Office for National Statistics

2011 Cyfrifiad Census

2011 Census outputs and dissemination

April 2012

Welcome and introductions

- Domestics
- A big **thank you** for your continued support
- What you can expect from the day

Agenda for the day

- Welcome and overview
- Census outputs

----------Break----------

- Census outputs dissemination

----------Lunch----------

- Workshop on census outputs & dissemination

----------Break----------

- Workshop feedback
- Summary and conclusions

What are we going to share with you today?

- Progress on activity to process, analyse, quality assure and publish the data
- Further information on census outputs & geographies
- Planned methods of data dissemination
- Continuing census engagement and communications to support the outputs

What would we like from you today?

- Feedback on our plans
- Share your plans and ideas for exploiting census outputs
- Think about how you can further promote the use of census results in your world
- Learn from each other

Thank you in anticipation

Objectives of the 2011 Census (1)

Data quality

- To provide accurate population estimates;
  - National population estimate within +/- 0.2% of the truth*
    - **On target**
  - All LA level population estimates within +/- 3% of the truth*
    - **On target**
  - National response rate of 94% or better - **On target**
  - All LAs have a response rate of 80% or better - **On target**
- To provide accurate population characteristics
  - **On target**

* with a 95% confidence interval

Objectives of the 2011 Census (2)

Meeting user needs

- To provide outputs and delivery mechanisms that meet user needs and ensure confidence in the results - **On target**
    - Quality of the results
    - Timeliness
    - Accessibility and awareness
    - Supporting information, (e.g. metadata)
    - UK coherence

Objectives of the 2011 Census (3)

Security and confidentiality

- To protect, and be seen to protect, confidential personal census information - **On target**
  - Independent review to endorse security and confidentiality arrangements

Value for money

- To provide value for money - **On target**
  - Independent review to confirm the census delivered the identified benefits within budget

Headlines

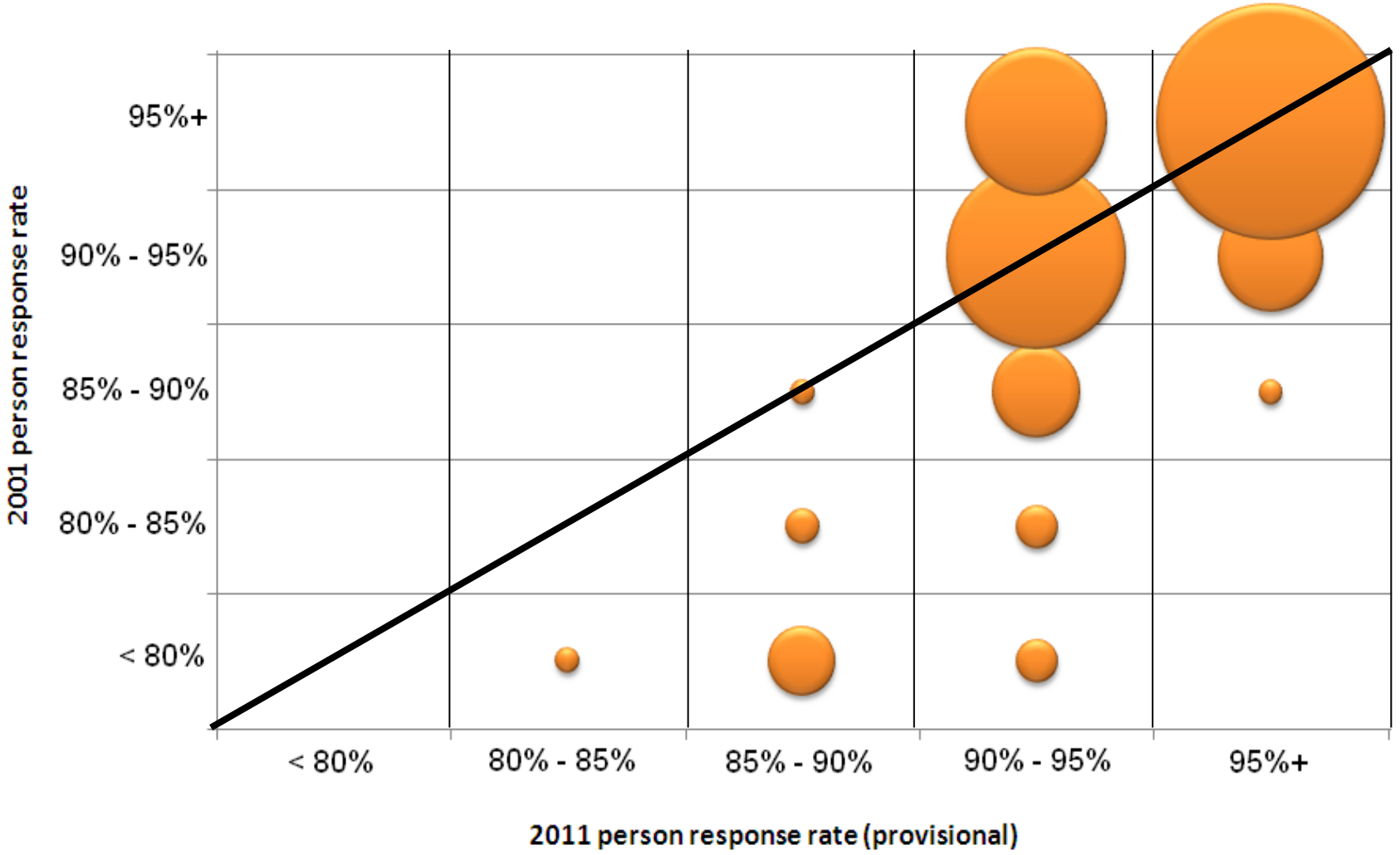
- All data capture, coding and Census/CCS matching complete
- Further processing and QA continues
- QA panels sitting on a regular basis
- Shredding & pulping of 2000 tonnes of questionnaires underway
- 2011 Census outputs prospectus published
- Development of dissemination tools underway
- 1st release scheduled for July

Data Quality

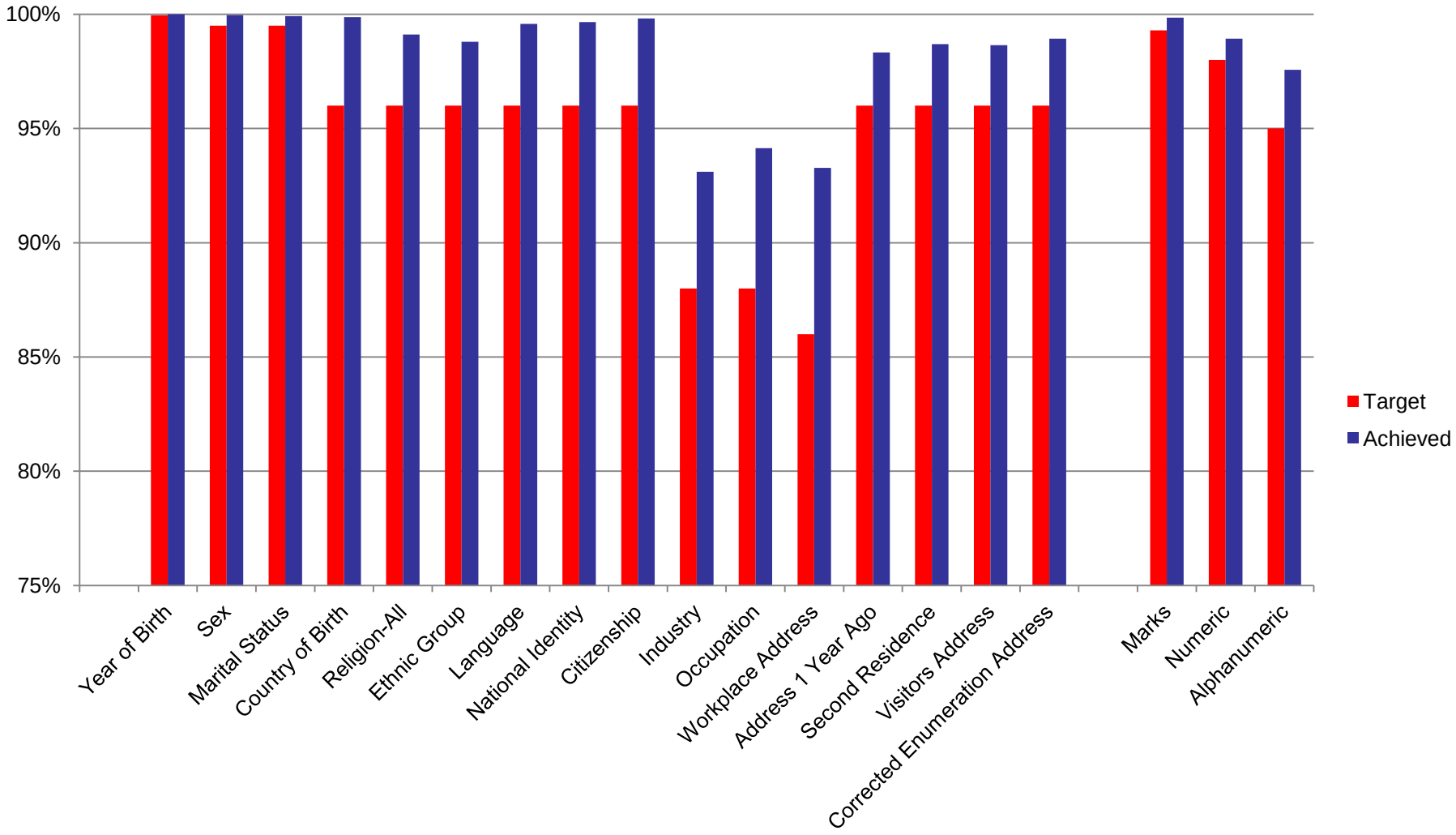
- We wanted:
  - Better response in most challenging areas
  - Reduce variability in response
  - The forms to be filled in well
  - The data to be captured/coded well
  - To understand differences between census and other sources

Data Quality

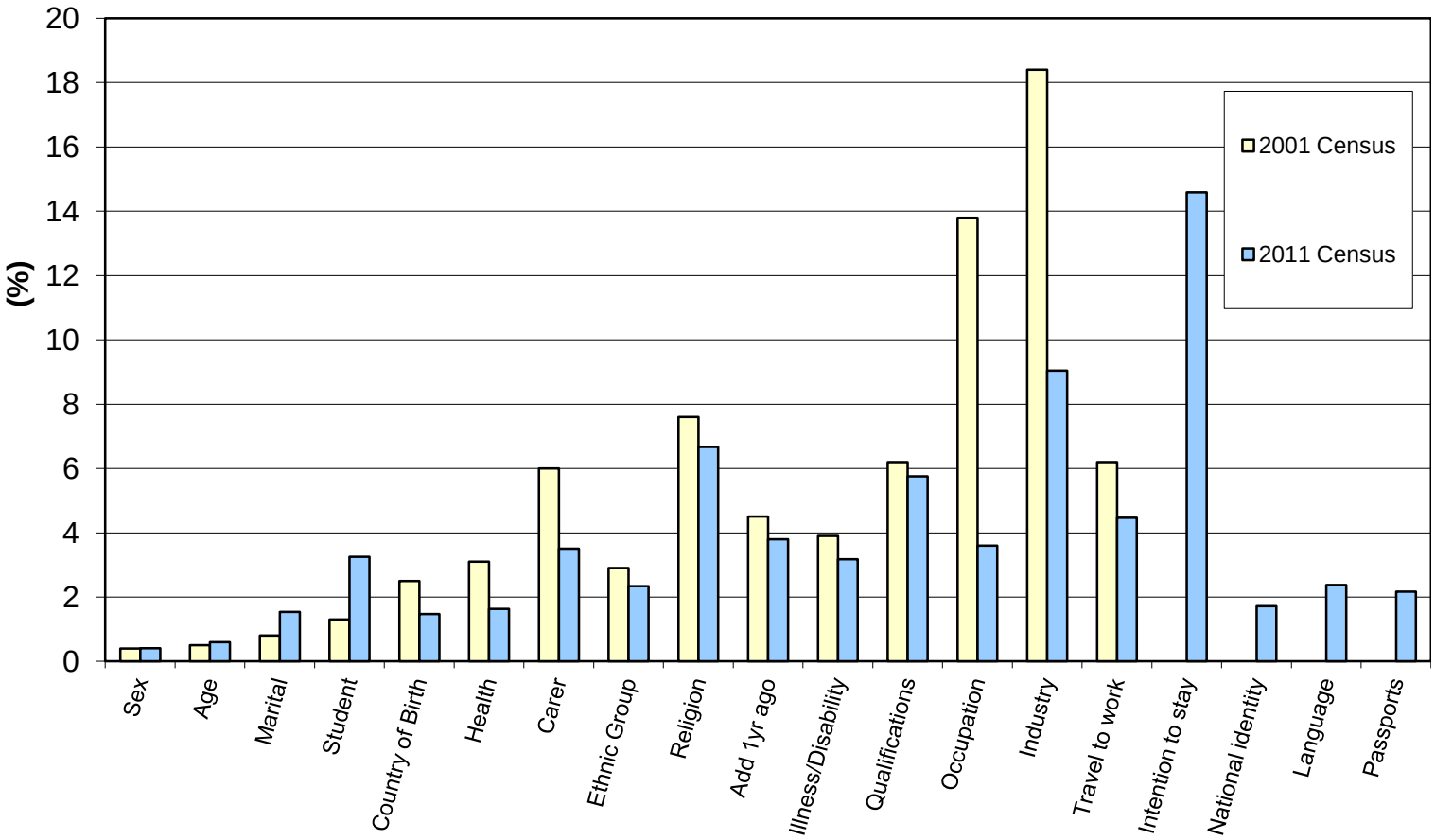
- **Response rate comparison: 2001 vs provisional 2011**



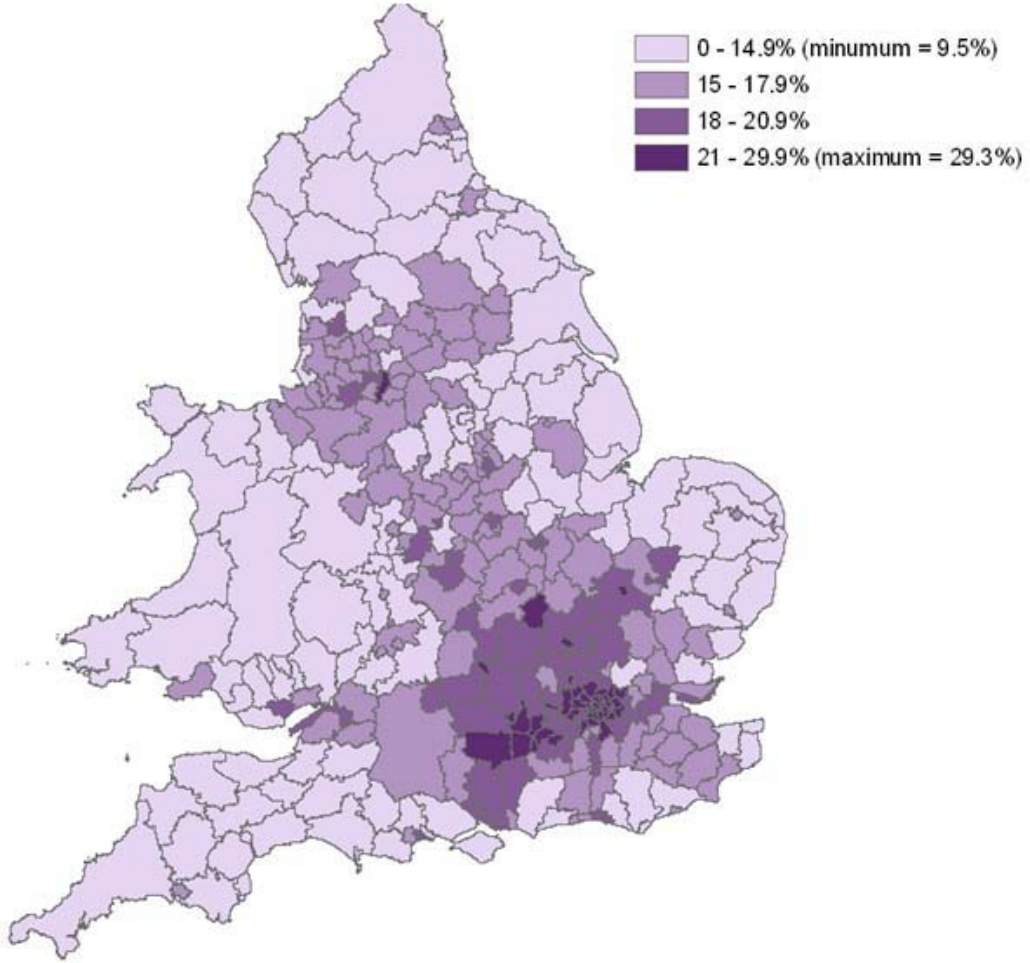
Data Quality
- Capture and coding accuracy



Data Quality
- Item non response



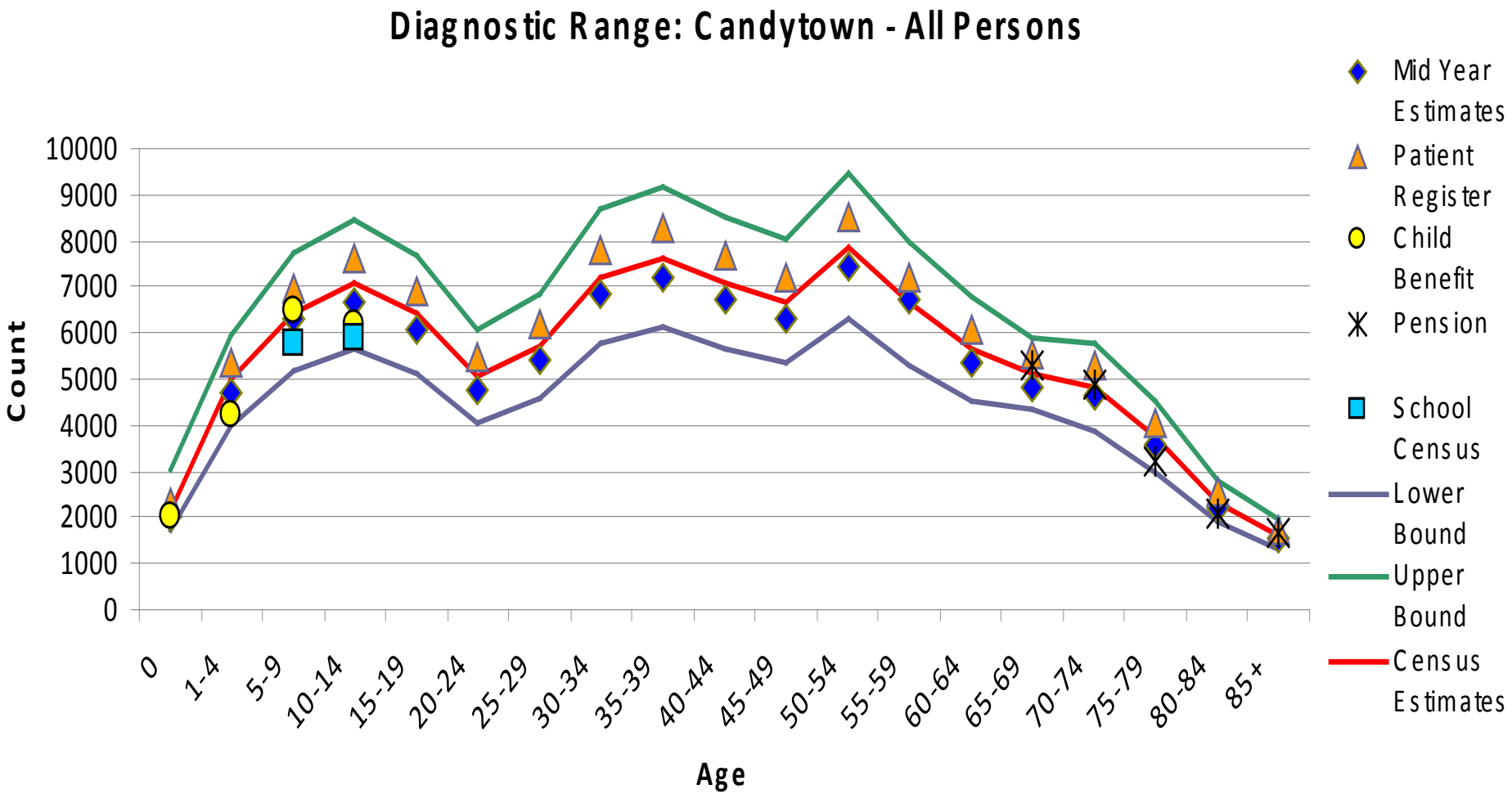
Internet questionnaire completion response



Full breakdown available at

http://www.ons.gov.uk/ons/guide-method/census/2011/the-2011-census/the-2011-census-project/2011-census-updates-and-evaluation-reports/index.html

Example of Age/Sex Tolerance



Census Outputs

- 2011 Census outputs prospectus now released
- On target for 1st release, (England & Wales), in July 2012
- Information pack will be provided with 1st release to support population estimates
- Prospectus available at:

www.ons.gov.uk/ons/guide-method/census/2011/census-data/2011-census-prospectus/index.html

Analytical Support to Users

- Beyond the basic outputs.....
- Aim to deliver a rolling series of analytical products
  - short stories, themed papers
  - Visualisations
  - Education/tuition/tools
  - Micro data
  - Update Longitudinal Study
  - etc
- High level analysis plans detailed in prospectus

The Analytical Centre for Census

- Key aim is to link and coordinate with:
  - Government departments
  - Local government
  - Academic & research organisations
- A place on the web to promote and share analysis, discuss ideas/developments and learn from others
- Bring together census analysis being done in ONS and outside ONS
- Ongoing consultation

Maximising the benefits of the 2011 Census

The benefits realisation team is working to:

- Maximise the use of the census outputs – working with partners to fully exploit the census outputs across all sectors of government, business, academia and communities

- Quantify and monitor the benefits realisation – working with partners to catalogue the uses, prepare case studies and place, where possible, an economic value on range of data usage

Communication & engagement (to support the census outputs)

- QA tutorials, planned for June 2012
- Media launch activities
- Communications toolkit to help partners promote census outputs (text for editorial, case studies, presentations and key uses of stats and benefits etc)
- Census advisory groups planned for Autumn
- Set up online community on “StatsUserNet”
- Conference presentations

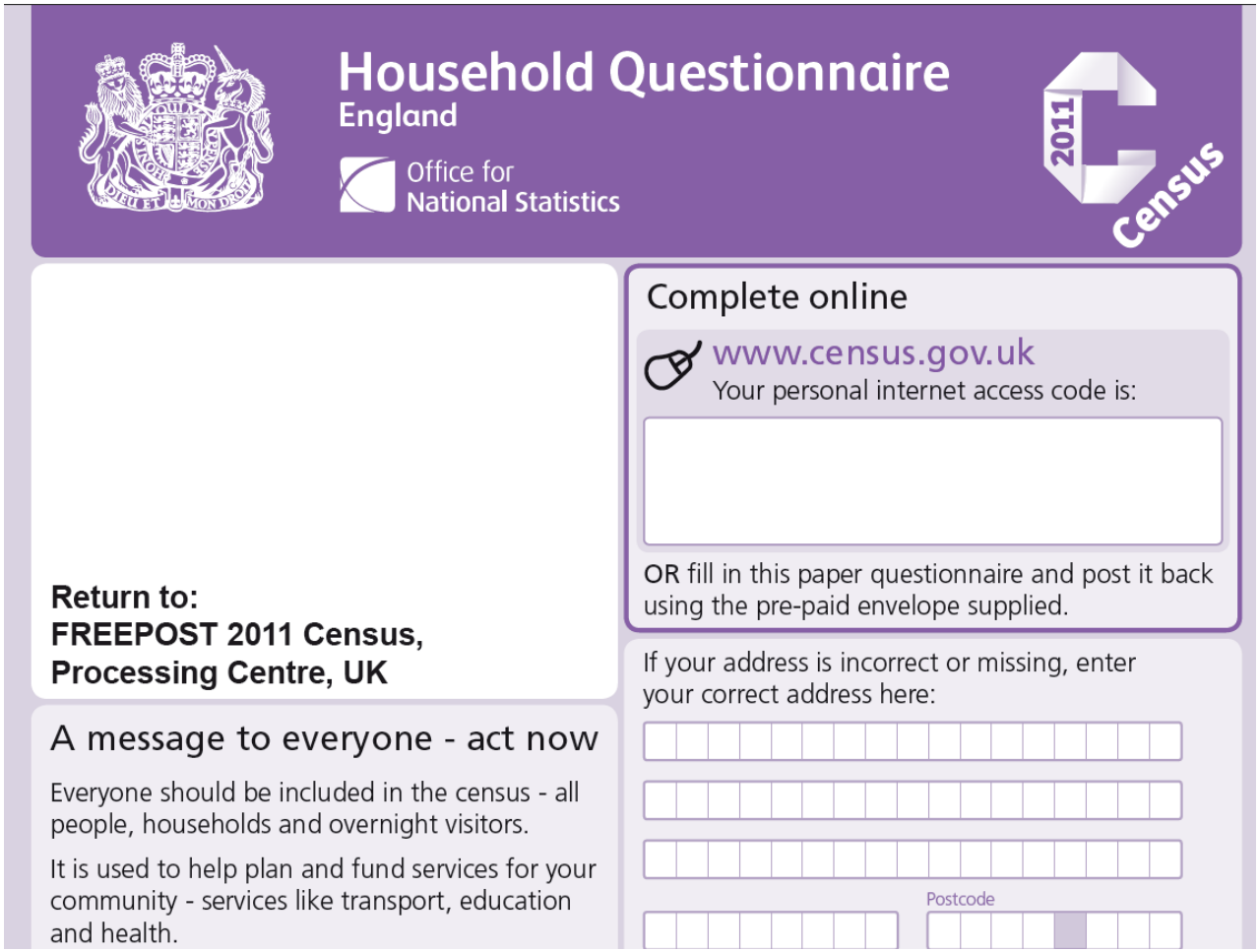
Office for National Statistics

2011 Cyfrifiad Census

2011 Census outputs update

2011 Census outputs and dissemination

- Census outputs consultation process
- Outline of 2011 Census prospectus
- Running order for 2011 Census outputs
- Data visualisation
- Charging policy (commissioned tables)
- How will census outputs be disseminated?
- What tools will be available to access census outputs?
- What's next?



Household Questionnaire
England

Office for National Statistics

2011 Census

Return to:
FREEPOST 2011 Census,
Processing Centre, UK

A message to everyone - act now

Everyone should be included in the census - all people, households and overnight visitors.

It is used to help plan and fund services for your community - services like transport, education and health.

Complete online

www.census.gov.uk
Your personal internet access code is:

OR fill in this paper questionnaire and post it back using the pre-paid envelope supplied.

If your address is incorrect or missing, enter your correct address here:

Postcode

Confidence in the results

- There was a successful field operation for the 2011 Census and Census Coverage Survey. Return rates were good
- ONS is confident that it will meet its national target response rate of 94 per cent and a target response rate of at least 80 per cent in every local authority
- ONS is confident that fewer than 10 per cent of local authorities will be below a 90 per cent response rate
- ONS achieved a Census Coverage Survey response rate of 90 per cent
- Census response rates will be published in the first release

Consultation process

- Established the extent, scope and detail that census users would like to see for the 2011 Census outputs
- A success in terms of the high quality of responses received, and the positive feedback on the proposed outputs for 2011 Census

2011 Census prospectus

- Web-based dynamic prospectus
- Users will be alerted to revisions or updates
- Release schedule for 2011 Census outputs
- 2011 Census geography
- Commissioned tables
- Specialist products outlined
- Data access and dissemination

First release (July 2012)

- Age (single year) by sex for England and for Wales
- Age (5 year bands) for LADs/UAs in E&W - All people
- Age (5 year bands) for LADs/UAs in E&W - Males
- Age (5 year bands) for LADs/UAs in E&W - Females
- Additional summary household estimates table(s)
- Local authority quality assurance information

Second release (November 2012 – February 2013)

- Key Statistics and Quick Statistics
  - Equivalent to 2001 key statistics and univariate tables
  - More detail – eg ethnicity full classification output

Third release (March 2013 – June 2013)

- Lower threshold (Output Area) statistics
  - Maintain comparability wherever possible
  - Expanded UK harmonisation

  Local characteristics designed for release at finest geography (equivalent to 2001 CAS tables)

Fourth release (July 2013 – October 2013)

- Upper threshold (MSOA/Ward and above) statistics
  - Maintain comparability wherever possible
  - Expanded UK harmonisation

  - ***Detailed characteristics*** and ***themes***

  (equivalent to 2001 standard tables and theme tables)

Naming convention

2011 Table type	2001 Table type
Key Statistics KS	Key Statistics KS
Quick Statistics QS	Univariate UV
Local Characteristics LC	Census Area Statistics CAS
Detailed Characteristics DC	Standard tables S
Themes T	Standard and CAS theme tables T, CAST
Postcode Estimates	Postcode Headcounts
Armed Forces	Armed Forces
Migration tables	Migration tables

New tables

- 20 per cent increase in standard outputs
- New information collected for the first time in 2011
- Further information on existing topics

UK outputs

- An increased volume of UK harmonised tables will be made available for 2011 Census outputs

- The statistical agencies have an agreed aim of providing a single point of access for UK harmonised outputs

Alternative populations

Alternative population bases under consideration include:

- Short-term (3-12 month) immigrant population
- Workplace and workday populations
- Out-of-term population
- Exploration of a majority-of-time population

Multi-dimensional datasets

- Local authority and above
- Designed on a thematic basis
- Around 10 to 12 dimensions held in cube
- Allows user to design their own table

Small populations

- ONS has decided to develop, in conjunction with users, an innovative new package of census products
- The consultation highlighted the importance of making detailed and accurate data available for small population groups
- A small population is any sub-population distinguished by a particular characteristic eg ethnic group, language and religion

Flow data

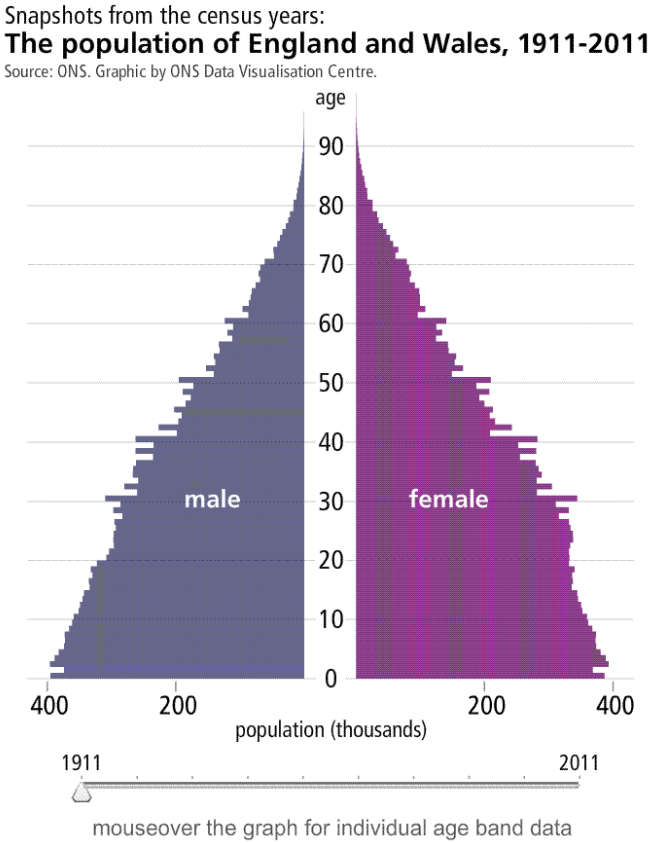
- ONS is designing a wide range of specialist products for flows

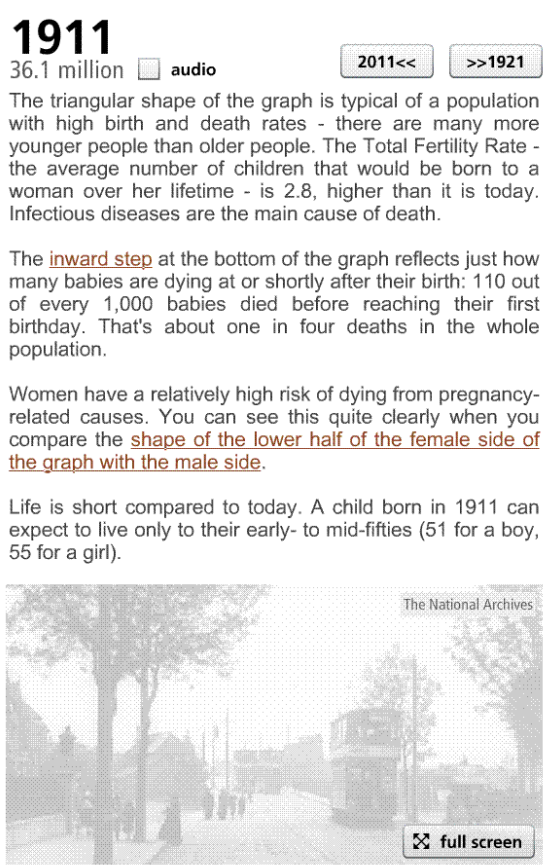
- These interactions (flows) include:
  - Migration
  - Commuter patterns
  - Enumeration address to second address
  - Second address to workplace address

Microdata

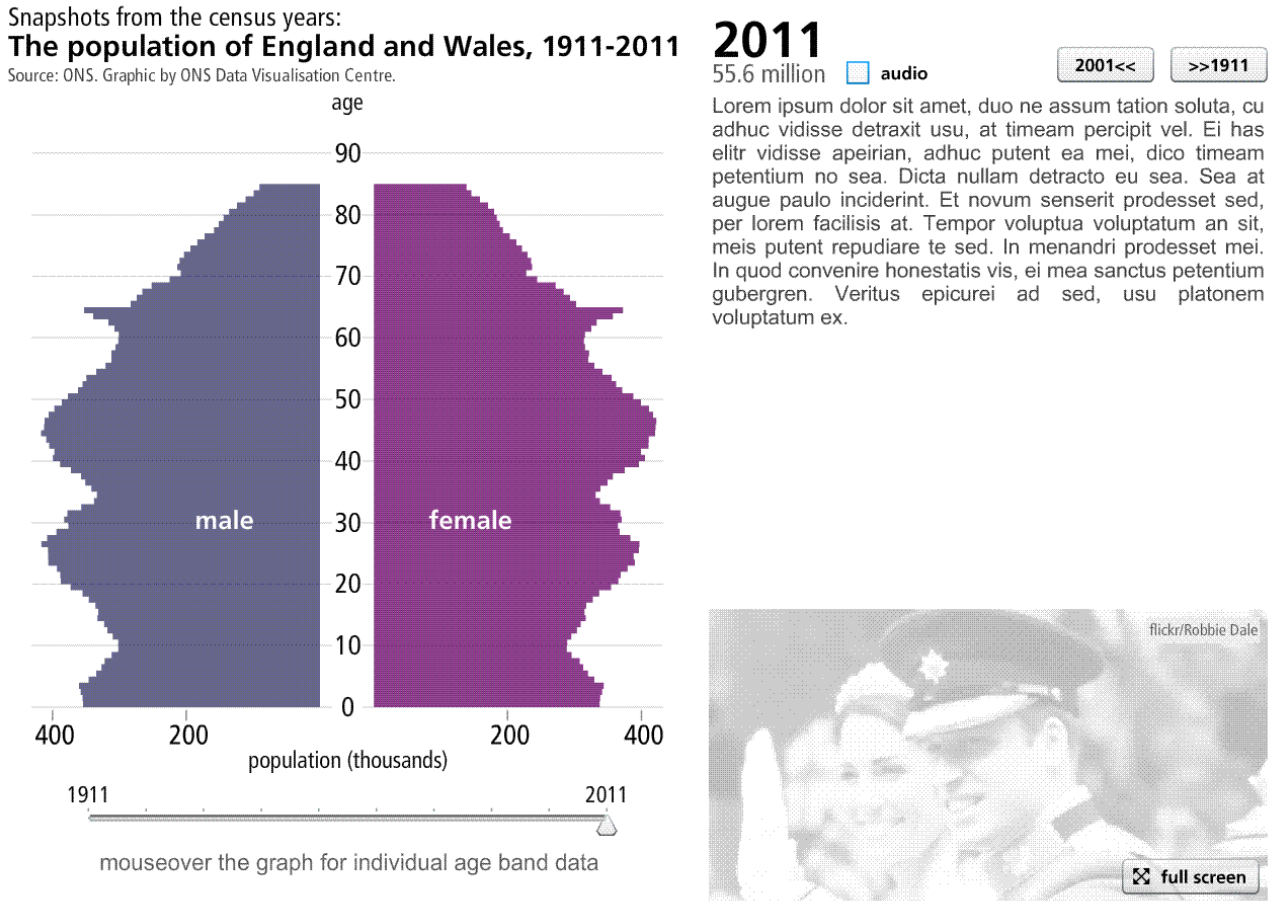
- Series of microdata products:
  a. Public use microdataset
  b. Building on the range of SARs produced in 2001 – possibility of increased sample sizes
  c. ONS investigating the idea of a heavily perturbed (test) microdataset for users to develop syntax

Data visualisation

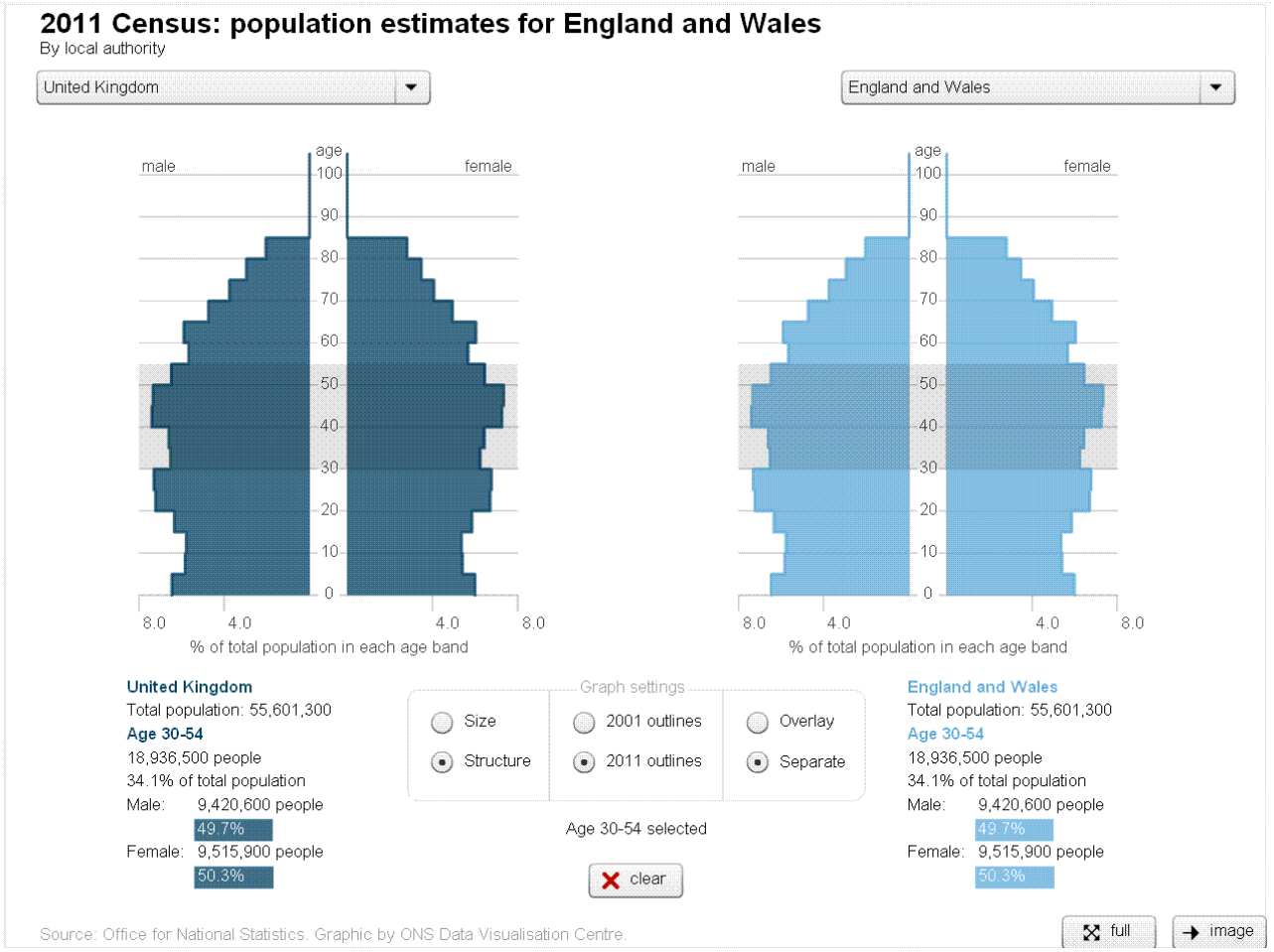




Data visualisation (cont)



Data visualisation (cont)



Census Geography prospectus (end of May 2012)

- All the products to be published, their formats, layouts, and what they will be used for
- When they will be published
- How they will be disseminated
- Plus information on Output Area maintenance policy and other geography policies

ONS charging policy

- Any data provided as standard will be made available under the national archive open government licence
- Commissioned tables will be charged for: price list designed for economic recovery of costs involved (price agreed prior to work commencing)
- Commissioned tables will be published on the ONS website
- New prices will be applicable for all commissioned tables (inc. historical censuses)

Windows of 2011 Census releases

	July 2012 first release	Nov 2012 - Feb 2013 second release phases			March 2012 - June 2013 third release phases			July 2013 - Oct 2013 fourth release
		1	2	3	1	2	3	
geography								
England and Wales	single year of age and sex	KS and QS			LC			DC, T and AF
England	single year of age and sex	KS and QS			LC			DC, T and AF
Wales	single year of age and sex	KS and QS			LC			DC, T and AF
regions	5-yr age bands and sex and household estimates	KS and QS			LC			DC, T and AF
unitary / local authority	5-yr age bands and sex and household estimates	KS and QS			LC			DC, T and AF
middle layer super output area		KS and QS			LC			DC and T
lower layer super output area		KS and QS			LC			
output area		KS and QS			LC			
2011 wards			KS and QS			LC		DC and T
health areas				KS and QS			LC	DC and T
national parks				KS				DC and T
parishes/communities				KS and QS			LC	
parl. constituencies				KS and QS			LC	
postcode sectors				KS				
Welsh Gov. electoral areas				KS and QS				

2011	2001
Key Statistics (KS)	Key Statistics
Quick Statistics (QS)	Univariate
Local Characteristics (LC)	CAS
Detailed Characteristics (DC)	Standard
Theme (T)	CAS Theme and Standard Theme
Armed Forces (AF)	Armed Forces

Staying informed

- Prospectus updates register - online
- Prospectus email alerts - sign-up via the prospectus
- Census News Alerts - sign-up via censusnewsalert@ons.gsi.gov.uk

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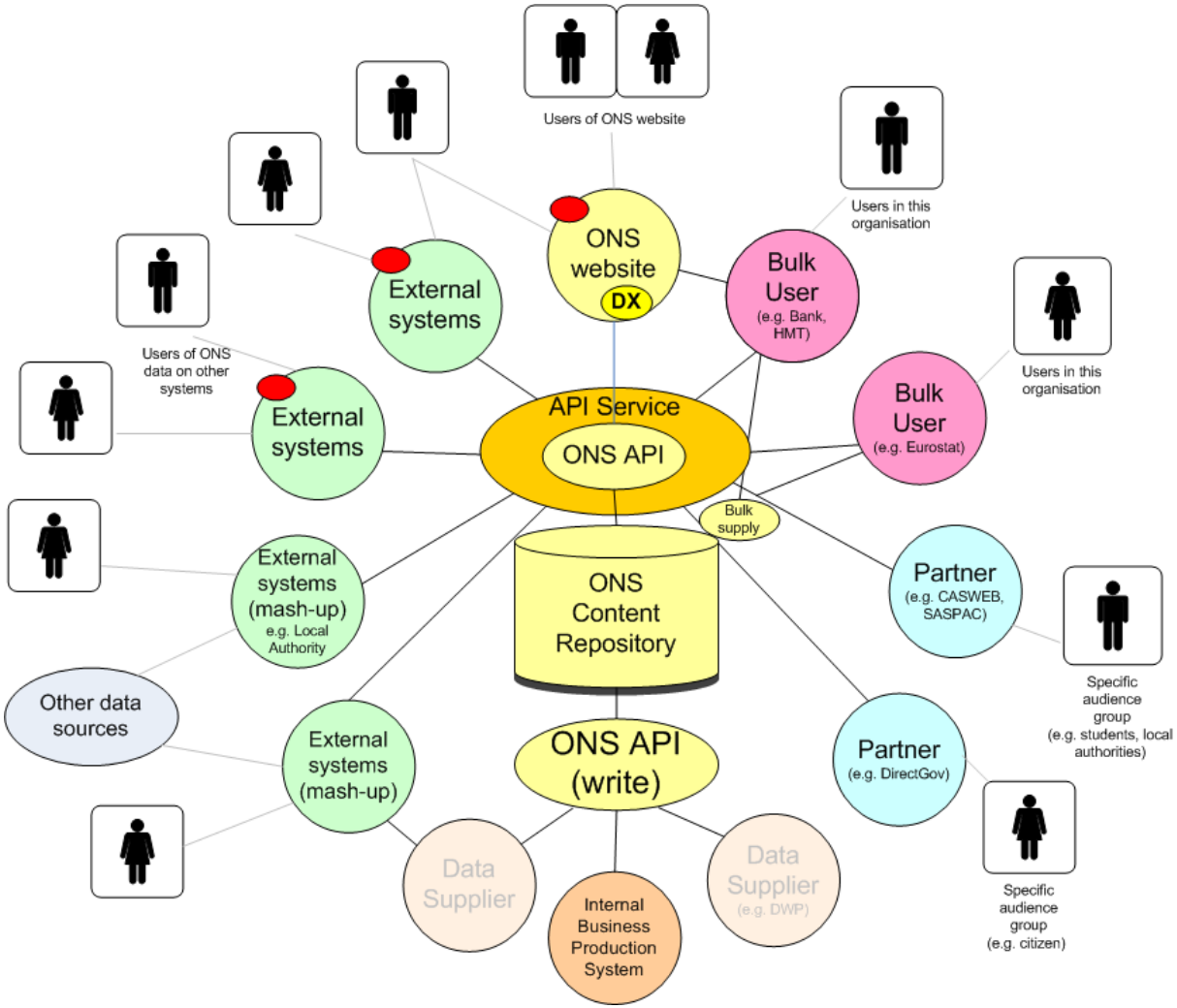
2011 Cyfrifiad Census

Dissemination of ONS Data - Future Channels and Tools

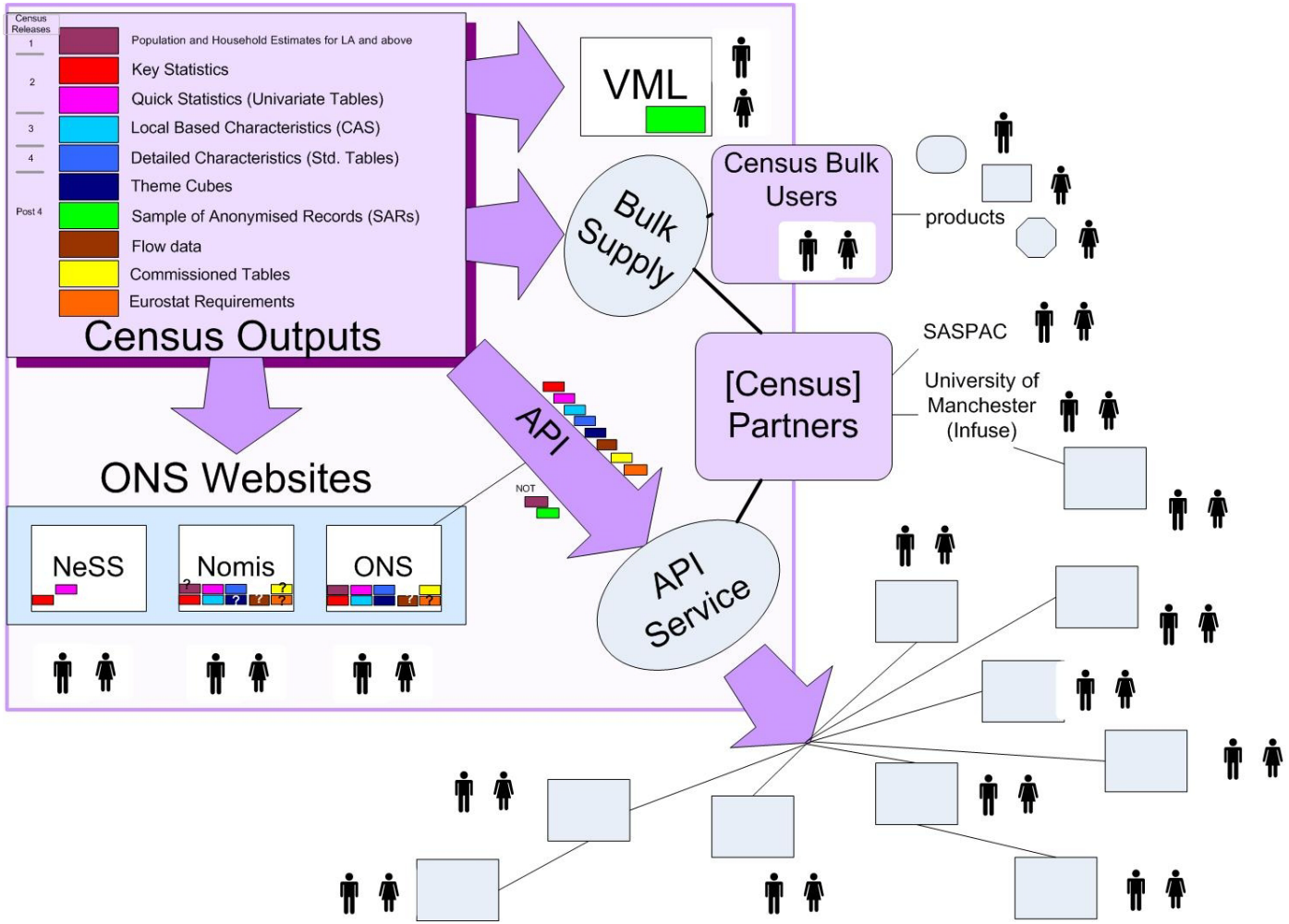
Getting the data used

The big picture



- Extending the reach of ONS data
- Enabling and encouraging re-use
- Open data
- Deriving the full value from the data is a more 'public task'
- Understanding audiences and user needs

Census Outputs Dissemination - Channels



Census Outputs Dissemination -
Main ONS Website and API

- ONS Website
  - Main dissemination channel for all ONS outputs
  - Will be enhanced to provide additional search & navigation
  - A Data Explorer will be provided to allow on-line exploration of datasets

- ONS API
  - Will provide external organisations with direct access to ONS datasets to re-use on their own systems

Census Outputs Dissemination -
Neighbourhood Statistics Service (NeSS)

- NeSS
  - A well established service to a range of users focused on small area statistics, initially with a focus on social exclusion
  - Provides a range of statistics from ONS and other government departments and allows analysis over space and time
  - Includes dynamic Neighbourhood Summaries that provide a ‘pen picture' of a local areas using a range of statistics
  - Also has its own API (NeSS Data Exchange)

Census Outputs Dissemination - Nomis

- Nomis
  - •Externally provided ONS website focused on Labour Market Statistics for local areas, along with range of other data
  - •Users can:
    - Select by variable and geography
    - Download data as individual cells or full ‘formatted’ tables
    - create their own variables and custom areas (and share these with other users),
    - save regularly used selections
  - • Also provides an API for Developers

Census Outputs Dissemination -
Bulk Supply & Virtual Microdata Library

- Bulk Supply
  - Will provide all tables from a given release on “Hard Media” (disc or hard drive)
  - Will be provided in XML format and are considering whether a csv format as well
- Virtual Microdata Lab
  - Will provide access to a range of SARS (Sample of Anonymised Records) products building on those produced in 2001
  - This provides access to a sample of unit level data which has been made anonymous

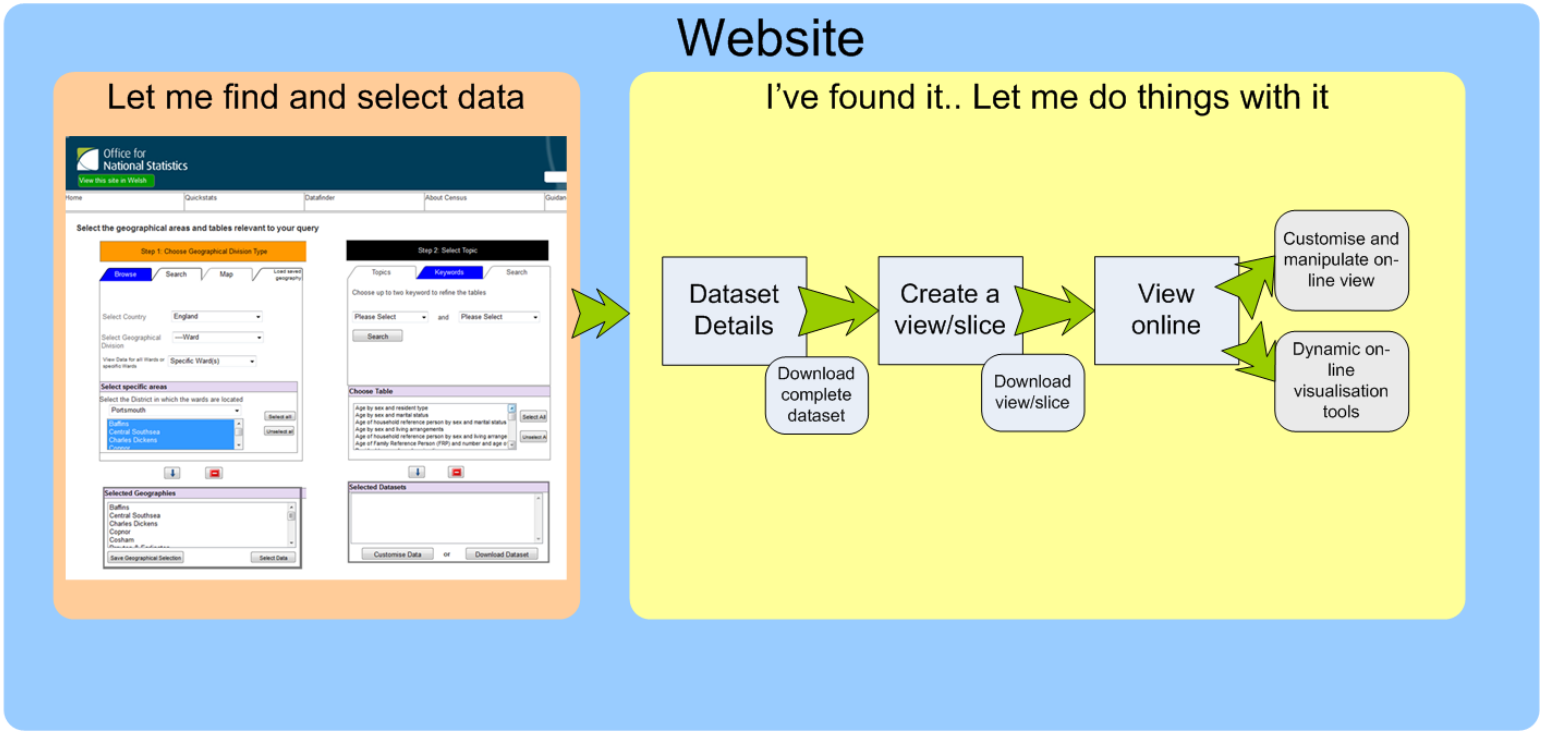
Census Release 1 Dissemination

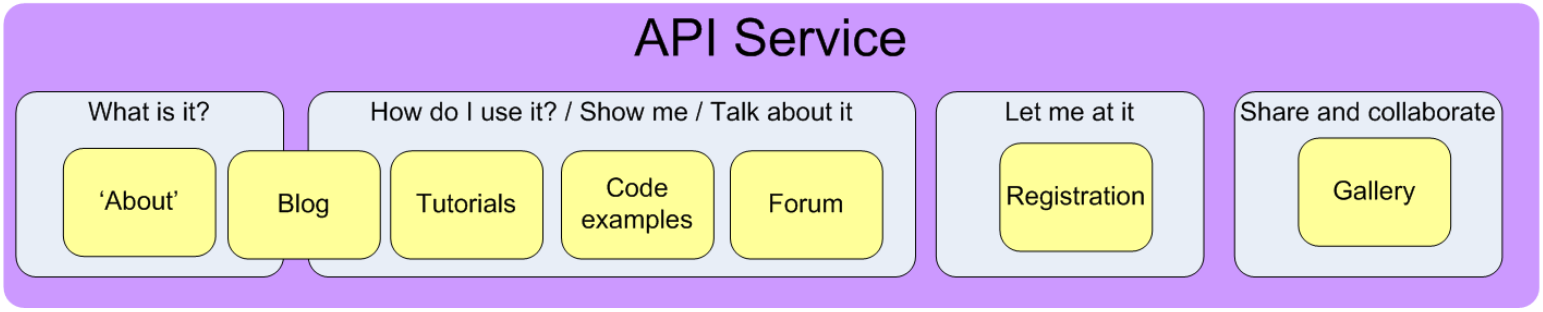
- Release 1 will disseminated on existing ONS website and NeSS
- New Census Homepage will be created – linked from main ONS Homepage
- Census Homepage will contain:
  - Statistical Bulletin
  - 5 Reference Tables
  - Local Authority Pack – Excel spreadsheet for download allowing selection of individual Local Authority

ONS Dissemination Tools

- ONS will be providing new tools accessible via their website to:
  - Maximise the use of Census and other ONS data
  - Provide an enhanced website to explore ONS statistics more effectively online
  - Open up direct access to ONS data for third parties to power their own websites and applications
  - Support the government's transparency policy

ONS Dissemination Tools –
Overview





ONS Dissemination Tools –
Data Explorer

- Data Explorer
  - The data explorer is an online facility to allow users to explore and interrogate datasets made available on the ONS Website
- ONS will be providing a Data Explorer with the following features
  - Navigate to and find datasets
  - Ability to select different levels of geography and geographic areas
  - Ability to filter on variables included in the dataset
  - Ability to view datasets via a browser based on user selections

ONS Dissemination Tools –
Application Programming Interface

- Application Programming Interface (API)
  - The API is a mechanism that enables one application to programmatically talk to another application. In this context it enables a third party application (e.g. a website) to programmatically discover and retrieve data from the ONS Content Repository.
- ONS will be providing an API Service with the following features
  - Registration
  - Blog
  - Forum
  - Gallery
  - Instructions and tutorials
  - Enablement tools

How Are We Going to Keep You Informed?

Type of activity	Channels include
Online	ONS website, ONS data dissemination community now available
ONS workshops	Stakeholder road shows (April), Quality assurance tutorials (June)
ONS advisory and working groups	Census advisory groups, web dissemination advisory group, API working group
ONS Newsletters	Census Newsletter, Census e alerts
3rd party meetings and workshops	Government Statistical Service (GSS), Departmental workshops, Royal Statistical Society (RSS) user forums, Market Research Society
3rd party conferences and exhibitions	RSS, Local authority research and information association (LARIA), British Society for Population Studies (BSPS), GSS Labour Market group
3rd party newsletters	LARIA, British Urban and Regional Information Systems Association (BURISA)
Publicity and media	Communications toolkit for stakeholders, case studies, news releases, etc

How Can You Get Involved?

- We have been showing a number of users of the ONS website draft versions of what our new pages and tools might look like so we can gather and incorporate feedback
- We will also be asking users to test the new online tools before they go live
- We will be providing a beta version of the API in the summer so organisations can start experimenting
- If you are interested in getting involved in testing the changes to the website then please contact:

  Stephen.d.kay@ons.gsi.gov.uk
- If you are interested in getting access to the beta API then please contact us:

  onsapi@ons.gsi.gov.uk

Next Steps

- **Summer 12 -** beta version of the API will be available for interested parties to test and use

- **Autumn 12 -** pre-launch the ONS API Service to allow users to pre-register find out more about this new tool

- **Aligned with Census Release 2 –** launch of the ONS API and new Data Explorer to support the Census second release

Workshop on census outputs and dissemination

Question	Post it
How do you plan to make innovative use of the census data and what value will it add for you?	PINK
What are the opportunities for you in using the 2011 Census data & planned census dissemination channels?	GREEN
What are the challenges for you in using the data and planned dissemination tools/channels	ORANGE
What does success look like for you?	YELLOW

Summary and conclusions

- We are confident that we will achieve the 2011 Census objectives
- Processing and quality assurance are on track for the 1st release in July 2012
- We have an intense period ahead to finalise the results
- Good progress has been made in building the dissemination systems
- We are still open to ideas on analysis and exploitation
- We welcome your help in making the most of the census data

What comes next?

- May 2012 – Census Stakeholder newsletter published
- June 2012 - Methodology tutorials
- July 2012 - 1st release of census data
- November 2012 - Advisory group meetings
- November 2012 to February 2013 - 2nd release of data

End of event

Thanks for your contribution and taking time to attend today's event

Have a safe journey home