2011 Census First Results: Population Estimates

Headlines

- The total population for Sheffield estimated from the 2011 Census is 552,700.
- The 2011 Census estimate is very similar to the ONS’ latest mid-2010 estimate of 555,500 but more than 10,000 higher than the indicative estimate following the improvements to migration estimates.
- Number of children aged 0-14 is estimated to be 94,500; the 65+ population is 85,700, with 24,200 aged 80 or over.
- The population estimate for Sheffield includes 13,600 residents living in communal establishments such as halls of residence, care homes, etc.
- In addition to the 552,700 usual residents, 2011 Census records an further 3,400 non-UK short-term residents in Sheffield.
- The increase in population since the 2001 Census is 39,500, or 7.7%. This is similar to the national increase.
- The age group in Sheffield that has increased the most since 2001 is 15-24, almost double the national average. The older population in Sheffield has increased, but much less than the national average.
- The populations for some core cities – Liverpool, Birmingham and Manchester – were higher than the 2010 estimates. For Leeds, Newcastle and Bristol they were significantly lower.

Introduction

The first results from the Population Census carried out in 2011 were published on 16 July 2012. These provide population estimates by sex and five-year age groups. The ONS population estimates for mid-2011 will be based on these figures for Census day and will be published in September 2012. The ONS will also publish short term population projections to 2015 to give some idea of how the population is likely to change.

The Population Census provides the most accurate estimate of the population. Estimates for subsequent years are based on a projection of the Census figures and generally become progressively less accurate. For this reason, the previous population estimates from mid-2002 onwards will be readjusted to provide a realistic transition from 2001 to 2011.

A complete breakdown of the 2011 Census population estimates is provided in Appendix 1, together with a comparison with the existing mid-2010 estimates.
Population Estimates for Sheffield

The total population for Sheffield estimated from the 2011 Census is 552,700. The male population is 272,700, whilst the female population is 280,000.

The number of children aged 0-14 is estimated to be 94,500, whilst the number of 0-19s is 136,800, around a quarter of the total population. The 65+ population is 85,700, with 24,200 aged 80 or over.

Comparison with 2010 estimates
The ONS population estimate for Sheffield in mid-2010 was 555,500. The 2011 Census figure is therefore a reduction of 2,800, or around 0.5%.

Earlier this year, the mid-2010 estimates were provisionally adjusted, following changes to the way international and internal migration are treated in the estimates. This resulted in an indicative reduction to Sheffield’s mid-2010 population of 13,000, bringing the total down to 542,500. For the purposes of Census comparison, this indicative estimate was rolled forward to Census day, resulting in an increase 7,200 to 549,700. The 2011 Census total is 3,000 higher than the rolled-forward revision.
The 2011 Census figures for Sheffield do not necessarily suggest that the basis of the later revision of the mid-2010 population was incorrect; the revised approach to measuring migration appears to be an improvement. Migration mostly affects the 20-39 aged population, as migrant workers or students. The reduction in the 2011 Census figures when compared with the 2010 estimates are in this age group, with a drop against the original estimates of 14,200 people. The reduction against the revised estimate in the 20-29 age group was only 7,200, suggesting that the migration counts have been improved. The reduction in the number of 20-29 year olds, especially men, is a national phenomenon.

The reductions in the 20-29 age group against the mid-2010 estimates are largely offset by an increase in the 0-19 population of 10,300 young people, or 11,500 against the revised 2010 estimates. As the numbers of births and premature deaths within this age group are accurately recorded, this suggests that there were more children and young people migrating into the city than had been estimated. This increase in the 0-19 population over the rolled forward estimate is not seen in the national figures.

The chart also shows that the estimates since the 2001 Census have predicted the number of people aged 45 and over very accurately. The 2011 Census totals are very close to the rolled forward estimates.

**Change since 2001**

Sheffield’s total population in 2001 was estimated to be 513,200. The 2011 Census total of 552,700 represents an increase of 39,500 over the ten year period, or 7.7%. This is very similar to the national increase of 7.8%.

The age group in Sheffield that has increased the most since 2001 is 15-24. The increase has been almost double that seen nationally. The older population in Sheffield has increased, but much less than the national average. The 65+ population has increased in Sheffield by only 2% over 10 years, compared to an 11% increase nationally. The number of 75-84 year olds in Sheffield has decreased by around 4%. This is consistent with the changes in the mid-year estimates.

**Comparisons with other Core Cities**

Across the eight core cities, the impact of the 2011 Census is very variable. Sheffield’s reduction of 0.5% against the mid-2010 estimate compares with significant increases in Liverpool and Birmingham of 4.8% and 3.5% respectively. Manchester saw a more modest increase of 0.9%. On the other hand, the 2011 Census figure for Leeds is 5.9% lower than its mid-2010 estimate; Newcastle saw a 4.1% reduction and Bristol 3%.

**Estimation and Quality Assurance**

The 2011 Census population estimates have been subject to extensive checking and quality assurance. No Census achieves a 100% response. The 2011 Census in Sheffield achieved a response rate of 91%. The responses for the remaining 9% of households have to be estimated.
A Census Coverage Survey was carried out following the completion of the 2011 Census. Interviewers visited a sample of 340,000 households across England and Wales to check whether they returned a questionnaire and to collect basic details about the inhabitants. A range of statistical techniques have been used to:

- Estimate the true population of each of the sampled areas
- Produce estimates of the true population for the non-sampled areas
- Estimate levels of bias between and within households, when households or people within households are not likely to be counted in either the Census or the Coverage Survey
- Allow for possible over counting or duplication
- Estimate under counting in communal establishments

This then produces a 100% estimate of the population in an area.

The final population estimates for each local authority area are subject to extensive quality assurance before finally being signed off. Quality assurance runs throughout the Census process with good design, operational management and data processing. The final estimates are also checked against a range of other administrative data sources – Patient Register, School Census, Benefit data, Council Tax Register, etc – to identify any potential inconsistencies. Concerns are escalated through three Quality Assurance Panels to review the outputs. Only when these panels are satisfied are the final estimates signed off.

A first look at the 2011 Quality Assurance figures for Sheffield show that Census counts were significantly lower for some age groups than the administrative data would suggest. The adjusted Census estimates compare reasonably well with the range of administrative data used and the confidence intervals for most age groups is fairly narrow.

We need to look in more detail at the 2011 Census population estimates, but our initial assessment is that the Coverage Survey has been more effective than in 2001 and the first results reflect that.

**What Next?**

We need to do further work on the 2011 Census estimates to understand them more fully. We also need to consider the implications of the differences from the rolled forward estimates in the population projections.

These are just the first outputs from the 2011 Census. Over the coming year, there will be a considerable amount activity following the Census, both in terms of the population estimates and projections and the wider demographic information collected through the Census.

**Population Estimates and Projections**

This initial release of the 2011 Census population estimates will be followed by the mid-year population estimates for 2011. This involves an adjustment to take into account the changes between Census day and June 2011.

Following the release of the mid-year estimates for 2011, all of the mid year estimates from 2002 to 2010 will be adjusted once again to provide a sensible transition from 2001 to 2011. ONS will also
produce short-term population projections to 2015, based on the Census estimates. A full set of population projections will be made from the 2012 mid-year estimates.

2011 Census Data Releases
The remaining data from the 2011 Census, e.g. ethnic breakdown, household and personal characteristics, will be released over the next year. The Key Statistics and Quick Statistics will be released for Census output areas and wards in November 2012. The more detailed Local Characteristics will be released in March 2013, providing a full set of tables for output areas. The final scheduled release will be the Detailed Characteristics and Themes for Wards and above. These will provide the most detailed standard Census statistics.

Subject to disclosure control, it also will be possible to request special tabulations of Census results.
## 2011 Census Estimates

### Area: Sheffield

<table>
<thead>
<tr>
<th>All Residents (&lt;,000s)</th>
<th>Persons Count</th>
<th>%</th>
<th>Males Count</th>
<th>%</th>
<th>Females Count</th>
<th>%</th>
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<tr>
<td>Total Population</td>
<td>552.7</td>
<td>100.0%</td>
<td>272.7</td>
<td>100.0%</td>
<td>280.0</td>
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<td>0 to 4</td>
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<td>30.3</td>
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<td>3.4%</td>
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<td>9.0</td>
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<td>5.4%</td>
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