

Census 2001

Frequently Asked Questions

Introduction

This document provides answers to some of the questions that have been asked frequently about the 2001 Census results. It contains information on the general accuracy of the Census, details of why the Census cannot be directly compared with a number of administrative sources, and information about enumeration of special groups such as students and prisoners.

1. General accuracy of the 2001 Census

How accurate are the 2001 Census estimates generally?

ONS are confident that the approach taken for the 2001 Census provides the most accurate estimates of the population both nationally and for each of the 376 local authorities in England & Wales. All results for each Local Authority area were the subject of intensive quality assurance, which included a comparison with aggregate administrative data such as patient registers, child benefit, schools census and pensions data. How accurate are the 2001 Census estimates generally?

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Why do the Census figures differ so much from the Mid Year Estimates?

The Census results now show that the mid-year population estimates have been over-estimating the size of the population and growth in the

population over the last few years. There is also evidence that suggests the adjustments made to the 1991 Census were too large, particularly to Inner City and Metropolitan areas.

In the UK, the mid-year population estimates are based on an accepted and widely employed demographic method. Using this method, estimates are produced by updating from a census base allowing for the births, deaths and net migration that has occurred since the census. The most difficult component of population change to estimate accurately is migration. There is no comprehensive registration of migration in the UK. Thus estimates of migration have to be based on survey data and the best proxy data that exist. The critical factor that has been underestimated appears to be emigration. The International Passenger Survey works well, but it captures travellers' intentions at the time of departure and these may be prone to change once people are abroad, particularly among young men with few ties at home. For example Australian immigration control system records many more people born in the UK entering Australia as permanent and long-term settlers than our sources of information. ONS recognises that there is an urgent need to improve some aspects of the migration data which are used to estimate the annual mid-year populations. A National Statistics Quality Review on international migration had already been instigated which is reported on the National Statistics website at: www.statistics.gov.uk/methods_quality/quality_review/population.asp This review, which is due to report to the National Statistician by the end of April, will make recommendations for improving international migration statistics over the coming decade. In addition, the National Statistician has initiated a study on the population estimates that is being conducted with the Office of the Deputy

Prime Minister and HM Treasury, and which will provide a framework for future improvements.

Consultation with users

The ONS consulted widely on all aspects of the 2001 Census, involving local authorities and many others in this process. The methods were developed with the advice of leading experts from the UK, including from local government, and internationally. Methods were tested extensively in advance and documentation made available for wider comment at the earliest opportunity. The results were subject to an extensive process of quality assurance before publication in accordance with the methodology agreed in advance. The Registrar General was confident, therefore, that the figures published on 30 September 2002 provided the best possible estimate of the population (as defined for the census) for each local authority.

As the Census results were different from the projected population it is expected that the results will be questioned. We have provided the evidence to show why the Census results are accurate estimates of the population, and we are engaging with all of our users to help them understand the methods we used and why these are the best ever Census results.

2. Comparison between ONC estimates and administrative data

Why do the census counts differ from the Council tax register?

There are a number of reasons why a Census could identify a different number of household spaces from those identified on a different source collected for other purposes. For example:

- **Timeliness of the data:** One measure of the quality of any data source is how up-to-date it is. In particular, how quickly are demolished / derelict properties removed from the Council Tax database and how quickly are new or converted properties added? Many data sources are prone to inflation because 'old' records are not removed.
- **Definitional differences:** Any two data sources will almost always provide different numbers because of definitional differences. In this case the major sources of definitional difference are likely to be multiply-occupied properties and communal establishments. These could appear on one list as a number of single person households and on another as a single dwelling containing multiple people. This would lead to differences in the household count but not the person count.

In an area where Council Tax is low, and where it is feasible that a large number of people have family homes elsewhere, it could presumably be financially beneficial for some people to declare their room in shared accommodation as a single person household

and their family home elsewhere as a second home. However, for Census purposes these people would almost certainly be recorded at their family home and it is possible that the shared accommodation would appear as one household on the Census database.

- **Duplication:** Another common difficulty with data sources is duplication. Special procedures were used on the Census to search for and remove duplicate households. Council Tax records have been used by a number of areas within the ONS and, in general, problems have been found with double counting households.

Why do the census counts differ from the electoral roll?

There are definitional differences between the electoral roll and the Census:

- Students may be registered at both their term-time and vacation addresses, although they may only vote at one of these in any election. The published Census figures only count students at their term-time address.
- People with two homes may be registered at both addresses, although again they may only vote at one of them. The Census only counts people at the address which they consider their usual residence.
- British citizens who have left the country within the last 15 years may still register to vote in the UK. As they are no longer resident in the UK, they will not be included in the Census figures.
- Members of the British armed forces and their families are registered to vote in the UK, even when stationed overseas.
- Citizens of countries outside the EU and Commonwealth are not eligible to vote in the UK. These persons are included in the published Census figures if they are resident in the UK.
- A number of other groups are not eligible to vote, in particular most prisoners. Such groups are included in the Census figures.

In addition, residents who have died or moved out of the area may not immediately be removed from the register. How quickly this happens will depend on the electoral registration officer in question. Due to this, and the definitional differences above which cause a difference in the population base between the Census and electoral roll statistics, this administrative source was not used in the Census quality assurance process.

Why do the census counts differ from the patient register?

NHS patient registers are prone to list inflation, caused by delays in people who have died or moved out of a Health Authority being removed from the register, duplicate entries, and people having more than one NHS number. The degree of list inflation is extremely variable geographically - for instance, it tends to be higher in areas with large numbers

of students, who tend to be slow in re-registering with a GP when they leave higher education. In addition certain groups, such as Armed Forces personnel, are excluded from patient registers.

For England & Wales as a whole, total GP patient registrations in 2001 were 5% higher than the 2001 Census figure for the total population. However the differences as a percentage of the patient registration data vary widely by local authority, from 23% lower to 19% higher.

Why do the census counts differ from the child benefit data?

The Benefits Agency administer the Child Benefit Claimant Register which holds information on all persons claiming child benefit in the UK and the children for whom the benefit is claimed. For the purposes of comparator data, ONS liaised with DWP and Oxford University to obtain 'clean' child benefit data relating to August 2000 (some postcodes were originally missing or needed correcting, and some new born children did not appear for up to three months after they were born). The Census counts those children normally resident in the UK, some of whom are not eligible for child benefit (for example children of foreign armed forces). Differences between the number of children claiming benefit and the Census figure could be explained by poor address data or this difference in definitional base. Also, there can often be a lag in updating records when a claimant moves, particularly now that payments are made directly into bank accounts. There are also some issues regarding benefit fraud, although this is difficult to quantify.

For England and Wales as a whole, the Census figure is 0.9% higher than the number of children claiming child benefit. However the differences as a percentage of the child benefit data vary widely by local authority, from 7% lower to 51% higher.

Why do the census counts differ from the pensions data?

The Benefits Agency administers the Retirement Pension Register that holds information on all persons claiming a state pension in the UK. Almost all persons aged 65 or over are entitled to claim some form of state retirement pension. For the purposes of comparator data, ONS liaised with DSS and Oxford University to obtain 'clean' retirement pension data for May 2000 (some postcodes were originally missing or incorrect and some records were duplicated). Differences between those claiming pensions at a national level occur because not everyone is eligible. In addition, some expatriates resident overseas are eligible to claim a state pension. At a local level, differences could be explained by poor address data. Also, there can often be a lag in updating records when a claimant moves, particularly now that payments are made directly into bank accounts.

The Census figure for pensioners in England and Wales was 1.3% higher than the corresponding pensions data. The difference between Census figures and pension data as a percentage of the pensions data for local authorities ranged from 3% lower to 30% higher.

Why do the census counts differ from the schools Census?

The School Census is an annual count of all children attending educational establishments, including schools which are privately funded. In England, information relating to January 1st is collected from local authorities by DfES each year, while in Wales, Scotland and Northern Ireland this role is carried out by the appropriate devolved government authority and has a different reference date. The main problem with this data is that it relates to place of study, which may be in a different local authority to where the child lives. For this reason, less weight was given to these figures in the quality assurance procedure.

For England and Wales, the Census figure was 0.5% lower than the Schools Census. Differences at local authority level as a percentage of the school census data ranged from the Census being 27% lower to 43% higher. In one exceptional case, the Census figure was 72% below the Schools Census due to large numbers of pupils living outside the area and attending schools inside.

Why do the census counts differ from the birth registration data?

The civil registration system records all new births in the population, and this was therefore a key source of data when quality assuring ONC estimates for children aged under one year. The numbers will differ where children have died, or moved in or out of the area, before their first birthday. The Census figure for under 1s in England & Wales is 1.8% lower than the birth registration data. By local authority, the Census figure ranges from 20% below the birth registrations figure to 22% above. Many of the areas where the Census was furthest below the registration data were areas with high concentrations of ethnic minorities or asylum seekers, suggesting that the 'missing' babies were no longer in the country.

3. Further research 'Matching'

What is the research?

A project is being carried out to investigate further the differences between the Census and some administrative data sources. The aim of the exercise is to evaluate the accuracy of the various household lists considered, with a view to improving intercensal population estimates in the future. A matching study is currently being conducted between ONS and Manchester, with a forthcoming study also planned for Westminster.

What is the framework of this exercise?

The work is in two phases. Phase 1 will match individual addresses from three main sources:

- a) Public sources, e.g. the Royal Mail "postal address file", OS "addresspoint"
- b) Administrative sources held by two local authorities (Manchester and Westminster), e.g. council tax registers, electoral registers
- c) ONS census addresses

The results from phase 1 will then require further investigation to understand whether discrepancies are due to definitional differences or real differences in numbers of households. This work is yet to be defined in detail, but will involve extensive manual investigation.

It is important to note that a comparison exercise of this nature is not trivial. A report was compiled following an initial comparison between the Census household list and the address list supplied by Westminster City Council. The report has highlighted the fact that straightforward numerical comparisons between Local Authorities Property Lists and the Census are misleading and unreliable. The definitional differences, particularly with regard to communal establishments, mean that even large differences between the two datasets can be explained and do not necessarily reflect inaccuracies on either part.

Who will be carrying out this work?

For the Manchester study, phase 1 is to be undertaken by Manchester Geomatics under contract to ONS, and phase 2 will be undertaken by ONS. Manchester City Council are funding Manchester Geomatics for preparation and analysis of datasets provided by them.

What are the timescales for this work?

Phase 1 for the Manchester study began at the end of March 2003 and will last two months. The duration of phase 2 depends on the findings of phase 1 and is likely to last another two months. This gives an estimated completion time of the end of July.

4. Release of information informing the ONC QA process

Will the comparator data used in the ONC QA process be released?

We have released further information on the QA process undertaken to give users further confidence in the ONC results. This includes a discussion of contingency measures that were used and an indication of the frequency that they were applied. This has been published on the National Statistics website - www.statistics.gov.uk. Permission to release the comparator datasets used in the ONC QA has now been received and these are also available.

5. Enumeration of households

How can you be sure that the census has enumerated all of the households in an area?

ONS was aware of the barriers to enumeration and fieldwork procedures were designed to maximise coverage. However it was recognised that a perfect enumeration was not possible and so extensive research on estimating and adjusting for undercount was undertaken. This research resulted in the One Number Census methodology. Some Local Authorities have suggested that enumeration had failed to count households and for these areas the ONC methodology had also made high adjustments for under-enumeration.

This demonstrates that the methodology had successfully identified enumeration problems resulting from these barriers.

See also comparison with Council Tax and Electoral Registers in section 2.

6. Enumeration of special groups (students, prisoners, home and foreign Armed Forces)

How can you be sure that groups such as students, prisoners and armed forces have been enumerated?

Census estimates were compared against administrative sources including HESA (student numbers) data, Home Office data on prisoners, Defence Analytic Services Agency (DASA) data (home armed forces) and USAFE (US forces) data. An adjustment would have been made if there was evidence to suggest an enumeration problem of these special groups. This information will be published in the week commencing 21st April as part of the QA comparator data mentioned in section 4.

7. Use of 2001 Census in Local Government Finance Settlement

If the numbers for an area seem to have been underestimated in 1991, will the local authority be compensated?

Population estimates for 1992-2000 were the best that were available, on a nationally consistent basis, at the time they were made. The method used for calculating population between censuses is an accepted demographic method that is widely used. As normally happens after a Census ONS will analyse the implications of the census results for the accuracy of the MYEs, in order to learn lessons about the method and data sources used to produce the MYEs and to indicate where to target efforts to make improvements in the future. A report on the lessons learned for the MYEs was published on 13 February 2003.

Population has a large weight in the Finance Settlement calculations so it is important that the best population estimates are used by ODPM. ONS estimates have been unreliable in the past - will the government take steps to improve the quality of the population estimates used in the Local Government Finance Settlement?

The Census population estimates are the best estimates for 2001. Previous population estimates (the MYEs) were the best possible at the time they were made. The method used for calculating population between censuses is an accepted and widely employed demographic method. As normally happens after a Census ONS will analyse the implications of the census results for the accuracy of the MYEs, in order to learn lessons about the method and data sources used to produce the MYEs and to indicate where to target efforts to make improvements in the future. A report on the lessons learned for the MYEs was published on 13 February 2003.