



The process for quality assuring 2011 Census estimates for Scotland

October 2012

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1. Introduction

The 2011 Census population results will be going through a rigorous quality assurance process prior to their publication.

The census population figures are estimates determined mainly by the census count. However the final figures will be higher than the census count because they will include an estimate of the impact of under coverage of the population (such as people who were missed). In addition the process will make a relatively small adjustment for over coverage such as people counted more than once. The coverage estimation is based mainly on the results of the Census Coverage Survey (CCS) which National Records of Scotland (NRS) conducted.

The aim of the QA is to identify where further adjustment might be required before the estimates can be finalised. For example if there is evidence that something has gone wrong in processing or in the estimation process.

The final estimates which will be published will have gone through a series of working groups and panels. These groups/panels will review the evidence and make recommendations on any further adjustment work. Ultimately, the Executive Level Panel will make the final recommendation that the estimates at local authority level will be published.

The proposed structure and governance of the different groups and panel is described in Section 3 below.

2. Recommendations

The Census Programme Board is ask to approve the proposed structure for the quality assurance and sign-off of 2011 Scottish Census estimates.

3. The Quality Assurance Governance Structure

3.1 Quality Assurance (QA) Team:

The QA team work within Census Division and are responsible for all of the on-going quality assurance work and for the production of quality assurance summary tables for each local authority.

These summary tables will indicate whether the QA team have concerns about the estimates when looking at the following aspects:

- Age by Sex profile by LA compared with published mid year estimates and a range of comparator sources including NHS Central Register, Child Benefit, Customer Information Service data on older people
- Household numbers – compared to published household number estimates
- Household size - compared to published household size estimates

- Student numbers - compared to data on students from School Census, Higher Education Statistics Agency and Scottish Funding Council
- Mortality rates
- Fertility rates – using birth registration data from NRS
- Armed Forces numbers – compared to a range of other armed forces data
- Ethnicity
- International Migration

In addition, the coverage and adjustment team will be examining the diagnostics from the census coverage estimation process to assess whether further refinements are needed to these processes.

3.2 Internal Quality Assurance Working Group

The summary tables will then be passed to the Internal Quality Assurance Working Group. This group comprises staff from both Census and Demography Division of NRS. Its remit is to examine the issues highlighted in the summary reports and to provide, where possible, an explanation for differences between census estimates and comparator sources. The working group will decide on the basis of their investigations whether they are content with estimates, even where differences still exist, or whether the QA or coverage and adjustment team need to carry out further work.

Once the quality assurance working group is happy with the estimates for a local authority, the summary table along with any explanatory documents will be sent to the Internal Quality Assurance Panel for consideration.

3.3 External Data Quality Advisory Group

In addition to the Internal Quality Assurance Working Group, there is an External Data Quality Advisory Group. This group has been in existence since July 2010 (although has not met since May 2011) and contains a range of users mainly from local authorities.

The remit of this group is to provide local knowledge and comparator data in advance of the quality assurance process and to provide a source of consultation on specific data issues during live census running. The remit is explicit that the group will not provide a quality assurance function.

As the quality assurance process progresses, the intention is to direct specific queries from the local authority summary tables to this group for further discussion/resolution. In addition, we intend to share with them complete results from local authorities once the internal working group is happy with the estimate, for them to provide any further comments/insights to the Internal Quality Assurance Panel. In the same way, we will share emerging Scotland level results for feedback and comment.

3.4 Internal Quality Assurance Panel

The Internal Quality Assurance Panel will consist of:

- Amy Wilson, Senior Statistician, Census (Chair)
- Celia MacIntyre, Head of Census Quality Assurance
- Kirsty MacLachlan, Head of Demography
- Esta Clark, Head of Population and Migration Statistics

This panel will consider the summaries submitted by the internal quality assurance working group and associated evidence and also any comments/insights from the external data quality advisory group. On the basis on all of the evidence they will decide to approve the estimates for a local authority and pass them to the Executive Panel for final approval, or to reject the estimates and to pass them back to the quality assurance and the coverage and adjustment team for further adjustment work.

3.5 Executive Level Panel

The Executive Level Panel will consist of:

- Registrar General (Chair)
- Roger Halliday, Chief Statistician, Scottish Government
- Eddie Turnbull, Head of Technical Strategy and Governance, eHealth, NHS Scotland
- Amy Wilson, Senior Statistician, Census
- Penni Rocks, Head of Census Operations
- Kirsty MacLachlan, Head of Demography

This Panel will approve the final population estimates for Scotland and for each local authority.