

2011 Census: Lessons learned from the Business Sector

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2011 Census – Worked well

- Consultation on the questions (despite income not being included)
- Fieldwork and response rates
- Geography products – boundaries, directories, etc.
- Bulk output format
- Consistent set of univariate statistics across the UK at OA level
- Workplace zones
- Helpfulness of ONS and NRS in resolving issues with table specifications

2011 Census – What caused problems?

Primarily, the implementation of SDC in practice,
resulting in...

- Detailed design and agreement of tables being delayed
- Lack of transparency in changes to outputs made by the Census Offices
- Late changes made by ONS were not always adopted by NRS or NISRA
- Inconsistency in UK outputs - Local Characteristics tables
- Safeguarded data specs & access plans were put back
- In consequence, the delivery of outputs has taken nearly 4 years

Statistical Disclosure Control issues

- Move to pre-tabular record swapping removed inconsistencies between tables
- However, tables that were non-disclosive in 2001, became disclosive in 2011
- Therefore many tables had to be redesigned, losing detail that available previously
- All tables had to be checked – SDC became a bottleneck
- SDC rules had to be relaxed in order to produce key tables (e.g. Age x Sex at OA level) – disclosure method should be been designed with key outputs in mind at the outset

Detailed design and agreement of tables earlier in the process

- Detailed table specs used to be produced in advance of the Census – so users knew exactly what would be produced
- Output requirements were gathered, but detailed design of tables was pushed back – seemed to suffer from changes in personnel / insufficient resources?
- Table specifications could not be released to users until SDC checks had been completed – so users only discovered layouts when tables were published

Lack of transparency in changes to outputs made by the Census Offices

- Late changes in table designs were made by ONS topic leads, e.g. adding 3rd variable to a 2-variable table
- This necessitated further SDC checking, with collapsing of (say) age groups, resulting in unusable table – worst cases were raised at emergency meeting with ONS in February 2014, and were resolved
- Better to produce 2-way tables with greater detail than 3-way with insufficient detail
- Topic leads should not make late changes to specifications without properly consulting users

Greater consistency in UK outputs - Local Characteristics tables

- Late changes in LC tables made by ONS were not always carried through to NRS and NISRA
 - e.g. improvement in age bands were not always matched by NRS
- Northern Ireland output omitted certain themes
 - e.g. students, dependent children, second homes, former industry, distance travelled to work, migration
 - Variables were therefore not populated across the UK and could not be used in geodemographic classifications

Commercial access to Origin/Destination safeguarded data

- ONS current view is that safeguarded O/D data carries a greater perceived disclosure risk and will only be available to commercial users in a secure environment – infeasible for most commercial users
- Most business needs would be met by top-line flow counts - how is this data potentially disclosive, when no attributes are revealed?
- ONS policy discriminates against commercial users and creates unfair advantage for some other users
- Situation is anomalous - all other Census outputs are either Open or have similar access for all

Speed and order of output processing

- Despite technology advances over the decades, speed of census delivery does not seem to have improved
- “Long tail” in producing final outputs in 2014 – due to wind-down in census resources? – but “the last 100 yards is the most important”
- Priority tables should be agreed in future, e.g.
 - univariates (by OAs), for each country and UK
 - Age by Sex by Residence type (for OAs)
- What improvements can be made for 2021, when c. 60%-70% of data will be captured online?
 - Perhaps an early release could be considered based on internet completion?
- Business users would welcome an ONS feasibility study into making a dramatic improvement in delivery times, setting an ambitious target and looking at all processes to see what could be achieved – on a timescale to implement findings for 2021

The major lesson to be learned for 2021: Don't let SDC be a bottleneck on outputs again

- Increase staff resources devoted to output design & SDC considerations in the short term (a very small part of the total Census budget)
- Build on the ultimate table specs developed for 2011 – a starting point
- Focus on the needs of users / customers, and how close the SDC team can get to meeting their needs
- Aim to get all the outputs published much more swiftly, and don't change the staffing until this is complete

Recommendation:

- ONS should conduct a more wide-ranging feasibility study of producing outputs sooner next time around and publish the results of that study

Thank you!

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