Report of a
PRIVACY IMPACT ASSESSMENT
Conducted by the
Office for National Statistics
in relation to the
2011 CENSUS
ENGLAND AND WALES
November 2009
1 2011 Census - Introduction

1.1 Background to the Census

1.1.1 The census in England and Wales is the responsibility of the Office for National Statistics (ONS), the Executive arm of the UK Statistics Authority. The General Register Office for Scotland (GRO(S)) is responsible for the census in Scotland, and the Northern Ireland Statistics and Research Agency (NISRA) is responsible for the census in Northern Ireland. The three census offices are responsible to different legislatures, but work closely together on questions and methodology to maximise consistency in the census results. ONS and NISRA are joint authorities on the major census processing contract.

1.1.2 Census taking is a standard practice around the world. Under the auspices of the United Nations Census Programme over 200 countries will carry out a census (or equivalent data collection) in the 2010-2011 period.

1.1.3 The census is compulsory in the UK. The information collected in the 2011 Census will be used solely for the production of statistics and statistical research.

1.1.4 The authority to carry out a census is established by the 1920 Census Act. In addition, for each separate Census the UK Parliament makes a Census Order and a Census Regulation setting out the specifics of each individual census (e.g. questions asked). The Census Regulation for Wales for 2011 will be made by the National Assembly for Wales. The protection of the confidentiality of census results is subject to the confidentiality and privacy provisions of the Statistics and Service Registration Act 2007. Usage will comply fully with the requirements of the Data Protection Act and Freedom of Information legislation. There are legal penalties for the unlawful disclosure of personal information collected in the census.

1.1.5 For over two hundred years, the UK has relied on the census to underpin national and local decision making.

1.1.6 The census provides three broad categories of information:
- counts of population units – people, households and dwellings;
- population structures – e.g. family and household relationships, ethnic groups; and
- population and housing characteristics – e.g. health, employment, qualifications, etc

1.1.7 A unique aspect of the census is that these statistics are published for very small areas (down to about 125 households/250 people) and for very small population groups, with cross-tabulation between different variables.

1.1.8 Individuals over the age of 16 within a household can request an Individual (paper or online) census questionnaire if they do not wish their personal census information to be seen by other members of their household. The personal information from each census is held securely. Great care is taken to protect the confidentiality of personal census information, and only summarised results are published, which do not identify individuals. The individual census records are only released after 100 years. There is an increasing interest in such historic census records for use by genealogists and from members of the public tracing their family history.
2. What is this document for?

2.1 What is a Privacy Impact Assessment?

2.1.1 Projects that involve collecting personal information inevitably give rise to privacy concerns. A Privacy Impact Assessment (PIA) is a relatively new self-assessment process that has been developed by the Information Commissioners Office (ICO) to help organisations to foresee the likely privacy impacts to individuals and to weigh these against the benefits to society in the collection, use and (secure) disclosure of information.

2.1.2 A PIA helps to identify privacy risks, foresee problems and bring forward solutions. It is simply a process for evaluating a proposal to identify its potential effects upon individual privacy and data protection compliance; to examine how any detrimental effects might be overcome; and to ensure that new projects comply with the data protection principles.

2.1.3 The ICO’s guidance is that an effective PIA helps with:
- the identification of the project’s privacy impacts;
- appreciation of those impacts from the perspectives of all stakeholders;
- an understanding of the acceptability of the project and its features by the organisations and people that will be affected by it;
- identification and assessment of less privacy-invasive alternatives;
- identification of ways in which negative impacts on privacy can be avoided;
- identification of ways to lessen negative impacts on privacy;
- where negative impacts on privacy are unavoidable, clarity as to the business need that justifies them; and
- documentation and publication of the outcomes.

2.2 What is privacy?

2.2.1 This Privacy Impact Assessment has been guided by the Information Commissioner’s Office’s Privacy Impact Assessment handbook

2.2.2 The PIA handbook identifies four aspects of privacy:
- the privacy of personal information
- the privacy of the person
- the privacy of personal behaviour; and
- the privacy of personal communications

2.2.3 In relation to the 2011 Census in England and Wales, the main privacy concerns relate to the privacy of personal information – primarily the personal information collected from the public through the census questionnaire. There may also be some concerns about the privacy of the personal information of the census field staff working for ONS.

2.2.4 This Privacy Impact Assessment has been carried out to document the new arrangements for the 2011 Census as compared to the 2001 Census; to highlight any changes that raise new privacy concerns; and to describe the mitigations put in place to protect the privacy of all census respondents in England and Wales, and for the personal information of the census field staff. It also includes a review of the Data Protection Principles to confirm that the 2011 Census proposals fully comply with these principles.

2.3 What type of PIA have we conducted?

2.3.1 The PIA process is relatively new to the UK (ie last couple of years) and the census programme was already well established before the PIA process was published. There is no legal requirement to carry out a Privacy Impact Assessment. However, ONS has decided to carry out a PIA for the 2011 Census because of the requirement for everyone in the England and Wales to participate in the census, and because of known privacy concerns which have been raised during previous censuses, through correspondence, in newspapers, or in parliament. Privacy concerns have been raised in relation to the choice of contractors, and specific census questions (e.g. visitors, number of bedrooms).

2.3.2 Privacy and confidentiality have been long-standing concerns for ONS and for censuses in the UK, so most of the good practice enshrined in the PIA process was already well established within the census programme. It had, however, not all been pulled together into a single document and made readily available.

2.3.3 Different types of privacy impact are possible depending on the scale and nature of the project. ONS has decided to carry out a full-scale PIA which, according to the ICO guidance, ‘conducts a more in-depth internal assessment of privacy risks and liabilities. Analyses privacy risks, consults widely with stakeholders on privacy concerns and brings forward solutions to accept, mitigate or avoid them.’

2.3.4 ONS has sought advice from the Information Commissioners Office on the scope of this PIA. Given that the census has been carried out since 1801, the advice was to focus on those aspects of the 2011 Census which are new and have been introduced since the 2001 Census. However, to put these changes into context, it was decided to also cover some wider background information in this PIA.

2.3.5 The PIA handbook identifies the following key elements of a PIA report:
- a description of the project.
- an analysis of the privacy issues arising from it.
- the business case justifying privacy intrusion and its implications.
- discussion of alternatives considered and the rationale for the decisions made.
- a description of the privacy design features adopted to reduce and avoid privacy intrusion and their implications of these design features.
- an analysis of the public acceptability of the scheme and its applications.

2.3.6 A number of organisations or individuals (suggested by the Information Commissioners Office) which represent privacy concerns/interests were invited to attend a meeting on the census and privacy in June 2009, or to make representations in writing.

2.3.7 The following table summarises the changes to the 2011 Census, and an assessment of the potential privacy concerns that these might raise.
2.3.7 This PIA therefore focuses on:
- the consideration of the need for a 2011 Census at all (is the information still needed), and alternatives to a census in 2011 (could the information needs be met in other ways?)
- the questions to be asked, especially new questions since the 2001 Census, and analyses of the acceptability of the 2011 Census questions
- the use of third parties, and how privacy concerns have been addressed in contracts
- security and confidentiality considerations regarding the 2011 Census operations (online census; questionnaire tracking, etc) including decommissioning and destruction of information after the census
- measures to ensure that individuals are not identified in the published results (e.g. Statistical Disclosure Control)
- the legal basis for the Census

3. The Case for the 2011 Census

3.1 Benefits of the census

3.1.1 Central government, local government, the health sector, businesses and market researchers, academic researchers and the education sector, genealogists and the public at large rely heavily on census results for a countless range of purposes. The six main uses of census data are described below.
- Resource allocation – for resource allocation purposes it is crucial that population counts (both total counts and by key characteristics) are accurate, consistent and comparable over the area that the resources are to be allocated.

3.2 Is the information traditionally provided by a census still required?

3.2.1 Extensive consultation on the need for data traditionally provided by a census was carried out during 2003 to identify current and future needs for population. This consisted of:
- Consultation with key stakeholders including end-users representing central government, local and health authorities, private sector and academia. The consultation included open workshops and bi-lateral meetings with specific government departments;
- Consultation conducted as part of the review that resulted in the report A demographic statistics service for the 21st century that was published in July 2003;
- Consultation with experts and policy leaders within and outside ONS, including ONS and GSS statistical users; and
- Research into changes in society and the implications for statistical requirements.

3.2.2 The results of the user consultation are available at www.statistics.gov.uk/downloads/theme_population/user_req.pdf

3.2.3 Census information is the foundation of the annual mid-year population estimates, and provides decennial detailed statistics for geographic areas and small population sub-groups. The need for census-type information has been demonstrated by the July 2003 ONS report ‘A demographic statistics service for the 21st century’ (available at: www.statistics.gov.uk/about/methodology_by_theme/downloads/Demographic_Statistics_Service.pdf) which states that “…There is a requirement for a local count of the population on a periodic basis – at least every 10 years – that brings with it an accounting accuracy and provides a benchmark for calibrating the regular annual, or the planned quarterly, estimates of population and households.”

3.3 Are there alternatives to a census in 2011?

3.3.1 The Treasury Select Committee (TSC) in its report on the 2001 Census (March 2002) recommended that “…an evaluation should be undertaken of all alternatives to a full Census, such as relying on administrative records, conducting a rolling census, reverting to a simple headcount and doing without a census.”

3.3.2 As suggested by the TSC, a number of possible options for the delivery of census-type information in 2011 were considered, including:

- Targeting investment – for many government funding uses, data must be consistent nationally. This allows investment to be made in the areas where it is most needed.
- Planning – basic population counts and counts by key characteristics (such as age, sex, ethnic group, household type etc.) are important for planning. If the different characteristics of an area’s population can be identified, plans can then be made for the sort of services necessary. In particular, data for small areas are crucial in local planning.
- Policy making and monitoring – there is a clear drive across government for policy initiatives to be evidence based. Since many initiatives are implemented and assessed at a local level, census data can form a crucial part of this process.
- Academic and market research – the ability to produce multivariate statistics for small areas is vital for many research uses. Basic population counts and counts by characteristic are also required.
- Statistical benchmark – more generally, census data are used to improve the quality of many other statistics, which may be used for the above categories. Many of ONS’ statistics are benchmarked or grossed up using census data.
• do nothing
• produce statistics based on aggregate administrative data sources
• a one-off administrative data ‘census’ with records linked at person level.
• a rolling census
• a modified version of 2001 Census (full questionnaire)
• a mixed short form / long form census
• a simple headcount
• an Integrated Population Statistics System (IPSS), linking administrative data sources and surveys based on a national identity register

3.3.3 For each option, the costs and likely benefits to the key stakeholders were considered using the Treasury Green Book technique of weighting and scoring. This resulted in adoption of a modified version of the 2001 Census with a full form.

4 Drivers for Change to the 2011 Census Design

4.1 2001 Census design

4.1.1 The 2001 Census design had the following major elements:
• ONS outsourced the printing and capture of questionnaires for the first time. The contract for printing, scanning, capture and coding was won by Lockheed Martin. Approximately 561 million A4 pages were scanned. The use of optical mark recognition and optical character recognition allowed 100% coding of the written in responses for the first time (only 10% of write-ins were previously captured and coded).
• ONS outsourced the census helpline to Cable and Wireless – this handled 2.6 million calls.
• A ‘cascade’ approach was taken to recruitment of field staff; ONS recruited and trained the top 100 or so staff, who recruited and trained the staff working for them; etc.
• Census enumerators carried out a variety of roles, including address checking their enumeration district; hand-delivering questionnaires; following-up non-responding households; and carrying out non-compliance enforcement procedures.
• ONS outsourced the payroll system for the first time.
• Questionnaires could be posted back (for the first time), or collected by census enumerators.
• The Census Coverage Survey (CCS) was introduced. 1% of post-codes were re-numerated 3.5 weeks after census day using a short doorstep interview. The results from the CCS were matched against the Census results, and estimates made of people missed from the census. As a result, additional people were imputed into census results.

4.2 Lessons learnt from the 2001 Census

4.2.1 The 2001 Census was evaluated thoroughly by the ONS. Formal reviews were also carried out by the National Audit Office, the Local Government Association, and the Statistics Commission. The Public Accounts Committee and Treasury Select Committee held sessions on the census.

4.2.2 Overall the 2001 Census was regarded as successful, with an overall person response rate of 94%. However, there were recognised problems:
• There were poor final response rates in some local authorities, with the worst local authority response rate at only 64%.

4.3 Changes in society since 2001

4.3.1 In addition to learning the lessons from the 2001 Census, the design for the 2011 Census has to take account of changes in society since 2001, including:
• Increased migration into the UK (including from the EU accession countries)
• An ageing population (e.g. 25% more over 85s) with associated increased needs for support
• An increase in access-controlled properties, which census field staff have greater difficulty getting into
• An ongoing reduction in response to government surveys (e.g. as people lead busier lives)
• The introduction of new communication channels, such as the internet, provides opportunities for new collection and communication methods.

4.4 2011 Census design strategic aims

4.4.1 The design of the 2011 Census is based on a number of key strategic aims:
• To give the highest priority to getting the national and local population counts right
• To maximise overall response and minimise differences in response rates in specific areas and among particular population sub-groups.
• To build effective partnerships with other organisations, particularly local authorities, in planning and executing the field operation.
• To provide high quality, value-for-money, fit-for-purpose statistics that meet user needs and which are as consistent, comparable and accessible across the UK as is possible.
• To protect, and be seen to protect, confidential personal census information.

4.5 The 2011 Census design

4.5.1 The 2011 Census design consists of:

- The 2011 Census will cover everyone usually resident in England and Wales on census night, with a subset of information also collected from visitors present on census night. Information will also be collected from residents in communal establishments and individuals or households with no usual or physical address.
- There will be publicity to convey to the public the purpose and value of the census and to give assurances about the confidentiality with which information is treated.
- Development of a high-quality address register in advance of the census, supplemented by on-the-ground address checking in up to one-third of the country.
- Each questionnaire will be pre-addressed and contain a unique bar-code.
- Forms will primarily be delivered by post (to as many as 95 per cent of households). Field staff delivery will be focused in areas which are hard to enumerate.
- As in 2001, the public will be able to return completed forms either by post, or to a member of the census field staff. An online option will be offered for the first time. A unique Internet Access Code will be printed on each questionnaire, to link online response to a particular address.
- A questionnaire tracking system will identify quickly the questionnaires returned, and tick them off against those posted out. In this way the census field staff can identify those addresses who have not returned a questionnaire, which can be visited to provide support and reminders.
- The census field staff will be ONS employees. However for 2011 the recruitment, training and pay for these staff will be outsourced.
- There will be some small differences in the questions asked in England and Wales compared to the 2001 Census, (and some further differences compared with the censuses in Scotland and in Northern Ireland).
- Stringent confidentiality and security procedures will protect the information gathered in the census and will conform to the requirements of census confidentiality, Data Protection and Freedom of Information legislation.
- As in 2001, a Census Coverage Survey will be carried out, and estimates will be included in the census results for people missed.
- As in previous censuses, results will only be published for Output Areas (about 125 households) and larger geographies, and will be subject to Statistical Disclosure Control (SDC). These summarised results will strike a balance between preventing identification of information about individuals and making the information as useful as possible to users.

5 Questionnaire content

5.1 Background and approach to consultation

5.1.1 The questionnaires to be used in the 2011 Census were developed following an extensive, four year, programme of consultation and testing to ensure that the questions asked will meet user requirements and be acceptable and understandable to respondents.

5.1.2 This work was carefully managed to ensure that the key aims of the census were met, which constrained the amount and scope of information that was considered for collection. This was made clear to users throughout the development process, with the following statement included in the consultation documents referenced in later sections:

- "The key requirement of the 2011 Census is to provide a robust estimate of the population count, and a benchmark for key population statistics, on a consistent and comparable basis for small areas and small population groups.
- To meet this requirement, ONS aims to maximise response rates in all areas and from all population sub-groups, and minimise differential non-response. The collection of any additional information should not jeopardise this aim.
- To help achieve this, ONS will seek to minimise respondent load, whilst maximising the value of the information collected, by ensuring that the questionnaire is clearly presented and contains an acceptable number of questions."

5.2 2011 and 2001 Census questionnaires compared

5.2.1 The consultation and testing programme has resulted in a proposed 2011 Census questionnaire which has four pages of questions relating to the whole household, and four pages of questions relating to each individual in the household, with space to include up to six people. There is also a front page; two pages of guidance; and one page for visitors' details.

5.2.1.1 The household section has 15 questions of which:
- two are guidance questions (ie help the public work out who to include in the questionnaire), which are equivalent to guidance notes from 2001, and two more are simple counts of the number of usual residents and visitors
- seven are unchanged since 2001
- one (relationship matrix) is a modification of the question asked in 2001
- three are new for 2011 (number of bedrooms; type of central heating, and visitor details). The visitor questions essentially restore the information asked about visitors to the position in the 1991 Census
- three household questions from 2001 have been dropped (whether or not have central heating; whether or not have bath/toilet access; and lowest floor level lived on).

5.2.1.2 The individual sections have 43 questions per person, of which:
- six are routing questions (ie to help the public skip over questions which do not apply to them)
- twenty are unchanged since 2001
- nine are modifications of the questions asked in 2001
- eight are new for 2011 (second residence and type of second residence; main language and English language proficiency; month/year of entry into UK; intended length of stay in UK; passports held (as a proxy for citizenship); and national identity), month/year of entry into UK is only asked of those born outside the UK, and intended length of stay is only asked of those who came to live in the UK in the past twelve months
- two questions from 2001 have been dropped (number of employees at workplace, and professional qualifications).

5.2.1.3 A comparison of the topics/questions asked in 2001 and 2011 is given in Appendix A. A list of the proposed 2011 Census questions and their uses is given in Appendix B.
5.3 2011 Census questions – topic consultation introduction

5.3.1 The 2011 Census consultation started in early 2005. As with previous census consultations, and in line with experience in censuses in other countries, there are always very difficult trade-offs to be made between, for instance:
- a very wide range of user requirements, from a wide range of users, including government; businesses; and the public themselves; who want more, and more detailed, information on the ‘state of the nation’
- the views of representatives of particular groups who want a tick-box that separately identifies them
- acceptability of questions to members of the public
- ONS’ ability to develop a question which is readily understood, is easy to complete, and provides reliable information
- space constraints on the questionnaire
- costs.

5.3.2 Given that there were likely to be conflicting views on the 2011 Census question content which it would be impossible to reconcile, ONS sought to make the decision making process as open and transparent as possible, with:
- two separate formal 12 week public consultations, in 2005 and in 2006
- published prioritisation criteria and scoring mechanisms
- release of the individual representations made in response to 2005 consultation
- ONS’ written response to the 2005 consultation, summarising user comments and ONS revised proposals
- road shows around England and Wales to share responses to consultation
- Census Advisory Groups
- use of Equality Impact Assessments for all six equality strands (gender, age, disability, religion or belief, race and sexual identity)
- use of focus groups
- testing of proposed questions to assess their comprehensibility and acceptability to the public.
- meetings with individual groups, when requested

More detail on the consultation, research and testing timetable is given in Appendix C.

5.3.3 The consultations sought to identify the information requirements and the strength of those requirements. This enabled new content to be prioritised based on a number of factors, such as strength of need, quality of information collected, the appropriateness of the census as the vehicle for collecting the information; and whether the information exists in other data sources.

5.3.4 ONS carried out the consultation on the 2011 Census topics and questions for England and Wales, with support from the Welsh Assembly Government. Similar consultations were carried out for Scotland and Northern Ireland, and the results shared to seek the greatest harmonisation of questions possibly across the UK.

5.3.5 ONS believes that the 2011 Census question consultation, which is summarised below, has been among the most extensive and transparent yet carried out.

5.4 Topic consultation – details

5.4.1 2005 Census topic consultation


5.4.1.2 This consultation asked users to respond separately for each topic of interest, using a template provided, to ensure the information collected would help ONS accurately assess these requirements against pre-defined criteria:
- user requirement – e.g. Whether information would be used for central government resource allocation, local government policy development, academic research etc
- whether information is required for small population groups or geographies
- whether any alternative sources are available and have been considered
- whether this topic needs to be analysed in conjunction with other census data
- whether UK-wide information is required; and
- whether the information would provide continuity with previous censuses.

5.4.1.3 This consultation was publicised by ONS, with links sent to all registered census users (around 7,000 people and organisations) and was supported by an ONS news release http://www.statistics.gov.uk/pdfdir/censprep0505.pdf that received national newspaper coverage.

5.4.1.4 Respondents had 12 weeks to respond and this consultation was supported by a series of open meetings in Cardiff, Crewe, Harrogate, London, Newcastle and Northampton. As a result, responses were received from almost 500 users, requesting the inclusion of around 70 topics (over 2,000 ‘topic responses’ were received).

5.4.1.5 These responses included requests for the retention of all existing census topics, and a wide range of new information. If all of these requests were met, the questionnaire would need to include more than six pages of questionnaire per respondent, which would be unaffordable to ONS, unacceptable to respondents and risk data quality.

5.4.1.6 As a result, the consultation responses were assessed against the criteria outlined above, to assess the strength of the requirement for information, and a range of other factors that ONS had to consider before including a question in the 2011 Census:
- whether data collected would be of sufficient quality to produce useful outputs
- whether collecting the information would be acceptable to respondents (e the public)
- whether collecting the information would significantly increase the burden on respondents

More detail on the criteria for selection of questions is given in Appendix D.
5.4.2 2006 response to topic consultation

5.4.2.1 After reviewing the responses to this consultation ONS published on the National Statistics website in March 2006 an information paper ‘The 2011 Census: Assessment of initial user requirements on content for England and Wales’ which outlined ONS’ assessment of the consultation responses and the factors considered.


5.4.2.2 Alongside the ONS assessment and prioritisation of user requirements, all of the individual responses were made available. The 2006 ONS assessment of user requirements contained details of the prioritisation tool used and was supported by an ONS news release http://www.statistics.gov.uk/pdfdir/ew060306.pdf

5.4.2.3 The Welsh Assembly Government also published an information paper specifically for Wales ‘2011 Census Topic Consultation: Summary of responses from Wales or about Welsh issues’ to coincide with the ONS’ publication on their website:


5.4.3 2006 topic consultation on Ethnicity, Identity, Language and Religion

5.4.3.1 Because of the known sensitivity of the Ethnicity, Identity, Language and Religion topics, ONS carried out a separate formal 12 week consultation on these topics starting in November 2006. In particular this sought views on user needs and explored, for instance, acceptability of ethnic group terminology (e.g. colour terms).


5.4.4 2007 open meetings on census content

5.4.4.1 In March 2007, a series of open meetings took place in Cardiff, London and Sheffield to share current thinking on the likely content of the 2011 questionnaire with a focus on ethnicity and identity questions in particular. There was also a separate meeting arranged in Truro in April 2007 to discuss specific issues with the Cornish community. The issues raised at the meetings are available on the National Statistics website:


5.4.5 2008 workshop on census content

5.4.5.1 ONS’s original plans were for three pages of questions per person. To accommodate the new demands for questions would have meant dropping, the proposed new questions on language, the 2001 questions on unpaid care, qualifications and industry of employment. It was not possible to get agreement from users (including government users) on the priorities for a three page questionnaire. In February 2008, ONS held a workshop with representatives of the Census Advisory Groups, specifically to discuss the ONS priorities for content for both three and four pages of individual questions on the 2011 Census questionnaire. Documents from the meeting are available on the National Statistics website:


5.4.6 Ad hoc meetings with stakeholder organisations

5.4.6.1 Specific stakeholder meetings have also taken place with a number of communities where meeting user requirements would pose the greatest problems for question design and/or comparability. This included meetings requested by representatives of the British Sikh Federation; the Board of Deputies of British Jews; the British Humanist Association; representatives of the Kashmiri community; Stonewall; and the Cornish community. A meeting also took place with various community groups to discuss the acceptability of colour terminology within the ethnic group question.

5.4.7 Meetings with statistical Heads of Profession

5.4.7.1 Meetings took place in September 2006, June 2007 and November 2007 with statistical Heads of Profession (or their representatives) from key government departments and the Local Government Association, in order to discuss competing priorities for the content of the 2011 Census questionnaire.

5.4.8 Census advisory groups

5.4.8.1 One of the ways in which the ONS consults with census users is through a number of Census Advisory Groups that represent the interests of the main user communities. These currently cover:

- central government departments
- local authorities
- health service
- business sector and professional interests
- academic community
- organisations with interests in special needs and minority populations
- users in Wales.

Meetings have continued throughout the census development and are usually held twice a year, often to coincide with particular developments or key events in census planning.

5.4.9 Consultation with Parliament

5.4.9.1 The December 2008 publication of the 2011 Census White Paper ‘Helping to shape tomorrow – The 2011 Census of Population and Housing in England and Wales’ was part of the consultation with Parliament about the 2011 Census. The White Paper set out in some detail the proposed questions, as well as those considered that were not proposed to be included, along with an overview description of the entire census process.

5.4.9.2 At the time of the White Paper, ONS wrote to every MP who had written to ONS about the census, or had asked a Parliamentary Question about the census. ONS also wrote to every All Party Parliamentary Group (APPG) that might have an interest in the census or census questions. As a result, a number of APPGs have invited census staff to their meetings to discuss the census proposals. ONS has also recently participated in a House of Commons Library organised census briefing for MPs and researchers in Portcullis House.

5.4.9.3 The census proposals have, of course, also been subject to the consideration of the Treasury Select Committee and, since the creation of the UK Statistics Authority, the Public Administration Select Committee.
5.4.10 Consultation within Wales

5.4.10.1 There has also been further consultation, within Wales, with Welsh census users and stakeholders. A paper on preparations for the 2011 Census was discussed at National Assembly for Wales subject committees, and the Welsh Assembly Government organised workshops with users in both north and south Wales to discuss proposed census content.

5.5 Questionnaire testing

5.5.1 Questionnaire testing introduction

5.5.1.1 After the initial consultation exercise, a range of qualitative and quantitative testing was undertaken to develop questions to help meet the identified user requirements. This testing was supported by further, targeted, consultation exercises to ensure understanding of detailed requirements and assess where compromises could be made if testing highlighted any difficulties.

5.5.1.2 A number of topic specific UK working groups were established to manage the development of questions to meet user requirements, and included user representation from topic experts from across or outside ONS as appropriate. These working groups reported to the UK Census Questionnaire Design Working Group, which had responsibility for overall questionnaire development, ensuring that the needs for different topics were balanced appropriately, with no topic area asking too many questions.

5.5.1.3 The topic experts representing user interests on these working groups conducted further consultation with a range of census users, as required to inform and assess the final question development.

5.5.2 Cognitive testing

5.5.2.1 The Data Collection Methodology team within ONS carried out a large programme of cognitive testing of census questions, in both English and Welsh, between February 2005 and July 2009.

5.5.2.2 The purpose of this testing was to explore, understand and explain the ways in which respondents answer questions, to ascertain whether or not a question is acceptable and works as intended. Cognitive testing usually takes place as a one-to-one interview to maximise its effectiveness. Over 550 interviews with members of the public were undertaken over a four-year period.

5.5.2.3 This testing helped develop questions to collect accurate and meaningful information that meets user requirements, are readily understood, easy to answer and conform as closely as possible to international best practice of questionnaire design.

5.5.3 2007 Test questionnaire

5.5.3.1 A large scale census test covering 100,000 households in five local authorities was carried out in England and Wales on 13 May 2007. The questionnaire that was used for the test was 24 pages long, and included four pages of individual questions per person for five respondents, which allowed the opportunity to test a number of new and updated questions. The questionnaire for use in the test was published on late 2006 [http://www.ons.gov.uk/census/2011-census/collecting-info/dev-questionnaires/test-quest-eng-wales.pdf](http://www.ons.gov.uk/census/2011-census/collecting-info/dev-questionnaires/test-quest-eng-wales.pdf)

5.5.3.2 Five of the questions included in the 2007 Test (house state of repair; nature of disability; Welsh frequency of use question (in Wales); income; and sources of income) have not been included in the proposed questions for the 2011 Census, due to the results of testing together with further consultation and re-evaluation of user requirements. The detailed evaluation of the 2007 Test questionnaire can be found on the National Statistics website: [http://www.ons.gov.uk/census/2011-census/2011-census-project/2007-test/2007-test-questionnaire-evaluation.pdf](http://www.ons.gov.uk/census/2011-census/2011-census-project/2007-test/2007-test-questionnaire-evaluation.pdf)

5.5.4 Postal tests

5.5.4.1 A number of small-scale postal tests have also been conducted to help collect sufficient quantitative information to inform specific decisions on questionnaire design or content, and to collect further information on the success of all new questions.

5.5.4.2 In April 2007, a split-sample postal test of 10,400 households was carried out in order to inform the decision on the length of the 2011 Census questionnaire. Half of the sampled addresses were randomly assigned a questionnaire containing three pages of questions per person, and half with four pages per person. There was no difference in return rates between the two halves of the sample, and ONS concluded that the length of the questionnaire would not affect response rates if the questionnaire was well designed. This resulted in ONS increasing the length of the questionnaire to 32 pages in 2011 (including four pages of questions for each of six respondents) from the 20 pages used in the 2001 Census (including three pages of questions for each of five respondents).

5.5.4.3 In July 2008, two postal tests were carried out, one across England, and the other in Northampton - an area which has a high concentration of migrants. The main purpose of this test was to inform the decision on the inclusion of short-term migrants in the 2011 Census, and a question relating to their intended length of stay in the UK. Again, no difference in return rates was found, and, combined with evidence from focus groups and individual interviews, ONS concluded that most people resident in the UK for less than six months would complete a census questionnaire.

5.5.4.4 In March 2009 two postal tests were carried out, each with 10,000 households, one across England and one targeted in areas of Durham and Norwich. The main purpose of this test was to explore issues around the enumeration of students, which concluded that it was possible to collect information about students term-time address at their family home and vice versa. This information will be collected in 2011, and will help ensure the accurate enumeration and estimation of the student population.

5.5.4.5 In July 2009 a postal test of 27,000 households was carried out targeted in areas known to have a high concentration of Pakistanis. The main purpose of this test was to explore the issues surrounding the inclusion of Kashmiri tick box in the ethnic group question, in response to a challenge from Kashmiri organisations. This testing showed that respondents would be significantly more likely to record their ethnicity as Kashmiri if a tick box were available, rather than just a write-in space, but that the differences in the characteristics of Kashmiris compared with those of the remaining Pakistani population did not warrant inclusion of this additional tick box.
5.5.5 Opinions (Omnibus) Survey testing

5.5.5.1 The Opinions (formerly Omnibus) Survey is an ONS run, multi-purpose survey based on interviews with a monthly sample of around 1200 adults (aged 16 and over) in private households. It currently forms part of the Integrated Household Survey.

5.5.5.2 The Opinions Survey has been used in 2007, 2008 and 2009 to test new migration questions (year of arrival in UK, citizenship and intended length of stay in the UK); new language, national identity and religion questions, and attitudes towards colour terminology within the ethnicity question. This testing has informed the decisions to include a range of new questions on migration, and to retain the colour terminology in the ethnic group question, as most respondents were happy to answer them and able to do so accurately.

5.6 Focus groups

5.6.1 In April and May 2007, the ONS carried out focus groups in England to discuss the acceptability of colour terminology within the ethnic group question and seek to reconcile conflicting views on the issue. The outcome of the focus groups led to a compromise on the descriptors used in the ethnic group question.

5.6.2 The Welsh Assembly Government also conducted a series of six focus groups in Cardiff, Carmarthenshire and Wrexham specifically with people identifying as ‘White Welsh/British’ to discuss national identity and ethnicity in November 2007, which concluded that it would be acceptable to include a Welsh tick-box in the national identity rather than ethnic group question, as ONS had proposed.

5.6.3 In August 2008, the National Centre for Social Research carried out focus groups and in-depth interviews with migrants and the general population to explore the acceptability of collecting information from short-term migrants in the census, which supported the findings from the postal test discussed in section 5.5.4.3, that it would be possible to enumerate this population.

5.6.4 In July 2009 ONS commissioned some focus groups and in-depth interviews to explore issues around the potential inclusion of a Kashmiri tick box in the ethnic group question. The research was designed to explore how Kashmiris would respond to the inclusion of a tick box, and what would influence their decisions whether or not to use it. The reactions of Pakistanis and Indians to a Kashmiri tick box were also explored. The result showed that most Kashmiris did not have strong feelings about the need for a tick box. There was no evidence to suggest the inclusion of a tick box would have an adverse impact on response levels from other groups, but there were concerns raised across all groups about the potential confusion arising from the inclusion of a tick box.

5.7 2008 Equality Impact Assessment on development of questions


5.7.3 Initial assessments were also carried out for the questions relating to age and sex, and the conclusion was that full assessments for these topics would not be necessary. In addition, an Equality Impact Assessment has been carried out on the exclusion of the topic of sexual identity from the 2011 Census and this can be found at http://www.ons.gov.uk/about-statistics/measuring-equality/sexual-identity-project/sexual-identity-project-equality-impact-assessment---september-2008.pdf

5.8 Population bases for enumeration and outputs

5.8.1 As a result of strong user requirements on migration in general, and specifically on the population resident in the UK for short periods of time, the population bases to be used in the 2011 Census have changed from those used in 2001.

5.8.2 Following detailed discussions with key users within and outside ONS, and the success of the postal test discussed in section 5.5.4, the population to be enumerated in the 2011 Census will now include all people who have lived, or are present on census night and intend to live, in the UK for a period of three months or more. However, users do not want all of the population enumerated included in the main census outputs, as these should only be based on the “usually resident” population for the purposes of resource allocation.

5.8.3 Therefore, the main outputs from the 2011 Census will only include the usually resident population, which has been specified as those people who have lived, or intend to live, in the UK for a period of 12 months or more. This definition will make the main census outputs directly comparable with the mid-year population estimates at a national level (slight differences will exist at a subnational level because population estimates count the population at the address where they spend the majority of their time, whereas the census counts people at their family home, to enable the production of accurate statistics on household and family structure.) and with other censuses internationally.

5.8.4 Statistics on the short-term resident population will be included in separate outputs and will be used, for example, by ONS to benchmark and improve the annual short-term migration estimates.

5.9 Final questionnaire content

5.9.1 Questionnaire content overview

5.9.1.1 The final content recommended to Parliament for the questionnaires to be used in the 2011 Census has now been agreed within ONS. Despite the huge demand for information from users, following ONS’s consultation, assessment of requirements and comprehensive testing programme, only those that are considered essential for collection in the 2011 Census have been included.
5.9.1.2 Strong user requirements for all of the topics to be included have been confirmed, and questions developed that will meet these needs and be acceptable to respondents. The majority of the information to be collected was also collected in the 2001 Census, using the same questions. This was expected for a number of reasons:

- continuing user requirements for the information and the need to complete time-series analysis;
- continuing comparability with other sources of information, within and outside ONS; and
- confidence that these questions will collect the information required, and be acceptable to respondents.

5.9.1.3 A number of questions have been modified since the 2001 Census, either to meet evolving user requirements, or to incorporate improvements identified during testing.

5.9.1.4 A number of questions will be asked for the first time, to meet new requirements, driven primarily by the significant increase in the last decade of international migration, population mobility within the UK, and the increased complexity of household living arrangements.

5.9.2 International Migration

5.9.2.1 International migration, particularly short-term migration, has made it more difficult to produce population estimates in which users have confidence. The criterion for inclusion in census population estimates is that a person should expect to live in the UK for 12 months or more. Many migrants stay for a shorter period than this, and hence would not be included in the census statistics. However, such people use public services (such as schools and refuse services) and housing whilst in the UK, and local authorities in particular need to plan to meet their needs. ONS has also proposed inclusion of questions relating to year and month of arrival in the UK and, for those who have been here for less than 12 months, a question on intended length of stay, so that local services and housing requirements can be effectively planned.

5.9.2.2 There are three new proposed household questions for 2011, with three 2001 Census questions dropped. The new household questions are primarily aimed at helping to get the census count right and are:

<table>
<thead>
<tr>
<th>Question topic</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month and year of arrival in the UK (for those born outside the UK)</td>
<td>To help identify short-term UK residents, improve understanding of migration and inform service provision;</td>
</tr>
<tr>
<td>Intended length of stay in the UK (for those born outside the UK, arriving within the year prior to census day)</td>
<td>To help identify short-term UK residents, improve understanding of migration and inform service provision;</td>
</tr>
<tr>
<td>Passports held (as a proxy for citizenship)</td>
<td>To provide information on people's rights of movement, employment, welfare and eligibility to vote;</td>
</tr>
<tr>
<td>Second address (and purpose of second address)</td>
<td>To improve estimates of the usual resident population, improve understanding of living patterns within the UK, enable production of outputs using different population bases and inform resource allocation; and</td>
</tr>
<tr>
<td>National Identity</td>
<td>To allow people to declare affiliation to a nation of the UK. Also improves the quality of information collected on ethnic group by allowing people from ethnic minorities to express a British identity independently from the ethnic group question</td>
</tr>
</tbody>
</table>

5.9.3 Mobility within the UK and complex living arrangements

5.9.3.1 More and more people in the UK have more than one residence in the UK, for a range of reasons, including:

- children of divorced parents
- people with a second residence for work (eg people who live in one place during the week for work, but with their families at weekends); and
- people with holiday homes.

5.9.3.2 ONS needs to avoid counting such people twice, and needs to ensure they are counted in the correct location. ONS is therefore also proposing new questions on second addresses where people stay for more than 30 days a year, and the purpose of that second address. Such information will also be of use to local authorities, as such people use services and housing where they stay.

5.9.4 Proposed new questions

5.9.4.1 There are eight new proposed individual questions for 2011, with two 2001 Census questions dropped. The new individual questions are primarily a result of the migration, mobility and complex living patterns noted above and are:

<table>
<thead>
<tr>
<th>Question topic</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of central heating</td>
<td>Replaces whether or not have central heating. Provides information to help identify fuel poverty;</td>
</tr>
<tr>
<td>Visitor details</td>
<td>To help ensure everyone is included in the 2011 Census – information on both usual residents and visitors will be captured, as happened in the 1991 Census and earlier.</td>
</tr>
</tbody>
</table>

5.9.4.2 As described in 5.4.5, despite needing additional questions to address the new demands for questions, ONS initially proposed keeping to three pages of question per person. This would have meant that the proposed new questions on language, and the 2001 questions relating to qualifications, unpaid care and industry of employment, would not have been included.

5.9.4.3 However, the demand for these questions from MPs, Lords, central government departments, the Treasury Select Committee, and census users in general was so great that central government departments between them provided a further £22 million to enable a fourth page of questions per person to be included, covering the additional
printing, delivery, collection and processing costs. There is a net increase of six in the number of questions per person, from 36 in the 2001 census to 43 in 2011 (plus one additional routing question, to make skipping of questions easier for the public).

5.9.4.5 The 2011 Census questionnaire will include space for six people per household, compared with five people in 2001. As in previous censuses, households with more people than there is space on the census questionnaire will be able to request a continuation questionnaire. The increase from five to six people per questionnaire will reduce the need for people to do so, which will reduce the risk of people being missed by the census altogether.

5.9.4.6 The questionnaire is better laid out and less cramped as international experience of paper questionnaire design shows that this makes it easier for the public to complete them. This was borne out in the 2007 Census Test Evaluation Survey which showed that 69% of respondents to that survey felt the questionnaire was acceptable (i.e. they thought it was either ‘simple’, ‘easy to understand’, or ‘OK’). The inclusion of better structured questions about visitors on census night, clearer instructions and the space for an extra household member have resulted in a questionnaire length of 32 pages per person, compared with 20 pages in 2001.

5.9.4.7 As noted above, research by ONS, including a review of academic literature, international census experience, and an ONS postal test of three and four page per person questionnaires, has given no indication that a longer questionnaire will be a barrier to public response, as long as the questionnaire is well laid out and easy to follow.

5.9.4.8 The burden on each household in completing the census questionnaire is considered reasonable. For a typical household of four people the once-a-decade Census should take around 30-40 minutes.

5.9.4.9 The £22 million funding contributed by central government departments demonstrates the demand for, and the value of, the information these additional questions provide.

5.10 2011 Census questionnaire - privacy considerations

5.10.1 2011 Questionnaire privacy consideration overview

5.10.1.1 Throughout the question research testing process, ONS tested the acceptability of each proposed question to respondents. These have been considered through both qualitative and quantitative research and investigation - in particular through:

- the 2007 Census test evaluation survey
- consideration of the non-response rates to particular questions in the 2007 test and subsequent postal tests
- split-sample postal tests
- the 2009 ONS opinions survey testing
- focus groups, specifically on acceptability of colour terminology; intended length of stay in the UK; and consideration of whether to include Kashmiri tick-box in the ethnicity question
- conversations with respondents during the cognitive testing process

5.10.2 2007 test evaluation survey findings

5.10.2.1 The 2007 Census Test Evaluation Survey (CTES) achieved responses from 1,200 people who responded to the 2007 Census Test, and 250 people that chose not to respond to the 2007 Test. This asked, amongst other things, whether there were any questions in the 2007 Test questionnaire that caused them concern.

5.10.2.2 Of the 1200 people who did respond to the test, 10% said that they felt unhappy about answering some of the questions, with fewer concerns about the household questions. Of those who expressed unhappiness about questions for individuals, 110 said that they felt particularly unhappy about answering the questions on income; 17 the ethnicity question; and 12 the religion question. The remainder were spread across a range of other questions.

5.10.2.3 Nearly all the new questions which are proposed for inclusion in the 2011 census were tested through the 2007 test evaluation survey. The new questions that were included in this test lead to very little concern from the public, with less than 0.5% of respondents to this survey saying that they were unhappy to answer the questions.

5.10.2.4 A question on sexual identity was not included in the 2007 Test.

5.10.2.5 Of the 250 people interviewed that didn’t return a 2007 Census Test questionnaire, only 4% failed to do so because they felt the questions were too intrusive. A further 4% said that they did not want to disclose personal details at all. The two most frequent answers were “too busy” (26%) and “don’t feel it’s important” (6%). A further 52% of respondents gave a range of ‘other’ responses, including ‘didn’t want to do it’ and ‘thought it was junk mail’, which were to be expected of a voluntary test with limited publicity.


5.10.3 Question non-response rates

5.10.3.1 When questionnaires from tests are returned to ONS, some questions are left blank by respondents, for a range of reasons. This is generally because they do not know the answer to the question – often because they are answering on behalf of somebody else in the household. However, as indicated by the survey responses above, it is sometimes because they are not happy to answer the question. The non-response rates to particular questions can therefore give further insights into privacy concerns.

5.10.3.2 The proposed new questions for the 2011 Census that were not included in the 2007 Test (and thus were not included in the 2007 test evaluation survey) were:

- number of bedrooms
- passports held (as a proxy for citizenship)
- intended length of stay in the UK.

5.10.3.3 The most recent postal test was undertaken in March 2009 with a random sample of 10,000 households, and included the most up to date versions of all the proposed 2011 census questions, including those that were not in the 2007 Census Test.
establishment). The individual questionnaire can be completed online or on paper; it can be used by people living in a care home, hospital, student hall of residence, hotel, prison or other residential accommodation. The individual questionnaire will also be used by people living in a care home, hospital, student hall of residence, hotel, prison or other residential accommodation. For those under 16 years old, their parent or guardian can complete the questionnaire in their presence, and they can also include information about people who are not living in their household to see their responses, a requirement that is often requested in households of sharing adults, for instance. An individual questionnaire is available. The individual questionnaire will also be used by people living in a care home, hospital, student hall of residence, hotel, prison or other residential accommodation. The individual questionnaire will also be used by people living in a care home, hospital, student hall of residence, hotel, prison or other residential accommodation.

5.11.5 In addition, for individuals who have privacy concerns and do not want others in their household to see their responses, a question on sexual identity would put them off, compared to 1% for each of religion, ethnicity and disability.

5.10.4 Split-sample postal tests

5.10.4.1 Split sample postal tests involve posting census questionnaires to the public, with households randomly divided into two samples; each half of the sample receives slightly different questionnaires. Differences in the return rate between the two samples indicate whether respondents have concerns about the questions which are different between the two questionnaire types.

5.10.4.2 ONS has carried out a number of split sample tests, including:
- The 2007 Census Test, where one questionnaire included questions relating to personal income and the other did not;
- A 2007 postal test, where one questionnaire had three pages of questions per person, and the other had four;
- A 2008 postal test, across the general population and also undertaken in areas with high numbers of migrants, where one questionnaire had a question relating to intended length of stay in the UK and the other did not.

5.10.4.3 The 2007 test showed a 2.7% lower response rate from the sample receiving the questionnaire with questions relating to personal income. The other two tests showed no difference at all in the return rates, thus giving no indication of privacy concerns from those who responded to either the number of questions asked, or to the question relating to intended length of stay in the UK.

5.10.5 Opinions survey testing

5.10.5.1 In 2009 ONS undertook specific testing through the ONS ‘opinions’ survey to understand people’s attitudes towards possible census questions relating to their sexual identity, religion, ethnicity and disability.

5.10.5.2 Of the sample of about 1,000 respondents, 5% of people reported that they felt uncomfortable about the sexual identity question, 2% felt uncomfortable about the religion or ethnicity questions, and 1% about the disability question.

5.10.5.3 When asked whether any of the questions would put them off completing and returning their census questionnaire, 3% said that a question on sexual identity would put them off, compared to 1% for each of religion, ethnicity and disability.

5.10.5.4 Noting that the religion, ethnicity and disability questions were all asked in the 2001 census, which had a 94% response rate overall, this suggests that the vast majority of people find these questions acceptable. Attitudes to questions about sexual identity however suggest that, were this to be included in the 2011 Census, it could have a marked impact on census response rates.

5.11.6 Focus groups and cognitive testing

5.10.6.1 During the questionnaire development process, a number of focus groups were undertaken specifically to explore the acceptability of questions to respondents, including:
- use of colour terminology in the ethnicity question
- inclusion or exclusion of specific tick boxes in the ethnicity question
- inclusion of a question asked of recent migrants about their intended length of stay in the UK

5.10.6.2 As described in section 5.6 the focus groups relating to colour terminology resulted in an approach acceptable to the majority of respondents. No significant concerns were raised in the focus groups relating to the tick boxes proposed for the 2011 Census ethnicity question, or to the proposed question on intended length of stay.

5.10.7 Cognitive testing

5.10.7.1 As described in section 5.5.2, the questionnaire development process included extensive cognitive testing. During the cognitive testing process, no significant concerns were raised in relation to any of the questions proposed for inclusion in the 2011 Census.

5.11 Conclusions of research into privacy issues relating to questionnaire content

5.11.1 All the new questions proposed for inclusion in the 2011 Census have been through extensive testing for privacy related issues. Whilst there may be some individuals who have such concerns, ONS has not found evidence that there are significant privacy related issues with the proposed 2011 Census questionnaire.

5.11.2 Many of the questions in the 2011 Census are identical to, or modifications of questions asked in 2001, and were acceptable in 2001. These established questions have also been included in the 2011 Census question testing process, and no issues with these questions have been identified through this testing.

5.11.3 The research outlined above has, however, resulted in the recommendation by ONS to exclude two questions from the 2011 Census for which there were strong user requirements:
- sexual orientation; and
- income

5.11.4 Further details on the results of this research can be found at http://www.ons.gov.uk/census/2011-census/2011-census-questionnaire-content/question-and-content-recommendations-for-2011/index.html

5.11.5 In addition, for individuals who have privacy concerns and do not want others in their household to see their responses, an individual questionnaire is available. This option is often requested in households of sharing adults, for instance. The individual questionnaire will also be used by people living in a communal establishment (such as a care home, hospital, student hall of residence, hotel, prison or other residential establishment). The individual questionnaire can be completed online or on paper; it can be used by people living in a care home, hospital, student hall of residence, hotel, prison or other residential establishment.
be requested online, from a call to the census helpline, or from census collectors on the doorstep.

6 Use of third parties (e.g. more outsourcing)

6.1 Background to procurement of 2011 Census services

6.1.1 Whilst ONS is responsible for, and runs the 2011 Census, of the total census budget around 52% is spent with external suppliers. The reasoning for this is based in three areas: a 10-yearly census it is not cost-effective for ONS to invest in equipment and staff that will not be used in the intervening time; benefiting from technology advancements over the same period; and, ONS can maximise economies-of-scale and core competencies from specialist external providers.

6.1.2 ONS’ core competencies focus on census statistical and operational design; questionnaire design; statistical processing; and, operations. They do not include, for example, recruiting a field force in excess of 30,000 people. It therefore makes sense to supplement ONS expertise with new skills, technologies and infrastructure available from commercial companies as and when required.

6.1.3 Outsourcing is not a new strategy and additional non-permanent employees have always been employed during a census. ONS successfully outsourced census services in 1991 (e.g. publicity; distribution) and in 2001 (e.g. publicity; questionnaire printing; postal services; questionnaire scanning/capture/coding; census helpline; census field staff payroll; distribution). The National Audit Office’s (NAO) report on 2001 Census stated that “The Office for National Statistics established a sound strategy for outsourcing census services. They also ensured sufficient competition to deliver value for money from those services.”

6.1.4 A privacy concern of some members of the public may be that external suppliers do not treat their personal data with the same confidentiality and rigour as ONS applies, or may not be subject to the same protections and controls as are applied to ONS. Some may also be concerned that their data will be used by such companies for purposes other than the census (e.g. direct marketing purposes).

6.1.5 To manage this concern, ONS has put in place both contractual and operational measures to ensure that the same privacy standards that ONS would adopt, are applied by the companies with whom we work. ONS remains fully responsible for the census design which informs the specification of requirements for all contracts. ONS ensures that there are rigorous testing and assurance processes (including rigorous security requirements) to ensure conformity with government guidelines, ONS standards, and the law.

6.1.6 ONS has insisted that there are a number of measures applicable to all contracts and their service providers. ONS also carries out, or commissions, independent security testing (e.g. of IT systems), and will oversee decommissioning of systems at the end of contracts to ensure that census data is wiped or destroyed appropriately.

6.1.7 Other decisions to protect the public include ONS directly employing and managing the large temporary field force, operating the census through a headquarters and regional management structure. Furthermore, all staff working on the census, whether ONS employees or contractors, are subject to the ONS’ confidentiality legislation. All census staff, both ONS employees and contractors, must sign a Census Confidentiality Undertaking, confirming that they have read and understood these confidentiality requirements, and the potential penalties for not complying with them. In addition, awareness training on confidentiality and privacy of census personal information is included in the training of staff that will, or might, handle census information.

6.2 Scope of 2011 Census procurement

6.2.1 Learning lessons from the 2001 Census, the scope and grouping of the outsourced services was reviewed and extended. In 2004/5 ONS assessed each of the census functions, against a set of criteria including:

- was it an ONS or industry core competency
- were there privacy considerations favouring outsourcing or an in-house solution; and,
- does the ONS have capacity to develop or retain the expertise etc.

6.2.2 This process identified those functions favouring outsourcing; those favouring an in-house solution; and a few borderline functions.

6.2.3 Following the preliminary review carried out in 2004/5, each procurement went through options analysis, which identified the most appropriate linking or bundling of services, whether internal or external to ONS. The short-listed options were then used in a market engagement exercise, where the leading organisations within their fields were asked to contribute to the bundling options and determine where the most interest would lie. The output of these two studies was then analysed and presented in a decision paper to the Census Procurement Assurance Group. These papers clearly identified the most appropriate bundling of services for Census which would gain the greatest competitive interest from the market fully meeting Census’ core requirements of technical and security compliance whilst demonstrating value for money.

6.2.4 This process determined a number of bundles, including:

- census questionnaire data capture – questionnaire printing; on-line census; scanning and capture of census questionnaires; etc.
- recruitment, payroll, and training of census field staff
- postal service contracts
- logistics and fulfilment contracts – ie to deliver supplies, questionnaires, translation leaflets etc to the field staff and to the public
- publicity and communications contracts
- a range of other, smaller contracts to support the census field operation

6.2.5 The procurement timetable in general started at an earlier stage than during previous censuses. The ONS has to follow the UK government and EU procurement regulations; census procurement has been managed under the auspices of the ONS’ procurement team. Because of the major IT and other procurements involved with the census, the census programme has been subject to routine Office for Government Commerce (OGC) gateway checks, including gateway reviews immediately prior to the award of each of the two largest procurements, Route A, and Recruitment, Payroll and Training (RPT).
6.3 Questionnaire ('Route A') Services

6.3.1 ‘Route A’ services consist of:
- printing (of questionnaires and information leaflets)
- questionnaire tracking system
- online census and online help
- census helpline
- data scanning, capture and coding.

6.3.2 Route A was subject to a formal OJEU competitive procurement following the negotiated procedure, and the contract was awarded to Lockheed Martin UK Limited in August 2008.

6.3.3 ONS is aware of privacy concerns expressed about the possibility of the US Patriot Act being used by US intelligence services to gain access to personal census records for England and Wales. These concerns have been addressed by a number of additional contractual and operational safeguards. These arrangements have been 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;
- LMUK are the prime contractor for the Route A contract. They have engaged a number of UK or EU specialist sub-contractors for the different components of the contract. The main ones are Polestar (printing); UK Data Capture (scanning and data processing); Cable and Wireless (communications and data centre); BSS (census helpline) and Logica (security)
- Lockheed Martin UK will design the processing systems for ONS using its expertise and past experience. The day to day running of operational services will be 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 will have any access to any personal census data;
- No Lockheed Martin staff (from either the US parent or UK company) will have access to any personal census data;
- All staff that have access to the full census data set in the operational data centre work for ONS.

6.3.4 In addition to the above, a wide range of physical and operational security measures will be put in place, including:
- 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;
- ONS staff will authorise all physical and system accesses to census personal information;
- All staff of the census data capture centre will be provided with lockers outside the facility, where they will be required to leave camera, phones and any mobile devices able to store data. All USB drives of workstations will be disabled, so that no census information could be copied.

- All census employees and contractors working on the census sign a declaration of confidentiality to guarantee their understanding and compliance with the law;
- All data will be processed in the UK – the data capture centre and census helpline will be located in the UK.

6.4 Recruitment, Payroll and Training for Census field force

6.4.1 For the 2011 Census, a wide range of options were considered, including procuring components separately, along with an in-house comparator. However, because of the complex interfaces between the recruitment, payroll and training functions, it was decided to outsource these as a combined set of functions. Testing the outsourcing in this combined format was one of the three prime objectives of the 2007 Census Test, and was found to be successful and viable.

6.4.2 ONS carried out a competitive procurement following the Restricted Procedure for the Recruitment, Payroll, and Training (RPT) contract. This contract was awarded to Capita in March 2009.

6.4.3 Capita is one of the UK’s largest recruitment organisations and is the largest business process outsourcing provider across the UK Government. It has tried and tested systems and a proven track record of maintaining the privacy of the personal information of the staff it recruits, trains and pays. They are compliant with the Data Protection Act and operate to the appropriate security standards (BS EN ISO27001).

6.4.4 The majority of Census completed questionnaires will be returned by post, or online. However, some members of the public will prefer to give their completed questionnaires to members of the census field force. communal establishments (such as military bases, hostels; universities, and boarding schools, etc) will have hand-delivery and hand-collection. So census field staff will handle some completed census questionnaires, although perhaps fewer than in previous censuses.

6.4.5 In order to mitigate public concerns in relation to the potential handling of their information, and even though the returned questionnaires will mostly be in sealed envelopes, ONS has maintained the position that the entire field force will be employees of ONS and subject to the same Civil Service privacy obligations.

6.4.6 However, the major field force privacy issues probably relate to maintaining the privacy of the personal details of the large temporary field force employed for the census. This is being managed through adherence to the Data Protection Act by both ONS and Capita, but also strict provisions within the contract specification for data security, encryption and independent testing.

6.5 Postal Services

6.5.1 Post-back of census questionnaires was introduced for the 2001 Census and was acceptable to the public, with about 88% of census questionnaires being returned by post. In 2011, the completed questionnaires will be sent directly to the data capture centre, rather than being returned to field staff via 2,000 field offices, as in 2001. Furthermore, census mail will be processed separately from the general mail in 2011.

6.5.2 The postal services for 2011 have two specific aspects of the service, both post-out of blank questionnaires, and post-back of completed questionnaires. Both of these
services are subject to the confidentiality standards of the Postal Service Act, which imposes stringent levels of confidentiality in handling personal and private mail.

6.6 Post Out

6.6.1 Following the deregulation of the postal service, a framework of suitable providers has been procured by the Office for Government Commerce, working in tandem with POSTCOMM. This panel of approved suppliers can compete for work that falls within a general requirement but all suppliers of a postal service still depend on the significant infrastructure of Royal Mail for the ‘final mile’ delivery to the household letter-box.

6.6.2 Having carried out full market engagement, ONS completed this procurement using the OGC buying solutions postal services framework inviting all suppliers on the framework to submit a tender. The full evaluation of the process determined that Royal Mail provided a significantly better technical solution and demonstrated value-for-money so were awarded the contract early in 2009.

6.7 Post Back

6.7.1 As with the above, ONS carried out full market engagement with all suppliers on the postal services framework. All of them acknowledged that Royal Mail was the only organisation with the infrastructure (e.g. post-boxes, national collection vehicles, postmen and post women) to carry out these services and withdrew from any ensuring procurement.

6.7.2 Following this outcome, and in consultation with POSTCOMM, ONS negotiated the post-back service with Royal Mail which included specific requirements pertaining to security, processing, sorting and assurances around subjects such as additional collections to reduce the risk of overflowing post-boxes (which happened in a small number of areas in the 2001 Census).

6.8 Public Fulfilment

6.8.1 As part of public engagement throughout census, there is a requirement to handle requests from members of public for translation leaflets, additional information or replacement blank questionnaires. Procurement is ongoing following the Restricted Procedure to select an organisation to provide this service. Whilst the scope of this service does not include handling completed questionnaires, ONS has still specified adherence to BS EN ISO27001 for security standards when handling and storing blank questionnaires.

6.9 Distribution

6.9.1 Dedicated and non-secure transportation – includes the movement (e.g. to census field staff) of blank questionnaires and non-questionnaire related materials (e.g. bags, pens, etc). Blank questionnaires will be distributed using dedicated transportation, sealed complete with a manifest that will only include census products. The other materials will be distributed to the same standards as expected throughout census, including manifests etc, but it will be allowable to include other non-census materials in the transportation.

6.9.2 Secure distribution – this includes the transportation of completed questionnaires, high value items (e.g. laptops for field managers) and any product or item which may even remotely contain census data (e.g. Enumerator Record Books). TNT was successful in a

small competition for the 2009 Census Rehearsal. A further procurement competition will be carried out in the summer of 2010 to award a single supplier for the 2011 Census using the OGC buying solutions framework for couriers, which includes secure distribution. The POSTCOMM approved framework includes such suppliers as Royal Mail and TNT, all of which operate in accordance with the Information Assurance standard ISO 27001. Additional requirements will include controlled manifests and locked/ sealed containment.

6.10 A summary of other contracts

6.10.1 A number of other procurements are required to support the larger ones, or the delivery of the census on a wider scale. Many of these have no security connotations.

6.10.2 Publicity and Communications – a contract for advertising, design and media buying services was awarded following an OJEU procurement process. Other smaller communication contracts were subject to competitive procurement via Central Office of Information (COI) frameworks during 2008 and 2009.

6.10.3 Translation services – existing call-off contracts were used for the Census rehearsal. Two further contracts will support census, one for Welsh only using a preferred supplier, all other languages being competed through another government department’s framework.

6.10.4 Print management (non-questionnaire related leaflets and other materials) – ONS’ in-house services were used for the census rehearsal. The greater requirement for the 2011 Census was competed through the OGC buying solutions print management framework and provisionally awarded to 3M SPSL in November 2009. They provided significant value-for-money whilst also achieving the highest marks for security.

6.10.5 Telecommunications – the provision of mobile phones for team-leaders is being provided through the existing ONS contract for the rehearsal. The full requirement for census will be competitively procured during the summer of 2010.

7 Census Online Data Collection

7.1 Background

7.1.1 In addition to the traditional paper questionnaire, new for the 2011 Census will be the option of extensive use of the Internet by census respondents. The internet facilities include:

- census questionnaire on-line
- on-line help facilities, including FAQs and some audio-clips
- provision to request materials (e.g. a replacement questionnaire; a questionnaire for an individual within a household; translation materials, etc.)

7.1.2 Various security measures are built into the online data collection system, to counteract threats from hacking or attempts to disrupt the system availability (e.g. denial of service attacks) or to deface the website. In addition, advice is given to the public on how they can protect their own security, including statements on the site such as the ONS will never email the public asking them to respond giving personal Census information, or their Internet access ID.
7.2 Online Census

7.2.1 The internet channel aims to provide a highly usable and accessible service, while also assuring the public that their personal data is secure. The online census system will meet accessibility standards and will provide a new option for individuals who are visually impaired or otherwise have problems with completing a response on paper.

7.2.2 The 2011 Census internet presence has a single aim, which is to provide a new option for those who want to use it, to make the completion of the census questionnaire as simple as possible. The online questionnaire collects the same information which is requested on the paper form and will not attempt to gather other information about internet usage or habits.

7.2.3 As the internet has become more pervasive, the need to include it as a possible interaction channel for the 2001 census has increased. It is now considered a fundamental component of the 2011 Census programme. Based on the successful experience of online census questionnaires in Australia, New Zealand and Canada in 2006, ONS expects that about 25% of all respondents will complete the census questionnaire on-line.

7.2.4 The internet solution does not require respondents to download any software. Using a variety of popular web browsers, the public will securely access the system via an encrypted link, as used by online banking applications.

7.2.5 The design of the 2011 online census has taken account of international experience and internet design expertise to make the system as easy as possible for the public to use. Modifications have been made as the result of user testing on a range of people from different age groups and community backgrounds. Feedback has been positive that the application is simple to use.

7.2.6 When presented with the opening screen users will be able to choose to use either the census online, census help pages or to request certain materials be sent to them (eg translation leaflets).

7.3 Accessing the online census

7.3.1 Respondents will gain access to the online census using an internet access ID that is printed on their paper questionnaire. The internet access IDs will be similar to the compact disc licence keys commonly found with commercial software packages, consisting of 20 alphanumerics characters presented in groups of four characters that the respondent enters into the login screen for the online census application. We believe that this familiar approach to authentication will be well received by the public. Failed access attempts to the online census will be logged with associated data to support subsequent analysis and the undertaking of required corrective actions.

7.3.2 Questionnaires will be checked for completeness when respondents attempt to submit them. As the respondent completes the questionnaire, we perform some validation and edit checks for some questions. If questions have not been completed, we give the respondent the option of being directed to the missing portions of the questionnaire.

7.3.3 Users have the option to save their return and come back later. Users returning to the website after being away simply log back into the website using their internet access ID and continue where they left off. They can do so from any suitable computer since all data is kept centrally in our operational data centre. This applies equally to users who walk away from a session and are subsequently timed out after an interval.

7.3.4 Access to questionnaire data is based on the internet access ID used to create it. This keeps the respondent's data secure prior to submission by limiting access to the respondent's data to the respondent, who is the only person who knows the ID and who carries the responsibility to protect it while it is in use, just as with any other user id and/or password they may possess. The formulation of the internet access ID is such that it is extremely difficult to guess an algorithmically valid ID and even harder to guess one that is actually associated with a particular household or individual. This design also protects against fraudulent submissions and malicious behaviour.

7.3.5 Our online census service architecture is primarily concerned with the usability and availability of the website and the protection of the data provided via it. The facilities used to deliver online census provide security testing for the systems and telecommunications services that are at the core of the online census service. Given the criticality of these services, they are designed to provide very high levels of physical and information systems security and availability. This includes physical access controls to the facility, denial of service protections in the network, diversely routed communications services, and on-site power generation capabilities that can support the facility for weeks at a time. The online census facilities for the 2009 Rehearsal, for instance, have been subject to security testing by Logica, and by independent testing carried out on behalf of the ONS.

7.4 Census online help

7.4.1 For those respondents who encounter difficulty with particular questions while using the online census, we will provide links to the relevant census help pages, as well as providing for global access to help topics and features. It is believed that the online help will answer most of the public queries, and allow them to complete their questionnaire. The online help application will also be used by our helpline staff to ensure that common answers are provided to on-line and non on-line users.

7.5 Online request for materials

7.5.1 Some kinds of requests can be processed online. These include requests for a new or replacement questionnaire; or for a translation or information leaflet. For other requests, such as a request for a field visit, the respondent will be advised to call the census helpline. Only a valid address is required to order material online, although a name or contact details may be requested in case of difficulty.

7.6 Advice for members of the public

7.6.1 Advice for members of the public on actions they can take to maintain the confidentiality of their personal census data is provided online. This includes statements such as the ONS will never email the public asking them to respond giving personal census information, or their Internet Access ID.

7.7 Online Census – decommissioning

7.7.1 Completion of the data gathering phase of the Census will be followed by formal decommissioning of the internet based services and their supporting infrastructure. All
infrastructures will be ‘wiped’ of data to exacting government standards to ensure that no collected data is leaked inadvertently.

8 What are the technical and practical arrangements for capturing census data, securing it, and transferring the data to ONS?

8.1 Government Security Standards

8.1.1 ONS will ensure that government-wide standards for information risk management and data security are met. Census information has been classified as RESTRICTED with security implemented to meet that level. For high risk components of the census operation security measures have been implemented consistent with SECRET level.

8.1.2 Census adheres to all mandatory requirements of the HMG Security Policy Framework. This is supported by compliance with the following CESG Information Assurance Standards:
- Standard No 1 – Technical Risk Assessment;
- Standard No 2 – Risk Management and Accreditation of Information Systems;
- Standard No 4 – Communications Security;
- Standard No 5 – Secure Sanitisation of Protectively Marked Information or Personal Information; and
- Standard No 6 – Protecting Personal Data and Managing Information Risk.

8.1.3 In addition to the above government standards, the census will comply with ISO27001 (the international standard for an Information Security Management System (ISMS)). The census security team, supported by professional security contractors working for ONS, oversees the compliance of suppliers and their staff with these government standards.

8.2 Census data Capture

8.2.1 Census data is captured by two means. Firstly, the paper questionnaires are scanned and an image taken of every single page. Optical Mark Recognition (for tick-boxes) and Optical Character Recognition (for write-in responses) software is used to capture the responses from the paper questionnaire. Operators look only at ‘snippets’ of form images to capture any information that can not be read automatically, and to code some write-in responses. The second method of capture is via the online census option – an image is created for each online response for archive purposes.

8.2.2 The census data capture centre is the capture and processing centre provided under the Lockheed Martin UK contract. The operational data centre houses the servers and network equipment on which the online census is hosted, and in which the scanned images and captured data are stored. Partly for security reasons, the operational data centre is physically located within the census data capture centre.

8.2.3 Both data capture methods result in an image of the census questionnaire, as well as the census data. ONS ensures that the computer systems and communication networks at the data capture centre comply with the government security standards. This includes the specification of security standards in the contract, assurance and testing by Logica for the Lockheed Martin UK consortia, and testing carried out by ONS and on behalf of ONS by independent security professionals.

8.2.4 In addition to systems and network security, the data capture centre and operational data centre also have strong physical security measures in place to ensure that physical access is monitored and that access to particular parts of the building is only granted to authorised staff. ONS will have a team of staff permanently based at the data capture centre to handle more complex queries, and to authorise physical and IT security accesses.

8.2.5 All contractor staff in the data capture centre will have government approved baseline security checks carried out to provide appropriate vetting and background checks. The staff in the operational data centre with access to all or large parts of the census (about 30 people, in two shifts) will work for ONS and will have additional security checks carried out, and will be cleared to handle SECRET data.

8.3 Data Transfer

8.3.1 The large files of census images are transferred to ONS using government approved encrypted hard disks which are securely couriered to ONS. The census statistical data will be transferred to ONS via a secure encrypted private network.

9 Pre-addressing of questionnaires, and questionnaire tracking

9.1 Background

9.1.1 Until 1991 census field staff both delivered and collected the census questionnaires for their ‘enumeration district’ (of say 250 households). Whilst census headquarters did not have up-to-date information on progress and response rates, this information was known by the field staff – they knew what had been delivered; what collected; and therefore what was still outstanding and needed following-up.

9.1.2 For the 2001 Census ONS introduced post-back of questionnaires. This proved popular with the public and 88% of census questionnaires were returned via this route. The questionnaires were collected by Royal Mail and delivered to over 2,000 locations for onward delivery to the field staff – partly so that they could check off posted questionnaires to know which households still needed to be followed up. However, in practice in the 2001 Census, there were problems with the post-back operation – questionnaires were delayed or misdelivered. This meant that field staff were not sure which questionnaires were outstanding and wasted resources following up addresses which had already responded. Similarly, if a respondent claimed to have returned the questionnaire, the field staff had no way of identifying whether or not this was a genuine claim. For the 2001 Census, neither the field staff, nor census headquarters knew which questionnaires were outstanding. This lead to pockets of poor enumeration in the 2001 Census that were not identified until well after the field operation had finished.

9.2 Questionnaire tracking (QT) in 2011

9.2.1 For the 2011 Census the ONS is retaining post-back, but direct to the data capture centre – this will avoid the difficulties and delays encountered in 2001. However, to ensure
The design of the 2011 Census requires a comprehensive, high quality address register for all areas in England and Wales. In particular the introduction of a questionnaire tracking system needs a high accuracy address list, as does the move to delivering the register for all areas in England and Wales. In particular the introduction of a questionnaire tracking system needs to be "stitched" together to create a full questionnaire. In addition each questionnaire will have a unique Internet Access Code (IAC) for online authentication. The address, unique identifier, and IAC will all be held on the questionnaire tracking system.

The QT system will be updated at various points during the census process. The initial stage will be to "seed" the QT with up-to-date addresses. When questionnaires are overprinted with an address, the link to the unique questionnaire identifier and IAC will be added to the QT. The QT will be updated when questionnaires are delivered to the Royal Mail for delivery to the public.

When questionnaires are returned by post, Royal Mail will separate out census returns (they will be very obvious in the post) and send them to one of 24 sorting offices equipped with scanners able to accommodate A4 envelopes. These will read the bar code through a window in the return envelope, to enable the QT to be updated with a "receipt" flag. In this way ONS will know very quickly which questionnaires have been returned. This will enable the field staff to avoid contacting members of the public who have already returned their questionnaire, and to focus their efforts on non-respondents who may need help or persuasion to complete their questionnaire.

In addition, when someone completes their census questionnaire online, the use of their unique Internet Access Code also enables us to know that a return has been submitted, and that this household does not need to be followed up.

Census field managers (co-ordinators and area managers) will have dedicated laptops provided for them to use for the Census primarily to access the questionnaire tracking system, and to make updates to it (e.g. linking the questionnaire barcode to an address when a replacement or new questionnaire is given out to a member of the public). The QT system does not hold information from census questionnaires; it only holds information to support the census operation. This is primarily the response status for each address, but also provides lists of those addresses which need to be followed up for encouragement or help. It will contain addresses for households where materials have been requested (e.g. translation materials; large print questionnaires, etc), and may contain telephone numbers if callers to the census helpline have given that information to enable local field staff to contact them.

The field laptops are encrypted, and have restrictions (such as disabling of USB ports) to prevent any information being downloaded from the laptop. All laptops will be retrieved from the field managers at the end of the Census, and will be cleared of all census information.

10 Address Register and sharing of address information

10.1 Background

10.1.1 The design of the 2011 Census requires a comprehensive, high quality address register for all areas in England and Wales. In particular the introduction of a questionnaire tracking system needs a high accuracy address list, as does the move to delivering the vast majority of census questionnaires via post, rather than hand delivery as was done in previous censuses.

10.1.2 In the absence of a single authoritative source of national address information, ONS is developing an address register that meets census requirements in terms of quality and coverage, and which local authorities can be confident will effectively underpin census enumeration and outputs. This involves two key strands of development:

10.2 Matching and resolution

10.2.1 Full use is being made of the main sources of address lists: the Royal Mail Postcode Address File (PAF); the Ordnance Survey MasterMap Address Layer 2 (AL2); and the Local Authority address lists (the Local Land and Property Gazetteer). The National Land and Property Gazetteer (NLPG) is administered by the local authority community through the Improvement and Development Agency (iDeA). In addition other data sets will be used to help improve the register for particular areas, or types of establishments.

10.2.2 ONS is matching these sources to identify addresses that are common for inclusion on the Address Register. Addresses that are not common, or anomalies, will be resolved through close liaison with the data suppliers and local authorities who will use a variety of methods for resolving these anomalies. These methods may involve resolution through post men and women, use of other data sources available to suppliers or individual local authorities, such as the Valuation Office Agency (VOA) data, electoral roll and registers of building permits etc.

10.3 Address checking

10.3.1 Experience from the 2007 Census test and other small scale tests has shown that in some areas there can be critical deficiencies in the address register with large numbers of missing addresses, invalid and duplicate addresses. Therefore to ensure that the address register is as accurate as possible, ONS is also planning on carrying out a separate address checking exercise.

10.3.2 This address check would be carried out by address checkers in at most 30 per cent of the areas where there is greatest uncertainty about the quality of the register. The check would be carried out over a 4-6 month period finishing some six months before the census to ensure that the information gained can be assimilated into the address register to enable the printing of the census questionnaires. Address checkers will be given a list of addresses to check within a predefined area. In a small number of instances where the address cannot be verified or identified from the street, the address checker will make contact with the householder. The address checker will only verify and record the address.

10.3.3 The selection of areas to address check will be based on a number of factors including rate of household change, the extent of multi-occupation and the degree of inconsistency between the PAF, NLPG and OSAL2.

10.3.4 This effort in preparing an address register for the census provides the opportunity for permanent improvements in the existing address lists. Therefore ONS intends to share the information gained through address checking, namely new addresses such as housing developments or flat conversions with the main address list suppliers, where such
information does not disclose any personal census information. To this end all the main address list providers have signed an information sharing agreement which will facilitate the sharing of the information gathered from address checking and help in the resolution of unmatched addresses.

10.3.5 However, no information on addresses identified as part of the operational Census will be shared with any other party. In this way, members of the public can be assured that their addresses will not be added to any government address databases as a result of participating in the census. So, for instance, a member of the public may ring the census helpline to say that they have not received a questionnaire. If ONS were to discover that their address was not on the census address list, this address would not be shared with the address providers. In practice, no addresses discovered as part of the census operation after February 2011, will be shared.

11  How will we use the information collected?

11.1  How will the results be published?

11.1.1 The ultimate benefits of the census are realised when the users of census data make use of the published outputs. The investment in the 2011 Census can only be justified if the results are made accessible and the outputs produced meet user needs. ONS is seeking to ensure the widest possible use is made of 2011 census outputs to ensure that the benefit from investment is maximised. In doing so, it is essential that ONS ensures that the data provided remains confidential, and ONS is legally obliged via the Statistics and Registration Service Act 2007 to protect the confidentiality of respondents.

11.1.2 Statistics from the 2011 Census will be delivered in a variety of formats and disseminated in a number of ways. Primarily products will consist of published reports, summary statistics, and geographic maps, which will be made available via the internet and on DVDs. Anonymised micro-data samples will also be produced, as described below.

11.1.3 Outputs from the 2011 census will use new technology enabling users to define tables online according to their own specification, based on more detailed aggregated datasets. A bespoke tabulation service will also be provided via ONS census customer services which will enable users to request bespoke statistics from information collected in the 2011 Census and any of the previous censuses.

11.1.4 Publishing data in any format does carry a risk, to some degree, that an individual, household, or organisation may be identified in the published statistics and confidential information released, and the risk increases as the level of detail in the published statistics increases. ONS therefore will take a number of approaches to make useful data available, whilst protecting against such risks.

11.2  Statistical disclosure control methods for aggregated data

11.2.1 Statistical disclosure control is an attempt to balance the utility (or statistical value) of published statistics against the potential for disclosure of confidential information. In order to achieve this balance ONS will adopt a range of techniques which modify or summarise the 2011 census data.

11.2.2 As in previous censuses, precautions will be taken so that published tabulations of census data are in line with both the Statistics and Registration Service Act 2007 and the Code of Practice for Official Statistics.

11.2.3 Extensive research has been undertaken by ONS to determine the most effective ways of protecting published census statistics, drawing on academic and international expertise. The details of this research can be found at:

11.2.4 This research has resulted in the following suite of methods to protect aggregated 2011 Census outputs:

- restricting the number of output categories into which a variable may be classified, such as aggregated age groups
- where the number of people or households in a geographic area falls below a minimum threshold, the statistical output - except for basic headcounts - will be amalgamated with that for a sufficiently large enough neighbouring area
- modifying some of the data before the statistics are released through ‘record swapping’, where records with similar characteristics are swapped with a record from another geographic area.

11.2.5 For some more detailed tables, where the impact of disclosure control on the usefulness of the data is too great, special access arrangements will be put in place for approved researchers, as defined in the Statistics and Registration Service Act.

11.3  Anonymised micro-data samples, and safe settings

11.3.1 Microdata are a sample of individual and household records drawn from the census data, which have been anonymised to protect confidentiality.

11.3.2 Analyses from the microdata samples produce more reliable estimates for small populations, such as ethnic group or religion and or geographical area, and are often required for more sophisticated analyses of population data.

11.3.3 The availability of such samples was a major, and successful, innovation of the 1991 Census, and these were extended in 2001. Following the 2001 Census five samples of microdata were produced and access to these files was controlled differently depending on the level of disclosure risk in each file.

11.3.4 Two of the files (a 3% and 5% sample of anonymised individuals) were non-disclosive (following the application of disclosure control methods) and were made available to users through an end-user license. One file (a 1% sample of anonymised households) contained more detail, due to its hierarchical nature and hence had a higher disclosure risk (even after disclosure control methods had been applied). A stricter license/access arrangement was therefore put in place whereby the user could only download this file provided they had been granted ‘approved researchers’ status by ONS and agreed to comply with strict governance procedures to protect confidentiality.

11.3.5 The remaining two files (a 3% sample of anonymised individuals and a 1% sample of anonymised households) contain high levels of individual detail and never leave Census
12.1.1 The primary legislation covering the census in England and Wales is the Census Act 1920.

12.1.2 Section 1 of the Census Act 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). The United Kingdom Statistics Authority holds the statutory powers of the Statistics Board and acts 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.

12.2 The Census Order

12.2.1 The purpose of the Census Order is to direct that a particular census of the population shall be taken and to state:
- the date of the census;
- the area to be covered by the census;
- the persons required to complete the census returns;
- the persons required to be included in the returns; and
- the content of the questions to be answered.

11.5.6 There is a strong need for microdata in 2011 to continue the extensive research and policy development that access to the 2001 microdata has provided. A variety of organisations have accessed, or commissioned research of, the microdata to further understanding of key social issues. A report commissioned by the University of Manchester ("A business case for microdata files from the 2011 Census", Demographic Decisions Ltd, April 2009 http://www.ccsr.ac.uk/sars/2011/documents/businesscase.pdf) identified a wide range of organisations (e.g. Department for Work and Pensions, Equal Opportunities Commission and Carers UK) who had used microdata during research on topics such as ethnic minorities in the labour force; differences in pay and unemployment amongst ethnic minorities; and an analysis of the economic and financial security of carers. Examples also included 100 surveys carried out by GfK NOP Market Research, which used microdata to optimise sample and survey data – for example a four year tracking survey for Digital Switchover designed to measure households' awareness of and preparedness for digital switchover. The survey required significant samples of vulnerable people. The SARs were used to identify levels of households containing pensioners, people with long term limiting illnesses, disabled groups, ethnic groups, etc.

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11.4 Will census records be shared with any other party

11.4.1 No personal census data will be shared with any other party, except organisations acting on behalf of ONS to help in the production of statistics, as described elsewhere in this PIA. All such parties will be bound by contractual terms and are subject to the legal provisions of the Statistics and Registration Service Act.

11.4.2 Personal 2011 Census data will not be provided to any other government department or local authority; nor will it be provided to commercial organisations for direct marketing or any other activities.

11.5 Linkage to other datasets

11.5.1 Since 1971, ONS has linked census data to birth, death and cancer registration records and to subsequent census records for a 1% sample of the population, in what is known as the Longitudinal Study. This provides a uniquely rich source for policy research on a wide range of health and social issues, for example providing statistics on key indicators such as life expectancy by social class. This will be continued using the 2011 Census data. The Longitudinal Study will conform entirely to the principles of fair processing of personal data and sensitive personal data demanded by the Data Protection principles.

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12.2.2 The Census Order for England and Wales requires the approval of both Houses of Parliament. The Schedule to the Census Act sets out the specific topics on which questions may be asked in the census. These are:

1. Name, sex, age.
2. Occupation, profession, trade or employment.
3. Nationality, birthplace, race, language.
4. Place of abode and character of dwelling.
5. Condition as to marriage, relation to head of family, issue born in marriage.
5A. Religion

12.2.3 Religion was added to the Schedule by virtue of the Census (Amendment Act) 2000 and is the only question which may be included in the census on a voluntary basis.

12.2.4 In respect of these topics and of the Instrument as a whole, the Order is subject to the negative resolution procedure. However, the Census Act also allows questions on any other subject to be included in the census, as long as they will provide statistical information relating to the “social or civil condition of the population”. In respect of the particulars for these questions, the Census Order is subject to the affirmative resolution procedure, and the particulars may be modified by agreement of both Houses of Parliament.

12.2.5 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.

12.3 Census Regulations

12.3.1 Section 3 of the Census Act contains a power for Regulations to be made for the procedure and practical arrangements for the census, enabling the Census Order to be carried into effect. The provisions of the Regulations cover, among other matters:

- the appointment of field staff
- the arrangements for the delivery of questionnaires and the collection of the completed returns
- the arrangements to ensure the security of personal census information, and the form of a undertaking to protect confidentiality to be signed by all field staff and other persons either employed on the census or providing services to the UK Statistics Authority for the purposes of the census; and
- facsimile copies of the questionnaires

12.3.2 The power to make the Regulations for England was transferred to the Minister for the Cabinet Office by the Statistics and Registration Service Act 2007 (Schedule 1, paragraph 3). It is intended that Regulations for the 2011 Census in England, which are subject to the negative resolution procedure, will be made and laid before both Houses of Parliament, in spring 2010, after the Census Order has been made. Responsibility for the Regulations in Wales now rests with the Welsh Ministers and arrangements are being made for similar Regulations to be submitted to the Welsh Assembly.

12.4 European census legislation

12.4.1 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 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 this Regulation.

12.5 Human Rights legislation

12.5.1 Article 8 of the European convention on Human Rights states that:

**RIGHT TO RESPECT FOR PRIVATE AND FAMILY LIFE**

1. Everyone has the right to respect for his private and family life, his home and his correspondence.

2. There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic society in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others.

12.5.2 The provisions of Article 8 of the European Convention on Human Rights as incorporated in the Human Rights Act 1998 allow public authorities to enquire into a person’s private life where they have a legal authority to do so and where such an enquiry is necessary in a democratic society for one of the aims stated in the Article.

12.5.3 The requirement to comply with the census is therefore entirely in accordance with the Human Rights Act in that the lawful authority is given by the Census Act 1920 and that it is necessary for the economic well-being of the country and for the purposes of the protection of health and the rights and freedoms of others.

12.5.4 Ultimately it is for the courts to interpret the law and in 2002 this point was tested in a court of law and the court agreed that the census was permitted under Human Rights law.

12.6 Keeping census records confidential

12.6.1 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, 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.

12.6.2 In addition to the general confidentiality provisions of Section 39 of the Statistics and Registration Service Act 2007, 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 and Freedom of Information Act.
12.6.3 The Government’s White Paper *Helping to shape tomorrow* (Cm7513), published in December 2008, 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.

### 12.7 How do the 2011 Census arrangements comply with the 1998 Data Protection Act?

The Data Protection Act 1998 (DPA) sets out eight legally enforceable Data Protection Principles (DPP):

12.7.1 **First principle** - Personal data shall be processed fairly and lawfully and, in particular, shall not be processed unless at least one of the conditions in Schedule 2 is met, and in the case of sensitive personal data, at least one of the conditions in Schedule 3 is also met.

12.7.1.1 The Schedule 2 condition that is met is that the processing is necessary for compliance with the legal obligation that ONS have under the 1920 Census Act.

12.7.1.2 As the data being processed under the 2011 Census will be sensitive personal data, a condition from schedule 3 of the DPA needs to be met. This condition is that the processing of the data is necessary for the exercise of any function of a government department.

12.7.2 **Second principle** - Personal data shall be obtained only for one or more specified and lawful purposes, and shall not be further processed in any manner incompatible with that purpose or those purposes.

12.7.2.1 Safeguards are in place to ensure that the census data is only used for statistical purposes. Once this information has been received by ONS, or its third party contractors the confidentiality provisions of S39 of the Statistics and Registration Service Act apply.

12.7.3 **Third principle** - The personal data requested is adequate, relevant and not excessive.

12.7.3.1 ONS is mindful of potential public concerns about census being intrusive and has striven to strike a balance between user needs and the amount of data collected. This is described in section 3 (the case for the census) which describes the alternatives considered, and in section 5 (questionnaire content) which describes the consultation and evaluation carried out to determine the questions to include.

12.7.4 **Fourth principle** - The personal data is accurate and where necessary kept up to date.

12.7.4.1 Due to the important role the census plays in future planning for the UK, ONS endeavours to ensure that census data is as accurate as possible. The following sections of the PIA describe the steps taken to check accuracy of the data collected. Section 5 describes the questions to be asked, including those to be included to help get the count right; section 5 also describes the census question testing process. Section 9 describes the address checking and questionnaire tracking system, which help ensure that addresses are not missed.

12.7.4.2 It is not necessary to keep census information up to date as the census is a snapshot in time.

12.7.5 **Fifth principle** - Personal data processed for any purpose or purposes shall not be kept for longer than is necessary for that purpose or those purposes.

12.7.5.1 Under section 33(3) of the Data Protection Act personal data that is only held for statistical purposes is exempt from the 5th principle of the Data Protection Act. Longstanding government policy is that census records remain closed in the custody of the ONS, as set out in section 12.6.3.

12.7.6 **Sixth principle** - Personal data shall be processed in accordance with the rights of data subjects under this Act.

12.7.6.1 Section 33(4) of the Data Protection Act exempts information that is only processed for statistical purposes from the provision of the DPA that give an individual the right to see their own personal information.

12.7.6.2 A data subject does not have the right to object to ONS processing their information collected during the census as ONS is processing this information in order to meet its legal obligations under the Census Act.

12.7.7 **Seventh principle** - Appropriate technical and organisational measures shall be taken against unauthorised or unlawful processing of technical data.

12.7.7.1 Sections 6, 7, 8 and 13 of this report set out the technical and practical arrangements throughout the census operation; including the field operation; data capture; online census; and ONS processing of census data, to ensure the security of the data.

12.7.8 **Eighth principle** - Personal data shall not be transferred to a country or territory outside the European Economic Area.

12.7.8.1 No processing of personal information collected in the 2011 Census will take place outside of the UK. As stated in section 6.3, the census data capture centre and census helpline will be UK based.

12.7.9 As well as being conducted in accordance with the Data Protection Act, the Statistics Authority respects its duties of common law confidentiality and ensures that the personal data it holds is held in a manner that ensures compliance with Statistical Law (the Statistics and Registration Service Act 2007). The Statistics Authority does not allow use of personal information for non-statistical purposes.

### 13 What are the arrangements for retaining and destroying the information?

#### 13.1 Retention and destruction of census records

13.1.1 The scanning of paper census questionnaires, and the online census, result in an image of the census questionnaire, as well as a database of the census data. The images
will be transferred to microfiche and will be stored at ONS’ premises for 100 years, before
digitising and release for use by family historians and others.

13.1.2 As in 2001, the 2011 Census paper questionnaires will be securely shredded and
pulped.

13.1.3 Census information, both data and images, will be held securely by ONS once
delivered from ONS contractors. The information will be used for quality assurance of
census results, and for production of disclosure controlled census outputs. Only a limited
number of approved ONS census staff will have access to the census personal information
for these purposes. Published results will be produced from a database that does not
contain names or identifiable individual information.

13.2 Decommissioning of systems and IT equipment

13.2.1 All census supplier systems will be de-commissioned in line with Government
standards for the de-commissioning of IT equipment and media holding sensitive material.
This de-commissioning will be carried out under the direct supervision of the census
security team.

13.3 Retention of HR records for census field force

13.3.1 Candidates are able to apply for posts either on a paper application form or on-line.
Key information from paper application forms is transferred into the recruitment system to
track progress throughout the campaign. All electronic data is stored securely on IT
systems and paper copies are stored in a secure location at Capita’s offices.

13.3.2 Application forms of unsuccessful candidates are held by Capita for a period of one
year from the end of the campaign date (in case of legal challenge against non selection),
after which time they are destroyed. Application forms of successful applicants and
contracts of employment are collected and held by Capita and are accessible by ONS
during the employment period. At the end of the census, all electronic and paper
information will be securely transferred to ONS.

13.3.3 Any other information relevant to the employee that is gathered in the course of
employment, for example copies of letters, case notes and sick certification will be retained
by the manager for the duration of the employees contract. All managers are provided
with guidance about storage of personal information and an explanation of their obligations
under the Data Protection Act. At the end of the employment period, the manager sends
all personnel files to ONS via secure courier and this is stored for a period of six years
from the end of contract date, in line with the Chartered Institute of Personnel and
Development (CIPD) guidance on the retention of personnel and other recruitment related
material. It will then be securely destroyed.

13.3.4 Tax year end files are retained electronically whilst other pay related documentation
are retained on paper. All of this pay related information will be held by Capita for the
duration of the Census and then transferred to ONS at the end of the census for seven
years retention, in line with the Taxes Management Act 1970. It will then be securely
destroyed.

13.3.4 All employees will be contacted at the end of the census to ask if they would be
prepared for their contact details to be retained so that they can be contacted regarding

14 Conclusion

14.1 England and Wales has a 200+ year track record of running censuses. The census
paints a unique picture of society, and uniquely provides information on small areas and
small population groups, which are hidden in the results from sample surveys, for instance.
Whilst the census is compulsory, ONS and its predecessors have always recognised that it
has an over-riding responsibility to cherish and protect the personal census data entrusted
to it by the people of England and Wales.

14.2 The 2011 Census proposals are consistent with the 1920 Census Act, the Statistics
and Registration Service Act 2007, the Human Rights Act 1998 And the Data Protection
Act 1998. There are strong limits on the use that can be made of census data, with strong
legal, organisational and technical safeguards preventing its use for any other purpose.
census personal information is used only to produce statistical outputs and analyses.

14.3 The ONS consulted on the ongoing need for information traditionally provided by
the census, and received strong demand for this information to continue to be available.
ONS considered alternatives to the census, and set out a vision in 2003 for an approach
that integrated administrative sources and survey information. However, all countries
which have moved to this kind of system have in place both a population register and
address register, which are widely accepted within society and are kept up-to-date by
being linked to important administrative uses.

14.5 The census benchmarks the population estimates, which are used to allocate about
£100 billion of expenditure to local authorities and health authorities every year. Without
the periodic ‘re-setting’ provided by the census, these allocations would be increasingly
unrepresentative.

14.6 The benefits of the census have been spelt out in great detail in the Census
Business Case, which has been reviewed by, amongst others, the Treasury and OGC. Not
all of the benefits are easy to value, but those which have been valued easily exceed the
costs of carrying out the census.

14.7 Since 2005, the ONS has carried out an extensive and transparent census
consultation process, which has sought inputs from as wide a range of interests as
possible. ONS has sought only to include new questions where there has been a well
made case that there is no alternative that could provide the information, and that the
census is a suitable vehicle for asking the question. ONS has carried out over four years of
development and testing of questions. This has included postal tests involving many tens
of thousands of people, along with in-depth question testing on over 550 people of
differing backgrounds, to ensure that the questions are easy to understand, are acceptable
to the public, and will give good quality results.

14.8 To meet the demand from users for census questions would have required over six
pages of questions per person; the 2011 Census questionnaire contains four pages of
questions per person. Some privacy impacts have been avoided by minimising the
collection of personal information to what is strictly necessary, and by the non-collection of
contentious data items. Some questions have not been included because the case made
was not as strong as for other topics or questions; some have not been included because they are not acceptable to the public, and resulted in an unacceptable drop in response rate (e.g. Income), and some were not included because the results were not reliable, as well as not being generally accepted (e.g. sexual identity). In addition, there has been strong pressure to include additional tick-boxes in certain questions. Whilst some have been included (e.g. five choices for health rather than three), many such requests have not been included in the proposed 2011 Census questionnaire because of space or other constraints.

14.9 Overall, the 2011 Census contains the same number of household questions, and six additional individual questions; not all questions will need to be answered by every person. The qualitative and quantitative testing that ONS has carried out gives strong reason to believe that the proposed 2011 Census is reasonable and acceptable to the vast majority of the public of England and Wales who will accept some small loss of privacy in return for better public and private sector provision of services to them. Most questions are very quick to answer and the questionnaire should only take a family of four about 30-40 minutes to complete, which ONS believes is a reasonable burden to impose once every ten years in return for the wealth of uses of the information collected.

14.10 The 2011 Census contains a number of new questions, aimed at helping to understand society today. In particular there has been significant demand for information to help understand migration related issues, given the rapid changes in migration patterns in the last decade. Additional questions (such as second homes) are designed to help ONS count people in the right place; to understand the census count; and to be able to explain differences between census counts and administrative information available to others.

14.11 The 2011 Census introduces a number of innovations. It is ONS’s view that the benefits of the innovations significantly outweigh any privacy risks. And that these privacy risks can be mitigated by careful system design, training of staff, and technical solutions (eg firewalls, encryption, etc for the internet solution). Some of the innovations (eg post-back direct to the data capture centre) potentially reduce any privacy risk.

14.12 ONS has outsourced a number of functions for 2011, whilst remaining responsible for the census. All staff working on contracts for other suppliers are subject to the same confidentiality and privacy obligations as ONS staff. A wide range of operational procedures have been put in place to ensure that all such staff understand these obligations, and associated penalties.

14.13 ONS is aware of some concern about the contract to print the census questionnaires, scan/capture the data, and to provide the online census which has been awarded to Lockheed Martin UK. Very detailed particular provisions have been put in place in respect of this contract. These ensure that census data is processed in the UK, and that no Lockheed Martin staff have access to any personal census information.

14.14 Measures have been taken in other parts of the census process to support public trust in the Census, including self-imposed limits on the sharing of address information; and the employment of census field staff as ONS employees. Statistical disclosure control methods will be put in place for publication of census results, to ensure that no individual is uniquely identifiable in the published census results.

14.15 The census communications and publicity activities will include information to explain the rationale for the census and the census questions, and how taking part in the census is in the best interests of the neighbourhoods and communities to which people belong. It will also explain the reasons for asking each question, and the uses to which the statistics produced are put, by government, businesses, charities, and others.

14.16 The significant number of consultation, research, evaluation and other papers referenced in this Privacy Impact Assessment testifies to the long-term and thorough approach that ONS has taken to developing the 2011 Census questionnaire. ONS believes that the proposed 2011 Census questionnaire and census operational arrangements strike a reasonable balance between the demands from users of census information; the burden on the public; and the concerns of the public in respect of the privacy of their information.
Appendix A - Comparison of 2011 and 2001 questions

The tables below the household and individual level questions recommended for inclusion in the 2011 Census in comparison to 2001.

Proposed content for household pages in England and Wales

<table>
<thead>
<tr>
<th>Topic</th>
<th>2001</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usual residence</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Household and family relationships</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Accommodation type</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Dwellings and self-contained accommodation</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Number of rooms</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Household tenure</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Type of landlord</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Number of vehicles</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Visitor details (new, but asked in 1991 &amp; earlier)</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>Number of bedrooms (new)</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>Type of central heating (new)</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>Central heating</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Bath/shower and toilet access</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Lowest floor level</td>
<td>✓</td>
<td>✗</td>
</tr>
</tbody>
</table>

Proposed content for individual pages in England and Wales

<table>
<thead>
<tr>
<th>Topic</th>
<th>2001</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Sex</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Date of birth</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Marital or civil partnership (new) status</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Students in full-time education and term-time address</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Country of birth</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Address one year ago</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Ethnic Group</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Religion</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Knowledge of Welsh (Wales only)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Health status</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Long-term illness or disability</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Carer information</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Qualifications</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Economic activity status</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>NS-SEC (self-employed, occupation, supervisor status, ever worked)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Industry/name of employer</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Workplace address</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Transport to place of work</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hours worked</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Second residence &amp; type of second residence (new)</td>
<td>✗</td>
<td>✓</td>
</tr>
</tbody>
</table>
### Appendix B: Proposed 2011 Census Questions and their uses

<table>
<thead>
<tr>
<th>General Topic</th>
<th>Specific topic</th>
<th>User requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>Usual residents</td>
<td>• Fundamental for production of population estimates at national and local level. These estimates underpin a myriad of important funding and planning decisions both nationally and locally</td>
</tr>
<tr>
<td>*Visitors</td>
<td>Information collected on the name, sex, date of birth and usual address of visitors will ensure that everyone is counted, and enables accurate estimates of the population. Without this information, some people would be missed from the census altogether</td>
<td></td>
</tr>
<tr>
<td>Student/student address</td>
<td>To identify students and schoolchildren and ensure they are counted at the correct address. This helps to ensure an accurate measure of the usually resident</td>
<td></td>
</tr>
<tr>
<td>*Second residence &amp; type of second residence</td>
<td>To ensure everyone is counted at the correct location and avoid people being counted twice. To gain a better understanding of the fluidity of the population and the demand for housing and local services</td>
<td></td>
</tr>
<tr>
<td>Demographics and social composition of households</td>
<td>Name</td>
<td>Used to ensure accurate listing of residents</td>
</tr>
<tr>
<td>Sex</td>
<td>• Key demographic variable required to produce breakdown of the population by sex</td>
<td></td>
</tr>
<tr>
<td>Date of birth</td>
<td>• Key demographic variable required to produce breakdown of the population by age</td>
<td></td>
</tr>
<tr>
<td>Marital/civil partnership status</td>
<td>• Allows for the production of population estimates by marital/civil partnership status at national and local level, which helps to inform the allocation of resources and planning for services and housing. Since December 2005 same-sex couples in the UK have been able to form Civil Partnerships, a legal status that gives rights and responsibilities similar to that of marriage</td>
<td></td>
</tr>
<tr>
<td>Relationships</td>
<td>• Information on household and family relationships informs a range of government policies concerning the family, children and caring. Particularly important in relation to housing policy. The identification of multi-family households is particularly important for assessing the current and future demand for dwellings</td>
<td></td>
</tr>
<tr>
<td>Migration</td>
<td>Address one year ago</td>
<td>• For analysis of migration within and into the UK. Inform local economic development strategies, service planning and neighbourhood policy development</td>
</tr>
<tr>
<td>Country of birth</td>
<td>• To analyse trends in migration and forecasting of future patterns. For use in combination with data on ethnic group and religion to get a much finer level of detail of people’s cultural background at local level. Inform a range of policies, including economic development and social cohesion. Used by the commercial sector in identifying store product ranges</td>
<td></td>
</tr>
<tr>
<td>*Year and month of arrival to the UK (for non UK born)</td>
<td>• To obtain a more accurate picture of trends in migration to the UK plus better understanding of the proportion of recent immigrants that remain in UK. Inform policy in relation to local labour markets and the wider local economy, and to assist in the planning of local services such as housing</td>
<td></td>
</tr>
</tbody>
</table>

**Appendix B: Proposed 2011 Census Questions and their uses**

<table>
<thead>
<tr>
<th>General Topic</th>
<th>Specific topic</th>
<th>User requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Intended length of stay in the UK (for non-UK born arriving in the previous year)</td>
<td>• Enables more accurate calculation of the UK resident population. Provided to be those staying in the UK for 12 months or more. Provide information on the number of short term migrants, to enable assessment of their impact on local labour markets and their demand for local services</td>
<td></td>
</tr>
<tr>
<td>*Passports held (as a proxy for citizenship)</td>
<td>• To measure the populations of citizens of other countries at local level, in particular citizens of recent EU accession countries. Provides a measure of the number of people entitled to use public services. Enables calculation of proportion of the population eligible to vote who actually register to vote</td>
<td></td>
</tr>
<tr>
<td>Ethnicity, identity, religion and language</td>
<td>Ethnic group</td>
<td>• Enables public bodies to meet statutory obligations under the Race Relations Act (1976) the Race Relations (Amendment) Act 2000 and Equal Opportunities legislation. To inform resource allocation by central and local government. To inform policy development and monitoring. To provide public bodies with a better understanding of the communities they serve</td>
</tr>
<tr>
<td></td>
<td>National identity</td>
<td>• In combination with information on ethnic group, provides a better understanding of local populations and communities. To enable respondents to express their identity in relation to the countries within the UK. To allow British-born ethnic minorities to express a 'British identity' separately from recording their ethnic group.</td>
</tr>
<tr>
<td></td>
<td>Religious affiliation</td>
<td>• To allow public bodies to assess and tackle discrimination and social exclusion, specifically in relation to the Race Relations (Amendment) Act 2000 and other equality legislation e.g. Equality Act 2006. Policy development and monitoring aimed at assessing the needs of sections of minority groups. Local government service provision to determine how best to cater and plan for people's religious backgrounds</td>
</tr>
<tr>
<td></td>
<td>Main language and English language proficiency</td>
<td>• To inform central government, local authorities and NHS on resource allocation and service provision for non-English speakers e.g. English teaching and translation services</td>
</tr>
<tr>
<td></td>
<td>Knowledge of Welsh language</td>
<td>• To inform policy development and monitoring e.g. used by the Welsh Language Board for policy formulation and review, and to guide strategic operations and developments. To help public bodies to meet their statutory duties under the Welsh Language Act 1993.</td>
</tr>
<tr>
<td>Health</td>
<td>General health</td>
<td>• Research shows that this is a good predictor of the demand for primary healthcare. The results are used in central and local government resource allocation. Used in policy development and monitoring in relation to the delivery of health care. Enables identification of health inequalities</td>
</tr>
<tr>
<td></td>
<td>Long term illness/disability</td>
<td>• Enables identification of health inequalities</td>
</tr>
<tr>
<td>Labor Market Socio-economic status and qualifications</td>
<td>Reviews, Recruitment and Employment Policies, Accessibility Strategy etc</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------</td>
<td>-----------------------------------------------------------------------</td>
<td></td>
</tr>
</tbody>
</table>
| **Carers**                                         | • Provision of unpaid care is a key indicator of the care needs in defined populations and geographical areas, and has important implications for the planning and delivery of health and social care services  
|                                                   | • Local government resource allocation e.g. carers breaks  
|                                                   | • To develop national and local policies to support carers effectively  
|                                                   | • Used alongside other measures of health to identify local health inequalities  
| **Labour Market**                                  |**Economic activity status**  
|                                                   | • Used by central and local government, researchers and other organisations to understand local labour markets and to develop and monitor policies at the local and regional levels  
|                                                   | • Key indicator in the indices of deprivation and used to allocate community and economic development funding  
| **Job title and job description**                  | • Provides information about occupations and enables derivation of socio-economic status – a fundamental concept for researchers, policy makers and private businesses  
|                                                   | • Used in central and local government resource allocation  
|                                                   | • Required by central and local government to understand economic performance and analyse local labour markets  
| **Name and activity of employer or business**      | • Improves information about occupations and used in the construction of the National Statistics socio-economic classification (a key variable for economic analysis and policy development)  
|                                                   | • Required at a local level to understand economic performance and analyse local labour markets  
|                                                   | • To inform forecasts of employment (by sector, occupation and industry) and for transport planning  
| **Self-employed/employee**                         | • Used in the construction of the NS socio-economic classification  
|                                                   | • For analysis of labour market trends to support transport planning, employment forecasting and to formulate policies on enterprise and entrepreneurship.  
| **Supervisor status**                              | • Used in the construction of the NS socio-economic classification  
| **Hours worked**                                  | • To identify working patterns and labour supply in local areas and target resources  
| **Qualifications**                                | • Used in the analysis of deprivation and to assist central and local government resource allocation  
|                                                   | • Used to construct NS socio-economic classification.  
|                                                   | • Used in studies of educational achievement as a contributing factor in labour market, health etc outcomes  
|                                                   | • Identifying disadvantaged population groups and promoting equal opportunity  
|                                                   | • To determine “hot-spots” in the population where learning provision is required  
| **Workplace address and travel to work**          | • To inform local and national transport services and policies  
| **Housing**                                       | • To identify the state of the housing stock and provide a firm basis for assessing current and future housing requirements  
|                                                   | • To measure housing standards by identifying the number of households sharing or lacking facilities  
|                                                   | • As an indicator of housing standards and quality, the information will be used by central and local government to aid work on eliminating fuel poverty and reducing deprivation.  

Number of rooms  
• To help central and local government assess changes in overcrowding and develop appropriate housing policies  
• To help plan future housing provision  

Number of bedrooms  
• To provide further information on overcrowding  
• To help local authorities tackle inequalities and deal effectively with housing problems in inner city areas  

Tenure and type of landlord  
• To help central and local government assess changes in housing demand, allocate resources and revise and develop housing plans and policies  

Number of vehicles  
• To assist central and local government with transport planning.

Questions marked * are new for the 2011 census.
### Appendix C – Consultation, research and testing timetable

This appendix described the step-by-step process of consultation, research and testing that has led to the proposed census question content for 2011.


<table>
<thead>
<tr>
<th>Year</th>
<th>Consultation and publications</th>
<th>Question development and testing</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Consultation and publications</th>
<th>Question development and testing</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Consultation and publications</th>
<th>Question development and testing</th>
</tr>
</thead>
</table>
### Appendix D – Criteria for selection of questions

In March 2006 ONS published The 2011 Census: Assessment of Initial View on Content for England and Wales


This listed, and described in detail, the criteria to be used for selection of topics to be included in the census questionnaire, and the scoring of each topic against these criteria.

The Criteria used were as follows:

<table>
<thead>
<tr>
<th>User requirement</th>
<th>ONS considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>General User need</td>
<td>Data quality</td>
</tr>
<tr>
<td>Small geographies</td>
<td>Public acceptability</td>
</tr>
<tr>
<td>Alternative sources</td>
<td>Respondent burden</td>
</tr>
<tr>
<td>Multivariate analysis</td>
<td>Operational concerns</td>
</tr>
<tr>
<td>UK comparability</td>
<td>Use for operational purposes</td>
</tr>
<tr>
<td>Continuity</td>
<td>Use for coding</td>
</tr>
<tr>
<td></td>
<td>Balance of topics</td>
</tr>
</tbody>
</table>

The scores for each topic were updated and republished in December 08, following further research and development. The scores for each potential topic against each of the user requirements criteria are shown in the following tables, for both households and individual person topics, on a scale of 1 to 10 (1 Low, 10 High), with a weighted overall score. The detailed marking scheme for each criterion, and the weighting to produce the overall score for each topic, are also described in the link above.

Topics with grey shading are not proposed for inclusion in the 2011 census.

### Evaluation of user requirements for household topics

<table>
<thead>
<tr>
<th>Topic</th>
<th>Score</th>
<th>Criteria</th>
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<tbody>
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<td></td>
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<tr>
<td>Households</td>
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<tr>
<td>Relationships</td>
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<tr>
<td>Tenure</td>
<td>86</td>
<td>9</td>
</tr>
<tr>
<td>Visitor information</td>
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<td>9</td>
</tr>
<tr>
<td>Accommodation type</td>
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<td>8</td>
</tr>
<tr>
<td>No. of rooms/bedrooms</td>
<td>78</td>
<td>8</td>
</tr>
<tr>
<td>Dwelling/self contained</td>
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<td>7</td>
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<tr>
<td>Number of vehicles</td>
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<td>7</td>
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<tr>
<td>Central heating</td>
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<td>6</td>
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<tr>
<td>Smoke alarms</td>
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<td>6</td>
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<tr>
<td>Bath, shower &amp; toilet</td>
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<td>5</td>
</tr>
<tr>
<td>Internet access</td>
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<td>6</td>
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<tr>
<td>Lowest floor level</td>
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<td>6</td>
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<tr>
<td>Use of childcare</td>
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<td>5</td>
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<tr>
<td>Garden access</td>
<td>47</td>
<td>5</td>
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<tr>
<td>Accom more than 1</td>
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<td>Pet ownership</td>
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<tr>
<td>Renewable energy</td>
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<td>3</td>
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</tbody>
</table>

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2011 Census - Privacy Impact Assessment

59

2011 Census - Privacy Impact Assessment

60
### Evaluation of user requirements for individual topics

<table>
<thead>
<tr>
<th>Topic</th>
<th>Score</th>
<th>User need</th>
<th>High Small</th>
<th>High Alt. sources</th>
<th>High Multi-variate</th>
<th>High National importance</th>
<th>High Continuity</th>
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<td>Long-term illness or disability</td>
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<td>7</td>
<td>7</td>
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<td>Address one year ago</td>
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<td>Religion or belief</td>
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<td>Intended length of stay</td>
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<td>Self-employed or employee</td>
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<td>0</td>
</tr>
</tbody>
</table>

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2 Name is required for operational purposes and was not evaluated using the criteria.
3 Sex and Date of birth are key to all Census outputs and were not evaluated using the criteria.
4 Information on students and their term-time address are used to accurately measure the usually resident population and were not evaluated using the criteria.
5 National Statistics Socio-Economic Classification, derived from a number of other questions.