

# **INTERMEDIATE QUALITY REPORT**

**EU-SILC-2007**

**Iceland**

## Table of Contents

1. Common cross-sectional EU indicators 2007 (income year 2006).....	4
1.2 Other indicators .....	7
1.2.1 Equivalized disposable income .....	7
2. Accuracy.....	7
2.1. Sample design .....	7
2.1.1 Type of sampling.....	7
2.1.2 Sampling units.....	7
2.1.3 Stratification and sub-stratification criteria.....	8
2.1.4 Sample size and allocation criteria.....	8
2.1.5 Sample selection schemes .....	8
2.1.6 Sample distribution over time .....	8
2.1.7 Renewal of sample: Rotational groups.....	8
2.1.8. Weighting .....	9
2.1.8.1 Design factor .....	9
2.1.8.2 Nonresponse adjustments .....	9
2.1.8.3 Adjustments to external data .....	9
2.1.8.4 Final Cross sectional weight: .....	10
2.1.9 Substitutions .....	10
2.2 Sampling errors .....	10
2.2.1. Standard errors and effective sample size .....	10
2.3 Nonsampling errors .....	12
2.3.1 Sampling frame and coverage errors.....	12
2.3.2 Measurement and processing errors .....	12
2.3.2.1 Design errors .....	12
2.3.2.2. Interviewer and processing errors .....	13
2.3.3. Nonresponse errors.....	14
2.3.3.1. Achieved sample size .....	14
2.3.3.2. Unit nonresponse .....	14
2.3.3.3 Distribution of households .....	15
2.3.3.4. Distribution of substituted units .....	16
2.3.3.5. Item nonresponse.....	16
Table 2.3.3.5 Number receiving an amount and item nonresponse for the following income components.....	17
Table 2.3.3.6 Total item nonresponse and number of observations.....	18
2.4. Mode of data collection.....	19
2.5. Interview duration .....	20
3. Comparability.....	20
3.1. Basic concepts and definitions .....	20
Table 3.1 Activity status of persons 18 years or older .....	20
3.2. Components of income.....	21
3.2.1 Differences between the national definitions and standard EU-SILC definitions, and an assessment of the consequences of the differences mentioned will be reported for the following target variables.....	21
3.2.2. The source or procedure used for the collection of income variables.....	23
3.2.3. The form in which income variables at component level have been obtained .....	23
3.2.4. The method used for obtaining income target variables in the required form (i.e. as gross values).....	23
4. Coherence.....	23

4.1. Comparison of income target variables and number of persons who receive income from each 'income component', with external sources .....	24
5. Index.....	24

# 1. Common cross-sectional EU indicators 2007 (income year 2006)

**Table 1. At-risk-of-poverty threshold (illustrative values)**

	2007
1 person hh	1.511.682
2 adults 2 dep.children	3.174.532

**Table 2. Dispersion around the at-risk-of-poverty threshold**

	2007
40% of median	2,2
50% of median	4,9
60% of median	9,9
70% of median	17,8

**Table 3. Inequality of income distribution S80/S20**

	2007
Total	3,9

**Table 4. Gini coefficient**

	2007
Total	28

**Table 5. At-risk-of-poverty rate by age and gender**

		2007
Total (0+)	Total	10
	M	9
	F	11
0-17	Total	12
	M	11
	F	13
18-24	Total	12
	M	8
	F	15
25-49	Total	9
	M	9
	F	9
50-64	Total	5
	M	6
	F	5
65+	Total	15
	M	10
	F	19
18+	Total	9
	M	8
	F	10
18-64	Total	8
	M	8
	F	9

0-64	Total	9
	M	9
	F	10

**Table 6. At-risk-of-poverty rate before social transfers except old-age and survivors benefits**

		2007
Total (0+)	Total	18
	M	17
	F	19
0-15	Total	23
	M	23
	F	23
16+	Total	16
	M	14
	F	18
16-64	Total	16
	M	14
	F	17
65+	Total	20
	M	16
	F	24

**Table 7. At-risk-of-poverty rate before all social transfers**

		2007
Total (0+)	Total	26
	M	24
	F	28
0-17	Total	24
	M	24
	F	24
18+	Total	27
	F	30
18-64	Total	17
	M	16
	F	19
65+	Total	80
	M	75
	F	85

**Table 8. At-risk-of-poverty rate by most frequent activity status and gender**

		2007
Total	Total	9
	M	8
	F	10
Of which: 'At work'	Total	7
	M	7
	F	7
Of which: 'Not at work'	Total	17
	M	15
	F	19
...Of which 'Unemployed'	Total	21

	M	8
	F	29
..Of which 'Retired'	Total	16
	M	13
	F	18
...Of which 'Other inactive'	Total	19
	M	19
	F	19

**Table 9. At-risk-of-poverty rate by work intensity of the household**

	2007
No dependent WI=0	21
No dependent 0<WI<1	10
No dependent WI=1	5
With dependent WI=0	25
With dependent 0<WI<0.5	31
With dependent 0.5<WI<1	13
With dependent WI=1	7

**Table 10. At-risk-of-poverty rate by full time, part time**

	2007
Total	6
Fullt time	6
Part time	6

**Table 11. At-risk-of-poverty rate by household type**

	2007
One person under 65 years	18
One person 65 or more	42
One male	21
One female	31
One total	26
Two adults under 65, no children	7
Two adults at least one 65+, no children	2
Other, no dependent children	2
Single parent, one or more dependent children	23
Two adults, 1 dependent child	6
Two adults, two children	7
Two adults, three or more children	12
Other households with dependent children	6
Households without dependent children	11
Households with children	9

**Table 12. At-risk-of-poverty rate by accommodation tenure status**

	2007
Total	10
Owner or rent free	9

**Table 13. Relative median at-risk-of poverty gap by age and gender**

		2007
Total (0+)	Total	16
	M	18
	F	15
0-17	Total	17
18+	Total	16
	M	20
	F	14
18-64	Total	21
	M	22
	F	18
65+	Total	9
	M	5
	F	9

**Table 14. Aggregate replacement ratio by gender, 65+ vs 45-54**

		2007
Total		0,43
Male		0,43
Female		0,47

**Table 15. Relative median income ratio by gender 65+ vs 45-54**

		2007
Total		0,68
Male		0,72
Female		0,65

## **1.2 Other indicators**

### **1.2.1 Equivalized disposable income**

Equivalized disposable income		
	Median	Mean
2004	1.989.147	2.121.774
2005	2.089.053	2.294.874
2006	2.269.425	2.522.323
2007	2.585.657	2.958.893

## **2. Accuracy**

### **2.1. Sample design**

#### **2.1.1 Type of sampling**

There were four even one-stage simple random samples without stratification used for the 2007 EU-SILC in Iceland.

#### **2.1.2 Sampling units**

The sampling units are persons aged 16 years or more living in private households, selected from the Icelandic population register.

### 2.1.3 Stratification and sub-stratification criteria

The sample is post stratified, see 2.8.

### 2.1.4 Sample size and allocation criteria

The gross sample size was 4,041 persons, set to meet demands for minimum effective sample size of both the cross-sectional and the longitudinal components.

### 2.1.5 Sample selection schemes

The sample plan for EU-SILC is a simple random sample in one step, and no upper age limit.

### 2.1.6 Sample distribution over time

The sample is a rotating panel sample of approximately 4,000<sup>1</sup> individuals selected by simple random sampling from the national register in the end of the year 2003. The sample is divided into four rotation groups of approximately 1,000 individuals, each of which is replaced by another 1,000 participants every successive year.

### 2.1.7 Renewal of sample: Rotational groups

The households of the selected respondents are the household units. Each person (and respective household) drawn remains in the sample for four years and rotates as shown in table 2.1.

**Table 2.1 Rotation of waves in the Icelandic SILC survey**

Year t		t+1		t+2		t+3	
Wave number	Number in sample	Wave number	Number in sample	Wave number	Number in sample	Wave number	Number in sample
1	1.000	1	1.000	1	1.000	1	1.000
2	1.000	2	1.000	2	1.000	2	1.000
3	1.000	3	1.000	3	1.000	3	1.000
4	1.000	4	1.000	4	1.000	4	1.000

Notes:

	Those drawn new in sample year t
	Those drawn new in sample year t-1
	Those drawn new in sample year t-2
	Those drawn new in sample year t-3
	Those drawn new in sample year t+1
	Those drawn new in sample year t+2
	Those drawn new in sample year t+3

Persons 16 years of age are added to the sample every year in order to make up for the aging of the sample. Those who were 16 years old in 2003 are 20 years old in 2007 and therefore there is need to add 16 year old persons to the sample every year. The gross number in the sample increases with those supplements.

<sup>1</sup> 4.000 in the year 2004 when the survey starts but in four years the gross sample will be appr. 4,160



## 2.1.8. Weighting

### 2.1.8.1 Design factor

The probability of a household being selected is equal to the number of persons aged 16 and older in the household. The weight for households and for all adult household members is the inverse of the number of adult household members as calculated in **DB080**, the household design weight:

$$DB080 = \frac{1}{n_{16+}}$$

Where

$n_{16+}$  = number of persons age 16+ in the respondents households

### 2.1.8.2 Nonresponse adjustments

Post stratification weights are used to adjust the data to the population. The information on the population comes from the national register. The weights both adjust for nonresponse and sampling error. The post stratification weights are based on age (14 groups total, 12 groups for 16 and older and 2 groups below 16), sex and residence (2 groups).

### 2.1.8.3 Adjustments to external data

Results are only calibrated with numbers from the national register as described above.

**PB060** is the personal cross-sectional weight for selected respondent:

$$PB060 = \frac{N(kba)}{n(kba)}$$

Where

$N$  = Population 16 years and older 31. December 2006 in private homes

$n$  = number of cases in the data base

$k$  = sex    $b$  = residence (capital area and other areas)

$a$  = age groups [16-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-66, 67-79, 80+]

Originally the household cross-sectional weight (**DB090**) was calculated as shown below:

$$DB090 = DB080 * PB060 = \frac{1}{n_{16+}} * \frac{N(kba)}{n(kba)}$$

Where

$N$  = Population 16 years and older 31. December 2006 in private homes

$n$  = number of cases in the data base

$k$  = sex    $b$  = residence (capital area and other areas)

$a$  = age groups [16-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-66, 67-79, 80+]

Integrative calibration is applied using the software G-Calib (designed by Statistics Belgium). The original values of **DB090** are replaced by calibrated values. The calibrated values of **DB090** are also assigned to **RB050** in order to assign identical weight to all members of the same household. Integrative calibration takes into account the distribution of the population according to age, sex and residence as described above.

The personal cross-sectional weight **PB040** is equal to **RB050**.

The personal design weight for selected respondent **PB070** is calculated in a similar way as **PB060** except **PB070** applies to the selected sample while **PB060** applies to respondents only.

$$PB070 = \frac{N(kba)}{s(kba)}$$

Where

N = Population 16 years and older 31. December 2006 in private households

s = number of selected respondents

k = sex b = residence (capital area and other areas)

a = age groups [16-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-66, 67-79, 80+]

The children cross-sectional weight **RL070** is calculated with the number of children in each one-year group (0-12 years) in private households in the population divided by the number of children in one-year groups in the households interviewed:

$$RL070 = \frac{BA}{ba}$$

Where

BA = population 0-12 years of age 31. December 2006 in private households

b = number of children 0-12 years old in the respondents' households

a = age groups [0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12]

#### **2.1.8.4 Final Cross sectional weight:**

The final cross sectional weight is described in section 2.1.8.1 to 2.1.8.3 above

#### **2.1.9 Substitutions**

No substitutions were applied.

## **2.2 Sampling errors**

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

Statistics Iceland is not able to calculate the standard error or the effective sample size of the common cross sectional EU indicators since we do not have the resources to do so and we are not able to take advantage of the SAS syntaxes produced by Eurostat since we do not use the SAS software.

There were 4.041 persons in the 2007 sample. During the field period, 139 of these proved to be non-eligible (either deceased, living in institutions or emigrated), thus giving a net sample of 3902 persons. Interviews were completed for 2.872 of them.

**Table 2.2.1.A The mean, the total number of observations and the standard errors for the following income components (unweighted data)**

	Mean	Count	Valid N	Standard Error of Mean
Total HH gross inc (HY010)	7891853	2870	2870	124671
Total HH disp. Inc (HY020)	5690170	2870	2870	91123
Total HH disp before (HY022)	5349548	2870	2870	92249
Total HH disp. Including (HY023)	4858511	2870	2870	95712
Gross Imputed rent (HY030)	823631	2868	2868	9967
Gross Income from rental (HY040)	34832	2870	2870	4366
Gross income from investments (HY090)	675812	2870	2870	72334
Gross family allowances (HY050)	122346	2870	2870	5743
Gross social excl. (HY060)	6796	2870	2870	1180
Gross housing allowances (HY070)	47828	2870	2870	1668
Gross inter-HH cash received (HY080)	60532	2870	2762	3267
Gross interest repayments (HY100)	378515	2870	2870	7551
Gross Income under 16 (HY110)	15988	2870	2870	1593
Gross taxes on wealth (HY120)	67582	2870	2870	671
Gross inter-HH cash paid (HY130)	45304	2870	2768	2644
Gross tax on income (HY140)	2088798	2870	2870	42686
Gross employee cash income (PY010)	2575898	6567	6567	36380
Gross Non-Cash employee income (PY020)	46517	6567	6567	1937
Gross company car (PY021)	41653	6567	6567	2273
Gross employer's social insurance contribution (PY030)	326948	6567	6567	4555
Gross contributions to individual private pension plans	48160	6567	6567	6628
Gross self employment (PY050)	123974	6567	6567	7517
Gross unemployment benefits (HY090)	5879	6567	6567	665
Gross old-age benefits (PY100)	179127	6567	6567	7113
Gross survivor benefits (PY110)	35473	6567	6567	5278
Gross sickness benefits (PY120)	647	6567	6567	319
Gross disability benefits (PY130)	61348	6567	6567	4717
Gross education allowances (PY140)	3647	6567	6567	1554

**Table 2.2.1.B The mean, the number of observations and the standard error for the equivalised disposable income breakdown by sex, age groups and household size (unweighted data)**

Euivalised disposable income	Mean	Before imp	After imp	Standard error
1 household member	2423040	384	384	100503
2 household members	3027598	1708	1704	51007
3 household members	3277178	1785	1785	72820
4+ household members	2964901	4778	4778	28422
<25 years	2875904	3459	3458	36677
25-34 years	2763681	1062	1062	45457
35-44 years	3126907	1228	1228	78885
45-54 years	3427455	1260	1260	71607
55-64 years	3599862	826	825	91044
65+ years	2571049	802	800	59286
Male	3030398	4377	4374	32252
Female	3004576	4278	4277	36774

As we do not have resources take the design of the survey and the calibration into account in the calculation of standard error, simple random sample is assumed

## **2.3 Nonsampling errors**

Errors other than sampling errors can be placed in three categories: coverage errors, nonresponse errors and measurement errors.

### **2.3.1 Sampling frame and coverage errors**

The sampling frame is the population register of Iceland in the end of the year 2006. Eligible for the sample were all persons 16 and older who were living in Iceland according to the register. Those registered at institutions were excluded from the sample.

The national register is updated continuously. However, it does not always contain correct information on changing of residence. People may move abroad or to an institution without giving that information to the national register. Therefore the national register over represents young people who tend to go abroad for their studies and older people who sometimes maintain a private address in spite of living in an institution.

This is adjusted for with information received during the data collection process. For instance if it turns out that 5% of 25-29 years old females from the capital area are living abroad in spite of being in the register then the population frame is adjusted to these information and the relevant group is decreased by 5%. These adjustments are made before calculating the post stratification weights.

Under coverage of foreign citizens who live in Iceland is possible but it can be hard to assess. However it is likely that most foreign citizens who live here are working legally and are therefore in the national register. The fact that Iceland is an island makes it hard for foreigners to enter and stay in the country without being registered.

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

Errors of this kind can be classified into three categories: Design errors, interviewer errors and processing errors.

#### **2.3.2.1 Design errors**

The questionnaire may be the cause of measurement errors. The phrasing of questions can cause misunderstanding as can the ordering of questions affect responses. The work of designing the survey electronically in Blaise also leaves room for errors.

Here are some comments on those variables and other cases where there might be deviations from Eurostat standards.

#### **HB100 and PB120**

Timestamps were not included in the Blaise instrument of the survey for 2004, 2005 and 2006 and therefore it could not be seen how long each of the personal- and the household section took. Only information on the total length of the interview was available. This was improved before the 2007 survey.

#### **HS040**

The Icelandic question differs because of the uniqueness of Iceland as an island. We asked if the respondent and his family could afford to go on a vacation abroad for one week. We also asked if the household could go on one week vacation in Iceland for one week.

#### PH030

In 2004, 2005 and 2006 it was assumed that all those with long standing illness or condition were limited in their activities. This was fixed in 2007 when all respondents received questions about limitation in activities.

#### PL030

In 2004 and 2005 the labour marked definition of economic status was used for PL030 instead of the requested self defined economic status. This was fixed before the 2006 survey.

#### PL130

For those who were self employed a question was not asked in 2004, 2005 and 2006 on the number working at the local unit. This was fixed before the 2007 survey.

#### PL140

For those who were retired the question on the type of contract was not asked in 2004, 2005 and 2006 but was included in the 2007 survey.

#### PL190

A question on the year of beginning first regular job was not in the survey for 2004, 2005 and 2006 but was included before the 2007 survey.

#### PL200

A question on the number of years in paid work was not in the survey for 2004, 2005 and 2006 but was included before the 2007 survey.

#### PL210A-PL210L

In 2004, 2005 and 2006, there was only received information on the number of months for each type of economic status but not for which month each status applied. This error was fixed in the 2007 survey.

The following longitudinal variables were not collected in the years 2004, 2005 and 2006. They were included in the survey for 2007.

RB120 Moved to

RB140 Month moved out or died

RB160 Number of months in household during the income reference period

RB180 Month moved in

The fact that income variables are mostly collected from registers should reduce the risk of measurement errors in the income variables. Wrong estimation from respondents or error in data entering from interviewer should not be a problem.

### **2.3.2.2. Interviewer and processing errors**

The data collection mode in the Iceland EU-SILC is CATI, using the software Blaise. Data entry controls are built into the electronic questionnaire.

Once the data has been collected all processing is done in the SQL data management software, except for imputations which are done in SPSS.

Registers are used quite extensively in the EU SILC in Iceland. The result should be a decrease in measurement error from respondents or interviewers. However there still room for human error in data process as complexities are added to the data processing with linking between survey data and public records or other outside data. The following sources of data are used: the

national register, tax register, real estate register, HBS (Household budget survey) data, municipality tax data and list of people living in institutions.

### 2.3.3. Nonresponse errors

In general, males are more difficult to reach than females and young people are harder to reach than older people. People living in the capital region are more often absent from home than people elsewhere in Iceland.

Refusals to participate in the survey are more prevalent among inhabitants of the capital city region and older persons. In contrast, women, people outside the capital city region and young people are less likely to refuse to participate.

To counter bias, the results were weighted by sex, age and residence.

#### 2.3.3.1. Achieved sample size

	Households (HH)	Persons 16+	HH members
2004	705	1636	2132
2005	704	1600	2068
2006	716	1630	2191
2007	748	1701	2264
	2873	6567	8655

#### 2.3.3.2. Unit nonresponse

##### Household nonresponse rates (NRh)

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

Where

$$Ra = \frac{\text{Number of addresses successfully contacted}}{\text{Number of valid addresses selected}}$$

$$Ra = \frac{\sum (DB120 = 11)}{\sum (DB120 = all) - \sum (DB120 = 23)} = \frac{3902}{4041 - 139} = 1$$

$$Rh = \frac{\text{Number of household interviews completed and accepted for database}}{\text{Number of valid addresses selected}}$$

$$Rh = \frac{\sum (DB130 = 1)}{\sum (DB130 = all)} = \frac{2872}{3902} = 0.736$$

$$NRh = (1 - 0.736) * 100 = 26.4$$

##### Individual nonresponse rates (NRp)

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

Where

$$Rp = \frac{\text{Number of personal interviews completed}}{\text{Number of eligible individuals in households where interviews were completed and accepted for database}}$$

$$Rp = \frac{6567}{6567} = 1$$

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

### Overall individual nonresponse rates (\*NRp)

$$*NRp = (1 - (Ra * Rh * Rp)) * 100 = (1 - (1 * 0.264 * 1)) * 100 = 73.6$$

### Unit nonresponse by rotational group

	Group1 2005	Group 3 2004	Group 4 2004
Ra	1,00	1,00	1,00
Rh	0,76	0,79	0,77
NRh	0,24	0,21	0,23
Rp	1,00	1,00	1,00
NRp	0,24	0,21	0,23

### 2.3.3.3 Distribution of households

**Table 2.3.3.3.A Distribution of households by ‘record of contact address’ (DB120)**

	Rot 1	Rot 2	Rot 3	Rot 4	Total
Contacted	978	974	971	979	3902
Does not exist	21	30	41	47	139
Total	999	1004	1012	1026	4041

**Table 2.3.3.3.B Distribution of households by ‘household questionnaire result’ (DB130)**

	Rot 1	Rot 2	Rot 3	Rot 4	Total
Completed	705	704	715	748	2872
Refusal	159	141	153	130	583
Temporarily away	97	105	83	76	361
Unable to respond	13	7	10	14	44
Other reasons	4	17	10	11	42
Total	978	974	971	979	3902

**Table 2.3.3.3.C Distribution of households by ‘household interview acceptance’ (DB135)**

	Rot 1	Rot 2	Rot 3	Rot 4	Total
Accepted	705	704	715	748	2872
Rejected	0	0	0	0	0
Total	705	704	715	748	2872

Respondents for whom we could not retrieve social ID numbers were excluded from the data as well as the households they belong to. They are the “other reasons” in table 2.3.3.3. B. Absence of social ID number means that it is impossible to connect the survey data to the tax register which means that all the income variables will be empty (or 0) for these individuals which can

greatly affect the equivalised disposable income of the households. This was further justified by the fact that only about 1% of the households was taken out, all of which had underestimated equivalised disposable income since an “income less” person was living there.

#### **2.3.3.4. Distribution of substituted units**

Not applicable as no substitutions are applied.

#### **2.3.3.5. Item nonresponse**

For cost or income related variables imputation was used to treat item nonresponse.

Item nonresponse is not assumed to be in the income variables that come from registers. The only income variables where imputation was applied were the ones not received from registers, “regular inter-household cash transfer received” and “regular inter-household cash transfer paid” (HY080G and HY130G). Imputations were used for those variables based on survey data.

For HY080G and HY130G a question was added in 2007 for those not knowing the amount paid for alimony asking for the number of children for whom alimony was paid or received. This was done in order to help with imputation.

HH060: When indicating that the household was paying a non-zero amount for rent but not giving the amount imputation was applied. Variables used were area of residence, number of household members, number of rooms in the dwelling and the type of owner of the dwelling (profit – non-profit). This was done for all years 2004, 2005 and 2006 and files with imputed data were delivered to Eurostat back in time for 2004 and 2005.

A follow up question was added before the 2007 survey in case of “don’t know” to decrease item nonresponse for HH060.

HH061: There has always been high item nonresponse for the question of imputed rent in Iceland. One reason is the small rental market in Iceland. This becomes especially difficult in smaller towns where it might be hard to say whether certain houses could be rented at all no matter how low the rent would be. To treat this problem we added a follow up question for the 2007 survey encouraging respondents to give their best estimate if they said “don’t know”.

HS130: The question on the lowest monthly income to make ends meet has had high levels of item nonresponse and a follow up question was added to the questionnaire before the 2007 survey to try to reduce that.

PE030: In some cases people had difficulties giving an answer about the year of highest level of education on other household members. We added a follow up question asking to give their best guess.

PL060: Number of working hours was imputed for in 2006. If the respondent had reported working hours on earlier waves and was holding the same job the last value given was used. Otherwise when respondent was working but did not give number of hours, regression analysis was used with the variables: personal income, sex, age and whether the respondent claimed to work full time or part time. This was done for all years 2004, 2005 and 2006 and files with imputed data were delivered to Eurostat back in time for 2004 and 2005.



**Table 2.3.3.5 Number receiving an amount and item nonresponse for the following income components**

	% received	%missing	% partial
Total HH gross inc (HY010)	99,94	0,06	0,00
Total HH disp. Inc (HY020)	99,94	0,06	0,00
Total HH disp before (HY022)	99,94	0,06	0,00
Total HH disp. Including (HY023)	99,92	0,06	0,00
Gross imputed rent (HY030)	90,28	0,06	0,00
Gross Income from rental (HY040)	5,89	0,06	0,00
Gross income from investments (HY090)	71,71	0,06	0,00
Gross family allowances (HY050)	38,82	0,06	0,00
Gross social excl. (HY060)	2,65	0,06	0,00
Gross housing allowances (HY070)	27,96	0,06	0,00
Gross inter-HH cash received (HY080)	17,04	1,64	0,00
Gross interest repayments (HY100)	73,60	0,06	0,00
Gross Income under 16 (HY110)	14,41	0,06	0,00
Gross taxes on wealth (HY120)	88,96	0,06	0,00
Gross inter-HH cash paid (HY130)	13,80	1,10	0,00
Gross tax on income (HY140)	99,85	0,06	0,00
Gross employee cash income (PY010)	84,12	0,00	0,00
Gross non-cash income (PY020)	26,95	0,00	0,00
Gross company car (HY021)	8,39	0,00	0,00
Gross employer's social insurance contrib. (PY030)	83,30	0,00	0,00
Gross contrib. to individual private pension plans (PY035)	2,82	0,00	0,00
Gross self employment (PY050)	10,86	0,00	0,00
Gross unemployment benefits (HY090)	2,31	0,00	0,00
Gross old-age benefits (PY100)	11,41	0,00	0,00
Gross survivor benefits (PY110)	4,66	0,00	0,00
Gross sickness benefits (PY120)	0,27	0,00	0,00
Gross disability benefits (PY130)	4,49	0,00	0,00
Gross education allowances (PY140)	1,37	0,00	0,00

**Table 2.3.3.6 Total item nonresponse and number of observations**

	Valid N	nonresp
Males	4374	3
Females	4277	1
Employed	4908	4
Unemployed	40	0
Inactive	1430	0
Under 25	3476	1
25-34	1062	0
35-44	1228	0
45-54	1260	0
55-64	825	1
65+	800	2
Owner	7794	4
Tenant	843	0
Male under 25	1802	1
Male 25-34	530	0
Male 35-44	596	0
Male 45-54	616	0
Male 55-64	421	1
Male 65+	409	1
Female under 25	1674	0
Female 25-34	532	0
Female 35-44	632	0
Female 45-54	644	0
Female 55-64	404	0
Female 65+	391	1
Male employed	2584	3
Male unemployed	15	0
Male inactive	625	0
Female employed	2324	1
Female unemployed	25	0
Female inactive	805	0
One person under 64 years	246	0
One person, 65 years or older	138	0
One person male	194	0
One person female	190	0
One person total	384	0
Two adults under 65 no dependent children	882	2
Two adults, no dependent children	660	2
Other, no dependent children	577	0
Single parent, one or more dependent child	397	0
Two adults , 1 dependent child	1230	0
Two adults, 2 dependent children	1680	0
Two adults, 3 or more dependent children	1509	0
Other households with dependent children	1301	0
Households without dependent children	2503	4
Households with dependent children	6117	0

### 2.3.3.6 Total item nonresponse for equivalized disposable income

The information for the income variables were mainly collected through registers. Only information for HY080 and HY130 was received from the tax register. Nonresponse for each income variable is shown in table 2.3.3.5.

If the social ID number was not received for a household member in the interview the household was not included in the data. Therefore we were able to link all household members of all the households to the tax register. Item nonresponse for the equivalized disposable income is therefore only partial where the information were missing for HY080 and HY130 as shown in table 2.3.3.5.

## 2.4. Mode of data collection

All interviews were done through telephone with the aid of the Blaise software. One week before the start of data collection Statistics Iceland sent a letter to the sampled individuals explaining the purpose of the survey and requesting their cooperation.

Instead of asking about the amounts paid for electricity and heat (which are a part of variable HH070, Total Housing cost) imputations are used based on the HBS (Household Budget Survey). The reason is that it is our belief that people often do not know the amounts they pay for heating and electricity. These bills are often paid automatically through credit cards or automatically taken out of peoples' bank accounts. Some people hardly ever see the bills. Length of the intervals the amounts apply to have also sometimes been hard to establish (1 month, 3 months ect). The HBS (Household budget survey) on the other hand is a face to face survey where the respondents are asked in advance to prepare by keeping bills or bank transcripts handy.

The distribution of the selected respondents, household members aged 16 or over, and non-selected household members by data status (RB250) and by type of interview (RB260) is shown in the tables below.

**Table 2.4 A Distribution of household members age 16 or over by data status (RB250)**

	Selected resp	not selected	16+
12 Only from registers	0	24	24
13 Interview and registers	705	907	1612
12 Only from registers	0	7	7
13 Interview and registers	704	889	1593
12 Only from registers	0	5	5
13 Interview and registers	715	910	1625
12 Only from registers	0	16	16
13 Interview and registers	748	937	1685
	2872	3695	6567

**Table 2.4 B Distribution of household members age 16 or over by type of interview (RB260)**

	Selected resp	not selected	16+
CATI	705	907	1612
CATI	704	889	1593
CATI	715	910	1625

CATI	748	937	1685
Total	2872	3643	6515

## 2.5. Interview duration

The mean duration of the personal interview (PB120) was 15 minutes and 17 seconds and the mean duration of the household interview (HB100) was 10 minutes and 17 seconds.

The mean duration of the total interview was 25 minutes and 35 seconds per average.

## 3. Comparability

### 3.1. Basic concepts and definitions

#### The reference population

The reference population is persons aged 16 years or more at December 31st in the year 2006, living in private households.

#### The private household definition

A private household is defined as individuals that share food, meaning that they either do not pay for their food or that they share expenses for food. The definition does not require that they eat at the same times or that they are related.

#### The household membership

Persons are considered as household members if they spend most of their nights at the address of the household.

Individuals that are temporarily away (not having a private address elsewhere) and will return to the household are considered as household members. As example of this are children in boarding schools, fishermen, individuals admitted to hospitals or imprisoned and those that are working for longer periods away from home.

#### The income reference period

The income reference period is the calendar year 2006.

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

The period for taxes on income and social insurance contributions is the calendar year 2006.

#### The reference period for taxes on wealth

The reference period for taxes on wealth is the calendar year 2006.

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

The income variables are collected from registers and the interval between the end of the income reference period and the time of interview for current variables is maximum four and a half months.

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

The interviews were carried out between 25<sup>th</sup> of February and 8<sup>th</sup> of June 2007.

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

**Table 3.1 Activity status of persons 18 years or older**

N            %

1 Working	4740	76,45
2 Unemployed	38	0,61
3 Retired	735	11,85
4 Other inactive	522	8,42
9 Not responded	165	2,66
Total	6200	100,00

## 3.2. Components of income

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

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

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

#### Total household gross income (HY010)

The sum of all income components:

$HY040G + HY050G + HY060G + HY070G + HY080G + HY090G$

Plus the sum for all household members of:

$PY010G + PY020G + PY050G + PY090G + PY100G + PY110G + PY120G + PY130G + PY140G$ .

#### Total disposable household income (HY020)

Defined as total gross income ( $HY100G + HY130G + HY140G$ ) minus ( $HY120G + HY130G + HY140G$ )

#### Total disposable household income before social transfers except old-age and survivor's benefits (HY022)

Defined as HY020 minus the sum for all household members of:

$(PY090N + PY120N + PY130N + PY140N) + HY050N + HY060N + HY070N$

#### Total disposable household income before social transfers including old-age and survivor's benefits (HY023)

Defined as HY020 minus the sum for all household members of:

$(PY090N + PY100N + PY110N + PY120N + PY130N + PY140N) + HY050N + HY060N + HY070N$

#### Income from rental of property or land (HY040)

Income from hiring out property not contacted to business activity. Deviates from SILC definitions in that no information is available in the register on interest repayments, maintenance, insurance and other charges.

#### Family/children-related allowances (HY050)

Includes the following income components:

- Family allowance
- Maternity allowance (birth grant)
- Single parent's allowance

Social assistance (HY060)

Includes the total amount received in social assistance.

Housing allowances (HY070)

Includes rent benefits granted to tenants.

Regular inter-household cash transfers received - (HY080)

Includes alimonies received. Information on regular private cash support received by children from parents living in a separate household is included from interview. The same goes for other inter household cash transfers received.

Interest, dividends, profit from capital investment in unincorporated business (HY090):

Interest and dividends are taxable income.

Income received by people aged under 16 (HY110)

Includes the following income components:

- Interests and dividends.

Those are registered in one sum on parent's tax return. If more than one child is in the household it is divided equally between the children.

- Children with income.

Interest repayments on mortgage (HY100)

As interest repayments on mortgage are used for calculating fiscal benefits to owner-occupiers are to be found in registers.

Regular taxes on wealth (HY120)

As the taxes are paid in the following year information is sought in registers from the year before.

Regular inter-household cash transfers paid (HY130)

Information on alimonies paid and regular private cash support to children from parents living in a separate household is included from interview. The same goes for other inter household cash transfers received.

Total Tax on income and social contribution (HY140)

It includes assessed income, wealth taxes and social contributions.

Repayment/receipts for tax adjustment (HY145)

It is included in HY140.

Employee cash or near cash income (PY010)

Deviation from the SILC concept:

It is not possible to separate from employee cash income redundancy compensations that should be included under unemployment benefits. The same goes for wages and salaries during sickness, which is a major part of sickness benefits paid in Iceland.

Cash benefits or losses from self-employment (PY050)

Entrepreneurial income is collected *net* in register data. Royalties are registered as "other income" and not possible to separate and not include here.

Unemployment benefits (PY090)

Deviation from the SILC concept:

It is not possible to separate from employee cash income (PY010) redundancy compensations that should be included here or in PY100.

#### Old-age function (PY100)

Includes the following income components:

- Old age pension from social security scheme (basic pension).
- Old age pension from compulsory private pension funds (employment pension).

#### Survivors' function (PY110)

Includes the following income components:

- Survivors' pension from social security scheme.
- Survivors' pension from compulsory private pension funds.
- Death grants.

#### Social benefits in the sickness (PY120)

All sickness benefits that are included in wages and salaries cannot be specified in registers and are included in PY010.

#### Disability benefits (PY130):

Includes the following income components:

- Disability benefits and pension from social security scheme (basic pension).
- Disability benefits and pension from compulsory private pension funds (employment pension).

#### Education related allowance (PY140)

It includes scholarship of various kinds and “educational alimony” received by children at the age of 18 to 20 years living with single parent (e.g. students).

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

Tax register is use for all income variables except for HY080 and HY130 (Regular inter-household cash transfer received and paid). For those two variables information are collected through the interview. Those are also the only income variables where imputation was used.

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

The register data only report gross income at component level. Total assessed taxes and contributions to social security are collected separately from tax registers.

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

All income data are recorded gross at component level.

## **4. Coherence**

#### ***4.1. Comparison of income target variables and number of persons who receive income from each ‘income component’, with external sources***

With the exception of inter-household transfers all the income data in SILC are from register. Hence, in our opinion, there is no point in comparing the results with external sources since the source we would compare with is the source used in SILC.

### **5. Index**

Cross sectional  
Equivalized  
Frame  
Imputation  
Income  
Longitudinal  
Nonresponse  
Rotation  
Sampling  
Stratification  
Weight