

ADMINISTRATIVE DATA INTEGRATION TO SUPPORT CENSUS AND THE PRODUCTION OF POPULATION AND MIGRATION ESTIMATES IN SCOTLAND

1. The aim of this paper is to update PAMS members on current work on administrative sources in GROS and extend an invitation to Local Authorities to become active partners in our research.
2. For the last couple of years GROS has been pursuing a programme of work investigating the feasibility of integrating a number of data sources to complement or replace future Census operations. A key part of this work is aiming to identify existing administrative data sources which are suitable for this purpose and benchmark them with the 2011 Census. As a first step we aim to implement a pilot study around the time of the Census Rehearsal (March 2009) which will help test the process and identify issues that need to be resolved in time for the 2011 Census.
3. The pilot will involve a record level linkage between external administrative sources to achieve an alternative population count for the area of interest. This will in turn be compared, via record linkage, to the census count achieved in the rehearsal (and eventually the census). The results from this exercise will enable GROS to understand better the quality aspects of the data sources involved and how best to make use of them in support of census or in the production of intercensal population statistics.
4. To progress this work we are looking to work closely with Local Authorities, especially from the Census rehearsal areas (Edinburgh and the Western Isles), but also with others from across Scotland. The aim will be to identify relevant data sources collected or held locally which have good coverage of the population, or particular subgroups of it, and use them alongside centrally maintained data sources.
5. GROS is in the process of creating a statistical database of NHS registrations in Scotland which we hope to use as one of our main sources. We are also planning to utilise data on the postcode of term-time residence of HE students to ensure that students not registered with the NHS are adequately covered. We are working closely with ONS as part of the Improving Migration and Population Statistics Programme (IMPS) which aims to improve access to other administrative data sources for statistical purposes.
6. To ensure maximum coverage of the population while avoiding double counting, the linkage method requires ideally information on persons' names, date of birth, gender, residential address and/or postcode. No other personal information is needed for this project.
7. However there are other potentially useful data sources which do not contain all these pieces of information. For example the pupil census of the publically funded schools sector has very good coverage of the school-age population but name information is not held centrally only locally, by the Local Authority Education Departments. We would be interested in a data sharing arrangement

which would enable GROS to add this source to our statistical project. Other potential sources include council tax records or housing benefit receipt. There may be others which Local Authorities can help us identify.

8. Where Local Authorities are interested in pursuing data sharing for the purposes of this statistical exercise we would be aiming to establish appropriate data sharing agreements and protocols which ensure that data confidentiality is protected throughout the process. We aim to follow the available best practice guidance and existing National Statistics protocols. In our current practice, for example, identified records (i.e. with name information) are only used where they are needed, i.e. at the stage of linkage. Once linkage is completed, names are removed and an anonymised analytical dataset is used for all subsequent analysis. **No outputs which allow the identification of records are ever released in any form.**
9. There are many benefits to be gained from becoming involved with this project. We hope that improving our understanding of the available data sources will help us re-assess and improve our current intercensal estimates of population and migration. Local Authorities who become involved will have an opportunity for a 'quality assessment' exercise of the population statistics for their area and access to alternative, more flexible estimates. They will be able to draw on the current knowledge of methods and tools available at GROS to develop their own work in this area in future. In the longer term we hope to improve census taking and our knowledge of how best to develop a more efficient system for producing census-type information. This is of benefit to all users of population statistics.
10. We will be pleased to hear from Local Authorities who may be interested in joint working on this project. Please contact

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**GROS
November 2008.**