

# **CENSUS ADVISORY GROUP**

AG (13) 02 – 2011 Census output update

#### 1.0 Introduction

This paper provides an update on current plans and developments on the content and dissemination channels for the next release big releases of census results. It covers the scope for release 2.4 and the completion of the Quick Statistics products; and some of the detailed proposals for the content, timing and delivery of releases 3 and 4.

Advisory groups are asked to comment on the plans and progress.

#### 2.0 Release 2.4

On 26 March 2013, ONS will publish five tables and a short story relating to the short-term resident population. The five tables which will accompany the short story are:

- AP1101EW Sex by five-year age group (non-UK born short-term residents)
- AP1102EW Sex by single year of age (non-UK born short-term residents)
- AP1201EW Country of birth (non-UK born short-term residents)
- AP1202EW Passports held (detailed) (non-UK born short-term residents)
- AP1601EW Economic activity (non-UK born short-term residents).

A further three Quick Statistics (QS) tables will also be released on 26 March with expanded detail to that published in December 2012. The tables on passports and national identity will be published at the local and unitary authority (LA/UA) level and above, and the country of birth table will be available at the regional level. The QS table on social grade completes the QS product and will be available on the ONS website for LA/UA and above and on NOMIS for output area and ward hierarchies.

- QS212EW Passports held (detailed)
- QS213EW Country of birth (expanded)
- QS214EW National identity (detailed)
- QS611EW Approximated social grade (household reference persons aged 16 to 64).

## 3.0 Commissioned Tables

ONS will be providing a commissioned table service for 2011 Census statistics for England and Wales now starting in April 2013, rather than the previously stated 2014.

Commissioned tables for univariate 2011 Census data can be ordered from Census Customer Services from April 2013. This service will cover requests for more detail on any single variable for those published in the Key Statistics and Quick Statistics products.

Availability of requested commissioned tables will be dependent on the data having been published; on the similarity to planned material in later releases; and on statistical disclosure control. Customers will be advised of estimated delivery dates (please note that delivery times will vary depending on the level of detail requested), and any necessary changes to comply with disclosure control criteria. Costs will be agreed prior to work commencing, based on the published price list.

For multivariate data, commissioned tables can be pre-ordered from June 2013. Fulfilment of all multivariate requests will begin in September 2013.

All commissioned tables will be published on the ONS website and linked to the customer via email.

## 4.0 Release of 2011 Census Multivariate Tables

On 28 February, ONS announced that the next major release of census statistics would be the Detailed Characteristics (DC) product. Previously the output prospectus had indicated that the Local Characteristics (LC) tables would be the next major release of census estimates.

Having seen the data it has become clear that the topics of interest are better addressed by the DC rather than the LC tables, particularly given the removal of the LC Theme tables due to statistical disclosure control concerns.

Publishing at LA/UA level worked well for release 2 as census users could test their systems with each of the tables for the 348 LAs on 11 December 2012, rather than for 7,201 MSOAs or 181,408 OAs, for which data were released on 30 January 2013. Census users could also identify and consider the key messages and trends of the release at the LA/UA level, so that resources and effort could be targeted when considering data at lower geographies. Therefore an LA/UA level initial release also supports the logic of releasing the DC tables ahead of the LC tables.

Users did not express a strong preference during consultation feedback or since the release of the prospectus for one set of multivariate products before the other. In 2001, Standard tables (DC equivalent) were published before CAS tables (LC equivalent), as is now being proposed by ONS.

The combined window of release 3 and 4 of March to October will still be achieved, although as a result of this switch it is likely that the release 3 window will now end in July rather than June as previously indicated in the prospectus. The change in the release 3 window reflects the complexity of developing the more detailed tables, checking for confidentiality and the additional products that have been published to meet user requirements.

As a result, it is expected that the start of the release 4 window will now be August rather than July. However, the aim is to still publish all of the multivariate tables specified as part of releases 3 and 4 within the October deadline currently outlined in the prospectus.

## 4.1 Release 3

The table below outlines the current proposals for publishing the DC tables.

	Product	Planned date	Geography	Planned delivery channels
Release 3.1	Migration EILR Health Welsh language	May 2013	LA/UA and above	NOMIS Bulk Delivery
Release 3.2	Demography Housing Migration EILR Health Welsh language	June 2013	MSOA /Merged Wards and above	ONS website NOMIS Bulk Delivery
Release 3.3	Labour market Qualifications Travel to work Welsh language AF Theme tables	July 2013	MSOA /Merged Wards and above	ONS website NOMIS Bulk Delivery

Release 3.1 will focus on the topics of Migration, Ethnicity, Identity, Language, Religion and Health tables at LA/UA, and will be published on NOMIS (as explorable datasets). It is planned that phase 1 sub-LA level data, and phases 2 and 3, will be made available in June and July using the ONS data explorer and application programming interface (API) as well as NOMIS.

After discussion with the Welsh Government, the Welsh language tables will be split across the three phases by topic eg Health by Welsh Language will be part of Phase 1, but Family Type by Welsh Language will be part of Phase 2 since Family Type is a Demography variable.

It is intended that theme tables will be split across the phases to coincide with the relevant topic. However, should there be any difficulty in producing material to achieve publication dates, theme tables have been prioritised as secondary. This is largely because they pose a larger risk of disclosure and therefore require more assessment.

A list of the tables currently planned for release 3.1 is attached at Annex A. This includes, where possible, a notification of any change to the table from that previously specified.

# 4.2 SDC Checking

The tables are currently undergoing statistical disclosure assessment. These are the most complex and risky tables to assess given the amount of detail and the overlap between the tables. As a result of the assessment some tables have, and will continue to need, collapsing of the detail in order to pass the confidentiality tests and therefore be published. Where possible, the collapsing has been agreed with topic leads to ensure that the primary variables of interest remain as detailed as possible.

Although these revised tables will not be part of the standard DC product at MSOA level, more detailed information may be available at a higher geography through the commissioned table service.

# 4.3 Rationalisation of age groupings

Age is one of the most prevalent variables across the DC products. The assessment for disclosure has highlighted that one of the topics contributing most to disclosure risk is age, where there is also some incoherence in the age groupings specified across the tables and other statistical products. Therefore, we have conducted a brief review of the DC and Theme tables with topic leads and the Welsh Government to maximise comparability, with or without the need for collapsing as a result of disclosure assessment.

In determining the revised age groupings, we followed the same basic principles as we had when specifying the tables as part of the consultation exercise; effectively to maximise comparability with 2001, comparability with other data sets (census and other statistical products) and utility.

To ensure consistency and comparability across the topics, these age groupings will, as far as possible and is applicable, be used for the LC tables also.

In general changes to age groupings have been minimal; the most significant change has been the collapsing of the top age band from 90+ to 85+.

# 4.4 Table layouts

As well as the review of age groupings consistent table naming and numbering based on the system used for release 2 has been applied. Information on the naming convention is provided for information at Annex B.

As a result of disclosure control, age group rationalisation and naming conventions, the table layout and in some cases content will have changed. To ensure that users are aware of the changes, and what will be published in release 3, table layouts and cell numbering will be made available to users as soon as possible prior to the release of the statistics. This file will be updated on a weekly basis starting at the end of March 2013.

Users will be informed of the initial readiness of the file through a news alert, and the updated file will then be made available on the same day each week.

# 4.5 Theme tables (MSOA and Ward hierarchies)

In 2001, Theme tables (which bring together a set of results related to a particular population) were published as a collated, printed report. The categories in the key variable of interest were presented as column headings and variables against which the key variable was cross-tabulated were shown as row headings.

For 2011, ONS will be publishing Theme tables as part of the DC product. Each Theme table will be split into individual tables and each component (table) will be separately numbered. For example, the Theme table on religion will consist of a set of individual tables such as religion by age, religion by sex, and religion by economic activity. The component parts of theme tables will be identifiable by their table numbers ie TH2210EW\_A = Religion by age, TH2210EW\_B = Religion by sex etc.

Users viewing 2011 Census Theme tables via NOMIS will have the option to view the Theme table with the components presented together (ie as viewed on paper in 2001) or as individual component parts. Information delivered via the ONS website or the bulk delivery channel will only be available as the component parts of the theme table.

#### 5.0 Other products and information on output content

#### 5.1 Postcode Estimates

The 2011 Census programme has been reviewing the postcode estimate product which was scheduled to come out with the Quick Statistics and Key Statistics. The review has indicated that the product is not ready for publication as there are some anomalies between the postcode estimates and the postcode to OA look-up that need to be resolved. These issues, which affect a relatively small proportion of postcodes, could lead to inconsistencies affecting the use of the estimates. ONS is working to resolve the issues and make the postcode estimate available as soon as possible. These anomalies do not affect the output area statistics already published.

#### 5.2 Bulk Output

Bulk Output in CSV form will be produced for future Quick Statistics, Local Characteristics and Detailed Characteristics tables that contain data for Output Areas, Wards, and Local Authorities. Results for these geographies are generated using data from the Census Outputs tabulation system. Data for other geographies is usually created through website functionality that temporarily aggregates the published OA data to create data for larger geographies. This data is therefore not available in Bulk Output format. ONS provided download options for Bulk Output Key Statistics and Quick Statistics for Output Areas and Wards in January 2013, as multiple files and as a two zipped files, and are investigating options to continue offering this service for future releases. Data will, as before, also be available on DVD; these can be ordered from <u>Census Customer Services</u>.

#### **5.3 Census corrections**

2011 Census data are published through a range of channels, principally the ONS website, the Neighbourhood Statistics Service (NeSS), and Nomis. Some data are also available on DVD and via websites and tools offered by third parties. Any issues with the data are reported separately on these websites, and ONS provides a page that summarises all ONS issues and corrections for easy reference:

# http://www.ons.gov.uk/ons/guide-method/census/2011/census-data/census-products-issues-and-corrections/index.html.

We recommend that you bookmark this page and visit regularly to keep abreast of any issues found in the data or its delivery. A link will be provided to this page on every future Census News Alert. If you are not registered to receive Census News Alerts please contact <u>Census Customer Services</u>.

## 6.0 Dissemination – ONS Web Data Access (WDA) Project

#### 6.1 Introduction and background

As reported at previous advisory groups, the vision of the WDA project is: to deliver an enhanced web site capability for organisations and individuals to use and explore ONS statistics more effectively; to open up direct access to ONS data sources for third parties to power their own websites and applications; to extend the reach of Census 2011 and other ONS business outputs to a wider audience and meet the open government transparency agenda.

Key objectives are to:

- facilitate the dissemination of the 2011 Census data via the ONS website data explorer and API service
- enhance the website and back office content management system for authoring and publishing statistical content in line with the UK Statistics Authority Code of Practice
- deliver a fully operational and public Application Programming I service for use by registered third parties to access ONS data in a machine-to-machine readable format
- deliver an advanced online data explorer facility for public users of the ONS website to access, customise and download data for their own use
- deliver an extensible technology solution and business process for the publication and dissemination of ONS datasets made available through both the API service and Data Explorer

#### 6.2 Plans and Progress

The project has been split into a number of releases of functionality as outlined below.

#### 6.2.1 Recent enhancements to the website

The WDA project has already delivered a number of improvements to the ONS website. Recently, the website has launched theme pages that have substantially improved the access to information. There have also been improvements to the search engine making it easier for users to find information and data on the website.

# 6.2.2 Front Office - API, API Service and Data Explorer

This release will provide website (front office) functionality to enable the dissemination of Census Release 3 detailed multivariate tables. It will provide an external full API and a Data Explorer to view and download datasets on the ONS website. This release will provide:

- navigation and search facilities to find Census datasets, particularly the use of geography to select a subset of a dataset
- functionality to select and filter datasets
- a data explorer to view the full dataset or subset of data as required
- ability to download a full or partial dataset
- an API service to enable third parties to re-use 2011 Census data directly in their own websites/applications

## 6.2.3 All remaining functionality

This final release will provide further enhancements to the website, in particular to support the dissemination of non-Census datasets. Some of the key elements of this release will be:

- Improvements to dataset filtering to include the ability to select by topic
- Improvements to the external API
- Changes to accommodate non-Census datasets, for example to support time series datasets as opposed to geographical based ones

The current plan is to go live in late summer.

Below is a list of tables currently scoped for release 3.1. This list is provisional and is subject to further quality checks and an assessment of confidentiality.

Old Table No.	New Table No.	Title	What content has changed
S101	DC2101EW	Ethnic group by sex by age	Age categories changed from 90+ to 85+.
TPopID002	DC2102EW	National identity by sex by age	<ul> <li>Age categories changed from 90+ to 85+.</li> <li>Merged 'Cornish or Cornish and British Only' category with 'Any other combination of UK identities'.</li> </ul>
S015	DC2103EW	Country of birth by sex by age	Under assessment.
N331	DC2104EW	Main language by sex by age	Under assessment.
TLang002	DC2105EW	Proficiency in English by sex by age	<ul> <li>Age categories changed from 90+ to 85+.</li> </ul>
N045	DC2106WA	Welsh language skills by sex by age	Removed from the DC product
S149	DC2107EW	Religion by sex by age	<ul> <li>Age categories changed from 90+ to 85+.</li> </ul>
S104	DC2201EW	Ethnic group by religion	No change
TNatIDEth001	DC2202EW	National identity by ethnic group	<ul> <li>Merged 'Cornish or Cornish and British Only' category with 'Any other combination of UK identities'.</li> </ul>
N056	DC2203WA	National identity by Welsh language skills by sex by age	Extra categories inserted to ensure that all categories total 100%.
TNatIDRel001	DC2204EW	National identity by religion	<ul> <li>Merged 'Cornish or Cornish and British Only' category with 'Any other combination of UK identities'.</li> </ul>
S102	DC2205EW	Country of birth by ethnic group by sex	Under assessment
S133	DC2206WA	Knowledge of Welsh by country of birth by sex by age	Under assessment
S150	DC2207EW	Country of birth by religion by sex	Under assessment.

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N129	DC2301EW	Ethnic group by provision of unpaid care by general health	No change
N170	DC2801EW	Ethnic group by age of arrival in the UK	Age categories changed from 90+ to 85+.
N171	DC2802EW	Country of birth by age of arrival in UK	Under assessment
N063	DC2803EW	Proficiency in English by age of arrival in the UK	Age categories changed from 90+ to 85+.
S107	DC3201EW	Long-term health problem or disability by general health by ethnic group by sex by age	Under assessment
S152	DC3202EW	Long-term health problem or disability by general health by religion by sex by age	Under assessment
S137	DC3202WA	Long-term health problem or disability by general health by Welsh language skills by sex by age	Under assessment
S025	DC3301EW	Provision of unpaid care by general health by sex by age	Age categories changed from 90+ to 85+.
S016	DC3302EW	General health by long-term health problem or disability by sex by age	<ul> <li>Age categories changed from 90+ to 85+.</li> </ul>
S023	DC3601EW	General health by NS-SeC by sex by age	Under assessment
S024	DC3602EW	Long-term health problem or disability by NS-SeC by sex by age	Under assessment
S108	DC6201EW	Economic activity by ethnic group by sex by age	Under assessment
New Table	DC6202EW	Economic activity by national identity by sex by age	Under assessment
New Table	DC6203EW	Economic activity by country of birth by sex by age	Under assessment
New Table	DC6204EW	Economic activity by Passports by sex by age	Under assessment
S153	DC6205EW	Economic activity by religion by sex by age	Under assessment
S112	DC6206EW	NS-SeC by ethnic group by sex by age	Added age breakdown
S157	DC6207EW	NS-SeC by religion by sex by age	Added age breakdown
S026	DC6301EW	Economic activity by provision of unpaid care by general health by sex	Under assessment
S021	DC6302EW	Economic activity by hours worked by sex by long-term health problem or disability	Under assessment

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# Annex B

#### Table titles and number rules for Release 3 and 4 products

#### <u>Titles</u>

The title is produced by using the variable on the side of the table (rows) and then the variable at the top (columns). If age and sex are included in the table along the side they always appear at the end of the table name. An example of these rules can be seen below:

#### Table number: Long-term health problem or disability by NS-SeC by sex by age

		Higher managerial and prof	essional occupations
	TOTAL NS-SeC	1.1 Large employers and higher managerial occupations	1.2 Higher professional occupations
ALL PEOPLE	-	-	-
16 to 24 years	-	-	-
Day-to-day activities limited a lot	-	-	-
Day-to-day activities limited a little	-	-	-
Day-to-day activities not limited	-	-	-
25 to 34 years	-	-	-
Day-to-day activities limited a lot	] -	-	-
Day-to-day activities limited a little	-	-	-
Day-to-day activities not limited	] -	-	-

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(Note: this is not the full or final table)

## **Numbers**

Tables are numbered once the table title is confirmed.

Numbers are given by mainly using a set of structure rules constructed for Release 2.

#### Release 2 structure

The rules recommended numbering tables by the following structure:

Table type	Topic No.	Table no.	Country
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The table type for Release 2 was KS or QS.

The topic numbers were as below:

Торіс	Topic number
Demography	1
Ethnicity, Identity, Language and Religion (EILR	2
Health	3
Housing and accommodation	4
Qualifications	5
Labour market	6
Travel to work	7
Migration	8

The table number was obtained by ordering within each topic by the list in Annex A. For example 'Carers' is the first more specific subject within the 'Health' topic so tables relating to 'Carers' would come before e.g. general health in the numbering system.

The country is EW for England and Wales tables and WA for Wales specific tables.

#### **Modification for Release 3**

The general numbering structure from Release 2 will be taken forward with the addition of another digit to represent the second topic in the titles. The primary and secondary topics will be decided on, largely on the same basis as the titles but also looking at what the table will be used for.

For the majority of tables, the 'First topic' will correspond to the topic presented on the rows of a table and the 'second topic' will relate to the topic presented on the column of a table.

The structure will take the following form:

Table type	First Topic	Second	Table no.	Country
	No.	Topic No.		

It is thought that this method will help to group the tables into their relevant specific topics more easily. A more complex system is needed in Release 3 because the tables are multivariate. The tables will be grouped according to each part of the structure, starting with 'Country', then 'Table type', then 'first topic no.' the 'second topic no.' and finally 'Table no.'.

The table type will be 'TH' for theme tables and 'DC' for detailed tables.

Examples of how this will work can be seen below:

#### Detailed tables

DC2803EW: Proficiency in English by age of arrival in the UK

	Age of arrival in the UK
Proficiency in English	

(Note: the '?' will be replaced by a number once a list has been completed.

Here the 2 relates to the first topic, EILR and the 8 relates to the second topic, Migration.

**DC6302EW**: Economic activity by hours worked by long-term health problem or disability by sex

	Sex
	Long-term health problem or disability
Economic activity	
Hours worked	

This table is less straight forward and relies on a judgement about what the table will be used for. It is thought that the primary topic, from Economic activity, is Labour Market (6) and the secondary topic, from Long-term health problem or disability, is Health (3).