

Use of Scotland's Census data

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Census Quality and Data Exploitation
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Overview

- ▶ What's available and how you can access the data
- ▶ Facilitating access
- ▶ Opportunities for collaborative working
- ▶ Working with schools

What's available and how you can access the data

2011 Census Results

- ▶ Phased releases 1-3 accompanied with statistical bulletins or key points
- ▶ Origin-destination (flow) statistics
- ▶ Census microdata files (Samples of Anonymised Records)
- ▶ Alternative population statistics: workplace and 'daytime' population
- ▶ Commissioned tables service
- ▶ Analytical reports

Media coverage



BBC online

“Home alone: how single-person households now prevail across Scotland”

Herald online

“Challenge to the Kirk as number of Scots without a religion at new high”

The Herald



**“Edinburgh in baby boom as under-fives up 18%”
Edinburgh Evening News**

“What we learned from the Census 2011: More women, more OAPs, more people.”

The Daily Record

“Scotland becomes ‘a more colourful country’”

BBC online

“Almost two thirds of Scotland's residents are 'Scottish only' ” STV

“Census shows decline in Gaelic speakers 'slowed' ”

BBC

**“Number of foreign nationals in Aberdeen triples”
Evening Express**



Census Data Explorer

- ▶ www.scotlandscensus.gov.uk
- ▶ [Table Index](#)
- ▶ [How to use the Census Data Explorer](#)
- ▶ [Events and courses](#)

Other examples of use

- ▶ [Understanding Scottish Places](#)
- ▶ [Datashine Scotland](#)
- ▶ [Know Fife Dataset](#)

Facilitating access

Accessing flow data

- ▶ Public files via [NOMIS](#) or UK Data Service
- ▶ Safeguarded files via UK Data Service
- ▶ Files transferred to contractors working on behalf of public bodies
- ▶ Data sharing agreement with National Records of Scotland

Transport Scotland Case Study

- ▶ September 2014 – identified need for flow data (Transport Model for Scotland)
- ▶ Safeguarded files were not available; required geographies not used
- ▶ Created bespoke extract of flows for ‘transport regions’ for Scottish usual residents
- ▶ Prepared a data sharing agreement

Opportunities for collaborative working

What is it?

- ▶ An alternative to requesting commissioned tables
- ▶ Scottish Government analysts come into Ladywell House to analyse the data, produce tables, and write commentary
- ▶ Census colleagues QA / SDC check the tables, and provide advice on the data processing / variables
- ▶ Currently reviewing pilot project

Equalities statistician

To improve the equality evidence base using census data.

- ▶ New data on age, gender, ethnicity, religion, disability, civil partnership.
- ▶ Along with national identity, country of birth, length of time in UK, language skills.
- ▶ Reliable estimates for small groups.

How did I proceed

- ▶ Go to NRS premises at Ladywell House and analyse the data myself (with LOTS of help from NRS)
- ▶ Set out list of tables to produce, based on available variables. Added and adjusted along the way



What were the Advantages?

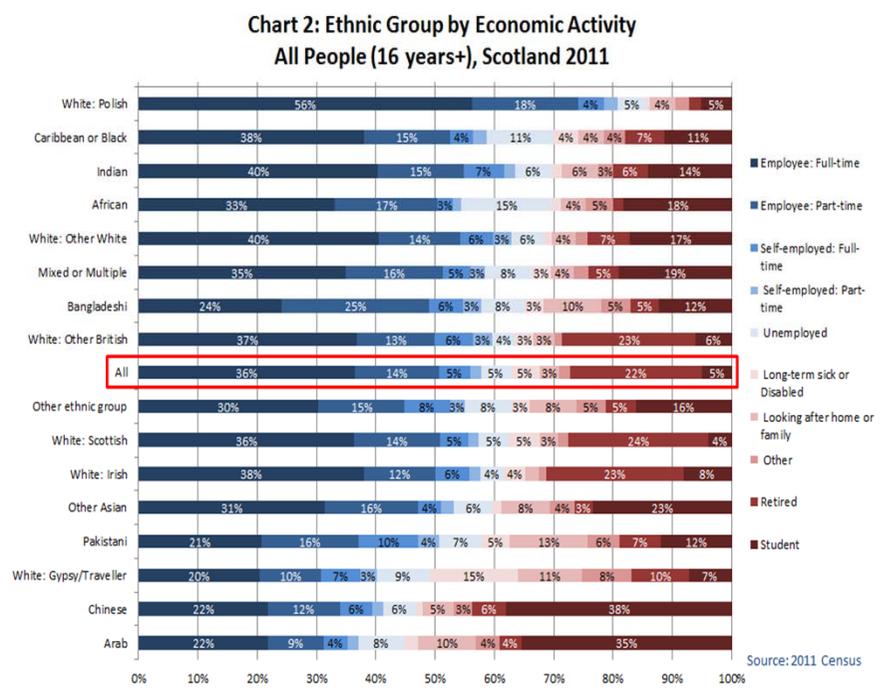
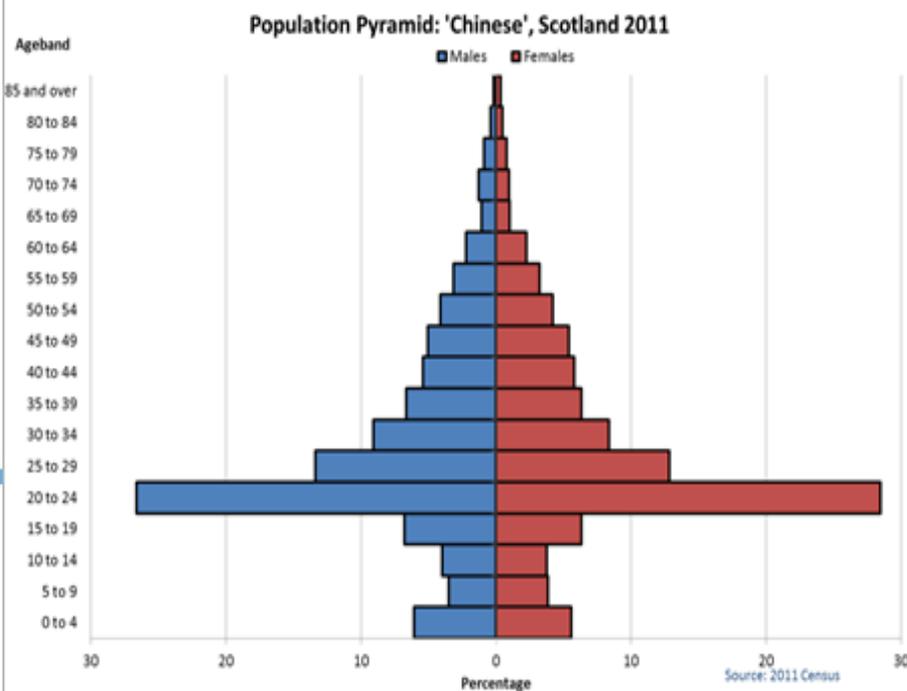
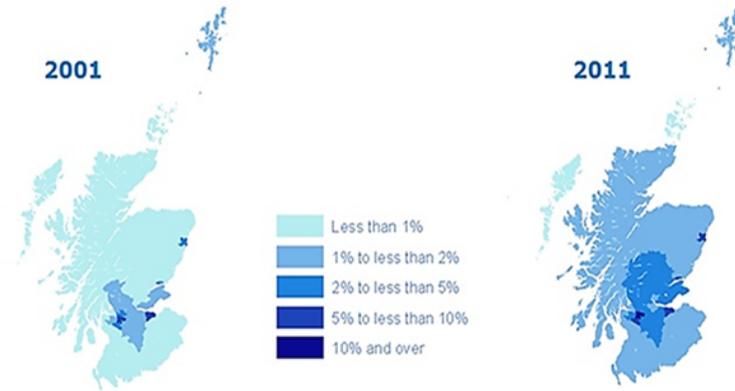
- ▶ A better understanding of the data
- ▶ More freedom to experiment
- ▶ Better use of our collective time
- ▶ Improved timeliness
- ▶ More tables
- ▶ Higher quality end product



What were the outputs?

- ▶ Three large official statistics reports
- ▶ Over 100 extra tables and charts
- ▶ Clear and insightful commentary

	Ethnicity	Gypsy/Travellers	Religion	Disability	BSL Users
Demographics	✓	✓	✓	✓	✓
Language	✓	✓	✓	✓	✓
Households	✓	✓	✓	✓	✓
Health	✓	✓	✓	✓	✓
Labour Market	✓	✓	✓	✓	✓
Education	✓	✓	✓	✓	✓
Housing	✓	✓	✓	✓	✓
Transport	✓	✓	✓	✓	✓



What were the main findings?

- ▶ people of **Polish** ethnicity in Scotland were the most economically active;
- ▶ those of **Indian** ethnicity were the most likely to be highly qualified and working in the top professions;
- ▶ **Pakistani** people were the most likely to be self-employed;
- ▶ **Chinese** and **Arab** people were the most likely to be students.

However the analysis also revealed that:

- ▶ people of **Polish** ethnicity in Scotland were likely to be in lower skilled employment;
- ▶ people of **African** ethnicity were the most likely to be unemployed;
- ▶ **Gypsy/Travellers** were much more likely to have never worked or work in elementary occupations and be in the lowest social grade

What was the impact?



Polish are most 'economically active' in Scotland

Poles 'most economically active ethnic group' in Scotland

© 26 March 2015 | Scotland business



Alex Neil: Ethnic communities a great asset to Scotland. Picture: John Devlin

Mail - How much did this cost!!!?

Future

- ▶ Develop procedure and criteria for prioritisation
- ▶ Use to inform development of SILC safe haven

Health warning

- ▶ Our resources are limited!
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Working with schools

In collaboration with:



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Initial interest

- Student maths and social subjects teachers
- Scottish Mathematical Council conference
- Geography skills day at Loch Lomond
- Professional Development with social subjects teachers in Aberdeen and Aberdeenshire

Format of training

- What does Census tell us about Scotland
- Retrieve information about your area
- Hands-on practical
- Follow up in blog – Talking about statistics

www.celiamac58.blogspot.co.uk

Educational Links

- Curriculum for Excellence
- Literacy, Numeracy, Health and Well-Being



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**Scotland's
Census 2011**
Shaping our future

Curriculum for Excellence

- Capacities

Responsible Citizens

Effective Contributors

Successful Learners

Confident Individuals

Curriculum for Excellence

- Broad General Education (BGE) 3-15 yrs
 - Experiences & Outcomes
 - Mathematics
 - Numeracy
- Senior Phase National Qualifications
 - National 4/5
 - Higher (H)
 - Advanced Higher (AH)

Future developments

- Disseminate worksheet
- Links between NRS and Education Scotland
- Researching teachers experiences; future needs and extending to other open data
- Links with Royal Statistical Society educational work

Further information

- ▶ All data available at: <http://www.scotlandscensus.gov.uk>
Sign up there for our e-newsletter
- ▶ Enquiries: Customer@gro-scotland.gsi.gov.uk
- ▶  @NatRecordsScot