



# Research Methodology

November 2008

Technical Note 3

## 2011 CENSUS PROPOSALS

A population count or Census has taken place once a decade in England and Wales since 1801 (except 1941). ONS is responsible for the census in England and Wales. A Census is needed as it allows Government to allocate resources, plan investment and services, and support policy development and evaluation. The next Census is planned to take place on 27<sup>th</sup> March 2011, and for the first time will be posted to households. The form can then be returned by post or completed online. This change from the hand-delivery of the past means that resources can be concentrated in the follow-up stage to maximise response and quality.

### Why is Census data important in Sandwell?

Accurate data of the population and its characteristics underpins the way Local Authorities plan and target their services:

- Local education needs – e.g. where to site new schools
- Local transport planning and traffic modelling
- Planning housing demand and location
- Local Authority development plans to ensure that development happens at the right locations, and;
- Community support services, including home help and home care.

Population data also provide the means for councils to monitor and evaluate their performance, and is also crucial in Local Authority funding:

- The Department for Communities and Local Government (DCLG) allocates around £60bn a year to Local Authorities; the allocation formula takes account of the demand for services, and is heavily dependent on population estimates, numbers of elderly, numbers of children etc. These are benchmarked by the Census.
- As a very broad generalisation, an error of 1000 people results in a misallocation of around £500,000 for each Local Authority each year.



### Questionnaire Content

The questionnaire itself has been subject to a wide range of consultation, including working groups, open meetings, question testing and postal tests. Much of the questionnaire will remain the same as that used in 2001, to allow comparability, but there are a number of proposed new questions, and some questions have been expanded to include new responses.

**Table 1. Proposed changes to the Census Questionnaire**

Topic	New Questions	Amended Questions
<b>Housing</b>	Number of bedrooms	
	Type of central heating	
<b>Households</b>	Visitors – name, sex, date of birth & usual address	Usual residents
		Relationship – new categories for same-sex civil partner and step brother/sister
<b>Demographics/ population base</b>	Second residence (for more than 30 days a year) – address & purpose of that address eg. holiday home, student’s home address	Marital status now includes same-sex civil partnership
<b>Migration</b>	Month & year of arrival in UK (if born outside)	Address one year ago – includes no address and student with term-time address
	“Citizenship” judged by Passports held	Ethnicity – addition of “Gypsy or Irish Traveller” and “Arab”. Also, “Chinese” will become a sub-category of Asian/Asian British , rather than Chinese & Other
	Intended length of stay in UK	
	Self-defined “National Identity” - English, Welsh, Scottish, Northern Irish, British, Other	
<b>Language</b>	Main language and proficiency speaking English	
<b>Health and Care</b>		Health status – categories expanded
		Long-term illness updated to reflect DDA definition
<b>Labour Market</b>		Hours worked now banded, rather than open question
		Qualifications – expanded list of options

Source: Research Sandwell.

There are some questions that haven’t been included in the current proposals – including number of employees at the workplace, income, sexual orientation, nature of disability.

### Address Register Development

As the majority of the Census questionnaires will be sent out by post, there is an increased need to have an accurate address list. ONS use three national address files:

- Royal Mail – **PAF** - Post Office small users address file
- Local Government Information House - **NLPG** – National Land & Property Gazetteer
- Ordnance Survey – **AL2**

These are matched and anomalies are checked by the suppliers and local authorities for resolution. ONS will also field check addresses to capture missing data. Pilot testing of



processes so far suggest that around 98% of addresses are correct – this programme will now be extended, and national address matching starts in December 2008.

## Field Operations

Carrying out the Census involves a huge number of field staff. Roles vary but will include:

- Address checking – to check the completeness and accuracy of the address register. Around 30% of addresses will be checked, mainly in areas where there is lowest confidence in the address register.
- Questionnaire delivery – 5% hand delivery will be undertaken in areas where address lists may be inadequate or where significant hand to count areas have been identified.
- Special enumerators will work in areas and places where regular procedures will not work eg. communal establishments such as hospitals, prisons, halls of residence, or with groups such as travellers.
- Follow-up work – to achieve returns from people who need help or who are unwilling to respond.

Questionnaires will be returned by post to a central location, where they will be receipted using a barcode, and then scanned. The forms can also be completed online – again these returns can be matched with address lists and receipted using a unique identifier.

Around 10 days after Census Day, follow-up operations begin, and last around 5 weeks. Using regularly updated lists of non-responders, field staff will visit homes to help with completion. Householders can return forms directly to Census Collectors. Non-compliance teams will be recruited to deal with outright refusals, as there is a legal requirement to complete the Census form.

## Testing and Rehearsal

A field test took place in May 2007 in five local authority areas (selected to represent a variety of area types). Questionnaires were sent to 100,000 households, with other small-scale tests also being done. The aim was to carry out an operational test of field procedures, as well as a statistical test of response rates (comparing rates when different questions were included, and for post out versus hand delivery).

The test found that there was a small drop in response rates for postal delivery, but this was recoverable at the follow up stage using a proportion of the post out savings. However, it was also found that the inclusion of an income question is not viable due to the drop in response.

A rehearsal is planned for 11<sup>th</sup> October 2009. This will be a fully integrated rehearsal of the field operation, data capture and coding. This will cover 135,600 households and will be carried out within Lancaster, Newham and Isle of Anglesey.

## Census Output

ONS have carried out a large amount of user consultation on output, with plans for further consultation via the web. This will be based on a framework developed through analysis of business cases made for cross-tabulations, online survey results, tables commonly requested through ONS, and EU requirements. The aim is to deliver Census results via the web.



All Census output is subject to 'statistical disclosure control'. This is because all data collected by the Census is entirely confidential, and so there is a disclosure risk when information is published that could allow a third party to identify an individual, a household or a business. Statistical disclosure control involves either:

- Introducing sufficient ambiguity into, or reducing the level of detail of published statistics, so that the risk of disclosing confidential information is reduced to an acceptable level.
- Or controlling access to data.

At present *ONS* are developing their strategy on disclosure control, but this is most likely to involve adjustment of the resulting data, rather than any restrictions on data access.

### **Coverage Assessment & Quality Assurance**

Despite best efforts, the Census won't count every household or person, and may count some people twice. In 2001, around 6% of the population were missed, and this undercount is not evenly spread – inner cities, deprived areas and young people are most likely to suffer undercounts. The response rate in Sandwell was 95% in 2001 – the highest response was amongst women aged 75-79 (99%), whilst only 92% of those aged 25-29 responded.

To help assess the level of undercounting, *ONS* carry out a Census Coverage Survey around 6 weeks after Census Day. This is a large sample survey to 320,000 households, carried out face to face. The short interview focuses on counting the population. Results from this survey are matched with the Census results to enable estimates to be made for those missed by the Census, or by both surveys. Once estimates of the numbers missed have been made, household and personal data is imputed (i.e. assigned characteristics of other households which share similar "known" factors). In 2001, a "quality score" was assigned to each output area and ward, dependent on the imputation rate within each – in Sandwell, three wards had scores of 3, which meant that 10-20% of the population was imputed – these were St. Paul's, Soho & Victoria and West Bromwich Central. 19 output areas (out of 925) had scores of 4 (where over 20% of the population was imputed) – again the majority of these were concentrated in the Smethwick wards and West Bromwich Central.

The methodology for estimating overcounting in areas has yet to be developed.

