

Intermediate Quality Report

Swedish 2009 EU-SILC (Cross Sectional Survey)

Statistics Sweden

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Common cross-component EU indicators based on the cross-component of EU-SILC 2009

The Swedish EU-SILC 2009 cross-sectional has been carried during 2009 over all the twelve months as an integrated part of the Swedish survey of living conditions (ULF) now EU-ULF. The total micro data and files were transmitted to Eurostat and contain all 2009 cross-sectional indicators stipulated in the regulation EG 28/2004. These EU-SILC indicators are included in this intermediate quality report for SILC operation 2009.

1.1 Cross – component indicators EU-SILC 2009

Table 1. At-risk-of-poverty rate after social transfers, broken down by age and gender.

Gender	Age	Year 2009
both	Total	13,4
	< 18 years	12,1
	>18 years < 64 years	14,6
	> 65 years	12,9
male	Total	12,0
	>18 years < 64 years	11,8
	> 65 years	12,1
female	Total	18,8
	>18 years < 64 years	11,8
	> 65 years	24,3

Table 1.2. At-risk-of-poverty rate after social transfers, broken down by most frequent activity status and gender.

Gender	Working status	Year 2009
Both	Total population	
	Employment	6,8
	Non employment	24,3
	Unemployment	39,5
	Retired	18,6
	Inactive population Other	33,2
Male	Total population	
	Employment	7,0
	Non employment	21,2
	Unemployment	41,8
	Retired	11,9
	Inactive population - Other	36,8
Female	Total population	
	Employment	6,6
	Non employment	26,6
	Unemployment	36,2
	Retired	23,8
	Inactive population - Other	30,9

Table 1.3 At- risk- of- poverty rate after social transfers, broken down by household types.

Household type	Year 2009
Total	13,5
Single female	33,6
Single male	25,1
2 adults younger than 65 years	6,7
2 adults, at least one aged 65 years and over	6,6
2 adults with 1 dependent child	6,7
2 adults with 2 dependent children	5,4
2 adults with 3 or more dependent children	14,0
3 or more adults	4,9
3 or more adults with dependent children	7,7
Households without dependent children	15,8
Households with dependent children	10,6
1 adult younger than 64 years	27,3
1 adult older than 65 years	34,5
Single parent with dependent children	28,0

Table 1.4 At- risk- of- poverty rate after social transfers, broken down by accommodation tenure status and gender.

Status	Gender	Year 2009
Owner	both	8,7
	male	7,8
	female	9,6
Rent	both	23,9
	Male	22,5
	female	25,2

Table 1.5 At- risk- of- poverty rate after social transfers, broken down by work intensity of the household.

Work intensity (WI)	Household type	Year 2009
Household with WI = 0	Households without dependent children	30,7
Household with WI = 0	Households with dependent children	70,7
Household with $0 < WI < 1$	Households without dependent children	15,1
Household with $0 < WI < 1$	Households with dependent children	36,9
Household with WI = 1	Households without dependent children	5,4
Household with WI = 1	Households with dependent children	5,7

Table 1.6 At- risk- of- poverty threshold (euros)

Household type	Year 2009
Single person	12.588
Two adults with two children younger than 14 years	26.436

Table 1.7 Inequality of income distribution S80/20 ratio.

Income distribution S80/20 year 2009	3,7
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Table 1.6 Relative median at-risk-of-poverty gap broken down by gender (%).

Gender	Year 2009
Total	20,3
Males	22,3
Females	18,6

Table 1.7 Dispersion around the risk- of- poverty threshold year 2009.

Gender	At risk of poverty rate (cut-off point: 40% of median)	At risk of poverty rate (cut-off point: 50% of median)	At risk of poverty rate (cut-off point: 70% of median)
Total	4,3	7,6	21,7
Males	4,3	7,5	19,6
Females	4,3	7,7	23,8

Table 1.8 At-risk-of-poverty-rates before social transfers except old age and survivors benefits.

Gender	Age	Year 2009
Both	Total	26,8
	< 18 years	30,1
	>18 years < 64 years	25,4
	> 65 years	27,8
Male	Total	24,7
	>18 years < 64 years	24,4
	> 65 years	18,4
female	Total	28,9
	>18 years < 64 years	26,5
	> 65 years	35,2

Table 1.9 At-risk-of-poverty-rates before social transfers including old age and survivors benefits.

Gender	Age	Year 2009
Both	Total	41
	< 18 years	31
	>18 years < 64 years	29
	> 65 years	95
Male	Total	38
	>18 years < 64 years	27
	> 65 years	93
Female	Total	44
	>18 years < 64 years	31
	> 65 years	96

Table 1.10 Inequality of income distribution Gini Coefficient.

Gini coefficient 2009.	24,9
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1.2 Others indicators

1.2.1 Equivalised disposable income:

Equivalised disposable Income	Sw.kr. mean year 2009
By household size	
1 household member	340 355
2 household members	402 599
3 household members	335 395
4 and more household members	275 434
By age groups	
< 25	252 590
25 - 34	389 821
35 - 44	440 615
45 - 54	427 180
55 - 64	424 802
65 +	301 315
By gender	
Male	381687
Female	353310
Total	367102

1.2.2 The unadjusted gender pay gap

The calculation of unadjusted gender pay gap is based on other sources than EU-SILC (Swedish's wage statistics).

2. Accuracy

2.1 Sample design

Type of sample design: every year a systematic sample is drawn from the register of total population (TPR). This is sorted by age and covers the entire population according to the national registration. Such a sample is regarded as a simple random sample. The SILC 2009 sample was drawn in November 2008 and consisted of four panels, panel 6, 7, 8 and 1. Panel 6 was originally drawn in 2005 and every year complemented with people who had grown into the population (new 16 aged and immigrants). Most of the respondents were answering for the 4th time. In the same manner panel 7 and panel 8 were originally drawn in 2006 and 2007 respectively and complemented with new 16 aged and immigrants. Panel 1 was included for the first time in 2009.

2.1.2 Sample unit

According to EU-SILC definitions the units of study of interest are both the household and the individuals or household member living in the same household as the selected person. The Sweden survey takes the selected person as the unit of study.

2.1.3 Stratification and sub-stratification criteria

No stratification was applied in the sampling procedure.

2.1.4 Sample size (households=selected persons).

Table 2.1 Sample size EU-SILC 2009

	Total	Percent
Respondent	7544	71,86
Not found	1205	11,48
Refused	1584	15,09
Over-coverage	165	1,57
TOTAL	10498	100,00

2.1.5 Sample Selection

The sample was drawn as a systematic sample from the frame (RTP) sorted by age order.

2.1.6 Sample distribution over time

The EU-SILC sample 2009 was drawn in November 2008 and interviews were carried out from 5 February to 31 December 2009

2.1.7 Renewal of sample: Rotation groups

The sample consists of four rotation groups (panels) as described above in 2.1.

2.1.8 Weightings – Design factor and non-response adjustment

2.1.8.1 Design factor

For the estimation procedure the sample from each panel is divided into 2 x 8 strata by sex and age-groups. Post-stratification refers to sex, age 16-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84 and 84+ years.

Within each post strata the design-weights are computed as the inverse of the probability of inclusion after that the design-weights are adjusted according to the over-coverage.

2.1.8.2 Non-response adjustment

The final cross sectional weight are computed as the adjusted population-size in each post strata divided by the number of respondents for each panel and finally divided by 4.

2.1.8.3 Adjustment to external data

From the register of total population we compute the number of individuals and the number of households according to married people within each stratum when the sample was drawn. We have no possibilities to calibrate with external data

2.1.8.4 Final cross sectional weight

n.a

2.1.9 Substitutions

Substitution has not been applied.

2.1.9.1 n.a

2.1.9.2 n.a

2.1.9.3 n.a

2.2 Sampling errors

Sampling errors refer to the variability of estimates in the random sample. The guidelines of the QR ask reporting on the effective sample size and the standard errors of the common tree cross component indicators and for equivalised disposable income (gender pay gap is not applicable).

Table 2.2. 1a At-risk-of-poverty rate after social transfers, broken down by age and gender
Value, achieved sample size and standard error -2009

Gender	Age	Indicator	Achieved sample size	Standard error
Both	Total	13,4	18441	0,25
	< 18 years	12,9	4454	0,50
	>18 years < 64 years	12,0	11297	0,31
	> 65 years	18,8	2690	0,75
Male	Total	12,1	9261	0,34
	>18 years < 64 years	11,8	5633	0,43
	> 65 years	11,8	1320	0,89
Female	Total	14,6	9180	0,37
	>18 years < 64 years	12,1	5664	0,43
	> 65 years	24,3	1370	1,16

Table 2.2.1b At-risk-of-poverty rate after social transfers, broken down by most frequent activity status and gender.–Value, achieved sample size and standard errors-2009

Gender	Working status	Indicator	Achieved sample size	Standard error
Both	Employment	6,8	8624	0,27
	Non employment	24,3	4778	0,62
	Unemployment	39,5	408	2,42
	Retired	18,6	2966	0,71
	Inactive population Other	33,2	1404	1,26
Male	Employment	7,0	4438	0,38
	Non employment	21,2	2230	0,87
	Unemployment	41,8	236	3,21
	Retired	11,9	1416	0,86
	Inactive population - Other	36,8	578	2,01
Female	Employment	6,6	4186	0,38
	Non employment	26,6	2548	0,88
	Unemployment	36,2	172	3,66
	Retired	23,8	1550	1,08
	Inactive population - Other	30,9	826	1,61

Table 2.2.1c At- risk- of- poverty rate after social transfers, broken down by household types.–Value, achieved sample size and standard errors-2009

Household type	Indicator	Achieved sample	Standard error
Total	13,5	16634	0,26
Single female	33,6	982	1,51
Single male	25,1	871	1,47
2 adults younger than 65 years	6,7	3110	0,45
2 adults, at least one aged 65 years and over	6,6	2312	0,52
2 adults with 1 dependent child	6,7	2076	0,55
2 adults with 2 dependent children	5,4	3376	0,39
2 adults with 3 or more dependent children	14,0	1925	0,79
3 or more adults	4,9	481	0,98
3 or more adults with dependent children	7,7	729	0,99
Households without dependent children	15,8	7756	0,41
Households with dependent children	10,6	8878	0,33
1 adult younger than 64 years	27,3	1162	1,31
1 adult older than 65 years	34,5	663	1,85
Single parent with dependent children	28,0	772	1,62

Table 2.2.1.a Equivalised disposable income. - Value, achieved sample size and standard error

Mean, total number of observations and standard error for equivalised disposable income Cross-sectional 2009 (households)			
	Mean Swe. kr.	Achieved sample	Standard error
Total household gross income	426 595	7 544	4 289
Total disposable household income	306 890	7 544	2 728
Total disposable income before social transfers other than oldage and surv. benf.	265 622	7 544	2 774
Total disposable income before social transfers including oldage and surv. benefits.	196 562	7 544	3 104

2.3 Non-sampling errors

2.3.1 Sampling frame and coverage errors

The sampling frame is the (TRP) Total Population Register of Sweden. TPR is updated more or less every day. The main outlines for organization of population statistics is according to the Swedish law, the TRP and the main rule is that all persons residing in the country shall be registered at the property unit in the parish where they reside.

Since 1 July 1991, local registration functions are performed by the Tax Offices. Between 1686 and 1991, the Parish Offices of the Church of Sweden carried out the local work. A major means of identifying any person is the personal identity number that is assigned to every individual registered in the Population Registration System. The number follows a person from birth to death and is entered in most personal registers in Sweden, making it possible to identify individuals in different administrative materials and collate data. The personal identity number consists of ten digits. The first six digits show the year, month and day of birth. The next three digits are the birth number which is odd for men and even for women. The last digit is a checking digit.

As part of the partial computerization of Sweden's continuous population registration in 1966, Statistics Sweden was granted permission to set up and maintain a register of the entire national population, referred to as the Total Population Register (TPR).

The vital statistics are based on notifications of births, deaths, changes in marital status, and changes in citizenship, internal migration, immigration and emigration. The TPR receives these daily from the Tax Authorities. The notifications relate to the registered population. Thus, vital statistics are based on the National Registration and consequently conform to its concepts and definitions. Received information is checked mechanically with respect to the validity of the codes and the logical contents of the information and quality tests comprises, among other things, regional codes, connections between age and marital status, etc. Beginning in 1998 the cut-off date is 31 January in the year after that the event took place. The change in cut-off date in 1998 has no effect on comparisons between years.

Over-coverage consists of people who have died and people who have left the country but are still registered in Sweden. The sample is drawn several months before the fieldwork start. However a check is made close to the start (the sample is matched to TPR) and people who have died since the sample was drawn are excluded. People who die after that point are registered by the interviewers. Over-coverage in terms of people who have left Sweden permanently but are still registered in TPR is more difficult to discover. The estimate sizes of this over-coverage have given the figure of approximately 35000 persons. Applied on EU-SILC this means 30 individual of which many are discovered by the interviewers. The error is negligible. If we regard TPR as our population under-coverage by definition does not exist. There are of course people who reside in Sweden illegally or while waiting for residence permit.

2.3.2 Measurement and processing errors

2.3.2.1 Measurement errors

The questionnaire: Most of the EU-SILC questions refer to the present, for which memory errors can not constitute a major source of error. But there are questions about frequency during a longer reference period that are more complicated. .

The questions in the EU-SILC protocol are in most cases not very difficult to answer. It is fairly certain that some questions are interpreted differently by different persons. Particular caution should

be observed of responses to questions relating to attitudes and frequency in the interpretation. The EU-SILC module 2009 was in some way difficult to make in Sweden, the Swedish people not easily respond to question about material conditions or poverty of his own life and some questions sound very strange to ask, in addition as a result of a mistake made in the programming of the CATI system at least 25 % of the interviews selected person didn't get the questions of 2009 module on material deprivation. This was discovered quite late which contributed to an increasing in the partially not respondent rate, mainly in the module of material deprivation. The programming of the questionnaire in CATI has been now improved and follows constantly in the same way besides a new security routine for data checking was made which will improve the quality of data sending to Eurostat.

Interviews training and efficiency: Following a basic introductory course in survey methods, new interviewers participate in an additional one-day course that includes approximately six ours of intensive training (ULF including EU-SILC). The various sections of the interview protocol are thoroughly reviewed and practice in handling as well as certain complicated questions is provided and discussed.

The interviewer may miss-understand certain instructions or responses, which contributes to the survey's systematic error level. Each interviewer conducts on average roughly 40 interviews per year. Systematic mistakes by an occasional interviewer may not distort the survey data to any great extent, but it is not possible to specify how much error of that sort occurs. The interviewer's personality and behaviour may influence the responses, particularly with respect to "subjective" questions, such as those relating to attitudes. In some cases interview questions are not presented properly. To the extent that such mistakes cannot subsequently be corrected, there is an increase in partial response.

The respondent may disremember, provide consciously or unconsciously distorted responses or may simply be unable to answer questions.

The mode: The telephone interview mode CATI was the main method use in SILC 2009. The interview form has been specially designed for this type of survey but programming it is always a complicated matter. Telephone interviews whit computer aid CATI is now currently used as the main way to make interviews.

2.3.2.2 Processing errors

Data are checked interactively (values, syntax, logics) as an integrated part of the data entry process. We have developed new software for checking data entries and codification which allowed having files in the EU-SILC format using and following the Eurostat control program for checking and sending the data.

All components necessary to derive Gross total income, disposable income etc. are collected from administrative registers. No imputations have been applied for these indicators.

2.3.3 Non-response errors

2.3.3.1 Achieved sample size household and persons. (In Sweden selected person = household).

	Total	Percent
Respondent	7544	71,86
Not found	1205	11,48
Refused	1584	15,09
Over-coverage	165	1,57

2.3.3.2 Unit non response- The original sampled individuals

The panels during the 2009 SILC operation.

	6	%	7	%	8	%	1	%	Total	%
Respondent	1664	71,91	2185	74,22	1859	71,23	1836	69,81	7544	71,86
Not found	265	11,45	315	10,70	265	10,15	360	13,69	1205	11,48
Refused	346	14,95	399	13,55	441	16,90	398	15,13	1584	15,09
Over-coverage	39	1,69	45	1,53	45	1,72	36	1,37	165	1,57
TOTAL	2314	100,00	2944	100,00	2610	100,00	2630	100,00	10498	100,00

Household non response rate :

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Ra 0,9139

Rh 0,7988

NRh = (1 - (Ra*Rh))*100 = 26.99

Individual non response rate :

Rp = 1

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

-- Overall individual non response rate (*NRp)

N.A. - Interview only whit the selected respondent see NRp.

2.3.3.3 Distributions of households = persons (original units) EU-SILC 2009

	6	7	8	1	Total
Respondent	1664	2185	1859	1836	7544
Not found	265	315	265	360	1205
Refused	346	399	441	398	1584
Over - coverage	39	45	45	36	165
Total	2314	2944	2610	2630	10498

2.3.3.3a Distribution of households = individuals by contact at address DB120

Contact at address		
DB120	frequency	cumulative
Adress contacted (11)	9444	9444
Adress not located (21)	879	10323
Adress unable to access (22)	10	10333
Adress does not exist (23)	165	10498

2.3.3.3b Distribution of households = individuals by questionnaire DB130

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Household Quest results		
DB130	frequency	cumulative
Quest completed (11)	7544	7544
Refusal to cooperate (21)	1584	9128
Household not found (22)	52	9180
Household unable to respond (23)	222	9402
Others reasons (24)	42	9444

2.3.3.3c Distribution of households by degree of urbanisation DB 100

Degree of Urbanization		
DB100	Frequency	cumulative
Densely pop, Area (1)	2339	2339
Intermediate area (2)	1671	4010
Thinly pop, Area (3)	6488	10498

2.3.3.3c Distribution of households by DB 135 (household interview acceptance)

Household interview acceptance			
DB 135		Frequency	cumulative
1		7544	7544
Missing			2954
Total			10498

DB 135 = Household interview acceptance

2.3.3.4 Distribution of substituted unit

Not applicable.

2.3.3.5 Item non response for income variables weighted by pb040 ;

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2010-12-27

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Cross-sectional sample 2009 (persons)	% 16 +	% 16 +
	Having received amount	with missing values
employee cash or near cash income net	99,6	0,4
non-cash employee income net	99,6	0,4
contributions to individual private pension plans net	99,6	0,4
cash benefits or losses from self-employment net	99,6	0,4
value of goods produced by own-consumption net	99,6	0,4
pension from individual private plans net	99,6	0,4
unemployment benefits net	99,6	0,4
old-age benefits net	99,6	0,4
survivor' benefits net	99,6	0,4
sickness benefits net	99,6	0,4
disability benefits net	99,6	0,4
education-related allowances net	99,6	0,4
employee cash or near cash income gross	99,6	0,4
non-cash employee income gross	99,6	0,4
contributions to individual priv. pension plans gross	99,6	0,4
cash benefits or losses from self-employment gross	99,6	0,4
value of goods produced by own-consumption gross	99,6	0,4
pension from individual private plans gross	99,6	0,4
unemployment benefits gross	99,6	0,4
old-age benefits gross	99,6	0,4
survivor' benefits gross	99,6	0,4
sickness benefits gross	99,6	0,4
disability benefits gross	99,6	0,4
education-related allowances gross	99,6	0,4

2.3.3.6 Total item non response

	Total	Percent
Respondent	7544	71,86
Not found	1205	11,48
Refused	1584	15,09
Over-coverage	165	1,57
TOTAL	10498	100,00

The data file on individuals contains information for all respondent households. During the interview we ask for which persons who in fact live in the household of the selected person (to detect differences from the TPR). This correction is only possible to make for respondent households. Response rate is not possible to calculate as household composition for non-response households is not completely known.

2.4 Mode of data collection

The main data collection method was telephone interview (CATI).

2.5 Interview duration

Interview duration was approximately 18-20 minutes per household. First time interview duration to selected individuals = households takes approximately 40 minutes.

3. Comparability

3.1 Basic concepts and definitions

The reference population

- Reference population is the whole Swedish population except short term migration, people who stay in Sweden 3-12 months, is not covered.

Private household definition

- The regulation definition is applied.

The household membership

- The regulation definition is applied.
- The income reference period used is: Year N – 1.

- The period for taxes on income and social insurance contributions is: Year N-1.
- The lag between the income reference period and current variables is 1 year.
- The field work is carried out during January-December year N.

The total duration of the data collection of the sample

- The data collection was 12 month, January-December.

The basic information on activity status during the income reference period

- The twelve calendar months proceeding the month of the interview.

3.2 Components of income

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

Only minor deviations with little impact on the results:

- Non-cash employee income includes more than company car (housing cost/ interest on loans below market price etc).
- Regular inter-household cash transfers paid/received do only consider transactions between parents not living together, other types of alimonies or cash transfers are not included.
- Imputed rent (HY030) was calculating by using variables HH010, HH020, HH030 and a variable based on regional classifications described. The dwelling costs were imputed from our national household budget survey and our national housing survey.

3.2.2 The source or procedure used for collection of income variables

The income variables as well as wealth and taxes is collected by administrative registers and one of the important source is the register of The Swedish National tax Agency and others databases and registers in Swedish Statistics .

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

The income variables was obtained gross but exclusive of employers' social contributions.

3.2.4 The method used for obtaining income target variables in the required format

The components were gross and available from administrative registers whit the exception of employers' social contribution

4. Coherence

4.1 Comparison of income target variables

The EU-SILC income information is collected from the different administrative sources covering the whole population; the non-response bias has little impact on the estimates. The source of income components is the registers in Swedish Statistics. No comparison has made.