Statistics Finland

INTERMEDIATE QUALITY REPORT

relating to the EU-SILC 2007 operation

Statistics Finland

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1 Common cross-sectional European Union indicators

1.1 Common cross-sectional EU indicators based on the cross-sectional component of EU-SILC 2007

Portfolio of overarching indicators, Streamlined Social Inclusion Portfolio: Social Inclusion indicators and Portfolio of Pension (adequacy of pensions) Indicators calculated from EU-SILC

Portfolio of overarching indicators calculated from EU-SILC				
[OV-1] At-risk-of-poverty threshold (illustrative values)				
hhtyp	currency	2007		
A1 (Single person)	EUR	11 222q	11 221.62	
	NAC	11 222q	11 221.62	
	PPS	9 321q	9 320.51	
A2_2CH_LT14 (Two adults with two children younger than 14 years)	EUR	23 565q	23 565.39	
	NAC	23 565q	23 565.39	
	PPS	19 573q	19 573.07	
[OV-1a] At-risk-of-poverty rate by age and gender				
age	sex	2007		
TOTAL	T	13q		
	M	12q		
	F	14q		
Y0_17	T	11q		
Y18_64	T	11q		
	M	12q		
	F	11q		
Y65_MAX	T	22q		
	M	18q		
	F	24q		
[OV-1b] Relative median at-risk-of-poverty gap (by age and gender)				
age	sex	2007		
TOTAL	T	14q		
	M	15q		
	F	14q		
Y0_17	T	12q		
Y18_64	T	17q		
	M	18q		
	F	16q		
Y65_MAX	T	10q		
	M	10q		
	F	10q		
[OV-9] At-risk-of-poverty rate anchored at a fixed moment in time (2005) (by age and gender)				
age	sex	2007		
TOTAL	T	11q		
	M	10q		
	F	11q		
Y0_17	T	9q		
Y18_64	T	10q		
	M	10q		
	F	9q		
Y65_MAX	T	18q		
	M	14q		
	F	20q		
[OV-11] In-work at-risk-of-poverty rate (by gender)- Of which: 'At work', females, 16+				
sex		2007		
T		5q		
M		5q		
F		5q		
[OV-2] Inequality of income distribution S80/S20 income quintile share ratio				
indic_il		2007		
S80_S20		3.7q		
[OV-7a] Relative median income ratio				
indic_il		2007		

R_GE65_45TO54 (Persons aged 65 years and over compared to persons aged between 45 and 54 years)		0.66q		
[OV-7b] Aggregate replacement ratio				
indic_il	sex	2007		
R_PN_WK (Ratio of income from pensions of persons aged between 65 and 74 years and income from work of persons aged between 50 and 59 years)	T	0.46q		
	M	0.46q		
	F	0.48q		
[OV-C11] At-risk-of-poverty rate before social transfers (by age and gender				
age	sex	2007		
TOTAL	T	41q		
	M	38q		
	F	44q		
Y0_17	T	32q		
Y18_64	T	31q		
	M	29q		
	F	32q		
Y65_MAX	T	93q		
	M	91q		
	F	94q		
Streamlined Social Inclusion Portfolio: Social Inclusion indicators calculated from EU-SILC				
[SI-P1] At-risk-of-poverty threshold (illustrative values)				
hhtyp	currency	2007		
A1 (Single person)	EUR	11 222q	11 221.62	
	NAC	11 222q	11 221.62	
	PPS	9 321q	9 320.51	
A2_2CH_LT14 (Two adults with two children younger than 14 years)	EUR	23 565q	23 565.39	
	NAC	23 565q	23 565.39	
	PPS	19 573q	19 573.07	
[SI-P1a] At-risk-of-poverty rate, by gender and selected age groups				
age	sex	2007		
TOTAL	T	13q		
	M	12q		
	F	14q		
Y0_17	T	11q		
Y18_64	T	11q		
	M	12q		
	F	11q		
Y65_MAX	T	22q		
	M	18q		
	F	24q		
[SI-P3] Relative median at-risk-of-poverty gap, by age and gender				
age	sex	2007		
TOTAL	T	14q		
	M	15q		
	F	14q		
Y0_17	T	12q		
Y18_64	T	17q		
	M	18q		
	F	16q		
Y65_MAX	T	10q		
	M	10q		
	F	10q		
[SI-S1] At-risk-of-poverty rate, by age and gender				
age	sex	2007		
TOTAL	T	13q		
	M	12q		
	F	14q		
Y0_17	T	11q		
Y18_24	T	24q		
	M	22q		
	F	26q		
Y25_49	T	10q		
	M	10q		

	F	9q		
Y50_64	T	9q		
	M	10q		
	F	9q		
Y65_MAX	T	22q		
	M	18q		
	F	24q		
[SI-S1a] At-risk-of-poverty rate, by household type				
hhtyp		2007		
TOTAL		13q		
HH_NDCH (Households without dependent children)		16q		
A1_LT64 (One adult younger than 64 years)		28q		
A1_GE65 (One adult older than 65 years)		39q		
A1F (Single female)		32q		
A1M (Single male)		32q		
A2_2LT65 (Two adults younger than 65 years)		6q		
A2_GE1_GE65 (Two adults, at least one aged 65 years and over)		12q		
A_GE3 (Three or more adults)		6q		
HH_DCH (Households with dependent children)		10q		
A1_DCH (Single parent with dependent children)		22q		
A2_1DCH (Two adults with one dependent child)		6q		
A2_2DCH (Two adults with two dependent children)		5q		
A2_GE3DCH (Two adults with three or more dependent children)		13q		
A_GE3_DCH (Three or more adults with dependent children)		13q		
[SI-S1b] At-risk-of-poverty rate, by work intensity of the household and by gender and selected age				
age	sex	hhtyp	workint	2007
TOTAL	T	HH_NDCH (Households without dependent children)	MAXWORK	4q
			SOMEWORK	12q
			NONEWORK	32q
		HH_DCH (Households with dependent children)	MAXWORK	4q
			SOMEGE05	10q
			SOMELT05	32q
			NONEWORK	53q
	M	HH_NDCH (Households without dependent children)	MAXWORK	3q
			SOMEWORK	12q
			NONEWORK	37q
		HH_DCH (Households with dependent children)	MAXWORK	4q
			SOMEGE05	9q
			SOMELT05	29q
			NONEWORK	60q
	F	HH_NDCH (Households without dependent children)	MAXWORK	4q
			SOMEWORK	11q
			NONEWORK	27q
		HH_DCH (Households with dependent children)	MAXWORK	5q
			SOMEGE05	10q
			SOMELT05	35q
			NONEWORK	49q
Y0_17	T	HH_NDCH (Households	MAXWORK	.q

		without dependent children)		
			SOMEWORK	.q
			NONEWORK	.q
		HH_DCH (Households with dependent children)	MAXWORK	5q
			SOMEGE05	11q
			SOMELT05	34q
			NONEWORK	50q
Y18_64	T	HH_NDCH (Households without dependent children)	MAXWORK	4q
			SOMEWORK	12q
			NONEWORK	36q
		HH_DCH (Households with dependent children)	MAXWORK	4q
			SOMEGE05	8q
			SOMELT05	31q
			NONEWORK	57q
	M	HH_NDCH (Households without dependent children)	MAXWORK	3q
			SOMEWORK	13q
			NONEWORK	43q
		HH_DCH (Households with dependent children)	MAXWORK	4q
			SOMEGE05	8q
			SOMELT05	28q
			NONEWORK	59q
	F	HH_NDCH (Households without dependent children)	MAXWORK	4q
			SOMEWORK	11q
			NONEWORK	29q
		HH_DCH (Households with dependent children)	MAXWORK	4q
			SOMEGE05	8q
			SOMELT05	34q
			NONEWORK	56q
Y65_MAX	T	HH_NDCH (Households without dependent children)	MAXWORK	6q
			SOMEWORK	12q
			NONEWORK	14q
		HH_DCH (Households with dependent children)	MAXWORK	4q
			SOMEGE05	12q
			SOMELT05	26q
			NONEWORK	45q
	M	HH_NDCH (Households without dependent children)	MAXWORK	6q
			SOMEWORK	9q

			NONEWORK	13q
		HH_DCH (Households with dependent children)	MAXWORK	3q
			SOMEGE05	8q
			SOMELT05	.q
			NONEWORK	32q
	F	HH_NDCH (Households without dependent children)	MAXWORK	7q
			SOMEWORK	15q
			NONEWORK	15q
		HH_DCH (Households with dependent children)	MAXWORK	5q
			SOMEGE05	17q
			SOMELT05	49q
			NONEWORK	85q
[SI-S1c] At-risk-of-poverty rate, by most frequent activity status and by gender				
wstatus	sex	2007		
EMP (Employment)	T	5q		
	M	5q		
	F	6q		
NOT_EMP (Non employment)	T	24q		
	M	25q		
	F	24q		
UNE (Unemployment)	T	41q		
	M	47q		
	F	34q		
RETIR (Retired)	T	21q		
	M	17q		
	F	23q		
INACT_OTH (Inactive population - Other)	T	27q		
	M	33q		
	F	24q		
[SI-S1d] At-risk-of-poverty rate, by accommodation tenure status and by gender and selected age groups				
age	sex	tenstatu	2007	
TOTAL	T	OWNER	9q	
		RENT	25q	
	M	OWNER	8q	
		RENT	26q	
	F	OWNER	10q	
		RENT	24q	
Y0_17	T	OWNER	8q	
		RENT	22q	
Y18_64	T	OWNER	6q	
		RENT	25q	
	M	OWNER	6q	
		RENT	26q	
	F	OWNER	6q	
		RENT	24q	
Y65_MAX	T	OWNER	20q	
		RENT	28q	
	M	OWNER	15q	
		RENT	33q	
	F	OWNER	24q	
		RENT	26q	
[SI-S1e] Dispersion around the at-risk-of-poverty threshold [by gender and selected age group]				
indic_il	age	sex	2007	
LI_R_MD40	TOTAL	T	2q	
		M	2q	
		F	2q	
	Y0_17	T	2q	
	Y18_64	T	3q	
		M	3q	

		F	3q	
	Y65_MAX	T	1q	
		M	1q	
		F	1q	
LI_R_MD50	TOTAL	T	5q	
		M	5q	
		F	5q	
	Y0_17	T	4q	
	Y18_64	T	6q	
		M	6q	
		F	5q	
	Y65_MAX	T	6q	
		M	4q	
		F	7q	
LI_R_MD70	TOTAL	T	22q	
		M	20q	
		F	24q	
	Y0_17	T	20q	
	Y18_64	T	18q	
		M	17q	
		F	18q	
	Y65_MAX	T	39q	
		M	31q	
		F	44q	
[SI-C1] Inequality of income distribution S80/S20 income quintile share ratio				
indic_il	2007			
S80_S20	3.7q			
[SI-C2] Inequality of income distribution Gini coefficient				
indic_il	2007			
GINI	26q			
[SI-C5] At-risk-of-poverty rate anchored at a fixed moment in time (2005) (by age and gender)				
age	sex	2007		
TOTAL	T	11q		
	M	10q		
	F	11q		
Y0_17	T	9q		
Y18_64	T	10q		
	M	10q		
	F	9q		
Y65_MAX	T	18q		
	M	14q		
	F	20q		
[SI-C6] At-risk-of-poverty rate before social transfers, by gender and selected age groups (except pensions)				
age	sex	2007		
TOTAL	T	29q		
	M	27q		
	F	31q		
Y0_17	T	31q		
Y18_64	T	28q		
	M	27q		
	F	29q		
Y65_MAX	T	31q		
	M	26q		
	F	35q		
[SI-C8] In-work at-risk-of-poverty rate (by full-time/part-time work)				
break_il	2007			
FULLTIME	3q			
PARTTIME	15q			
Portfolio of Pension Indicators calculated from SILC - Adequacy of pensions				
[PN-P1] At-risk-of-poverty rate of older people				
age	sex	2007		
Y0_64	T	11q		
	M	11q		

	F	11q		
Y65_MAX	T	22q		
	M	18q		
	F	24q		
[PN-P2] Relative median income ratio of elderly people (65+)				
indic_il	sex	2007		
R_GE65_45TO54 (Persons aged 65 years and over compared to persons aged between 45 and 54 years)	T	0.66q		
	M	0.72q		
	F	0.63q		
[PN-P3] Aggregate replacement ratio				
indic_il	sex	2007		
R_PN_WK (Ratio of income from pensions of persons aged between 65 and 74 years and income from work of persons aged between 50 and 59 years)	T	0.46q		
	M	0.46q		
	F	0.48q		
[PN-S1] At-risk-of-poverty rate of older people				
age	sex	2007		
Y0_59	T	11q		
	M	12q		
	F	11q		
Y0_74	T	12q		
	M	12q		
	F	12q		
Y60_MAX	T	19q		
	M	15q		
	F	21q		
Y75_MAX	T	28q		
	M	21q		
	F	32q		
[PN-S2] Relative median income ratio of elderly people (60+)				
indic_il	sex	2007		
R_GE60_45TO54 (Persons aged 60 years and over compared to persons aged between 45 and 54 years)	T	0.71q		
	M	0.77q		
	F	0.66q		
[PN-S4] Inequality of income distribution S80/S20 income quintile share ratio				
age	2007			
Y0_64	3.7q			
Y65_MAX	2.9q			
1[PN-S5] Relative median at-risk-of-poverty gap of elderly people				
age	sex	2007		
Y65_MAX	T	10q		
	M	10q		
	F	10q		
Y75_MAX	T	11q		
	M	11q		
	F	11q		
[SI-S6] At-risk-of-poverty rate for pensioners				
wstatus	sex	2007		
RETIR (Retired)	T	21q		
	M	17q		
	F	23q		
[PN-S7] At-risk-of-poverty rate of older people by accommodation tenure status				
age	tenstatu	2007		
Y60_MAX	OWNER	17q		
	RENT	26q		
Y65_MAX	OWNER	20q		
	RENT	28q		
Y75_MAX	OWNER	28q		
	RENT	31q		
[PN-S8] Dispersion around the at-risk-of-poverty threshold				
indic_il	age	2007		
LI_R_MD50	Y60_MAX	5q		
	Y65_MAX	6q		

	Y75_MAX	8q		
LI_R_MD70	Y60_MAX	33q		
	Y65_MAX	39q		
	Y75_MAX	48q		
[PN-P9] Gender differences in the at-risk-of-poverty rate of older people				
hhtyp	age	2007		
A1 (Single person)	Y0_64	2q		
	Y65_MAX	3q		
[PN-P10] Gender differences in the relative median income ratio of older people				
hhtyp	indic_il	2007		
A1 (Single person)	R_GE65_LT65 (Persons aged 65 years and over compared to persons aged less then 65 years)	-0.02q		
[PN-S10] Gender differences in the relative median income ratio of older people				
hhtyp	indic_il	2007		
A1 (Single person)	R_GE60_LT60 (Persons aged 60 years and over compared to persons aged less then 60 years)	0.03q		
	R_GE75_LT75 (Persons aged 70 years and over compared to persons aged less then 75 years)	-0.05q		

1.2 Other indicators

The average of equivalised disposable income (sy2004-)	currency	2007		
	EUR	20 787q	20 787.36	
	NAC	20 787q	20 787.36	
	PPS	17 266q	17 265.68	
The average of equivalised disposable income (from sy2007 onwards)	EUR	22 947q	22 946.77	
	NAC	22 947q	22 946.77	
	PPS	19 059q	19 059.26	

2 Accuracy

2.1 Sampling design

The sampling design of the Finnish EU-SILC survey, the collection year 2007, (also parallel with the design of the Finnish Income Distribution Survey [IDS]) is a *two-phase sampling design*. The copy of the population register some weeks before the end of the study year included 4,233,729 non-institutional persons aged 16 years or over. The type of the frame was based on the *domicile code*, i.e. very exact identification of all the possible places where people can live. The first digits of this code include regional information (municipality code). Systematic sampling of persons was carried out from that frame in order to get the basis for a master sample (50,000). After various checks and combinations we get 49,122 dwelling units with all their relevant members. The loss of 878 persons is due to the difference between the register which the selector of the master sample has and the final population register of the end of the study year. This final information (coming with the tax information to be connected to the master sample in order to create the strata, for example) is available after the master sample has been selected. At this point those who have died, moved permanently abroad or placed into an institution after the time point of the copy of the register and before the end of the year are excluded from the master sample. With this processing we correct the effect of the frame imperfection (not exactly describing the right time) in the sample.

This master sample of dwelling units is used for different sampling purposes, and one of them is the Income Distribution Survey. For that the master sample is stratified by socio-economic criteria, emphasising high-earners, farmers and entrepreneurs in the allocation. The sample size of the first wave is 7,500. The second wave of the IDS (5,564) is included in the set of households to be interviewed. The final definition of the structure of the household is done during the interview. The stratum is identified for these IDS waves separately in the variable DB050.

Referring to the description of the sampling design above it can be observed that
* **the Finnish cross-sectional data 2007 are based on a nationally representative probability sample of the population residing in private households** (non-institutionalised persons, two-phase sampling in both IDS waves),
* **all private households and all persons aged 16 and over within the household are eligible for the operation** (selection of persons, creation of dwelling units around persons and definition of households during the interviews),
* **representative probability samples are achieved both for households, which are the basic units of sampling, data collection and data analysis, and for individual persons in the target population** (selection of persons aged 16 and over from the register, creation of dwelling units around persons and definition of households during the interviews), and
* **the sampling frame and methods of sample selection ensure that every individual and household in the target population is assigned a known and non-zero probability of selection** (for every non-institutionalised person the probability of selection is identified and greater than zero).

2.1.1 Type of sampling

A two-phase stratified sampling design

2.1.2 Sampling units

The sampling unit is a person. In the first phase persons are selected (target persons), in the second phase the target persons together with their dwelling units are selected.

2.1.3 Stratification criteria

The SILC data selection follows parallelly the sampling design of the Income Distribution Survey. The IDS stratification is conducted in the first-phase master sample containing dwelling units. The strata are created by using a socio-economic categorisation based on the register information available for the members at the time of sample selection. The stratification takes the highest earning person as the categorising person, but the entrepreneur need not be the highest earning one to define the household in the class of entrepreneurs. The income class division is used to allocate the sample more to high-earners. The stratification variable is **DB050**, containing values 1-13 for the first IDS wave and 14-26 for the second IDS wave, based on the dwelling units created around the selected persons.

Table 2.1 Stratification criteria for the IDS

IDS Wave 1 (CY2007)			**IDS Wave 2 (CY2006)**		
Socio-economic categorisation of the household	**Income Class**	**Stratum code**	**Socio-economic categorisation of the target person**	**Income Class**	**Stratum code**
Wage earners	Lowest	1	Wage earners	Lowest	14
	2nd lowest	2		2nd lowest	15
	3rd lowest	3		3rd lowest	16
	Highest	4		Highest	17
Entrepreneurs	Lower	5	Entrepreneurs	Lower	18
	Higher	6		Higher	19
Farmers	Lower	7	Farmers	Lower	20
	Higher	8		Higher	21
Pensioners	Lower	9	Pensioners	Lower	22
	Higher	10		Higher	23
Others	Lower	11	Others	Lower	24
	Higher	12		Higher	25
No tax information	-	13	No tax information	-	26

2.1.4 Sample size and allocation criteria

The effective sample size and other relevant sample size information of the Finnish EU-SILC sampling design can be found in the following tables.

Table 2.2 Sampling design information of the Finnish EU-SILC

Cross-sectional sample 2007	Value	Definition
Minimum effective sample size	**6 750**	For household selection, not the case of Finland
Minimum effective sample size (sample of persons)	**5 063**	Finland uses registers for income and other data; thus a sample of persons (instead of a sample of households) is selected. *Regulation 1177/2003* –Article 9 (paragraph 3) states that *"the minimum effective sample size in terms of the number of persons aged 16 or over to be interviewed in detail shall be taken as 75% of the figures shown in columns 3 and 4 of the table in Annex II, for the cross-sectional and longitudinal components respectively"*.
Minimum achieved sample size	**6 329**	The achieved sample size *"depends on the efficiency of the sample design used (i.e. on the 'design effect')"*. The design effect term ($deff^2$) is *"the ratio of variance of a certain statistics) under the actual design, to that variance under a simple random sample of the same size"*. The reference statistic to be used in the design effect calculations is *at-risk-of-poverty-rate at national level (after social transfers)*. This design effect term for Finland based on the calculations from the Finnish Income Distribution Survey 2001, i.e. here $deff^2$ = **1.25**.
Minimum sample to be selected	**8 328**	Taking the nonresponse into account, the sample to be selected must be larger in order to get the minimum achieved sample size. For the calculations the overall response rate *R* is approximately **0.76** in Finland.
Actual sample	**13 064**	Combined with the structure of the Income Distribution Survey of Finland, the Finnish EU-SILC provides the actual sample to be selected larger than the minimum sample to be selected. This includes 7,500 from the first wave and 5,564 from the second wave of the Income Distribution Survey.
Expected number of respondents	**10 819**	When excluding the nonresponse (25% for the first wave and 8% for the second wave)
Realised number of accepted respondents	**10 624**	This includes **5,549** for the first IDS wave and **5,075** for the second IDS wave. **Thus the requirement of the minimum sample to be selected is reached (10,624 > 8,328)**.

Table 2.3 Information concerning stratification

Stratum in the master sample		Master sample		2nd phase sample		2nd phase sample excluding over-coverage		2nd phase accepted respondents	
1st w.	2nd w.	1st w.	2nd w.	1st w.	2nd w.	1st w.	2nd w.	1st w.	2nd w.
1	14	10 278	10 105	1008	748	998	745	689	675
2	15	9 021	9 089	897	690	898	685	678	625
3	16	7 615	7 699	840	649	835	646	648	606
4	17	3 545	3 687	747	555	738	552	553	509
5	18	1 970	1 799	699	505	694	503	514	465
6	19	934	932	504	361	499	360	377	334
7	20	1 365	1 383	561	445	557	445	461	418
8	21	699	805	438	365	436	359	384	341
9	22	6 513	6 559	585	413	553	393	413	357
10	23	4 470	4 238	576	440	558	427	444	400
11	24	2 292	2 344	396	243	391	241	229	214
12	25	267	347	198	122	196	118	144	109
13	26	153	163	51	28	48	28	15	22
All		**49122**	**49150**	**7 500**	**5 564**	**7 396**	**5 502**	**5 549**	**5 075**

Note that the strata were created only for those who were not dead or otherwise included in the over-coverage. Stratum variable **DB050**: 1-13 first wave, 14-26 second wave (i.e. stratum code + 13). The primary response probabilities for each stratum used before calibration can be calculated from this table by using *"number of respondents in the stratum" / "number of selected observations in the stratum "*.

2.1.5 Sample selection schemes

The master sample of persons (1st phase) is selected with **systematic sampling** from the population *sorted by the domicile code*. The SILC/IDS sample of the first wave with dwelling units constructed around the target persons is selected from the **stratified** master sample with **simple random sampling without replacement** within every stratum and using *non-proportional allocation* (see Table 2.3). The IDS second wave respondents from the previous year were selected at that time in the same way.

2.1.6 Sample distribution over time

The income reference period is constant for all households and persons: the calendar year preceding the survey year. The reference population is defined as the population registered as resident in Finland on 31 December 2006. Household composition is also dated 31 December 2006.

In SILC 2007 operation, the fieldwork period streched over five months; it started in January 2007 and ended in May 2007.

The cross-sectional sample of the EU-SILC consists of four rotational groups. See 2.1.7 for details. The "old panel" fieldwork was started the 4th January and lasted till the end of March. The "new panel" households were interviewed between February 1st and June 8th.

Table 2.4 Distribution of interviews through time in 2007, cross-section

	Total		DB075							
			1		2		5		6	
	n	%	n	%	n	%	n	%	n	%
January	2 086	19.6	688	40.6	-	-	-	-	1 398	41.3
February	2 476	33.0	694	41.0	140	7.6	268	7.2	1 374	40.6
March	2 958	32.5	311	18.4	668	36.5	1 369	36.8	610	18.0
April	2 057	10.5	-	-	673	36.8	1 384	37.2	-	-
May	1 047	13.0	-	-	349	19.1	698	18.8	-	-
Total	10 624	100.0	1 693	100.0	1 830	100.0	3 719	100.0	3 382	100.0

2.1.7 Renewal of sample: rotational groups

The Finnish cross-sectional SILC data collection year 2007 contains two groups based on the Income Distribution Survey: one is a new rotation group (1st IDS wave) and another is a set of responded households of the IDS of the previous year (2nd IDS wave). Note that the Finnish SILC design is not purely integrative from the SILC 2006 on, only the SILC waves began in 2006 (DB075=1) and in 2007 (DB075=2) are included in the cross-sectional SILC data together with non-SILC IDS collection from 2006 (DB075=6) and from 2007 (DB075=5). The two SILC waves began in 2004 (DB075=3) and in 2005 (DB075=4) are not included in the cross-sectional SILC data, and they are conducted separately. See also Section 2.3.3 for further information.

2.1.8 Weightings

2.1.8.1 Design factor

Deft= $\sqrt{1.25}$, see Table 2.2

2.1.8.2 Nonresponse adjustments

The household design weights (see below) were multiplied by $n_{sample,h} / n_{respondents,h}$ *in every stratum h.*

Calculation of design weights

Separately calculated from the master samples CY 2007 (of size **50,000**) and 2006 (of size **50,000**) we got the population figures for the person selection, e.g., where $\pi_{a,person\,k}$ is the **inclusion probability of the selected person *k*** in the master sample. The **inclusion probabilities of the dwelling units** created around the selected persons in the master sample were $\pi_{ak} = \pi_{a,person\,k} n_{16+,dwelling\ of\ k}$. The **inclusion probabilities of two-phase sampling** (the effect of selecting the master sample and the IDS sample) were calculated, at the second phase based on the stratification (13 strata) of the master sample and the allocation used. For those waves we separately calculated the inclusion probabilities $\pi_k^* = \pi_{ak}\pi_{k|s_a}$, where

$$\pi_{ak} = \pi_{a,person\,k} n_{16+,HH\ of\ k} = \frac{n_{s_a} n_{16+,HH\ of\ k}}{N}$$

and $\pi_{k|s_a} = n_h / N_{h,s_a}$ is the conditional inclusion probability at the second phase taking the stratification of the master sample into account. The Finnish SILC D file has the design weight variable **DB080** (the inverse of the inclusion probability), in which the original design weights were calculated *separately for the two IDS waves* and with a multiplication by 0.5 in order to get coherent information about the households. **PB070** (*personal design weight for selected respondents*) is an estimate of the **inverse of the inclusion probability of the person** (**DB080***$n_{16+,HH}$). *This weight was not needed in the weighting procedure of the IDS*. Again in this case these weights were calculated *separately for both waves*. In addition, the calculation was conducted for *all of the sample* (excluding over-coverage). However, the weight **PB070** is defined only for the households that have been accepted (P file), not all the sample (including non-response). In this case there should be a non-response correction included in the weight in order to get the figures right. We did *the simple adjustment* $n_{sample} / n_{respondents}$ *in every stratum. In addition,* to get the separate wave effect to disappear, *we multiplied the weights by 0.5.* The sum of the weights is N_{16+}.

2.1.8.3 Adjustments to external data

The nonresponse-adjusted weights were used as input weights in calibration (the raking method) conducted with the macro CALMAR for the accepted households. The calibration process was carried out *separately for both waves*. The calibration could be interpreted as integrative, i.e. both the household and the person levels were included in the process. The percentual marginal distributions and the statistics used in calibration are the following:

1) Households: province; type of municipality; HH size; sums of 15 different income variables. *The first three distributions of the households were obtained from the master sample, using weights for which a primary calibration (population register: 16+ persons and persons under 16 by region; gender*age class) was conducted. The income information comes from different registers.*

2) Persons: gender and age classes (0-4, 5-9, … , 80-84, 85+)

Table 2.5 Description of the calibration variables

Variable name	Description
Alue	Region (NUTS 3 level), Capital region separated
Ask8	Size of dwelling unit
Haastkur	Degree of urbanisation
Mibs01-Mibs18	Men 0-4, 5-9, 10-14, … , 80-84, 85-
Nibs01-Nibs18	Women 0-4, 5-9, 10-14, … , 80-84, 85-
Trplopti	Income 1: Cash or near cash employee income
Saipalk	Income 2: Income 1 > 0
Lelake	Income 3: Pensions
Tyotts	Income 4: Unemployment benefits 1
Perustur	Income 5: Unemployment benefits 2
Saityott	Income 6: Income 4 > 0
Elintul3	Income 7: Income from self-employment
Yhtytulo	Income 8: Capital income 1
Maattulo	Income 9: Income from agriculture
Omaitul2	Income 10: Income from property and forestry 1
Muupaao2	Income 11: Other capital income
Metstulo	Income 12: Income from forestry 2
Myvo	Income 13: Capital gains
Saielake	Income 14: Pensions > 0
Askorot	Mortgage interests

In addition, **2,455,000** was used as the **fixed number of households** in the process. The result of this calibration was the weight that produced exactly these margins when used in the summation of these variables in the data set containing accepted observations. **DB090** is this calibrated weight multiplied by 0.5 in order to adjust the effect of separate calculations.

2.1.8.4 Final cross-sectional weights

When **DB090** is connected to the R file ("All persons currently living in households or temporarily absent"), these weights (in this context **RB050**) give the sum which coincides with the exact number of non-institutionalised persons at the end of 2006, i.e. **5,193,672.** Furthermore, when **DB090** is linked to the P file ("All eligible persons for whom the information could be completed"), these weights (in this context **PB040**) give the sum which equals the number of households defined (**2,455,000**). These operations are in line with the document *"Description of the Target Variables"*, page 38: *"We have **DB090** = **RB050** = **PB040**"*. Finally, the personal cross-sectional weight for the selected respondent, i.e. **PB060** is **DB090** multiplied by $n_{16+,HH}$. The number of 16+ is fixed in this phase as well. An additional weight for children aged 0 to 12, i.e. **RL070** (*Children cross-sectional weight for child care*) is calculated by multiplying **RB050** with the term *" number of non-institutionalised children in age class X from the register" / "number of children in age class X estimated with RB050"*, where *X* = 0 to 12.

2.1.9 Substitutions

Substitution: *refers to replacement of the original units selected in the sample, which do not supply the required information, either because the address cannot be located or is inaccessible, or because the household refuses to co-operate, the entire household is temporarily away, or the household is unable to respond, by other units.*

The Finnish IDS and SILC data contain **no substitutions**.

2.2 Sampling errors

The Framework Regulation 1177/2003 states that

"The precision requirements concerning publication of the data collected in EU-SILC shall be expressed in terms of the number of sample observations on which the statistic is based and the level of item non-response (additional to total non-response at unit level). The Commission shall not publish an estimate if it is based on fewer than 20 sample observations, or if non-response for the item concerned exceeds 50%. The data shall be published by the Commission with a flag if the estimate is based on 20-49 sample observations, or if non-response for the item concerned exceeds 20% and is lower than or equal to 50%. The data shall be published by the Commission in the normal way when based on 50 or more sample observations and the item non-response does not exceed 20%.
All data publications shall include technical information for each Member State on the effective sample size as well as a general indication of standard error of at least the main estimates."

That is, the MSs have to calculate the **effective sample size** and the **standard errors of at least the main estimates**, which are defined as follows:

Effective sample size
The effective sample size used in the construction of each common cross-sectional EU indicator based on the cross-sectional component of EU-SILC, for the equivalised disposable income and for the unadjusted gender pay gap, will be provided.
Standard errors
The standard errors for the common cross-sectional EU indicators based on the cross-sectional component of EU-SILC, for the equivalised disposable income and for the unadjusted gender pay gap, will be provided.

Table 2.6 Effective sample sizes, item non-responses and standard errors of the main estimators

Estimator	Accepted observations in general	Item non-response	Effective sample size	Standard error
Equivalised disposable income	27 454	0	27 454	67.80
At-risk-of-poverty rate after social transfers	27 454	0	27 454	0.426
Inequality of income distribution S80/S20 income quintile share ratio	27 454	0	27 454	0.055
Relative median at-risk-of-poverty gap	27 454	0	27 454	0.504
Dispersion around the risk-of-poverty threshold	27 454	0	27 454	0.154
At-risk-of-poverty rate before social transfers except old-age and survivors' benefits	27 454	0	27 454	0.439
At-risk-of-poverty rate before transfers including old-age and survivors' benefits	27 454	0	27 454	0.408
Inequality of income distribution: Gini coefficient	27 454	0	27 454	0.346

The *"gender pay gap"* comes from another source, not utilising the SILC data. Note that this table contains the calculations in general; when these indicators are classified with some variables (e.g. *main activity status* and *work intensity*), some item non-response may appear due to the classification variables.

The sampling design of the Finnish EU-SILC and the Finnish Income Distribution Survey is a two-phase design, with simple random sampling without replacement (1st phase) and stratified simple random sampling with unequal allocation emphasising some groups (2nd phase). The standard error calculations are conducted with the bootstrap method (10,000 replications). The idea is to estimate the standard error of the second phase by separately carrying out simple random sampling with replacement in every stratum with the original sample size of the stratum. *The calibration has been conducted in every replication, and the weights are an outcome of this process.* The variance to be used is simply the variance of the bootstrap estimator. In addition, in order to take the non-negligible sampling fraction into account the variance is multiplied by the finite population correction at the whole sample level, i.e. approximately 0.77. The standard error is the

square root of the variance. The standard error of the equivalised disposable income is calculated with the software CLAN.

The variance estimation process includes some aspects of uncertainty. The non-response effect is not taken into account in variance estimation. The with-replacement nature of selection differs from the original selection, and the use of the finite population correction at the general level does not take the non-proportional allocation into account. This may yield obtaining a bit conservative standard error estimates.

2.3 Non-sampling errors

2.3.1 Sampling frame and coverage errors

The target population is the set of elements about which information is wanted and parameter estimates required. The Commission Regulation on sampling and tracing rules states that "*The target population of EU-SILC shall be all private households and their current members residing in the territory of the Member State at the time of data collection. Persons living in collective households and in institutions are generally excluded from the target population. Small parts of the national territory amounting to no more than 2% of the national population and the national territories listed in the Regulation may be excluded from EU-SILC, after agreement between the Member States concerned and the Commission (Eurostat).*" There is no register of households in Finland, so the selection is based on the population register and the creation of the households begins with the dwelling unit information available in the register.

2.3.1.1 Description of the sampling frame

The sample is drawn from the Population Information System maintained by the Population Register Centre of Finland. The register is a continuously updated population register based on domicile. It is updated daily with information on population changes: births, deaths, migration, immigration and emigration, marriages, divorces, adoptions and changes of names. The Population Information System is a compilation of local registers kept up by population register districts.

The Population Information System (PIS) includes information on Finnish citizens and aliens permanently resident in Finland. It includes persons living in private households, institutions, persons living temporarily abroad, and also homeless persons. Persons living in institutions, collective households or residential homes do not belong to the target population, but they are included in the PIS household population and have to be excluded from the master sample (see below).

Every person residing in Finland has a unique identification code and each dwelling has a domicile code. Each person is registered in the municipality where he/she has a permanent place of residence. The domicile code is the link between a person and his/her permanent dwelling. Persons without an address are registered in municipal registers as homeless persons. A person with a permanent address may also have registered a temporary address. The linkage between identification and domicile codes enables the pre-entry into the IDS-SILC questionnaire of all persons permanently registered in the dwelling unit-households before the interviewer contacts the household.

The copy of the population register some weeks before the end of the study year was the **sampling frame** for the selection of the new Income Distribution Survey (IDS) sample. After the separation of the persons placed in institutions and the homeless (a specific code identifies both cases), this frame included 4,233,729 persons aged 16 years or over. The sort of the frame was based on the domicile code, i.e. a very exact identification of all the possible places where persons can live. This code includes regional information at the beginning (municipality code). That frame is used for the **construction of the dwelling units for the master sample** as well. After various checks and combinations (e.g. excluding collective households, e.g. members of the same hall of residence as the target person) we get the dwelling units with all their relevant members for the selected master sample. Before the fieldwork begins the information of the second panel of the IDS

and the changes after the selection of the sample are updated based on the register of the end of the year (then already available).

2.3.1.2 Information about the frame: reference period, updating actions, quality review actions

In general, the Population Information System of the Population Register Centre can be considered exhaustive and up-to-date as regards persons. Updating activities occur constantly. The Population Register Centre updates the 5. – 8. day of every month the official population figures in all municipalities in Finland.
The system is maintained by notifications of changes made by authorities. Maternity hospitals immediately report new-born children to local register offices. Deaths have to be reported at once either to a physician or to the police. They have to report the death to the Population Information System. The inhabitants are themselves responsible only of notification of changes of residence. Those who move or immigrate are expected to report to the local register office of the new place of residence on the change of address within one week of the move, specifying all the members of the family or household involved in the move.

Those emigrating should supply a notice of change of address in the country of entry. According to an agreement between the Nordic countries - which are the main destinations of migrants – the population register authorities of the country of entry inform the population register authorities of the country of exit. In the years when municipal elections are arranged (every 4th year), the population is corrected by around 1,000 persons, when emigrants whose emigration has been left unnoticed return notifications of voting.

A reliability survey on the Population Information System is conducted yearly by means of a sample interview (CATI) survey of 10,848 persons. From the EU-SILC point of view, reliability of its address information is of special relevance. In a quality survey taken in November-December 2006, the address was consistent with the present dwelling for 99.0 per cent of the respondents. The non-response rate of the reliability survey was 11.1 per cent. The addresses of the non-respondents were checked from other sources and found correct among 83.1 per cent, incorrect among 6.5 per cent and non-verifiable among 10.1 per cent. Assuming that all the unverifiable addresses were incorrect the final proportion of the correct addresses in the total sample (10,848) was 97.2 per cent.

The EU-SILC collects directly from the Population Information System variables PB130, PB140, PB150, PB190, PB210, PB220A and PB220B. None of these information, however, have been checked in the reliability survey.

The Population Information System has no under-coverage in any population groups. Asylum seekers and refugees are not included in the resident population until their permit of residence has been processed. The small over-coverage is a consequence of the necessity to draw the sample in good time before the actual date of defining the sample households (31 Dec.) and may also be related to register updates - delays in the notifications of emigration, moving to reside permanently in institutions or deaths.

The presence of the members of the households are checked in the interview. Persons who recently changed place of residence and/or household, new-borns, recently moved to institutions or died are the usual sources of non-correct register-based pre-entries in the IDS-SILC questionnaire.

2.3.2 Measurement and processing errors

Finland's SILC data is a combination of interviews and register information. In this chapter, the focus is mainly on description of collection and processing of the interviewed data. A short description of the register data processing is provided in chapter 2.3.2.3. The interviews were carried out by CATI or CAPI (table 2.7).

Table 2.7 Type of interview (%), SILC 2007 cross-section

	Total	DB075				
		1	2	5	6	n
CATI	97	98	96	96	98	10 322
CAPI	3	2	4	4	2	302

2.3.2.1 Questionnaire build-up, the testing procedures, interviewer training

Processing fieldwork tools

List of field work tools of EU-SILC in 2007

1 Questionnaires for CATI/CAPI interviews

1A 2006 panel 1, Finnish/Swedish
1B 2006 panel 2, Finnish/Swedish
1D 2006 panel 3 and 4, Finnish/Swedish

2 Interviewer's instructions

2A Instructions book for all panels, Finnish/Swedish

3 Contact letter

3A Contact letters to the selected persons, first panel, 3 different, Finnish/Swedish
3B Contact letters to the selected persons, second panel, 3 different, Finnish/Swedish
3C Contact letters to the selected persons, third panel, 3 different, Finnish/Swedish

4 Brochures to present the why and how the survey is executed, Finnish/Swedish
5 Pocket Statistics: a small collection of results from previous waves of the SILC survey, specially prepared for the respondents who wanted to know more on how the information is used, Finnish/Swedish
6 News release given by Statistics Finland concerning the wave 2004 of the survey, Finnish/Swedish

Since 2005, *the interviewers' feedback survey* has been regularly collected from all interviewers at the end of the project. The interviewers' feedback is collected through a standard questionnaire. They are asked about the technical and substantial functioning of the questionnaires, how the letters and brochures motivate the respondents, whether the instructions are adequate, and specific remarks on each detail on the questionnaire. This feedback is utilised in the planning of the next year's tools.

Questionnaire build-up has its starting point in the previous year's questionnaire, feedback from the field interviewers and feedback from the data editing process and users. The leading principle in the questionnaire build-up is a gradual integration process of the SILC to the IDS, and to avoid too many changes in the national IDS.

During the process of BLAISE programming (fall 2006), the questionnaire was table-tested by the team responsible for the IDS and EU-SILC. Six persons were involved. In weekly meetings details of the questions

were discussed, the focus being the parts of the questionnaire undergoing some change. In the end, a group of professional interviewers checked the questionnaire against their experience. Finally, the technical functioning of the questionnaire was tested in the interviewer organisation before they were sent to the field.

The testing procedure makes use of the BLAISE-programmed questionnaire. The real field situation is simulated by a test sample, actual households from the preceding year's data base. Thus the test questionnaire is pre-filled with the information about the household composition and dates of birth. As in real field situation, the second and consequent panels have more information from previous interview entered into the questionnaires. The testers fill in the questionnaire, again and again, trying all combinations of imagined situations, and likely errors (to disclose signalling), too. They are asked to pay attention to
- spelling, language, formulations and conceptual correctness of the questions,
- proper functioning of the routings and
- adequacy of logical checks, signals and interviewing instructions on the screen.

A major problem with the questionnaire build-up is the testing: a complex routing system, several checks, forced entries and differences between the panel-specific questionnaires risk systematic testing.

The questionnaire for the module 2007 "Housing" was planned separately. The Finnish implementation covers all the secondary target variables. The module questionnaire was added as a separate element at the end of the questionnaire, as the previous modules were. The questions were distributed in appropriate contexts in the basic questionnaire, mostly in the context of other (primary target and national) questions on housing.

Changes in the questionnaire

A major change in the questionnaire (cross-sectional and longitudinal) was technical: the questionnaire was divided into blocks of questions: a specific block for each household member aged 16+, child care block, health questions block, housing block, a block on household economics, a block on household composition. The order of the blocks is optional: the interviewer can choose the order of blocks. Only the household composition has to be fixed first, after that the interviewer is free to choose the order of the blocks. In case he did not want to choose blocks himself, the order was automatic.

The use of pre-filled fields was substantially increased in the 2nd, 3rd and 4th waves. New pre-fills from the previous interview about relations between the household members, information on jobs, occupations, work history, educational activity, housing, day care and details on farming were added.

Interviewer training

Statistics Finland's interviewer organisation employs about 160 field interviewers on a permanent work contract. They work mostly part-time. They are given basic training on interviewing and questionnaire standards and codes of practices when they start working. They collect most of Statistics Finland's survey data, for the Labour Force Survey, Household Budget Survey, Time Use Survey and Adult Literacy Survey, for example. In other words, they are experienced. Of them 139 were involved with EU-SILC interviews in spring 2007.

The questionnaire changes, which were not so many, for 2007 were introduced to the interviewers in a separate written report and, of course, in the instructions book. The instructions book is rewritten every year and it is also under constant development.

Newly recruited interviewers were trained separately. They had two day's training about the SILC. The training programme included a lecture on the planning of the survey, including a description of Eurostat's process, legislation and future uses of the data, and Eurostat guidelines on data protection. Concern over international comparability was underlined. Instructions on the fundamental rules of central data collection

were given and discussed, such as the definition of target population, household definition and its implementation in practice, different concepts and classifications of activity, especially labour market activities, child care questions, housing costs and mortgages. A major part of the training time was used on going through the videoed BLAISE questionnaire with the aid of three lecturers. The panel design and the future modules were described. The last part of training consisted of data transferring, data protection and other practicalities.

Interviewers' extra training courses were arranged in 2007 for all interviewers in March 2007. The need for training had become evident in the light of feed-back from the interviewers. Data problems, such as increased need for data cleaning and increased partial non-response also indicated the necessity of retraining.

The training was arranged in five different locations in Finland, one full day each. All interviewers participated. Four IDS-SILC trainers and two field work trainers from the central field organisation were involved. New training material was prepared. Written material and lectures were given about household definition, and activity concepts. The structure and technical mastery of the questionnaire was rehearsed. Also, questions and comments presented by the interviewers in the feedback surveys were responded – i.e. feedback on feedback was given.

During the whole fieldwork period, interviewers' information desk is open for them. They can ask for support from the IDS-SILC team. The interviewers, who are distributed all over the country, also have organised district meetings with each other to discuss professional matters.

2.3.2.2 Possible sources of measurement errors

Measurement errors stemming from
- difficulties in understanding complex questions on the telephone,
- difficulties in remembering complex life course events like the year's activities, day care changes, payments of many sorts, and
- difficulties in knowing/reporting another household member's activities

are not systematically surveyed, but the questionnaire was also evaluated in the Cognitive Laboratory from the above-mentioned points of view in 2004. On the basis of observations made, the questionnaire was partly re-built in 2005. In 2006 and 2007, no major substantial changes were made in the questionnaire.

The potentials for error prevention have been used extensively in BLAISE programming.
- Most relevant question-specific instructions are on the screen with the questions.
- Routings to avoid repetitive or irrelevant questions.
- Pre-fillings from the Population Register and the previous interview are used to help household construction.
- Coherence is maintained by introducing logical checks to interconnected questions.
- Questions presuming numerical answers are given upper and lower limits where possible.
- Signals are pre-programmed to possible incoherent answers, to violations of numerical limits or to missing answers.
- The questionnaire is programmed to accommodate the mode of addressing the respondent depending on whether the selected person him/herself or another member of the household is responding (interviewing the selected respondent about himself: Did you… ; interviewing through a proxy respondent: Did N.N. …). This helps the interviewer and respondent to keep control of the member-specific data collection.

Of the many possible sources of measurement errors, the focus in this section is on errors due to *integration problems*, *questionnaire techniques* and *fieldwork problems*. The problems are presented as *possible sources of error*. The exact nature, size and consequences of error, if any, can only rarely be detected.

Proxy interviews

The use of proxy respondents is a problematic choice. Person-specific facts collected in the IDS can be given by a household representative. In the EU-SILC, it is important to interview persons about their subjective evaluations.

In Finland, the EU-SILC is designed on the selected respondent -model. Typically, only one person is interviewed. He/she gives all the information: household questionnaire and the personal questionnaires of the selected person and the other members of the household. The household respondent is chosen by the interviewer. The interviewers have been instructed to negotiate with the selected respondent and prefer interviewing him if he is able to give information about the household economy, housing and the other household members' activity. Otherwise, a proxy respondent is interviewed.

Interviewing more than one household member – both the selected person and a household respondent – is supported, but it rarely happens. Other members are allowed to be consulted during the interview if they are available. This option is often used.

The interviewers have traditionally been trained to find a household respondent in the earlier years when collecting the IDS data and they have been continuing this procedure. According to an estimate of the interviewers, about 85 per cent of their informants are those who have the best knowledge of the household's affairs. In case the selected person is aged less than 18 years, the contact letter is also sent to his/her parents or guardians. In 2007, 87 per cent of the selected respondents under the age of 18 have been represented by a proxy respondent (Table 2.9).

Problems arising from the use of proxy respondents concentrate on the subjective questions: the control in terms of which household member answers the questions involving subjective assessments, depends on the interviewer. Use of proxy is denied only in the self-reported health questions (PH010-PH030). On the other hand, the selected respondent may be utterly unaware of the household economy and other members' activities. This is the case especially with the youngest respondents.

In 78 per cent of the households, the selected respondent was interviewed. Of the 10,624 selected respondents in the cross-section, 2,319 (21,8%) were represented by a proxy (Table 2.8). In other words, *one in five selected respondents were represented by a proxy*. On the other hand, of all the other 11,149 household members aged 16 or older (who were not selected persons), 66 per cent were represented by the selected person. In table 2.8, a proxy respondent is defined as the respondent who is not the selected respondent.

Table 2.8 Use of proxy respondents (RB260=5), SILC 2007 cross-section, households

Interview given by...		Total	panel 2			panel 1		
			DB075			DB075		
			1	6	total	2	5	total
... the selected respondent		8 305	1 346	2 624	3 970	1 425	2 910	4 335
	%	78.2	79.5	77.6	78.2	77.9	78.2	79.7
...other than the selected respondent		2 319	347	758	1 105	405	809	1 106
	%	21.8	20.5	22.4	21.8	19.6	21.5	20.3
Total		10 624	1 693	3 382	5 075	1 830	3 719	5 441
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The high percentage of proxy interviews guarantees a higher quality of the household information. Most of the proxy respondents are parents or spouses (Table 2.9). Proxies are mostly (89%) 1st or 2nd persons

responsible for the accommodation, which also indicates their competence regarding knowledge of the household affairs.

Table 2.9 Distribution of proxy interviews by their relationship to the selected person and age, SILC 2007

All selected pers.		Proxy resp.		The proxy's relationship to the selected person (%)					Age of proxy respondent			
Age	Number	n	%	parent	spouse	child	sibling	other	<24	25-44	45-64	65+
-17	303	265	87	98	0	0	0	2	0	32	68	0
18-24	513	314	61	98	2	0	0	0	0	19	80	1
25-44	3 890	625	16	28	71	0	0	1	0	63	33	4
45-64	4 195	758	18	1	97	1	1	0	0	9	84	7
65+	1 723	357	21	0	80	15	3	1	0	4	26	70
All	10 623	2 319	22	32	63	3	1	0	0	26	59	15

Fieldwork problems

Mode of data collection (CATI). According to interviewers' estimate, about half of the interviews are conducted through mobile phones and about 6 per cent of them outside home. Telephone interviews are afflicted by a sense of rush. In large households, the interview is too long for telephone. The interviewers are allowed to change the mode into CAPI, in case the respondent has no phone or has an exceptionally large household. CAPI mode was used in 302 households, that is 3 per cent of all households in 2007 cross-section.

According to the *Interviewers' Feedback Survey* 2007, 39 per cent of the interviewers felt that the duration of the interview was too long and half of those who felt so, also thought that it had an effect on the refusal rate and weakened the quality of responses.

Refusals. The share of sampled households who refuse co-operation with the interviewer slowly rises each year. In 2007, the share of refusals was 62 per cent of the total non-response.

Fieldwork tools. According to the feedback from the interviewers, the 2007 questionnaire was easier to manage than the previous year's questionnaire. Percentage of interviewers who felt that the questionnaire functioned technically badly fell from 20 in 2005 to 7 per cent in 2006 and to 6 in 2007. Percentage of interviewers who felt that the questionnaire functioned badly as to the substance, fell from 26 in 2005 to 16 in 2006 and to 6 in 2007.

Integration of the questionnaires of the national IDS and EU-SILC

A major part of the 2007 cross-sectional questionnaire contents was shared with the national IDS and EU-SILC, but there were differences, too. A serious concern in the integration process is to preserve the national time-series without violating demands made to EU-SILC comparability. A stepwise integration strategy aims to achieve full integration in 2010. In spite of the complaints of the interviewers, the questionnaire for the fourth wave of the EU-SILC operation was reshaped only slightly.

Labour information in IDS and EU-SILC

In the IDS, the reference period for the labour information is the income reference year. In the SILC, a lot of labour information refer to the current situation. Different reference periods in IDS and SILC concern variables PL030, PL040, PL050, PL110, PL130, PL140, PL150. Also, SILC variables PL070 - PL090 are in contradiction with similar IDS monthly activities variables: in the IDS overlapping activities are permitted, in the SILC, one should define one's main activity for each month.

From the beginning of the EU-SILC, the reference periods are integrated. "Current" is included in the IRP.

2.10 Examples of labour information with different requirements in the IDS and EU-SILC

Concepts / Variables	Requirements		Solution
	IDS	EU-SILC	Integrated
			Current = December of the IRP
Main job	Longest period of employment during the year or highest income	Current	If main job is different from current job, both are collected
Second job	The second longest period of employment during the year or second highest income	Current	If second job is different from current second job, both are collected
PL020	---	Current - 4 weeks	December
PL025	---	Current + 2 weeks	December
PL030	---	Current	December
PL040	Status in main job	Current	If main job is different from current job, both are collected
PL050	Occup. in main job	Current	If main job is different from current job, both are collected
PL070, PL072, PL080, PL085, PL087, PL090	Number of months for each activity - 12 categories - overlaps allowed	Number of months for each main activity - no overlaps allowed	Number of months and calendar of activities collected for all members 16+
PL110	NACE in main job	Current	If main job is different from current job, both are collected
PL140	Contract in main job	Current	If main job is different from current job, both are collected

The labour information questionnaire: **The SILC 2007 questionnaire on labour information was kept almost the same as the 2006 questionnaire**. December is the basis for the variable PL030 - self-defined current economic status. In SILC 2004, this variable was collected from the calendar of activities which was constructed for all members of the household aged 16 or older. In SILC 2005, 2006 and 2007, the variable was collected as a starting question in the labour market questions section. The wordings were harmonised with the LFS questionnaire. The calendar of activities was only constructed for the target person. Months of labour and other activities (PL060 - PL090) were integrated with the IDS questions: the IDS questions on different activities during the IRP were changed from a freely filled table to a standardised sequence of questions. Detailed follow-up questions were inserted in the context of each activity. Questions on the main and second job of the year and the current main and second, third,… jobs were routed effectively. All labour questions were first asked about the selected respondent and after that about the other household members. In the data processing phase, working-age persons receiving disability pension (and no other pensions) who had defined themselves as 'retired' were moved to the 'permanently disabled'. This editing was based on register information on pensions.

Variable-specific problems

HS130 Lowest monthly income to make ends meet. The difficulty of this question for the respondent is well illustrated by the 857 (8.1%) cases of item non-response in the cross-section data. Very low and very high figures were also given. According to the interviewer's code of action, questions of opinion should not be helped in any way, the question can only be repeated. The wording of the question is essential. During the planning process, the wording was reformulated in the Survey laboratory for the 2006 operation. It seems to have helped with a delay, since the previous non-response figures were 1,327 (11.8%) in 2005 and 1,193 (11.0%) in 2006.

Measurement failures due to questionnaire techniques

PH010 - PH030 self-reported health: In 2007 data (as also in 2006), item non-response in health variables PH010-PH030 increased strongly (14,3% missing in 2007 vs. 1,4% missing in 2005). The increase was caused by the routing in case of proxy respondents, the questions were not asked from a proxy. In the earlier

SILC waves, the questionnaire automatically notified the interviewer to contact the selected respondent, and it was not possible to close the interview without filling in the health questions. Usually, interviewers had to make an extra contact with the selected respondent. This reminder was left out of the 2006 questionnaire. Statistics Finland has calculated a health-specific weight in the P-file to correct the item non-response (variable PH075).

HB100, PB120 - Household and personal interview duration - In Finland's selected respondent model, the duration of the interview is measured as the duration for both household- and personal interview in variable HB100. Variable PB120 is empty.

PE030 Year when the highest level of education was attained - a large number of missing values due to register imperfection.

PL040 Status in employment, PL050 Occupation, PL140 Type of contract, PL 150 Managerial position: a considerable item non-response still prevails for persons who were currently inactive.

2.3.2.3 Processing errors

Fieldwork management and data reception. The interviewers collect the data and transmit them to the central unit. At Statistics Finland, there is a separate organisation, the interviewers' central unit, to control, monitor and supervise the fieldwork. The central unit transmits the fieldwork tools to the field and organises interviewer training at the beginning of the project, follows the fieldwork progress, and receives the output from the field, checks that all the sampled units are adequately processed and transmits the data to the IDS-SILC team. It also collects feedback from the interviewers with a standardised questionnaire. All data contents processing takes place in the IDS-SILC team, either using the BLAISE system or SAS. Mainly the IDS and SILC data processing is integrated.

Checking and editing of the interview data. The BLAISE programming system already described above (Section 2.3.2.2) is a major data entry controller. However, there is still much processing to be done in the central unit. *Missing identification codes* are found out with the help of the Population Information System and added to the database. The checking process starts with the *interviewers' remarks* saved on the questionnaires. They comment whenever they feel that the coded answer does not reflect the individual real world. All comments are read and the need to edit the data is evaluated. This work starts during the fieldwork period, in 2007 it was begun in mid-February. All comments were processed before the end of June.

After the fieldwork period, the IDS-SILC team looks through *incomplete interviews* and makes a decision on the acceptance. Some of the received incomplete interviews are rejected. Since the register income data are nearly perfect, the acceptance decision is based on the sufficiency of the labour activities and housing information. In the 2007 operation, no interviews were excluded from the received sample as incomplete.

Next, checking against the register data is started as soon as the relevant register information is available. Occupation and NACE are processed through automatic coding. Some of the cases will remain open, and they are processed manually.

Activity months, occupation, NACE, housing costs and child care are checked against other information with special intensity. The checks include error lists generated by comparisons of interview and register data. Statistics Finland has access to administrative data on an individual level, which makes this data process especially useful. Great differences between different sources of information, if detected, are processed one by one. All variables, except variables where opinions are expressed, are checked: missing answers, denials and don't knows are checked against other information. Clear mistakes are corrected. Missing values are completed whenever possible (e.g. missing dwelling rents are corrected with average rents per m^2 in the area, other missing housing cost information is completed with supporting information collected on the questionnaire). Illogical answers are straightened if possible. Outliers (considerably small or high values in

numerical variables, e.g. inter-household transfers, housing costs) are detected and checked against other information.

Processing inconsistency in the integrated project. The 12 IDS variables on months of activity are heavily edited to comply with register data, especially with income data. That can be done, since in the IDS there are not too many connections between months of activity and other interviewed variables. As a result, some of the respondents' own answers are rejected and replaced with answers in coherence with their earnings. Corresponding editing is not executed on the SILC variables concerning categories of activity or inactivity, since that would destroy the coherence of the large set of other interviewed variables interconnected with activities. In other words, as a result of different editing, activity information in the IDS and SILC differs from each other. Months of activity (PL070, PL072, PL080, PL085, PL087, PL090) in the EU-SILC are, thus, subjective responses given by respondents, as defined in the EU-SILC document 065/04.

Database construction. Simultaneously with the checking process, a database is opened and variable formation begins. Interview-based and register-based variables construction is started. Interview-based variables are transferred from the questionnaires to the database. Variables that need constructing – i.e. combined interview- and register information and complex questionnaire items – are added one by one into the database after all the checks have been made. In 2007, the SILC data files for Eurostat were compiled from the database by SAS in the same pace as the IDS data were completed.

Processing register data. Register data - that have been subscribed from the register authorities with a special procedure - arrive in electronic form to the Statistics Finland's data processing unit. In 2007, use was made of eleven registers. The incoming data are checked technically and contentually. Possible defects are notified to the authority in charge. They then transmit the corrected data. The registers cover all units - population, dwelling units, income receivers, etc. The data are linked to the sample persons and transmitted into the database of the IDS-SILC. The data are compared with available external data, i.e. those of the tax authority, pensions authority and other statistics. In this phase, the data are in their elementary form. Imputations are made using the hot-deck method (interest income) or modelling (imputed rent). The cross-sectional SILC target variables are constructed only after their elements have been checked.

Comparison of aggregates. Routines have been developed to compare the results on variable level with external sources such as the Labour Force Survey, National Accounts, wage statistics and statistics on different social transfers and taxation produced by the National Pensions Institute, National Board of Taxes and National Research and Development Centre for Welfare and Health. Standard comparisons are routinely made each year. These comparisons also have an effect on error detection.

2.3.3 Non-response errors

This section concentrates on non-response errors in the cross-sectional SILC data. **Many of the subsequent tables include the *rotational breakdown* as a requirement.** The second Finnish SILC data include the rotational group variable **DB075**, which is coded as follows:

2: Households included in the first wave of the Income Distribution Survey **and** in the longitudinal SILC panel beginning in the Collection Year 2007 (Survey Year 2006).
5: Households included in the first wave of the Income Distribution Survey **but not** in the longitudinal SILC panel beginning in the CY 2007 (SY 2006).
6: Households included in the second wave of the Income Distribution Survey **but not** in the longitudinal SILC panel beginning in the CY 2006 (SY 2005).
1: Households included in the second wave of the Income Distribution Survey **and** in the longitudinal SILC panel beginning in the CY 2006 (SY 2005).

The Finnish SILC design can be interpreted as *semi-rotational*, i.e. only a part of longitudinal rotational groups are included in the cross-sectional data. Thus the longitudinal rotational SILC groups 3 (beginning in

the CY 2004, duration three years) and 4 (beginning in the CY 2005, duration four years) **are not included** in the cross-sectional data. The forthcoming tables deal with the cross-sectional SILC data only.

2.3.3.1 Achieved sample size

Table 2.11 Interview Information

Rotational group DB075	Number of households for which an interview is accepted for the database (DB135 = 1) .	Number of persons aged 16 or older who are members of the households for which the interview is accepted for the database (DB135 = 1) and who completed a personal interview (RB250 = 11 to 13).	Number of selected respondents who are members of the households for which the interview is accepted for the database (DB135 = 1) and who completed a personal interview (RB250=11 to 13).
Total	10 624	21 773	10 624
2	1 830	3 783	1 830
5	3 719	7 702	3 719
6	3 382	6 888	3 382
Longitudinal 2006			
1	1 693	3 400	1 693

2.3.3.2 Unit non-response

For Member States using a rotational design, information on unit non-response will be provided for the new replications in accordance with the formulas described below. For the total sample, the unit non-response will be calculated by removing, from the numerator and the denominator of the formulas described below, those units that according to the tracing rules are out of scope.

** **Household non-response rates*** *NRh = (1-(Ra * Rh)) *100*

Ra *(address contact rate) = addresses successfully contacted / valid addresses selected = sum(DB120=11) / [sum(DB120=all) - sum(DB120=23)]*
Rh *(proportion of complete household interviews accepted for the database) = number of HH interviews completed and accepted for the database / number of eligible households at contacted addresses) = sum(DB135=1) / sum(DB130=all)*

DB120 is the record of contact at the addresses
DB130 is the household questionnaire result
DB135 is the household interview acceptance result

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

Rp *(proportion of complete personal interviews within the households accepted for the database) = Number of personal interviews completed / number of eligible individuals in the households whose interviews were completed and accepted for the database = sum(RB250=11+12+13) / sum(RB245 = 1+2+3)*

RB245 is the respondent status
RB250 is the data status

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

For those MSs where a sample of persons rather than a sample of HHs (addresses) was selected, the individual non-response rates will be calculated for the selected respondent (RB245=2), for all individuals aged 16 or older (RB245=2+3) and for the non-selected respondent (RB245=3).

Table 2.12 Non-response rates

Rotational group	Household non-response rate	Individual non-response rate			Overall individual non-response rate		
		Selected respondent	All individuals 16 or older	Non-selected respondent	Selected respondent	All individuals 16 or older	Non-selected respondent
Total	17.4	0	0	0	17.4	17.4	17.4
New replications (2,5)	24.7	0	0	0	24.7	24.7	24.7
1	7 .8	0	0	0	7 .8	7 .8	7 .8
2	25 .2	0	0	0	25 .2	25 .2	25 .2
5	24 .5	0	0	0	24 .5	24 .5	24 .5
6	7 .6	0	0	0	7 .6	7 .6	7 .6

2.3.3.3 Distribution of households (original units) by 'record of contact at address' (DB120), by 'household questionnaire result' (DB130), and by 'household interview acceptance' (DB35), for each rotational group (if applicable) and for the total

Table 2.13 Distribution of households by DB120, DB130 and DB135

Description	Total		IDS/SILC 2006 1		IDS/SILC 2007 2		IDS 2007 5		IDS 2006 6	
	number	%	number	%	number	%	number	%	number	%
Total	13 064	100	1 855	100	2 500	100	5 000	100	3 709	100
Address contacted	12 867	98 .5	1 837	99 .0	2 446	97 .8	4 923	98 .5	3 661	98 .7
Address non-contacted	197	1 .5	18	1 .0	54	2 .2	77	1 .5	48	1 .3
Total address non-contacted	197	100	18	100	54	100	77	100	48	100
Address cannot be located	0	0	0	0	0	0	0	0	0	0
Address unable to access	0	0	0	0	0	0	0	0	0	0
Address does not exist, etc.	197	100	18	100	54	100	77	100	48	100
Description	**Total**		**IDS/SILC 2006 1**		**IDS/SILC 2007 2**		**IDS 2007 5**		**IDS 2006 6**	
	number	%	number	%	number	%	number	%	number	%
Total	12 867	100	1 837	100	2 446	100	4 923	100	3 661	100
Household questionnaire completed	10 624	82 .6	1 693	92 .2	1 830	74 .8	3 719	75 .5	3 382	92 .4
Interview not completed	2 243	17 .4	144	7 .8	616	25 .2	1 204	24 .5	279	7 .6
Total interview not completed	2 243	100	144	100	616	100	1 204	100	279	100
Refusal to co-operate	1 228	54 .7	69	47 .9	359	58 .3	668	55 .5	132	47 .3
Entire household temporarily away for duration of fieldwork	265	11 .8	32	22 .2	56	9 .1	113	9 .4	64	22 .9
Household unable to respond	171	7 .6	17	11 .8	46	7 .5	87	7 .2	21	7 .5
Other reasons	579	25 .8	26	18 .1	155	25 .2	336	28 .0	62	22 .2

Household questionnaire completed	10 624	100	1 693	100	1 830	100	3 719	100	3 382	100
Interview accepted for database	10 624	100	1 693	100	1 830	100	3 719	100	3 382	100
Interview rejected	0	0	0	0	0	0	0	0	0	0

2.3.3.4 Distribution of substituted units

The Finnish IDS and SILC data contain **no substitutions**.

2.3.3.5 Item non-response

Item non-responses before imputing exist for the interviewed item of the variable HY090G (interest income taxed at source) and register income components PY030G, PY020N, PY021N, HY030G, HY100N, HY022 and HY023 for which imputation procedures have been used. For the total household income variables HY010 and HY020, the number of households with item non-responses have been counted from that part they have effect on the total income formation. The counting method equals to the income flag values.

Total household income according to the definition from 2007 onwards includes also PY030G and HY030G for which all values have been imputed. From this follows that the number of households with item non-responses in the total income variables is markedly higher than in the ones according to the definitions used from the beginning of the survey (from the sy2004 onwards). It can be noted that non-responses from PY030G and HY030G are focused on different households, and for this reason non-response of HY020 is lower compared with HY010 in which PY030G is included.

Coverage of HY030G is now complete in the 2007 survey (See Table 3.3. HY030G). Because all values have been imputed to the variable, item non-response is higher compared with the figures presented from the previous surveys.

Table 2.14 Distribution of item non-response in the EU-SILC 2007 survey sample selected for the cross-sectional survey only (X) , households and persons 16+ received the income

Income component	% of households having received the amount (<0, >0)	% of households with missing values (before imputation)	% of households with partial information (before imputation)	% of households with collected values (before imputation) of the households having received the income	% of households with partial information (before imputation) of the households having received the income
HY010, sy2007-	100.0	0.0	95.6	4.4	95.6
HY020, sy2007-	100.0	0.0	81.4	18.6	81.4
HY022, sy2007-	100.0	99.1	99.1	0.0	100.0
HY023, sy2007-	100.0	98.7	98.7	0.0	100.0
HY010, sy2004-	100.0	0.0	9.6	90.4	9.6
HY020, sy2004-	100.0	0.0	9.3	90.7	9.3
HY022, sy2004-	98.3	98.3	98.3	0.0	100.0
HY023, sy2004-	97.2	97.2	97.2	0.0	100.0
HY030G	83.8	83.8	83.8	0.0	100.0
HY040G	10.2	0.0	0.0	100.0	0.0
HY050G	33.8	0.0	0.0	100.0	0.0
HY060G	5.8	0.0	0.0	100.0	0.0
HY070G	15.8	0.0	0.0	100.0	0.0
HY080G	8.3	0.0	0.0	100.0	0.0
HY090G	80.8	0.0	27.9	65.5	34.5
HY100G	37.7	0.0	0.0	100.0	0.0
HY110G	3.4	0.0	0.0	100.0	0.0
HY120G	56.7	0.0	0.0	100.0	0.0
HY130G	16.1	0.0	0.0	100.0	0.0
HY140G	98.7	0.0	0.0	100.0	0.0
HY135G	..	..	..	..	..
HY145G	..	..	..	..	..
HY100N	37.7	37.7	37.7	0.0	100.0

Income component	% of persons 16+ having received the amount (<0, >0)	% of persons 16+ with missing values (before imputation)	% of persons 16+ with partial information (before imputation)	% of persons 16+ with collected values (before imputation) of the persons 16+ having received the income	% of persons 16+ with partial information (before imputation) of the persons 16+ having received the income
PY010G	63.8	0.0	0.0	100.0	0.0
PY020G	14.1	0.0	0.0	100.0	0.0
PY021G	2.3	0.0	0.0	100.0	0.0
PY030G	63.2	63.2	63.2	0.0	100.0
PY035G	12.1	0.0	0.0	100.0	0.0
PY050G	21.3	0.0	0.0	100.0	0.0
PY070G	..	..	..	..	..
PY080G	5.4	0.0	0.0	100.0	0.0
PY090G	12.8	0.0	0.0	100.0	0.0
PY100G	17.0	0.0	0.0	100.0	0.0
PY110G	1.2	0.0	0.0	100.0	0.0
PY120G	6.6	0.0	0.0	100.0	0.0
PY130G	8.0	0.0	0.0	100.0	0.0
PY140G	9.9	0.0	0.0	100.0	0.0
PY200G	..	..	..	..	..
PY020N	14.1	14.1	14.1	0.0	100.0
PY021N	2.3	2.3	2.3	0.0	100.0

2.4 Mode of data collection

Table 2.15 Distribution of household members aged 16 and over by 'RB250' and 'RB245'

Rotational group	Total	RB250=11	RB250=12	RB250=13	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
Household members 16+ and RB245 = 1 to 3										
Total	21 773	0	0	21 773	0	0	0	0	0	0
	100	0	0	100	0	0	0	0	0	0
IDS/SILC 2006 RG 1	3 400	0	0	3 400	0	0	0	0	0	0
	100	0	0	100	0	0	0	0	0	0
IDS/SILC 2007 RG 2	3 783	0	0	3 783	0	0	0	0	0	0
	100	0	0	100	0	0	0	0	0	0
IDS 2007 RG 5	7 702	0	0	7 702	0	0	0	0	0	0
	100	0	0	100	0	0	0	0	0	0
IDS 2006 RG 6	6 888	0	0	6 888	0	0	0	0	0	0
	100	0	0	100	0	0	0	0	0	0
Household members 16+ and RB245 = 2										
Total	10 624	0	0	10 624	0	0	0	0	0	0
	100	0	0	100	0	0	0	0	0	0
IDS/SILC 2006 RG 1	1 693	0	0	1 693	0	0	0	0	0	0
	100	0	0	100	0	0	0	0	0	0
IDS/SILC 2007 RG 2	1 830	0	0	1 830	0	0	0	0	0	0
	100	0	0	100	0	0	0	0	0	0
IDS 2007 RG 5	3 719	0	0	3 719	0	0	0	0	0	0
	100	0	0	100	0	0	0	0	0	0
IDS 2006 RG 6	3 382	0	0	3 382	0	0	0	0	0	0
	100	0	0	100	0	0	0	0	0	0
Household members 16+ and RB245 = 3										
Total	11 149	0	0	11 149	0	0	0	0	0	0
	100	0	0	100	0	0	0	0	0	0
IDS/SILC 2006 RG 1	1 707	0	0	1 707	0	0	0	0	0	0
	100	0	0	100	0	0	0	0	0	0
IDS/SILC 2007 RG 2	1 953	0	0	1 953	0	0	0	0	0	0
	100	0	0	100	0	0	0	0	0	0
IDS 2007 RG 5	3 983	0	0	3 983	0	0	0	0	0	0
	100	0	0	100	0	0	0	0	0	0
IDS 2006 RG 6	3 506	0	0	3 506	0	0	0	0	0	0
	100	0	0	100	0	0	0	0	0	0

Table 2.16 Distribution of household members aged 16 and over by 'RB260' and 'RB245'

Rotational group	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	RB260= missing
Household members 16+ and RB245 = 1 to 3							
Total	21 773	0	411	11 751	0	9 611	0
	100	0	1 .9	54 .0	0	44 .1	0
IDS/SILC 2006 RG 1	3 400	0	42	1 871	0	1 487	0
	100	0	1 .2	55 .0	0	43 .7	0
IDS/SILC 2007 RG 2	3 783	0	111	2 016	0	1 656	0
	100	0	2 .9	53 .3	0	43 .8	0
IDS 2007 RG 5	7 702	0	168	4 134	0	3 400	0
	100	0	2 .2	53 .7	0	44 .1	0
IDS 2006 RG 6	6 888	0	90	3 730	0	3 068	0
	100	0	1 .3	54 .2	0	44 .5	0
Household members 16+ and RB245 = 2							
Total	10 624	0	280	8 826	0	1 518	0
	100	0	2 .6	83 .1	0	14 .3	0
IDS/SILC 2006 RG 1	1 693	0	31	1 424	0	238	0
	100	0	1 .8	84 .1	0	14 .1	0
IDS/SILC 2007 RG 2	1 830	0	70	1 514	0	246	0
	100	0	3 .8	82 .7	0	13 .4	0
IDS 2007 RG 5	3 719	0	116	3 095	0	508	0
	100	0	3 .1	83 .2	0	13 .7	0
IDS 2006 RG 6	3 382	0	63	2 793	0	526	0
	100	0	1 .9	82 .6	0	15 .5	0
Household members 16+ and RB245 = 3							
Total	11 149	0	131	2 925	0	8 093	0
	100	0	1 .2	26 .2	0	72 .6	0
IDS/SILC 2006 RG 1	1 707	0	11	447	0	1 249	0
	100	0	0 .6	26 .2	0	73 .2	0
IDS/SILC 2007 RG 2	1 953	0	41	502	0	1 410	0
	100	0	2 .1	25 .7	0	72 .2	0
IDS 2007 RG 5	3 983	0	52	1 039	0	2 892	0
	100	0	1 .3	26 .1	0	72 .6	0
IDS 2006 RG 6	3 506	0	27	937	0	2 542	0
	100	0	0 .8	26 .7	0	72 .5	0

2.5 Interview duration

HB100, PB120, Duration of the household and personal interviews are not measured separately. In a design using a sample of persons, typically only one person in a household is interviewed, responding to the household questionnaire and also to all personal questionnaires. The mean interview duration per household is calculated simply as the mean of all overall durations.

The mean overall interview duration was 28 minutes in the 2007 cross-sectional SILC. In the group with duration exceeding one hour's time (224 interviews), the mean was 73 minutes and the maximum was 90 minutes.

Table 2.17 Distribution of total duration of interview in cross-section by rotational group, SILC 2006

		Minutes						
		1-25	**26-35**	**36-60**	**61-**	**missing**	**Total**	**Mean**
Cross-section, total	n	5 213	3 129	2 032	224	26	10 624	28.2
	%	49.1	29.4	19.1	2.1	0.2	100.0	
DB075:								
1	n	909	490	270	19	5	1 855	26.7
	%	53.7	28.9	16.0	1.1	0.3	100.0	
2	n	724	588	465	50	3	1 738	30.7
	%	39.6	32.1	25.4	2.7	0.2	100.0	
5	n	1 617	1 193	792	105	12	3 566	29.7
	%	43.5	32.1	21.3	2.8	0.3	100.0	
6	n	1 963	858	505	50	6	3 709	26.0
	%	58.0	25.4	14.9	1.5	0.2	100.0	

Note: In 26 interviews the measurement of interview duration failed completely.

3 Comparability

3.1 Basic concepts and definitions

Basic concepts and their definitions are in accordance with the Commission Regulation (EC) No 1980/2003 provided for the community statistics on income and living conditions as regards definitions and updated definitions. To some extent, adaptation of the definitions used in the national statistical system is allowed for the EU-SILC. In Finland, private household and household membership in particular are the ones that have been defined nationally (e.g. IDS) with less detailed information (i.e. time duration for temporarily absence in private accommodation) than stated in the regulations, but within the framework.

The reference population consists of the members of the private households permanently resident (usually resident: the census definition) in Finland on 31 December 2006. For migrants in particular, permanently residence means that they have resided or intend to reside for at least 12 months and they have not permanent residence abroad. Persons living in institutions, in collective households or in residential homes[1] have been excluded.

The private household was constructed to include a person residing alone, or all the persons, related or not, who reside and have their meals together or otherwise use their income together. The definition equals with the obliged EU-SILC definition on shares in household expenses, but uses other words "use income together" in the interview.

If a person was temporarily absent from the household's main dwelling and from home (Table 3.1), no specific time duration was set for the absence provided that the above-mentioned criteria of household formation and membership (shares in household expenses) were fulfilled. Such persons have close family ties to the household and they do not form a household of their own. Therefore, the following persons are also counted in household members:

- Persons conducting military service or conscript service
- Persons residing and working in another locality or abroad if they are involved in the acquisition and use of household income
- Persons residing and studying in another locality if they use income received mostly from their parents
- Persons temporarily in institutions, on holiday or travelling.

The following persons form a household of their own:
- Subtenants
- Domestic staff
- Students living on their own if they live mostly on their own income or on a student loan
- Students residing in dormitories, unless they are married or officially cohabiting.

[1] Residential homes are situated either in residential or institutional care buildings and do not meet the definition of dwelling. They do not include a kitchen or cooking facilities, a water closet or cleaning facilities (shower, bathroom or sauna). Students dormitories which are counted in the private household definition above include these facilities.

Table 3.1 Residential status of household members, self-defined current activity status, activity status and household type of household members currently not living in the household dwelling in 2007 survey

		n	N
RB200	**Residential status**	%	%
1	Currently living in the household	98 .6	99 .0
2	Temporarily absent	1 .4	1 .0
Total		100 .0	100 .0
All		21 773	4 229 895
RB200=2, PL030	**Self-defined current activity status**	%	%
1	Working full time	27 .2	35 .9
2	Working part time	6 .0	4 .5
3	Unemployed	3 .0	7 .7
4	Pupil, student, further training, unpaid work experience	43 .0	31 .0
5	In retirement or in a early retirement or has given up business	4 .0	5 .2
6	Permanently disabled or/and unfit to work	3 .0	3 .8
7	Fullfilling domestic tasks and responsibilities	11 .6	8 .7
8	Other inactive persons	0 .7	1 .8
Total		1 .7	1 .3
All		100 .0	100 .0
		302	43 355
RB200=2, PX050	**Activity status**		
1	Employed	32 .1	42 .9
2	Unemployed	3 .6	8 .9
3	Retired	5 .6	7 .4
4	Students	39 .4	25 .0
5	Other inactive	10 .6	9 .6
Missing		8 .6	6 .1
Total		100 .0	100 .0
All		302	43 355
RB200=2, HX060	**Household type**		
5	One person ..		..
6	2 adults, no dependent children, both adults under 65 years	16 .9	30 .9
7	2 adults, no dependent children, at least one adult 65 years or more	3 .3	5 .1
8	Other households without dependent children	8 .3	9 .0
9	Single parent household, one or more dependent children	3 .3	4 .3
10	2 adults, one dependent child	18 .5	17 .3
11	2 adults, two dependent children	17 .5	12 .2
12	2 adults, three or more dependent children	13 .6	7 .8
13	Other households with dependent children	18 .5	13 .4
16	Other	..	..
Total		100 .0	100 .0
All		302	43 355
	* Children are defined as ones who are aged 0-17 or ones aged 18-24 and economically inactive		
	Relationship to other members		
	Spouse or partner; children or not	26 .5	41 .2
	Child; no spouse nor partner	57 .9	49 .6
	Parent; no spouse nor partner	6 .3	4 .4
	Other	9 .3	4 .8
Total		100 .0	100 .0
All		302	43 355

Temporarily absent persons (RB200=2) were defined as household members who were not currently living in the household main dwelling. According to Table 3.1 the proportion of the temporarily absent persons was 1,0 per cent of all household members aged 16 and over. On the basis of PL030 self-defined current activity status, most of these persons were pupils, students, in further training or in unpaid work experience or working full-time. Concerning PX050 the most frequent activity status (ACTSTA) during the income reference period, the results are almost same. Moreover, most of the persons were related to other members by former or current family relationship, 90.7 per cent of all the persons 16 and over, including also such situations in which adult children and their parents form household. According to HX060 household type, 73.2 per cent of persons was living in the households with one adult or two adults without or with their dependent children. Residual groups of other households (26.8 per cent) included parents and their independent children, persons who were living with their relatives and/or non-relatives in a household that was not a family nucleus, but an extended household or a composite household.

The permanently resident population that has not included in private households refers to the difference between the number of total population and the private household persons permanently resident in Finland on 31 December. The number of total population was 5,276,955, from which about 1.5 per cent was not in the private households, but was permanently institutionalised or living in collective households or residential homes. The number of estimated private household population was 5,199,039.

Other definitional solutions done are due to the collection of the information both from registers and by interviews. These are related to **reference times**. First, current as a reference time refers to several calendar time points. Information collected solely by interviews (e.g. non-monetary deprivation indicators, education, health) refers to the interview time point in the survey year (2007). Information collected by interviews, but used for the target variables as combined with the information from registers and other information interviewed on themes close to income is related to the income reference period, which is the fixed 12-month period before the survey year, i.e. the whole calendar year (2006). Then, the current is either the last day (dwelling, characteristics of dwelling for the imputed rent, housing environment) or the last month (economic activity, housing costs) of the income reference year. In particular, information on housing arrears is consistent with information on housing costs from the income reference period, not from the last twelve months preceding the interview time point as provided.

Finland's definitions for the reference periods in the EU-SILC 2007 survey.

Current, time point of interview for the respondent in the survey year 2007:
- Non-monetary household deprivation indicators
- Housing (amenities in the dwelling)
- Education
- Health

Current, last day (31 Dec.) of the income reference period (2006):
- Basic data
- Physical and social environment
- Housing (dwelling type, tenure status and housing conditions)

Current, last month (December) of the income reference period (2006):
- Child care
- Labour information on current activity status and current main job, including information on last main job for unemployed,
- Detailed labour information
- Housing costs (a part of housing costs)

Last 12 months preceding the time point of interview:
- Health (access to health care)

Income reference period (a fixed 12-month period), i.e. 2006:
- Income
- Labour information on activity status during income reference year
- Housing and non-housing related arrears
- Housing costs (a part of housing costs, e.g. income related items)

The income reference period is the preceding calendar year of the survey year, i.e. a fixed 12-month period. Income taxed by the Bookkeeping Act received from the completed accounting periods in the income reference period is included. These are business income, income from dividends and interest.

The reference period for taxes on income and social contributions is the years when taxes are paid from the income received during the income reference period. The taxes are paid in the income reference period (t) and the following years (t+1, t+2). The social contributions are mostly paid in the income reference period (t).[2]

The reference period of taxes on wealth (i.e. real estate tax from 2006 onwards) is the year when taxes are paid from the real estate owned in the beginning of the tax year, i.e. the income reference period (2006). Taxable value refers to the value of the previous year (2005), which from it's building part has been raised up to a replacement value by the building cost index. The tax percent of the tax year (2006) is determined by the municipality where the real estate locates. The payments are done during the income reference year.

The time lag between the income reference period and current variables is in its maximum when current information is from the interview time point. The last interview was conducted on 28 June in the survey year. The time lag is then **5.9 months**. However, most of the current information is from the end of the income reference period and then the time lag does not exist.

Interviews were conducted from 5 January to 28 June in the survey year 2006. **The duration of interviewed data collection** was **4.8 months**. Of all household interviews, 25 per cent were collected by 7 February, 50 per cent by 7 March, 75 per cent were collected by 11 April, and 90 per cent by 3 May.

For the register database, the last information was collected on 23 November in the survey year 2007. When data collection from registers is included in the measurement, **the duration of the whole data collection both from interviews and registers was 10.6 months.**[3]

[2] Most of the taxes (incl. taxes on net wealth owned) and social contributions are actually done during the income reference year (t) as withholdings by a payer or advance payments by a person, i.e. 89.0 per cent of enforced taxes in 2006 (National Board of Taxes 2008). Some of these payments can be done up till March of the year after the income reference period (t+1). As a result of the enforced taxation by tax authorities, 7.0 per cent of the enforced taxes were received as tax refunds in the year after the income reference period (t+1), 4.3 per cent of the enforced taxes were paid as residual taxes in the year after the income reference period (t+1) and further in the beginning of the following year (t+2). If demands of rectification and petition of appeals were proceeded, in a few cases, taxes are paid later (t+3,…,n).

The consistency is highest among employees and pensioners. 90.0 per cent of the total withholdings and advance payments for employees and 93.5 per cent of the total withholdings and advance payments for pensioners were in accordance with the enforced taxes in 2006. The consistency was not as high among self-employed persons, 83.3 per cent of total advance payments done by farmers and about 76.0 per cent done by other self-employed persons were in accordance with the enforced taxes. (National Board of Taxes 2008).

[3] The Personal Tax Register of National Board of Taxes is the main income source (See 3.2.2.). For it, prefilled tax reports from administrative registers are checked and returned by person to tax authorities in a case of errors or additional information by 15 May. Farmers are obliged to submit tax reports in February and other self-employed persons in April or May.

The basic information on activity status during the income reference period was derived from information on a person's main activity in each month by summing the activities over the months (twelve in total, see interviewed groups below). The information on a person's main activity was interviewed from the household respondent. For answering to a question, the respondent was instructed to give priority to employment over non-economic activity and inactivity if that person had had several activities during the month. Full-time and part-time work was separated by working hours. Work was full-time if a person worked at least 30 hours per week. Otherwise, work was part-time if a person worked under 30 hours per week. In economically inactive statuses, the answer is based on the respondent's assessment about his/her main activity during the month.

The target variables on a person's activity status during the income reference period and the detailed subgroups interviewed are as follows :
PL070, Number of months at full-time work :
- Employee working full-time (at least 30 hours per week)
- Entrepreneur or unpaid worker in family enterprise working full-time (at least 30 hours per week)
PL072, Number of months at part-time work:
- Employee working part-time (under 30 hours per week)
- Entrepreneur or unpaid worker in family enterprise working part-time (under 30 hours per week)
PL080, Number of months in unemployment:
- Unemployed
PL085, Number of months in retirement:
- Retiree
PL087, Number of months in studying:
- Pupil, student
PL090, Number of months in inactivity:
- On unpaid sickness leave, etc.
- Others
- In military service or conscript service

3.2 Components of income

3.2.1 Differences between the national definitions and standard EU-SILC definitions

Total household gross income and disposable household income

The target variables on gross income components, on **total household gross income, HY010**, and on **total disposable household income HY020 and total disposable household income before social transfers other than old-age and survivors' benefits HY022 and including old-age and survivors' benefits HY023** are defined according to the requirements followed from the beginning of EU-SILC. (Doc LC-ILC/15/08/EN).

HY010 is the sum of gross income components at the household level. HY020 is HY010 after current transfers paid have been deducted. HY010 is a positive value (incl. 0 values). Negative values of the net income variables HY020, HY022 and HY023 on total disposable household income are due to such current transfers paid which are not related to the total household gross income HY010. These are regular taxes on wealth HY120G, which may exceed the amount of the total household gross income by the EU-SILC definition. The number of the sample households with negative values was five in HY020, 98 in HY022 and 491 in HY023. For calculating the overarching indicators, social inclusion indicators and pension indicators, the negative values were set for zero values. The conversion has an effect on the HY020 mean equivalised income and Gini coefficient estimates.

According to the income definitions from 2007 onwards, inclusion of imputed rent in total income in particular increases HY023 among those households with that it would be otherwise negative on the basis of the previous definition. The number of negative values in the total income variables are respectively as follows: two in HY020, 35 in HY022 and 83 in HY023. Gross and disposable household income amounts are smaller, but not negative in the households whose gross mortgage interests HY100G exceed imputed rent HY030G (n=265).

Tax on income and social insurance contributions HY140G and regular inter-household transfers paid HY130G were subtracted from total household gross income HY010 received during the income reference year. They do not usually cause negative values to the total household income components. Instead, negative values of HY020 results from HY120G (n=2), which is due to real estate tax. In the 2007 data there are exceptionally a few households (n=3) with negative HY020, which results primarily from HY120G or HY130G.

Taxes from PY020G included in HY140G refer to the taxes paid from all non-cash employee income. For HY020, HY022 and HY023 of the delivered microdata to Eurostat, taxes refer to company car only (Taxes from PY021G). (See formulas for computing in Table 3.3).

Income received

The variables on gross income components were obtained by summing the detailed gross items at the person and household unit level. Especially when register income is available as very detailed items, the aggregating of the items for the target variables is closely in accordance with the regulations and descriptions (incl. EU-SILC 065/05.1; LC-ILC/15/08/EN). **Compared with the Regulation definitions on the EU-SILC gross income components, the following differences,** however, appear due to using register information within the Personal Tax Register frame:

- Employer's social insurance contributions PY030G include the legal and mandatory contributions exclusively but not the voluntary ones. In cases, when voluntary contributions have been done by employers to endowment insurance (excl. life insurance) or in some cases to individual pension or risk insurance scheme (if annual amounts are not defined as reasonable and exceed a certain

amount) are determined as taxable earned income by tax act and counted as a part of non-cash employee income PY020G.

- In addition to pensions and benefits from individual personal insurance schemes (ESSPROS third pillar), pensions from individual private plans PY080G include also pensions and benefits from collective voluntarily insurances (ESSPROS second pillar) taken by persons on their own or by their employers to supplement the obligatory/compulsory insurance[4]. The Tax register items contain both items. They can not been separated exactly. (See Table 3.2.)
- Gross cash profits or losses from self-employment (including royalties) PY050G are in gross amounts after expenses except interest on loans for acquisition of income. They are counted as deductions for taxable income and result as lower taxes paid HY140G. Value are positive (incl. 0 income). Losses are considered for lower taxes paid from other type of income in the income reference period, or in the spouse's taxes paid. If no taxable income is received at all, the confirmed losses are considered in taxes that will be paid from the income received in the following years. Therefore, confirmed losses both from the income of the income reference period and from previous periods as well can both have an effect on taxes paid from the reference period's income HY140G.[5]
- Deductions granted for loan interests expenses diminish the taxable income after expenses for acquisition of income (i.e. gross income), and result as lower taxes paid HY140G. Loan interests and a.m. losses from self-employment as well are treated in credit for investment income deficit in taxation.
- Both received social benefits and social benefits obliged to be returned to payers were included in the certain target variables on social benefits (PY090G, PY100G, PY110G, PY120G, PY130G, PY140G, HY050G, HY060G, HY070G). The statistical units have negative values on these variables if the social benefits were solely returned back, or the returned amount exceeded the amount received during the income reference period. The social benefits are obliged to be returned if the income or living conditions have changed and they are not valid in relation to the allowed criteria any more.
- Income received personally by people aged under 16 (n=388) was counted in the target variable HY110G. The variable consists of the following type of income: employee income and self-employment income, education related allowances, survivors' benefits, disability benefits and a part of family/children-related allowances. Other social benefits within the ESSPROS system are paid for children's carers, and were counted in family benefits HY050G. Income received from interest, dividends, profit from capital investments in unincorporated businesses and from rental or property of land are also income sources for people aged under 16. They were counted in HY090G. Income on PY030G received persons under 16 has not been included in HY110G.

[4] It has to be noted in Finland’s pension system, that the collective compulsory scheme (ESSPROS first pillar) is comprehensive. Benefit ceilings do not exist and consumption level of employment career is ensured (pension target level is 60-66 per cent of earnings).

[5] In the sample, 18.9 per cent of self-employed persons (PL030 =1,2, & PL040 = 1,2) had 0 income on PY050G (n = 660 / 3 484). Most of them had other income sources, employee income and property income were the marked income sources. 76,4 per cent of persons got employee income on PY010G and/or PY020G and 78,0 per cent PY080G, HY040G and/or HY090G at personal level. 4.7 of persons had only other type of income and 3.3 of persons had not income at all during the reference year. Persons who were temporarily away from work are counted in the numbers. Losses were in 5.9 per cent for all self-employed persons (n= 204) and 15,6 per cent for self-employed persons without income from PY050G (n=103). 25.0 per cent of all self-employed persons who had losses in income they were considered as deductions from taxes on capital income or credit for deficit in capital income from taxes on earned income, and for 79.9 per cent the losses were confirmed losses (the rest of the losses or all) which can be considered as deductions from the taxes on income will be received after the income reference year. In addition, a small number of losses were counted in the spouse’s taxation.

Current transfers paid

The target variable on **tax on income and social insurance contributions HY140G** includes taxes paid for the state taxation and for the municipal taxation. For the state taxation, taxes from earned income (incl. social benefits) are paid progressively by the person's income level, taxes from capital income are paid uniformly (28 per cent of capital income in 2006). For municipal taxation, taxes from earned income are paid by the tax rate of the place of domicile that a person hold at the end (31 Dec.) of the year preceding the income reference year.

The social contributions include the following items: compulsory sickness contributions, unemployment contributions and pension contributions.

The target variable on **regular taxes on wealth HY120G** includes Real Estate Tax on real property owned in the income reference period. Besides, taxes on real property owned are paid indirectly in utility costs of dwellings by shareholders in housing corporations. The tax was not included in HY120G, but it was counted in housing costs HH070 and consequently, as a part of the housing costs component it diminishes imputed rent HY030G.

Changes in income from the survey year 2006 (from the income reference period 2005)

In addition to the changes due to the requirements from the survey year 2007, the changes are resulting from the reforms in Finland's Tax Act . At the beginning of 2006 Net Wealth Tax has been abolished. This means that HY120G on regular taxes on income and wealth contains only Real Estate Tax.

Income from non-compulsory insurance schemes are in the target variable PY080G. The income was included in HY090G earlier. Compared with the preceding EU-SILC data, income equals at the property income (PY080G, HY040G, HY090G) and total income level.

Table 3.2 Components of income. Finland's definitions and assessed consequences resulting from differences compared with the EU-SILC definition in the 2006 survey.

Components of income	**Variable name**	**The definition**	**Consequences to comparability** **1 = comparable** **0 = not comparable**
Total household gross income	HY010		1 See notes below
Total disposable household income	HY020		1 See notes below
Total disposable household income, before social transfers other than old-age and survivors' benefits	HY022		1 See notes below
Total disposable household income, before social transfers including old-age and survivors' benefits	HY023		1 See notes below
Imputed rent	HY030G	Imputed rent (equivalent market rent) for all households that do not report paying full rent, either because they are owner-occupiers or they live in accommodation rented at a lower price than the market price, or because the accommodation is provided rent-free. Imputed for the dwelling which is used as a main residence of the sample household.	1 Note: The market rent refers to the value including utility costs done besides the "space rent" . They can not be distinguished. After deducting consistent housing costs paid by the household, the definition is comparable. Rented dwellings cover the ones rented from another household or from the municipality or public utility corporations. In relation to HH020 (codes 3,4), HY030G is for the households whose actually paid housing costs were lower than the imputed market rent value of the equivalent dwelling.
Income from rental of property or land	HY040G	Income received, during the income reference period, from renting a property less expenses except interest payments.	1 Note: Interest payments on loans for acquisition of income are considered as deductions from taxable income in taxation, and thus diminish the amount of taxes paid on the income

			(HY140G).
Family/children-related allowances	HY050G	Financial support to households for bringing up children and financial assistance to people who support relatives other than children: income maintenance benefit in the event of childbirth, birth grant, parental leave benefit, family or child allowance, other cash benefits.	1
Social exclusion payments not elsewhere classified	HY060G	Social benefits to the socially excluded or to those at risk of social exclusion: income support to people with insufficient resources, and other cash benefits as support for destitute and vulnerable persons to help alleviate poverty or assist in difficult situations.	1 Note: A register-based item on income support also includes a minor part of means-tested housing allowance. Parts are not separable from each other.
Housing allowances	HY070G	Rent benefit or benefit to owner-occupiers, means-tested	1
Regular inter-household cash transfers received	HY080G	Regular monetary amounts or monetary amounts over the certain minimum amount (EUR 100) received during the income reference period, from other households or persons: compulsory child support, voluntary support to education, voluntary payments for housing costs and utility bills.	1
Alimonies received	HY081G	Regular monetary amounts or monetary amounts over the certain minimum amount (EUR 100) received during the income reference period, from other households or persons: compulsory child support.	0 Note: Compulsory child support. Voluntary alimonies and voluntary child support received on a regular basis have not been included.
Interest, dividends, profit from capital investments in unincorporated businesses	HY090G	The amount of interest from assets, dividends and profits from capital investment in an unincorporated business in which the person does not work, received during the income reference period, less expenses incurred. Interests on loans for acquisition of income are considered as expenses for certain income items, but not for all income items.	1 Note: Interest payments on loans for acquisition of income are subtracted as deductions from taxable income in taxation, and thus diminish the taxes paid on income. (HY140G).
Interest paid on mortgages	HY100G	Total gross amount, before deducting any tax credit or tax allowance, of mortgage interest on the main residence of the household during the income reference period.	1
Interest paid on mortgages	HY100N	Total net amount, after deducting tax credit or tax allowance, of mortgage interest on the main residence of the household during the income reference period. Tax allowance from mortgage interest expenses is considered as deductions from taxable capital and earned income in taxation, and thus diminishes taxes paid on the income (HY140G).	1
Income received by people aged under 16	HY110G	Gross income received by all household members aged under 16 during the income reference period.	1 Note: Items of PY030G have been excluded.
Regular taxes on wealth	HY120G	Real Estate Tax, which is paid on the buildings and land (excl. forests and agricultural land) owned at the beginning of the income reference period.	1 Taxes paid on the ownership and use of buildings and or land by shareholders in housing companies are part of housing costs for imputed rent. Net wealth tax has abolished because of the tax reform took force at the beginning of 2006.
Regular inter-household transfers paid	HY130G	Regular monetary amounts or monetary amounts over the certain minimum amount (EUR 100) paid during the income reference period, to other households or persons: compulsory child support, voluntary support to education, voluntary payments for housing costs and utility bills.	1
Alimonies paid (compulsory + voluntarily)	HY131G	Regular monetary amounts or monetary amounts over the certain minimum amount (EUR 100) paid during the income reference period, to other households or persons: compulsory child support.	0 Note: Compulsory child support. Voluntary alimonies and voluntary child support paid on a regular basis have not been included.
Tax on income and social insurance contributions	HY140G	Taxes on income, profits and capital gains: taxes on individual, household or tax-unit income (income from employment, property, entrepreneurship, pensions, etc.) including taxes deducted by employers (i.e. withholdings), other taxes at source and taxes on the income of owners of unincorporated enterprises paid from the income received in the income reference year. Social insurance contributions paid during the income reference period.	1 Note: Interests charged on arrears of taxes due and any fines imposed by tax authorities have not been included. Taxes from PY020G refer to the whole income of the variable (compare with PY021G) which have been included in HY140G.
Repayments/receipts for tax adjustments	HY145G	-	-
Cash or near-cash employee income	PY010G	Monetary component of the compensation of employees in cash payable by an employer to an employee: value of any social contributions and income taxes payable by an employee or by the employer on behalf of the employee to social insurance schemes or tax authorities.	1 Note: Tips and bonuses, and benefits based on profit sharing from stock options (excl. the ones converted into cash) have been included in this component.
Non-cash employee income	PY020G	Non-monetary income components which may be provided free or at a reduced price to an employee as part of the employment	1

		package by an employer: company car and associated costs, free or subsidised meals, luncheon vouchers, reimbursement or payment of housing-related expenses, accommodation provided free or reduced rent, other goods and services provided free or at a reduced price by their employer to their employees. Taxable income of non-monetary components. Income refers to the market value by Tax authorities and/or the value determined annually by Tax authorities.	
Non-cash employee income (company car)	PY021G	Non-monetary income components which may be provided free or at a reduced price to an employee as part of the employment package by an employer: company car. Taxable income of company car which refers to the value determined annually by Tax authorities.	1
Non-cash employee income (company car)	PY021N	Non-monetary income components which may be provided free or at a reduced price to an employee as part of the employment package by an employer: company car. Value of company car after taxes paid.	1
Employers' social insurance contributions	PY030G	Employers' legal/mandatory contributions, i.e. payments done by employers during the income reference period for the benefits of their employees to insurers covering statutory, conventional or contractual contributions in respect of insurance against social risks: contributions to legal pension schemes, legal health insurance, accident insurance, unemployment insurance and employees' group life assurance schemes. Employers' contributions refer to compulsory contributions.	0 Note: Optional contributions made by employers on the basis of contractual or specific sector arrangements have not been included in PY030G. A small part of these contributions have been counted in PY020G: e.g. contributions to endowment insurance (excl. life insurance) and other such contributions to individual pension scheme and risk insurance scheme which are determined as taxable employee income. These items are part of other register items and can not be separated. Information on optional contributions is not available. The definition of them is coherent with the income included in PY080G.
Optional employers' social insurance contributions	PY031G	-	0
Contributions to individual private pension plans	PY035G	Contributions to private pension plans taken by individual households on their own initiative and from their own benefit, independently of their employers or government and outside social insurance scheme.	1 Note: Contributions refer to the contributions done to voluntarily individual pension scheme. Compared with income items included in PY080G, the definition is not as wide.
Cash profits or losses from self-employment (including royalties)	PY050G	The income received, during the income reference period, by individuals, for themselves or in respect of their family members, as a result of their current or former involvement in self-employment jobs: operating profit accruing to working owners or partners of an unincorporated enterprise, royalties earned on writing, inventions and so on, not included in the profit/loss of unincorporated enterprises, rentals from business buildings, vehicles, equipment, etc., not included in the profit/loss of unincorporated enterprises, after deduction of related costs. Interests on loans for acquisition of income are considered as costs for a few income items, but not for all income items.	1 Note: Interest payments on loans for acquisition of income are subtracted as deductions for taxable income in taxation, and thus diminish the taxes paid on income (HY120G). Positive values (incl. 0 values). Losses are considered as deductions from taxes on capital income or as credit for deficit in capital income (i.e. deductions from taxes on earned income, if a person has a insufficient capital income), or in the spouse's taxes paid. If such taxable income that deductions concern has not been received at all, losses will be considered as taxes paid from the income received in the following years.
Value of goods produced for own consumption	PY070G	-	- Note: Value is not significant at the national level, or to particular groups of households. According to the FI-HBS 2006 results, expenditures of goods produced for own consumption (under COICOP K01 Food and non-alcoholic beverages) was 0,3 per cent from all consumption expenditures in the households in average. In employers and own-account workers in agriculture, the percentage was highest, 1,7 per cent, whereas in other socio-economic groups the percentage was as next highest, 0,4 per cent, in pensioners. When counting the expenditures of goods produced for own consumption from household disposable income, the percentages are lower in general (1,3 per cent in employers and own-account workers in agriculture). The information is not included in IDS.

Pensions received from individual private plans	PY080G	Pensions received from non-compulsory statutory schemes, i.e. voluntary collective and individual insurance schemes. For voluntary collective insurance schemes, contributions have been done also by employers.	0 Note: Income items on regular private individual pensions (ESSPROS third pillar) cannot be separated from register items with broader definition (incl. ESSPROS second and third pillar items). Income received from voluntary individual private plans was about 40 per cent of total amount of voluntary collective and individual schemes in 2006 according to Insurance Supervisory Authority (2007). The pensions received from voluntary collective schemes (ESSPROS second pillar) are included in PY080G, not in social benefits. They were about 3,2 per cent of the total income amount received from compulsory (ESSPROS first pillar) and supplementary collective schemes (ESSPROS second pillar) in 2006 according to Insurance Supervisory Authority (2007). Collective compulsory scheme (ESSPROS first pillar) is comprehensive in Finland's pension system.
Unemployment benefits	PY090G	Benefits that replace income lost by a worker due to the loss of gainful employment, provide subsistence income to persons entering or re-entering the labour market, provide subsistence income to unemployed persons not members in unemployment funds, provide subsistence income to persons in long-term unemployment, and to elderly persons who retire after long-term unemployment before the legal retirement age, contribute to the cost of training or re-training people looking for employment.	1
Old-age benefits	PY100G	Benefits that provide replacement income when an aged person retires from the labour market, or guarantee certain income when a person has reached the prescribed age. Old-age pensions, early old-age pensions, deferred old-age pensions and part-time pensions are counted in old-age benefits. After the pension reform came into force at the beginning of the 2005, the pension entitlement age criteria have changed. The statutory retirement age for old-age pension under the national scheme is 65 and employment scheme is 63 - 68 (earlier 65). Persons secured under the employment scheme are in certain professions entitled to start old-age pensions earlier. In addition, early old-age pensions are awarded after the age of 60 in earliest in public sector contracts and the age of 60 or 62 in private sector contracts under the employment scheme. Part-time pensions are awarded to persons after the age of 56 in the public sector and after the age of 58 in private sector contracts under the employment scheme. Income on PY110G and PY130G has been reclassified to PY100G according to person's actual retirement to the old-age pension (excl. part-time pensions) or last, by using either the statutory retirement age under the national scheme (65) or under the employment scheme (68).	1 Note: Reclassifications of PY110G and PY130G to PY100G have changed due to the pension reform on retirement ages. The change (PY130G) has a small effect on the at-risk-of-poverty rates before social transfers other than old-age and survivors' benefits or including old-age and survivors' benefits based on the results from the 2006 survey. The change of percentage unit is +0.3 in it's maximum in at-risk-of-poverty rates grouped by sex and age.
Survivors' benefits	PY110G	Benefits that provide temporary or permanent income to people below the retirement age after the death of their spouse, partner or next-of-kin, usually when the latter represented the main breadwinner for the beneficiary. Survivors' pension to the deceased person's children, to a surviving spouse and under the employment pension scheme to a former spouse are counted in survivors' benefits.	1
Sickness benefits	PY120G	Benefits that replace in whole or in part loss of earnings during temporary inability to work due to sickness or injury.	1
Disability benefits	PY130G	Benefits that provide an income to persons below the standard retirement age whose ability to work and earn is impaired beyond the minimum level laid down by legislation by physical or mental disability. Income for the disabled persons entering or returning to work.	1
Education-related allowances	PY140G	Grants, scholarships and other education assistance received by students.	1
Gross monthly earnings for employees	PY200G	-	- Note: The gender pay gap is calculated by the Wages and Salaries Statistics unit, Statistics Finland

The effect of student household definition on income distribution

Table 3.2.1 gives results on income of students grouped by the household members' activity (PX050) and living status (RB200). The students living together with non-student adult members in the household's main dwelling formed 88.4 per cent, the students living apart from their non-student adult household members formed 2.3 per cent and the students living in the households containing only students formed 11.6 per cent of all students aged 16 and over in the survey year 2007 data. Low income concern especially solely student households from which students are more often in lowest income groups than others. Table 3.2.2 shows more detailed figures on the students according to their income, age and living status. Low income by the 0.20 criterion of equivalised household disposable income was most common in the students aged 19-24 living in a household that contained only students. The number of students in student households was 30.3 per cent of all students aged 19-24, from whom 85.8 per cent had low income. Again the number of students in the households with their non-student partners was 28.4 per cent of all students aged 19-24, from whom 47.2 had low income. Almost third of the students (32.3 per cent) were still living together with their parents, their low income proportion was smaller (23.1) than in the other groups.

Table 3.2.1 Students' equivalised household disposable income by income distribution group (decile) according to the household type in EU-SILC 2007 , % (Students have been defined by PX050 ACTSTA: most frequent activity status in income reference period)

Equivalised household disposable income	**Households containing students**					**Households not containing students**	**All households**
Decile group	**All**	**Households containing only students**	**Other households containing students and non-student adults**	**Students living in the households main dwelling**	**Students living in the households second dwelling**		
1	**18.2**	**67.1**	**11.8**	11.9	9.7	**9.2**	**10.0**
2	**10.5**	**16.2**	**9.8**	9.8	6.7	**10.0**	**10.0**
3	**11.6**	**10.0**	**11.8**	11.8	9.8	**9.8**	**10.0**
4	**10.7**	**3.5**	**11.6**	11.7	10.4	**9.9**	**10.0**
5	**9.2**	**2.0**	**10.2**	10.1	11.5	**10.1**	**10.0**
6	**9.1**	**0.0**	**10.3**	10.2	12.9	**10.1**	**10.0**
7	**9.2**	**1.1**	**10.2**	10.2	11.6	**10.1**	**10.0**
8	**7.6**	**0.0**	**8.6**	8.5	12.4	**10.2**	**10.0**
9	**6.6**	**0.2**	**7.5**	7.5	7.9	**10.3**	**10.0**
10	**7.3**	**0.1**	**8.2**	8.3	7.1	**10.3**	**10.0**
Total	**100.0**	**100.0**	**100.0**	100.0	100.0	**100.0**	**100.0**
All	**474 346**	**55 101**	**419 245**	408 493	10 753	**4 724 692**	**5 199 039**

Table 3.2.2 Students whose equivalised household disposable income is <.20 of income distribution according to the age and household type in EU-SILC 2007, % (Students have been defined by PX050 ACTSTA: most frequent activity status in income reference period)

	Households containing students								**Households not containing students**	**All households**
Age	**All**	**Households containing only students**	**Other households containing students and non-student adults**	Students living in the households main dwelling	Students living in the households second dwelling	Students living with their parents	Students living with their partners	Students not living with their parents nor partners		
16-18 (%)	19.8	100.0(1	17.9	18.2	10.2	16.7	45.7	24.7	17.9	18.2
All, N	179 312	4 095(1	175 217	169 400	5 817	152 472	1 946	20 798	986 875	1 166 187
19-24 (%)	49.4	85.8	33.5	34.3	(2	23.1	47.2	27.2	24.7	32.1
All, N	113 543	34 496	79 047	74 994	(2	36 629	32 348	10 070	263 532	377 075
25- (%)	24.7	73.8	19.8	19.6	(2	21.6	16.0	42.6	19.1	19.3
All, N	181 491	16 510	164 981	164 099	(2	5 011(1	137 841	22 130	3 474 286	3 655 777

1) 30>= n < 50

2) n <30

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

Income information is primarily register information, which was linked to the EU-SILC sample persons from the register database, i.e. the Total Income Database (TIDB) maintained by Statistics Finland. TIDB is compiled from register sources maintained by several administrative authorities[6], who are also in charge of the data quality. The sources cover the whole population of Finland. For TIDB, information is further checked in order to ensure the consistency of the data from several sources.

Items which were not available from registers were collected by interviews (the income definitions from the start of EU-SILC: 1.4 per cent from all gross income and 2.0 per cent from all paid transfers weighted at total households were interviewed). Interviewed items on income were as follows:

- Wages and salaries for persons who have no taxable income in Finland (incl. in PY010G)
- Interest income taxed at source (incl. in HY090G)
- Pensions from abroad to persons who have no taxable income in Finland (incl. in PY100G)
- Tax-free care allowances and convalescent's grants, unspecified tax-free pensions (incl. in PY130G)
- Small subsidies for studying (incl. in PY140G)
- Maintenance support for children (incl. in HY050G)
- Strike assistance (incl. in HY060G)
- Regular inter-household transfers received (HY080G)
- Regular inter-household transfers paid (HY130G)

[6] Administrative registers are the Personal Tax Register of National Board of Taxes, the Pension Register of the Finnish Centre for Pension, the Pension Register, Social Insurance Register, Rehabilitation Register, Study Aid Register, Housing Allowance Register of the Social Insurance Institution; the Registers of the Education Fund, the Farm Register of the Information Service Centre of the Ministry of Agriculture and Forestry, the Social Assistance Register of the National Research and Development Centre for Welfare and Health (STAKES), the Tax Database of the military injury benefits system of the State Treasury. The main frame for income information is the Personal Tax Register to which other registers give more detailed information, or supplement it by tax-free income information.

Furthermore, information on household main dwellings and housing costs was interviewed in order to form HY030G imputed rent according to the income definitions used from 2007 onwards.

Interviewed items were automatically checked and corrected in relation to acceptable values in the Blaise questionnaire on the basis of information received in the course of the interview and further, after the information collection, the checking was continued in order to detect and correct erroneous values (Section 2.3.3 Processing). Item-non responses concerned interest income taxed at source in the component HY090G interest, dividends, profit from capital investments in unincorporated businesses. For it, statistical imputing (hot-deck method) was used to impute the missing values. Otherwise, because of comprehensive register sources on income, imputing was used only to the following variables for which sufficient information was not directly available: deductive imputing for PY030G, statistical imputation (stratification method) for HY030G and gross/net conversion for PY020N, PY021N, HY100N, HY022 and HY023.

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

Except for the target variables PY020N, PY021N, HY100N, HY020, HY022 and HY023, the target variables on income are in gross amounts.

Table 3.3 Components of income. Finland's sources or procedures used for collection of income components, the form and the methods used for obtaining the target variables in the 2007 survey.

	Variable name	Source or procedure used for collection	The form	The method used for obtaining the target variable
Total household gross income (definition since the sy2004 onwards)	HY010	The register database, the IDS/EU-SILC interview	Gross value	The sum for all household members of gross personal income components (PY010G, PY021G, PY50G, PY070G, PY080G, PY090G, PY100G, PY110G, PY120G, PY130G, PY140G) plus gross income components at household level (HY040G, HY050G, HY060G, HY070G, HY080G, HY090G, HY110G)
Total household gross income (definition from the sy2007 onwards)	HY010	The register database, the IDS/EU-SILC interview	Gross value	The sum for all household members of gross personal income components (PY010G, PY020G, PY030G, PY50G, PY070G, PY080G, PY090G, PY100G, PY110G, PY120G, PY130G, PY140G) plus gross income components at household level (HY030G, HY040G, HY050G, HY060G, HY070G, HY080G, HY090G, HY110G) minus mortgage interests (HY100G).
Total disposable household income (definition since the sy2004 onwards)	HY020	The register database, the IDS/EU-SILC interview	Net value	The sum for all household members of gross personal income components (PY010G, PY021G, PY50G, PY070G, PY080G, PY090G, PY100G, PY110G, PY120G, PY130G, PY140G) plus gross income components at household level (HY040G, HY050G, HY060G, HY070G, HY080G, HY090G, HY110G) minus regular taxes on wealth (HY120G), regular inter-household cash transfers paid (HY130G), tax on income and social insurance contributions (HY140G) sum components at personal level (PY020G minus PY020N) minus (PY021G minus PY021N).
Total disposable household income (definition from the sy2007 onwards)	HY020	The register database, the IDS/EU-SILC interview	Net value	The sum for all household members of gross personal income components (PY010G, PY020G, PY030G, PY50G, PY070G, PY080G, PY090G, PY100G, PY110G, PY120G, PY130G, PY140G) plus gross income components at household level (HY030G, HY040G, HY050G, HY060G, HY070G, HY080G, HY090G, HY110G) minus mortgage interests (HY100G), regular taxes on wealth (HY120G), regular inter-household cash transfers paid (HY130G), tax on income and social insurance contributions (HY140G).
Total disposable household income, before social transfers other than old-age and survivors' benefits (definition since the sy2004 onwards)	HY022	The register database, the IDS/EU-SILC interview	Net value	The total disposable income (HY020) minus **total gross to net converted transfers** of unemployment benefits (PY090G), sickness benefits (PY120G), disability benefits (PY130G), education-related allowances (PY140G), family/children-related allowances (HY050G), social exclusion not elsewhere classified (HY060G) and housing allowances (HY070G). For net conversion of the social transfer, detailed income information from the Personal Tax Register was used. The phases in deriving HY022 and HY023 were as follows: 1. Deductions which are focused on social transfers

				subject to taxation were counted in order to obtain taxable social transfers. Deductions of the state and municipal taxation were done separately. 2. Taxes paid on taxable social transfers in state and municipal taxation were deducted. These are the actual taxes paid defined by the rate of the taxed social transfers and taxed earned income (incl. social transfers in the Finnish taxation). 3. The gross to net converted social transfers subject to taxation and social transfers not subject to taxation excluding and including old-age benefits and survivors' benefits were deducted from HY020, resulting in HY022 and HY023.
Total disposable household income, before social transfers other than old-age and survivors' benefits (definition from the sy2007 onwards)	HY022	The register database, the IDS/EU-SILC interview	Net value	HY020 (sy2007 onwards) minus HY020 (sy2004 onwards) minus HY022
Total disposable household income, before social transfers including old-age and survivors' benefits (definitions since the sy2004 onwards)	HY023	The register database, the IDS/EU-SILC interview	Net value	The total disposable income (HY020) minus **total gross to net converted transfers** of unemployment benefits (PY090G), old-age benefits (PY100G), survivors' benefits (PY110G), sickness benefits (PY120G), disability benefits (PY130G), education-related allowances (PY140G), family/children-related allowances (HY050G), social exclusion not elsewhere classified (HY060G) and housing allowances (HY070G). See the method of HY022.
Total disposable household income, before social transfers including than old-age and survivors' benefits (definition from the 2007 onwards)	HY023	The register database, the IDS/EU-SILC interview	Net value	HY020 (sy2007 onwards) minus HY020(sy2004 onwards) minus HY023
Imputed rent	HY030G	**The stratification method** has been used for imputing equivalent gross rent values to the EU-SILC sample dwellings from the external data source compiled annually by Statistics Finland. The data being coherent with NA includes mean gross rents/m2 to dwellings of different sizes, types and municipalities (strata). For producing gross rent values to the data, Rent statistics on actual market rents (incl. new and old contracts) has been used as a primary data source. Rent statistics is compiled by **conventional methods based on classification and regression analysis (hedonic method)**. Information is collected by monthly Labour Force Survey interviews (the whole sample size is 12,000), and from register sources maintained by Statistics Finland. Data according to stratum has been produced to the regions (municipalities) with narrow market rents by disaggregating information on rents of upper level classification of regions (NUTS3) or secondarily, by using additional information on statistics of Prices of Dwellings by Statistics Finland. The IDS/EU-SILC interviewed data on sample household dwellings. The HBS interviewed data (for estimating insurance for detached houses) in 2006.	Gross value	**Stratification method:** Mean gross rent / m2 was imputed to the floor area (square meter) of the sample households' main dwellings by the following classes: - HH010 (detached house with 1-2 dwellings or other kind of accommodation, semi-detached or terraced house, apartment or flat in the block of flats) - HH030 (1, 2, 3, 4+) - Construction or renovation year (-60, 61-70, 71-80, 81-90, 91-) - Municipality and district area in the municipalities with the highest number of population (Helsinki, Espoo, Vantaa, Tampere, Turku) according to postal code. To obtain the value of imputed rent, costs on housing the household actually paid (rents, maintenance electricity, gas and other fuels, incl. subsidies received for them, minor repairs) and the ones imputed (insurance for detached houses) were subtracted from the gross rent value. For owners of detached houses: heating costs were excluded from the gross rent value of external data source and were not an item of subtractable housing costs. For others (shareholders of stock in a housing corporation (joint owners) and tenants): heating costs were included in the gross rent value and subtractable housing costs. Tax on real estate is a part of maintenance charges in shareholders of stock in a housing corporation (joint owners). Tax on real estate of owners is included in HY120G. The items of costs on housing follow the definition of the market rent. Imputed minor repairs are derived from the EU-SILC sample, and insurance from the HBS. Comparability over time: The method has been revised. The unit coverage is comprehensive with regards to the EU-SILC definition. The main differences in the method are due to more detailed dwelling location classification used for imputing

				gross rent values and that depreciation is not deducted separately as a cost item as earlier. Consequently, the imputed rent level and it's variation across private households is higher compared with the method used for HY030G in the previous survey years 2004,2005 and 2006.
Income from rental of property or land	HY040G	Register database	Gross value	
Family/children-related allowances	HY050G	Items either from the Register database or from the IDS/EU-SILC interview	Gross value	
Social exclusion payments not elsewhere classified	HY060G	Items either from the Register database or from the IDS/EU-SILC interview	Gross value	
Housing allowances	HY070G	Items either from the Register database or from the IDS/EU-SILC interview	Gross value	
Regular inter-household cash transfers received	HY080G	The IDS/FI-SILC interview	Gross value	
Alimonies received (compulsory and voluntary)	HY081G	The IDS/FI-SILC interview	Gross value	
Interest, dividends, profit from capital investments in unincorporated businesses	HY090G	Items either from the Register database or from the IDS/EU-SILC interview.	Gross value	Item non-responses of interest income taxed at source were imputed for the households that responded in the interview that they had received the income during the income reference year, but did not specify the exact amount. Imputing was done in two phases: first, to the households with missing exact value, but the answered range value and second, to ones with completely missing value. **Hot-deck method was used as a statistical imputation method.** For the first phase imputation, the data including households that had received income was grouped to classes by domicile code (dwelling location) and range value, from within donor values (interviewed amount) were selected to recipient households (missing amount) randomly. For the second phase imputation, the data (including units with imputed value from the first phase), was grouped to classes by domicile code, socio-economic status and the number of household members. Donor values (interviewed amount) were selected within these strata to recipient households (missing amount) randomly as well.
Interest paid on mortgages	HY100G	Register database	Gross value	
Interest paid on mortgages	HY100N	Register database	Net value	Net conversion of gross value was done by information on taxation: **deductive imputation**.
Income received by people aged under 16	HY110G	Register database	Gross value	
Regular taxes on wealth	HY120G	Register database	Gross value	
Regular inter-household transfers paid	HY130G	The IDS/EU-SILC interview	Gross value	
Regular inter-household transfers paid	HY131G	The IDS/EU-SILC interview	Gross value	
Repayments/receipts for tax adjustments	HY135G	-	-	-
Tax on income and social insurance contributions	HY140G	Register database	Gross value	
Cash or near-cash employee income	PY010G	Register database	Gross value	
Non-cash employee income	PY020G	Register database	Gross value	
Non-cash employee income	PY020N	Register database	Net value	Net conversion of gross value by the rate of actually paid taxes from taxable earned income: **deductive imputation.**
Non-cash employee income (company car)	PY021G	Register database	Gross value	
Non-cash employee income (company car)	PY021N	Register database	Net value	Net conversion of gross value by the rate of actually paid taxes from taxable earned income: **deductive imputation.**
Employers' social insurance contributions	PY030G	Register database	Gross value	**Deductive imputation** using information about obliged contributions of the compulsory social insurance schemes and information about employer.
Optional employers' social insurance contributions	PY031G	-	-	-
Optional employers' social insurance contributions	PY035G	Register database	Gross value	
Cash profits or losses from self-employment (including royalties)	PY050G	Register database	Gross value	Comparability over time: The component includes **items of timber selling as earned and capital forestry income, which are solely**

				from registers. In the previous survey years, a small part of the income was interviewed. Forestry tax reform has also been implemented. Accordingly, **the imputation method of expenses had been changed for these gross items**. Expenses are computed by fixed parameters from gross income items based on register information about timber selling income and expenses in TSID (Total Statistics on Income Distribution). Compared with the previous surveys, the register coverage has improved and provides more reliable data in line with the forestry tax reform. Based on the results from the 2007 survey year data, estimated total amount was 13,3 per cent of PY050G and 0.7 per cent of HY010 by the new method, and 13,7 per cent of PY050G and 0.8 per cent of HY010 by the (old) method used. Distributions of the item were almost completely correlated (Pearson coeff.=0.999), small differences exist in income at the unit level.
Value of goods produced for own consumption	PY070G	-	-	-
Pensions received from individual private plans	PY080G	Register database	Gross value	
Unemployment benefits	PY090G	Register database	Gross value	
Old-age benefits	PY100G	Register database and the IDS/EU-SILC interview data	Gross value	Survivors' benefits and disability benefits which were received simultaneously with old-age benefits were regrouped into old-age benefits by using the statutory retirement ages of the national scheme (65), employment scheme (63-68) or under the employment scheme lower statutory retirement age in certain professions.
Survivors' benefits	PY110G	Register database	Gross value	
Sickness benefits	PY120G	Register database	Gross value	
Disability benefits	PY130G	Register database	Gross value	
Education-related allowances	PY140G	Register database and the IDS/EU-SILC interview	Gross value	
Gross monthly earnings for employees	PY200G	-	-	-

3.3 Comparison of income target variables and number of persons who received income from each component with the previous survey years

Table 3.4 Mean income by each income target variable and the number of units received the income in EU-SILC 2004-2007 survey years

Survey year	**2004**	**2005**	**2006**	**2007**		**2004**	**2005**	**2006**	**2007**
All Households	**Mean**	**Mean**	**Mean**	**Mean**	**Households that received income**	**N (1 000)**	**N (1 000)**	**N (1 000)**	**N (1 000)**
Variable									
HY010$^{sy2007-}$	..	..	..	50 971		..	..	..	2 455
HY020$^{sy2007-}$	..	..	..	33 890		..	..	..	2 455
HY022$^{sy2007-}$	..	..	..	29 740		..	..	..	2 418
HY023$^{sy2007-}$	..	..	..	25 151		..	..	..	2 397
HY010$^{sy2004-}$	37 565	39 323	40 047	41 128		2 404	2 415	2 435	2 455
HY020$^{sy2004-}$	27 479	28 785	29 803	30 609		2 404	2 415	2 435	2 454
HY022$^{sy2004-}$	23 473	24 696	25 618	26 458		2 337	2 341	2 375	2 382
HY023$^{sy2004-}$	19 292	20 387	21 097	21 872		2 277	2 256	2 334	2 323
HY030G	3 087	3 203	3 257	3 883		1 632	1 649	1 689	1 900
HY040G	339	350	409	409		165	176	176	159
HY050G	998	1 040	1 024	1 044		604	601	600	602
HY060G	172	169	152	166		222	218	212	207
HY070G	353	352	366	386		521	523	531	540
HY080G	115	128	125	137		204	215	222	236
HY081G	..	..	..	77		..	..	.	79
HY090G	2 119	2 592	1 815	1 423		1483	1512	1 985	1 829
HY100G	501	492	543	688		692	720	774	787
HY110G	39	46	60	44		56	57	59	56
HY120G	108	126	102	87		987	985	1 024	1 016
HY130G	167	197	207	212		291	309	312	343
HY131G	..	..	..	59		..	..	..	56
HY140G$^{sy2007-}$	..	..	..	10 259		..	..	..	2 396
HY140G$^{sy2004-}$	9 811	10 216	9 935	10 208*		2 355	2362	2 389	..
HY100N	354	348	388	493		692	720	774	787
All persons aged 16 and over					**Persons aged 16 and over who received income**				
Variable									
PY010G	13 166	13 700	14 285	14 998		2 648	2 645	2 681	2 691
PY020G	..	..	..	194		..	..	..	596
PY021G	109	99	108	121		79	71	67	76
PY030G	..	..	..	3 786		..	..	..	2 663
PY031G	..	..	..	..		..	..	..	..
PY035G	116	137	134	117		330	342	392	403
PY050G	1 283	1 296	1 337	1 322		491	477	466	443
PY070G	..	..	..	..		..	..	..	189
PY080G	..	..	..	192		..	..	..	..
PY090G	812	845	851	819		660	652	730	690
PY100G	2 864	2 996	3 155	3 227		943	957	990	948
PY110G	101	93	92	75		76	69	74	55
PY120G	95	101	118	110		205	222	239	243
PY130G	741	744	805	783		353	364	377	356
PY140G	140	131	135	130		433	436	429	432
PY020n	..	..	..	127		..	..	..	596
PY021n	..	..	..	76		..	..	..	76

* HY140G^{2004-} = HY140G^{2007-} - PY020N + PY021N

4 Coherence

4.1 Comparison of income target variables and number of persons who received income from each income component with external sources

Tables 4.1 - 4.3 show results from income comparisons with relevant data sources. They are the Income Distribution Statistics (IDS), Total Statistics on Income Distribution (TSID) and National Accounts (NA) by Statistics Finland. IDS is the primary national source for the household income statistics. TSID is compiled from the Total Income Database (TIDB) which is used as a register income source both for IDS and EU-SILC. The TSID household definition is based on the household-dwelling unit, not the housekeeping unit like in the sample statistics IDS and EU-SILC.

Social transfers received have been compared with the social expenditure on cash benefits by main group from the European System of Integrated Social Protection Statistics (ESSPROS) compiled by the National Research and Development Centre for Welfare and Health (STAKES), Finland. Social transfers of ESSPROS cover also those ones paid to the persons in institutional care (incl. pensions) and the persons permanently resident abroad, but who are entitled to benefits (e.g. employees and their family members). Benefits in kind (e.g. institutional care for children, young people and elderly) are not in the figures except housing allowances.

The differences on total income amounts across the statistics are mostly due to differences in items defined to the components. Vast majority of the income information is collected to the EU-SILC sample units from TIDB. Further, the EU-SILC data is estimated to the private households by using information on crucial demographic and income variables from TIDB in the sampling and the weightings (Section 2.1). Therefore, inconsistencies between the estimated EU-SILC and TSID income are primarily resulting from the unit-non responses among the units having received certain type of register-based income not used in the weightings (see below). Interviewed information again completes the register information on income, and as a result from this part, the income is slightly more comprehensive in EU-SILC than in TSID.

The EU-SILC and IDS income data is processed equally in the integrated statistical survey. The sample and the frame households are the same. Small differences between these two statistics are caused by income definitions and classifications. IDS includes profits from sales. All items of gross non-cash employee income are included in IDS, only a company car in EU-SILC according to the previous definition. Imputed rent to household dwellings rented from a public, municipal, voluntary or non-profit agency (It is defined as housing benefits in kind and as a part of adjusted household disposable income) and inter-household transfers paid except a compulsory child support are not included in IDS.

Compared with the ESSPROS (Table 4.1) and with the TSID social benefits in more detail (Table 4.2), definitions and used classifications have an effect on the figures. The definitions cause differences between EU-SILC and ESSPROS statistics in the following income components: PY110G, PY120G, PY130G, HY070G. Sick pay which is included in EU-SILC PY010G, not in PY120G, consists of 53 per cent of all sickness cash benefits in ESSPROS. PY110G survivors' benefits and PY130G sickness benefits have not been grouped to PY100G old age benefits after statutory retirement age in ESSPROS like in EU-SILC. From housing allowances which have been counted in HY070G, pensioner's housing allowances are as a part of old age benefits in kind, whereas students' housing supplements have not been included in ESSPROS.

In addition to estimation, under-coverage in relation to ESSPROS in particular is also due to the reference population (See above). The effect of the benefits received in resident in collective households and institutions included in ESSPROS can be supposed to be small on the basis of the estimated number of these persons (Chapter 3.1) Information on these and social benefits paid abroad is not available as a separate statistical data from ESSPROS.

The differences from comparing income recipients by main income components in Table 4.3 are caused by the same factors as the differences in total income sums. Further, the household definition used in the sample statistics and TSID has also an effect on the figures.

Table 4.1 The total gross income of private households in the income reference year 2006 according to different data sources: Income Distribution Statistics (IDS), Total Statistics on Income Distribution (IDS), National Accounts (NA), European System of Integrated Social Protection Statistics (ESSPROS)

	EU-SILC	IDS	Difference	Difference	Notes
Income components	**Sum (EUR 1 000)**	**Sum (EUR 1 000)**	**Sum (EUR 1 000)**	**%**	
2.1. Gross employee income (PY010g, py020g, py030g)	80 274 124	..	.	.	PY030G included.
2.1. Gross employee income (PY010g, py020g)	64 259 396	64 271 016	-11 620	0 .0	IDS: Employee income received by persons aged under 16 is included. All items of gross non-cash employee income are included.
2.2. Self-employment income	5 591 520	5 598 948	-7 428	-0 .1	IDS: Employee income received by persons aged under 16 is included.
2.3. Imputed rent	9 532 949	9 154 672	378 278	4 .1	IDS: Imputed rent to rental dwellings execpt the ones rented from another household at a lower rent than the market price or free has not been included. This item is included in current transfers received.
2.4.Property income (hy040g, hy090g, py080g)	5 308 282	16 129 131	-10 820 849	.	IDS: Imputed rent to owner occupied dwellings and profits from sales in property income is included.
excl. imputed rent	5 308 282	8 664 626	-3 356 345	-38 .7	Profits from sales cause mostly the difference.
2.5. Current transfers received	26 008 616	26 267 847	-259 231	-1 .0	IDS: Imputed rent to dwellings rented from another household and income received by persons aged under 16 is included.
excl. imputed rent	26 008 616	26 077 751	-69 136	-0 .3	IDS: Income received by persons aged under 16 is included.
2.6. Other income received	108 097	0	108 097	100 .0	The income is included in other IDS income components.
2.7. Interest payments	1 690 168	1 690 168	0	0 .0	
2.8. Current transfers paid	25 918 310	26 404 876	-486 566	-1 .8	IDS: Inter-household transfers paid except compulsory child support are not included. Taxes paid on profits from sales are included.
Total disposable household income (The income definition from sy2007 onwards)	83 200 383	85 862 773 (negative values have been changed for 0-values).	-2 662 390	-3 .1	The difference is due to other non-cash employee income than a company car (-), profits from sales (-), imputed rent to dwellings rented at a lower rent than the market price from a public, municipal, voluntary or non-profit agency (+) and inter-household transfers paid except compulsory child support (-).
	EU-SILC	**TSID**	**Difference**	**Difference**	
Income components	**Sum (EUR 1 000)**	**Sum (EUR 1 000)**	**Sum (EUR 1 000)**	**%**	
2.1. Gross employee income (PY010g, py020g, py030g)	80 274 124	..	.	.	PY030G.
2.1. Gross employee income (PY010g, py020g)	64 259 396	64 064 015	195 381	0 .3	TSID: Employee income received by persons aged under 16 is included. All items of gross non-cash employee income are included.
2.2. Self-employment income	5 591 520	5 621 010	-29 489	-0 .5	TSID: Employee income received by persons aged under 16 is included.
2.3. Imputed rent	9 532 949	..	.	.	
2.4. Property income	5 308 282	8 274 790	-2 966 509	-35 .8	TSID: Profits from sales which are included.
2.5. Current transfers received	26 008 616	25 396 740	611 876	2 .4	TSID: All inter-household transfers received are not included
2.6. Other income received	108 097	..	.	.	The income is included in other TSID income components.
2.7. Interest payments	1 690 168	..	.	.	
2.8. Current transfers paid	25 918 310	26 018 086	-99 776	-0 .4	TSID: Inter-household transfers paid are not included. Tax paid on profits from sales is included.
Total disposable household income (Income definition from sy2004 onwards, excl. imputed rent and mortgage interests)	75 357 601	77 338 469	-1 980 868	-2 .6	In addition to estimation of EU-SILC, the difference is mostly due to other non-cash employee income than a company car, profits from sales included in TSID, and inter-household transfers not included in TSID.
Total disposable household income (Income definition from sy2007 onwards)	83 200 383	77 338 469	5 861 914	7 .0	Except the items mentioned above, imputed rent and mortgage interests are not included in TSID.

	EU-SILC	NA	Difference	Difference	
Income components	**Sum (EUR 1 000)**	**Sum (EUR 1 000)**	**Sum (EUR 1 000)**	**%**	
2.1. Gross employee income (PY010g, py020g, py030g)	80 274 124	80 978 000	-703 876	-0 .9	
2.1. Gross employee income (PY010g, py020g)	64 259 396	64 898 000	-638 604	-1 .0	
p	..	6 181 000	.	.	NA: B4N-B43N, B3N. Self-employment income, excl. imputed rent, mixed income
2.2. Self-employment income	5 591 520	5 808 000	-216 480	-3.7	NA: BN4-B43N. Self-employment income, excl. imputed rent
2.3. Imputed rent	9 532 949	4 872 000	.	.	NA: Imputed rent of owner occupied dwellings (net), depreciation, morgage interests, fiscal services included. Owner-occupied main dwellings and free-time residences.
Property income	..	8 632 000	.	.	NA: D4R
2.4. Property income	5 308 282	..	.	.	
2.5. Current transfers received	26 008 616	29 357 000	-3 348 384	-11.4	
2.6. Other income received	108 097	..	.	.	NA: Income is included in other income components.
Interest payments		2 330 000		.	NA: Includes fiscal services.
2.7. Interest payments	1 690 168	1 355 000	335 168	24.7	
Current transfers paid		31 447 000	.	.	
2.8. Current transfers paid	25 918 310	28 114 000	-2 195 690	-7.8	
Total disposable household income (Income definition from 2007 onwards)	83 200 383	80 133 000	3 067 383	3.8	
	EU-SILC	**ESSPROS**	**Difference**	**Difference**	
Income components	**Sum (EUR 1 000)**	**Sum (EUR 1 000)**	**Sum (EUR 1 000)**	**%**	
PY090G. Unemployment benefits	3 466 000	3 227 000	239 000	7.4	
PY100G. Old-age benefits	13 648 000	12 932 000	716 000	5.5	ESSPROS includes pensioners' housing allowances (benefits in kind), it does not include income received from PY110G and PY130G for the persons after the standard retirement age.
PY110G. Survivors' benefits	317 000	1 503 000	-1 186 000	-78.9	See PY100G.
PY120G. Sickness benefits	464 000	1 959 000	-1 495 000	-76.3	ESSPROS includes sick pay which has been counted in PY010G employee income.
PY130G. Disability benefits	3 311 000	3 857 000	-546 000	-14.2	See PY100G
PY140G. Education-related allowances	548 000	..	.	.	
HY050G. Family/children-related allowances	2 564 000	2 607 000	-43 000	-1.6	ESSPROS includes the income maintenance benefits paid in the event of child birth and the parental leave benefits which are in PY010G employee income.
HY060G. Social exclusion payments not elsewhere classified	407 000	497 000	-90 000	-18.1	ESSPROS includes wage quarantee, which is in in PY010G employee income.
HY070G. Housing allowances	947 000	439 000	508 000	115.7	ESSPROS does not include students' housing supplements or pensioner's housing allowances. Housing consists of benefits in kind only.
Total, excl. education-related allowances	25 124 000	27 021 000	-1 897 000	-7.0	
Same definitions in accordance with ESSPROS:					
HY070G. Housing allowances	434 000	439 000	-5 000	-1.1	
PY100G,PY110G,PY130G	17 276 000	18 292 000	-1 016 000	-5.6	

.. Information is not available

. Information is not logical

Table 4.2 Income items of social benefits in the income reference year 2006 in the EU-SILC and TSID

	EU-SILC	TSID	Difference	Difference	
Income components	**Sum (EUR 1 000)**	**Sum (EUR 1 000)**	**Sum (EUR 1 000)**	**%**	
PY090G. Unemployment benefits	3 466 375	3 294 109	172 266	5.2	
PY100G. Old-age benefits	13 647 775	12 295 899	1 351 876	11.0	TSID includes pensioners' housing allowances (benefits in kind), it does not include income received from PY110G and PY130G for the persons who are on old-age pensions after the standard age.
PY110G. Survivors' benefits	316 939	1 358 468	-1 041 529	-76.7	See PY100G.
PY120G. Sickness benefits	464 000	489 248	-25 248	-5.2	
PY130G. Disability benefits	3 310 870	3 446 467	-135 597	-3.9	See PY100G
PY140G. Education-related allowances	548 371	412 566	135 805	32.9	TIDS does not include interviewed items. Certain differences in classification.
HY050G. Family/children-related allowances	2 564 081	2 432 284	131 797	5.4	
HY060G. Social exclusion payments not elsewhere classified	407 169	433 407	-26 238	-6.1	
HY070G. Housing allowances	947 176	957 341	-10 165	-1.1	

Table 4.3 The number of income recipients in the income reference year 2006 according to EU-SILC and IDS

	EU-SILC	IDS	Difference	EU-SILC	IDS	Difference
Income components	**Households (1 000)**	**Households (1 000)**	**%**	**Persons (1 000)**	**Persons (1 000)**	**%**
2.1. Gross employee income (PY010G,PY021g)	1 695	-		2 692	-	-
2.1. Gross employee income (PY010G,PY020g)	1 696	1 703	-0.4	2 694	2 746	-1.9
2.2. Self-employment income	372	373	-0.2	443	427	3.7
2.3. Imputed rent	1 900	1 650	15.2	..	..	..
2.4. Property income	1 861	2 100	-11.4	.	.	.
excl. imputed rent	1 861	1 879	-1.0	.	.	.
2.5. Current transfers received	2 062	2 069	-0.3	.	.	.
excl. imputed rent	2 062	2 062	0.0	.	.	.
2.6. Other income received	56	..	.	.	.	.
2.7. Interest payments	787	787	. 0.0	.	.	.
2.8. Current transfers paid	2 403	2 401	0.1	.	.	.
	EU-SILC	**TSID**	**Difference**	**EU-SILC**	**TSID**	**Difference**
Income components	**Households (1 000)**	**Households (1 000)**	**%**	**Persons (1 000)**	**Persons (1 000)**	**%**
2.1. Gross employee income	1 696	1 706	-0.5	2 694	2 730	-1.3
2.2. Self-employment income	372	358	4.0	443	431	2.6
2.3. Imputed rent	..	..		..	..	..
2.4. Property income	1 861	1 676	11.1	.	.	.
2.5. Current transfers received	2 062	2 032	1.5	.	.	.
2.6. Other income received	56	..	.	.	.	.
2.7. Interest payments	787	..	.	.	.	.
2.8. Current transfers paid	2 403	2 392	0.5	.	.	.

.. Information is not available
. Information is not logical

4.2 Comparison of income poverty indicators with Household Budget Survey (HBS)

In the whole private household population, income poverty indicator estimates in EU-SILC and HBS are same at the decimal level presented in Table 4.X. except LI_R_MD50 and LI_R_MD60 at-risk-of-poverty rates in which one per cent point differences exist. Inequality indicator measured by s80/s20 income quintile share ratio of income distribution differs by 0.1 per cent point, qini coefficient is a slightly lower than in HBS, but there is no difference at integer level. Because of smaller sample size in otherwise coherent sample design, estimate variance can however be assumed to be higher in HBS. The HBS income definition equals to the IDS household disposable monetary income including profits from sales and excluding a part of inter-household transfers. In addition to resulting effect on income distribution, mean and median household equivalised disposable income are higher in HBS.

Table 4.X Income poverty Indicators in EU-SILC (the income definitions from sy2004 and sy2007 onwards) and Household Budget Survey in the income reference year 2006

	EU-SILC$^{sy2004-}$	EU-SILC$^{sy2007-}$	HBS
Household equivalised disposable income: mean	20 787	22 947	23 849
Household equivalised disposable income: median	18 703	20 651	21 176
At-risk-of-poverty rate			
LI_R_MD60	13q	12q	13q
LI_R_MD40	2q	2q	2q
LI_R_MD50	5q	5q	6q
LI_R_MD70	22q	21q	21q
Inequality of income distribution Gini coefficient	26q (26.2)	26q (25.6)	26q (26.4)
Inequality of income distribution S80/S20 income quintile share ratio	3.7q	3.6q	3.7q
Households (n)	10 624	10 624	4 007

4.3 Comparison of labour target variables with Labour Force Survey (LFS)

The differences between the EU-SILC self defined current activity status (PL030) and the LFS activity status are logical to their definitions. Compared with EU-SILC, LFS uses the ILO concept which is more detail in relation to the employment and unemployment definitions in particular. After deriving more comparable unemployment definition with LFS by using information on actively looking for a job (PL020) and availability for work (PL025) in addition to self defined current activity status, EU-SILC results less persons in labour force groups and consequently, more persons not in labour force groups (Table 4.4). Employment is prioritised, but not as definitely as in LFS. In the interview, one hour working or temporary absence from work was not so strictly considered as working in the interview, although the latter criterion (temporary absence) had been provided in the survey question definition and interview guidelines. Otherwise the perception of own activity was based on the one activity from all other activities in which a person had involved during the reference period.

There are also differences in reference time periods which may explain the differences between the variable frequencies. The whole December was the time reference period in EU-SILC, whereas it was used one week periods over the whole December as the references periods in LFS. The LFS estimates are the averages of these reference periods.

Table 4.4 Self defined current activity status (PL030) completed by information on looking for a job (PL020) and availability for a job (PL025) according to EU-SILC and LFS, persons of aged 16-64 in December 2006, %

	EU-SILC (December)		EU-SILC (December)	LFS (December)
PL030 Self defined activity status				
1. Working full time	59.1	Working full time or part time	66.8	69.1
2. Working part time	7.7			
3. Unemployed	6.9	PL020 & PL025. Without work. actively looked for a job in previous four weeks and available for work in the next two weeks	4.4	4.8
In labour force			**71.2**	**73.9**
4. Pupil, students, further training etc.	10.3			10.4
5. In retirement or in early retirement or has given up business	3.9			3.5
6. Permanently disabled or/and unfit to work	7.3			5.9
7. In compulsory military or community service	0.6			0.5
8. Fulfilling domestic tasks and care responsibilities	3.5			2.8
9. Other inactive persons	0.7			3.0
Not in labour force			**28.8**	**26.1**
Total	**100.0**		**100.0**	**100.0**
Number of persons	**3 386 713**		**3 386 713**	**3 506 800**

Table 4.5 Status in employment (PL040) according to EU-SILC and LFS, employed persons of aged 16-64 in December 2006, %

	EU-SILC (December)	LFS[1] (December)
PL040 Status in employment		
1. Self-employed with employees	4.8	..
2. Self-employed without employees	8.4	..
Self employed in total	**13.2**	**11.7**
3. Employee	86.6	87.9
4. Family worker	0.2	0.4
Missing	0.0	0.0
Total	**100.0**	**100.0**
Number of persons	**2 262 371**	**2 424 000**

[1] Family workers refer to family members of self-employed persons and they are counted to self-employed persons in LFS

Table 4.6. Occupation (PL050) in employment according to EU-SILC and LFS, employed persons of aged 16-64 in December 2006, %

	EU-SILC (December)	LFS (December)
PL050 Occupation		
(11-13) Legislators, senior officials and managers	11.5	10.3
(21-24) Professionals	18.6	17.4
(31-34) Technicians and associate professionals	15.2	15.8
(41-42) Clerks	6.7	7.6
(51-52) Service workers and shop and market sales workers	16.1	16.1
(61) Skilled agricultural and fishery workers	3.9	3.6
(71-74) Craft and related trades workers	12.0	12.4
(81-83) Plant and machine operators and assemblers	8.2	8.7
(91-93) Elementary occupations	7.4	7.7
(01) Armed forces	0.5	0.4
Missing	0.0	0.0
Total	**100.0**	**100.0**
Number of persons	**2 262 371**	**2 424 000**

Table 4.7 NACE (PL110) in employment. Employed persons of aged 16-64 (EU-SILC: selected respondents aged 15-64) in December 2006, %

	EU-SILC (December)	LFS (December)
PL110 NACE		
A Agriculture, hunting and forestry	4.5	4.1
B Fishing	0.0	0.0
C Mining and quarrying	0.1	0.3
D Manufacturing	19.6	18.3
E Electricity, gas and water supply	0.6	0.5
F Construction	7.9	6.8
G Wholesale and retail trade; repair of motor vehicles and motorcycles and personal and household goods	11.7	12.4
H Hotels and restaurants	3.6	3.3
I Transport, storage and communication	7.3	7.6
J Financial intermediation	2.1	2.1
K Real estate, renting and business activities	11.1	11.6
L Public administration and defence, compulsory and social security	6.4	4.4
M Education	6.9	7.4
N Health and social work	15.4	15.2
O Other community, social and personal service activities	5.5	5.5
P Private households and employed persons	0.1	0.3
Q Extra-territorial organisations and bodies	0.0	0.0
Missing	**0.1**	**0.4**
Total	**100.0**	**100.0**
Number of persons	**2 332 169**	**2 424 000**