

ADVISORY GROUP PAPER (99)16

REVISED OUTPUT PROPOSALS

Advisory Group members are invited to give their views on the options suggested in this paper or to propose other solutions and to advise on whether there is a need for further consultation within two weeks from the date of the Advisory Group meeting

September 1999

2001 CENSUS OUTPUT : CONSULTATIONS

A report on the consultations on output, which also appears in the current Census News, is attached as an Annex to this note. It highlights an issue over the size of Output Areas and the detail to be included in the proposed Census Area Statistics (CAS) which requires resolution before a draft of the CAS can be prepared. This paper seeks the views of the Advisory Groups.

Output Areas

1. ONS, in proposing to introduce Output Areas (OAs) in England and Wales, suggested a target population range of 100 to 125 households, which would give some 200,000 OAs in total. In special circumstances, however, populations could fall in the ‘cushion’ between the normal range and the lower confidentiality threshold (say 25 households). The main reasons for the suggested size range were that, whilst the number of small area building bricks would be almost doubled, statistical variability would be controlled, and the automated zoning of postcodes to OAs would be optimized. Costs would also rise if a larger number of OAs was produced.
2. GRO(S), in proposing to repeat the use of OAs in Scotland, sought users’ views on the need for comparability with 1991 OA size, which would give a lower target population range than in England and Wales.
3. ONS received widespread support at the roadshow meetings for the introduction of OAs, and also received 79 submissions on the proposals for OAs and output geography. Half asked for a lower population range, predominantly to cover the needs of rural areas. A third supported the suggested size range. GRO(S) received 29 submissions on OA size, of which 24 supported a target population of 50 households.

Census Area Statistics (CAS)

4. The Census Offices proposed that the 2001 CAS should be a sub-set of the standard tables – in much the same way that 1991 SAS were a sub-set of the LBS – and this received general support at the roadshow meetings. A question remained over the extent to which the Standard Tables should be reduced to form the CAS, both to maintain statistical reliability and to minimise actual and perceived confidentiality risks.
5. Even though the CAS were of particular interest to attendees at the roadshow meetings, there were relatively few submissions on the CAS. However, there was a distinction between those which favoured larger OAs and more detail in the CAS, those which favoured smaller OAs and less detail, and those which favoured both smaller OAs and more detail.

Options

6. There is a need to consider the trade offs between size of OAs and detail in the CAS, and the suggested range of options are:
 - i) to allow variation in the size of OAs between England and Wales and Scotland, and with some variation within England and Wales, which would follow the 1991 precedent in which a detailed set of SAS was issued for varied size units in Great Britain, occasionally near to the confidentiality thresholds in England and Wales, and generally smaller in Scotland;
 - ii) to decrease the size of OAs in England and Wales and to provide CAS generally less detailed than the equivalent 1991 SAS for OAs in all parts of the UK commensurate with the generally smaller populations in OAs, whilst arranging for more detailed special requirements to be met through customised output;
 - iii) to increase the size of OAs in Scotland and to provide CAS generally equivalent to the 1991 SAS; or
 - iv) to allow more variation in the size of OAs and to provide CAS at two or more levels of detail according to the population of the OA (or groups of OAs), possibly one level of OAs in Scotland, and another elsewhere in the UK.
7. Option (i) would have the disadvantage of providing less consistency in size which may effect comparability between small areas, and would probably result in less detail in the CAS. Option (ii) would have the consequence of a net rise in costs to users in England and Wales (fewer statistics but more units to produce). Option (iii) would result in a loss of comparability with 1991 small areas in Scotland; whilst option (iv) would increase the complexity of output, raise priority issues, and diminish flexibility in the use of OAs as building bricks for user defined areas.

Conclusion

The Advisory Groups are invited to give their views on the options suggested or to propose other solutions, and to advise on whether there is a need for further consultation.

ONS Census Division
September 1999

Consultation on 2001 Census Output:

Roadshow Report Back

In April and May the Census Offices held a series of roadshow meetings around the UK, as announced in Census News 41, as part of the continuing consultation with users on their statistical and geographic requirements for output from the 2001 Census. This article reports on the outcome of the meetings and indicates the next steps.

The aim of the roadshow

The roadshow meetings were designed to help users to shape the content of the reports from the 2001 Census and the services of standard and customised output. Packs of consultation documents were distributed beforehand to all Registered Census Users. The pack included a discussion paper, and supplements covering: outlines for proposed Standard Tables and Census Area Statistics (the successor to the 1991 Small Area Statistics); a paper on origin and destination (workplace and migration) statistics; proposed output classifications; and a brief guide to the One Number Census.

Each roadshow meeting covered the Government proposals for the 2001 Census, particularly where there were changes from the 1991 Census, and then described the first proposals for output. The meetings provided an opportunity for participants to discuss issues with Census Office representatives and to air any concerns. At the end of each meeting attendees were issued with a questionnaire - *2001 Census of Population: UK Survey of Requirements* – and were invited to submit comments on the draft tables and other matters of interest.

Attendance

There were 18 roadshow meetings throughout the UK (12 in England, three in Scotland, two in Wales and one in Northern Ireland) which were attended by over 700 people representing users from a wide range of organisations in the fields of health, education, voluntary services, commerce, central government and, particularly, local government.

User sector	Number of attendees			
	England	Wales	Scotland	Northern Ireland
Local government	331	53	88	2
Health Service	42	5	20	4
Commercial	79	1	1	12
Central government	16	2	10	7
Academics	18	3	8	2
Others	10	4	8	11
Total	496	68	135	38

Users welcomed the opportunity to hear proposals and express views, and the Census Offices would like to thank all attendees for making the roadshow a success. In particular, thanks go to all those who helped provide the local facilities for the meetings.

User response after the meetings

To date the Census Offices have received 286 submissions in response to the proposals made in the roadshows, including 225 questionnaires and 154 responses about tables and proposed output. A detailed analysis is being carried out, and a summary of the subsequent revised proposals for output will be issued to all participating organisations and will also be published on the ONS website. The complete set of revised proposals will also be available.

Key outcomes from the roadshow:

Support for the Census Offices' aims and strategy

There was general support for the mission of the Census Offices, which stated that:

“the effort and cost of taking a Census is only worthwhile when results meet needs and are delivered effectively”

and for the overall aim of delivering quality output, which from the user viewpoint, was confirmed as being:

- comprehensive, comparable between areas and over time;
- flexible enough to meet ad hoc needs;
- accessible for use on PCs through intuitive and up-to-date products;

- delivered on time and error free; and
- value for money, where costs do not constrain use,

in all, data that would serve the community without disclosing personal information.

It was recognised that the basis of the infrastructure to deliver the output would be:

- an output database free of bias and on a 100% basis;
- a comprehensive framework of output classifications, harmonised between sources;
- an integral framework of geography;
- complete, co-ordinated and accessible metadata; and
- an efficient 'count engine' and a cost-effective, user-friendly service for customised output.

There was also support for the Census Offices' strategy for implementing these aims in the 2001 Census, which, in summary:

- builds on recognised strengths;
 - to provide pre-planned, standard output to convey the full range of Census results;
- introduces major improvements in the form of:
 - co-ordinated and timely metadata;
 - cost-effective services for customised output; and
 - access through technology current at the time of delivery;
- makes major innovations through:
 - concurrent release of results for the whole country;
 - using output geography developed for statistical (not operational) purposes;
 - testing and accepting products in advance of final production runs; and
 - serving the new needs of the devolved administrations within the UK.

A copy of the complete output strategy was included in the consultation packs, and was also published in *Census News 41*.

Revised Standard Tables

First proposals for a set of Standard Tables for populations at local authority level were introduced in the roadshow and cases for revisions were invited.

The Census Offices are currently considering the cases for revisions, additions and deletions, and are also taking account of other comments. A document presenting the revised tables proposed for areas in the UK as a whole and for parts of the UK only, together with a summary of points made about each table and a summary of the action taken, is being prepared and is scheduled to be issued in early October. It will be sent to all those who made substantial responses to the first proposals, and will also be available on request.

A very widespread requirement for the Standard Tables to be available at ward level was expressed, and in principle the Census Offices have decided to produce the tables at ward level. More details of this decision will be included with the Revised Standard Tables.

Census Geography and Statistics for Small Areas

ONS has announced, following successful trials and extensive support from users during the roadshow meetings and in subsequent submissions, that postcode-based Output Areas (OAs) designed for statistical purposes will be produced as the geographical building bricks for 2001 Census standard output in England and Wales, thus bringing output geography onto a common basis throughout the UK. In addition, the availability of co-ordinate references on the Census output database for England and Wales will implement the long-term ONS address-based geographical referencing strategy in the Census. The key to these developments is the Ordnance Survey product ADDRESS-POINT™, acquired through a Service Level Agreement (SLA) now incorporated in a wider Central Government/OS SLA.

The OAs will be produced automatically in two stages. First, a map of boundaries of every unit postcode (eg PO15 5RR) is produced. Second, postcodes are formed into optimal groupings as OAs according to criteria of population size, shape and homogeneity. The output is primarily digital boundaries with look-up tables of OAs, and other zones, by constituent postcodes.

The geographical base will be integrated with statistical output both for visualising the patterns in the data and as an attribute for analysis. The marginal costs of the OAs will be recovered from customers, but charges will be commensurate with those for the statistics. The availability of co-ordinate references in the Census output database will make it possible, subject to constraints to avoid the disclosure of confidential Census information, to re-aggregate the 2001 Census data to old or new geographies. The extent to which there is a need to up-date any aspect of the geographical base between censuses is currently under consideration.

The response from the roadshow, however, showed a major difference between users in Scotland, together with some users in England and Wales, and the remainder of users in England and Wales over the target population sizes for the planning of OAs – the former prefer a range of 40-60 households, to give geographical comparability with 1981 and 1991 output in Scotland, whilst the latter accepted the ONS recommendation of a range of 100-125 households. Although the standard 1991 Census SAS were issued for similarly small-sized OAs in Scotland, the current view is that tabular detail in 2001 Census Area Statistics (CAS) may have to be restricted for such small OAs, and ONS wishes to discuss the trade-off between geographical and statistical detail with users before making revisions to the proposed CAS.

The issue will also be raised for discussion in the autumn round of the Census Advisory Groups which will be taking place from late September to early October.

The revised proposals for CAS will therefore not be circulated until sometime after the circulation of the revised proposals for Standard Tables, although the CAS will form one or more sub-sets of the information in the Standard Tables, and documentation will be prepared and circulated on the same lines.

Census output and joined-up government

There were frequent requests during the roadshows for the Census Office to ensure that terms of use and access to 2001 Census output met the needs of modernised, joined-up government. ONS have subsequently developed proposals for an up-front project which, with the involvement of partners representing each of the main parts of the public sector - central government, the NHS, local authorities, and the academic community - would provide a service to give access to a comprehensive set of results from the 2001 Census, whilst meeting the cost recovery obligations of the Census Act 1920.

At the core of service would be a dataset of standard output, regional, local and small area statistics, plus supporting information (metadata) and a geographical framework. Data would be delivered in any degree of sophistication to users' 'desktops' - normally but not necessarily in electronic format - with training and back-up, under terms to encourage use of the data in a joined-up way for public sector purposes.

More information will be provided in future issues of *Census News*.

An impression of discussions at the meetings

The day's agenda at each meeting was divided into a number of sessions, and the following summary of the many comments gives an impression of points raised.

Delivering a quality Census

The meeting were reminded that the Government had issued its proposals for the content of the Census in the White Paper (see Census News 41), and scope for further change was very limited, but there was a high level of comment at meetings and useful discussion.

Users were concerned about the exclusion of a number of questions on topics such as language and disabilities. Some Local Authority users felt that a question on travel to place of study in England and Wales would have been useful, and queried why the question was only being asked in Scotland.

Some concern was expressed about the wording of the health questions, which some users felt appeared to be too subjective.

There were queries about the choice of population base - residents instead of persons present - whether it would provide for better coverage, and what guidance would be provided to householders to advise them of who is to be counted as a resident.

ONS were asked to consider whether it would still be possible to provide counts of visitors from the 2001 Census or whether a count could be made available from another source.

There were queries on how certain categories of the population such as asylum seekers, refugees and persons sleeping rough would be enumerated. Local authorities with large numbers of armed forces personnel within their areas asked for further consideration to be given to the enumeration procedures for this category of the population.

There was a demand for comparability between censuses and for time-series products.

The position on the income question (see note on page 9) gave rise to much discussion. Users were uncertain how they could specify their requirements for output if the final decision on the inclusion of income (and religion) was not to be made until the end of the year.

The proposed changes to disclosure control, particularly the adoption of pre-tabulation procedures, were welcomed. Users were interested to know what level of modification would be applied to individual records and if the approach would be consistent across all variables.

The objective of harmonisation of questions and classifications across government statistics was welcomed.

Output: a choice of options

The focus of the roadshow was the content of the Standard and Census Area Statistics tables. Users were invited to submit detailed and considered views with their questionnaires.

Those who were familiar with problems relating to workplace and migration from the 1991 Census, welcomed the prospect of further separate consultation on these products. (To date the Census Offices have received expressions of interest from 86 people to attend separate 'focus group' meetings for these datasets.)

The importance of a timely delivery of data was stressed by users, even though they would be prepared to wait longer for the release of output of a higher quality.

Many questions were raised about the purchasing of output, particularly by 'partnerships', and subsequent dissemination.

Output geography

Users welcomed the proposed move to the production of a separate Output Area geography in England and Wales, although concern was frequently expressed about the accuracy of the OS ADDRESS-POINT™ system which would be the basis of the new geography.

Many local authorities reported that they would be undergoing ward boundary changes shortly after Census day and wanted to know if the 2001 Census output would be available for the new areas.

The National Park Authorities, who were well represented at the meetings, reported that they now had an increased administrative role and asked for Park boundaries to feature in output geography.

Users in rural areas asked for Output Areas to be drawn to separate nucleated village settlements from surrounding areas.

Issues specific to Northern Ireland included a demand for continued provision of grid square-based products to ensure historical data comparisons with the 1971, 1981 and 1991 Censuses. Other users highlighted the importance of an up-to-date digital mapping system, and were pleased to learn that Ordnance Survey for Northern Ireland (OSNI) were participating directly in the Census geography project and that the currency of OSNI's COMPAS dataset would feature high on their list of priorities.

Output production options

An example of fast tabulation software raised considerable interest when it was demonstrated at each meeting.

There were many favourable comments made about proposals to include metadata and manipulation software with the products.

Users asked about the possibility of a direct link to a modified database or set of microdata to enable them to produce their own customised output.

Future consultation

The Census Offices would like to thank all respondents and attendees for their comments and submissions.

Further consultation meetings are to be arranged in due course on specific aspects such as;

- geographical products;
- workplace and migration;
- topic theme reports;
- customised output including microdata; and
- value-added reselling.