



Response Rates in the 2011 Census

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This is one of a series of reports published to support the release of results from the 2011 Census. This series of methods and quality reports provides information on the different methods used to collect, process, clean, adjust and protect the census results. The series also reports on the quality assurance of the results and provides quality indicators.

Terms used in this report are explained in the [2011 Census glossary](#).

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This paper was first published 16 July 2012. This update includes additional information on coverage rates by local authority, and the associated spreadsheet includes additional information on response rates by key variables.

Response Rates in the 2011 Census

1. Summary

This paper outlines the definitions of the response rates, return rates and coverage rates used in the 2011 Census of England and Wales. Census response and coverage rates are estimates, because the denominator itself (the population) is an estimate.

A key target for the census was to achieve a 94 per cent response for England and Wales overall, and at least 80 per cent in each local authority area. This was achieved - the person response rate for England and Wales was 94 per cent, with response rates ranging from 82 per cent to 98 per cent by local authority.

[2011 Census response, return and coverage rates](#) for each local authority are available to download.

Note that this is an updated version of the paper issued with the first release of census data on 16 July 2012. It has been updated to provide information on coverage rates and additional response rates for key variables (for example, ethnicity). The downloadable Excel file, [Census response rates](#), has been updated to also include coverage rates by local authority, plus additional response rates by key variables.

2. Background and introduction

A strategic aim of the 2011 Census was to provide high quality statistics that meet user needs. To achieve this, the 2011 Census was designed to maximise overall response rates and minimise variation of response rates between and within local authority areas. The fieldwork was designed to ensure that there was sufficient engagement with the usually resident population to gain sufficiently high response rates in order to confidently estimate the population.

3. Response rate, return rate and coverage rate

This section outlines the definitions of the key measures calculated for the 2011 Census:

Measure	Explanation	Purpose
Person response rate	The number of usual residents for whom individual details were provided on a returned questionnaire, divided by the estimated usually resident population	Measures the level of under-enumeration of the usually resident population
Household response rate	The number of households (containing one or more usual residents) who returned a household questionnaire, divided by the estimated number of households containing usual residents	Measures the level of under-enumeration of households containing usual residents
Household return rate	The percentage of household questionnaires that were returned	Used during the census field operation to manage the allocation of resources for follow-up activities with non-responding households
Person coverage rate	The number of usual residents for whom individual details were provided on a returned questionnaire, divided by the estimated usually resident population An adjustment is made to the numerator to account for people counted twice, or included in the wrong location	Measures the net result of the level of over-enumeration and under-enumeration of the usually resident population

3.1 Person response rate

The 2011 Census person response rate is the number of usual residents for whom individual details were provided on a returned questionnaire, divided by the estimated usually resident population.

Person response rate targets were set at 94 per cent for England and Wales overall; and at least 80 per cent in every local authority area. For England and Wales, the person response rate achieved was 94 per cent (94 per cent for England and 93 per cent for Wales). Person response rates by local authority ranged from 82 per cent to 98 per cent.

The 2011 Census person response rate is:

the number of usual residents for whom individual
details were provided on a returned questionnaire
....divided by....
the census estimate of the number of usual residents

3.1.1 The numerator...

- is based on completed returns (paper or Internet) received up to and including 5 June 2011.
- excludes any returns received after 5 June 2011.
- includes people who are usually resident in communal establishments and households.
- includes returns from people in new addresses added during the census operation (not on the original address register).
- includes some duplication where an individual has been included in two forms at different locations (for example, a child in joint custody has been included on the census questionnaire at both parents' addresses).
- includes some people incorrectly included in the wrong location – such as a person being included at their second home rather than their usual residence.
- includes valid responses only. A response is defined as valid if at least two of five key variables have been completed.
- excludes returns identified as duplicates in processing. For example, if a person completed a census questionnaire both on paper and the Internet, then only one return would be included in the calculation.
- excludes 'unlinked' questionnaires (returned questionnaires which could not be linked to an address; these were spread across the country, and were not grouped in small geographic areas).

3.1.2 The denominator...

- is the estimate of the number of usual residents, after taking account of both estimated under-enumeration and over-enumeration.
- includes all persons estimated to have been missed from the census via the coverage assessment and adjustment methodology.
- excludes duplication where an individual has been included in two forms, and people wrongly enumerated at the wrong location. These have been removed during processing or via an overcount adjustment.

3.1.3 Person response rates by key characteristics

Response rates are available to download in [Census response rates](#), for usual residents by sex, by:

- age (5 year).
- marital status.
- ethnic group.
- activity last week.
- country of birth (UK/non-UK).
- accommodation type.
- tenure.
- household size.

The spreadsheet also covers Intention to stay in the UK for usual residents and short-term residents.

The following tables provide response rates for England and Wales by these variables.

Table 1 – Census response rates for England and Wales by age-sex groups

Age group	Persons %	Males %	Females %
All ages	93.9	92.8	94.9
0-4	90.4	90.4	90.4
5-9	92.0	92.1	92.0
10-14	93.4	93.4	93.4
15-19	92.5	92.3	92.6
20-24	89.1	87.2	91.1
25-29	88.9	85.5	92.3
30-34	90.8	87.7	93.9
35-39	93.0	91.0	94.9
40-44	94.6	93.2	95.9
45-49	95.7	94.8	96.6
50-54	96.7	96.1	97.3
55-59	97.2	96.6	97.7
60-64	97.6	97.4	97.9
65-69	97.6	97.5	97.8
70-74	97.6	97.6	97.5
75-79	97.4	97.5	97.2
80-84	97.2	97.4	97.0
85 and over	96.6	96.8	96.4

Table 2 – Census response rates for England and Wales by marital status

Marital status	Persons %	Males %	Females %
Single (never married or never registered in a same-sex civil partnership)	91.0	89.8	92.4
Married	97.3	97.0	97.6
Separated (but still legally married)	91.5	88.8	93.5
Divorced	94.1	92.5	95.3
Widowed	95.8	94.8	96.1
In a registered same-sex civil partnership	87.9	85.0	92.1
Separated (but still legally in a same-sex civil partnership)	88.0	84.2	91.6
Formerly in a same-sex civil partnership which is now legally dissolved	91.2	88.0	94.1
Surviving partner from a same-sex civil partnership)	92.9	89.8	94.7

Table 3 – Census response rates for England and Wales by ethnic group

Ethnic group	Persons %	Males %	Females %
White: English/Welsh/Scottish/Northern Irish/British	95.1	94.4	95.9
White: Irish	94.0	92.4	95.5
White: Gypsy or Irish Traveller	90.1	88.9	91.2
White: Other White	90.3	88.0	92.4
Mixed/multiple ethnic groups: White and Black Caribbean	83.4	81.7	85.0
Mixed/multiple ethnic groups: White and Black African	82.8	80.6	85.0
Mixed/multiple ethnic groups: White and Asian	85.4	83.3	87.5
Mixed/multiple ethnic groups: Other Mixed	82.5	79.9	85.0
Asian/Asian British: Indian	94.3	92.9	95.7
Asian/Asian British: Pakistani	93.5	92.5	94.6
Asian/Asian British: Bangladeshi	92.5	91.1	94.1
Asian/Asian British: Chinese	84.6	81.2	87.6
Asian/Asian British: Other Asian	85.1	81.9	88.1
Black/African/Caribbean/Black British: African	88.2	85.8	90.5
Black/African/Caribbean/Black British: Caribbean	91.9	90.3	93.4
Black/African/Caribbean/Black British: Other Black	64.0	60.1	68.1
Other ethnic group: Arab	72.4	68.7	77.5
Other ethnic group: Any other ethnic group	74.0	69.5	79.4

Table 4 – Census response rates for England and Wales by activity last week

Activity last week	Persons %	Males %	Females %
Working	94.5	93.3	95.8
Unemployed	90.6	89.0	92.8
Economically inactive: Student	85.3	83.3	87.5
Economically inactive: Retired	97.4	97.4	97.4
Economically inactive: Long-term sick or disabled	92.5	90.5	94.6
Economically inactive: Looking after home/family	94.2	91.8	94.5
Economically inactive: Other	91.4	88.6	93.6
Not required	92.1	92.0	92.1

Table 5 – Census response rates for England and Wales by country of birth (UK or not)

Country of birth (UK or not)	Persons %	Males %	Females %
Yes, born in the UK	94.6	93.8	95.3
No, born outside the UK	89.3	86.5	92.0

Table 6 – Census response rates for England and Wales by accommodation type

Accommodation type	Households %	Persons %	Males %	Females %
Detached whole house or bungalow	97.6	96.6	96.5	96.8
Semi-detached whole house or bungalow	96.5	95.1	94.9	95.3
Terraced whole house or bungalow (including end-terrace)	95.1	93.6	93.2	93.9
A flat, maisonette or apartment that is in a purpose-built block of flats or tenement	89.6	87.5	85.9	89.0
A flat, maisonette or apartment that is part of a converted or shared house (including bedsits)	88.0	86.0	83.9	88.3
A flat, maisonette or apartment that is in a commercial building (for example, in an office building, hotel or over a shop)	87.6	87.4	85.6	89.4
A caravan or other mobile or temporary structure	95.6	93.9	93.4	94.4

Table 7 – Census response rates for England and Wales by household tenure

Household tenure	Households %	Persons %	Males %	Females %
Owned: Owned outright	97.3	96.6	96.1	97.1
Owned: Owned with a mortgage or loan	97.5	96.6	96.2	97.1
Shared ownership (part owned and part rented)	95.6	94.3	93.0	95.6
Social rented: Rented from council (local authority)	92.0	90.2	88.6	91.5
Social rented: Other social rented	92.2	91.0	89.5	92.4
Private rented: Private landlord or letting agency	88.1	86.8	84.2	89.5
Private rented: Employer of a household member	91.8	91.3	90.0	92.7
Private rented: Relative or friend of a household member	90.5	89.0	86.9	91.2
Private rented: Other	88.8	87.9	85.6	90.5
Living rent free	92.1	90.7	88.4	92.7

Table 8 – Census response rates for England and Wales by household size

Household size	Households %	Persons %	Males %	Females %
1	90.6	90.5	86.3	94.2
2	97.0	95.1	94.8	95.3
3	96.2	93.9	93.6	94.2
4	97.1	94.9	94.8	95.1
5	96.1	93.9	93.7	94.2
6	95.1	93.0	92.7	93.4
7+	95.0	92.3	91.8	92.9

Table 9 – Census response rates for England and Wales by intention to stay in the UK

Intention to stay	Persons %	Males %	Females %
3 months or more, but less than 6 months (Born outside UK, short-term migrant)	72.8	68.0	77.7
6 months or more, but less than 12 months (Born outside UK, short-term migrant)	81.1	77.2	84.9
12 months or more (Not a short-term migrant)	83.2	79.5	87.2
No code required (Born in the UK or arrived in the UK before 27 March 2010)	94.0	93.0	95.0

3.2 Household response rate

The 2011 Census household response rate is the number of household questionnaires received, divided by the estimated number of households containing usual residents.

For England and Wales, the household response rate achieved was 95 per cent (95 per cent for England and 94 per cent for Wales). Household response rates by local authority ranged from 82 per cent to over 99 per cent.

The household response rate is:

the number of households containing one or more
usual residents, who returned a household questionnaire
....divided by....

the census estimate of the number of households containing usual residents

3.2.1 The numerator...

- is based on completed household returns (paper or Internet) received up to and including 5 June 2011.
- excludes any household returns received after 5 June 2011.
- excludes communal establishments.
- includes any household returns from new addresses added during the census field operation (not on the original address register).
- excludes addresses that do not contain any usual residents (such as only containing short-term residents, second homes, holiday homes and vacant dwellings).
- excludes any returns identified as duplicates in processing. For example, if a household questionnaire was completed on both paper and the Internet, then only one return would be included in the calculation.
- excludes 'unlinked' questionnaires (returned questionnaires, which could not be linked to an address; these were spread across the country, and were not grouped in small geographic areas).

3.2.2 The denominator...

- is the estimate of the number of households containing usual residents, after taking account of both estimated under-enumeration and over-enumeration.
- includes all households containing usual residents estimated to have been missed from the census, via the coverage assessment and adjustment methodology.

3.3 Household return rate

The 2011 Census return rate is the percentage of household questionnaires that were returned. This measure was used during the census field operation, to manage the allocation of resources for follow-up activities with non-responding households.

For England and Wales, the return rate achieved was 93 per cent (93 per cent for England and 92 per cent for Wales). Return rates by local authority ranged from 79 per cent to 97 per cent.

The return rate is:

All households where a questionnaire was returned
....divided by....
All 'active' household addresses

3.3.1 The numerator...

- is based on household returns (paper or Internet) received up to 29 November 2011.
- excludes returns from communal establishments.
- includes all household returns – including blank questionnaires and returns from households with no usual residents (such as second homes, vacant properties and households containing only short-term residents).
- includes any household returns from new addresses added during the census operation (not on the original address register).
- excludes 'unlinked' questionnaires (returned questionnaires which could not be linked to an address; these were spread across the country, and were not grouped within small geographic areas).
- excludes any returns identified as duplicates in processing. For example, if a household questionnaire was completed on both paper and the Internet, then only one return would be included in the calculation.

3.3.2 The denominator...

- is the estimate of the number of 'active' households, that is all households on the address register or added during the census field operation, minus those deactivated during the field operation. Thus non-residential, duplicate and demolished addresses are excluded.
- includes all addresses where a 'dummy form' has been completed (including those marked as unoccupied addresses by field staff).
- includes 'unaccounted for addresses' (addresses where no questionnaire has been returned, no 'dummy form' was completed by field staff, and the address was not deactivated).

The national household response rate is higher than the household return rate because of several definitional differences, most notably because the denominator of the return rate calculation includes addresses that are not occupied by usual residents (such as second homes, holiday homes, vacant dwellings and households containing short-term residents only).

3.4 Person coverage rate

Some people were incorrectly included on two or more questionnaires (such as children in joint custody, who were included on the census questionnaire of both parents) and some responded to the census at the wrong address (such as a person being included at their second home rather than their usual residence). The number of people affected by these issues has been estimated and adjusted for using overcount adjustment methodology.

As outlined in section 3.1, the 2011 Census person response rate includes this 'overcount' in the numerator of the calculation. The coverage rate is an estimate of the person response rate with this overcount removed and with the incorrect location adjusted for in the numerator. As a result, the coverage rate is lower than the person response rate.

For England and Wales, the coverage rate achieved was 93 per cent (93 per cent for England and 92 per cent for Wales). Coverage rates by local authority ranged from 81 per cent to 97 per cent.

The 2011 Census person coverage rate is:

the number of usual residents for whom individual details were
provided on a returned questionnaire, excluding a measure of 'overcount'
....divided by....
the census estimate of the number of usual residents

3.4.1 The numerator....

- is based on completed returns (paper or Internet) received up to and including 5 June 2011.
- excludes any returns received after 5 June 2011.
- includes people who are usually resident in communal establishments and households.
- includes returns from people in new addresses added during the census operation (not on the original address register).
- excludes any duplication caused by an individual being included in two questionnaires at different locations (for example, a child in joint custody has been included on the census questionnaire at both parents' addresses).
- excludes people incorrectly included in the wrong location – such as a person being included at their second home rather than their usual residence.
- includes valid responses only. A response is defined as valid if at least two of five key variables have been completed.

- excludes returns identified as duplicates in processing. For example, if a person completed a census questionnaire on both paper and the Internet, then only one return would be included in the calculation.
- excludes 'unlinked' questionnaires (returned questionnaires, which could not be linked to an address; these were spread across the country, and were not grouped in small geographic areas).

3.4.2 The denominator...

- is the estimate of the number of usual residents, after taking account of both estimated under-enumeration and over-enumeration.
- includes all persons estimated to have been missed from the census via the coverage assessment and adjustment methodology.
- excludes duplication where an individual has been included in two forms, and people wrongly enumerated at the wrong location. These have been removed during processing or via an overcount adjustment.

4. Comparison with 2001 Census

The published 2001 Census response rates are intended to be equivalent to the 2011 Census person response rates. However, the methods used to produce the census estimates differ (for example, the 2011 Census has an overcount adjustment and national adjustment applied).

The person response rate for the 2011 Census is similar to that achieved in the 2001 Census. However, the variability in person response rates across local authorities has been much reduced in the 2011 Census.

Table 1: Person response rate in England and Wales

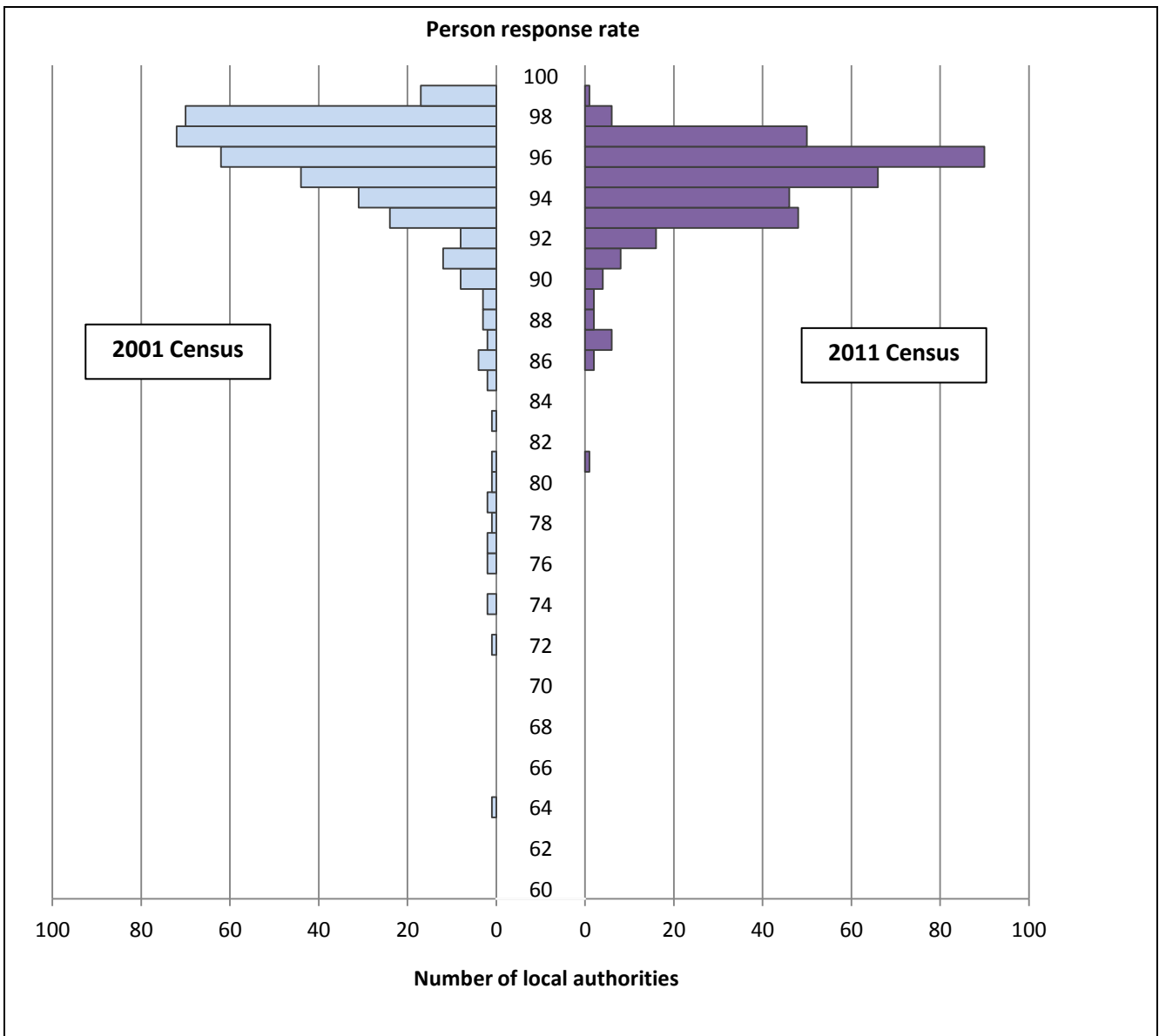
	Person response rate England and Wales %	Range of person response rate by local authority area %
2001 Census	94	64 – 99
2011 Census	94	82 – 98

Links to data and definitions on the ONS website

The 2001 Census response rates by age, sex and local authority are [available to download](#).

The 2001 Census response rate components are [available to view](#).

Figure 1: Comparison of 2001 and 2011 Census person response rates



(Note: the number of local authorities in 2001 was 376; compared with 348 in 2011).

This chart shows that the strategy used for the 2011 Census resulted in a reduction in the variability in person response rates across local authorities. As a result, all local authorities achieved a response rate of more than 80 per cent in the 2011 Census, which was not achieved in the 2001 Census.

Published 2001 response rates are slightly higher than ONS would now, with hindsight, have calculated them to be. This is because 275,000 additional people were added to the 2001 mid-year estimates (MYEs) in 2003/04. This change effectively reduces the 2001 Census response rates to 93 per cent overall (ranging from 63 per cent to 99 per cent by local authority).

Further reports in this series are [available to download](#)

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