

Adjustments to the local authority area household estimates following the 2001 Census

1. Purpose

To document any changes to the methodology used to produce household estimates following the 2001 Census and any revisions to previously published figures. This paper is intended to form the basis for a discussion on potential revisions to the household estimates which may be required following the publication of the 2011 Census.

2. Household estimates before 2001 (using a stock based approach)

Household estimates were originally produced between 1991 and 2001 based on changes in the housing stock since the 1991 Census. This approach involved annually updating the number of households identified at the 1991 Census by calculating changes in the housing stock (new builds, demolitions and conversions). The figures were adjusted to account for changes in the number of vacant properties in public sector housing and assumptions were made about trends in the number of vacant properties in other housing sectors.

However, the time taken to assemble information from each local authority on changes in the housing stock meant that there was a time lag in producing the household estimates. In addition, this approach required making an assumption about the level of vacancies in private sector housing, which is the largest component of the housing stock. There were also some data quality issues with the demolitions data.

3. Household estimates for 2002 (using a stock based approach)

Household estimates for 2002 were initially calculated in a broadly similar manner to the household estimates before the 2001 Census, except that 2001 Census data were used rather than the 1991 Census. These figures were subsequently revised as part of the "Household estimates for Scotland, 1991-2004" publication.

4. Revised household estimates for 1991-2001 (using a population-based approach)

For the 'Household estimates for Scotland, 1991-2004' publication (<http://www.gro-scotland.gov.uk/statistics/theme/households/estimates/archive/household-estimates-for-scotland-2004/index.html>), General Register Office for Scotland (GROS) revised the methodology for household estimates for the years 1991 to 2001. Instead of using a stock-based approach as previously, GROS calculated the household estimates for 1991 and 2001 based on population estimates. The mid-year population estimates for 1991 to 2000 were revised in light of the results of the

2001 Census, as they are more accurate than the original published population estimates.

The method for producing household estimates involves taking each year's revised mid-year population estimate, subtracting the number of people living in communal establishments and using information from the 1991 and 2001 Censuses to estimate the number of households. This approach is similar to the current method which GROS uses to produce household projections for Scotland.

The household estimates for 1991 and 2001 do not exactly equal the results of the 1991 and 2001 Censuses. This is because the population figures used are the mid-year population estimates, from the end of June, whereas the Census was carried out in April.

5. Household estimates from 2002 onwards (using information from Council Tax billing systems)

A review of the household estimates methodology was carried out in 2004-05 with local authorities and other data users to agree which approach should be used for producing household estimates in the future. The conclusion of this was that future household estimates should be based on figures from Council Tax billing systems.

GROS published the "Household Estimates for Scotland by Local Authority 1991 to 2004" bulletin which contained revised household estimates for 2002. For the household estimates from 2002 onwards, the figures were obtained from Council Tax billing systems (also known as the 'Ctaxbase' form), collected from the Scottish Government's Statistical Support for Local Government branch. GROS calculate household estimates from the number of occupied dwellings, which were adjusted to the number of households recorded in the 2001 Census and adjusted from September to June.

The Council Tax based methodology has the advantage that the household estimates can be published more quickly and they are less likely to 'drift' between Censuses. Information from Council Tax systems is updated annually rather than relying on assumptions based on the last Census. Using the Council Tax approach, GROS does not rely on routinely obtaining information from councils about demolitions, new building and conversions and the consequent lag in producing household estimates. In addition, at present, local authorities also have a financial incentive to keep their Council Tax billing systems accurate and up-to-date, which helps to maintain the accuracy of household estimates based on information drawn from these systems. However, there is no guarantee that this administrative data source will always be available in the future, so it is worth considering other sources of information such as local authority Corporate Address Gazetteers and the wider OneScotland Gazetteer.

GROS Household Estimates and Projections Branch
July 2010