



CENSUS ADVISORY GROUP

AG (12) 10 - 2011 Census outputs dissemination update

1. Summary

ONS is using its three websites to publish census results.

The main ONS website will offer data and supporting information for all releases, initially as per the releases in July through to November 2012, and in 2013 with functionality associated with complex and large datasets.

Key Statistics and Quick Statistics tables will be available on the Neighbourhood Statistics Service and Nomis.

The ONS Website will be enhanced to provide access to Local and Detailed characteristics, with appropriate functionality. These tables will also be available on Nomis.

All three websites will offer Application Programming Interfaces for use by developers of other websites.

Bulk data will be available in SDMX and CSV, such that information systems managers can import entire sets of data into their own systems.

Proposals for providing access to micro data are taking shape, with consideration largely around the distinction between publicly available and safeguarded material, and appropriate environments and access.

2. Dissemination Channels

ONS is using its three website systems to deliver Census results.

Main ONS website

Neighbourhood Statistics Service

Nomis

For each release, and as has been the case for Census releases in July through to November, the ONS website will provide access to statistical bulletins, tables in Excel format, area profiles, data visualisation, analytical reports, and supporting information .

Within the window planned for second release , the Key Statistics and Quick Statistics tables for local authorities, Output Areas and Wards will be published via the NeSS website, with data for Parishes and Westminster Parliamentary constituencies. NeSS will offer the user:

Neighbourhood Summaries (Profiles)

Data for single areas

Downloads of complete datasets

Customisation (data for user specified, multiple, areas and topics)

Boundary viewing

Nomis will publish the Quick Statistics tables for those geographies simultaneously with NeSS. Key Statistics for the OA and Ward hierarchy data will be released later than on NeSS, but both sets of tables will be provided on Nomis for Urban Areas, Postcode Sectors and Health Areas (current) within the second release window.

The ONS website will be enhanced in time for the Spring 2013 releases of Census data to provide access to the Local and Detailed Characteristic tables. The Census landing page will be updated, and Census datasets will be indexed and available under all existing ONS website journeys.

New features of the website will include

- A Dataset Finder, a search facility that will list census datasets by topic
- Dataset Details, such as dataset information, and correction history

Users will be able to :

- Select a table of interest
- Select the geographical hierarchy of interest
- Select specific geographical areas
 - Select from a list (NeSS style) with supporting mapping to provide information on boundaries.
- View data on-line
 - With associated reference metadata
 - Change the selection of geographical areas for 3 dimensional datasets
- Download datasets
 - In csv, sdmx with accompanying metadata if required

Further enhancements planned to be in place for the publication of Detailed Characteristics will include the ability to select data for a topic (e.g. dimension/classification) within a multidimensional dataset.

Nomis will also provide Local and Detailed Characteristics tables, and will aim to provide access to data by topic (age, gender, economic status etc) rather than cells within tables (table list will remain available for traditional users). Users will be able to create user-defined definitions e.g. combine age-groupings, manage flexible cross-tabulations, and automatically create new values such as percentages.

3. Application Programming Interfaces

Application Programming Interfaces (APIs) enable websites to automatically search for and display information from other websites. The 2011 Census Programme has championed the development of an ONS API, initially for Census data but ultimately for all ONS data. A Census Web Services Working Group was established in 2009, to continue the work of an academic lead group, including ONS, established as a short term ESRC (Economic and Social Research Council) funded project in 2008. Alpha versions of the ONS API were launched in 2010 and 2011.

Beta versions of the ONS API will be launched in coming months and plans are in place for a new ONS API to be operational for the third release (Detailed and Local Characteristic tables in Spring 2013). The API service will provide, in addition to all API functionality required to support the ONS website,

- Registration for external users
- Instructions, Guidance, Tutorials, and code examples
- Enablement tools to assist developers

In the meantime, the Neighbourhood Statistics API (Data Exchange) and the Nomis API will continue to provide Census Statistics , and all 2011 data published by these websites will be available to external systems by these channels .

4. Bulk Output

Consultation with distributors of Census data, via the Census Web Services Working Group and the Census Bulk Data Working Group, indicated a preference among many for an XML format that provided for additional information in the data files. The emerging European format Statistical Data and Metadata Exchange (SDMX), that meets international standards, has been adopted within ONS Census operational systems, and this was agreed as the default format as it required no transformation prior to distribution.

Data distributors with legacy systems or no requirement for the additional information provided within SDMX requested a more traditional CSV format. ONS assessed the feasibility of conversion of the SDMX to this format, implemented the necessary programs, and established a small team to generate and publish this format. The costs of this have been absorbed by ONS but, as was the case for 2001 Census, there may be a charge to users for media and delivery. Where charges apply these will start at £50 minimum.

Bulk Output in SDMX and CSV will consist of all tables for the OA and Ward hierarchies, available from the time of web publication.

5. Access to 2011 Census Microdata

The vision for census microdata is for a range of coordinated UK microdata products, delivered through a number of access channels, that balance disclosure risk and utility. These would be generated covering the whole of the UK, from a UK database. Products are due for release in a sequential order from the latter part of 2013 and a release schedule is being prepared. The aim is to administer these products with a 'one form' process that covers all products, across all access routes and all years. ONS are developing microdata specifications in partnership with academic experts in the field.

Whilst consideration is being given to a number of ways that microdata may be available securely for research purposes, confirmed access channels are:

Public use microdata files:

Low risk but lower utility

Available under **Open Government License**

Downloadable from the internet with no access restrictions

Heavily perturbed microdata files:

A set of files whose structure mirrors exactly that of the files delivered through other channels

Very low risk, no real data, suitable for code testing only

Available under **Open Government License**

Downloadable from the internet with no access restrictions

Safeguarded

Some, but small, disclosure risk, good utility for significant research

Available to use **under a set of conditions**, under license

Secure – VML (Virtual Microdata Laboratory)

Disclosive data, with maximum possible utility

Available to approved researchers only in existing secure locations (London, Edinburgh, Belfast, Newport, and Titchfield)

Disclosure risk managed by secure facilities and disclosure checking process for outputs

Ipums (Integrated Public Use Microdata Series)

A product(s) specifically created for repository and use in the international microdata service run by Minnesota University