



**Statistics Netherlands**

Division of Social and Spatial Statistics  
Department of Support and Development  
Unit Research and Development

*Heerlen  
The Netherlands*

---

# **Intermediate quality report**

EU-SILC 2009

The Netherlands

## Preface

In recent years, Statistics Netherlands has focused on an increased use of register data instead of survey data in the production process of statistical information. By making efficient use of register data, Statistics Netherlands intends to improve the accuracy of the statistical information, and, at the same time, to decrease the response burden on households. Examples of administrative registrations are the Population Register (the municipal basic registration of population data; in Dutch: Gemeentelijke BasisAdministratie - GBA), data on social security and tax data. The Population Register (GBA) contains information on age, sex, ethnicity, place of birth, place of residence, marital status and other information for all (registered) persons living in the Netherlands. This registration has been available from 1995 onwards, and is updated monthly. The Labour Force Survey (LFS) is one of the social statistical databases that are linked to the GBA. The design of the LFS is based on a face-to-face interview (CAPI), followed by a four-wave panel by telephone interview (CATI).

In the Netherlands, 2005 was the initial year for the EU-SILC survey. And for various reasons (costs, response burden, available information), it was decided to consider the option of using the fifth wave LFS-respondents as the EU-SILC sampling frame. In doing so, a relatively short telephone-interview (on average 15 minutes) was sufficient to collect the additional EU-SILC information.. Consequently, all information based on the Population Register, register data on income and the LFS was matched to the EU-SILC respondents.

Statistics Netherlands implemented the integrated four-year rotational design which means that the cross-sectional en longitudinal EU-SILC data are based on the same set of sample observations. Rotational design refers to the sample selection based on a number of subsamples or replications. Once the system is fully established (from EU-SILC 2008 onwards) the sample for any one year consists of four replications which have been in the survey for 1, 2, 3 or 4 years. Each year one of the four replications is dropped and replaced by a new one. The new group consists of new sample persons who were drawn from the Labour Force Survey.

Preface

<b>1. Common longitudinal European Union indicators</b>	<b>4</b>
<b>2. Accuracy</b>	<b>7</b>
2.1. Sampling design	7
2.1.1. Type of sample design	7
2.1.2. Sampling units	8
2.1.3. Stratification criteria	8
2.1.4. Sample size and allocation criteria	9
2.1.5. Sample selection scheme	11
2.1.6. Sample distribution over time	11
2.1.7. Renewal of sample: rotational groups	12
2.1.8. Weighting	12
2.1.8.1. Design factor	12
2.1.8.2. Non-response adjustments	13
2.1.8.3. Adjustments to external data:	13
2.1.8.4. Final cross-sectional weight	14
2.1.9. Substitutions	14
2.2. Sampling errors	14
2.2.1. Sampling errors and effective sample size	14
2.3. Non-sampling errors	17
2.3.1. Sampling frame and coverage errors	17
2.3.2. Measurement and processing errors	18
2.3.3. Non-response errors	19
2.3.3.1. Achieved sample size	19
2.3.3.2. Unit non-reponse	20
2.3.3.3. Distribution of households by household status	21
2.3.3.4. Distribution of substituted units	21
2.3.3.5. Item non-response	22
2.4. Mode of data collection	23
2.5. Duration of interview	24
<b>3. Comparability</b>	<b>25</b>
3.1. Basic concepts and definitions	25
3.2. Components of income	26
3.2.1. Differences between national definitions and standard EU-SILC definitions	26
3.2.2. The source of procedure used for the collection of income variables	27
3.2.3. The form in which income variables at component level have been obtained	27
3.2.4. The method used for obtaining income target variables in the required form	28
<b>4. Coherence</b>	<b>28</b>
4.1. Description of data sources	28
4.2. Comparison of indicators with IPS	28
4.3. Comparison of numbers of persons and households who receive income from each component	29
4.4. Comparison with EU-SILC 2007 and 2008	31

References

**Annex 1: indicators**

# 1. Common Indicators

## 1.1 Common cross-sectional European Union indicators EU-SILC 2009

In the following tables the common cross-sectional European Union indicators are reported. The SAS-applications to calculate these indicators were provided by Eurostat .

Table 1.1: Common Indicators EU-SILC 2009

Indicator	Value
At-risk-of-poverty rate after social transfers - total	11.1
At-risk-of-poverty rate after social transfers - men total	10.8
At-risk-of-poverty rate after social transfers - women total	11.3
At-risk-of-poverty rate after social transfers - 0-17 years	15.4
At-risk-of-poverty rate after social transfers - 65+ years	7.7
At-risk-of-poverty rate after social transfers - 18-64 years	10.3
At-risk-of-poverty rate after social transfers - men 65+ years	8.0
At-risk-of-poverty rate after social transfers - men 18-64 years	9.9
At-risk-of-poverty rate after social transfers - women 65+ years	7.5
At-risk-of-poverty rate after social transfers - women 18-64 years	10.7
Median of the equivalised disposable household income	20,156
At-risk-of-poverty threshold - single	12,094
At-risk-of-poverty threshold - 2 adults, 2 children	25,397
Relative median at-risk-of-poverty gap - total	16.5
Relative median at-risk-of-poverty gap - men total	16.9
Relative median at-risk-of-poverty gap - women total	16.3
Relative median at-risk-of-poverty gap - 0-17 years	14.8
Relative median at-risk-of-poverty gap - 18-64 years	20.7
Relative median at-risk-of-poverty gap - 65+ years	12.8
Relative median at-risk-of-poverty gap - men, 18-64 years	23.6
Relative median at-risk-of-poverty gap - men, 65+ years	12.3
Relative median at-risk-of-poverty gap - women, 18-64 years	17.3
Relative median at-risk-of-poverty gap - women, 65+ years	14.1
Inequality of income distribution S80/S20 income quintile share ratio	4
Relative median income ratio people aged 65+ (R_GE65_45TO54) - total	0.78
Relative median income ratio people aged 65+ (R_GE65_45TO54) - men	0.80
Relative median income ratio people aged 65+ (R_GE65_45TO54) - women	0.77
Aggregate replacement ratio - total	0.44
Aggregate replacement ratio - men total	0.52
Aggregate replacement ratio - women total	0.47
At-risk-of-poverty rate after social transfers - employed	5.0
At-risk-of-poverty rate after social transfers - non-employed	16.0
At-risk-of-poverty rate after social transfers - unemployed	41.7
At-risk-of-poverty rate after social transfers - retired	6.7
At-risk-of-poverty rate after social transfers - other inactive	22.3
At-risk-of-poverty rate after social transfers - men, employed	5.0

At-risk-of-poverty rate after social transfers - men, non-employed	17.1
At-risk-of-poverty rate after social transfers - men, unemployed	44.1
At-risk-of-poverty rate after social transfers - men, retired	6.4
At-risk-of-poverty rate after social transfers - men, other inactive	26.5
At-risk-of-poverty rate after social transfers - women, employed	5.1
At-risk-of-poverty rate after social transfers - women, non-employed	15.3
At-risk-of-poverty rate after social transfers - women, unemployed	39.6
At-risk-of-poverty rate after social transfers - women, retired	6.9
At-risk-of-poverty rate after social transfers - women, other inactive	20.1
<b>At-risk-of-poverty rate after social transfers by household type</b>	
HH_NDCH (Households without dependent children)	11.1
A1_LT65(One adult younger than 65 years)	22.5
A1_GE65 (One adult 65 years or older)	6.3
A1F (Single female)	15.8
A1M (Single male)	19.5
A2_2LT65 (Two adults younger than 65 years)	4.7
A2_GE1_GE65 (Two adults, at least one aged 65 years and over)	7.7
A_GE3 (Three or more adults)	3.1
HH_DCH (Households with dependent children)	12.7
A1_DCH (Single parent with dependent children)	33
A2_1DCH (Two adults with one dependent child)	4.3
A2_2DCH (Two adults with two dependent children)	8.7
A2_GE3DCH (Two adults with three or more dependent children)	20.7
A_GE3_DCH (Three or more adults with dependent children)	10.1
At-risk-of-poverty rate after social transfers- owner	6.7
At-risk-of-poverty rate after social transfers- rent	20.8
<b>Before social transfers except old-age and survivors' benefits</b>	
At-risk-of-poverty rate before social transfers - total	20.5
At-risk-of-poverty rate before social transfers - men total	20.1
At-risk-of-poverty rate before social transfers - women total	20.9
At-risk-of-poverty rate before social transfers - 0-17 years	25.2
At-risk-of-poverty rate before social transfers - 18-64 years	20.3
At-risk-of-poverty rate before social transfers - 65+ years	14.4
At-risk-of-poverty rate before social transfers - men, 18-64 years	19.5
At-risk-of-poverty rate before social transfers - men, 65+ years	13.7
At-risk-of-poverty rate before social transfers - women, 18-64 years	21.0
At-risk-of-poverty rate before social transfers - women, 65+ years	15.0
<b>Before social transfers</b>	
At-risk-of-poverty rate before social transfers - total	36
At-risk-of-poverty rate before social transfers - men total	33.4
At-risk-of-poverty rate before social transfers - women total	38.5
At-risk-of-poverty rate before social transfers - 0-17 years	25.8
At-risk-of-poverty rate before social transfers - 18-64 years	26.2
At-risk-of-poverty rate before social transfers - 65+ years	95
At-risk-of-poverty rate before social transfers - men, 18-64 years	24
At-risk-of-poverty rate before social transfers - men, 65+ years	94
At-risk-of-poverty rate before social transfers - women, 18-64 years	28.4
At-risk-of-poverty rate before social transfers - women, 65+ years	95.8

Gini coefficient	27.2
<b><i>Dispersion around the at-risk-of-poverty threshold</i></b>	
40% - total	2.9
40% - male	2.8
40% - female	3
50% - total	5.5
50% - male	5.5
50% - female	5.5
70% - total	18.7
70% - male	17.9
70% - female	19.5

## 1.2. Other indicators

### 1.2.1. *Equivalised disposable income*

Mean equivalised disposable income, on personal level: € 22,790 . Imputed rent and interest repayments on mortgage have not been included in the calculation of disposable income.

### 1.2.2. *The unadjusted gender pay gap*

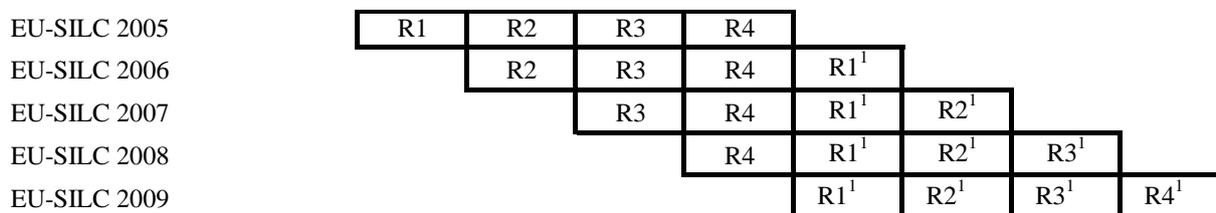
The gender pay gap is not computed on the basis of EU-SILC data.

## 2. Accuracy

### 2.1 Sampling design

The EU-SILC survey is an annual survey with a four-year rotational panel and has been carried out as an integrated survey, covering both cross-sectional and longitudinal primary target variables by a single operation. The cross-sectional sample of SILC 2009, the fifth year of EU-SILC in the Netherlands, consists of four rotational groups. Group R1' has entered the survey in 2006 and sample persons in group R2' were interviewed for the first time in 2007. Group R3' has entered the survey in 2008 and group R4' consists of new sample persons who were drawn from the Labour Force Survey.

Figure 2.1. Rotational design EU-SILC



#### 2.1.1 Type of sampling

Sample persons in the new rotational group 4 (R4') were partly drawn from the Labour Force Survey (LFS). The sampling frame of the LFS is the Dutch municipality administration (Gemeentelijke Basisadministratie or GBA). The LFS-sampling design can be classified as a stratified two-stage sampling design, with municipalities as primary sampling units and addresses as secondary sampling units. The sampling of first stage elements is with probability proportional to size (number of addresses per municipality). Municipalities with 7,300 addresses or more are always in the sample. The second stage elements are selected with simple random sampling such that the total sampling design becomes self-weighting. From the addresses further sampling units are constructed: households, and sample persons in selected households. For the measurement of detailed information on social variables one member of the household aged 16 or older is selected (the so-called selected respondent).

### 2.1.2 Sampling units

The sampling units are addresses that are registered in the sampling frame. All households on selected addresses are eligible for the survey, up to a maximum of three households per address.

### 2.1.3 Stratification criteria

Stratification involves the division of the population into sub-groups, or strata, from which independent samples are taken. The stratification variables are the 40 COROP-regions (NUTS3). These are regional areas within the Netherlands and are used for analytical purposes by, among others, Statistics Netherlands. The Dutch abbreviation stands for Coördinatiecommissie Regionaal Onderzoeksprogramma, literally the Coordination Commission Regional Research Programme. Applying this type of stratification allows for representative samples on a regional level.

Figure 2.2. COROP regions in the Netherlands



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

Member states have to achieve a minimum effective sample size for the cross-sectional and longitudinal sample. For the Netherlands the net cross-sectional sample size is 6,500 households and 6,500 selected persons over 15 (concerning the measurement of social variables). Correcting for estimated design effects, the minimum achieved sample size should be 8,500 households and 8,500 selected persons over 15 years of age (a justification of this figure will be given in section 2.1.8.1). Similar considerations apply to the longitudinal sample: in this case the net sample size is 5,000 households and 5,000 selected persons over 15, and the achieved sample size should be 6,500 households and 6,500 selected persons over 15.

The sampling design is partly based on the design for the Labour Force Survey (LFS), which has a panel structure with five rotational groups. In the first wave, interviews are conducted through face-to-face interviewing. Subsequent waves are conducted through telephone interviewing. The period between waves is three months. When the first wave of the LFS survey has been completed, addresses with all residents aged over 64 are removed from the sample. Households that have taken part in all five waves of the labour force survey are recruited for the EU-SILC survey. If a household is willing to participate, it is contacted in the month following the final LFS interview. As addresses with all residents aged over 64 are no longer present in the last wave of the LFS an extra sample for the EU-SILC survey is required. We therefore distinguish between two EU-SILC samples: the first sample represents the set of addresses with households that have participated in the LFS survey. At least one of the household members living on such an address is under 65. The allocation of this sample is illustrated in table 2.1. The second sample is a set of addresses with all residents aged over 64. The allocation of this sample is illustrated in table 2.2. Both samples are based on the sample selection scheme of section 2.1.5.

In 2009 9,990 households in the fifth wave of the LFS were recruited for the first wave of the EU-SILC survey (rotational group R4'). Among them 2,914 were actually used for EU-SILC and 2,548 households completed the household questionnaire.

Households in the LFS-sample which did not respond to the LFS-survey or which have not been used for recruiting EU-SILC respondents have not been registered in the EU-SILC household register (D-file). Only households which were actually used for the EU-SILC survey are registered in the D-file.

Table 2.1: sample size sample 1; at least one resident aged below 65

<i>Addresses used for recruiting EU-SILC households</i>	9,990
willing to participate in EU-SILC survey	7,402
not willing to participate	2,588
<i>Willing to participate in EU-SILC</i>	7,402
addresses used by the institute for EU-SILC	2,914
addresses not used by the institute for EU-SILC	3,802
<i>Addresses used by the institute for EU-SILC</i>	2,914
addresses successfully contacted for EU-SILC	2,747
addresses not successfully contacted	167
<i>Addresses successfully contacted for EU-SILC</i>	2,914
household questionnaire EU-SILC completed	2,548
refusal to co-operate	78
household temporarily away for duration of fieldwork	
unable to respond	9
other reasons	112
<i>Household questionnaire completed</i>	2,548
accepted for database	2,520
interview rejected	28

For the sample of addresses with all residents aged over 64, all of the issued 1,084 addresses were used and 680 households completed the EU-SILC questionnaire. Again a small number of interviews had to be rejected, 559 interviews were accepted for the database. Combining both samples, the number of new accepted household interviews in the new rotational group (R4') is 3,079

Table 2.2. sample size sample 2; all residents at address are 65 or older.

<i>Issued addresses</i>	1,084
addresses used by the institute	1,084
addresses not used by the institute	0
<i>Addresses used by the institute</i>	1,084
addresses successfully contacted	994
addresses not successfully contacted	90
<i>Addresses successfully contacted</i>	994
household questionnaire EU-SILC completed	583
refusal to co-operate	265
household temporarily away for duration of fieldwork	
unable to respond	108
other reasons	38
<i>Household questionnaire completed</i>	583
accepted for database	559
interview rejected	24

### 2.1.5 Sample selection scheme

As stated before, the primary sampling units are selected by means of sampling with probability proportional to size. Therefore the ordering of these units in the strata is relevant: the primary sampling units in each of the strata are randomly ordered. The secondary sampling units are selected with simple random sampling in order that the total sampling design becomes self-weighting.

Addresses corresponding to institutions, addresses that have been part of a survey sample in the previous year, and addresses in some small regions of the national territory (West Frisian Islands) are removed from the sample. These addresses are not part of the reference population. In the case of sample 1, a number of sampling units in each of the interviewer regions is randomly removed in order to fit the sample with the available face-to face interview capacity. The sampling design for this sample is therefore no longer strictly self-weighting.

### 2.1.6 Sample distribution over time

The following tables provide an overview of the cumulative sample development (all rotational groups) during the fieldwork period from 1 June 2009 to 30 September 2009. Table 2.3 illustrates the sample development of sample 1, table 2.4 that of sample 2.

Table 2.3: cumulative sample size over time, EU-SILC sample 1, at least one resident aged below 65

Fieldwork	Accepted interviews
01/06 – 30/06	2,235
01/06 – 31/07	4,454
01/06 – 31/08	6,292
01/06 – 30/09	8,156

Table 2.4: cumulative sample size over time, EU-SILC sample 2, all residents at address are 65 or older

Fieldwork from .. to ..	Accepted interviews
01/06 – 30/06	474
01/06 – 31/07	928
01/06 – 31/08	1,317
01/06 – 05/10	1,572

### 2.1.7 Renewal of samples: rotational groups

In the Netherlands, 2005 was the initial year of EU-SILC. A new sample was constructed and divided into four rotational groups. Each rotational group is a subsample, each by itself representative of the whole population, and each constructed using the same sampling design. One of the subsamples was purely cross-sectional and was not followed up in 2006. Respondents in the second subsample participated two years, in the third subsample three years, and in the fourth subsample four years. Because accurate panel attrition rates were not available at the start of the EU-SILC survey, the subsample sizes are chosen to be of quite different sizes in order to guarantee a longitudinal sample of sufficient size. The longitudinal 2008-2009 sample consists of 6,649 households (rotational group R1', R2', and R3').

Table 2.5: size of rotational groups EU-SILC 2009

	Total	R1'	R2'	R3'	R4'
Used addresses	11,834	1,500	2,842	3,494	3,998
Successfully contacted addresses	11,002	1,398	2,645	3,218	3,741
Accepted household interviews	9,728	1,286	2,449	2,914	3,079

### 2.1.8 Weighting

This chapter describes the procedure to calculate the cross-sectional weights. These procedures comply in general with the EUROSTAT recommendations. Each subsample has been weighted separately in order to calculate the base weights. In a final step these base weights were combined to calculate the cross sectional weights.

#### 2.1.8.1 Design factor

The design factor (or design effect) expresses the loss in precision due to the actual sampling design, as compared to a single random sampling (SRS) design. As such, it plays an important role in determining the required sample size. The design factor can be calculated as the ratio of the variance (of a particular estimator), obtained under the actual design, to the variance obtained by SRS. Here, the design factor for the total at-risk-of-poverty rate is presented. The calculation of the design factor proceeds as follows. The variance obtained under the actual design is found by squaring the corresponding standard error listed in table 2.6 (see section 2.2.1). Next, in order to compute the variance that would have been obtained from a single random sample, a resampling method is used to simulate such a sample from the actual sample file. The simulated single random sample is subsequently used to infer the SRS variance, following the same strategy as outlined in section 2.2.1. With the thus found variance, the resulting design factor for the at-risk-of-poverty rate was 1.24 (based on EU-SILC 2006 data).

The design factor calculated here is in reasonable agreement with a preliminary estimate of the design factor, on the basis of which the total sample size was chosen. Calculating backwards, the effective sample size is  $9,728/1.24 = 7,845$  households for the total at-risk-of-poverty rate. This figure amply meets the requirement by the EU-SILC Regulation, which stipulates a minimum effective sample size of 6,500 households for the Netherlands.

### 2.1.8.2 *Non-response Adjustments*

Non-response adjustments are necessary because of the bias introduced by selective non-response on the household level. Selective non response affects the inclusion probabilities of the sampling units. Ideally the inclusion probability can be calculated by multiplying the inclusion probabilities of the sampling design with the exact response probabilities. Unfortunately, in practice these response probabilities are unknown and some kind of approximation has to be made.

The method of logistic regression was adopted to approximate the response probabilities for the new rotational group. The response probabilities were modelled by the explanatory variables age, degree of urbanisation, type of household, and labour force status. For the old rotational groups a proper model could not be fitted using logistic regression. Therefore the response probabilities were considered equal for all persons in the response.

### 2.1.8.3 *Adjustments to external data*

Adjustments made by calibration schemes in general improve the accuracy of the data (mean square error). Three good reasons for using calibration schemes are: 1) the estimates of variables that are used in the calibration scheme are made consistent with those of more reliable sources. 2) the standard error of the estimates is reduced if the calibration variables correlate with target variables. 3) non-response bias is reduced if the calibration variables correlate with both target variables and response probabilities.

Two external data sources were used in the calibration procedure:

1. the Population Register (GBA), and
2. the register on income data based on integral data from the tax authorities in 2008.

The adjustments were made on the basis of the base weights: the product of the design weights with the inverse of the response probabilities (non-response weights). The calibration was performed on household and personal level using linear consistent weighting, so that individuals within the household have identical weights equal to the household weight. The set of variables used for calibration includes the smaller subset suggested by Eurostat in document EU-SILC 065/04. Additional calibration variables that correlate strongly with the target variables were added: income data and data on tenure status from the income register. The following variables were included in the calibration scheme:

- sex,
- age in years, 0 thru 84 and 85 years and over,
- household level: six categories (1, 2, 3, 4 or more household members),
- region: 12 categories, one for each of the provinces (nuts 2),
- tenure status, in two classifications (owner, tenant)
- equivalized disposable income (CBS-definition) in deciles
- source of income (employee, self-employed, unemployed, social assistance, disabled, retired aged under 65, retired aged 65 years or older, student, no income).
- low income category, in three classifications (non target population, low income and other income).
- at-risk of poverty-rate IPS (Income Panel Survey)

Taking into account consistency requirements and the correlation of weighting terms with important target variables (Laeken indicators), the following weighting terms were constructed:

*weighting model terms at household level:*

- household size,
- region (nuts 2),
- tenure status
- low income category.

*weighting model terms at personal level:*

- sex x age,
- equivalized income (decile group),
- main source of income
- At-risk of poverty-rate IPS (Income Panel Survey)

Children's weights were adjusted to the population of 1-year age bands originating from the Population Register (GBA).

#### *2.1.8.4 Final cross-sectional weight*

The household cross-sectional weight DB090 and the personal cross-sectional weight RB050 are the direct result of the linear consistent weighting procedure that is described in paragraph 2.1.8.3. Children who were born in a sample household in the course of 2008 receive the weight DB090 of the household they belong to, and this equals their personal cross-sectional weight RB050.

The personal cross-sectional weight PB040 equals the weight PB050 for people of 16 years and older. For people younger than 16 years this weight equals 0.

Finally, the cross-sectional weights for selected respondents are determined by adjusting the weight PB040 for the probability with which the respondent is chosen within the household. For the "old" rotational groups, these probabilities are equal to those in the initial year of the survey. Persons that are older than 16 in the new households have the same probability of being selected as a sample person. This probability is four times as large for persons that are exactly 16 years.

#### *2.1.9 Substitutions*

Not applicable.

## **2.2 Sampling errors**

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

Table 2.6 show sthe estimated standard errors of the key EU-SILC indicators. The underlying methodology is the linearization technique coupled with the use of the software package Bascula which has been developed by the methodology department at Statistics Netherlands. Using Bascula one can calculate (weighted) totals, means, ratios and the corresponding standard errors of target variables for a variety of sampling designs and weighting models.

Table 2.6: Standard errors common cross-sectional indicators EU-SILC 2009

indicator			value	Achieved sample size	standard error	
At-risk-of-poverty threshold - single (euro)			12094	23687	39,20	
At-risk-of-poverty threshold - 2 adults, 2 children (euro)			25397	23687	82,32	
<b>At-risk-of-poverty rate by age and gender</b>						
	Total (0+)	Total	11,1	23687	0,3	
		M	10,8	11661	0,4	
		F	11,3	12026	0,41	
	0-15	Total	15,4	5433	0,84	
	16-24	Total	19,1	2062	1,36	
		M	19,0	1061	1,9	
		F	19,2	1001	2,1	
	25-49	Total	9,9	8075	0,5	
		M	9,6	3855	0,68	
		F	10,3	4220	0,58	
	50-64	Total	6,8	5233	0,63	
		M	6,0	2590	0,74	
		F	7,5	2643	0,81	
	65+	Total	7,7	2884	0,84	
		M	8,0	1371	1,04	
		F	7,5	1513	0,86	
	16+	Total	10,2	18254	0,3	
		M	9,8	8877	0,4	
		F	10,3	9377	0,4	
16-64	Total	10,5	15370	0,3		
	M	10,1	7506	0,5		
	F	10,9	7864	0,5		
0-64	Total	11,6	20803	0,3		
	M	11,3	10290	0,5		
	F	12,0	10513	0,5		
<b>At-risk-of-poverty rate by most frequent activity status and by gender and selected age group</b>						
Age 16+	Of which: 'At work'	Total	5,0	11127	0,3	
		M	5,0	5871	0,4	
		F	5,1	5256	0,4	
	Of which: 'Not at work'	Total	16,0	6989	0,7	
		M	17,1	2947	1	
		F	15,3	4042	0,8	
...Of which: Unemployed		Total	41,7	265	4,3	
		M	44,1	109	6,1	
		F	39,6	156	5	
...Of which: Retired		Total	6,7	3356	0,7	
		M	6,4	1629	0,8	
		F	6,9	1727	0,8	
...Of which: Other inactive		Total	22,3	3368	1	
		M	26,5	1209	1,8	
		F	20,1	2159	1,3	
<b>At-risk-of-poverty rate by household type</b>						
All hh no dep. childr.	Total		9,3	10126	0,4	
	1 person hh	Total	17,5	2659	1	
		M	19,5	1755	1,7	
		F	15,8	904	1,4	
		age < 65 yrs	22,5	1531	1,4	
		age 65+	6,3	1128	1	
		2 adults no dep. childr.	both age < 65 yrs	4,7	4204	0,7
		at least one age 65+	7,7	2294	1,1	
Other hh no dep. childr.			3,1	967	1,3	
All hh with dep. childr.	Total		12,7	13561	0,6	
	Single parent	at least 1 dep. child	33,0	1016	3,7	
	2 adults	1 dep. child	4,3	2487	1,2	
		2 dep. children	8,7	5952	1	
		3+ dep. children	20,7	3229	2,2	
	Other hh with dep. childr.		10,1	869	3,3	

indicator		value	Achieved sample size	standard error	
<b>At-risk-of-poverty rate by accommodation tenure status and by gender and selected age group</b>					
Age 0+	(a) Owner or rent-free	Total	6,7	18780	0,45
	(b) Tenant	Total	20,8	4903	1
<b>At-risk-of-poverty rate by work intensity of the household</b>					
All hh no dep. childr.		WI = 0	20,3	1398	1,9
		0 < WI < 1	5,0	2475	0,8
		WI = 1	3,0	3707	0,5
All hh with dep. childr.		WI = 0	65,0	259	6
		0 < WI < 0,5	41,2	284	7,2
		0,5 <= WI < 1	19,1	3405	1,8
		WI = 1	5,5	9608	0,7
<b>indicator value Achieved sample size standard error</b>					
<b>Inequality of income : S80/S20 income quintile share ratio</b>					
		Total	4,0	23687	0,016
<b>Relative median at-risk-of-poverty gap by gender and selected age group</b>					
Total (0+)		Total	16,5	1311	1,1
		M	16,9	610	1,26
		F	16,3	701	1,18
0-17		Total	14,8	436	1,4
	18-64	Total	20,7	709	1,4
		M	23,6	319	2
F		17,3	390	1,4	
65+	Total	12,8	166	2	
	M	12,3	73	2,3	
	F	14,1	93	2,6	
<b>Dispersion around the at-risk-of-poverty threshold</b>					
		40%	2,9	23687	0,2
		50%	5,5	23687	0,3
		70%	18,7	23687	0,3
<b>At risk of poverty rate before all social transfers except old-age/survivors' pensions by gender and age group</b>					
Total (0+)		Total	20,5	23687	0,3
		M	20,1	11661	0,5
		F	20,9	12026	0,4
0-17		Total	25,2	6056	0,8
	18-64	Total	20,3	14747	0,4
		M	19,5	7176	0,6
F		21,0	7571	0,5	
65+	Total	14,4	2884	1,1	
	M	13,7	1371	1,2	
	F	15,0	1513	1,2	
<b>At risk of poverty rate before all social transfers including old-age/survivors' pensions by gender and age group</b>					
Total (0+)		Total	35,9	23687	0,3
		M	33,3	11661	0,4
		F	38,4	12026	0,5
0-17		Total	25,8	6056	0,8
	18-64	Total	26,1	14747	0,4
		M	23,9	7176	0,5
F		28,3	7571	0,5	
65+	Total	94,8	2884	0,5	
	M	93,8	1371	0,7	
	F	95,6	1513	0,5	
<b>Inequality of income distribution : Gini coefficient</b>					
		Total		23687	0,33

## 2.3 Non-sampling errors

### 2.3.1 *Sampling frame and coverage errors*

As already mentioned in paragraph 2.1.1, the sampling frame of addresses is constructed from the Population Register. First a complete list of addresses is made and then divided into 10 disjoint groups: A0, A1, A2 ..., A9. Each of these subsets contains 10% of all the addresses in the Population Register. Subset A0 is used as an address sampling frame for the years 2000, 2010, 2020, ..., subset A1 is used as an address sampling frame for the years 2001, 2011, and so on. With this kind of approach the sampling frames of ten subsequent years are disjoint and addresses that are contacted within one particular year will not be part of another address survey sample for the next nine years. This approach is in compliance with the policy of Statistics Netherlands to reduce respondent burden in all surveys. Finally, additional information on the type of address and number of postal delivery points is added to the sampling frame. The result is a set of disjoint sampling frames (one for each year) with address information and personal information of all individuals that are registered in a Dutch municipality.

Each year in September the sampling frames for the next year are constructed. The sampling frame of addresses is updated monthly for changes related to births, deaths, migration, new addresses, and vacancies. Also taken into account are changes in municipality boundaries and postal codes. At the date of sample drawing the entries of the sampling frame are therefore practically equal to those in the Population Register (GBA). As the fieldwork period starts six weeks later, coverage errors may occur: during the six weeks between drawing and application of the sample new addresses will be established and some addresses have become vacant or have been demolished.

Institutional addresses are removed after drawing the sample by comparing the sample addresses with entries in the register of institutional addresses. This register is updated once a year, so a small number of over-coverage errors are to be expected.

### 2.3.2 *Measurement and processing errors*

Measurement errors originate from four basic sources:

- (a) the questionnaire (effects of the design, content and wording);
- (b) the data collection method (effects of the modes of interviewing);
- (c) the interviewer (effects of the interviewer on the response to a question including errors of the interviewer);
- (d) the respondents (effects of the respondent on the interpretation of items).

Statistics Netherlands implemented a number of measures to reduce such errors.

- put in specialised expertise in developing questionnaires;
- routings in the questionnaires to provoke only the relevant questions for the respondent;
- cognitive laboratory experiments with focus groups and depth interviewing.
- there is an opportunity to make remarks in the questionnaire;
- evaluations of the questionnaire
- a stable automation system of data communication and production;
- monitoring system;
- each record contains interview accounts as well as interview data;
- extended interviewer instructions and regularly refreshing courses on basic skills and on EU-SILC;
- Interviewer manual;

In a first step in 2002 part of the EU-SILC questionnaire has been tested extensively in a pre-test and a field-test (Snijkers, Beukenhorst and Huynen, 2002).

The aim of this testing was to assess whether:

- The EU-SILC questions are understood and answered by respondents as intended and, if not, how the questions can be improved.
- Any problems occurred during the interviews with regard to the reading aloud by the interviewer or answering of the questions by respondents.

The laboratory pre-test addressed both aims mentioned above, whereas the field test focused on the second aim. Starting from the preliminary report of the laboratory pre-test (Giesen et al, 2002; Eurostat, 2001) rephrased the questions on health, among others. The Questionnaire Laboratory of Statistics Netherlands conducted face-to-face computer-assisted pre-test interviews with 10 volunteer respondents. In 20 in-depth interviews, the wording and comprehensibility of the questionnaire, duration of the interview and the sequence of the questions has been examined. This was important, particularly to improve the instructions for the interviewers (more information is included in Giesen et al, 2002).

Statistics Netherlands used the CATI-method for the EU-SILC interview. Two separate questionnaires for the 65- and 65plus households (see chapter 2) were programmed in Blaise with several data entry and coding controls to reduce processing errors. Finally the EU-SILC files were transformed into Eurostat's standard format and tested using the checking programs developed by Eurostat.

### 2.3.3 Non-response errors

#### 2.3.3.1 Achieved sample size

In 2005 a new sample was constructed and divided in four rotational groups. In table 2.9a it is shown that the four groups differ in size to compensate for panel attrition. The first group did only participate for one year (purely cross-sectional), the second for two years, the third for three years and the fourth for four years. Consequently the sample size for the first group (R1) was smaller than the sample size for the second group (R2), followed by the third (R3) and the fourth group (R4). The first group has been replaced by a new group R1' in EU-SILC 2006 (tabel 2.9b). Group R2' consists of sample persons who were drawn in 2007. Sample persons in group R3' entered the survey in 2008.

Table 2.9a: Sample Size and accepted Interviews EU-SILC 2005

	<b>Total</b>	<b>R1</b>	<b>R2</b>	<b>R3</b>	<b>R4</b>
Persons 16 years and older	17,852	1,667	2,581	5,674	7,930
Number of sample persons	9,356	957	1,331	2,958	4,110
Number of accepted personal questionnaires	17,852	1,667	2,581	5,674	7,930
Accepted household interviews	9,356	957	1,331	2,958	4,110

Table 2.9b: Sample Size and accepted Interviews EU-SILC 2006

	<b>Total</b>	<b>R1'</b>	<b>R2</b>	<b>R3</b>	<b>R4</b>
Persons 16 years and older	17,392	4,395	2,082	4,522	6,393
Number of sample persons	8,986	2399	1,051	2,311	3,285
Number of accepted personal questionnaires	17,392	4,395	2,082	4,522	6,393
Accepted household interviews	8,986	2339	1,051	2,311	3,285

Table 2.9c: Sample Size and accepted Interviews EU-SILC 2007

	<b>Total</b>	<b>R1'</b>	<b>R2'</b>	<b>R3</b>	<b>R4</b>
Persons 16 years and older	19,623	3,555	6,979	3,736	5,353
Number of sample persons	10,219	1,876	3,731	1,909	2,703
Number of accepted personal questionnaires	19,623	3,555	6,979	3,736	5,353
Accepted household interviews	10,219	1,876	3,731	1,909	2,703

Table 2.9d: Sample Size and accepted Interviews EU-SILC 2008

	<b>Total</b>	<b>R1'</b>	<b>R2'</b>	<b>R3'</b>	<b>R4</b>
Persons 16 years and older	19,519	2,957	5,437	6,614	4,511
Number of sample persons	10,337	1,552	2,893	3,621	2,271
Number of accepted personal questionnaires	19,519	2,957	5,437	6,614	4,511
Accepted household interviews	10,337	1,552	2,893	3,621	2,271

Table 2.9d: Sample Size and accepted Interviews EU-SILC 2009

	<b>Total</b>	<b>R1'</b>	<b>R2'</b>	<b>R3'</b>	<b>R4'</b>
Persons 16 years and older	18,254	2,467	4,622	5,339	5,826
Number of sample persons	9,728	1,286	2,449	2,914	3,079
Number of accepted personal questionnaires	18,254	2,467	4,622	5,339	5,826
Accepted household interviews	9,728	1,286	2,449	2,914	3,079

### 2.3.3.2 *Unit non-response*

Indicators of unit non-response are included in table 2.10. The overall household non response rate is 18%. This rate differs slightly between the four rotational groups. Statistics Netherlands has focused on an increased use of register data instead of survey data in the production process of statistical information. Examples of administrative registrations are the Population Register (in Dutch: GBA), data on social security and tax data. The GBA is a fully decentralised, comprehensive and cohesive registration which contains information on age, sex, ethnicity, place of birth, place of residence, marital status, and etcetera for (registered) persons living in the Netherlands. This registration is available from 1995 onwards.

Most of the present administrative Registers are provided with a unique link key. This is the so-called social security and fiscal number (SoFi-number). This SoFi-number is a personal identifier for every (registered) Dutch inhabitant and for those living abroad who receive an income from activities in the Netherlands and consequently have to pay tax over their earnings to the Dutch fiscal authorities. A few SoFi-numbers may be registered with incorrect values in the data-files, in which case linkage with other files is doomed to fail. However, in general, the percentage of matches is close to 100 percent. All social statistics data-files can be linked to the GBA, which in practice means that all these data files can be linked to each other via the GBA.

In surveys records do not have a SoFi-number. This is also true for EU-SILC in which data are collected by interviews. For those records an alternative link key must be used, which is often built up by combining a set of identifying variables (address, sex and date of birth). This sort of link key will in most cases be successful in distinguishing people. However, it is not a 100 percent unique combination of identifiers. When linking the Population Register as well as the records from EU-SILC with this alternative key – and tolerating a variation between sources in at most one of the variables sex, year of birth, month of birth or day of birth – it reveals that 99 percent of the EU-SILC-records can be linked to the Population register. This is a very good result, though we should not exclude a danger of selectivity in the micro-linking process. People that could not be linked to the population register and their household members have been rejected from the database. Consequently, there's no partial unit non-response with respect to income in the EU-SILC database. This is acceptable because the number of unlinked records is very low and the developing of imputation methods for these households is high. However, this method implies a loss of efficiency of the survey and the non response bias is difficultly controllable. If the unlinked records belong to a selective subpopulation, then estimates based on the linked records may be biased, because they do not represent the total population. Analysis in the past has indicated that the young people, the 15–24 age group, show a lower linking rate in household sample surveys than other age groups. The explanation for this phenomenon is that they move more frequently and therefore they are often registered at the wrong address (e.g. students). However, in using a weighting model which includes age, any selectivity in the database has been solved accordingly.

Table 2.10: Indicators on Unit Non-response

	Total	R1'	R2'	R3'	R4'
Addresses successfully contacted	11,002	1,398	2,645	3,218	3,741
Valid addresses selected	11,671	1,478	2,799	3,391	3,973
RA address contact rate	0,94	0,95	0,94	0,95	0,94
Number of household interviews accepted	9,728	1,286	2,449	2,914	3,079
RH (proportion of completed household interviews accepted)	0,88	0,92	0,93	0,91	0,82
NRh (Household non-response rate) %	16,6%	13,0%	12,5%	14,1%	22,5%
Personal interviews completed	18,254	2,467	4,622	5,339	5,826
Number of eligible individuals	18,254	2,467	4,622	5,339	5,826
Rp 1)	1	1	1	1	1
Individual non response rate (%)	0	0	0	0	0
Overall individual non-response (%)	16,6%	13,0%	12,5%	14,1%	22,5%

1) proportion of complete interviews within the households accepted for the database

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

Table 2.11: Distribution of DB120, DB130 and DB135

	Total	R1	R2	R3	R4'
<i>DB120 –Contact at address</i>					
Address contacted	11,002	1,398	2,645	3,218	3,741
Address unable to access	669	80	154	203	232
Address does not exist	163	22	43	73	25
Total	11,834	1,500	2,842	3,494	3,998
<i>DB130- Household questionnaire result</i>					
Household questionnaire completed	9,904	1,314	2,498	2,961	3,131
Refusal to cooperate	564	30	70	121	343
Entire household temporary away					
Household unable to respond	221	19	23	62	117
Other reasons	313	35	54	74	150
Total	11,002	1,398	2,645	3,218	3,741
<i>DB135- Household interview acceptance</i>					
Interview accepted for database	9,728	1,286	2,449	2,914	3,079
Interview rejected	176	28	49	47	52

2.3.3.4 *Distribution of substituted units by household status (DB110), by record contact at address (DB120), by household questionnaire result (DB130) and by household interview acceptance (DB135)*

not applicable

### 2.3.3.5 Item non-response

As income data are based on register information, the income variables do not consist item non-response. However, some income components are not available in the tax registers because they are not taxable. This concerns the inter-household transfers and the income from rental of a property or land. These amounts are asked for in the EU-SILC questionnaire.

Table: 2.12 Item non-response household income components

	households having received an amount		With full information		With non or partial information	
	count	%	count	%	count	%
HY010 Total household gross income	9,728	100	9,590	99	138	1
HY020 Total disposable household income	9,728	100	9,461	97	267	3
HY022 HY020 before transfers (except pensions)	9,728	100	9,461	97	267	3
HY023 HY020 before transfers including pensions	9,727	100	9,461	97	267	3
HY030G Imputed rent	6,882	71	6,882	71	-	-
HY040G Income from rental of a property or land	368	4	298	3	70	1
HY050G Family/Children related allowances	3,256	33	3,256	33	-	-
HY060G Social exclusion not elsewhere classified	1,499	15	1,499	15	-	-
HY070G Housing allowances	946	10	946	10	-	-
HY080G Regular inter-household cash transfer received	639	7	570	6	69	1
HY090G Interest, dividends, profit from capital gain	8,597	88	8,597	88	-	-
HY100G Interest repayments on mortgage	6,012	62	6,012	62	-	-
HY110G Income received by people under 16	187	2	187	2	-	-
HY130G Regular inter-household cash transfer paid	1,203	12	1,065	11	138	1
HY140G Tax on income and social contributions	9,727	100	9,727	100	-	-

Table: 2.13 Item non-response personal income components

	Persons (16+) having received an amount		With full information		With non or partial information	
	count	%	count	%	count	%
PY010G Employee cash or near cash income	12,520	69	12,520	69	-	-
PY020G Non-Cash employee income	-	-	-	-	-	-
PY021G Company car	990	5	990	5	-	-
PY030G Employer's social insurance contribution	12,764	70	12,764	70	-	-
PY035G Contributions to individual private pension plans	2,568	14	2,568	14	-	-
PY050G Cash benefits/losses from self-employment	1,887	10	1,887	10	-	-
PY080G Pension from individual private plans	85	0.5	85	0.5	-	-
PY090G Unemployment benefits	542	3	542	3	-	-
PY100G Old-age benefits	4,325	24	4,325	24	-	-
PY110G Survivor' benefits	148	1	148	1	-	-
PY120G Sickness benefits	243	1	243	1	-	-
PY130G Disability benefits	828	5	828	5	-	-
PY140G Education-related allowances	1,015	6	1,015	6	-	-

## 2.4 Mode of data collection

The response part of Labour Force Survey has been used as the sampling frame for EU-SILC. The income target variables have been derived from Registers. As a result, a substantial reduction of the questionnaire has been achieved. This enabled Statistics Netherlands to use Computer Assisted Telephone Interview (CATI) as interview mode.

Table 2.14: Distribution of RB245, RB250 and RB260 by rotational group

	Total	R1	R2	R3	R4
<i>RB245-Respondent Status</i>					
Household member aged 16 and over	18,254	2,467	4,622	5,339	5,826
- selected respondent	9,728	1,286	2,449	2,914	3,079
-not selected respondent	8,526	1,181	2,173	2,425	2,747
<i>RB250- data Status</i>					
Information completed only from registers (11)	43	5	9	9	20
Information completed from both interview and registers (13)	18,211	2,462	4,613	5,330	5,806
Total	18,254	2,467	4,622	5,339	5,826
<i>RB260 – Type of interview (selected respondent)</i>					
CATI (3)	9,450	1,269	2,419	2,879	2,883
Proxy interview (5)	278	17	30	35	196

One point of concern is the number of proxy-interviews with respect to the detailed variables (selected respondent). In 2005, this proxy rate was quite high (27%). From 2006 onward, specific measures have been taken to substantially reduce the number of proxy-interviews for the selected respondent, such as

interview-training and specific instructions how to approach the selected person in the household. This resulted in a very low proxy rate for the 2009 operation.

## **2.5 Duration of interview**

The total duration of the interview equals 15 minutes on average per household and it includes the personal interview with the selected respondent and the household questionnaire.

### **3. Comparability**

This chapter reports on the differences between Eurostat definitions and the definitions Statistics Netherlands applied in EU-SILC 2009. It also reports on the impact of these differences on the comparability.

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

##### (a) Reference population

The reference population of EU-SILC is all private households and their current members residing in the Netherlands at the time of data collection. The West Frisian Islands with the exception of Texel were excluded from the target population. This is also true for persons living in collective households and in institutions.

##### (b) Private household

No difference to the common definition.

##### (c) Household membership

There are some minor differences in the treatment of special categories like lodgers or people temporarily away (e.g. students). These people are only included as a household member if they are registered at the households' address. According to the EU-definitions resident boarders, lodgers and tenants should be included if they share expenses, have no private address elsewhere or their actual/intended duration of stay must be six months or more. Statistics Netherlands does not apply this limit of six months.

##### (d) Income reference period(s)

The income data of EU-SILC 2009 refer to the calendar year 2008. The income data were mainly collected from registers.

##### (e) The period for taxes on income and social insurance contributions

Taxes on income and social contributions are based on the 'income received' in the income reference year (accrual basis) and do not refer to the amounts actually paid in the income reference year.

##### (f) The reference period for taxes on wealth

There are no taxes on wealth in the Netherlands.

##### (g) The lag between the income reference period and current variables

The EU-SILC fieldwork period started in June 2009 and ended at 30 September 2009. Therefore the lag is at minimum 5 months and at maximum 9 months.

(h) The total duration of the data collection of the sample

The total duration of the data collection was approximately 4 months.

(i) Basic information on activity status during the income reference period

The monthly activity status during the income reference period is mainly based on register data on the main income source. The distinction between full-time and part-time work is based on the survey part of EU-SILC and the LFS.

### 3.2 Components of income

There are some differences in the definition of total gross income and disposable income based on the national definition and the SILC definition.

According to the Commission Regulation:

- *Interest paid on consumer debts is not considered as part of income definition in EU-SILC. In Statistics Netherlands' statistics on disposable household income interest payments on consumer debts are deducted to calculate the disposable income.*
- *Contributions to individual private pension plans (PY035) are classified under items which are not to be considered as income. In Statistics Netherlands' statistics on disposable household income, regular contributions to and benefits from private insurance schemes covering the risk of income loss are treated similarly as regular contributions to and benefits from (mandatory) social insurance and pension insurance schemes. This implies that contributions are deducted from and benefits are added to disposable income.*

#### 3.2.1 Differences in definitions of the income target variables

Income variables with no differences from standard EU-SILC definitions are not mentioned.

##### Total household gross income and disposable income (HY010 and HY020):

The total household income (gross/disposable) has been computed without taking account the interest paid on mortgage, the imputed rent, the contributions to and benefits from individual private pension plans. Subsequently the payable tax on income and social insurance contributions have been corrected to get the fictitious amounts that should have been paid if these components were not received/paid.

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

In order to calculate HY022 Statistics Netherlands calculated the taxable income without the income components:

PY090G + PY120G + PY130G + PY140G + HY050G + HY060G + HY070G.

Subsequently the payable tax on income and social insurance contributions have been corrected. The reason for this adaptation – the exclusion of these income components – is to calculate the fictitious amounts that should have been paid if such social transfers were not received.

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

Like HY022, but the income components PY100G and PY110G were also excluded.

Family/children-related allowances (HY050);

Maternity and parental leave benefits are not included in HY050 as those benefits cannot be separated from wages. These components are included in variable PY010.

Regular inter-household cash transfers received - (HY080);

Alimonies received from former spouse are available in the Tax Administration. Other transfers like payments received from parents living in a separate household (e.g. students) and child alimony are collected in the EU-SILC- interview.

Regular taxes on wealth (HY120);

There are no taxes on wealth in the Netherlands.

Regular inter-household cash transfers paid (HY130);

Maintenance allowances to former spouse were collected from the Tax Administration. Other transfers like child alimony are collected in the EU-SILC interview.

Total tax on income and social contribution (HY140);

When calculating disposable income some components were excluded (interest repayments on mortgage, imputed rent). Therefore, this variable refers to the fictitious amounts that have to be paid as if there were no (tax deductible) interest repayments on mortgage.

Gross employee cash income (PY010G);

Allowances for transport to or from work are not included in PY010. Severance and termination payments to compensate employees and redundancy payments (including lump-sum payments) are also included in PY010G. They are not included in PY090G (unemployment benefits).

Unemployment benefits (PY090G);

PY090 includes the vocational training allowance, i.e. payment by social security funds or public agencies to targeted groups of persons in the labour force who take part in training schemes intended to develop their potential for employment. Statistics Netherlands has no information available on benefit (in-kind) related to vocational training.

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

The variables concerning income, wealth and taxes were almost entirely collected from registers. The most important source is the Tax Administration. Student grants were obtained from the student loan company. Some components were imputed on the basis of information given in the questionnaire. For example, child benefits were calculated on the basis of the information about the number and age of children in the household.

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

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.

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

Not applicable

## 4. Coherence

Coherence refers to the comparison of target variables with external sources.

### 4.1 Description of data sources

#### *The Income Panel Survey (IPS)*

The main aim of the Income Panel Survey (IPS) is to provide a detailed description of the composition and distribution of income of persons and households in the Netherlands. The IPS-panel started in 1989. A simple random sample of individuals of 0.61% of the population was selected. This is the nuclear sample. These individuals are followed in the panel. Each year 0.61% of all new-born children and immigrants is added to the sample to counterbalance the effect of attrition. The complete sample consists of everyone belonging to the households of the individuals who belong to the nuclear sample. This extension to all household members results in a total sample of about 250.000 persons. However, only those persons belonging to the nuclear sample are followed in the panel. Other household members will only be followed when they remain with the reference person. The reference population is the population at the end of the year. The IPS is mainly based on information from the tax department and the Population Register. The IPS contains information on income of the person and of the other members of the household, a limited set of personal characteristics (age, sex and marital status) and some household characteristics (household composition). The household income is calculated by aggregating the income of all the members of the household.

### 4.2 Comparison of indicators with IPS

The result of the comparison between IPS 2008 (preliminary) and EU-SILC 2009 is shown in Table 4.1. Both sources are compared using the national definition of income. Equivalised income has been computed using the CBS-equivalence scale.

Table 4.1 : Comparison EU-SILC 2009 and IPS 2008

		<b>EU-SILC 2009</b>	<b>IPS 2008 <sup>1)</sup></b>
		x 1000 euro	x 1000 euro
Mean disposable income <sup>2)</sup>		39.2	39.2
Mean equivalised income		24.2	24.1
Median equivalised income		21.5	21.5
At-risk-of-poverty rate (60%)	<i>Total</i>	11.5	11
	<i>Male</i>	11.2	10.4
	<i>Female</i>	11.7	11.6
Dispersion around the threshold (%)	<i>(a) 40% of median</i>	3.6	3.6
	<i>(b) 50% of median</i>	6.1	5.9
	<i>(c) 70% of median</i>	19,3	18.9

1) Source: CBS (Income Panel Survey, preliminary)

2) personal level

### 4.3 Comparison of number of persons and households who receive income from each ‘component’

Table 4.2 and table 4.3 show the comparison between EU-SILC and IPS on income-component level. The differences on both personal and household level are quite small, with the exception of the inter-household transfers (HY080G and HY130G) and the income from rental of a property or land (HY040G) due to extra collected information in the EU-SILC interview. This information is not available in the registers, because these income components are not taxable.

Table 4.2 Personal income components, IPS 2008-EU-SILC 2009

	count	sum	median	mean
<b>EU-SILC 2009</b>	<i>x 1000</i>	<i>Mln euro</i>	<i>x 1000 euro</i>	
PY010G Employee cash or near cash income	8,339	248,458	26,5	29,6
PY021G Company car	590	3,314	5,3	5,6
PY030G Employer's social insurance contribution	8,674	42,852	3,8	4,9
PY035G Contributions to individual private pension plans	1,534	3,698	1,0	2,4
PY050G Cash benefits or losses from self-employment	1,408	27,703	6,3	19,7
PY080G Pension from individual private plans	67	670	5,1	10,0
PY090G Unemployment benefits	418	3,484	5,0	8,3
PY100G Old-age benefits	3,276	60,338	14,1	18,4
PY110G Survivor' benefits	88	954	14,2	10,9
PY120G Sickness benefits	207	744	0,7	3,6
PY130G Disability benefits	646	8,861	14,0	13,7
PY140G Education-related allowances	832	2,282	3,1	2,7
<b>IPS 2008 <sup>1)</sup></b>				
PY010G Employee cash or near cash income	8,310	245,099	26,0	29,5
PY021G Company car	650	3,685	5,3	5,7
PY030G Employer's social insurance contribution	8,427	41,105	3,7	4,9
PY035G Contributions to individual private pension plans	1,371	3,756	1,1	2,7
PY050G Cash benefits or losses from self-employment	1,422	31,511	9,2	22,2
PY080G Pension from individual private plans	74	824	6,6	11,2
PY090G Unemployment benefits	427	3,196	4,3	7,5
PY100G Old-age benefits	3,252	57,732	13,9	17,8
PY110G Survivor' benefits	110	1,181	14,2	10,7
PY120G Sickness benefits	254	1,037	1,2	4,1
PY130G Disability benefits	571	8,142	14,3	14,3
PY140G Education-related allowances	824	2,205	2,8	2,7

1) Source: CBS (Income Panel Survey, preliminary)

Table 4.3 Household income components, IPS 2008-EU-SILC 2009

	Count	sum	median	mean
<b>EU-SILC 2009</b>	<i>x 1000</i>	<i>mln euro</i>	<i>x 1000 euro</i>	
HY030G Imputed rent	4,072	9,999	2,2	2,5
HY040G Income from rental of a property or land	248	2,051	4,2	8,3
HY050G Family/Children related allowances	1,975	4,021	1,9	2,0
HY060G Social exclusion not elsewhere classified	1,180	6,228	0,9	5,3
HY070G Housing allowances	1,167	2,047	1,8	1,8
HY080G Regular inter-household cash transfer received	648	2,551	2,5	3,9
HY090G Interest, dividends, profit from capital gain	6,056	14,908	0,4	2,5
HY100G Interest repayments on mortgage	3,504	28,839	6,8	8,2
HY110G Income received by people under 16	113	92	0,3	0,8
HY120G Regular taxes on wealth	-	-	-	-
HY130G Regular inter-household cash transfer paid	812	3,562	2,4	4,4
<b>IPS 2008 <sup>1)</sup></b>				
HY030G Imputed rent	4,127	10,040	2,2	2,4
HY040G <sup>2)</sup> Income from rental of a property or land	192	1,037	1,9	5,4
HY050G Family/Children related allowances	1,987	3,958	1,9	2,0
HY060G Social exclusion not elsewhere classified	1,229	5,986	0,9	4,9
HY070G Housing allowances	1,076	2,002	1,9	1,9
HY080G Regular inter-household cash transfer received	59	614	5,5	10,4
HY090G Interest, dividends, profit from capital gain	5,642	13,507	0,4	2,4
HY100G Interest repayments on mortgage	3,573	30,146	7,0	8,4
HY110G Income received by people under 16	106	85	0,4	0,8
HY120G Regular taxes on wealth	-	-	-	-
HY130G Regular inter-household cash transfer paid	88	791	4,5	9,0

1) Source: CBS (Income Panel Survey, preliminary)

2) ) From EU-SILC 2007 onwards questions about the income from rental of a property or land have been added to the EU-SILC questionnaire.

#### 4.4 Comparison with EU-SILC 2007 -2008

Table 4.4 and table 4.5 show the comparison between EU-SILC 2009 and previous operations on income-component level.

Table 4.4 Personal income components, EU-SILC 2007- 2009

	count	sum	median	mean
<b>EU-SILC 2007</b>				
PY010G Employee cash or near cash income	8,016	216,320	23,8	27,0
PY021G Company car	558	2,873	4,7	5,2
PY035G Contributions to individual private pension plans	1,623	3,676	1,0	2,3
PY050G Cash benefits or losses from self-employment	1,269	20,467	5,7	16,1
PY080G Pension from individual private plans	60	626	7,3	10,5
PY090G Unemployment benefits	560	4,469	5,1	8,0
PY100G Old-age benefits	3,052	52,151	13,2	17,1
PY110G Survivor' benefits	108	1,072	12,8	9,9
PY120G Sickness benefits	218	642	1,0	2,9
PY130G Disability benefits	666	7,893	10,9	11,9
PY140G Education-related allowances	801	2,374	3,0	3,0
<b>EU-SILC 2008</b>				
PY010G Employee cash or near cash income	8,286	238,228	25,6	28,8
PY021G Company car	594	3,163	5,1	5,3
PY030G Employer's social insurance contribution <sup>1)</sup>	8,569	41,022	3,6	4,8
PY035G Contributions to individual private pension plans	1,630	4,109	1,0	2,5
PY050G Cash benefits or losses from self-employment	1,407	24,776	5,7	17,6
PY080G Pension from individual private plans	71	804	7,3	11,4
PY090G Unemployment benefits	468	3,833	4,7	8,2
PY100G Old-age benefits	3,150	56,977	14,0	18,1
PY110G Survivor' benefits	86	900	13,2	10,5
PY120G Sickness benefits	222	879	1,0	4,0
PY130G Disability benefits	605	8,411	13,1	13,9
PY140G Education-related allowances	817	2,356	3,0	2,9
<b>EU-SILC 2009</b>				
PY010G Employee cash or near cash income	8,339	248,458	26,5	29,6
PY021G Company car	590	3,314	5,3	5,6
PY030G Employer's social insurance contribution <sup>1)</sup>	8,674	42,852	3,8	4,9
PY035G Contributions to individual private pension plans	1,534	3,698	1,0	2,4
PY050G Cash benefits or losses from self-employment	1,408	27,703	6,3	19,7
PY080G Pension from individual private plans	67	670	5,1	10,0
PY090G Unemployment benefits	418	3,484	5,0	8,3
PY100G Old-age benefits	3,276	60,338	14,1	18,4
PY110G Survivor' benefits	88	954	14,2	10,9
PY120G Sickness benefits	207	744	0,7	3,6
PY130G Disability benefits	646	8,861	14,0	13,7
PY140G Education-related allowances	832	2,282	3,1	2,7

Table 4.5 Household income components, EU-SILC 2007-2009

	count	sum	median	mean
<b>EU-SILC 2007</b>				
HY030G Imputed rent	3,847	9,546	2,2	2,5
HY040G Income from rental of a property or land	230	1,839	4,5	8,2
HY050G Family/Children related allowances	1,917	3,283	1,6	1,7
HY060G Social exclusion not elsewhere classified	756	5,926	8,4	7,8
HY070G Housing allowances	1,092	1,963	1,9	1,8
HY080G Regular inter-household cash transfer received	596	2,406	2,9	4,0
HY090G Interest, dividends, profit from capital gain	5,834	14,481	0,3	2,5
HY100G Interest repayments on mortgage	3,467	25,991	6,2	7,5
HY110G Income received by people under 16	82	111	0,3	1,4
HY120G Regular taxes on wealth	-	-	-	-
HY130G Regular inter-household cash transfer paid	774	3,094	2,5	4,0
HY140G Tax on income and social contributions	7,191	102,663	10,0	14,3
<b>EU-SILC 2008</b>				
HY030G Imputed rent	3,953	9,574	2,1	2,4
HY040G Income from rental of a property or land	234	1,865	4,2	8,0
HY050G Family/Children related allowances	1,925	3,371	1,7	1,8
HY060G Social exclusion not elsewhere classified	736	5,838	7,9	7,9
HY070G Housing allowances	1,148	2,005	1,8	1,7
HY080G Regular inter-household cash transfer received	606	2,910	3,0	4,8
HY090G Interest, dividends, profit from capital gain	6,024	14,813	0,3	2,5
HY100G Interest repayments on mortgage	3,551	27,167	6,4	7,6
HY110G Income received by people under 16	97	70	0,3	0,7
HY120G Regular taxes on wealth	-	-	-	-
HY130G Regular inter-household cash transfer paid	757	3,859	2,4	5,1
HY140G Tax on income and social contributions	7,242	108,201	11,7	16,3
<b>EU-SILC 2009</b>				
HY030G Imputed rent	4,072	9,999	2,2	2,5
HY040G Income from rental of a property or land	248	2,051	4,2	8,3
HY050G Family/Children related allowances	1,975	4,021	1,9	2,0
HY060G Social exclusion not elsewhere classified	1,180	6,228	0,9	5,3
HY070G Housing allowances	1,167	2,047	1,8	1,8
HY080G Regular inter-household cash transfer received	648	2,551	2,5	3,9
HY090G Interest, dividends, profit from capital gain	6,056	14,908	0,4	2,5
HY100G Interest repayments on mortgage	3,504	28,839	6,8	8,2
HY110G Income received by people under 16	113	92	0,3	0,8
HY120G Regular taxes on wealth	-	-	-	-
HY130G Regular inter-household cash transfer paid	812	3,562	2,4	4,4
HY140G Tax on income and social contributions	7311	128,380	12,9	17,6

## References

Eurostat, 2001, Draft Questionnaire for the EU-SILC Pilot Experiment. (EU-SILC 55/01, Meeting of the Working Party Statistics on Income and Living Conditions, 10-11 December 2001. Eurostat, Directorate E: Social and regional statistics and geographical information system, Unit E-2: Living Conditions, Luxemburg.)

Giessen, D., D.J. Beukenhorst, H. van Kerkoerle, en R. Visschers, 2002, Questionnaire Laboratory pre-test of EU-SILC health questions: Preliminary results (Statistics Netherlands, Heerlen/Voorburg)

Snijkers, G., E. Giesen, D., Beukenhorst, DJ. And B. Huynen, 2002, Questionnaire tests of EU-SILC health questions: Laboratory pre-test and field test. CBS-report H4927-02-SOO).