

**Central Statistical Bureau of Latvia**



**INTERMEDIATE QUALITY REPORT  
EU-SILC 2010 OPERATION  
IN LATVIA**

**Riga 2011**



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## Background

2010 was the sixth year, when EU-SILC was carried out in Latvia. The Latvian EU-SILC survey is an annual survey with a four-year rotational panel and it is carried out as an independent survey, covering both cross-sectional and longitudinal primary target variables and also secondary target variables by single operation.

### 1. Common cross-sectional European Union indicators

Table 1.1. Laeken indicators and other indicators

Indicator	Value
<b>Primary Laeken indicators of social cohesion</b>	
At-risk-of-poverty rate after social transfers: Total	21.3
At-risk-of-poverty rate after social transfers: Males	21.7
At-risk-of-poverty rate after social transfers: Females	21.0
At-risk-of-poverty rate after social transfers: 0-17 total	26.6
At-risk-of-poverty rate after social transfers: 0-64 total	21.8
At-risk-of-poverty rate after social transfers: 0-64 males	22.9
At-risk-of-poverty rate after social transfers: 0-64 females	20.9
At-risk-of-poverty rate after social transfers: 18+ total	20.1
At-risk-of-poverty rate after social transfers: 18+ males	19.9
At-risk-of-poverty rate after social transfers: 18+ females	20.3
At-risk-of-poverty rate after social transfers: 18-24 total	21.2
At-risk-of-poverty rate after social transfers: 18-24 males	21.5
At-risk-of-poverty rate after social transfers: 18-24 females	20.9
At-risk-of-poverty rate after social transfers: 18-64 total	20.5
At-risk-of-poverty rate after social transfers: 18-64 males	21.1
At-risk-of-poverty rate after social transfers: 18-64 females	19.8
At-risk-of-poverty rate after social transfers: 25-49 total	19.9
At-risk-of-poverty rate after social transfers: 25-49 males	20.5
At-risk-of-poverty rate after social transfers: 25-49 females	19.4
At-risk-of-poverty rate after social transfers: 50-64 total	21.1
At-risk-of-poverty rate after social transfers: 50-64 males	22.3
At-risk-of-poverty rate after social transfers: 50-64 females	20.1
At-risk-of-poverty rate after social transfers: 65+ total	18.8
At-risk-of-poverty rate after social transfers: 65+ males	12.9
At-risk-of-poverty rate after social transfers: 65+ females	21.6
At-risk-of-poverty rate after social transfers: 18+, at work total	9.7
At-risk-of-poverty rate after social transfers: 18+, at work males	9.5
At-risk-of-poverty rate after social transfers: 18+, at work females	9.8
At-risk-of-poverty rate after social transfers: 18+, not at work total	30.6
At-risk-of-poverty rate after social transfers: 18+, not at work males	31.9
At-risk-of-poverty rate after social transfers: 18+, not at work females	29.7
At-risk-of-poverty rate after social transfers: 18+, unemployed total	47.9
At-risk-of-poverty rate after social transfers: 18+, unemployed males	47.8
At-risk-of-poverty rate after social transfers: 18+, unemployed females	48.0
At-risk-of-poverty rate after social transfers: 18+, retired total	21.2
At-risk-of-poverty rate after social transfers: 18+, retired males	17.0
At-risk-of-poverty rate after social transfers: 18+, retired females	23.3
At-risk-of-poverty rate after social transfers: 18+, other inactive total	30.0
At-risk-of-poverty rate after social transfers: 18+, other inactive males	30.2
At-risk-of-poverty rate after social transfers: 18+, other inactive females	29.8

Indicator	Value
At-risk-of-poverty rate after social transfers: No dependent children	19.6
At-risk-of-poverty rate after social transfers: Single total	35.0
At-risk-of-poverty rate after social transfers: Single males	38.8
At-risk-of-poverty rate after social transfers: Single females	33.2
At-risk-of-poverty rate after social transfers: Single <65 years	34.4
At-risk-of-poverty rate after social transfers: Single 65+	35.6
At-risk-of-poverty rate after social transfers: 2 adults no children, <65 years	17.7
At-risk-of-poverty rate after social transfers: 2 adults no children, 65+	11.9
At-risk-of-poverty rate after social transfers: All households with dependent children	22.7
At-risk-of-poverty rate after social transfers: Single parent	41.3
At-risk-of-poverty rate after social transfers: 2 adults 1 dependent child	17.4
At-risk-of-poverty rate after social transfers: 2 adults 2 dependent children	18.4
At-risk-of-poverty rate after social transfers: 2 adults 3+ dependent children	38.8
At-risk-of-poverty rate after social transfers: Owner or rent-free	19.1
At-risk-of-poverty rate after social transfers: Tenant	38.1
At-risk-of-poverty threshold (illustrative values, LVL per year): Single person	1 921
At-risk-of-poverty threshold (illustrative values, LVL per year): Two adults with two children younger than 14 years	4 034
Inequality of income distribution S80/S20 income quintile share ratio	6.9
Relative median at-risk-of-poverty gap: Total	29.4
Relative median at-risk-of-poverty gap: Males	32.4
Relative median at-risk-of-poverty gap: Females	25.8
Relative median at-risk-of-poverty gap: 0-17	32.4
Relative median at-risk-of-poverty gap: 18+ total	27.9
Relative median at-risk-of-poverty gap: 18+ males	32.4
Relative median at-risk-of-poverty gap: 18+ females	23.3
Relative median at-risk-of-poverty gap: 18-64 total	32.4
Relative median at-risk-of-poverty gap: 18-64 males	34.2
Relative median at-risk-of-poverty gap: 18-64 females	30.6
Relative median at-risk-of-poverty gap: 65+ total	9.7
Relative median at-risk-of-poverty gap: 65+ males	13.8
Relative median at-risk-of-poverty gap: 65+ females	8.6
<b>Secondary Laeken indicators of social cohesion</b>	
Dispersion around the risk-of-poverty threshold: 40% of median equalized income, total	9.2
Dispersion around the risk-of-poverty threshold: 40% of median equalized income, males	10.5
Dispersion around the risk-of-poverty threshold: 40% of median equalized income, females	8.0
Dispersion around the risk-of-poverty threshold: 50% of median equalized income, total	14.8
Dispersion around the risk-of-poverty threshold: 50% of median equalized income, males	16.3
Dispersion around the risk-of-poverty threshold: 50% of median equalized income, females	13.5
Dispersion around the risk-of-poverty threshold: 70% of median equalized income, total	29.3
Dispersion around the risk-of-poverty threshold: 70% of median equalized income, males	28.4
Dispersion around the risk-of-poverty threshold: 70% of median equalized income, females	30.0
At-risk-of-poverty rate anchored at a fixed moment in time (2005): Total	8.3
At-risk-of-poverty rate anchored at a fixed moment in time (2005): Males	9.6
At-risk-of-poverty rate anchored at a fixed moment in time (2005): Females	7.2
At-risk-of-poverty rate before all transfers: Total	43.7
At-risk-of-poverty rate before all transfers: Males	42.5
At-risk-of-poverty rate before all transfers: Females	44.8
At-risk-of-poverty rate before transfers including old-age and survivors` benefits: Total	29.1
At-risk-of-poverty rate before transfers including old-age and survivors` benefits: Males	29.2
At-risk-of-poverty rate before transfers including old-age and survivors` benefits: Females	29.0
Gini coefficient	36.1
<b>Other indicators</b>	
Mean equivalised disposable income (LVL per year)	3 894

The calculation of gender pay gap is based on other sources than EU-SILC. Wage statistics is used for calculating gender pay gap.

## 2. Accuracy

### 2.1. Sampling Design

In Latvia a stratified two-stage sampling design was used for the EU-SILC survey. At the first stage a systematic sampling of the primary sampling units (Population Census counting areas) was made. At the second stage a simple random sampling was made to select secondary sampling units (dwellings). The stratification was made depending on a degree of urbanization of the area. The Classification of Administrative Territories and Territorial Units (CATTU) of Latvia was used for stratification.

*Table 2.1.* Sampling design information

Stratum	1st stage	2nd stage	
	PSU's	SSU's	Households
1	387	2588	2629
2	222	1514	1536
3	226	1608	1642
4	271	2260	2344
<b>All</b>	<b>1106</b>	<b>7970</b>	<b>8151</b>

#### 2.1.1. Type of sample design

A stratified two-stage sampling was used for the EU-SILC survey in Latvia. A systematic sampling with inclusion probabilities proportional to the unit size was carried out at the first stage and a simple random sampling was carried out at the second stage.

#### 2.1.2. Sampling units

The Population Census counting areas were used as primary sampling units (PSUs) at the first stage. In general, all territory of Latvia is covered in lists of Population Census counting areas. PSUs were selected by a systematic sampling with inclusion probabilities proportional to the population size (number of households) of PSUs.

Dwellings were used as secondary sampling units (SSUs). A simple random sampling was used to select SSUs from the PSUs selected at the first sampling stage. In Latvia several households can be registered in one dwelling. All households and individuals living in the selected dwelling were included in the EU-SILC survey in urban areas, but in rural areas only those households, which were formed by persons enumerated in the Household List (see 2.3.2.1). If none of persons enumerated in the Household List lived in the selected dwelling, then it was possible:

- to go for an interview to another dwelling in the same local area (if an interviewer knew the correct dwelling of the persons enumerated in the Household List);

- to interview all households and individuals living in the selected dwelling (the same as in urban areas).

### **2.1.3. Stratification and sub-stratification criteria**

The stratification was made depending on a degree of urbanization of the area. Riga (the capital city), largest towns, other towns and rural areas form four strata. The CATTU was used for stratification. The stratum is identified in the variable DB050.

### **2.1.4. Sample size and allocation criteria**

According to Regulation (EC) No 1553/2005 of the European Parliament and of the Council of 7 September 2005 amending Regulation (EC) No 1177/2003 concerning Community statistics on income and living conditions (EU-SILC), Annex II in Latvia the minimum effective sample size is 3 750 households. The total gross sample size (number of households) was made analysing non-response rates and design effects of the previous EU-SILC surveys. To compensate the non-response and taking into account the design effect it was decided to select 7970 dwellings. In Latvia more than one household can live in one dwelling. Therefore, there were 8151 households living in the selected dwellings. In case if it was not possible to contact the selected dwelling (the dwelling cannot be located, it was not possible to contact any person living in the dwelling or the dwelling was inaccessible, etc.) it was assumed that one household lived in the selected dwelling.

The response rates differ very much in each stratum. For this reason dwellings were not included with probabilities proportional to stratum size, but the initial sample size was proportional to population size of each stratum. The initial sample size was adjusted according to response rates in each stratum to get the final sample size in each stratum.  $R_h$  is the number of persons aged 16 and over living in stratum  $h$  as at the beginning of 2010.  $n_h$  is number of respondents (aged 16 and over) of the stratum  $h$  and  $n_h / R_h$  is the sampling fraction in the corresponding stratum.

*Table 2.2. Sampling fractions in the corresponding stratum*

<b>Stratum</b>	$R_h$	$n_h$	$n_h / R_h$
1	594 988	3 641	0.0061
2	372 434	2 285	0.0061
3	319 888	2 605	0.0081
4	564 454	4 468	0.0079
<b>Total</b>	<b>1 851 764</b>	<b>12 999</b>	<b>0.0070</b>

**2.1.5. Sample selection schemes**

In the first stage 1106 Population Census counting areas (PSUs) were selected by systematic sampling with inclusion probabilities proportional to their population size.

A simple random sampling without replacement was used to select 7970 dwellings (SSUs) in the sampled PSUs. A non-proportional allocation was used to select SSUs.

**2.1.6. Sample distribution over time**

A sample distribution over time was not used because the EU-SILC survey is organized on an annual basis. The number of households successfully interviewed in each month of fieldwork is shown below in Table 2.3.

Table 2.3. Sample distribution over time

Month	Number of households	% of surveyed households	Cumulative % of surveyed households
March	292	4.7	4.7
April	1 736	27.7	32.4
May	1 962	31.4	63.8
June	1 514	24.2	88.0
July	751	12.0	100.0
<b>TOTAL:</b>	<b>6 255</b>	<b>100</b>	<b>100</b>

**2.1.7. Renewal of sample: rotational groups**

Latvia applies a rotational panel where the sample is divided into four sub-samples. Each of them represents the whole population. Every year one rotation group rotates out (is dropped) and a new one is added to the sample.

**2.1.8. Weightings****2.1.8.1. Design factor**

The design weights (DB080) for dwellings were calculated according to the sample design:

$$DB080 = \frac{1}{prob\_dw};$$

$$prob\_dw = \frac{hhpsupop \cdot psustrat \cdot dwpsus}{hhstrpop \cdot dwpsup},$$

where *prob\_dw* - inclusion probabilities of dwellings;

*hhpsupop* - a number of households in each strata's each PSU of all population;

*psustrat* - a number of PSUs in each strata of sample;

***dwpsus*** - a number of dwellings in each strata's each PSU of sample;

***hhstrpop*** - a number of households in each strata of all population;

***dwpsup*** - a number of dwellings in each strata's each PSU of population.

The inclusion probability of the household and the individual is equal to the inclusion probability of the dwelling. The design weights were adjusted for outliers (extremely high design weights) at the dwelling level.

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

The design weights adjusted for outliers *desig1\_w* were adjusted for non-response (in the household level) in each primary non-response group (NR-group) with correction coefficients *k2\_k3* and *k4*. Non-response groups were defined as a set of variables – 4 rotational groups (DB075), 6 regions and 4 strata.

$$k2\_k3 = \frac{samplpsu \cdot cov\_sum}{restppsu \cdot resp};$$

$$nonrespw = k2\_k3 \cdot desig1\_w;$$

$$k4 = \frac{m1}{m2};$$

$$nonr\_w = nonrespw \cdot k4,$$

where ***samplpsu*** – a number of households in each NR-group of sample;

***cov\_sum*** – a number of households useful for survey in each NR-group of sample;

***restppsu*** – a number of households in each NR-group of sample, which belong to target population;

***resp*** – a number of responded households in each NR-group of sample;

***m1*** – a number of dwellings in sample, which have at least one responded household;

***m2*** – a number of responded households in sample.

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

Cross-sectional weights were calibrated on a basis of demographic data by breaking them down by a degree of urbanization (three groups — Riga (capital city), large towns and others), 11 age groups (16-20; 21-25; 26-30; 31-35; 36-40; 41-45; 46-50; 51-55; 56-60; 61-65; 66+) and sex. Another variable was demographic data by 6 statistical regions of Latvia. The final household weights were used both for households and for individuals.

#### 2.1.8.4. Final cross-sectional weights

The final cross-sectional weights DB090 were calculated as the product of the design factor, non-response adjustment factor and calibration factor:

$$DB090 = nonr\_w \cdot g,$$

where **g** - g-weights of the regression estimator.

#### 2.1.9. Substitutions

No substitution was used.

### 2.2. Sampling errors

#### 2.2.1. Standard error and effective sample size

- **At-risk-of poverty rate and mean equivalised disposable income**

It was assumed that at-risk-of poverty rate is similar to ratio of two totals (ignoring that the threshold is an estimate from the sample). Standard error and design effect for at-risk-of poverty rate were estimated as standard error and design effect for ratio. The standard error was estimated by using the Taylor linearization method. The correction of finite population at the PSU level was applied for the variance estimate in each stratum. The same methodology was used for estimating the standard error and design effect for the mean equivalised disposable income.

- **Gini coefficient**

Linearization was applied for *Gini* coefficient. A standard error for *Gini* coefficient was estimated as a standard error for the total of linearized variable. The correction of finite population at the PSU level was applied to the variance estimate in each stratum.

- **Design effect**

The design effect was calculated as a ratio of the variance for the sampling design used in the EU-SILC and the variance for the simple random sampling of households.

- **Software**

The variance estimates and design effect were computed using softwares SUDAAN and SPSS.

Table 2.4. Estimates, the standard error and design effect for common cross-sectional EU indicators

Indicator	Value	Achieved sample size	Standard error	Design effect	Effective sample size
At-risk-of-poverty rate after social transfers	21	6 255	0.75	1.29	4 846
At-risk-of-poverty rate before all transfers including old-age and survivor's benefits	29	6 255	0.68	1.29	4 855
At-risk-of-poverty rate before all transfers	44	6 255	0.67	1.28	4894
Gini coefficient	36	6 255	0.66	-	-
Mean equivalised disposable income	3894	6 255	133.58	1.04	6025

## 2.3. Non-sampling errors

### 2.3.1. Sampling frame and coverage errors

Two sampling frames were built for each sampling stage. At the first stage counting areas from the list of the Population Census 2000 were used as a sampling frame. All territory of Latvia was divided in small territories (smaller than LAU 2) during the Population Census 2000. The list contained information about the number of households in each counting area.

At the second stage a sampling frame was built from the Population Register, Statistical register of dwellings and Statistical register of households.

The second stage sampling frame was built by using a copy of the Population Register given in November 2009. Both statistical registers of dwellings and households were updated by using the Population Register. Thus the time lag between the last update of registers and the moment of the actual EU-SILC survey sampling was around 4 months.

The over-coverage relates either to misclassified units that are in fact out of scope, or to units that do not exist in practice (i.e. the address does not exist or it is a non-residential address or is unoccupied or not a principal residence (DB120 = 23)). In total the over-coverage rate of the total amount of dwellings included in the EU-SILC survey 3.9% (315 from 8 151 dwellings).

*Table 2.5. Distribution of over-coverage*

Type of over-coverage	Number of addresses	Proportion of over-coverage by type, (%)
Address does not exist (DB120 = 231)	23	9.7
Non - residential address (DB120 = 232)	171	71.8
Address is unoccupied (DB120 = 233)	10	4.2
Address is not principal residence (DB120 = 234)	34	14.3
<b>Total</b>	<b>238</b>	<b>100</b>

There were 77 dwellings, which were not identified by the over-coverage reason; those were dwellings of households, which had been surveyed in the previous year.

The level of under-coverage is not estimated.

### **2.3.2. Measurement and processing errors**

#### **2.3.2.1. Measurement errors**

Like as in the EU-SILC 2009 operation 3 types of questionnaires were developed for the EU-SILC 2010 operation: the Household Register (to collect demographic information about all household members), the Household Questionnaire (to collect all information related to household – dwelling costs, housing conditions, income components received at the household level etc.), Personal Questionnaire (to collect all needed information for each household member aged 16 and over in previous calendar year) and the Household List (additional document to record all necessary information about household members for tracing purposes and for linkage with data from administrative registers). In 2010 questions of module on intra-household sharing of resources were added to the Household Questionnaire and Personal Questionnaire. The household members' first, second names, contact addresses, phone numbers (fixed and mobile phone numbers) and personal identification codes were recorded in the Household List. The Blaise CAPI and CATI applications as well as the paper questionnaires (to be applied in specific circumstances) of the EU-SILC survey were available in Latvian and in Russian (the language of the largest ethnic minority in Latvia). Only households that were participating in the EU-SILC survey for the second, third or fourth time and had have specified phone numbers in the previous waves, were used for CATI. Not all, but the majority of households with phone numbers were used for CATI. It was possible for a household to repudiate from CATI, and then CAPI was used. CAPI was used also in those cases when a telephone interview was not possible (the phone number was wrong, the phone line damaged, the phone line busy, etc.).

The CSB interviewers carried out the fieldwork of the EU-SILC survey. For the field staff was organised a 1 or 2 (for new interviewers) days intensive training session. The aims of the training were to introduce the fieldwork staff with methodology of the EU-SILC survey, to instruct interviewers for accurate fieldwork execution of the survey and give them information to motivate respondents for participation in the survey. Several tests were developed to check interviewers' knowledge after the training session.

To increase response rates several steps were made to introduce Latvian residents with the EU-SILC survey before starting the fieldwork. A press release was prepared, an introduction letter with a EU-SILC booklet were sent to selected addresses to establish the first contact with a household before the interview.

Measurement errors were detected by logical checks and verification of received data.

### *2.3.2.2. Processing errors*

2010 was the fifth year when the program BLAISE was introduced. Compared with 2009, the data entry program was not changed significantly in 2010.

Still 2.8% of personal interviews were completed using paper questionnaires. Paper questionnaires were used when the laptop could not be used (for example, for security considerations, discharged battery, etc.). Completed paper questionnaires later were entered into laptop by the same interviewer, who had done the interview, and then transmitted to the CSB.

The quantity of personal data from the previous year of the survey introduced into the program had remained the same compared with 2009.

Data were transformed from BLAISE to MS ACCESS (a modified version of application of 2009), where the initial database had been analysed and corrected. Data from the EU-SILC 2010 operation were compared with data from the previous EU-SILC operations, when it was possible. Compliance of the database with Eurostat requirements was checked with the SAS data checking program.

### *2.3.3. Non-response errors*

#### *2.3.3.1. Achieved sample size*

6255 households' interviews were accepted for the database and used for analysis.

There were 12 999 persons aged 16 years and older who were members of households for which the interview is accepted for the database, and that completed a personal interview.

#### *2.3.3.2. Unit non-response*

##### For the total sample (four rotational groups)

The final response rates were calculated according to formulas given by Eurostat:

- Household non-response rate  $NRh = 20.1$
- Individual non-response rate  $NRp = 0.8$
- Overall non-response rate  $*NRp = 21.0$

For the new households (rotational group 1)

The final response rates were calculated according to formulas given by Eurostat:

- Household non-response rate  $NRh = 34.0$
- Individual non-response rate  $NRp = 0.9$
- Overall non-response rate  $*NRp = 35.5$

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

Table 2.6. Distribution of households by 'record of contact at address' (DB120) for each rotational group

	Rotational group 1		Rotational group 2		Rotational group 3		Rotational group 4		Total	
	N	%	N	%	N	%	N	%	N	%
<b>Total</b> (DB120 = 11 to 23)	<b>3 211</b>	<b>100</b>	<b>1 298</b>	<b>100</b>	<b>1 694</b>	<b>100</b>	<b>1 937</b>	<b>100</b>	<b>8 140</b>	<b>100</b>
Address contacted (DB120 = 11)	2 844	88.6	1 276	98.3	1 659	97.9	1 875	96.8	<b>7 654</b>	<b>94.0</b>
Address non-contacted (DB120 = 21 to 23)	367	11.4	22	1.7	35	2.1	62	3.2	<b>486</b>	<b>6.0</b>
<b>Total address non-contacted</b> (DB120 = 21 to 23)	<b>367</b>	<b>100</b>	<b>22</b>	<b>100</b>	<b>35</b>	<b>100</b>	<b>62</b>	<b>100</b>	<b>486</b>	<b>100</b>
Address cannot be located (DB120 = 21)	18	4.9	0	0	0	0	1	1.6	<b>19</b>	<b>3.9</b>
Address unable to access (DB120 = 22)	112	30.5	6	27.3	9	25.7	25	40.3	<b>152</b>	<b>31.3</b>
Address does not exist or is non-residential address or is unoccupied or not principal residence (DB120 = 23)	237	64.6	16	72.7	26	74.3	36	58.1	<b>315</b>	<b>64.8</b>

It should be noticed, that there is no information about 11 addresses.

Table 2.7. Distribution of addresses contacted by 'household questionnaire result' and by 'household interview acceptance' for each rotational group

	Rotational group 1		Rotational group 2		Rotational group 3		Rotational group 4		Total	
	N	%	N	%	N	%	N	%	N	%
<b>Total</b> (DB130 = 11 to 24)	<b>2 844</b>	<b>100</b>	<b>1 276</b>	<b>100</b>	<b>1 659</b>	<b>100</b>	<b>1 875</b>	<b>100</b>	<b>7 654</b>	<b>100</b>
Household questionnaire completed (DB130 = 11)	1 963	69.0	1 186	92.9	1 475	88.9	1 632	87.0	<b>6 256</b>	<b>81.7</b>
Interview not completed (DB130 = 21 to 24)	881	31.0	90	7.1	184	11.1	243	13.0	<b>1 398</b>	<b>18.3</b>
<b>Total interview not completed</b> (DB130 = 21 to 24)	<b>881</b>	<b>100</b>	<b>90</b>	<b>100</b>	<b>184</b>	<b>100</b>	<b>243</b>	<b>100</b>	<b>1 398</b>	<b>100</b>
Refusal to co-operate (DB130 = 21)	524	59.5	34	37.8	101	54.9	118	48.6	<b>777</b>	<b>55.6</b>
Entire household temporarily away for duration of fieldwork (DB130 = 22)	266	30.2	25	27.8	42	22.8	48	19.8	<b>381</b>	<b>27.3</b>
Household unable to respond (illness, incapacity, etc) (DB130 = 23)	52	5.9	7	7.8	3	1.6	13	5.3	<b>75</b>	<b>5.4</b>
Other (DB130 = 24)	39	4.4	24	26.7	38	20.7	64	26.3	<b>165</b>	<b>11.8</b>
<b>Household questionnaire completed</b> (DB135 = 1 to 2)	<b>1 963</b>	<b>100</b>	<b>1 186</b>	<b>100</b>	<b>1 475</b>	<b>100</b>	<b>1 632</b>	<b>100</b>	<b>6 256</b>	<b>100</b>
Interview accepted to database (DB135 = 1)	1 962	99.9	1 186	100	1 475	100	1 632	100	<b>6 255</b>	<b>100</b>
Interview rejected (DB135 = 2)	1	0.1	0	0	0	0	0	0	<b>1</b>	<b>0.0</b>

It should be noticed, that there is no information about 11 addresses.

*2.3.3.4. Distribution of substituted units*

Substitution was not used.

*2.3.3.5. Item non-response*

The tables below show the amount following information on each income component at the personal and at the household level:

- percentage of persons/households having received an amount of income (other than 0);
- percentage of persons/households having received income but no information about the amount of the received income have been obtained from the questionnaire (missing value);
- percentage of persons/households providing partial information about the income variable in the questionnaire (responding part of questions related to income amounts).

*Table 2.8. Distribution of item non-response for income variables collected at household level*

<b>Income variable</b>	<b>% of households having received an amount</b>	<b>% of households with missing values (before imputation)</b>	<b>% of households with partial information (before imputation)</b>
Total household gross income (HY010)	99.3	24.8	73.2
Total disposable household income (HY020)	99.6	10.4	87.4
Total disposable household income before social transfers other than old-age and survivor's benefits (HY022)	98.6	10.8	86.2
Total disposable household income before social transfers including old-age and survivor's benefits (HY023)	90.0	4.3	92.1
<b>Net income components at household level</b>			
Imputed rent (HY030N)	93.0	100	0
Income from rental of a property or land (HY040N)	1.0	1.6	0
Interest, dividends, profit from capital investments in unincorporated business (HY090N)	3.0	26.3	4.3
Family/Children related allowances (HY050N)	30.2	94.0	5.8
Social exclusion not elsewhere classified (HY060N)	7.6	35.4	5.0
Housing allowances (HY070N)	6.1	6.8	0
Regular inter-household cash transfer received (HY080N)	11.5	9.4	0.1
Interest repayments on mortgage (HY100N)	5.7	100	0
Income received by people aged under 16 (HY110N)	0.4	38.5	0
Regular taxes on wealth (HY120N)	62.1	12.4	0
Regular inter-household cash transfer paid (HY130N)	10.1	2.8	0
Tax on income and social contributions (HY140N)	93.1	37.4	62.3
Value of goods produced by own-consumption (HY170N)	43.1	100	0

Income variable	% of households having received an amount	% of households with missing values (before imputation)	% of households with partial information (before imputation)
<b>Gross income components at household level</b>			
Imputed rent (HY030G)	93.0	100	0
Income from rental of a property or land (HY040G)	1.0	1.6	0
Interest, dividends, profit from capital investments in unincorporated business (HY090G)	3.0	26.3	4.3
Family/Children related allowances (HY050G)	30.2	94.0	5.8
Social exclusion not elsewhere classified (HY060G)	7.6	35.4	5.0
Housing allowances (HY070G)	6.1	6.8	0
Regular inter-household cash transfer received (HY080G)	11.5	9.4	0.1
Interest repayments on mortgage (HY100G)	5.7	100	0
Income received by people aged under 16 (HY110G)	0.4	38.5	0
Regular taxes on wealth (HY120G)	62.1	12.4	0
Regular inter-household cash transfer paid (HY130G)	10.1	2.8	0
Tax on income and social contributions (HY140G)	93.1	37.4	62.3
Value of goods produced by own-consumption (HY170G)	43.1	100	0

Table 2.9. Distribution of item non-response for income variables collected at personal level

Income variable	% of persons 16+ having received an amount	% of persons 16+ with missing values (before imputation)	% of persons 16+ with partial information (before imputation)
<b>Net income components at personal level</b>			
Employee cash or near cash income (PY010N)	54.3	17.2	47.2
Non-cash employee income (PY020N)	3.8	41.7	10.8
Company car (PY021N)	0.6	100	0
Contributions to individual private pension plans (PY035N)	1.4	8.6	0
Cash benefits or losses from self-employment (PY050N)	4.5	8.1	0
Pension from individual private plans (PY080N)	0	0	0
Unemployment benefits (PY090N)	10.2	75.9	11.6
Old-age benefits (PY100N)	31.5	98.2	0.6
Survivor's benefits (PY110N)	1.5	100	0
Sickness benefits (PY120N)	9.5	88.6	1.1
Disability benefits (PY130N)	5.6	100	0
Education-related benefits (PY140N)	1.8	4.7	0.4

Income variable	% of persons 16+ having received an amount	% of persons 16+ with missing values (before imputation)	% of persons 16+ with partial information (before imputation)
<b>Gross income components at personal level</b>			
Employee cash or near cash income (PY010G)	54.3	17.2	75.6
Non-cash employee income (PY020G)	3.8	41.7	10.8
Company car (PY021G)	0.6	100	0
Contributions to individual private pension plans (PY035G)	1.4	8.6	0
Cash benefits or losses from self-employment (PY050G)	4.5	8.1	9.7
Pension from individual private plans (PY080G)	0	0	0
Unemployment benefits (PY090G)	10.2	75.9	17.1
Old-age benefits (PY100G)	31.7	98.3	0.6
Survivor's benefits (PY110G)	1.5	100	0
Sickness benefits (PY120G)	9.5	88.6	1.1
Disability benefits (PY130G)	5.6	100	0
Education-related benefits (PY140G)	1.8	4.7	0.4

Missing values of income components were filled using Hot Deck imputation method. The main principle of the Hot Deck method is to use the current data (donors) to provide imputed values for records with missing values. Imputation was done within homogeneity group.

Households were divided in homogeneity groups by HS050 (Capacity to afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day), HS110 (Do you have a car?), HS060 (Capacity to face unexpected financial expenses) and region. Individuals were divided in similar groups by district, NACE, occupation and sex.

According to the signed agreement between the CSB and the State Social Insurance Agency (SSIA) micro-data files regarding pensions and state social benefits paid to the EU-SILC 2010 respondents (during 2009) were received from the SSIA and used to prepare income variables. Only information about some minor benefits administrated by local municipalities or pensions paid by foreign countries and service pensions, which were not administrated by SSIA, was asked in questionnaires. Thus the imputation factor to a large extent shows the percentage of collected value (minor income components) from the recorded value in data files (mainly from administrative registers).

## 2.4. Mode of data collection

Table 2.10. Distribution of household members aged 16 and over by data status (RB250) and rotational group  
HOUSEHOLD MEMBERS AGED 16 AND OVER (RB245 = 1)

	Total	RB250 = 11	RB250 = 12	RB250 = 13	RB250 = 14	RB250 = 21	RB250 = 22	RB250 = 23	RB250 = 31	RB250 = 32	RB250 = 33
<b>Total</b>	<b>12 999</b>	<b>0</b>	<b>0</b>	<b>12 892</b>	<b>107</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>%</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>99.2</b>	<b>0.8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Rotational group 1</b>	<b>4 047</b>	<b>0</b>	<b>0</b>	<b>4 010</b>	<b>37</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>%</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>99.1</b>	<b>0.9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Rotational group 2</b>	<b>2 488</b>	<b>0</b>	<b>0</b>	<b>2 474</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>%</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>99.4</b>	<b>0.6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Rotational group 3</b>	<b>3 128</b>	<b>0</b>	<b>0</b>	<b>3 089</b>	<b>39</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>%</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>98.8</b>	<b>1.2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Rotational group 4</b>	<b>3 336</b>	<b>0</b>	<b>0</b>	<b>3 319</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>%</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>99.5</b>	<b>0.5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Table 2.11. Distribution of household members aged 16 and over by type of interview (RB260) and rotational group  
HOUSEHOLD MEMBERS AGED 16 AND OVER ((RB245 = 1) and (RB250 = 11 or 13))

	Total	RB260 = 1	RB260 = 2	RB260 = 3	RB260 = 4	RB260 = 5
<b>Total</b>	<b>12 889</b>	<b>363</b>	<b>7 060</b>	<b>2 404</b>	<b>1</b>	<b>3 061</b>
<b>%</b>	<b>100</b>	<b>2.8</b>	<b>54.8</b>	<b>18.7</b>	<b>0.0</b>	<b>23.7</b>
<b>Rotational group 1</b>	<b>4 010</b>	<b>182</b>	<b>3045</b>	<b>145</b>	<b>0</b>	<b>638</b>
<b>%</b>	<b>100</b>	<b>4.5</b>	<b>75.9</b>	<b>3.6</b>	<b>0.0</b>	<b>15.9</b>
<b>Rotational group 2</b>	<b>2 474</b>	<b>58</b>	<b>1090</b>	<b>674</b>	<b>0</b>	<b>652</b>
<b>%</b>	<b>100</b>	<b>2.3</b>	<b>44.1</b>	<b>27.2</b>	<b>0.0</b>	<b>26.4</b>
<b>Rotational group 3</b>	<b>3 086</b>	<b>61</b>	<b>1 192</b>	<b>943</b>	<b>0</b>	<b>890</b>
<b>%</b>	<b>100</b>	<b>2.0</b>	<b>38.6</b>	<b>30.6</b>	<b>0.0</b>	<b>28.8</b>
<b>Rotational group 4</b>	<b>3 319</b>	<b>62</b>	<b>1 733</b>	<b>642</b>	<b>1</b>	<b>881</b>
<b>%</b>	<b>100</b>	<b>1.9</b>	<b>52.2</b>	<b>19.3</b>	<b>0.0</b>	<b>26.5</b>

It should be noticed, that there is no information about 3 persons

## 2.5. Interview duration

Mean duration of a household interview: 11 minutes and 26 seconds

Mean interview duration per household: 23 minutes and 43 seconds

Thus, mean interview duration per household is lower than the one-hour limit set in Regulation No 1177/2003.

### **3. Comparability**

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

Overall, there are no differences between national interpretations of the EU-SILC basic definitions and concepts and common standards set up in Commission regulations and doc. EU-SILC 065 (2010 operation).

##### ***3.1.1. The reference population***

There were no divergences from the common definition. Persons living in private households within national territory were the reference population of the EU-SILC survey.

##### ***3.1.2. The private household definition***

There were no divergences from the common definition.

##### ***3.1.3. The household membership***

There were no divergences from the common definition. Due to the complexity of household membership several practical and comprehensive explanations based on specific cases (examples) were given to interviewers.

##### ***3.1.4. The income reference period***

There were no divergences from the common definition. In Latvia the income reference period is the previous calendar year (2009).

##### ***3.1.5. The period of taxes on income and social insurance contributions***

In Latvia taxes and social insurance contributions refer to the income received during the income reference period (2009). The only exception is repayments or receipts for tax adjustment. These are taxes and social insurance contributions, which have been received/paid during the income reference period, but may refer to previous years. Those repayments/receipts are included in variable HY140 (tax on income and social contributions).

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

In Latvia the reference period for taxes on wealth refer to the income reference period (2009).

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

The lag between the end of the income reference period and current variables is from 3 to 7 months.

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

Fieldwork (data collection) started in the middle of March 2010 and lasted till the end of July 2010.

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

There were no divergences from the common definitions.

## ***3.2. Components of income***

Classification of net and gross income components in national EU-SILC survey was made according to the description of doc. EU-SILC 065 (2010 operation).

### ***3.2.1.1 Total household gross income***

There were no divergences from common standards.

### ***3.2.1.2. Total disposable household income***

There were no divergences from common standards.

### ***3.2.1.3. Total disposable household income, before social transfers other than old-age and survivor's benefits***

There were no divergences from common standards, but, as we had provided income components of gross and net series, the total disposable household income, before social transfers other than old-age and survivor's benefits had been calculated from variable HY020 using only net income components (as it was done before 2007), because old age pensions and disability benefits above the certain amount was taxable income and thus the real total disposable household income before all social transfers would have been wrongly decreased by paid taxes from old age pension and disability benefits.

### ***3.2.1.4. Total disposable household income, before social transfers including old age and survivor's benefits***

There were no divergences from common standards, but, as we had provided income components of gross and net series, the total disposable household income, before social transfers including old-age and survivor's benefits had been calculated from variable HY020 using only net income components (as it was done before 2007), because old age pensions and disability benefits above

the certain amount was taxable income and thus the real total disposable household income before all social transfers would have been wrongly decreased by paid taxes from old age pension and disability benefits.

#### **3.2.1.5. Imputed rent**

Using the experience gained from the calculation of imputed rent for the Household Budget Survey (HBS) it was decided to use a log-linear regression model for the calculation of imputed rent also for the EU-SILC. The following variables were used for the calculation of imputed rent:

- tenure discount;
- urban / rural area;
- region;
- area of dwelling in square metres.

Using the log-linear regression model the equivalent market rent was estimated. In the case where the accommodation had been rented at a lower price than the market price, the rent actually paid was deducted from the equivalent market rent. Then from the HBS the amount of minor repairs or/and refurbishment expenditure was calculated (as average percentage from the equivalent market rent) and deducted from the estimated equivalent market rent thus obtaining the final value of imputed rent (HY030G/HY030N).

#### **3.2.1.6. Income from rental property and land**

There were no divergences from common standards.

#### **3.2.1.7. Family/children-related allowances**

There were no divergences from common standards.

#### **3.2.1.8. Social exclusion payments not elsewhere classified**

There were no divergences from common standards.

#### **3.2.1.9. Housing allowances**

There were no divergences from common standards.

#### **3.2.1.10. Regular inter-household cash transfers received**

There were no divergences from common standards.

**3.2.1.11. Interest, dividends, profit from capital investments in unincorporated business**

There were no divergences from common standards.

**3.2.1.12. Interest paid on mortgages**

There were no divergences from common standards.

Interest paid on mortgages was not asked directly to the household respondent, but it was calculated from the answers to the questions about:

- the average payment per month;
- the average mortgage interest rate;
- year, when dwelling had been purchased;
- duration of mortgage loan.

**3.2.1.13. Income received by people aged under 16**

There were no divergences from common standards. Basically there were included wages and salaries received during holidays or out of school time.

**3.2.1.14. Regular taxes on wealth**

There were no divergences from common standards. Taxes on land and real estate were included in this variable.

**3.2.1.15. Regular inter-household transfers paid**

There were no divergences from common standards.

**3.2.1.16. Tax on income and social contributions**

There are no divergences from common standards.

**3.2.1.17. Repayments/receipts for tax adjustments**

There were no divergences from common standards. Included in variable HY140.

**3.2.1.18. Cash or near-cash employee income**

There were no divergences from common standards.

**3.2.1.19. Non-cash employee income**

There were no divergences from common standards.

A special method was used to evaluate the non-cash employee income from the use of a company car for personal purposes. According to the Latvian situation the method based on a system analysis model was chosen for calculating the employee non-cash income from the use of a company car for personal purposes. Components for calculating the monetary value of this, a non-cash employee income, was included in the questionnaire and collected directly from respondents: the class of the car, the year of its production, the total amount of kilometres driven by the company car in the previous calendar year (2009), the annual amount of kilometres driven by the vehicle for private use, the occupation of the company car user, coverage of the car related costs made by the employer: fuel, technical inspection of the car, the purchase of tires (i.e., did the employer pay bills for the purchase of fuel, technical inspection of the car, the purchase of tires), restrictions of the use of the company car (i.e. if employer created restrictions to the employee for the use of the company care for personal purposes). It was assumed that the employer covered all costs related to the use of the company car for the employee's personal use.

#### ***3.2.1.20. Employers' social contributions***

There were no divergences from common standards.

#### ***3.2.1.21. Cash profits or losses from self-employment (including royalties)***

The net (and gross) income and losses from self-employment were asked to each household member aged 16 years and over (in the income reference period) in the Personal Questionnaire. Respondents were asked to tell the net amount of self-employment income they had had for the personal use (incl. making private savings) or losses from self-employment activities during the income reference period. There were also questions about the paid taxes to evaluate the gross income.

#### ***3.2.1.22. Value of goods produced for own consumption***

The value of goods produced for own consumption was calculated using information from the HBS. Household members responsible for agricultural production were asked to pick the products, which the household produced for own consumption during the income reference period, from the list (obtained from the HBS). This question was asked only to those households, which had used land for certain types of agricultural activity. Depending on the size of household and consumed products, the value of goods produced for own consumption was calculated. The value of goods produced for own consumption was attributed to responsible household member.

**3.2.1.23. Unemployment benefits**

There were no divergences from common standards.

**3.2.1.24. Old-age benefits**

There were no divergences from common standards.

**3.2.1.25. Survivors' benefits**

There were no divergences from common standards.

**3.2.1.26. Sickness benefits**

There were no divergences from common standards.

**3.2.1.27. Disability benefits**

There were no divergences from common standards.

**3.2.1.28. Education related allowances**

There are no divergences from common standards.

**3.2.1.29. Gross monthly earnings for employees**

Value was not recorded as Latvia uses wage statistics for calculating the gender pay gap.

**3.2.2. The source of collecting income variables**

According to the agreement signed between the CSB and the SSIA micro-data files regarding pensions and state social benefits paid to the EU-SILC 2010 respondents (during 2009) were received from the SSIA and used to prepare corresponding income variables. Only information about some minor benefits, which had been administrated by local municipalities, or pensions paid by foreign countries and service pensions, which had not been administrated by the SSIA, was asked in questionnaires. The exception was the net employee cash or near cash income (PY010N), which also was available from the State Revenue Service (SRS), but it was decided to use information from questionnaires. The gross employee cash or near cash income (PY010G) was obtained counting up the net employee cash or near cash income from questionnaires with paid taxes from the SRS. Information from the SRS is also used for imputation purposes if the amount of the net employee cash or near cash income was missing in the questionnaire and in those cases when the SRS information showed higher income than reported in the questionnaire.

Household income variables (such as imputed rent, income from rental property and land, housing allowances etc.) were collected from the household respondent, which was responsible for issues related to dwelling and the household as a whole. An exception was income from interest, dividends/ profit from capital investment. This variable together with personal income variables (such as employee income, self-employment income, education related allowances, etc.) was collected from each household member eligible for the personal interview.

***3.2.3. The form in which income target variables at component level were obtained***

See 3.2.2.

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

See 3.2.2.

## 4. Coherence

The aim of the chapter on coherence is to validate the data of EU-SILC 2010 (income reference year - 2009) with other data sources.

### 4.1. EU-SILC 2010 – income target variables

The following tables compare the income components of EU-SILC 2009 and 2010 (income reference years – 2008 and 2009). Due to high unemployment among the active population, the share of households with wages and salaries as main source of income has reduced from 66% in 2008 to 59% in 2009. In the meantime, the share of households with social transfers as the main source of income has increased from 29% to 37%. The median total household income of 2009 is by 15% lower than the median total household income of 2008. Majority of income components collected on household level have shrunk.

Table 4.1. Income target variables on household level: EU-SILC 2009 and EU-SILC 2010

	2008 <sup>1</sup>			2009 <sup>1</sup>		
	Median (in LVL)	Households (thous)	Sum (in Mio. LVL)	Median (in LVL)	Households (thous)	Sum (in Mio. LVL)
<b>hy010 Total household gross income*</b>	<b>6930.22</b>	<b>852.8</b>	<b>8 367.0</b>	<b>5861.05</b>	<b>858.5</b>	<b>6 963.7</b>
hy020 Total disposable household income	5757.58	855.3	6 775.0	4969.33	861.4	5 694.8
hy030n Imputed rents	429.78	795.4	437.3	384.27	800.0	389.3
hy040n Income from rental of property or land	250.00	9.8	6.6	500.00	9.0	9.3
hy050n Family/children related allowances	211.20	292.7	228.3	201.60	296.2	214.6
hy060n Social exclusion not elsewhere classified	195.52	56.3	15.0	200.00	64.8	16.9
hy070n Housing allowances	90.00	30.3	4.5	100.00	53.4	8.1
hy080n Regular inter-household cash transfer received	720.00	87.6	92.8	600.00	100.9	83.9
hy090n Interest, dividends, Profit	200.00	28.1	119.1	110.00	26.7	29.2
hy100n Interest repayments on mortgage	1003.49	66.6	89.6	989.03	66.6	86.1
hy110n Income received from people aged under 16	...	...	...	...	...	...
hy130n Regular inter-household cash transfer paid	600.00	98.1	88.7	500.00	95.3	67.4
hy140g Tax on income and social contributions	1508.46	655.6	1 490.3	795.88	803.1	1 185.0
Hy170n Value of goods produced for own consumption	x	x	x	258.60	327.1	119.8

<sup>1</sup> income reference year

x data not applicable

- data not available

... data uncertain for publication

**Table 4.2.** Income target variables on personal level: EU-SILC 2009 and EU-SILC 2010

	2008 <sup>1</sup>			2009 <sup>1</sup>		
	Median (in LVL)	Persons thous.	Sum (in Mio. LVL)	Median (in LVL)	Persons thous.	Sum (in. Mio LVL)
py010n Employee cash or near cash income*	3240.00	1 220.6	5 132.3	2668.50	1 108.3	3 905.4
py020n Non-cash employee income*	240.00	103.4	47.1	240.00	86.4	42.3
py035n Contribution to individual pension plans	120.00	35.2	7.0	140.00	29.2	6.1
py050n Cash benefit or losses from self-employment	1500.00	85.5	228.2	1200.00	83.8	154.9
py070n Value of goods produced for own consumption	298.90	312.6	130.0	x	x	x
py080n Pension from individual private plans	-	-	-	...	...	...
py090n Unemployment benefits	338.98	106.0	63.6	543.77	205.9	175.4
py100n Old-age benefits	1618.38	443.0	759.4	1906.71	466.8	904.0
py110n Survivor' benefits	827.46	27.2	24.5	952.44	25.6	26.5
py120n Sickness benefits	124.94	199.0	63.5	173.16	187.1	84.3
py130n Disability benefits	1095.90	97.5	106.4	1129.56	102.4	127.5
py140n Education-related benefits	207.00	36.4	14.5	180.00	30.9	14.1

<sup>1</sup> income reference year

x data not applicable

- data not available

... data uncertain for publication

The two main income components (employee's income, self-employed income) feature significant reduction of the median income and the number of recipients while unemployment benefits, old-age benefits and disability benefits have risen significantly. The median of the unemployment benefits and also the number of recipients was considerably higher in EU-SILC 2010 than in EU-SILC 2009.

#### **4.2. Comparison of income target variables and number of persons who receive income from each 'income component' with external sources**

In this section will be compared the EU-SILC data with various external data sources as National accounts, the Household Budget Survey (HBS), the Labour Force Survey (LFS), wage statistics and social protection statistics.

The HBS is a continuous survey of households, which has been carried out since 1995 (comparable data since 2002). The annual net sample size is approximately 4 thousand households. The HBS is

designed to collect information on consumption expenditure of households (information on income is collected to divide households in quintile groups). The HBS was the source of Laeken indicators until introduction of the EU-SILC (in 2005).

The LFS is a continuous survey, which has been carried out according to a common EU methodology since 1995. The annual sample size is about 30 thousand person aged 15 - 74. The LFS is the main source for labour market information.

In the EU-SILC the average monthly employee net cash or near cash income (PY010N) in 2009 (income reference year) was 387 LVL. In wage statistics this figure is lower – 342 LVL. Data of the EU-SILC survey is calculated for a respondent, who had received the employee cash or near cash income (PY010N) and who had been working as an employee (full-time) at least one month during the income reference period (PL073 > 0). The acquired results show that the EU-SILC data by 13% exceeded enterprise statistical data on average labour income in 2009 (by 19 % in 2008). The higher estimates from the EU-SILC are due to the fact that in the EU-SILC average wages and salaries are calculated for persons receiving income, whereas in wage statistics the unit of enumeration is the job. Thus, in the EU-SILC all employees' income is counted into one variable (income from the main job, second, third etc.), whereas in wage statistics, the wages from the second, third etc. job are counted separately. It should be also taken into account that wage statistics is based on information provided by employers and in certain cases it corresponds to wages, from which have been deducted taxes (information about informal employee income might be left behind).

Table 4.3 presents the number of persons receiving income components in the EU-SILC, the HBS and in additional external sources. It should be taken into account that in the HBS a part of income components are obtained only at the household level and for this reason comparisons are made only among those income components, which have been obtained in the same way as in the EU-SILC. Besides, definitions of income components can vary between sources and for that reason only the components for which sufficiently comparable definitions are presented in the table below.

*Table 4.3.* Number of persons receiving several income components in 2009 (in thousands)

<b>EU-SILC target variable</b>	<b>EU-SILC</b>	<b>HBS</b>	<b>Other sources</b>
Employee cash or near cash income (PY010N)	1108.3	845.8	901.3 <sup>1</sup>
Old-age benefits (PY100N)	466.8	464.9	478.3 <sup>2</sup>
Survivor's benefits (PY110N)	25.6	14.9	23.7 <sup>2</sup>
Disability benefits (PY130N)	102.4	59.5	67.4 <sup>2</sup>

<sup>1</sup> Labour Force Survey, persons aged 15-74 years with wages and salaries

<sup>2</sup> At the end of year, social protection statistics (the State Social Insurance Agency) data

In the EU-SILC the number of people receiving employee income was by 110 thousand higher than in the Labour Force Survey and by 263 thousand higher than in the HBS.

Comparing data on employees' net wage (table 4.4.) we can see that the EU-SILC data slightly better represent employees with comparatively higher wages and salaries (above LVL 300 per month).

*Table 4.4. Employees' in the age between 16 and 74 years monthly net wages in 2009*

	EU-SILC	LFS <sup>1</sup>
<b>Employees</b>	<b>100</b>	<b>100</b>
Of which by wage (in LVL):		
under 200.01	27.4	34.9
200.01-300.00	23.7	26.5
300.01-500.00	27.8	23.5
500.01-1000.00	17.2	9.4
1000.01 and more	3.9	0.9
Wage was not calculated	x	2.4
Wage was calculated but not paid	x	0.2
Unspecified	x	2.2

Main job, in the age of 15-74

*Table 4.5. Occupation (PL050) in employment according to EU-SILC and LFS, employed persons aged 16-64 (15-64 in LFS) in 2010, %*

	EU-SILC	LFS
PL050 Occupation		
(11-13) Legislators, senior officials and managers	8.9	10.1
(21-24) Professionals	16.9	16.7
(31-34) Technicians and associate professionals	14.6	13.5
(41-42) Clerks	5.1	5.9
(51-52) Service workers and shop and market sales workers	14.8	14.4
(61) Skilled agricultural and fishery workers	2.3	3.9
(71-74) Craft and related trades workers	12.7	11.9
(81-83) Plant and machine operators and assemblers	10.4	9.8
(91-93) Elementary occupations	13.9	13.3
<b>Total<sup>1</sup></b>	<b>100</b>	<b>100</b>
Number of persons	<b>850461</b>	<b>918900<sup>1</sup></b>

<sup>1</sup> The total number in this and next table includes army forces and persons with unspecified occupation

**Table 4.6.** NACE (Rev. 2; PL111) in employment. Employed persons of aged 16-64 (EU-SILC: selected respondents; LFS persons aged 15-64) in 2010, %

	EU-SILC	LFS
PL111 NACE		
A Agriculture, forestry and fishing	7.9	8.5
B Mining and quarrying	0.4	0.5
C Manufacturing	13.3	13.9
D Electricity, gas, steam and air conditioning supply	1.5	1.5
E Water supply; sewerage, waste management and remediation activities	0.9	1.2
F Construction	7.2	7.1
G Wholesale and retail trade; repair of motor vehicles and motorcycles	15.5	16.1
H Transportation and storage	8.6	8.8
I Accommodation and food service activities	2.9	3.2
J Information and communication	2.6	3.1
K Financial and insurance activities	2.3	2.0
L Real estate activities	1.9	1.8
M Professional, scientific and technical activities	2.8	2.8
N Administrative and support service activities	3.1	3.2
O Public administration and defense; compulsory social security	9.1	6.7
P Education	9.2	10.0
Q Human health and social work activities	6.0	4.9
R Arts, entertainment and recreation	2.3	2.1
S Other service activities	2.0	2.1
T Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use	0.1	0.3
<b>Total</b>	<b>100</b>	<b>100<sup>1</sup></b>

#### 4.3. Comparison of other target variables with external sources

An important background indicator is a mean size of household. Official statistics in this area is based on the Population Census 2000 data. For the periods between the censuses it is based on calculations. According to these calculations, in 2010 the mean household size was 2.50 persons. Data on the mean size of households are given in Table 4.7.

**Table 4.7.** Mean size of household in 2010

	Population statistics	EU-SILC	HBS
Mean size of household, persons	2.50	2.57	2.47

A comparison of data shows that such survey as the EU-SILC probably under-represents households with a small number of persons. The risk of failing to make contacts with these households is much higher.

A comparison of the breakdown of households by the number of persons in the household (Table 4.8), by age of household members (Table 4.9) and by the demographical type of the household (Table 4.10) is shown below.

*Table 4.8.* Distribution of households by size in 2010

	EU-SILC		HBS	
	%	number of households, in thousands	%	number of households, in thousands
<b>All households</b>	<b>100</b>	864.7	<b>100</b>	<b>895.5</b>
of which by number of members:				
1 person	27.4	237.2	25.2	226.1
2 persons	27.6	238.7	33.0	295.2
3 persons	21.9	189.5	22.0	196.9
4 persons	13.7	118.9	12.7	114.0
5 persons and more	9.3	80.3	7.1	63.4

*Table 4.9.* Distribution of household members by age (in per cent) in 2010

	EU-SILC	HBS
<b>All household members</b>	<b>100</b>	<b>100</b>
of which by age brackets		
0-15	16.0	14.9
16-24	13.4	13.1
25-49	35.9	36.1
50-64	18.1	19.0
65+	16.6	16.9

*Table 4.10.* Distribution of households by demographical type (in per cent) in 2010

	EU-SILC	HBS
<b>All households</b>	<b>100</b>	<b>100</b>
of which:		
One person	27.4	25.2
of which:		
below the age of 65	13.8	13.0
over the age of 65	13.6	12.2
Couple without children	15.8	21.3
One adult with children	4.1	2.7
Couple with 1 child	8.1	9.8
Couple with 2 children	4.8	5.4
Couple with 3 and more children	1.3	1.4
Other households with children	13.6	9.9
Other households without children	24.8	24.3

Table 4.11 presents the distribution of population by ISCED level in the EU-SILC and in the LFS. As it can be seen, there are differences in overall distribution, but they are not substantial.

*Table 4.11.* Distribution of population in the age between 16 and 74 years by the ISCED level in 2010

	EU-SILC		LFS <sup>1</sup>	
	thousand of persons	%	thousand of persons	%
ISCED 0	3.8	0.2	3.2	0.2
ISCED 1	25.4	1.5	44.4	2.5
ISCED 2	380.9	22.3	325.7	18.4
ISCED 3	800.4	46.8	901.1	50.8
ISCED 4	103.5	6.1	109.8	6.2
ISCED 5	374.1	21.9	381.2	21.5
ISCED 6	4.2	0.2	4.1	0.2
<b>Total<sup>2</sup></b>	<b>1 710.2</b>	<b>100</b>	<b>1 772.8</b>	<b>100</b>

In the age of 15-74

<sup>2</sup> The total number includes persons with unspecified level of education and persons without formal education

Tables 4.12– 4.13 represent the socio-economic status of the household member and those, who are in employment. There are no significant differences between the EU-SILC and data of other surveys. Emerging differences are probably related to the fact that the main activity status is entirely self-defined in the EU-SILC at the time of interview, whereas in the LFS the self-defined activity status refers to the last three months.

*Table 4.12.* Distribution of population in the age between 16 and 74 years by self-defined economic status in 2010

	EU-SILC		LFS	
	thousand of persons	%	thousand of persons	%
Working	850.5	50.2	918.1	52.5
Unemployed	267.6	15.8	232.5	13.3
Pupil, student	149.3	8.8	161.3	9.2
In retirement	282.5	16.7	279.7	16.0
Permanently disabled	59.1	3.5	53.3	3.0
Domestic task	61.9	3.7	69.9	4.0
Other inactive	24.2	1.4	34.0	1.9
<b>Total</b>	<b>1 695.0</b>	<b>100</b>	<b>1 748.8</b>	<b>100</b>

*Table 4.13.* Status of the employed population in the main job in 2010

Age	EU-SILC	LFS
	16+	15-74
All employed	<b>100</b>	<b>100</b>
Employees (workers)	93.8	88.6
Employers (owners)	2.4	3.9
Self-employed	3.4	6.1
Unpaid person who helps another member of the family in enterprise or private practice, craft or farm work	0.4	1.4

Table 4.14 presents the share of households by the type of dwelling. The differences between the two data sources are small.

*Table 4.14.* Distribution of households by the type of dwelling in 2010

	<b>EU-SILC</b>	<b>HBS</b>
Detached house	25.2	24.3
Semi-detached house or terraced house	4.1	4.0
Apartment or flat	70.5	70.9
Other kind of accommodation	0.3	0.8
<b>Total</b>	<b>100</b>	<b>100</b>