



**Report of a
PRIVACY IMPACT ASSESSMENT**

**Conducted by the
Northern Ireland Statistics and Research
Agency**

**in relation to the

2011 CENSUS
Northern Ireland**

May 2010

TABLE OF CONTENTS

2011 Census – Introduction	5
Background to the census	5
What is this document for?	6
What is a Privacy Impact Assessment?	6
What is privacy?	7
What type of Privacy Impact Assessment have we conducted?	7
Summary of 2011 Census innovations and any associated privacy concerns.....	9
The Case for the 2011 Census	10
Benefits of the census	10
Is the information traditionally provided by a census still required?	10
Are there alternatives to a census in 2011?	11
Drivers for change to the 2011 Census design	12
2001 Census design	12
Lessons learnt from the 2001 Census.....	12
Changes in society since 2001	13
2011 Census design strategic aims	14
The 2011 Census design.....	14
Questionnaire content.....	15
Background and approach to consultation.....	15
2011 and 2001 Census questionnaires compared.....	16
2011 Census Questions – topic consultation introduction	17
Topic consultation – details.....	18
2005 Census topic consultation	18
Response to topic consultation	19
2006 Information days on census content	19
Specific stakeholder organisations	19
Central government	19
Census Advisory Group and Statistics Advisory Committee.....	19
Ministers and the Northern Ireland Executive.....	20
Questionnaire testing.....	20
Questionnaire testing introduction	20
Cognitive testing	21
2007 Test questionnaire	21
Postal tests	22
Omnibus survey testing	22
Focus groups	23
Equality issues.....	23
Population bases for enumeration and outputs.....	23
Final questionnaire content.....	24
Questionnaire content overview.....	24
International migration	24
Mobility within Northern Ireland and complex living arrangements	25
Proposed new questions.....	25

2011 Census questionnaire – privacy considerations.....	28
2011 Questionnaire privacy consideration overview.....	28
2007 Test Evaluation Survey findings.....	28
Question non-response rates.....	29
Conclusions of research into privacy issues relating to questionnaire content	31
Use of third parties.....	32
Background to procurement of 2011 Census services	32
Scope of 2011 Census procurement	33
Questionnaire ('Route A') services	34
Recruitment, payroll and training for census field force	36
Postal services.....	36
Post out.....	37
Post back.....	37
Public fulfilment.....	37
Distribution.....	37
A summary of other contracts	38
Census online data collection	39
Background.....	39
Online census	39
Accessing the online census.....	40
Census help centre	41
Online request for materials.....	41
Advice for members of the public.....	41
Online census – decommissioning	41
What are the technical and practical arrangements for capturing census data, securing it, and transferring the data to ONS / NISRA.....	41
Government security standards	41
Census data capture	42
Data transfer	43
Pre-addressing of questionnaires, and questionnaire tracking	43
Background.....	43
Questionnaire tracking (QT) system in 2011.....	43
Address register and sharing of address information.....	44
Background.....	44
Address checking	45
How will we use the information collected?.....	46
How will the results be published?.....	46
Statistical disclosure control methods for aggregated data.....	46
Anonymised micro-data samples and safe settings.....	47
Will census records be shared with any other party.....	48
Linkage to other datasets.....	48
Linked surveys.....	49

What is the legal basis for the 2011 Census?	49
Census Act (Northern Ireland) 1969	49
The Census Order	49
Census Regulations.....	50
European census legislation	50
Human Rights legislation	51
Keeping census records confidential	51
How do the 2011 Census arrangements comply with the 1998 Data Protection Act?	51
What are the arrangements for retaining and destroying the information?	53
Retention and destruction of census records.....	53
Decommissioning of systems and IT equipment.....	54
Retention of HR records for census field force	54
Conclusion	54
Appendix A - Comparison of 2011 and 2001 questions.....	57
Appendix B - Proposed census questions and their uses.....	59

1. 2011 Census - Introduction

1.1 Background to the census

- 1.1.1 The responsibility for making the necessary arrangements for planning, conducting and reporting of the census in Northern Ireland rests with the Registrar General, an official of the Northern Ireland and Statistics Research Agency (NISRA). The census in England & 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 (GROS) is responsible for the census in Scotland. The three census offices are responsible to different legislatures, but work closely together on questions and methodology to maximise consistency in the census results. NISRA has joined with ONS in the procurement of services to print, capture and process the census questionnaires and provide the necessary public interfaces services (including online completion) to help make the census a success.
- 1.1.2 Census taking is a standard practice around the world. Under the auspices of the United Nations Census Programme around 200 countries will carry out a census (or equivalent data collection) in the 2010-2011 period.
- 1.1.3 The census is compulsory in Northern Ireland. 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 Census Act (Northern Ireland) 1969. In addition, for each separate census, a Census Order and Census Regulations are made setting out the specifics of each individual census (e.g. questions asked). The protection of the confidentiality of census results is subject to the confidentiality and privacy provisions of the Census Act (Northern Ireland) 1969 as amended by the Census (Confidentiality) (Northern Ireland) Order 1991. 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 Since 1951, censuses in Northern Ireland have been held at ten yearly intervals, with the exception of the additional 1966 mid-term Census.
- 1.1.6 The census provides three broad categories of information:
- counts of population units – e.g. 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/350 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 census questionnaire if they do not wish their personal census information to be seen by other members of their household. This individual form can be completed either on paper or online. 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, which do not identify individuals, are published. Within Northern Ireland, under the Census Act (Northern Ireland) 1969, census records are closed indefinitely.

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 Commissioner's 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 PIA has been guided by the Information Commissioner's Office's PIA handbook:

http://www.ico.gov.uk/upload/documents/pia_handbook_html_v2/index.html

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 Northern Ireland, 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 NISRA.

2.2.4 This PIA 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 Northern Ireland, 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 United Kingdom (UK) and the census programme was already well established before the PIA process was published. There is no legal requirement to carry out a PIA. However, NISRA has decided to carry out a PIA for the 2011 Census because of the requirement for everyone in Northern Ireland to participate in the census, and because of known privacy concerns which have already been raised during previous censuses and in the media.

2.3.2 Privacy and confidentiality have been long-standing concerns for NISRA and for censuses elsewhere in the UK, so most of the good practice enshrined in the PIA process was already well established within the census programme. The purpose of the document is to pull all this together, and make it more readily available.

2.3.3 Different types of privacy impact are possible depending on the scale and nature of the project. NISRA 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 Given that censuses have been conducted regularly in Northern Ireland, in particular every 10 years since 1951, this document focuses 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; and
- an analysis of the public acceptability of the scheme and its applications.

2.3.6 The following table summarises the changes introduced in the 2011 Census, and an assessment of the potential privacy concerns that these might raise.

Summary of 2011 Census innovations and any associated privacy concerns

2011 innovation	Potential privacy concerns
Additional questions for 2011; additional tick-boxes within questions.	Concerns about additional intrusion and understanding the justification for questions.
Greater outsourcing of census processing.	Increased scope of outsourced services, and heightened concerns about security and privacy.
Online census.	May be a concern about personal census information being accessed unlawfully through 'hacking', or being accessed through other means (e.g. phishing).
Pre-addressing of questionnaires; printing of unique barcode on questionnaire; and questionnaire tracking.	Some people may be concerned about the tracking of questionnaires through individual barcodes.
Address Register and sharing of address information.	Sharing of address information between address providers and NISRA. NISRA sharing new addresses they identify with address providers.
Census outputs and Statistical Disclosure Control (SDC).	Whether the new methods protect personal information sufficiently well.

2.3.7 This PIA therefore focuses on:

- 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. SDC); and
- the legal basis for the census.

3. The Case for the 2011 Census

3.1 Benefits of the census

3.1.1 The information from the census is used widely and underpins national and local decision making. Central government, local authorities, the health and education services, the academic community, commercial businesses, professional organisations and the public at large all need reliable information on the number and characteristics of people and households if they are to conduct their activities effectively. 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;
- targeting investment – for many government funding uses, data must be consistent. 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 NISRA's statistics are benchmarked or grossed up using census data.

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

3.2.1 The content and planning of the 2011 Census has been informed by an ongoing programme of consultation with an initial consultation exercise launched in December 2004:

http://www.nisranew.nisra.gov.uk/census/2011_census_consultation.html

Although the responses clearly indicated that there is a continued requirement for census type information it does not follow that a census is the only method by which the information can be obtained - for example, sample surveys can readily describe characteristics of the Northern Ireland population and administrative data sources can provide counts of sub-groups of the population. However, the three UK census offices have independently concluded that a 'traditional' census operation will still be required in 2011. NISRA's views, with regard to the retention of the traditional census are summarised in [The Future Provision of Demographic Statistics in Northern Ireland \(Towards the 2011 Census\)](#) which concludes by recommending a 2011 Census operation that is broadly based on the experiences gained in 2001.

3.2.2 The results of the user consultation are available at:

http://www.nisranew.nisra.gov.uk/census/Consul_Summ.pdf

3.2.3 Census information is also the foundation of the annual mid-year population estimates, and provides decennial detailed statistics for geographic areas and small population sub-groups.

3.3 Are there alternatives to a census in 2011?

3.3.1 The business case for the 2011 Census included a review of alternative ways of collecting such information. These included:

- 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; and
- a simple headcount.

The key conclusion was that the census was still the most authoritative source of information for a wide range of uses. It provides a snapshot of the country, with consistent and comparable information for small areas and sub-populations, and allows multivariate analyses that are not feasible using any other data source.

3.3.2 Accordingly, in the absence of any sufficiently comprehensive alternative sources of information, and in order to be assured of meeting the wide range of users' needs for information, it was concluded that plans for a 'traditional' census in 2011 should be taken forward.

4. Drivers for change to the 2001 Census design

4.1 2001 Census design

4.1.1 The 2001 Census design had the following major elements:

- NISRA outsourced the printing and capture of questionnaires for the first time. The contract for printing, scanning, capture and coding was undertaken by Lockheed Martin, on behalf of the three census offices in the UK;
- NISRA, in conjunction with the NICS Recruitment Service, were responsible for the recruitment of some 2,974 census field staff – census area managers (6), census district managers (97), census team leaders (281) and census enumerators (2,590). A 'cascade' approach was taken to the training of field staff. NISRA trained the top two tiers of field staff who in turn trained all the census team leaders and census enumerators working for them;
- census enumerators carried out a variety of roles but were primarily responsible for identifying and delivering census forms to every household in their designated area (enumeration district) and following up those forms not returned from non-responding households;
- NISRA, in conjunction with the other UK census offices, contracted out the provision of payroll services 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, involving the re-enumeration of approximately 1% of post-code after normal census fieldwork using a short doorstep interview. The CCS returns were matched against the census returns, 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 NISRA, further details of which can be found at:

<http://www.nisranew.nisra.gov.uk/census/censusevaluation/index.html>

Formal reviews across the UK 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 95%. However:

- while steps were taken through CCS to adjust for underenumeration, the response rate of 95% is indicative of the increasing difficulty of achieving full enumeration. However, the less-than complete enumeration was successfully counterbalanced by the introduction of imputation to ensure that the census outputs reflected the full population);
- the introduction of post-back was a success in 2001. However the number of forms immediately mailed back by the public exceeded all expectations and was far in excess of the 70% expected. Whilst this led to less follow-up, the greater than expected postal flow caused backlogs to build up in the system and disrupted the flow of returned forms to the local field staff. The follow-up by field staff was hampered by this and led to unnecessary callbacks to households who had already returned their form;
- the area-based approach to recruitment was successful in most areas, but there were some staff shortages in certain areas;
- the outsourcing of payroll on its own was somewhat problematic. A very convoluted pay system was introduced and this coupled with a complex pay regime mandated by the service provider led to problems, with some staff being paid very late.

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 Northern Ireland (including from the EU accession countries);
- an ageing population with, in particular, increases in the numbers of the very elderly, with associated increased needs for support;
- an increase in access-controlled properties, which census field staff have greater difficulty enumerating;
- maintaining the response to government surveys requiring greater effort because, for example, people lead busier lives;
- the introduction of new communication channels, such as the internet, provides opportunities for new collection and communication methods; and
- Increased awareness of, and concerns regarding, data security.

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 provide high quality, value for money statistics that are fit for purpose and meet the needs of users;
- to maximise response by actively encouraging public participation in the census and raising awareness of its important role;
- to protect, and be seen to protect, confidential personal census information;
- to secure public and user confidence in the final results and deliver them in a timely manner.

4.4.2 NISRA has set out its plans for the 2011 Census in its paper “The 2011 Census of Population in Northern Ireland Population – Proposals”

<http://www.nisranew.nisra.gov.uk/census/pdf/proposals.pdf>

The paper explains that, subject to appropriate legislative approval, a census of population and housing should be taken in Northern Ireland on Sunday 27 March 2011.

4.5 The 2011 Census design

4.5.1 The key features of the 2011 Census design are: everyone usually resident in Northern Ireland on census night will be included, with a subset of information also collected from visitors present on census night. Information will 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 a full on-the-ground address check during the delivery phase of the census;
- each questionnaire will be pre-addressed and contain a unique barcode;
- forms will primarily be delivered by post in all areas apart from rural Fermanagh, where the address information is not considered to be of sufficient quality for the post-out approach;
- as in 2001, the public will be able to return completed forms either by post or, during follow-up, to a member of the census field staff. In addition, an online response 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 (by post or online), and reconcile them against those posted out. In this way the census field staff can identify those addresses who have not returned a questionnaire and make arrangements to contact them, issue reminders or provide any support that may be required;
- the census field staff will be civil servants, on special terms and conditions. The recruitment and payroll services for these staff will be carried out by the current NICS providers;
- there will be some small differences in the questions asked in Northern Ireland compared to the 2001 Census, (and some further differences compared with the censuses in England & Wales and in Scotland);
- stringent confidentiality and security procedures will protect the information gathered in the census and will conform to the requirements of confidentiality, Data Protection and Freedom of Information legislation;
- as in 2001, a CCS will be carried out, and the census database will be adjusted, through imputation, so that census outputs reflect the complete population;
- as in previous censuses, results will be published only for Output Areas (about 125 households) and larger geographies, and will be subject to 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. The initial consultation document issued in 2004 stated:

“The following high-level strategic aims will underpin the development of the 2011 strategy:

to provide high quality, value for money statistics that are fit for purpose and meet the needs of users”;

- *maximise response rates by actively encouraging public participation in the census and raising awareness of its important role;*
- *to protect, and be seen to protect, the confidential personal information collected through the census; and*
- *to secure public and user confidence in the final results and deliver them in a timely manner.*

Respondents to this consultation should consider the appropriateness of the census for their requirements before suggesting additional questions for the census and be mindful that questions on the census form must be:

- *succinct, as only a very limited number of questions can be asked;*
and
- *unambiguous and easily understood by everybody.”*

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.

5.2.2 The household section has 14 questions of which: two are guidance questions (i.e. 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;
- two are new for 2011 (type of central heating, and adapted accommodation);and
- three household questions from 2001 have been dropped (whether or not have bath / toilet access; lowest floor level lived on; and more than one floor lived on).

5.2.3 The individual section has 45 questions per person, of which:

- four are routing questions (i.e. to help the public skip over questions which do not apply to them);
- twenty are unchanged since 2001;
- eleven are modifications of the questions asked in 2001;
- ten are new for 2011 (see section 5.6.4.1 for details).

5.2.4 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.

5.2.5 The October 2009 Census rehearsal questionnaire for Northern Ireland is here:

http://www.nisranew.nisra.gov.uk/Census/pdf/H4_09.PDF.

Only minor modifications to this questionnaire are proposed for 2011; the final questionnaire will be attached to the Census Regulations laid before the Northern Ireland Assembly.

5.3 2011 Census questions – topic consultation introduction

5.3.1 The 2011 Census consultation started in December 2004. 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 variety of users – each with specific needs including government; businesses; and the public themselves who increasingly want more detailed information on the ‘state of the nation’;
- the views of representatives of particular groups who, for example, want a tick-box that separately identifies them;
- acceptability of questions to members of the public;
- NISRA’s ability to develop a question which is readily understood, is easy to complete, and provides reliable information;
- space constraints on the questionnaire; and
- 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, NISRA sought to make the decision making process as open and transparent as possible, with:

- a formal 14 week public consultation in 2005;
- publication of NISRA’s written response to the 2005 consultation, summarising user comments and NISRA’s revised proposals;
- holding public information days around Northern Ireland in March 2006 to share responses to formal consultation and seeking views on the proposed way forward in advance of the May 2007 Census Test;
- regular consultation with the Statistics Advisory Committee (SAC) and Census Advisory Group (CAG);
- conducting an equality screening exercise;
- testing of proposed questions to assess their comprehensibility and acceptability to the public; and
- meetings with individual groups, when requested.

5.3.3 The consultation 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 existed in other data sources.

5.3.4 Similar consultations were carried out for Scotland and England & Wales, and the results shared to seek the greatest harmonisation of questions possible across the UK.

5.3.5 NISRA believes that the 2011 Census question consultation, which is summarised below, has been extensive and transparent.

5.4 Topic consultation – details

5.4.1 2005 Census topic consultation

5.4.1.1 In December 2004 NISRA published a consultation document ‘The future provision of demographic statistics in Northern Ireland (towards the 2011 Census)’ on the NISRA website:

http://www.nisranew.nisra.gov.uk/census/2011_census_consultation.html

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 NISRA accurately assess these requirements against the following 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 NISRA, with links sent to all registered census users (around 1,100 people and organisations) and was supported by an NISRA news release.

5.4.1.4 Responses were received from 50 users (11 central government, 4 local government, 2 health and social services boards, 5 education sector, 4 special needs groups and 24 others), requesting the inclusion of around 70 topics.

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 to be met, the questionnaire would have needed to include more than six pages of questions per respondent, which would be unaffordable to NISRA, unacceptable to respondents and risk data quality.

5.4.1.6 The consultation responses were assessed against the criteria outlined above and range of other factors that NISRA had to consider before including a question in the 2011 Census. These included:

- whether data collected would be of sufficient quality to produce useful outputs;
- whether collecting the information would be acceptable to respondents (i.e. the public);

- whether collecting the information would significantly increase the burden on respondents;
- whether collecting the information would significantly increase the length of the questionnaire or coding costs.

5.4.2 Response to topic consultation

5.4.2.1 After reviewing the responses to this consultation, NISRA published an information paper on the NISRA website in September 2005, which outlined NISRA's assessment of the consultation responses and the factors considered:

http://www.nisranew.nisra.gov.uk/census/Consul_Summ.pdf

5.4.2.2 Alongside the NISRA assessment and prioritisation of user requirements, all of the individual responses were made available within the Consultation Summary:

http://www.nisranew.nisra.gov.uk/census/Consul_Summ.pdf.

5.4.3 2006 Information days on census content

5.4.3.1 In March 2006, a series of open meetings took place in Limavady, Belfast and Enniskillen to present proposals for the 2007 Census test questionnaire. The issues raised at the meetings are available on the NISRA website:

http://www.nisranew.nisra.gov.uk/census/2011_census_consultation.html

5.4.4 Specific stakeholder organisations

5.4.4.1 Section 75 equality groups identified by the Machinery of Government Division, OFMDFM, were specifically invited to respond at all times throughout the various consultation events. In addition, meetings will be held in the run-up to the census with specific groups, such as Disability Action, to ensure that all possible steps are taken to facilitate participation by the complete population.

5.4.5 Central government

5.4.5.1 Central government has been involved in the various consultation exercises through SCG, a Senior Civil Service group that considers cross-cutting projects such as the census, and through internal NISRA structures that span all government departments and a wide range of non-departmental public bodies (NDPBs).

5.4.6 Census Advisory Group (CAG) and Statistics Advisory Committee (SAC)

5.4.6.1 SAC is a statutory body that NISRA consults specifically about inquiries conducted under the Statistics of Trade and Employment (Northern Ireland) Order 1988. NISRA also consults SAC on wider statistical issues, and has kept the committee

informed on the development of the census. SAC has a membership that covers primarily the business sector and professional interests, but also includes the academic and community organisations with interests in special needs and minority populations (specifically the Equality Commission).

5.4.6.2 NISRA additionally consults with census users through a CAG that represents the interests of the main user groups. These cover:

- the voluntary sector (through the Northern Ireland Council on Voluntary Action (NICVA));
- local authorities;
- the business sector;
- academics, in particular statistics, geography, demography and health;
- the Equality Commission;
- other research organisation (including the NI Housing Executive).

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.

5.4.7 Ministers and the Northern Ireland Executive

5.4.7.1 The census is the responsibility of the Department of Finance and Personnel (DFP). The DFP Minister has been kept informed through the consultation. The paper outlining the proposals for the 2011 Census in Northern Ireland, described at section 4.4.2, contains a foreword by the Minister for Finance and Personnel, and was circulated by the Minister to Executive colleagues. The census is subject to the approval of the Assembly, through a Census Order and Regulations that are scheduled to be in place by summer 2010.

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. 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.

5.5.1.3 The topic experts on these working groups conducted further consultation with a range of census users, as required to inform the final question development to ensure that their interests were represented.

5.5.2 Cognitive testing

5.5.2.1 As described previously, the census offices across the UK worked closely to harmonise the questions in the separate censuses as far as possible. Given the high degree of communality of the content of the censuses, the Data Collection Methodology team at ONS was able to carry out a large programme of cognitive testing of census questions between February 2005 and July 2009 on behalf of all the census offices.

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 500 interviews with members of the public were undertaken over a four-year period.

5.5.2.3 This testing helped in the development of 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 census test covering some 14,000 households in five local government districts was carried out in Northern Ireland 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 used in the census test was published on the NISRA website:

<http://www.nisranew.nisra.gov.uk/census/H4.pdf>

5.5.3.2 The census test was supplemented by an Evaluation Survey in which a sub-sample of approximately 1,000 households were visited by interviewers who asked respondents for their views on issues such as the clarity of the questions and the acceptability of asking questions that some people might consider sensitive. A further sample of 250 people, who had not returned a census test questionnaire, was interviewed about the reasons for their non-response.

5.5.3.3 Five of the questions included in the 2007 Test (access to bath shower and toilet; house state of repair; second address; purpose of second address; and length of stay at second address) 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 evaluation of the 2007 Test questionnaire can be found on the NISRA website:

<http://www.nisranew.nisra.gov.uk/Census/censusevaluation/2007test.html>.

5.5.4 Postal tests

- 5.5.4.1 ONS also conducted a number of small-scale postal tests that have helped inform specific decisions on questionnaire design or content in Northern Ireland.
- 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 (England & Wales) 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). [In 2001, Northern Ireland had a 24 page questionnaire, covering six 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.

5.5.5 Omnibus survey testing

- 5.5.5.1 The Omnibus Survey is an NISRA run, multi-purpose survey based on interviews with a monthly sample of around 1200 adults (aged 16 and over) in private households. Census office undertook two rounds of tailored testing in the Northern Ireland Omnibus in May 2006 and August 2007. Details of this testing can be found on the NISRA website at:

<http://www.nisranew.nisra.gov.uk/census/Omnibus%20surveys.html>

The research was used to complement and support the detailed testing undertaken through the 2007 Census test.

5.5.6 Focus groups

- 5.5.6.1 Census office conducted a series of small scale focus groups of NISRA employees in order to identify and discuss any potential concerns with the proposed questions and the guidance / routing provided in the questionnaire. Representatives of the other UK census offices were invited to these focus group sessions to ensure that issues identified in Northern Ireland were captured and factored into UK development work.

5.5.7 Equality issues

- 5.5.7.1 An equality screening document has been produced which determined that a full-scale Equality Impact Assessment (EQIA) was not required. The screening document outlined that additional procedures have been adopted for some special populations such as people with no settled place of residence, for example travellers, and persons sleeping rough. These procedures will be implemented through initiatives like census office's community liaison strategy. The equality screening document can be viewed at:

<http://www.nisranew.nisra.gov.uk/census/pdf/policy%20screening%20form.pdf>

5.5.8 Population bases for enumeration and outputs

- 5.5.8.1 As a result of strong user requirements on migration in general, and specifically on the population resident in Northern Ireland for short periods of time, the population enumeration bases to be used in the 2011 Census have changed from those used in 2001.
- 5.5.8.2 Following detailed discussions with key users within and outside NISRA, 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 Northern Ireland for a period of three months or more. However, the population base for the main census outputs will remain, as in 2001, the "usually resident" population.
- 5.5.8.3 Therefore, the main outputs from the 2011 Census will only include the usually resident population, which is defined, under United Nations classifications, as those people who have lived, or intend to live, in Northern Ireland 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 census internationally.
- 5.5.8.4 Statistics on the short-term resident population will be included in separate outputs and will be used, for example, by NISRA to benchmark and improve estimates of short-term migration.

5.6 Final questionnaire content

5.6.1 Questionnaire content overview

- 5.6.1.1 The content for the 2011 Census, to be recommended to the Assembly through the Census Order, has now been determined within NISRA. The demand for information from users, following NISRA's consultation has been assessed and analysed, and only those topics that are considered essential for collection in the 2011 Census have been included.
- 5.6.1.2 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 for time-series analysis;
 - continuing comparability with other sources of information, within and outside NISRA; and
 - confidence that these questions will collect the information required, and be acceptable to respondents.
- 5.6.1.3 A number of questions have been modified since the 2001 Census, either to meet evolving user requirements, or to incorporate improvements identified during testing.
- 5.6.1.4 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.

5.6.2 International Migration

- 5.6.2.1 International migration, particularly short-term migration, has made it more difficult to produce population estimates in which users have confidence. The Northern Ireland census is part of a UK system and estimates the number of people resident in the UK who are living in Northern Ireland at the time of the census. In particular, a person currently living in Northern Ireland and remaining within the UK for at least 12 months will be included, but if they are leaving the UK within 12 months of arrival they will not be counted. Thus, 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. NISRA has proposed inclusion of questions relating to year and month of arrival in Northern Ireland 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 more effectively planned.

5.6.3 Mobility within Northern Ireland and complex living arrangements

5.6.3.1 More and more people move between residences, for a range of reasons, including:

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

5.6.3.2 NISRA needs to avoid counting such people twice, and needs to ensure they are counted in the correct location. This will be addressed through the development of clear instructions on how people should record themselves in the census, and checks during census processing.

5.6.4 Proposed new questions

5.6.4.1 There are ten 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 issues noted above and are as detailed overleaf:

Question topic

Uses

Main language spoken and English language proficiency (where English is not the main language). (2 questions)

To identify groups with low ability in English to inform service provision.

County of last previous residence and month / year of last taking up residence in Northern Ireland (asked of those who have lived outside Northern Ireland for a continuous period of one year or more). (3 questions)

To improve understanding of Northern Ireland migration and, in particular, the extent of 'return migration' by people born in Northern Ireland.

Intended length of stay in the UK (for those born outside the UK, arriving within the year prior to census day).

To help identify short-term UK residents, improve understanding of migration and inform service provision.

Passports held (as a proxy for Citizenship).

The EU Regulation (see section 12) requires information on citizenship. This question will provide the required information.

National Identity.

To allow people to declare their national identity. In particular, it improves the quality and breadth of information collected on ethnic group by allowing people from ethnic minorities to express a British / Irish identity independently from the ethnic group question.

Nature of disability – conditions which have lasted, or expected to last, at least 12 months.

This information is used to better understand the spatial distribution of people with specific long-standing conditions and to plan for better services.

Voluntary work carried out in the past year.

The labour market questions in the census refer solely to paid work. During consultation in Northern Ireland, user demand for information on the number, and nature, of people engaged in voluntary work was identified. Accordingly, it is proposed to ask a further separate question on whether in the past year a person has helped with or carried out any voluntary work without pay. This will quantify the number of people engaged in voluntary work, along with their characteristics.

5.6.4.2 The household questions proposed for 2011 are largely similar to those in 2001, with the central heating question extended to cover type of heating, and the bath / shower / toilet question (access to these facilities is now virtually universal) replaced with a question on adapted accommodation. In addition, with the primary aim of getting the census population count right, limited information will be sought on visitors on census night. While the visitor information required is greater than in 2001, such information was required in earlier censuses.

Question topic.	Uses.
Type of central heating.	Replaces whether or not have central heating.
Visitor details.	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.
Adapted accommodation.	To provide users with information on accessibility to household features for those people with disabilities.

5.6.4.3 As described in 5.5.4.2, NISRA, along with the other census offices, initially considered keeping to three pages of question per person. This would have meant that the proposed new questions on language, nature of health conditions, and the 2001 questions relating to qualifications, unpaid care and industry of employment, would not have been included.

5.6.4.4 However, NISRA judged that the demand for additional information was sufficient to justify an additional page of questions per person to be included. While there is an additional page per person, some of the additional space has been used to make the form easier to complete, as discussed further below. Excluding routing questions, there is a net increase of eight in the number of questions per person, from 33 in the 2001 Census to 41 in 2011.

5.6.4.5 The 2011 Census questionnaire will include space for six people per household, as 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. Alternatively, larger households will be able to use the online completion which allows for more than six persons per household.

5.6.4.6 Work has been undertaken to ensure that the questionnaire is better laid out and less cluttered as international experience of paper questionnaire design shows that this makes it easier for the public to complete. This was borne out in the 2007 Census Test Evaluation Survey (CTES) which showed that 73% 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 additional questions have resulted in a questionnaire length of 32 pages per person, compared with 24 pages in 2001.

5.6.4.7 As noted above, research by the census offices, including a review of academic literature, international census experience, and a 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.

5.6.4.8 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.

5.7 2011 Census questionnaire privacy considerations

5.7.1 2011 Questionnaire privacy consideration overview

5.7.1.1 Throughout the question research testing process, NISRA 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 undertaken by ONS;
- the May 2006 and August 2007 Omnibus surveys;
- internal focus groups within NISRA; and
- conversations with respondents during the cognitive testing process undertaken by ONS.

5.7.2 2007 Test Evaluation Survey findings

5.7.2.1 The 2007 CTES achieved responses from 794 people who responded to the 2007 Census test, and 170 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.

5.7.2.2 Of those who, through CTES, expressed concerns about questions in the Census test, 48% expressed concern about either 'source of income' or 'amount of income'.

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

5.7.2.4 A question on sexual identity was not included in the 2007 Test as the UK census offices felt that a) it was too intrusive b) would potentially lead to increased refusal rates and c) would not yield robust and reliable statistical information. This subject is covered in more detail at:

<http://www.nisranew.nisra.gov.uk/census/pdf/proposals.pdf>

5.7.2.5 Some 170 people, who didn't return a 2007 Census Test questionnaire, were also interviewed through the Census Test Evaluation Survey. Of the 154 responses provided by those who co-operated (note that each respondent may have stated more than one reason), the main reasons given for not participating in the Census Test were too busy and started it but then forgot (33% and 19% of responses respectively). Just under 4% of responses (6 in total) were associated with the questions being too intrusive.

5.7.3 Question non-response rates

5.7.3.1 When questionnaires from tests are returned to NISRA, some questions are left blank by respondents, for a range of reasons. This may be 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.

5.7.3.2 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:

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

These questions were however included in the 2009 Rehearsal from which the provisional question non-response rates were as shown overleaf. It is noted that this table reports an early provisional analysis of the rehearsal, and is subject to revision.

Analysis of Item Non-Response in the 2009 Census Rehearsal

Question Number	Variable(s)	% Item Non-Response
I21	Ability in Ulster-Scots	18.7
I44	Method of Transport to Work/Study	16.2
I41	Employer/Business Activity	16.1
I43	Workplace/Study Address	14.1
I10	Date of Arrival - Month And Year	14.1
I9	Country of Last Previous Residence	11.3
I5	Student	10.4
I34	Year Last Worked	9.8
I38	Occupation - Job Description	9.1
I4	Marital or Civil Partnership Status	7.7
I21	Ability in Irish	6.6
I37	Occupation - Job Title	6.0
I42	Hours Worked	5.8
I36	Employment Status	5.5
I29	Activity Last Week	4.8
I2	Sex	4.7
I28	Voluntary Work	4.6
I27	Qualifications	4.5
I1	Last Name	4.4
I3	Date of Birth - Day, Month and Year	4.2
I23	Health Conditions	4.2
I25	Carer	4.0
I1	First Name	3.8
I22	Disability	2.3
I16	Ethnic Group	2.1
I8	Ever Lived Outside NI	1.9
I19	Main Language	1.7
I24	General Health	1.6
I13	Address One Year Ago	1.6
I18	Religion Brought Up In	1.5
I17	Religion	1.5
I14	Citizenship	1.2
I15	National Identity	1.2
I7	Country of Birth	1.1

Participation in the rehearsal was voluntary, and as such, inferences that can be drawn from the data are severely limited. Further, the rehearsal was small scale, and, in particular, there were only 5 eligible respondents to the 'intention to stay' question as it applied only to people having moved here within the last year. More robust research evidence on this question is based on larger exercises undertaken by ONS.

5.7.3.3 In addition, ONS undertook a postal test in March 2009 with a random sample of 10,000 households, and included all the proposed 2011 Census questions (at that time), including those that were not in the 2007 Census test. For the 'passports held' question, the non-response rate was 1.7% giving no indication of significant privacy concerns. The 'intended length of stay question' had a non-response rate of 11.2%. However, research undertaken in 2008 specifically to test the public reaction to this question amongst migrant groups and amongst the general population, including a split sample postal test and focus group research commissioned from the National Centre for Social Research gave no cause for concerns.

5.7.3.4 As described in section 5.5.2, the questionnaire development process included extensive cognitive testing that was mainly undertaken by ONS on behalf of all the UK census offices. During the cognitive testing process, no significant concerns were raised in relation to any of the questions proposed for inclusion in the 2011 Census.

5.7.4 Conclusions of research into privacy issues relating to questionnaire content

5.7.4.1 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, NISRA has not found evidence that there are significant privacy related issues with the proposed 2011 Census questionnaire.

5.7.4.2 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.

5.7.4.3 The research outlined above has, however, resulted in the recommendation by NISRA to exclude two questions from the 2011 Census for which there were strong user requirements, on the grounds that they were a) too intrusive, b) posed a risk to response rates and c) were unlikely to yield robust and reliable statistical information. They were:

- sexual orientation; and
- income.

5.7.4.4 Further details on the results of this research can be found in the census proposals document at:

<http://www.nisranew.nisra.gov.uk/census/pdf/proposals.pdf>

5.7.4.5 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 requested online, from a call to the census helpline, or from census enumerators 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 NISRA is responsible for, and runs the 2011 Census in Northern Ireland, just over half of the total census budget (around 52%) is spent through external suppliers. The reasoning for this is based in three areas: a 10-yearly census it is not cost-effective for NISRA to invest in equipment and staff that will not be used in the intervening time; benefiting from technology advancements over the same period; and, NISRA can maximise economies-of-scale and core competences from specialist external providers.
- 6.1.2 NISRA's core competences focus on census statistical and operational design; questionnaire design; statistical processing; and, operations. They do not include, for example, recruiting a field force of approaching 2,000 people. It therefore makes sense to supplement NISRA 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. NISRA 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). Although strictly referring to ONS, 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." NISRA's outsourcing strategy in 2001 mirrored that of ONS, and NISRA jointly procured several key services with ONS.
- 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 NISRA applies, or may not be subject to the same protections and controls as are applied to NISRA. 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, NISRA has put in place both contractual and operational measures to ensure that the same privacy standards that NISRA would adopt, are applied by the companies with whom we work. NISRA remains fully responsible for the census design, which informs the specification of requirements for all contracts. NISRA ensures that there are rigorous testing and assurance processes (including rigorous security requirements) to ensure conformity with government guidelines, NISRA standards, and the law.

- 6.1.6 NISRA has insisted that there are a number of measures applicable to all contracts and their service providers. NISRA 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 any census information is wiped or destroyed appropriately.
- 6.1.7 Other decisions to protect the public include NISRA 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 NISRA employees or contractors, are subject to the census confidentiality legislation. All census staff, both NISRA 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 NISRA (in conjunction with ONS) assessed each of the census functions, against a set of criteria including:
- was it a census office / NISRA or industry core competency;
 - were there privacy considerations favouring outsourcing or an in-house solution; and,
 - does census office / NISRA 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 an options analysis, which identified the most appropriate linking or bundling of services, whether internal or external to NISRA. 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 (an ONS-led group with NISRA representation). These papers clearly identified the most appropriate bundling of services for census which would gain the greatest competitive interest from suppliers in seeking to 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 questionnaires and data capture – questionnaire printing; online census; scanning and capture of census questionnaires etc;
- postal service contracts;
- logistics and fulfilment contracts – i.e. 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;
- recruitment, payroll and training*.

* ONS has procured this service from the private sector. NISRA has made use of common services provided to the Northern Ireland Civil Service, for example, recruiting through HR Connect.

6.2.5 The procurement timetable in general started at an earlier stage than during previous censuses. NISRA has to follow the UK government and EU procurement regulations; census procurement has been led by ONS, on NISRA's behalf, with direct input and support from Central Procurement Directorate, DFP. Because of the major IT and other procurements involved with the census, the census programme is subject to Office for Government Commerce (OGC) gateway checks. This has involved separate Gateway reviews both at ONS and NISRA.

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 and web self-help; and
- 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 (LMUK) in August 2008.

6.3.3 NISRA 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 Northern Ireland. 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 NISRA and all of the legal undertakings of confidentiality of personal census information will apply to both NISRA 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);
- LMUK will design the processing systems for NISRA 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 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; and
- All staff that have access to the full census data set in the operational data centre work for NISRA (or ONS on behalf of NISRA).

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;
- NISRA 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 may 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 NISRA considered a wide range of options. Owing to the complex interfaces between the recruitment and payroll functions, it was decided to use the NICS HRConnect function that delivers recruitment and payroll services to the NICS. Additionally, it was decided to retain training services in-house and build on the successful training regime that was in place for the 2001 Census.
- 6.4.2 HRConnect is the Human Resource services for the NI Government Departments and other government agencies. HRConnect uses the latest technology to deliver high quality HR information, advice and support to all employees.
- 6.4.3 HRConnect 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 Whilst the vast majority of completed census questionnaires will be returned by post, or online, some members of the public will opt to hand their completed questionnaires to members of the census field force. Furthermore the enumeration of communal establishments (such as military bases, hostels, universities, boarding schools, etc) will be completed under a hand-delivery / hand-collection methodology. As such, some census field staff will have access to a number of completed census questionnaires. This will be 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, NISRA has maintained the position that the entire field force will be NICS employees and subject to the same Civil Service privacy obligations.
- 6.4.6 However, a further major field force privacy issue relates to maintaining the privacy of the personal details of the large temporary field force themselves. This will be managed through adherence to the Data Protection Act (by both HRConnect and NISRA).

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 92% of returned 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 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, NISRA completed this procurement in partnership with ONS 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 and, as such, they were awarded the contract early in 2009.

6.7 Post back

6.7.1 As with post out (above), NISRA, in partnership with 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 the procurement for such services.

6.7.2 Following this outcome, and in consultation with POSTCOMM, NISRA 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 the census, there is a requirement to handle requests from members of the public for translation leaflets, additional information or replacement blank questionnaires. NISRA are planning to undertake this service in-house from a specially commissioned NI census fulfilment centre. Although the scope of this service does not include handling completed questionnaires, NISRA will still adhere to stringent security standards when handling and storing blank questionnaires.

6.9 Distribution

6.9.1 Dedicated 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 includes the transportation of completed questionnaires 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 by the ONS (who will act as NISRA's agent) in the spring 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 the 2011 census in Northern Ireland will be awarded in Spring 2010, following a competition organised in conjunction with the Government Advertising Unit (GAU) and the Central Procurement Directorate (CPD) of DFP.

6.10.3 Translation services – existing call-off contracts were used for the census rehearsal. Two further contracts will support the 2011 Census, one for Irish and Ulster Scots using preferred suppliers co-ordinated for NISRA by the Department of Culture, Arts and Leisure's Equality and Diversity Branch. All other language requirements will be met by an ONS led procurement.

6.10.4 Print management (non-questionnaire related leaflets and other materials) – DFP's 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 (managed by the ONS, who act as NISRA's agent) 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 – NISRA are planning to provide mobile phones to all census field staff employed for the 2011 Census. These will be provided through an existing NICS contract or will be competitively procured, in conjunction with the service requirements for England and Wales in summer 2010.

7. Census Online Data Collection

7.1 Background

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

- census questionnaire online;
- online help facilities, including FAQs and some audio-clips; and
- 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 planned statements on the site that, for example, NISRA will not email the public asking them to provide personal census information or their internet access ID by email.

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 internet access has become near universal, the need to include it as a possible interaction channel for the 2010 Census has increased. It is now considered a fundamental component of the 2010 Census programme. Based on the successful experience of online census questionnaires in Australia, New Zealand and Canada in 2006, NISRA currently expects that up to 15% of all respondents will complete the census questionnaire online.

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 a 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 (e.g. 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 alphanumeric 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 simply log back 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 The 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 secure hosting 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, were subject to security testing by Logica, and by independent testing carried out on behalf of the NISRA.

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 online and non online 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 NISRA 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 / NISRA

8.1 Government security standards

8.1.1 NISRA 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 The 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 ISO 27001 (the international standard for an Information Security Management System (ISMS)). The census security team, supported by professional security contractors working for NISRA, 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 (LMUK) 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. NISRA 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 LMUK consortia, and testing carried out by NISRA and on behalf of NISRA 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. NISRA will have a team of staff based at the data capture centre during processing of NI data 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 will work for NISRA 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 NISRA using government approved encrypted hard disks which are securely couriered to NISRA. The census statistical data will be transferred to NISRA 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 around 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 and collected, and therefore what was still outstanding and needed following-up.

9.1.2 For the 2001 Census NISRA introduced post-back of questionnaires. This proved popular with the public and 92% of returned census questionnaires were returned via this route. The questionnaires were collected by Royal Mail and delivered to field offices for onward delivery to the field staff – partly so that they could identify which households still needed to be followed up. However, there were problems with the post-back operation – the volume of postal returns caused backlogs to build up in the system and disrupted the flow of returned forms to the local field staff. 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.

9.2 Questionnaire tracking system in 2011

9.2.1 For the 2011 Census NISRA is retaining post-back, but direct to the data capture centre – this will avoid the difficulties and delays encountered in 2001. However, to ensure that there is information to enable field staff to know which households need following up, NISRA is introducing a questionnaire tracking (QT) system for the 2011 Census. Each questionnaire will be pre-addressed and will have a unique identifier and associated barcode – these were used in 2001, but primarily to enable individually scanned pages of the questionnaires 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.

- 9.2.2 The QT system will be updated at various points during the census process. The initial stage will be to 'seed' the QT system 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 system. The QT system will be updated when questionnaires are delivered to the Royal Mail for delivery to the public.
- 9.2.3 When questionnaires are returned by post, Royal Mail will separate out census returns (they will be in clearly identifiable envelopes) and process them through a sorter able to accommodate A4 envelopes. These will read the bar code through a window in the return envelope, to enable the system to be updated with a 'receipt' flag. In this way NISRA 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.
- 9.2.4 In addition, when someone completes their census questionnaire online, the use of their unique IAC also enables us to know that a return has been submitted, and that this household does not need to be followed up.
- 9.2.5 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.
- 9.2.6 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 professionally cleared of all census information, to the relevant security standards.

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 Northern Ireland. In particular the introduction of a questionnaire tracking system needs a highly accurate address list, as does the move to delivering the vast majority of census questionnaires via post, rather than hand delivery as was the case in previous censuses.

10.1.2 NISRA is developing an address register that meets census requirements both in terms of quality and coverage, recognising its importance both for the enumeration and output processes. This address register will be based on the POINTER address database which is being developed for Northern Ireland by Land and Property Services, in conjunction with local district councils and Royal Mail.

10.1.3 The resulting census address register (CAR) will contain a list of addresses linked to higher level geographic areas for management, reporting and output purposes. This will require associating every address with an accurate positional reference, which will be used during the planning of field operations, the printing of questionnaires and the production of outputs.

10.2 Address checking

10.2.1 Pre-addressed census questionnaires, with a unique identifier and machine readable barcode associated with every address, will be posted out to most households using the CAR referred to above. Printing and despatch will be recorded on a questionnaire tracking system.

10.2.2 Enumerators will have responsibility for a fixed geographical area and list of addresses. They will carry out a full check of their area of responsibility (enumeration district) using the CAR. Enumerators will check for possible omissions from the register which could include newly built properties and older properties that have been re-developed. A check prior to the 2007 Census test, for example, revealed that a number of households within the sampled areas were not on the register at that time. These were found, for example, at multi-occupied addresses where houses had been converted into flats. Additionally, enumerators will try to identify those addresses on the register from which a questionnaire would not be expected to be returned, e.g. a derelict building.

10.2.3 Developments to POINTER that result from this joint work prior to the Census will enhance POINTER for all future users of the database.

10.2.4 Legal advice is currently being sought on the extent to which information on addresses identified as part of the operational census can be shared with any other party, in particular POINTER. It may be that address information identified as part of the census field-check operation (commencing in February 2011) must be used for census purposes only, and not shared with POINTER.

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. NISRA 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 NISRA ensures that the data provided remains confidential, and NISRA is legally obliged via the Census Act (Northern Ireland) 1969 – 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. Consideration is also being given to a bespoke tabulation service via NISRA census customer services which will enable users to request bespoke statistics from information collected in the 2011 Census and, possibly, 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. NISRA 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 (SDC) 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 NISRA 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 Census Act (Northern Ireland) 1969 and the Code of Practice for Official Statistics.
- 11.2.3 Extensive research has been undertaken by the UK census offices 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:

<http://www.ons.gov.uk/census/2011-census/produce-deliver-data/confidentiality>

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; and 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 may be put in place for researchers to work in a secure setting within NISRA.

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 Microdata are more appropriate for statistical modelling than spatial aggregates, and microdata samples from the census produce more reliable estimates for small populations, such as ethnic group or religion or geographical area, than sample surveys because of the large sample size afforded by census samples.

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 four 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 judged to be non-disclosive (following the application of disclosure control methods) and were made available to users through an end-user license. The file with the smaller sample size (3%) contains greater detail for each individual record.

11.3.5 The remaining two files (a more detailed 3% sample of anonymised individuals and a 1% sample of anonymised households) contain high levels of individual detail and never leave census offices. Researchers may access the data within laboratories (virtual micro-data laboratories) situated on NISRA premises. All analysis and results conducted by the researcher are stored in the laboratory. Only once the analysis and results have been assessed by NISRA staff as non-disclosive are they released to the researcher for use outside of the laboratory. There are procedures in place for researcher access to such data.

11.3.6 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, and 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.

11.3.7 Proposals for microdata samples for 2011 are at an early stage but will be developed in light of the disclosure control methodology applied to the underlying data, access arrangements and licensing issues.

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 NISRA 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 provisions of the Census Act (Northern Ireland) 1969 as amended by the Census (Confidentiality) (Northern Ireland) Order 1991.

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 The Census Act (Northern Ireland) 1969 provides for individual data from other sources to be provided to NISRA for purely statistical purposes. NISRA may link these records to individual 2011 Census records, to provide a wider range of statistics and to help quality assurance of the census data itself. NISRA has developed the Northern Ireland Longitudinal Study (NILS) that links census data to birth registrations, death registrations and change-of-address information from the Business Services Organisation (BSO) for a sample of the population. This provides a unique 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.

11.5.2 The NILS dataset is held in a secure environment within NISRA and access is given only after approval by a Research Approvals Group and ethical approval.

11.5.3 NILS conforms entirely to the principles of fair processing of personal data and sensitive personal data demanded by the Data Protection Act 1998, and has been approved by the Office for Research Ethics (Northern Ireland). The Information Commissioner for Northern Ireland was consulted by NISRA when the NILS project was initiated.

11.6 Linked surveys

11.6.1 The Proposals paper for the 2011 Census notes that there is potential to extract further benefit from census data through follow-up surveys of identified subgroups of the population. There are currently no specific plans for follow-up surveys using the 2011 Census. As noted in the Proposals paper, any specific intention to use 2011 Census information for follow-up surveys will be announced to the Assembly and made clear to the public.

12. What is the legal basis for the 2011 Census?

12.1 Census Act (Northern Ireland) 1969

12.1.1 The primary legislation covering the Census in Northern Ireland is the Census Act (Northern Ireland) 1969.

12.1.2 Section 1 of the Census Act enables an order to direct the taking of a Census in Northern Ireland, while the duty to carry out the census (Section 2) is conferred on the Registrar General.

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 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.

12.2.2 The Census Order for Northern Ireland will be prepared for approval by the Northern Ireland Assembly, subject to Affirmative Resolution. As specified by the Census Act (Northern Ireland) 1969, the Order will be laid by the First Minister and deputy First Minister. The Schedule to the Census Act sets out the specific topics on which questions may be asked in the census. These are:

- (1) names, sex, age.
- (2) occupation, profession, trade or employment.
- (3) nationality, birthplace, race, language.
- (4) place of abode and character of dwelling.
as to marriage or civil partnership, relation to head of family, issue.
- (6) education, professional and technical qualifications.

- (7) religion.
- (8) any other matters with respect to which it is desirable to obtain statistical information with a view to ascertaining the social condition of the population.

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, including completion of form of undertaking;
- the geography of the census – the Registrar General shall divide Northern Ireland into census areas and shall divide each census area into enumeration districts;
- the arrangements for the delivery of census questionnaires to households and communal establishments;
- the collection of completed questionnaires either by post or doorstep collection, or by online return;
- the duties of field staff and, specifically, the details of any particulars to be collected by them;
- any information relating to special arrangements for the enumeration of particular populations such as persons sleeping rough;
- follow-up procedures;
- the management of field materials and documentation; and
- security and confidentiality procedures.

12.3.2 The power to make the Regulations for Northern Ireland lies with the Minister for Finance and Personnel. It is intended that Regulations for the 2011 Census in Northern Ireland, which are subject to the negative resolution procedure, will be made and laid in the Assembly in summer 2010, after the Census Order has been made.

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 Commission, which is tasked with providing the European Union with statistics at European level that enable comparisons between countries and regions. The Regulation details a number of statistical variables, such as gender, age and marital status; some variables are required only at the level of Northern Ireland but others are required at electoral ward level. The devolved administration in Northern Ireland has the responsibility to provide the relevant information for

Northern Ireland. Throughout the United Kingdom, it has been judged that a census of population is required in order to meet the requirements of 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 (Northern Ireland) 1969 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.

12.6 Keeping census records confidential

12.6.1 Other than for the purposes of conducting the census, it is unlawful for anyone working on the Census (which includes any member or employee of NISRA), or any person who has received personal information directly or indirectly, to disclose such information.

12.6.2 In addition to the general confidentiality provisions of the Census Act (Northern Ireland) 1969 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 census proposals paper asserts the intention to maintain the policy of keeping the Northern Ireland census returns confidential indefinitely.

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 NISRA have under the Census Act (Northern Ireland) 1969.
- 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 NISRA, or its third party contractors the confidentiality provisions of the Census Act (Northern Ireland) 1969 apply.
- 12.7.3 **Third principle** - the personal data requested is adequate, relevant and not excessive.
- 12.7.3.1 NISRA is mindful of potential public concerns about the 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 outlines 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 Northern Ireland, NISRA 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 to help get the count right; section 5 also describes the census question testing process. Section 9 describes the address checking and QT 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 DPA personal data that is only held for statistical purposes is exempt from the 5th principle of the DPA. Longstanding government policy is that census records remain closed in the custody of the NISRA, 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 DPA 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 NISRA processing their information collected during the census as NISRA is processing this information in order to meet its legal obligations under the Census Act (Northern Ireland) 1969.

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 NISRA 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.

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 passed, in due course, to PRONI.

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

13.1.3 Census information, both data and images, will be held securely by NISRA once delivered from NISRA 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 NISRA 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 decommissioning of IT equipment and media holding sensitive material. This decommissioning 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 online. All information (for both successful and unsuccessful candidates) collected during the recruitment process will be held securely, by HRConnect, in accordance with the procedures already in place for the NICS – this is currently detailed in Version 10 of the Recruitment Policy and Procedures Manual.
- 13.3.2 Once staff have been appointed all of their personal details e.g. bank account number, National Insurance Number etc will be held by HRConnect in accordance with the procedures already in place for all other NICS employees.

14. Conclusion

- 14.1 Northern Ireland has a track record of running censuses stretching back to 1926, with Censuses having taken place in the UK for over 200 years. 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, NISRA 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 Northern Ireland.
- 14.2 The 2011 Census proposals are consistent with the Census Act (Northern Ireland 1969), the Human Rights Act 1998 and the Data Protection Act 1998. There are 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 NISRA consulted on the ongoing need for information traditionally provided by the census, and received strong demand for this information to continue to be available. NISRA has considered alternatives to the census, including approaches that make greater use of integrated administrative sources. 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 those societies and are kept up-to-date by being linked to important administrative uses. Northern Ireland has not reached this point, and NISRA concluded that a census is required in 2011. Final decisions on the census lie with the Northern Ireland Assembly.

- 14.5 The census benchmarks the population estimates, which are used to allocate literally billions 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 described out in great detail in the census business case. 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 2004, NISRA has carried out an extensive and transparent census consultation process, which has sought inputs from as wide a range of interests as possible. NISRA has sought to include new questions only where there has been a well made case that there is no alternative source that could provide the information, and that the census is a suitable vehicle for asking the question. NISRA has carried out over four years of development and testing of questions 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, excluding routing questions, the 2011 Census contains the same number of household questions, and eight additional individual questions; not all questions will need to be answered by every person. The qualitative and quantitative testing that NISRA 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 Northern Ireland who will accept some limited justified burden on their time in return for better public and private sector provision of services. Most questions are very quick to answer and the questionnaire should only take a family of four about 30-40 minutes to complete, which NISRA 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 are designed to help

NISRA 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 NISRA'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 (e.g. firewalls, encryption, etc for the internet solution). Some of the innovations (e.g. post-back direct to the data capture centre) arguably reduce any privacy risk.
- 14.12 NISRA 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 NISRA 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 NISRA 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 NISRA employees. SDC 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 NISRA has taken to developing the 2011 Census questionnaire. NISRA 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 Northern Ireland

Topic	2001	2011
Usual residence	✓	✓
Household and family relationships	✓	✓
Accommodation type	✓	✓
Dwellings and self-contained accommodation	✓	✓
Number of rooms	✓	✓
Household tenure	✓	✓
Type of landlord	✓	✓
Number of vehicles	✓	✓
Visitor details (new, but asked in 1991 & earlier)	x	✓
Adapted for health conditions	x	✓
Type of central heating (new)	x	✓
Central heating	✓	x
Bath/shower and toilet access	✓	x
Lowest floor level	✓	x

Proposed content for individual pages in Northern Ireland

Topic	2001	2011
Name	✓	✓
Sex	✓	✓
Date of birth	✓	✓
Marital or civil partnership (new) status	✓	✓
Students in full-time education and term-time address	✓	✓
Country of birth	✓	✓
Address one year ago	✓	✓
Ethnic Group	✓	✓
Religion	✓	✓
Knowledge of Irish	✓	✓
Knowledge of Ulster-Scots (new)	x	✓
Health status	✓	✓
Long-term illness or disability	✓	✓
Carer information	✓	✓
Qualifications	✓	✓
Economic activity status	✓	✓
NS-SEC (self-employed, occupation, supervisor status, ever worked)	✓	✓
Industry/name of employer	✓	✓
Workplace address	✓	x
Address of place of work or study	x	✓
Transport to place of work	✓	x
Transport to place of work or study (new)	x	✓

Hours worked	✓	✓
Main language and English language proficiency (new)	x	✓
County of last previous residence and month /year of last taking up residence in Northern Ireland (asked of those who have lived outside Northern Ireland for a continuous period of one year or more) (new)	x	✓
Intended length of stay in UK (new)	x	✓
Passports held [as a proxy for citizenship] (new)	x	✓
National identity (new)	x	✓
Number of employees at the workplace	✓	x
Nature of disability (new)	x	✓
Voluntary work (new)	x	✓

Appendix B: Proposed 2011 Census Questions and their uses

GENERAL TOPIC	SPECIFIC TOPIC	USER REQUIREMENTS
Population	Usual Residents	To provide a new and up-to-date benchmark for annual mid-year population estimates for local areas. It is widely accepted that population estimates are central to every national system of official statistics; they are used in statistical formulae that inform the spatial allocation of large sums of public money.
	Visitors	<p>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.</p> <p>This information will enable more accurate counts of visitors and usual residents to be made at the local area level. Linking information provided by respondents as visitors to that provided as residents at their usual address will provide additional information to inform estimates of census undercount and/or overcount.</p>
	Student / Student Address	To identify students and schoolchildren and to ensure they are counted at the correct address. This helps to ensure an accurate measure of the usual resident.
Demographic and social composition of households	Name	<p>Used to ensure accurate listing of residents.</p> <p>To ensure that all the information on the questionnaire is correctly linked together.</p>
	Sex	<p>Key demographic variable required to produce breakdown of the population by sex.</p> <p>This provides basic information on the structure of the population in different areas. In combination with other information it is used to allocate public money to local authorities, health authorities, and other community projects.</p>
	Date of birth	<p>Key demographic variable required to produce breakdown of the population by age.</p> <p>This gives important information about the age of the population throughout the UK and can be used to analyse social trends such as fertility, marriage and divorce.</p>

GENERAL TOPIC	SPECIFIC TOPIC	USER REQUIREMENTS
	Marital / civil partnership	<p>Allows for the production of population estimates by marital / civil partnership status which helps to inform the allocation of resources and planning for services and housing.</p> <p>Since December 2005 same sex couples in Northern Ireland (NI) have been able to form civil partnerships, a legal status that gives rights and responsibilities similar to that of marriage</p>
	Relationships	<p>Information on household and family relationships informs social structure analysis and informs a range of government policies.</p> <p>Particularly important in relation to housing policy. This information will provide statistics of households analysed by family composition, and will be used by, for example, authorities and organisations providing services to families who need to know the number of families and the changes to family size that have been taking place over time. Applications include planning accommodation and services for the elderly and assessment of the potential demand for housing from young families and multi-family households.</p>
Migration	Address one year ago	<p>For analysis of migration within and into NI.</p> <p>Statistics will be compiled to give the numbers and characteristics of people and households who have moved from one area to another. The number of moves by type of person and household between areas and regions of the country will also be derived.</p>
	Country of birth	<p>To analyse trends in immigration and forecasting of future patterns.</p> <p>This provides information on the numbers and circumstances of (sometimes small) immigrant communities from various countries, who may have particular needs, in order to support resource allocation and policy development.</p>
	*Year and month of arrival to the NI (for non NI born)	<p>To obtain a more accurate picture of trends in migration to NI plus better understanding of the proportion of recent in-migrants that remain in NI.</p> <p>Informs policy in relation to labour markets and the wider local economy and to assist in the planning of local services such as housing.</p>

GENERAL TOPIC	SPECIFIC TOPIC	USER REQUIREMENTS
	*Intended length of stay in NI (for non NI born arriving in the previous year)	<p>Enables more accurate calculation of the NI resident population (defined as those staying in NI for 12 months or more).</p> <p>Provides information on the number of short term migrants, to enable assessment of their impact on local labour markets and their demand for local services.</p>
	*Passports held (proxy for citizenship)	<p>To measure the population of citizens of other countries, in particular citizens of recent EU accession countries.</p> <p>This helps to provide information on peoples' right of movement, eligibility to vote and rights to employment and welfare benefits.</p>
Ethnicity, identity, religion and language	Ethnic Group	<p>To enable organisations to meet their statutory obligations under Section 75 of the Northern Ireland Act 1998 (where other sources of data do not adequately provide accurate data for small and geographically dispersed ethnic minority populations).</p> <p>To inform policy development and monitoring.</p> <p>To provide public bodies with a better understanding of the communities they serve and hence inform service provision, such as access to healthcare, employment, housing or education for all sections of society.</p>
	*National Identity	<p>This information helps us to get a better understanding of local populations and communities.</p> <p>Together with other information such as ethnicity and religion, it may also help to monitor disadvantage and ensure that public services are provided for all groups in accordance with legislation.</p>
	Religious Affiliation	<p>This information helps to improve understanding of local populations.</p> <p>It also helps to identify inequalities and help plan appropriate public services as required by equality legislation.</p>
	*Main language and English language proficiency	<p>To provide an indication of areas and communities where foreign language service provision is necessary, and to better understand the diversity of the population and in particular the impact of English language ability on employment and other social inclusion indicators.</p>

GENERAL TOPIC	SPECIFIC TOPIC	USER REQUIREMENTS
	Knowledge of Irish and Ulster Scots	<p>Both Irish and Ulster Scots are regarded as protected languages under the European Charter for Regional or Minority Languages.</p> <p>The information collected will be used to inform policy development and monitoring.</p>
Health	General Health	<p>Policy development and monitoring, in relation to the delivery of health care.</p> <p>Enables identification of health inequalities, enabling targeted service changes. This information has been shown in surveys to have good predictive power for health policy and provision of services, particularly for the elderly.</p>
	Long term illness/Disability	<p>The information will be used as a measure of the need for health and personal social services at all levels of geography, and particular local facilities, either existing or planned.</p> <p>The question will enable the Census to provide information on the circumstances in which the long-term sick and disabled live - for example, whether they live alone or in unsuitable accommodation. It will also provide analysis by age, which will be important as the number of elderly people increases. The information will be of value both to the public and private sectors in providing services to sick and disabled people.</p>
	Nature of long-term health conditions	<p>This information is used to better understand the spatial distribution of people with specific long-standing conditions and to plan for better services.</p>
	Carers	<p>Used alongside other measures of health to identify local health inequalities. This will help to improve the understanding of variations in the need for care and the pressure on social services in an attempt to target resources more effectively.</p> <p>The data is also used to develop and monitor policies to promote equality of opportunity, to analyse the possible burden that could be placed on social care services if unpaid carers were not available. Carers also often experience isolation because of their caring responsibilities and have been identified as a group at risk of social exclusion.</p>

General Topic	Specific Topic	User Requirements
Labour Market. Socio-economic status and qualifications	Economic activity status	<p>Used by government, researchers and other organisations to understand local labour markets and to develop and monitor policies at NI and local level.</p> <p>Used to identify deprived areas, to allocate community and economic development funding.</p>
Labour Market. Socio-economic status and qualifications (continued)	Job title and job description	<p>Will provide detailed and important information about the very wide range of work both at NI and local level.</p> <p>The statistics will be used in analyses of the labour forces of various industries and occupations, in studies of occupational mortality, and will provide the basis for the classification of people and households according to the National Statistics Socio-economic Classification (NS-SEC.)</p>
	Name and activity of employer or business	<p>The purpose of this will primarily be to determine the industry of employment. The information will then be used, for example, in labour market analyses and in the production of regional accounts and economic indicators.</p>
	Self-employed/employee	<p>This is used to classify employment status and analyse labour markets to inform policies on employment.</p> <p>Information on the number of self-employed people may be used in monitoring programmes for encouraging new businesses.</p>
	Supervisor status	<p>This is used in the classification of occupations which is used to analyse labour markets and economic performance.</p>
	Hours worked	<p>To identify working patterns and labour supply in local areas and target resources. A question on the number of hours usually worked in the person's main job will distinguish those in full-time and part-time work. The information will help to provide a better understanding of changes in working patterns, and how these apply to particular occupations and industries. At a local government level, information on people working long hours is an indicator of deprivation and can inform neighbourhood renewal strategies. Use of the information will also be made in labour market studies, in rural policy and regeneration, and in the derivation of area and socio-economic classifications. This information will also provide evidence for the working time directive.</p>

GENERAL TOPIC	SPECIFIC TOPIC	USER REQUIREMENTS
	Qualifications	The information from a question on educational and vocational qualifications will be used to assess educational achievement and labour market participation across the population, looking at demographic groups at a local and regional level and the particular barriers faced. This will help users to understand and respond to equality and diversity issues, in order to widen participation and fair access. Information on intermediate and higher level qualifications is used in the derivation of the National Statistics Socio-economic Classification (NS-SEC) and, in particular, assists the understanding of social patterns and local labour markets. Information on those people with no or low levels of qualifications are used in deriving indices of deprivation which are used across central government and by public and voluntary sector organisations as the primary basis for identifying deprived areas for funding allocations and applications.
	*Voluntary work	The labour market questions in the Census refer solely to paid work. During consultation in Northern Ireland, user demand for information on the number, and nature, of people engaged in voluntary work was identified. Accordingly, it is proposed to ask a further separate question on whether in the past year a person has helped with or carried out any voluntary work without pay. This will quantify the number of people engaged in voluntary work, along with their characteristics.
Labour Market. Socio-economic status and qualifications (continued)	Workplace address and travel to work	This information is the basis for measuring commuting patterns and assessing the balance of housing and jobs. The Census also adds to the value and usefulness of many routine employment statistics which are generally based on area of workplace, by providing analysis by area of residence.
Housing	Accommodation type	To identify the state of the housing stock and provide a firm basis for assessing current and future housing requirements.
	Self contained accommodation	Central government, local district councils and other users have confirmed the ongoing importance of collecting this data to facilitate analysis of changes in housing supply and demand, to understand variations in multi-occupancy and to identify deprived areas.
	Central heating	This will continue to provide a useful indicator of basic housing standards and the information will be used by central government, local district councils and other users to facilitate work on fuel poverty and deprivation.

GENERAL TOPIC	SPECIFIC TOPIC	USER REQUIREMENTS
	Number of rooms	Together with the number and characteristics of people in each household, this will help the government assess the degree to which accommodation may be overcrowded or under-utilised. Shortage of space is seen as a fundamental indicator of housing deprivation and as such constitutes an integral part of indices of deprivation. Furthermore, living in overcrowded conditions is associated with adverse personal, social and health effects. For example, shortage of space is seen as detrimental to children's development.
	*Adaptations to accommodation for health conditions	To provide users with information on accessibility to household features for those people with disabilities.
	Tenure and type of landlord	The information will help central and local government to assess changes in housing demand to allocate resources and to review and develop housing plans and policies. It will also be used by the housing industry in analysing the housing market and assessing possible mismatches between housing supply and demand.
	Number of vehicles	This information is widely used to support work on transport policy and planning and will in particular help to identify areas where private transport makes the most demand on road space, and to assess the demand for public transport and the need for new or improved roads to better manage traffic congestion. The statistics will also be used in making projections of future levels of car ownership, studies of road use and appraisals of the need for future investment in public transport. The information is widely used, for example, in informing local strategic and transport plans.

* Questions marked with an asterisk were not included in the 2001 census.