

**NATIONAL STATISTICAL INSTITUTE**

**INTERMEDIATE QUALITY REPORT**

**EU-SILC 2009 OPERATION**

**BULGARIA**

**SOFIA, December 2010**

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## INTRODUCTION

The Survey on Income and Living Conditions (SILC) in Bulgaria is an annual survey implemented by the NSI in the framework of Regulation (EC) No 1177/2003 of the European Parliament and of the Council. Basic aim of the survey is the study, both at European and national level of households' living conditions in relation to their income. The survey is the reference for comparative statistics on income distribution and social exclusion in the European Union.

In 2009, the survey was carried-out by the National Institute of Statistics with the funds supplied by Eurostat on the grant nr. 10602.2008.003-2008.143.

This document presents the Intermediate Quality Report of EU-SILC 2009 in Bulgaria and follows the structure outlined in the Commission Regulation No. 28/2004.

The report is divided in four chapters:

- (1) Common Cross-sectional European Union Indicators
- (2) Accuracy
- (3) Comparability
- (4) Coherence

## 1. COMMON CROSS-SECTIONAL EUROPEAN UNION INDICATORS

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

The common cross sectional EU indicators refer to those indicators in Council of the Open method of coordination, based on the cross sectional sample of year 2009, with reference income period calendar year (2008). The indicators below have been calculated using Eurostat SAS program.

#### 1.1.1. Portfolio of Overarching Indicators calculated from SILC\_2009

*Table 1. [OV-1a] At-risk-of poverty threshold (illustrative values)*

Type of household	Euro	PPS
One person household	1696.5	3376.5
Household with 2 adults and 2 children younger than 14 years	3562.7	7090.8

**Table 2. [OV-1a] At-risk-of poverty rate after social transfers (by age and gender)**

age	sex	unit	2009
<b>TOTAL</b>	<b>T</b>	1000PERS	<b>1657</b>
		PC_POP	<b>21.8</b>
	<b>M</b>	1000PERS	<b>727.7</b>
		PC_POP	<b>19.8</b>
	<b>F</b>	1000PERS	<b>929.4</b>
		PC_POP	<b>23.7</b>
<b>Y0_17</b>	<b>T</b>	1000PERS	<b>316.1</b>
		PC_POP	<b>24.9</b>
<b>Y18_64</b>	<b>T</b>	1000PERS	<b>819.5</b>
		PC_POP	<b>16.4</b>
	<b>M</b>	1000PERS	<b>385.1</b>
		PC_POP	<b>15.5</b>
	<b>F</b>	1000PERS	<b>434.4</b>
		PC_POP	<b>17.2</b>
<b>Y65_MAX</b>	<b>T</b>	1000PERS	<b>521.5</b>
		PC_POP	<b>39.3</b>
	<b>M</b>	1000PERS	<b>173.2</b>
		PC_POP	<b>32</b>
	<b>F</b>	1000PERS	<b>348.3</b>
		PC_POP	<b>44.2</b>

**Table 3. [OV-1b] Relative median at-risk-of poverty gap after social transfers (by age and gender)**

Age	Total	Male	Female
Total	27.4	27.3	27.5
0-17	33.2		
18-64	29.9	30.8	29.3
65+	22.5	19.8	23.5

**Table 4. [OV-11] In-work at-risk-of-poverty rate (by gender)**

Total	Male	Female
7.4	7.7	7.1

**Table 5. [OV-2] Inequality of income distribution S80/20 income quintile share ratio**

<b>S80/S20 quintile share ratio</b>	5.9
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**Table 6. [OV-7a] Relative median income ratio**

<b>Relative median income ratio</b> (Persons aged 65 years and over compared to persons aged between 45 and 54 years)	0.57
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**Table 7. [OV-7b] Aggregate replacement ratio**

Ratio of income from pensions of persons aged between 65 and 74 years and income from work of persons aged between 50 and 59 years	<b>Total</b>	<b>Male</b>	<b>Female</b>
	0.34	0.39	0.34

**Table 8. [OV-C11] At-risk-of-poverty rate before social transfers (by age and gender). %**

<b>Age</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>
Total	38.8	36.8	40.6
Y0_17	34.8		
Y18_64	28.8	27.2	30.4
Y65_MAX	80.1	81.4	79.2

### 1.1.2. Streamlined Social Inclusion Portfolio: Social Inclusion indicators calculated from EU-SILC

**Table 9. [SI-P1] At-risk-of-poverty threshold (illustrative values)**

<b>Type of household</b>	<b>Euro</b>	<b>PPS</b>
One person household	1696.5	3376.5
Household with 2 adults and 2 children younger than 14 years	3562.7	7090.8

**Table 10. [SI-P1a] At-risk-of-poverty rate by gender and selected age groups. %**

<b>Age</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>
Total	21.8	19.8	23.7
Y0_17	24.9		
Y18_64	16.4	15.5	17.2
Y65_MAX	39.3	32	44.2

**Table 11.** [SI-P3] Relative median at-risk-of-poverty gap, by age and gender. %

Age	Total	Male	Female
Total	27.4	27.3	27.5
Y0_17	33.2		
Y18_64	29.9	30.8	29.3
Y65_MAX	22.5	19.8	23.5

**Table 12.** [SI-P8] Proportion of population lacking at least three items in the 'economic strain and durables' dimension of the material deprivation items by age, gender and at-risk-of-poverty status

age	sex	incgrp	unit	n_item	2009
<b>TOTAL</b>	<b>T</b>	A_MD60	1000PERS	GE3	<b>2666.3</b>
		A_MD60	1000PERS	GE4	<b>1808.7</b>
		A_MD60	PC_POP	GE3	<b>44.8</b>
		A_MD60	PC_POP	GE4	<b>30.4</b>
		B_MD60	1000PERS	GE3	<b>1552.4</b>
		B_MD60	1000PERS	GE4	<b>1375.8</b>
		B_MD60	PC_POP	GE3	<b>93.7</b>
		B_MD60	PC_POP	GE4	<b>83</b>
		TOTAL	1000PERS	GE3	<b>4218.7</b>
		TOTAL	1000PERS	GE4	<b>3184.5</b>
		TOTAL	PC_POP	GE3	<b>55.5</b>
		TOTAL	PC_POP	GE4	<b>41.9</b>
	<b>M</b>	A_MD60	1000PERS	GE3	<b>1300.3</b>
		A_MD60	1000PERS	GE4	<b>874.3</b>
		A_MD60	PC_POP	GE3	<b>44</b>
		A_MD60	PC_POP	GE4	<b>29.6</b>
		B_MD60	1000PERS	GE3	<b>677.8</b>
		B_MD60	1000PERS	GE4	<b>602.9</b>
		B_MD60	PC_POP	GE3	<b>93.2</b>
		B_MD60	PC_POP	GE4	<b>82.9</b>
		TOTAL	1000PERS	GE3	<b>1978.2</b>
		TOTAL	1000PERS	GE4	<b>1477.1</b>
		TOTAL	PC_POP	GE3	<b>53.7</b>
		TOTAL	PC_POP	GE4	<b>40.1</b>
	<b>F</b>	A_MD60	1000PERS	GE3	<b>1366</b>
		A_MD60	1000PERS	GE4	<b>934.4</b>
		A_MD60	PC_POP	GE3	<b>45.6</b>
		A_MD60	PC_POP	GE4	<b>31.2</b>
		B_MD60	1000PERS	GE3	<b>874.6</b>
		B_MD60	1000PERS	GE4	<b>772.9</b>
		B_MD60	PC_POP	GE3	<b>94.1</b>
		B_MD60	PC_POP	GE4	<b>83.2</b>
		TOTAL	1000PERS	GE3	<b>2240.5</b>

		TOTAL	1000PERS	GE4	1707.3
		TOTAL	PC_POP	GE3	57.1
		TOTAL	PC_POP	GE4	43.5
<b>Y0_17</b>	<b>T</b>	A_MD60	1000PERS	GE3	437.2
		A_MD60	1000PERS	GE4	279.5
		A_MD60	PC_POP	GE3	45.8
		A_MD60	PC_POP	GE4	29.3
		B_MD60	1000PERS	GE3	298.8
		B_MD60	1000PERS	GE4	273.7
		B_MD60	PC_POP	GE3	94.5
		B_MD60	PC_POP	GE4	86.6
		TOTAL	1000PERS	GE3	736
		TOTAL	1000PERS	GE4	553.2
		TOTAL	PC_POP	GE3	57.9
		TOTAL	PC_POP	GE4	43.6
<b>Y18_64</b>	<b>T</b>	A_MD60	1000PERS	GE3	1740
		A_MD60	1000PERS	GE4	1174.3
		A_MD60	PC_POP	GE3	41.5
		A_MD60	PC_POP	GE4	28
		B_MD60	1000PERS	GE3	763.7
		B_MD60	1000PERS	GE4	681.7
		B_MD60	PC_POP	GE3	93.2
		B_MD60	PC_POP	GE4	83.2
		TOTAL	1000PERS	GE3	2503.6
		TOTAL	1000PERS	GE4	1856
		TOTAL	PC_POP	GE3	50
		TOTAL	PC_POP	GE4	37.1
	<b>M</b>	A_MD60	1000PERS	GE3	844.3
		A_MD60	1000PERS	GE4	564.1
		A_MD60	PC_POP	GE3	40.2
		A_MD60	PC_POP	GE4	26.9
		B_MD60	1000PERS	GE3	357.7
		B_MD60	1000PERS	GE4	321.2
		B_MD60	PC_POP	GE3	92.9
		B_MD60	PC_POP	GE4	83.4
		TOTAL	1000PERS	GE3	1202
		TOTAL	1000PERS	GE4	885.3
		TOTAL	PC_POP	GE3	48.4
		TOTAL	PC_POP	GE4	35.6
	<b>F</b>	A_MD60	1000PERS	GE3	895.7
		A_MD60	1000PERS	GE4	610.2
		A_MD60	PC_POP	GE3	42.9
		A_MD60	PC_POP	GE4	29.2
		B_MD60	1000PERS	GE3	405.9

		B_MD60	1000PERS	GE4	360.5
		B_MD60	PC_POP	GE3	93.5
		B_MD60	PC_POP	GE4	83
		TOTAL	1000PERS	GE3	1301.6
		TOTAL	1000PERS	GE4	970.7
		TOTAL	PC_POP	GE3	51.6
		TOTAL	PC_POP	GE4	38.5
<b>Y65_MAX</b>	<b>T</b>	A_MD60	1000PERS	GE3	489.1
		A_MD60	1000PERS	GE4	354.9
		A_MD60	PC_POP	GE3	60.6
		A_MD60	PC_POP	GE4	44
		B_MD60	1000PERS	GE3	489.9
		B_MD60	1000PERS	GE4	420.3
		B_MD60	PC_POP	GE3	93.9
		B_MD60	PC_POP	GE4	80.6
		TOTAL	1000PERS	GE3	979.1
		TOTAL	1000PERS	GE4	775.3
		TOTAL	PC_POP	GE3	73.7
		TOTAL	PC_POP	GE4	58.4
	<b>M</b>	A_MD60	1000PERS	GE3	226.7
		A_MD60	1000PERS	GE4	161.6
		A_MD60	PC_POP	GE3	61.7
		A_MD60	PC_POP	GE4	44
		B_MD60	1000PERS	GE3	158.8
		B_MD60	1000PERS	GE4	132
		B_MD60	PC_POP	GE3	91.7
		B_MD60	PC_POP	GE4	76.2
		TOTAL	1000PERS	GE3	385.6
		TOTAL	1000PERS	GE4	293.6
		TOTAL	PC_POP	GE3	71.3
		TOTAL	PC_POP	GE4	54.3
	<b>F</b>	A_MD60	1000PERS	GE3	262.4
		A_MD60	1000PERS	GE4	193.3
		A_MD60	PC_POP	GE3	59.8
		A_MD60	PC_POP	GE4	44
		B_MD60	1000PERS	GE3	331.1
		B_MD60	1000PERS	GE4	288.3
		B_MD60	PC_POP	GE3	95.1
		B_MD60	PC_POP	GE4	82.8
		TOTAL	1000PERS	GE3	593.5
		TOTAL	1000PERS	GE4	481.6
		TOTAL	PC_POP	GE3	75.4
		TOTAL	PC_POP	GE4	61.2

**Table 13.** [SI-S1] At-risk-of-poverty rate, by age and gender. %

Age	Total	Male	Female
Total	21.8	19.8	23.7
Y0_17	24.9		
Y18_24	18.3	18.6	18.0
Y25_49	16.0	15.0	17.0
Y50_64	16.1	14.8	17.3
Y65_MAX	39.3	32.0	44.2

**Table 14.** [SI-S1a1] At-risk-of-poverty rate, by household type. %

Household type	%
Total	21.7
Households without dependent children	23.0
One adult younger than 64 years	32.5
One adult older than 65 years	72.1
Single female	67.7
Single male	39.4
Two adults younger than 65 years	13.3
Two adults, at least one aged 65 years and over	35.4
Three or more adults	9.3
Households with dependent children	20.8
Single parent with dependent children	30.9
Two adults with one dependent child	12.9
Two adults with two dependent children	15.5
Two adults with three or more dependent children	67.9
Three or more adults with dependent children	22.0

**Table 15.** [SI-S1b1] At-risk-of-poverty rate, by work intensity of household by gender and selected age. %

age	sex	hhtyp	workint	2009
TOTAL	T	HH_NDCH (Households without dependent children)	MAXWORK	1.8
			SOMEWORK	12.8
			NONEWORK	54.3
		HH_DCH (Households with dependent children)	MAXWORK	4.2
			SOMEGE05	17.5
			SOMELT05	59.3
			NONEWORK	86.9
	M	HH_NDCH (Households without dependent children)	MAXWORK	1.7
			SOMEWORK	12.4

age	sex	hhtyp	workint	2009
			NONEWORK	51.9
		HH_DCH (Households with dependent children)	MAXWORK	4.2
			SOMEGE05	17
			SOMELT05	60
			NONEWORK	89.9
	F	HH_NDCH (Households without dependent children)	MAXWORK	1.8
			SOMEWORK	13.2
			NONEWORK	56.3
		HH_DCH (Households with dependent children)	MAXWORK	4.2
			SOMEGE05	17.9
			SOMELT05	58.7
			NONEWORK	84.1
Y0_17	T	HH_NDCH (Households without dependent children)	MAXWORK	.:u
			SOMEWORK	.:u
			NONEWORK	.:u
		HH_DCH (Households with dependent children)	MAXWORK	5.3
			SOMEGE05	21.4
			SOMELT05	65.4
			NONEWORK	87.7
Y18_64	T	HH_NDCH (Households without dependent children)	MAXWORK	1.6
			SOMEWORK	12.7
			NONEWORK	57.8
		HH_DCH (Households with dependent children)	MAXWORK	3.6
			SOMEGE05	15.8
			SOMELT05	56.8
			NONEWORK	86.2
	M	HH_NDCH (Households without dependent children)	MAXWORK	1.8
			SOMEWORK	12.8
			NONEWORK	59.4
		HH_DCH (Households with dependent children)	MAXWORK	3.3
			SOMEGE05	15

age	sex	hhtyp	workint	2009
			SOMELT05	59.2
			NONEWORK	88.7
	F	HH_NDCH (Households without dependent children)	MAXWORK	1.5
			SOMEWORK	12.6
			NONEWORK	56.8
		HH_DCH (Households with dependent children)	MAXWORK	4
			SOMEGE05	16.5
			SOMELT05	54.7
			NONEWORK	84
Y65_MAX	T	HH_NDCH (Households without dependent children)	MAXWORK	2.6
			SOMEWORK	13.6
			NONEWORK	46.5
		HH_DCH (Households with dependent children)	MAXWORK	4.7
			SOMEGE05	17.8
			SOMELT05	51.1 u
			NONEWORK	89.6 u
	M	HH_NDCH (Households without dependent children)	MAXWORK	1.1
			SOMEWORK	8.6
			NONEWORK	42.2
		HH_DCH (Households with dependent children)	MAXWORK	8.3
			SOMEGE05	12.2
			SOMELT05	41.2:u
			NONEWORK	76.5:u
	F	HH_NDCH (Households without dependent children)	MAXWORK	3.4
			SOMEWORK	18
			NONEWORK	54.5
		HH_DCH (Households with dependent children)	MAXWORK	2.7
			SOMEGE05	22.4
			SOMELT05	60.6:u
			NONEWORK	97.5 u

**Table 16.** [SI-S1c] At-risk-of-poverty rate, by most frequent activity status and by gender. %

<b>Activity status</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>
Employment	7.4	7.7	7.1
Non employment	36.9	35.4	37.8
Unemployment	52.2	59.0	46.1
Retired	36.5	30.1	40.7
Inactive population - Other	24.0	22.4	24.7

**Table 17.** [SI-S1d] At-risk-of-poverty rate, by accommodation tenure status and by gender and selected age group. %

<b>Age</b>	<b>Accommodation status</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>
Total	Owner	21.6	19.6	23.6
	Rent	25.4	24.1	26.8
0_17	Owner	24.4		
	Rent	33.2		
18_64	Owner	16.1	15.2	17.0
	Rent	21.3	21.4	21.3
65_MAX	Owner	39.1	31.9	44.1
	Rent	55.2	60.5	53.5

**Table 18.** [SI-S1e] Dispersion around et-risk-of-poverty threshold [by gender and by gender and selected age group. %

<b>Threshold</b>	<b>Age</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>
40% of median	Total	8.8	8.2	9.3
	0_17	12.4		
	18_64	7.6	7.3	7.9
	65_MAX	9.8	6.3	12.3
50% of median	Total	15.0	13.4	16.5
	0_17	18.1		
	18_64	11.4	10.9	11.9
	65_MAX	25.5	18.4	30.3
70% of median	Total	28.7	26.6	30.7
	0_17	30.5		
	18_64	21.7	20.6	22.7
	65_MAX	53.5	48.3	57.1

**Table 19.** [SI-S4] Mean number of items lacked by persons considered as deprived in the 'economic strain and durables' dimension by age, gender and at-risk-of-poverty status

age	Sex	Total	Male	Female
<b>TOTAL</b>	A_MD60	4.2	4.2	4.2
	B_MD60	5.4	5.4	5.3
	TOTAL	4.6	4.6	4.6
<b>Y0_17</b>	A_MD60	4.1		
	B_MD60	5.7		
	TOTAL	4.8		
<b>Y18_64</b>	A_MD60	4.2	4.2	4.2
	B_MD60	5.5	5.6	5.4
	TOTAL	4.6	4.6	4.6
<b>Y65_MAX</b>	A_MD60	4.4	4.3	4.4
	B_MD60	4.9	4.8	5
	TOTAL	4.6	4.5	4.7

**Table 20.** [SI-C1] Inequality of income distribution S80/20 income quintile share ratio

<b>S80/S20 quintile share ratio</b>	5.9
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**Table 21.** [SI-C2] Inequality of income distribution Gini coefficient

<b>Gini coefficient</b>	33.5
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**Table 22.** [SI-C6] At-risk-of-poverty rate before social transfers, by gender and selected age groups (except pensions).%

Age	Total	Male	Female
Total	26.4	24.5	28.2
0_17	30.1		
18_64	20.8	19.9	21.7
Y65_MAX	44.0	36.8	49.0

**Table 23.** [SI-C8] In-work at-of-risk-of-poverty rate (by full time/part work).%

Type of work	%
Full time	6.2
Part time	24.4

### 1.1.3. Portfolio of Pension Indicators calculate from SILC – Adequacy of pensions

**Table 24.** [PN-P1] At-risk-of-poverty rate of older people. %

Age	Total	Male	Female
0_64	18.1	17.7	18.5
65_MAX	39.3	32.0	44.2

**Table 25.** [PN-P2] Relative median income ratio of elderly people (65+)

	Total	Male	Female
Relative median income ratio of elderly people (65+)	0.57	0.62	0.53

**Table 26.** [PN-P3] Aggregate replacement ratio.

	Total	Male	Female
Aggregate replacement ratio	0.34	0.39	0.34

**Table 27.** [PN-S1] At-risk-of-poverty rate of the older people. %

Age	Total	Male	Female
0_59	17.8	17.7	17.8
0-74	19.7	18.6	20.7
60+	34.6	27.5	39.7
75+	47.1	37.5	53.0

**Table 28.** [PN-S2] Relative median income ratio of elderly people (60+)

	Total	Male	Female
Relative median income ratio of elderly people (60+)	0.61	0.67	0.56

**Table 29.** [PN-S4] Inequality of income distribution S80/20 income quintile share ratio.

	Age	S80/20
Inequality of income distribution S80/20 income quintile share ratio	0 - 64	6.0
	65 +	4.0

**Table 30.** [PN-S5] Relative median at-risk-of-poverty gap of elderly people. %

Age	Total	Male	Female
65+	22.5	19.8	23.5
75+	22.9	19.9	24.5

**Table 31.** [SI-S6] At risk of poverty rate for pensioners. %

	Total	Male	Female
At risk of poverty rate for pensioners	36.5	30.1	40.7

**Table 32.** [PN-S7] At risk of poverty rate of older people by accommodation tenure status. %

Accommodation tenure status	Age	Total
Owner	60+	34.4
Rent		45.5
Owner	65+	39.1
Rent		55.2
Owner	75+	47.0
Rent		62.4

**Table 33.** [PN-S8] Dispersion around the at-risk-of-poverty threshold. %

Threshold	Age	%
50% of median	60+	22.5
	65+	25.5
	75+	31.7
70% of median	60+	47.4
	65+	53.5
	75+	60.7

**Table 34.** [PN-P9] Gender differences in the at risk of poverty rate of older people.

Age	Gender differences
0-64	-8.9
65+	-25.6

**Table 35.** [PN-P10] Gender differences in the relative median income ratio of older people.

Household type	Gender differences
Single person (Persons aged 65 years and over compared to persons aged less than 65 years)	-0.01

**Table 36.** [PN-S10] Gender differences in the relative median income ratio of older people.

Household type	Gender differences
Single person (Persons aged 60 years and over compared to persons aged less than 60 years)	0.08
Single person (Persons aged 70 years and over compared to persons aged less than 75 years)	-0.13

## 1.2. Other indicators

### 1.2.1. Equivalised disposable income

	National currency	Euro
Mean equivalised disposable income	6410.98	3277.93

## 2. ACCURACY

### 2.1. Sample design

#### 2.1.1. Type of sampling design

Four-year rotation panel is used for EU-SILC in Bulgaria. It contains 4 independent sub-samples and follows stratified two-stage cluster sampling design.

Separated strata are formed based on the country administrative-territorial division. All private households in the country are covered.

#### 2.1.2. Sampling units

Two stage sampling on a territorial principle is implemented as follows:

- on the first stage - the census enumeration units (PSU) are selected;
- on the second stage - the households are identified.

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

The general population and administrative-territorial division by statistical districts of the settlement, comprises all the households in the country. Population census 2001 data base was used as sampling frame. Sampling frame was updated according to the administrative changes occurred in human settlements statute in Bulgaria – some villages was recognized as towns; transition of municipalities or settlements from one administrative district to another.

The sample is stratified by administrative-territorial districts in the country (NUTS3) and the household's location. As a result 56 strata are formed (28 of urban and 28 of rural population). Municipalities and settlements are ranged according to the number of their population within each stratum.

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

The necessary sample size for Bulgaria is determined in the Annex II of the Framework Regulation (1177/2003) to guarantee an effective sample size with regard to the at-risk-of-poverty indicator of 4500 households. The longitudinal sample for two successive waves should comprise at least 3500 households.

The total gross sample size (number of households) has been made analyzing the non-response rates and design effects of the previous EU-SILC surveys.

The sampling frame is divided into 56 strata. Different response rates within the strata are obtained in 2006 and 2007, therefore a decision is taken to oversample strata in which lower response rates are expected. Data from 2008 EU-SILC is used for oversampling.

Hence, the total sample size in 2009 is 7354 households:

- 4439 “old” (longitudinal 2006, 2007 and 2008),
- 2915 “new” households (drawn in 2009).

### **2.1.5. Sample selection schemes**

The number of census enumeration units (PSU) is calculated for each strata included in the sample.

The clusters on the first stage are chosen with probability proportion to population size (number of households) in the PSUs. Systematic sampling of secondary units (households) in each primary unit Selected is applied. Each PSU contains 5 households.

### **2.1.6. Sample distribution over time**

As the survey is annual, the sample of households is not distributed over time. The survey is carried from April to July of the year 2009 with reference period of data the previous year (2008).

**Table 38.** Sample distribution (household questionnaire) over time

Month	Data	Number	%
April	21 – 31	271	4.8
May	1 – 10	180	3.2
	11 – 20	850	15.0
June	21 – 31	1112	19.6
	1 – 10	1092	19.3
	11 – 20	978	17.3
July	21 – 31	998	17.6
	1 – 10	188	3.3
	<b>Total</b>	<b>5669</b>	<b>100.00</b>

### 2.1.7. Renewal of sample: rotational groups

Bulgaria applies a rotational panel in which the sample is divided into four sub-samples. Each of them is representing the whole population. Each year one of the rotation groups is dropped out and a new one is added to the sample.

2006 is the first year of EU-SILC in Bulgaria. The 6120 selected households are divided into 4 rotational groups with equal size. In 2007 the first rotational group (with a size 1530) is dropped out and 1530 new households are chosen. The rotational group 2 (with a size 1451) is dropped out in 2008 and 2935 new households are added as rotational group 6. In 2009 the third rotational group (with a size 1072) is dropped out and 2915 new households are added as rotational group 7.

**Table 39.** Size of rotational groups (selected sample)

Rotational group	Year of survey			
	2006	2007	2008	2009
R1	1530	-	-	-
R2	1530	1451*	-	-
R3	1530	1444*	1072	-
R4	1530	1445*	1079	894
R5		1530	1444*	974
R6			2935	2571*
R7				2915
<b>Total sample (households)</b>	<b>6120</b>	<b>5870</b>	<b>6530</b>	<b>7354</b>

\*Including households which are not interviewed during the previous year

### 2.1.8. Weightings

Weighting scheme was generally in line with documents “DESCRIPTION OF TARGET VARIABLES: Cross-sectional and Longitudinal 2008 operation”, “CROSS-SECTIONAL WEIGHTING: FROM SECOND YEAR ON”, “EU-SILC weighting procedures: an outline”, etc.

This section will describe in detail the actual algorithm used.

Weighting factors were calculated as required to take into account the units' probability of selection, non-response and to adjust the sample to external data relating to the distribution of households and persons in the target population, such as sex and age, residence or region (NUTS II).

In what follows we describe the procedure of obtaining cross-sectional weights of 2009 for each panel.

▪ **Renewal of sample: rotational groups**

Starting from 2006 the selected sample was divided into four sub-samples, selected independently. For the 2007 survey one sub-sample is eliminated and replaced with a new one (1st rotational group from 2006). For the 2008 survey another sub-sample was replaced (2nd rotational group from 2007) and for the 2009 survey another sub-sample was replaced (3th rotational group from 2008).

▪ **Households started in 2009 (3th rotational group)**

Design weights

For a first year of the panel, the design weights are equal to the inverses of the corresponding household inclusion probabilities. These weights are household design weights DB080.

Non-response adjustment

Correction for non-response was done with design weights computed at the previous step.

A classical procedure consists in modifying the design weights by a factor inversely proportional to the response rate within each "homogeneous group". Coefficients of these corrections were computed separately according to classes of locality as ratios: sum of design weights of selected units to the sum of design weights of responding units.

Adjustments to external data (calibration)

Weights, calculated at the previous step are adjusted to external sources. Calibration is done on individual-level data, imposing equality of g-weights for individuals in the same household. We used truncated linear function in order to limit g-weights close enough to 1.

To do this, the information about individuals was used – the number of persons by:

- Region (NUTS 2)
- Residence – urban/rural
- Age groups and gender

This information was derived from the demographic statistics.

Final cross-sectional weights

After calibration we get the final household cross-sectional weight DB090.

Personal cross-sectional weight of a person (RB050) is equal to the cross-sectional weight DB090 of its household.

Personal cross-sectional weights for all household members aged 16 and over (PB040) are obtained by correction for within household non-response of the RB050. After that the same calibration method as described above is used in order to adjust the weights to external sources.

▪ **Households started in 2008 (2nd rotational group)**

Base weights

The weights for the 2008 sub-sample are obtained with the following procedure.

Correction for attrition

To obtain base weights for 2009 we now need to correct for attrition that has happened in the sub-samples of the so called sample persons i.e. those who were in the surveyed sample at the age of 14 and over in 2008 and who should be surveyed in 2009.

Prior to any corrections we need to exclude from consideration persons that became out-of-scope in 2009 as they are not considered as non-response. Out-of-scope are persons that were dead by 2009, became institutionalized or had left the country for longer period.

Note the following “special cases” of base weights calculations:

- children born to sample women get the base weight of the mother;
- persons moving into sample household from outside the survey population or so called “co-residents” receive the average of base weights of existing household members;
- persons moving into sample households from other non-sample households in the population receive zero base weight.

Average of these weights over all household members (including co-residents) is assigned to each member.

Adjustments to external data (calibration)

The last stage of calculations consisted in combining the four independent subsamples, applying the above described calibration technique.

As a result, household cross-sectional weight DB090 and personal cross-sectional weight RB050 are obtained for individuals from the three sub-samples surveyed for the second time and from the one sub-sample surveyed for the first time.

Final cross-sectional weights

The household weights resulting from this procedure of calibration are the household cross-sectional weights as in the second year of the survey.

Personal cross-sectional weights for all household members aged 16 and over (PB040) are obtained by correction for within household non-response of the RB050. After that the same calibration method as described above is used in order to adjust the weights to external sources.

▪ **Households started in 2007 (1st rotational group)**

Base weights

The weights for the 2007 sub-sample are obtained with the following procedure.

Correction for attrition

To obtain base weights for 2009 we now need to correct for attrition that has happened in the sub-samples of the so called sample persons i.e. those who were in the surveyed sample at the age of 14 and over in 2007 and who should be surveyed in 2009.

Prior to any corrections we need to exclude from consideration persons that became out-of-scope in 2009 as they are not considered as non-response. Out-of-scope are persons that were dead by 2009, became institutionalized or had left the country for longer period.

For the sub-sample started in 2007 (surveyed for the third time) re-entries occurrence was taken into account i.e. persons who were surveyed in 2007, not surveyed in 2008, and again surveyed in 2009 year. The base weights for such persons were computed by correction of base weights.

Note the following “special cases” of base weights calculations:

- children born to sample women get the base weight of the mother;
- persons moving into sample household from outside the survey population or so called “co-residents” receive the average of base weights of existing household members;
- persons moving into sample households from other non-sample households in the population receive zero base weight.

Average of these weights over all household members (including co-residents) is assigned to each member.

#### Adjustments to external data (calibration)

The last stage of calculations consisted in combining the four independent subsamples, applying the above described calibration technique.

As a result, household cross-sectional weight DB090 and personal cross-sectional weight RB050 are obtained for individuals from the three sub-samples surveyed for the second time and from the one sub-sample surveyed for the first time.

#### Final cross-sectional weights

The household weights resulting from this procedure of calibration are the household cross-sectional weights as in the second year of the survey.

Personal cross-sectional weights for all household members aged 16 and over (PB040) are obtained by correction for within household non-response of the RB050. After that the same calibration method as described above is used in order to adjust the weights to external sources.

#### ▪ **Households started in 2006 (4th rotational group)**

##### Base weights

The weights for the 2006 sub-sample are obtained with the following procedure.

##### Correction for attrition

To obtain base weights for 2009 we now need to correct for attrition that has happened in the sub-samples of the so called sample persons i.e. those who were in the surveyed sample at the age of 14 and over in 2006 and who should be surveyed in 2009.

Prior to any corrections we need to exclude from consideration persons that became out-of-scope in 2009 as they are not considered as non-response. Out-of-scope are persons that were dead by 2009, became institutionalized or had left the country for longer period.

For the sub-sample started in 2006 (surveyed for the fourth time) re-entries occurrence was taken into account i.e. persons who were surveyed in 2007, not surveyed in 2008, and again surveyed in 2009 year. The base weights for such persons were computed by correction of base weights.

Note the following “special cases” of base weights calculations:

- children born to sample women get the base weight of the mother;
- persons moving into sample household from outside the survey population or so called “co-residents” receive the average of base weights of existing household members;
- persons moving into sample households from other non-sample households in the population receive zero base weight.

Average of these weights over all household members (including co-residents) is assigned to each member.

#### Adjustments to external data (calibration)

The last stage of calculations consisted in combining the four independent subsamples, applying the above described calibration technique.

As a result, household cross-sectional weight DB090 and personal cross-sectional weight RB050 are obtained for individuals from the three sub-samples surveyed for the second time and from the one sub-sample surveyed for the first time.

#### Final cross-sectional weights

The household weights resulting from this procedure of calibration are the household cross-sectional weights as in the second year of the survey.

Personal cross-sectional weights for all household members aged 16 and over (PB040) are obtained by correction for within household non-response of the RB050. After that the same calibration method as described above is used in order to adjust the weights to external sources.

### **2.1.9. Substitutions**

No substitution was applied if the household did not enter the survey.

## **2.2. Sampling errors**

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

Computations of standard errors were carried out using JRR - SAS programs for variance estimation of the measures required for Intermediate quality Report

subpopulation	est	stat_se	kish	n
1 HCR, after social transfers: Age 0-15	0.2452	0.0135	1.10	1 840
2 HCR, after social transfers: Age 16-24	0.2067	0.0130	1.09	1 680
3 HCR, after social transfers: Age 25-49	0.1626	0.0084	1.09	4 632
4 HCR, after social transfers: Age 50-64	0.1650	0.0133	1.12	3 592
5 HCR, after social transfers: Age more then 64	0.3914	0.0402	1.13	3 303
6 HCR, after social transfers: Male	0.1994	0.0137	1.11	7 190
7 HCR, after social transfers: Female	0.2394	0.0113	1.10	7 857
8 HCR, after social transfers: Male Age 0-15	0.2568	0.0159	1.12	962
9 HCR, after social transfers: Male Age 16-24	0.2059	0.0199	1.09	896
10 HCR, after social transfers: Male Age 25-49	0.1530	0.0086	1.08	2 322
11 HCR, after social transfers: Male Age 50-64	0.1511	0.0170	1.13	1 696
12 HCR, after social transfers: Male Age more then 64	0.3184	0.0463	1.11	1 314
13 HCR, after social transfers: Female Age 0-15	0.2329	0.0154	1.07	878
14 HCR, after social transfers: Female Age 16-24	0.2074	0.0144	1.09	784
15 HCR, after social transfers: Female Age 25-49	0.1725	0.0091	1.10	2 310
16 HCR, after social transfers: Female Age 50-64	0.1774	0.0118	1.11	1 896
17 HCR, after social transfers: Female Age more then 64	0.4417	0.0367	1.14	1 989
18 HCR, after social transfers: Male Age more then 16	0.1890	0.0151	1.10	6 228
19 HCR, after social transfers: Female Age more then 16	0.2404	0.0119	1.11	6 979
20 HCR, after social transfers: Male Age 16-64	0.1619	0.0106	1.10	4 914
21 HCR, after social transfers: Female Age 16-64	0.1799	0.0076	1.11	4 990
22 HCR, after social transfers: Male Age 0-64	0.1789	0.0104	1.11	5 876
23 HCR, after social transfers: Female Age 0-64	0.1889	0.0081	1.10	5 868
24 HCR, after social transfers: One person hh under 65 years	0.3244	0.0321	1.19	437
25 HCR, after social transfers: One person hh 65 years and over	0.7204	0.0221	1.17	880
26 HCR, after social transfers: One person hh male	0.3940	0.0263	1.17	387
27 HCR, after social transfers: One person hh female	0.6749	0.0272	1.27	930
28 HCR, after social transfers: One person hh total	0.5822	0.0234	1.22	1 317
29 HCR, after social transfers: 2 adults, no dependant children, both adults under 65 years	0.1369	0.0250	1.15	1 594
30 HCR, after social transfers: 2 adults, no dependant children, at least one adult 65 years or more	0.3539	0.0690	1.13	1 830
31 HCR, after social transfers: Other hh without dependant children	0.0868	0.0075	1.03	2 607
32 HCR, after social transfers: Single parent hh,one or more dependant children	0.2761	0.0282	1.09	263
33 HCR, after social transfers: 2 adults, one dependant child	0.1227	0.0224	1.17	1 401
34 HCR, after social transfers: 2 adults, two dependant children	0.1575	0.0202	1.07	1 476
35 HCR, after social transfers: 2 adults, three or more dependant children	0.7003	0.0446	1.13	316
36 HCR, after social transfers: Other hh with dependant children	0.2229	0.0160	1.10	4 223
37 HCR, after social transfers: Hh without dependant children	0.2312	0.0209	1.09	7 348
38 HCR, after social transfers: Hh with dependant children	0.2102	0.0103	1.10	7 679
39 HCR, after social transfers: Accommodation tenure status: Owner or rent free	0.2179	0.0124	1.10	14 491
40 HCR, after social transfers: Accommodation tenure status: Tenant	0.2690	0.0321	1.07	556

41 HCR, after social transfers: Main activity status: Employed	0.0922	0.0062	1.11	6 171
42 HCR, after social transfers: Main activity status: Unemployed	0.4548	0.0226	1.14	1 347
43 HCR, after social transfers: Main activity status: Retired	0.3560	0.0343	1.13	4 547
44 HCR, after social transfers: Main activity status: Other inactive	0.2313	0.0119	1.09	2 982
45 HCR, after social transfers: Main activity status: Employed, Male	0.0928	0.0074	1.09	3 320
46 HCR, after social transfers: Main activity status: Unemployed, Male	0.4822	0.0253	1.14	640
47 HCR, after social transfers: Main activity status: Retired, Male	0.2934	0.0404	1.13	1 801
48 HCR, after social transfers: Main activity status: Other inactive, Male	0.2414	0.0176	1.11	1 429
49 HCR, after social transfers: Main activity status: Employed, Female	0.0915	0.0063	1.13	2 851
50 HCR, after social transfers: Main activity status: Unemployed, Female	0.4307	0.0256	1.15	707
51 HCR, after social transfers: Main activity status: Retired, Female	0.3986	0.0308	1.14	2 746
52 HCR, after social transfers: Main activity status: Other inactive, Female	0.2226	0.0121	1.07	1 553
53 HCR, after social transfers: Work intensity: hh without dependent children, w=0	0.8385	0.0323	1.07	423
54 HCR, after social transfers: Work intensity: hh without dependent children, 0<w<1	0.2322	0.0149	1.11	5 225
55 HCR, after social transfers: Work intensity: hh without dependent children, w=1	0.0336	0.0083	0.98	2 031
56 HCR, after social transfers: Work intensity: hh with dependent children, w=0	0.5355	0.0514	1.14	3 035
57 HCR, after social transfers: Work intensity: hh with dependent children, 0<w<0.5	0.2610	0.0284	1.09	485
58 HCR, after social transfers: Work intensity: hh with dependent children, 0.5<=w<1	0.0767	0.0153	1.13	1 700
59 HCR, after social transfers: Work intensity: hh with dependent children, w=1	0.0237	0.0046	1.23	2 128
60 HCR, before social transfers including pensions: Male Age 0-15	0.3157	0.0163	1.13	962
61 HCR, before social transfers including pensions: Male Age 16-24	0.2417	0.0146	1.12	896
62 HCR, before social transfers including pensions: Male Age 25-49	0.1932	0.0085	1.10	2 322
63 HCR, before social transfers including pensions: Male Age 50-64	0.2002	0.0095	1.17	1 696
64 HCR, before social transfers including pensions: Male Age more than 64	0.3713	0.0139	1.13	1 314
65 HCR, before social transfers including pensions: Female Age 0-15	0.2713	0.0161	1.08	878
66 HCR, before social transfers including pensions: Female Age 16-24	0.2499	0.0155	1.10	784
67 HCR, before social transfers including pensions: Female Age 25-49	0.2098	0.0092	1.12	2 310
68 HCR, before social transfers including pensions: Female Age 50-64	0.2274	0.0096	1.13	1 896
69 HCR, before social transfers including pensions: Female Age more than 64	0.4904	0.0122	1.15	1 989
70 HCR, before social transfers excluding pensions: Male Age 0-15	0.3567	0.0173	1.13	962
71 HCR, before social transfers excluding pensions: Male Age 16-24	0.2857	0.0159	1.11	896

72 HCR, before social transfers excluding pensions: Male Age 25-49	0.2544	0.0097	1.10	2 322
73 HCR, before social transfers excluding pensions: Male Age 50-64	0.3092	0.0116	1.16	1 696
74 HCR, before social transfers excluding pensions: Male Age more than 64	0.8108	0.0107	1.18	1 314
75 HCR, before social transfers excluding pensions: Female Age 0-15	0.3134	0.0170	1.08	878
76 HCR, before social transfers excluding pensions: Female Age 16-24	0.3085	0.0173	1.11	784
77 HCR, before social transfers excluding pensions: Female Age 25-49	0.2600	0.0100	1.11	2 310
78 HCR, before social transfers excluding pensions: Female Age 50-64	0.3872	0.0120	1.17	1 896
79 HCR, before social transfers excluding pensions: Female Age more than 64	0.7921	0.0097	1.22	1 989
80 Median equivalised disposable income	5 515.54	149.86	1.16	15 047
81 At-risk-of-poverty threshold, one person hh	1 756.18	55.99	1.20	1 317
82 At-risk-of-poverty threshold, hh 2 adults 2 dependent children	3 633.91	53.57	1.11	1 476
83 S80/S20	6.0225	0.2581	1.14	15 047
84 Relative median at-risk-of-poverty gap: Male Age 0-15	0.3472	0.0216	1.13	962
85 Relative median at-risk-of-poverty gap: Male Age 16-24	0.3438	0.0991	1.13	896
86 Relative median at-risk-of-poverty gap: Male Age 25-49	0.3343	0.0158	1.13	2 322
87 Relative median at-risk-of-poverty gap: Male Age 50-64	0.2757	0.0767	1.19	1 696
88 Relative median at-risk-of-poverty gap: Male Age more than 64	0.1990	0.0124	1.14	1 314
89 Relative median at-risk-of-poverty gap: Female Age 0-15	0.3213	0.0794	1.12	878
90 Relative median at-risk-of-poverty gap: Female Age 16-24	0.3749	0.0385	1.13	784
91 Relative median at-risk-of-poverty gap: Female Age 25-49	0.3201	0.0299	1.14	2 310
92 Relative median at-risk-of-poverty gap: Female Age 50-64	0.2665	0.0160	1.19	1 896
93 Relative median at-risk-of-poverty gap: Female Age more than 64	0.2329	0.0179	1.15	1 989
94 Median income below the at-risk-of-poverty threshold	6 412.38	72.82	1.16	14 973
95 HCR P.L.as 50% median	0.1522	0.0063	1.10	15 047
96 HCR P.L.as 70% median	0.2887	0.0083	1.12	15 047
97 HCR P.L.as 40% median	0.0911	0.0111	1.11	15 047
98 Gini coefficient	0.3318	0.0040	1.20	14 973
99 Mean euivalised disposable income	6 412.38	67.61	1.18	14 973

## 2.3. Non-sampling errors

### 2.3.1. Sampling frame and coverage errors

EU-SILC in Bulgaria is carried out applying the two-stage stratified sampling with PSU (census enumerated units) and the final unit - household. The samples for EU-SILC 2009 as a previous survey years is selected from the sampling frame based on the 2001 Population census data base. The data base includes all private households and their current members residing in the territory. Persons living in collective households and in institutions are excluded from the target population. Student's and worker's hostels are excluded at the first stage of selection of PSU, because student's and worker's households rarely stay on the same addresses and are difficult for tracing.

The frame is regularly updated according to the administrative changes done only.

Addresses and household data within the selected PSUs are updated according to the Information System “Demography” data (ISD). Elaboration of the ISD started in 2005 and it is used officially since 2007. This system includes data from 1992 and 2001 Population and housing censuses and from the current demographic statistics since 1995 up to now. Data source for the natural movement and the internal migration of the population is the National Civil Registration System.

As there is a period of 2 months between the selection of households and the start of survey, or the data in ISD is not updated yet (sometimes the delay is from 6 months to 1 year), over-coverage, under-coverage and misclassification may occur.

Percentage of the non-contacted addresses out of the total selected addresses by the reasons: address does not exist or non-residential address or unoccupied (DB120=23) is 0.2.

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

#### 2.3.2.1. Measurement errors

The questionnaire for EU-SILC 2009 was developed on the basis of the Commission Regulation (EC) 362/2008, EU-SILC065 (2009 operation) and LC-ILC-DEPRIV 17/08/EN REV– Description of secondary target variables and corresponding questionnaire: EU-SILC 2009 Module.

EU-SILC survey in 2009 was carried out in April/July. EU-SILC, is a non-obligatory, representative survey of individual households, performed by a face-to-face interview technique with the use of PAPI method. Two types of questionnaires: individual and household questionnaire were applicable. The fieldwork and all project implementation activities was done by NSI with annual grants from EC.

The training ship for interviewers was held on 6 – 9 April 2009. All responsible persons (supervisors) for the survey from each regional statistical office, interviewer and persons responsible for methodology from NSI took part in it. Household’s registries and person’s ID were marked with special attention. The training program included methodology, specific areas of income variables and new module 2009, which were represented to the participants. Within the participants of seminar a discussion, related to the problems in collecting data and specific questions, which required legislation knowledge was organized. At the end of the course different examples of households and income sources were presented to the attendants and evaluation of the training was done.

Some of the households declared high income values, they confessed that their social insurance contribution is done at lower amount. The data collected from the survey were compared to the data obtained from the registers. Some of the persons, who according to the register receive minimum incomes, defined themselves as unemployed or non-active in the survey, because they assess their current activity as temporary and did not indicate their income.

### 2.3.2.2. Processing errors

#### *Data-entry phase*

EU-SILC data were collected with two kinds of paper questionnaires – household and individual questionnaires. The data entry program was developed in Blaise and both questionnaires were incorporated into one Blaise form.

A large number of edit checks (hard and soft) between questions in both questionnaires were implemented for ensuring data correctness and consistency. For example, two external files (at household and personal level) were used for verifying correctness of identifiers and for checking against previously collected information – household composition and questions such as day, month and year of birth, sex etc. for those individuals who are not observed for the first time. All gross income values were checked if they are equal or greater than net values (hard error) and if net values are greater or equal than gross values divided by two (soft error). For checking purposes, lower and upper boundaries, narrower than absolute, were set for most of the questions on income (e.g. social benefits, pensions) based upon national legislation. External files that hold valid ISCO-88 and NACE codes and descriptions were included.

During data entry phase, data entry operators were enabled to generate progress report by using a manipula program. The report contained form IDs, form status, number of errors and number of suppressed signals.

#### *Data processing phase*

After data-entry phase, further data checking and editing was performed by SILC unit, using manipula programs and SPSS scripts.

Initially, data were checked whether all questionnaires have been entered and completed. Special attention was paid to split-off households. Next, all suppressed signals and remarks made by data entry operators were checked up and relevant corrections were made if necessary. After that, data were converted to SPSS data sets. Extreme income values were compared with data provided by National Social Security Institute or administrative data sources and data from previous waves, where possible and corrected if necessary. All SILC target variables were computed after checking original variable(s). Finally, four transmission files were converted to .csv format and verified by Eurostat` SAS checking programs.

The rates of failed edits for income variables are not available.

### 2.3.3. Non-response errors

#### 2.3.3.1. Achieved sample size

**Table 40.** *Number of households for which an interview is accepted for the database. Rotational group breakdown and total*

Rotational group	First wave	Households	%
1	2007	937	16.5
2	2008	1858	32.8
3	2009	2015	35.5
4	2006	859	15.2
Total		5669	100

**Table 41.** Number of persons of 16 years or older who are members of the households for which the interview is accepted for the database, and who completed a personal interview. Rotational group breakdown and total

Rotational group	First wave	Households' members	%
1	2007	2 396	18.0
2	2008	4 165	31.3
3	2009	4 560	34.2
4	2006	2 194	16.5
Total		13 315	100

### 2.3.3.2. Unit non-response

#### New replication (3<sup>rd</sup> rotational group)

- Household non-response rates  $NRh = [1 - (Ra * Rh)] * 100$ ,

$$Ra = 0.95048$$

$$Rh = 0.72901$$

$$NRh = 30.7$$

- Individual non-response rates  $NRp = (1 - Rp) * 100$ ,

$$Rp = 0.99585$$

$$NRp = 0.41$$

- Overall individual non-response rates  $*NRp = [1 - (Ra * Rh * Rp)] * 100$ ,

$$*NRp = 31.0$$

#### Total sample

- Household non-response rates  $NRh = [1 - (Ra * Rh)] * 100$ ,

$$Ra = \frac{\text{Number of addresses successfully contacted}}{\text{Number of valid addresses selected.}} = \frac{[DB120 = 11] 7076}{[DB120 = all] - [DB120 = 23] 7354 - 48} = 0.96852$$

$$Ra = 0.968$$

Ra – the address contact rate

$$Rh = \frac{\text{Number of household interviews completed and accepted for the database}}{\text{Number of eligible households at contacted addresses.}} = \frac{[DB135=1] 5669}{[DB130=all] 7076} = 0.80116$$

$$Rh = 0.801$$

Rh – the proportion of complete household interviews accepted for the database

$$NRh = (1 - 0.968 * 0.801) * 100 = 22.41\%$$

▪ *Individual non-response rates*  $NRp = (1 - Rp) * 100$ ,

$$Rp = \frac{\text{Number of personal interview completed}}{\text{Number of eligible individuals}} = \frac{13,315}{13,375} = 0.99551$$

Rp – the proportion of complete personal interviews within the households accepted for the database

$$NRp = (1 - 0.995) * 100 = 0.45\%$$

▪ *Overall individual non-response rates*  $*NRp = [1 - (Ra * Rh * Rp)] * 100$ ,

$$*NRp = [1 - (0.968 * 0.801 * 0.995)] * 100 = 22.75\%;$$

- *Information on non-response*

		total	Rotation 1	Rotation 2	Rotation 3	Rotation 4
All households	Ra	0.96852	0.995855	0.970554	0.950481	0.992099
	Rh	0.80116	0.975026	0.751618	0.729016	0.977247
	Rp	0.99551	0.997087	0.994746	0.995851	0.994560
	NRp	<b>0.45</b>	<b>0.29</b>	<b>0.53</b>	<b>0.41</b>	<b>0.54</b>
	*NRp	<b>22.75</b>	<b>3.18</b>	<b>27.43</b>	<b>31.00</b>	<b>3.57</b>

Ra – the address contact rate

Rh – the proportion of complete household interviews accepted for the database

Rp – the proportion of complete personal interviews within the households accepted for the database

NRp - Individual non-response rates

\*NRp - Overall individual non-response rates

### 2.3.3.3. Distribution of households by ‘record of contact at address’ (DB120), by ‘household questionnaire result’ (DB130) and by ‘household interview acceptance’ (DB135)

*Table 42. Distribution of households by ‘record of contact at address’ (DB120)*

	Number of households	%
<b>Total (DB120 =11 to 23)</b>	<b>7354</b>	<b>100</b>
Address contacted (DB120 =11)	7076	96.2
Address non-contacted (DB120 =21 to 23)	278	3.8
<b>Total address non-contacted (DB120 =21 to 23)</b>	<b>278</b>	<b>100</b>
Address cannot be located (DB120 =21)	32	11.5
Address unable to access (DB120 =22)	198	71.2
Address does not exist (DB120 =23)	48	17.3

**Table 43.** Distribution of households by 'record of contact at address' (DB120) for each rotational group

	Rotation 1	Rotation 2	Rotation 3	Rotation 4
Total (DB120 =11 to 23)	<b>974</b>	<b>2571</b>	<b>2915</b>	<b>894</b>
Address contacted (DB120 =11)	961	2472	2764	879
Address non-contacted (DB120 =21 to 23)	<b>13</b>	<b>99</b>	<b>151</b>	<b>15</b>
Address cannot be located (DB120 =21)	0	6	23	3
Address unable to access (DB120 =22)	4	69	121	4
Address does not exist (DB120 =23)	9	24	7	8

**Table 44.** Distribution of households by 'household questionnaire result' (DB130) and by 'household interview acceptance' (DB135)

	Number of households	%
<b>Total (DB130 =all)</b>	<b>7076</b>	<b>100</b>
Household questionnaire completed (DB130 =11)	5672	80.2
Interview not completed (DB130 =21 to 24)	1404	19.8
<b>Total interview not completed (DB130 =21 to 24)</b>	<b>1404</b>	<b>100</b>
Refusal to co-operate (DB130 =21)	692	49.3
Entire household temporarily away (DB130 =22)	465	33.1
Household unable to respond (DB130 =23)	159	11.3
Other reasons	88	6.3
<b>Household questionnaire completed (DB135=1+2)</b>	<b>5672</b>	<b>100</b>
Interview accepted for database (DB135=1)	5669	99.9
Interview rejected (DB135=2)	3	0.1

**Table 45.** Distribution of households by 'household questionnaire result' (DB130) and by 'household interview acceptance' (DB135) for each rotational group

	Rotation 1	Rotation 2	Rotation 3	Rotation 4
Total (DB130 =all)	<b>961</b>	<b>2472</b>	<b>2764</b>	<b>879</b>
Household questionnaire completed (DB130 =11)	937	1859	2016	860
Interview not completed (DB130 =21 to 24)	24	613	748	19
Refusal to co-operate (DB130 =21)	10	315	362	5
Entire household temporarily away (DB130 =22)	5	196	253	11
Household unable to respond (DB130 =23)	2	73	84	0
Other reasons	7	29	49	3
Household questionnaire completed (DB135=1+2)	<b>937</b>	<b>1859</b>	<b>2016</b>	<b>860</b>
Interview accepted for database (DB135=1)	937	1858	2015	859
Interview rejected (DB135=2)	0	1	1	1

#### 2.3.3.4. Distribution of substituted units

No substitution was applied in our survey

### 2.3.3.5. Item non-response

**Table 46.** *Item non-response (income variables)*

Income variables	(A) % of households having received an amount	(B) % of households with missing values	(C) % of households with partial information
Total household gross income (HY010)	29.7	3.1	67.2
Total disposable household income (HY020)	28.5	1.3	70.1
Total disposable household income before social transfers except old-age and survivor's benefits (HY022)	30.6	2.5	66.3
Total disposable household income before social transfers including old-age and survivor's benefit (HY023)	44.3	3.8	46.9
<b><u>Net income components at household level</u></b>			
Income from rental of a property or land (HY040N)	13.5	0.6	
Family related allowances (HY050N)	16.6	0	
Social exclusion not elsewhere classified (HY060N)	4.0	0.0	3.8
Housing allowance (HY070N)	0.04		
Regular inter-household cash transfer received (HY080N)	11.8	0.9	0.1
Alimonies received (HY081N)	1.2	0.04	0.02
Interests, dividends, etc. (HY090N)	0.2		
Interest repayment on mortgage (HY100N)	6.5		
Income received by people aged < 16 (HY110N)	1.0		
Taxes on wealth (HY120N)	75.3	0.5	
Regular inter-household cash transfer paid (HY130N)	15.4	0.1	
Tax on income and social contributions (HY140N)	20.3	11.0	27.7
<b><u>Gross income components at household level</u></b>			
Income from rental of a property or land (HY040G)	14.1	0.04	
Family related allowances (HY050G)	16.6	0	
Social exclusion not elsewhere classified (HY060G)	4.0	0.0	3.8
Housing allowance (HY070G)	0.04		
Regular inter-household cash transfer received (HY080G)	11.8	0.9	0.1
Alimonies received (HY081G)	1.2	0.04	0.02
Interests, dividends, etc. (HY090G)	0.2		
Interest repayment on mortgage (HY100G)	6.5		
Income received by people aged < 16 (HY110G)	1.0		
Taxes on wealth (HY120G)	75.3	0.5	
Regular inter-household cash transfer paid (HY130G)	15.4	0.1	
Tax on income and social contributions (HY140G)	20.3	11.0	27.7
<b><u>Net income components at personal level</u></b>			
Employee cash or near cash income (PY010N)	22.0	7.0	15.5
Net non-cash employee income (PY020N)	7.2		
Company car (PY021N)	0.7		
Contributions to individual private pension plans (PY035N)	2.5		

Cash benefits or losses from self-employment (PY050N)	4.0	1.1	0.5
Value of goods produced for own consumption (PY070N)		14.9	
Pension from individual private plans (PY080N)		0.02	
Unemployment benefits (PY090N)	0.8	0.5	0.1
Old age benefits (PY100N)	32.1	0	0.1
Survivor's benefits (PY110N)	1.1	0.1	0
Sickness benefits (PY120N)	6.4	0.1	0.1
Disability benefits (PY130N)	6.4	1.3	0
Education-related allowances (PY140N)	0.6	0	
<b><u>Gross income components at personal level</u></b>			
Employee cash or near cash income (PY010G)	15.6	9.0	16.6
Net non-cash employee income (PY020G)	7.2		
Company car (PY021G)	0.7		
Employer's social insurance contribution (PY030G)	40.7		
Contributions to individual private pension plans (PY035G)	2.5		
Cash benefits or losses from self-employment (PY050G)	4.1	1.1	0.4
Value of goods produced for own consumption (PY070G)		14.9	
Pension from individual private plans (PY080G)		0.02	
Unemployment benefits (PY090G)	0.8	0.5	0.1
Old age benefits (PY100G)	32.1	0	0.1
Survivor's benefits (PY110G)	1.1	0.1	0
Sickness benefits (PY120G)	6.4	1.1	1.1
Disability benefits (PY130G)	6.4	1.3	0
Education-related allowances (PY140G)	0.6	0	
Gross monthly earnings for employees (PY200G)	34.6		5.4

### 2.3.3.6. Total item non-response at unit level of the common cross-sectional European Union indicators based on the cross-sectional component of EU-SILC and for equivalised disposable income

*Table 47. Item non-response at unit level of the common cross-sectional European Union indicators and for equivalised disposable income*

<u>Indicator</u>	<u>Achieved sample size</u>	<u>Total item non-response</u>
At-risk-of-poverty rate after social transfers -total	14979	68
At-risk-of-poverty rate after social transfers -men total	7159	31
At-risk-of-poverty rate after social transfers -women total	7820	37
At-risk-of-poverty rate after social transfers -0-17 years	2197	8
At-risk-of-poverty rate after social transfers -18-64 years	9292	54
At-risk-of-poverty rate after social transfers -men 18-64 years	4589	22
At-risk-of-poverty rate after social transfers -women 18-64 years	4703	32
At-risk-of-poverty rate after social transfers -65+ years	3084	4

At-risk-of-poverty rate after social transfers -men 65+ years	1216	3
At-risk-of-poverty rate after social transfers -women 65+ years	1868	1
At-risk-of-poverty threshold -single	1313	4
At-risk-of-poverty threshold -2 adults, 2 children	1404	72

## 2.4. Mode of data collection

In tables 48 and 49 the distributions of household members aged 16 and over by ‘data status’ (RB250) and by ‘type of interview’ (RB260) are presented.

*Table 48. Distribution of household members (RB245=1) by “Data status” (RB250)*

	Total		Rotation 1		Rotation 2		Rotation 3		Rotation 4	
	N	%	N	%	N	%	N	%	N	%
Total	13375	100	2403	100	4187	100	4579	100	2206	100
RB250=11	13315	99.6	2396	99.7	4165	99.5	4560	99.6	2194	99.5
RB250=21	0		0		0		0		0	
RB250=23	26	0.2	4	0.2	9	0.2	8	0.2	5	0.2
RB250=31	30	0.2	3	0.1	11	0.3	9	0.2	7	0.3
RB250=32	1	0.0	0		0		1	0.0	0	
RB250=33	3	0.0	0		2	0.0	1	0.0	0	

*Table 49. Distribution of household members (RB245=1) by “Type of interview” (RB260)*

	Total		Rotation 1		Rotation 2		Rotation 3		Rotation 4	
	N	%	N	%	N	%	N	%	N	%
<b>Total</b>	13315	100	2396	100	4165	100	4560	100	2194	100
<b>Face to face (1)</b>	10710	80.4	1929	80.5	3479	83.5	3634	79.7	1668	76.0
<b>Proxy interview (5)</b>	2605	19.6	467	19.5	686	16.5	926	20.3	526	24.0

The interviewers decided on proxy interviews only if the substitute respondents were well informed about the situation in the household and there was no other possibility to get the information. Proxy interviews were performed in the following situations:

- no contact with the respondent because of long-term absence (e.g. work in another town or abroad);
- respondent’s disability or illness;
- the respondent was only available late at night and was not willing to participate in such a long interview, while at the same time the proxy could provide detailed information, even based on the documents, such as tax statements.

## 2.5. Interview duration

The average household interview duration was about 32 minutes, while the average individual interview duration was about 22 minutes.

The mean interview duration per household was estimated at 84 minutes.

### **3. COMPARABILITY**

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

There were no essential differences between the national concepts and standard EU-SILC concepts.

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

The reference population is all citizens officially living at Bulgarian territory (population de facto). The source of our sample is the Census Population 2001. This Census includes all private households and their current members residing in the territory, independently of any socio-economic characteristics they may have. Persons living in collective households and in institutions are excluded from the target population.

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

The definition of household that Eurostat recommends is used. Household is defined as a person living alone or a group of people who live together in the same dwelling and share expenditures including the joint provision of the essentials of living. Family members living together but not sharing their income and expenditure with other family members make up separate households.

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

All household members of 16 year and older at the time of the interview, are selected for a personal interview.

The household composition accounted for:

1. Persons usually resident, related to other members
2. Persons usually resident, not related to other members
3. Resident boarders, lodgers, tenants
4. Visitors
5. Line-in domestic servants, au-pairs
6. Persons usually resident, but temporarily absent from the dwelling (for reasons of holiday travel, work, education or similar)
7. Children of the household being educated away from home
8. Persons absent for long periods, but having household ties : persons working away from home
9. Persons temporarily absent but having household ties: persons in hospital, homes or other institutions

Further conditions for inclusion as household members are as follows:

(a) Categories 3,4, and 5:

Such persons must currently have no private address elsewhere; or their actual or intended duration of stay must be six months or more.

(b) Category 6:

Such persons must currently have no private address elsewhere and their actual or intended duration of absence from the household must be less than six months.

(c) Category 7 and 8:

Irrespective of the actual or intended duration of absence, such persons must currently have no private address elsewhere, must be the partner or child of a household member and must continue to retain close ties with the household and must consider this address to be his/her main residence.

(d) Category 9:

Such person must have clear financial ties to the household and must be actually or prospectively absent from the household for less than six months.

- Usually resident

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

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

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

- Temporarily absent in private accommodation

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

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

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

The income reference period is a fixed twelve-month period, namely the previous calendar year. For SILC 2009 the income reference period is the year 2008

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

The reference period for income tax repayment and compulsory social insurance contributions is the previous calendar year (2008).

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

Taxes on wealth paid during the income reference period (2008) were recorded.

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

The income reference period is the previous calendar year (year 2008) and the current variables refer to the fieldwork period (April - July 2009). Therefore the lag is at minimum 4 months and at maximum 7 months.

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

EU-SILC was performed on the territory of the whole country between April and July 2009.

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

There were no differences between the national concepts and standard EU-SILC concepts. This information can be obtained by combining the answer for question P6 (PL031) with the answer for question P42 (calendar question),(PL211A—PL211K)

## **3.2. Components of income**

### **3.2.1 Income definitions**

There are no differences between national definition and standard EU-SILC definition.

#### ***Within-household non-response inflation factor (HY025)***

In order to calculate variable HY025 we applied recommendation of the doc065 (EU-SILC 2009 Operation) as follows:

$$HY025 = 1 + i/HY020c$$

Where HY020c is the collected household disposable income and i is a sum of imputed total personal income.

For imputation of missing total personal income we used a regression model of personal income on various available explanatory variables like age class and household type.

#### ***Imputed rent (HY030G)***

Imputed rents are estimated for dwellings used as main residence by the households. The imputation is applied for those households that did not report paying rent:

- owners-occupiers

- rent-free tenants

The market rent is the rent due for the right to use an unfurnished dwelling on the private market, excluding charges for heating, water, electricity, etc.

Stratification method based on actual rents (the same used by National Accounts – the same stratification variables and the same market rents). The method is in line with ESA’95 and requirements of Commission Decision 95/309 and Commission Regulation 1722/2005 on the principle of estimating dwelling services.

Stratification variables:

- location (district centre with university, other district centre, smaller town, rural area)
- size of the dwelling
- number of rooms (1, 2, 3, 4+)
- amenities – availability of central heating

Actual market rents – main data sources:

- current price statistics
- household budget survey
- real estate agencies

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

They are taxes on income and social insurance contributions paid for previous calendar year 2008.

The main problem of the survey EU-SILC is the provision of reliability of the data collected for the gross and net income of the interviewed persons. When the person does not respond to all questions connected with income it is necessary to convert net income into gross and vice versa. All incomes are different by source and form but their taxation and the payment of insurance contributions are subjected to concrete rules.

According to the Social Insurance Code the insurance burden is divided between the employer and the insured person in a proportion defined by the Law for the Budget for the SSI for each calendar year. For 2008 this proportion is 60:40 (employer/insured, %). The insurance contributions for the respective funds are percentages from the insurance income as follows:

<b>EMPLOYED PERSONS</b>	Employer	Insured person
Fund “Pensions” (22%)	13.2	8.8
Fund “General disease and maternity” (3.5%)	2.1	1.4
Fund “Unemployment” (1%)	0.6	0.4
Health insurance (6%)	3.6	2.4
Fund “Work Injury and Occupational Disease”	0.7	
Fund “Earnings guarantee”	0.5	
<b>total</b>	<b>20.7</b>	<b>13.0</b>
<b>SELF INSURED PERSONS</b>		person
• Insured for pension	X	22.00
• Insured for all risks	X	26.50
• Health insurance	X	6.00

The insurance payments for the civil servants; the judges, prosecutors, investigators, state bailiffs, judges for the entries and court employees, as well as the members of the Supreme Judicial Council and the

inspectors of the Inspectorate at the Supreme Judicial Council; the military servicemen under the Law of Defence and Armed Forces of the Republic of Bulgaria; the civil servants under the Law for the Ministry of Interior and the Law on Execution of Penalties and Detention and the civil servants referred to in the Law on State National Security Agency shall be for the account of the state budget, respectively the budget of the judicial authority

Insurance income includes all reimbursements and other incomes from labour activity. The law for the budget of SSI defines:

1. Minimal monthly insurance income during the calendar year.

- minimal amount of the insurance income by economic activities and groups of professions according to which are to be insured the workers, employees, those working on contracts for management and control of trade firms. The definition of the group of profession is done according to the National Classification of Professions. The working places are defined in 9 classes of professions and the post defines the type and contents of the labour activity of the person.
- the minimal amount of the insurance income for self insured persons. For 2008 this monthly income is 240 BGN. They pay contributions on an amount of income chosen in advance in-between the minimum and maximum amount of income defined with the Law for the Budget of SSI.
- The minimal amount of income for registered farmers and tobacco producers is 50% of the minimal insurance income (120 BGN) – the minimal amount of insurance income for registered farmers and tobacco producers who do only this activity is 25% of the minimal insurance income (60 BGN).

2. The maximal monthly amount of the insurance income for 2008 is 2000 BGN.

The main law, that defines income taxes, is the Law for Taxation of the Natural Persons' Income (LTNPI). The fiscal year in the country is the calendar year. The tax unit is the person. Till April 15-th persons are obliged to fill in tax return forms or as they are called in Bulgaria - tax declarations (TD) and 30 days later should pay the balance of the income tax due or in case they have paid more tax in advance – get paid back for the negative balance.

The tax on the annual tax base is being assessed by multiplying the annual tax base by the 10% tax rate. The income from economic activity as a sole proprietor shall be taxed separately, with a tax on the annual tax base at the tax rate of 15%.

**Incomes for which no income tax is due**

- Income from a small family business for which a fixed (patent) tax is paid at the beginning of the fiscal year.
- Income from interest on savings.
- Income from pensions.
- Income from social benefits – family, unemployment and other benefits.
- Incomes from fellowships and scholarships.

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

Total gross income and disposable household income were calculated according to Document 065 (2009 operation). All personal/household income variables were collected by interview.

In some cases, where the information on income component is unavailable we used a register to obtain missing value information. The National Social Security Institute keeps a register of all persons for whom employers pay social insurance contributions and of all self-insured persons. This register contains some data on personal income but it is generated by a labour activity of the persons and more, this is only the income on which the person was insured.

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

The interviewers and the respondents have the option of reporting income gross and/or net at component level. The form in which the net amounts are recorded in database are net of tax on income at source and of social contributions.

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

The gross income was obtained by summing up net value, income tax payments and compulsory social insurance contributions. If the information on tax and insurance contributions was missing, the amounts were imputed in order to labour and social insurance legislations.

If either the net or the gross value was missing for PY010, PY050 or PY100, the missing value was calculated on the basis of a net-gross conversion and vice versa.

## 4. COHERENCE

### 4.1. Coherence of number of persons with external sources

*Table 50. Coherence of number of persons with external sources*

	SILC 2008	Other source	Source
Households sharing of expenditures	2 622 067	2 921 887	census 2001
Population	7 606 551	7 606 551	Population as of 31.12.2008
• male	3 681 280	3 681 280	
• female	3 925 271	3 925 271	

## 4.2. Comparison of some target variables from EU SILC 2009 survey with LFS2009

*Table 51. Highest ISCED level attained*

<b>PE040 Highest ISCED level attained</b>	SILC 2009		LFS 2009		
	Weighted PB040	%	total	%	total
1 – primary education		7.1	453.3	7.4	484.0
2 – lower secondary education		25.3	1 622.6	27.2	1 794.1
3 – upper secondary education		50.1	3 220.6	46.9	3 091.0
4 - post-secondary non tertiary education		0.6	38.6	0.5	34.0
5 – first stage of tertiary education		16.8	1 077.7	17.8	1 169.9
6 – second stage of tertiary education		0.2	14.3	0.2	12.0

*Table 52. Self-defined current economic status*

<b>PL030 Self-defined current economic status</b>	SILC 2009		LFS 2009		
	Weighted PB040	%	total	%	total
employed (PL031 = 1,2,3,4)		52.0	3 381.7	49.4	3 253.6
unemployed (PL031=5)		9.6	623.5	3.6	238.0
economically inactive (PL031=6,7,8,9,11)		38.4	2 501.4	47.0	3 093.3

*Table 53. Status in employment*

<b>PL040 Status in employment (PL031=1,2,3,4)</b>	SILC 2009		LFS 2009		
	Weighted PB040	%	total	%	total
Employed (PL031 = 1,2,3,4)		100	3 381.7	100	3 253.6
employees		86.9	2 939.5	87.5	2 847.6
self-employed without employees		8.3	281.1	8.0	259.4
self-employed with employees		4.1	136.2	3.5	113.4
family worker		0.7	24.9	1.0	33.3

## 4.3. Comparison of EU-SILC 2009 and HBS 2009 results

The objective of this section is to compare HBS (Household Budget Survey) and EU-SILC results. When comparing these two sources we must take into account the discrepancies. The differences are to great extent brought about by the methodological diversity. Here are the main methodological differences:

- Different reference periods for income variables – in HBS the reference period is 1 month and, following Eurostat’s recommendation, the annual income is the monthly income multiplied by 12, which in the case of irregular income, like that from farming, can bring about considerable distortions. In EU-SILC the reference period is a previous calendar year;
- Different types of income are taken into account i.e. in HBS the information is collected both about the income in cash and in kind, while in EU-SILC – only about the income in cash (with a few exceptions), which may be important for the income from farming and social benefits other

than retirement pay and pension;

- Different way of data collection – in HBS the respondents make records in the so called diary. They have to determine the data sources themselves and do not have them listed in the diary. In EU-SILC each respondent is asked detailed questions. In EU-SILC all the income missing data are imputed, while there is no imputation in HBS;
- HBS data are not weighted.

**Table 54. Household by size,%**

Households type	HBS 2009	EU-SILC 2009
One person household	23.8	23.3
Two persons household	35.0	31.9
Three persons household	20.3	18.5
Four or more person household	20.9	26.4

**Table 55. Structure of population by age %**

Structure of population by age, %	HBS 2009	EU-SILC 2009
0-15	11.8	12.2
16-24	10.2	11.2
25-49	29.9	30.8
50-64	24.3	23.9
65+	23.8	22.0

**Table 56. Structure of population by level of education, %**

Structure of population by level of education, %	HBS 2009	EU-SILC 2009
Primary education	5.1	10.7
Lower secondary	26.0	27.4
Upper secondary	51.4	45.8
Tertiary education	17.5	16.1

**Table 57. Activity status,%**

Activity status, %	HBS 2009	EU-SILC 2009
Employed	38.6	46.8
Unemployed	8.6	9.4
Economically inactive	52.8	43.8

**Table 58. Status in employment, %**

Status in employment, %	HBS 2009	EU-SILC 2009
Employer	1.4	3.7
Self-employed	6.3	8.5
Employee	92.0	87.1
Family worker	0.3	0.6

**Table 59. Dwelling type**

Dwelling type	HBS 2009	EU-SILC 2009
Detached house	45.2	51.6
Semidetached house	11.2	9.5
Apartment or flat	43.5	38.5
Some other kind of accommodation	0.1	0.4

**Table 60.** Non monetary household deprivation

Non monetary household deprivation "Cannot afford"	HBS 2009	EU-SILC 2009
Telephone	1.1	4.2
Color TV	0.8	2.5
Computer	15.8	27.0
Washing machine	14.8	14.2
Car	22.5	26.1

#### 4.4. Comparison of Laeken Indicators based on HBS 2008 and EU-SILC 2009

**Table 61.** Main indicators – comparability – HBS and EU-SILC

Main indicators	HBS - 2008	EU-SILC 2009
At-risk-of poverty threshold - Euro	1297.3	1696.5
Household with 2 adults and 2 children younger than 14 years	2724.2	3562.7
At-risk-of poverty rate after social transfers. %	14.4	21.8
Relative median at-risk-of poverty gap after social transfers	18.7	27.4
S80/S20 quintile share ratio	3.9	5.9
At-risk-of-poverty rate before social transfers. %	43.5	38.8
Dispersion around at-risk-of-poverty threshold		
40% of median	4.0	8.8
50% of median	7.6	15.0
70% of median	21.7	28.7
Gini coefficient	26.3	33.5
At-risk-of-poverty rate before social transfers (except pensions).%	18.3	26.4
[SI-S1a] At-risk-of-poverty rate, by household type		
Total	14.4	21.7
Households without dependent children	13.9	23.0
One adult younger than 64 years	20.2	32.5
One adult older than 65 years	35.3	72.1
Single female	33.0	67.7
Single male	20.0	39.4
Two adults younger than 65 years	10.1	13.3
Two adults, at least one aged 65 years and over	10.4	35.4
Three or more adults	9.2	9.3
Households with dependent children	14.9	20.8
Single parent with dependent children	29.2	30.9
Two adults with one dependent child	9.8	12.9
Two adults with two dependent children	14.0	15.5
Two adults with three or more dependent children	19.5	67.9

#### 4.5. Comparison of some target variables from EU-SILC 2006, 2007, 2008 and 2009

*Table 62. Self-defined current economic status*

PL030 (weighted PB040)	EU SILC 06		EU SILC 07		EU SILC 08		EU SILC 09	
	%	total	%	total	%	total	%	total
employed (PL030 = 1,2)	45.5	2 993 173	46.8	3 069 463	51.3	3 350 418	52.0	3 381 702
unemployed (PL030 = 3)	14.5	954 941	14.8	968 576	9.5	617 814	9.6	623 495
economically inactive (PL030=4,5,6,7,8,9)	39.7	2 610 582	38.3	2 511 575	39.2	2 564 718	38.4	2 501 406
missing	0.3	16 890	0.1	9 741	0	1 454		

*Table 63. Status in employment*

PL040 (weighted PB040) (PL030=1,2)	EU SILC 06		EU SILC 07		EU SILC 08		EU SILC 09	
	%	total	%	total	%	total	%	total
Employed (PL030 =1,2)	100	2 993 173	100	3 069 463	100	3 350 418	100	3 381 702
employees	91,3	2 731 576	91.0	2 793 907	86.6	2 902 147	86.9	2 939 546
self-employed without employees	1,8	55 302	1.4	43 343	4.5	151 051	4.0	136 202
self-employed with employees	5,8	173 886	5.4	166 765	7.8	260 189	8.3	281 064
family worker	1	30 232	0.7	20 522	1.1	35 867	0.7	24 890
missing	0,1	2 176	1.5	44 926	0	1 164		

*Table 64 Personal income*

weight pb040	EU SILC 07			EU SILC 08			EU SILC 09		
	total	Mean		total	Mean		total	Mean	
		N	G		N	G		N	G
PY010	2 994 770	3428.37	4228.87	3 527 483	4047.09	5389.49	3 303 963	5442.37	7204.56
PY020G/N	436 469	408.93		496 833	502.52		523 611	582.02	
PY050	804 680	2789.38	3183.22	486 646	6992.48	7771.75	409 832	8411.39	9539.95
PY100G/N	1 886 576	1709.15		1 762 552	2141.72		1 714 686	2751.88	