

POPULATION AND MIGRATION STATISTICS (PAMS) COMMITTEE (SCOTLAND)
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Beyond 2011 Statistical Options and Data Linkage

Introduction

1. The Beyond 2011 project is investigating the future provision of population and socio-demographic information (further information is available within the [Beyond 2011](#) section on the NRS website). The Statistical Options work stream is researching the possible statistical models that could be used to provide this information. The options being considered can be split into two groups – census based options and administrative data based options.

Census based options

2. Work on future census models is just starting to ramp up and our plans for the next six months include:
 - a. **Rolling Census:** We are building on the work of the Office for National Statistics looking at rolling census models. We intend to explore the feasibility of a rolling census model in a Scottish context.
 - b. **Traditional Census** (i.e. entire population enumerated): For this strand we are currently scoping the work required to inform any future full Census. While this work is badged under traditional census, many of its conclusions will be generalisable to any data collection, including a sample survey. Our current plans for research include:
 - i. A comparison of internet-captured data (IDC) vs paper-captured data, in terms of response rates and quality for the 2011 Census
 - ii. An evaluation of modal effects of IDC versus other modes
 - iii. An evaluation of hand delivery of census forms vs postal delivery

Administrative data based options

3. Over the last six months we have linked Census 2011 data to the NHS Central Register (NHSCR) to evaluate the over and undercount of the NHSCR relative to the Census. This will help us to design statistical methodologies to allow the production of population and household estimates from the NHSCR. We have currently linked just over 93% of Census 2011 records to the NHSCR and are looking at ways to push this rate higher, short of a full clerical review.
4. We have also been looking at aggregate administrative data options. Under this option we have taken aggregate admin data at both postcode level and data zone level and used this to produce population estimates. To do this we have taken a sample of areas, compared the admin data totals to the raw Census 2011 totals and used this comparison to produce weights for similar postcodes and datazones. In effect, we are simulating the results of a coverage survey from the actual Census returns. This method is giving reasonable population estimates at a Local Authority level when compared to the Census (most Local Authorities within 1-2% of the actual Census estimates). However, the

method is unlikely to provide accurate enough results at a small area to be a feasible alternative to the Census.

5. Over the next six months we intend to start exploring: record level admin data options, sources for population attribute data and methodologies for specific types of communal establishments.

Other data linkage projects

6. The linkage of Census 2011 data into the Scottish Longitudinal Survey (SLS) has entered the final, clerical review, stage. The SLS is planning to launch the 2011 data in Spring 2014.
7. We have also been taking forward a Census Non-Response Linkage Study for ONS. This involves linking the sample of the Integrated Household Survey (IHS) to Census 2011 data to assess the types of households who do not respond to the IHS as well as anyone missed within responding households. This will allow ONS to assess any bias present in the IHS and design weighting strategies to counter this.

NRS – Alternative Sources
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