



CENSUS ADVISORY GROUP

AG (12) 08 - 2011 Census Highlight Report, Autumn 2012

Summary

This highlight report describes progress for the following topics, not covered on the agenda items:

1. Headline messages
2. Statistical disclosure control
3. Census quality
4. Communications and engagement
5. Future advisory group meetings

1. Headline messages

- ONS published the 2011 Census population and household estimates (rounded to the nearest 100) for England and for Wales on 16 July 2012.
- These releases provide information about the usually resident population of England and Wales by age and sex, and also provide information on topics such as the number of households and the number of short-term residents.
- The estimates were accompanied by a range of methodology papers and detailed quality assurance packs for every local authority area.
- Response to the first census outputs was very positive and a number of users congratulated ONS on the quality of the results.
- Unrounded estimates at single year of age by sex at country and local authority level were published on 24 September.
- On 22 October, ONS published 2011 Census estimates of the number of people who have a second address outside of the local authority where they usually live in England and Wales. This additional publication has been well received.

- On 30 October, ONS issued geography boundaries ahead of the planned 23 November publication of the usually resident 2011 Census population and household estimates for output area geographies and wards.
- ONS is making good progress towards publication of the second release of 2011 census outputs. We anticipate that details about the content and timing for the release will be published by the time these advisory group meetings take place and will be discussed at them.
- ONS is developing an application programming interface (API) and data explorer to help users access, explore and exploit ONS data more effectively. We plan to make these available for the third 2011 Census outputs between March and June 2013.

2. Statistical disclosure control

2.1 SDC method

The agreed method for Statistical Disclosure Control (SDC) for the 2011 UK Census - targeted record swapping – has been successfully implemented and applied.

It has been confirmed that additional post-tabular cell adjustment for outputs is not the preferred solution. This means that apparent small cell counts and attribute disclosures appear in the output tables and ONS are doing further work to ensure the level of 'uncertainty' is acceptable. This will be done through ONS SDC Methodology Centre checking tabular outputs and conducting an intruder testing exercise. If a table is found to be disclosive then the table design will be revisited rather than adjusting cells across the table.

2.1 Output Checking Process

The ONS SDC Methodology Centre has developed a peer reviewed measure of doubt to assess the uncertainty surrounding cases of apparent attribute disclosure in outputs. This takes into account the effect of whole record imputation and record swapping. The doubt measure will be assessed for a sample of tables for all output area geographies (or Middle Super Output Areas) across England and Wales.

2.2 Intruder Testing

In order to support and complement the output checking, SDC Methodology will test the security of the outputs through an intruder testing exercise in November 2012. A number of ONS staff members have been recruited to attempt to make claims as to the identity and attributes of persons who lived in their chosen area at the time of 2011 Census. Each intruder will be supplied with maps showing the extent of their local output area, and a set of univariate and multivariate tables (post record swapping).

The intruders will have access to the internet in order to view other public sources of information and will use this to attempt to make claims about individuals in their area ranging from claims of identification (through small cell counts) to attribute disclosures. This exercise should provide additional assurance that the SDC methodology has protected the outputs sufficiently.

2.3 Microdata

Progress has been made to determine the microdata to be released from 2011 Census data. Data are likely to be released under a number of licensing arrangements:

- Public Use File with a limited number of variables.
- Restricted access for specified users. There will be more detail than the Public Use data however some variables will not be included and for others categories may be banded.
- Access through the Virtual Microdata Laboratory to approved researchers to a more detailed dataset than above.

The above structure is subject to agreement from ONS's Legal Services team. The work will be ongoing through 2013.

3. Census quality

3.1 UK Statistics Authority's special assessment of the 2011 Census for England and Wales

On 30 June 2011, the UK Statistics Authority published its report on Phase II of the special assessment of the 2011 Censuses in the UK. This assessed compliance with those practices not covered by the first assessment phase, including plans for quality assurance of the census and the publication of census outputs.

The outcome of the Phase II report was that the Statistics Authority determined that the 2011 Census outputs for England and Wales could be designated as National Statistics provided that ONS provided evidence to the Authority that they had met the ten requirements which were applicable to ONS.

ONS implemented the requirements and our response to the Phase II requirements is available to download from the ONS website (see <http://www.ons.gov.uk/ons/guide-method/census/2011/how-our-census-works/how-we-planned-the-2011-census/independent-assessments/special-assessment-of-the-2011-censuses-in-the-uk/index.html>).

UKSA reviewed ONS's response and on 20 June 2012, they confirmed that the 2011 Census statistics covering England and Wales complied with the Code of Practice and could therefore be designated as National Statistics.

The remaining phase of the Special Assessment (Phase III) began when the first census outputs were published, and will involve an ongoing assessment of 2011 Census outputs to ensure that they continue to comply with the Code of Practice. In particular, Phase III will focus on users' views of the outputs and the UK Statistics Authority will be contacting key users for their feedback. Members of CAG groups may therefore be approached directly for their views. The Authority expects to publish the Phase III assessment report by mid-2013.

3.2 Quality evaluation of the 2011 Census of England and Wales

Information currently available

At time of writing (31 October 2012), ONS has published the following information about the quality of the 2011 Census on the Quality and Methodology pages of the ONS 2011 Census website (see <http://www.ons.gov.uk/ons/guide-method/census/2011/census-data/2011-census-data/2011-first-release/first-release--quality-assurance-and-methodology-papers/index.html>)

1. A “Quality and Methodology Information Paper” which summarises the key quality concepts associated with the 2011 Census population estimates. This paper was first published with the first release of census data on 16 July 2012 and was updated in September and October 2012 to reflect the subsequent releases of data.
2. A “2011 Quality Assurance Pack” which is an Excel tool that contains local authority quality assurance information. This replicates the age-sex charts used in the quality assurance assessment of each local authority. A guidance note on the use of the packs was also published.
3. A paper on “Response Rates in the 2011 Census” which defines how response and return rates were calculated. An Excel file containing rates for each local authority was also published.
4. A paper summarising the methods used to derive confidence intervals for the 2011 Census together with an Excel file which contains calculated confidence intervals for each local authority.
5. An overview of the quality assurance (QA) process with examples of how inconsistencies identified during the QA process were identified and resolved.

A series of Methodology and Quality papers describing various aspects of the methodology involved in the production of the census estimates were also published on these pages. Two papers describing the differences between the census and other data sources were also published:

- A paper explaining the differences between the census estimates and ONS’ rolled-forward 2011 mid-year population estimates
- A paper describing the comparisons of census estimates and GP Patient Register counts

3.3 Future plans for quality reporting

Further information about the quality of the 2011 Census will be published with the next releases of Census data by the end of 2012. These include:

1. Updates to the Quality and Methodology Information paper mentioned in 1) above which will be expanded to cover quality related information relevant to each release.
2. A paper describing the item imputation strategy. Item imputation, item non-response and item inconsistency rates will also be published
3. The results of the Census Quality Survey
4. An overview of data capture, cleaning and coding.
5. Specific quality information relating to each variable
6. An evaluation of ONS ' Quality Assurance process

Longer term, ONS will be publishing a full 2011 Census Quality Report by October 2013 which will include an assessment of users views on the statistical products as well as their views on "accessibility and clarity" i.e. the ease with which users are able to access the data, the format in which the data are available and the availability of supporting information.

Finally, ONS will be co-ordinating the submission of a report to Eurostat on the quality of UK census data transmitted to them under the provisions of Article 6 of the EU Census (framework) Regulation (EU No. 763/2008) on population and housing censuses. The report together with various quality measures must be submitted to Eurostat by 31 March 2014.

4. Communications and engagement

4.1 Census first release

ONS held two media events (London and Cardiff) for journalists on 16 July 2012 to announce and promote the first results of census estimates. These events and ONS news releases, generated substantial media coverage. In total, there were 83 national, 156 regional newspaper stories, 210 radio items and 58 social media articles. Many of the news media blogs received significant (e.g. BBC was over 1000) numbers of comments.



The national coverage following the release was generally positive – with some Northern local areas reporting on population declines, but the majority of areas reporting on increasing populations. Reasons for the changes were discussed, most commonly a baby boom and immigration/migration. There was also a large focus on the over 65 population.

There was relatively little negative local news coverage. Two Westminster papers recorded that the council considered their estimates were inaccurate and ONS responded to these. This story was also reported by one or two national newspapers.

The 2011 Census population and household estimates have been very well received by census stakeholder users. At recent Royal Statistical Society (RSS) and British Society for Population Studies (BSPS) conferences, users congratulated ONS on the quality of the results. On 16 July, ONS wrote to all local authority chief executives, census advisory group members, relevant Government Ministers, MPs and the Government Statistical Service (GSS) heads of profession to inform them about the first 2011 Census outputs.

ONS implemented a new, user friendly census website landing page to support all census releases. This new landing page directs users to the census releases and supporting information, including data visualisation – the 2011 Census all in one place.



4.2 Census second addresses release

Publication of the census second address estimates on 22 October was picked up by the national and regional media by home/social/consumer affairs or property correspondents through ONS news releases. There were 21 national and regional articles as well as 10 social media articles. There was also one local radio interview with Radio Solent. Local news coverage was particularly notable in Wales and Cornwall.

Overall, the coverage was good although some journalists referred to the figures as second homes rather than second addresses and a few of them went so far as to say that the numbers related to properties. The Times chose to focus on Cornwall and used the village of Portwrinkle to demonstrate opposition to second homes and included a quote from the National Housing Federation which said that second homes had pushed prices up so much and that they were now out of reach of local people. The same headline appeared on-line as 'Cornwall is favourite place for a second home'.

The BBC headline correctly read 'Second addresses recorded by 1.57 million, census shows'. Similarly, the Press Association (PA) also picked up the release and spoke to ONS to clarify the position on the term 'second addresses'. As a result, the PA coverage was accurate and most of the regional media sourced their information from PA.

4.3 Plans for the census second release

The census second release is an opportunity to promote the 2011 Census results further and ONS plan to hold another two media events for journalists; one in London and one in Cardiff in partnership with the Welsh Government. The depth of this second release will be of high media interest and is also an opportunity for more social media activity.

4.4 Recent engagement events

ONS is continuing to engage with census users and recent presentations have included the following conferences/events:

RSS conference	Telford	4-6	September
BSPS Conference	Nottingham	10	September
Market Research Society Census Geo-demographics	London	19	September
Welsh Data Unit	Swansea	20	September
South West Region Observatory	Bristol	21	September
TWRI Policy and Research	York	5	October
BURISA conference	London	12	October
RSS Statistics User Forum	London	30	October

5. Future advisory group meetings

ONS is reviewing the structure of its advisory groups that cover the spectrum of population statistics (e.g. population estimates and projections, Census, Beyond 2011). We would welcome your views on this subject.