FINAL QUALITY REPORT

EU-SILC-2007

Norway

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Not applicable

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2.1 Sampling design

2.1.1 Type of sampling
The sample for EU-SILC in Norway is composed of the sample for an existing longitudinal survey established in 1997, using a specific sampling design, and a new sample with a different design in 2003. Hence two different types of sampling are used in the Norwegian EU-SILC 2007. The sample in 2003 was divided in eight rotational groups, mainly five groups in the old longitudinal sample and three groups in the new sample in 2003. In 2007 one of the eight rotational groups from the 2006-sample (from the old longitudinal survey) was deleted and one new rotational groups was included in the 2007-sample.

The old sample used systematically random sampling in two stages. In the first stage primary sample areas were drawn to establish a sampling frame for face-to-face interviews (Statistics Norway's standard sampling frame). Sample areas were stratified (see 2.1.3). In the second stage, respondents were drawn with a probability designed to make the sample self-weighting, i.e. all persons in the in the sampling frame have the same probability of selection (see also 2.1.5). The primary sampling units are not clustered.

When drawing the new samples in 2003, 2004, 2005, 2006 and 2007, systematically random sampling in one stage was used. The systematic element stems from the stratification (see 2.1.3) and arrangement of the population register.

2.1.2 Sampling units
In the new part of the sample, the sample units are persons aged 16 years or more registered in the central population register (inhabitants). In the old part of the sample, primary sampling units are municipalities or groups of municipalities from the different strata in the sampling frame (see also 2.1.3.). Secondary sampling units are persons aged 16 years or more registered in the central population register.

2.1.3 Stratification and sub-stratification criteria
The old part of the sample the standard sampling frame for face-to-face interviews has been used. In this, the country is first divided into a number of primary sampling areas and these again are divided into 109 subpopulations, called strata. The criteria for stratification of primary sampling areas are economic classification[1], population density, centrality and a prognoses classification[2]. The aim is to create strata, which are as homogenous as possible, but still geographically concentrated. The primary sampling units are municipalities or aggregates of municipalities. Municipalities with few inhabitants are grouped together with other municipalities to ensure that each sampling area consists of at least 7 per cent of the total number of inhabitants in the stratum the unit belongs to. In some cases small municipalities close to highly populated municipalities are put together with the large one in that region. All municipalities with more than 30 000 inhabitants and some with 25 000 to 30 000

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[1] Classification of municipalities following the Population and housing census in 1990 (FoB90). Based on the nature of industry in each municipality.

[2] This classification is based on data on commutation, newspaper coverage, communications, commerce and districts for unemployment offices (Statistics Norway 1984).

inhabitants make separate strata. In the first stage, one primary sampling area from each stratum was selected. In the second stage, the respondents were drawn from a population register. The units in the population register were arranged by family number and personal code within the family. This was done to avoid that two or more persons within the same household were selected to the sample.

The primary stratification criterion for the new part of the sample the sample was age in the period 2003 to 2006. The design chosen implicated that age was the central criterion for representativity. The sample was drawn as a proportion p of the population within one-year groups. Based on experience from analysing cross sectional EU-SILC data from 2003 to 2006, this way of stratification was problematic because the rotational groups were biased. In 2007, the representativity based on one-year age groups was abandoned, and the new rotational groups are drawn as the proportion p of the population 16 years and over. In addition, each existing rotational group is then supplemented with new 16 year olds and new immigrants to ensure representativity.

The sample is drawn from the population register, and this register is arranged to ensure geographical representativity. This is done by municipality and postal codes. As in the old part of the sample, the register is arranged by family number and personal code within the family before the actual selection of units.

2.1.4 Sample size and allocation criteria
The selected sample size set to meet demands for minimum effective sample size of both the cross-sectional and the longitudinal survey over time is 8 500 persons at the start of the EU-SILC project in 2003, each representing one separate household.

In 2003 8 500 persons constituted a proportion $p \approx 0,0024$ of the total population (inhabitants aged 16 years or more). This proportion is meant to be identical each year of the survey, and thus the size of the gross sample will change according to changes in the population. The 2007 sample consists of 8 980 persons 16 years and over. During the field period, 355 of these proved to be non-eligible (either dead or emigrated), thus giving a gross sample of 8 625 persons. We succeeded in interviewing 6 070 of these (net sample), a response rate of 70,4 percent. 6 013 interviews were accepted.

In all households interviewed there were 11 706 persons aged 16 years or more. The minimum sample size set by Eurostat for the cross sectional components was 3 750 households and 6 250 persons. The effective sample size is: Net sample / design effect for equivalent income. The design effect for equivalent income is estimated to be 1,039. In the Norwegian 2007 survey this gives an achieved effective sample size of 5 787 households and 11 267 persons.

2.1.5 Sample selection schemes
As mentioned the sample for the Norwegian EU-SILC 2007 consists of an existing sample for a longitudinal survey on Living conditions started in 1997, and of a new part drawn to implement the sampling plan for EU-SILC.

When establishing the sample for the longitudinal survey on living conditions in 1997, one main goal was to establish a link to the Population and housing census in 1990 (FoB90), and to prior population and housing censuses. This link was established by drawing a "supersample" from FoB90, using this as the basis for drawing units for the sample. From this "supersample", a self-weighing stratified sample of 5 000 persons aged 16-79 was drawn, using Statistics Norway's general sample plan for face-to-face interviews. In the following years, this sample was supplemented with 16-years olds, and new immigrants to maintain the cross sectional qualities of the sample. This "old sample" was a systematically random sample, drawn in two steps, but in such a way that all persons had the same probability of selection (self-weighing sample).

In EU-SILC, the link to FoB90 was no longer of importance, neither was the use of Statistics Norway's sample plan important, since EU-SILC is conducted by telephone interviewing. The new sample plan for EU-SILC meant systematically random sampling in one step, and no upper age limit.

The age-representativity criterion used in the period 2003-2006 implicated unequal probabilities, but this should not be a problem as long as representativity was ensured. From 2007 on, the new rotational groups are drawn with equal probabilities. The new sample is drawn in one step from the database BEBAS, which is a monthly updated copy of the Norwegian population register.

Before adding the new part of the sample, drawn in accordance with the new sample plan, the old sample was supplemented with persons aged 80 or more in 1997, using the old two-step sampling and the FoB90 "supersample". The old sample then consisted of 5 309 persons, and on the basis of the number of persons in each one-year age group, the number needed in the new sample, drawn in accordance to the new sample plan, was estimated. The number in each age group was estimated by $p*$ number in population and then subtracting the number in the old sample. A total of 3 199 persons were selected and added to the existing 5 309, giving a total of 8 508 in 2003. Deleting rotational groups and adding new rotational groups and supplementing the sample resulted in a sample in 2007 of 8 980 persons (before subtracting non-eligibles).

2.1.6 Sample distribution over time
To make the data collection effective, and to ensure a highest possible response rate among the new respondents in the sample, the sample was divided into four periodical groups with different start of the interviewing but similar end of interviewing. The periodical groups were based on rotational groups. Interviewing of all groups ended 9 July.

2.1.7 Renewal of sample: Rotational groups
In the Norwegian design, each selected respondent (sample unit) is part of the sample in eight years. Each year 1/8 of the sample will be replaced. In a period of transition from the old to the new design, some respondents in the old sample will belong to the sample for eleven years, while some will belong for only six years. Following the new routine for new rotational groups in 2007, with supplementation of 16 year olds and immigrants in the existing rotational groups, some selected respondents will belong to the sample in from 7 years to 1 year.

2.1.8. Weightings

2.1.8.1. Design factor
In the sample persons aged 16 years and over are selected. Hence the probability of selecting a household is equal to the number of persons aged 16 and over in the household. The design factor for households and for all household members is the inverse of the number of adult household members.

2.1.8.2. Non-response adjustments
PB060: Personal cross-sectional weight for selected respondent
The probability of selection is the same for all selected respondents. Weights are only calculated to take into account non-response. Results are not calibrated to external sources.

Weights are calculated by stratifying the gross sample into strata. The gross sample and net sample are stratified according to information in registers on sex, age, education and family size. There are five categories of age: 16-24 years, 25-44 years, 45-66 years 67-79 years and 80 years and over. There are five categories of education: lower secondary and lower; upper secondary; post-secondary but non-tertiary; tertiary; missing information. There are also five categories for family size: 1, 2, 3, 4 and 5 and more persons.

DB090: Household cross-sectional weight
This is constructed as the household design weight (DB080) times the personal cross-sectional weight for the selected person (PB060).
The household design weight is the inverse of the number of persons 16 years and older in the household (age is age per 31.12.2006).

RB050: Personal cross-sectional weight
RB050 is equal to DB090.

PB040: Personal cross-sectional weight for all household members aged 16 and over
PB040 is equal to DB090.

RL070: Children cross-sectional weight
The weights are calculated as the number of children in each one-year group (0-12 years) in the population divided by the number of children in one-year groups in the households interviewed.

2.1.8.3. Adjustments to external data
No adjustments are made, except for children's weights where weights are adjusted according to population size as given in the population register.

2.1.8.4. Final longitudinal weight
Longitudinal weights are made by using the same method as for cross sectional weights, see 2.1.8.1.

RB060: Personal base weight. Same method as for PB060 using the gross sample in scope, except that the base of the weight is rotational groups.

RB062 and RB063: Longitudinal weights
Calculated by dividing RB060 (for 2006) by the number of rotational groups included in the last two and three waves, considering individuals in scope the last two and three years (RB110 = 1 or 2)

2.1.8.5. Non-response adjustments
See 2.1.8.4

2.1.8.6. Adjustments to external data
No adjustments are made

2.1.8.7. Final longitudinal weight
See 2.1.8.4

2.1.8.8. Final household cross sectional weight
Not applicable as no substitutions are allowed

2.1.9. Substitutions
There are no substitutions in EU-SILC Norway.

2.2 Sampling errors

2.2.1. Standard errors and effective sample size
Effective sample size is treated in 2.1.4.

Standard errors for equivalised disposable income has been calculated using simplifying assumptions. More exact estimation of standard errors will be used in the 2008 report.

Table 2.2.1.A Standard errors for income components. 2007

Income component	Mean	Standard error	Number of observations
hy010	501986	4985	5765
hy020	366285	3312	5768

hy022	309640	3372	5768
hy023	309640	3372	5768
hy040	1289	181	5765
hy050	13775	464	5768
hy060	1604	156	5765
hy070	627	59	5768
hy080	1560	115	5765
hy090	13605	1547	5765
hy100	21402	424	5765
hy130	1186	139	5765
hy140	134727	1947	5765
py010	202670	2339	11263
py020	3388	137	11220
py035	126	13	11220
py050	17829	1359	11220
py080	1025	106	11220
py090	1833	149	11220
py100	30793	916	11265
py110	571	87	11220
py120	8253	342	11265
py130	18215	551	11220
py140	1846	79	11265

Table 2.2.1.b Standard errors and effective sample size for equivalised disposable income. 2007

	Mean	Standard error	Number of observations	Effective sample size
All persons	248 750	1 762	15 132	14564
Household size				
1	203 573	3 593	1 355	1304
2	276 664	3 454	4 123	3968
3	262 508	3 846	2 656	2556
4 and more	243 460	2 988	6 998	6735
Age				
Under 25 years	222 848	2 263	5 430	5226
25-34 years	241 638	3 337	1 713	1649
35-44 years	255 092	3 325	2 277	2192
45-54 years	291 129	4 093	2 382	2293
55-64 years	296 328	5 189	1 745	1679
65 years and over	225 494	4 377	1 569	1510
Sex				
Male	252 270	1 927	7 628	7342
Female	245 270	2 007	7 500	7218

2.3 Non-sampling errors

2.3.1 Sampling frame and coverage errors
There are two kinds of sampling frame in this survey because the sample was made up of two separate samples (see 2.1). In the old part of the sample, the sample frame is a register of participants in the Population and housing census in 1990 (FoB90), living in the selected sample areas. This register is annually updated with information from the central population register. There are two kinds of possible coverage errors in this frame. The first is the exclusion of all those living in areas outside the sampling frame, the second is the exclusion of those not participating in FoB90. Both sources are assumed to be minimal. The first one because the selected areas are representative of their stratum, the second one because all inhabitants were obliged to participate in FoB90. To avoid under-coverage of immigrants in the years following 1997, the sample was supplemented with new immigrants each following year.

In the new part of the sample, the sampling frame is a copy of the central population register called BEBAS. This register is monthly updated wit information from local population register offices. There should be no coverage errors connected to this frame, except for the extremely few cases of emigrations which are wrongly coded as non-response in stead of non-eligible because their emigration were not registered in the population register. 54 persons could not be contacted because they were living at an unknown address (see table 1, section 2.3.3.3). This is the maximum number of persons, which could be ineligible because they have emigrated.

Over-coverage due to deaths and emigration between updating of the sampling frame and the interview is almost always discovered during the fieldwork. Under-coverage due to immigration between the updating of the sampling frame and interview is small. This is partly because immigration is relatively small (roughly 60 000 in 2007), and partly because the new sampling frame is updated very frequently.

2.3.2a Measurement errors
In every survey there are various sources of both measurement and processing errors. Measurement errors occur in different phases and for different reasons. These reasons can be divided into five sub-groups: Information system, setting/environment, mode of data collection, the respondent, the interview and finally the instrument. We will concentrate on the sources most likely to be found in this survey, and they are classified under respondent, the interview and the instrument.

In every survey there is a chance of respondents giving an incorrect answer. The question/answer process can be seen in four different phases. First there is the understanding and interpretation of the actual question. If there are difficult terms or complicated wording, this may cause errors. In EU-SILC, the questions regarding inter-household transfers may be subject to this kind of errors because of the understanding of inter-household transfer and the term regular. Also the question on lowest monthly income to make ends meet (HS130) seems difficult to understand for many respondents.

The second phase is where the respondent recalls information. Errors in this phase may rise if the information necessary is hard to retrieve because it is old, complicated or not available to the respondent. In EU-SILC some of the questions about housing costs are quite complicated even for the person responsible for the dwelling. This may affect the accuracy of the answers given. Apart from this, we have no suspicion of frequent errors caused by difficulties in information retrieval.

The third phase is evaluating and selecting the information necessary to answer the question. In this phase, the respondent may actually have the right kind of information to answer the question correctly, but still end up with a wrong answer. This type of error is most frequent when the question is complicated and requires much information. Typical questions from EU-SILC may be questions requiring the respondent to select different economic components necessary for a specific question. Again the questions regarding inter-household transfers may be mentioned, but also the subjective

evaluation of how difficult it is "to make ends meet", where the respondent has to choose which components to include in income.

The fourth and final phase is the actual formulating of the answer. This may cause errors if the respondents mastering of the language in use is weak, if the answer requires use of complicated terms or if the communication between the interviewer and the respondent is not optimal.

Measurement errors under the label "interview" are first effects of the data collection mode. In EU-SILC, all interviews are conducted by telephone. The interview is quite short, and the questionnaire is composed to avoid questions requiring visual aids. We therefore believe that errors caused by mode are minimal.

Interviewer effects may also be labelled under errors caused by interview. The interviewers used in EU-SILC were among the approximately 235 of the ordinary interviewer staff assigned to Statistics Norway.

Approximately 130 of these interviewers are locally based interviewers who are part time employees with individual agreements ranging from 500 to 1200 hours of work per year. Theses interviewers are stationed in the sample areas according to the standard sampling frame. The 105 centrally based interviewers are working from Statistics Norway's call centres in Oslo and Kongsvinger (where Statistics Norway has offices).

When hired, all interviewers must complete an education consisting of self-studies and written tasks in two stages. The locally based interviewers are gathered to an obligatory three-day course (for centrally based interviewers two days) before they are hired for a trial period of 6 months. Before the end of the trial period and permanent hiring, all new interviewers are given a personal follow-up talk. As part of the general follow-up and education of locally based interviewers, telephone conferences are held on occasion. The centrally based interviewers have a supervisor on each work shift, and each call-centre has a co-ordinator who also follows up the interviewers on regular basis.

The specific training for EU-SILC consists of an obligatory interview guide following the survey. This guide contains information about the survey, description of the sample, time limits (start and end) and a mentioning and instructions for some of the questions. Locally based interviewers are paid to read this instruction. In addition, they are paid a fixed price (estimated number of hours) for test interviewing before starting the actual work. In EU-SILC 2007, the estimated time destined to reading of instruction and training was 4 hours per interviewer. The centrally based interviewers are, in addition to reading the specific survey guide, given an oral presentation of the survey (briefing).

The danger of systematic interviewer effects is reduced through training, but also by using a relatively large number of interviewers.

The questionnaire may also be the cause of measurement errors. We have tried to establish a questionnaire according to the recommendations of Eurostat. In cases where EU-SILC variables and variables which are standard in our national surveys are close, we have preferred to use the national standards which are well tested. We shall comment on these variables and other cases where there might be deviations from Eurostat standards.

HH010
The standard Norwegian question is much more detailed, but most categories are easily translated to Eurostat categories. To construct the Eurostat categories we added a question on number of apartments/flats in the building.

HH030
Only rooms of at least 6 sqm are included. The consequences for comparability are negligible.

HH090

'For the sole use of the household' is not included in the Norwegian questionnaire.

HH040

We have split this question in two: Rot in windows or floor and Leaking roof, damp walls or floor.

HS160

The Norwegian question asks 'not enough **day**light'.

HH020

The Norwegian question is more detailed. However it is quite clear how to aggregate categories to construct the Eurostat categories of owners and tenants. To distinguish between tenants paying rent at or below market price we asked whether the rent that is paid is market rent (question Husleie2). To distinguish households with a rent-free accommodation we asked whether the household pay rent (question Husleie1).

HY130G

The Norwegian question differs because it excludes alimonies to former spouse/children. Information on alimonies is taken from register. HY130 is therefore calculated as a sum of information from register and from interview.

HH070

When asking about interest on mortgage the respondents can choose whether they will report the amount per year, quarter or month. There are some cases where period and amount do not correspond, or the size of the mortgage and interest does not correspond, maybe due to interviewer errors. These cases have been corrected at by evaluation of each case. In cases where structural insurance, mandatory services and charges or cost of utilities are missing, average values based on post stratification of the size of the dwelling (and dwelling type for cost of utilities) have been imputed. Tax on dwellings for owners is not taken into account in HH070.

HH080G

The same as for HY130G applies. HY080 is calculated as a sum of information from register and from interview.

PL030

The only difference is that the Norwegian question is only asked respondents working less than 32 hours a week. Persons working 32 hours or more a week are considered as 'carrying out a job or profession'. The interviewer reads the categories.

PL110

We ask for the name and address of the firm. Industry is coded from register information on the firm.

PL060

The question explicitly mentions that paid overtime and extra work at home shall be included.

PH020

In addition to chronic illness the question mentions 'any consequence of injury or any disability'.

PH030

This variable is built on three questions to ensure that all the information needed for the variable is of good quality.
1: ' Does this (chronic illness) lead to limitations in your daily activities'
2: ' Have these limitations lasted for at least six months'
3: ' Would you say that you are strongly limited or somewhat limited'?
PE010

This variable combines information from interview and register. A person is considered as in education if he/she is in education according to PL030 (=3) or if they are in education according to register information.

PE020
This information is taken from register. The register information is per 1 October 2006.

PE040
This information is also taken from register per 1 October 2005.

In connection with the 2003 data collection, no specific field-testing of the questionnaire was done. The questionnaire was by large the same as in the pilot survey conducted in June 2002, and our opinion was that further field testing was unnecessary. Before finalising the questionnaire it was submit to a structured interviewer test, where three experienced interviewers tested by pre-defined profiles. In cases where EU-SILC variables and standard variables in our surveys are close we have used the national standards, which are well tested.
The 2007 questionnaire is similar to the 2003-2006 questionnaires, only with a few minor adjustments.

2.3.2b Processing errors
The data collection mode in the Norwegian EU-SILC is CATI, using the interview programme Blaise developed in the Netherlands. Data entry controls are built into the electronic questionnaire, and there is less need for post data control. Control of data in the programme is done in various ways.

First, all selections are done automatically by the programme, thus reducing the risk of errors in the selections done by interviewers. This also reduces the number of signals and checks necessary. Second, all numeric variables have absolute limits for data entry, for example when entering the number of hours worked per week it is impossible to enter numbers above 168. Thirdly, and similar, there are built inn checks (hard error) which it is impossible to override. An obvious example is that year and date of birth is checked against the date of the interview. Last there are signals (soft error) which gives a warning to the interviewer if the answer is either unlikely because it is extreme or because it does not correspond to answers given to questions asked earlier. These signals can be overridden if the answer in question is confirmed.

Examples of signals, checks and value limits for the target variables are given in table 2.2. For an overview of filters in the questionnaire we refer to the written questionnaire. No errors of any importance have been detected in the post data-collection process except some confusion on id for household members where we need to programme a wider range of signals and checks. This error only occurs for persons who are not members of the household according to the population register. For mother, father or spouse id is assigned automatically based on kinship from register.

Table 2.2 Signals, checks and value limits for target variables

Variable	Description	SIGNAL (Soft error)	CHECK (Hard error)	Value
RB070	Month of birth	AGE <= 105	DATE <= TODATE	
RB080	Year of birth	AGE <= 105	DATE <= TODATE	
RB210	Basic activity status	IF RB210=3 AND AGE < 50		
RB220	Father id		NOT RB030	
RB230	Mother id		NOT RB030	
RB240	Spouse/partner id		NOT RB030	
RL020	Education at compulsory school	NOT [10..40]		0…50
RL030/40/60	Child-care at centre-based services/day-care			1…50

	center/grand parents			
PB130	Month of birth	AGE <= 105	DATE <= TODATE	
PB140	Year of birth	AGE <= 105	DATE <= TODATE	
PB160	Father id		NOT PB030	
PB170	Mother id		NOT PB030	
PB180	Spouse/partner id		NOT PB030	
PE030	Age completed initial education	<= 13	> AGE	12..80
PL030	Self-defined currentactivity status	IF PL030 = 4 AND AGE < 50 IF PL030 = 6 AND AGE > 30		
PL060	Number of hours usually worked per week in main job	>= 70		0..168
PL100	Total number of hours usually worked in second, third… jobs	>=40 PL100+PL060>=100		0..168
PY200G	Gross monthly earnings for employees	Hourly NOT [40..500] Weekly NOT [100..7000] "Fortnightly" NOT [100.20000] Monthly NOT [100..50000] Yearly NOT [10000..800000]		
HY080G	Regular inter-household cash transfer received			0..999997
HY130G	Gross regular inter-household cash transfer paid			0..999997
HH030	Number of rooms available to household			0..50
HH031	Year of contract or purchasing or installation			1900..2004
HH060	Current rent related to occupied dwelling, if any	Monthly NOT [500..10000] Quarterly NOT [1500..30000] Yearly NOT [6000..120000]		
HH061	Subjective rent related to non-tenant paying rent at market price	>= 15000		0..99997

Professional coders at Statistics Norway, who also do the coding in the Labour force survey, do coding of occupation and industry. The coding is based on information from the interview, but also with support from registers. Industry is coded from information on the   name and address of workplace. This is in most cases gathered from register (for the selected respondents) in advance of the interview. If the respondent confirms this information, no post-interview coding is necessary. Income is also gathered from register, so no editing is necessary.

2.3.3 Non-response errors

2.3.3.1 Achieved sample size
- In our database there are 6 013 households that have completed an interview that is accepted.
- In our database there are 11 706 persons who are 16 years or older and are members of households that have completed an interview that is accepted.
- In our database there are 6 013 selected respondents who are members of households that have completed an interview that is accepted.

	2003	2004	2005	2006	2007
Number of household with accepted interview	5852	6046	5991	5765	6013
Number of persons 16 years and older	11709	12113	11912	11917	11706
Number of sample persons with completed interview	5852	6046	5991	5765	6013
Number of household members with completed interview	5715	6064	5921	6152	5693

2.3.3.2 Unit non-response

For the total sample:

RA	DB120=11	8 925	1,000
	(DB120=all)-(DB120=21)	8 925	

RH	DB135=1	6 013	0,674
	DB130=all	8 925	

RP	RB250=11+12+13	11 706	1,000
	RB245=1+2+3	11 706	

Ra is: $\dfrac{8925}{8925} = 1.000$

Rh is: $\dfrac{6013}{8925} = 0.674$

Rp is: $\dfrac{11706}{11706} = 1.000$

Individual non-response rates, NRp is: $(1-1.000)*100 = 0$

Overall individual non-response rates (*NRp) are: $(1-(Ra*Rh*Rp))*100 = 32,6$

For new entries:

RA	DB120=11	1132	1,000
	(DB120=all)-(DB120=21)	1132	

RH	DB135=1	764	
	DB130=all	1132	

RP   RB250=11+12+13   1491
     RB245=1+2+3   1491

Ra is: $\dfrac{1132}{1132} = 1.000$

Rh is: $\dfrac{764}{1132} = 0.0,675$

Rp is: $\dfrac{1491}{1491} = 1.000$

Individual non-response rates, NRp is: (1-1.000)*100 = 0

Overall individual non-response rates (*NRp) are: (1-(Ra*Rh*Rp))*100 = 32,5

Table 2.4.2.1. Household response rates. Comparison of results between wave 2005 (t) and wave 2004 (t-1) [3]

		SAMPLE OUTCOME IN WAVE 2005										
		db135 =1	db135 =2	db120 =22	db130 = 22	db130 = 23	db130 = 24	db130 = 21	db120 = 21	db110 = 3-7	db110 = 10	db120 = 23	Total
SAMPLE OUTCOME IN WAVE 2004												
db130 = 11												
db135 = 1	3359	0	0	17	33	7	308	1	55	0	0	3780
db135 = 2	2	0	0	0	0	0	0	0	0	0	0	2
DB110 = 8	0	0	0	0	0	0	0	0	0	0	0	0
DB110 = 9	771	0	0	5	7	1	79	0	12	0	0	875
Total	3361	0	0	17	33	7	308	1	55	0	0	3782

Table 2.4.2.2. Household response rates: Comparison of results codes between wave 2006 (t) and wave 2005 (t-1).

		2006 (t)										
		Db130=11										
		db135 =1	db135 =2	db120 =22	db130 = 22	db130 = 23	db130 = 24	db130 = 21	db120 = 21	db110 = 3-7	db110 = 10	db120 = 23	Total
2005 (t-1)												
db130 = 11												
db135 = 1	3035	0	0	77	33	39	206	1	0	0	0	3391
db135 = 2												
db120 = 22												
NH												
NONH	0	0	0	0	0	0	0	0	0	0	0	0
db130 = 22												
NH												
NONH	8	0	0	3	1	2	3	0	0	0	0	17
db130 = 23												

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[3] Only respondents from all four waves (2004-2007) are included in this and the following two tables

	Db135=1	db135=2	db120=22	db130=22	db130=23	db130=24	db130=21	db120=21	db110=3-7	db110=10	db120=23	Total
NH												
NONH	10	0	0	0	15	5	7	0	0	0	0	37
db130 = 24												
NH												
NONH	4	0	0	1	1	1	0	0	0	0	0	7
db130 = 21												327
db120 = 21												1
db110 = 3-7												57
db110 = 10												0
db130 = 23												40
Total	3057	0	0	81	50	47	216	1	0	0	0	3452
db110 = 8												0
db110 = 9												0

Table 2.4.2.3. Household response rates: Comparison of results codes between wave 2007 (t) and wave 2006 (t-1).

		2007 (t)										
		Db130=11										
		Db135=1	db135=2	db120=22	db130=22	db130=23	db130=24	db130=21	db120=21	db110=3-7	db110=10	db120=23	Total
2006 (t-1)												
db130 = 11												
db135 = 1	2944	4	0	79	39	48	135	1	0	0	0	3250
db135 = 2	0	0	0	0	0	0	0	0	0	0	0	0
db120 = 22												
NH												
NONH	0	0	0	0	0	0	0	0	0	0	0	0
db130 = 22												
NH												
NONH	57	0	0	26	2	5	10	0	0	0	0	100
db130 = 23												
NH												
NONH	12	0	0	2	138	14	2	0	0	0	0	168
db130 = 24												
NH												
NONH	7	0	0	0	2	55	1	0	0	0	0	65
db130 = 21												285
db120 = 21												1
db110 = 3-7												0
db110 = 10												0
db130 = 23												168
Total	3020	4	0	107	181	122	148	1	0	0	0	3583
db110 = 8												0
db110 = 9												0

	2005	**2006**	**2007**
Wave response rate	0,889	0,886	0,843
Refusal rate	0,081	0,063	0,041
Non-contacted and others	0,030	0,052	0,116

Longitudinal follow-up rate 1 (04-05)   0,904

Longitudinal follow-up rate 2 (05-06)   0,929

Longitudinal follow-up rate 3 (06-07)   0,890

Follow-up ratio

Achieved sample size   0,889   0,902   0,929

Table 2.3.2.4 Personal interview response rates

The table for personal interview response rates is not given.

Personal response rates seem less relevant with the Norwegian sampling method and tracing. In Norway the sample persons are the selected respondents. Only the selected respondents are followed from wave t to t+1. The household members who are not selected respondents (co-residents) are not followed from wave to wave. They may belong to the household of the selected respondent in year t+1 or they may have moved to another household. The household members who belong to the household of the selected respondent in the year t and t+1 will not constitute a representative sample. Hence longitudinal analysis will have to use only then sample of selected persons, the sample of all household members cannot be used.

With a household sample all persons in the households in the first wave are sample persons. Then it is relevant to ask f.i. how many from wave t-1 are interviewed in wave t. It is less relevant when the sample is a sample of persons (selected respondents), and when co-residents in the first wave are not considered sample persons that have to be followed in later waves.

Hence we consider that in the case when the sample consists only of selected sample persons the table for personal interview response rates will be similar to the table for household interview response rates.

2.3.3.3 Distribution of household.

Table 2.4.4.1a Distribution of households by DB110, DB120, DB130 and DB135. 2004

HOUSEHOLD STATUS	Total	DB110 =1	DB110=2	DB110=3	DB110=7	DB110=9	DB110=10
Number in sample	5133	2850	397	0	79	1807	0
Percent	100	55,5	7,7	0,0	1,5	35,2	0,0
RECORD OF CONTACT AT ADDRESS	Total	DB120=11	DB120=21	DB120=22	DB120=23		
Number in sample (DB110=2,8,10)	397	396	1	0	0		
Percent	100	99,8	0,2	0,0	0,0		
HOUSEHOLDS QUESTIONNAIRE RESULT	Total	DB130=11	DB130=21	DB130=22	DB130=23	DB130=24	
Number in sample (DB120=11 or DB110=1)	5038	3783	980	79	184	12	

Percent	100	75,1	19,5	1,6	3,7	0,2

HOUSEHOLD INTERVIEW ACCEPTANCE	Total	DB135=1	DB135=2			
Number in sample (DB130=11)	3783	3780	3			
Percent	100	99,9	0,1			

Table 2.4.4.1b Distribution of households by DB110, DB120, DB130 and DB135. 2005

HOUSEHOLD STATUS	Total	DB110 =1	DB110=2	DB110=3	DB110=7	DB110=9	DB110=10
Number in sample	4012	3295	502	0	58	157	0
Percent	100	82,1	12,6	0,0	1,4	3,9	0,0

RECORD OF CONTACT AT ADDRESS	Total	DB120=11	DB120=21	DB120=22	DB120=23		
Number in sample (DB110=2,8,10)	502	501	1	0	0		
Percent	100	99,8	0,2	0,0	0,0		

HOUSEHOLDS QUESTIONNAIRE RESULT	Total	DB130=11	DB130=21	DB130=22	DB130=23	DB130=24	
Number in sample (DB120=11 or DB110=1)	3951	3497	370	23	51	10	
Percent	100	88,5	9,4	0,6	1,3	0,3	

HOUSEHOLD INTERVIEW ACCEPTANCE	Total	DB135=1	DB135=2			
Number in sample (DB130=11)	3497	3497	0			
Percent	100	100				

Table 2.4.4.1c Distribution of households by DB110, DB120, DB130 and DB135. 2006

HOUSEHOLD STATUS	Total	DB110 =1	DB110=2	DB110=3	DB110=7	DB110=9	DB110=10
Number in sample	4246	3695	482	0	0	69	0
Percent	100	87,0	11,3	0,0	0,0	1,6	0,0

RECORD OF CONTACT AT ADDRESS	Total	DB120=11	DB120=21	DB120=22	DB120=23		
Number in sample (DB110=2,8,10)	482	481	1	0	0		
Percent	100	99,8	0,2	0,0	0,0		

HOUSEHOLDS QUESTIONNAIRE RESULT	Total	DB130=11	DB130=21	DB130=22	DB130=23	DB130=24	
Number in sample (DB120=11 or DB110=1)	4241	3452	340	109	184	156	
Percent	100	81,4	8,0	2,6	4,3	3,7	

HOUSEHOLD INTERVIEW ACCEPTANCE	Total	DB135=1	DB135=2				
Number in sample (DB130=11)	3452	3452	0				
Percent	100	100					

Table 2.4.4.1d Distribution of households by DB110, DB120, DB130 and DB135. 2007

HOUSEHOLD STATUS	Total	DB110 =1	DB110=2	DB110=3	DB110=7	DB110=9	DB110=10
Number in sample	4343	3724	468	0	0	151	0
Percent	100	85,8	10,8	0,0	0,0	3,5	0,0

RECORD OF CONTACT AT ADDRESS	Total	DB120=11	DB120=21	DB120=22	DB120=23		
Number in sample (DB110=2,8,10)	468	467	1	0	0		
Percent	100	99,8	0,2	0,0	0,0		

HOUSEHOLDS QUESTIONNAIRE RESULT	Total	DB130=11	DB130=21	DB130=22	DB130=23	DB130=24	
Number in sample (DB120=11 or DB110=1)	4337	3476	241	194	222	204	
Percent	100	80,2	5,6	4,5	5,1	4,7	

HOUSEHOLD INTERVIEW ACCEPTANCE	Total	DB135=1	DB135=2				
Number in sample (DB130=11)	3476	3471	5				
Percent	100	99,9	0,1				

2.3.3.4 Distribution of persons by membership status

Table 2.4.4.2. Distribution of persons by membership status (RB110). 2007.

		Current household members				Not current household members		
	Total	RB110 =1	RB110=2	RB110=3	RB110=4	RB120=2-4	RB110=6	RB110=7
Total	9425	8695	0	186	96	21	8	1
Percent	100	92,3	0,0	2,0	1,0	0,2	0,1	0,0

2.3.3.5 Item non-response

Table 2.4.5.1 Distribution of item non-response.

	A	B	C
	% having received an amount	% with missing values (before imputation) [4]	% with partial information (before imputation) [3]
HY010: Total household gross income	100		
HY020: Total disposable household income	100		
HY022: Total disposable household income before social transfers other than old-age and survivors benefits	100		
Gross income component at household level			
HY040G: Gross income from rental of a property of land	2,4		
HY050G: Family related allowances	38,7		
HY060G: Social assistance	3,5		
HY070G: Housing allowances	2,6		
HY080G: Regular inter-household cash transfer received	7,3		
HY090G: Gross interest dividends, profit from capital investments in unincorporated business	0,7		
HY130G: Gross regular inter-household cash transfer paid	4,2		
HY140G: Tax on income and social contributions	96,6		
Gross income component at personal level			
PY010G: Gross employee or near cash income	76,1		
PY020G: Gross non-cash employee income	48,5		
PY030G: Employer's social insurance contribution	76,1		
PY035G: Contributions to individual pensions schemes	2,2		
PY050: Gross cash benefits or losses from self-employment (including royalties)	10,3		
PY080G: Gross regular pension from private schemes (other than those covered under ESSPROS)	3,6		
PY090G: Gross unemployment benefits	3,2		
PY100G: Gross old-age benefits	17,7		
PY110G: Gross survivor benefits	0,8		
PY120G: Gross sickness benefits	19,6		
PY130G: Gross disability benefits	13,9		
PY140G: Education-related allowances	8,7		

2.4 Mode of data collection

Table 2.4.1. Distribution of household members aged 16 and over by RB250, 2004-2007.

HOUSEHOLD MEMBERS 16+ (RB245 = 1 TO 3)									
2004									
	Total	RB250=11	RB250=12	RB250=13	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
Total	7750	0	25	7697	0	0	0	0	0	27
%	100	-	0,3	99,3	-	-	-	-	-	0,4

---

[4] Since information on income is taken from register there are no missing values.

2005									
	Total	RB250=11	RB250=12	RB250=13	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
Total	7188	0	17	7083	0	1	34	19	0	34
%	100	-	0,2	98,5	-	0,0	0,5	0,3	-	0,5

2006									
	Total	RB250=11	RB250=12	RB250=13	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
Total	6972	0	150	6795	0	0	0	0	0	27
%	100	-	2,2	97,5	-	-	-	-	-	0,4

2007									
	Total	RB250=11	RB250=12	RB250=13	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
Total	6912	0	144	6768	0	0	0	0	0	0
%	100	-	2,1	97,9	-	-	-	-	-	-

SAMPLE PERSONS 16+ (RB245 = 1 TO 3 AND RB100 = 1)

2004									
	Total	RB250=11	RB250=12	RB250=13	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
Total	3780	0	0	3780	0	0	0	0	0	0
%	100	-	-	100,0	-	-	-	-	-	-

2005									
	Total	RB250=11	RB250=12	RB250=13	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
Total	3497	0	0	3497	0	0	0	0	0	0
%	100	-	-	100,0	-	-	-	-	-	-

2006									
	Total	RB250=11	RB250=12	RB250=13	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
Total	3452	0	0	3452	0	0	0	0	0	0
%	100	-	-	100,0	-	-	-	-	-	-

2007									
	Total	RB250=11	RB250=12	RB250=13	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
Total	3471	0	0	3471	0	0	0	0	0	0
%	100	-	-	100,0	-	-	-	-	-	-

CO-RESIDENTS 16+ (RB245 = 1 TO 3 AND RB100 = 2)

2004									
	Total	RB250=11	RB250=12	RB250=13	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
Total	3970	0	25	3917	0	0	1	0	0	27
%	100	-	0,6	98,7	-	-	0,0	-	-	0,7

2005									
	Total	RB250=11	RB250=12	RB250=13	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
Total	3691	0	17	3586	0	1	34	19	0	34
%	100	-	0,5	97,2	-	0,0	0,9	0,5	-	0,9

2006									
	Total	RB250=11	RB250=12	RB250=13	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
Total	3520	0	150	3343	0	0	0	0	0	27
%	100	-	4,3	95,0	-	-	-	-	-	0,8

2007									
	Total	RB250=11	RB250=12	RB250=13	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
Total	3441	0	144	3297	0	0	0	0	0	0
%	100	-	4,2	95,8	-	-	-	-	-	-

Table 2.4.2. Distribution of household members by RB260, 2004-2007.

HOUSEHOLD MEMBERS 16+ (RB245 = 1 TO 3) AND RB250 = 11 OR 13

2004							
	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	MISSING
Total	7697	0	22	5061	0	2609	5
%	100	-	0,3	65,8	-	33,9	0,1

2005							
	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	MISSING

	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	MISSING			
Total	7083	0	34	5085	0	1955	9			
%	100	-	0,5	71,8	-	27,6	0,1			

2006

	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	MISSING			
Total	6795	0	22	4713	0	2058	2			
%	100	-	0,3	69,4	-	30,3	0,0			

2007

	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	MISSING			
Total	6768	0	24	4789	0	1948	7			
%	100	-	0,4	70,8	-	28,8	0,1			

SAMPLE PERSONS 16+ (RB245 = 1 TO 3 AND RB100 = 1) AND RB250 = 11 OR 13

2004

	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	MISSING			
Total	3780	0	14	3765	0	0	1			
%	100	-	0,4	99,6	-	-	0,0			

2005

	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	MISSING			
Total	3497	0	26	3466	0	0	5			
%	100	-	0,7	99,1	-	-	0,1			

2006

	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	MISSING			
Total	3452	0	15	3435	0	0	2			
%	100	-	0,4	99,5	-	-	0,1			

2007

	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	MISSING			
Total	3471	0	16	3453	0	0	2			
%	100	-	0,5	99,5	-	-	0,1			

CO-RESIDENTS 16+ (RB245 = 1 TO 3 AND RB100 = 2) AND RB250 = 11 OR 13

2004

	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	MISSING			
Total	3917	0	8	1296	0	2609	4			
%	100	-	0,2	33,1	-	66,6	0,1			

2005

	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	MISSING			
Total	3586	0	8	1619	0	1955	4			
%	100	-	0,2	45,2	-	54,5	0,1			

2006

	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	MISSING			
Total	3343	0	7	1278	0	2058	0			
%	100	-	0,2	38,2	-	61,7	-			

2007

	Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	MISSING			
Total	3297	0	8	1336	0	1948	5			
%	100	-	0,2	40,5	-	59,1	0,2			

2.5 Imputation procedure

In the estimation of HH070, imputations are made on item non-response for items apart from rent and interests on mortgage:

Insurance: Average values based on dwelling size (7 groups based on sqm) are imputed for those with item non-response.

Service bills: Imputed by same method as insurance.

Utility bills: Average values based on dwelling type and size (13 groups) are imputed for those with item non-response.

Imputation for one or more items are done for approximately 40% of all households.

No other imputations are done.

2.6 Imputed rent

Imputed rent is calculated by using data from the Norwegian rental survey 2006, where 5 169 renters were interviewed about their rent. The households are post-stratified by region and dwelling size, and values are imputed according to the same method as used in the national HBS.

The regions used are Oslo (1), the county of Akershus and cities Stavanger, Bergen Trondheim and Tromsø (2), other densely populated areas with 20 000 or more inhabitants (3), other densely populated areas with 2000 – 19999 inhabitants (4), and finally other areas not included in 1-4 (5). In Oslo, we also separate households with dwellings more and less than 100 sqm. The imputed values (per month) in 2007 are as follows:
Area 1 and less than 100 sqm: $HY030 = 3192.02 + (66.93 * sqm)$
Area 1 and 100 sqm or more: $HY030 = 6562.87 + (42.04 * sqm)$
Area 2: $HY030 = 3022.66 + (41.65 * sqm)$
Area 3: $HY030 = 2933.63 + (26.56 * sqm)$;
Area 4: $HY030 = 3119.27 + (16.15 * sqm)$;
Area 5: $HY030 = 3032.94 + (8.96 * sqm)$;

2.7 Company cars

The value of using a company car is reported in tax registers and included in variable PY020. Other elements included in this variable are:
- Electronic communication paid by employer (telephone, internet connection etc)
- Insurance against accidents and other insurances
- Advantage of subsidised loans
- Advantage of subsidised stocks in the company
- Other taxable payments in kind such as electricity, accommodation, holidays/travels, transport etc.

2.8 Interview duration

The total average interview length was approximately 22,5 minutes[1].

3. Comparability

3.1 Basic concepts and definitions

The reference population
The reference population is persons aged 16 years or more at December 31 2005 who are living outside an institution.

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[1] Average estimated by excluding all recorded interviews lasting less than 5 and more then 120 minutes. Recording of interview time may be disturbed if the interviewer either forgets to close the electronic questionnaire, or opens it after completing the interview to make corrections.

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

The household membership
Persons will be considered as household members if they spend most of their nights at the address of the household.

1. A spouse/cohabitant who registered at the household address but is absent from the dwelling because of work, education or conscription is still considered a member of the household. In case the spouse/cohabitant have moved from the dwelling but juridical still owns (part of) the dwelling is not considered as a member of the household.

2. Persons aged 18 years and more who are absent because of education are considered members of the household if they spend a minimum of 4 days a week at the address of the household.

3. Persons aged 17 years and younger who are absent because of education are considered as members of the household.

4. Persons temporarily absent from the dwelling for less then 6 months are not considered as permanent residents unless they do not have a private address elsewhere.

5. Persons in institutions (including children) and in private care are considered as living permanently at their place of residence if the stay exceeds 6 months. Individuals admitted to hospitals or imprisoned are considered as permanent residents where they had their last place of permanent residency.

6. Persons in conscription service are members of the household that they were members of before the conscription.

The income reference period
The income reference period is the calendar year n-1.

The period for taxes on income and social insurance contributions
The period for taxes on income and social insurance contributions is the calendar year n-1.

The reference period for taxes on wealth
The reference period for taxes on wealth is the calendar year n-1.
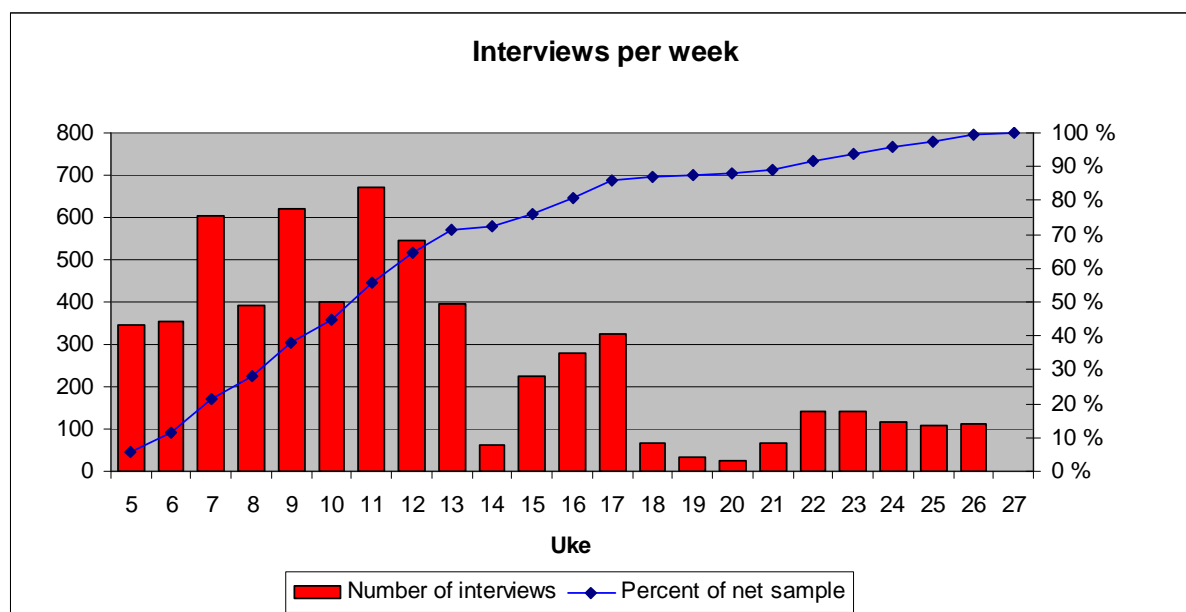
The lag between the income reference period and current variables
The income variables are collected from registers and the interval between the end of the income reference period and the time of interview for current variables is maximum 6 months

The total duration of the data collection of the sample , 2006
The interviews were carried out starting 29 January and ending 9 July. Figure 3.1 shows the number of interviews for every week of the data collection period. By week 15, approximately 76 percent of the interviews were completed. The drop in number of interviews in week 14 can be explained by the Easter holidays.

Figure 3.1 Number of interviews per week

The basic concepts remain basically unchanged from 2003 to 2007.

3.2. Components of income

3.2.1 Differences between the national definitions and standard EU-SILC definitions, and an assessment of the consequences of the differences mentioned in respect to target variables.

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

All income data derived from registers are recorded gross at component level. All income data are collected at the individual level (i.e. the person registered as the receiver of the income item). This also concerns typically 'household' related income such as housing benefits and social assistance. Register data also includes the income of children aged 13-16 years at the individual level. The income of children aged 12 and younger are, however, included in their parent's income (e.g. interest received).

Total household gross income (HY010);
The sum of all components: HY040G + HY050G + HY060G + HY070G + HY080G + HY090G + the sum for all household members of: PY010G + PY020G + PY050G + PY090G + PY100G + PY110G + PY120G + PY130G + PY140G.
Comments: HY030G (imputed rent) is not calculated. Hence HY100G (interest paid on mortgages) has not been deducted when constructing HY010.

Total disposable income (HY020);
Defined as Total gross income minus (HY130G + HY140G).
Note: HY120G (regular taxes on wealth) is included in HY140G and HY100G (interest on mortgage) has not been calculated.

Total disposable household income before social transfers except old-age and survivor's benefits (HY022)
Defined as HY020 minus the sum for all household members of: (PY090N + PY120N + PY130N + PY140N) + HY050N + HY060N + HY070N.

Total disposable household income before social transfers including old-age and survivor's benefits (HY023)
Defined as HY020 minus the sum for all household members of: (PY090N + PY100N + PY110N + PY120N + PY130N + PY140N) + HY050N + HY060N + HY070N.

Income from rental of property or land (HY040G)
Defined as net income from rentals (buildings, dwellings, land etc.)

Family/children-related allowances (HY050)
Includes the following components:

- child allowance
- maternity benefits (daily cash benefit for working mothers and lump sum benefit for non-working mothers)
- cash-for-care benefit
- child support for singe parents (education and childcare)
- transitional benefit to single parents

Deviation from the SILC concept:
The current register data covers only roughly 50% of the total amount paid out in daily cash maternity benefit. The remaining amount is included in PY010 (Gross employee cash or near cash income).

Social assistance (HY060);
Includes the total amount received in social assistance (benefits and loans).

Housing allowance (HY070);
Includes dwelling support in cash received by renters and owner-occupiers.

Deviation from the SILC concept:
The benefit from renting a subsidised dwelling is not included in the income concept.

Regular inter-household cash transfer received (HY080);
Includes alimonies and paid maintenance from former spouse (or advance payment from the government). Information on regular private cash support received by children living in separate households (e.g. students) is collected from the interview.

Interest, dividends, profit from capital investment in unincorporated business ((HY090);
Interest and dividends are taxable income. In addition some other minor income items are included, e.g. profit from life insurance and certain types of income from abroad (lottery winnings etc.).

Regular taxes on wealth (HY120);

Included in HY140: Total tax on income.

Regular inter-household cash transfer paid (HY130);
Includes paid maintenance to children and former spouse (alimony). These payments appear as deductions in the tax return. Information on regular cash support provided by parents to children living in separate households (e.g. students) is included from the interview.

Total tax on income and social contribution (HY140);
Include assessed income and wealth taxes and social contributions.

Deviation from the SILC concept:
The variable includes both taxes on income and wealth. It is difficult to identify each tax components because all taxes are recorded net, i.e. after special tax deductions (e.g. special tax deduction for residents of Finnmark, tax deduction for received dividends, tax deduction for low-income households etc.).

Gross Employee Cash income (PY010);
Defined as the sum of all wages and salaries including overtime, holiday pay, tips and bonuses.

Deviations from the SILC concept:
- payments to foster parents (included in wages, cannot be separated from wages)
- severance and termination pay (-------------- " --------------------------------------)
- sickness benefits that are not directly paid out to the employee (i.e. compensation from the Social Security Scheme to the employer)

With the exception of sickness benefits these deviations are expected to be of a minor importance.

Gross non-cash employee income (PY020);
Include the estimated value of using a company car.

Cash benefits or losses from self-employment (PY050);
Entrepreneurial income is collected net in register data. Gross cash losses thus appear as negative amounts.

Deviation from the SILC concept:
It has not been possible to identify – and thus deduct from self-employment income – interest paid on business loans.

Non-cash income from self-employment – value of own goods for own consumption (PY070);
The tax-assessed benefit from consuming own goods (estimated by the tax authorities) is included in gross cash income from self-employment (PY050).

Unemployment benefits (PY090);
Includes unemployment benefits for employees and unemployment benefits for the self-employed.

Deviation from the SILC concept:

No information available on benefits (in-kind) related to vocational training.

Old-age function (PY100);
Include old-age pension from the social security system and occupational pensions.

Deviation from the SILC concept:
It was not possible to split the different types of occupational pensions into different functions, e.g. old-age, disability or survivor's pension. In stead all types of occupational pensions have been included under the old-age function.

Survivor's benefits (PY110);
Includes survivor's pension from the National Insurance Scheme. In addition several minor income items have been included that are received mainly by survivors, e.g. tax-free wage income and holiday pay earned by the deceased.

Deviation from the SILC concept:
Not possible to include funeral grants in the income concept. This benefit is transferred directly to the firm of undertakers.

Social benefits in the sickness (PY120);
Includes sickness benefits paid by the National Insurance Scheme directly to the employee (i.e. after day 16 of sickness).

Deviation from the SILC concept:
The current register data covers only roughly 50% of the total amount paid out in daily cash sickness benefit. The remaining amount (compensation to the employer) is included in PY010 (Gross employee cash or near cash income).

Disability benefits (PY130);
Include disability pension from the National Insurance Scheme, basic and attendance benefit and rehabilitation benefits.

Deviation from the SILC concept:
Early retirement benefit is included in occupational pension, i.e. old-age function.

Education related allowances (PY140);
Include student grants from the State Educational Loan Fund.

3.2.2 Comparison between the national definition of income and standard EU-SILC definition

For 2003 there are only minor differences in the amount of total income and disposable (after-tax) income based on national definitions and the corresponding figures based on SILC definitions. As is shown in table 1, the difference amounted to about 5 billion NOK (or ca 0.5 per cent) for both income concepts.

The main explanation for the difference between the two income definitions is that the national definition comprises some income items that are not part of the SILC income definition. This is for example the case for certain fringe benefits other than company cars (e.g. free newspapers and telephone, low-interest loans, private insurance paid by employers

etc.). I addition the SILC definition does not include *capital gains,* while this is the case in the national definition. In 2003 this income item amounted to a negative value of roughly 2 billion NOK in Norway. Finally, the national definition includes payments from a private pension scheme. Although this item is collected in SILC (PY080G), it is not included in the definition of income.

Table 3.2.2.1 Total gross income and disposable income. Billion NOK. 2003

	SILC definition	National definition	Difference
Total Gross income	975,0	979,8	4,8
Disposable income[1]	734,5	739,3	4,8

[1] In the national definition this income concept refers to 'After-tax income'.

In addition there are differences between national practice and SILC in income definitions at the component level, although these differences have almost no impact on total gross income and disposable income. In the definition of employee income (wages and salaries) the national definition for example includes sickness benefit and maternity allowance, while in the SILC definition these components are considered part of transfers. For self-employment income sickness benefit is again included in the national definition, but not in the SILC definition (transfer). In addition several types of pensions are specified in the SILC income concept (e.g. old-age pension, disability pension and survivor's pension), while in the national definition these programmes are all part of 'Social security benefits'.

Table 3.2.2.2 Comparison of income components. The national definition and EU-SILC. Billion NOK. 2003

Income component	SILC	National definition
Employee income	607,5	627,3
Self-employment income	48,7	50,6
Property income	86,8	84,9
Transfers received	232,0	216,9
Total income	975,0	979,8
Taxes and negative transfers	240,5	240,5
Disposable (after-tax) income	734,5	739,3

3.2.3. The source used for the collection of income variables

All income data in the EU-SILC are collected from various administrative and statistical registers. The main registers used are:

(a) The Tax Return Register

(Employee income, self-employment income, taxable pensions etc.)

(b) The Tax Register for Personal Tax Payers

(Assessed taxes, social security contributions)

(c) National Insurance Service

 (Family allowances, attendance benefits, cash-for-care, child care benefits to single parents)

(d) Register for end-of-the-year Certificates

(Unemployment benefits, sickness and maternity allowance, company car),

(e) State Educational Loan Fund

(Education related benefits),

(f) The State Housing Bank

(Dwelling support)

(g) Social statistics

 (Social assistance)

A comprehensive data file on income is created by linking the total resident population to all the different income registers. The key that links the individual to the registers is the Personal Identification Number.

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

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

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

All income data recorded gross at component level.

3.3 Tracing rules

In the Norwegian EU-SILC the respondent (person/selected respondent) is selected from the population register. All household members of the selected respondent are included in the survey. If the household composition changes between waves, household members are not traced. We only trace the selected respondent. Tracing is done by using updated data from the population register, data from the previous data collection and by searching for phone numbers. The interviewer can also apply different ad-hoc methods to trace respondents.

4. COHERENCE

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

With the exception of inter-household transfers all the income data in SILC are from register. Hence, in our opinion, there is no point in comparing the results from SILC-Norway with external sources since the source we would compare with is the source used in SILC-Norway. In 3.2.1 we compared with national definitions. If we compare SILC-Norway with information from register using SILC-definitions we will only measure the effects of non-response that are not corrected through weighting.