

# POPULATION AND MIGRATION STATISTICS COMMITTEE (SCOTLAND)

## **PAMS Paper; Future Census Options**

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### **Introduction**

**This paper has 3 parts:**

- I. A Review of Future Census Options
- II. A statement on current work
- III. An outline of the proposed consultation process.

### **I. Review of Future Census Options**

1. This section briefly reviews the options available to provide future Census-type data and visits the strengths and weaknesses of the various options. Consideration of what may happen in 2011 is complex because of the rapidity of change and the many initiatives, particularly on data sharing, identity cards and integration of data collection systems. Therefore no one future Census model can be proposed. However the strategy is to pursue a modernised traditional Census as well as to follow and influence external initiatives to meet quality and coverage standards required to replace a Census.
2. ONS has a team dedicated to a Census Strategic Development Programme<sup>1</sup>. Current thinking at ONS is that there will be a Census in 2011 but that there is scope for a different approach thereafter. A preferred model for conducting a 2011 Census has been developed. They are cautious about the scope of a 2011 Census and have not ruled out making use of alternative sources for some needs currently met by the type of information normally collected in a Census.
3. ONS are also developing their Census Strategy within the broader context of integrating their UK social surveys and analysing linked administrative databases to provide a single system for producing social statistics. They are also taking into account other external key developments.

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<sup>1</sup> [http://www.statistics.gov.uk/census2001/small\\_area\\_dd.asp](http://www.statistics.gov.uk/census2001/small_area_dd.asp)

4. Other key developments include the continued discussion about the possibility of introducing ID cards in UK and approval to proceed to the next pilot stage of the Citizen Information Project (CIP) - which is effectively a population register aimed primarily at improving citizen interaction with Government. If ID cards went ahead CIP would support them, but CIP does not require ID cards to be viable in its own right. The CIP project is not expected to be complete before 2013, although aspects of it could be available sooner. ONS envisages increased record linkage for statistical purposes proceeding independently of and in advance of CIP developments.
5. GROS has identified seven future options (though there are hybrid options too):
  - 1) **Conventional Census:** The currently preferred conventional Census approach involves testing post-out and post-back to a central point. A high quality address register is considered crucial and some priority is being given to initiatives in that field.
  - 2) **A Census before 2011** – this option has been ruled out.
  - 3) **Basic Information Census:** Such a census may collect perhaps date of birth, gender and location. This option could not meet full data needs, but could produce a bench mark count against which to calibrate another source, such as linked surveys or administrative sources. Problems with under enumeration in 2001 and the continuing world-wide rise in census under enumeration could lead to prioritising the need for a complete population count. Even a basic census may require coverage adjustment. A basic information census would always be pressured to be extended to include some more information on a simple form.
  - 4) **Rolling Census:** France<sup>2</sup> and Israel<sup>3</sup> are pursuing different versions of this approach. They involve the integration of a partial census with registers (which could be created as part of the process). There are similarities between these approaches and the plans for integration of the ONS social surveys into a Continuous Population Survey.
  - 5) **Relying on other data collection systems:** Neighbourhood statistics and integrated surveys could provide the spine of a system. ONS have continued to pursue their proposals for the integration of their 4 key UK-wide household surveys into a continuous population survey. SE also runs a number of surveys. These are being reviewed to maximise harmonisation - which could lead to more integration.
  - 6) **Linkage between administrative records:** Progress with the CIP and administrative database linkage means this option could provide Census type data across a wide range of variables, although public acceptance issues remain formidable. However, though a number of large and distinct projects involving record linkage may proceed in the short term, the creation of the CIP is some years

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<sup>2</sup> <http://www.unece.org/stats/documents/2003/05/census/wp.12.e.pdf>

<sup>3</sup> <http://www.unece.org/stats/documents/2003/05/census/wp.17.add.1.e.pdf>

away. A fully authenticated version may be available by about 2013. Nevertheless there are possibilities for record linkage of real value in a shorter time-scale.

7) **A snapshot of administrative records:** – This is essentially a one-off linkage around a specific census date. Its main advantage was that it is potentially possible to do this under current Census legislation. The general view, however, is that if the linkage and public acceptability issues could be resolved for this option, then they would not be significantly greater for the on-going linkage option. The on-going option offers much more data, so this option is not worth pursuing at present.

6. The two tables below summarise the strengths and weaknesses of all the various options.

**Table 1: Summary of Strengths and Weaknesses of 'Self-completion' Options**

Strengths	Weaknesses
<b>1) Conventional Census</b>	
<ul style="list-style-type: none"> <li>• Tried and trusted;</li> <li>• Detailed small area data;</li> <li>• Cross tabulation and correlation between data elements.</li> </ul>	<ul style="list-style-type: none"> <li>• Results not up to date;</li> <li>• High unit cost compared to England and Wales;</li> <li>• Coverage Issues.</li> </ul>
<b>2) A Census before 2011</b>	
<ul style="list-style-type: none"> <li>• Tried and trusted;</li> <li>• Detailed small area data;</li> <li>• Cross tabulation and correlation between data elements;</li> <li>• 5-yearly Census gives more up to date data;</li> <li>• Ability to keep key workers between Censuses.</li> </ul>	<ul style="list-style-type: none"> <li>• Extra costs overall;</li> <li>• High unit cost compared to England and Wales;</li> <li>• Coverage issues;</li> <li>• Public may resent frequency.</li> <li>• Rapid build of skills for devolved Census</li> <li>• Takes resources away from modernisation</li> </ul>
<b>3) Basic Information only</b>	
<ul style="list-style-type: none"> <li>• Preserves population count by age/sex/area;</li> <li>• Results produced more quickly;</li> <li>• Reduced costs;</li> <li>• Reduced public burden</li> </ul>	<ul style="list-style-type: none"> <li>• Still requires coverage adjustment;</li> <li>• Fails to give cross-tabulated data;</li> <li>• Value of detailed small area data lost;</li> <li>• Cost saving but not necessarily better VFM.</li> </ul>
<b>4) Rolling Census</b>	
<ul style="list-style-type: none"> <li>• More up to date data;</li> <li>• Workforce retained so continuous improvement possible - experience built up;</li> <li>• Flexibility to vary questions.</li> </ul>	<ul style="list-style-type: none"> <li>• Loss of area comparability with an effect on grant distribution;</li> <li>• Loss of complete coverage of an area at one time point;</li> <li>• Public response likely to be lower.</li> </ul>

**Table 2: Summary of Strengths and Weaknesses of 'Alternative' Options**

Strengths	Weaknesses
<b>5) Neighbourhood Statistics and Integrated Surveys</b>	
<ul style="list-style-type: none"> <li>• Removes form filling burden;</li> <li>• Cost saving - no large field force;</li> <li>• Annual update possible;</li> <li>• Full range of data items possible;</li> <li>• Scotland-level results good.</li> </ul>	<ul style="list-style-type: none"> <li>• Some limitations on cross tabulations;</li> <li>• Survey response less than the Census;</li> <li>• Sampling errors increase uncertainty;</li> <li>• Need for coverage survey.</li> </ul>
<b>6) Permanent linkage between administrative records</b>	
<ul style="list-style-type: none"> <li>• Removes form filling burden;</li> <li>• Consistent with Modernising Government;</li> <li>• Frequent data update possible.</li> </ul>	<ul style="list-style-type: none"> <li>• Legal issues surrounding linkage;</li> <li>• Public acceptability issues;</li> <li>• Administrative data does not cover all Census data items;</li> <li>• Large start-up costs;</li> <li>• RG's reputation could suffer;</li> <li>• New legislation needed;</li> <li>• Dependent on CIP;</li> <li>• Need for coverage survey.</li> </ul>
<b>7) A snapshot of administrative records</b>	
<ul style="list-style-type: none"> <li>• Removes form filling burden;</li> <li>• Consistent with Modernising Government;</li> <li>• Quinquennial update at least possible;</li> <li>• Legal barriers seem surmountable.</li> </ul>	<ul style="list-style-type: none"> <li>• Linkage issues huge unless common number;</li> <li>• Administrative data does not cover all census data items;</li> <li>• RG's reputation could suffer;</li> <li>• Less flexible timetable than f);</li> <li>• Need for coverage survey.</li> </ul>

7. In conclusion 3 options seem most worthy of further work at present:

- Option 1) Conventional census;
- Option 3) with Option 5) Neighbourhood statistics with integrated surveys and a basic information census; or
- Option 6) On-going linkage between administrative records.

8. While these 3 options seem the most likely, a rolling sample survey approach could have fewer operational risks and be cheaper over a full 10 year cycle - especially if other surveys could be integrated, reduced or stopped. The French propose to model the data for all areas; therefore a population register (maintained at someone else's expense?) would be of benefit. There would however be a loss of detail compensated for by, say, annual updates. Much more work would be needed to produce reliable costs for this option and they could change depending on the reliability and availability of administrative and register data.

9. ONS consultations have been very thorough, though necessarily reflected the large element of shifting sand in the current Census terrain. Their consultations have failed to demonstrate that users are willing to give up the level of detail available from conventional census tables in exchange for more up to date data on a wider range of subjects, but without the ability to cross tabulate readily. Their next consultation - 11/12 November - is at the RSS in London<sup>4</sup>.

<sup>4</sup> [http://www.statistics.gov.uk/events/rss\\_ons\\_conf/default.asp](http://www.statistics.gov.uk/events/rss_ons_conf/default.asp)

10. I would welcome views and information from PAMS members on any of the options laid out above.

## II. Current work

11. Continuing work on the 2001 Census and consideration of the case for revisions to population estimates in England and Wales and Scotland have significantly reduced the resources GROS have devoted to development work during 2003. Our evaluation programme is due to be completed in March 2004. Logically, development work should wait until this work is finished. We also have to consider increasing our skills and knowledge to meet the challenges of a devolved Census. This requires extra planning.
12. However work has started on 4 fronts:
  - To identify and compare alternative sources for each 2001 Census question, to provide a reasoned overview as to what proportion of Census data might be replaced in whole or in part by alternative sources. This will grow as administrative database output becomes available; we are monitoring developments across government in this area.
  - Consideration with SE on the system for collecting housing, population and social data through administrative data, censuses and surveys and meeting the challenges of the ONS proposals on Integrated Social Survey and more broadly on an integrated Social Statistical System<sup>5</sup>.
  - Development work for a traditional Census on
    - Postal address file sources and evaluation to assess the development of postout postback methodology;
    - Development of a low-key e-data collection system to keep up to date with developments in this field;
    - Assessing the use of in-house pay systems software.

Work is also proposed to assess customer use of the SCROL website to inform future developments.

## III. An outline of the proposed consultation process.

13. This document in effect opens the 2011 consultation process. GROS are keen to have an open process which builds on the work carried out by Census customers for the 2001 Census.
14. We have not yet sought feedback on that process but I have received comments that the provision of business cases for census questions was very onerous for the organisations involved. We feel that the strength of that process strongly benefited the

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<sup>5</sup> [http://www.statistics.gov.uk/census2001/small\\_area\\_dd.asp](http://www.statistics.gov.uk/census2001/small_area_dd.asp)

value for money case for the Census. However, we hope that we can build directly on that work and concentrate on the needs for new questions, evaluation of the success of the 2001 questions and seeking alternative sources for the data provided by the 2001 Census. We will seek feedback on the 2001 census consultation programme.

15. Therefore we are aware that there are new topics such as income which could add value to the Census and we will be seeking suggestions for new topics. There are some topics where there is some reported dissatisfaction about the design of the question, such as the ethnic question, and another tick-box category, 'Lives here rent free', where the accuracy of the responses is not considered good enough for the intended purpose. There are also some filter and design questions which we must look at. Consultation on these elements of all questions would follow the completion of the evaluation.
16. A suggested failure of the 2001 question development programme was that the Census office failed to consult fully with data subjects about the relevance of questions to meet their needs, for example carers could have felt a different question on caring better met the needs of people who support them. It therefore seems to be a principle that we must adopt a method to broaden and document both the width and depth of our consultations. We may need to impose processes on census users to achieve this.
17. As suggested in the first section of this paper, there are many options which may provide census-type data (cross-tabulation of a range of key variables at large, and where necessary, small areas with very high coverage) in the future. We would seek to explain these options, keep Census users up-to-date with the progress of external initiatives and from time to time seek users views on progress.
18. Some work to explore the practicalities of working more closely with SE on the provision of Population, Housing and Social Statistics will lead to discussions with UK survey agencies. We are preparing for these meetings but can not foretell the outcomes which in turn means that uncertainties make a strategic consultation programme difficult to design.
19. If, for example, we were to demand great detail of customers on the design of an ethnic question but yet, in the end, relied on a self-assessed classification from an administrative register in 2011, customer work would be wasted.
20. However, we are currently proposing to carry out a Census test in 2006, a year earlier than in the previous census and so we must start the consultation. Therefore we intend to have a formal consultation programme starting with a workshop in Spring 2004 to describe external initiatives, look at alternative data provision services and publish some evaluation material. We also hope to create a web presence for open and continuous consultation on census question content.
21. I would very much welcome comments on the development and consultation programme leading up to the 2001 Census, particularly on the 2001 Census question development process. I would also like to hear suggestions for the content of the proposed consultation workshop in 2004 and methodology for consultation toward 2006, 2009 and 2011.