



ONS(ONC(SC))98/18

ONE NUMBER CENSUS STEERING COMMITTEE

Report on the Response to the Census Consultation paper: '2001 – A One Number Census'

1. This paper outlines the general issues raised by respondents to the proposed ONC methodology as described in the consultation paper. This paper has been distributed to members of the Census Advisory groups and will be published in Census News.
2. **The Steering Committee are asked to:**
 - a) **note the paper; and**
 - b) **provide any comments at the meeting on the 13 November 1998, or in writing by 27 November 1998.**

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October 1998

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1. Introduction

1.1 As part of the Census Consultation process, over 500 copies of the paper '2001 - A One Number Census' were distributed during April and May 1998. The paper was sent to all members of the Census Advisory Groups and all attendees at the One Number Census (ONC) Workshop held in Leeds, 12-13 May 1998. The consultation paper was also made available on the ONS Website and an article in Census News outlined the issues and directed interested readers to contact ONS for a copy of the full paper. Copies were sent out on an *ad hoc* basis to requests made directly to the Census Office and to the ONC Project Team.

1.2 Only 16 formal written replies were received. This paper outlines the issues raised by these respondents to the proposed ONC methodology as described in the consultation paper. Although the level of response was fairly low a large number of Census Users, especially from the academic and Local Authority (LA) sectors, attended the ONC Workshop in Leeds and thus used that opportunity to make comments and ask questions on the proposed methodology.

2. General Response to the One Number Census Methodology

2.1 In general, respondents welcomed the opportunity to comment on the proposed methodology and were positive about the concept and aim of a One Number Census. They were appreciative of the enthusiastic and comprehensive ground-breaking progress made so far by the ONC project and welcomed research that enabled a greater understanding of the characteristics of those underenumerated. They also welcomed the emphasis on maximising coverage in the 2001 Census.

2.2 However, although various concerns about the proposed methodology were raised there was little consistency amongst respondents. The main concerns were the practical aspects of undertaking a Census Coverage Survey (CCS) of the type and size described in the paper, possible delays to the release of data and any extra costs that this might involve. Respondents were also concerned about reactions from the press and public to an ONC.

2.3 There was a feeling from a few respondents that the proposed methodology is an over-reaction to a particular set of circumstances in 1991 (namely the 'Community Charge') and that it is too complicated and time consuming given the small scale of the problem. Respondents were also concerned that data quality should be assessed as well as coverage.

2.4 There was a general concern that the methodologies for producing 'pseudo county' and Local Authority District (LAD) population estimates and for adjusting the database using weighting or imputation have not yet been fully explained in a clear, understandable and convincing way. Several respondents called for an easy to understand guide to the ONC methodology, which would enable them to answer their user's, questions. Many respondents mentioned the usefulness of the ONC Workshop in Leeds and suggested that it should be repeated around the county to Local Authorities and Health Authorities. Users also wanted to

be kept in touch with methodological developments in order to ensure concerns of users are being addressed and to be able to give rapid feedback.

2.5 There was a feeling that if a ONC were to be implemented then raw census counts and adjusted counts should be made available at no extra cost to the user and that on tables the census count and the 'imputed' or synthetic count should be shown separately. However, other users suggested that only the ONC estimates should be published, not the unadjusted numbers, to reduce user confusion and that output must be transparent to non-statisticians.

2.6 Respondents were concerned that:

- maximum value in an ONC is obtained if adjustments are taken right down to individuals and households, and hence have a complete ONC database otherwise little progress has been made since 1991; and
- the ONC should not be seen as replacing the mid-year estimates – but be a consistent set of data for late April.

2.7 From a Scottish perspective, Scottish users stated that although they would not object to alternatives to a ONC being investigated there would need to be considerable compatibility with the methods used in England and Wales so that the data will be comparable.

3. Comments on Specific Aspects of the Methodology

3.1 Census Issues

3.1.1 Most respondents welcomed efforts to improve coverage in the census, including postback and the concentration of effort on those households that fail to return forms. However, it was suggested that greater emphasis should be placed on improving the coverage in the census and that the time and money being spent on the CCS and ONC would be better utilised for this.

3.1.2 There was a hope that the complete elimination of data modification for disclosure control purposes would be a major secondary result of an ONC for all users.

3.1.3 Some issues with regard to maximising coverage in the 2001 Census included:

- the potential benefits of technical innovations in maps, street lists and form design ;
- the impact of possibly changing the definition of household (Advisory Group Paper (98)11);
- the importance of identifying households that occupy two houses to avoid overcounting e.g. students, second or holiday homes;
- the importance of not systematically excluding residents from the census e.g. UK residents temporarily abroad and visitors in hospitals, prisons etc.;
- the need to concentrate resources in the most difficult areas; and
- the necessity that work undertaken to identify hard-to-enumerate areas should be developed utilising LA experience so as to minimise the extent and effects of under-enumeration.

3.2 Census Coverage Survey

3.2.1 Those respondents who commented directly on the CCS pointed out that the ONC depends heavily on the success of the CCS and that:

- the CCS needs to address the issue of ensuring a maximum response given that it is not compulsory;
- it is necessary that the CCS should have a large sample size in order to measure the census coverage and identify the characteristics of those missed; and
- that data should be produced on a consistent basis for all areas of the country and that any methodology is applied equally and fairly.

3.2.2 However, there was concern that the timing of the CCS could overlap with the census follow-up and cause confusion between the two and that if the CCS uses the same field methods as the census then there is a danger of replication. Respondents also highlighted the fact that the methodology should also be able to cope with the issue of people moving between the census and CCS. Respondents wanted to know:

- what happens if the CCS fails to achieve a satisfactory response rate and how this will be measured; and
- an indication of the minimum level of coverage that the CCS must achieve in order to enable estimates at the lowest level of aggregation to be made.

3.3 Matching Census and CCS Data

3.3.1 Matching census and CCS data was seen as a key area. Some respondents were concerned about the practical issues surrounding this, in particular that matching will not be a clean technical task and that care will be needed to avoid the danger of double counting. There will also be the problem of people moving between the census and CCS and students who were in term-time addresses for the census and who may have finished term by the end of the CCS period. There was also a suggestion that information collected in the census about absent households/no contacts could be used to assist the matching process.

3.4 Local Authority Estimates

3.4.1 Respondents were concerned that:

- the Dual-System estimator (DSE) assumes independence that may produce bias in the estimates;
- at LAD level neither synthetic nor direct methods of estimating population totals appear to give estimates that are guaranteed to be more accurate than in the census; and
- the ‘accuracy’ of estimates diminishes below pseudo-county level. However, evidence from 1991 suggests that larger towns and cities were disproportionately affected by underenumeration and the ONC would, in effect, over compensate for underenumeration by introducing an element of sampling error into the data for the ‘shire’ counties.

3.5 Adjusting the database – weighting and imputation

3.5.1 Respondents acknowledged that work on the methodology was not complete and furthermore welcomed the fact that a considerable amount of work was going on in this area. They expressed a wish to be consulted as the method develops. Respondents commented that:

- both methods did not seem to address the issue of adjusting the database for the undercount in minority groups;
- there appears little point in extensive modification of census data since areas where underenumeration is highest are areas of highest population turnover and thus, the effective shelf life of census data for such areas is very short; and
- very little consideration has been given to the method to be used to impute/weight the other census characteristics on the missing population that will not be counted in the CCS.

3.5.2 Concerns were also raised about imputation, primarily that this would result in ‘inventing’ whole records for people and households not counted in the census and the problems in potentially distorting relationships within households where individuals are imputed into existing households.

4. Conclusions

4.1 The ONC Project team would like to express their thanks to all respondents and also all attendees of the ONC Workshop in Leeds for their useful comments on the ONC methodology. These comments have demonstrated the importance of this issue to the user community and the extent to which users are prepared to engage with the methodology. All the points raised have or are currently being addressed by the ONC Project Team.

4.2 It is paramount that users remain engaged with the ONC process. To this end a straightforward user guide to the ONC process will be produced. It is hoped to distribute this at the time of the Census Roadshows (planned for Winter/Spring 1999). It is also planned to arrange a number of ONC Workshops as part of the Census Roadshows where the methodology can be discussed with users in more detail. Progress will also be regularly reported to Census Advisory Groups and in Census News.

4.3 The development of a straightforward guide will include a simple question and answer section to address the most frequently asked questions surrounding the ONC. These include:

- maximising census coverage;
- the timing of outputs from an ONC;
- the practical aspects of undertaking a Census Coverage Survey (CCS) of the type and size described in the paper;
- the need to address other aspects of data quality as well as coverage.