

New developments for Census 2011 results

Extensive consultation was undertaken around the design and development of the Census 2011 questionnaire, the operation of the census and the statistical output. The following section of the prospectus will cover new developments influencing the Northern Ireland Census 2011 outputs; they are covered under the following topics:

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Wider choice, greater detail

As a result, the census product base has been widened, providing better access to census data, meeting the needs of more users and exploring census data more effectively, while following open data principles and the Code of Practice for Official Statistics.

Advances in statistical disclosure control methodology mean that the census tables will be additive and consistent down to the lowest geographies, a big improvement on 2001.

New products

A number of new outputs for Census 2011 have been designed. Some are for new questions, such as main language, passports held and national identity; others reflect user-identified gaps in 2001 products. For more information about the questionnaire, download [final questionnaire content for Northern Ireland](#).

New statistical products have been developed, representing international innovation and enhancing NISRA's reputation, as well as providing value for money and more effective use of census data. These include products for small population groups, as well as more accessible microdata products, including public use samples of anonymised records.

The importance of comparability

The Census 2011 outputs will reflect a decade of societal change. Comparability has been retained with 2001 statistics where possible, as this was a key design principle in the development of the questionnaire and the processing of the statistics. It was also a strong message from users gathered during the output consultation. Find out more about how the [consultation process](#) helped NISRA to define the statistical output from the census.

Enhanced data access

NISRA is developing the NINIS website (Northern Ireland Neighbourhood Information Service) to accommodate users' needs for accessible, online statistics for use and exploration.

Harmonisation

An increased volume of UK harmonised tables will be made available for Census 2011 outputs. The UK statistical agencies (NISRA, ONS and NRS) have an agreed aim of providing a single point of access for UK harmonised outputs. Further information on this will be provided when available.

Pre-tabular statistical disclosure control

The methodology for protecting individuals and their attributes in the statistics (statistical disclosure control) is a pre-tabular method, that is, it will be applied before tables are created. This means that ones and twos will be visible in the outputs, and results will be additive within tables and consistent across tables. More detail can be found [here](#).

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Data Access and dissemination

The Northern Ireland Census 2011 statistics will be released via the Northern Ireland Neighbourhood Information Service (NINIS) which has recently been redeveloped to provide access to high volumes of large datasets. Users will be able to find and select Census 2011 outputs, and choose to download or view the statistics online. Supporting reference materials will accompany the statistics. The website will feature all statistics and tables, commissioned tables, metadata, look-up files, a definitions glossary, commentary, data visualisations, maps and charts and geography products.

The new NINIS website will go live before the end of May 2012 and available on it will be all the key statistics tables and a sample of 3 standard tables from the 2001 Census. This will allow the users of census statistics to get a feel for how the Northern Ireland Census 2011 statistics will look. Over the coming months all the 2001 Northern Ireland Census output products will be made available on NINIS.

Bulk data can be requested from [Census Customer Services](#).

Virtual Microdata Laboratory

ONS hosts a Virtual Microdata Laboratory (VML) through which researchers and other parties can access census microdata files. These are samples of anonymised but detailed data from the census, which researchers can use to perform statistical analyses.

Access to microdata files for Northern Ireland can be provided through NISRA. Contact NISRA for further details.

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Bulk Data

The main statistics from the Census 2011 will be published in sets of tables. Users that require all the tables in a given set will be able to request these from [Census Customer Services](#). Sets will be supplied from the time of each release in an electronic media such as a portable hard drive or DVD. Bulk data can be pre-ordered from Census Customer Services.

NISRA will aim to provide the Bulk data in a standard format that meets users' requirements.

Consequently, datasets available in bulk format will generally contain data only for output areas, super output areas, wards, local government districts and Northern Ireland. Bulk data for other geographies can be commissioned from Census Customer Services.

To learn more about Commissioned tables visit the "Release plans for Census 2011 Statistics" section of this prospectus.

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Statistical disclosure control

A great strength of census data is the level of detail that they allow, while protecting the confidentiality of the individual, which has always been paramount. In order to ensure confidentiality for 2011, statistical disclosure control (protecting the attributes of an individual) will be applied.

NISRA, like colleagues in ONS and NRS, plans to use two complementary strategies for protecting individuals while minimising damage to the results:

- targeted record swapping, and
- restriction of detail particularly at low level geographies.

Currently it is expected that the population and household thresholds for output areas will remain the same as 2001.

Developments in statistical disclosure control since 2001

The methods for statistical disclosure control in 2011 have changed significantly from the methods used in 2001. NISRA plans to undertake all elements of statistical disclosure control prior to the preparation of the Census 2011 statistics tables. Since record swapping takes place early on in the data compilation process, all data in output tables will be consistent.

Unlike 2001, NISRA plans to make no small cell adjustment in 2011.

This [link](#) describes the principles being applied throughout the UK. The application in Northern Ireland will be similar, except that Local Government Districts (LGDs) will take the place of middle layer SOAs in England and Wales. Similar targeting variables are being used across the UK except, in Northern Ireland; religion is used in place of ethnicity which is used in the rest of Great Britain.

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Census 2011 Geography

NISRA has kept the Census 2011 output geography as stable as possible.

An information paper has been published discussing the geographical basis on which the statistical outputs are based. This is available at:

<http://www.nisra.gov.uk/archive/census/2011/methodology/geographic-outputs.pdf>

The geography policy for the Census 2011 is in line with NISRA'S current geography policy. For full details on NISRA Geography products and support material visit the Geography pages of the NISRA website: <http://www.nisra.gov.uk/geography/default.asp.htm>

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Small Areas

New small areas have been created for the 2011 Census outputs. Maintaining stability as far as possible is key for the Census 2011. Therefore the 2011 small areas are equivalent to the 2001 output areas – but some merging of the previous 2001 output areas has taken place where significant population size changes have occurred since 2001. An [information paper](#) outlining these modifications was published on 10 January 2013.

The main point of interest for the Census 2011 is that small areas and super output areas will align to the current Local Government District boundaries.

All small areas will have new nine character codes assigned in line with the Office for National Statistics geography coding system. A Look-up table will be developed describing the 2001 – 2011 output area relationship.

Small Area (SA) boundaries will remain freely available, subject to their approval as Open Data.

The [SA boundary files](#) were released on 10 January 2013.

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Exact fit and best fit data

Statistical tables and outputs from the Census 2011 will be exact-fit data for the following geographies:

- Small areas, 2011
- super output areas, 2001 (slightly modified in 2011)
- electoral wards
- local government districts
- NI assembly areas and UK parliamentary constituencies
- NUTS level 3 areas
- Grid squares

Data for all certain other geographies above output area e.g. settlements will be best-fitted from geographies listed above.

Best-fitting helps ensure that census statistics are non-disclosive.

Data for areas with small populations

The best-fitting policy ensures that an area with a very small population of under 100 persons or 40 households will be allocated to the output area it falls in, and outputs will therefore always have a population at or above the minimum threshold required. This means that the data for some areas e.g. villages, hamlets which fall under this minimum threshold will be the same as the output area in which they fall.

The more detailed census tables (Detailed Characteristics and Detailed Themes) have a higher minimum population threshold (equivalent to Standard Tables (ST) in 2001). Areas that fall below this higher minimum population threshold will be merged with a neighbouring area, so that estimates can be released for the merged area, best-fitted from small area.

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Grid Square Statistics

In keeping with Northern Ireland Censuses since 1971 NISRA will produce the traditional Grid Square product.

The Grid Square product for 2011 provides basic 2011 Census statistics for 1 kilometre and 100 metre grid squares in Northern Ireland based on grid references.

Further information on the Grid Square product is available here:

<http://www.nisra.gov.uk/census/2011/results/grid-square.html>

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Revisions and Updates

Rigorous quality checks will take place of all census statistics which are released. NISRA may occasionally need to revise statistics and update information.

In this event, users will be informed via the NISRA website:

<http://www.nisra.gov.uk/archive/census/2011/results/revisions-and-issues-log.pdf>

Updates to data will be provided to the NINIS website team.

An updates register will record any revisions to this prospectus:

http://www.nisra.gov.uk/archive/Census/2011/Outputs/prospectus_update_register.pdf

Additional information

Comments or queries about the data should be sent to [Census Customer Services](#).

Prospectus Updates

This prospectus is part of the process of developing and releasing the Census 2011 statistics. Amendments to the prospectus will be published as and when changes are made. However, downloading the prospectus update register will allow users to keep track of developments.

Changes to Proposals for Outputs

Changes since consultation in January / February 2012

Two key amendments have been made to protect the confidentiality of individuals:

- '75 and over' age band removed: The age band '75 and over' has been removed from all 2011 Census labour market tables. The age band is being removed (not the data). These outputs will be produced for all people 16+; however, there will not be direct comparability with 2001 as 75+ will not be a distinct age band.
- No theme tables for small areas: There will be no theme tables available for small areas in 2011. Instead, equivalent theme tables will be produced at electoral ward level, or the information will be added into existing theme tables.

During consultation users were informed that outputs previously known as univariate statistics would be renamed as Basic statistics. This has now been changed and they will be known as Quick Statistics.

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Changes since first publication of outputs prospectus

Changes to the prospectus will be published as and when they are made. However, downloading the prospectus update register will allow users to keep track of developments.

Key changes to the Census 2011 outputs policy

There are some key changes to census outputs between 2011 and 2001:

- The Census 2011 defines working age as between 16 to 64 for both men and women. The definition of pensionable age now refers to men and women aged 65 and over.
- Aside from the standard classifications, other classifications are developed or updated for use in a census. The 2011 Census-specific classification listings will be published in November 2012.
- A comparability paper between the 2011 and 2001 censuses will be published in the summer of 2012. In the meantime, you can read about the differences between the questionnaires.
- A new naming convention has been applied for the Census 2011 statistics.

Census 2011 product titles have been updated

Pensionable Age

The Census 2011 defines working age as between 16 to 64 for both men and women. The definition of pensionable age now refers to men and women aged 65 and over. Alternate measures of pensionable age will not be provided in the first four main stages of releasing Census 2011 statistics.

Some of the Census 2011 tables – based on those from 2001 – have been redesigned as a result of changes to pensionable age. Information will be provided in the metadata.

Users who require alternative definitions of pensionable age can request these through the commissioned table service. Requests for commissioned tables from the Census 2011 will be constrained by the statistics already released, the similarity to the statistics planned, the availability of the data, statistical disclosure control and resource availability. Commissioned tables can be pre-ordered from Census Customer Services.

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Classification listings

The census uses a range of standard and other classifications to code response data. These classifications are used to assign numerical codes to each response given, whether a tick box or a written answer, to facilitate data analysis and output production.

The Standard Classifications are those that colleagues in ONS develop and maintain for use in the census, social surveys and across Government. These include the Standard Occupation Classification (current version is SOC2010) and the Standard Industry Classification (current version is SIC2009). [Standard classifications](#) are currently available online, including SIC2007 and SOC 2010.

In addition to this, other classifications are developed or updated for use in a census, and then subsequently adopted for use in other surveys and elsewhere. The census specific classification listings will be published on the NISRA website alongside the second release of Census 2011 statistics.

The classification listings will cover ethnic group, religion, main language, country (used for country of birth and address variables), national identity, (passport held), language, occupation and industry.

Differences between 2001 and 2011 questionnaires

Census questionnaires evolve over time to reflect a changing society. The Census 2011 had 58 questions: 14 about the household and its accommodation, and 44 for each member of the household.

New questions were researched and developed in consultation with users and the statistical agencies in England, Wales and Scotland and with organisations that use census statistics.

New questions in the Census 2011 were based on:

- Adapted Accommodation
- Migration
- Citizenship
- National Identity
- Main Language
- Nature of Disability
- Voluntary work

The questions which were removed in the Census 2011 included:

- Amenities
- Lowest Floor Level
- More than one Floor
- Number of employees at place of work

Questions were included after passing stringent selection criteria. To see the recommended questionnaire content, download the Questionnaires:

<http://www.nisra.gov.uk/census/2011/background/questionnaires.html>

Some changes were made in the response categories including marital status (which now includes civil partnerships), general health, qualifications, ethnic group and hours worked. These will be described in a paper detailing the comparability between the 2001 and 2011 Censuses that will be published at the end of September 2012:

<http://www.nisra.gov.uk/archive/census/2011/comparability-questionnaires-between-2001-and-2011.pdf>

Naming Conventions

As part of the main consultation on statistical outputs, users expressed support for a revised naming convention. A more user-friendly and accessible naming scheme is also in line with United Kingdom Statistical Authority requirements.

Having considered the naming conventions applied by international statistical offices including New Zealand, Canada, Australia and the Netherlands, as well as carrying out extensive discussion within NISRA, and across England, Wales, Scotland and Northern Ireland, the convention below is recommended for the Census 2011:

Key Statistics KS (as before)

Quick Statistics QS (formerly univariate UV)

Local Characteristics LC (formerly census area statistics CAS)

Detailed Characteristics DC (formerly standard tables S)

Under current plans, Migration tables and the Postcode table will keep their current names. Workplace tables may see a name change depending on whether Workday tables will also be produced, as it will be important to distinguish the two population bases.

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Census product titles

Quick Statistics, Key Statistics and Local Characteristics will all be available at the lower level of Census 2011 geography - small area.

- Quick Statistics (formerly univariate): Tables which fall under the Quick Statistics banner contain statistics which refer to one variable and its response categories from a census question and are available for the output area and higher geographies. An example is the number of people who report Very Good, Good, Fair, Bad and Very Bad health status, reported by output area. Quick Statistics tables will form the majority of the statistics released in between November 2012 and February 2013.
- Key Statistics: Tables which come under the Key Statistics banner provide information derived from more than one variable on the census questionnaire, and allows comparison across different areas. An example of a Key Statistics table is hours worked (reporting how many hours people age 16 and over normally work in their main job a week). Key Statistics are available at output area level and the majority of Key Statistics tables from the Census 2011 will be released between November 2012 and February 2013.
- Local Characteristics (formerly CAS): Tables which come under the Local Characteristics banner are all produced for small areas and higher geographies. These tables provide the most detailed results possible for output areas, and contain two or more variables such as sex and occupation by age. These tables will be released between March and June 2013.

Detailed Characteristics (formerly Standard): Tables which fall under the Detailed Characteristics banner will generally be produced down to SOA level subject to statistical disclosure control. Similarly to Local Characteristics tables, these contain two or more census variables, such as age and sex, but provide considerably more detail than their local equivalents, as the larger population means disclosure risk is lower. An example of a Detailed Characteristic table is sex and age and economic activity by religion.

Themes: Theme tables bring together a range of results on a single variable, such as ethnic group. Postcode Estimates tables present the number of males, the number of females and the number of occupied households per postcode.

Keeping informed

For general information about the Census 2011 statistics and developments visit the Census pages on the NISRA website: <http://www.nisra.gov.uk/census>

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