

Census Advisory Group

25 February 2015

WELCOME

AGENDA

1.	Welcome Minutes / Actions last meeting NISRA Re-organisation	2.00 – 2.10	Brian Green
2.	2011 Census update	2.10 – 2.25	Brian French
3.	Data Integration and Linkage update	2.25 – 2.40	Maire Brolly
4.	Demographic Statistics update	2.40 – 2.55	Brian Green
5.	Census 2011 – Benefits Realisation	2.55 – 3.30	Brian French
6.	NISRA Plans for 2021 Census	3.30 – 4.00	Maire Brolly
7.	CAG: What next – towards 2021 (Discussion)	4.00 – 4.15	Brian French
8.	AOB and Close	4.15 – 4.30	Brian Green

Census Office and Demographic Statistics

CENSUS OFFICE Robert Beatty		DEMOGRAPHIC STATISTICS Brian Green	
CENSUS BRANCH Brian French	DATA INTEGRATION AND LINKAGE BRANCH Maire Brolly	VITAL STATISTICS POPULATION STATISTICS NEIGHBOURHOOD STATISTICS Regina McGeown	NILS AND ADRC RESEARCH SUPPORT UNIT (Vacant)
<u>Branch functions</u> To plan, undertake and report the decennial Census of Population. To disseminate Census data to Government and non-Government users	<u>Branch functions</u> To provide a data integration and linkage service for the following projects: Northern Ireland Longitudinal Study (NILS); Administrative Data Research Centre (ADRC) and the Electoral Office for Northern Ireland.	<u>Branch functions</u> To support Government and the wider society by providing official demographic statistics for Northern Ireland. To provide access to statistical and locational information on areas within Northern Ireland.	<u>Branch functions</u> To provide user support to government and academic researchers accessing the NI Longitudinal Study and the Administrative Data Research Centre.



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2011 Census update

Dissemination and Publication 2014 (1)

January

NI Output – Key Statistics for New LGDs

UK Output – Key Statistics and Quick Statistics for local authorities in the UK

February to March

NI Output – Local Characteristics (All geographies)

UK Output – European Commission Census Regulation Statistics (Eurostat)

UK Output – UK Workplace Tables

Infographics - New LGDs

June

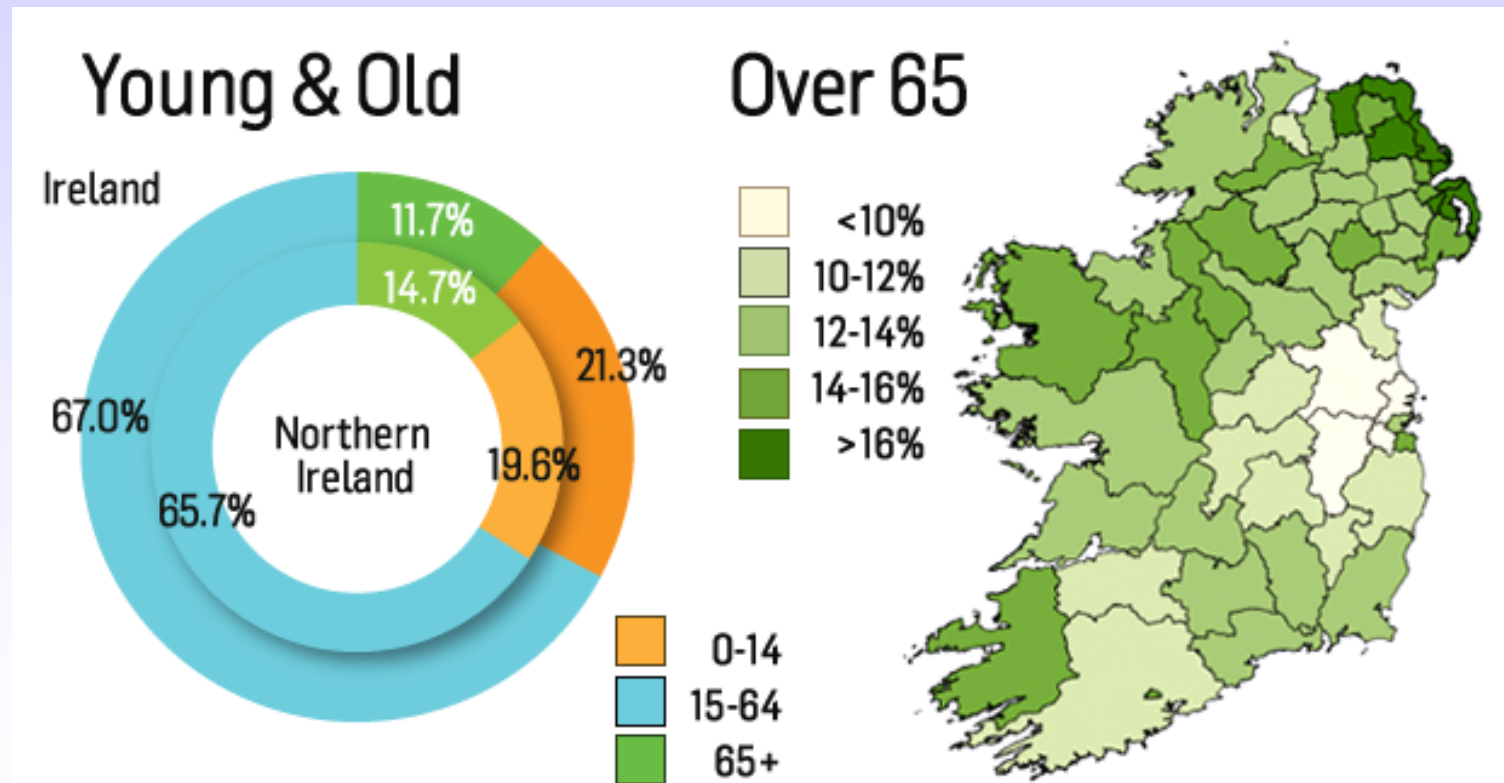
Report - Ireland and Northern Ireland (Hard copy and online)

July

UK Output – UK Origin-Destination Statistics

Census 2011: Ireland and Northern Ireland

Census comparison shows differences between Republic and NI
Significant gaps in terms of average age, population density and household size



Dissemination and Publication 2014 (2)

September

Report – Population Tables

Report – Key Statistics Summary Report (Hard copy and online)

NI Output – Short-term residents

NI Output – 2001 Census results published on NINIS

Customer Engagement – User Satisfaction Survey

October

Short Stories / Infographics – Older People & National Identity

Customer Engagement – User Engagement Events (Lisburn & Cookstown)

Report – The Future Provision of Census of Population Information

November

NI Output – Workplace population

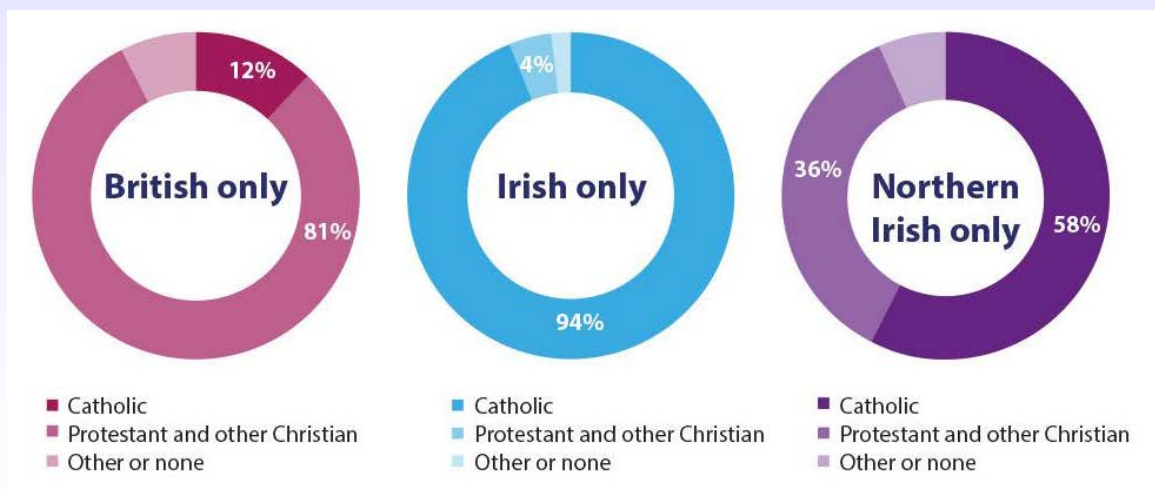
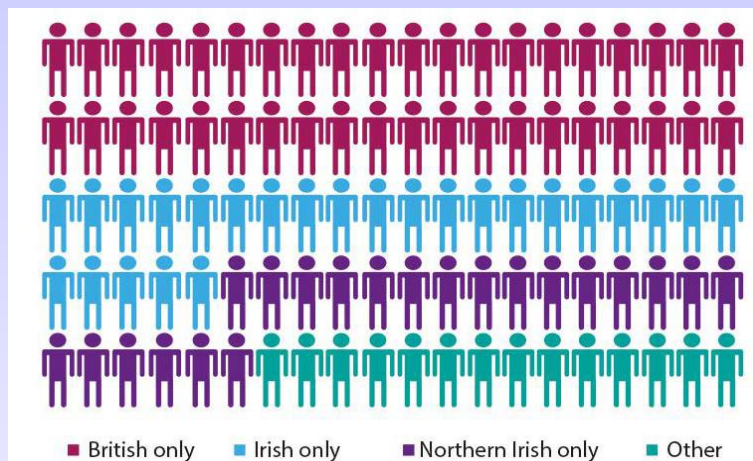
UK Output – Origin-Destination Statistics

December

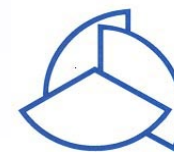
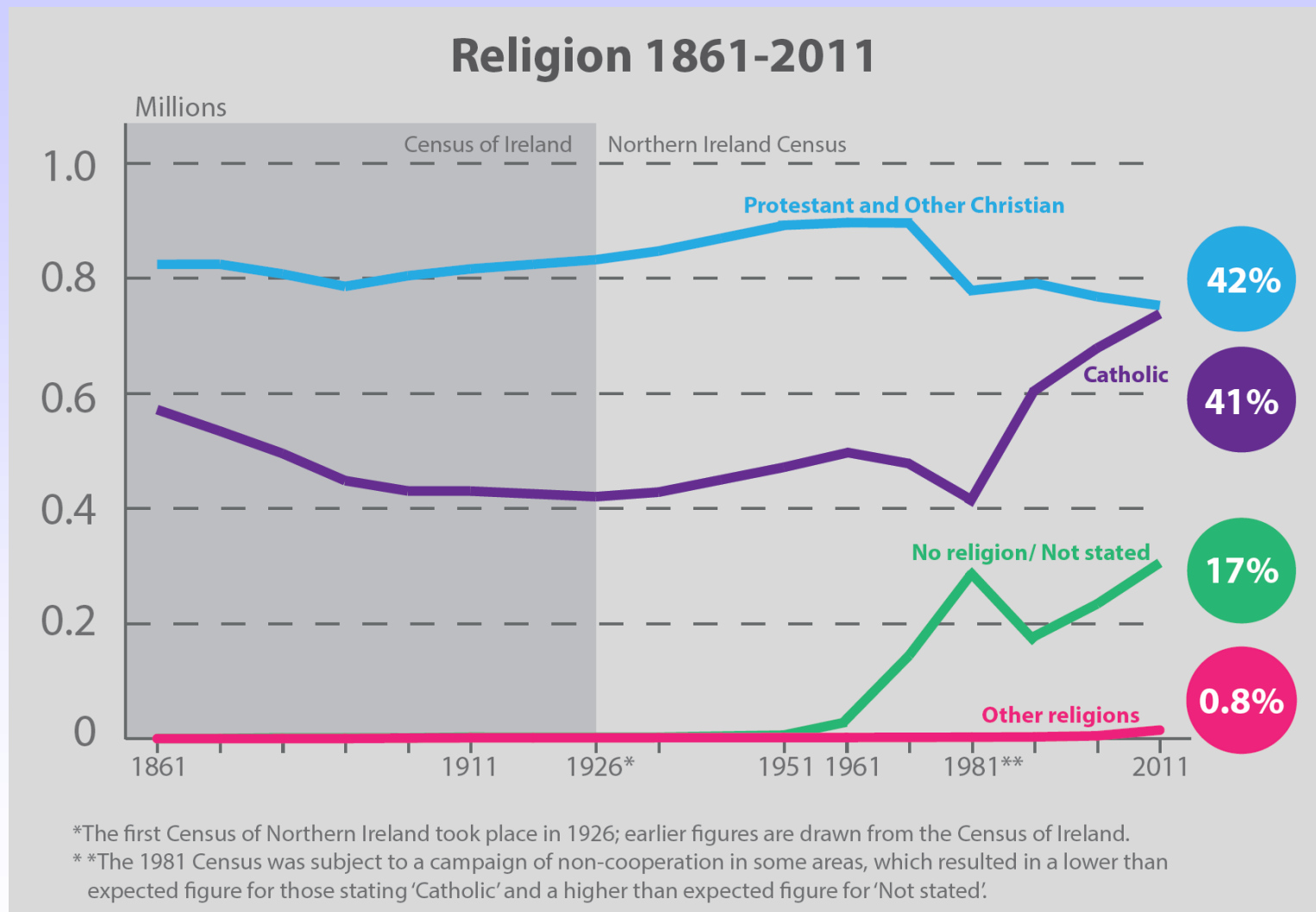
NI Output – Daytime population

Short Stories / Infographics – Religion & 'No Religion'

Infographics - National Identity



Infographics - Religion



Infographics - Religion

Religion 2001-2011

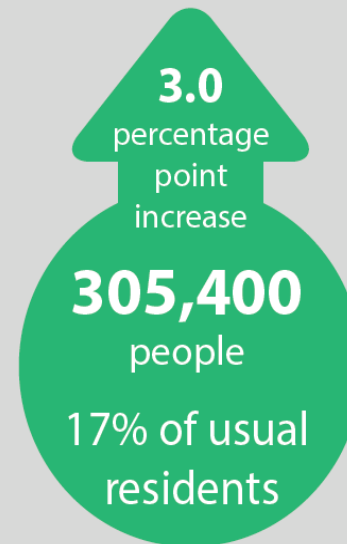
Catholic



Protestant and Other Christian



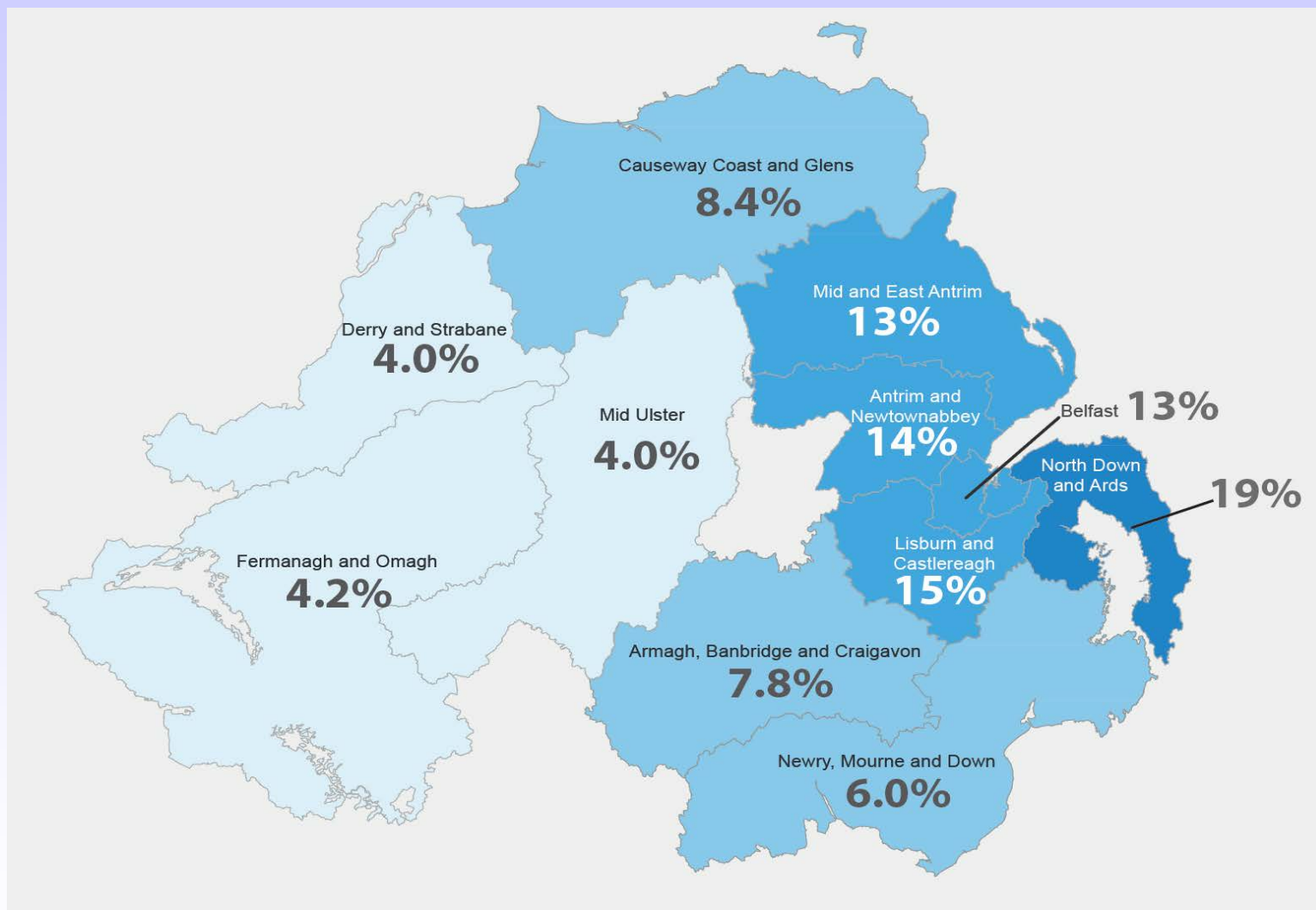
No religion/ Not stated



Other religions

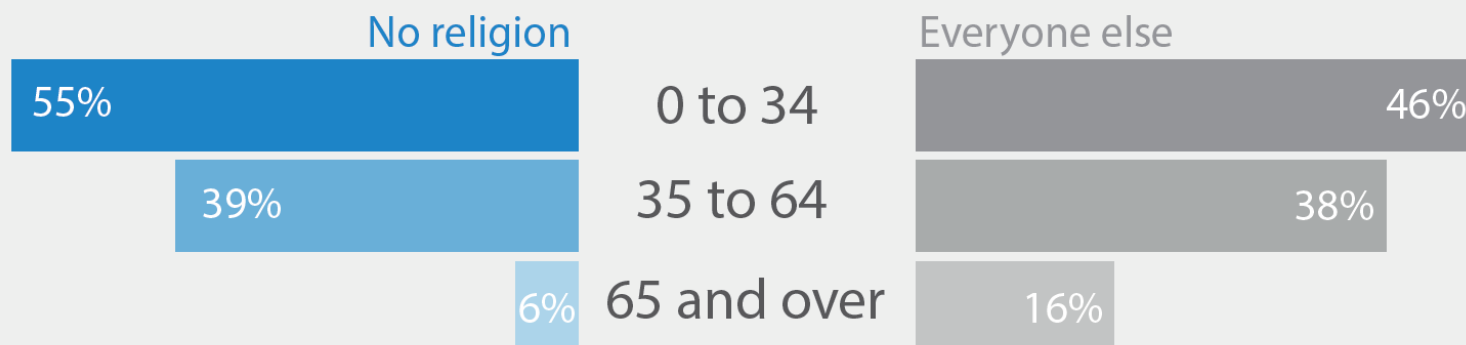


Infographics – ‘No Religion’

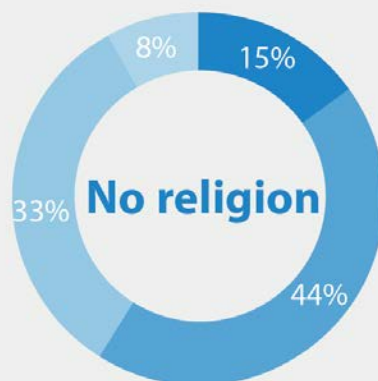


Infographics – ‘No Religion’

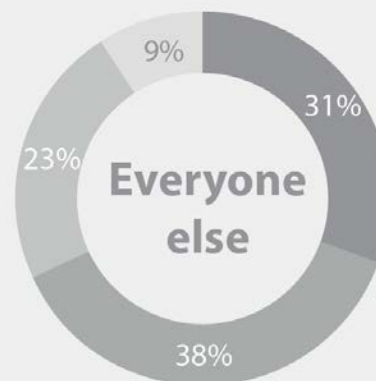
Age



Highest Level of Qualification (Aged 16+)



- No qualifications
- Level 1-3 qualification
- Level 4+ qualification
- Apprenticeship and Other



- No qualifications
- Level 1-3 qualification
- Level 4+ qualification
- Apprenticeship and Other

Dissemination and Publication 2015 (1)

January

Infographic – Northern Ireland as 100 People

UK Output – Migration Statistics

26 February

NI Output – Detailed and Local Characteristics on Travel to Work / Study

NI Output – Workplace and Daytime Population Tables on Travel to Work / Study

March

NI Output – Migration Statistics (Northern Ireland specific)

NI Output – Additional Detailed and Local Characteristics Tables

Infographics – Parliamentary Constituencies

UK Output – Additional Origin-Destination Statistics

Report – User Satisfaction Survey Report

Report – General Report

Report – Quality Assurance Report

Dissemination and Publication 2015 (2)

Still to Come

Microdata

- Secure microdata (early March 2015)
- Safeguarded microdata (soon - delay due to technical issue)

Updated Geographies

- Grid Square Product (late March / April 2015)
- Settlements (Spring 2015)
- Travel to Work Areas (Summer 2015)

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Data Integration and Linkage



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Work Areas

- Northern Ireland Longitudinal Study



- Administrative Data Research Centre



- Electoral Office



- Census use of Administrative Data

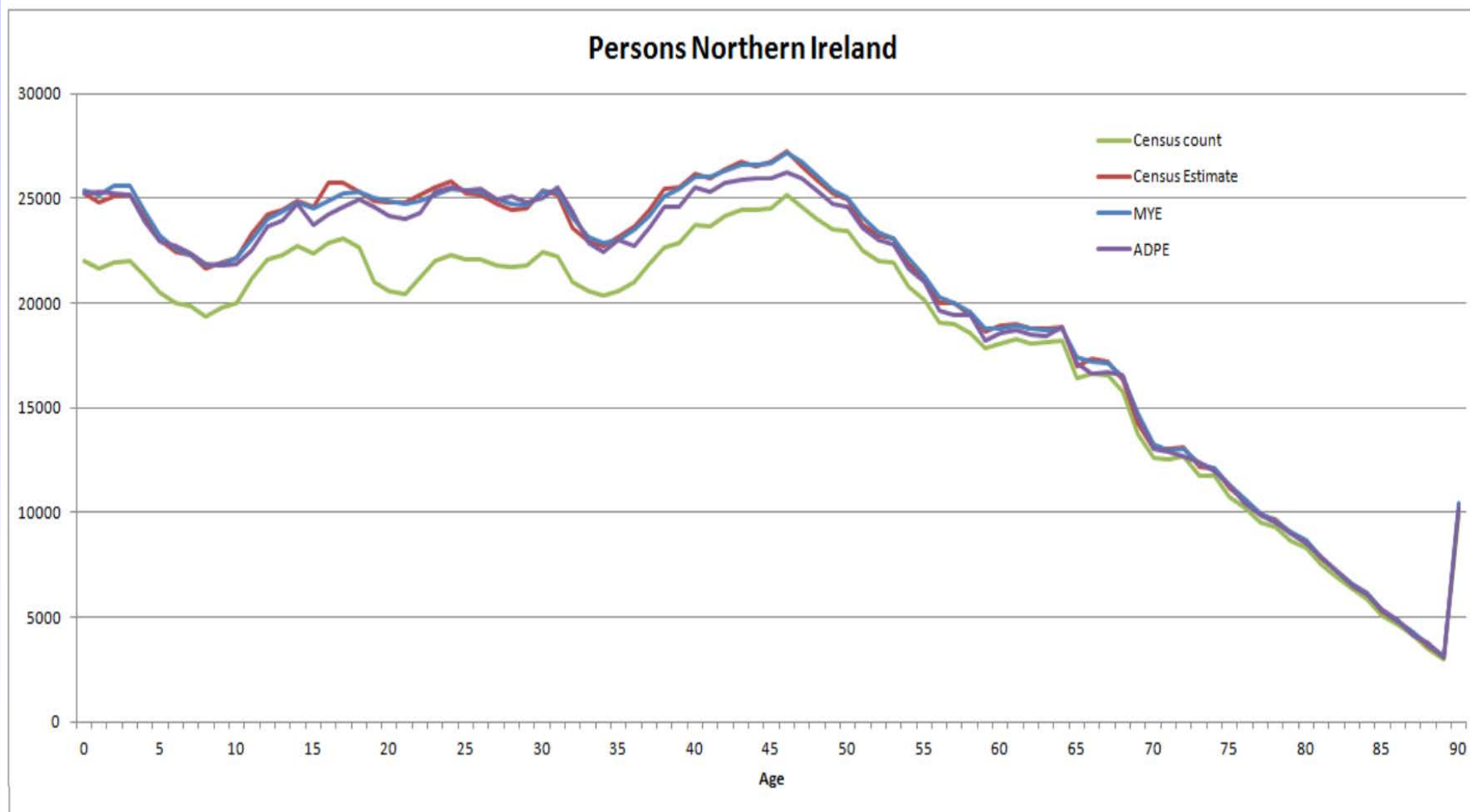
Skills / Expertise

- **Data Matching**
- **Managing administrative data**
- **Information Assurance**
- **Safe setting / secure environment**
- **Facilitating Researchers**

Census Admin Data – work to date

- **Census Under Enumeration (CUE) project**
 - Census 2011
 - Use of Active health records to supplement enumeration
- **Administrative Data Population Estimate (ADPE)**
 - Creation of population estimates using admin data
 - Aggregate level paper published Oct 2014

Chart 1: Comparison of age distribution of all persons in Northern Ireland



Census Admin Data – plans

- **Signs of life**
 - Household and Person Based
 - Secure processing of large volumes of data
 - 2011 type CUE project?
 - Spine for 2021 Census

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Demographic Statistics update (Brian Green - verbal)



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**2011 Census
Benefits Realisation**

Brian French



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2011 Census Benefits Realisation - Aims

- **Raise awareness of 2011 Census outputs**
- **Maximise their utility by facilitating and encouraging their widespread use**
- **Evaluate and summarise the benefits arising from the 2011 Census – General & Benefits Realisation Reports**
- **Learn lessons for 2021 Census planning**

Stats Authority - Strengthening User Engagement

“The value of the statistics produced lies in their usefulness, and in their eventual use...in ways that promote the public good.”

“The use and utility of statistics should drive the development of the service. It must be the basis for all decisions about:

- which statistical outputs to produce**
- the form they should take**
- the balance between the resources devoted to their collection and the resources given to supporting their use.”**

Main Users of 2011 Census Outputs

- **Government – central and local**
- **Statutory organisations**
- **Commercial / market research / data analytics**
- **Academic / social research**
- **Voluntary / community sector**
- **Individual members of the public**

Benefits Realisation – ONS Approach

Maximising the benefits



- Identify **policy areas** that census data can support
- Engage government departments to exploit census results
- Ensure **easy access** to data – accessible tools and systems
- Fully **utilise** all the census data – eg new questions, cross-classifications
- Identify **new users** – make outputs interesting and meaningful to ‘me’, media stories, case studies
- **Add value** by ensuring that the statistics are enhanced eg analysis, data visualisation
- Deliver **innovation** where appropriate
- **Encourage use** through initiatives, competitions, media
- **Develop partnerships** with external users who can add value and reach
- Benefit realisation **quantification**

Help tomorrow take shape

© Office for National Statistics

Benefits Realisation – NISRA Approach

- **Gather local examples - three stage process:**
 1. **October 2012 - NISRA Heads of Branches**
 2. **September 2014 - User Satisfaction Survey**
 3. **February 2015 - NISRA HoBs & CAG members**
- **Gather national examples - ongoing liaison with ONS / NRS**
- **Commissioned tables - ongoing**
- **Research assistance / involvement - ongoing**

Census Benefits accrue across the following areas

- Targeting investment
- Market research / Data analytics / Value added resellers
- Resource allocation
- Funding bids
- Service planning
- Regional or local comparisons
- Policy making and monitoring
- Equality and diversity assessments
- Social and academic research
- Benchmark for other data sources

Targeting Investment – Demographics User Group



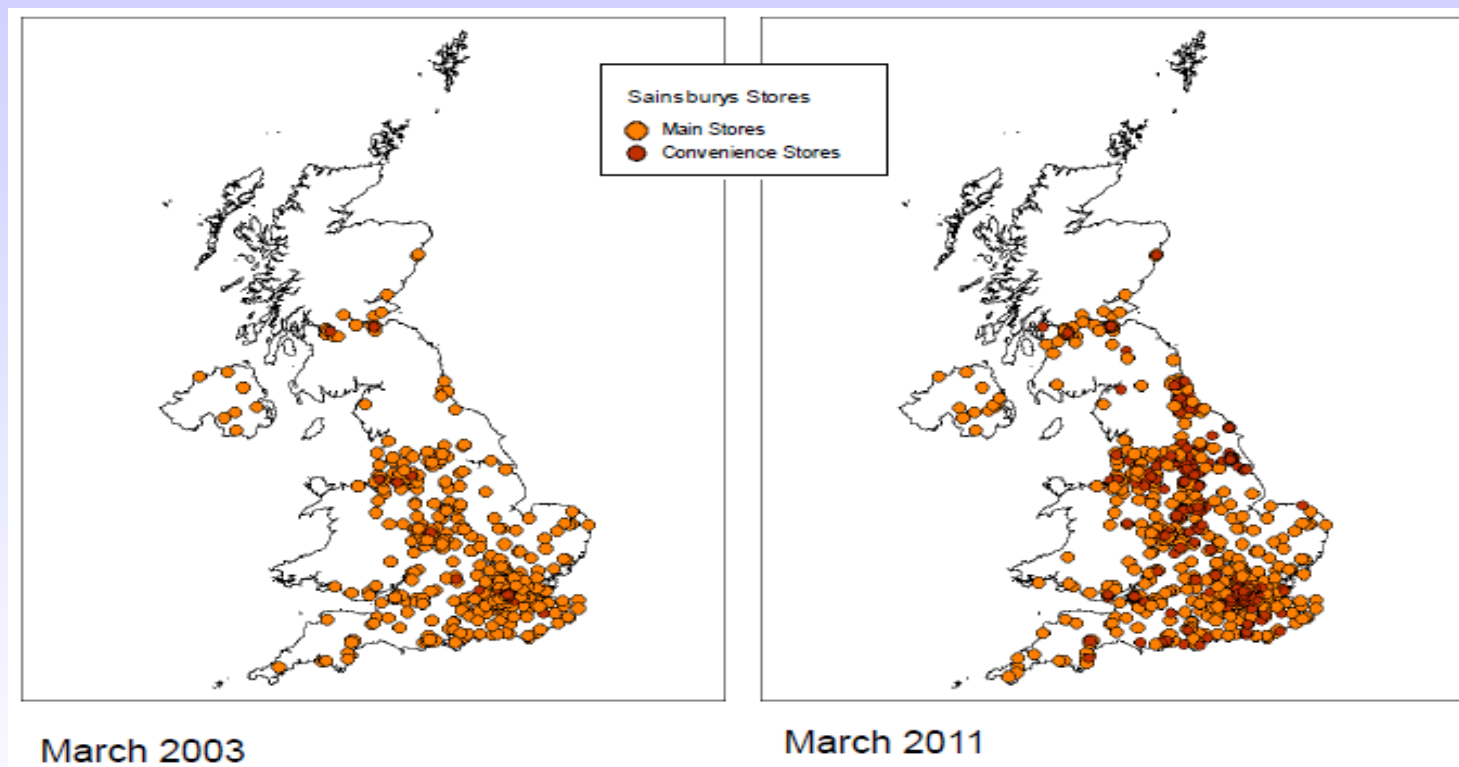
Targeting Investment – Demographics User Group

- **Decisions, decisions.....**

- What areas are best for our new stores?
- What should we offer in each outlet?
- Where should we advertise?
- Who are our best customers, and prospects?
- Which areas and people should we survey?

- **Investments of £hundreds of millions targeted each year.**

Targeting Investment – 450 new Sainsbury's stores since release of 2001 Census data



Customised Gravity Model – includes Census data on: resident & daytime populations; single & older person households; social grade; origin-destination; car availability

Market Research / Data Analytics

Our work without Census Data



Ipsos MORI



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Market Research / Data Analytics

Our work without Census Data

- Where would we get our sample frames from
 - To the same level of detail / accuracy / completeness?
- How would we set quotas?
- How would we know how many people to interview in each local area (clustering)?
- ...and of each demographic group (stratification)?
- How could we weight our data so that it most accurately reflect the population?
 - Especially critical for on-line surveys
- If we cannot weight our data, then any results we produce would not be accurate.
- ...and this carried forward to any “value-add” statistical analyses we carry out

Ipsos MORI



Value Added Resellers (Bulk Delivery Customers)



Census Benefits – Local Examples

- ***Resource allocation***

- **Barnett Formula**

- allocation of marginal resources on a comparable basis - requires accurate population estimates at all levels of geography for each UK country

- **Weighted Capitation Formula**

- DHSSPS uses this to determine fair allocation of available resources by area, based on population and relative need across nine care programmes

- **Health and Social Care Inequalities Monitoring System**

- DHSSPS uses this to assess area differences across a range of health outcomes covering mortality, morbidity, utilisation of & access to services

Census Benefits – Local Examples

- ***Funding bids***
 - **Voluntary and community sector**
 - Volunteer Now has used the new voluntary activity outputs to espouse the value of volunteering
- ***Service planning***
 - **Northern Ireland Transport Model**
 - Transport NI has been supplied with bespoke, aggregated Travel to Work and Place of Study Data at Small Area level
 - **Future Housing Need**
 - NIHE has commissioned research drawing on demographic trends

Census Benefits – Local Examples

- ***Policy making and monitoring***
 - **Impact of Welfare Reform**
 - DSD has used 2011 Census data in ‘grossing up’ Family Resources Survey data, the information source for the Policy Simulation Model used to model the impact of Welfare Reform
 - **Kinship Care**
 - DHSSPS has used 2011 Census Commissioned tables to produce the report ‘Kinship care – Children Living in Households without a Parent Present Northern Ireland 2011’.
- ***Equality and diversity assessments***
 - **Racial Equality Strategy**
 - OFMdFM is using 2011 Census data to develop an algorithm designed to supplement / boost data on minority ethnic groups and migrants gathered through surveys / admin sources

Census Benefits – Local Examples

- ***Social and academic research***

- **NI Longitudinal Study (NILS) & NI Mortality Study (NIMS)**

- **Census essential to NILS development – uniquely collects required data through time and at relevant individual, household and spatial scales**
 - **26 research projects incorporating 2011 Census data have been approved by the NILS Research Approval Group, e.g.**
 - ❖ **national identity and religion affiliation through time**
 - ❖ **housing tenure, residential mobility and health transitions**
 - ❖ **in / out migration from rural areas**
 - ❖ **PhD projects**

Census Benefits – Local Examples

- ***Regional and / or local comparisons***
 - **Impacts at lower geographies and for small populations;**
 - **DCAL has used 2011 Census data to identify Gaeltacht areas and Ulster Scots homelands**
- ***Benchmark for other data sources***
 - **Labour Force Survey**
 - **DFP has used 2011 Census population estimates by five-year age-breakdown at LGD level, as well as population projections derived from them, within the weighting methodology for the LFS**
 - **The Cost of Poor Housing**
 - **NIHE commissioned modelling work based on data from House Condition Survey and 2011 Census**

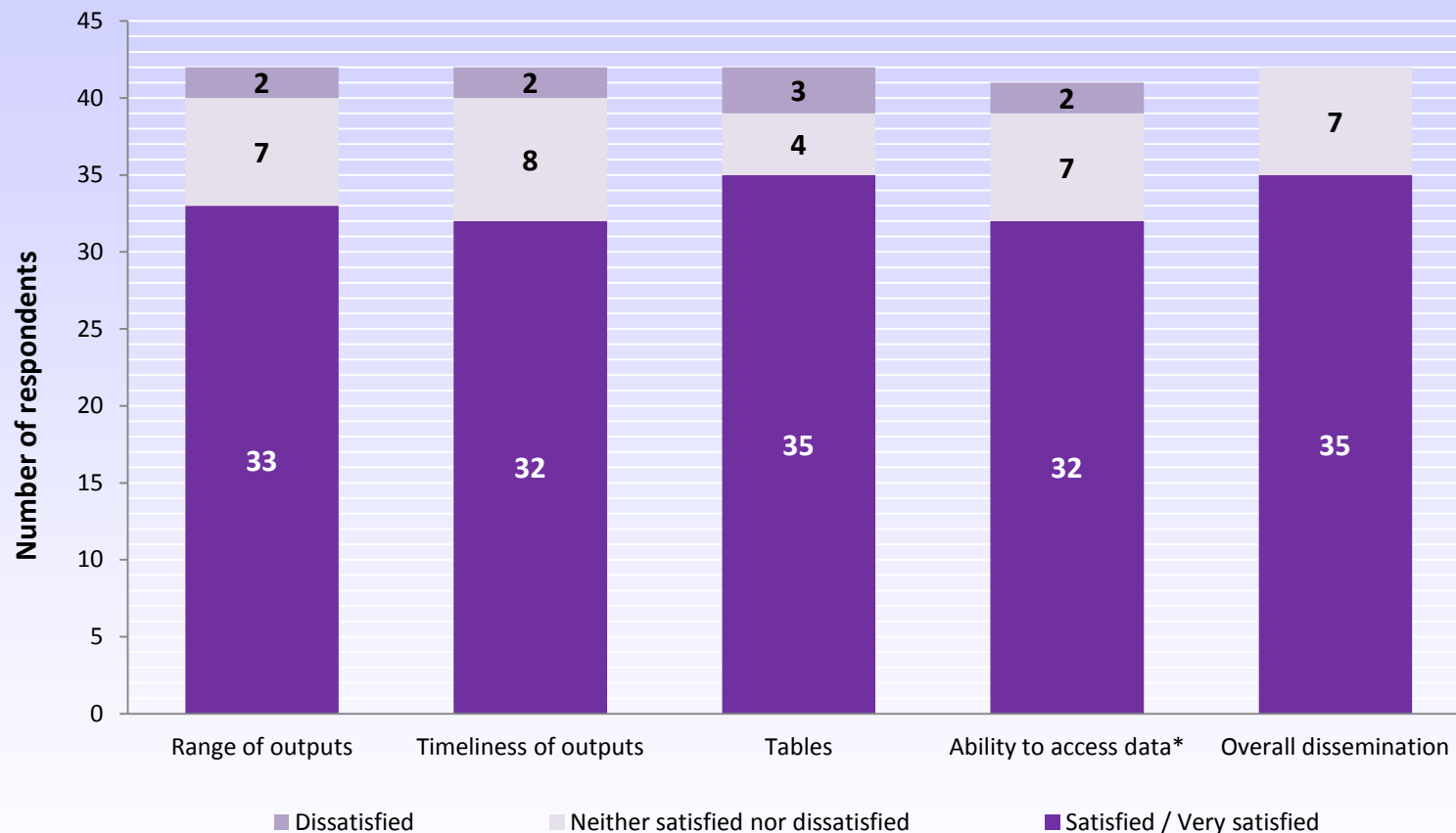
2011 Census – Examples of Successes

- Working closely with ONS and NRS
- More widespread user consultation / engagement
- Administrative - Post out-Post back, Online collection, Field Operations
- Statistical – Census Under Enumeration Project, Address Register
- No post-tabular statistical disclosure control (internally additive & consistent)
- Harmonised univariate statistics – published on same dates as ONS
- More pre-canned outputs than in 2001 - new variables & additional geographies
- Enhanced data access, visualisation, analysis, metadata & quality assurance - re-launched NINIS, infographics, interactive graphs, bulletins & reports

2011 Census – Challenges to Build On

- **Outputs timetable should be shorter**
- **Statistical Disclosure Control was a bottleneck and restricted outputs**
- **Need for greater flexibility for users in terms of table building – data cubes from which tables can be built and fewer pre-canned outputs**
- **Need for greater harmonisation of cross-tabular outputs**
- **The proportion completing the Census online needs to increase – importance of digital inclusion strategy**
- **Building on data sharing, address register, administrative data**

User Satisfaction Survey: Results



* One respondent did not access the data via NINIS

Questions for Discussion

- **Examples of uses of 2011 Census outputs?**
(activity / purpose / outputs and their application / costs or benefits)
- **Alternative sources to 2011 Census?**
(with required levels of accuracy, timeliness, detail & geography)
- **Aspects of 2011 Census process & outputs you feel went particularly well?**
- **Aspects where improvement could assist in maximising the benefits the Census brings to your work area?**

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**NISRA plans for 2021 Census
- some initial thoughts**

‘Beyond 2011’ project

- **Research led by ONS**
- **Parallel projects at NRS and NISRA**
- **Range of Research papers by ONS**
 - **Considered range of methodologies**
 - **Started from ‘admin data first’**
- **Recommendations from National Statistician and UK Statistics Authority (March 2014)**
- **Recommendation accepted by government – Cabinet Office – July 2014**

NISRA position

- Tracked research led by ONS (and NRS)
- Separate work on administrative data (more about this later)
- Northern Ireland position paper in October 2014
- Would be 2021 Census, predominantly online, supported by administrative data
- Three supporting papers

Northern Ireland supporting papers

- **Use of administrative data in population estimates**
- **Data matching of administrative data**
- **Online data collection**
 - **Overview paper**

Northern Ireland work to date

- Experience of NILS
- Experience of using administrative data in 2011
- Bringing in legislation to give access to other data sets (eg HESA, Electoral Office, and others)
- Work on POINTER
- Role in ADRC

Tentative way ahead

- **Move towards administrative data-based population estimates – maybe before 2021?**
- **Development of better Census Address Register (address frame)**
- **Pre-populated with basic details (age, sex) of usual residents (with indicator of robustness)**
- **Overwrite / validate the pre-populated details as Census returns come in**



2021 Census - overview

- **There will be a 2021 Census**
- **‘Predominantly’ online**
- **Consultation starting later in 2015 (topics)**
- **EU Regulation expected – essentially unchanged from 2011**
- **Subject to Assembly legislation – Census Order and Regulations (passed in 2010 for 2011 Census)**

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What next - Towards 2021?



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Census – Consultation and engagement

- **Statistics Advisory Committee (Meetings)**
- **Census Advisory Group (Meetings)**
- **2011 Census Content Consultation**
 - Information day events
 - Census Proposals Paper
- **2011 Outputs Consultation**
 - Information day events
 - Outputs prospectus
- **Census Newsletters / NINIS eZine**



CAG – Scope (2006)

The Census Act (Northern Ireland) 1969 enables the Registrar General to make the arrangements necessary to carry out the census in Northern Ireland and to prosecute individuals who fail to comply. However, throughout the preparations for and conduct of the Census, Census Office seeks to maintain contact with its users through regular meetings of the Northern Ireland Census Advisory Group (CAG).

The group is made up of interested users and specialist advisors drawn from central and local government, health authorities and the commercial and academic sectors as well as representatives from specialist agencies, charities and voluntary organisations.

It provides advice on a wide range of census topics including the development and testing of questions, changes in definitions and classifications as well as methodological developments such as census under enumeration and the Census Coverage Survey.



CAG – Terms of Reference (2006)

To advise the NI Census Office on all matters relating to the conduct of the decennial census of population and housing in Northern Ireland under the Census Act (Northern Ireland) 1969.

This will include issues such as development of questions, definitions and classifications and methodological developments.



CAG – Current membership

Mr Colin McIlheney Global Research Director PricewaterhouseCoopers	Ms Jocelyn McCarley NI Electoral Office
Prof Adele Marshall Director of Research CenSSOR Queen's University Belfast	Mr Tony Dignan Economic Research & Evaluation
Dr John Power Research & Information Service NI Assembly	Dr Dermot O'Reilly Dept of Epidemiology & Public Health Queen's University Belfast
Ms Sharon McNicholl Strategic Planning & Policy Manager Belfast City Council	Mr Joe Frey NI Housing Executive
Richard Ramsey Chief Economist Northern Ireland Ulster Bank	Prof David Martin Geography & Environment University of Southampton
Dr Ian Shuttleworth School of Geography, Archaeology & Palaeoecology Queen's University Belfast	Mr Darren McKinstry Equality Commission for NI

CAG – 2011 Census: Meetings

25 February 2015	21 September 2009
3 December 2013	14 May 2009
24 June 2013	21 October 2008
11 October 2012	26 June 2007
6 October 2011	11 January 2007
20 December 2010	13 March 2006
5 July 2010	

CAG – The way forward

- **Reconstitute?**
 - **More formal role / more proactive / more frequent meetings?**
- **Wider remit?**
 - **e.g. All Demographic Statistics / NILS / ARDC?**
- **Revised scope and Terms of reference?**
- **Revised / wider membership?**
- **Rename?**
 - **Demographic Statistics Advisory Group?**

Census Advisory Group

25 February 2015

CLOSE