0,49	0,40	38,9	40,5	1,0	1,01
At-risk-of-poverty rate before social transfers - women total	44,6	13982	0,51	0,39	43,8	45,4	0,9	1,02
Gini coefficient	23,8	27679	0,24	0,20	23,4	24,2	0,8	1,01
Mean equivalised disposable income	9532,9	27679	52,88	15,71	9502,1	9563,7	0,2	1,17

2.3 Non-sampling errors

2.3.1 Sampling frame and coverage errors

The basis for the sampling frame is the Central Register of Population (CRP), which is linked to the Register of Territorial Units. The sampling frame constitutes persons aged 16 years or more on 31st of December 2004. Besides the CRP we also use the frame of enumeration areas. Since some enumeration areas do not have enough inhabitants, those enumeration areas were linked with neighbouring areas into larger territorial units – i.e. sampling units, which were the sampling frame in the first stage.

The quality of the CRP is difficult to measure, since the Census and the CRP are based on different methodologies. While in the Census all persons living at the address at least one year are counted, current statistics counts in the population persons who are registered in Slovenia and live in Slovenia at least three months. Therefore in the Census 2002 there are almost 31000 fewer persons than in the CRP (1.55%). The discrepancy between the Census and the CRP is 1.72%. In the CRP are also persons who moved out of Slovenia (temporarily or for good), but have not reported this to the authorities.

When designing the sampling frame we did not have in the frame foreigners who live in Slovenia and are by definition the population of Slovenia. There are approximately 40.000 foreigners in Slovenia. Therefore we have approximately 2% of undercoverage in the sampling frame. Also we do not have the data in the CRP which persons are living in collective households. According to the Census 2002 there are approximately 14500 such persons.

The CRP is daily updated, but SORS obtains the database every three months which is a cross-section of the CRP on a certain date. Therefore the CRP we work with is 3 months old. For EU-SILC the sampling frame was built from the CRP on 30th June 2004. Before the fieldwork we updated the sampling frame with the latest available CRP data at the Ministry of the Interior; so we have excluded form the fieldwork persons who have died or moved abroad as non-response. In case that a person has changed the address, the interviewer was sent to the new address, but we maintained variables that define sample design at the old address.

From the CRP we have randomly selected persons aged 16 or more. At the addresses of selected persons the selected person and his or her household were interviewed. If selected persons did not live at the address from the CRP where they are registered, we did not follow them but we considered this as non-response. Households where nobody is registered at that address were thus excluded from the sampling frame.

In the survey we verify a quality of the sampling frame. In the questionnaire is a question for selected person, if he/she still lives at address, at which he/she was selected in the sample. Answers on this question are presented in Table 3. It seems that many people (14.7%) do not live at address where they are registered.

In the below table we present outcome of the question »where does selected person live«.

Table 3: Outcome of the question where does the selected person live

Selected person	Number	Percentage	DB120
is registered at the address and			
1. lives at this address.	11519	85,3	11
is registered at the address, but			
2. lives somewhere else in Slovenia.	709	5,3	11
3. lives abroad.	223	1,6	23
is not registered at the address, because			
4. he/she has moved away.	486	3,6	11
5. he/she died.	109	0,8	23
6. he/she is unknown at this address.	91	0,7	23
7. it is impossible to get any information about the selected person.	359	2,7	11

We have to check also if selected person lives in a private household (Table 4). This question was asked only to selected person who was registered at the selected address and lived at this address, because we did not trace persons that have moved to other address in 2005.

Table 4: Does the selected person live in a private household?

AT this address	Frequency	Proportion	DB120
1. lives household according to the definition of EU-SILC	11472	99,6	11
2. no household according to EU-SILC definition	19	0,2	23
3. not possible to establish if the household is eligible	28	0,2	23

2.3.2 Measurement and processing errors

2.3.2.1 Measurement errors

As in most surveys, the questionnaire can be one sources of potential measurement errors. Unsatisfactory organization and design of the survey may results in output different to the reality. For the case of EU-SILC the wording and phrasing of the questions can lead to misunderstandings, also different ordering of the questions can result in different answers.

As in all surveys there is highly possible that interviewer can influence on respondent's answers. During the collecting data phase we did regular checks (telephone calls) on their progress. At same time we controlled if interviewers made their visits of households accordingly to their log. Interviewers were obliged to send filled questionnaires to our office as soon as possible – once a week. At the same time data entry into Blaise software was going on so data were checked and verified very quick what gave us chance to call interviewers and in some cases also participating households. For 139 interviewers we organized 14 lessons during 2nd February 2005 and 9th May 2005. Each interviewer was obliged to participate in one of those 14 lessons, which were 5 hours long. First we had sent written instructions which interviewers received one week before lesson, where interview methods and procedures were structurally presented. After interviewers passed theoretical and practical test, they received addresses and empty questionnaires. Special training was organized also for data coders, controllers and other technical stuff. On all trainings we explained the purpose of this survey, the methodology, questionnaires and organizational part as well.

The mode of collection (PAPI) also required a lot of attention when skipping questions which were not relevant. For this purpose we focused on this issue in pilot study, which gave us good results and further improvements of paper questionnaire which was divided in the modules.

The survey instruments were tested in a pilot study which was carried out by SORS. The fieldwork lasted from 4th to 19th October 2003. We arranged 15 interviewers, some of them were experienced, and some interviewers are not. We tested, if the inexperienced interviewers would cope the task in the main survey, when we expected some of inexperienced interviewers. We sent to the sampled households advanced letters before the survey begun. One part of the data is collected by PAPI and other part from registers and administrative sources. It was allowed that interviewers some data from individual person collected by phone (questions about health). For all other questions the proxy interviewing were allowed. Beside regular survey instrument testing we had two major goals: a) we tested availability of the administrative sources and registers. We wished to test, if all outsourcers would be available timely. The final finding was that we got all data from different sources in time; b) One of the issues which we were testing in the pilot survey is the interview duration. The duration in our case was in the first wave not problematic.

In the construction of the Slovenian questionnaire we both adapted question and design from our LFS questionnaire for personal questions (especially questions related to labour market) and HBS questionnaire for household and expenditure questions. The core of questionnaire was built according to the recommendations of Eurostat. In some cases the phrasing of questions have in some way diverge from Eurostat recommendations because of Slovenian standards. Here are listed differences when comparing our questionnaire and Eurostat recommendations.

Not income variables:

HH010 We had more categories, but all categories are easily translated to Eurostat categories.

HH020 We had more categories, but all categories are easily translated to Eurostat categories.

HH030 The room is defined as space with at least 6 square meters.

HH070 Total housing costs are asked with several questions – costs for cold water, costs for sewage removal, costs for refuse removal, heating, contribution to reserve fund, insurance, and interest for mortgage, rent, and regular maintenance. We summed up all variables from these questions to get HH070.

HS070 – HS110 – in our survey we added some other durables (video recorder, DVD player, digital camera etc.).

PB130, PB140 – we collected these data with the questionnaire, but if the data were differentiated according to the central register of population, we took the data from the register.

PB190, PB210 – this data we took from register of population.

PB220A, PB220B – for the selected person we collected the data with questionnaire, but for other persons from household we got the data from central register of population.

PE040 – the data are from census 2002 and these data are updated with other social survey about education.

PH040 and PH060 – the questions were splited into two questions:

PC 4 Was there any time when selected person during the last 12 months when he/she really needed to consult a medical specialist (except dentist)?

1. *Yes* ➔ *PC5*
2. *No* ➔ *question about need of the dentist.*

PC 5 Did selected person get a help of a medical specialist?

   1. Yes
   2. No.

PL015 – we asked this question only persons aged up to 75 years.

PL020 – for selected person the question was in questionnaire, for all others we took into account that person looking for a job in the case that he/she are registered in Employment service of Slovenia.

PL025 – we asked only the selected persons.

PL030 – for the selected person we have all categories in the questionnaire. For the rest of household members we constructed this variable from statistical register of employment and register from Health Insurance Company.

PL040 – for selected persons we asked in the questionnaire. For all other persons we constructed this variable from statistical register of employment.

PL050 – for active persons we got the data about occupation from the statistical register of employment. For inactive persons we asked the question about occupation in the questionnaire. After conducting the survey, we coded the occupation into isco-88(com) according the description of the occupation. Coding is done by professional coders who also do the coding in the LFS.

PL060 – for selected persons we asked into the questionnaires, for all others we constructed this variable from the statistical register of employment.

PL070-PL085 – It was constructed from the statistical register of employment and from the registers from Health Insurance Company.

PL087 – It was constructed from PL070-PL085 and from the questionnaire.

PL090 – The source for this variable is register from Health Insurance Company.

PL100 – For selected person is asked with the questionnaire, for all others are construct from survey 2006 according to definite conditions about income and farming.

PL210A-PL210L – Constructed from statistical register of employment and Health Insurance Company. We have state on the last day of each month.

The datafile from Tax authorty was edited in advance. Before we began to data processsing with eu-silc we checked the data from tax datafile. We edited impossible values (for example negative values) and some very extreme values. Some imputations were made in advnace – we did logical check between two registers – tax register and statistical register of emplyoment. These imputations are not included into the imputation factor in eu-silc database.

All other income files (social alowances, pensions etc.) were not edited in advance.

2.3.2.2 Processing errors

The blaise was used for data entry. In the program were included syntax and several logical checks.

2.3.3 Non-response errors

2.3.3.1 Achieved sample size

Both for households and for the individuals we were interested what the achieved sample size was. Since we have the sample of persons, and the data are obtained both from the interview and from the registers, the household is counted to be interviewed only if household questionnaire is completed and if also questionnaire for the selected person is completed. From other household members data are obtained from registers.

Achieved sample size is calculated for

1. Number of households for which an interview is accepted for the database (DB135 = 1);
2. Number of selected respondents who are members of the households for which the interview is accepted for the database (DB135 = 1), and who completed a personal interview (RB250 = 11 to 13);
3. Number of persons 16 years or older who are members of the households for which the interview is accepted for the database (DB135 = 1), and who completed a personal interview (RB250 = 11 to 13);

Table 5. Achieved sample size for total and rotational group breakdown

Rotational group	No. of **households** for which an interview is accepted for the database (DB135=1)	No. of **selected respondents** (sample persons) from who information is completed **from interviews and registers** DB135 = 1 & RB250=13	No. of **persons 16**+ who are members of the households for which the interview is accepted for the database and from who information is completed **only from registers** DB135 = 1 & RB250=12	No. of persons 16+ who are members of the households for which the interview is accepted for the database DB135 = 1 & RB250=12,13
Total	**8287**	**8287**	**15575**	**23862**
1	2813	2813	5338	8151
2	2715	2715	5087	7802
3	2759	2759	5150	7909

2.3.3.2 Unit non-response

For the total sample, the unit non-response will be calculated by removing, from the numerator and the denominator of the formulas described below, those units that according to the tracing rules are out of scope.

- Household non-response rates (NRh) will be computed as follows:

$$NRh = (1-(Ra * Rh)) * 100$$

Where

$$Ra = \frac{\text{Number of addresses successfully contacted}}{\text{Number of valid addresses selected}} = \frac{\sum [DB120 = 11]}{\sum [DB120 = all] - \sum [DB120 = 23]}$$

Ra is the address contact rate.

DB120 is the record of contact at the address.

Since we have sample of persons and sample person defines household that we have to interview, we have to follow this person to the new address, in case person does not live on the address where he or she is registered. For us is therefore irrelevant contacting the address, but we are interested in contacting persons. Ineligible are persons living abroad, in collective households or persons that have died. With the agreement with Eurostat we have not followed persons that have moved to another address to this new address, but we had indicated that the address was contacted (unknown eligibility) and as nonresponse. Therefore there are no addresses that could not be located and contact rate at the address (Ra) is 1.

$$Ra = \frac{13026}{13496 - 470} = 1$$

Condition that have to be fulfilled that the household is accepted to household register are completed both household and personal questionnaires. In our survey there are 8287 such households. Variable measures proportion of households that are acceptable for the database. Percentage is calculated form eligible households on contacted addresses.

$$Rh = \frac{\begin{array}{c}\textit{Number of household interviews}\\ \textit{completed and accepted for data base}\end{array}}{\textit{Number of eligible households at contacted addresses}} = \frac{\sum[DB135 = 1]}{\sum[DB130 = all]}$$

Rh is the proportion of complete household interviews accepted for the database.

DB130 is the household questionnaire result, and
DB135 is the household interview acceptance result.

$$Rh = \frac{8287}{8287 + 2518 + 365 + 218 + 1638} = \frac{8287}{13026} = 0{,}63619$$

Therefore

NRh=(1-(Ra * Rh)) * 100=(1-0,63619)*100=36,381%

▪ Individual non-response rates (NRp) will be computed as follows:

NRp=(1-(Rp)) * 100

Where

$$Rp = \frac{\textit{Number of personal interviews completed}}{\begin{array}{c}\textit{Number of eligible individuals in the households whose}\\ \textit{interviews were completed and accepted for the data base}\end{array}} = \frac{\sum[RB250 = 11 + 12 + 13]}{\sum[RB245 = 1 + 2 + 3]}$$

Rp is the proportion of complete personal interviews within the households accepted for the database
RB245 is the respondent status, and
RB250 is the data status.

For those Members States where a sample of persons rather than a sample of households (addresses) was selected, the individual non-response rates will be calculated for 'the selected respondent' (RB245=2), for all individuals aged 16 years or older (RB245=2+3) and for the nonselected respondent (RB245=3).

$$Rp = \frac{\sum[RB250 = 13]}{\sum[RB245 = 2]} = \frac{8287}{8287} = 1 \qquad \textit{for the selected respondent}$$

$$Rp = \frac{\sum[RB250 = 12 + 13]}{\sum[RB245 = 2 + 3]} = \frac{23862}{23862} = 1 \qquad \textit{for all individuals aged 16 years}$$
or older

$$Rp = \frac{\sum[RB250 = 12]}{\sum[RB245 = 3]} = \frac{15575}{15575} = 1 \qquad \text{for the nonselected respondent}$$

Thus

    NRp=(1-(Rp)) * 100=0

for 'the selected respondent' (RB245=2), for all individuals aged 16 years or older (RB245=2+3) and for the nonselected respondent (RB245=3).

- · Overall individual non-response rates (*NRp) will be computed as follows:

    *NRp=(1-(Ra * Rh * Rp)) * 100 = (1- 0.63619)*100 = (1-0.40474) = 36.381%

2.3.3.3 Distribution of households (original units) by 'record of contact at address' (DB120), by'household questionnaire result' (DB130) and by 'household interview acceptance' (DB135), for each rotational group (if applicable) and for the total:

Table 6. Distribution of original units by 'record of contact at address'. Rotational group and total

	Total		Rotational group 1		Rotational group 2		Rotational group 3	
	Number	%	Number	%	Number	%	Number	%
Total (DB120 = 11 to 23)	13496	100	4494	100	4501	100	4501	100
Address contacted (DB120 = 11)	13026	97	4327	96	4342	96	4357	97
Address non-contacted (DB120 = 21 to 23)	470	3	167	4	159	4	144	3
Total address non-contacted (DB120 = 21 to 23)	470	100	167	100	159	100	144	100
Address cannot be located (DB120= 21)	0	0	0	0	0	0	0	0
Address unable to access (DB120 = 22)	0	0	0	0	0	0	0	0
Address does not exists or is non-residential address or is unoccupied or not principal residence (DB120 = 23)	470	100	167	100	159	100	144	100

Table 7. Distribution of address contacted by 'household questionnaire result' and by household interview acceptance. Rotational group and total

	Total		Rotational group 1		Rotational group 2		Rotational group 3	
	Number	%	Number	%	Number	%	Number	%
Total	13026	100	4327	100	4342	100	4357	100
Household questionnaire completed (DB130 = 11)	8287	64	2813	65	2715	63	2759	63
Interview not completed (DB130 = 21 to 24)	4739	36	1514	35	1627	37	1598	37
Total interview not completed (DB130 = 21 to 24)	4739	100	1514	100	1627	100	1598	100
Refusal to co-operate (DB130 = 21)	2518	53	813	54	868	53	837	52
Entirely household temporarily away for duration of fieldwork (DB130 = 22)	365	8	95	6	130	8	140	9
Household unable to respond (illness, incapacity, etc.) (DB130 = 23)	218	5	67	4	79	5	72	5
Other reasons (DB130 = 24)	1638	35	539	36	550	34	549	34
Household questionnaire completed (DB135=1+2)	8287	100	2813	100	2715	100	2759	100
Interview accepted for data base (DB135 = 1)	8287	100	2813	100	2715	100	2759	100
Interview rejected (DB135 = 2)	0	0	0	0	0	0	0	0

2.3.3.4 Distribution of persons for membership status (RB110):

RB110 in cross sectional survey was not recorded.

2.3.3.5 Item non-reponse

Table 8: Distribution of item non-response (unweighted values)

Variable	Description	% of HHS having received an amount	% of HHS with missing values (before imputations) HHS with missing value/HHS who received amount	Total % of HHS with partial information (before imputations) HHS with missing value/HHS who received amount	Total % of HHS with partial information (before imputations) HHS with missing value/HHS who received amount % of imputation where the share is less than 10% of amount household received
HY010	Total gross household income	100,0	0,3	54,9	41,5
HY020	Total disposable household income	100,0	0,2	70,6	53,4
HY022	Total disposable household income before social transfers except old age and survivor's benefits	99,4	0,6	70,5	49,8
HY023	Total disposable household income before social transfers including old-age and survivor's benefits	97,6	3,8	68,0	42,1
HY040G	Income from rental of a property or land – gross	5,3	0,0	0,0	
HY040N	Income from rental of a property or land – net	5,3	0,0	0,0	
HY090G	Interest, dividends, profit form capital investments in unincorporated business	31,2	11,6	0,2	
HY090N	Interest, dividends, profit form capital investments in unincorporated business	31,2	11,6	0,2	
HY050G	Family/Children related allowances	45,3	0,0	0,0	
HY050N	Family/Children related allowances	45,3	0,0	0,0	
HY060G	Social exclusion not elsewhere classified	16,1	1,5	0,1	
HY060N	Social exclusion not elsewhere classified	16,1	1,5	0,1	
HY070G	Housing allowances	0,2	0,0	0,0	

HY070N	Housing allowances	0,2	0,0	0,0
HY080G	Regular inter – household cash transfer received gross	3,5	15,8	3,1
HY080N	Regular inter – household cash transfer received net	3,5	15,8	3,1
HY100G	Interest repayments on mortgage gross	2,0	43,5	6,5
HY100N	Interest repayments on mortgage net	2,0	43,5	6,5
HY110G	Income received by people aged under 16 gross	4,1	0,0	0,0
HY110N	Income received by people aged under 16 net	4,1	0,0	0,0
HY120G	Regular taxes on wealth gross	83,3	42,6	1,2
HY120N	Regular taxes on wealth net	83,3	42,6	1,2
HY130G	Regular inter – household cash transfer paid – gross	6,4	3,4	0,0
HY130N	Regular inter – household cash transfer paid - net	6,4	3,4	0,0
HY140G	tax on income and social contribution	80,8	2,5	12,3
HY140N	tax on income and social contribution	80,8	2,5	12,3
HY145N	Repayments/receipts for tax adjustment	81,8	0,0	0,0

Distribution of item non-response, personal level (unweighted values)

Variable	Description	% of persons having received an amount	% of persons with missing values (before imputations) Persons with missing value/person who received amount	Total % of persons with partial information (before imputations) Persons with missing value/person who received amount
PY010G	Employee cash or near cash income gross	63,5	4,4	35,7
PY010N	Employee cash or near cash income net	63,5	4,4	35,7
PY020G	Non-Cash employee income net	0,9	27,6	39,7
PY020N	Non-Cash employee income net	0,9	27,6	39,7
PY035G	Contributions to individual private pensions plans gross	11,6	24,2	0,7
PY035N	Contributions to individual private pensions plans gross	11,6	24,2	0,7
PY050G	Cash benefits or losses from self-employment	13,2	23,6	7,8
PY050N	Cash benefits or losses from self-employment	13,2	23,6	7,8
PY070G	Value of goods produced by own consumption	68,2	1,3	97,2
PY070N	Value of goods produced by own consumption	68,2	1,3	97,2
PY080G	Pension from individual private plans gross	0,4	0,0	0,0
PY080N	Pension from individual private plans net	0,4	0,0	0,0
PY090G	Unemployment benefits gross	2,6	0,0	0,0
PY090N	Unemployment benefits net	2,6	0,0	0,0
PY100G	Old age benefits gross	17,9	0,0	0,0
PY100N	Old age benefits net	17,9	0,0	0,0
PY110G	Survivor benefits net	3,4	0,0	0,0
PY110N	Survivor' age benefits gross	3,4	0,0	0,0

Variable	Description	% of persons having received an amount	% of persons with missing values (before imputations) Persons with missing value/person who received amount	Total % of persons with partial information (before imputations) Persons with missing value/person who received amount
PY120G	Sickness benefits gross	9,4	0,9	0,0
PY120N	Sickness benefits net	9,4	0,9	0,0
PY130G	Disability benefits gross	7,5	0,0	0,0
PY130N	Disability benefits net	7,5	0,0	0,0
PY140G	Education related allowances gross	5,8	0,0	0,0
PY140N	Education related allowances net	5,8	0,0	0,0

In the first stage we imputed:

In the case of partial non-response were imputed next income variables:
- Income from farming (in the questionnaire)
- Reimbursement for travel to/from work
- Allowance for meal
- Non-cash employee income (company car)
- Regular inter household transfers received
- Regular inter household transfer paid
- Contribution to private pensions plans
- Sickness benefits
- Tax on wealth
- Interests paid for mortgage (components to calculate interests)
- Interests (received)
- Consumption from own production

We imputed also the following non income variables:
- Number of rooms
- Total housing costs (all components from the questionnaire)
- Child care
- Activity status during the income reference period (PL210A-PL210L)

In the second stage of imputations we imputed:

PL010 in the case that person received reimbursement for travel to/from work or allowance for meal. Imputed values are average wages from survey according to education level and gender.

PY050 in the case that self employed person do not have any income (no profit, no wage, no social or family benefits, unemployed benefits). In such cases we imputed the values of minimal social benefits.

We have large share of the households where some income are imputed. We found out that the most frequently were imputed reimbursement for travel to/from work and tax on wealth.

2.4 Mode of data collection

We used PAPI and other administrative sources. Each household participated in EU-SILC were interviewed face-to-face. On the household level PAPI was used in 100% cases.

Except the questionnaire we used also the following administrative sources from different institutions:

- Pension and Disability Insurance Institute (pensions, supplements, compensations)
- Ministry of Labour, Family and Social Affairs (social assistance benefits, data on family support benefits, parental allowances, compensation for a layette)
- Ministry for Environment and Spatial Planning (housing allowances)
- Health Insurance Institute (activity status of persons)
- Employment Service of Slovenia (income from unemployment)
- Tax Authority (data from income tax register for taxable income like personal income, income of entrepreneurs, capital income, income from property)
- Central Population Register (e.g. marital status, country of birth)
- Ministry of Agriculture, Forestry and Food (subsidies for farmers).

Also some other statistical sources were used such as the Statistical register of employment and special Survey on scholarships.

For Member States using a sample of persons, the distribution of 'selected respondent', the distribution of 'household members aged 16 and over', and the distribution of 'non-selected respondent' by 'data status' (RB250) and by 'type of interview' (RB260) will be provided, for each rotational group (if applicable) and for the total.

Table 10. Distribution of household members aged 16 and over by 'RB250' (Total and rotational group breakdown)

HOUSEHOLD MEMBERS 16+ (RB245 = 1 to 3)

		RB250									
		Total	11	12	13	21	22	23	31	32	33
Total	Number	23862	0	15575	8287	0	0	0	0	0	0
	%	100	0	65	35	0	0	0	0	0	0
Rotational Group 1	Number	8151	0	5338	2813	0	0	0	0	0	0
	%	100	0	65	35	0	0	0	0	0	0
Rotational Group 3	Number	7802	0	5087	2715	0	0	0	0	0	0
	%	100	0	65	35	0	0	0	0	0	0
Rotational Group 3	Number	7909	0	5150	2759	0	0	0	0	0	0
	%	100	0	65	35	0	0	0	0	0	0

HOUSEHOLD MEMBERS 16+ (RB245 = 2)

		RB250									
		Total	11	12	13	21	22	23	31	32	33
Total	Number	8287	0	0	8287	0	0	0	0	0	0
	%	100	0	0	100	0	0	0	0	0	0
Rotational Group 1	Number	2813	0	0	2813	0	0	0	0	0	0
	%	100	0	0	100	0	0	0	0	0	0
Rotational Group 3	Number	2715	0	0	2715	0	0	0	0	0	0
	%	100	0	0	100	0	0	0	0	0	0
Rotational Group 3	Number	2759	0	0	2759	0	0	0	0	0	0
	%	100	0	0	100	0	0	0	0	0	0

HOUSEHOLD MEMBERS 16+ (RB245 = 3)

		RB250									
		Total	11	12	13	21	22	23	31	32	33
Total	Number	15575	0	15575	0	0	0	0	0	0	0
	%	100	0	100	0	0	0	0	0	0	0
Rotational Group 1	Number	5338	0	5338	0	0	0	0	0	0	0
	%	100	0	100	0	0	0	0	0	0	0
Rotational Group 3	Number	5087	0	5087	0	0	0	0	0	0	0
	%	100	0	100	0	0	0	0	0	0	0
Rotational Group 3	Number	5150	0	5150	0	0	0	0	0	0	0
	%	100	0	100	0	0	0	0	0	0	0

Table 11. Distribution of household members aged 16 and over by 'RB260' (Total and rotational group breakdown)

		RB260					
		Total	1	2	3	4	5
Total	Number	8287	6282	0	0	0	2005
	%	100	76	0	0	0	24
Rotat. Group 1	Number	2813	2120	0	0	0	693
	%	100	75	0	0	0	25
Rotat. Group 2	Number	2715	2102	0	0	0	613
	%	100	77	0	0	0	23
Rotat. Group 3	Number	2759	2060	0	0	0	699
	%	100	75	0	0	0	25

2.5 Imputation procedure

We used different types of the imputations for dfifrent kinds of variables. In incomes variable we use several stages of imputations. In the first stage we imputed the allwances for transport to/from work and lunch allowance. In the second stage we imputed the incomes for employed and self-emlyoed persons who received no income. When we imputed wages we calculate the average wages according to different categories (gender, age, education) and we imputed the average instead of missing values. For self-employed persons without any income we imputed the income in the level of minimal social benefit. In the table 8 are mentioned the percentage of the imputed values.

2.6 Imputed rent

Variable was not recorded.

2.7 Company cars

We asked in the questionnaire several questions about company cars. We asked for make, model of the car, months of use it, year of production of the car. After that we use the national tax rules about depreciation of the car to calculate the benefit.

3 Comparability

3.1 Basic concepts and definitions

The reference population

The reference population is persons in central register of population aged 16 years or more. In the central register of population were included only persons with Slovenian citizenship.

The private household definition

There were no divergences from the common definition.

The household membership

There were no divergences from the common definition.

The income reference period used

The income reference period was last calendar year (2004).

The period for taxes on income and social insurance contribution

The period was last calendar year (2004).

The reference period for taxes on wealth

The reference period for taxes on wealth was calendar year. These data we collected in 2006 for period 2005 and adjusted to for the year 2004. In the beginning we derogated this variable, but after that we decided what should be tax on wealth in Slovenia. In 2006 we began with the collection of these data.

The lag between the income reference period and current variables

The lag between the income reference period and current variables ranges from 2 to 6 months. Because we used for the majority of incomes registers, this lag is not so important.

HB050	Frequency	Percent	Frequency	Percent
February	1109	13.39	1109	13.39
March	2238	27.01	3347	40.40
April	2038	24.60	5385	65.00
May	2304	27.81	7689	92.81
June	596	7.19	8285	100.00

Frequency Missing = 2

The total duration of the data collection of the sample

The field work lasted from February 2005 to June 2005.

<u>Basic information on activity status during the income reference period</u>

This information was collected from outside sources. We took the data on the last day of the each month from statistical register of employment and from National Health Insurance Company.

3.2 Components of income

3.2.1 Differences between the national definitions and standard EU-SILC definitions, and an assessment of the consequences of the differences mentioned will be reported for the following target variables

This section gives an detailed overview of how the income data from registers have been organised in order to be comparable to the income concepts outlined in the SILC guidelines. In addition references are made to any digression from these guidelines.

Most of the data derived from registers are recorded gross at component level. All income data are collected at the individual level (i.e. the person registered as the receiver of the income). This also concerns typically "household" related incomes such as housing benefits and social assistance.

The datafile from Tax authority was edited in advance. Before we began to data processing in accordance with SILC guidelines we checked the data from tax datafile. We edited impossible values (for example negative values) and some very extreme values. Some imputations were made in advance – we did logical checks between two registers – tax register and statistical register of employment. These imputations are not included into the imputation factor in the EU-SILC database. All other income files (social allowances, pensions etc.) were not edited in advance.

Variable	Description	
HY010	Total gross household income	HY010=PY010G+PY020G (only car)+PY050G+PY090G+PY100G+PY110G+PY120G+PY130G+PY140G (for all households members aged 16+) +HY040G +HY050G+HY060G+HY070G +HY080G+HY090G+HY110G
HY020	Total disposable household income	HY020=PY010N+PY020N (only car)+PY050N+PY090N+PY100N+PY110N+ PY120N+PY130N+ PY140N (for all households members aged 16+) +HY040N+HY050N+HY060N+HY070N+HY080N+HY090N+HY110N-HY120G-HY130G-HY145N
HY022	Total disposable household income before social transfers except old age and survivor's benefits	HY022=HY020-PY090N-PY120N-PY130N-PY140N (variables PYxxxN for all household members aged 16+) – HY050N-HY060N-HY070N
HY023	Total disposable household income before social	HY023=HY020-PY090N-PY100N-PY110N-PY120N-PY130N-PY140N (variables PYxxxN for all household members aged 16+) – HY050N-HY060N-HY070

	transfers including old-age and survivor's benefits	
HY040G	Income from rental of a property or land – gross	Tax declaration: Income reference period: year 2004
HY040N	Income from rental of a property or land – net	Tax declaration: Income reference period: year 2004
HY090G	Interest, dividends, profit form capital investments in unincorporated business	Interest from questionnaire Dividends and profits from tax declaration Income reference period: year 2004
HY090N	Interest, dividends, profit form capital investments in unincorporated business	Interest from questionnaire Dividends and profits from tax declaration Income reference period: year 2004
HY050G	Family/Children related allowances	Administrative source from Ministry for labour, family and social affairs. Income reference period: year 2004
HY050N	Family/Children related allowances	Administrative source from Ministry for labour, family and social affairs. Income reference period: year 2004
HY060G	Social exclusion not elsewhere classified	Humanitarian aid from questionnaire Social exclusion from administrative sources Income reference period: year 2004
HY060N	Social exclusion not elsewhere classified	Humanitarian aid from questionnaire Social exclusion from administrative sources Income reference period: year 2004
HY070G	Housing allowances	Administrative source Income reference period: year 2004
HY070N	Housing allowances	Administrative source Income reference period: year 2004
HY080G	Regular inter – household cash transfer received gross	Questionnaire Income reference period: year 2004
HY080N	Regular inter – household cash transfer received net	Questionnaire Income reference period: year 2004
HY100G	Interest repayments on mortgage gross	Questionnaire It was asked for principal, year when household hired the loan, interests rate, total numbers of repayment the mortgage, monthly amount of repayment Income reference period: year 2004
HY100N	Interest repayments on mortgage net	Questionnaire It was asked for principal, year when household hired the loan, interests rate, total numbers of repayment the mortgage, monthly amount of repayment Income reference period: year 2004
HY110G	Income received by people aged under 16 gross	Tax declaration Income reference period: year 2004
HY110N	Income received by people aged under 16 net	Tax declaration Income reference period: year 2004
HY120G	Regular taxes on wealth gross	Questionnaire Income reference period: year 2004
HY120N	Regular taxes on wealth net	Questionnaire Income reference period: year 2004
HY130G	Regular inter –	Questionnaire

	household cash transfer paid – gross	Income reference period: year 2004
HY130N	Regular inter – household cash transfer paid - net	Questionnaire Income reference period: year 2004
HY140G	tax on income and social contribution	Tax declaration Income reference period: year 2004
HY140N	tax on income and social contribution	Tax declaration Income reference period: year 2004
HY145N	Repayments/receipts for tax adjustment	Tax declaration Income reference period: year 2004

PY010G	Employee cash or near cash income gross	Tax declaration: wage in 2004, reimbursement for holidays, student's work organized by special student's organizations , contract work, Questionnaire: reimbursement for transport, allowance for meal In the questionnaire it was asked for average monthly amount and then we calculated on the annual level – according to the months when person was in employment.
PY010N	Employee cash or near cash income net	Tax declaration: wage in 2004, reimbursement for holidays, student's work organized by special student's organizations , contract work, Questionnaire: reimbursement for transport, allowance for meal In the questionnaire it was asked for average monthly amount and then we calculated on the annual level – according to the months when person was in employment.
PY020G		Questionnaire - only company car We asked different data about company car (year of the production of the car, values of new such car, how many month person use company car for the private purposes)
PY020N	Non-Cash employee income net	Questionnaire - only company car We asked different data about company car (year of production of the car,, values of new such car, how many month person use company car for the private purposes)
PY035G	Contributions to individual private pensions plans gross	Questionnaire We asked for average monthly amount in 2004 and number of months in 2004 when person contribute to individual private pensions plans. Income reference period: year 2004
PY035N	Contributions to individual private pensions plans gross	Questionnaire We asked for average monthly amount in 2004 and number of months in 2004 when person contribute to individual private pensions plans. Income reference period: year 2004
PY050G	Cash benefits or losses from self-employment	Tax declaration for personal incomes – profits, author contract Tax declaration for entrepreneurs – losses, profits Questionnaire – incomes from farming Farming subsidies – incomes from farming Income reference period: year 2004 From farming we took into account the amount which was higher – from questionnaire or from data file about farming subsidies. Farming subsidies do not include subsidies for investments and subsidies for natural disasters.

PY050N	Cash benefits or losses from self-employment	Tax declaration for personal incomes – profits, author contract Tax declaration for entrepreneurs – losses, profits Questionnaire – incomes from farming Farming subsidies – incomes from farming Income reference period: year 2004 From farming we took into account the amount which was higher – from questionnaire or from data file about farming subsidies. Farming subsidies do not include subsidies for investments and subsidies for natural disasters.
PY070G	Value of goods produced by own consumption	Questionnaire – Value of goods and beverages produced and consumed at home. Income reference period: year 2004
PY070N	Value of goods produced by own consumption	Questionnaire – Value of goods and beverages produced and consumed at home. Income reference period: year 2004
PY080G	Pension from individual private plans gross	Questionnaire Income reference period: year 2004
PY080N	Pension from individual private plans net	Questionnaire Income reference period: year 2004
PY090G	Unemployment benefits gross	Administrative source – Employment service of Slovenia Income reference period: year 2004
PY090N	Unemployment benefits net	Administrative source – Employment service of Slovenia Income reference period: year 2004
PY100G	Old age benefits gross	Administrative source – Pension and Disability Insurance institute If the person receive pension only from abroad is recorded under PY100, but in the case that person has also pension from Slovenia, it is recorded under the same variable as the person has the pension (PY100, PY110 or PY130 respectively) Income reference period: year 2004
PY100N	Old age benefits net	Administrative source – Pension and Disability Insurance institute If the person receive pension only from abroad is recorded under PY100, but in the case that person has also pension from Slovenia, it is recorded under the same variable as the person has the pension (PY100, PY110 or PY130 respectively) Income reference period: year 2004
PY110G	Survivor benefits net	Administrative source – Pension and Disability Insurance institute Income reference period: year 2004
PY110N	Survivor' age benefits gross	Administrative source – Pension and Disability Insurance institute Income reference period: year 2004
PY120G	Sickness benefits gross	Computing from questionnaire according to the data from tax declaration
PY120N	Sickness benefits net	Computing from questionnaire according to the data from tax declaration
PY130G	Disability benefits gross	Administrative source – Pension and Disability Insurance institute Income reference period: year 2004
PY130N	Disability benefits net	Administrative source – Pension and Disability Insurance institute Income reference period: year 2004
PY140G	Education related allowances gross	Statistical survey on scholarship. It is asked for monthly income in December and then it is calculated according to the numbers of month in which person was in education.
PY140N	Education related allowances net	Statistical survey on scholarship. It is asked for monthly income in December and then it is calculated according to the numbers of month in which person was in education.

3.2.2 The source of procedure used for the collection of income variable

All income variables were collected from registers except:

Reimbursements for the travel to/from work (PY010)
Allowances (in cash) for meal (PY010)
Non cash employee income (company car – PY020)
Contributions to private pensions plans (PY035)
Pensions from individual private plans (PY080)
Sickness benefits (PY120)
- All these variables were collected on personal level.

Value of goods produced by own consumption (PY070)
Income from agriculture (PY50)
Interests (HY090)
Regular interhousehold cash transfer – received (HY080)
Regular interhousehold cash transfer – paid (HY130)
- These variables were collected on household level.

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

All data are recorded into the data file gross and net. Some of variables have the same values for the gross and for the net, because from some kinds of income the taxes were not paid.

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

Only for PY020G and PY020N we convert the gross amount into the net amount. We took into account 25% tax, which is usually paid in advance to tax authority.

4 Coherence

4.1 The differences between HBS and EU-SILC

The main difference between HBS and EU-SILC is the source of income. In HBS we collected all the data by CAPI (computer assisted personal interviewing), but in EU-SILC 2005 we used several sources. One part was collected by PAPI. The majority of the data on income were collected from administrative sources.

We calculate the results from HBS from three consecutive annual surveys. For reference year 2004 data from three years (2003 – 2005) are calculated to the middle year (2004). In the HBS we have different income reference periods. Some of the data are asked only for last month and then this amount is multiplied with the number of months when person receives the amount, for some of the incomes icome reference period is defined as the last 12 months. In EU-SILC the only income reference period is the year 2004 – year of conducting survey minus one year.

In HBS we use the weight of the household, in EU-SILC we use RB050 (personal weight).

For the calculation of most frequent activity status, we used the current status in HBS, but in EU-SILC the predominating status was used. The sources of the data about activity status are also different. In HBS we only use questionnaire but in EU-SILC we use registers for predominating status. For PL030 (current status) we use questionnaire.

Type of the household – in HBS we do not ask so precisely about mother and father for all members of the household, but we only have relationships according to the head of the household, selected by the household.

By calculating poverty rate before social transfers except pensions from EU-SILC we subtracted disability benefits from income, while calculating it from HBS, disability benefits can not be subtracted because we have all pensions as one category.

In the table below we described the main points and differences between HBS and EU-SILC survey about income variables.

Variable	Description	HBS	EU-SILC
HY010	Total gross household income	Not available	HY010=PY010G+PY020G (only car)+PY050G+PY090G+PY100G+PY110G+PY120G+PY130G+PY140G (for all households members) +HY040G+HY050G+HY060G+HY070G+HY080G+HY090G+HY110G
HY020	Total disposable household income	Not available	HY020=PY010N+PY020N (only car)+PY050N+PY090N+PY100N+PY110N+PY120N+PY130N+PY140N (for all households members) +HY040N+HY050N+HY060N+HY070N+HY080N+HY090N+HY110N-HY120G-HY130G-HY145N
	Net income	Composed from different variables from qeustionnaire. Type 1 income (Laekens' indicators): incomes from employment+ icnomes from selfemployment+ social exclusion+ family/child alowances+ income from retnal of property+ interhoushold transfer received – interhousehold transfer paid Type 2 1 income (Laekens' indicators) = type 1 + own production + PY020N (all kinds of non-cash income from employment) We did not take into account tax on wealth and receits/repayment tax adjustment	Not available
HY022	Total disposable household income before social transfers except old age and survivor's benefits	Total disposable household income before social transfers except old age, **disabilty** and survivor's benefits	HY022=HY020-PY090N-PY120N-PY130N-PY140N (variables PYxxxN for all household members) – HY050N-HY060N-HY070N

Variable	Description	HBS	EU-SILC
HY023	Total disposable household income before social transfers including old-age and survivor's benefits	Total disposable household income before social transfers including old age, disabilty and survivor's benefits	HY023=HY020-PY090N-PY100N-PY110N-PY120N-PY130N-PY140N (variables PYxxxN for all household members) – HY050N-HY060N-HY070
HY040G	Income from rental of a property or land – gross	Not available	Tax declaration: Income reference period: year 2004
HY040N	Income from rental of a property or land – net	Questionnaire Income reference period: last 12 months	Tax declaration: Income reference period: year 2004
HY090G	Interest, dividends, profit form capital investments in unincorporated business	Not available	Interest from questionnaire Dividends and profits from tax declaration Income reference period: year 2004
HY090N	Interest, dividends, profit form capital investments in unincorporated business	Questionnaire Icome from interest, dividends, patents, licenses Income reference period: last 12 months	Interest from questionnaire Dividends and profits from tax declaration Income reference period: year 2004
HY050G	Family/Children related alowances	Not available	Administrative source from Ministry for labour, family and social affairs. Income reference period: year 2004
HY050N	Family/Children related alowances	Questionnaire Children alowance – Income reference period. Last month Maternity leave: last month Other family alowances – last 12 months	Administrative source from Ministry for labour, family and social affairs. Income reference period: year 2004
HY060G	Social exclusion not elsewhere classified	Not available	Humanitare aid from questionnaire Social exclusion from administrative source Income reference period: year 2004
HY060N	Social exclusion not elsewhere classified	Questionnaire	Humanitare aid from questionnaire Social exclusion from administrative source Income reference period: year 2004
HY070G	Housing allowances	Not available	Administrative source Income reference period: year 2004
HY070N	Housing allowances	Questionnaire (together with HY060N) Income reference period: last 12 months	Administrative source Income reference period: year 2004
HY080G	Regular inter – household cash transfer received gross	Not available	Questionnaire Income reference period: year 2004
HY080N	Regular inter – household cash transfer received net	Questionnaire Income reference period: last 12 months	Questionnaire Income reference period: year 2004
HY100G	Interest repayments on mortgage gross	Not available	Questionnaire Income reference period: year 2004

Variable	Description	HBS	EU-SILC
HY100N	Interest repayments on mortgage net	Not available	Questionnaire Income reference period; year 2004
HY110G	Income received by people aged under 16 gross	Not available	Tax declaration Income reference period: year 2004
HY110N	Income received by people aged under 16 net	It is not collected as seperate variable.	Tax declaration Income reference period: year 2004
HY120G	Regular taxes on wealth gross	Not available	Questionnaire Income reference period: year 2004
HY120N	Regular taxes on wealth net	Questionnaire	Questionnaire Income reference period: year 2004
HY130G	Regular inter – household cash transfer paid – gross	Not available	Questionnaire Income reference period: year 2004
HY130N	Regular inter – household cash transfer paid - net	Questonnaire Income reference period: last 12 months	Questonnaire Income reference period: year 2004
HY140G	tax on income and social contribution	Not available	Tax declaration Income reference period: year 2004
HY140N	tax on income and social contribution	Not available	Tax declaration Income reference period: year 2004
HY145N	Repayments/receipts for tax adjustment	Not available	Tax declaration Income reference period: year 2004

Variable	Description	HBS	EU-SILC
PY010G	Employee cash or near cash income gross	Not available	Tax declaration – wage in 2004, reimbusement for holidays, student's work, contract work, Questionnaire - allowances for transport, reimbuserment for meal
PY010N	Employee cash or near cash income net	Questionnaire Wage is collected for the last month and calculated to the whole year, allowances for transport to work, reimbuserment for meal, reimbusement for holidays	Tax declaration – wage in 2004, reimbusement for holidays, student's work, contract work. Questionnaire - allowances for transport to work, reimbuserment for meal
PY020G		Not available	Questionnaire only company car
PY020N	Non-Cash employee income net	Questionnaire – all benefits	Questionnaire – only company car
PY035G	Contributions to individual private pensions plans gross	Not available	Questionnaire Income reference period: year 2004
PY035N	Contributions to individual private pensions plans gross	Qeustionnaire Income reference period: Last 12 months	Questionnaire Income reference period: year 2004

Variable	Description	HBS	EU-SILC
PY050G	Cash benefits or losses from self-employment	Nat available	Tax declaration for personal incomes – profits, wage from enterprise, author contract Tax declaration for enterpreneurs – losses, profits Questionnaire – incomes from farming Farming subsidies – incomes from farming Income reference period: year 2004
PY050N	Cash benefits or losses from self-employment	Questionnaire Profit, farming, wage from enterprise, author contracts, direct payments, student's work, allowances for transport to work, reimbuserment for meal, reimbusement for holidays Income reference period – last 12 months	Tax declaration for personal incomes – profits, wage from enterprise, author contract Tax declaration for enterpreneurs – losses, profits Questionnaire – incomes from farming Farming subsidies – incomes from farming Income reference period: year 2004
PY070G	Value of goods produced by own consumption	Not available	Questionnaire – Value of goods and beverages produced and consumed at home. Income reference period: year 2004
PY070N	Value of goods produced by own consumption	Questionnaire – Value of goods and beverages produced and consumed at home Income reference period: last 12 months	Questionnaire – Value of goods and beverages produced and consumed at home. Income reference period: year 2004
PY080G	Pension from indivdual private plans gross	Not available	Questionnaire
PY080N	Pension from indivdual private plans net	Questionnaire Income reference period: last 12 months	Qestionnaire Income reference period: year 2004
PY090G	Unemployment benifits gross	Not available	Administrative source – Employment service of Slovenia Income reference period: year 2004
PY090N	Unemployment benifits net	Questionnaire Income reference period: last 12 months	Administrative source – Employment service of Slovenia Income reference period: year 2004
PY100G	Old age benefits gross	Not available	Administrative source – Pension and Disability Insurance institute Income reference period: year 2004
PY100N	Old age benefits net	Not available	Administrative source – Pension and Disability Insurance institute Income reference period: year 2004
PY110G	Survivor benefits net	Not available	Administrative source – Pension and Disability Insurance institute Income reference period: year 2004
PY110N	Survivor' age benefits gross	Not available	Administrative source – Pension and Disability Insurance institute Income reference period: year 2004
PY120G	Sickness benefits gross	Not available	Computing from questionnaire according to the data from tax declaration
PY120N	Sickness benefits net	Questionnaire, together with the travel allowances to visit the doctor	Computing from questionnaire according to the data from tax declaration

Variable	Description	HBS	EU-SILC
PY130G	Disability benefits gross	Not availabe	Administrative source – Pension and Disability Insurance institute Income reference period: year 2004
PY130N	Disability benefits net	Not available	Administrative source – Pension and Disability Insurance institute Income reference period: year 2004
	Pensions (PY100+PY110+PY130)	Questionnaire Income reference period:last month and calculated to number of months receiving it	
PY140G	Education related allowances gross	Not available	Statistical survey on scholarship. It is asked for monthly income in December and then it is calculated according to the numbers of month in which person was in education.
PY140N	Education related allowances net	Questionnaire Income reference period: last 12 months	Statistical survey on scholarship. It is asked for monthly income in December and then it is calculated according to the numbers of month in which person was in education.

4.2 Comparison of HBS and EU-SILC basic social cohesion

Table 16: Basic social cohesion indicatros from EU-SILC and HBS

	EU-SILC		HBS	
	Income in cash	Income in cash + in kind	Income in cash	Income in cash + in kind
At risk of poverty rate (%)	12,1	11,4	11,8	10,4
At risk of poverty threshold (EUR*)	5,278	5,516	4,615	4,961
At risk of poverty threshold (SIT)	1,261,821	1,318,908	1,103,450	1,186,065
At risk of poverty threshold for a household consisting of two adults and two children (EUR*)	11,083	11,585	9,692	10,418
At risk of poverty threshold for a household consisting of two adults and two children (SIT)	2,649,825	2,769,708	2,317,245	2,490,736
At risk of poverty rate before social transfers (except old-age and survivor's pensions) (%)	25,8	24,8	19,4	17,2
At risk of poverty rate before all social transfers (%)	42,2	40,9	40,6	37,4
Inequality of income distribution: S80/S20 quintile share ratio	3,4	3,3	3,4	3,2
Inequality of income distribution: Gini coefficient (%)	23,8	23	24,1	22,4

EUR rate: Eurostat, New Cronos Database.