

## **CENSUS ADVISORY GROUP**

**AG (10) 05 Census Quality Survey**

### **2011 Census Quality Survey for England and Wales**

This paper has been produced in order to inform Census Advisory Group members of the progress to date on the 2011 Census Quality Survey and future work planned.

#### Action requested of Advisory Groups

The paper is for information only, but questions and comments will be welcome as contributed at the meeting or sent within three weeks to:

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## Introduction

1. ONS has run various types of Census Quality Surveys since the 1960s. While their design and timing has varied, their objectives and approach have all been similar. This paper summarises past approaches and explains why we have chosen a different approach for 2011.

## Background

2. The objectives for past surveys have broadly been to:

- Provide users with information about the accuracy of the answers given to key Census questions;
- To identify significant bias or data quality problems in the census data which may have been introduced through processing of the data and
- To identify the reasons for errors.

3. The approach has been to interview a sample of respondents (households only) to the Census face to face and re-ask some key census questions, comparing the answers given in the interview with those on the original Census form. Where responses to the CQS differed to the census response, the interviewer probed to establish the reasons for the discrepancy. This required the interviewer to have access to the respondents Census data during the interview.

4. The interview offers the opportunity to frame the questions differently, provide respondents with more information, and allow the interviewer to clarify the concepts underlying the questions on the census form. The CQS responses are therefore considered to be to be more accurate than self completed answers.

5. As well as identifying the statistically significant discrepancies between the form and interview responses, previous CQS' also attempted to identify common reasons for these discrepancies. However these reasons were not quantified in any way.

## Recent Census Quality Surveys

6. In 1991, ONS ran the Census Validation Survey (CVS) which aimed to measure both coverage and response quality. The 1991 Census Validation Survey found the same quality problems as the 1981 quality survey, indicating that response errors were predictable.

7. In preparations for the 2001 Census, ONS decided to run a CQS independent of the CCS before the main Census using the rehearsal version of the Census questionnaire. It was therefore run in 1999 which meant that its findings could be used to refine the design of the 2001 Census questionnaire. However the voluntary nature of the rehearsal meant that response rates to the CQS were lower than previous surveys. Also there were some major changes in question content between the CQS and the Census. Both of these factors meant that the results of the 1999 CQS could not reliably be considered to reflect the quality of the main Census results.

8. Results of these quality surveys were published within census quality reports as indicators of the accuracy of the questions at an England and Wales level. The surveys have not been designed to represent a gold standard against which the census data can be adjusted – to do so would require a much larger survey. For the same reason they cannot be used to differentiate response quality by different population sub-groups.

## 2011 Census Quality Survey

9. The main objective of running the CQS in 2011 will be to provide users with information about the quality of the answers to the Census questions to aid them in making decisions on appropriate use of the data. This is a requirement of the Code of Practice for Official Statistics.

10. A secondary objective will be to contribute to the evaluation of criteria used by ONS for processing and data quality assessment. Carrying out an analysis of the CQS interview responses against pre and post-processed data gives an opportunity, albeit on a small scale, to evaluate the impact the edit and imputation rules have on the quality of the data. Knowledge gained from this analysis is likely to arrive too late to impact on the processing of the 2011 data, however it will provide a useful insight into the impact of the processing at a micro level which can then be used in future development work.

11. To meet these objectives, the 2011 CQS will be conducted after Census day. It is important to note that the CQS will not provide information about people who do not respond to the census – that will be measured by the Census Coverage Survey.

12. In considering the approach for 2011, previous designs were reviewed. It was felt that the “reasons for errors” gathered as a result of interviewers probing for explanations for differences were limited in validity and subsequent value in that they only gave a list of reasons for differences which were not quantified and were therefore more “anecdotal”. To obtain good quality information would require a more “cognitive” style survey which would be more in-depth, and cost significantly more than those carried out in the past. As reasons for differences were found to be reasonably predictable for existing questions and information about the quality of new questions is available from the cognitive testing they have been subject to, it was felt that there was no added value in probing reasons for differences in the next CQS.

13. In addition, the lead time needed to get the households Census data out to the survey interviewers meant that there would be a time lag of some months between Census day and the survey fieldwork, affecting the quality of respondents’ responses to the latter.

14. These timing and cost considerations, together with the limited value of the “reasons for errors” descriptions, it has been decided that for 2011, reasons for differences between the CQS and the main census will not be sought as part of the survey interview. This means that the survey can take place much closer to Census day and the interviewer can spend the interview time clarifying the census questions etc.

15. Once the interviews have taken place, the CQS data will be analysed within Census Division by carrying out comparisons between it and the self-completed Census data returned by the participating respondents.

## Sample Design

16. The sample will be a nationally representative sample of addresses in England and Wales, although it will be clustered to minimise interview costs. It will be stratified by the mode of response, being internet and paper, and by early and later responses. In addition it will be stratified by the ‘hard to count’ classification, being an indicator of an area’s characteristics that determine how easy it is to enumerate. The sample size has not yet been finalised but will be designed to allow differences between the Census and survey answers to be identified at the 5% level of significance.

## **Census Quality Survey questions**

17. So that the face to face interviews can be kept to a manageable and affordable length, it is unlikely that there will be time to answer all the Census questions. For this reason not all the questions will be asked. We will focus on those questions that are either new, are known (through cognitive testing and previous CQS') to be error prone or because they feed into important statistics such as population estimates. In addition, a small selection of qualitative questions on topics surrounding the census may be asked for example some additional questions on the Welsh language may be asked in Wales.

## **Next steps**

18. It is currently planned that ONS' Social Survey's Division (SSD) will run the survey, supported by Social Data Collection Division (SDC) who manage ONS' survey interviewer field force. Census Division are currently working with ONS Methodology, SSD and SDC to finalise the design for the CQS, including the sample size. Once costing have been agreed, work on the detailed design will begin in May 2010.

19. Views on which questions should be asked in the survey have been sought from topic experts and other parties within ONS in order to produce the first draft of the survey question design.

20. A pilot of the survey is scheduled to be carried out in the autumn of 2010, and this may lead to additional adjustments in the questions asked.

21. The sample selection will take place within a week of Census day 2011 and the survey field work will take place in April and May 2011.

Census Design Authority  
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