



2011 Census Quality Survey

February 2014

This is one of a series of reports published to support the release of results from the 2011 Census. This series of methods and quality reports provides information on the different methods used to collect, process, clean, adjust and protect the census results. The series also reports on the quality assurance of the results and provides quality indicators.

Terms used in the series are explained in the [2011 Census glossary](#).

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1. Executive Summary

While there is no single overall measure of the accuracy of a census, there are several indicators of its quality. One of these is the level of respondent error, and the principal aim of the Census Quality Survey (CQS) was to estimate this.

The CQS was a voluntary survey carried out across England and Wales after the 2011 Census. It aimed to measure the accuracy of answers given to census questions by asking a sample of households the census questions again in a face-to-face interview. By comparing the responses given in the CQS to those given in the census, agreement rates were calculated which provide an indication of how accurately the 2011 Census questionnaire had been completed by the general public. The CQS interview responses are considered to be more accurate as research studies^{1,2} have found that answers given to questions in face-to-face interviews tend to result in more accurate answers (for non-sensitive questions) than those given on a self-completion questionnaire.

The CQS was carried out independently of the [2011 Census Coverage Survey](#)³ (CCS). The CQS differed from the CCS in that it did not aim to measure the coverage of the census (how many people were not counted by the census) and no adjustments were made to census data as a result of the CQS.

The CQS results are based on responses from 5,172 households containing 9,651 individuals. Of the questions asked in the CQS, almost three-fifths achieved agreement rates of 90 per cent and over, and almost three-quarters achieved over 85 per cent. The extent of agreement varied depending on the type of question: whether it was objective or subjective, whether the answer used a tick box or free text, and how many response categories it had. Agreement rates ranged from 55 per cent for “year last worked” to 99.8 per cent for “waiting to start work” (see Table 1). In general terms, questions that were more subjective in nature (which depended on how the respondent viewed their circumstances at the time the question was asked) had lower agreement rates than those that were more factual.

Differences between the CQS and census occurred for several reasons. A small number of differences were explained by data processing errors such as those caused by incorrect optical character recognition of scanned census questionnaires. Others occurred where the original census response had been provided by proxy respondent (who gave a different answer). However the vast majority of differences occurred where the respondent gave a different answer in the CQS to that given on the census questionnaire.

This report describes the CQS design and presents its findings in terms of agreement rates between the 2011 Census and CQS for each question asked in the survey. It suggests possible reasons for differences based on analysis of the differences and the findings of the [1999 CQS](#)⁴ and 2011 Census question testing programme. Along with other quality information published about the 2011 Census in the [Quality and Methodology Information document](#)⁵, the CQS results are intended to help users understand the strengths and limitations of the 2011 Census data and how to use them appropriately.

Table 1 Agreement rates between 2011 Census and Census Quality Survey
England and Wales

Question Number	Census Question	2011 CQS Agreement Rates (%)	2011 CQS Confidence Interval Width (+/- percentage points)
H7	Type of accommodation	91.6	0.8
H8	Self-contained	98.6	0.3
H9	Number of rooms	66.5	1.3
H10	Number of bedrooms	91.4	0.8
H11	Central heating	90.2	0.8
H12	Tenure	95.0	0.6
H13	Landlord	87.6	1.8
2	Sex	99.7	0.1
3	Date of birth	98.4	0.3
4	Marital and civil partnerships	98.1	0.3
5	Second address	97.1	0.4
7	School children/ students	97.6	0.3
8	Term-time address	98.9	0.5
9	Country of birth	99.1	0.3
13	General Health	68.2	1.2
14	Unpaid care	90.9	0.7
15	National identity	60.4	1.4
16	Ethnic group (18 tick boxes)	94.7	0.8
18	Main language	96.3	0.7
20	Religion	90.4	0.9
21	Usual address one year ago	95.5	0.6
22	Passports	91.8	0.7
23	Limiting long term illness	88.9	0.7
25	Highest qualification	67.6	1.0
26	Working status in previous week	91.2	0.6
27	Looking for work	96.2	0.6
28	Available for work	86.2	1.0
29	Waiting to start work	99.8	0.1
30	Reasons for not working	86.4	1.0
31	Ever worked	94.4	0.7
31	Year last worked	55.0	1.5
33	Self employed or employee	94.7	0.5
34,35	Occupation Code (Major group)	67.5	1.0
36	Supervisor	86.2	0.7
37,38	Industry Code (Section)	74.2	0.9
40	Address of workplace (Post Code Sector)	82.2	1.1
41	Travel to work	85.5	0.9
42	Hours worked	83.9	0.9

2. Background and introduction

2.1 Why a Census Quality Survey?

Information about the quality of census statistics helps users interpret them and enables them to make informed decisions about how they can be used. Providing such quality information is a requirement of the [Code of Practice for Official Statistics](#)⁶. In particular, census statistics should meet the following principles and practices:

- Principle 4, Practice 2: Ensure that official statistics are produced to a level of quality that meets users' needs, and that users are informed about the quality of statistical outputs, including estimates of the main sources of bias and other errors, and other aspects of the European Statistical System definition of quality.
- Principle 8, Practice 1: Provide information on the quality and reliability of statistics in relation to the range of potential uses, and on methods, procedures, and classifications.

Respondent error is one indicator of the quality of a census and the main objective of the CQS was to measure respondent error in the 2011 Census. Such errors can be introduced on a self-completion questionnaire such as the census, either because respondents have not understood the question, made genuine mistakes in completing the questionnaire, or because they have made deliberately false responses. Errors can also occur if one person has answered the questions on behalf of another person incorrectly. This is known as proxy respondent error.

2.2 How the survey is carried out

The CQS involved face-to-face interviews with a sample of 5,262 households containing 12,395 individuals in which they were re-asked the census questions. It has been documented in numerous studies (see the meta-analysis by Bowling, 2005¹, and a literature review by ONS (ONS 2010²) that answers given to questions in face-to-face interviews tend to result in more accurate answers (on non-sensitive questions) than those given on a self-completion questionnaire. This is, because the interviewer can probe for more complete answers, clarify ambiguous questions and control the question order and routing. In addition, the use of visual aids such as calendars and show cards (where possible responses are visible to respondents), helps improve respondents' recall of their circumstances on a past date. The CQS interview answers are therefore considered to be the "correct" answer.

By comparing the census data against the CQS response, a measure of accuracy can be obtained. The degree of difference between the answers on the CQS and on the census can be quantified as an estimate of respondent error. It is an estimate because, as a survey itself, the CQS will be subject to sampling and non-sampling errors which should be taken into consideration when interpreting the results. More information about the quality of the CQS is given in Annex 1.

The 2011 CQS was an improvement on the [1999 CQS](#)⁴ in that the latter was conducted shortly after the census rehearsal on the rehearsal version of the census questionnaire. It was not repeated for the main 2001 Census. Because the rehearsal was voluntary, the response rate to the 1999 CQS was lower than 2011 and achieved half as many interviews as the 2011 CQS (2,300 in 1999 compared with 5,262 in 2011). Also, the 1999 CQS was not taken from all areas of England and Wales so was less representative. These factors mean that the 1999 CQS results are less reliable than those for 2011 which should be borne in mind when comparing the results of the 1999 and 2011 CQS surveys.

2.3 Out of scope: measuring coverage

The CQS was not designed to measure coverage of the 2011 Census. Coverage was measured using a separate [Census Coverage Survey](#) (CCS³). The CCS was a voluntary survey carried out independently of the census and CQS, used to estimate the population missed by the census. Its results were used to adjust the census database for those people and households estimated to have been missed or counted more than once. The CQS results cannot be used to adjust census data to take account of respondent error. It was not designed for this purpose and the sample size is not large enough. Similarly, the CQS was not designed to allow differentiation of response quality by population sub-groups or different levels of geographies below country level. More information about the quality of the CQS is given in Annex 1.

2.4 Census Quality Survey Design

2.4.1 Sample

An initial sample of 7,488 households was drawn using a two-stage stratified sample design. The sample size was selected so that the agreement rates between the CQS and census household questions would have a margin of error of plus or minus two percentage points at the 95 per cent level of confidence for England and Wales.

A two-stage process was used to ensure the selection of a representative sample of households..

Stage one: 288 [postcode sectors](#)⁷ were selected from the [Postcode Address File](#)⁸ across each [Government Office Region](#)⁹ (GOR) in England and Wales. The postcode sectors were stratified by the number of households each GOR had in each of the five 2011 Census [hard-to-count](#)¹⁰ (HtC) categories.

Stage two: From the postcode sectors sampled in stage one, the addresses of households that had returned a questionnaire were selected. These addresses were further sampled and stratified by mode of response (whether they responded by paper or via the Internet) and the speed of return (whether they responded “early”, before 1 April 2011, or “late”, after the 1 April 2011).

2.4.2. Questions

Wording and order

The CQS included the majority of the questions that were asked on the census questionnaire and where possible, it used the same question order and wording. Question wording was only changed to reflect the past tense when referring respondents back to the reference date of 27 March 2011.

Mode effect

Mode effect is the effect of the difference in the way the responses were collected: the census by a self-completion questionnaire and the CQS by face-to-face interview. To minimise this effect, interviewers were provided with show cards displaying responses for the longer questions from which respondents could choose an answer.

Primacy and recency effect

The use of show cards also reduced the possibility of primacy and recency effects affecting the CQS. These can occur in face-to-face interviews where a respondent selects an answer from a list of response categories that an interviewer had read out loud. A primacy effect would result in a higher likelihood that respondents would give the first category as their answer and a recency effect, the last category. By using a show card listing the answer categories respondents would receive the same visual stimulus when answering each question in the CQS as they had when completing their census questionnaire.

Wales

The questions asked in the CQS were the same for England and Wales, with the exception of the question on Welsh language proficiency which was only asked of people in Wales. Participants in Wales were given the opportunity to hold the interview in English or Welsh, therefore a Welsh translation of the questions was provided, and show-cards provided in both English and Welsh.

2.4.3 Survey methodology

Letters were sent out to all 7,488 sampled addresses to inform the household members that they had been selected to take part in the CQS, and fieldwork took place between May and August 2011. Face-to-face interviews were conducted by ONS survey interviewers with those households that agreed to take part in the survey.

The CQS aimed to interview all adults in the sampled households who had been a household member on census day and were still present in the household at the time of interview. However in some cases this was not always

possible because the person was unavailable. In these cases, responses from a proxy were accepted with permission of the respondent concerned. As in other ONS surveys interviews, all data on children under 16 was collected by proxy interview with an adult of their household. The CQS interviewer recorded whether the census responses had been given by the individual themselves or by a proxy on their behalf so that the impact of proxy error on the accuracy of the responses could be investigated.

The overall response rate to the CQS was good at 75 per cent. A total of 5,262 households containing 12,395 individuals took part in the survey. Just under two-thirds (63 per cent) of fully completed interviews were carried out in person; the remainder were by proxy (37 per cent). However, this includes interview data collected for children aged under 16, all of whom would have had their data collected from an adult in the household. Excluding responses given for children, the proxy rate fell to 20 per cent.

More information about the design of the CQS is given in Annex 1.

2.5 Processing the Census Quality Survey

2.5.1 Data capture, coding and cleaning

Responses to the questions asked in the CQS were recorded by the interviewers on laptops during face-to-face interviews using computer-assisted personal interview (CAI) software. This allowed interviewers to follow an electronic questionnaire and code responses at the time of the interview. Some additional coding was done at ONS headquarters. More information about the coding frames and classifications used in the 2011 Census can be found in the [2011 Census User Guide](#)¹¹.

The 2011 Census used a [data cleaning](#)¹² and an [edit and imputation strategy](#)¹³ to impute missing data and handle errors made by respondents. Although interviewers encouraged respondents to answer all questions, some people did not so there were some missing data (the response rate to questions in the CQS is given in the question-by-question analysis in Sections 3 and 4). Unlike the census, missing data were not imputed in the CQS because to do so would have introduced a confounding error to the results. Only a minimal amount of cleaning and editing of data was needed in the CQS as the CAI prevented some types of errors that respondents could make when completing the paper version of the census questionnaire such as ticking too many boxes, returning duplicate questionnaires or giving responses to different questions that were inconsistent (for example being ten years old and married). Real-time checks were built into the CAI to make sure that answers given were valid.

2.5.2 Data matching

2011 Census records for the households in the CQS sample were extracted from the census database for comparison once imputation and data cleaning had been completed. Using census data at this stage ensured that the agreement rates calculated reflected the published census statistics. CQS records were then matched to this extract. Of the 12,395 people in the surveyed households, 97.6 per cent were matched against census records. The matching resulted in a final sample of 5,172 households and 12,103 individuals for which comparison was possible.

2.5.3 Creating the data set

As the main population base for outputs from the 2011 Census was the usually resident population as at census day (27 March 2011), anyone in the CQS sample who indicated that they were not usually resident at the address given on the front of the questionnaire was excluded from the CQS sample. These were students and schoolchildren living away during term-time and short-term residents (short-term residents are people born outside of the UK who on census day had stayed or intended to stay in the UK for less than 12 months). Proxy responses given for adults in the CQS sample were also removed from the sample to ensure they did not introduce an additional source of error. Since the census outputs would include responses given by proxies in the census, these were retained in the census data so that the impact of proxy responses in the census could be assessed. The final dataset for analysis therefore

included self-reported responses for adults in the CQS but self-reported plus proxy responses in the census. After this processing, the final sample comprised of 5,172 households containing 9,651 individuals.

2.5.4 Weighting

As the CQS sample of households was already stratified, it was considered to be representative of the households in England and Wales so no weighting of the results was necessary. However, the characteristics of individuals within those households could not be pre-determined to ensure that they were representative of the whole population. Some form of weighting was therefore needed to ensure they were representative.

The CQS used calibration weighting to assign a weight to each respondent. Calibration weighting typically involves two processes: calculating a design weight (to assign a multiplier, for example 0.9 or 1.1, to each response) and calibrating to population totals (to ensure that the weighted results add up to the total population figure).

The design weight was calculated as the inverse of the probability of selection, so that households with a lower probability of selection (due to their particular combination of characteristics) received a higher design weight. All individuals within a household were given the same household design weight. The calibration weight was then calculated for each individual so that they summed to the total number of usual residents who responded to the census, stratified by age group, sex, ethnicity group, country, timing (early and late) and mode of response to the census (paper or Internet). More information about the processing of the CQS is given in Annex 1.

3. Results of the Census Quality Survey

3.1 How to read the results

Sections 4 and 5 contain the results of the comparison between the CQS responses and the census values for all questions asked in the CQS. The following sections explain the information provided for each question:

3.1.1 Question details

The question topic and number as they appeared on the census questionnaire, a brief explanation of the question and a summary of differences between the CQS and the 2001 Census question. (More detail about the differences between the 2001 and 2011 Census questionnaires is published in [2011-2001 Census in England and Wales Questionnaire Comparability](#)¹⁴).

3.1.2 CQS details

A table about the CQS sample size, response rate and national agreement rates (see Figure 3.1).

3.1.3 Tables of charts

Tables or charts: cross-tabulations are presented where possible showing the percentage agreement rates between the census values and the CQS by response category. Table 3.1 is an example of a cross-tabulation. If a question had a large number of response categories, the results have been aggregated for presentational purposes. Figures across the diagonal of these tables sum to the agreement rate unless otherwise stated. The off-diagonal figures reflect the differences between the census and CQS for each response category. The net difference shown is the difference between the number of cases in the census and the number of cases in the CQS that fall under each response category, relative to the total reported persons in both the census and CQS in all response categories.

Table 3.1 Example of census versus CQS agreement rates

England and Wales		Percentages		
Census	Census Quality Survey			Total
	Yes	No		
Yes	X₁₁	X ₁₂		X_{1.}
No	X ₂₁	X₂₂		X_{2.}
Total	X_{.1}	X_{.2}		X_{..}=100%
<i>Net difference Census - CQS (d_i)</i>		<i>x_{1.} - X_{.1}</i>	<i>x_{2.} - X_{.2}</i>	

Note: If there were no responses in a category, the cell value in the table is shown as a "-". Where values were below 0.05 per cent, the cell value will be displayed as 0.0 per cent.

3.1.4 Agreement rates

Agreement rates are calculated as the number of agreements between census values and CQS responses as a percentage of the total sample who responded to that question in the CQS. This gives the “worst case” calculation of the accuracy of responses to the census as it is based on the full set of answers to the questions. However in general this is not how the census data are output as they are usually aggregated together into collapsed classifications. For example, the 2011 Census question asking for a person’s date of birth is used to derive their age. In many census outputs age is aggregated into five-year age bands rather than presented by single year of age. Adding together (or grouping) the data in this way will improve the agreement rates between the census and the CQS. For example, the ungrouped agreement rate for single year of age is 98.4 per cent however by five-year age-bands the agreement rate improves to 99.3 per cent.

Agreement rates for household questions are based on un-weighted data as the sample selected was stratified such that it was representative of the households in England and Wales. However agreement rates for individuals are weighted because the characteristics of the individuals within those households could not be pre-determined to ensure that they were representative of the population of England and Wales. The census data against which the CQS was compared had been through the edit and imputation processes. The reason for using census data at this stage was to ensure that the agreement rates reflected the published census statistics.

3.1.5 Commentary on differences between the census and CQS

Differences in agreement rates between England and Wales, or those gathered by Internet or paper are discussed if they are statistically significant at the 5 per cent level using a standard Z test (see Annex 3 for more information). Such differences may be a reflection of the different characteristics of people in each sample. Analysis of the Internet returns found that certain groups, for example young people, were more likely to respond online than others. [Providing the Online Census](#)¹⁵ contains information about the characteristics of the people who responded by Internet.

3.1.6 Comparison between 2011 and 1999

As explained in Section 2, the 1999 CQS results were less reliable than the 2011 survey because the sample was smaller and less representative of the population of England and Wales. Also, some questions have changed since the 1999. Comparisons between 1999 and 2011 are therefore not made.

3.1.7 Possible reasons for any large differences

Possible reasons for any relatively large differences between the census and CQS are discussed reflecting on knowledge from the 1999 CQS and testing of the 2011 Census questions¹⁶. Reasons might be:

Different answer

Respondents in the CQS have given a different answer to that given on the census questionnaire. This could be for several reasons. They may realise they made a mistake or changed their mind about the answer that best described their circumstances at the time of the census. In particular, questions of a subjective nature were more likely to be answered differently when asked a second time. Recall could also be an issue for some questions as there could have been a gap of up to four months between completing the census questionnaire and the CQS interview. Respondents may have struggled to understand how to answer the question on the census questionnaire and, following clarification from the CQS interviewer, provided a different, more accurate response.

Edit or imputation of the census

The original census response had been subject to edit or imputation because the respondent had not answered the question, ticked too many boxes, sent duplicate questionnaires or the answer was illogical (for example they said

that they were five years old but working). The 2011 [edit and imputation strategy](#)¹⁷ was designed to preserve the distribution of the characteristics of the observed dataset at local authority level therefore a degree of error would be expected at individual level. The extent to which edit or imputation explained differences ranged from zero where there was no imputation to 25 per cent for question 31 ('have you ever worked?').

Proxy responses

The original census answer had been provided by a proxy respondent and was different to the CQS response. In the CQS interview, respondents were asked whether they had given the original census response themselves or whether it had been given by a proxy on their behalf. The impact of census proxy error on the accuracy of the responses could then be investigated. Responses given by proxy for adults in the CQS interviews were excluded to avoid the introduction of an additional source of error. All data on children under 16 was collected by proxy interview with an adult of their household. The extent to which proxy responses explained differences ranged from 3 per cent for question 40 (postcode of workplace) to 13 per cent for question 31 ('have you ever worked?').

Scanning or character recognition

Errors were introduced during the scanning or optical character recognition process of census data capture. For example hand written numbers or text being scanned incorrectly such as a 5 being mistaken for a 6. The extent to which this explained differences could not be quantified in the CQS. Information about the quality of census data capture is available in [Data Capture, Coding and Cleaning](#)¹²

Differing coding approaches

There was a different coding approach between the CQS and census. Although they used the same coding frames, it is possible that where manual coding took place, people coding the more complex questions, for example occupation and industry, might have selected different codes. The extent to which this explained differences could not be quantified in the CQS. Information about the quality of the coding of data is available in [Data Capture, Coding and Cleaning](#)¹²

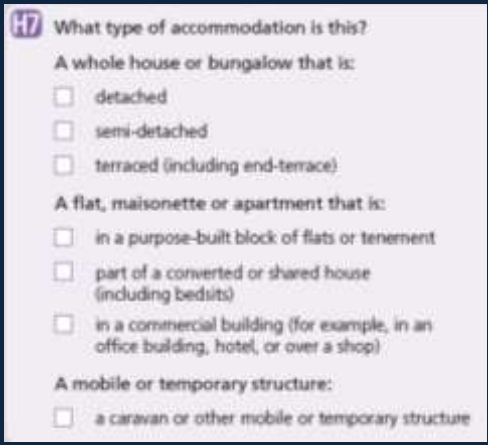
Mode effect

This applies to the difference in the way the responses were collected (the census by self-completion questionnaire and the CQS by face-to-face interview). Although steps were taken in the CQS to minimise a mode effect through the use of show cards it is possible that some respondents gave different answers in the CQS because they were being questioned face-to-face by a stranger in their home.

Errors made in CQS

For example interviewers might have mis-keyed or coded responses incorrectly or influenced the respondent to answer in a particular way.

Figure 3.1 Explanation on content of summary table provided with each question

Census Question	CQS Question
<p>This shows an image of the question as it appeared on the 2011 Census questionnaire</p> 	<p>This shows the question as it appeared to the CQS interviewer in the CAI software</p> <p>What type of accommodation is this?</p> <ol style="list-style-type: none"> 1. Detached 2. Semi-detached 3. Terraced (including end-terrace) 4. In a purpose-built block of flats or tenement 5. Part of a converted or shared house (including bedsits) 6. In a commercial building (for example, in an office building, hotel, or over a shop) 7. A caravan or other mobile or temporary structure
Show card	This indicated whether a show card was used for this question in the CQS and if so, which show card. The show cards can be seen in Annex 2.
Population asked	The population to whom the question applies, for example all respondents would be asked their date of birth but only those aged 16 and over would be asked questions on occupation.
Associated question	This indicates which other questions on the census questionnaire (if any) were related to it, for example students and schoolchildren (who answered yes to question 7) also completed question 8 on their term time address. Questions 7 and 8 are therefore related.
Unweighted sample size	Number of households or individuals in the CQS sample who were asked the question. This will vary between questions because not all questions will apply to the respondent or they may have not answered all the questions.
CQS response rate	Census data used in the CQS analysis included values following edit and imputation. However missing values in the CQS were not imputed. If a response to a question in the CQS was missing, the response was excluded from the analysis. This is reflected in this response rate and the un-weighted sample size which will differ between questions.
Agreement rate/weighted agreement rate:	Agreement rate between census and CQS. The agreement rates for household questions (H6 to H14) are un-weighted as the sample was representative of England and Wales. The agreement rates for individuals (questions 1 to 42) were weighted to make the results nationally representative.
<ul style="list-style-type: none"> • England and Wales 	Overall agreement rate for England and Wales
<ul style="list-style-type: none"> • England 	Overall agreement rate for England
<ul style="list-style-type: none"> • Wales 	Overall agreement rate for Wales

4. Agreement rates for household questions

Household questions were asked of one person, in each household in the sample, on subjects relating to the entire household. It was recommended that the “householder” complete the census questionnaire and provide the answers to the household questions in the CQS interview. The householder is the person who owned/rented (or jointly owned/rented) the accommodation, and/or was responsible for paying the household bills and expenses.

As explained in Section 2.2 above, the final CQS sample comprised of 5,172 households. As the sample of households was considered representative of England and Wales, no weighting of the results was needed so the agreement rates are calculated on the unweighted sample.

The sample size varies slightly between questions depending on the CQS response rate to that question and whether the question applied to the household, for example the question on landlord type was only asked of those households that rented their accommodation.

Table 4.1 below summarises the agreement rates and confidence intervals for the 2011 Census household questions compared to the 1999 CQS agreement rates. On the whole, the agreement rates were good with six of the eight household questions showing agreement rates of more than 90 per cent.

The CQS sample was selected so that the agreement rates between the CQS and the census household questions would have a margin of error of plus or minus 2 percentage points at a 95 per cent level of confidence (for England and Wales). Table 4.1 illustrates that this was achieved for each household question. The wider interval for the question on number of rooms reflects known issues with respondents counting valid rooms inconsistently; the wider interval for “landlord” reflects the smaller sample size for that question.

Table 4.1 Agreement rates between and 2011 Census and Census Quality Survey: Household questions

England and Wales


Question Number	Census Question	2011 CQS Agreement Rates (%)	2011 CQS Confidence Interval Width (+/- percentage points)
H7	Type of accommodation	91.6	0.8
H8	Self-contained	98.6	0.3
H9	Number of rooms	66.5	1.3
H10	Number of bedrooms	91.4	0.8
H11	Central heating	90.2	0.8
H12	Tenure	95.0	0.6
H13	Landlord	87.6	1.8

In the following section, agreement rates for each of the household questions that were included in the CQS are given.

For explanation of the information provided please see Section 3.

Relationships (question H6)

This question asked how members of the household were related to each other by asking them to complete a matrix. Up to six people could be included. The CQS question differed slightly as each person was asked individually how they were related to all other people in the household. This question has changed since 2001 when a grid was used to collect this information from a maximum of five people. In addition, two new response categories of “same sex/civil partner” and “Step-brother or step-sister” were added.

Census Question	CQS Question
	Enter relationship to person 1 with relevant code
Show card	C
Population asked	All households
Unweighted sample size	5,130
CQS response rate	99.2%
Agreement rate:	
England and Wales	96.9%
England	97.0%
Wales	96.6%

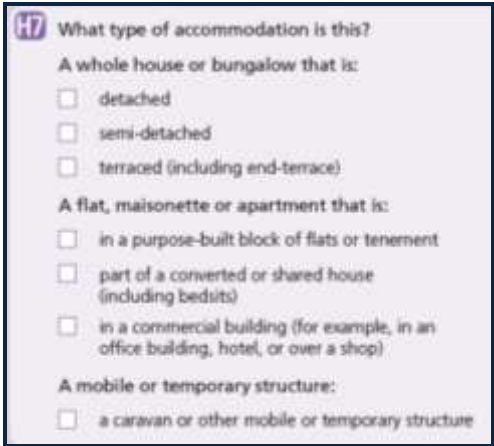
The agreement rate between the 2011 Census and CQS for this question at a household level was 96.9 per cent. This is based on the entire household providing all relationships the same.

Due to the complexity of the relationship question, it is not possible to show a cross-tabulation of the results. However an analysis of the differences showed that around a third were in situations where a relationship was indicated as a “step” relationship on one, but not on the other. A further quarter of the differences occurred where a “sibling” relationship was given on one but not the other, and a further 22 per cent where “husband or wife or partner” was the value on one but “unrelated” was given on the other.

The 1999 CQS found that some respondents had “reversed the logic” of the relationships consistently across the relationship question. For instance they said that the relationship of person 3 to person 2 was “Mother” rather than “Son or daughter”. For single-person households the most common reason for not completing the section was that respondents could not see the point of a relationships section when they were the only one in the household.

Type of accommodation (question H7)

This question asked the respondent what type of accommodation they lived in. This question has not changed since 2001.

Census Question	CQS Question
 <p>H7 What type of accommodation is this?</p> <p>A whole house or bungalow that is:</p> <ul style="list-style-type: none"> <input type="checkbox"/> detached <input type="checkbox"/> semi-detached <input type="checkbox"/> terraced (including end-terrace) <p>A flat, maisonette or apartment that is:</p> <ul style="list-style-type: none"> <input type="checkbox"/> in a purpose-built block of flats or tenement <input type="checkbox"/> part of a converted or shared house (including bedsits) <input type="checkbox"/> in a commercial building (for example, in an office building, hotel, or over a shop) <p>A mobile or temporary structure:</p> <ul style="list-style-type: none"> <input type="checkbox"/> a caravan or other mobile or temporary structure 	<p>What type of accommodation is this?</p> <ol style="list-style-type: none"> 1. Detached 2. Semi-detached 3. Terraced (including end-terrace) 4. In a purpose-built block of flats or tenement 5. Part of a converted or shared house (including bedsits) 6. In a commercial building (for example, in an office building, hotel, or over a shop) 7. A caravan or other mobile or temporary structure
Show card	D
Population asked	All households
Unweighted sample size	5,172
CQS response rate	100%
Agreement rate:	
England and Wales	91.6%
England	91.8%
Wales	90.7%

There was 91.6 per cent agreement rate between the 2011 census and CQS for this question.

The agreement rate between responses given to this question by Internet was statistically significantly higher than those given on paper (94.1 per cent compared to 91.2 per cent). It is believed that this is because the online help information available to Internet responders would have helped them provide a more accurate response.

The main differences between the census and CQS occurred between semi-detached housing on the census and detached or terraced housing on the CQS (see Table 4.2). The largest difference (2.5 per cent) was where the census indicated that the accommodation was a semi-detached house, but the CQS response was that it was terraced/end-terrace. A sample of these was checked using aerial maps and identified as being terraced houses, principally end-of-terrace. This would indicate that the census slightly overstated the number of semi-detached houses by 1.9 percentage points, and understated the number of terraced houses by 2.3 percentage points. This is consistent with the findings of the 1999 CQS.

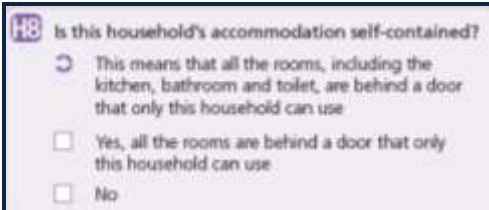
The second largest area of disagreement (1.1 per cent) was for semi-detached on the census but detached on the CQS. This is likely to be due to misunderstanding of the question by those who lived in linked-detached housing which is a type of house which is connected to another by a garage and no other room. This was an issue which was identified during the 2011 questionnaire testing process and the 1999 CQS.

Table 4.2 Agreement rates between 2011 Census and 2011 Census Quality Survey: Accommodation type

England and Wales		Percentages						
Census	Census Quality Survey							Total
	Detached House	Semi-detached House	Terraced house	Flat in purpose-built block	Flat in converted house	Flat in commercial building	Caravan or mobile home	
Detached House	32.1	0.6	0.4	0.0	0.0	0.0	0.0	33.2
Semi-detached House	1.1	26.6	2.5	0.0	0.0	0.0	-	30.3
Terraced house	0.1	1.0	20.0	0.1	0.0	0.0	-	21.2
Flat in purpose-built block	0.0	0.0	0.4	10.1	0.7	0.1	-	11.3
Flat in converted house	-	0.1	0.2	0.2	2.1	0.0	-	2.7
Flat in commercial building	-	0.0	-	0.2	0.2	0.4	-	0.7
Caravan or mobile home	0.0	-	-	-	-	-	0.4	0.4
Total	33.3	28.4	23.5	10.7	3.1	0.6	0.4	100.0
<i>Net diff Census – CQS</i>	<i>-0.1</i>	<i>1.9</i>	<i>-2.3</i>	<i>0.7</i>	<i>-0.4</i>	<i>0.2</i>	<i>0.0</i>	

Self-contained (question H8)

This question asked the respondent whether their household accommodation was self-contained. This question has not changed since 2001.

Census Question	CQS Question
	<p>Was this household's accommodation self-contained (on the 27 March 2011)? This means that all of the rooms, including the kitchen, bathroom and toilet, were behind a door that only this household can use.</p> <p>1. Yes, all the rooms were behind a door that only this household can use 2. No</p>
Show card	No
Population asked	All households
Unweighted sample size	5,172
CQS response rate	100%
Agreement rate:	
England and Wales	98.6%
England	98.6%
Wales	98.6%

The agreement rate between the census and CQS for this question was 98.6 per cent.

As can be seen in Table 4.3, the main difference (0.9 per cent) was for where the census indicated the household's accommodation was not self-contained, but the CQS response was that it was.

Table 4.3 Agreement rates between 2011 Census and 2011 Census Quality Survey: Self-contained

England and Wales		Percentages		
Census	Census Quality Survey			Total
	Yes	No		
Yes	98.6	0.5		99.1
No	0.9	-		0.9
Total	99.5	0.5		100.0
<i>Net difference Census - CQS</i>		<i>-0.4</i>	<i>0.4</i>	

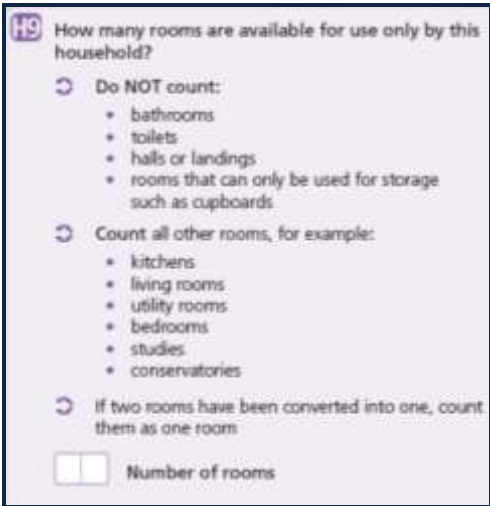
A sample of these was investigated further and it was identified that they mostly comprised larger households, with unrelated tenants, who were all included on the same census questionnaire. The 1999 CQS had found that such shared households were unclear on how to complete this question in situations where they had access to communal facilities. The remainder appeared to be elderly people living in maintained flats within a complex, each with their own kitchen, bathroom and toilet, but with communal living spaces. During questionnaire testing for the 2011 Census it was found that respondents in sheltered retirement accommodation were most likely to find this question confusing.

A small proportion (0.5 per cent) of households identified their accommodation as self-contained on the census, but not on the CQS. Examination of a sample of addresses suggested that most of them were bedsits.

The CQS results suggest that the census may have slightly understated the number of properties that were self-contained (by 0.4 percentage points) and overstated those that were not (also by 0.4 percentage points).

Number of rooms (question H9)

This question asked the respondent how many rooms there were in their household. This question has not changed since 2001. The CQS question differed slightly from the census question as it asked retrospectively how many rooms they had on census day.

Census Question	CQS Question
	How many rooms are/were available for use only by this household on 27 March 2011?
Show card	No
Population asked	All households
Associated question	Number of bedrooms (H10)
Unweighted sample size	5,171
CQS response rate	100%
Agreement rate:	
England and Wales	66.5%
England	66.5%
Wales	66.4%

The agreement rate between the 2011 Census and the CQS for this question was 66.5 per cent.

Combining those who indicated they had ten rooms or more into one category, improves the agreement rate to 68.1 per cent overall.

While the overall agreement rate appears relatively low, the vast majority of differences (92.8 per cent) were within plus or minus one room. The biggest difference was where the census showed six rooms and the CQS five rooms (3.7 per cent), however relatively large differences were also seen for 4, 5, 6 and 7 rooms reflecting the fact that these accounted for a large proportion of the CQS sample. It is possible that some of the differences are caused by scanning issues in the census where the handwritten number was incorrectly scanned for example a handwritten number "6" picked up as a "5" and vice versa.

In a smaller number of cases, differences occurred because respondents had misunderstood the question for example had not included conservatories, utility rooms etc. This issue was identified in previous CQS surveys. As can be seen in table 4.4, the CQS would suggest that the census slightly undercounted the number of households with 5 rooms by 0.8 percentage points.

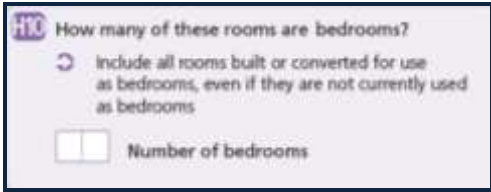
Table 4.4 Agreement rates between 2011 Census and 2011 Census Quality Survey: Number of rooms

England and Wales											Percentages
Census Quality Survey											
Census	1	2	3	4	5	6	7	8	9	10+	Total
1	0.3	0.1	-	0.0	-	-	-	-	-	-	0.3
2	0.0	1.0	0.4	0.1	0.0	-	-	-	-	-	1.6
3	-	0.5	5.3	0.8	0.4	0.1	0.0	-	-	0.0	7.1
4	-	0.1	1.2	12.2	1.5	0.5	0.2	0.1	0.0	-	15.8
5	-	-	0.2	2.0	16.2	2.8	0.4	0.1	0.0	0.0	21.7
6	-	0.0	0.0	0.2	3.7	14.8	2.2	0.2	0.1	0.0	21.4
7	-	-	0.0	0.1	0.5	3.0	7.3	1.3	0.3	0.2	12.8
8	-	-	-	0.0	0.1	0.5	2.2	5.0	0.9	0.3	9.1
9	-	-	0.0	0.0	0.1	0.0	0.5	1.4	2.4	0.6	5.1
10+	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.4	0.8	3.7	5.3
Total	0.3	1.7	7.2	15.4	22.5	21.8	13.0	8.6	4.6	4.9	100.0
<i>Net difference</i>											
<i>Census - CQS</i>	0.0	-0.1	-0.1	0.4	-0.8	-0.4	-0.2	0.5	0.4	0.4	

Note: In this table, the diagonals do not sum to the overall agreement rate between the CQS and the census because the results for 10 or more rooms have been aggregated into one group.

Number of bedrooms (question H10)

This question asked the respondent how many of the rooms mentioned in question H9 were bedrooms. This was the first time this question has been asked on the census.

Census Question	CQS Question
	How many of these rooms are/were bedrooms on the 27 March 2011?
Show card	No
Population asked	All households
Associated question	Number of rooms (H9)
Unweighted sample size	5,171
CQS response rate	100%
Agreement rate:	
England and Wales	91.4%
England	91.4%
Wales	91.4%

The agreement rate between the 2011 Census and the CQS for this question was 91.4 per cent and was the same for England and for Wales.

As with the number of rooms, the vast majority of differences between the 2011 Census and CQS for bedrooms were within plus or minus one room (98.6 per cent). Table 4.5 shows the largest difference was where the census showed the household had four bedrooms, but the CQS reported three (1.4 per cent of households). Similarly, just over one per cent (1.3 per cent) of the census responses indicated two bedrooms on the census but three on the CQS, and vice versa.

It is possible that some of the larger differences are caused by scanning issues in the census where the handwritten number was incorrectly scanned for example a handwritten number "5" picked up as a "6".

2011 Census questionnaire testing had previously found that respondents found this question easier to interpret than the "number of rooms" question.

The CQS results would indicate that the census slightly understated the number of households with three bedrooms (by 0.6 percentage points) but overstated those with four and five bedrooms (by 0.4 and 0.3 percentage points respectively).

Table 4.5 Agreement rates between 2011 Census and 2011 Census Quality Survey: Number of bedrooms

England and Wales

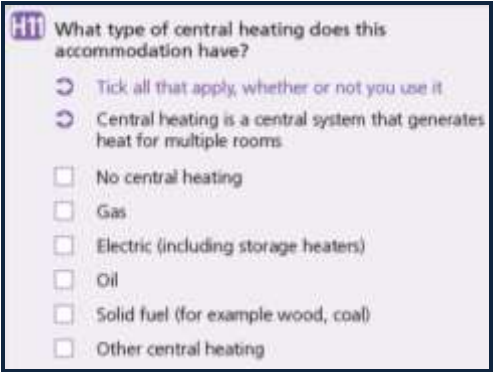
Percentages

Census	Census Quality Survey											Total	
	0	1	2	3	4	5	6	7	8	9	10+		
0	0.0	0.0	0.0	-	-	-	-	-	-	-	-	-	0.1
1	0.0	8.0	0.3	0.1	0.0	-	-	-	-	-	-	-	8.5
2	-	0.4	21.3	1.3	0.1	-	-	-	-	-	-	-	23.1
3	0.0	0.1	1.2	40.3	1.0	0.1	0.1	-	-	0.0	-	-	42.8
4	-	0.1	0.1	1.4	17.1	0.6	0.0	0.0	-	-	-	-	19.3
5	-	-	0.0	0.3	0.6	3.7	0.2	0.0	0.0	-	-	-	4.9
6	-	-	0.0	0.0	0.0	0.1	0.8	0.1	-	-	-	-	1.1
7	-	-	-	-	0.0	0.0	0.0	0.1	-	0.0	-	-	0.2
8	-	-	-	-	-	-	-	-	0.1	0.0	-	-	0.1
9	-	-	-	-	-	-	-	-	-	-	-	-	-
10+	-	-	-	0.0	-	-	-	-	0.0	-	0.0	-	0.0
Total	0.1	8.7	23.0	43.3	18.9	4.6	1.2	0.2	0.1	0.1	0.0	0.0	100.0
<i>Net difference Census - CQS</i>	<i>-0.0</i>	<i>-0.1</i>	<i>0.1</i>	<i>-0.6</i>	<i>0.4</i>	<i>0.3</i>	<i>-0.1</i>	<i>0.0</i>	<i>0.0</i>	<i>-0.1</i>	<i>0.0</i>	<i>0.0</i>	

Note: In this table, the diagonals do not sum to the overall agreement rate between the CQS and the census because the results for 10 or more rooms have been aggregated into one group.

Central heating (question H11)

This question asked households to indicate what type of central heating their accommodation had. It was a “multi-tick” question because they could select any of the response categories that applied. The question has changed since 2001 when it asked “does your accommodation have central heating” followed by “yes in some or all rooms” and “no”. The CQS questions differed a little from the census question as it asked about the position on census day.

Census Question	CQS Question
	<p>What type of central heating did this accommodation have on 27 March 2011? Select all that apply, whether or not you use/used it.</p> <ol style="list-style-type: none"> 1. No central heating 2. Gas 3. Electric (including storage heaters) 4. Oil 5. Solid fuel (for example wood, coal) 6. Other central heating
Show card	E
Population asked	All households
Unweighted sample size	5,158
CQS response rate	99.6%
Agreement rate:	
England and Wales	90.2%
England	90.5%
Wales	88.2%

There was a 90.2 per cent agreement rate between the census and CQS for this question.

The largest difference (2.5 per cent) between the census and CQS occurred where the census indicated “two or more” central heating types but the CQS response was that the central heating was gas (see Table 4.6). More detailed analysis indicated that these were mostly where “gas and electric” and “gas and solid fuel” had been ticked on the census. The difference is most likely because respondents incorrectly selected “gas and electric” for accommodation which had partial gas central heating supplemented by electric heaters or solid fuel fires. The CQS interviewer would have been able to clarify that in such cases only gas should have been selected.

The 1999 CQS found that one of the main reasons for answering differently in the interview was that they did not know how to treat central heating that did not cover all rooms or central heating that was broken.

These CQS results would imply that the census understated the proportion of households with gas central heating by 2.4 percentage points but overstated those with two or more types of central heating by 3.7 percentage points.

Table 4.6 Agreement rates between 2011 Census and 2011 Census Quality Survey: Central heating

England and Wales

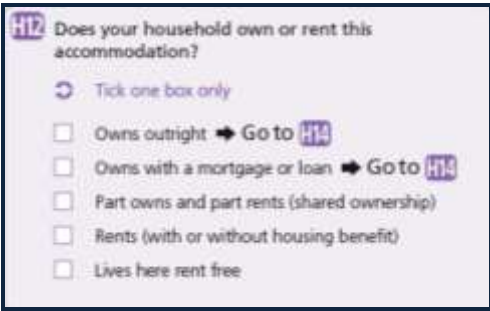
Percentages

Census	Census Quality Survey							Total
	None	Gas	Electric	Oil	Solid Fuel	Other	Two or more types of central heating	
None	1.6	0.3	0.3	0.0	0.1	0.0	0.0	2.2
Gas	0.6	72.4	0.4	0.1	0.1	0.4	0.3	74.2
Electric	0.4	0.6	5.2	0.0	0.0	0.2	0.1	6.5
Oil	0.1	0.1	0.0	9.1	0.0	0.0	0.1	9.5
Solid Fuel	0.1	-	0.0	-	1.2	-	0.0	1.4
Other	0.0	0.8	0.1	0.0	-	0.3	0.0	1.3
Two or more types of central heating	0.1	2.5	0.4	1.1	0.1	0.1	0.6	5.0
Total	2.8	76.6	6.4	10.4	1.5	1.0	1.2	100.0
<i>Net difference Census - CQS</i>	<i>-0.6</i>	<i>-2.4</i>	<i>0.1</i>	<i>-0.9</i>	<i>-0.1</i>	<i>0.3</i>	<i>3.7</i>	

Note: In this table, the diagonals do not sum to the overall agreement rate between the CQS and the census because the results for two or more types of central heating have been aggregated into one group.

Tenure (question H12)

This question asked about whether the household rented or owned their accommodation. The CQS question was phrased slightly differently to the census question as it asked them to reflect their situation on census day. The question has not changed since 2001 apart from some minor changes in wording.

Census Question	CQS Question
	<p>Thinking back to 27 March 2011 did your household own or rent this accommodation?</p> <ol style="list-style-type: none"> Owns outright Owns with a mortgage or loan Part owns and part rents (shared ownership) Rents (with or without housing benefit) Lives here rent free
Show card	F
Population asked	All households
Associated question	Landlord (question H13)
Unweighted sample size	5,170
CQS response rate	100%
Agreement rate:	
England and Wales	95.0%
England	95.2%
Wales	93.8%

The agreement rate between the 2011 Census and CQS for this question was 95.0 per cent.

The agreement rate for census responses provided by Internet (97.2 per cent) was statistically significantly higher than those provided by paper (94.6 per cent). This is probably because more instructions and information were available to those completing online.

The agreement rate for England was also statistically significantly better than that for Wales (95.2 per cent compared to 93.8 per cent).


The main areas of difference between the census and the CQS related to responses of “owns outright” on one source and “owns with a mortgage” on the other (1.4 per cent). The 1999 CQS found that some households that had said that they owned outright did in fact have a small mortgage or loan; in many cases interviewers noted that this was in order to keep the deeds at the bank.

Table 4.7 Agreement rates between 2011 Census and 2011 Census Quality Survey: Tenure

England and Wales		Percentages				
		Census Quality Survey				
Census	Owns outright	Owns with a mortgage	Part owns & part rents	Rents	Lives rent free	Total
Owns outright	37.9	1.4	0.1	0.2	0.2	39.8
Owns with a mortgage	1.4	31.9	0.1	0.2	0.1	33.7
Part owns & part rents	0.1	0.1	0.3	0.0	-	0.5
Rents	0.2	0.1	0.0	24.1	0.3	24.7
Lives rent free	0.2	0.0	0.0	0.4	0.8	1.4
Total	39.8	33.5	0.5	24.9	1.3	100.0
<i>Net difference Census - CQS</i>	<i>-0.0</i>	<i>0.1</i>	<i>0.0</i>	<i>-0.2</i>	<i>0.1</i>	

Landlord (question H13)

This question asked households that rented their accommodation who their landlord was. These were households that responded “part owns and part rents”, “rents” or “lives here rent free” to question H12. This question has changed a little since 2001 by adding “Tick one box only” as an instruction to minimise multi-responses as in 2001 some people ticked more than one box. The ordering of the response categories was also changed so that “Housing association, housing co-operative, charitable trust, registered social landlord” was placed first in the list, and “Council (local authority)” was moved down to second in the list. This change was made in order to reflect changes in the proportion of people living in these types of accommodation since 2001. The 2011 CQS question was phrased slightly differently to the 2011 Census question as it asked respondents to reflect their situation on census day.

Census Question	CQS Question
	<p>Who was your landlord (on the 27 March 2011)?</p> <ol style="list-style-type: none"> 1. Housing Association, Housing Co-operative, Charitable Trust, Registered Social Landlord 2. Council (Local Authority) 3. Private landlord or letting agency 4. Employer of a household member 5. Relative or friend of a household member 6. Other
Show card	G
Population asked	Households that rented their accommodation
Associated question	Tenure (question H12)
Unweighted sample size	1,339
CQS response rate	100%
Agreement rate:	
England and Wales	87.6%
England	88.7%
Wales	78.6%

As this question only applied to households that were renting, the sample size was much smaller than for other household questions. This should be borne in mind when considering the results.

The agreement rate between the CQS and census for this question was 87.6 per cent.

The largest area of disagreement between the CQS and the census was between the categories “council” and “housing association/social landlord”. In particular, 4.9 per cent of households responded on the census that their landlord was the council, but on the CQS they changed their response to “housing association/social landlord”. In the past decade, some local authorities (including all authorities in Wales) transferred the management of all their council stock to other social landlords. This change was also seen in the census data for 2011. It is possible that some respondents may not have realised this and answered this census question assuming the council was still their landlord. In particular, tenants who received housing benefits that are paid directly to the landlord may not have realised that they were in fact managed and owned by a housing agency. In the CQS, the interviewers were able to ask questions to establish the type of landlord which would explain the difference.

The CQS results would suggest that the census overstated the number of households renting from the council by 3 percentage points and understated those who were renting from a housing association or social landlord by 3.9 per cent.

Table 4.8 Agreement rates between 2011 Census and 2011 Census Quality Survey: Landlord

England and Wales

Percentages

Census	Census Quality Survey						Total
	Housing Association/ Social Landlord	Council	Private Landlord	Employer	Relative/ Friend	Other	
Housing Association/ Social Landlord	24.4	1.7	0.4	0.1	0.1	0.1	26.8
Council	4.9	19.5	0.1	-	-	-	24.6
Private Landlord	1.0	0.3	39.7	0.2	0.2	0.3	41.7
Employer	0.1	-	0.2	1.6	-	0.4	2.3
Relative/ Friend	-	0.1	1.5	-	2.2	-	3.7
Other	0.2	-	0.2	0.1	-	0.2	0.8
Total	30.7	21.6	42.2	2.1	2.5	1.0	100.0
<i>Net difference Census - CQS</i>	<i>-3.9</i>	<i>3.0</i>	<i>-0.5</i>	<i>0.2</i>	<i>1.3</i>	<i>-0.2</i>	

5. Agreement rates for individual questions

Individual questions were asked of every member who usually lived in the household sampled. Where individuals usually resident at the house were not available at the initial visit, interviewers attempted to rearrange the interview for a more convenient time to maximise the response rate. If this was not possible, responses were taken from a proxy, with the consent of the individual concerned. All information on children under the age of 16 years was collected from a proxy respondent.

As explained in Section 2.2 above, the final CQS sample comprised 9,651 individuals. As the sample of individuals was not fully representative of the population of England and Wales, the results were weighted.

The sample size varies slightly between questions depending on the CQS response rate to that question and whether the question applied to the individual, for example the question on qualifications was not asked of those aged fifteen or under. In a few questions, for example “Language Proficiency” (question 19); the number of people responding to the question in the CQS sample was too small to produce reliable estimates of the agreement rates for England and Wales.

Table 5.1 below summarises the agreement rates and confidence intervals for the 2011 Census questions for individuals compared to the 1999 CQS agreement rates.

The 2011 agreement rates varied considerably between questions ranging from 60.4 per cent for question 15 on “National Identity” to 99.8 per cent for question 28 on “Waiting to start work”. Of the thirty questions asked in the CQS (whose sample was large enough to be included in the analysis), just over a third had over 95 per cent agreement rates and three-fifths had over 90 per cent.

Confidence intervals around the agreement rates ranged from 0.1 percentage points for the question on sex through to 1.5 percentage points on “year last worked”.

In general terms, questions that were more subjective in nature and depended on how the respondent viewed their circumstances at the time the question was asked had lower agreement rates and wider confidence intervals.

In the following section, agreement rates for each of the individual questions included in the CQS are given.

For explanation of the information provided please see Section 3.

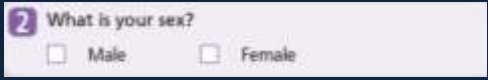
Table 5.1 Weighted agreement rates between 2011 Census and Census Quality Survey: Individuals

England and Wales

Question Number	Census Question	2011 CQS Agreement Rates (%)	2011 CQS Confidence Interval Width (+/- percentage points)
2	Sex	99.7	0.1
3	Date of birth	98.4	0.3
4	Marital and civil partnerships	98.1	0.3
5	Second address	97.1	0.4
7	School children/ students	97.6	0.3
8	Term-time address	98.9	0.5
9	Country of birth	99.1	0.3
13	General Health	68.2	1.2
14	Unpaid care	90.9	0.7
15	National identity	60.4	1.4
16	Ethnic group (18 tick boxes)	94.7	0.8
18	Main language	96.3	0.7
20	Religion	90.4	0.9
21	Usual address one year ago	95.5	0.6
22	Passports	91.8	0.7
23	Limiting long term illness	88.9	0.7
25	Highest qualification	67.6	1.0
26	Working status in previous week	91.2	0.6
27	Looking for work	96.2	0.6
28	Available for work	86.2	1.0
29	Waiting to start work	99.8	0.1
30	Reasons for not working	86.4	1.0
31	Ever worked	94.4	0.7
31	Year last worked	55.0	1.5
33	Self employed or employee	94.7	0.5
34,35	Occupation Code (Major group)	67.5	1.0
36	Supervisor	86.2	0.7
37,38	Industry Code (Section)	74.2	0.9
40	Address of workplace (Post Code Sector)	82.2	1.1
41	Travel to work	85.5	0.9
42	Hours worked	83.9	0.9

Sex (question 2)

This question asked the respondents to indicate whether they were male or female. This question has not changed since 2001.

Census Question	CQS Question
	What is your sex? Male Female
Show card	No
Population asked	All members of household
Unweighted sample size	9,651
CQS Response Rate	100%
Weighted agreement rate:	
England and Wales	99.7%
England	99.7%
Wales	99.7%

The agreement rate between the 2011 Census and CQS for this question was 99.7 per cent.

Investigation of the small number of differences found that just under two-fifths (37 per cent) occurred because the census response had been edited or imputed. This would have happened if the respondent to the census had either not answered the question or had ticked both male and female. A very small percentage of the differences (7 per cent) were where the original census response had given by a proxy respondent.

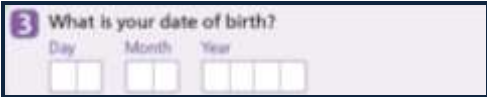
Other reasons for differences may be because response ticked had been picked up incorrectly in scanning or because respondents might have made a simple mistake in filling in the questionnaire.

Table 5.2 Agreement rates between 2011 Census and 2011 Census Quality Survey: Sex

England and Wales		Percentages		
Census	Census Quality Survey			Total
	Male	Female		
Male	48.4	0.1		48.5
Female	0.2	51.3		51.5
Total	48.6	51.4		100.0
<i>Net difference Census - CQS</i>		<i>-0.1</i>	<i>0.1</i>	

Date of birth (question 3)

The question asked respondents in both the census and the CQS to give their date of birth. Census statistics by age and age band are calculated from date of birth. This question has not changed since 2001.

Census Question	CQS Question
	What is your date of birth?
Show card	No
Population asked	All members of household
Unweighted sample size	9,627
CQS Response Rate	99.8%
Weighted agreement rate (single year of age):	
England and Wales	98.4%
England	98.3%
Wales	99.0%

The date of birth given on both the census and CQS was used to calculate age on census day. These ages were then compared. There was 98.4 per cent agreement rate between the census and CQS calculated by single year of age. Date of birth was checked twice during the CQS interview as it was one of the key variables used to match the respondent's CQS answers against their census record. This reinforced the accuracy of the date of birth in the CQS.

The agreement rate in Wales (99.0 per cent) was statistically significantly higher than England (98.3 per cent). Similarly, the agreement between the CQS and census for responses given to the census by Internet was statistically significantly higher than those provided on paper; 99.2 per cent compared to 98.2 per cent. This would be expected as date of birth would have been handwritten on the paper census questionnaire which made it susceptible to scanning error, while those responding to the census via the Internet would have typed in the date.

Chart 5.1 shows the differences between the census and CQS by whether the census value had been subject to edit or imputation, the census response was given by a proxy or other reason. In all, 23 per cent of the differences were due to census edit or imputation and a further 8 per cent because the original date of birth had been given incorrectly by a proxy. Of the other differences, some appear to have been caused by incorrect scanning of the handwritten date of birth, for example 1956 picked up as 1966 or where the year of birth was transposed by the respondent, for example given as 1934 on one and 1943 on another. It is also possible that respondents had simply made a mistake on the census questionnaire by writing in the wrong year.

Table 5.3 shows the agreement rates between the census and CQS aggregated into five-year age groups. Discrepancies between the census and the CQS were generally very small across all age groups.

Chart 5.1 Differences between 2011 Census and 2011 Census Quality Survey: Single year of age

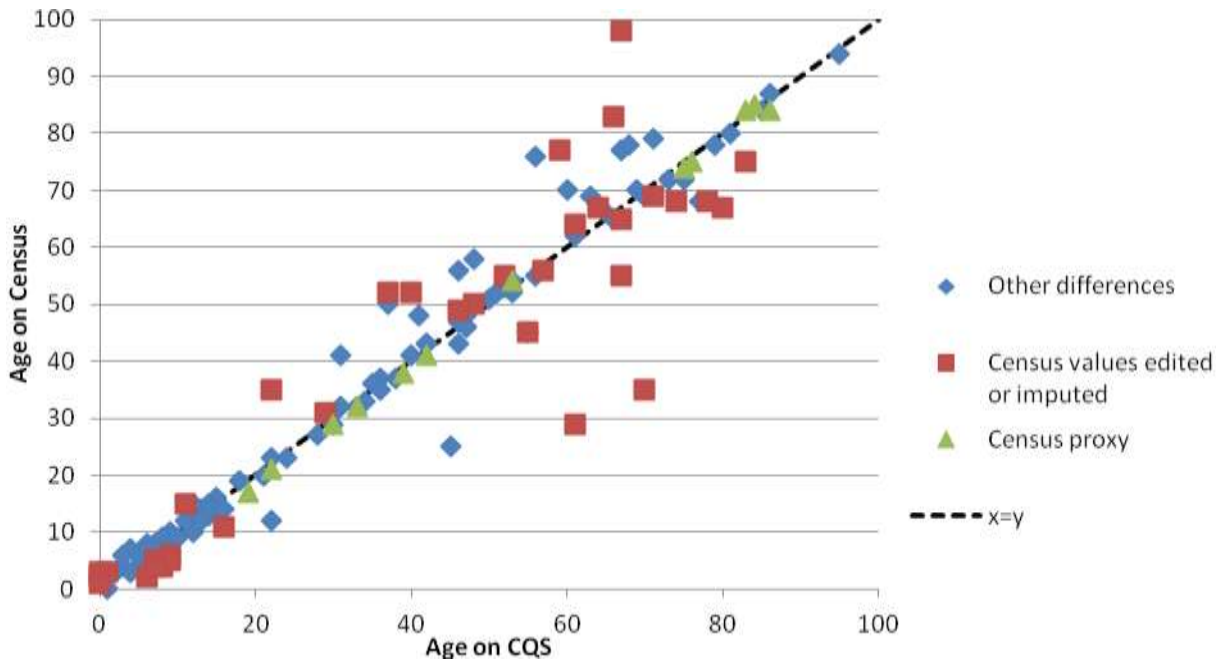


Table 5.3 Agreement rates between 2011 Census and 2011 Census Quality Survey: Age (five-year age groups)

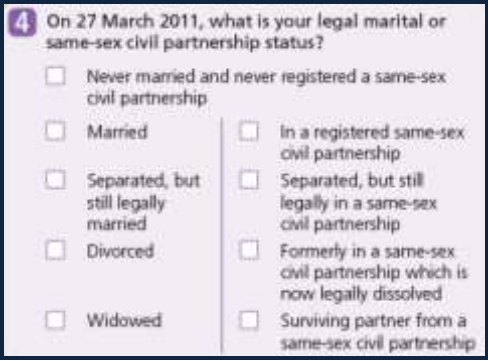
England and Wales Percentages

Census	Census Quality Survey																	Total	
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84		85+
0-4	6.5	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.5
5-9	0.0	5.4	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.4
10-14	-	0.0	6.6	0.1	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	6.7
15-19	-	-	0.0	3.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.4
20-24	-	-	-	-	3.2	-	-	-	-	-	-	-	-	-	-	-	-	-	3.2
25-29	-	-	-	-	-	4.6	0.0	-	-	0.0	-	-	0.0	-	-	-	-	-	4.7
30-34	-	-	-	-	-	0.0	5.8	-	-	-	-	-	-	-	-	-	-	-	5.8
35-39	-	-	-	-	0.0	-	-	5.6	-	-	-	-	-	-	0.0	-	-	-	5.6
40-44	-	-	-	-	-	-	0.0	-	7.0	0.0	-	-	-	-	-	-	-	-	7.1
45-49	-	-	-	-	-	-	-	-	0.0	8.3	-	0.0	-	-	-	-	-	-	8.3
50-54	-	-	-	-	-	-	-	0.0	0.0	0.0	9.0	-	-	-	-	-	-	-	9.0
55-59	-	-	-	-	-	-	-	-	-	0.1	0.1	7.5	-	0.0	-	-	-	-	7.6
60-64	-	-	-	-	-	-	-	-	-	-	-	-	9.8	-	-	-	-	-	9.8
65-69	-	-	-	-	-	-	-	-	-	-	-	-	0.0	4.8	0.0	0.0	0.0	-	4.9
70-74	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	4.1	0.0	-	-	4.1
75-79	-	-	-	-	-	-	-	-	-	-	-	0.1	-	0.0	0.0	3.7	0.0	-	3.8
80-84	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	2.1	0.0	2.1
85+	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	0.0	1.9	1.9
Total	6.5	5.4	6.7	3.4	3.2	4.6	5.8	5.7	7.0	8.4	9.0	7.6	9.9	4.9	4.1	3.7	2.1	1.9	100.0
Net difference Census - CQS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	-0.1	0.0	0.0	0.1	0.0	0.0	

Note: In this table, the diagonals do not sum to the overall agreement rate between the CQS and the census because the results have been aggregated into groups.

Marital and civil partnership status (question 4)

This question asked about the respondent's legal marital status or same-sex civil partnership status. The CQS question differed slightly to that used in the census because in the former they were asked to report on their status on census day. This question has changed since 2001 to reflect the introduction of civil partnerships in the United Kingdom in 2004.

Census Question	CQS Question
	<p>Thinking back to 27 March 2011, what was your legal marital or same-sex civil partnership status?</p> <ol style="list-style-type: none"> 1. Never married and never registered a same-sex civil partnership 2. Married 3. In a registered same-sex civil partnership 4. Separated, but still legally married 5. Separated, but still legally in a same-sex partnership 6. Divorced 7. Formerly in a same-sex civil partnership which is now legally dissolved 8. Widowed 9. Surviving partner from a same-sex civil partnership
Show card	B
Population asked	All members of household
Unweighted sample size	9,644
CQS Response Rate	99.9%
Weighted agreement rate:	
England and Wales	98.1%
England	98.0%
Wales	98.5%

The agreement rate between the 2011 Census and the CQS for this question was 98.1 per cent.

The agreement rate for Wales (98.5 per cent) was statistically significantly better than England (98.0 per cent) although the sample was smaller. The agreement rate for those who responded to the census question by Internet was also statistically significantly higher than for those who responded by paper - 98.9 per cent compared to 97.9 per cent. It is believed that this is because the online help information available to Internet responders would have helped them provide a more accurate response.

Only small differences were found between response categories (Table 5.4). The largest of these (0.4 per cent) was between "divorced" on the census but "never married and never registered a same-sex civil partnership" on the CQS. Just under half of this difference was because the census response had been edited or imputed as "divorced". The answer would have been imputed in the census either because the question had been left blank or more than one option had been ticked, and edited if it had been illogical given the respondents other answers. The second largest difference (0.3 per cent) was between "separated but legally married" on the census, but "married" on the CQS.

There was no obvious reason for these differences however it may be that social desirability²¹ bias may affect the CQS responses for this question as respondents might have been uncomfortable telling the interviewer about their marital status face-to-face. The time lag between the CQS and the census might also be an explanation as respondents might have changed their relationship and may not have accurately remembered their status as it was on census day.


Table 5.4 Agreement rates between 2011 Census and 2011 Census Quality Survey: Marital and civil partnership status

England and Wales										Percentages
Census	Census Quality Survey									Total
	Never married or in CP ¹	Married	Separated	Divorced	Widowed	CP	Separated from CP ¹	Dissolved CP ¹	Surviving CP ¹	
Never married or in CP ¹	39.7	0.0	0.0	0.1	0.0	-	-	0.0	-	39.9
Married	0.1	40.8	0.1	0.1	0.1	0.0	0.0	-	-	41.3
Separated	0.1	0.3	1.6	0.1	0.0	-	0.1	-	-	2.1
Divorced	0.4	0.1	0.0	8.4	0.0	0.0				9.0
Widowed	0.0	-	-	0.0	7.5	-	-	0.0	-	7.5
CP	0.0	-	-	-	-	0.0	-	-	-	0.0
Separated from CP ¹	-	-	-	-	-	0.0	0.0	-	-	0.0
Dissolved CP ¹	-	-	-	0.0	-	-	-	-	-	0.0
Surviving CP ¹	-	-	-	-	0.0	-	-	-	-	0.0
Total	40.3	41.2	1.8	8.8	7.7	0.1	0.1	0.0	0.0	100.0
<i>Net difference Census - CQS</i>	<i>-0.3</i>	<i>0.2</i>	<i>0.3</i>	<i>0.2</i>	<i>-0.2</i>	<i>-0.0</i>	<i>-0.1</i>	<i>-0.0</i>	<i>0.0</i>	

¹ CP = Civil Partnership

Second address (question 5)

This question asked the respondent to indicate whether or not they stayed at a second address for more than 30 days a year, and if so, what that second address was. This was the first time this question had been asked in the census.

Census Question	CQS Question
	<p>Do you stay at another address for more than 30 days?</p> <ol style="list-style-type: none"> Yes No
Show card	H
Population asked	All members of household
Unweighted sample Size	9,564
Associated questions	Second address type (6)
CQS Response rate	99.1%
Weighted agreement rate:	
England and Wales	97.1% (tick box only)
England	97.1% (tick box only)
Wales	97.7% (tick box only)

The agreement rate for the tick-box part of this question (on whether a person had a second address or not) was 97.1 per cent. The vast majority of people in the CQS sample did not have a second address.

The agreement rate for Wales was statistically significantly higher than for England (97.7 per cent compared to 97.1 per cent), though the sample was smaller.

The largest difference between the census and CQS (1.1%) was where the census indicated that the respondent did have a second address in the UK, but the CQS did not (Table 5.5). Twelve per cent of all differences were caused because the census value had been edited or imputed and 7 per cent were due to a proxy respondent giving a different response on the census. It is thought that the remaining differences are because respondents gave a different answer in the CQS interview. Previous questionnaire testing found that some people found this question difficult to answer. In particular they were unclear whether the 30 days in the question were consecutive or not.

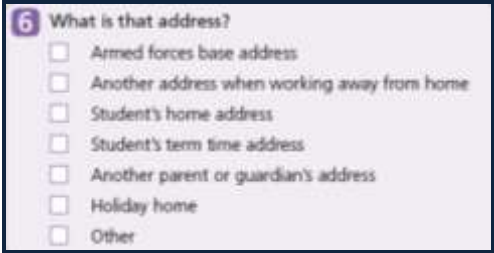
Of those who said they had a second address, the question also asked whether it was within the UK or abroad. The number of people in the CQS sample who had second addresses (166) was too small to calculate a reliable weighted agreement rate for England and Wales.

Table 5.5 Agreement rates between 2011 Census and 2011 Census Quality Survey: Second address

England and Wales		Percentages		
Census	Census Quality Survey			Total
	No	Yes (UK)	Yes (Abroad)	
No	95.5	0.8	0.4	96.8
Yes (UK)	1.1	1.1	0.0	2.2
Yes (Abroad)	0.5	0.0	0.5	1.0
Total	97.2	1.9	0.9	100.0
<i>Net difference Census - CQS</i>	<i>-0.4</i>	<i>0.3</i>	<i>0.1</i>	

Second address type (question 6)

For those who had a second address (those who replied “yes” to question 5), a further question was asked about the type of this second address. This was the first time this question had been asked in the census.

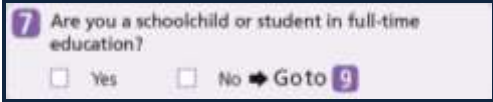
Census Question	CQS Question
	<p>What was/is that address?</p> <ol style="list-style-type: none"> 1. Armed Forces base address 2. Another address when working away from home 3. Student's home address 4. Student's term-time address 5. Another parent or guardian's address 6. Holiday home 7. Other
Show card	H
Population asked	Members of households who had a second address
Unweighted sample size	166
Associated questions	Second address (5)
CQS Response Rate	98.1%
Weighted agreement rate:	
England and Wales	n/a
England	n/a
Wales	n/a

The number of people in the CQS sample who had second addresses (166) was too small to calculate a reliable weighted agreement rate for England and Wales for this question.

However of the 166 people who did reply to this question, 130 gave the same answer (a 78.3 per cent agreement).

Schoolchildren or students in full-time education (question 7)

This question asked whether the respondent was a schoolchild or student in full-time education. The CQS question differed slightly from the census question because respondents were asked to think back and report on their status as it was on census day. This question has not changed since 2001.

Census Question	CQS Question
	Thinking back to 27 March, were you a schoolchild or student in full-time education? 1. Yes 2. No
Show card	No
Population asked	All members of household
Associated question	Term-time address (8)
Unweighted sample size	9,565
CQS Response Rate	99.1%
Weighted agreement rate:	
England and Wales	97.6%
England	97.7%
Wales	95.7%

The agreement rate between the 2011 Census and CQS for this question was 97.6 per cent.

The agreement rate for England (97.7 per cent) was statistically significantly higher than Wales (95.7 per cent). This may be because Wales has fewer students than England. Also, the agreement rate for those who responded to the census on paper was statistically significantly higher than those who responded by Internet (97.7 and 97.1 per cent respectively).

Table 5.6 Agreement rates between 2011 Census and 2011 Census Quality Survey: Schoolchildren or students in full-time education

England and Wales	Percentages		
	Census Quality Survey		
Census	Yes	No	Total
Yes	17.3	1.7	19.0
No	0.7	80.3	81.0
Total	18.0	82.0	100.0
<i>Net difference Census - CQS</i>	1.0	-1.0	

Table 5.6 shows the differences between the census and CQS for each response category. The largest difference between the census and CQS (1.7 per cent) was where the census indicated that the person was a "schoolchild or student in full-time education", but the respondent in the CQS said they were not. Further investigation identified that around half of these were children aged four and under. It is possible that this difference is because those

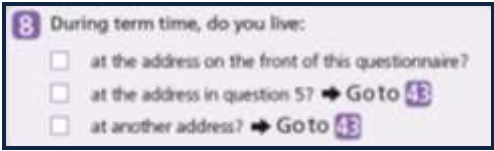
completing the census on behalf of these children might have interpreted pre-school or nursery as full-time education and ticked “yes”, whereas in the CQS the interviewer was able to clarify that pre-school and nursery were not full-time education. This was something identified in a few cases during census questionnaire testing.

Seven per cent of all differences occurred where the census response had been subject to edit or imputation, because the value had been missing, both boxes had been ticked, or the response was illogical. The remainder of differences occurred where the CQS respondent gave a different answer. The 1999 CQS found that some part-time students did not know how to answer this question which may also be an explanation for differences in 2011.

The CQS results suggest that the census slightly overstated the number of students and schoolchildren in full-time education (by 1 per cent). However this does not affect census outputs which exclude students and schoolchildren in full-time education who were under four years of age.

Term-time address (question 8)

Respondents who answered that they were a schoolchild or student in full-time education on census day were then asked about their term-time address on that day. The CQS question differed slightly from the census question as it asked the respondent to think back and report on their term-time address as it would have been on census day. The wording of this question has changed since 2001 to reflect the introduction of the new question on second address (question 5)

Census Question	CQS Question
	<p>Thinking back to your circumstances around 27 March 2011 were you living:</p> <ol style="list-style-type: none"> 1. At this address 2. At the address you mentioned earlier, or 3. At another address?
Show card	No
Population asked	All schoolchildren or students in full-time education (those who answered "yes" to question 7 above)
Associated question	Schoolchildren or students in full-time education (7)
Unweighted sample size	1,721
CQS Response Rate	100%
Weighted agreement rate:	
England and Wales	98.9%
England	98.9%
Wales	98.8%

As the main population base for outputs from the 2011 Census was the usually resident population as at census day, the CQS dataset was adjusted to exclude anyone in the sample who indicated that they were not usually resident at the address given on the front of the questionnaire. This included students and schoolchildren living away from home during term-time (that is those who ticked the second and third boxes in this question). For this reason, it is not possible to show a cross-tabulation of the census and CQS results for each response category as the CQS sample only includes usual residents.

The agreement rate between the census and CQS for this question was 98.9 per cent.

Responses given to this question by Internet had a statistically significantly higher agreement rate than those given on paper (99.8 per cent compared to 98.6 per cent). It is believed that this is because the online help information available to Internet responders would have helped them provide a more accurate response. Also the profile of those responding by Internet contained more students


The agreement rates for the response categories that can be analysed are shown in Table 5.7. There was only a 1.1 per cent difference between the census and CQS and the numbers involved were too small to draw any conclusions about why differences occurred.

Table 5.7 Agreement rates between 2011 Census and 2011 Census Quality Survey: Term-time address

England and Wales		Percentages
		Census Quality Survey
Census	Address given on questionnaire	
Address given on questionnaire		98.9
Second address		0.9
Another address		0.2
Total		100.0

Country of birth (question 9)

This question asked for the respondent's country of birth. The difference between the CQS question and the census was that respondents who were born outside the UK or Republic of Ireland would have entered the name of the country they were born in (on paper or online) whereas in the CQS the country was entered and coded directly by the interviewer. This question has not changed since 2001.

Census Question	CQS Question
	<p>What is the country of your birth?</p> <ol style="list-style-type: none"> 1. England 2. Wales 3. Scotland 4. Northern Ireland 5. Republic of Ireland 6. Elsewhere
Show card	I-E and I-W
Population asked	All members of household
Associated question	Date of arrival (10)
Unweighted sample size	9,547
CQS response Rate	99.1%
Weighted agreement rate:	
England and Wales	99.1%
England	99.1%
Wales	98.8%

The overall agreement rate between the 2011 Census and CQS for this question (where all tick-box responses agreed as well as the countries specifically entered in "elsewhere") was 99.1 per cent.

The agreement rate for England (99.1 per cent) was statistically significantly higher than for Wales (98.6 per cent).

Where differences did occur, they were very small (Table 5.8). Looking at the differences in more detail, 19 per cent occurred because the census response had been subject to edit or imputation and 5 per cent because the original census response had been provided by a proxy. Of the remaining differences some appeared to be due to scanning errors of handwritten entries under "elsewhere" and differences in coding approach between the census and CQS. Others were where people gave different answers.

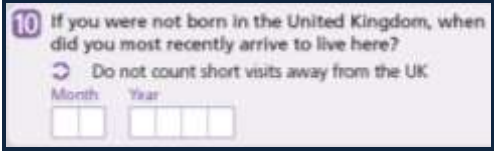
Table 5.8 Agreement rates between 2011 Census and 2011 Census Quality Survey: Country of birth

England and Wales							Percentages
Census	Census Quality Survey						Total
	England	Wales	Scotland	Northern Ireland	Republic of Ireland	Elsewhere	
England	81.8	0.1	0.0	0.0	0.0	0.1	82.0
Wales	0.2	5.0	-	-	-	-	5.2
Scotland	0.0	0.0	1.0	-	-	-	1.0
Northern Ireland	-	-	-	0.5	-	-	0.5
Republic of Ireland	-	-	-	-	0.7	0.1	0.8
Elsewhere	0.1	-	-	-	-	10.3	10.4
Total	82.1	5.1	1.0	0.5	0.7	10.5	100.0
<i>Net difference</i>							
<i>Census - CQS</i>	<i>-0.1</i>	<i>0.1</i>	<i>-0.0</i>	<i>-0.0</i>	<i>0.1</i>	<i>-0.0</i>	

Note: In this table, the diagonals do not sum to the overall agreement rate between the CQS and the census because the results have been aggregated into groups.

Date of arrival (question 10)

Those people who answered that they had not been born in the UK or the Republic of Ireland were asked when they most recently arrived in the UK. The main difference between the CQS and census question was that those who responded to the census would have entered the answer themselves (on paper or online) whereas the CQS interviewer would have typed their answer into the computer-assisted interview software. This was the first time this question had been asked in the census.

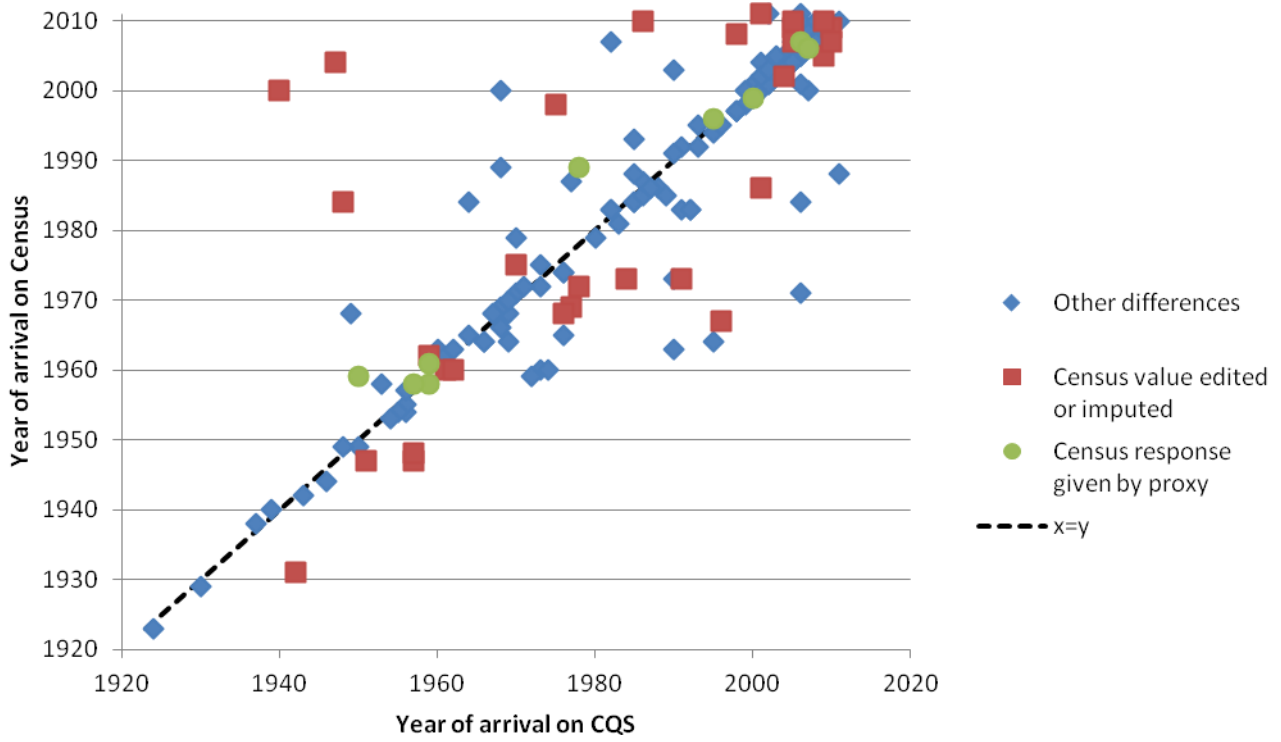
Census Question	CQS Question
	If you were not born in the United Kingdom, when did you most recently arrive to live here?
Show card	No
Population asked	Non-UK or non-Republic of Ireland born members of the household
Associated question	Country of birth (9)
Unweighted sample	740
CQS Response rate	99.9%
Weighted agreement rate for:	
England and Wales	n/a
England	n/a
Wales	n/a

The number of people responding to this question in the CQS sample (740) was too small to calculate a reliable weighted agreement rate for England and Wales for this question. However of the 740 people who did reply to this question, 567 gave the same answer (a 76.6 per cent agreement).

Chart 5.2 shows the differences between the census and CQS by whether the census value had been subject to edit or imputation, the census response was given by a proxy or the difference was for another reason. Of those that did not agree, 17 per cent were where the census response had been subject to edit or imputation and 5 per cent where a proxy had given a different response in the census. As can be seen in the chart, census proxy responses were generally close to the CQS answer.

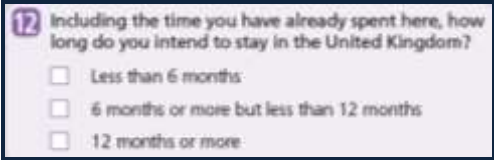
Of the remaining differences, just over a half were within plus or minus one year which suggests the respondent had struggled to remember the exact year in which they had arrived. A few differences appeared to have been caused because the handwritten census date had been scanned incorrectly. But the majority of the other differences were where the date given in the CQS interview was different to that given on the census. This may be because they had not understood the question, for example they may have given the date they last entered the country after a holiday, or could not remember exactly when they had arrived the first time. The CQS interviewer would have been able to explain what was required and use prompts to help them remember the date. Another common error was to give the current year as the answer which could explain the cluster of differences seen around 2011.

Chart 5.2 Differences between 2011 Census and 2011 Census Quality Survey: Year of arrival



Intention to stay (question 12)

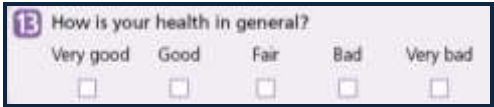
This was a new question introduced in the 2011 Census. It asked non-UK born members of the household, who had arrived in the UK after 27 March 2010, how long they intended to stay in the UK. The main difference between the CQS and the census question was that the latter asked the question retrospectively.

Census Question	CQS Question
	<p>Thinking back to your circumstances in March 2011, including the time you had already spent here, how long did you intend to stay in the United Kingdom?</p> <ol style="list-style-type: none"> 1. Less than 6 months 2. 6 months or more but less than 12 months 3. 12 months or more
Show card	J
Population asked	Non-UK born members of the household who arrived after 27 March 2010
Associated question	Country of birth (9); Date of arrival (10)
Unweighted sample	27
CQS Response Rate	100%
Weighted agreement rate for:	
England and Wales	n/a
England	n/a
Wales	n/a

The number of people responding to this question in the CQS sample (27) was too small to calculate a reliable weighted agreement rate for England and Wales for this question. However of these, only one person gave a different answer in the CQS.

General health (question 13)

This question asked respondents how their health was in general. The CQS question differed slightly from the census question as it asked the respondent to think back to how their health was at the time of the census. This question has changed since 2001 as more response categories have been added.

Census Question	CQS Question
	<p>Thinking back to February/March 2011, how was your health in general?</p> <ol style="list-style-type: none"> 1. Very good 2. Good 3. Fair 4. Bad 5. Very bad
Show card	K
Population asked	All members of household
Associated question	Long-term illness or disability (23)
Unweighted sample size	9,546
CQS response rate	99.1%
Weighted agreement rate for:	
England and Wales	68.2%
England	68.1%
Wales	69.5%

The agreement rate between the 2011 Census and the CQS for this question was 68.2 per cent.

The full cross-tabulation of the census and CQS is shown in Table 5.9. Large differences were seen between adjacent categories for example between the “good” and “very good” categories (10.9 per cent and 7.7 per cent).

Investigation of the overall differences found that 7 per cent were in cases where the original census response had been given by a proxy respondent. A further 2 per cent occurred where the census response had been edited or imputed. The remainder occurred where a different response was given in the CQS to the census.

The 1999 CQS and testing of the 2011 questionnaire found that although respondents were able to understand the question, its subjective nature meant that the answer given depended on how the respondent felt at the time the question was asked. In addition it is possible that by the time of the CQS survey interview, respondents might have changed their perception of their health or could not remember how their health was at the time of the census. “Social desirability” bias²¹ might also affect the CQS responses to this question as the respondent might not report the true answer to the interviewer as they might feel embarrassed or want to portray themselves in a particular way to the interviewer.

When the health and long-term illness or disability questions (question 23) were cross-referenced, it was found that the greatest disagreement was for people who also indicated they had a limiting long-term disability.

Table 5.9 Agreement rates between 2011 Census and 2011 Census Quality Survey: General health

England and Wales							Percentages
Census	Census Quality Survey					Total	
	Very good	Good	Fair	Bad	Very Bad		
Very good	39.5	7.7	0.4	0.1	0.0	47.6	
Good	10.9	19.5	3.1	0.4	0.1	34.0	
Fair	0.7	4.7	6.8	1.1	0.2	13.5	
Bad	0.0	0.3	1.2	1.8	0.4	3.8	
Very Bad	0.0	0.0	0.2	0.4	0.5	1.0	
Total	51.2	32.2	11.6	3.8	1.2	100.0	
<i>Net difference</i>							
<i>Census - CQS</i>	-3.5	1.7	1.9	0.0	-0.2		

In census outputs, the responses to this question are generally grouped into “good/very good”, “fair” and “bad/very bad” health categories. Based on this categorisation, the agreement rate between the census and CQS is 87.5 per cent (see Table 5.10).

These results would suggest that “good/very good health” was understated in the census by 1.8 percentage points while “fair” health was overstated by just under 2 percentage points.

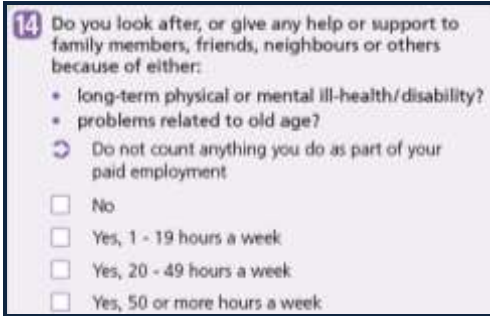
Table 5.10 Agreement rates between 2011 Census and 2011 Census Quality Survey: General health

England and Wales					Percentages
Census	Census Quality Survey			Total	
	Good/very good	Fair	Bad/very bad		
Good/very good	77.6	3.4	0.6	81.6	
Fair	5.4	6.8	1.3	13.5	
Bad/very bad	0.4	1.4	3.1	4.8	
Total	83.4	11.6	5.0	100.0	
<i>Net difference Census - CQS</i>					
	-1.8	1.9	-0.2		

Note: In this table, the diagonals do not sum to the overall agreement rate between the CQS and the census because the results have been aggregated into groups

Unpaid care (question 14)

This question asked respondents about any caring responsibilities they had for people who had a long-term physical or mental ill-health/disability, or problems related to old age. The CQS question was phrased slightly differently to the census question as it specifically asked for the respondent's situation in March 2011. This question has not changed since 2011.

Census Question	CQS Question
 <p>14 Do you look after, or give any help or support to family members, friends, neighbours or others because of either:</p> <ul style="list-style-type: none"> • long-term physical or mental ill-health/disability? • problems related to old age? <p>Do not count anything you do as part of your paid employment</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes, 1 - 19 hours a week</p> <p><input type="checkbox"/> Yes, 20 - 49 hours a week</p> <p><input type="checkbox"/> Yes, 50 or more hours a week</p>	<p>In March 2011, were you looking after, or giving any help or support to family members, friends, neighbours or others because of either:</p> <p>a) Long-term physical or mental ill-health/disability, or b) Problems related to old age?</p> <p>1. No 2. Yes, 1-19 hours a week 3. Yes, 20-49 hours a week 4. Yes, 50 or more hours a week</p>
Show card	L
Population asked	All members of households
Unweighted sample size	9,548
CQS response rate	99.1%
Weighted agreement rate:	
England and Wales	90.9%
England	91.1%
Wales	88.1%

The agreement rate between the 2011 Census and CQS for this question was 90.9 per cent.

The response rate for England (91.1 per cent) was statistically significantly higher than Wales (88.1 per cent). Responses given to the census by Internet were also statistically significantly better than those given on paper (92.8 per cent compared to 90.6 per cent). This may be because of the profile of people who responded by Internet who tended to be younger and therefore less likely to be providing care.

The largest differences (of 3.9 per cent and 2.4 respectively) occurred where the census indicated the respondent provided 1-19 hours care, but the CQS found no care was provided (and vice versa) as shown in Table 5.11.

Investigation into the overall differences found that around 7 per cent occurred in cases where the original census response had been given by a proxy respondent. A further 7 per cent were where the census response had been edited or imputed. The remainder occurred where a different response was given in the CQS than the census. This may be because the respondent changed their answer following clarification of the question by the interviewer or they may have changed their mind about what they should have answered by the time of the CQS interview. They may also have forgotten what their situation was around the time of the census.

2011 questionnaire testing found no serious issues with this question, however the 1999 CQS found that some people did not realise that the type of care they provided should have been included or the amount of care they provided varied which made it difficult to quantify the number of hours provided per week.

Table 5.11 Agreement rates between 2011 Census and 2011 Census Quality Survey: Unpaid care

England and Wales		Percentages				
		<u>Census Quality Survey</u>				
Census	No	1-19 hours	20-49 hours	50+ hours	Total	
No	84.3	2.4	0.3	0.4	87.3	
1-19 hours	3.9	4.5	0.3	0.2	8.9	
20-49 hours	0.3	0.2	0.5	0.2	1.2	
50+ hours	0.5	0.1	0.2	1.7	2.6	
Total	88.9	7.2	1.3	2.5	100.0	
<i>Net difference</i>						
<i>Census - CQS</i>	-1.6	1.7	-0.1	0.0		

When responses to this question were simplified to “yes” or “no”, the agreement rate improved slightly to 92.3 per cent (Table 5.12)

The CQS results would suggest that the census slightly overstated the number of people who had caring responsibilities and understated those who had none (by 1.6 percentage points each).

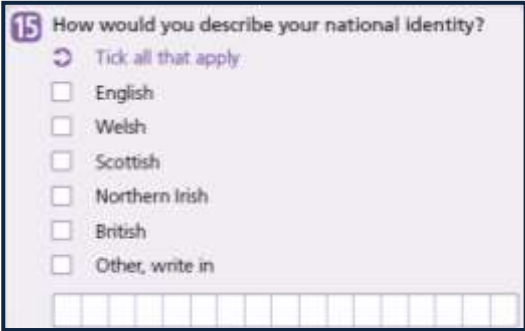
Table 5.12 Agreement rates between 2011 Census and 2011 Census Quality Survey: Unpaid care

England and Wales		Percentages		
		<u>Census Quality Survey</u>		
Census	No	Yes	Total	
No	84.3	3.1	87.3	
Yes	4.7	8.0	12.7	
Total	88.9	11.1	100.0	
<i>Net difference Census - CQS</i>				
	-1.6	1.6		

Note: In this table, the diagonals do not sum to the overall agreement rate between the CQS and the census because the results have been aggregated into groups

National identity (question 15)

This question asked the respondent to describe their national identity. This was the first time this question was asked in the census. The CQS differed from the census in that respondents could enter a national identity in the “other” category on the census questionnaire, but their response was coded by an interviewer during the CQS interview.

Census Question	CQS Question
	<p>How would you describe your national identity? You may choose as many as apply.</p> <ol style="list-style-type: none"> 1. English 2. Welsh 3. Scottish 4. Northern Irish 5. British 6. Other
Show card	M-E and M-W
Population asked	All members of household
Unweighted sample size	9,407
CQS response rate	99.1%
Weighted agreement rate	
England and Wales	60.4%
England	59.7%
Wales	72.0%

Census respondents to this question could tick more than one option and could write in an additional national identity under “other”. This increases the chances that the respondent would give a different answer in the CQS than they did on the census which is why the agreement rate appears relatively low at 60.4 per cent.

The largest differences between the census and CQS occurred between the various combinations of English and British national identities (see Table 5.13). This is to be expected as these formed the largest part of the sample. The biggest differences were found between:

- “English” on the census, but “British” on the CQS (13.0 per cent), and vice versa (4.1 per cent)
- “English” on the census, but “English and British” on CQS (7.4 per cent) and vice versa (4.1 per cent)
- “English and British” on the census but “British” on CQS (3.2 per cent) and vice versa (2.1 per cent)

Investigation into all differences found that 5 per cent occurred where the census responses had been provided by a proxy and a further 2 per cent where the census response had been subject to edit or imputation. The remainder occurred where a different response was given in the CQS than on the census.

Being a subjective question, it is possible that respondents might change their answer depending on how they felt about their national identity at the time the question was asked. Also, being a “multi-tick” question, respondents could choose any number of different combinations of national identities which would increase the chances that they would answer differently when asked again.

Table 5.13 Agreement rates between 2011 Census and 2011 Census Quality Survey: National Identity

England and Wales

Percentages

Census	Census Quality Survey												Total
	British English	Eng & British	Welsh	Welsh & British	Scottish	Scottish & British	Northern Irish	Northern Irish & British	Any British ¹	Any British plus other ²	Other ident		
British	12.8	4.1	2.1	0.4	0.1	0.1	0.0	0.0	0.0	0.1	0.3	0.7	20.7
English	13.0	37.5	7.4	0.1	0.1	0.0	0.0	-	-	0.1	0.1	0.1	58.4
English & British	3.2	4.1	2.7	-	-	-	-	-	-	0.0	0.0	0.1	10.1
Welsh	0.4	0.0	-	3.4	0.3	0.0	-	-	-	0.0	-	-	4.1
Welsh & British	0.1	0.0	-	0.2	0.2	-	-	-	-	0.0	0.0	-	0.5
Scottish	0.1	0.0	-	-	-	0.3	0.1	-	-	0.0	-	-	0.6
Scottish & British	0.0	-	-	-	-	0.1	0.1	-	-	-	-	-	0.2
Northern Irish	0.2	0.0	-	-	-	-	-	0.1	0.0	0.0	-	-	0.3
Northern Irish & British	0.0	-	-	-	-	-	-	0.0	-	-	-	-	0.0
Any British ¹	0.1	0.1	0.0	0.0	-	-	-	-	-	0.0	-	-	0.2
Any British plus other identity ²	0.2	0.0	-	-	-	-	-	0.0	-	0.0	0.3	0.1	0.6
Other identities	0.1	0.1	-	-	-	-	-	0.0	-	-	0.1	4.0	4.3
Total	30.2	45.9	12.2	4.0	0.6	0.4	0.2	0.2	0.0	0.3	0.8	5.2	100.0
<i>Net diff</i>													
<i>Census-CQS</i>	-9.5	12.5	-2.1	0.0	-0.1	0.1	-0.1	0.2	-0.0	-0.1	-0.2	-0.8	

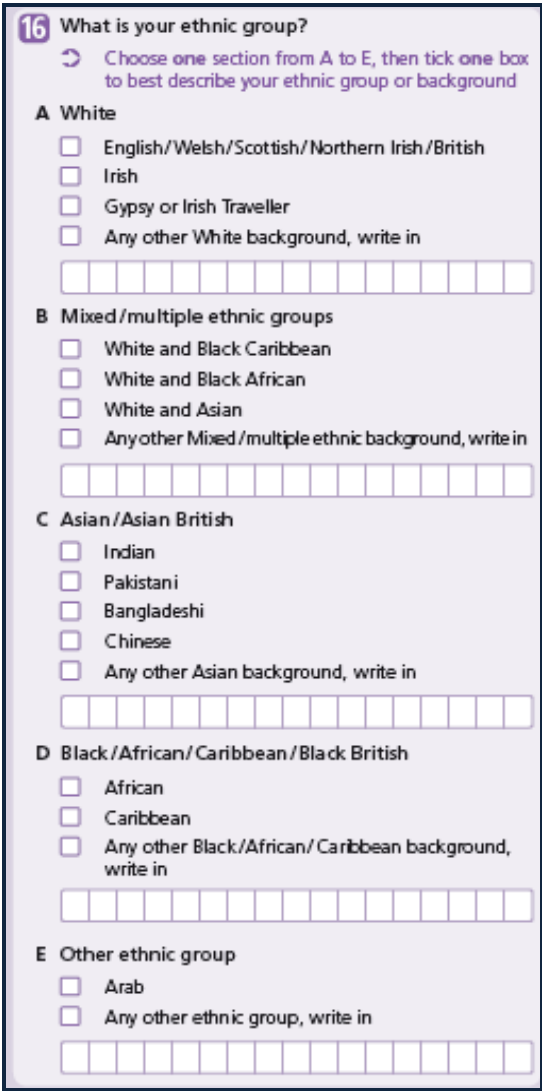
1 Any British / English/ Northern Irish/ Scottish/ Welsh

2 Other identity & at least one of British/ English/ Northern Irish/ Scottish/ Welsh

Note: In this table, the diagonals do not sum to the overall agreement rate between the CQS and the census because the results have been aggregated into groups

Ethnic group (question 16)

This question asked respondents to indicate their ethnic group. On the census questionnaire, they were asked to tick one box in sections A to E or enter “other” for any other background they felt was appropriate. The answers were then coded. In the CQS they were asked to select the answer from a show card and the interviewer coded any “other” responses at the same time. The question has changed since 2001 when only five response categories were available.

Census Question	CQS Question
	<p>What is your ethnic group? Choose one section from A to E then pick one number to best describe your ethnic group or background.</p> <ol style="list-style-type: none"> 1. English/Welsh/Scottish/Northern Irish/British 2. Irish 3. Gypsy or Irish Traveller 4. Any other white background 5. White and Black Caribbean 6. White and Black African 7. White and Asian 8. Any other mixed/multiple ethnic background 9. Indian 10. Pakistani 11. Bangladeshi 12. Chinese 13. Any other Asian background 14. African 15. Caribbean 16. Any other Black/African/Caribbean background 17. Arab 18. Any other ethnic group
Show card	N-E and N-W
Population asked	All members of household
Unweighted sample size	9,545
CQS response rate	99.1%
Weighted agreement rate:	
England and Wales	94.7% (18 tick boxes), 96.5% (5 categories)
England	94.5% (18 tick boxes), 96.3% (5 categories)
Wales	98.0% (18 tick boxes), 98.7% (5 categories)

The agreement rate between the 2011 Census and CQS for this question was 94.7 per cent. This is calculated from the 18 tick boxes shown in sections A to E of the question. The comparison between the census and CQS did not include a comparison of any ethnicities which were entered in the “any other...” sections of the question.

The agreement rate for Wales (98.0 per cent) was statistically significantly better than for England (94.5 per cent). This is because the sample in Wales was smaller and less ethnically diverse than in England. Responses to the census given on paper were statistically significantly better than those given by Internet (95.2 per cent compared to 92.4 per cent) which is likely to be because more white people responded to the census on paper.

As the vast majority of the people in the CQS sample were “White – British”, the results for the other ethnic groups are based on small numbers and should be interpreted in that context. The agreement rates for this question are summarised into the five main ethnic group categories in Table 5.14. At this level of aggregation which is similar to that used in 1999, the agreement rate is higher at 96.5 per cent.

Table 5.14 Agreement rates between 2011 Census and 2011 Census Quality Survey: Ethnic group

England and Wales		Percentages				
		Census Quality Survey				
Census	White	Mixed	Asian	Black	Other	Total
White	87.2	0.5	0.0	0.0	0.4	88.1
Mixed	0.2	0.9	0.0	0.0	0.2	1.4
Asian	0.3	1.1	6.7	-	0.2	8.3
Black	0.0	0.2	0.0	1.3	-	1.6
Other	0.2	0.2	0.0	-	0.3	0.7
Total	87.9	2.9	6.8	1.3	1.1	100.0
<i>Net difference Census - CQS</i>						
	<i>0.2</i>	<i>-1.5</i>	<i>1.5</i>	<i>0.3</i>	<i>-0.4</i>	

Note: In this table, the diagonals do not sum to the overall agreement rate between the CQS and the census because the results have been aggregated into groups

Differences were found across several of the categories, the biggest being between “Asian” on the census and “Mixed” on the CQS (1.1 per cent). Analysis of the 18 categories (not shown) found that the biggest differences were between:

- “English/ Welsh/ Scottish/ Northern Irish/ British” on the census and “White other” on the CQS (0.7 per cent)
- “Indian” on the census and “White/Asian” on the CQS (0.4 per cent)
- “Chinese” on the census and “Mixed other” on the CQS (0.3 per cent)
- “Other white” on the census and “Other” on the CQS (0.3 per cent)

Around 8 per cent of all the differences occurred where the census response had been provided by a proxy and 4 per cent where it had been edited or imputed. It is possible that incorrect scanning of handwritten answers might have caused a few errors but it is likely that the vast majority occurred where the respondent gave different answers.

Being a subjective question, it is possible that respondents might change their answer depending on how they felt about their ethnicity at the time the question was asked. Previous 2011 questionnaire testing and the 1999 CQS had found that some people used more than one ethnic group to describe themselves. In particular, people with mixed backgrounds varied their answer to questions about ethnicity to suit their perception of the questionnaire they were completing.

Welsh language (question 17)

This question was only asked in Wales. Its intention was to ask respondents about their Welsh language skills. It was answered by ticking one or more of five boxes in any combination. The census did not collect information on fluency levels or on frequency of use. This question has not changed since 2001 however it was not included in the 1999 CQS.

Census Question	CQS Question
<div style="border: 1px solid black; padding: 5px;"> <p>17 Can you understand, speak, read or write Welsh?</p> <p>↻ Tick all that apply.</p> <p><input type="checkbox"/> Understand spoken Welsh</p> <p><input type="checkbox"/> Speak Welsh</p> <p><input type="checkbox"/> Read Welsh</p> <p><input type="checkbox"/> Write Welsh</p> <p><input type="checkbox"/> None of the above</p> </div>	<p>Can you understand, speak, read or write Welsh?</p> <ol style="list-style-type: none"> 1. Understand spoken Welsh 2. Speak Welsh 3. Read Welsh 4. Write Welsh 5. None of the above
Show card	O
Population asked	All members of households in Wales
Unweighted sample size	1,232
CQS response rate (Wales only)	99.6%
Weighted agreement rate (Wales only)	n/a

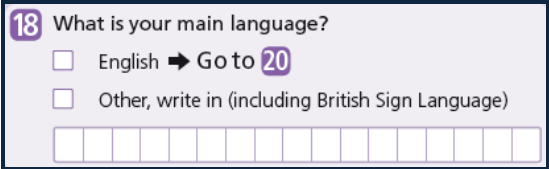
The number of people responding to this question in the CQS sample (1,232) was too small to calculate a reliable weighted agreement rate for Wales. However of the 1,232 people who did reply to this question, 928 gave the same answer (an agreement of 75.3 per cent).

There was no evidence that proxy responses to the census, or edit or imputation of original census responses explained differences between the census and CQS. As a relatively subjective question with multiple response categories, respondents could tick any number of different combinations of the boxes which would increase the chances that they would answer differently when asked again.

Previous testing of this question had found that some people found it difficult to answer due to its subjective nature. They were also sometimes unclear about how to answer the question for babies and young children whose language abilities were still developing, however this does not affect census outputs on Welsh language which only include those aged three and over.

Main language (question 18)

This question asked respondents to indicate their main language. This was the first time this question had been asked on the census.

Census Question	CQS Question
	<p>What is your main language?</p> <ol style="list-style-type: none"> English Other (including British Sign Language)
Show card	No
Population asked	All members of household
Unweighted sample size	9,547
Associated questions	English language fluency (19)
CQS response rate	99.1%
Weighted agreement rate:	
England and Wales	96.3%
England	96.2%
Wales	98.8%

The overall agreement rate between the census and CQS for this question (taking into account all languages specified under “other”) was 96.3 per cent.

The agreement rate for Wales (98.8 per cent) was statistically significantly higher than for England (96.2 per cent). This is likely to be because England is more ethnically diverse than Wales and has a higher rate of migration.

As the majority of respondents in the CQS sample selected “English” as their first language, agreement rates for other languages cannot reliably be calculated as the numbers involved are too small.

Table 5.15 shows agreement rates amalgamated into “English” and “other language”. The main difference between the census and CQS (1.7 per cent) occurred where the census value was “English” but the CQS response was another main language. Further research into this difference showed that the majority of this difference was where the census said “English” was the main language but the CQS response was “Gujarati”. Conversely, 1.2 per cent of the census values indicated a non-English main language but the CQS response was “English”. As above, “Gujarati” was the language where the largest difference was found.

Investigation of the overall differences found that 6 per cent occurred where the census response had been provided by a proxy and a further 8 per cent where the census response had been edited or imputed. Of the remaining differences, it is possible that incorrect scanning of the language handwritten into “other” may have occurred and some may be the result of differences in coding approach between the census and the CQS. However it is believed that majority of the remaining differences occurred because respondents gave different answers.

Previous questionnaire testing found that some non-UK born respondents were unsure how to answer this question as they were uncertain whether the question was asking about their “mother tongue” or “first language” or the language they most frequently spoke. They were also sometimes unclear about how to answer the question for babies and young children whose language abilities were still developing. However this does not affect census outputs on language which only include those aged three and over. It was also found that in households whose main language was not English, the census questionnaire was often completed by a child who would be more likely to select “English” as the main language whereas in the CQS the adults being interviewed could clarify the situation (and be interviewed in their preferred language).

Table 5.15 Agreement rates between 2011 Census and 2011 Census Quality Survey: Main Language

England and Wales

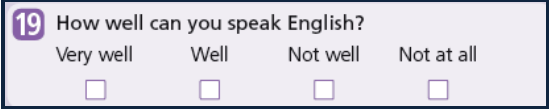
Percentages

Census	Census Quality Survey		Total
	English	Other language	
English	92.2	1.7	93.9
Other language	1.2	4.8	6.1
Total	93.4	6.6	100.0
<i>Net difference</i>			
<i>Census - CQS</i>	0.5	-0.5	

Note: In this table, the diagonals do not sum to the overall agreement rate between the CQS and the census because the results have been aggregated into groups

English language fluency (question 19)

This question was asked only of those respondents who indicated that their main language was not English. This was the first time this question was asked in the census.

Census Question	CQS Question
	How well can you speak English? 1. Very well 2. Well 3. Not well 4. Not at all
Show card	Q
Population asked	All respondents whose main language was not English who were they chose "Other" in Question 18
Unweighted sample size	287
Associated questions	Main language (18)
CQS response rate	80.5%
Weighted agreement rate:	
England and Wales	n/a
England	n/a
Wales	n/a

The number of people in the CQS sample for which this question was relevant (287) was too small to calculate a reliable weighted agreement rate for England and Wales. However of the 287 people who did reply to this question, 187 gave the same response (an agreement of 65.2 per cent)

Looking at the differences between the census and CQS, 16 per cent occurred where the original census response had been provided by a proxy respondent and 7 per cent where the census value had been subject to edit or imputation.

Previous questionnaire testing of this question had found that some respondents found this question difficult to answer due to its subjective nature. They were also sometimes unclear about how to answer the question for babies and young children whose language abilities were still developing however this does not affect census outputs on language fluency which only include those aged three and over.

Religion (question 20)

This question asked respondents about their religion. It was the only voluntary question on the census. The CQS differed from the census in that any religion mentioned in “other” was coded by the interviewer whilst the census response was scanned (for paper returns) and coded later. This question has not changed since 2001.

Census Question	CQS Question
<div style="border: 1px solid black; padding: 5px;"> <p>20 What is your religion?</p> <p>➔ This question is voluntary</p> <p><input type="checkbox"/> No religion</p> <p><input type="checkbox"/> Christian (including Church of England, Catholic, Protestant and all other Christian denominations)</p> <p><input type="checkbox"/> Buddhist</p> <p><input type="checkbox"/> Hindu</p> <p><input type="checkbox"/> Jewish</p> <p><input type="checkbox"/> Muslim</p> <p><input type="checkbox"/> Sikh</p> <p><input type="checkbox"/> Any other religion, write in</p> <p><input type="text"/></p> </div>	<p>What is your religion?</p> <ol style="list-style-type: none"> 1. No religion 2. Christian (including Church of England, Catholic, Protestant and all other Christian denominations) 3. Buddhist 4. Hindu 5. Jewish 6. Muslim 7. Sikh 8. Any other religion 9. Spontaneous – I do not wish to say
Show card	R
Population asked	All members of household - this question was the only voluntary question on the 2011 Census
Unweighted sample size	8,647
CQS response rate	94.7%
Weighted agreement rate:	
England and Wales	90.4%
England	90.7%
Wales	82.9%

Despite being a voluntary question, the response rate to this question in the CQS was high at 94.7 per cent.

The agreement rate between the 2011 Census and CQS for this question (including all religions entered in “other”) was 90.4 per cent.

Census responses given to this question on paper were statistically significantly higher than those given by Internet (91.1 per cent compared to 87.6 per cent). This may reflect the older profile of those who responded on paper who were more likely to be Christian.

Agreement rates between the census and CQS are summarised in Table 5.16. The largest differences were found where the census indicated “no religion” but the CQS response was “Christian” and vice versa (3.9 and 3.4 per cent respectively). Investigation into the differences found that there were relatively large differences between Hindu and “other” religions, in particular between Hindu and Jain: 0.2 per cent of respondents in the CQS said their religion was Hindu whereas the census response had been Jain, and 0.4 per cent said the other way round.

There was no editing or imputing of missing responses to this question on the census. Of all the differences, 6 per cent were where a proxy had provided the original census response so the main reasons for differences occurred where the respondent gave a different answer in the CQS.

Previous questionnaire testing and the 1999 CQS found that respondents took a variety of factors into account when deciding how to answer this question, including their practice and affiliation. Respondents who were affiliated to a

religion rather than actively practicing tended not to answer this question consistently. Some selected “other religion” because they wanted to specify which Christian denomination they gave allegiance to. In some cases this was because they had not read the qualifying statement that the Christian category included all Christian denominations; others had read the statement but still wished to make the point clear.

The results of the CQS would indicate that the census slightly understated the number stating their religion as Christian (by 0.6 percentage points).

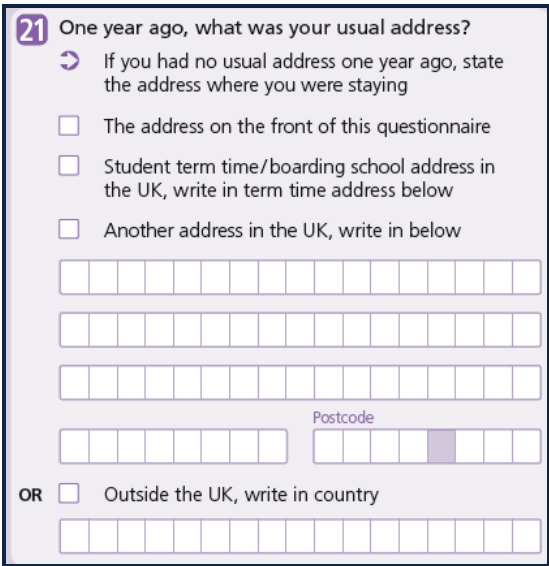
Table 5.16 Agreement rates between 2011 Census and 2011 Census Quality Survey: Religion

England and Wales									Percentages
Census	Census Quality Survey								Total
	Christian	Buddhist	Hindu	Muslim	Sikh	Jewish	Other	None	
Christian	62.0	-	-	0.0	-	0.1	0.1	3.4	65.7
Buddhist	0.1	0.2	-	-	0.0	-	-	0.1	0.4
Hindu	-	-	3.8	0.0	-	-	0.4	-	4.2
Muslim	0.0	-	-	3.3	-	-	-	-	3.4
Sikh	0.0	-	-	-	0.7	-	-	-	0.8
Jewish	0.1	-	-	0.0	-	-	-	-	0.8
Other	0.1	-	-	-	-	-	0.4	0.1	0.7
None	3.9	0.0	0.0	-	-	-	0.0	20.0	24.0
Total	66.3	0.3	4.0	3.3	0.7	0.9	0.9	23.7	100.0
<i>Net difference</i>									
<i>Census - CQS</i>	<i>-0.6</i>	<i>0.1</i>	<i>0.2</i>	<i>0.1</i>	<i>0.0</i>	<i>-0.0</i>	<i>-0.2</i>	<i>0.3</i>	

Note: In this table, the diagonals do not sum to the overall agreement rate between the CQS and the census because the results have been aggregated into groups

Usual address one year ago (question 21)

This question asked respondents what their usual address was one year ago. The CQS question differed slightly from the census question in that it specified that the question was asking about their address at the end of March 2010. The question for person two onwards on the questionnaire had an additional tick box they could use where they could indicate that their address was the “same as person one”. The wording and instructions to this question have changed since 2001 and one additional response category was added to identify UK student term-time or boarding school addresses and addresses outside the UK.

Census Question	CQS Question
 <p>21 One year ago, what was your usual address? ↪ If you had no usual address one year ago, state the address where you were staying</p> <p><input type="checkbox"/> The address on the front of this questionnaire</p> <p><input type="checkbox"/> Student term time/boarding school address in the UK, write in term time address below</p> <p><input type="checkbox"/> Another address in the UK, write in below</p> <p>_____ _____ _____</p> <p>Postcode _____</p> <p>OR <input type="checkbox"/> Outside the UK, write in country _____</p>	<p>At the end of March 2010 (that is a year before Census Day), what was your usual address?</p> <ol style="list-style-type: none"> 1. This address 2. Student term-time/boarding school address in the UK 3. Another UK address 4. Address outside of the UK
Show card	No
Population asked	All members of household
Associated question	Students/schoolchildren (7)
Unweighted sample size	9,319
CQS response rate	98.0%
Weighted agreement rate:	
England and Wales	95.5% (tick box only)
England	95.5% (tick box only)
Wales	94.0% (tick box only)

The agreement rate between the 2011 Census and CQS for this question, based on tick-box responses, was 95.5 per cent. This does not take account of the accuracy of any of the address or country information written in alongside the last two tick boxes. The agreement rate for these is not available as the sample of people responding to that section in the CQS survey was too small to produce reliable figures.

The agreement rate for England (95.5 per cent) was statistically significantly better than Wales (94.0 per cent). Census responses given to this question on paper were statistically significantly better than those given by Internet (95.7 per cent compared to 94.4 per cent).

The biggest difference between the census and CQS occurred where the census said the respondent lived at “another address in the UK” a year ago, but in the CQS the response was the same address (3.6 per cent).

There was no evidence that edit or imputation, or responses given by proxy, explained any of these differences.

Questionnaire testing found that some people fail to answer this question properly as they might not always be able to provide full details of their previous address and some respondents may leave the question blank because they feel it does not apply to them.


The results of the CQS would indicate that the census understated the number of people who had lived at the same address a year ago (by 3.3 percentage points) and overstated those who had lived at another UK address a year ago (by 3.2 percentage points).

Table 8.17 Agreement rates between 2011 Census and 2011 Census Quality Survey: Usual address one year ago

England and Wales		Percentages			
Census	Census Quality Survey				Total
	Same address	Student term time/Boarding school address in UK	Another UK address	Another address outside the UK	
Same address	91.7	0.1	0.4	-	92.2
Student term time/Boarding school address in UK	0.2	0.1	0.1	-	0.4
Another UK address	3.6	0.0	3.4	0.1	7.1
Another address outside the UK	0.1	-	0.0	0.3	0.4
Total	95.5	0.2	3.9	0.4	100.0
<i>Net difference Census - CQS</i>	-3.3	0.2	3.2	0.0	

Passports (question 22)

This question asked the respondents which passports they held. They could tick more than one box (for example if they had dual nationality). This was the first time this question had been asked in the census. The CQS question differed slightly from the census question as it asked what passports they held at the time of the census. In addition, the respondent would have entered “other” passports held in the census, but on the CQS it would have been coded by the interviewer.

Census Question	CQS Question
	<p>Thinking back to 27 March 2011, what passports did you hold?</p> <ol style="list-style-type: none"> 1. United Kingdom 2. Irish 3. Other 4. None
Show card	No
Population asked	All members of household
Unweighted sample size	9, 548
CQS response rate	99.1%
Weighted agreement rate:	
England and Wales	91.8%
England	91.9%
Wales	90.3%

The agreement rate between the 2011 Census and CQS for this question (based on tick-box responses) was 91.8 per cent. Agreement was calculated where the same combination of tick boxes was shown on the census and CQS, however it does not take account of the accuracy of any information entered in “other”. The number of people in the CQS sample responding to the “other” section in the CQS survey was too small to produce reliable weighted agreement rates for England and Wales.

The agreement rate for England (91.9 per cent) was statistically significantly higher than Wales (90.3 per cent).

The biggest difference between the census and CQS (6.2 per cent) was where the census indicated that the respondent had no passport, but the CQS response was that they held a UK passport (Table 5.18). Conversely, 1.1 per cent held UK passports according to the census but none according to the CQS.

Looking at the differences in more detail, 7 per cent occurred where the census response had been subject to edit or imputation and a further 5 per cent were where the original census response had been provided by a proxy respondent.

Testing of this question had found that respondents generally understood that the question was about passports they owned and not to which passports they were entitled. However it is possible that some people responded based on their entitlement to a passport. Some inconsistency in response was also found in cases where a passport had been held but it had expired – in some cases people selected “UK” and in others they selected “none”. It is also possible that respondents with more than one passport responded differently when the question was explained to them by the CQS interviewer.

The CQS results would indicate that the census has understated the number of people with a UK passport by 5 percentage points and overstated those with no passport by 4.8 percentage points.

Table 5.18 Agreement rates between 2011 Census and 2011 Census Quality Survey: Passports

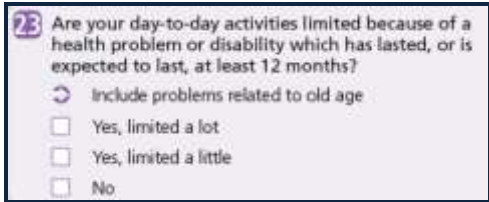
England and Wales

Percentages

Census	Census Quality Survey							Total
	UK only	Irish only	UK and Irish	UK and other	Irish and other	Other only	None	
UK only	77.6	-	0.0	0.2	-	0.0	1.1	78.9
Irish only	0.0	0.7	-	-	-	-	0.0	0.7
UK and Irish	-	-	0.0	-	-	-	-	0.0
UK and other	0.1	-	-	0.5	-	-	-	0.6
Irish and other	-	-	-	-	-	0.0	-	0.0
Other only	0.0	-	-	0.0	-	4.6	0.4	5.0
None	6.2	-	-	-	-	0.1	8.4	14.7
Total	83.9	0.7	0.0	0.8	0.0	4.7	9.9	100.0
<i>Net difference Census</i>								
- CQS	-5.0	0.0	0.0	-0.2	0.0	0.3	4.8	

Long-term illness or disability (question 23)

This question asked respondents whether their day-to-day activities were limited because of a health problem or disability which had lasted, or they expected to last, at least 12 months. The CQS question differed slightly from the census question as it asked them to think back to their situation as it would have been around census day. The wording and instructions for this question has changed since 2001 and the number of tick boxes increased to three to capture the degree of limitation.

Census Question	CQS Question
	<p>Thinking back to February/March, were your day-to-day activities limited because of a health problem or disability which had lasted, or was expected to last, at least 12 months? Include problems related to old age.</p> <p>1. Yes, limited a lot 2. Yes, limited a little 3. No</p>
Show card	No
Population asked	All members of household
Unweighted sample size	9,623
CQS response rate	99.9%
Weighted agreement rate:	
England and Wales	88.9%
England	88.9%
Wales	87.8%

The agreement rate between the 2011 Census and CQS for this question was 88.9 per cent.

The agreement rate for England (88.9 per cent) was statistically significantly better than Wales (87.8 per cent). Also, the agreement rate for census responses provided by Internet was statistically significantly higher than those given on paper (93.1 per cent compared to 87.9 per cent). These could be explained by the profile of those who responded to the census by Internet who were younger and less likely to have health problems.

The agreement rates for all three response categories are shown in Table 5.19. There were several areas of disagreement between the census and CQS, the largest of these (5.4 per cent) occurred where the census indicated the respondent's day-to-day activities were "limited a little" but the CQS said they had no limitations.

Investigation into the differences found that 5 per cent occurred where the census response had been subject to edit or imputation, and a further 6 per cent where the original census response had been provided by a proxy respondent.

The 1999 CQS and testing of the 2011 questionnaire found that although respondents were able to understand the question, they interpreted it differently depending on how the respondent felt at the time the question was asked, meaning there was a degree of subjectivity involved. Another reason for differences might be recall as it is possible that by the time of the CQS interview, respondents' perception of their health had changed.

Table 5.19 Agreement rates between 2011 Census and 2011 Census Quality Survey: Long-term illness or disability

England and Wales		Percentages			
Census	Census Quality Survey			Total	
	Day to day activities limited a lot	Day to day activities limited a little	Day-to-day activities not limited		
Day-to-day activities limited a lot	5.1	1.8	0.7	7.6	
Day-to-day activities limited a little	1.3	3.4	5.4	10.1	
Day-to-day activities not limited	0.4	1.6	80.4	82.4	
Total	6.8	6.8	86.4	100.0	
<i>Net difference Census - CQS</i>		0.8	3.2	-4.1	

Some census outputs based on this question are aggregated into two categories. When the answers to the questions are simplified into two categories “day-to-day activities limited a little or a lot” and “day-to-day activities not limited”, the agreement rate is better at 91.9 per cent (see Table 5.20). The biggest difference here between the census and CQS (6.1 per cent) was where the census indicated that the respondent’s activities were “limited a little” or “a lot”, but they were not limited at all according to the CQS response. The opposite was the case for a further two per cent.

The results of the CQS would indicate that the census overstated the number of people whose day-to-day activities were limited by 4.1 percentage points; the majority of these being people whose activities are limited a little.

Table 5.20 Agreement rates between 2011 Census and 2011 Census Quality Survey: Long-term illness or disability

England and Wales		Percentages		
Census	Census Quality Survey		Total	
	Yes	No		
Day-to-day activities limited a little or a lot	11.5	6.1	17.6	
Day-to-day activities not limited	2.0	80.4	82.4	
Total	13.6	86.4	100.0	
<i>Net difference Census - CQS</i>		4.1	-4.1	

Qualifications (question 25)

This question asked respondents which qualifications they had. It was a “multi-tick” question as they were asked to tick any of the boxes that applied to them. The CQS question differed slightly from the census question as the respondent was given a show-card from which they could select their answers. The instructions and wording of this question has changed slightly since 2001 to remind respondents to include all their qualifications. The response boxes were also revised and extended to reflect the changing nature and complexity of qualifications and to capture foreign qualifications.

Census Question	CQS Question
<p>25 Which of these qualifications do you have?</p> <ul style="list-style-type: none"> ➤ Tick every box that applies if you have any of the qualifications listed ➤ If your UK qualification is not listed, tick the box that contains its nearest equivalent ➤ If you have qualifications gained outside the UK, tick the 'Foreign qualifications' box and the nearest UK equivalents (if known) <input type="checkbox"/> 1 - 4 O levels /CSEs/GCSEs (any grades), Entry Level, Foundation Diploma <input type="checkbox"/> NVQ Level 1, Foundation GNVQ, Basic Skills <input type="checkbox"/> 5+ O levels (passes)/CSEs (grade 1)/GCSEs (grades A*-C), School Certificate, 1 A level/ 2 -3 AS levels/VCEs, Higher Diploma <input type="checkbox"/> NVQ Level 2, Intermediate GNVQ, City and Guilds Craft, BTEC First/General Diploma, RSA Diploma <input type="checkbox"/> Apprenticeship <input type="checkbox"/> 2+ A levels/VCEs, 4+ AS levels, Higher School Certificate, Progression/Advanced Diploma <input type="checkbox"/> NVQ Level 3, Advanced GNVQ, City and Guilds Advanced Craft, ONC, OND, BTEC National, RSA Advanced Diploma <input type="checkbox"/> Degree (for example BA, BSc), Higher degree (for example MA, PhD, PGCE) <input type="checkbox"/> NVQ Level 4-5, HNC, HND, RSA Higher Diploma, BTEC Higher Level <input type="checkbox"/> Professional qualifications (for example teaching, nursing, accountancy) <input type="checkbox"/> Other vocational/work-related qualifications <input type="checkbox"/> Foreign qualifications <input type="checkbox"/> No qualifications 	<p>Which of these qualifications did you have on 27 March 2011? If your UK qualification is not listed, please select the nearest equivalent. If you have qualifications gained outside the UK, select the “Foreign qualifications” option and the nearest UK equivalents (if known).</p> <ol style="list-style-type: none"> 1. 1-4 O Levels/CSEs/GCSEs (any grades), Entry Level, Foundation Diploma 2. NVQ Level 1, Foundation GNVQ, Basic Skills 3. 5+ O Levels (passes)/CSEs (grade 1)/GCSEs (grades A* to C), School Certificate, 1 A Level/2-3 AS Levels/VCEs, Welsh Baccalaureate Intermediate Diploma, Higher Diploma 4. NVQ Level 2, Intermediate GNVQ, City and Guilds Craft, BTEC First/General Diploma, RSA Diploma 5. Apprenticeship 6. 2+ A Levels/VCEs, 4+ AS Levels, Higher School Certificate, Progression /Advanced Diploma, Welsh Baccalaureate Advanced Diploma, 7. NVQ Level 3, Advanced GNVQ, City and Guilds Advanced Craft, ONC, OND, BTEC, National RSA Advanced Diploma 8. Degree (for example BA, BSc), Higher Degree (for example MA, PhD, PGCE) 9. NVQ Level 4-5, HNC, HND, RSA Higher Diploma, BTEC Higher Level 10. Professional Qualification (for example teaching, nursing, accountancy) 11. Other vocational/work-related qualifications 12. Foreign qualifications 13. No qualifications
Show card	S
Population asked	All members of household aged 16 or over
Unweighted sample size	7,460
CQS response rate	98.7%
Weighted agreement rate:	
England and Wales	67.6% (highest qualification)
England	67.6% “ “
Wales	67.8% “ “

The agreement rate between the 2011 Census and CQS for this question was 67.6 per cent. This calculation was based on the highest qualification grouped into the categories shown in Table 5.21 below. Only rates for highest qualification have been calculated for 2011 since this is the main basis for ONS outputs on qualifications.

There were several areas of disagreement between the census and CQS. The largest (4.7 per cent) occurred where the census indicated the highest qualification was Level 1 but the CQS, Level 2. Differences of over 1.5 per cent were also found between:

- Level 3 on census and Level 2 on CQS (2.3 per cent)
- Level 2 on census and Level 3 on CQS (1.9 per cent)
- Level 4 and above on Census and Level 2 and Apprenticeships on CQS (1.8 per cent each)

Table 5.21 Agreement rates between 2011 Census and 2011 Census Quality Survey: Highest qualification

England and Wales								Percentages
Census	Census Quality Survey							Total
	None	Level 1	Level 2	Apprentice -ship	Level 3	Level 4+	Other	
None	15.0	0.9	1.3	0.3	0.1	0.2	1.5	19.4
Level 1	1.1	5.4	4.7	0.3	0.9	0.3	0.1	12.8
Level 2	0.5	1.4	9.7	0.6	1.9	1.0	0.2	15.3
Apprenticeship	0.2	0.3	0.6	1.4	0.5	0.3	0.6	3.9
Level 3	0.3	0.4	2.3	0.4	6.2	0.8	0.1	10.5
Level 4+	0.5	0.4	1.8	0.3	1.8	28.2	0.6	33.6
Other	0.7	0.2	0.8	0.1	0.6	0.5	1.6	4.5
Total	18.3	9.0	21.2	3.4	12.0	31.4	4.8	100.0
<i>Net difference</i>								
<i>Census - CQS</i>	<i>1.1</i>	<i>3.8</i>	<i>-5.9</i>	<i>0.5</i>	<i>-1.5</i>	<i>2.1</i>	<i>-0.3</i>	

Notes:

Level 1 includes 1-4 O Levels/CSE/GCSEs (any grades), Entry Level, Foundation Diploma, NVQ level 1, Foundation GNVQ, Basic/Essential Skills (England & Wales & Northern Ireland)

Level 2 includes 5+ O Level (Passes)/CSEs (Grade 1)/GCSEs (Grades A*-C), School Certificate, 1 A Level/ 2-3 AS Levels/VCEs, Intermediate/Higher Diploma, Welsh Baccalaureate Intermediate Diploma, NVQ level 2, intermediate GNVQ, City and Guilds Craft, BTEC First/General Diploma, RSA Diploma (England & Wales & Northern Ireland)

Level 3 includes Level 3: 2+ Levels/VCEs, 4+ AS Levels, Higher School Certificate Progression/Advanced Diploma, Welsh Baccalaureate Advanced Diploma, NVQ Level 3; Advanced GNVQ, City and Guilds Advanced Craft, ONC, OND, BTEC National, RSA Advanced Diploma (England & Wales & Northern Ireland)

Level 4+ includes Degree (for example BA, BSc), Higher Degree (for example MA, PhD, PGCE), NVQ Level 4/5, HNC, HND, RSA Higher Diploma, BTEC Higher level, Foundation degree (NI), Professional qualifications (for example teaching, nursing, accountancy) (England & Wales & Northern Ireland)

'Other' includes Vocational/Work-related Qualifications, Foreign Qualifications/ Qualifications gained outside the UK (NI) (Not stated/ level unknown) (England & Wales & Northern Ireland)

Investigation into the differences found that 8 per cent occurred where the census response had been subject to edit or imputation and a further 7 per cent where the original census response had been provided by a proxy respondent. Being a large multi-tick question, it is possible that incorrect scanning of marks might have a small impact on the quality of answers to this question however it is more likely that the differences are caused because respondents

changed their responses in the CQS when the interviewer was able to explain the question or help them remember their qualifications.

The 1999 CQS and testing of the 2011 questionnaire found this question to be one that respondents had the most difficulty with and said it was the hardest to answer. There was a lot for the eye to take in due to the need to cover the vast range of qualifications possible. Many respondents were unsure how qualifications that were not listed fitted into the options given, and some were reluctant to guess the nearest equivalent. Respondents also forgot qualifications and grades, particularly if they had been obtained many years ago. There was also a greater tendency to forget qualifications that were not relevant to a respondent's current occupation.

Working status in previous week (26)

This question asked respondents what their working status was the previous week. The responses to this question were not intended for publication since the answers from questions 26, 27, 28, 29 and 30 were used to derive the economic activity of the person - that is whether they were working, unemployed, or economically inactive. The CQS question differed slightly from the census question in that respondents were asked to think back to their situation in the week ending on census day. The wording of the question has changed slightly since 2001 to bring it in line with that used in the ONS Labour Force Survey. Additional tick boxes were added to separately identify all the categories that were listed in the 2001 instructions.

Census Question	CQS Question
<div style="border: 1px solid black; padding: 10px;"> <p>26 Last week, were you:</p> <p>➔ Tick all that apply</p> <p>➔ Include any paid work, including casual or temporary work, even if only for one hour</p> <p><input type="checkbox"/> working as an employee? ➔ Go to 32</p> <p><input type="checkbox"/> on a government sponsored training scheme? ➔ Go to 32</p> <p><input type="checkbox"/> self-employed or freelance? ➔ Go to 32</p> <p><input type="checkbox"/> working paid or unpaid for your own or your family's business? ➔ Go to 32</p> <p><input type="checkbox"/> away from work ill, on maternity leave, on holiday or temporarily laid off? ➔ Go to 32</p> <p><input type="checkbox"/> doing any other kind of paid work? ➔ Go to 32</p> <p><input type="checkbox"/> none of the above</p> </div>	<p>How would you describe your situation in the 7 days ending 27 March 2011?</p> <ol style="list-style-type: none"> 1. Working as an employee? 2. On a government sponsored training scheme? 3. Self-employed or freelance? 4. Working paid or unpaid for your own or your family's business? 5. Away from work ill, on maternity leave, on holiday or temporarily laid off? 6. Doing any other kind of paid work? 7. None of the above
Show card	T
Population asked	All members of household aged 16 or over
Unweighted sample size	7,372
CQS response rate	98.9%
Weighted agreement rate:	
England and Wales	91.2%
England	91.2%
Wales	90.7%

The agreement rate between the 2011 Census and CQS for this question was 91.2 per cent. As this was a multi-tick question, respondents could select more than one response category. To calculate the agreement rate for this question, those ticking more than one response were grouped into a category reflecting the combination they selected to ensure that no one was counted more than once in the analysis. So, to count as an agreement, they must have ticked the same combination of boxes on the census as on the CQS.

The agreement rate for census responses provided by paper, were statistically significantly higher than those given by Internet (91.7 per cent compared to 88.3 per cent). This may be a reflection of the profile of people who responded by Internet who tended to be younger and less likely to be in stable employment than those who completed by paper.

Investigation into all the differences found that 6 per cent occurred where the census response had been subject to edit or imputation and a further 6 per cent where the original census response had been provided by a proxy respondent.

In census outputs, those ticking more than one response were assigned to a single category according to a priority order where those ticking several boxes including “employee” were counted in “employee” and those ticking several boxes which included “self-employed” were counted in “self-employed”. Using this approach the agreement rate improves to 92.9 per cent (Table 5.22). The largest differences (0.7 per cent) were where the census indicated that they were not working (“none of the above”) but the CQS response was “employee” or “self-employed”. Differences of 0.6 per cent were also found between “self-employed” on the CQS but “employee” or “family business” on the census.

Table 5.22 Agreement rates between 2011 Census and 2011 Census Quality Survey: Working status in previous week

England and Wales								Percentages
Census	Census Quality Survey							Total
	Employee	Training scheme	Self-employed	Family business	Away from work	Other paid work	None of the above	
Employee	47.2	0.1	0.6	0.1	0.3	-	0.6	48.8
Training scheme	0.0	0.0	-	-	-	-	0.0	0.1
Self-employed	0.4	0.0	6.6	0.1	0.0	0.0	0.1	7.3
Family business	0.5	-	0.6	0.4	0.0	-	0.3	1.8
Away from work	0.5	-	0.0	0.1	0.7	-	0.4	1.7
Other paid work	0.2	-	0.0	-	-	-	0.1	0.3
None of the above	0.7	0.0	0.7	0.0	0.6	-	38.0	40.0
Total	49.4	0.1	8.6	0.8	1.6	0.0	39.5	100.0
<i>Net difference</i>								
<i>Census - CQS</i>	-0.6	0.0	-1.2	1.0	0.1	0.3	2.0	

Note: In this table, the diagonals do not sum to the overall agreement rate between the CQS and the census because the results have been aggregated into groups

As explained above, the response to this question was used, together with those from questions 27, 28, 29 and 30 to derive the economic activity of the person. In particular, those selecting “none of the above” who were not working in the week ending census day were routed from this to questions 27 to 31 which were designed to establish whether they were economically active, unemployed or economically inactive.

Simplifying the responses to this question into “working” (the first six tick boxes) and “not working” (“none of the above”), the agreement rate is 96.5 per cent (Table 5.23).

Previous questionnaire testing and the 1999 CQS found that some people were uncertain how to complete this question, for example in cases where they had part-time jobs, contract work (particularly if they were between contracts) and other work that was erratic. Some were also unsure whether to include voluntary work and whether the “away from work ill” only applied to long-term illness. Some students were also unsure whether their student status took precedence over the fact that they were working. People of state pension age also tended to assume the questions on employment did not apply to them. Being a large multi-tick question, it is possible that incorrect scanning of marks might have a small impact on the quality of this question or people selecting a different combination of tick boxes. However these would only account for a small proportion of the differences.

As explained above, the responses to this question are not published but used together with those from questions 27, 28, 29 and 30 to derive the economic activity of the person. It is not currently possible to say how economic activity statistics are affected by the quality of these component questions.

Table 5.23 Agreement rates between 2011 Census and 2011 Census Quality Survey: Working status in previous week

England and Wales		Percentages	
Census Quality Survey			
Census	Working	Not working	Total
Working	58.5	1.5	60.0
Not working	2.0	38.0	40.0
Total	60.5	39.5	100.0
<i>Net difference Census-CQS</i>	<i>-0.5</i>	<i>0.5</i>	

Looking for work (27)

This question asked respondents who had selected “none of the above” in question 26 whether they had been actively looking for paid work in the last four weeks (prior to census day). The responses to this individual question are not published however the answers given, together with those from questions 28, 29 and 30 were used to derive the economic activity of the person, that is whether they were working, unemployed, or economically inactive. The CQS question differed slightly from the census question in that respondents were asked to think back to whether they were looking for work during the four weeks leading up to 27 March 2011. This question has not changed since 2001.

Census Question	CQS Question
<div style="border: 1px solid black; padding: 5px;"> <p>27 Were you actively looking for any kind of paid work during the last four weeks?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> </div>	<p>Were you actively looking for any kind of paid work during the four weeks ending 27 March 2011?</p> <p>1. Yes 2. No</p>
Show card	No
Population asked	All members of household aged 16 or over , who ticked “none of the above” in question 26
Associated question	26-30
Unweighted sample size	2,995
CQS response rate	99.6%
Weighted agreement rate:	
England and Wales	96.2%
England	96.1%
Wales	97.5%

The agreement rate between the 2011 Census and CQS for this question was 96.2 per cent.

Wales had a statistically significantly higher agreement rate than England (97.5 per cent compared to 96.1 per cent).

The biggest difference between the census and CQS (2.1 per cent) occurred where the census indicated the respondent had been looking for work in the four weeks before Census Day but the CQS response was that they had not (Table 5.24). The converse was the case for the remaining 1.7 per cent difference.

This question was not subject to edit or imputation in the census so no differences were for that reason. Nine per cent of all differences occurred where the original census response had been provided by a proxy respondent.

Previous questionnaire testing and the 1999 CQS found that some people failed to follow the routing from question 26 correctly which would have led them to complete question 27 when it was not applicable to them. This may explain some of the differences. A number of respondents also found it difficult to interpret what constituted “actively looking for work” for example they were looking for a job in their area of expertise – not any kind of job. It is also possible that by the time the CQS interview was held, the respondent could not remember their circumstances at the time of the census. People of state pension age also tended to assume the questions on employment did not apply to them.

As explained above, the responses to this question are not published but used together with those from questions 26, 28, 29, and 30 to derive the economic activity of the person. It is not currently possible to say how economic activity statistics are affected by the quality of these component questions.

Table 5.24 Agreement rates between 2011 Census and 2011 Census Quality Survey: Looking for work

England and Wales		Percentages	
Census	Census Quality Survey		Total
	Yes	No	
Yes	4.5	2.1	6.6
No	1.7	91.7	93.4
Total	6.1	93.9	100.0
<i>Net difference Census - CQS</i>		0.5	-0.5

Available for work (28)

This question asked respondents who had selected “none of the above” in question 26 whether, if a job had been available in the week before census, they could have started it within two weeks. The responses to this individual question are not published however the answers given, together with those from questions 27, 29 and 30 were used to derive the economic activity of the person, that is, whether they were working, unemployed, or economically inactive. The CQS question differed slightly from the census question in that respondents were asked to think back to their situation in the week ending 27 March 2011. This question has not changed since 2001.

Census Question	CQS Question
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>28 If a job had been available last week, could you have started it within two weeks?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> </div>	<p>If a job had been available in the week ending 27 March 2011 could you have started it within two weeks?</p> <p>1. Yes 2. No</p>
Show card	No
Associated question	26-30
Population asked	All members of household aged 16 or over , who ticked “None of the above” in questions 26
Unweighted sample size	2,854
CQS response rate	99.5%
Weighted agreement rate:	
England and Wales	86.2%
England	86.1%
Wales	88.2%

The agreement rate between the 2011 Census and CQS for this question was 86.2 per cent.

The 14 per cent difference between the census and CQS was divided almost equally between those where the census indicated the respondent would have been able to start work within two weeks had a job been available in the week before census, and those who would not (Table 5.25). This question was not subject to edit or imputation in the census so no differences were for that reason but 7 per cent occurred where the original census response had been provided by a proxy respondent.

Table 5.25 Agreement rates between 2011 Census and 2011 Census Quality Survey: Available for work

England and Wales		Percentages		
Census	Census Quality Survey			Total
	Yes	No		
Yes	8.6	6.8		15.4
No	7.0	77.7		84.6
Total	15.5	84.5		100.0
<i>Net difference Census - CQS</i>		-0.2	0.2	

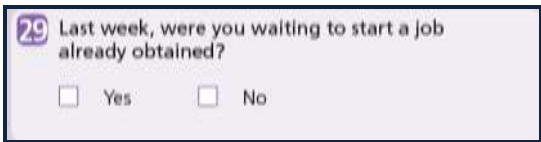
Previous questionnaire testing and the 1999 CQS found that some people failed to follow the routing from question 26 correctly which would have led them to complete question 28 when it was not applicable to them. People of state

pension age in particular tended to assume the questions on employment did not apply to them. This may explain some of the differences. Most discrepancies found in the 1999 CQS occurred because respondents could have started work in the two weeks after census night, but they would not have wanted to. It is also possible that by the time the CQS interview was held, the respondent could not remember their circumstances over the specific time period required.

As explained above, the responses to this question are not published but used together with those from questions 26, 27, 29, and 30 to derive the economic activity of the person. It is not currently possible to say how economic activity statistics are affected by the quality of these component questions.

Waiting to start a job (question 29)

This question asked respondents who had selected “none of the above” in question 26 whether they were waiting to start a job already obtained in the week before the census. The responses to this individual question are not published however the answers given, together with those from questions 27, 28 and 30 were used to derive the economic activity of the person, that is whether they were working, unemployed, or economically inactive. The CQS question differed slightly from the census question in that respondents were asked to think back to their situation in the week ending 27 March 2011. This question has not changed since 2001.

Census Question	CQS Question
	<p>In the week ending 27 March 2011 were you waiting to start a job already obtained?</p> <p>1. Yes 2. No</p>
Show card	No
Population asked	All members of household aged 16 or over , who ticked “None of the above” in questions 26
Associated question	26-30
Unweighted sample size	2,868
CQS response rate	99.6%
Weighted agreement rate:	
England and Wales	99.8%
England	99.8%
Wales	99.2%

The agreement rate between the 2011 Census and CQS for this question was 99.8 per cent.

England had a statistically significantly higher agreement rate than Wales (99.8 per cent compared with 99.2 per cent). The agreement rate for census responses provided on paper was statistically significantly higher than those given by Internet (99.8 per cent compared with 99.4 per cent). This may be a reflection of the profile of people who responded by Internet who tended to be younger and less likely to be in stable employment than those who completed by paper. There were only a small number of differences between census and CQS so the numbers were not large enough to deduce any obvious reasons for them (Table 5.26).

Table 5.26 Agreement rates between 2011 Census and 2011 Census Quality Survey: Waiting to start work

England and Wales		Percentages		
Census	Census Quality Survey			Total
	Yes	No		
Yes	0.1	0.1		0.2
No	0.1	99.7		99.8
Total	0.2	99.8		100.0
<i>Net difference Census - CQS</i>		-0.0	+0.0	

As explained above, the responses to this question are not published but used together with those from questions 26, 27, 28, and 30 to derive the economic activity of the person. It is not currently possible to say how economic activity statistics are affected by the quality of these component questions.

Reasons for not working (question 30)

This question asked respondents who had selected “none of the above” in question 26 what their status was in the week before the census. The responses to this individual question are not published however the answers given, together with those from questions 27, 28 and 29 were used to derive the economic activity of the person, that is, whether they were working, unemployed, or economically inactive. It is also used to derive “activity last week”. The CQS question differed slightly from the census question in that respondents were asked to think back to their situation in the week ending 27 March 2011. This wording, instructions and labelling of response boxes for this question has only changed slightly since 2001.

Census Question	CQS Question
<div style="border: 1px solid black; padding: 5px;"> <p>30 Last week, were you:</p> <p>↻ Tick all that apply</p> <p><input type="checkbox"/> retired (whether receiving a pension or not)?</p> <p><input type="checkbox"/> a student?</p> <p><input type="checkbox"/> looking after home or family?</p> <p><input type="checkbox"/> long-term sick or disabled?</p> <p><input type="checkbox"/> other</p> </div>	<p>In the week ending 27 March 2011, which of these options were you?</p> <ol style="list-style-type: none"> 1. Retired (whether receiving a pension or not) 2. A student 3. Looking after home or family 4. Long-term sick or disabled, or 5. Other
Show card	U
Population asked	All members of household aged 16 or over , who ticked “None of the above” in questions 26
Unweighted sample size	3,020
CQS response rate	99.5%
Weighted agreement rate:	
England and Wales	86.4%
England	86.6%
Wales	83.6%

As this was a multi-tick question, respondents could select more than one response category. To calculate the agreement rate for this question, those ticking more than one response were grouped into a category reflecting the combination they selected to ensure that no one was counted more than once in the analysis. So, to count as an agreement, they must have ticked the same combination of boxes on the census as on the CQS. Based on this approach, the agreement rate between the 2011 Census and CQS for this question was 86.4 per cent.

In census outputs, those ticking more than one response were assigned to a single category according to a priority order of “student”, “retired”, “long-term sick or disabled”, “looking after home or family” and “other”. For example someone who ticked “retired”, “student” and “other” would have been counted in “student”. Using this approach the agreement rate improves to 90.9 per cent (Table 5.27).

There were several areas of disagreement between the census and CQS. The largest were:

- 1.5 per cent where the census indicated the response was “other” but the CQS the response was “looking after home or family”;
- 1.2 per cent where the census indicated the response was “long-term sick or disabled” but the CQS response was “retired”;
- per cent where the census indicated “looking after home/ family” but the CQS response was “other”.

This question was not subject to edit or imputation in the census so no differences were for that reason. Seven per cent occurred where the original census response had been provided by a proxy respondent.

Table 5.27 Agreement rates between 2011 Census and 2011 Census Quality Survey: Reasons for not working

England and Wales						Percentages
Census Quality Survey						
Census	Student	Retired	Long Term Sick/Disabled	Looking after home/ family	Other	Total
Student	6.2	0.1	-	0.1	0.1	6.5
Retired	0.0	63.8	0.9	0.7	0.3	65.7
Long Term Sick/Disabled	-	1.2	7.5	0.9	0.3	9.9
Looking after home/ family	-	0.8	0.2	9.8	1.1	11.8
Other	0.2	0.4	0.2	1.5	3.7	6.1
Total	6.4	66.3	8.7	13.0	5.5	100.0
<i>Net difference Census - CQS</i>	0.0	-0.6	1.2	-1.2	0.6	

Previous questionnaire testing and the 1999 CQS found that some people failed to follow the routing from question 26 correctly which would have led them to complete question 30 when it was not applicable to them. This may explain some of the differences. In addition some respondents commented that they did not realise that being a housewife was the same as “looking after home and family”. Comments were also made about the difficulty of deciding whether to select the “retired” category when you were also sick or disabled at the time but felt that this was not permanent.

It is also possible that by the time the CQS interview was held, the respondent could not remember their circumstances over the specific time period required. Being a large multi-tick question, it is possible that incorrect scanning of marks might have a small impact on the quality of this question. People could also have selected a different combination of tick boxes in the CQS to those selected in the census.

The CQS results would suggest that the census overstated the number of people who indicated they were “long-term sick or disabled” by 1.2 percentage points and understated those “looking after home or family” by the same amount.

As explained above, the responses to this question are not published but used together with those from questions 26, 27, 28, and 29 to derive the economic activity of the person. It is not currently possible to say how economic activity statistics are affected by the quality of these component questions.

Ever worked (question 31)

This question asked respondents who had selected “none of the above” in question 26 whether they had ever worked and if so, what year they last worked. This question has not changed since 2001.

Census Question	CQS Question
<div style="border: 1px solid black; padding: 5px;"> <p>31 Have you ever worked?</p> <p><input type="checkbox"/> Yes, write in the year that you last worked</p> <p><input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> → Go to 32</p> <p><input type="checkbox"/> No, have never worked → Go to 43</p> </div>	<p>Have you ever worked?</p> <p>1. Yes (Write in the year that you last worked)</p> <p>2. No, have never worked</p>
Show card	No
Population asked	All members of household aged 16 or over , who ticked “None of the above” in questions 26
Unweighted sample size	3,113 (tick box) and 2,793 (year last worked)
CQS response rate	99.6% (tick box) and (91.6% year last worked)
Weighted agreement rate:	
England and Wales	94.4% (tick box) and 55.0% (year last worked)
England	94.4% (tick box) and 55.2% (year last worked)
Wales	93.9% (tick box) and 50.4% (year last worked)

There were two parts to this question. This first related to whether the respondents had ever worked, which had the tick-box response categories of “yes” or “no”. The second part related to the year they last worked, which was written or typed in. Agreement rates to these have been calculated separately.

The agreement rate between the 2011 Census and CQS for the first part of the question (“have you ever worked?”) was 94.4 per cent.

Table 5.28 summarises the differences. There was a 4.1 per cent difference where the census indicated the respondent had never worked but the CQS said response was that they had. The opposite was found for the remaining 1.5 per cent. A quarter of these differences (25 per cent) occurred where the census response had been subject to edit or imputation and around an eighth (13 per cent) where the original response had been provided by a proxy.

Previous questionnaire testing and the 1999 CQS found that some people failed to follow the routing from question 26 correctly which would have led them to complete question 31 when it was not applicable to them. This may explain some of the differences. However no other particular difficulties were found with this part of the question. Respondents’ recall of their working life might also have a small effect on accuracy.

Chart 5.3 shows all the differences found between the CQS and census for “year last worked”. Around a sixth of all differences (16 per cent) occurred where the census response had been subject to edit or imputation. Of those due to edit and imputation, 7 per cent gave a result that was within plus or minus one year of the CQS response, and one-third were within plus or minus five years.

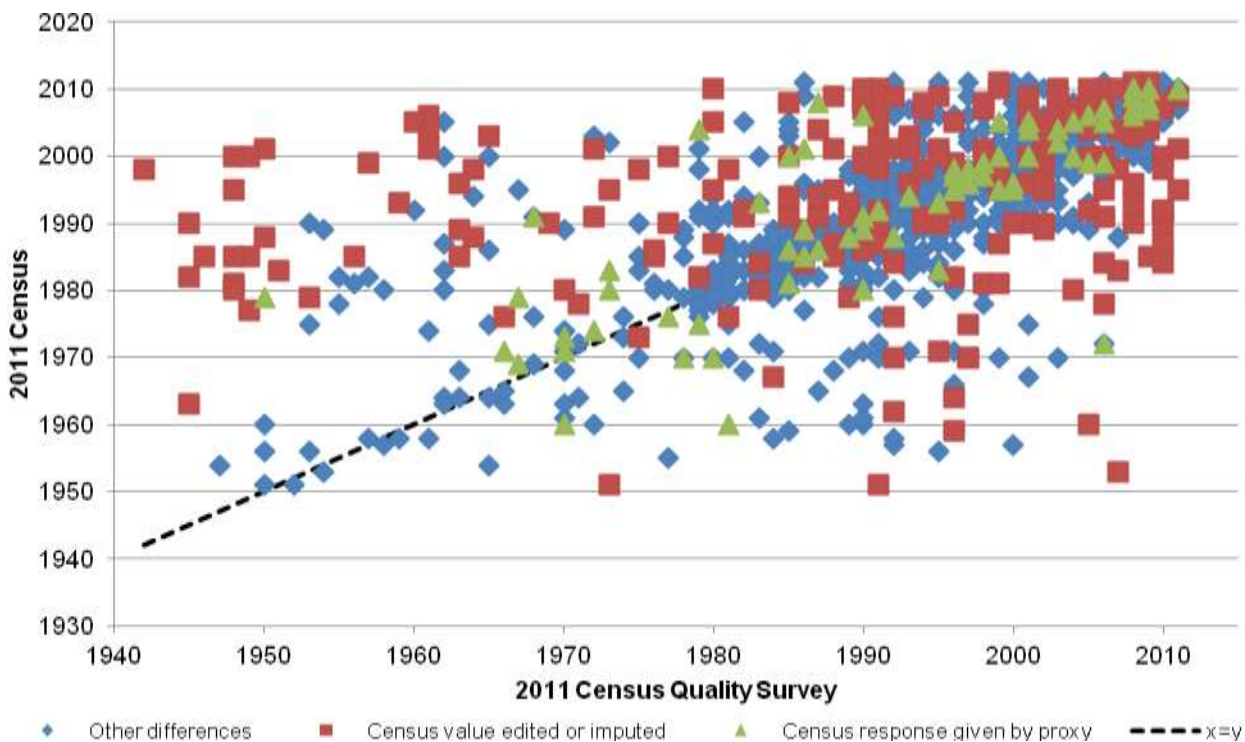
Proxy respondents accounted for 6 per cent of all the differences. Almost half of these (49 per cent) gave responses within plus or minus one year of the CQS and almost three-quarters (74 per cent) agreed to within plus or minus five years.

Table 5.28 Agreement rates between 2011 Census and 2011 Census Quality Survey: Ever worked

England and Wales		Percentages		
Census	Census Quality Survey		Total	
	Yes	No		
Yes	88.7	1.5	90.2	
No	4.1	5.6	9.8	
Total	92.9	7.1	100.0	
<i>Net difference Census - CQS</i>		-2.7	2.7	

The agreement rates between the census and CQS for the second part of the question ('year last worked') was only 55 per cent.

Chart 5.3 Differences between 2011 Census and 2011 Census Quality Survey: Year last worked



The remaining differences, which made up just over three-quarters (78 per cent) of the total, occurred where the year given in the CQS differed from the census for some other reason. Half of these were within plus or minus one year of the CQS response and 77 per cent within plus or minus 5 years. There was no obvious reason for these differences. Incorrect scanning of the handwritten year might explain a small number of the differences or where the respondent has accidentally transposed the numbers for example given as 1998 on one and 1989 on another. The most likely explanations however are that the respondent gave a different answer either because they had forgotten the year and the CQS interviewer helped them remember more accurately or that they had misunderstood the question and changed their response when they understood what was required.

The CQS results would suggest that the census has overstated those who have never worked by 2.7 percentage points and understated those who have by 2.7 percentage points.

Self employed or employee (question 33)

This question asked the respondent whether they were an employee or self-employed in their main job. The answer was used with other questions to derive an appropriate occupation and industry code for each person. The CQS question differed slightly from the census question in that it asked for their situation at the time of the census. The wording of this question has changed slightly since 2001 and self-employed tick boxes were reversed so that the options were presented in the expected order of frequency.

Census Question	CQS Question
<div style="border: 1px solid black; padding: 5px;"> <p>33 In your main job, are (were) you:</p> <p><input type="checkbox"/> an employee?</p> <p><input type="checkbox"/> self-employed or freelance without employees?</p> <p><input type="checkbox"/> self-employed with employees?</p> </div>	<p>In your main job on 27 March 2011, which of these options were you?</p> <ol style="list-style-type: none"> 1. An employee 2. Self-employed or freelance without employees 3. Self-employed with employees
Show card	V
Population asked	All members of household aged 16 or over, who have ever had or currently have a job
Unweighted sample size	7,151
CQS response rate	98.7%
Weighted agreement rate:	
England and Wales	94.7%
England	94.7%
Wales	95.9%

The agreement rate between the 2011 Census and CQS for this question was 94.7 per cent.

Wales had a statistically significantly higher agreement rate than England (95.9 per cent compared to 94.7 per cent).

The main area of disagreement between the census and CQS was between “employee” on the census and “self-employed (no employees)” on the CQS (1.4 per cent) and vice versa (1.3 per cent). (See table 5.29). However there were differences between the other categories too. Looking at these differences in more detail, 11 per cent occurred where the census response had been subject to edit or imputation, and 5 per cent where the original census response was given by a proxy. Further research found that the occupations of the people who gave different answers tended to be those that could be considered either self-employed or employed, such as gardeners, cleaners, company directors and consultants.

The 1999 CQS and previous questionnaire testing found that people who had more than one occupation, those who work on a contractual basis and those who had moved jobs were not sure how to answer this question. There was some confusion over whether those who ran their own business classed themselves as being employed by their own company or whether they were self-employed.

Table 5.29 Agreement rates between 2011 Census and 011 Census Quality Survey: Self employed or employee

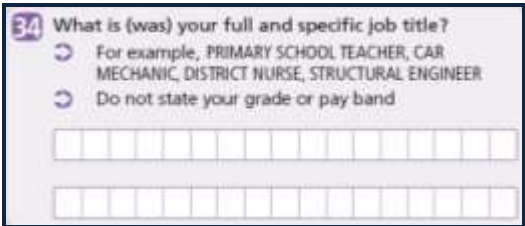
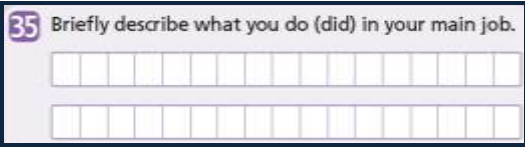
England and Wales

Percentages

Census	Census Quality Survey			Total
	Employee	Self-employed (no employees)	Self-employed (with employees)	
Employee	84.9	1.4	0.5	86.7
Self-employed (no employees)	1.3	8.0	0.8	10.1
Self-employed (with employees)	0.6	0.7	1.8	3.1
Total	86.9	10.1	3.1	100.0
<i>Net difference Census - CQS</i>	<i>-0.1</i>	<i>0.0</i>	<i>0.1</i>	

Occupation (questions 34-35)

Questions 34 and 35 asked respondents their job title and a brief description of their main job. The CQS question differed slightly from the census in that it asked for the respondent's situation the week ending 27 March 2011. CQS interviewers would have coded the occupation whereas the census questionnaire responses would have been coded during census processing. Coding was done using the Standard Occupational Classification 2010 (SOC2010). These questions have changed little since 2001; however the 2001 Census used a different coding classification – the Standard Occupational Classification 2000 (SOC2000). This will affect the comparability of the 2011 and 1999 CQS agreement rates.

Census Question	CQS Question
	In the week ending 27 March, what was your full and specific job title? For example, PRIMARY SCHOOL TEACHER, CAR MECHANIC, DISTRICT NURSE, STRUCTURAL ENGINEER
	Briefly describe what you did in your main job
Show card	No
Population asked	All members of household aged 16 or over, who have ever had or currently have a job
Unweighted sample size	7,116
CQS response rate	98.2% (Question 34)
Weighted agreement rate:	
England and Wales	67.5% - to one digit code (Major group)
England	67.4 % - to one digit code (Major group)
Wales	70.1% - to one digit code (Major group)

The responses to these questions were taken together with questions 33 and 36 to derive occupation codes for each person using the Standard Occupational Classification 2010 (SOC2010). This consists of occupation codes aggregated into Unit, Minor, Sub-Major and Major Groups. The system is hierarchical, so for example SOC unit code 2451 (Librarians) is in Minor group 245 (Librarians and Related Professionals), which is in Sub-Major group 24 (Business, Media and Public Service Professionals) in Major group 2 (Professional Occupations). For the purposes of the CQS, analysis was carried out at the Major group level (the first digit of the code).

The agreement rate between the 2011 Census and CQS for occupation codes at the Major group level was 67.5 per cent.

There were several areas of disagreement between the occupation codes from the census and CQS (Table 5.30). The largest were found between:

- “Professional occupations” (group 2) on the census but “Associate professional and technical occupations” (group 3) on the CQS (2.9 per cent)

- “Associate professional and technical occupations” (group 3) on the census and “Managers, directors and senior officials” (group 1) on the CQS (2.2 per cent)
- “Associate professional and technical occupations” (group 3) on the census and “Professional occupations” (group 2) on the CQS (2.1 per cent)

Looking at those that differed, 7 per cent occurred where the census responses to these questions had been subject to edit or imputation processes. A further 6 per cent occurred where the census response had been provided by a proxy.

Table 5.30 Agreement rates between 2011 Census and 2011 Census Quality Survey: Occupation (Major Group)

England and Wales										Percentages
Census	Census Quality Survey									Total
	1. Managers directors & senior officials	2. Professional	3. Associate professional & technical	4. Administrative & secretarial	5. Skilled trades	6. Caring, leisure & other service	7. Sales & customer service	8. Process, plant & machine operatives	9. Elementary occupations	
1. Managers, directors & senior officials	7.9	0.4	0.5	0.6	0.3	0.3	0.4	0.1	0.2	10.8
2. Professional occupations	2.1	10.5	2.9	0.7	0.4	0.3	0.1	0.3	0.1	17.4
3. Associate professional & technical occupations	2.2	0.7	7.2	0.8	0.4	0.2	0.3	0.2	0.3	12.5
4. Administrative & secretarial occupations	1.1	0.5	1.3	12.2	0.1	0.1	0.3	0.2	0.6	16.4
5. Skilled trades occupations	0.9	0.3	0.3	0.0	7.0	0.1	0.2	0.6	0.7	10.1
6. Caring, leisure & other service occupations	0.3	0.5	0.5	0.1	0.1	5.9	0.1	0.1	0.4	7.8
7. Sales & customer service occupations	0.6	0.1	0.6	0.5	0.0	0.1	5.2	0.0	0.8	8.0
8. Process, plant & machine operatives	0.4	0.1	0.1	0.2	0.7	0.0	0.3	3.9	0.8	6.5
9. Elementary occupations	0.1	0.1	0.1	0.2	0.3	0.4	0.2	1.2	7.8	10.5
Total	15.6	13.2	13.5	15.4	9.3	7.5	7.1	6.6	11.7	100.0
<i>Net difference Census - CQS</i>	<i>-4.8</i>	<i>4.1</i>	<i>-1.0</i>	<i>1.0</i>	<i>0.9</i>	<i>0.4</i>	<i>0.8</i>	<i>-0.1</i>	<i>-1.2</i>	

It is possible that some of the differences were because of different coding approaches. The CQS interviewers were generally experienced survey interviewers who were familiar with occupation coding and knew what additional

information to ask to help code accurately. They would also code while the information was fresh in their mind. Census responses would have been coded through a combination of automatic coding (from scanned images) and manual coding.

Errors would also have occurred in coding if handwritten census responses were scanned incorrectly. However these would only explain a small proportion of differences.

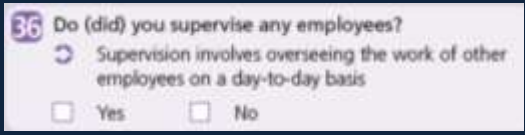
It is believed that the main reason for differences is the respondent giving different responses in the CQS. The 1999 CQS found that people gave different job titles if they had more than one job and were unsure which to give. Retired people also gave the title of the job they had for the majority of their career, rather than their more recent job. It also found that the reliability of the occupation coding decreased significantly if the job titles differed between the CQS and census.

Differences in job descriptions in 1999 arose if people found it difficult to describe the varied nature of their work. This could lead to differences in occupation coding although the job title was considered to be the most important source of information. Indeed, some respondents failed to answer the question because they thought it was just repeating information given in their job title.

The CQS results would indicate that the 2011 Census understated the number of people who were “Managers, directors and senior officials” by 4.8 percentage points and overstated those in “Professional occupations” by 4.1 percentage points.

Supervisor status (36)

This question asked respondents to indicate whether they supervised any employees or not. The wording and instructions for this question have changed slightly since 2001. The answer to this question feeds into occupation code (see question 34 and 35).

Census Question	CQS Question
	<p>Did you supervise any employees?</p> <p>Supervision involves overseeing the work of other employees on a day-to-day basis</p> <p>1. Yes 2. No</p>
Show card	No
Population asked	All members of household aged 16 or over , who have ever had or currently have a job
Unweighted sample size	7,165
CQS response rate	98.9%
Weighted agreement rate:	
England and Wales	86.2%
England	86.2%
Wales	86.8%

The agreement rate between the 2011 Census and CQS for this question was 86.2 per cent.

Census responses to this question provided by Internet were statistically significantly higher than those provided on paper (87.8 per cent compared to 86.0 per cent).

Table 5.31 summarises the differences. There was a 7.8 per cent difference where the census indicated the respondent did not supervise employees but CQS response was that they did. The opposite was found for the remaining 6.0 per cent.

Of all differences, 9 per cent occurred where the census response had been subject to edit or imputation, and 6 per cent where the original response had been provided by a proxy.

The 1999 CQS and questionnaire testing found the main reason for differences was difficulty in interpreting the meaning of a “supervisor”. There was uncertainty over the number of people that someone was required to manage to be considered as a “supervisor” and whether supervising volunteers should count. Further issues included the extent of time that the person supervised staff and whether it was in their job specification or as perceived by themselves and others.

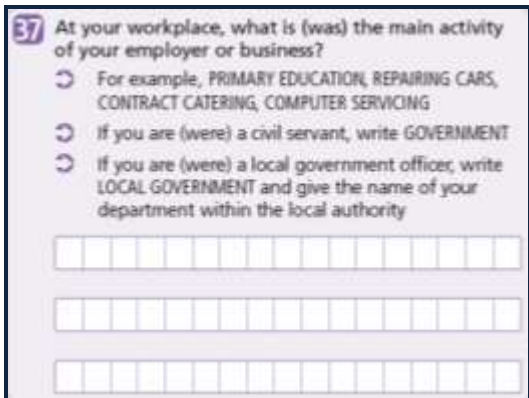
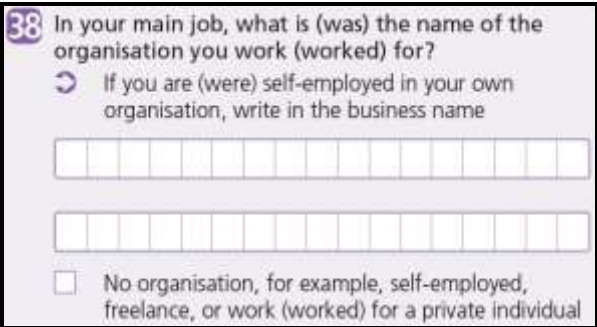
The CQS results suggest that the census overstated the number of people who supervised other employees by 1.8 percentage points and understated those that did not by the same amount.

Table 5.31 Agreement rates between 2011 Census and 2011 Census Quality Survey: Supervisor status

England and Wales		Percentages	
	Census Quality Survey		
Census	Yes	No	Total
Yes	27.2	7.8	34.9
No	6.0	59.1	65.1
Total	33.2	66.8	100.0
<i>Net difference Census - CQS</i>	1.8	-1.8	

Industry (questions 37 & 38)

Question 37 asked respondents to describe the main activity of their employer or business. The CQS question differed slightly from the census in that it asked for the respondent's situation in the week ending 27 March 2011. CQS interviewers would have coded the industry whereas the census questionnaire responses would have been coded during census processing. The wording and instructions of the questions have changed a little since 2001, however the 2001 Census used a different coding classification – the UK Standard Industrial Classification of Economic Activities 1992 (SIC(92)). This will affect the comparability of the 2011 and 1999 CQS agreement rates.

Census Question	CQS Question
	<p>At your workplace, (in the week ending 27 March), what was the main activity of your employer or business?</p> <p>For example, PRIMARY EDUCATION, REPAIRING CARS, CONTRACT CATERING, COMPUTER SERVICING</p> <p>If you were a civil servant, answer GOVERNMENT. If you were a local government officer, answer LOCAL GOVERNMENT and give the name of the department within the local authority</p>
	<p>In your main job on the 27 March, what was the name of the organisation you worked for?</p> <p>If you were self-employed in your own organisation, please give the business name.</p>
Show card	No
Population asked	All members of household aged 16 and over who have ever had or currently have a job
Unweighted sample size	6,039
CQS response rate	96.7%
Weighted agreement rate:	
England and Wales	74.2% (Section level only)
England	74.4% (Section level only)
Wales	71.8% (Section level only)

The responses to this question were taken in conjunction with the questions on occupation and question 40 (address of workplace) to derive industry codes for each person using the Standard Industry Classification 2007 (UK SIC 2007). This consists of industry codes aggregated into Sections, Divisions, Groups, Classes and Sub-Classes. The system is hierarchical, so for example SIC sub-class 91.01/1 (Library activities) sits within Class 91.01 (Library and archive activities) which is in Group 91.0 (Libraries, archives, museums and other cultural activities), in Division 91

(Libraries, archives, museums and other cultural activities) which sits within Section R (Arts, Entertainment and Recreation). For the purposes of the CQS, analysis was carried out at the Section level (the letter of the code).

The agreement rate between the 2011 Census and CQS for occupation codes at the Section level was 74.2 per cent.

Table 5.32 shows that there were several areas of disagreement between the industry codes from the census and CQS. The largest were found between:

- “Human health and social work activities” (Section Q) on the census and “Public administration and defence; compulsory social security” (Section O) on the CQS (1.2 per cent)
- “Wholesale and retail trade; repair of motor vehicles and motor cycles” (Section G) on the census but “Manufacturing” (Section C) on the CQS (1.0 per cent)

Looking at those that differed, none of them had been subject to edit or imputation processes and 6 per cent occurred where the census response had been provided by a proxy

It is possible that some of the differences were because of different coding approaches. The CQS interviewers were generally experienced survey interviewers who were familiar with coding industry and knew what additional information to ask to help code accurately. They would also code while the information was fresh in their mind. Census responses would have been coded through a combination of automatic coding (from scanned images) and manual coding.

Errors would also have occurred in coding if handwritten census responses were scanned incorrectly. However these would only explain a small proportion of differences.

It is believed that the main reason for differences is the respondent giving different answers in the CQS. The 1999 CQS found that people with more than one job were unsure which employer to put down and which was their main job. People who had changed occupation between the time of the census and the CQS interview also gave different answers as did those who were undertaking short-term or temporary work.

The CQS results would indicate that the 2011 Census overstated the number of people who worked in the “Construction” industry by 1.7 percentage points and understated those in the “Public administration and defence; compulsory social security” sector by 1.2 percentage points.

Table 5.32 Agreement rates between 2011 Census and 2011 Census Quality Survey: Industry

England and Wales

Percentages

		Census Quality Survey																	Total
Census	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	Other	Total
A	0.7	0.1	0.1	-	-	-	0.2	-	0.0	-	-	-	-	0.0	-	0.0	-	0.0	1.1
B	-	0.0	0.0	-	-	-	-	-	-	-	0.1	-	0.0	0.1	0.0	-	-	0.0	0.2
C	0.1	0.0	7.0	0.0	0.0	0.1	1.4	0.1	0.1	0.2	-	0.1	0.3	0.1	0.1	0.1	0.1	0.1	9.7
D	-	-	0.0	0.4	0.0	-	0.1	-	-	0.0	-	-	0.0	0.0	-	0.0	0.0	0.0	0.6
E	-	-	-	-	0.5	-	0.1	-	0.0	-	-	-	0.0	0.0	0.1	-	-	0.0	0.7
F	0.0	0.0	0.5	0.1	0.0	1.7	0.1	0.1	-	0.0	0.1	0.2	0.3	0.2	0.1	0.0	0.1	0.3	4.0
G	0.1	0.0	1.0	0.0	0.0	0.0	13.0	0.4	0.3	0.1	0.0	0.0	0.4	0.0	0.0	0.1	0.1	0.1	15.8
H	0.0	0.0	0.2	0.0	0.0	0.0	0.2	4.1	0.0	-	0.0	-	0.0	0.2	0.1	0.0	-	0.1	5.0
I	0.0	-	0.1	-	0.0	-	0.7	0.1	3.8	-	0.0	-	-	0.0	0.0	0.3	0.1	0.2	5.4
J	-	-	0.3	-	-	0.0	0.2	0.0	-	2.9	0.0	-	0.1	-	0.1	0.0	0.0	0.1	3.8
K	-	-	0.0	-	-	0.1	-	0.0	-	0.0	5.0	0.0	0.3	0.0	0.2	-	0.0	0.1	5.7
L	-	-	0.0	-	-	0.2	-	-	-	-	0.0	1.0	0.0	0.0	0.3	-	0.1	0.0	1.6
M	0.0	0.1	0.4	0.0	0.0	0.1	0.1	-	0.1	0.2	0.1	0.1	4.1	0.2	0.4	0.1	0.1	0.5	6.6
N	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.0	-	0.0	1.7	0.2	0.2	0.2	0.2	3.1
O	0.0	-	0.1	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.2	0.2	5.1	0.2	0.5	0.4	7.2
P	0.1	-	0.1	-	-	-	0.1	0.0	0.1	0.0	-	0.1	0.4	0.1	0.2	10.0	0.4	0.3	11.9
Q	-	-	0.1	-	-	0.0	0.1	0.0	0.1	-	-	0.1	0.0	0.1	1.2	0.6	10.5	0.4	13.3
Other	0.0	-	0.1	-	0.2	0.0	0.2	0.0	0.1	0.1	0.0	0.0	0.2	0.0	0.2	0.1	0.2	2.7	4.2
Total	1.1	0.3	10.2	0.7	0.8	2.3	16.7	5.1	4.7	3.5	5.4	1.5	6.4	3.1	8.4	11.9	12.5	5.6	100.0
<i>Net diff¹</i>	<i>0.0</i>	<i>0.0</i>	<i>-0.5</i>	<i>0.0</i>	<i>-0.1</i>	<i>1.7</i>	<i>-0.8</i>	<i>0.0</i>	<i>0.8</i>	<i>0.3</i>	<i>0.3</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>-1.2</i>	<i>0.0</i>	<i>0.8</i>	<i>-1.3</i>	

Note: In this table, the diagonals do not sum to the overall agreement rate between the CQS and the census because the results have been aggregated into groups

Codes in this table are as follows:

- A Agriculture, forestry and fishing
- B Mining and quarrying
- C Manufacturing
- D Electricity, gas, steam and air conditioning supply
- E Water supply; sewerage, waste management and remediation activities
- F Construction
- G Wholesale and retail trade; repair of motor vehicles and motor cycles
- H Transport and storage
- I Accommodation and food service activities
- J Information and communication
- K Financial and insurance activities
- L Real estate activities
- M Professional, scientific and technical activities
- N Administrative and support service activities
- O Public administration and defence; compulsory social security
- P Education
- Q Human health and social work activities

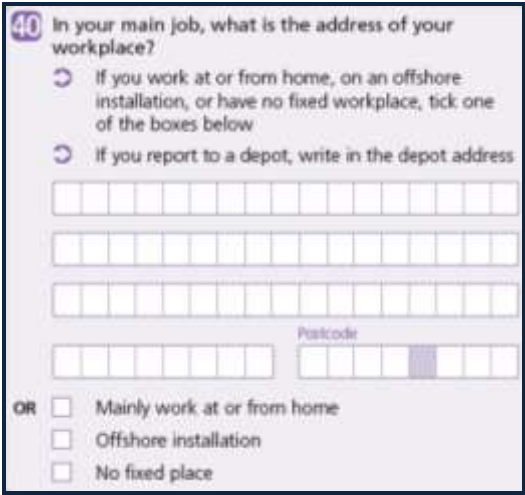
Other includes R, S, T, U and Other where:

- R Arts, Entertainment and Recreation
- S Other Service Activities
- T Activities of Households as Employers; Undifferentiated Goods and Services Producing Activities of Households for Own Use
- U Activities of Extra Territorial Organisations and Bodies
- Other

¹ Net difference census minus CQS

Address of workplace (question 40)

This question asked respondents for the address of their workplace or, if they had no fixed workplace, they were asked to indicate whether they worked mainly at home, at an offshore installation or had no fixed place of work. This question was adapted for the CQS to make it more suitable for a face-to-face interview scenario. In the CQS, respondents were asked to select their response from the tick-box options first. If they indicated they worked from a depot or from another address they were then asked the address details. This difference may affect the comparability to the census question; however it is felt that the CQS version will result in more accurate responses. This question is very similar to that asked in the 2001 Census.

Census Question	CQS Question
	<p>In your main job, do you mainly work:</p> <ol style="list-style-type: none"> 1. At or from home 2. At an offshore installation 3. At no fixed place 4. From a depot, or 5. At another address <p>If the respondent answers that they work at a depot or “another address” they were asked to record the address and postcode of their place of work</p>
Show card	No
Population asked	All members of household aged 16 or over , who had a job in the week prior to census day
Unweighted sample size	2,545 (Workplace address), 593 (tick boxes)
CQS response rate	77.6% (Workplace postcode)
Weighted agreement rate:	
England and Wales	82.2% (Postcode Sector)
England	82.8% (Postcode Sector)
Wales	70.8% (Postcode Sector)

There are two parts to this question. This first is about the address of the person’s main workplace which was completed by entering the address, including a postcode. The second part comprised tick-box response categories which only applied to people who worked at or from home, on an off-shore installation, or had no fixed workplace. It was not possible to calculate reliable agreement rates for England and Wales for the latter part of the question as the sample of people responding to that section in the CQS was too small.

The agreement rate between the 2011 Census and CQS for the first part of the question (workplace address) was calculated by comparing the postcodes at postcode sector level. For example, in the postcode PO15 5RR, the postcode sector is PO15 5. The agreement rate at this level was 82.2 per cent. The rate of agreement at individual postcode unit would be lower.

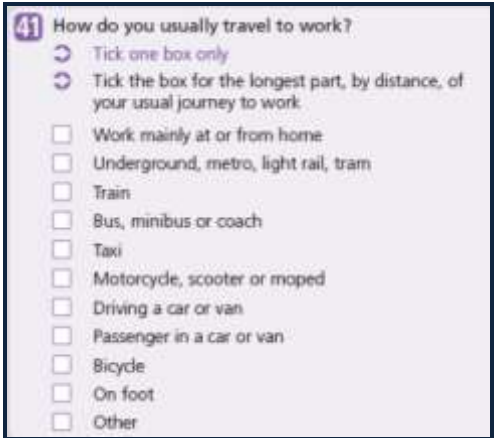
Due to the large volume of postcode sectors, it is not possible to show a cross-tabulation of the differences. However investigation into the differences found that 17 per cent were where the census response had been subject to edit or imputation and 3 per cent had originally been provided by a proxy respondent.

A small proportion of differences may have occurred because of incorrect scanning of handwritten addresses or people giving incorrect addresses or postcodes. Previous questionnaire testing found that people often do not know the postcode of their workplace, also, some respondents wrote in their home address before seeing that the question did not apply to them.

The post code given in this question is used to work out where the person works, and was used to create, and assign them to, a workplace zone. Workplace zones are a new type of output geography for England and Wales which aim to have roughly consistent numbers of workers in them. The postcodes of workplace are then used to create workday populations, which is a redistribution of the usually resident population to their place of work. The 82.2 per cent agreement rate found for this question is calculated at post code sector level so does not reflect the accuracy of the workplace zone statistics. Since carrying out this CQS analysis, ONS continues to improve the quality of post code information through cleaning and imputation. The quality of workday population statistics is therefore likely to be better than the CQS results would suggest.

Travel to work (question 41)

This question asked respondents how they usually travelled to work. The CQS question differed slightly from the census question as it asked them to think back to how they usually travelled to work around the time of the census. The question has changed only slightly since 2001 by moving “Taxi” above “Passenger in a car or van” in the tick boxes.

Census Question	CQS Question
 <p>41 How do you usually travel to work? <input type="radio"/> Tick one box only <input type="radio"/> Tick the box for the longest part, by distance, of your usual journey to work <input type="checkbox"/> Work mainly at or from home <input type="checkbox"/> Underground, metro, light rail, tram <input type="checkbox"/> Train <input type="checkbox"/> Bus, minibus or coach <input type="checkbox"/> Taxi <input type="checkbox"/> Motorcycle, scooter or moped <input type="checkbox"/> Driving a car or van <input type="checkbox"/> Passenger in a car or van <input type="checkbox"/> Bicycle <input type="checkbox"/> On foot <input type="checkbox"/> Other</p>	<p>Thinking back to February/March 2011, how did you usually travel to work?</p> <ol style="list-style-type: none"> 1. Work mainly at or from home 2. Underground, metro, light rail, tram 3. Train 4. Bus, minibus, coach 5. Taxi 6. Motorcycle, scooter or moped 7. Driving a car or van 8. Passenger in a car or van 9. Bicycle 10. On foot 11. Other
Show card	W
Population asked	All members of household aged 16 or over, who had a job in the week prior to census day
Unweighted sample size	4,003
CQS response rate	98.1%
Weighted agreement rate:	
England and Wales	85.5%
England	85.4%
Wales	86.2%

The agreement rate between the 2011 Census and CQS for this question was 85.5 per cent.

Table 5.33 summarises the differences. The largest difference (2.8 per cent) was where the census indicated the usual journey to work was “driving” whereas in the CQS the response was “work from home”. Conversely there was a 1 per cent difference where the census indicated they worked from home but in the CQS it was “driving”. There were also relatively large differences between “driving”/“passenger” and “driving”/“on foot”.

Of all the differences, 9 per cent occurred where the census response had been subject to edit or imputation, and 8 per cent where the original response had been provided by a proxy.

The 1999 CQS and questionnaire testing found the most common reason for differences was that the respondent used different methods of transport on different days; other respondents used two modes of transport on their daily journey to work and either mentioned more than one on the questionnaire or mentioned different ones in the questionnaire and the interview. A number of respondents also mentioned the method of transport they used in the course of their work rather than the means they travelled to work.

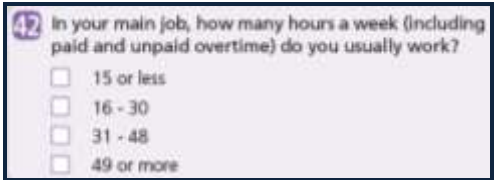
The 2011 CQS result would suggest that the census understated those who worked from home by 2.0 percentage points but overstated those who drove by 1.0 percentage point. However, the majority of census outputs on travel to work have been adjusted to take account of the person's response to Question 40. So, if they indicated they worked from home on Question 40 but did not select "work from home" for this question, their response was changed to "work from home". This means the census outputs on travel to work will be more accurate than the CQS results suggest.

Table 5.33 Agreement rates between 2011 Census and 2011 Census Quality Survey: Travel to work

England and Wales												Percentages	
Census	Census Quality Survey											Total	
	Work from Home	Under-ground	Train	Bus	Taxi	Motor-bike	Driving	Passenger	Bicycle	On foot	Other		
Work from Home	5.2	0.1	0.1	0.0	-	-	1.0	0.1	-	-	0.1	6.8	
Under-ground	0.0	3.0	0.4	0.0	-	-	0.3	-	-	-	-	3.8	
Train	0.1	0.5	4.4	0.3	-	-	0.4	-	-	0.0	-	5.7	
Bus	0.0	0.3	0.1	4.1	0.0	0.0	0.3	0.4	0.0	0.1	-	5.3	
Taxi	0.0	-	-	0.0	0.3	-	-	0.0	-	-	-	0.5	
Motorbike	-	-	-	-	-	-	0.3	0.0	0.0	-	-	1.4	
Driving	2.8	0.0	0.4	0.1	0.0	0.1	56.3	0.9	0.3	0.5	0.0	61.4	
Passenger	0.0	-	-	0.1	-	0.0	0.7	2.4	0.0	0.1	-	3.4	
Bicycle	0.0	0.0	0.1	0.0	-	0.1	0.2	0.0	1.1	0.2	-	1.9	
On foot	0.2	0.1	0.0	0.2	-	0.0	0.8	0.2	0.3	7.4	0.0	9.3	
Other	0.2	0.0	-	-	-	-	0.1	0.0	-	-	-	0.0	0.4
Total	8.8	4.0	5.6	4.7	0.3	1.4	60.3	4.2	1.8	8.7	0.2	100.0	
<i>Net difference Census - CQS</i>	-2.0	-0.2	0.2	0.5	0.2	0.1	1.0	-0.8	0.1	0.6	0.3		

Hours worked (question 42)

The question asked how many hours respondents usually worked. The CQS question differed slightly from the census question in that respondents were asked to think back to their situation at the time of the census. The wording and instructions for this question have changed since 2001, when respondents were asked to give the answer to the nearest whole hour based on the average number of hours worked in the previous four weeks.

Census Question	CQS Question
	<p>(Thinking back to February/March 2011) In your main job, how many hours a week (including paid and unpaid overtime) did you usually work? Exclude time taken for lunch</p> <ol style="list-style-type: none"> 1. 15 or less 2. 16-30 3. 31-48 4. 49 or more
Show card	X
Population asked	All members of household aged 16 or over , who had a job in the week prior to census day
Unweighted sample size	3,998
CQS response rate	98.0%
Weighted agreement rate:	
England and Wales	83.9%
England	83.9%
Wales	83.1%

The agreement rate between the 2011 census and CQS for this question was 83.9 per cent.

As can be seen in Table 5.34, the largest difference (3.9 per cent) occurred where the census results indicated the respondent worked 31-48 hours, but in the CQS they said they worked 49 or more. Further investigation found that those who gave different responses principally worked in occupations where hours of work might be expected to vary considerably such as finance, company management and farming. A large proportion of them were also self-employed. This is not surprising as the previous CQS and questionnaire testing identified that people in occupations whose hours of work varied considerably found this question difficult to answer.

Of all the differences, 8 per cent occurred where the census response had been subject to edit or imputation, and 7 per cent where the original census response had been provided by a proxy.

The 1999 CQS found that the most common reason given for discrepancies was that the number of hours the respondent worked varied considerably. Another very commonly mentioned reason was that respondents were unsure whether to put down their contractual hours or the hours they had actually worked.

The time delay between the census and CQS may also play a part in the differences as respondents may have forgotten what hours they were working at the time of the census, or their circumstances may have changed since then.

The CQS results would indicate that the 2011 Census slightly overstated (by 1.1 percentage points) those who worked 16-30 hours.

Table 5.34 Agreement rates between 2011 Census and 2011 Census Quality Survey: Hours Worked

England and Wales		Percentages			
	Census Quality Survey				
Census	15 or less	16-30	31-48	49 or more	Total
15 or less	6.6	1.5	0.5	0.0	8.7
16-30	1.8	18.1	2.5	0.1	22.6
31-48	0.4	1.8	52.0	3.9	58.0
49 or more	0.2	0.1	3.3	7.2	10.7
Total	9.1	21.4	58.4	11.1	100.0
<i>Net difference Census - CQS</i>	<i>-0.4</i>	<i>1.1</i>	<i>-0.3</i>	<i>-0.4</i>	

Annex 1: Methodology and Quality

1.1 Survey Design

1.1.1 Sample

The CQS sample was selected so that the agreement rates between the CQS and the census household questions would have a margin of error of plus or minus two percentage points at the 95 per cent level of confidence (for England and Wales). This means that if the survey were conducted 100 times, the true agreement rate would be within 2 percentage points of the percentage reported in 95 of the 100 surveys. So for example, if the CQS versus census true agreement rate for a question was 83 per cent, then if the survey was conducted 100 times, the agreement rate estimated from each survey would range between 81 per cent and 85 per cent, 95 times.

To achieve this level of accuracy, 4,500 household interviews would need to be achieved. Allowing for non-response, and to ensure that the sample of people within these households was large enough to be representative of the population of England and Wales, it was estimated that an initial sample of around 7,500 households would be necessary.

The CQS used a two-stage stratified sample design:

Stage 1

Some 288 [postcode sectors](#)⁷ selected from the [Postcode Address File](#)⁸ across each [Government Office Region](#)⁹ (GOR) in England and Wales. To ensure that the CQS results could be analysed separately for Wales, the sample taken there was double that taken in a GOR in England. This sample size would achieve a margin of error of ± 3 percentage points around the agreement rate for Wales for those questions where the agreement between the CQS and the census was over 90 per cent.

The postcode sectors were stratified by the number of households each GOR had in each of the five [hard-to-count](#)¹⁰ (HtC) categories used in the 2011 Census. The HtC categories were designed as an indicator of how easy the area was to enumerate. These ranged from one (easy) to five (hard). Although there were five HtC categories, a few GORs had none, or very few postcode sectors in categories four and five. In these cases the two categories were merged to give a unit of sufficient size.

Stage 2

In the second stage, the addresses of households within the postcode sectors sampled in stage one who had responded to the census by 14 April were extracted from the census questionnaire tracking system. This was updated daily during the census fieldwork to keep track of those households who had returned a questionnaire. This ensured that the CQS sample only included households who had returned a questionnaire (however it was not possible to know at this point how many of those were blank or incomplete).

To ensure that the CQS sample was as representative as possible, these addresses were further sampled and stratified by:

- mode of response - the proportions of all households in England or Wales who returned their census response by post or by Internet, and
- speed of return – the proportions of all households in England or Wales who had returned their census response “early” (before 1 April 2011), or “late” (after 1 April 2011).

In all, 26 households were selected from each of the 288 postcode sectors which resulted in 7,488 households being selected for interview.

Only households and individuals who had filled in their census questionnaire at the address sampled were eligible to be included in the CQS sample. This excluded for example, households that had moved into the sampled address since census day. No attempt was made to find respondents who had moved since census day.

1.1.2 Questions

The CQS included the majority of the questions that were asked on the census questionnaire. Questions included in the CQS were selected taking into account the importance of the question to users, whether they were new for 2011, or where the question had changed substantially since 2001. The only questions excluded were the questions on visitors and the number of cars in a household.

Where possible, the CQS used the same question order and wording as the 2011 Census questionnaire. Question wording was only changed to reflect past tense when referring the respondent back to the reference date (27 March 2011) or where the question needed adapting to suit a face-to-face interview situation. On the whole this resulted in the questions being identical to those on the census questionnaire. Specific differences between the CQS and census questions are described in Sections 5 and 6.

To minimise mode effects on the results (that is differences in the way the responses were collected, the census by a self-completion questionnaire and the CQS by face-to-face interview), and provide the same visual stimulus to respondents when answering the questions, interviewers were provided with show cards displaying responses for the longer questions from which respondents could choose an answer. The CQS used more show cards than would usually be used in a face-to-face survey.

The use of show cards also reduced the possibility of primacy and recency effects affecting the CQS. These can occur in face-to-face interviews where a respondent selects an answer from a list of response categories that an interviewer had read out loud. A primacy effect would result in a higher likelihood that respondents would give the first category as their answer and a recency effect, the last category. By using a show card listing the answer categories respondents would receive the same visual stimulus when answering each question in the CQS as they had when completing their census questionnaire.

The questions selected were the same for England and Wales, with the exception of the question on Welsh language proficiency which was only asked of people in Wales.

The CQS questions were loaded into a computer assisted interview program (CAI) which interviewers used to conduct the CQS interview, record and code the results.

1.1.3 Confidentiality and data security

The Census Quality Survey was governed by the same confidentiality and security practices as the 2011 Census. Respondents to the CQS were informed that the information they provided would be treated in strict confidence, as guaranteed under the [Code of Practice for Official Statistics](#)⁶ and the Data Protection Act, and would only be used for statistical research purposes.

The analysis of the CQS involved comparing the answers the respondents gave in the interview with their census responses. Explicit consent to use their data in this way was obtained in the interview as required in the Code of Practice which states that if the data collected in a survey will be compared to another source this must be made clear to respondents, and their consent given.

The captured household and individual level data were subsequently transferred to the Office for National Statistics via secure media for matching against the census, and were managed in accordance with the [2011 Census data security measures](#)¹⁸.

1.1 Census Quality Survey Fieldwork

1.2.1 Pilot survey

Why run a pilot?

A pilot CQS survey was carried out five months before the 2011 Census (in October and November 2010) to test various aspects of the survey.

- The wording of the questions. Although the questions asked on the census questionnaire had already been tested, small amendments were necessary for the CQS to adapt the questions to a face-to-face interview situation and to reflect a date in the past
- The show cards which would be used to help respondents answer those questions with multiple categories to select from
- Practical aspects of the survey such as effectiveness of survey literature, interview length, the routing of the questions in the CAI software, data processing, interviewer training material etc
- Ways of explaining the purpose of the survey to respondents and encouraging them to take part
- Memory aids to help respondents recall events from a specific date in the near past.

Samples

A random sample of 269 households in the West Midlands and North West regions was taken from the Postcode Address File⁸, and split into two, to test attitudes towards re-asking the questions as they were on a paper questionnaire, and to test recall issues.

People in Sample 1 were sent a paper questionnaire and asked to complete this prior to the interviewer's visit, with the interviewer having to explain why the same questions were being asked again in person. Those in Sample 2 were not sent a paper questionnaire, but instead were asked to recall their situation on the August Bank Holiday, a similar time-lag to the main stage CQS. Selected households were sent advance letters explaining that they had been selected for interview together with a leaflet explaining the purpose of the survey.

Pilot response rate

The CQS pilot achieved a good response rate of 65 per cent and demonstrated that the CQS questionnaire worked well in a face-to-face interview situation. The majority of the questions were easily understood by the respondents who had no difficulty recalling their situation on a specific date when prompted by the interviewer of events around that date. The larger than usual number of show cards used in the interview did not seem to cause a problem as the majority were clearly understood. Some minor improvements were made to the wording of the questions and show cards as a result of the pilot.

1.2.3 Main stage survey

Contacting households

The main survey fieldwork took place between 23 May and 26 August 2011. Interviewers were instructed, where possible, to make contact with households as close as possible to the start of fieldwork in order to minimise memory recall issues. Inevitably there were households that proved difficult to contact and could only be interviewed towards the end of that period.

Letters were sent out to all 7,488 sampled addresses to inform the household members that they had been selected to take part in the CQS, and an ONS interviewer would be visiting their address to ask them to take part in the survey. The letter provided a very brief explanation of the survey, as well as contact details should the household

require more information prior to the interviewer's visit, or wish to refuse to take part in the survey. A copy of the letter and leaflet are shown at Annexes 4 and 5.

Interviews

The face-to-face interviews were conducted by ONS interviewers, and responses recorded on laptops using computer-assisted personal interview (CAI) software. This enabled interviewers to view the questions electronically, record and code answers directly onto the laptop. The software also used dynamic routing of questions to make sure no question was missed and respondents were not asked questions that did not apply to them.

Proxy responses

The CQS aimed to interview all adults in the sampled households who had been a household member on census day and were still present in the household at the time of interview. However in some cases this was not always possible as the person was unavailable. In these cases, responses from a proxy were accepted with permission of the respondent concerned. As in other ONS interviews, all data on children under 16 was collected by proxy interview with an adult of their household.

Interviewers made attempts to carry out personal interviews whenever possible, and if they did have to resort to taking proxy responses, they had to follow strict guidelines governing who could provide proxy information. In addition, interviewers were encouraged to telephone the respondent after the interview, to check answers, particularly if the proxy respondent was unsure. If the proxy respondent was unable to give any answers, interviewers would leave a list of information still required and arrange to call back either by telephone or in person to collect at a later date.

Information on people who had died since census day was collected from other household members where possible. All these actions were designed to minimise proxy error. The CQS also recorded whether the census responses had been given by the individual themselves or by a proxy on their behalf so that the impact of proxy error on the accuracy of the responses could be investigated. Responses given by proxy for adults in the CQS interviews were excluded from the CQS analysis to avoid the introduction of an additional source of error (see paragraph 3.4.1).

Show cards

People were asked to answer the questions based on their situation on census day, 27 March 2011. Interviewers were supplied with show cards for the majority of questions from which respondents could choose an answer. Show cards were used to minimise primacy and recency effects mentioned earlier. Interviews lasted on average no more than 30 minutes for a two-person household. Different sized households needed interviews of different lengths depending on the household size.

Wales

Participants in Wales were given the opportunity to hold the interview in English or Welsh, therefore a Welsh translation of the questions was provided, and show-cards provided in both English and Welsh. In Wales, specific questions related to Welsh language were included, as in the census questionnaire.

Response rate and participation

Overall, the CQS achieved a response rate of 75 per cent (5,262 households). A further 466 households (6 per cent of the sample) were successfully contacted but were screened out as ineligible because the current occupants were not those who had been resident at the address on census day. Table A1 summarises the response rates.

In all, 12,395 individuals took part in the survey. Table A2 shows that just under two-thirds (63 per cent) of fully completed interviews were carried out in person; the remainder were by proxy (37 per cent). However, this includes interview data collected for children aged under 16, all of whom would have had their data collected from an adult in the household. Excluding responses given for children, the proxy rate fell to 20 per cent.

Table A1 2011 Census Quality Survey: Household response rates

England and Wales		Numbers and percentages			
Household outcome	England	Wales	Total	Total %	Total (Eligible) %
Total interview	4,630	632	5,262	71	75
Full interview	4,523	618	5,141	69	74
Partial interview ¹	107	14	121	2	2
Refusal	1,058	133	1,191	16	17
Other non-response ²	92	26	118	2	2
Non-contact	319	26	345	5	5
Unknown eligibility address	43	25	68	1	1
Ineligible	389	77	466	6	7
Total	6,531	919	7,450	100	
Total (Eligible)	6,142	842	6,984		100

1 Partial interview is an interview where the individual questions are not completed in full but household section is. This can vary from only answering one question in the individual section to answering all but one question.

2 Other non-response includes: ill at home during survey period (notified to interviewer), away/ill in hospital throughout the field period (notified to head office), away/ill in hospital throughout the field period (notified to interviewer), physically or mentally unable/incompetent (notified to head office) and physically or mentally unable/incompetent (notified to interviewer).

Table A2 Census Quality Survey: Individual response rates

England and Wales		
Individual outcome	Numbers	Percent
Full interview	12,083	97
Personal	7,654	63
Proxy	4,429	37
Partial interview	75	1
Personal	7	9
Proxy	68	91
Ineligible	230	2
Refusal	5	0
Non contact	2	0
Total	12,395	

1.3 Processing the Census Quality Survey

1.3.1 Data capture and coding

Responses to the questions asked in the CQS were recorded by the interviewers on laptops during face-to-face interviews using computer assisted personal interview (CAI) software. This allowed interviewers to follow an electronic questionnaire and code responses at the time of the interview. Some additional coding was done at ONS headquarters. More information about the coding frames and classifications used in the 2011 Census can be found in the [2011 Census User Guide](#)¹¹.

1.3.2 Data cleaning

The 2011 Census used an [edit and imputation strategy](#)¹³ to estimate missing data and handle errors made by respondents. Although interviewers encouraged respondents to answer all questions, some people did not which resulted in missing data (the response rate to questions in the CQS is given in the question-by question analysis in Sections 3 and 4). Unlike the census, missing data were not imputed in the CQS because to do so would have introduced a confounding error to the results.

Only a minimal amount of cleaning and editing of data was needed in the CQS as the CAI prevented some types of errors that respondents could make when completing the paper version of the census questionnaire, such as ticking too many boxes, returning duplicate questionnaires, or giving responses to different questions that were inconsistent (for example being ten years old and married). In the CQS, the CAI software allowed dynamic routing of questions so that respondents were not asked questions that did not apply to them. Real time checks were also built into the CAI to make sure that answers given were valid. The calculation of derived variables was also checked.

A small amount of editing of the CQS data was carried out, for example where respondents completed the relationship question (H6) on the census questionnaire in a different person order to that in which they were interviewed in the CQS or where respondents had “reversed the logic” of the relationships consistently across the relationship question, for instance by saying the relationship of person 3 to person 2 was “Mother” rather than “Son or daughter”). This meant that the CQS relationships needed re-ordering.

1.3.3 Matching CQS data to 2011 Census data

2011 Census records for the households in the CQS sample were extracted from the census database for comparison once imputation and data cleaning had been completed. Using census data at this stage ensured that the agreement rates calculated reflected the published census statistics. CQS records were then matched to this extract as follows:

1. The data were matched using the unique questionnaire ID each household had been given. As all households had been sampled from a list of households who had responded, this gave a match rate of 100 per cent.
2. Each person within those households was matched on first name, surname, date of birth and sex.
3. Records that had not found a match were examined clerically to see whether a match could be found. Reasons for these non-matches included those who had put more than one first name on the census, as well as where the census scanning process had misread some of the letters of a name.

Of the 12,395 people in the surveyed households, 97.6 per cent were matched against census records (85.1 per cent exact matched, 12.5 per cent matched clerically). Of the unmatched records, 90 per cent were known to be ineligible because they had either moved into the address sampled since census day, refused to participate in the CQS or could not be contacted. The remaining people could not be matched as their information on either the CQS or census

was incomplete. Those records that could not be matched were excluded from the sample. The matching resulted in a final sample of 5,172 households and 12,103 individuals for which comparison was possible.

1.3.4 Creation of the CQS dataset

Removal of non-usual residents and CQS proxy responses

As the main population base for outputs from the 2011 Census was the usually resident population as at Census Day (27 March 2011), anyone in the CQS sample who indicated that they were not usually resident at the address given on the front of the questionnaire was excluded from the CQS sample. These were students and schoolchildren living away during term-time and short-term residents (people born outside of the UK who on Census Day had stayed or intended to stay in the UK for less than 12 months). There were 73 students and short-term residents. Removing these reduced the sample to 12,030.

The main purpose of the CQS was to measure respondent error in the census. However some census responses would have been given by proxies (in the case of children aged under 16, all responses would have been provided by proxy). It was not possible to identify from the census questionnaire who had provided the answers. However CQS respondents were asked to indicate whether they had completed the census questionnaire themselves or whether someone else completed it on their behalf. This meant that the CQS could be used to identify responses given by proxy in both the census and the CQS.

Since the census outputs would include responses given by proxies, these were retained in the census data used in the analysis so that their impact on the accuracy could be assessed. However CQS responses given by proxies (apart from those for children aged under 16) were removed from the sample to ensure they did not introduce an additional source of error. There were 2,379 of these which reduced the sample to 9,651.

The final dataset for analysis therefore included self-reported responses for adults in the CQS but self-reported plus proxy responses in the census. After this processing, the final sample in the CQS analysis comprised 5,172 households containing 9,651 individuals.

Filtering

While 9,651 individuals took part in the survey, the questions asked in the census did not always apply to them and they may not have answered all the questions. This means the sample size varies slightly between questions depending on the CQS response rate to that question and whether the question applied to the individual, for example the question on qualifications was not asked of those aged 15 or under. In a few questions, for example "Language Proficiency" (question 19); the number of people responding to the question in the CQS sample was too small to produce reliable estimates of the agreement rates for England and Wales. Where a question only applied to a subset of the population, the subset was selected based on the responses given in the CQS rather than the census.

Weighting the CQS using the 2011 Census population

As the CQS sample of households was already stratified, it was considered to be representative of the households in England and Wales so no weighting of the results was necessary. However, the characteristics of individuals within those households could not be pre-determined to ensure that they were representative of the whole population. Some form of weighting was therefore needed to ensure they were representative.

Population weighting serves several purposes. It ensures that estimates reflect the sample design so that cases with a lower probability of selection will receive a higher weight to compensate. It can also compensate for differential non-response among different sub groups in the population, and as such should help guard against potential non-response bias. The use of weights also allows totals, as well as means and proportions, to be estimated easily.

Weighting entails assigning a weight to each individual in the household. A weight can be thought of as the number of cases in the population which that case represents. The CQS weights were calculated so that they summed to

the 2011 Census population of individuals in private households who had responded to the 2011 Census in England and Wales (excluding non-usual residents) for five key variables outlined below.

The CQS used calibration weighting to assign a weight to each respondent. Calibration weighting typically involves two processes; calculating a design weight (to assign a multiplier, for example 0.9 or 1.1, to each response) and calibrating to population totals (to ensure that the weighted results add up to the total population figure). The design weight was calculated as the inverse of the probability of selection, so that households with a lower probability of selection (due to their particular combination of characteristics) received a higher design weight. All individuals within a household were given the same household design weight.

The calibration weight was then calculated for each individual so that they summed to the total number of usual residents who responded to the census, stratified by:

- Grouped ages: children (0-17); working age adults (18-64); retired adults (65+)
- Sex: male; female
- Grouped ethnicities: white; non-white
- Country : England; Wales
- Date and mode of response: early and late; Internet and paper

The calibrations weight was calculated for each individual using Statistics Canada's Generalised Estimation System (GES) software.

Calibration will typically reduce the standard errors under certain assumptions. This has not been taken into account in the calculations in this report, so the confidence intervals presented in this report are wider than they would be if calibration was included.

This is the standard calibration methodology for weighting ONS surveys. More details on this method can be found in the [Labour Force Survey User Guidance](#)¹⁹.

1.4. Accuracy of the Census Quality Survey

The CQS aimed to quantify respondent error in the census. However the CQS was based on a number of assumptions and so will itself be subject to error. This section outlines the strengths and limitations of the CQS and provides information about the quality of the survey.

1.4.1 Strengths of the CQS

The main strength of the CQS is that it provided an independent, reliable indicator of the quality of the census responses as participants were re-asked census questions in a face-to-face interview. The sample was larger than in the 1999 CQS and was taken from across England and Wales which meant it was more statistically reliable and nationally representative.

As the CQS included questions about census proxy respondents, the CQS results allowed ONS to examine the impact of these on the census results – something that was not possible to identify from the census itself. Similarly, by comparing the CQS results with the published census outputs (following edit and imputation) the CQS allowed ONS to look at how these processes affected the quality of the final published census statistics.

The CQS results were not designed to adjust the census data for error (to do so would have required a much larger sample) which means it cannot be used to weight or correct published census data to take account of respondent error. It is designed to give users an indication of the accuracy of the statistics so they can make informed decisions on how to use and interpret them.

1.4.2 Limitations of the CQS

1. CQS was a sample survey so was subject to sampling error. As with any random sample, different people would be selected if the sample were drawn again and slightly different results would be produced based on this different sample. Confidence intervals are given to indicate the sampling variability (in sections 4 and 5 of the main report).
2. It was a voluntary survey whereas the census was compulsory. Many studies (for example [Analysis of 2009 Census Rehearsal non-response](#)²⁰) have shown that the characteristics of those who do not respond to a survey can differ from the characteristics of those who do respond. This may mean the results are not fully representative of the population. However to address this, the results of the CQS have, where appropriate, been weighted to the full census in order to take account of survey non-response (based on the assumption that response errors are similar for responders and non-responders).
3. Only households that responded to the census were interviewed in the CQS. This relies on the assumption that response errors made by those who did not respond to the census would be similar to the errors made by those who did respond.
4. It did not include people who lived in communal establishments. This means the results are only representative of households.
5. The survey was not designed to allow differentiation of response quality by population sub-groups or different levels of geographies below country level. To examine whether there was a difference in the quality of responses given, for example ethnic minority respondents or those who lived in rural as opposed to urban areas, would have required a significantly larger sample.
6. There was a time lag between the respondent completing the census and the CQS interview (which could have been up to four months). This could have introduced a recall bias to the results as respondents might have forgotten what their circumstances were on census day. To try and reduce this, interviewers used calendars as a memory aid to help remind respondents what they were doing around then.

7. CQS interviewers did not have census responses to hand (as they did in previous quality surveys) which meant that they could not probe reasons for different answers. However this meant the 2011 CQS was more independent of the census.
8. As with the census, CQS relied on “self-reporting” so it is possible that responses on both the census and CQS could be incorrect.
9. Collection mode is known to have effects on data quality as described in [The application of alternative modes of data collection in UK Government Surveys](#)²¹. Face-to-face interviews result in more accurate answers than self-completion or telephone, but variations can be introduced through conscious and unconscious differences in the way interviewers administer a survey, and the way respondents react to different interviewers.
10. The census process included rigorous coding specifications and checks. The CQS responses were, on the other hand, coded by the interviewers themselves. This may have an effect on agreement rates for some questions with large coding frames, for example country of birth.

1.4.2 Comparability of the CQS

The [European Statistical System \(ESS\) quality dimensions](#)²² define comparability as the degree to which data can be compared over time and domain, for example, at geographic level. Coherence is the degree to which data derived from different sources or methods, but refer to the same topic, are similar.

Comparability between 2011 CQS and previous census quality surveys

Similar quality surveys were also carried out in 1981, 1991 and 1999. The 1981 Post Enumeration Survey²³ and 1991 Census Validation Survey²⁴ were carried out following the censuses in those years, as was 2011. The 1981, 1999 and 2011 surveys covered England and Wales, while the 1991 version also covered Scotland.

The 1999 Census Quality Survey⁴ was carried out at the time of the voluntary 1999 census rehearsal, using the rehearsal version of the questionnaire. Its results were taken into account in the design of the final 2001 census questionnaire and some questions were changed as a result of its findings. The survey compared the responses given face-to-face in the CQS interview against those given on a previously collected questionnaire during the CQS interview. Where responses were different, the interviewer probed to establish the reasons for the difference. The survey was not repeated following the main 2001 Census

The 2011 CQS is not considered comparable to the 1999 CQS because:

- the rehearsal was only carried out in a few areas of the country so the results were not fully representative of England and Wales
- the 1999 census rehearsal was voluntary which would affect both the response rate to the rehearsal questionnaire and the CQS. The 1999 CQS had a lower response rate and the sample achieved was half of that achieved in 2011 (2,300 in 1999 compared with 5,262 in 2011)
- the 1999 CQS was not fully independent as the respondent’s census replies were known at the time of interview. Biases in the results were possible because the respondent might have been influenced to give the same answer they gave on the census
- the 2011 sample was larger than 1999 and used a different methodology for selecting the sample, and calculating the agreement rates. The results have also been weighted to make them nationally representative
- several of the questions asked in 2011 have changed since 1999. More detail about the comparability between the 2011 and 2001 England and Wales Census questions is available in [2011-2001 Census in England and Wales Questionnaire Comparability](#)¹⁴

For these reasons, ONS considers that the 1999 CQS results are less reliable than those for 2011.

1.4.2 Coherence between the 2011 Census and 2011 CQS

Although the CQS responses were gathered by face-to-face interviews and the census responses came from self-completed questionnaires, mode effects (due to the differences in how the two were administered) were minimised in three ways.

1. Using the same question order and wording as the 2011 Census questionnaire. Question wording was only changed to reflect past tense when referring the respondent back to the reference date (27 March 2011). On the whole this resulted in the questions being identical to those on the census questionnaire. Specific differences between the CQS and Census Questions are described in Sections 4 and 5
2. Replicating visual stimuli through the use of show cards (see Annex 2) which displayed all possible responses for the more complex questions, ensuring that respondents were provided with the answer categories in the same format as presented on the census questionnaire
3. Weighting the CQS results to the national census population estimates to take account of non-response bias in the data and make the sample nationally representative. Unlike the compulsory census, the CQS was voluntary which may bias the results. Although the response rate to the CQS was good (at 75 per cent), the weighting methodology assumes that the characteristics of those who did not respond were the same as those who did. This assumption is unlikely to hold, meaning that results may underestimate the error rates.

1.4.3 Accuracy measures

The main assumption made in the CQS is that responses given in a face-to-face interview are the “correct” answer and the census values are compared against them. This is partly because face-to-face interviews tend to elicit more accurate answers than self-completion questionnaires. Interviewers were instructed to carry out interviews in person with all respondents, and to only collect proxy data in instances where the respondent was unavailable (but had given permission for someone else in the household to answer on their behalf). To remove the effect of proxy error in the CQS, only data collected from the individual in question for all adults of 16 and over was included in the CQS sample.

There is no simple measure of accuracy of the CQS, however, there are several indicators of its quality. The main threats to quality fall into two categories: sampling and non-sampling errors

Sampling errors

The CQS is a sample survey, and so results are subject to sampling error. As with any sample, different people would be selected if the sample was randomly drawn again, and slightly different results would be produced based on this different sample. The spread of these results is the sampling variability.

Confidence intervals around the agreement rates between the CQS and census are used to indicate the sampling variability. For a 95 per cent confidence interval, it is expected that if the sample were redrawn 100 times, in 95 of those cases the true agreement rate of the population would fall within the calculated confidence interval.

As explained in [section 1.1.1](#), the CQS sample was selected so that the agreement rates between the CQS and the census household questions would have a margin of error of plus or minus 2 percentage points at a 95 per cent level of confidence for England and Wales (2.5 percentage points in England and 3 in Wales) for those questions where the agreement between the CQS and the Census was over 90 per cent. The sample was designed to provide the ability to measure within confidence limits of a reasonable size the agreement rates for mode of census completion (by Internet or paper) and England and Wales separately.

Non-sampling errors

Non-sampling errors can occur in most parts of data collection and production, and arise from four main sources:

1. **Coverage error** arises from an inability to sample the entire population. The purpose of the CQS was to measure response errors, so only those who were covered by the CQS sample were in scope.

2. **Non-response error** occurs from failing to obtain some or all of the information from a member of the population. This can cause bias if non-respondents differ from respondents in their surveyed characteristics. Since the census was compulsory and the CQS was voluntary, this could introduce a bias into the CQS results. However, the assumption has been made that response errors are similar enough for responders and non-responders that the results are valid for the whole population. In addition, weighting was applied to minimise the effects of survey non-response on the estimates and ensure the results are valid for the whole population.

Surveys are also subject to item non-response error where the respondent does not answer a question so the data item is missing. The census data had been through an [edit and imputation process](#)¹³, which includes imputing missing values. However missing values in the CQS were not imputed. Where an answer was not given to a question in the CQS, that record was excluded from the analysis of that question. The response rates for each question are given in Sections 4 and 5 of the main report.

3. **Measurement error** occurs from failing to collect the correct information from respondents (this is what the CQS analysis is aiming to measure from the census). However, the CQS itself could also be subject to measurement error. There are four types of measurement error:
- *Interviewer error*. This was minimised through interviewer training and the use of experienced ONS interviewers.
 - *Respondent error*. The CQS aimed to minimise this by gathering responses through face-to-face interviews which research has shown elicit more accurate answers since the interviewer can reframe questions, provide respondents with more information, and clarify underlying concepts. See Bowling, 2005¹, and a literature review by ONS²
 - *Instrument error*. This includes errors caused by question wording, response categories or questionnaire design. These were minimised by using the same questions as used on the census (which had already been subject to testing) and by carrying out a pilot of the CQS.
 - *Mode error*. This is error caused asking questions in different ways, for example by the respondent reading them from paper or listening to them being read out by an interviewer. Show cards were used to minimise this error by replicating as far as possible the census visual stimuli.
4. **Processing errors** can be introduced by processes applied to the data, and can be split into two main types: system errors and data handling errors. System errors can arise when variables are derived, such as age calculated from date of birth. There are various sources of data handling errors, and measures were taken during the processing to minimise each. They included:
- *data capture*. This was minimised by using computer-assisted interview software and trained interviewers.
 - *data transmission*. This was minimal for the CQS as the data load was small enough to account for all records.
 - *editing*. A small amount of editing of the CQS data was carried out, for example where respondents completed the relationship question (H6) on the census questionnaire in a different person order to that in which they were interviewed in the CQS. This meant that the CQS relationships needed re-ordering so they were in the same person order as on the census.
 - *coding*. This was minimised by using the same coding frames in the CQS as the census where possible. However some judgement was required in cases where manual coding took place and errors in coding were possible.
 - *weighting*. The weighted sample was tested to ensure that it was representative of the characteristics of the census population. Minimal difference was seen in response rates between the unweighted and weighted samples, indicating a highly representative sample
 - *imputation*. No people or items were imputed in the CQS data.

1.4.4 Measures of quality

Response rates

The CQS original sample size was 7,488 households. A small proportion of the households contacted were screened out as ineligible because the occupants had moved in since census day, so the sample only represented people who were present at that address on census day. Overall the CQS achieved 5,262 interviews - an overall response rate of 75.3 per cent. This exceeded the target response rate of 60 per cent.

CQS response rates for each question are given in sections 4 and 5 of the main report. All questions had a high level of response. Postcode of the address of workplace (question 40) had the lowest response rate at 77.6 per cent. The sample sizes for the majority of questions were considered large enough to draw appropriate conclusions from the data apart from questions on landlord (H13), second address type (question 6), date of arrival (question 10), intention to stay (question 12), Welsh language (question 17) and English language fluency (question 19) where the sample was too small.

CQS agreement rates and 95 per cent confidence intervals (CI) are provided in sections 4 and 5. The methods for calculating agreement rates and CIs are given in Annex 3. As explained in [section 2.4.1](#), the target had been to achieve a margin of error of plus or minus 2 percentage points at a 95 per cent level of confidence for each household question asked in England and Wales. This was achieved, as can be seen in [table 4.1](#) of the main report.

1.4.5 Quality Checks

Section 3 described how the CQS survey was conducted and how data were captured, coded and processed. Quality assurance procedures were in place throughout this to ensure the quality of the results. Checks included:

Routing

The face-to-face questionnaire used in-built routing, as per the census questionnaire. Range and consistency checks were carried out during the interview as part of the CAI software. Additional checking was carried out post-interview by ONS.

Validation

Validation checks were carried out to establish that all correct cases were included in the household and person data, and that all question routing had been followed correctly.

Variables

All variables that had to be derived, for example age from date of birth, were checked.

Detailed checks

At each stage the data were checked for the number of records and uniqueness of records, as well as the following specific checks:

- matching against census households and persons. The matching processes included checking by clerical processes. There were also independent checks of unmatched records
- system stages, for example merging data and deriving variables for analysis. Coding checks of merges and derivations were done
- weighting. Checks of calculation of weighting totals, of weighting output and that the weights had merged onto the data correctly
- agreement cross-tabulations. These included checks of invalid categories and of agreement rate calculations. For example, quality assurance of the country coding of address a year ago highlighted a number of cases where the CQS interviewers had coded one country a different code to the standard census code. These were corrected in the processing stage.

In addition, the analysis was compared with the results of previous validation surveys. It was also compared with other intelligence gained through the Census Coverage Survey and census capture and coding processes and checks.

Annex 2: Show cards

Show cards were used in the 2011 Census Quality Survey as a visual aid for interviewers to help respondents recall their situation at census day, 27 March 2011.

These show cards are available to view in the separate document [Annex 2: CQS show cards](#).

Annex 3: Agreement rates, confidence intervals, significance tests and net differences

3.1 Calculating agreement rates

Agreement rates are the number of agreements between valid census and CQS responses relative to the total number of matched households or persons. For persons, this excludes census proxy responses for respondents aged 16 and over.

3.2 Calculating confidence intervals

As with any sample, different people would be selected if the sample was randomly drawn again and slightly different estimates would be produced based on this different sample. The spread of these estimates is known as the sampling variability. Confidence intervals are used to indicate the sampling variability.

A 95 per cent confidence interval is a range within which the true population parameter would fall for 95 per cent of all possible samples that could have been selected. It is a standard way of expressing the statistical accuracy of a survey based estimate. If an estimate has a large error level, the corresponding confidence interval will be very wide.

3.2.1 Standard Error of the agreement rate

Households

$$SE = \sqrt{\frac{p(1-p)}{N}}$$

Where:

p = agreement rate = number of responses which agree / total number of valid responses

N = number of valid responses

Individuals

The sample of individuals was clustered within households. This creates a design effect that reduces the effective sample size and increases the variability of the estimates. This design effect was allowed for in the standard errors, which were calculated using SAS proc survey means see:

http://support.sas.com/documentation/cdl/en/statug/63033/HTML/default/viewer.htm#surveymeans_toc.htm

3.2.2 Confidence Intervals around the agreement rates

$$95\% CI = p \pm 1.96 * SE$$

That is the 95 percent confidence interval for the rate is +/- 1.96 standard errors around the estimate calculated from the sample.

3.2.3 Pooled standard error

In order to compare the agreement rates between England and Wales, and Internet and paper responses, a pooled proportion and pooled standard error are calculated:

$$p_p = \frac{(a_1 + a_2)}{(N_1 + N_2)}$$

Where:

a_1, a_2 = weighted number of responses which agree, in dataset 1 (for example Internet) and 2 (for example paper) respectively.

N_1, N_2 = number of valid responses in datasets 1 and 2.

Households pooled standard deviation

$$SE_p = \sqrt{p_p(1 - p_p) * \left(\frac{1}{N_1} + \frac{1}{N_2}\right)}$$

Individuals pooled standard deviation

$$SE_p = \sqrt{\frac{(N_1 - 1) * SE_1^2 + (N_2 - 1) * SE_2^2}{(N_1 + N_2 - 2)}}$$

3.2.4 Significance test for unpaired proportions (Z-test)

Two agreement rates (p_1, p_2) are significantly different if:

$$|p_1 - p_2| > 1.96 * SE_p$$

Where:

1.96 is the Z-statistic at the 5 per cent significance level (for a two-sided test).

3.3 Net Differences

The net difference rate is the difference between the number of cases in the census and the number of cases in the CQS that fall under each response category relative to the total reported persons in both the census and CQS in all response categories. These are presented in the tables in percentage form.

Census	Census Quality Survey		Percentage
	Yes	No	Total
Yes	x_{11}	x_{12}	$x_{1.}$
No	x_{21}	x_{22}	$x_{2.}$
Total	$x_{.1}$	$x_{.2}$	$x_{..}$
Net difference			
Census - CQS, d_i	$x_{1.} - x_{1.}$	$x_{2.} - x_{2.}$	

Annex 4: Advance letter for main stage interview

Date: as postmark

Dear

Thank you for returning your 2011 Census questionnaire earlier this year.

I am writing to ask for your help with the Census Quality Survey. This survey is also being carried out by the Office for National Statistics (ONS), and is one of a number of follow-up activities designed to allow a better understanding of the results from the 2011 Census.

One of our interviewers will contact you to take part in a short interview. If you are busy when they visit, the interviewer will be happy to arrange a more convenient time. All our interviewers carry ONS and Census identity cards with a photograph, for your reassurance.

Your address was selected at random by ONS and your participation in this study is very important to make sure that your community is properly represented. The information you provide will be treated in confidence.

If you have any questions, please call our Survey Enquiry Line on **0800 298 5313**. Minicom users should dial 18001 before this number. Opening times are: Monday to Thursday – 9 am to 9 pm; Friday – 9 am to 8 pm; and Saturday – 9 am to 1 pm.

Thank you for your help.

Yours faithfully,



Glen Watson
Census Director

For more information about the Census, please go to www.Census.gov.uk

Annex 5: Information Leaflet

Is the survey information confidential?

Yes, like the 2011 Census, the information you give us will be treated in confidence as directed by the Code of Practice for Official Statistics. It will be used to produce statistics that will not identify you or anyone in your household.

Why did we choose you?

We're talking to people in households across England and Wales, asking the same questions that were on the census questionnaire, in a short interview.

You have been selected at random to take part from all the households that returned a census questionnaire within two weeks of census day. The answers you give will represent many other households like yours. We are interested in people from all age groups and all parts of the country, including families and those who live on their own.

With your help we can get the best estimates of the number of people and households for when the 2011 Census statistics are published – from mid-2012 onwards.

Contact us

If you have any queries about taking part in this survey, please call our freephone **Survey Enquiry Line on 0800 298 5313**. Opening times are 9am–9pm on Monday to Thursday, 9am–8pm on Friday, and 9am–1pm on Saturday.

Alternatively, you can write to:

CQS Field Office
Room 4100W
Office for National Statistics
Segensworth Road
Titchfield
Hampshire
PO15 5RR

Thank you for your help.

To find out more about the census, please visit: www.census.gov.uk

To find out more about ONS, please visit: www.ons.gov.uk/about or follow us on Twitter: [www.twitter.com/statisticsONS](https://twitter.com/statisticsONS)

www.census.gov.uk

Office for
National Statistics



The Census Quality Survey

Why your
help is
important

www.census.gov.uk

Annex 5: Information Leaflet (continued)

The Census Quality Survey

This leaflet answers some of the questions you may have about taking part in this survey.

Who are we?

The Office for National Statistics (ONS) is the Government's largest producer of statistics.

We compile independent information about the UK's society and economy which provides evidence for policy and decision making, and for directing resources to where they are needed most. The 10-yearly census, measures of inflation, the National Accounts, and population and migration statistics are some of our highest-profile outputs.

What is the Census Quality Survey?

The Census Quality Survey (CQS) is a vital tool in assessing how accurate census results are, and in allowing the results to be refined and better understood. For example, previous surveys have shown that people count the number of rooms in their home differently: some include their hallway or a bathroom in the total. The CQS helps us to understand whether we've

got our statistics right, or whether they need more work.

This is the third quality survey to follow a census, and it will be looking at the results of the 2011 Census.

What is the 2011 Census?

The 2011 Census took place on Sunday 27 March 2011, when everyone in England and Wales was asked to fill in a questionnaire about themselves and where they live. A census happens every 10 years and produces population estimates at a national, regional and local level.

The census – and the CQS – tells us how many people live in each area, and the type of people they are (young, old, married, single). This means decisions, for example about planning local service needs for the future, are based on accurate, relevant information.

How are census statistics used?

Decisions are taken every day using census statistics. These can be as local as the number of car parking spaces needed at your supermarket, where to locate bank

branches and the allocation of resources (such as fire engines), or maybe wider programmes, for example where to target government training schemes.

The number of school places, development of traffic systems and funding for your local authority are all influenced by the census. With the statistics from the census, government and local councils can decide where to spend money, shape future policies for our communities and plan important services such as transport, housing, health and schools.

You will probably have heard census statistics repeated widely in the news and on the radio. Statistics which talk about percentages of the population often come from the census, like the percentage of unpaid carers, or the percentage of households who have more than one car, or the percentage of men compared with women in a particular area.

We held the census to make sure these are up to date and that the facts are available to make the right decisions for the future, for you and your community.

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