



2011 Census of Population: background

Standard Note: SN/SG/06595

Last updated: 28 March 2013

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Section: Social & General Statistics Section

Information from the 2011 Census released for the 573 parliamentary constituencies in England and Wales is set out in a Research Paper (RP13/20) [Census 2011 Constituency results: England and Wales](#) that was published on 18 March 2013.

This Standard Note supplements the main results in that Research Paper. In particular it looks at:

- the history of the Census,
- the legislation governing the Census,
- the detailed reviews of the 2001 Census and the resulting changes in how the 2011 Census was carried out,
- the preparations for the 2011 Census,
- the questions asked (and not asked),
- the cost of the Census,
- the different approaches to the conduct of the Census in Scotland and Northern Ireland,
- the response rate, and
- whether or not there will be a Census in 2021.

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1 Introduction

The 2011 Census was carried out by the Office for National Statistics (ONS) in England and Wales, the General Register Office for Scotland and the Northern Ireland Statistics and Research Agency on Sunday 27 March 2011.

On 17 December 2012, the ONS announced that the population of the United Kingdom on Census day (27 March 2011) was 63,181,775, comprising:

- England – 53,012,456 (83.9%)
- Wales – 3,063,456 (4.8%)
- Scotland – 5 295,000 (8.4%)
- Northern Ireland – 1,810,863 (2.9%)¹

The Census is the most extensive source of demographic and social statistics available in the UK today. Government, Parliament, local authorities, the health service, the education and academic community, business and the public use the Census to give them reliable information on the number and characteristics of people and households, especially at local level.

The Census is a unique source of data for parliamentary constituencies as robust data based is not always available for this geography from statistics derived from surveys and administrative records.

A separate Research Paper (RP13/20) [Census 2011 Constituency results: England and Wales](#) was published on 18 March 2013. This set out some of the results released for the 573 parliamentary constituencies in England and Wales together with the main changes in Census questions since the 2001 Census, a brief discussion of the topics not covered in the Census and differences in questions in Scotland and Northern Ireland.

Census data for Parliamentary constituencies in Scotland is scheduled for release later in 2013. A version of the Research paper for the whole UK will be produced when the full dataset is available.

This Standard Note is intended to supplement the discussion of the main results in the Research Paper and in particular discusses the history of the Census, the legislation governing the Census, the preparations for the 2011 Census following detailed reviews of the 2001 Census, the resulting changes in how the Census was carried out and the questions asked (and not asked), the cost of the Census, the different approaches to the conduct of the Census in Scotland and Northern Ireland, the response rate and whether or not there will be a Census in 2021.

2 History of Censuses

The taking of censuses has a long history. The Babylonian, Egyptian and Chinese civilisations all collected statistics about their peoples, principally for military and taxation purposes but also, as in Egypt, for other purposes such as planning for the building of the Pyramids and sharing out land following the annual flooding of the Nile. The Greeks and Romans also conducted censuses. The Roman census, carried out every five years, required each man to return to his place of origin. It was the census ordered by Caesar

¹ ONS Statistical Bulletin [2011 Census: Population Estimates for the United Kingdom, 27 March 2011](#) dated 17 December 2012

Augustus which, according to the Bible, brought Joseph and Mary to Bethlehem when Jesus was born. The Hebrews also carried out censuses, the most notorious being that ordered by King David, interrupted by plague and never completed, leading to a belief that census-taking was a dangerous practice likely to incur the wrath of God.

The first major enumeration in England took place in 1066 under William I ('the Conqueror'). The results were published in the Domesday Book, containing a detailed inventory of land and property. During the reign of Elizabeth I in the 16th century, bishops were asked to count the number of families in their diocese and report back to the Privy Council. A similar exercise was carried out by James I in the 17th century. Regular censuses of population began in 1801. In other societies, censuses were already well established. Quebec completed a population census in 1666, Iceland undertook one in 1703 and Sweden in 1749. Religious opposition delayed census-taking in the United States until 1790 because God-fearing churchgoers recalled the experience of the Israelites under King David.

Similar attitudes were evident in 18th century England. Thomas Potter, Member of Parliament for St. Germans, introduced a Census Bill in the House of Commons in 1753. Matthew Ridley, MP for Newcastle-upon-Tyne, observed that

It is true, I am not myself so superstitious as to think, that there is anything ominous or unfortunate in taking an exact account of the number of the people in any place or country; but by those letters I am informed, that the people everywhere look upon it in this light, which has not only filled them with imaginary terrors, but has raised such a violent spirit of opposition to this Bill, that if it be passed into a law, there is a great reason to fear, they will in many places oppose the execution of it in riotous manner; and that if it should be accidentally followed by any epidemical distemper, or by a public misfortune of any other kind, it may raise such a popular flame as will endanger the peace, if not the existence of our present government.²

Later controversies relating to the size of the population and a succession of bad harvests, as well as the publication of Thomas Malthus's *Essay on the Principle of Population* in 1798 ensured that, when a Census Bill was re-introduced in 1800, it enjoyed easy passage through Parliament.³

Enumeration for the 1801 Census took place on 10 March 1801 and the first abstracts were printed on 21 December.

John Rickman, a Clerk to the House of Commons, oversaw the 1801 Census as well as those in 1811, 1821 and 1831. Rickman outlined twelve arguments in favour of a census:

1. The intimate knowledge of any country must form the rational basis of legislation and diplomacy.
2. An industrious population is the basic power and resource of any nation, and as such its size needs to be known.
3. The number of men required for conscription to the militia in different areas should reflect the area's population.
4. Similarly, there are defence reasons for wanting to know the number of seamen.
5. The production of corn needs to be planned and thus it is essential we know how many people need to be fed.

² *Parliamentary History* 8 May 1753 (vol 14: 20-26 Geo. 2. 1747-53), c1330-31

³ *Census Act 1800* (41. Geo. 3, ch. 15), repealed by the *Statute Law Revision Act 1871*

6. A government anxious to increase total 'felicity' needs to know the number of marriages and the factors affecting them.
7. The true size of the population, even after the effects of war, is probably far greater than the usual estimates, and knowledge of this would 'be the most consoling gratification to every lover of his country'.
8. In a time when many fear the disaffection of the people, doing a census would improve the Government's image as setting out to promote the public good.
9. A census would generally encourage the social sciences to flourish.
10. It might encourage improved methods of property counting which would be useful for the operation of the land tax.
11. The life insurance industry would be stimulated by the results.
12. There is wide consensus among those writing about the state and politics of the need for a reliable estimate of the population. ⁴

Rickman's 1801 Census results identified a total population for England and Wales of about 9 million, more precise than earlier estimates of between 8 and 11 million.

From 1801, censuses for Great Britain (England, Wales, and Scotland) were taken every ten years except in 1941 due to the Second World War.

Decennial censuses were held in Ireland from 1841 through to 1911. There was no census in Ireland in 1921, and following this, the first Northern Irish census was in 1926, with the second Northern Ireland census in 1937, then every ten years from 1951.

Today the main uses for Census data include:

- funding formulae used to allocate central government resources to other organisations such as the devolved administrations (via the Barnett formula), local authorities and health bodies.
- policy development and planning by central, local and regional government, in areas including housing, transport, employment and health.
- Census data continues to underlie much social research, both within and outside government, and businesses use it to target their marketing and location policies. Government researchers use Census data to assess the representativeness of other social surveys.
- Census benchmarks underpin democratic engagement. The Boundary Commission takes account of population change to reshape constituency boundaries. MEP representation is calculated using population figures based on the Census.

3 Census legislation

3.1 Primary legislation

The current statutory authority for taking a census of population in England and Wales is the *Census Act 1920*.⁵ Section 1 of the Census Act 1920 enables an Order to direct the taking of a census for Great Britain or any part of it.

In England and Wales, the duty to carry out the census in section 2 of the 1920 Act (formerly conferred on the Registrar General) was transferred to the Statistics Board by the *Statistics and Registration Service Act 2007* (c. 18, Schedule 1, paragraphs 1 and 2).⁶ The United Kingdom Statistics Authority holds the statutory powers of the Statistics Board and acts

⁴ Cited in Angela Dale and Catherine Marsh *The 1991 Census User's Guide* pp 11-13 (1993)

⁵ *Census Act 1920* (10 & 11 Geo. 5, ch. 41)

⁶ *Statistics and Registration Service Act 2007* (ch 18)

through the Office of National Statistics as its executive office (established under section 32 of the 2007 Act) in carrying out the work of preparing for, and undertaking a census.

3.2 European Regulation

Regulation (EC) No 763/2008 of the European Parliament and Council imposes obligations on member states with respect to the provision of statistical outputs based on 2011 Census - the 2010/11 round of censuses (or comparable data sources). These statistical outputs are to be provided to Eurostat, the Statistical Office of the European Community, which is tasked with providing the European Union with statistics at European level that enable comparisons between countries and regions. The 2011 Census, along with some existing survey information, will help the United Kingdom to meet its obligations under this Regulation.⁷

3.3 Devolved Administrations

The Census Act 1920 applies generally to Great Britain, but there are provisions for separate censuses to be carried out in Scotland. Since the introduction of the *Scotland Act 1998*,⁸ the census has become a devolved matter in Scotland and the *Census Act 1920* now applies separately there.

Under article 4 of the National Assembly for Wales (Transfer of Functions) (No.2) Order 2006 (S.I. 2006/ 3334), the Welsh Assembly must be consulted on the making of any Census Order proposed in respect of the whole or any part of Wales before a Minister of the Crown recommends to Her Majesty in Council that the Order be made.

Separate legislation covers the census in Northern Ireland – the *Census Act (Northern Ireland) 1969*.⁹

3.4 Orders and Regulations

Section 1 of the *Census Act 1920* permits the laying of an Order in Council directing that a census be taken and detailing its contents. Section 3 permits the laying of Regulations, detailing the procedures for undertaking the census and containing copies of the relevant census forms. The Schedule to the Act lists the topics on which the census may collect information.

The Census (England and Wales) Order 2009 sets out:

- the date for the Census;
- the people covered by the Census; and
- the topics to be covered by the Census

New questions for 2011 were proposed on: national identity; citizenship; second residences; language; civil partnership status; date of entry into the UK and length of intended stay (for non-UK born); type of central heating; number of bedrooms and visitors. This is discussed in more detail below.

Similar Orders were laid before the Scottish Parliament and Northern Ireland Assembly (see below for further details).

⁷ [Regulation \(EC\) No 763/2008](#) of The European Parliament and of The Council, 9 July 2008 on population and housing censuses

⁸ [Scotland Act 1998](#) (ch. 46)

⁹ [Census Act \(Northern Ireland\) 1969](#) (ch. 8) (Act of the Northern Ireland Parliament)

The [Census \(England\) Regulations 2010](#) were laid before Parliament on 4 March 2010, under the negative procedure. The Census Regulations set out the mechanics of the Census, and included specimens of the questionnaires to be used. Separate Regulations were put to the National Assembly for Wales (for the first time),¹⁰ the Scottish Parliament and Northern Ireland Assembly (see below).

3.5 Confidentiality

Other than for the purposes of conducting the census and in the circumstances set out in section 39 of the *Statistics and Registration Service Act 2007*,¹¹ it is unlawful for any member or employee of the UK Statistics Authority (which includes any member or employee of ONS) or any person who has received personal information directly or indirectly from the Authority, to disclose such information. The provisions of the 2007 Act replace the more general provisions protecting the confidentiality of personal census information in England and Wales that were set out in Section 8 of the Census Act 1920 as amended by the Census (Confidentiality) Act 1991.¹²

The Statistics and Registration Service Act specifies that, where personal data are processed on behalf of ONS, the ONS (as the 'data controller') is responsible for ensuring that any contractor (generally the 'data processor') processes them in accordance with the data protection principles. This means that ONS must provide any contractor with adequate instructions to ensure that this happens.

In addition to the general confidentiality provisions of Section 39 of the Statistics and Registration Service Act, and the specific confidentiality provisions covering the census set out in the Census Regulations, the disclosure of personal census information, including subject access, is also protected by provisions contained in the *Data Protection Act 1998* and *Freedom of Information Act 2001* and is consistent with the principles set down in the *Human Rights Act 1998*.¹³

There was a particular concern about the use of private contractors for the 2011 Census including the use of the US company Lockheed Martin as part of the processing of the Census data.

The Office of National Statistics said

Concerns expressed about the possibility of the US Patriot Act being used by US intelligence services have been addressed by a number of additional contractual and operational safeguards. These arrangements were put in place to ensure that US authorities are unable to access census data.

Existing law already prevents the disclosure of census data – it is a criminal offence to disclose personal census data and is punishable by a fine and/or up to two years in prison. All census data is owned by ONS and all of the legal undertakings of confidentiality of personal census information will apply to both ONS and any contractors.

All census employees and contractors working on the census sign a declaration of confidentiality to guarantee their understanding and compliance with the law. All staff

¹⁰ [The Census \(Wales\) Regulations 2010](#)

¹¹ [Statistics and Registration Service Act 2007](#) (ch. 18)

¹² [Census \(Confidentiality\) Act 1991](#) (ch. 6)

¹³ ONS [Privacy Impact Assessment](#) November 2009

who have access to the full census data set in the operational data centre work for Office for National Statistics (ONS).

Contractual arrangements ensure that only sub-contractors registered and based in the UK and either UK or EU owned will have access to any personal census data. Staff with access to the full census data set or substantial parts of it will have security clearance to handle material classified as 'Secret' under the UK Government's classifications.

The prime contractor was Lockheed Martin UK Ltd. Additional specialist services were provided by Cable & Wireless, Logica, UK Data Capture, BSS, Steria, Polestar, Oracle and Royal Mail. Lockheed Martin UK designed the processing systems for ONS using its expertise and past experience. The day-to-day running of operational services was provided by the consortium of specialist service providers. All of these specialist subcontractors are registered and owned in the UK or elsewhere in the EU.

This contractual structure means that no US companies had or have any access to any personal census data. No Lockheed Martin staff (from either the US parent or UK company) had or have access to any personal census data.

All data are processed in the UK and remain in the UK.¹⁴

3.6 Publication of Census records

Individual and household records from decennial censuses up to and including 1911 are available from the National Archives. Census records for England and Wales are available from 1841 to 1911.¹⁵ There is similar (commercial) online access for Scotland and Ireland for 1911 and earlier. For Ireland free online access to records for 1901 and 1911 is provided by the National Archives for Ireland.¹⁶

The release of the 1911 records was the subject of an appeal to the Information Commissioner for early release of the records. As a result most of the records were released earlier in January 2009 than originally planned but the National Archives said

[] at the request of the Information Commissioner all records of infirmity as listed on the records (e.g. 'deaf', 'dumb', 'blind', 'lunatic' etc.) have been obscured and will not be available to view until January 2012.

The 1911 Census is a special case in that parts of it are being made available early. Since 1920, government has given a commitment that information collected in a census will be kept confidential for 100 years.¹⁷

The publication of individual census data is governed by the provisions of the Lord Chancellor's Instrument No. 12 of 20 June 1966 which stipulated a closure period of 100 years for census records. This position was reaffirmed by the Government's White Paper *Helping to shape tomorrow: The 2011 Census of Population and Housing in England and Wales*. This asserts the intention to maintain the policy of keeping the England and Wales census returns confidential for 100 years in line with the specific statutory provisions that exist in Scotland.

¹⁴ [ONS website](#) on Confidentiality downloaded 1 February 2013

¹⁵ Access to the census records for 1841-1911 are available via the [National Archives](#)

¹⁶ National Archives for Ireland: [Census for Ireland 1901/1911](#)

¹⁷ The National Archives [1911 Census goes Online](#) Press release 13 January 2009

4 Preparing for the 2011 Census

4.1 Reviews and inquiries into 2001 Census

Following the previous Census in 2001, there were a number of reviews and inquiries that were intended to help with preparation for the 2011 Census. These included:

- House of Commons Treasury Committee *Counting the population* HC 183-I 2007–08, May 2008
- Statistics Commission *Counting on Success: the 2011 Census – Managing the Risks*, Report No. 36, November 2007
- Office for National Statistics *Census 2001 General report for England and Wales*, November 2005
- Statistics Commission *Census and population estimates and The 2001 Census in Westminster: Final Report*, Report No. 22, January 2005
- Local Government Association *The 2001 One Number Census and its quality assurance: a review*, September 2003
- House of Commons Committee of Public Accounts *The Office for National Statistics: Outsourcing the 2001 Census* HC 543 2002–03, March 2003
- National Audit Office *Office for National Statistics: Outsourcing the 2001 Census*, October 2002
- House of Commons Treasury Committee *The 2001 Census in England and Wales* HC 310 2001-02, March 2002

The main Issues raised in the reviews of the 2001 Census covered the need to:

- develop robust field management and form-tracking systems to enable better central control of field processes and activities;
- agree earlier those contractual arrangements with external suppliers for aspects of the Census operation that are to be outsourced, and ensure that all such suppliers are selected through rigorous procurement procedures and early enough so that systems are able to be fully tested before the Census; and
- develop a high quality and up-to-date address list to increase the efficiency of the delivery of Census forms.

4.2 Compliance with Code of Practice for Official Statistics

More recently, the UK Statistics Authority conducted a special assessment of the extent to which the Census complies with the Code of Practice for Official Statistics. The first phase – published in March 2010¹⁸ - assessed compliance with the statutory Code of Practice for Official Statistics for those areas where the planning for 2011 was essentially complete. It concluded the census offices:

- have made improvements in the light of experience gained in the 2001 Census. These include improved procurement processes and revised arrangements for delivering, completing and tracking the census questionnaires.

¹⁸ Statistics Authority *Special assessment of the 2011 Censuses in the UK: Phase 1 Assessment report* No 28 March 2010

- have carried out extensive consultation with a wide range of users to inform planning for 2011. However, the offices will need to ensure that user engagement continues for areas of the Census where planning is not yet complete. This includes clear communication and explanation of methods and quality assurance processes.
- have clear governance structures and apply sound project management processes to census planning. Arrangements for protecting the confidentiality of census data appear to be robust.
- But need to ensure early media engagement to help to offset the negative impact of ill-informed public comment. The census offices have developed a plan to engage with the news media to promote recognition of the importance of the Census to society, and to help increase public awareness of – and participation in - the 2011 Census.

The second phase of the assessment was published in June 2011 and covered compliance with the remaining practices, to include, for example, provisional assessment of plans for publication of the various Census outputs. This involved a review of the 2001 outputs to assess the changes which were planned for the 2011 outputs, and the extent to which the issues from the previous Census had been addressed. The review concluded

The Statistics Authority judges that the statistics covered by this report will be readily accessible, produced according to sound methods and managed impartially and objectively in the public interest, subject to any points for action in this report.

The Statistics Authority has determined that the 2011 Census outputs may be designated as National Statistics, subject to ONS, GROS and NISRA implementing the enhancements listed in section 1.5 and reporting them to the Authority by January 2012.¹⁹

The final phase – expected to be carried out in 2013 – will be carried out after the Census outputs are published, and will involve an assessment of the outputs in the light of users' views.²⁰

5 Census in England and Wales

Every census has its unique features – new developments and innovations to meet changing user needs, to reflect evolving socio-demographic and economic circumstances, and to embrace new methodologies and technologies.

In designing the 2011 Census, the ONS took into account the lessons learned from the 2001 Census, as assessed through its own evaluations and the changes in society expected between 2001 and 2011. The ONS also took account of recommendations made by the various external bodies referred to above.

The design of the 2011 Census was based on strategic aims to:

- give the highest priority to getting the national and local population counts right

¹⁹ Statistics Authority *Special assessment of the 2011 Censuses in the UK: Phase 1 Assessment report* No 115
30 June 2011

²⁰ *Announcement: Special Assessment of Census 2011*

- build effective partnerships with other organisations, particularly local authorities, in planning and executing the field operation
- provide high quality, value-for-money, fit-for-purpose statistics that meet user needs and inspire user confidence, and which are as consistent, comparable and accessible across the UK as is possible
- maximise overall response rates and minimise differences in response rates in specific areas and among particular population sub-groups, and
- protect, and be seen to protect, the confidentiality of personal census information ²¹

To achieve these, and to respond to changes in society since the 2001 Census, the ONS said design of the 2011 Census had to be significantly different in many respects from its predecessors. Societal changes it needed to accommodate included an increasingly ageing population and a more mobile population with more complex living arrangements.

The following discusses how the ONS approached the 2011 Census including the testing process, consultations, the Census questions, how the Census actually worked and the budget and costs of the Census.

5.1 Tests and consultations

Consultations on the Census began in May 2005 and covered the content of the questionnaire and the geographical areas to be used for output. ONS received considerable interest in the Census – with around 2,000 views from almost 500 users.²²

Following the user consultation in 2005, the ONS launched a programme of question development and testing, to ensure that the 2011 Census met as many user requirements as possible. New questions were developed for topics where there was a new demand for information, and existing questions were redeveloped to account for increasing or changing user requirements.

On 13 May 2007, the ONS conducted their first major field test for the Census. The 2007 Test included approximately 100,000 households from within the five local authority areas of Bath and North East Somerset, Camden, Carmarthenshire, Liverpool and Stoke-on-Trent. These areas were designed to be a representative sample of the England and Wales population and looked at evaluating possible questions and the response of the volunteers in the exercise to these questions.²³

Rehearsals of the Census with around 135,000 selected households were run in Lancaster, the London Borough of Newham and Ynys Môn (Isle of Anglesey) on 11 October 2009. A smaller scale test also took place in Birmingham at the same time.

The rehearsal in these areas allowed the ONS to work closely with local authorities to establish effective ways of working together in preparation for 2011, and test processes and operational systems for the full census.²⁴

²¹ ONS: *Summary Evaluation Report on the 2011 Census in England and Wales*, July 2012

²² ONS: *The 2011 Census: Assessment of initial user requirements on content for England and Wales* March 2006

²³ ONS: *2007 Test and 2009 Rehearsal questionnaires*

²⁴ *ibid*

5.2 Census date

Although the Census does not have to take place on a specific day of the week, a Sunday has traditionally been chosen as the most likely time that people will be at home. The date must be chosen to maximise the number of households present and to ensure minimum interruptions to the delivery and collection of the questionnaires. In selecting the date a number of factors have had to be taken into consideration:

- maximising number of people present at their usual residence (by, for example, avoiding holiday periods)
- maximising the number of students present at their term-time address
- avoiding local elections (when the publicity messages may get confused)
- allowing sufficient hours of daylight for field work
- avoiding holiday periods in order to maximise recruitment/retention of field staff
- harmonisation across the UK

The 2011 Census was the first where the traditional means for distributing and collecting Census forms by a large number of “enumerators” was abandoned in England and Wales in favour of sending and receiving the forms by post with the additional option of filing online. This reduced the pressure to use a Sunday as Census Day though in the end this was still seen to be the most sensible day. The considerations as to timing during the year were less affected by the use of the post and online and more by the other factors listed above.

6 Census questions

6.1 Continuity with earlier Censuses

The range of topics covered in the censuses of the early 19th century was limited. Census returns were typically completed by parish clergy and clerks, and overseers of the poor. These censuses normally recorded information only on the number of inhabited and uninhabited houses, number of persons by gender, and four classes of occupation. By 1841, census coverage had expanded to include age, birthplace and country of birth.

As census users’ needs have grown, the number of topics included in the decennial census has increased. Key additions to the census topics since 1841 include:

- 1851: a detailed classification of occupations which has formed the basis of official measures of social class ever since.
- 1871: economic status.
- 1891 (in Wales only): Welsh language.
- 1901: number of rooms in a dwelling.
- 1911: industry of employment.
- 1921: place of work.
- 1931: place of usual residence (as opposed to whereabouts on the night of the census).
- 1951: household amenities.
- 1961: qualifications; migration.
- 1966: car ownership; travel to work.
- 1991: ethnic group; limiting long-standing illness.²⁵

²⁵ Ethnicity was not asked in Northern Ireland in 1991

- 2001: religion (voluntary question); general health; provision of unpaid care; time since last employment; supervisor status; size of employing organisation; revised ethnic group question.
- 2011: National identity, passports held, main language, any second address, date of arrival in UK, intended length of stay in the UK. ²⁶

Thus questions about age, sex, birthplace, occupation, housing and marital status were present in the 2011 schedule, as they have been in most cases continuously since the first Census in the UK.

Questions on place of work, ethnicity and availability of cars were also present in 2011 and can be compared with earlier Censuses, albeit only those from more recent times.

The topic coverage of the Census since 1841 is shown in the table on the next page.

²⁶ Religion has been asked in Northern Ireland since 1971

Topic coverage of the Census of Population in England and Wales, 1841-2011

	1841	1851	1861	1871	1881	1891	1901	1911	1921	1931	1951	1961	1966	1971	1981	1991	2001	2011
Age																		
Sex																		
Marital Status																		
Birthplace																		
Nationality/national identity																		
Ethnicity																		
Religion																		
Usual residence																		
Second address																		
Migration																		
Main language																		
Passport																		
Economic position																		
Journey to work																		
Occupation																		
Industry																		
Time since last employment																		
Size of workforce																		
Place of work																		
Supervisor status																		
Qualifications																		
Fertility within marriage																		
Marriage duration																		
Housing (number)																		
Rooms/bedrooms (number)																		
Tenure																		
Lowest floor level of accommodation (heating)																		
Access to motor vehicles																		
Self-assessed general health																		
Infirmary																		
Provision of unpaid personal care																		
Limiting long-term illness																		

Note: 1966 - this was a sample census (see p.7)

Source: Angela Dale and Catherine Marsh *The 1991 Census: A User's Guide* (1993); Office for National Statistics

6.2 New Questions for 2011

The main difference in the 2011 Census questionnaire over the 2001 version was in the topics covered. There were eight new topics: number of bedrooms, type of central heating, second address, month and year of arrival in the UK, intended length of stay in the UK, national Identity, passports held, and main language.

The 2011 questionnaire included 26 topics about individuals, and 11 about households. The 2001 questionnaire included 21 topics about individuals, and 11 about households. Three topics in 2001 were not included in 2011: number of employees in workplace, household access to WC/bath/shower, and lowest floor level of dwelling. The question about central heating was changed to be more specific about fuel and type of heating.

Generally, it is possible to compare statistics for 2011 and 2001 where the topics were included in both years

Table 1 compares the topics for individuals covered in the 2001 Census with those used for the 2011 Census and Table 2 compares the household pages.²⁷

Table 1: Content for individual pages in England and Wales

Topic	2001	2011
Name	Yes	Yes
Sex	Yes	Yes
Date of birth	Yes	Yes
Marital or civil partnership status	Yes	Yes
Students in full-time education and term-time address	Yes	Yes
Country of birth	Yes	Yes
Address one year ago	Yes	Yes
Ethnic Group	Yes	Yes
Religion	Yes	Yes
Knowledge of Welsh (Wales only)	Yes	Yes
Health status	Yes	Yes
Long-term illness or disability	Yes	Yes
Carer information	Yes	Yes
Qualifications	Yes	Yes
Economic activity status	Yes	Yes
National Statistics Socio-economic Classification (self-employed, occupation, supervisor status, ever worked)	Yes	Yes
Industry/name of employer	Yes	Yes
Workplace address	Yes	Yes
Transport to place of work	Yes	Yes
Hours worked	Yes	Yes
Second residence	No	Yes
Main Language and English Language Proficiency	No	Yes
Month/year of entry into UK	No	Yes
Intended length of stay in UK	No	Yes
Citizenship (passports held)	No	Yes
National identity	No	Yes
Number of employees at the workplace	Yes	No

Table 2: Content for household pages in England and Wales

²⁷ [The 2011 Census: Final questionnaire content for England and Wales](#)

Topic	2001	2011
Usual residence	Yes	Yes
Household and family relationships	Yes	Yes
Accommodation type	Yes	Yes
Dwellings and self-contained accommodation	Yes	Yes
Number of rooms	Yes	Yes
Household tenure	Yes	Yes
Type of landlord	Yes	Yes
Number of vehicles	Yes	Yes
Visitor information	No	Yes
Number of bedrooms	No	Yes
Type of central heating	No	Yes
Central heating	Yes	No
Bath/shower and toilet access	Yes	No
Lowest floor level	Yes	No

6.3 Choice of questions

According to the Census White Paper, the topics proposed for the Census were those that had been shown to be most needed by the major users of Census information and for which questions proposed can be expected to produce reliable and accurate data. In each case, no other comparable and accessible source of the information was available in combination with other items in the Census.

An initial view on the content of the 2011 Census was published in May 2005 with the aim of promoting discussion and to encourage the development of strong cases for topics to be included in the 2011 Census. The consultation resulted in a much larger demand for questions than would be possible to accommodate on a Census form that households could reasonably be expected to complete.

A number of criteria formed the basis of the evaluation of the strength of the case made by users for each topic – these included:

- why the information was needed
- the need for detailed information on small geographic areas and/or small population sub-groups
- whether questions and answers would be of sufficient quality to meet users' requirements for information
- whether questions would have a significantly adverse effect on the Census as a whole, particularly the level of public response
- burden on respondents
- availability of data from other sources
- comparability with previous Censuses
- international guidelines on census content and the European Union's recently adopted Regulation on Censuses of Population and Housing

6.4 Questions to improve population and migration statistics

There has been considerable controversy about the quality of migration and population statistics over the past few years. The Treasury Select Committee's inquiry and report

*Counting the population*²⁸ in May 2008 argued for a role for the Census in statistics on migration and population, and a number of new questions were included with this aim.²⁹

Visitors

In 2011 there were questions in the Census about visitors staying with each household.

In 1991, everyone staying at an address on Census night, including visitors, was counted in the Census. However, in 2001 the Census counted persons at their place of residence whether or not they were actually present there on Census night, and did not count visitors. According to ONS, there is some evidence that this failure to attempt to capture visitors and confusion as to where visitors should be recorded were factors that led to under-coverage in the 2001 Census.

To minimise under-reporting, ONS included questions so as to collect information on visitors present in households on Census night in 2011, as well as counting people where they are usually resident. The number of visitors present at the address on Census night was recorded, along with their age, sex and usual address, so that each person can be linked to their usual residence.

Second residences

To improve coverage in the Census and to better understand the reasons for under-coverage, ONS introduced further questions on residence arrangements, particularly multiple residences. Important to the understanding of how well the Census counts the population is a better measure of societal changes that affect the concept of usual residence, particularly the increasing tendency towards weekly commuting; children of divorced or separated parents having more than one home; second homes; and global living patterns.

ONS included new questions asking about second residences and the reasons for staying at such an address. Together with the information on usual address, responses to these new questions has enabled the ONS to better allocate the population to the most appropriate area of usual residence determined by the living patterns of households, and better helps reconcile the Census counts with mid-year population estimates; section 9 below compares comparisons of mid-year population estimates and the 2011 Census.

The information may also be useful for housing and transport planning, and to local authorities who want to know the numbers of people who stay within their area and use local services during the week but who have a usual residence elsewhere.

Month and year of entry into the UK, and intended length of stay

There were new questions on month and year of entry into the UK, and intended length of stay, for all those persons born outside UK. These questions have provided a means of better establishing whether people are short or long term migrants, and a better understanding of how long migrants stay in the UK. This should feed into better estimates of how many people are long-term and short-term residents in an area.

The question on intended length of stay was unusual for a Census question in that it asked people about their future intentions, rather than asking them to describe current aspects of their life.

²⁸ House of Commons Treasury Committee *Counting the population* Eleventh Report of Session 2007–08

²⁹ For further information on these questions see *Final recommended questions 2011 – Migration*

Citizenship (passports)

A new question to identify citizenship (as measured by the passports a person holds), along with the traditional question on country of birth, provided estimates of the numbers and circumstances of immigrant communities from various countries

6.5 Other new questions

National identity

In order to make provision for those people, regardless of their broad ethnic group, to indicate their identity as being British, English or Welsh (or Scottish or Northern Irish, etc), a new additional and separate component to the ethnicity question was asked about national identity.³⁰

Language

Although a question on Welsh language has been asked in Wales for many years, there has not been a Census question on languages before. ONS introduced new questions in the 2011 Census on language. People were asked the main language they use and their ability in speaking English. This allowed respondents to record their main language (including sign languages) if this was not English (or English or Welsh in Wales). Responses provide an indication of areas and communities where foreign language service provision might be necessary, and better understanding of the diversity of the population in different areas.³¹

Bedrooms

A new question on the number of bedrooms was included to form part of a measure of overcrowding.³²

Type of central heating

A question on the type of central heating replaced the previous question on whether households had central heating or not. This was intended to provide an indicator of basic housing standards, and is expected to be used by central government, local authorities and other users to facilitate work on fuel poverty and deprivation.³³

6.6 Changed questions

Ethnic group

The format of the question on ethnic group in England and Wales was more detailed than the question asked in 2001 to reflect changing needs and the dynamic profile of the ethnic minority population. New response categories for 'Gypsy or Irish Traveller' and 'Arab' were included.³⁴

Civil partnerships

Following the legislation in 2004, the traditional question on marital status was expanded to include response categories for civil partnership status.

³⁰ More information about this question can be found in [Final recommended questions for the 2011 Census in England and Wales - National identity](#)

³¹ More information about this question can be found in [Final recommended questions 2011 - Language](#)

³² [Helping to shape tomorrow: The 2011 Census of Population and Housing in England and Wales](#)

³³ *Ibid*

³⁴ [Final recommended questions 2011 - Ethnic group](#)

6.7 Topics not included in the Census

A range of topics were not included in the Census despite requests. The main topics not included are shown in Box 1 below.

According to ONS, other topics were considered but were not proposed for inclusion because:

- the case for them was not considered strong enough to displace one or more of the proposed topics,
- tests had showed that the quality of the information obtained from a Census question would not be fit for purpose, or
- questions would place too great a burden on the public.³⁵

³⁵ *Helping to shape tomorrow: The 2011 Census of Population and Housing in England and Wales*

Box 1: Topics considered but not included in the proposals for the 2011 Census

- access to a garden or yard
- access to bank account
- access to bath/shower
- accommodation on more than one floor level
- address five years before the Census
- age of dwelling
- asylum or immigration status
- commuting address
- Cornish language and identity
- country of previous usual residence
- duration of residence at current address
- duration of residence in UK
- educational attainment
- email address
- fertility
- frequency of use of Welsh language in Wales
- furnished accommodation
- income
- Internet access
- lifestyle
- means of travel to, and location of, place of education
- National Insurance number
- nature of long-term illness or disability
- number of current jobs
- number of miles travelled per year
- occupation group and industry using a closed (tick box) question approach
- parents' country of birth
- pet ownership
- place of birth
- presence of smoke alarms
- proficiency in foreign languages
- qualification or training required for occupation
- receipt of unpaid personal care
- sexual identity
- Sikh and Kashmiri ethnicity
- size of workplace
- taught languages
- term-time address of former students one year before Census
- type of disability
- type of tenancy agreement
- use of childcare facilities
- use of renewable energy resources
- use of wheelchair
- value of the home
- voluntary work
- state of repair of accommodation

Income

ONS has said that the user requirements for an income question were less than those expressed for other topics successfully competing for space on the 2011 Census questionnaire.

In addition, when ONS tested a question on income in the 2007 Census Test, they found that including the question led to a 2.7 percentage point reduction in the response rate. This is a significant drop in the number of people filling in forms, and ONS has judged that the disadvantages of including this question outweigh the benefits.

A question on household income was however included in the questionnaire in Scotland.

Sexual identity

Consultation with users, particularly during the 2005 programme, indicated a strong requirement for the Census to seek to collect information on sexual identity in order to provide a benchmark against which equality monitoring policies could be better assessed.

There were however concerns about the accuracy of the results of a question on sexual identity in the Census. In a small-scale postal survey carried out by the General Register Office (GROS) in Scotland in 2006, considerably more people did not provide useful data on sexual orientation than declared a non-heterosexual orientation, and GROS concluded from this that the results would call into question the accuracy of any data gathered by such a question in the Census. Furthermore, the terminology and concepts used to attempt to distinguish different sexual behaviour tended to confuse many respondents leading to additional inaccuracies in the responses.

ONS decided not to include a question on sexual identity in the Census. However in recognition of the particular importance of collecting information on this topic for equality monitoring purposes, it has started a project to develop a question on sexual identity which will be both acceptable and ensure that high quality data is collected, and which can be used in national surveys.

Other areas of discussion

Question on religion

Consultation with users had suggested that the form of the 2001 question on religion would not meet all their requirements.³⁶ In particular the case was argued that:

- the Christian and Muslim categories were too broad
- there was a need for information on additional religions and specific non-religious beliefs
- the concept of 'religious practice' should be distinguished from 'affiliation/ identity'

ONS argued that space constraints meant that it was unable to provide additional tick boxes for other religions or to further break down existing categories. It acknowledged that the question used did not measure religious practice, but stated that it did not believe that a single religion question could be developed in such a way that would capture this information suitably and in a way that would justify losing comparability with 2001.

It has also been argued that the proposed question on religion 'What is your religion?' is potentially leading as some respondents may feel that they are expected to identify with a religion. To reduce the potential bias, ONS placed 'none' as the first response option in order

³⁶ [Final recommended questions 2011 - Religion](#)

that respondents would realise they did not have to answer the question by identifying with a religion.

The religion question in the Census was voluntary – the Census (Amendment) Act 2000 amended the Census Act 1920 to permit the inclusion of a question on religion but lifted the penalty for not responding to this question.

“Bedroom snooping”

There were a number of media reports mentioning “intrusive” questions in the Census. In particular, concerns have been raised about the questions on the number of bedrooms in people's homes, and asking for the details of overnight visitors.

In response to these reports, the National Statistician explained why the ONS planned to collect this information: ³⁷

Proposed questions about the number of bedrooms and the number of people who live in a household will allow local councils to establish whether accommodation in their area is overcrowded. Plans to meet any additional housing needs can then be better defined for that area.

Quite separately, the proposed questions also include details of visitors on Census night to ensure that people away from home are included in the Census, even if they are not recorded on their home questionnaire. This will enable more accurate estimates of the whole population to facilitate effective planning and funding decisions.

Calls for further ethnicity tick boxes (including Sikh, Kashmiri)

User consultations identified many more requests for additional ethnic group response categories than could fit on the Census questionnaire. In England and Wales, the ONS has said that there was only room for an additional two tick-boxes. ³⁸

The additional tick-boxes which were requested fell broadly into two categories:

- Those groups which had nowhere obvious to tick in 2001, and so selected ‘other’ and wrote in (for example Arab, eastern European, Gypsy and Irish Traveller, Iranian, Kurdish, Sri Lankan, Vietnamese)
- Those who had a relevant tick-box in 2001, but were aggregated with other groups (for example Cornish, east African Asian, Kashmiri, Sikh, specific African groups).

Following a prioritisation exercise, new response categories for ‘Gypsy or Irish Traveller’ and ‘Arab’ were introduced. Other new categories were not included, although where a person filling in a Census form did not feel that their ethnicity was appropriately described by a tick box, they could write their ethnicity into a space provided on the form.

Among the categories not included, requests for Kashmiri and Sikh identity to be recognised were particularly prominent.

In the Census questions, Sikh is included as an option in the religion question. It is not however included as an option in the ethnicity question.

³⁷ See [Website link](#)

³⁸ [Final recommended questions 2011 - Ethnic group](#)

Following consultation, ONS carried out research into the inclusion of a Kashmiri tick box. Their focus groups and interviews suggested that most Kashmiris did not have strong feelings about the need for a tick-box. Participants of Kashmiri, Pakistani and Indian ethnicity raised concerns about the potential confusion arising from the inclusion of a Kashmiri tick-box. After consideration of the available evidence, ONS recommended against the addition of a specific Kashmiri tick-box in the ethnic group question for the 2011 Census.³⁹

During the process for the Parliamentary approval of key elements of the Census Order, there was a division on a proposal that people be able to tick a box to record themselves as Cornish. This proposal was rejected.

7 How the Census has worked

The Census covered everyone usually resident in England and Wales on Census night (27 March 2011), with limited information also collected from visitors present on Census night. Information was also collected from residents in communal establishments and individuals or households with no usual or physical address.

ONS worked in close co-operation with the Census Offices in Scotland and Northern Ireland supported by a dedicated Contact Centre, to arrange nationwide and local publicity to explain the purpose and value of the Census, to encourage householders to return completed forms and to ensure that they knew when and how to do so, and to give assurances about confidentiality and data security. Publicity for, and the enumeration of, the Census in Wales was conducted bilingually.

To encourage completion of the form, the 2011 Census team built relationships with relevant groups and agencies. The programme involved close co-operation with local authorities and regional, community and neighbourhood groups.

7.1 Distribution, completion and return of forms

Distribution

There were two practicable means of delivering the 2011 Census questionnaires. One was using the traditional method of hand delivery by enumerators – a method used in every census since 1841. Its use for 2011 was limited to people resident in communal establishments, such as military camps and university halls of residence, and to some specific population groups including persons sleeping rough.

The other delivery method was by post, used in 2011 for the first time for all households.

The viability of using a postal service provider to deliver census questionnaires had been assessed as part of the census test in 2007. This compared response rates between areas where mail out was, and was not, used. ONS subsequently decided that mail out was viable and that an established outside contractor should be engaged on the grounds of value for money, because setting up a bespoke delivery service would have been prohibitively expensive and labour intensive.⁴⁰

According to the ONS, the rationale for adopting this strategy was that, despite using hand delivery in the 2001 Census, enumerators failed to meet householders at more than a third of addresses and resorted to delivering the form through the letter box. Using a well-established

³⁹ *Kashmiri research project 2011 - Final report*

⁴⁰ ONS *Summary Evaluation Report on the 2011 Census in England and Wales*, July 2012

postal service provider to deliver questionnaires was seen as an opportunity to re-assign field resources to those areas where more focused follow-up activities was necessary to improve response rates.

Several census users and other stakeholders initially expressed concerns about relying on Royal Mail to carry out this operation successfully. If post out failed, they had argued, there would be no viable alternative because the bulk of the field resources was focused primarily on the follow-up operation.

Extreme weather, fire and pandemics (which had each affected previous censuses from time to time) were factors that could disrupt mail delivery services. The main risk was potential industrial action by Royal Mail employees, which had affected the 2001 Census in several areas. However, robust contingency plans were built into the contract for 2011 and Royal Mail additionally agreed to keep ONS fully informed about industrial ballots and any impact they could have on the post out operation.⁴¹

In the event there was no industrial action by Royal Mail staff during the operational phase, and the ONS considered the mail-out contract was a success.⁴²

Address register

But, in order for a successful mail out to be achievable, a comprehensive, high quality address register covering the whole of England and Wales was needed. According to the ONS, A good address register was central to the whole design of the 2011 Census. It underpinned not only the mail-out but also other field operational processes such as the non-response follow-up, assessments of coverage and the quality of the census results. Its creation enabled the personalisation of questionnaires for the first time by pre-printing a unique address and bar code on each one – a massive undertaking.

The address register was one of ONS's main areas of development leading up to the 2011 Census. Early research had shown that, despite the existence of several high quality national address lists, no single product came close to meeting the specific, exacting needs of the census. ONS was therefore obliged to construct a new composite address register by pulling together the most appropriate parts of the existing national sources.

The core of the address register was formed by matching the key national datasets – Royal Mail's Postcode Address File (PAF) and the local government maintained National Land and Property Gazetteer (NLPG). The match also incorporated grid references from Address Layer 2 (AL2) maintained by the Ordnance Survey (the national mapping agency).⁴³

The address register was developed by matching addresses from the two leading national products and including all those that matched. Suppliers, local authorities and census field staff could then build up evidence about the remaining unmatched addresses to determine which ones to include in the final list.

ONS was committed to creating a register that external stakeholders such as local authorities could have confidence in. ONS therefore worked closely with local authorities throughout the process, using their knowledge and expertise as well as their practical support.

⁴¹ ONS [Summary Evaluation Report on the 2011 Census in England and Wales](#), July 2012

⁴² *ibid*

⁴³ *ibid*

One of the main criticisms of the 2001 Census had been its use of out-of-date address lists. This time ONS 'cut' the final list just two months before the census, in January 2011, and also included addresses likely to be built and occupied between then and census day (27 March 2011).

A cautious approach was taken to using multiple sources for the address register: wherever in doubt, ONS included addresses rather than miss any. Minimising under-coverage was the over-riding objective, but this did cause some operational issues especially around duplication.

ONS required a register that had less than 1 per cent under-coverage, meaning it should include at least 99 per cent of all existing residential addresses in England and Wales on Census Day. This was the most important target in terms of the impact on the quality of the census's population figures. In the event it is believed that ONS exceeded this target, because only 0.1 per cent of households were identified as new addresses during the field operation.

The register also needed to have low levels of over-coverage (such as errors, wrongly coded commercial premises, demolitions and so on). The target here was less than 2.5 per cent over-coverage. In particular, ONS was aiming for less than 1 per cent duplication of addresses (within the over-coverage) – where there were multiple versions of the same address, perhaps differently described. This latter target was important because duplication would lead to wasted postage, potentially wasted staff hours through unnecessary follow-up, and, critically, the risk of irritating householders who had already completed and returned their census questionnaire.

The overall target was, perhaps, over-optimistic, according to the ONS, in that it did not make sufficient allowance for error. In the event it was estimated that there was 3.8 per cent over-coverage (with 1 per cent caused by duplication). As a result this did have an impact on the field operation and the public, in particular when the over-coverage was due to duplication of addresses. While this was not desirable, it was essential to minimise under-coverage to preserve the quality and reliability of the census.

A separate list of communal establishments was required (covering managed residential accommodation such as universities, care homes, military camps and prisons), because these were enumerated using different questionnaires and methods to those for households.

Different sources were used to develop the address register of communal establishments. Instead of using national address products, some 50 specialist source lists for different types of establishment were used. However, the same approach to finalising the list was adopted – assessing evidence for each address to determine which ones should be included.

Most of the matching was carried out clerically because of the complexity of these addresses. Again, ONS took a cautious approach and included addresses where there was doubt about their existence and/or whether they had any residents. In fact, producing the list of communal establishments was one of the most challenging parts of the address register project. Duplication between the communal and residential lists proved a problem in places.

Although ONS's address register did not quite reach the desired level of refinement, feedback from local authorities to ONS has been generally that the address-register development process delivered a more than acceptable product for their area. ONS therefore believes that

despite minor deficiencies, the address register provided the bedrock of the census and can be viewed as a considerable success.⁴⁴

According to the ONS, creating an accurate address register also enabled a questionnaire tracking system (QT) to be developed. The need for this was highlighted by the 2001 Census, when information from the field was insufficient to assess accurately the progress of the enumeration, and could not be used to direct resources to where they were most needed.

The 2011 QT was able to track each questionnaire using a unique identification number that was printed onto the questionnaire as a scannable barcode, and replicated in the record books used by the follow-up field staff. This system provided field managers with a tool to record the outcome of follow-up visits to non-responding households. It produced a wealth of up-to-date information, available on demand, which allowed ONS to monitor progress, identify and deal with potential problems quickly, and deploy the flexible field force effectively (see below).

The QT was developed as part of the procurement that also included the printing of questionnaires and provision of the census contact centre. It was quite simple in terms of its underlying data, containing:

- the address register
- an inventory of questionnaires, and
- an inventory of requests from the public for questionnaires and/or other supporting/explanatory documentation such as translation leaflets

In essence, the system devised by the ONS, provided key field information that was lacking in 2001. Its outputs were timely, and based on interrogation of data rather than verbal reports from field staff. It also provided data for census managers' analysis of trends, giving them a better understanding of the status of the enumeration, and aiding the effective deployment of field staff into the areas where they were most needed.⁴⁵

Mailing out questionnaires made it unnecessary for ONS to employ vast numbers of enumerators to hand deliver forms to each address. The real-time QT system allowed field managers to direct follow-up field staff promptly to addresses from which a return had not been received. The aim was to minimise the patterns of differential non-responses that had been experienced in the 1991 and 2001 Censuses.

ONS could therefore halve the overall size of the census field force from the 70,000 employed in 2001 to just 35,000. At the same time, the amount of resource put into follow-up was three times more than in 2001.⁴⁶

ONS believed that generally the right amount of resource was allocated to each area. There were compensating errors in the assumptions made. The initial return rate was higher than expected and more visits per hour were achieved, but these were offset by follow-up success being much lower than expected, not helped by under-recruitment in some areas. However, the flexible allocation of field staff helped the census field operation meet its objectives of high overall coverage, and all local authority areas exceeded the minimum target level.⁴⁷

⁴⁴ ONS *Summary Evaluation Report on the 2011 Census in England and Wales*, July 2012

⁴⁵ *ibid*

⁴⁶ *ibid*

⁴⁷ *ibid*

Special assistance was available to anyone who had difficulty in completing the Census questionnaire, particularly through language or infirmity. Field staff speaking English and other languages and/or signers was employed where possible. A general information leaflet in 26 or more of the most prevalent foreign languages was available via a dedicated Census Help website. An accessibility area on the website provided video and audio assistance, in English and Welsh, for people who are visually impaired or deaf. A multi-lingual telephone helpline was also available.

Persons refusing to comply with the statutory requirement to make a Census return were liable to prosecution and a fine, the maximum level of which was £1,000.

Online completion

For the first time in England and Wales, the 2011 Census offered households and individuals the opportunity to complete their return online as an alternative to filling out the traditional paper questionnaire. There was also an optional Welsh language online questionnaire available in Wales.

Based on the experience of countries that had collected census information online, ONS set a target of around 25 per cent of all returns being made through its secure Internet Data Capture (IDC) system. The planned capacity was for around 40 per cent, with the capability of handling around 170,000 concurrent responses.

In the event, take-up was less than anticipated, with some 16 per cent of returns being completed online, and the deferral did not need to be used.

The lower than expected level of response online was probably due to a number of factors. Responding on paper may have seemed more straightforward than going online. Also, the 2011 Census media strategy highlighted the benefits to the population of a successful census, rather than specifically encouraging online responses. Furthermore, the online questionnaire could most easily be completed using a broadband connection, and at the time of the census only around half to three-quarters of households were estimated to have had a broadband connection

The ONS commented

Nevertheless, the online service has been regarded a success, providing a number of benefits to the data collection operation. It met both the public's and census stakeholders' expectations for an online questionnaire; it provided an environment in which the security of census information could be even better protected; it improved overall responses by offering an alternative to those less inclined to complete a paper questionnaire; it delivered a more accessible census for the disabled community; and it avoided the need to scan and capture a significant proportion of the returns – thereby speeding up, and reducing the cost of, the data processing operation⁴⁸

The following shows the regional breakdown for the return of the Census online

⁴⁸ ONS *Summary Evaluation Report on the 2011 Census in England and Wales*, July 2012

2011 Census: Percentage of household returns made by internet

Region name	Percentage of internet returns (%)
North East	13.9
North West	15.8
Yorkshire & the Humber	14.6
East Midlands	15.7
West Midlands	15.6
East of England	16.4
London	21.9
South East	17.6
South West	14.5
Wales	13.4

[Source: ONS Evaluation](#)

7.2 Response rate

The ONS said that a strategic aim of the 2011 Census was to provide high quality statistics that met 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.⁴⁹

Census response and coverage rates are estimates, because the denominator itself (the population) is an estimate.

Four measures of response rate were estimated

- Person response rate
- Household response rate
- Household return rate
- Person coverage rate

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.

⁴⁹ ONS [Response Rates in the 2011 Census](#) December 2012

Household response 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.

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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 an 'overcount' adjustment methodology.

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 a little 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.

A detailed breakdown of the response rate by nation, region and local authority in England and Wales, including breakdowns by age, sex, ethnic group, country of birth and various other variables from the Census are also available.⁵⁰

7.3 Costs of the Census

The total cost of the 2011 Census in England and Wales over the period from 2004/05 to 2015/16 is estimated to be £482 million.

⁵⁰ ONS [Table: Census response rates](#)

Estimated cost of 2011 Census, broken down by year

	<i>£ millions</i>
2004/05	1.9
2005/06	3.7
2006/07	6.5
2007/08	10.4
2008/09	45.4
2009/10	44.7
2010/11	158.6
2011/12	179.3
2012/13	16.7
2013/14	8.2
2014/15	4.8
2015/16	1.7
Total	482.0

Source: [HC Deb, 12 November 2009, c738W](#)

According to the UK Statistics Authority

The 2011 Census will be the most expensive statistical exercise ever carried out in the UK. The cost of the 2011 England and Wales Census - over the 11- year period 2005-2016 - is currently estimated to be £482 million. The corresponding estimated costs of the Northern Ireland and Scotland censuses are £21 million (from 2008/09 to 2013/14) and £60-65 million (from 2005/06 to 2012/13), respectively⁵¹

The largest elements of the total cost are the field operation – the delivery and collection of the questionnaires – and the processing of the data. In a drive to improve the cost effectiveness of the operation, the Census Offices outsourced these and some other aspects of the 2011 Census. Altogether around 55 per cent of the planned costs of the Census were identified for private sector involvement.

Commenting on the cost of the Census in October 2009, Nick Hurd MP, then shadow Minister for the Cabinet Office, wrote to Sir Michael Scholar, Chair of the UK Statistics Authority, expressing concerns about the cost of the Census. He wrote:

Given the ruinous state of the public finances, we do not believe that the 2011 Census can have the size and scope that has been proposed, particularly since we believe that many of the proposed questions are unsuitable. So we will not be able to support the proposed Census in its current form, and would urge you to make plans to scale back its cost and scope in order to save money and reduce its intrusive impact on citizens.⁵²

8 Censuses in Scotland and Northern Ireland

The Census is a devolved matter in Scotland and Northern Ireland. The Registrar General for Scotland and the Northern Ireland Research and Statistics Agency for Northern Ireland

⁵¹ UK Statistics Authority [Special assessment No. 28 of the 2011 Censuses in the UK](#): Phase 1, 8 March 2010

⁵² [Letter from Nick Hurd MP to Sir Michael Scholar](#), 29 October 2009. The questions mentioned as being unsuitable appear to be those relating to the number of bedrooms and the details of visitors, discussed earlier in this note.

are responsible for making arrangements for taking the Census in each country. The Scottish Parliament and Northern Ireland Assembly are responsible for approving or rejecting the secondary legislation for the Census (the Census Orders and Regulations).

In Wales the Census Regulations (but not the Census Order, which is for the UK Parliament, after consultation with the Welsh Ministers) are a matter for the Welsh Assembly. ONS leads on the Census for Wales, and made arrangements to ensure that Census materials were available in Welsh and field staffs were bilingual, especially in areas with higher than average proportions of Welsh speakers.

The statistical offices of England and Wales, Scotland, and Northern Ireland agreed to conduct Censuses simultaneously throughout the UK in 2011 (subject to approval by the UK Parliament, the Scottish Parliament and the Northern Ireland Assembly).⁵³ The aim was to promote UK harmonisation and to produce consistent and coherent outputs for the UK and for each component country.

8.1 Tests and rehearsals

In Scotland a Census test took place on Sunday 23rd April 2006 in parts of Glasgow City, West Dunbartonshire, Highland, Stirling, Perth & Kinross and Argyll & Bute Council areas. A Census rehearsal took place on 29 March 2009 in west Edinburgh and Lewis and Harris.

In Northern Ireland, a Census test took place on 13 May 2007 in Belfast, Coleraine, Craigavon, Fermanagh and Magherafelt. A Census rehearsal took place on 11 October 2009 in Derriaghy and Moy & Benburb.

8.2 Census questions

The Census (Scotland) Order was made on 11 May 2010, and included the topics to be covered by the Census in Scotland.⁵⁴ Further details of the topics and questions were contained in the Executive Note to the Order.⁵⁵ Census Regulations were made on 24 May 2010.⁵⁶

The Northern Ireland Census Order was made on 2 June 2010.⁵⁷ Census Regulations were made on 17 June 2010 and came into force on 26 July 2010.⁵⁸

Differences in questions between countries

There were some differences in questions between the different countries. For example, the Scottish Census included questions not asked in England and Wales on household income and the nature of long-term health conditions (blindness, deafness etc),⁵⁹ and omitted other questions, for example on number of bedrooms and citizenship (passports held). There were also some differences in the details of the questions asked, for example the Scottish census asked about Polish and Indian national identity.

There was also a separate question on Scottish Gaelic and Scottish language (similar to the Welsh Language question)

⁵³ [Harmonisation documents](#) can be found on the website of Northern Ireland Statistics and Research Agency

⁵⁴ [The Census \(Scotland\) Order 2010](#) (No 187)

⁵⁵ [Executive Note](#) to the Census (Scotland) Order 2010 SSI 2010/187

⁵⁶ [The Census Regulations \(Scotland\) 2010](#) (No 211)

⁵⁷ [The Census Order \(Northern Ireland\) 2010](#) (No 195)

⁵⁸ [The Census Regulations \(Northern Ireland\) 2010](#) (No 218)

⁵⁹ The latter question was also asked in Northern Ireland

Certain differences from previous Censuses were maintained – for example more detailed questions on religion in Scotland, which make a distinction between different types of Christianity (Roman Catholic, Church of Scotland and other Christian).

In Northern Ireland, there were questions on speaking Irish or Ulster-Scots (also similar to the Welsh Language question) together with more detailed questions on long-term health conditions and religion as in Scotland.

8.3 How the Census worked

In Scotland, unlike in England and Wales, enumerators personally delivered and collected most questionnaires, although households outside the main populated areas received their questionnaires through the post and were asked to return them by post.⁶⁰

In Northern Ireland the way the Census was conducted was very similar to England and Wales, whereby the questionnaire was sent out and returned by post based on a new comprehensive address register.

In both countries there was a comprehensive process of following up questionnaires not returned through a dedicated field force and offering any help where needed.

The option of completing the Census form online was provided in Scotland and Northern Ireland as in England and Wales.

9 ‘Rolled-forward’ estimates of population and the 2011 Census

Estimates of the population at national and, in particular at local authority level, are needed for many purposes (planning, estimating school pupil numbers, calculations of grants, etc) not just at the time of each Census. The population numbers have thus been rolled forward for each year between each Census.

9.1 Differences

The England and Wales March 2011 rolled-forward population estimate is 476,000 lower than the 2011 Census estimates (see table below). The difference is made up of 144,000 fewer males and 332,000 fewer females and in total is 0.9 per cent of the England and Wales 2011 Census estimate of 56 million people.

The difference between census day and the revised rolled-forward population estimates ('000)

	Revised rolled-forward population estimates	2011 Census estimates	Difference to explain
Total	55,600	56,076	476
Males	27,429	27,573	144
Females	28,171	28,503	332

Source ONS *Explaining the Difference between the 2011 Census Estimates and the Rolled-Forward Population Estimates*

The ONS says it is normal to find a difference between census estimates and population estimates. The high response rate for the 2011 Census (see section 7.2 above) combined with improved methods of estimating the population developed as part of the Migration

⁶⁰ [Scotland's Census 2011: a Government Statement](#), December 2008

Statistics Improvement Programme should, the ONS says, ensure that this difference is kept to a minimum in the future.⁶¹

In general terms, the population estimates over the 10-year period since 2001 Census have been prepared by starting with the 2001 Census-based population estimates, and every year adding on births, subtracting deaths, and adding in any net international migration that has taken place since 2001.

9.2 Reasons for differences

Births and deaths data are very reliable as they are underpinned by a comprehensive registration system. This means the difference of 476,000 between the rolled-forward population estimates and the 2011 Census estimates must be due to the 2001 Census underestimating the population and net international migration being underestimated over the 10-year period. This report focuses on these two reasons.

Initial research suggests that 209,000 (or 45 per cent) of the difference might be attributed to an assumed shortfall in the 2001 census day estimates which has been carried forward in population estimates through the decade.

The remaining 267,000 (or 55 per cent) would then be attributed to an underestimation of net international migration over the decade.

Early investigations into differences at the local authority level have identified some issues with internal migration and with the population estimates of local authorities with special populations such as armed forces.

10 Will there be a Census in 2021?

10.1 Reasons for changing

The Census currently provides the base for many of the population and socio-demographic statistics in England and Wales, providing comparable information from the national to the local level on a range of topics, and acting as a benchmark for many other statistics.

The ONS has said that the Census is becoming increasingly costly and changes in society are making it more challenging to carry out. A more mobile population and the increasingly complex ways in which people live make the process of taking a Census more difficult – and the concept of a snapshot every 10 years less relevant.

The Treasury Select Committee report *Counting the population* in May 2008 recommended that:

the Statistics Authority set strategic objectives to ensure that the data gathered throughout the UK can be used to produce annual population statistics that are of a quality that will enable the 2011 Census to be the last census in the UK where the population is counted through the collection of census forms.⁶²

In response the ONS has said that improvements in technology and the growth of computerised records about people and services both in the public and private sectors would seem to suggest an alternative approach. A system that makes use of these “administrative

⁶¹ ONS *Explaining the Difference between the 2011 Census Estimates and the Rolled-Forward Population Estimates* 16 July 2012 (ONS report)

⁶² •House of Commons Treasury Committee *Counting the population* HC 183-I 2007–08, May 2008

sources” to collate information already held about the population has the potential to provide a more cost-effective way to provide more frequent statistics, with reduced public burden.⁶³

Subsequent to this, in May 2010 Sir Michael Scholar, Chair of the UK Statistics Authority wrote to the Minister for the Cabinet Office to say that:

As a Board we have been concerned about the increasing costs and difficulties of traditional Census-taking. We have therefore already instructed the ONS to work urgently on the alternatives, with the intention that the 2011 Census will be the last of its kind.⁶⁴

Francis Maude as Minister for the Cabinet Office responded in July 2010 as follows

Your letter recognises the increasing costs and difficulties of carrying out a Census. I therefore welcome the work on considering alternatives that the Board has instructed ONS to carry out with the intention that the 2011 Census will be the last of its kind. I ask you to consult widely across Government on this work.⁶⁵

10.2 Possible alternatives

The UK Population Committee (which includes the National Statistician, the Registrars General and the Chief Statistician for the Welsh Government) has previously discussed and agreed the importance of collaboration in exploring alternatives to a traditional census and adopting a UK approach. A series of developments are underway in the different administrations with each keeping the others in touch with progress.⁶⁶

The *UK Beyond 2011 Committee* (UKBC) has been established to coordinate UK-wide work to review alternative approaches to meeting future user needs for population and small area socio-demographic statistics, and agree the way forward, maximising harmonisation of UK outputs.

Its role is to agree the scope of cross UK working and coordination and to provide strategic input to this work taking into account the:

- independent authority of the Devolved Administrations (DAs)
- wider initiatives underway in Scotland and the DAs
- potential benefits and cost savings from adopting a collaborative approach
- need to maximise harmonisation of UK outputs
- legal requirements for the provision of UK aggregate statistical data to Eurostat

The ONS has recently published the 6 options it is now actively considering. These can be summarised as follows:

⁶³ ONS [Background to beyond 2011](#)

⁶⁴ [Letter](#) Sir Michael Scholar, Chairman UK Statistics Authority to Francis Maude MP, Minister Cabinet Office 20 May 2010

⁶⁵ [Letter](#) Francis Maude MP, Minister Cabinet Office to Sir Michael Scholar Chairman UK Statistics Authority, 27 July 2010

⁶⁶ ONS [Beyond 2011 – The UK Context](#)

Option 1: Full Census; this option is a continuation of the current approach which involves everyone filling in a full census form at a single point in time. In future it is likely that we would make much more use of internet data collection.

Option 2: Rolling Census; each year a census is conducted in different areas until after a fixed period of time, perhaps a decade, every area has been included. There are several variations on how this can be done.

Option 3: Short Form Census and 4% Annual Survey; This option is similar to the current census approach; information is collected from the whole population at a single point in time. However, a short form is used rather than the full census form. A large scale continuous survey takes place alongside the census.

Options 4,5,6: Annual Linkage and Survey; In these options, details from various administrative sources for individual people are linked together to produce initial population estimates. Attribute information is collected through one of three possible survey designs – a sample of 10% of the population every 10 years, a sample of 4% every year or a sample of 40% every 10 years.

The ONS says that the majority of the Programme's research work will focus on the administrative data options (numbers 4-6 in the table above) since the cost and quality implications of these are less well understood than the census and survey options. Nonetheless, the ONS says, all of the above options will be considered equally and assessed against an agreed and published set of criteria informed by its dialogue with users.⁶⁷

⁶⁷ ONS Beyond 2011- [The Options at a view: the new shortlist](#); February 2013