

Article

# 2011 Census : Unrounded population and household estimates for England and Wales report

We look at the first release of unrounded results from the 2011 Census, providing information about the usually resident population of England and Wales. Further analysis is given by age, sex, the number of households and the number of short-term residents. New interactive maps provide specific views on population, household density, the change in population and the number of households between 2001 and 2011.



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# 1. Introduction

On 16 July 2012, the Office for National Statistics (ONS) released the first results from the 2011 Census for England and Wales – the 'Population and household estimates for England and Wales'.

This included information for local authorities about the usually resident population of England and Wales by 5-year age and sex, and also provided information on topics such as the number of households and the number of short-term residents.

On 24 September ONS has released the unrounded figures for those included in the 16 July census release. The mid-2011 population estimates published 25 September are based on the unrounded census estimates.

## 2. Publication of rounded estimates July 2012

In the 16 July release it was necessary to round the census estimates to the nearest 100 because, at the time of publication, there remained a small number of processing stages still to be completed. By rounding to the nearest 100 the differences between the estimates published then and those published subsequently is minimal. The estimates published in July were subject to a comprehensive programme of quality assurance to give users confidence in the figures published.

Publishing rounded estimates in July allowed ONS to share the first results from the census with users and also allowed for them to be used in the preparation of the mid-year population estimates. These in turn can then be used in the next round of local government resource allocation.

However, ONS recognised that this might mean there would be some minor differences in the figures published in subsequent unrounded releases compared to those first published in July.

## 3. Changes made to the estimates since the July publication

Since the July publication, processing of census data has been completed including, in particular, the statistical disclosure control process and creation of small area geography boundaries where population size has changed since the 2001 Census.

Statistical disclosure control is applied to all census estimates to ensure that no personal information is disclosed and that no individual can be identified. Rounding estimates to the nearest 100 in the July release meant that there was no risk of disclosure - allowing early publication of results before the full disclosure process was complete. Publication of unrounded estimates is only possible now that the final disclosure routines have been applied.

To account for changes in the population size of small areas since the 2001 Census a small percentage of the Output Area (OA) geography used in 2001 were updated. These Output Areas, once revised, will form the building bricks that are 'best-fitted' to form the higher area geographies for which 2011 Census results are published. Because these updates can only be applied once the final census population estimates are known, this stage of processing was not possible prior to the July release.

More information about the maintenance of the Output Area hierarchy for the 2011 Census will be published with look-up files and other geographical information in time for the release of small area census results.

## 4. The size of differences in the September and July estimates

The differences between the estimates published 16 July and those published 24 September are minimal. The differences for every age/sex estimate at local authority level are always smaller than 100. In fact only three per cent of these estimates across England and Wales are different by more than 50. As the estimates in the July release were independently rounded, no local authority total is different by more than 100.

As a result of completing the processing and quality assurance other small changes have been made. In updating the Output Area geography five halls of residence were identified that are within Warwick but that had been assigned to Coventry. These halls are on the boundary between these two local authorities. The unrounded estimates have been updated using the Output Area update. The impact of this update is to move 1,600 people from Coventry to Warwick. This affects the number of usual and short-term residents and the number of people in communal establishments in tables H01, M02 and P04–07 that were published in the rounded estimates in July.

Further information has also been used in two local authority areas to improve the split of the total resident population between the household and communal establishment populations. This update does not affect the population size by age and sex for any local authority. The impact of this update is in Table P07 where the total size of the communal establishment population when rounded has increased by 1,500 and the household population has decreased by the same amount, the total is unchanged. The size of the communal establishment population when rounded has increased in Northumberland by 1,100 and in Northampton by 400, and the size of the household populations has decreased in these areas by the corresponding amount.

## 5. Consistency between 2011 Census estimates and mid-2011 population estimates

The mid-2011 population estimates are based on the unrounded 2011 Census estimates. There are inevitable differences between the two final sets of estimates because they refer to different points in time and because they are based on slightly different definitions of where individuals are treated as usually resident, and consequently where they are counted.

The census estimates refer to 27 March 2011 whereas the mid-year population estimates refer to 30 June 2011. An estimate of population change has been made between these two dates to incorporate births, deaths and net migration that have occurred in the intervening period.

Differences in the definition of a resident are generally very small as they only apply to specific population sub-groups. For example, the census includes armed forces personnel at their permanent family home but the mid-2011 estimates include armed forces personnel where they are stationed. Further information about the differences in definitions used is available with the [mid-2011 population estimates release](#) that will be published 25 September.

## 6. Related internal links

[Population Estimates for England and Wales](#)

[2011 Census - Population and household estimates for England and Wales](#)

[2011 Census Population and household estimates for Wales, unrounded figures for the data published 16 July](#)

## 7. Supporting information

### Glossary

#### **Output Area (OA)**

For the 2011 Census, the smallest geographic unit for which outputs are published is the Output Area (OA). Output Areas are used as the building blocks that are aggregated to form all higher geographical areas for which statistics are produced, in accordance with the Geography Policy for National Statistics. These 'best-fit' estimates are therefore consistent and comparable with other National Statistics prepared using the geography policy.

#### **Statistical Disclosure Control (SDC)**

The confidentiality of personal census information is paramount, and to prevent the inadvertent disclosure of information about identifiable individuals a range of statistical disclosure protection measures are used. Firstly, records in the output database are swapped between different geographic areas. This swapping is targeted towards those households in small areas with unusual characteristics that may be identifiable. To offer further protection against revealing personal information, some limitations have also been placed on the amount of detail available in the published results, particularly in tables for small populations. There are also minimum thresholds applied for the numbers of persons and households that must be present in the smallest areas for which sets of results can be produced.

#### **Usual resident**

The main population base for outputs from the 2011 Census is the usual resident population as at census day (27 March 2011). Although the population base for enumeration included non-UK short-term residents, these are not included in the main outputs from the 2011 Census, but are analysed separately. All outputs, unless specified, are produced using only usual residents of the UK. For 2011 Census purposes, a usual resident of the UK is anyone who, on census day, was in the UK and had stayed or intended to stay in the UK for a period of 12 months or more, or had a permanent UK address and was outside the UK and intended to be outside the UK for less than 12 months.

## 8. Background notes

1. Details of the policy governing the release of new data are available by visiting [www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html](http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html) or from the Media Relations Office email: [media.relations@ons.gsi.gov.uk](mailto:media.relations@ons.gsi.gov.uk)

These National Statistics are produced to high professional standards and released according to the arrangements approved by the UK Statistics Authority.