



**The Statistical Office of the Slovak Republic**

**FINAL QUALITY REPORT  
STATISTICS ON INCOME AND LIVING CONDITIONS**

**the Slovak Republic**

**3. version**

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

### ***At persistent-risk-of-poverty rate by gender (60% median)***

*The share of persons with an equivalised total net income below the risk-of-poverty threshold in the current year and in at least two of the proceeding three years. Gender breakdown and total.*

*No applicable.*

### ***At persistent-risk-of-poverty rate by gender (50%median)***

*The share of person with an equivalised total net income below the 50% median equivalised income in the current year and in at least two of the preceding three years. Gender breakdown and total.*

*No applicable.*

## **2. ACCURACY**

### **2.1. Sample design**

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

One –stage stratified sampling was used in EU SILC 2005. The proportional number of households was selected by simple random sampling in individual strata.

For EU SILC 2006 there were included those households in sampling, which had in the year 2005 rotational group 2,3 and 4. Households included in the year 2005 into 1-st rotational group were excluded and for EU SILC 2006 replaced by new selected households. For selection of these households was used stratified sampling again and in individual strata there was selected proportional number of households by simple random sampling.

#### **2.1.2 Sampling units (one-stage, two-stages)**

Households sharing of expenditures are the sampling units. Households sharing of expenditures are private households comprised of persons in dwelling who live and manage together, including sharing in ensuring of the living needs. As manage together is considered: share in covering the basic household costs (catering, housing cost, costs of electricity, gas etc.). The fullest list of households sharing of expenditures and permanently occupied dwellings and houses is available on the base of data from the 2001 Population and Housing Census (acronym - SODB). Changes in the number of permanently occupied dwellings and houses within the period 2001-2004 and 2004-2005 were updated. The information on the number of allocation and reduction of dwellings and the announcement in regions of the Slovak Republic were used.

### 2.1.3 Stratification and substratification criteria

There are two criteria of area stratification in the sampling design:

- geographical stratification (8 standard administrative regions corresponding to the European NUTS 3 level.)
- degree of urbanization: 7 groups according to population size of municipalities (number of inhabitants in municipalities).

Through stratification criteria we created 48 strata (variable DB050).

From each stratum there were selected households sharing of expenditures through simple random sampling.

### 2.1.4 Sample size and allocation criteria

Minimum effective sample size was determined in relationship to presumptive at-risk- of poverty- rate in 2005 year. Minimum effective sample size recommended by EUROSTAT for the SR was 4250 households for cross-sectional component. Survey in 2005 was carried out in 6016 households.

For the year 2006 the survey was realized in households of 2, 3 and 4 rotational group from the year 2005. Households of the 1-st rotational group from the year 2005 were excluded and for 2006 was realized new sampling for households for this rotational group. Real sample size for the Slovak Republic was 6025 households in 2006 year.

**Table 1**

**Numbers of selected households sharing of expenditures in cross-sectional components for the year 2005 and 2006**

NUTS 3	Region	DB050	Drawn		Accepted (DB135=1)	
			2005	2006	2005	2006
SK010	Bratislavský	1 to 7	769	<b>729</b>	641	<b>561</b>
SK021	Trnavský	8 to 13	616	<b>619</b>	534	<b>510</b>
SK022	Trenčiansky	14 to 19	676	<b>679</b>	584	<b>590</b>
SK023	Nitriansky	20 to 25	828	<b>843</b>	717	<b>694</b>
SK031	Žilinský	26 to 31	724	<b>729</b>	624	<b>646</b>
SK032	Banskobystrický	32 to 37	793	<b>790</b>	684	<b>669</b>
SK041	Prešovský	38 to 43	771	<b>788</b>	662	<b>689</b>
SK042	Košický	44 to 48	839	<b>848</b>	701	<b>746</b>
<b>Total</b>	<b>SK</b>		<b>6 016</b>	<b>6 025</b>	<b>5 147</b>	<b>5 105</b>

Sample size for longitudinal component for the Slovak Republic was 3250 households, or 8250 persons aged 16+ in accordance with recommendation of Eurostat. As input for formation of longitudinal component were households of 2, 3 and 4 rotational group for the year 2005 (4466 households) and the year 2006 (4505 households). To register of longitudinal component there were included 4122 households from the year 2005 and 4161 households from the year 2006. There were not included those households from 2-nd to 4-th rotational group from register of cross-sectional component from the year 2005 and 2006 without contact at address in previous year or interview not completed.

There were 344 of those households per each year, of which 103 was from the 2-nd rotational group, 122 from 3-rd rotational group and 119 from 4-th rotational group.

From total number 8283 households included in register (D-file) of longitudinal component there was result of questionnaire accepted for 7861 households (H-file).

**Table 2**

**Number of selected households sharing of expenditures in longitudinal component of EU SILC survey**

NUTS 3	Region	DB050	Drawn		Accepted (DB135=1)	
			2005	2006	2005	2006
SK010	Bratislavský	1 to 7	566	523	518	417
SK021	Trnavský	8 to 13	458	439	416	395
SK022	Trenčiansky	14 to 19	501	470	458	441
SK023	Nitriansky	20 to 25	618	575	562	513
SK031	Žilinský	26 to 31	528	467	487	450
SK032	Banskobystrický	32 to 37	600	573	538	530
SK041	Prešovský	38 to 43	578	537	521	506
SK042	Košický	44 to 48	617	577	564	545
<b>Total</b>	<b>SK</b>		<b>4 466</b>	<b>4 161</b>	<b>4 064</b>	<b>3 797</b>

**Table 3**

**Number of selected households sharing of expenditures in the 2-nd rotational group in longitudinal component of EU SILC survey**

NUTS 3	Region	DB050	Drawn		Accepted (DB135=1)	
			2005	2006	2005	2006
SK010	Bratislavský	1 to 7	182	169	167	130
SK021	Trnavský	8 to 13	152	146	136	124
SK022	Trenčiansky	14 to 19	165	156	151	145
SK023	Nitriansky	20 to 25	205	194	188	174
SK031	Žilinský	26 to 31	179	145	163	138
SK032	Banskobystrický	32 to 37	198	200	176	189
SK041	Prešovský	38 to 43	190	179	171	165
SK042	Košický	44 to 48	207	200	189	187
<b>Total</b>	<b>SK</b>		<b>1 478</b>	<b>1 389</b>	<b>1 341</b>	<b>1 252</b>

**Table 4**

**Number of selected households sharing of expenditures in the 3-rd rotational group in longitudinal component**

NUTS 3	Region	DB050	Drawn		Accepted (DB135=1)	
			2005	2006	2005	2006
SK010	Bratislavský	1 to 7	174	176	174	145
SK021	Trnavský	8 to 13	143	144	139	134
SK022	Trenčiansky	14 to 19	152	156	151	148
SK023	Nitriansky	20 to 25	190	192	188	170
SK031	Žilinský	26 to 31	161	161	161	156
SK032	Banskobystrický	32 to 37	184	187	182	168
SK041	Prešovský	38 to 43	178	179	175	172
SK042	Košický	44 to 48	188	190	188	179
<b>Total</b>	<b>SK</b>		<b>1 370</b>	<b>1 385</b>	<b>1 358</b>	<b>1 272</b>

**Table 5**  
**Number of selected households sharing of expenditures in the 4-th rotational group in longitudinal component**

NUTS 3	Region	DB050	Drawn		Accepted (DB135=1)	
			2005	2006	2005	2006
SK010	Bratislavský	1 to 7	195	178	177	142
SK021	Trnavský	8 to 13	153	149	141	137
SK022	Trenčiansky	14 to 19	170	158	156	148
SK023	Nitriansky	20 to 25	206	189	186	169
SK031	Žilinský	26 to 31	176	161	163	156
SK032	Banskobystrický	32 to 37	198	186	180	173
SK041	Prešovský	38 to 43	194	179	175	169
SK042	Košický	44 to 48	204	187	187	179
<b>Total</b>	<b>SK</b>		<b>1 496</b>	<b>1 387</b>	<b>1 365</b>	<b>1 273</b>

### 2.1.5 Sample selection scheme

The information on population, which was obtained from sampling frame, the information and the rules for proportional stratified sampling was used in creating of sample selection scheme for the year 2005.

For the year 2005 we proceed as following:

- we created updated sampling frame for the year 2005 (list of households sharing of expenditures),
- strata were created, i.e. households sharing of expenditures from population were included in strata by region and level of urbanisation of municipalities and we created 48 strata (DB050),
- we assessed probability of sampling for 6000 households sharing of expenditures (0,00316),
- random numbers from interval (0,1) were generated in each strata for each unit,
- we included those units from each strata into sampled population, which had assigned random number  $\leq 0,00316$ ,
- decrease of houses/dwellings in period of the years from 2001 to 2004 was 5172, i.e. about 0,3 % of selected units in time of interview maybe did not exist at selected address,
- increase of houses/dwellings in period of the years from 2001 to 2004 was 51 106; selection of them from new buildings was realized on the base of random sampling, it represents 3 dwellings in average in each strata.

Households were selected into new rotational groups for the year 2006 by analogy as in the year 2005:

- we created updated sampling frame and strata,
- we assessed probability of sampling for 1500 households sharing of expenditures,
- in each stratum for each unit, which was not included into sampling in previous period, we generated random numbers from interval (0,1),
- into selected population there were included those units from each stratum, which had assigned random number lower or equal than was probability of sampling.

## 2.1.6 Sample distribution over time

Survey for the year 2005 was carried out from the 16-th May to 16-th June 2005.  
Survey for the year 2006 was carried out from the 3-rd April to 28-th April 2006.

## 2.1.7 Renewal of sample: rotational groups

Sample was divided into four rotational groups. In 2005 year there were approximately 1500 households in each sub- group.

EU SILC 2006 was realized in households of 2-nd, 3-rd and 4-th of rotational group from the year 2005. Households of the 1-st rotational group from the year 2005 were excluded and replaced by new households.

**Table 6:**  
**Numbers of selected households sharing of expenditures by rotational groups in regions- NUTS 3**

NUTS 3	DB050	Sample households					Accepted (DB135 = 1)					Non-respond households				
		SK	1	2	3	4	SK	1	2	3	4	SK	1	2	3	4
SK010	1 to 7	<b>729</b>	160	184	189	196	<b>561</b>	146	130	143	142	<b>168</b>	14	54	46	54
SK021	8 to 13	<b>619</b>	152	155	155	157	<b>510</b>	115	124	135	136	<b>109</b>	37	31	20	21
SK022	14 to 19	<b>679</b>	169	168	170	172	<b>590</b>	148	145	148	149	<b>89</b>	21	23	22	23
SK023	20 to 25	<b>843</b>	221	206	210	206	<b>694</b>	180	174	171	169	<b>149</b>	41	32	39	37
SK031	26 to 31	<b>729</b>	197	180	175	177	<b>646</b>	171	158	157	160	<b>83</b>	26	22	18	17
SK032	32 to 37	<b>790</b>	187	200	205	198	<b>669</b>	164	169	167	169	<b>121</b>	23	31	38	29
SK041	28 to 43	<b>788</b>	207	190	195	196	<b>689</b>	183	165	172	169	<b>99</b>	24	25	23	27
SK042	44 to 48	<b>848</b>	227	209	208	204	<b>746</b>	201	187	179	179	<b>102</b>	26	22	29	25
<b>Total</b>		<b>6 025</b>	<b>1 520</b>	<b>1 492</b>	<b>1 507</b>	<b>1 506</b>	<b>5 105</b>	<b>1 308</b>	<b>1 252</b>	<b>1 272</b>	<b>1 273</b>	<b>920</b>	<b>212</b>	<b>240</b>	<b>235</b>	<b>233</b>

## 2.1.8 Weightings

### 2.1.8.1 Design factor

Each household in the sample is weighted in an inverse ratio to the probability by which it has been selected.

- probability of the selection of household = 0,00316
- design factor = 316,0038

$$DB080_k = 1 / 0,003164519 = 316,0038$$

DB080 was defined for those households sharing of expenditures, which was for the 1-st time selected into sample. For the 1-st year of the EU SILC survey, i.e. 2005 it was calculated for each household. For another years of the survey it was determined only for those households, which occurred in the survey for the 1-st time.

### **2.1.8.2 Non-response adjustments**

The reduction of weight deviation caused by households that had been contacted (DB120=11); however refused the interview (DB135=2), was solved by the correction of weights in relation to the response rate, i.e. multiplying of weights by inverse value of response rate. The probability of response of each household is not known. We used dividing households into strata (region and rotational group, see *Table 6*) and we resulted from assumption that each household in stratum has the same probability of response.

Then the empirical value of the response rate within the stratum gives the estimate of the probability of response for each household in the stratum.

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

Adjustments of cross-sectional weights in relation to external sources was realized in a such way that there were calculated *initial weights*:

- $DB090_{ki0}$  using method of simple calibration of household weights to get calibration variables, i.e. number of households sharing of expenditures in regions by number of household members,
- $RB050_{ki0}$  using method of simple calibration of weights of household members to get calibration variables, i.e. number of persons in regions by age groups and by sex.

### **2.1.8.4 Final longitudinal weight**

#### General description of construction of longitudinal weights

Longitudinal data were created from household data, or persons of sampling network for cross-sectional datafiles. Sampling network for cross-sectional datafiles was constructed by rotational system. It was created by four rotational groups, where each rotational group was representative for whole population of SR.

Panel for longitudinal datafile with two-years-duration was created by data on households or persons per three rotational groups of cross-sectional component, which in both years were equal.

On the base of mentioned above results that foundation for calculation of weights for longitudinal datafiles are weights estimated in cross-sectional datafiles. Calculation of cross-sectional weights was realised in accordance with recommendation of Eurostat and it was also the part of intermediate quality report.

Calculation of longitudinal weights for which as a foundation were cross-sectional weights per individual years was realised in accordance with recommendation of Eurostat too.

Fact that each rotational group is representative for whole population of SR allows following procedure of calculation of longitudinal weights:

- Cross-sectional weights per individual years multiplied by 4 (then each one provides representative outputs for SR)
- Cross-sectional weights of each rotational group were adjusted by number of persons, who removed from population by reason of death, migration out of country, moving out of private household to collective household or they had to be excluded from target population by other reasons. (Adjustment was carried out not only the base of implied inputs in cross-sectional survey, but also under external estimations of individual events for SR)
- Such mentioned weights were adjusted under total non-response and were calibrated to number of households in relevant years, calibration variables were numbers of households by number of household members in individual regions
- Weights of individual persons were adjusted in accordance with value of variable RB110 (Membership status)
- Weights were recalculated according to duration of longitudinal datafiles (taking into account that each rotational group represents population of SR:
  - there is two-years-duration (datafile comprises of three rotational groups), so weights are divided by 3

Detailed description of weights calculation

Calculation of the household design weights DB080 was based on probability of sampling of households sharing of expenditures and correction of weights was carried out by response rate of questionnaires.

**DB090<sub>k0</sub>** in longitudinal component are calculated by calibration of cross-sectional **DB090<sub>k0</sub>** by using calibration variables: numbers of households sharing of expenditures by number of household in regions.

**RB060** - for each person defined in file, there was personal base weight in wave t=1 defined as

$$\omega_1^{(RB)} = RB060 = RB050$$

In the next wave between 2005-2006 there were dropped out persons from basic file by reason of death, moving out of republic, moving from private household into collective household or by other reasons. On the next step we had to take into account persons, that fell out and they had influence on total non-response (it was impossible to find them).

For this reason arrangement of basic weights was adjusted by status of person and there were taken into account external estimations of numbers following events in SR:

- birth of children (RB110=4), if their mother is sample person, they obtained weight of mother
- persons, that moved into selected household (RB110=3) from other non-selected household - they were co-resident and RB060=0

**RB062** is weight for longitudinal file of two-years duration, involving annual data from the years 2005-2006.



In condition of the Slovak Republic rotational groups have the same size - decrease is minimal, RB062 was calculated from RB060 **divided 3** ( arrangement of weights was realized on weights, which were representative for each rotational group for whole population of SR ).

**PB050 = RB060**, however concerning only population aged 16 and over (16+). For rotational group DB075=2, 3, 4 (years 2005 and 2006) sum of weights is equal of longitudinal population size of adults in the years 2005 and 2006.

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

Non-response adjustments for longitudinal component was realized in relation to 2-nd wave of the survey, i.e. year 2006 in following way:

- for rotational groups 2, 3 and 4 for the year 2006 we adjusted weights from previous year 2005 by number of persons, who moved in or moved out these households during year, which preceded actual year of the 2006 survey.
- for new 1-st rotational group we adjusted weights using method of simple calibration of household weights to get calibration variables, i.e. number of households sharing of expenditures in regions by number of household members.

Numbers represented differences between:

- partial number of households in year 2006 (it equals to number of households in year 2006 minus number of households, which represent households of three rotational groups selected in the year 2005) and
- partial number of households from the year 2005 (it equals number of households in year 2005 minus number of households, which represent households of three rotational groups selected in year 2005).

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

Weights of each rotational group (2, 3, 4) in each wave (years 2005 and 2006) were calibrated on total number of households in the Slovak Republic. Absolute numbers of households by number of household members in regions were calibration variables. (External information are accomplished estimate by expert in Demography area in Slovakia).

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

- see subhead 2.1.8.4

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

Calculation of cross-sectional weights was realized in accordance with recommendation of Eurostat:

- calculation of the household design weights - target variable **DB080** - was based on probability of sampling of households sharing of expenditures,
- correction of weights was carried out by response rate of questionnaires (*Table 6*)

- weights of the households sharing of expenditures has been calibrated to external numbers of households by number of membership in administration regions, i.e. there were calculated initial household cross-sectional weights **DB090<sub>k0</sub>**,
- personal cross - sectional weights has been calibrated to external numbers of persons by age (5 yearly aged groups) and by sex in the administration regions i.e. calculation of the personal cross-sectional weights **RB050<sub>ki0</sub>**,
- integration of initial household and personal cross-sectional weights **DB090<sub>k0</sub>** a **RB050<sub>ki0</sub>** was made for each household k:
  - DB090<sub>k</sub> = RB050<sub>ki</sub>** , where k = number of household
  - i = member ordinal number of the household of k
  - $\sum_k \sum_i RB050_{ki}$  = total Slovak population
- personal cross - sectional weights for all households members aged 16 and over, **PB040** has been calibrated to the same total as cross sectional weights for all households members, so:
  - PB040=RB050**
- cross - sectional weights for child care **RL070** has been calibrated to the same total as cross sectional weights for all households members, so:
  - RL070=RB050**

### 2.1.9 Substitutions

N/A

### 2.2. Sampling errors

**Table 7**

**Mean, number of observations and standard errors**

Income components	Cross-sectional component 2005				Cross-sectional component 2006				Longitudinal component 2005				Longitudinal component 2006			
	Mean	Number of observations		Standard error	Mean	Number of observations		Standard errors	Mean	Number of observations		Standard errors	Mean	Number of observations		Standard errors
		before im.	after im.			before im.	after im.			before im.	after im.			before im.	after im.	
HY010	<b>276 851</b>	4 604	5 147	<b>3 307</b>	<b>317 138</b>	4 959	5 105	<b>6 479</b>	<b>277 683</b>	3 654	4 064	<b>3 823</b>	<b>314 562</b>	3 675	3 797	<b>7 903</b>
HY020	<b>231 717</b>	4 617	5 147	<b>2 441</b>	<b>271 724</b>	4 965	5 105	<b>4 995</b>	<b>232 613</b>	3 665	4 064	<b>2 820</b>	<b>270 224</b>	3 681	3 797	<b>6 169</b>
HY022	<b>209 649</b>	4 898	5 147	<b>2 450</b>	<b>249 995</b>	5 008	5 105	<b>4 978</b>	<b>210 506</b>	3 880	4 064	<b>2 831</b>	<b>248 787</b>	3 716	3 797	<b>6 143</b>
HY023	<b>160 356</b>	5 011	5 147	<b>2 605</b>	<b>188 286</b>	5 090	5 105	<b>4 584</b>	<b>161 958</b>	3 942	4 064	<b>3 038</b>	<b>182 606</b>	3 781	3 797	<b>5 491</b>
<b>Gross income components at household level</b>																
HY040G	<b>355</b>	5 127	5 147	<b>69</b>	<b>444</b>	5 063	5 105	<b>115</b>	<b>367</b>	4 047	4 064	<b>78</b>	<b>448</b>	3 761	3 797	<b>123</b>
HY050G	<b>7 677</b>	5 147	5 147	<b>211</b>	<b>8 419</b>	5 105	5 105	<b>428</b>	<b>7 574</b>	4 064	4 064	<b>231</b>	<b>7 828</b>	3 797	3 797	<b>537</b>
HY060G	<b>3 359</b>	5 126	5 147	<b>212</b>	<b>2 304</b>	5 023	5 105	<b>168</b>	<b>3 311</b>	4 045	4 064	<b>235</b>	<b>2 320</b>	3 729	3 797	<b>200</b>
HY070G	<b>37</b>	5 146	5 147	<b>26</b>	<b>105</b>	5 104	5 105	<b>79</b>	<b>44</b>	4 063	4 064	<b>31</b>	<b>36</b>	3 796	3 797	<b>21</b>
HY080G	<b>179</b>	5 147	5 147	<b>27</b>	<b>1 283</b>	5 089	5 105	<b>125</b>	<b>202</b>	4 064	4 064	<b>34</b>	<b>1 243</b>	3 784	3 797	<b>143</b>
HY090G	<b>185</b>	5 071	5 147	<b>59</b>	<b>76</b>	5 036	5 105	<b>14</b>	<b>158</b>	4 001	4 064	<b>28</b>	<b>77</b>	3 744	3 797	<b>16</b>
HY100G	<b>306</b>	5 095	5 147	<b>40</b>	<b>513</b>	5 105	5 105	<b>52</b>	<b>374</b>	4 028	4 064	<b>75</b>	<b>499</b>	3 797	3 797	<b>58</b>
HY110G	<b>8</b>	5 147	5 147	<b>3</b>	<b>5</b>	5 105	5 105	<b>2</b>	<b>6</b>	4 064	4 064	<b>3</b>	<b>7</b>	3 797	3 797	<b>3</b>
HY120G	<b>427</b>	4 735	5 147	<b>10</b>	<b>502</b>	5 069	5 105	<b>10</b>	<b>425</b>	3 751	4 064	<b>10</b>	<b>521</b>	3 765	3 797	<b>13</b>
HY130G	<b>315</b>	5 135	5 147	<b>61</b>	<b>413</b>	5 104	5 105	<b>52</b>	<b>279</b>	4 056	4 064	<b>43</b>	<b>401</b>	3 796	3 797	<b>62</b>
HY140G	<b>44 392</b>	5 006	5 147	<b>1 044</b>	<b>44 498</b>	5 079	5 105	<b>1 671</b>	<b>44 366</b>	3 951	4 064	<b>1 123</b>	<b>43 415</b>	3 776	3 797	<b>1 999</b>
<b>Net income components at personal level</b>																
PY010G	<b>80 061</b>	12 376	12 879	<b>1 093</b>	<b>87 064</b>	12 508	12 630	<b>2 283</b>	<b>80 629</b>	9 493	9 848	<b>1 290</b>	<b>85 638</b>	9 278	9 380	<b>2 742</b>
PY020G	<b>46</b>	12 794	12 879	<b>8</b>	<b>783</b>	12 525	12 630	<b>102</b>	<b>50</b>	9 778	9 848	<b>10</b>	<b>816</b>	9 305	9 380	<b>126</b>
PY035G	<b>516</b>	12 820	12 879	<b>37</b>	<b>722</b>	12 568	12 630	<b>71</b>	<b>541</b>	9 802	9 848	<b>44</b>	<b>664</b>	9 344	9 380	<b>29</b>
PY050G	<b>4 926</b>	12 812	12 879	<b>553</b>	<b>9 735</b>	12 630	12 630	<b>779</b>	<b>5 453</b>	9 796	9 848	<b>706</b>	<b>9 800</b>	9 380	9 380	<b>965</b>
PY070G	<b>631</b>	12 879	12 879	<b>27</b>	<b>697</b>	12 576	12 630	<b>27</b>	<b>674</b>	9 848	9 848	<b>33</b>	<b>748</b>	9 341	9 380	<b>36</b>
PY080G	<b>47</b>	12 878	12 879	<b>9</b>	<b>44</b>	12 629	12 630	<b>11</b>	<b>46</b>	9 848	9 848	<b>11</b>	<b>40</b>	9 379	9 380	<b>13</b>
PY090G	<b>857</b>	12 856	12 879	<b>50</b>	<b>798</b>	12 608	12 630	<b>64</b>	<b>866</b>	9 831	9 848	<b>60</b>	<b>832</b>	9 365	9 380	<b>82</b>
PY100G	<b>18 413</b>	12 807	12 879	<b>368</b>	<b>23 346</b>	12 556	12 630	<b>1 009</b>	<b>18 208</b>	9 793	9 848	<b>385</b>	<b>25 534</b>	9 321	9 380	<b>1 371</b>
PY110G	<b>2 057</b>	12 833	12 879	<b>85</b>	<b>2 622</b>	12 485	12 630	<b>103</b>	<b>2 062</b>	9 812	9 848	<b>99</b>	<b>2 757</b>	9 269	9 380	<b>120</b>
PY120G	<b>382</b>	12 821	12 879	<b>29</b>	<b>365</b>	12 594	12 630	<b>34</b>	<b>394</b>	9 800	9 848	<b>33</b>	<b>390</b>	9 353	9 380	<b>42</b>
PY130G	<b>3 307</b>	12 865	12 879	<b>144</b>	<b>3 366</b>	12 620	12 630	<b>147</b>	<b>3 378</b>	9 839	9 848	<b>169</b>	<b>3 541</b>	9 373	9 380	<b>176</b>
PY140G	<b>20</b>	12 879	12 879	<b>10</b>	<b>58</b>	12 630	12 630	<b>9</b>	<b>28</b>	9 848	9 848	<b>14</b>	<b>48</b>	9 380	9 380	<b>10</b>



**Table 8**  
**Mean, number of observations and standard error for the equivalised disposable income breakdown by sex, age groups and household size**

Equivalised disposable income	Cross-sectional component 2005				Cross-sectional component 2006			Longitudinal component 2005			Longitudinal component 2006					
	Mean	Number of observations		Standard error	Mean	Number of observations		Standard error	Mean	Number of observations		Standard error	Mean	Number of observations		Standard error
		before im.	after im.			before im.	after im.			before im.	after im.			before im.	after im.	
<b>Subclasses by household size</b>																
1 HD member	<b>95 137</b>	888	998	<b>1 950</b>	<b>111 445</b>	1 071	1 123	<b>1 974</b>	<b>94 849</b>	859	965	<b>1 986</b>	<b>107 293</b>	790	838	<b>1 895</b>
2 HD members	<b>131 914</b>	1 004	1 181	<b>2 862</b>	<b>155 889</b>	1 114	1 141	<b>7 023</b>	<b>132 770</b>	775	905	<b>3 588</b>	<b>156 599</b>	825	846	<b>9 067</b>
3 HD members	<b>139 020</b>	841	1 020	<b>2 661</b>	<b>159 944</b>	915	943	<b>3 446</b>	<b>139 661</b>	630	755	<b>3 286</b>	<b>162 195</b>	667	685	<b>4 387</b>
4 and more	<b>123 991</b>	1 621	1 948	<b>1 537</b>	<b>148 205</b>	1 857	1 898	<b>4 539</b>	<b>125 510</b>	1 197	1 439	<b>1 852</b>	<b>151 089</b>	1 394	1 428	<b>5 620</b>
<b>Population by age group</b>																
<25	<b>118 559</b>	4 330	5 219	<b>1 016</b>	<b>142 058</b>	4 867	4 971	<b>2 999</b>	<b>120 135</b>	3 294	3 959	<b>1 220</b>	<b>145 620</b>	3 610	3 687	<b>3 754</b>
25 - 34	<b>140 636</b>	1 767	2 136	<b>2 089</b>	<b>158 935</b>	1 960	2 020	<b>2 591</b>	<b>143 121</b>	1 269	1 535	<b>2 712</b>	<b>163 356</b>	1 509	1 561	<b>3 501</b>
35 - 44	<b>120 101</b>	1 771	2 144	<b>1 503</b>	<b>144 667</b>	2 027	2 069	<b>4 168</b>	<b>120 382</b>	1 349	1 640	<b>1 762</b>	<b>144 414</b>	1 478	1 502	<b>5 126</b>
45 - 54	<b>135 764</b>	2 144	2 541	<b>1 593</b>	<b>155 747</b>	2 337	2 392	<b>1 930</b>	<b>137 493</b>	1 628	1 911	<b>1 919</b>	<b>156 765</b>	1 748	1 797	<b>2 351</b>
55 - 64	<b>135 961</b>	1 447	1 680	<b>1 801</b>	<b>163 144</b>	1 719	1 773	<b>3 678</b>	<b>136 120</b>	1 129	1 293	<b>2 194</b>	<b>165 881</b>	1 254	1 295	<b>4 841</b>
65+	<b>106 748</b>	1 432	1 698	<b>1 290</b>	<b>126 537</b>	1 855	1 922	<b>4 760</b>	<b>106 908</b>	1 220	1 441	<b>1 382</b>	<b>127 331</b>	1 401	1 461	<b>6 017</b>
<b>Population by sex</b>																
male	<b>127 579</b>	6 155	7 386	<b>865</b>	<b>149 068</b>	7 008	7 174	<b>1 859</b>	<b>128 497</b>	4 664	5 589	<b>1 027</b>	<b>151 442</b>	5 238	5 365	<b>2 371</b>
female	<b>122 885</b>	6 736	8 032	<b>876</b>	<b>145 904</b>	7 755	7 973	<b>2 144</b>	<b>124 047</b>	5 225	6 190	<b>1 065</b>	<b>147 814</b>	5 762	5 938	<b>2 679</b>

## 2.3. Non-sampling errors

### 2.3.1 Sampling frame and coverage errors

Starting point of sampling frame are data from 2001 Population and Housing Census. Changes in numbers of households sharing of expenditures are known only from expert estimates. We do not have any information for their identification to sampling.

Exact information exists about change in the fund of permanently occupied dwellings and houses and this information was used in sampling of households sharing of expenditures.

**Table 9:**  
**Information on change in the fund of permanently occupied dwellings and houses in period 2001 – 2005**

Region	Permanently occupied dwellings 2001 (Census)	Permanently occupied dwellings 31.12.2004	Number of complete dwellings in 2005	Estimation of permanently occupied dwellings 31.12.2005
Bratislavský	218 610	228 211	4 673	232 884
Trnavský	168 831	175 523	2 055	177 578
Trenčiansky	191 081	195 801	1 575	197 376
Nitriansky	231 119	235 530	1 087	236 617
Žilinský	202 389	208 921	1 997	210 918
Banskobystrický	217 850	221 739	772	222 511
Prešovský	208 319	214 477	1 760	216 237
Košický	227 337	231 268	944	232 212
SR	1 665 536	1 711 470	14 863	1 726 333

Information about change in the fund of permanently occupied dwellings and houses from 2001 to 2004 and from 2004 to 2005 was used to update sampling frame for selecting of households for new rotation group.

### 2.3.2 Measurement and processing errors

In the case of both surveys EU SILC 2005 and EU SILC 2006 we focussed on following sources of errors:

- the way of compiling the questionnaires, structure of questionnaires, ordering of questions in questionnaire, using of detailed structure of primary target variables,
- quality of interviewers' training, individual skill of interviewer,
- interview in the case of households from previous wave and contacted again in next year of the survey,
- searching of addresses of households or persons who moved to another residence compared to year 2005,
- logical checks of questionnaires received from interviewers.

### **2.3.2.1 Measurement errors**

Many sources, which occurred in the period of data collection, had influence on measurement errors:

- 1/ questionnaire
- 2/ interviewers
- 3/ respondents
- 4/ data collection

#### **1/ Questionnaires**

At the primary compiling of questionnaires it have gone from proposal of questionnaire from bilateral meeting of Eurostat and SOSR from July 2002. They were consequently verified in the Slovak conditions through three pilot projects. On the base of this obtained experience from their testing during fieldwork and after strong collaboration with Ministry of Labour, Social Affairs and Family of the SR there was created final version of questionnaires of the survey EU SILC.

In the EU SILC 2005 a EU SILC 2006 there were used four colour-distinguishable questionnaires in personal interview in household:

- SILC 1-01/A - Household structure
- SILC 1-01/B - Household sharing of expenditures data
- SILC 1-01/C - Personal data
  
- SILC 1-01/D - Social condition of family (EU SILC 2005)
- SILC 1-01/D - Social participation (EU SILC 2006)

Questions in compiling of questionnaires were proposed in a such way to cover all required variables.

The questions were grouped into particular thematic modules by reason of the better understanding and lucidity.

In comparison with survey year 2005 there were made several changes in questionnaires for EU SILC 2006 related to explanation of some more difficult understanding parts of questionnaires, simplifying of wording and logical ordering of questions, proposed detailed structure of primary target variables or reduction in number of some items observed and etc.).

There were occurred evident changes in the case of income variables.

In household questionnaire for EU SILC 2006, adjustment of range of income intervals in the case of tax on property and income from interest, dividends and profit from capital investment was made.

There was created new block 8.4 Tax on income by reason of simulation tax on income, where we collected information on components needed for decrease of tax assessment base, tax-bonus and repayments/receipts for tax adjustment.

Within variable – HY090G Interest, dividends and profit from capital investment in unincorporated business we used dividing into those components, which are not liable to tax (dividends, profit of sleeping partners) and those ones which are taxed (interest, profit from capital investment).

Detailed observation was applied in regular inter-household transfers paid, it was in structure: compulsory alimonies and child support, voluntary alimonies and child

support, regular cash support to persons other than household members, regular cash support to households abroad, and it was also made in variable regular inter-household transfers received: compulsory alimonies and child support, voluntary alimonies and child support, regular cash support from persons other than household members, regular cash support from households abroad.

On the base of knowledge from 2005 we divided component – profit from self employment – into gross and net profit. In the case if respondent did not know to give annual sum exactly or there was not available relevant document for giving this amount, it was possible to give this information through income interval. All the same we solved estimation of gross annual amount of wage from the main or secondary employment using income intervals in the case if respondent did not know to give the sum.

The main reason for changes mentioned above was elimination of too gross estimation from the side of respondents as well as interviewers, also taken into account national requirements.

There were reduced some items of non-cash employee income on the basis of low occurrence of data in 2005 (company goods and services provided at reduced price, reimbursement of expenses related to sport, language course) and they were included into item *other non-cash income*.

In connection with questions related to housing there was added instruction for interviewer into questionnaire in the case of households contacted again in next wave of the survey as well as for new households. In the case if there were no changes compared to interview in previous year in connection to housing (questions related to number of rooms, total floor area, equipment of dwelling by bath, bath shower, indoor flushing toilet and year since which the household started living in dwelling), there was possibility to jump these questions and interviewer could have continued next questions in questionnaire. This missing data was recorded from the survey 2005 consequently. The main reason was to eliminate burden on respondents in filling this information.

On the base of co-operation with the Ministry of Labour, Social Affairs and Family of the SR, B and D questionnaires were completed by the questions on housing and some national aspects of poverty proposed by Ministry. Data serves only for internal purposes.

## **2/ Interviewers**

For fieldwork we used external staffs - individually trained interviewers.

Mostly they were persons, who approved in previous national surveys carried out in households (Population and housing census, Micro-census, etc.)

After realization of fieldwork within EU SILC 2005, for the second wave of the survey there was created stabile interviewer's network comprised of interviewers, who participated in survey EU SILC 2005 (especially in the case of households contacted again in next wave) and new interviewers (especially in the case of new households).

The organisation of the survey was ensured by regional coordinators. On each Regional Office the was coordinator – expert for methodology who ensured personal contact (or contact by phone) with interviewers and solved occurred methodological unclearness on the base of consultation with SO SR. The regular meetings with the responsible employees of the Regional Offices were done which were aimed at



explanation of objectives, form, content of survey as well as methods and methodology. Training of interviewers succeeded to 2 days training of regional coordinators.

The Regional Offices of the SOSR in co-operation with the SOSR performed the training of interviewers with participation of experts. Globally in EU SILC 2005 and EU SILC 2006 there were realized 28 individual one-day trainings.

In the case of the first wave of the survey, 451 interviewers were trained, what represents participation of 30-40 interviewers in one training. 13-15 households fell per one interviewer.

For EU SILC 2006 there were trained 425 interviewers. Some Regional Offices carried out independent training for new interviewers and separate for interviewers who realized interview in previous year. Approximately 25-35 interviewers participated in one training. From professional view they were mostly clerks, person in retirement and student. 12-15 households fell per one interviewer.

Most of interviewers contributed by their opinions and experience for elaboration of detailed regional valuation reports

On the base of experience from the EU SILC 2005, coordinators of the Regional Offices provided these reports to interviewers and they could have completed them on voluntary base.

### **3/ Respondents**

As resulted from the experience, the most problematic variables are incomes from employment and from self-employment, taxes and housing costs of households. They are variables, in which the highest inaccuracy was caused by respondents and in most of cases they stated only approximate estimates, because they were not willing to provide information from relevant documents, from which the required values could have been recorded more accurately (e.g. payrolls, statements of rental...).

Certain role also plays the fact that respondents have been frightened before abuse of information for non-statistical purposes – and there was also distrust in terms of anonymity of the survey - required information was considered as private and by this reason certain data was not provided or only estimated values were provided.

### **4/ Data collection**

Data collection in the case of the first and second wave of the survey EU SILC was realized in the first half of the year. Fieldwork within EU SILC 2005 was carried out in the period from 16-th May to 16-th June 2005. For the year 2006 interview in household was made from 3-rd April to 28-th April 2006. Choice of this period for realization of data collection in households has shown as convenient, especially concerning period for tax liability and liability for service of respondents (in terms of obtaining information on tax adjustment).

The EU SILC survey is a panel survey, in which longitudinal component – households included into survey and contacted again during consecutive waves - plays important role. Just in the case of these households, contacted again, was necessary to aim at data quality and comparability of collected information between

individual waves of EU SILC, as well as to focus on obtaining data on households or persons, who moved out from their initial address from EU SILC 2005.

In searching of households or persons who were selected to EU SILC 2006 survey and changed address of their residence, data was recorded into registers created in common server of the SO SR, with limited access for each Regional Office.

As regards the fact that it was working with personal and confidential data, it was necessary in connection with registers to be accessible only for persons, who are authorized to operate them.

Register A was intended for all coordinators of the Regional Offices and for SO SR as gathering station, where data on whole households and persons who moved out from initial residence, was recorded here, independently of the place of their new address (move out to another region, municipality). Extent of recorded data was limited in order to ensure personal and confidential data protection.

After completing of needed data coordinator of SO SR sent information to register B, in which there were accessible another registers for individual Regional Offices. There was recorded information on households/persons who moved in area of relevant Regional Office, and was completed by other data necessary for interviewers processing by coordinator of SO SR. This register was intended for only that Regional Office, which realized additional searching of household/person.

Interviewers were directed by Manual for interviewers in searching of moved out households/persons. Each interviewer participating in training kept form SILC06 R\_D at disposition, in which there were listed all households from the 1-st wave, which had to be contacted again, with basic identifications data (address of household, code of municipality, district, first name and surname of the head of the household).

Form SILC06 R\_O comprised of information on all persons from the 1-st wave, who have been the household members (Personal ID, relation to head of the household, month, year of birth, sex, sample person, co-resident). All this basic data had to be filled in questionnaire SILC/A 1-01 by interviewer in accordance with directions before interview in household. In the case that household/person moved out from initial address, interviewer searched its new address and he told this change to relevant regional coordinator. Then the Regional Office on the base of information from registers put the household to research to interview within the same region or to coordinator of the other Regional Office.

Municipal offices, neighbours, postman and in the case of split-off households also original households, represented evident help in searching of moved out households or persons.

Interviewers was paying attention to quality of collected data on households from previous wave and contacted again in next wave of the panel survey because in data processing there was underlined comparability of data, which was collected during the 1-st and 2-nd wave of the survey.

### **2.3.2.2 Processing errors**

Data processing was realized on two levels:

1. The following actions has been realized on the decentralized level:
  - a) taking questionnaires from interviewers. formal checking, preparation of questionnaires for data recording,

- b) data recording and checking. The special software DCSILC2000 has been used for data recording, in which these types of controls were used: checks on the data integrity, identification of duplicity, frequency checks, checks to the permissible values, the logic checks within a questionnaire and between questionnaires, special conditions for data recording and non-responses. All the defined checks are included in the technical project (TP - part A/0463/0 to data processing EU SILC2006. The checks are divided into two types: informative checks and necessary checks. System of the checks also comprised of certain chosen checks from the checking software of Eurostat.
- c) on this level, also the errors caused by data recording have been eliminated. There were mainly errors created by a shift in editing codes yes/no/don't know and by not realizing a visual check sufficiently. By monitoring errors in the phase of data recording, the errors were analyzed and subsequently the situation was improved.
2. On the centralized level a final database was created. Logic controls, corrections, overweighting and imputations were realized using SW of system SAS.

### 2.3.3 Non-response errors

#### 2.3.3.1 *Achieved sample size*

	1-st wave	2-nd wave	%	%
DB135=1	4 064	3 797	98,59	99,97

	1-st wave	2-nd wave
RB100=1	9 848	9 259
RB100=2	–	121

#### 2.3.3.2 *Unit non-response*

##### Household non-response rates NRh

$$\mathbf{NRh = (1 - (Ra * Rh)) * 100}$$

where

**Ra = the address contact rate**

= number of addressed successfully contacted / number of valid addresses selected

$$= \Sigma [ DB120 = 11 ] / \Sigma [ DB120 = all ] - \Sigma [ DB120 = 23 ]$$

$$= \mathbf{0,95}$$

**Rh = the proportion of complete household interviewers accepted for the database**

= number of household interviews completed and accepted for database / number of eligible households at contacted addresses

$$= \Sigma DB135 = 1 / \Sigma [ DB130 = all ] =$$

$$= \mathbf{0,99}$$

where DB120 is the record of contact at the address  
 DB130 is the household questionnaire result  
 DB135 is the household interview acceptance result.

$$\underline{NRh = (1 - (1 * 0,9859)) * 100 = (1 - 0,9405) * 100 = 5,95}$$

**Individual non-response rates NRp**

$$\underline{NRp = (1 - (Rp)) * 100}$$

where

**Rp = the proportion of complete personal interviewers within the households accepted for database**  
 = number of personal interviewers completed / number of eligible individuals in the households whose interviewers were completed and accepted for the data base  
 =  $\sum[RB250 = 11+12+13] / \sum[RB245 = 1+2+3]$   
 = **0,9977**

where RB245 is the respondent status  
 RB250 is the data status

$$\underline{NRp = (1 - 0,9977) * 100 = 0,23}$$

**Overall individual non-response rates \* NRp**

$$\underline{* NRp = (1 - (Ra * Rh * Rp)) * 100}$$

$$\underline{*NRp = (1 - (0,95 * 0,99 * 0,9977)) * 100 = 6,17}$$

**2.3.3.3. Distribution of households by household status (DB110), by record of contact at address (DB120) and by household questionnaire result (DB130) and by household interview acceptance (DB135)**

**Table 10  
 Distribution of households by DB110, DB120, DB130 a DB135 in EU SILC 2005**

HOUSEHOLD STATUS

	Total	DB110=9
Total	4 466	4 466
%	100	100

RECORD OF CONTACT AT ADDRESS

	Total	DB120=11	DB120=11	Missing
Total DB110=2,8,10	4 466	4 226	240	-
%	100	94,63	5,37	-

## HOUSEHOLD QUESTIONNAIRE RESULT

	Total	DB130=11	DB130=21	DB130=22	Missing
<b>Total DB120=11 or DB110=1</b>	4 226	4 122	70	34	-
<b>%</b>	100	97,54	1,66	0,80	-

## HOUSEHOLD INTERVIEW ACCEPTANCE

	Total	DB135=1	DB135=2
<b>Total DB130=11</b>	4 122	4 064	58
<b>%</b>	100	98,59	1,41

**Table 11****Distribution of households by DB110, DB120, DB130 a DB135 in EU SILC 2006**

## HOUSEHOLD STATUS

	Total	DB110=1	DB110=2	DB110=3	DB110=4	DB110=5	DB110=6	DB110=7	DB110=8
<b>Total</b>	4 161	4 005	48	4	2	40	1	22	39
<b>%</b>	100	96,25	1,15	0,10	0,05	0,96	0,02	0,53	0,94

## RECORD OF CONTACT AT ADDRESS

	Total	DB120=11	DB120=21	DB120=22	DB120=23	Missing
<b>Total DB110=2,8,10</b>	87	79	2	5	1	-
<b>%</b>	100	90,8	2,3	5,75	1,15	-

## HOUSEHOLD QUESTIONNAIRE RESULT

	Total	DB130=11	DB130=21	DB130=22	DB130=23	DB130=24	Missing
<b>DB120=11</b>	79	77	2	-	-	-	-
<b>DB110=1</b>	4 005	3 721	100	4	7	2	171
<b>Total</b>	4 084	3 798	102	4	7	2	171
<b>%</b>	100	93,0	2,49	0,10	0,17	0,05	4,19

## HOUSEHOLD INTERVIEW ACCEPTANCE

	Total	DB135=1	DB135=2	Missing
<b>Total DB130=1</b>	3 798	3 797	1	-
<b>%</b>	100	99,97	0,03	-

**2.3.3.4 Distribution of persons for membership status (RB110)**

N/A

**2.3.3.5 Item-non-response**

In Tables 12-13 an overview of the item non-response for all income variable is presented.

**Table 12**  
**Overview of the non-response for the income variables EU SILC 2005**

Income	Income ne 0 Number of households	All of imputation IF=0	All of information IF=1	Partial imputation	Income ne 0 % of households	All of imputation IF=0 [%]	Partial imputation [%]
HY010	5147	0	1975	3172	100.0	0.0	61.6
HY020	5147	0	2002	3145	100.0	0.0	61.1
HY022	5049	31	2028	2990	98.1	0.6	59.2
HY023	4518	129	1567	2822	87.8	2.9	62.5
HY040G	144	20	66	58	2.8	13.9	40.3
HY050G	2253	0	2253	0	43.8	0.0	0.0
HY060G	605	0	572	33	11.8	0.0	5.5
HY070G	6	1	5	0	0.1	16.7	0.0
HY080G	119	0	119	0	2.3	0.0	0.0
HY090G	192	76	59	57	3.7	39.6	29.7
HY100G	154	52	102	0	3.0	33.8	0.0
HY110G	10	0	10	0	0.2	0.0	0.0
HY120G	3296	412	2884	0	64.0	12.5	0.0
HY130G	127	12	115	0	2.5	9.4	0.0
HY140G	3650	79	3332	239	70.9	2.2	6.5
PY010G	6397	468	2216	3713	49.7	7.3	58.0
PY020G	85	85	0	0	0.7	100.0	0.0
PY035G	1013	59	954	0	7.9	5.8	0.0
PY050G	461	64	393	4	3.6	13.9	0.9
PY070G	1651	0	1651	0	12.8	0.0	0.0
PY080G	52	1	51	0	0.4	1.9	0.0
PY090G	501	22	478	1	3.9	4.4	0.2
PY100G	2745	7	2672	66	21.3	0.3	2.4
PY110G	714	45	667	2	5.5	6.3	0.3
PY120G	462	58	403	1	3.6	12.6	0.2
PY130G	782	5	765	12	6.1	0.6	1.5
PY140G	15	0	15	0	0.1	0.0	0.0

**Table 13**  
**Overview of the non-response for the income variables EU SILC 2006**

Income	Income ne 0 Number of households	Income ne 0 % of households	All of imputation IF=0	All of information IF=1	Partial imputation	All of imputation IF=0 [%]	Partial imputation [%]
HY010	5 105	100.00	42	4 445	618	0.82	12.11
HY020	5 105	100.00	12	4 413	680	0.24	13.32

<b>HY022</b>	5 060	99.12	14	4 525	521	0.28	10.30
<b>HY023</b>	4 757	93.18	31	4 407	319	0.65	6.71
<b>HY040G</b>	219	4.29	42	177	0	19.18	0.00
<b>HY050G</b>	2 147	42.06	0	2 147	0	0.00	0.00
<b>HY060G</b>	362	7.09	93	244	25	25.69	6.91
<b>HY070G</b>	9	0.18	1	8	0	11.11	0.00
<b>HY080G</b>	257	5.03	16	241	0	6.23	0.00
<b>HY090G</b>	139	2.72	69	70	0	49.64	0.00
<b>HY100G</b>	151	2.96	0	151	0	0.00	0.00
<b>HY110G</b>	10	0.20	0	10	0	0.00	0.00
<b>HY120G</b>	3 583	70.19	36	3 547	0	1.00	0.00
<b>HY130G</b>	129	2.53	1	128	0	0.78	0.00
<b>HY140G</b>	3 636	71.22	16	3 540	80	0.44	2.20
<b>PY010G</b>	6 505	51.50	102	6 370	33	1.57	0.51
<b>PY020G</b>	105	0.83	105	0	0	100.00	0.00
<b>PY035G</b>	1 233	9.76	62	1 171	0	5.03	0.00
<b>PY050G</b>	643	5.09	0	643	0	0.00	0.00
<b>PY070G</b>	2 016	15.96	54	1 962	0	2.68	0.00
<b>PY080G</b>	44	0.35	1	43	0	2.27	0.00
<b>PY090G</b>	373	2.95	22	351	0	5.90	0.00
<b>PY100G</b>	3 027	23.97	69	2 933	25	2.28	0.83
<b>PY110G</b>	903	7.15	141	757	5	15.61	0.55
<b>PY120G</b>	320	2.53	36	284	0	11.25	0.00
<b>PY130G</b>	773	6.12	9	763	1	1.16	0.13
<b>PY140G</b>	64	0.51	0	64	0	0.00	0.00

## 2.4. Mode of data collection

**Table 14:**  
**Distribution of household members by RB250 for EU SILC 2005**

HOUSEHOLD MEMBERS 16+ (RB245 =1)

	Total	RB250=11	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
<b>Total</b>	9 870	9 848	1	–	10	9	2	–
<b>%</b>	100	99,78	0,01	–	0,10	0,09	0,02	–

SAMPLE PERSONS 16+ (RB245 =1 a RB100 = 1)

	Total	RB250=11	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
<b>Total</b>	9 870	9 848	1	–	10	9	2	–
<b>%</b>	100	99,78	0,01	–	0,10	0,09	0,02	–

CO-RESIDENTS 16+ (RB245 =1 a RB100 = 2)

	Total	RB250=11	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
<b>Total</b>	–	–	–	–	–	–	–	–
<b>%</b>	100	–	–	–	–	–	–	–

**Table 15:**  
**Distribution of household members by RB250 for EU SILC 2006**

HOUSEHOLD MEMBERS 16+ (RB245 =1)

	Total	RB250=11	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
<b>Total</b>	9 402	9 380	–	–	10	10	2	–
<b>%</b>	100	99,77	–	–	0,11	0,10	0,02	–

SAMPLE PERSONS 16+ (RB245 =1 a RB100 = 1)

	Total	RB250=11	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
<b>Total</b>	9 280	9 259	–	–	9	10	2	–
<b>%</b>	100	99,77	–	–	0,10	0,11	0,02	–

CO-RESIDENTS 16+ (RB245 =1 a RB100 = 2)

	Total	RB250=11	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
<b>Total</b>	122	121	–	–	1	–	–	–
<b>%</b>	100	99,18	–	–	0,82	–	–	–

**Table 16:**  
**Distribution of household members by RB260 for EU SILC 2005**

HOUSEHOLD MEMBERS 16+ (RB245 = 1) and RB250 = 11 or 13

	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	Missing
<b>Total</b>	9 848	9 274	–	–	54	520	–
<b>%</b>	100	94,17	–	–	0,55	5,28	–

SAMPLE PERSONS 16+ (RB245 = 1 and RB100 = 1) and RB250 = 11 or 13

	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	Missing
<b>Total</b>	9 848	9 274	–	–	54	520	–
<b>%</b>	100	94,17	–	–	0,55	5,28	–

CO-RESIDENTS 16+ (RB245 = 1 and RB100 = 2) and RB250 = 11 or 13

	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	Missing
<b>Total</b>	–	–	–	–	–	–	–
<b>%</b>	100	–	–	–	–	–	–



**Table 17:**  
**Distribution of household members by RB260 for EU SILC 2006**

HOUSEHOLD MEMBERS 16+ (RB245 = 1) and RB250 = 11 or 13

	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	Missing
<b>Total</b>	9 380	8 775	–	–	52	551	2
<b>%</b>	100	93,56	–	–	0,55	5,87	0,02

SAMPLE PERSONS 16+ (RB245 = 1 and RB100 = 1) and RB250 = 11 or 13

	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	Missing
<b>Total</b>	9 259	8 663	–	–	51	543	2
<b>%</b>	100	93,57	–	–	0,55	5,86	0,02

CO-RESIDENTS 16+ (RB245 = 1 and RB100 = 2) and RB250 = 11 or 13

	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	Missing
<b>Total</b>	121	112	–	–	1	8	-
<b>%</b>	100	92,56	–	–	0,83	6,61	-

## 2.5. Imputation procedure

From many methods (deductive, deterministic, stochastic), which were recommended for imputation of income variables, we used method of regression deterministic imputation.

Imputation procedure, which was used for solution of item non-.response was following:

For imputation of income variables in household data file there were created following groups:

Region (NUTS 3)

HH030 (number of rooms)

POCL (number of households members)

For imputation of income variables in personal data file there were created following groups:

Region (NUTS)

Age

Sex

In this way created groups gave us the most differentiated average values. Imputation was implemented in three steps:

In case of imputation for income variables of the H-file :

1. Region x HH030 x POCL
2. Region x POCL
3. Region

In case of imputation for income variables of the P-file :

1. DB050 x Age x PB150
2. DB050
3. Region

Imputation was carry out in connection with housing cost too (variable HH060 *Current rent related to occupied dwelling*).

Data was imputed on the base of group averages according to following criteria: region, number of rooms in dwelling and tenure status.

## 2.6 Imputed rent

Variable is compulsory from the year 2007.

For the year 2006 calculation of income variable *imputed rent* will be simulated only in order to testing and ensuring coherence on national level. Item will not be included into variable HY010.

For calculation of imputed rent these following components are taken into account: dwelling type, tenure status, number of rooms available to the household, year of contract or purchasing or installation, current rent related to occupied dwelling and total housing cost (including electricity, gas and heating).

In calculating of imputed rent we will come out from elaborated study „Testing of methods of imputed rent estimation for EU-SILC in the Slovak Republic“. Results of several surveys as well as 2001 Housing and Population Census show that the share of the privately-owned dwellings and houses rented at the market price represents about 3 % of the total number of dwellings in the Slovak Republic. Given this fact, it is recommended to use the user cost method for estimation of imputed rent.

## 2.7 Company cars

For the year 2005 and 2006 we collected several components of non-cash income, but only income from company car was taken into account within variable PY020G.

Benefit from using company car for personal purposes was estimated on the basis of depreciated price of company car for actual year and other cash benefits, which were provided by employer in connection with car for personal purposes – benefit paid for petrol, benefit related to compulsory car insurance and repair and maintenance benefits. As input components for estimation of depreciated price of car for the actual year was market price of new car, period of amortisation established by law (4 years) and age of car (on the basis of year of production). Market price of car for relevant year was updated according to available external sources.

$\frac{1}{4}$  of price of new car is depreciated from price of new car every year. Theoretically depreciated price of 5-year car would equal 0. Practically older cars are used too and their actual depreciated price does not equal 0. Depreciated price of cars older than 4 years was calculated in such a way that  $\frac{1}{4}$  of price of new car was divided by age of car overlapping 3 years (because for the period of 4 years, there is assigned  $\frac{1}{4}$  of the price).

Total benefit from using company car represents the sum of estimated depreciated price of company car, benefit paid for petrol, benefit related to compulsory car insurance and repair and maintenance benefits.

Differences in values within variable PY020G in comparison of EU SILC 2005 and 2006 occurred by reason of rigorous taking account amortization in individual types of cars.

### **3 COMPARABILITY**

#### **3.1 Basic concepts and definitions**

##### **The reference population**

For the EU SILC 2005 and EU SILC 2006 the *reference population* was equally defined in accordance with document EU SILC 065/04.

##### **The private household definition**

For the EU SILC 2005 and EU SILC 2006 there was used equal definition of *private household* in accordance with document EU SILC 065/04.

As the basic survey unit is considered private household sharing of expenditures comprised of persons in dwelling who live and manage together, including sharing in ensuring of the living needs. As manage together is considered: joint share in covering the basic household costs (catering, housing cost, costs of electricity, gas, etc).

In one dwelling there can be situated one or more households sharing of expenditures. Dwelling household is created by all persons living in dwelling.

##### **The household membership**

For the EU SILC 2005 and EU SILC 2006 the household membership was equally defined in accordance with document EU SILC 065/04.

As household member was considered:

- a) usually resident – present in household,
- b) usually resident – absent for a short term, e.g. by reason of employment, education, vacation and etc.,
- c) usually resident – absent for a long term by reason of employment, children absent for a long term by reason of education (education abroad),
- d) usually resident – absent for a long term by reason of hospitalization in hospital, stay at school, boarding school and other institution. if his/her actual or intended duration of absence is more than three months,
- e) lodger, tenant, stranger, if his/her actual or intended duration of stay in household is six or more months,
- f) visitor- guest if his/her actual or intended duration of stay in household is six or more months.

Each person who is considered as household member is person sharing in joint expenditures of this household. If there is person within dwelling household, who does not share in expenditures together with other persons living in one and the same dwelling, is considered as separate household sharing of own expenditures. Persons living in one dwelling can create one or more households sharing of expenditures.

Lodger, if it is one or more persons who manage together, creates/create separate household sharing of expenditures.

Residents, usually residents but temporarily absent by reason of business trip, education and etc., lodgers, tenants, they are household members if actually do not have private address elsewhere and they meet conditions related to their stay in household on the base of the document EU SILC 065/04.

Servant (including au-pairs) is not considered as household member in national conditions.

In the case of visitor (guest) as household member we consider person sharing in joint expenditures of household, if his/her actual or intended duration of stay in household is six months and more, although he/she has other private address elsewhere.

#### **The income reference period(s) used**

- calendar year 2004 (EU SILC 2005)
- calendar year 2005 (EU SILC 2006)

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

The period for taxes on income and social insurance contributions is calendar year, which precedes the year, in which was realized personal interviewer – for EU SILC 2005 it was calendar year 2004, for EU SILC 2006 calendar year 2005.

The tax liability and liability for service for the relevant calendar year was performed at the beginning of the calendar year (to 31-st March of relevant year) succeeding to year, for which the tax liability and liability for service is related to.

The tax liability and liability for service for the year 2004 was performed in the year 2005 (EU SILC 2005) and for the calendar year 2005 in the year 2006 (EU SILC 2006).

Concerning the period of data collection within fieldwork (May – June 2005 and April 2006) the tax adjustment was taken into account in both waves of the survey EU SILC.

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

- the same as was in the case of tax on income and social insurance contributions.

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

The Statistics on income and living conditions EU SILC 2005 was carried out in the period from 16-th May to 16-th June 2005, so the lag represented 4,5 – 5,5 months.

The Statistics on income and living conditions EU SILC 2006 was carried out in the period from 3-rd April to 28-th April 2006, the lag represented 4 months.

#### **The total duration of the data collection of the sample**

Total duration of data collection in the case of both surveys EU SILC 2005 and EU SILC 2006 represented the period of 4 weeks.

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

Variables PL060 and PL070-PL090 was for the EU SILC 2005 and EU SILC 2006 survey equally defined in accordance with document EU SILC 065/04.

Variable **PL060** was collected in questionnaire on personal level and included in module of questions related to basic labour information. This module was within EU SILC 2006 removed behind questions related to health, information on activity status and history and calendar of activities. Also it was expressly distinguished to questions about current and last main employment.

Variable PL060 Number of hours usually worked per week in main job:

Question related to variable PL060 was placed in a such a way to meet conditions mentioned in document EU SILC 065/04 on national level (in connection with variables PL030 and PL035 in personal questionnaire. Variable data PL035 were mentioned only on national level. On EU level the variable is recorded as PL035\_F = -2 . By this reason persons, who had only occasional job on the base of work performance agreement or agreement on temporary job of students and they did not have any employment, which could have been considered as the main job, they did not answer the question related to PL060. In the case if respondent did not know exactly number of hours worked in the main job per week, he/she gave weekly average number of hours worked during the last previous 4 weeks.

Variable **PL070 – PL090** was collected in personal questionnaire within module *information on economic status*. For the EU SILC 2006 this module was removed in questionnaire directly behind questions related to health. Thus it represents the first module in questionnaire with questions aimed at job.

Variable PL070 – PL090 Number of months spent at full-time work,....., number of months spent in inactivity:

If more than one type of activities occurred in the same month, priority was given to economic activity over non-economic activity.

On the base of this principle, in accordance with document EU SILC 065/04, the following rules were followed:

- if respondent worked at least during 2 weeks of the month, there was filled variable PL070 or PL072,
- if more than one of the other situations defined in document 065/04 applied in the same month, variables were filled on the basis of the self-assessment, where there was criterion of most time spent taken into account.

In the case of persons who are absent because of maternity leave, existence/termination of employment was taken into account:

- if employment remained in existence – person was considered as working full-time or part-time,
- if employment was terminate, person was considered as unemployed,
- if person has never worked, he/she was considered as student or other inactive person.

## **3.2 Components of income**

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

### **HY010 – Total household gross income**

Definition of income within EU SILC was adjusted according to common methodology and with concerning the fact that some income variables are compulsory from the year 2007.

For purpose of testing, data quality assurance and data comparability among individual years of the survey, data related to interest repayments on mortgage (HY100G), non-cash employee income (included company car) (PY020G) and value of goods produced for own consumption (PY070G) was collected within EU SILC 2005 and EU SILC 2006.

These income components were not be included into HY010 (excepting company car) and data was recorded only on level of given variables.

In variable HY010 there was also not taken into account next income components compulsory from the year 2007, i.e. imputed rent (HY030G) and employers' social insurance contributions (PY030G).

### **HY020 – Total disposable household income**

Variable was defined in accordance with Document EU SILC 065/04.

For the year 2005 and 2006 in HY020 there are not taken into account income components compulsory from 2007.

### **HY022 – Total disposable household income, before social transfers other than old-age and survivors' benefits**

For the EU SILC 2005 and EU SILC 2006 variable was defined in accordance with document EU SILC 065/04.

### **HY023 – Total disposable household income, before social transfers including old-age and survivors' benefits**

For the EU SILC 2005 and EU SILC 2006 variable was defined in accordance with document EU SILC 065/04.

### **HY025 – Within-household non-response inflation factor**

HY025 is value through which it is possible to estimate income of that person in household aged 16 and over, who did not provide information on income.

In the year 2005 for calculation of variable HY025 we proceeded in a such way that we calculated average income of persons over 16 per individual groups according to variable PL030 and these incomes were compared with disposable household incomes with missing response. But this procedure did not take into account the fact that person have could shared also in household income.

In 2006 we resulted from the assumption that household members over 16 have similar labour habits (education, type of profession and etc) and also opportunities (e.g. they live in region with better job opportunities and others).

Calculation of variable HY025 is within EU SILC 2006 based on assumption that incomes of non-responded persons aged 16 and over in relevant household have the level comparable with incomes of other persons aged 16 and over in the same

household. In household on the base of RFILE there is R\_16 persons aged 16 and over. According to PFILE data on incomes was provided for P\_16 persons. Inflation factor on the base of assumption equals ratio of persons aged 16 and over living in household and persons, who provided information on income:  
 $HY025 = R_{16} / P_{16}$ .

### **HY030G– Imputed rent**

Variable is compulsory from the year 2007.

For the year 2006 calculation of income variable *imputed rent* will be simulated only in order to testing and ensuring coherence on national level. Item will not be included into variable HY010.

For calculation of imputed rent these following components are taken into account: dwelling type, tenure status, number of rooms available to the household, year of contract or purchasing or installation, current rent related to occupied dwelling and total housing cost (including electricity, gas and heating).

In calculating of imputed rent we will come out from elaborated study „Testing of methods of imputed rent estimation for EU-SILC in the Slovak Republic“. Results of several surveys as well as 2001 Housing and Population Census show that the share of the privately-owned dwellings and houses rented at the market price represents about 3 % of the total number of dwellings in the Slovak Republic. Given this fact, it is recommended to use the user cost method for estimation of imputed rent.

### **HY040G– Income from rental of property or land**

For the EU SILC 2005 and EU SILC 2006 variable was defined in accordance with document EU SILC 065/04.

For the first year of the survey EU SILC 2005, respondents had possibility to give an amount of income from rental of property of land in form of gross or net annual sum. For EU SILC 2006 there was a question concerning variable HY040G adjusted to give an amount only as gross annual sum.

For both waves of the survey, question allowed to use income intervals in the case, if respondent did not know exactly to give the sum obtained as income from rental of property or land. On the base of experience from EU SILC 2005 there was used identical range of income intervals for following wave of the EU SILC. Result variable in the case of values obtained through income intervals was calculated as average value within used interval.

### **HY050G– Family/children-related allowances**

For the EU SILC 2005 and EU SILC 2006 variable was defined in accordance with document EU SILC 065/04.

The variable Family/children-related allowances is considered as an income at the household level. In connection with the national legislation, where one member of the household sharing of expenditures can receive more allowances in connection with care of child, the variable was collected on personal level. The total household income from component family allowances has represented the sum of family allowances provided to all entitled persons in household in the income reference period.

Within the variable HY050G, these components were followed:

- child allowance, parental allowance, subsistence contribution, maternity allowance, foster care benefits, equalising contribution, other cash benefits (contribution to the parents of triplets (or more children born simultaneously) or to the parents of sets of twins born within a two year period), child-birth contribution.

In the case of variable HY050G, in questionnaire for the EU SILC 2006 there was made these changes:

- income component *foster care benefits* was observed in more detailed structure as two individual items:

- d) lump-sum foster care benefits,
- e) regular foster care benefits.

- income component *tax bonus* (before collected within *family benefits*) was removed into new created block of questions related to tax on income.

Tax-bonus is allowance, which is paid on the base of Act No.595/2003 on taxes on income and it serves in order to decrease taxes on income in case of employee and entrepreneur (self-employed person). Entitlement to receive tax bonus has taxpayer (only one of working parents), to each dependant child, who lives with that parent in common household. In connection with the fact that the tax-bonus is deducted from taxes on income to decrease them, within the EU SILC 2005 and EU SILC 2006 survey this income component was taken into account in variable HY140G (Tax on income and social insurance contributions).

#### **HY060G – Social exclusion payments not elsewhere classified**

Within this variable, generally there were collected and calculated these components for both waves of the survey EU SILC:

- material need assistance (*benefit for material need assistance* including benefits paid together in form of joint sum with mentioned benefit – *activation benefit, housing allowance, health-care allowance and protection benefit*)
- scholarship (merit and social scholarship),
- other cash benefits (lump-sum or regular cash benefits provided to household by municipality or by other entity).

In connection to variable HY060G there were made these following changes for the EU SILC 2006:

- component *scholarship* was in order to ensure better lucidity and data comparability between individual waves of EU SILC observed as two separate items:
  - a) scholarship for students of elementary schools (including special elementary schools),
  - b) scholarship for students of secondary schools, special schools, vocational schools and training centres,
- there was excluded observation of social scholarship for university students from component *scholarship*

They are social scholarship paid from financial resources provided to university from national budget or from own sources of university and title to scholarship can have **not only persons in material need**.

Conditions needed for assessment of social scholarship are defined on the base of general regulation enacted by ministry or they are defined through scholarship



university regulation or scholarship regulation of relevant faculty, so they follow different legislative regulation than other benefits collected within variable HY060G. On the base of this fact, within EU SILC 2006 there were social scholarships for university students collected in variable PY140G Education-related allowances.

As result on the base of situation mentioned above, for EU SILC 2006 there were collected and taken into account only those scholarships for elementary a secondary school students, which were provided in order to reduction of social situation of households situated in material need.

### **HY070 G – Housing allowance**

In variable within EU SILC 2005 and EU SILC 2006 was collected non-refundable contribution from the State Housing Development Fund. Non-refundable contribution is provided to applicant, if he/she ensures dwelling for disability person in order to compensation of higher costs in comparison with barrier building.

On national level there exists housing allowance as social benefit, which could be observed only as a part of material need assistance. By this reason this housing allowance was calculated and taken into account in variable HY060G.

### **HY080G – Regular inter-household transfers received**

For the EU SILC 2005 and EU SILC 2006 variable was defined in accordance with document EU SILC 065/04.

For EU SILC 2005 in household questionnaire there was question for obtaining total sum of financial assistance, which was received by household from other households or persons during year 2004 as alimony, voluntary child support, regular cash support from persons other than household members and from households abroad. In EU SILC 2006 regular cash inter-household transfers received collected in detailed structure as:

- compulsory alimony and child support (including subsidiary alimony),
- voluntary alimony and child support,
- regular cash support from persons other than household members (e.g. cash support from the side of grand parents),
- regular cash support from households abroad (e.g. from relatives living abroad).

Data for individual income components mentioned above was calculated for the purpose of Eurostat in order to create final variable HY080G.

Difference in content of variable HY080G compared to year 2005 consisted in the fact that within EU SILC 2006 there was collected and taken into account subsidiary alimony. In national conditions is legislative valid from 01/01/2005. Entitled person, to who the person compulsory to pay alimony for child on the base of legal lex judicialis does not pay this alimony at least three consecutive months, can ask for payment of subsidiary alimony. Providing subsidiary alimony compulsory person has to return it to state.

### **HY090G – Interest, dividends and profit from capital investments in unincorporated business**

For the EU SILC 2005 and EU SILC 2006 variable was defined in accordance with

document EU SILC 065/04.

Within EU SILC 2005 individual items of this variable were collected as total sum of interest, dividends and profit from capital investment, which could have been given by respondent in form of gross or net amount.

In EU SILC 2006 there was the question related to variable HY090G adjusted in terms of clearly distinction between those income components, which are not taxed (dividends, share of profits of sleeping partner) and those ones, which are liable to tax on income (interest, profits from capital investments).

In the case of both waves of the survey EU SILC, if respondent did not know exactly to give the sum received from interest, dividends and profits from capital investments, the value could have been estimated using proposed income intervals.

For EU SILC 2006 income intervals range was adjusted on the base of analyses of results of gross annual sums within HY090G from the EU SILC 2005 survey. In the case of values received through income intervals, the result variable was calculated as average value within used interval.

#### **HY100G – Interest paid on mortgage**

Variable is compulsory from the year 2007. For 2005 and 2006 this variable was not taken into account into HY010 and data was recorded only on level of individual variable.

On the base of evaluation and analyses of results of variable HY100G from EU SILC 2005, where the value of interest paid on mortgage was collected by direct question in household questionnaire, we decided for the year 2006 to calculation of result variable through simulation, which is in accordance with document EU SILC 105/02. To formula for calculation of variable HY100G we use subsidiary variables in household questionnaire: year where the mortgage stated, total mortgage instalment (including principal and interest), initial amount of mortgage (amount of principal), number of years of mortgage payment, interest rate.

#### **HY110G – Income received by people aged under 16**

For the EU SILC 2005 and EU SILC 2006 variable was defined in accordance with document EU SILC 065/04.

#### **HY120G – Regular taxes on wealth**

For the EU SILC 2005 and EU SILC 2006 variable was defined in accordance with document EU SILC 065/04.

#### **HY130G – Regular inter-household transfers paid**

For the EU SILC 2005 and EU SILC 2006 variable was defined in accordance with document EU SILC 065/04.

For EU SILC 2005 in household questionnaire there was question for obtaining total sum of financial assistance, which was provided by household to other households or persons during year 2004 as alimony, voluntary child support, regular cash support to persons other than household members and to households abroad.

Within EU SILC 2006 there were regular cash inter-households transfers paid collected in detailed structures as:

- compulsory alimony and child support,
- voluntary alimony and child support,
- regular cash support to persons other than household members (e.g. cash support from the side of grand parents, children and etc.),
- regular cash support to households abroad (e.g. to relatives living abroad).

Data for individual income components mentioned above was calculated for the purpose of Eurostat in order to create final variable HY130G.

### **HY140G – Tax on income and social insurance contributions**

They are taxes on income and social insurance contributions for the calendar year, which precedes the year, in which was realized personal interviewer – for EU SILC 2005 it was calendar year 2004, for EU SILC 2006 calendar year 2005.

The tax liability and liability for service for the relevant calendar year was performed at the beginning of the calendar year (to 31-st March of relevant year) succeeding to year, for which the tax liability and liability for service is related to.

The tax liability and liability for service for the year 2004 was performed in the year 2005 (EU SILC 2005) and for the calendar year 2005 in the year 2006 (EU SILC 2006).

Concerning the period of data collection within fieldwork (May – June 2005 and April 2006) the tax adjustment was taken into account in both waves of the survey EU SILC.

Within EU SILC 2005 taxes on income were collected directly from respondents and in questionnaire they were listed together at individual taxed income components.

On the base of non-response rate and quality of provided data we decided from the year 2006 to whole simulation of taxes on income from dependant activity, incomes from self-employment, incomes from rental of property or land, incomes from capital investments and other incomes, e.g. incomes from occasional activities). There was used unitary tax 19 %.

We simulated also social insurance contributions in the case of employees on the base of premium rates valid according to Act No. 595/2003 on tax on income. In the case of income from self-employment, social insurance contributions were collected by direct question in questionnaire.

In order to data simulation, in questionnaire on personal level there was created separate block of questions aimed at collection of those items needed for simulation of taxes on income.

We asked about information on non-taxable parts of tax assessment base for tax payer, for spouse/husband of tax payer and others non-taxable parts of tax assessment base (paid contributions to supplementary pension saving and financial resources paid for specific saving), which could be deducted from tax assessment base. For calculation of this variable, the tax-bonus was taken into account too.

### **HY145N – Repayments/receipts for tax adjustments**

Data from EU SILC 2005 and EU SILC 2006 is taken into account within variable HY140G.

### **PY010G – Cash or near-cash employee income**

For the EU SILC 2005 and EU SILC 2006 variable was defined in accordance with

document EU SILC 065/04.

In questionnaire for EU SILC 2006 there were made evident changes in solution of given variable compared year 2005. Questions related to employee income were distinguished more digestedly by separate block and in order to simulation of taxes on income and social insurance contributions we collected more detailed structure of employee income. There were also distinguished digestedly occasional incomes, income on the base of work performance agreement and income from abroad. For the year 2006 we started to give an amount using income interval. Range of income intervals was adjusted on the base of analyses of gross annual sum within PY010G from EU SILC 2005. In the case of values obtained through income intervals, the result variable was calculated as average value within used interval.

Within EU SILC 2005 there were income components *severance pay and retirement benefits* collected in accordance with document 065/04 as part of social benefits - *severance pay* in variable PY090G (Unemployment benefits) and *retirement benefits* in variable PY100G (Old-age benefits).

As under national legal enactment – Labour Code – there is payment as *severance pay and retirement benefits* paid by employer as part of gross wage, in year 2006 both components were collected within questions related to variable PY010G (Cash or near-cash employee income).

Although in order to ensure of data comparability with other member states in accordance with document EU SILC 065/04, in the case of both waves of EU SILC these income items were calculated into variable PY090G (Unemployment benefits) and PY100G (Old-age benefits).

### **PY020G – Non-cash employee income**

For the year 2005 and 2006 we collected several components of non-cash income, but only income from company car was taken into account within variable PY020G.

Benefit from using company car for personal purposes was estimated on the basis of depreciated price of company car for actual year and other cash benefits, which were provided by employer in connection with car for personal purposes – benefit paid for petrol, benefit related to compulsory car insurance and repair and maintenance benefits. As input components for estimation of depreciated price of car for the actual year was market price of new car, period of amortisation established by law (4 years) and age of car (on the basis of year of production). Market price of car for relevant year was updated according to available external sources.

$\frac{1}{4}$  of price of new car is depreciated from price of new car every year. Theoretically depreciated price of 5-year car would equal 0. Practically older cars are used too and their actual depreciated price does not equal 0. Depreciated price of cars older than 4 years was calculated in such a way that  $\frac{1}{4}$  of price of new car was divided by age of car overlapping 3 years (because for the period of 4 years, there is assigned  $\frac{1}{4}$  of the price).

Total benefit from using company car represents the sum of estimated depreciated price of company car, benefit paid for petrol, benefit related to compulsory car insurance and repair and maintenance benefits.

Differences in values within variable PY020G in comparison of EU SILC 2005 and 2006 occurred by reason of rigorous taking account amortization in individual types of cars.

### **PY030G – Employers' social insurance contributions**

Employers' social insurance contributions will be collected and recorded from the year 2007. Data will be simulated on the base of elaborated study „EU SILC: Feasibility study to variable Employers' social insurance contributions“. Variable will comprise only of compulsory employers' social insurance contributions.

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

For the EU SILC 2005 and EU SILC 2006 variable was defined in accordance with document EU SILC 065/04.

For EU SILC 2005 data on variable PY050G was collected by direct question about amount of profit/loss of their self-employment for the period of the calendar year 2004.

In 2006 two approaches for obtaining information on variable PY050G were used. The first approach which was used also in previous wave: data was collected directly from respondents by asking about profit/loss of their self-employment for the period of the last calendar year.

On the base of experience from previous wave, where some respondents had a problem to give gross annual sum in the case of achieved profit, item profit was divided into alternatives as gross and net profit.

For the year 2006 within variable PY050G if respondent did not know to give the sum exactly, for statement of the amount of profit/loss there were made estimations by using income intervals.

Income intervals range was calculated on the base of analyses of results of gross annual sums within PY050G from the EU SILC 2005 survey. In the case of values received through income intervals the result variable was calculated as average value within used interval. Using income intervals led to fact that no imputations were made in 2006 within variable PY050G.

In 2006 we collected also information on used document, from which amount of income from self-employment was provided.

The second approach was to obtain information on variable PY050G through question about amount of lump-sum and regular cash resources from self-employment used for personal purposes.

In the case if respondent used for giving his/her profit/loss only one of approaches mentioned above, result variable PY050G was stated on the base of that used method (through direct statement of annual sum of profit/loss, used interval or annual sum of lump-sum and regular cash resources). In the case if respondent expressed his/her profit using both approaches (through direct statement of annual sum of profit/loss, used interval and annual sum of lump-sum and regular cash resources), result variable PY050G was stated on the base of that method, through which there was recorded the higher amount.

In data processing some cases of negative income have occurred in both waves of the survey.

### **PY070G – Value of goods produced for own consumption**

Within variable there was collected annual amount (value) of goods produced and intended for own consumption of household for both waves of EU SILC. Value was calculated on the base of basic market price of these products after deducting direct

costs, which were paid in order to their production.

Variable was collected on household level. It is difficult to obtain given information on individual level not excluding elimination, as it is household sharing of expenditures. According to EU SILC methodology this variable should be provided on individual level. By this reason obtained data was assigned to head of the household.

### **PY090G – Unemployment benefits**

For the EU SILC 2005 and EU SILC 2006 variable was defined in accordance with document EU SILC 065/04.

This variable was collected in detailed structure and it included these items:

- unemployment benefit,
- other periodical cash allowances and benefits (subsidy on pursuance of graduates' practise, grant on services for family with children to the job applicant, contribution for extended employment of policeman or professional soldiers),
- severance pay and redundancy payment (financial amount paid in case of lay off, not due to own infliction by employer, who stops or decreases his activities),
- other lump-sum cash payments (self-employment activity benefit, job-moving benefit).

Concerning content, variable is identical for both waves of EU SILC, the difference for the 2006 was that income component *severance pay* (before collected in questionnaire within variable PY090G) was removed into block of questions related to employee income (PY010G). Under national legal enactment – Labour Code – there is payment as *severance pay* paid by employer as part of gross wage.

Although in order to ensure of data comparability with other member states in accordance with document EU SILC 065/04, in the case of both waves of EU SILC this income item was calculated and taken into account in variable PY090G (Unemployment benefits).

### **PY100G – Old-age benefits**

For the EU SILC 2005 and EU SILC 2006 variable was defined in accordance with document EU SILC 065/04.

This variable was collected in detailed structure and it included these items:

- old-age pension,
- early retirement pension,
- pension for extended employment,
- other periodical cash old-age benefits (extra payment to the pension of judge and lay judge, prosecutor, employee of the fire department, extra payment for civil service, remuneration of loss related to pension for extended employment in the case of policeman and soldier, other periodical allowances provided to respondent by the municipality, non-profit organizations or by other entities in the case of emergency and unfavourable social situation),
- other lump-sum old age benefits and allowances (retirement benefits, lump-sum benefit from municipality, non-profit organization or other entity).

Concerning content, variable is identical for both waves of EU SILC, the difference for the 2006 was that income component *retirement benefits* (before collected in questionnaire within variable PY100G) was removed into block of questions related to employee income (PY010G). Under national legal enactment – Labour Code –

there is payment as *retirement benefits* paid by employer as part of gross wage to employee in the case of the first determination of employment after gaining of pension right, disability pension or pension for extended employment.

Although in order to ensure of data comparability with other member states in accordance with document EU SILC 065/04, in the case of both waves of EU SILC this income item was calculated and taken into account in variable PY100G (Old-age benefits).

### **PY110G – Survivors' benefits**

For the EU SILC 2005 and EU SILC 2006 variable was defined in accordance with document EU SILC 065/04.

The variable was collected in detailed structure and it included these items:

- widow's and widower's pension,
- orphan's pension,
- other periodical cash benefits (survivors' accident annuity, compensation of living costs of survivors),
- funeral allowance,
- other lump-sum cash benefits (lump-sum reparation for survivors of policeman or soldier, remuneration of costs in purpose of covering of cost of treatment).

### **PY120G – Sickness benefits**

For the EU SILC 2005 and EU SILC 2006 variable was defined in accordance with document EU SILC 065/04.

This variable was collected in detailed structure and it included these following items:

- sickness benefit,
- allowance for care of family member,
- other cash benefit (accidental allowances – periodical and lump-sum, extra payment to sickness and nursing allowances, compensation for loss in the service salary of policeman or the service income of the professional soldier).

Sickness benefit is provided on the base of sickness insurance of the employee from the 11-th day of his/her temporary working disability. For the first 10 days of working disability the employer provides compensation of income to employee in the case of temporary working disability. The compensation of income in the case of temporary working disability is followed within the variable PY010G.

In order to ensure more easily checking of data quality and comparability with external sources, within EU SILC 2006 in connection with individual items of variable PY120G we collected also information on number of months for which was relevant benefit received.

### **PY130G – Disability benefits**

For the EU SILC 2005 and EU SILC 2006 variable was defined in accordance with document EU SILC 065/04.

This variable was collected in detailed structure and it included following items:

- disability pension,
- cash disabled person's allowance  
(on diet catering, increased costs related to hygiene or the wear-out of clothes, underclothes, footwear, operation of the private motor car, care of dog with special training),
- periodical financial contributions for compensation

- (transport allowance and the allowance on personal assistance),
- other periodical cash benefits  
(contribution for personal assistant of self-employed person, who is disabled, nursing allowance, other periodical monetary allowances provided by the municipality or by other entity),
- lump-sum financial contributions for compensation  
(contribution for the purchase of special aids, for the repair of special aids, for the purchase of a motor vehicle, for modifying an apartment, family house, garage)
- other lump-sum cash benefits  
(subsidy to a disabled person for the operation or performance of self-employment activities and lump-sum benefits provided by the municipality or by other entity).

Data for income variables mentioned above was calculated for the purpose of Eurostat in order to create final variable PY130G.

Concerning content, variable is identical for both waves of EU SILC, the difference for the 2006 was that for the year 2006 income component *nursing allowance* (before collected in questionnaire in variable family benefits - HY050G) was removed to the block of questions related to variable PY130G.

#### **PY140G – Education-related allowances**

There were included grants, scholarships (e.g. paid from own sources of university) and other support of education received by students.

From the year 2006 within variable there are also collected social scholarships for university students, which are paid as merit scholarship or special scholarship. The **aim of providing scholarship** is help to students situated in unfavourable economical situation, but also as appreciation and support of significant results and activities in education, scientific and art area and representation of university on the field of culture and sport.

The amount of social scholarship depends on income falling on household member and is granted to students on the base of excellent educational results or extraordinary results in scientific, art or sport activities. Title to scholarship has not only citizen situated in material need.

Scholarships and similar benefits which are paid in terms of income of persons situated in material need are included into variable HY 060G.

#### **PY200G – Gross monthly earnings for employees**

The variable was collected, but in terms of the fact that neither EU SILC 2005 nor EU SILC 2006 is a source for calculation of unadjusted gender pay gap.

This variable was recorded only on national level.

### **3.2.2. The source or procedure used for the collection of income variables**

Within EU SILC 2005 and EU SILC 2006 total gross income and disposable household income was calculated according to document 065/04.



### **3.2.3. The form in which income variables at component level have been obtained (e.g. gross, net of taxes on income at source and social contributions, net of tax on income at source, net of social contributions)**

Within EU SILC 2005 and EU SILC 2006 income variables on component level were collected on the base of interview.

### **3.2.4. The method used for obtaining income target variables in the required form (i.e. as gross values)**

In the case of both waves of the survey all income data was recorded as gross on component level.

## **3.3 Tracing rules**

### **Procedure of tracing of households and persons:**

1. If whole household moved out, interviewer had to find out its new address by all available sources. This information could be obtained from neighbours or relatives, municipal/communal office and others. Interviewer provide new address of household, name and surname of the head of the household in relevant form and also filled ID number of household and this form gave to coordinator of the Regional Office in period at least 3 days. Consequently coordinator decided on another procedure to continue in this circumstance.
2. Similarly interviewer proceeded in the case of one or more selected persons moved out. Basic source of information on place of moving of selected person/persons was information received from other household members. For each person moved out interviewer completed relevant form, where was listed new address of this person again, his/her name and surname, household ID and personal ID.
3. In the case if interviewer was entrusted to collect data for household or person moved out, needed information was received from coordinator of the relevant Regional Office.

## **4 COHERENCE**

### **4.1 Comparison of income target variables and number of persons who receive income from each 'income component' with administration sources**

In both waves of the EU SILC, achieved values were compared with information from administration sources:

- a) other surveys of the SO SR: LFS. HBS. Census 2001, Movement of the Population of the SO SR, Structure of Earnings Survey (SES),
- b) administration sources (Social Insurance Agency, Ministry of Finance, Ministry of Labour Social Affairs and Family)

Within EU SILC (year 2005 and 2006) there were incomes collected in detailed structure (especially concerning social benefits) and it was by reason of ensuring more easily comparability of data with external sources and ensuring imputation of income components in the case of non-response.

In comparison of data in general we could say that there is good coherence of data with external sources in the case of regular received benefits, but in the case of lump-sum benefits there occurred more evident differences (Table 16).

More evident differences in comparison of obtained data occurred in the case of unemployed and sickness benefits. Trend of decrease of total sum of individual received benefits in the case of unemployed benefits showed also in comparison of both waves of the survey EU SILC 2005 a 2006 .

**Table 18**

**Comparison of selected income components of social benefits from EU SILC 2006 to administration source\***

Income components		EU SILC 2006	External data	EU SILC 2006	External data	EU SILC 2006	External data
		Total amount		Average monthly number of recipients		Average monthly amount	
<b>PY090G</b>	<b>Unemployed benefits</b>	<b>3 477 602 388</b>					
of which							
SPY0901	Unemployed benefit	1 972 368 437	2 439 762 000				
<b>PY100G</b>	<b>Old-age benefits</b>	<b>102 240 920 226</b>					
of which							
SPY1001	Old-age pension	97 101 082 668	77 907 148 000	1 024 183	924 285	7 901	7 713
SPY1003	Early retirement pension	1 509 509 643	1 394 019 000	9 709	16 721	12 956	8 500
<b>PY110G</b>	<b>Survivor's benefits</b>	<b>11 462 708 364</b>					
of which							
SPY1103	Orphan's pension	983 106 175	879 704 000	28 219	31 945	2 903	2 267
SPY1101	Widow's and widower's pension	10 382 619 500	11 711 949 000	289 128	312 856	2 993	4 890
<b>PY120</b>	<b>Sickness benefits</b>	<b>1 606 595 506</b>					
of which							
SPY1201	Sickness benefit	1 430 203 637	3 430 745 000				
SPY1202	Allowance for care of family member	73 369 567	136 192 000				
<b>PY130G</b>	<b>Disability benefits</b>	<b>14 774 089 253</b>					
of which							
SPY1301	Disability pension	12 171 796 179	12 708 418 000	175 891	189 939	5 767	5 804
<b>SHY050G</b>	<b>Family/children related allowances</b>	<b>15 624 490 960</b>					
of which							
SPHY0501	Child allowance	9 514 166 855	8 676 073 000	755 401	755 921		
SPHY0509	Maternity benefits	1 753 068 927	1 172 609 000	19 005	16 382	7 687	5 965
SPHY0517	Child birth contribution	195 555 699	233 383 000				
SPHY0520	Regular foster care benefits	135 042 791	149 621 000	2 357	2 332		

\* Administration source: Social Insurance Agency, Ministry of Finance, Ministry of Labour, Social Affairs and Family