Office for
National Statistics

EU-SILC UK 2010

Intermediate Quality Report

Office for National Statistics

Andrew Barnard
Dominic Webber
Carolyn Bugler
Deborah Curtis
Steven Dunstan
Jennifer Bowers
Simon Robinson
Richard Clarke

Office for National Statistics
Government Buildings
Cardiff Rd
Newport
NP10 8XG
Email:
Socialsurveys@ons.gov.uk

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Preface

According to article 16 of the Regulation (EC) no. 1177/2003 of the European Parliament and of the Council of 16 June 2003 concerning Community statistics on income and living conditions (EU-SILC), Member States and the Commission (Eurostat) will produce the following reports:

Member states shall produce by the end of the year n+1 (2010+1) an intermediate quality report relating to the common cross-sectional EU indicators based on the cross-sectional component of 2010.

Note on the UK EU-SILC Survey

In 2008 the Office for National Statistics (ONS) launched the Integrated Household Survey (IHS) for Great Britain. In the IHS a questionnaire is comprised of two sections: a suite of core IHS questions followed by individual survey modules. The General Household Survey (GHS) was chosen as a module of the IHS and in recognition the name was changed to the General Lifestyle Survey (GLF). This report provides quality information for EU-SILC which is collected as part of the General Lifestyle Survey questionnaire in 2010.

Version Control

This version of the 2010 Intermediate Quality Report relates to and is consistent with the indicators and microdata transmitted to Eurostat on the 14th December 2011. Users should be aware that microdata available via Eurostat may not be consistent with the indicators if either have been recently revised, so should contact Eurostat to ensure consistency.

Microdata and Indicator Revisions

On 14th December the following revisions were made:
- The Personal Register has RL070 updated.
- The Personal Data has the variables PL030, PL070, PL072, PL110 and their flags removed, and the flag for PL170 updated
- The Household Data has the flags for HA040 HA050 HA060 HA070 and HH061 corrected, HY170 set to zero and HH071 added

None of these changes affected the indicators.

1. Common cross-sectional European Union indicators

In accordance with Eurostat regulation, only cross-sectional indicators have been provided within this report.

Table 0.1 Monetary Indicators EU-SILC 2010

Monetary Indicators	Value	Achieved sample size
At-risk-of-poverty rate after social transfers – total	17.1	18713
At-risk-of-poverty rate after social transfers – men total	16.4	9013
At-risk-of-poverty rate after social transfers – women total	17.8	9700
At-risk-of-poverty rate after social transfers – 0–17 years	20.3	3965
At-risk-of-poverty rate after social transfers – 18-24 years	20.8	1245
At-risk-of-poverty rate after social transfers – 25-49 years	13.7	5681
At-risk-of-poverty rate after social transfers – 50-64 years	14.4	3846
At-risk-of-poverty rate after social transfers – 65+ years	21.4	4005
At-risk-of-poverty rate after social transfers – 18+ years	16.3	14634
At-risk-of-poverty rate after social transfers – 18-64 years	14.9	10772
At-risk-of-poverty rate after social transfers – 50-64 years	14.4	3846
At-risk-of-poverty rate after social transfers – men 18-24 years	20.7	618
At-risk-of-poverty rate after social transfers – men 25-49 years	12.6	2656
At-risk-of-poverty rate after social transfers – men 50-64 years	15.1	1817
At-risk-of-poverty rate after social transfers – men 65+ years	17.6	1876
At-risk-of-poverty rate after social transfers – men 18+ years	15.1	6886
At-risk-of-poverty rate after social transfers – men 18-64 years	14.5	5091
At-risk-of-poverty rate after social transfers – men 50-64 years	15.1	1817
At-risk-of-poverty rate after social transfers – women 18-24 years	20.8	627
At-risk-of-poverty rate after social transfers – women 25-49 years	14.8	3025
At-risk-of-poverty rate after social transfers – women 50-64 years	13.6	2029
At-risk-of-poverty rate after social transfers – women 65+ years	24.5	2129
At-risk-of-poverty rate after social transfers – women 18+ years	17.4	7748
At-risk-of-poverty rate after social transfers – women 18-64 years	15.3	5681
At-risk-of-poverty rate after social transfers – women 50-64 years	13.6	2029
At-risk-of-poverty rate after social transfers – employed	6.8	7392
At-risk-of-poverty rate after social transfers – unemployed	28.0	6454
At-risk-of-poverty rate after social transfers – retired	22.9	4146
At-risk-of-poverty rate after social transfers – other inactive	31.9	1950
At-risk-of-poverty rate after social transfers – men, employed	6.8	3775
At-risk-of-poverty rate after social transfers – men, unemployed	27.2	2677
At-risk-of-poverty rate after social transfers – men, retired	19.6	1790
At-risk-of-poverty rate after social transfers – men, other inactive	33.2	656
At-risk-of-poverty rate after social transfers – women, employed	6.7	3617
At-risk-of-poverty rate after social transfers – women, unemployed	28.6	3777
At-risk-of-poverty rate after social transfers – women, retired	25.3	2356
At-risk-of-poverty rate after social transfers – women, other inactive	31.2	1294
At-risk-of-poverty rate after social transfers – single, <65 years	26.1	1105
At-risk-of-poverty rate after social transfers – single, 65+ years	27.9	1273
At-risk-of-poverty rate after social transfers – single, male	24.9	952

At-risk-of-poverty rate after social transfers – single, female	28.7	1426
At-risk-of-poverty rate after social transfers – single, total		
At-risk-of-poverty rate after social transfers – 2 adults, no children, both <65	9.8	2824
At-risk-of-poverty rate after social transfers – 2 adults, no children, at least one 65+	17.2	2832
At-risk-of-poverty rate after social transfers – other households without children	9.5	1669
At-risk-of-poverty rate after social transfers – single parent, at least one child	36.4	1323
At-risk-of-poverty rate after social transfers – 2 adults, 1 child	11.2	1728
At-risk-of-poverty rate after social transfers – 2 adults, 2 children	12.2	2984
At-risk-of-poverty rate after social transfers – 2 adults, 3+ children	27.4	1650
At-risk-of-poverty rate after social transfers – other households with children	13.6	1284
At-risk-of-poverty rate after social transfers – households without children	16.0	9703
At-risk-of-poverty rate after social transfers – households with children	18.2	8969
At-risk-of-poverty rate after social transfers – owner or rent-free	13.1	13808
At-risk-of-poverty rate after social transfers – tenant	27.1	4901
At-risk-of-poverty rate after social transfers – households without children, w = 0[1]	40.5	
At-risk-of-poverty rate after social transfers – households without children, 0 < w < 0.5	2.1	
At-risk-of-poverty rate after social transfers – households without children, w<1 and w>=0.5	8.2	
At-risk-of-poverty rate after social transfers – households without children, w = 1	4.6	
At-risk-of-poverty rate after social transfers – households with children, w = 0	54.4	
At-risk-of-poverty rate after social transfers – households with children, 0 < w < 0.5	44.7	
At-risk-of-poverty rate after social transfers – households with children, w<1 and w>=0.5	18.0	
At-risk-of-poverty rate after social transfers – households with children, w = 1	7.3	
Median of the equivalised disposable household income	17106	
At-risk-of-poverty threshold – single (PPS)	8804	
At-risk-of-poverty threshold – 2 adults, 2 children (PPS)	18489	
Inequality of income distribution S80/S20 income quintile share ratio	5.4	
Relative median at-risk-of-poverty gap – total	21.4	
Relative median at-risk-of-poverty gap – men total	23.0	
Relative median at-risk-of-poverty gap – women total	19.2	
Relative median at-risk-of-poverty gap – 0-17 years	16.6	
Relative median at-risk-of-poverty gap – 18-64 years	23.6	
Relative median at-risk-of-poverty gap – 65+ years	19.2	
Relative median at-risk-of-poverty gap – 18+ years		
Relative median at-risk-of-poverty gap – men, 18-64 years	25.3	
Relative median at-risk-of-poverty gap – men, 65+ years	18.3	
Relative median at-risk-of-poverty gap – men, 18+ years		
Relative median at-risk-of-poverty gap – women, 18-64 years	21.0	
Relative median at-risk-of-poverty gap – women, 65+ years	19.5	
Relative median at-risk-of-poverty gap – women, 18+ years		
Median income below the at-risk-of-poverty threshold – total	14674	

Median income below the at-risk-of-poverty threshold – men total	15214	
Median income below the at-risk-of-poverty threshold – women total	14334	
Median income below the at-risk-of-poverty threshold – 0-17 years	13041	
Median income below the at-risk-of-poverty threshold – 18-64 years	16190	
Median income below the at-risk-of-poverty threshold – 65+ years	12460	
Median income below the at-risk-of-poverty threshold – 18+ years	15278	
Median income below the at-risk-of-poverty threshold – men, 18-64 years	16557	
Median income below the at-risk-of-poverty threshold – men, 65+ years	13256	
Median income below the at-risk-of-poverty threshold – men, 18+ years	15892	
Median income below the at-risk-of-poverty threshold – women, 18-64 years	15793	
Median income below the at-risk-of-poverty threshold – women, 65+ years	11891	
Median income below the at-risk-of-poverty threshold – women, 18+ years	14618	
Dispersion around the risk-of-poverty threshold – 40%		
Dispersion around the risk-of-poverty threshold – 50%		
Dispersion around the risk-of-poverty threshold – 70%		
Before social transfers except old-age and survivor's benefits (i22)		
At-risk-of-poverty rate before social transfers – total	31.0	18713
At-risk-of-poverty rate before social transfers – men total	29.4	9013
At-risk-of-poverty rate before social transfers – women total	32.7	9700
At-risk-of-poverty rate before social transfers – 0-17 years	44.5	3965
At-risk-of-poverty rate before social transfers – 18-64 years	27.2	10743
At-risk-of-poverty rate before social transfers – 65+ years	28.5	4005
At-risk-of-poverty rate before social transfers – 18+ years	27.4	14634
At-risk-of-poverty rate before social transfers – men, 18-64 years	25.5	5069
At-risk-of-poverty rate before social transfers – men, 65+ years	24.4	1876
At-risk-of-poverty rate before social transfers – men, 18+ years	25.2	6886
At-risk-of-poverty rate before social transfers – women, 18-64 years	28.8	5674
At-risk-of-poverty rate before social transfers – women, 65+ years	31.9	2129
At-risk-of-poverty rate before social transfers – women, 18+ years	29.5	7748
Before social transfers including old-age and survivors' benefits (i23)		
At-risk-of-poverty rate before social transfers – total	44.1	18713
At-risk-of-poverty rate before social transfers – men total	41.3	9013
At-risk-of-poverty rate before social transfers – women total	46.8	9700
At-risk-of-poverty rate before social transfers – 0-17 years	45.1	3965
At-risk-of-poverty rate before social transfers – 18-64 years	32.1	10743
At-risk-of-poverty rate before social transfers – 65+ years	87.6	4005
At-risk-of-poverty rate before social transfers – 18+ years	43.8	14634
At-risk-of-poverty rate before social transfers – men, 18-64 years	29.6	5069
At-risk-of-poverty rate before social transfers – men, 65+ years	84.6	1876
At-risk-of-poverty rate before social transfers – men, 18+ years	40.4	6886
At-risk-of-poverty rate before social transfers – women, 18-64 years	34.5	5674
At-risk-of-poverty rate before social transfers – women, 65+ years	90.1	2129
At-risk-of-poverty rate before social transfers – women, 18+ years	47.0	7748
Gini coefficient	33.0	
Mean equivalised disposable income (PPS)		
Gender pay gap		

2.   ACCURACY

Accuracy denotes the closeness of estimates to the true population values.

2.1   Sampling design

2.1.1 Type of sampling

Data for EU-SILC UK 2010 are collected from two sources. First, data are collected by the Office for National Statistics (ONS), using the General Lifestyle Survey. Second, to ensure that EU-SILC is representative of the UK, a sample of approximately 300 households is selected by NISRA (Northern Ireland Statistics and Research Agency) using the Living Conditions Survey (LCS). This small additional sample represents the (approximately) 2% of the UK population that live in Northern Ireland. All of the data analysis and processing is undertaken by ONS.

The EU-SILC GB 2010 survey is based on stratified two-stage sampling design. The sample design in Northern Ireland (NI) is a simple random sample. Stratification of the postcode sectors is done by geographical criteria for GB (based on the10 Government Office regions in England, 5 subdivisions in Scotland, 2 in Wales and 1 in Northern Ireland) into 30 strata. There is an additional stratum for NI. Regions and strata do not exactly map onto each other. There are 30 strata in GB but 37 regions. Some strata contain cases from 2 or more regions and some regions contribute cases to more than one stratum.

In 2010, 12,261 addresses were sampled. Each year approximately 70% of the sample is rolled forward from previous years and the remaining 30% is a new "Wave 1" sample. EU-SILC UK aims to interview all adults aged 16 or over at every household at the sampled address. EU-SILC UK uses a probability, stratified two-stage sample design.

2.1.2 Sampling units (one stage, two stages)

Households are sampled from the small users Postcode Address File (PAF). This is a list of all addresses maintained by the UK Post Office. The PAF files used on our sampling system are updated twice a year. The Postcode address file is ordered by postcode sector, which are similar in size to a UK electoral ward area. The postcode sectors are the Primary Sampling Units (PSU-1) for EU-SILC and the Secondary Sampling Units (PSU-2) are addresses within those sectors.

Initially, postcode sectors were allocated to 30 regions (major strata) in Great Britain. Within each region, postcode sectors were grouped according to selected indicators taken from the 2001 Census. Sectors were initially ranked according to the proportion of households with no car, then divided into three bands containing approximately the same number of households. Within each band, sectors were re-ranked according to the proportion of households with a household reference person in socio-economic groups 1 to 5 and 13, and these bands were then sub-divided into three further bands of approximately equal size. Finally, within each of these bands, sectors were re-ranked according to the proportion of people who were pensioners. As shown in Figure 1 the ranking by pensioners and socio-economic group is carried out in reverse order so as to maximise similarity between one band and the next.

Figure 1
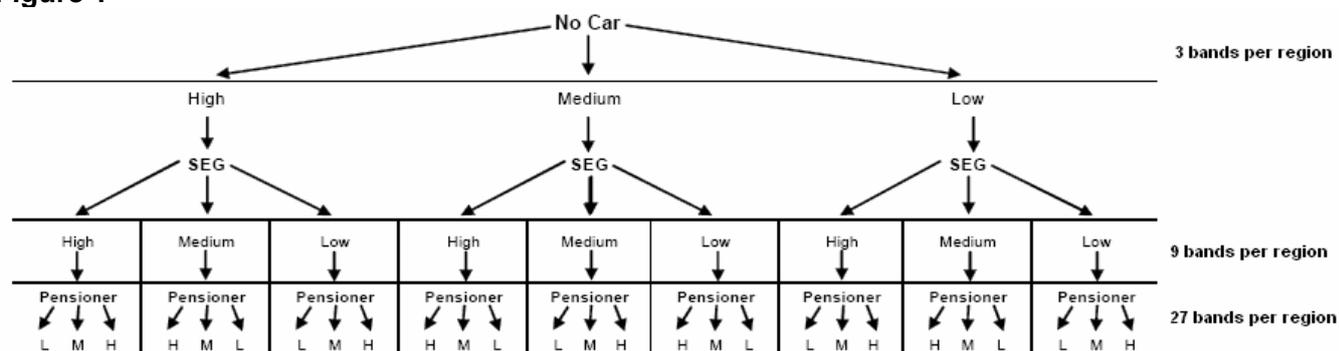
A systematic sample of postcode sectors (PSUs) was selected from the ordered frame, resulting in an implicit stratification of the sample. PSUs were then paired up to form pseudo minor strata. The implicit stratification of the sample makes it possible to increase the precision of the survey estimates while ensuring good geographical coverage. It is just the major strata that are provided in the micro-data D-file.

2.1.3 Stratification and sub-stratification criteria

Stratification involves the division of the population into sub-groups, or strata, from which independent samples are taken. This ensures that a representative sample is drawn with respect to the stratifiers. Stratification of a sample can lead to substantial improvements in the precision of the survey estimators provided that the strata are chosen such that members of the same strata are as similar as possible in respect of the characteristics of interest. The bigger the differences between strata, the greater the gain in the precision of the survey estimates.

Initially, postcode sectors for GB were allocated to 30 major strata. These were based on the 10 Government Office Regions in England (sub-divided between the former Metropolitan and non-Metropolitan counties. In addition London was subdivided into quadrants (Northwest, Northeast, Southwest and Southeast) with each quadrant being divided into inner and outer areas (Annex 1). Using a finer division of London significantly improves the precision of estimates), 5 subdivisions in Scotland, 2 in Wales and 1 in Northern Ireland.

It should be noted that regions and strata do not exactly map onto each other. There are 30 strata in GB but 37 regions. Some strata contain cases from 2 or more regions and some regions contribute cases to more than one stratum.

Within each major stratum, postcode sectors were then stratified according to selected indicators taken from the 2001 Census. Sectors were initially ranked according to the proportion of households with no car, then divided into three bands containing approximately the same number of households. Within each band, sectors were re-ranked according to the proportion of households with a household reference person in socio-economic groups 1 to 5 and 13 (Annex 2), and these bands were then sub-divided into three further bands of approximately equal size. Finally, within each of these bands, sectors were re-ranked according to the proportion of people who were pensioners.

Major strata were then divided into minor strata with equal numbers of addresses, the number of minor strata per major strata being proportionate to the size of the major stratum, so larger PSUs have more chance of being selected. In 2005 the frame was divided into 720 strata. In 2006, 588 of these were rolled forward to the next wave in the longitudinal design. There were 132 pseudo wave 4 strata which were replaced and an additional 96 strata added, giving 816 for 2006. In 2007, 648 of these were again rolled forward to the next wave in the longitudinal design. There were 168 pseudo wave 4 strata which were replaced and an additional 60 strata added, giving 876 for 2007. In 2008, 684 of these were rolled forward to the next wave in the longitudinal design. There were 192 pseudo wave 4 strata which were replaced and an additional 36 strata added, giving 912 for 2008. In 2009 and 2010, 684 of these were rolled forward to the next wave in the longitudinal design. There were 228 pseudo wave 4 strata which were replaced, giving 912 for 2009/10.

Each PSU formed a quota of work for an interviewer. Within each of the 228 new PSUs, 23 addresses were randomly selected.

2.1.4 Sample size and allocation criteria

Member states have to achieve a Minimum Effective Sample size which for the UK is 7,500 households and 13,750 persons aged 16 or older.

In 2010, 12,261 addresses were selected for survey, yielding a sample of 8,109 eligible households. Within these households 18,713 people were residents of whom 15,120 were eligible for a personal interview (aged at least 16 years of age).

2.1.5 Sample selection schemes

EU-SILC GB uses a two-stage sampling scheme:

1. Selection of a Primary Sampling Units (PSUs) utilising a probability proportional to size sampling scheme.
2. Systematic random sampling of 23 addresses within a PSU.

The sample design in Northern Ireland (NI) is a simple random sample.

2.1.6 Sample distribution over time

Household interviews for EU-SILC UK are spread evenly throughout the calendar year. Typically a small number of interviews will be completed in January of the following year.

Table 0.1   Distribution of the EU-SILC UK sample over time[1]

Date of interview	Number of households
01/01/10 – 31/01/10	551
01/02/10 – 28/02/10	629
01/03/10 – 31/03/10	687
01/04/10 – 30/04/10	665
01/05/10 – 31/05/10	760
01/06/10 – 30/06/10	735
01/07/10 – 31/07/10	699
01/08/10 – 31/08/10	687
01/09/10 – 30/09/10	647
01/10/10 – 31/10/10	729
01/11/10 – 30/11/10	759
01/12/10 – 31/12/10	397
01/01/11 – 31/01/11	157
01/02/11 – 28/02/11	7
Total	8109

1 Information based on data presented in the Household Data file.

The survey was carried out using Computer Assisted Personal Interviewing (CAPI) on laptop computers by face-to-face interviewers. In addition, some telephone interviewers were used to convert EU-SILC UK proxy interviews to full interviews.

2.1.7 Renewal of sample: rotational groups

In the UK, 2005 was the initial year for the EU-SILC survey. In 2005, the GHS adopted a new sample design in line with EU-SILC requirements, changing from a cross-sectional to a longitudinal design.

The new sample design follows a four-yearly sample rotation in which households remain in the sample for four years (waves) and one quarter of the sample is replaced each year. Each quarter of the sample is known as a replication.

Table 0.2   Renewal of sample: Rotational groups

Sample replication	Year 1 (2005)	Year 2 (2006)	Year 3 (2007)	Year 4 (2008)	Year 5 (2009)	Year 6 (2010)
1	1st					
2	1st	2nd				
3	1st	2nd	3rd			
4	1st	2nd	3rd	4th		
5		1st	2nd	3rd	4th	
6			1st	2nd	3rd	4th
7				1st	2nd	3rd
8					1st	2nd
9						1st

From 2008 the system has been fully established and the sample for any one year consists of 4 replications which have been in the survey for 1, 2, 3 or 4 years.

2.1.8 Weightings

This section describes the methods used to calculate weights for the UK EU-SILC 2010 survey. The methods are broadly consistent with those recommended by Eurostat. The longitudinal survey weights are derived through combining the appropriate longitudinal base weights for each panel, according to the number of panels used to create each of the output datasets. The longitudinal base weights essentially are attrition-adjusted, carried-forward Wave 1 cross-sectional weights for a given panel.

Adjustments, in general, are made to improve the accuracy of data, meaning the closeness of survey-based estimations or computations to the 'true' values. These adjustments are made at Wave 1 through model-based non response adjustments and calibration. For subsequent waves the inverse of the response propensities is used as an attrition weight.

2.1.8.1   The Horvitz-Thompson design weight

Addresses are selected for the first wave of each panel using a random probability design, the detail of which is outlined in the preceding sections of this report. The design weight for a household is calculated as the inverse of the inclusion probability for the samples address e.g. a standard Horvitz-Thompson (HT) estimator. The HT estimator is then adjusted by a two-step procedure to produce the Wave 1 cross-sectional weight.

2.1.8.2   Initial non-response adjustments

Non-response to the surveys (GLF and LCF) used to produce the EU-SILC data can introduce bias into the estimator. For the UK data, an attempt is made to correct for this bias through weighting households based on their estimated propensity to respond. For EU-SILC, non-response can occur at any given wave.

A non-response model exists for the GLF which comprises a number of adjustment classes. These classes were constructed by linking households selected for the 2001 General Household Survey (the earlier version of the GLF) to the 2001 Census. The Census is mandatory in the UK and so both responders and non-responders to the GLF can be matched to Census records. Response classes were formed based on households' propensity to respond to the survey, condition on certain combinations of characteristics available in both the Census and the survey. The reciprocal of the response propensity is used as the non-response weight.

2.1.8.3   Calibration to population totals

Calibration is used in the weighting procedure both to improve precision and to ensure consistency with known population totals. The EU-SILC sample is based on the population of private households, which means that the population totals used in the weighting need to be those created from counts of people living in private households.

At the time the weights were being constructed the most appropriate version of the population totals available for weighting were those produced for the British Labour Force Survey (LFS). The LFS derives household population estimates by excluding residents of institutions from population projections based on mid-year estimates. However, certain groups in institutions are included in the population totals e.g. nurses in nursing homes.

The population information and EU-SILC UK data were grouped into twelve age by sex categories and into six regional categories to form weighting classes. The initial non-response adjusted HT weight is adjusted, using Stats Canada's Generalized Estimation System (GES), so that the final weights ensure that the weighted totals for the above demographic categories match the population totals.

Age-group by sex

0-4	Males and Females		
5-15	Males and Females		
16-24	Males	16-24	Females
25-44	Males	25-44	Females
45-64	Males	45-64	Females
65-74	Males	65-74	Females
75+	Males	75+	Females

Regions

Metropolitan
Non-metropolitan
London
South East
Wales
Scotland
Northern Ireland

2.1.8.4   The longitudinal base-weight

The longitudinal base-weight is the foundation block for the creation of each of the two, three and four year panel final longitudinal weights, RB062, RB063 and RB064 respectively. Necessarily, these weights are only given for the last year (e.g. 2008).

For a given rotational panel, the longitudinal base weight (RB060) at Wave 1 corresponds to the initial final cross-sectional calibration described immediately above e.g. the design weight adjusted for non-response and calibrated to the UK population totals. It is then adjusted for attrition at each subsequent wave, as described below.

2.1.8.5   Non-response adjustments (attrition in subsequent waves)

Attrition is a form of non-response found on longitudinal surveys between waves. The 2010 EU-SILC is the survey's fifth year in the UK; this meant that approximately three-quarters of sampled households had been surveyed in 2010. As these sampled households had previously participated in the survey, details of respondents and non-respondents were

linked back to their corresponding information at the previous wave. Logistic regression was used to model the likelihood of response in the current wave against the characteristics of households at their interview in the previous wave. A variety of household variables such as household composition, tenure, region and ability to make ends meet were tested for inclusion. Characteristics determined as significant by the logistic regression model (at the five per cent significance level) were used to weight for this attrition. The variables reaching significance are listed in **Table 0.3** below.

Table 0.3   Variables included in the logistic regression model of household attrition in 2010

Variable
When household reference person arrived in the UK
Ethnicity of household reference person
Number of partial interviews in household
Dwelling type
Tenure
Government Office Region
Age of household reference person
Number of people in the household who refused or answered 'don't know' to a known sensitive question
Current wave
Number of calls made to the household to arrange the interview

2.1.8.6   Adjustments to external data (longitudinal population)

For any given rotational panel, we define the longitudinal population at any calendar time as the initial private household population at the time the sample was drawn minus those people who have moved out of the population between sampling and the interview time. We therefore construct out estimate of the longitudinal population initially using the population totals at the first wave. We then subtract number of deaths and out-migrations between sampling and the survey to estimate the longitudinal population.

Unfortunately we do not have robust estimates of institutionalisation – the other major potential source of losses to the private household population, so we do not adjust the longitudinal population for such loss. Consequently, we expect our estimates of the longitudinal population to be on the high.

For example, 2007 wave 2 would use the 2006 mid year population estimates minus deaths and emigrants in 2007. 2008 wave 3 would also use the 2006 population estimate but would remove the 2008 deaths and emigrants figures as well as the 2007 deaths and emigrant figures.

The deaths estimate for the UK is calculated using the 'Ministry of Justice Annual Report of Coroners Statistics in England and Wales. The number of emigrants for the UK is taken form the published 'ONS International Migration Estimates'

2.1.8.7　　　Final longitudinal weight (subsequent waves)

The final longitudinal weight takes the trimmed and population adjusted weight described above and averages over the relevant number of panels (e.g. three panels for the two-wave longitudinal dataset to create RB062. A number of special circumstances are worth noting.

In general, co-residents joining sample households receive a zero longitudinal base-weight. Immigrants are assigned a non-zero base weight value calculated as the average weight of existing household members and newborns receive their mother's weight.

RB060 is produced from the base weights and is scaled so that the sum of the weights over those individuals in scope for the longitudinal dataset equals the estimated size of the relevant longitudinal population.

For the longitudinal weights (RB062, RB063, RB064) persons that have moved in from outside the sample, are newly born, have moved out or dies are given a zero weight.

2.1.8.8　　　Final household cross-sectional weight

The final cross sectional weight (DB090) is calculated from the base weights.

2.1.9 Substitutions

In 2010, no substitutions were made.

2.2　　Sampling errors

Sampling errors: refers to the variability that occurs at random because of the use of a sample rather than a census.

2.2.1 Standard errors and effective sample size

The design effect for 2010 is not yet available. At the time of writing it is in the process of being calculated.

Table 0.4 Mean, Total Number of Observations and Standard Errors for Income Components (unweighted)

Income Component	Mean	Number of Observations	Standard Error
Total household income variables			
Total household gross income	35,578	8,109	518.5
Total disposable household income	27,139	8,109	323.4
Total disposable household income before social transfers other than old-age and survivor benefits	24,452	8,109	343.8
Total disposable household income before social transfers including old-age and survivors' benefits	17,958	8,109	340.6
Gross income components at household level			
Imputed rent	2,980	8,109	36.9
Income from rental of a property or land	481	8,109	46.8
Family/child related allowances	881	8,109	26.1
Social exclusion not elsewhere classified	410	8,109	16.9
Housing allowances	540	8,109	19.6
Regular inter-household cash transfer received	85	8,109	9.4
Interest, dividends, etc.	597	8,109	41.0
Interest repayments on mortgage	1,248	8,109	30.8
Income received by people aged under 16	9	8,109	1.5
Regular taxes on wealth	1,089	8,109	10.4
Regular inter-household cash transfer paid	170	8,109	19.7
Tax on income and social contributions	7,180	8,109	194.4
Gross income components at personal level			
Employee cash or near cash income	11,392	15,120	198.8
Non-cash employee income	140	15,120	8.4
Employer's social insurance contribution	1,937	15,120	40.2
Contributions to individual private pension plans	214	15,120	10.9
Cash benefits or losses from self-employment	1,857	15,120	164.7
Value of goods produced for own consumption	0	15,120	0.0
Pension from individual private plans	249	15,120	23.0
Unemployment benefits	67	15,120	11.5
Old-age benefits	3,741	15,120	77.8
Survivor's benefits	24	15,120	3.7
Sickness benefits	113	15,120	6.3
Disability benefits	148	15,120	7.4
Education-related allowances	36	15,120	4.8
Gross monthly earnings for employees	1,120	12,444	18.3

Table 0.5   Mean, Total Number of Observations and Standard Errors for Income Components (weighted)

Income Component	Mean	Number of Observations (000's)	Standard Error
Total household income variables			
Total household gross income	36,632	26,162	558.5
Total disposable household income	27,735	26,162	345.9
Total disposable household income before social transfers other than old-age and survivor benefits	24,890	26,162	371.7
Total disposable household income before social transfers including old-age and survivors' benefits	19,733	26,162	353.9
Gross income components at household level			
Income from rental of a property or land	453	26,162	51.6
Family/child related allowances	891	26,162	19.7
Social exclusion not elsewhere classified	340	26,162	16.2
Housing allowances	582	26,162	21.9
Regular inter-household cash transfer received	105	26,162	20.9
Interest, dividends, etc.	510	26,162	37.4
Interest repayments on mortgage	1,400	26,162	35.8
Income received by people aged under 16	10	26,162	2.0
Regular taxes on wealth	1,054	26,162	10.2
Regular inter-household cash transfer paid	190	26,162	31.6
Tax on income and social contributions	7,653	26,162	213.1
Gross income components at personal level			
Employee cash or near cash income	12,409	49,818	224.0
Non-cash employee income	140	49,818	8.7
Employer's social insurance contribution	2,088	49,818	46.0
Contributions to individual private pension plans	218	49,818	11.7
Cash benefits or losses from self-employment	1,857	49,818	158.3
Value of goods produced for own consumption	0	49,818	0
Pension from individual private plans	184	49,818	21.0
Unemployment benefits	71	49,818	8.5
Old-age benefits	2,899	49,818	69.6
Survivor's benefits	20	49,818	3.5
Sickness benefits	120	49,818	7.5
Disability benefits	159	49,818	9.0
Education-related allowances	48	49,818	5.9
Gross monthly earnings for employees	1,230	40,627	20.3

2.3   Non-sampling errors

Survey results are subject to various sources of error. The total error in a survey estimate is the difference between the estimate derived from the sample data collected and the true value for the population.

2.3.1 Sampling frame and coverage errors

The target population of EU-SILC UK is all private households and their current members at the time of data collection. Persons living in collective households and in institutions are excluded from the target population. However, from 2008 students who are living in halls of residence are also included as residents of the household sampled even if they are not *in situ* at the time of the interview.

There are no known coverage errors associated with EU-SILC UK.

Table 0.6   Contact at address

	Total			Wave 1 only		
	Frequency	**Percent**	**Cumulative percent**	**Frequency**	**Percent**	**Cumulative percent**
Address contacted (11)	11131	90.8	90.8	4844	90.0	90.0
Address cannot be located (21)	414	3.4	94.2	110	2.0	92.0
Address unable to access (22)	3	0.0	94.2	2	0.0	92.1
Address does not exist or is non-residential or is unoccupied or not principal address (23)	404	3.3	97.5	404	7.5	99.6
Missing	309	2.5	100.0	22	0.4	100.0
Total	12261	100.0		5398	100.0	

2.3.2 Measurement and processing errors

2.3.2.1   Measurement errors

Measurement error occurs when data are consistently biased in a certain way, such that the variation from the true values for the population will not average to zero over repeats of the survey. For example, if a certain section of the population is excluded from the sampling frame, estimates may be biased because non-respondents to the survey have different characteristics to respondents. Another cause of bias may be that interviewers systematically influence responses in one way or another. Substantial efforts have been made to avoid measurement errors, for example, through extensive interviewer training and by weighting the collected data for non-response. With regards interviewer training, face-to-face and telephone interviewers who work on EU-SILC UK are recruited only after careful selection procedures after which they take part in an initial training course. Before working on EU-SILC they attend a briefing and new recruits are always supervised either by being accompanied in the field by a Field Manager or monitored by a Telephone Interviewing Unit supervisor (TIUs). All interviewers who continue to work on EU-SILC are observed regularly in their work.

2.3.2.2 Processing errors

Data collection is carried out by face-to-face interviewers using Computer Assisted Personal Interviewing (CAPI) on laptop computers. Blaise software (developed by Statistics Netherlands) is used, which is an integrated system for survey processing. The use of Blaise enables a reduction in processing-errors as data can be "checked" as it is entered by interviewers. For example, all income data is "checked" at the point of collection to make sure that Net values are not greater than Gross values for an individual.

Data is converted from Blaise to SPSS and is edited using this software. At this stage there is further checking for the consistency and plausibility of data.

2.3.3 Non-response errors

There are two main types of non-response errors - unit non-response and item non-response.

In strictly controlled circumstances, interviewers are allowed to conduct a proxy interview with a close household member to reduce unit non-response errors. Proxy interviews are only used where it has proved impossible, despite repeated calls, to contact a particular member of a household in person. In these cases, some questions are omitted, for example those which are more subjective such as those relating to health.

For the 2010 survey all income components were asked by proxy if it was not possible to obtain an interview with the household, either in person, or at a later date by telephone. When it has not proved possible to collect income data it has been imputed.

2.3.3.1 Achieved sample size

Table 0.7   Sample size and accepted interviews

	Total
Persons 16 years and older	15,120
Number of accepted personal questionnaires	15,120
Accepted household interviews	8,109

2.3.3.2 Unit non-response

Household non-response rates (NRh):

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

Ra = Number of addresses successfully contacted / Number of valid addresses selected.
Rh = Number of household interviews completed and accepted for data base / number of eligible households at contacted addresses.

Ra = 11131(DB120 = 11) /12261(DB120 = all) – 404 (DB120 = 23).
Ra = 0.94

Rh = 8109(DB135 = 1) / 11131 (DB120 = 1).
Rh = 0.73

NRh = (1-(0.94*0. 73))*100
NRh = 32%

Individual non-response rates (NRp):

NRp = (1-(Rp))*100

Rp = Number of personal interviews completed / number of eligible individuals in the household whose interviews were completed and accepted for the database.

Rp = 15646(RB250 = 11 + 12 + 13) / 15646 (RB245 = 1 + 2 + 3)
Rp = 1

Overall individual non-response rates (NRp):

NRp = (1-(0.94*0. 73*1)*100
NRp = 32%

2.3.3.3   Distribution of households

Table 0.8   Distribution of original units by 'record of contact at address'

	Total		Wave 1 addresses only	
	Number	**Percentage**	**Number**	**Percentage**
Total (DB120 = 11 to 23)	**11952**	**100**	**5360**	**100**
Address contacted (DB120 = 11)	11131	93.1	4844	90.4
Address non-contacted (DB120 = 21 to 23)	821	6.9	516	9.6
Total address non-contacted (DB120 = 21 to 23)	**821**	**100**	**516**	**100**
Address cannot be located (DB120 = 21)	414	50.4	110	21.3
Address unable to access (DB120 = 22)	3	0.4	2	0.4
Address does not exist or is non-residential or is unoccupied or not principal residence (DB120 = 23)	404	49.2	404	78.3

Table 0.9   Distribution of address contacted by 'household questionnaire result' and by household interview acceptance

	Total		Wave 1 addresses only	
	Number	**Percentage**	**Number**	**Percentage**
Total	**11131**	**100**	**4844**	**100**
Household questionnaire completed (DB130 = 11)	8109	72.9	2912	60.1
Interview not completed (DB130 = 21 to 24)	3022	27.1	1932	39.9
Total interview not completed (DB130 = 21 to 24)	**3022**	**100**	**1932**	**100**
Refusal to co-operate (DB130 = 21)	2092	69.2	1383	71.6
Entire household temporarily away for duration of fieldwork (DB130 = 22)	0	0	0	0
Household unable to respond (illness, incapacity) (DB130 = 23)	335	11.1	156	8.1
Other reasons (DB130 =24)	595	19.7	393	20.3
Household questionnaire completed (DB135 = 1+2)	**8109**	**100**	**2912**	**100**
Interview accepted for database (DB135 = 1)	8109	100	2912	100
Interview rejected (DB135 = 2)	0	0	0	0

2.3.3.4   Distribution of substituted units

No substituted units were used as part of EU-SILC 2010.

2.3.3.5   Item non-response

Table 0.10   Distribution of item non-response (before imputation)

Variable	Full Information		Missing Value	
	Count	**Per cent**	**Count**	**Per cent**
Household gross income	4,925	60.7	3,184	39.3
Total disposable household income	4,894	60.4	3,215	39.6
Total disposable household income before social transfers other than old-age and survivor's benefits	4,624	57.0	3,485	43.0
Total disposable household income before social transfers including old-age and survivors' benefits	4,024	49.6	4,085	50.4
Gross income components at household level				
Income from rental of a property or land	62	0.8	8,047	99.2
Family/child related allowances	208	2.6	7,901	97.4
Social exclusion not elsewhere classified	172	2.1	7,937	97.9
Housing allowances	129	1.6	7,980	98.4
Regular inter-household cash transfer received	6	0.1	8,103	99.9
Interest, dividends etc	595	7.3	7,514	92.7
Interest repayments on mortgage	78	1.0	8031	99.1
Income received by people aged under 16	4	0.0	8,105	100.0
Regular inter-household cash transfer paid	7	0.1	8,102	99.9
Tax on income and social contributions	3,759	46.6	4,350	53.6
Gross income components at personal level				
Employee cash or near cash income	5,644	37.3	9,476	62.7
Non-cash employee income	17	0.1	15,103	99.9
Contributions to individual private pension plans	343	2.3	14,777	97.7
Cash benefits or losses from self-employment	227	1.5	14,893	98.5
Value of goods produced for own-consumption	0	0.0	15,120	100.0
Pension from individual private plans	242	1.6	14,878	98.4
Unemployment benefits	10	0.1	15,110	99.9
Old-age benefits	1,175	7.8	13,945	92.2
Survivor's benefits	13	0.1	15,107	99.9
Sickness benefits	77	0.5	15,043	99.5
Disability benefits	121	0.8	14,999	99.2
Education-related allowances	11	0.1	15,109	99.9
Gross monthly earnings for employees	5612	37.1	9,508	62.9

Table 0.11   Distribution of item non-response (after imputation)

Variable	Full Information		Missing Value	
	Count	Per cent	Count	Per cent
Household gross income	8,109	100	0	0
Total disposable household income	8,109	100	0	0
Total disposable household income before social transfers other than old-age and survivor's benefits	8,109	100	0	0
Total disposable household income before social transfers including old-age and survivors' benefits	8,109	100	0	0
Gross income components at household level				
Income from rental of a property or land	8,109	100	0	0
Family/child related allowances	8,109	100	0	0
Social exclusion not elsewhere classified	8,109	100	0	0
Housing allowances	8,109	100	0	0
Regular inter-household cash transfer received	8,109	100	0	0
Interest, dividends etc	8,109	100	0	0
Interest repayments on mortgage	8,109	100	0	0
Income received by people aged under 16	8,109	100	0	0
Regular inter-household cash transfer paid	8,109	100	0	0
Tax on income and social contributions	8,109	100	0	0
Gross income components at personal level				
Employee cash or near cash income	15,120	100	0	0
Non-cash employee income	15,120	100	0	0
Contributions to individual private pension plans	15,120	100	0	0
Cash benefits or losses from self-employment	15,120	100	0	0
Value of goods produced for own-consumption	15,120	100	0	0
Pension from individual private plans	15,120	100	0	0
Unemployment benefits	15,120	100	0	0
Old-age benefits	15,120	100	0	0
Survivor's benefits	15,120	100	0	0
Sickness benefits	15,120	100	0	0
Disability benefits	15,120	100	0	0
Education-related allowances	15,120	100	0	0
Gross monthly earnings for employees	15,120	100	0	0

2.3.3.6 Total item non-response

Table 0.12 Number of observations and total item non-response

	Number of sample observations	Number of sample observations not taken into account due to item non-response	Non-response at individual level (if applicable)	Non-response at household level
At-risk-of-poverty after social transfers – total	18713	0	0%	32%
At-risk-of-poverty after social transfers – men total	9013	0	0%	32%
At-risk-of-poverty after social transfers – women total	9700	0	0%	32%
At-risk-of-poverty after social transfers – 0-17 years	3965	0	0%	32%
At-risk-of-poverty after social transfers – 18-24 years	1245	0	0%	32%
At-risk-of-poverty after social transfers – 25-49 years	5681	0	0%	32%
At-risk-of-poverty after social transfers – 50-64 years	3846	0	0%	32%
At-risk-of-poverty after social transfers – 65+ years	4005	0	0%	32%
At-risk-of-poverty after social transfers – 18+ years	14748	0	0%	32%
At-risk-of-poverty after social transfers – 18-64 years	10743	0	0%	32%
At-risk-of-poverty after social transfers – 50-64 years	3846	0	0%	32%
At-risk-of-poverty after social transfers – men 18-24 years	618	0	0%	32%
At-risk-of-poverty after social transfers – men 25-49 years	2656	0	0%	32%
At-risk-of-poverty after social transfers – men 50-64 years	1817	0	0%	32%
At-risk-of-poverty after social transfers – men 65+ years	1876	0	0%	32%
At-risk-of-poverty after social transfers – men 18+ years	6945	0	0%	32%
At-risk-of-poverty after social transfers – men 18-64 years	5069	0	0%	32%
At-risk-of-poverty after social transfers – men 50-64 years	1817	0	0%	32%
At-risk-of-poverty after social transfers – women 18-24 years	627	0	0%	32%
At-risk-of-poverty after social transfers – women 25-49 years	3025	0	0%	32%
At-risk-of-poverty after social transfers – women 50-64 years	2029	0	0%	32%
At-risk-of-poverty after social transfers – women 65+ years	2129	0	0%	32%
At-risk-of-poverty after social transfers – women 18+ years	7803	0	0%	32%
At-risk-of-poverty after social transfers – women 18-64 years	5674	0	0%	32%

At-risk-of-poverty after social transfers – women 50-64 years	2029	0	0%	32%
At-risk-of-poverty after social transfers – employed	7392	0	0%	32%
At-risk-of-poverty after social transfers – unemployed	6454	0	0%	32%
At-risk-of-poverty after social transfers – retired	4146	0	0%	32%
At-risk-of-poverty after social transfers – other inactive	1950	0	0%	32%
At-risk-of-poverty after social transfers – men, employed	3775	0	0%	32%
At-risk-of-poverty after social transfers – men, unemployed	2677	0	0%	32%
At-risk-of-poverty after social transfers – men, retired	1790	0	0%	32%
At-risk-of-poverty after social transfers – men, other inactive	656	0	0%	32%
At-risk-of-poverty after social transfers – women, employed	3617	0	0%	32%
At-risk-of-poverty after social transfers – women, unemployed	3777	0	0%	32%
At-risk-of-poverty after social transfers – women, retired	2356	0	0%	32%
At-risk-of-poverty after social transfers – women, other inactive	1294	0	0%	32%
At-risk-of-poverty rate after social transfers – single, <65 years	1105	0	0%	32%
At-risk-of-poverty rate after social transfers – single, 65+ years	1273	0	0%	32%
At-risk-of-poverty rate after social transfers – single, male	952	0	0%	32%
At-risk-of-poverty rate after social transfers – single, female	1426	0	0%	32%
At-risk-of-poverty rate after social transfers – single, total	2378	0	0%	32%
At-risk-of-poverty rate after social transfers – 2 adults, no children, both <65	2824	0	0%	32%
At-risk-of-poverty rate after social transfers – 2 adults, no children, at least one 65+	2832	0	0%	32%
At-risk-of-poverty rate after social transfers – 3 or more adults	1669	0	0%	32%
At-risk-of-poverty rate after social transfers – single parent, at least one child	1323	0	0%	32%
At-risk-of-poverty rate after social transfers – 2 adults, 1 child	1728	0	0%	32%
At-risk-of-poverty rate after social transfers – 2 adults, 2 children	2984	0	0%	32%
At-risk-of-poverty rate after social transfers – 2 adults, 3+ children	1650	0	0%	32%
At-risk-of-poverty rate after social transfers – 3 or more adults with children	1284	0	0%	32%
At-risk-of-poverty rate after social	9703	0	0%	32%

transfers – households without children				
At-risk-of-poverty rate after social transfers – households with children	8969	0	0%	32%
At-risk-of-poverty after social transfers – owner or rent-free	13808	0	0%	32%
At-risk-of-poverty after social transfers – tenant	4901	0	0%	32%
At-risk-of-poverty after social transfers – households without children, w=0[1]				
At-risk-of-poverty rate after social transfers – households without children, 0<w<1				
At-risk-of-poverty after social transfers – households without children, w=1				
At-risk-of-poverty after social transfers – households with children, w=0				
At-risk-of-poverty after social transfers – households with children 0<w<0.5				
At-risk-of-poverty after social transfers – households with children, w=1				
Median of the equivalised disposable household income				
At-risk-of-poverty threshold – single (PPS)	18713			32%
At-risk-of-poverty threshold – 2 adults, 2 children (PPS)	18713			32%
Inequality of income distribution S80/S20 income quintile share ratio	18713			32%
Relative median at-risk-of-poverty gap – total				
Relative median at-risk-of-poverty gap – men total				
Relative median at-risk-of-poverty gap – women total				
Relative median at-risk-of-poverty gap – 0-17 years				
Relative median at-risk-of-poverty gap – 18-64 years				
Relative median at-risk-of-poverty gap – 65+ years				
Relative median at-risk-of-poverty gap – 18+ years				
Relative median at-risk-of-poverty gap – men, 18-64 years				
Relative median at-risk-of-poverty gap – men, 65+ years				
Relative median at-risk-of-poverty gap – men, 18+ years				
Relative median at-risk-of-poverty gap – women, 18-64 years				
Relative median at-risk-of-poverty gap – women, 65+ years				
Relative median at-risk-of-poverty gap – women, 18+ years				

Median income below the at-risk-of-poverty threshold – total				
Median income below the at-risk-of-poverty threshold – men total				
Median income below the at-risk-of-poverty threshold – women total				
Median income below the at-risk-of-poverty threshold – 0-17 years				
Median income below the at-risk-of-poverty threshold – 18-64 years				
Median income below the at-risk-of-poverty threshold – 65+ years				
Median income below the at-risk-of-poverty threshold – men, 18-64 years				
Median income below the at-risk-of-poverty threshold – men, 65+ years				
Median income below the at-risk-of-poverty threshold – women, 18-64 years				
Median income below the at-risk-of-poverty threshold – women, 65+ years				
Median income below the at-risk-of-poverty threshold – women, 18+ years				
Dispersion around the risk-of-poverty threshold – 40%	18713		0%	32%
Dispersion around the risk-of-poverty threshold – 50%	18713		0%	32%
Dispersion around the risk-of-poverty threshold – 70%	18713		0%	32%
At-risk-of-poverty rate before social transfers – total	18713	0	0%	32%
At-risk-of-poverty rate before social transfers – men total	9013	0	0%	32%
At-risk-of-poverty rate before social transfers – women total	9700	0	0%	32%
At-risk-of-poverty rate before social transfers – 0-17 years	3965	0	0%	32%
At-risk-of-poverty rate before social transfers – 18-64 years	10743	0	0%	32%
At-risk-of-poverty rate before social transfers – 65+ years	4005	0	0%	32%
At-risk-of-poverty rate before social transfers – 18+ years	14634	0	0%	32%
At-risk-of-poverty rate before social transfers – men, 18-64 years	5069	0	0%	32%
At-risk-of-poverty rate before social transfers – men, 65+ years	1876	0	0%	32%
At-risk-of-poverty rate before social transfers – men, 18+ years	6886	0	0%	32%
At-risk-of-poverty rate before social transfers – women, 18-64 years	5674	0	0%	32%
At-risk-of-poverty rate before social transfers – women, 65+ years	2129	0	0%	32%
At-risk-of-poverty rate before social transfers – women, 18+ years	7748	0	0%	32%

Before social transfers including old-age and survivors' benefits				32%
At-risk-of-poverty rate before social transfers – total	18713	0	0%	32%
At-risk-of-poverty rate before social transfers – men total	9013	0	0%	32%
At-risk-of-poverty rate before social transfers – women total	9700	0	0%	32%
At-risk-of-poverty rate before social transfers – 0-17 years	3965	0	0%	32%
At-risk-of-poverty rate before social transfers – 18-64 years	10743	0	0%	32%
At-risk-of-poverty rate before social transfers – 65+ years	4005	0	0%	32%
At-risk-of-poverty rate before social transfers – 18+ years	14634	0	0%	32%
At-risk-of-poverty rate before social transfers – men, 18-64 years	5069	0	0%	32%
At-risk-of-poverty rate before social transfers – men, 65+ years	1876	0	0%	32%
At-risk-of-poverty rate before social transfers – men, 18+ years	6886	0	0%	32%
At-risk-of-poverty rate before social transfers – women, 18-64 years	5674	0	0%	32%
At-risk-of-poverty rate before social transfers – women, 65+ years	2129	0	0%	32%
At-risk-of-poverty rate before social transfers – women, 18+ years	7748	0	0%	32%
Gini coefficient	18713	0	0%	32%
Mean equivalised disposable income	18713	0	0%	32%
Gender pay gap				

2.4 Mode of data collection

Table 0.13   Distribution of RB250 and RB260

	Total
RB250 – Data Status	
Information completed only from interview (11)	15120
Interview completed only from registers (12)	0
Missing	3593
Total	18713
RB260 – Type of interview	
Face-to-face CAPI (2)	13211
Proxy interview (5)	1586
Missing	3916
Total	18713

Household Members 16+ (RB245 = 1 to 3)

Table 0.14   Distribution of household members aged 16 & over by 'RB250'

	Total	RB250 = 11	RB250 = 12	RB250 = 13	RB250 = 21	RB250 = 22	RB250 = 23	RB250 = 31	RB250 = 32	RB250 = 33
Total	15120	15120	0	0	0	0	0	0	0	0
%	100	100	0	0	0	0	0	0	0	0

Household Members 16+ (RB245 = 2)
EU-SILC 2010 (UK) did not use substituted respondents.

Household Members 16+ (RB245 = 3)
EU-SILC 2010 (UK) did not use substituted respondents.

Household Members 16+ (RB245 = 1 to 3) and RB250 = 11 or 13

Table 0.15   Distribution of household members aged 16 & over by 'RB260'

	Total	RB260 = 1	RB260 = 2	RB260 = 3	RB260 = 4	RB260 = 5	Missing
Total	15120	0	13211	0	0	1586	323
%	100	0	87.4	0	0	10.5	2.1

Household Members 16+ (RB245 = 2) and RB250 = 11 or 13
EU-SILC 2010 (UK) did not use substituted respondents.

Household Members 16+ (RB245 = 3)
EU-SILC 2010 (UK) did not use substituted respondents.

2.5   Interview duration

Table 0.16   Interview duration in minutes (mean)

Questionnaire	Frequency	Mean (minutes)
Household Questionnaire	8109	16.0
Individual Questionnaires within household	15120	51.1
Total (Household + Individual)	8109	67.1

The EU-SILC questions are included as part of the General Lifestyle Survey questionnaire. The total interview time for the GLF and EU-SILC questions is shown in the table above.

2.6   Imputation procedure

The strategy used to impute UK EU-SILC was consistent with the options proposed in the following Eurostat task-force documents associated with donor-based imputation methodology:

>EU-SILC 74/02
>
>EU-SILC 136/04
>
>EU-SILC 154/05

The UK EU-SILC Imputation Strategy was developed with the primary aims of imputing for all item level missingness, resolving inconsistencies, and preserving both cross-sectional and longitudinal relationships in the responses for the households and persons affected. The strategy was also designed to preserve the maximum amount of observed data.

Meeting the aims of the strategy was not trivial as the cross-sectional and longitudinal correlations were both nested and complex. In any one year, the UK EU-SILC dataset contains over 400 routing and income variables: routing variables indicate whether or not the respondent receives an amount; whilst the amount itself follows on in one or more consecutive variables. Missing values may be present in both the routing and the amounts collected.

Further complications include:
- legal constraints which make some combinations of the routing variables invalid;
- highly correlated relationships amongst subsets of the variables, for example: earnings before and after taxation followed by an associated time period for which the payment relates;
- the panel aspect of the survey introduces further correlations between years in addition to those within year.

To meet the aims of the imputation strategy the ONS implemented an iterative, two-stage imputation process: Stage 1 focused on the imputation of missing routing; Stage 2 focused on the imputation of missing amounts and time periods.

The imputation process was supported by statistical tools and used standard statistical techniques for panel data, including:
- SAS (Statistical Analysis System) – to facilitate deductive imputation. This was applied to correct for missing values by implementing propositional relationships in the data based on logical rules and legal constraints. For example, using gross values with auxiliary variables to derive missing net values. SPSS AnswerTree - to identify key predictors to partition the data into homogeneous classes for subsequent imputation.

- CANCEIS (CANadian Census Edit and Imputation System) - for stochastic imputation. CANCEIS implements a highly efficient nearest neighbour imputation method that preserves the shape of the distribution whilst also estimates and maintains observed relationships and distributional parameters. Stochastic imputation ensures less distortion in the estimates of variance. Asymmetric trimming was also applied as a refinement to exclude outlying values which might have otherwise caused excessive influence.

The quality of the final data was validated in two ways: by calculating expected values; and observing the pre-and post imputation distributions.

2.7   Imputed rent

A UK EU-SILC imputed rent variable was supplied for 2010. Estimates of imputed rent were generated through the use of hedonic regression modelling, using the Heckman Two-Step method. The explanatory variables used in the regression were region, type of dwelling (flat, semidetached/terraced house, detached house), ownership of a car, value of dwelling (Council Tax band, except Northern Ireland), thermal comfort (ability to keep home adequately warm) and seniority (Year of contract). The Heckman Two-Step procedure requires the dependent variable, in this case rent, to be converted to a log linear variable. Hence, predicted imputed rent was estimated as log linear variable. A back-log transformation was done to produce imputed rent in its proper form.

2.8   Modelled Variables

In 2010 UK EU-SILC the process for a small number of benefit data calculations were changed, in order to improve the estimates and provide efficiencies to the production process. As a result of these improvements some small changes to the data were observed. These changes affected the calculation of tax credit adjustments (affecting variables HY050G HY060G and HY140G), winter fuel payments (PY100G) and Christmas Bonus (PY100G). In the case of tax credit adjustments, in UK EU-SILC the principal applied is that tax credits (either child tax credit, or working family tax credit) are treated as negative taxation until tax is zero (at a household level) and after which they are treated as a benefit. The new process has improved the apportionment of tax credits between taxes and benefits so that they better reflect the underlying principal - however the net affect on disposable income (HY020) is unchanged. Winter fuel payments and Christmas bonuses amounts are imputed to those based on the qualifying criteria for each amount - in 2010 EU-SILC the method was undertaken within the derivation program for the first time using a slightly improved method.

2.9   Company cars

In the UK, company cars are taxed based on their CO_2 emissions. Therefore, UK EU-SILC assigns the benefit of having access to a company car as being equal to the level of tax. However, it is difficult to estimate the level of tax, and therefore the following method is used.

EU-SILC UK asks several questions about company cars. First, the survey establishes whether the household has any company cars. Second, it establishes what the manufacturer's list price for the vehicle was when it was new. If the respondent is unable to provide an answer, they are asked which price band they think the company car sits in. If the respondent gives a band price the answer is translated into a mid-point price. For example, a Mazda saloon with a band price between £10,001-£13,000 would be given a 'list' price of £11,500.

The estimation of the value of using a company car for private purposes (excluding payment of fuel) is done using the following elements:

1. Type of fuel used
2. Data from VCA (Vehicle Certification Agency, UK).
3. Price of the car.

Once the price of the car is known (using one of the methods described above) a factor based on fuel type and emissions of the engine is applied to that list price. However, this is problematic. Although data on the make and model of each car is collected, the quality of answers given by respondents is extremely variable, for instance, answers such as 'a red ford' offer little value to a calculation. Therefore the estimates are based on average tax bands for cars of certain price bands.

The factors used for 2010 are shown in **Table 0.17**. Diesel cars have a three per cent uplift, which reflect the extra tax charged for these vehicles.

Table 0.17   Tax rate based on CO$_2$ emission rates - Petrol (per cent)

Car price (£)	CO$_2$ tax emission rate (percentage rate)
0 – 18,999	15
19,000 – 39,999	26
40,000 – 99,999	35

Table 0.18   Tax rate based on CO$_2$ emission rates - Diesel (per cent)

Car price (£)	CO$_2$ tax emission rate (percentage rate)
0 – 18,999	18
19,000 – 39,999	29
40,000 – 99,999	38

These percentage rates are the factors that are applied to the car prices to produce a monetary benefit for each company car in a household.

Car benefit = (car price)*CO$_2$ tax emission rate

3. COMPARABILITY

This section reports on the differences between Eurostat definitions and the definitions the UK applied in EU-SILC 2010. It also reports on the impact of these differences with regards to comparability.

3.1 Basic concepts and definitions

Reference population
No difference to the common definition.

Private household
A household is defined as:
> "a single person or a group of people who have the address as their only or main residence and who either share one meal a day or share the living accommodation" (General Lifestyle Survey 2009).

A group of people is not counted as a household solely on the basis of a shared kitchen or bathroom.

The household membership
A person is in general regarded as living at an address if he or she (or the informant) considers the address to be his or her main residence. There are however, certain rules which take precedent over this criterion.

Children of any age away from the home in a temporary job and children under 16 at boarding school are always included in the parental household.

From 2008 students who are living in halls of residence are also included as residents of the household sampled even if they are not *in situ* at the time of the interview. However, other children aged 16 or over who live away from home for the purposes of either work or study and come home only for holidays are not included at the parental address under any circumstances.

Anyone who has been away from the address continuously for 6 months or longer is excluded.

Anyone who has been living continuously at the address for 6 months or longer is included even if she has his or her main residence elsewhere.

Addresses used only as second homes are never counted as a main residence.

Income reference period
EU-SILC UK, like all other official income surveys in the UK, uses continuous interviewing with interviews spread evenly throughout the year. The survey measures current income. So for example, for income from earnings and benefits, respondents will provide figures which relate most commonly to the last week, two weeks, or month. With earnings in particular, respondents are asked for usual earnings. These figures, which represent current (and usual) incomes are then annualised (weekly estimates multiplied by 52, monthly by 12 etc). Income from self-employment can be reported for a variety of periods, but it is always up-rated (using the UK's average earnings index) to the interview date. For income from

investment and employee non-cash income respondents are most likely provide their most recent annual or half-yearly income that they received from this source. This income would be annualised, although there is no up-rating.

This approach is adopted in the UK because it is much easier for respondents to provide estimates of current income, than income for a specific reference period, say the most recent financial year. In the UK only a relatively small proportion of the adult population fill in tax returns, and the rest of the population probably never actually calculate what their annual income is. For this reason, it would be very difficult to collect an estimate of annual income corresponding to a fixed reference year.

So the estimates of income do not correspond strictly to an income reference year. However we can regard each household's estimate of annualised current income, as corresponding to a 12 month period centred around the interview date. So for a household interviewed in early January 2010, we can regard their income as being measured for the period July 2009 to June 2010, and similarly for a household interviewed in December 2010, the income estimate can be regarded as referring to the period July 2010 to June 2011. Since interviews are spread evenly throughout the year, for any one survey year, the interview reference periods collectively, are centred around the calendar year. And therefore it is reasonable to regard aggregate statistics produced from the full annual datasets, as measuring annual income in the current survey year. So the EU-SILC UK 2010 survey, measures current annual income in 2010.

In the UK, household income statistics, and especially aggregate statistics such as those that are produced from EU-SILC, are generally used and interpreted on the assumption that this distinction between annualised current income, and what might be called a 'true' annual income, is small[1].

The period for taxes on income and social insurance contributions
As above.

The reference period for taxes on wealth
The reference period for taxes on wealth is based on data provided for the financial years April 2009–March 2010 and April 2010 –March 2011. All interviewing for EU-SILC UK took place between January 2010 and 28 February 2011.

The lag between income reference period and current variables
Since the survey measures current income, there is no lag between the income variables and the other variables.

The total duration of the data collection of the sample
EU-SILC UK makes use of continuous interviewing with data collection being evenly spread over complete calendar years. In practice a small number of interviews are not completed until early the following year. In 2010, 99.0% of interviews took place between 1st January 2010 and 31st December 2010, with the remaining interviews completed between 1st January 2011 and 28th February 2011.

Basic information on activity status during the income reference period

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[1] A Comparison of Current and Annual Measures of Income in the British Household Panel Survey; Journal of Official Statistics, Vol. 22, No. 4, 2006, pp. 733–758

Basic information on activity status is collected using a rolling (moving) 12-month period. Therefore, respondents are asked to provide their current activity status and their activity status for the 12-month period preceding this interview.

3.2   Components of income

3.2.1   Differences between the national definitions and standard EU-SILC definitions, and an assessment, if available, of the consequences of the differences mentioned

This section describes the major differences between the national definitions and standard EU-SILC definitions. The 'national definition' of household income is taken to be the Before Housing Costs (BHC) measure of income used in the Department for Work and Pensions (DWP) publication Household's Below Average Income (HBAI), the source for national poverty statistics.

Total disposable household gross income (HY010)
Total disposable household income (HY020)
Total disposable household income before social transfers other than old-age and survivor's benefits (HY022)
Total disposable household income before social transfers including old-age and survivor's benefits
Differences between the national definition and the EU-SILC definition of income have been described below, for each of the components of EU-SILC income.

Imputed rent (HY030G/N)
Imputed rent is not included in the national definition of household income. This variable was provided as part of the 2007 EU-SILC data delivery for the first time.

Income from rental of a property or land (HY040G/N)
No major differences between the national and EU-SILC definition.

Family/children related allowances (HY050G/N)
The national definition of income includes the cash value of free school meals provided to children from disadvantaged homes. This is not included in the EU-SILC definition of income.

Social exclusion not elsewhere classified (HY060G/N)
No major differences between the national and EU-SILC definitions.

Housing allowances (HY070G/N)
No major differences between the national and EU-SILC definitions.

Regular inter-household cash transfer received (HY080G/N)
No major differences between the national and EU-SILC definitions.

Interest, dividends, profit from capital investments in unincorporated business (HY090G/N)
No major differences between national and EU-SILC definitions.

Interest repayments on mortgage (HY100G/N)
Interest repayments on mortgages are not included as deductions within either the national or EU-SILC definitions of income, because neither includes imputed rent.

Income received people aged under 16 (HY110G)
The national definition of income includes income received by people aged under 16, as does the EU-SILC definition of income.

Regular taxes on wealth (HY120G)
No difference between the national and EU-SILC definitions.

Regular inter-household cash transfer paid (HY130G/N)
No major differences between the national and EU-SILC definitions.

Tax on income and social contributions (HY140G)
In the national definition of income, contributions to private pensions are deducted from income. In the EU-SILC definition of income, contributions to private pensions are not deducted, rather they are considered as a use of disposable income.

Repayments/receipts for tax adjustments (HY145N)
This component of income is included in the national definition of income. In EU-SILC, this component is not measured directly. For most components of income, gross and net incomes are collected separately, with taxes computed as the difference between gross and net incomes. Repayments/receipts for tax adjustments are assumed to be captured as part of this difference between gross and net incomes, and hence recorded under HY140G.

Value of goods produced for own consumption (HY170G/N)
This variable is not asked in the UK and the variables are set to zero in the microdata. Home grown fruit and vegetables are assumed to have a negligible benefit when calculating household income, in many cases being grown for pleasure rather than to save money. Monetary benefits may even be negative when production costs are taken into account. Data from the Living Costs and Food survey show that less than 3 per cent of households record this type of income and even for those that do it accounts for less than half of one per cent of their disposable income.

Cash or near-cash employee income (PY010G/N)
No major differences between the national and EU-SILC definitions.

Non-cash employee income (PY020G/N)
The national definition does not include non-cash employee income, whereas EU-SILC includes an estimate for company cars (although not any fuel provided by the employer).

Cash profits or losses from self-employment (including royalties) (PY050G/N)
No conceptual differences between the national and EU-SILC definitions.

Unemployment benefits (PY090G/N)
No major differences between the national and EU-SILC definitions.

Old-age benefits (PY100G/N)
All benefits included as old-age benefits are also included in the national definition of income. Income from private pensions is included in the EU-SILC definition of income, as in the national definition; however it is not included for the calculation of EU-SILC indicators. In addition, the national definition also includes the value free television licences provided to those over the age of 75.

Survivors' benefits (PY110G/N)
No major differences between the national and EU-SILC definitions.

Sickness benefits (PY120G/N)

No major differences between the national and EU-SILC definitions.

Disability benefits (PY130G/N)

No major differences between the national and EU-SILC definitions.

Education-related allowances (PY140G/N)

In the national definition of income, student loans are included as income, and student loan repayments are deducted from income. However in EU-SILC, student loans are not treated as income, and loan repayments are not deducted from income.

Gross monthly earnings for employees (PY200G/N)

No major differences between the national and EU-SILC definitions.

3.2.2 The source or procedure for the collection of income variables

All income variables are collected at the point of interview. Respondents are not asked to provide any documentation to support their answers. Increasingly, interviewers are being encouraged to ask respondents whether it is possible to consult their payslip (if they are working). However this is not mandatory.

No information is collected from registers.

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

For most income components which are subject to taxation and/or social security contributions, respondents are asked to provide net and gross amounts. The only exception to this is income from interest, dividends, and capital investments, which is collected either gross or net, and for which tax paid is then estimated.

Total income for an individual/household refers to income at the time of the interview. If the last pay packet/cheque was unusual, for example it included holiday pay in advance or a tax refund, the respondent is asked for usual pay. No account is taken of whether a job is temporary or permanent.

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

Gross and net income variables were asked separately, if applicable.

See section 2.6 for more detail.

4.   COHERENCE

Coherence refers to the comparison of target variables with external sources. The target variables in EU-SILC UK are a set of compulsory variables, defined by Eurostat.

4.1   Comparison of income target variables with external sources

Results from two other survey sources have been used to validate EU-SILC results – the Family Resources Survey, and the Living Costs and Food Survey.

Family Resources Survey

The Family Resources Survey (FRS) collects information on the incomes and circumstances of private households in the United Kingdom (or Great Britain before 2002-03).

The survey is sponsored by the Department for Work and Pensions.

The FRS is used primarily to validate the indicators of poverty and social exclusion. Before the introduction of EU-SILC, the Laeken and Pensions indicators were produced using data from the FRS. Comparisons between EU-SILC and FRS-based indicators continue so that any apparent differences between national poverty estimates and EU-SILC estimates can be explained. This work will be ongoing, and in the first four years of EU-SILC, has served as a useful way of validating the new EU-SILC data, and highlighting any possible problems that there might be with the EU-SILC data.

Living Costs and Food Survey

The Living Costs and Food Survey (the UK's HBS), formerly known as the Expenditure and Food Survey, is a comprehensive overview of all aspects of household expenditure and income for the year 2010 derived from a survey of around 6,000 households in the UK. Before 2008 the survey was named the Expenditure and Food Survey. It contains analyses of household expenditure on goods and services by household income, composition, size, type and location. The results are widely seen as providing one of the most accurate pictures available of what households in the UK spend their money on today.

EU-SILC income variables have been compared with the detailed income information collected through the Living Costs and Food Survey particularly that which is published in the ONS report 'The Effects of Taxes and Benefits on Household Income'.

5. KNOWN ISSUES WITH DATA

See Annex 3: Explanation of Validation Failures for details on validation failures for the indicator programs.

5.1 Degree of Urbanization (DB100)

For 2010, the degree of urbanization method has been updated to match that used by the Labour Force Survey. The new classification has increased the proportion of thinly populated areas: on the old method densely populated areas covered 74.6% of the population, intermediate areas 16.2%, thinly populated areas 4.8% and 4.4% were not classifiable. With the revised method densely populated areas covered 62.7% of the population, intermediate areas 18.3%, thinly populated areas 16.1% and 4.4% were not classifiable

5.2 Regular taxes on wealth (HY120)

In Great Britain local authorities collect council tax but the council tax does not apply in Northern Ireland (N.I.). Consequently, the N.I. questionnaire does not ask about council tax. The corresponding tax in N.I. is called rates. Households in N.I. have been given an average value for rates. This section in the questionnaire has been amended for 2012 to ask household rate information.

5.3 Highest ISCED level attained (PE040)

In 2009 and previous years respondents who replied they had "other" qualifications have been coded as having post-secondary non tertiary level qualifications. This has been revised for 2010, so the "other" category is not used, as it cannot be classified to this level of detail. Longitudinal data has been used to code these cases when it is available, or they have been set to missing when this is not possible.

Annex 1: Government Office Region Regional Stratifier

The Government Office Region regional stratifier:
1. North East Metropolitan
2. North East Non-Metropolitan
3. North West Metropolitan
4. North West Non-Metropolitan
5. Merseyside
6. Yorkshire and Humberside Metropolitan
7. Yorkshire and Humberside Non-Metropolitan
8. East Midlands
9. West Midlands Metropolitan
10. West Midlands Non-Metropolitan
11. Eastern Outer Metropolitan
12. Eastern Other
13. Inner London North-East
14. Inner London North-West
15. Inner London South-East
16. Inner London South-West
17. Outer London North-East
18. Outer London North-West
19. Outer London South-East
20. Outer London South-West
21. South East Outer Metropolitan
22. South East Other
23. South West
24. Wales 1 – Glamorgan, Gwent
25. Wales 2 – Clwydd, Gwynedd, Dyfed, Powys
26. Highlands, Grampian, Tayside
27. Fife, Central, Lothian
28. Glasgow Metropolitan
29. Strathclyde (excluding Glasgow)
30. Borders, Dumfries, Galloway

Annex 2: Socio-economic groups (Operational categories and sub-categories of NS-SEC)

Group	Operational categories and sub-categories
1	Employers in large organisations
2	Higher managerial occupations
3	Higher professional occupations
4	Lower professional and higher technical occupations
5	Lower managerial occupations
6	Higher supervisory occupations
7	Intermediate occupations
8	Employers in small organisations
9	Own account workers
10	Lower supervisory occupations
11	Lower technical occupations
12	Semi-routine occupations
13	Routine occupations
14	Never worked and long-term unemployed
15	Full-time students
16	Occupations not stated or inadequately described
17	Not classifiable for other reasons

The category names used for NS-SEC (National Statistics – Socio-Economic Classification) do not refer to 'skill'. This is quite deliberate since the classification is not based on skill levels.

Annex 3: 2010 Explanation of Validation Failures

Logical checks

- #123 and #124: This check failure takes place for cases when age is equal to '15' and is due to the way the Eurostat checking program computes age by subtracting RB080 (year of birth) from RB010 (year of interview) decreased by one. If actual age is worked out by taking integer part of 'date of interview - date of birth', in that case age will be higher by '1' year than the age worked out in the checking program. Therefore we would not consider this to be a validation failure, rather a function of the way the survey is done in the UK.
- #315: This check failure is not an error in the data per se, rather a result of combination of two factors not taken into account in the checking program, (a) the way EUROSTAT checking program computes age, and (b) the possibility of step-children or adopted children in the household who need not be 15 years younger than their guardian (step-mother/ step-father).
- #585: (12*Total housing cost > total net) A number of these cases have been investigated and no error has been found.
- #713 and 714: The SILC doc65 allows missing values (-1) for under 12 year olds for these variables. These values were not given by the respondents. It is unclear why it has been highlighted by the validation program.
- #717: These children were either at pre-school or school in the income reference period (with -2 for the non applicable code). RL010 or RL020 will therefore be filled. RL030 is filled for all children aged 12 or under.
- #724: The data shown is the data given by the respondents. We have no evidence to suggest that it is incorrect and so it has not been altered.
- #733: The UK questionnaire for 2010 asked respondents their status using the old method (i.e. not splitting up employed and self-employed part-time and full-time workers). We did however ask their current status using the new format. Therefore if respondents had changed their situation over the year the full data could not be derived.
- #814: (Nr of hours usually worked is greater than 35 hours per week while the self-declared status is part-time): A selection of these cases has been investigated and no error has been found. The issue seems to be that the work status is self-defined. These respondents have stated that they usually work more than 35 hours a week (including overtime) but consider themselves to be part-time. From 2011 a soft check has been added to the UK questionnaire to alert the interviewer if people appear to give conflicting information for full-time and part-time employment.
- #815: (Nr of hours usually worked is less than 20 hours per week while the self-declared status is full-time): A selection of these cases has been investigated and no error has been found. Some of these respondents have stated that they usually work less than 20 hours a week (including overtime) but consider themselves to be full-time. The remainder are proxy respondents. This variable was not asked for proxy respondents in 2010 and so the number of hours worked is set to missing (-1). Also, from 2011 a soft check has been added to the UK questionnaire to alert the interviewer if people appear to give conflicting information for full-time and part-time employment

Household Data File

- HH060 9% missing values : missing values have not been imputed and 40% of these case are for households renting furnished accommodation.
- HH071 75% missing values: variable flag is 1 or -1. Those with -1 do not have a repayment mortgage (i.e. either own outright, have an interest only mortgage, or rent)

- HA040 9% missing values: relatively few households (14%) have more than one person responsible for the finances so the small number of missings make up a large proportion of the total
- HA050 53% missing values: very few households (<1%) have more than two people responsible for the finances so the small number of missings make up a large proportion of the total
- HA060 43% missing values: very few households (<1%) have more than three people responsible for the finances so the small number of missings make up a large proportion of the total
- HA070 50% missing values: very few households (<0.1%) have more than four people responsible for the finances so the small number of missings make up a large proportion of the total

Personal Data File

- PB140 (Born in 1994) - This check failure takes place for cases when age is equal to '15' and is due to the way the Eurostat checking program computes age by subtracting RB080 (year of birth) from RB010 (year of interview) decreased by one. If actual age is worked out by taking integer part of 'date of interview - date of birth', in that case age will be higher by '1' year than the age worked out in the checking program. Therefore we would not consider this to be a validation failure, rather a function of the way the survey is done in the UK.
- PB220B (27% missing)- As so few people have reported a second citizenship the missing cases are a larger fraction of the total potential responses.
- PE010 (36% missing)- This question was not asked by proxy for 2010. It was also not asked for respondents above 'working age'. This has been corrected for 2011.
- PE030 (28% missing) - This question has not been asked by proxy for 2010- this will be corrected for 2011. The majority of the remaining cases have stated that they have not attained any qualifications. The SILC coding does not allow this answer option and so these cases have been set to missing (-1).
- PE040 (10% missing) - This question has not been asked by proxy - this has been corrected for 2011.
- PL073-PL076 (5-7% missing) - As PL031 categories will not be in use until 2011, other questions have been used to derive these variables and there is a mismatch between ILO definitions and self declared labour status, where changes of status have meant that the variable could not be derived.
- PL120 (9% missing- Reason working <30 hrs) - As PL031 categories will not be in use until 2011, other questions have been used to derive these variables and there is a mismatch between ILO definitions and self declared labour status, where changes of status have meant that the variable could not be derived.
- PL180 (28% missing) - Is correct using PL031, but this has the same issues as PL073.
- PH040 (13% missing) - Unmet need for medical examination or treatment: These are genuine missing values. This question was not asked by proxy.
- PH060 (13% missing) - Unmet need for dental examination or treatment: These are genuine missing values. This question was not asked by proxy.

- PA010   14% missing
- PA020   13% missing
- PA030   9 % missing
- PA040   14% missing
- PA050   9 % missing
- PA060   9 % missing
- PA070   9 % missing

- PA080   9 % missing
- PA090   13% missing
- PA100   16% missing

These questions were not asked by proxy.

- PA110   51% missing: This is due to an error. Our questionnaire usually collects data on relationships and so these data were used to construct this variable rather than asking a new question. Unfortunately the question used is only routed to respondents between the ages of 16 and 59 and is not asked by proxy.