Scotland's Census

The Quality Assurance Process

Census Management Team, October 2012

National Records of Scotland

Scotland's Census 2011
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Overview

▶ Preliminary stages

▶ Quality assurance of population and household estimates

▶ Worked examples

▶ Dissemination of results of quality assurance

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Development of methods

▶ Carried out agreed series of simple univariate checks at early stages

▶ Benefits of early sight of data was that feedback could be provided to processing team

▶ Developed systems and tools to be used throughout process and for dissemination of quality information

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What did we find?

▶ Processing had missed out some variables – back to the beginning

▶ What we expected - respondents don't do what you always expect

▶ Initial findings raised issues with coding and ways in which some questions were answered

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Individual questions 2011

4 On the 27 March 2011, what is your legal marital or same-sex civil partnership status?

☐ Never married and never registered a same-sex civil partnership

☐ Married

☐ In a registered same-sex civil partnership

☐ Separated, but still legally married

☐ Separated, but still legally in a same-sex civil partnership

☐ Divorced

☐ Formerly in a same-sex civil partnership which is now legally dissolved

☐ Widowed

☐ Surviving partner from a same-sex civil partnership

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Individual questions 2011

5 Are you a schoolchild or student in full-time education?

- [ ] Yes
- [ ] No → **Go to** 7

6 During term-time, do you live:

- [ ] at the address on the front of this questionnaire?
- [ ] at another address? → **Go to** 38

20 **Do you have any of the following conditions which have lasted, or are expected to last, at least 12 months?**

♦ Tick all that apply.

- ☐ Deafness or partial hearing loss
- ☐ Blindness or partial sight loss
- ☐ Learning disability (for example, Down's Syndrome)
- ☐ Learning difficulty (for example, dyslexia)
- ☐ Developmental disorder (for example, Autistic Spectrum Disorder or Asperger's Syndrome)
- ☐ Physical disability
- ☐ Mental health condition
- ☐ Long-term illness, disease or condition
- ☐ Other condition, please write in

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or

- ☐ No condition

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What did we do about it?

▶ Carried out more in-depth checks, prioritising key data used in first release

▶ Analysed data for issues which would cause problems in later processes, in particular edit and imputation

▶ Recoded some text responses including ethnic group and language

▶ Sometimes nothing – but will need to report quality to users

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Implemented Quality Assurance (QA) strategy

- ➢ Carried out range of core checks aimed at quality assuring population and household counts – using first cut of estimation data

- ➢ Checks of other characteristics at key stages of the process – load and validation, after Remove Multiple Records (RMR) and after filter rules
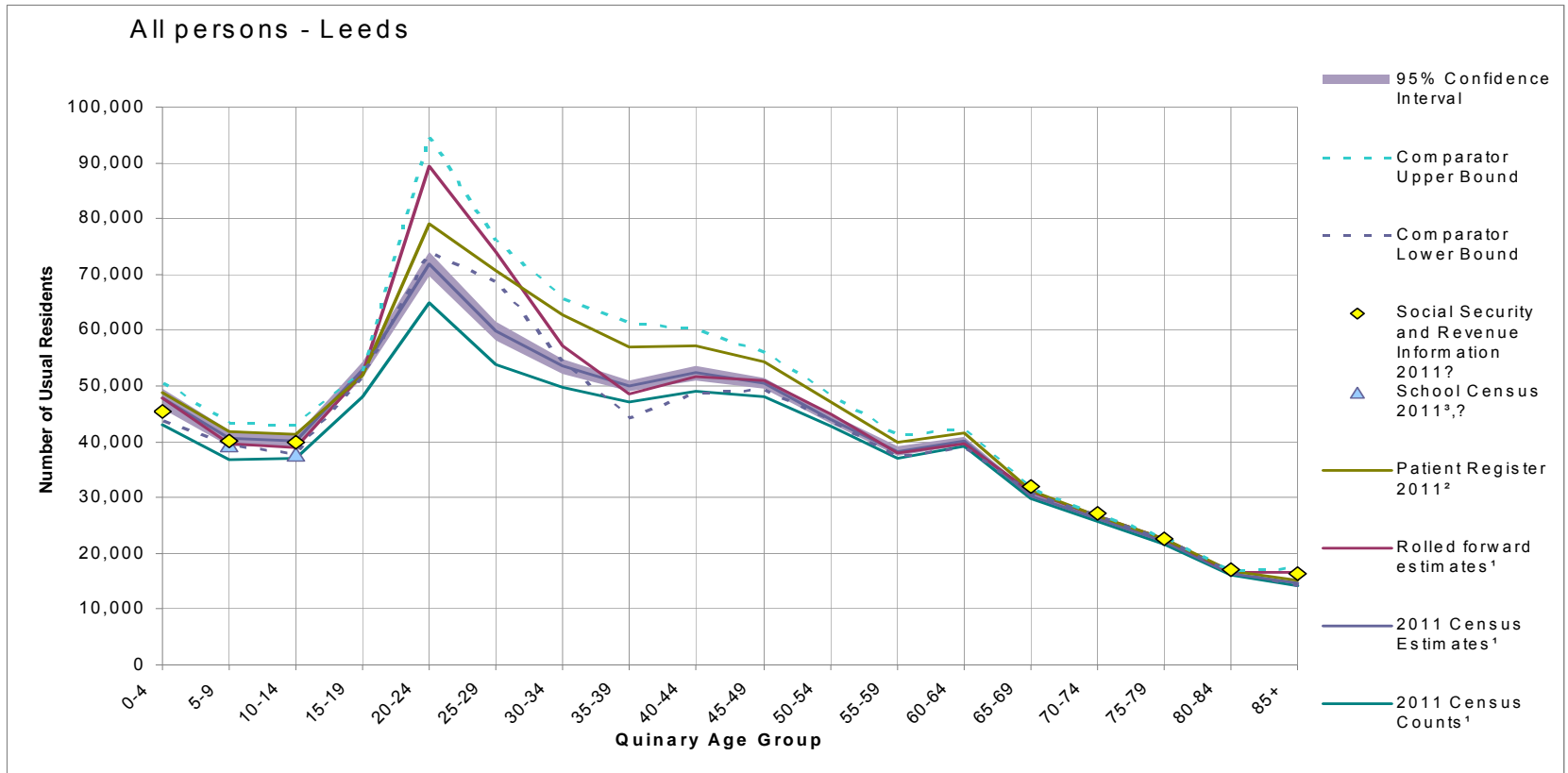
- ➢ Met with internal quality assurance working group

QA tasks by processing step

QA Tool	Task	Processing Step				
		Step 9	Pre-Est	E&I	E&A	E&I 2
Variable Distributions	- Update data systems - Fill in templates - Identify key issues per Local Authority (LA)	✓ ✓ ✓	✗ ✗ ✗	✓ ✓ ✓	✗ ✗ ✗	✓ ✓ ✓
Missing Data Analysis	- Update spreadsheet - Identify key findings per LA	✓ ✓	✗ ✗	✗ ✗	✗ ✗	✗ ✗
Demography Data	- update Population scroll charts - Household & dwellings - Household sizes - Student counts / Higher Education Statistics Agency (HESA) - Armed Forces - Migration - Other Communals - Fertility rates - Identify key issues per LA	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✗ ✗ ✗ ✗ ✗ ✗ ✓	✗ ✗ ✗ ✗ ✗ ✗ ✗ ✗ ✗	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✗ ✗ ✗ ✗ ✗ ✗ ✗ ✗ ✗

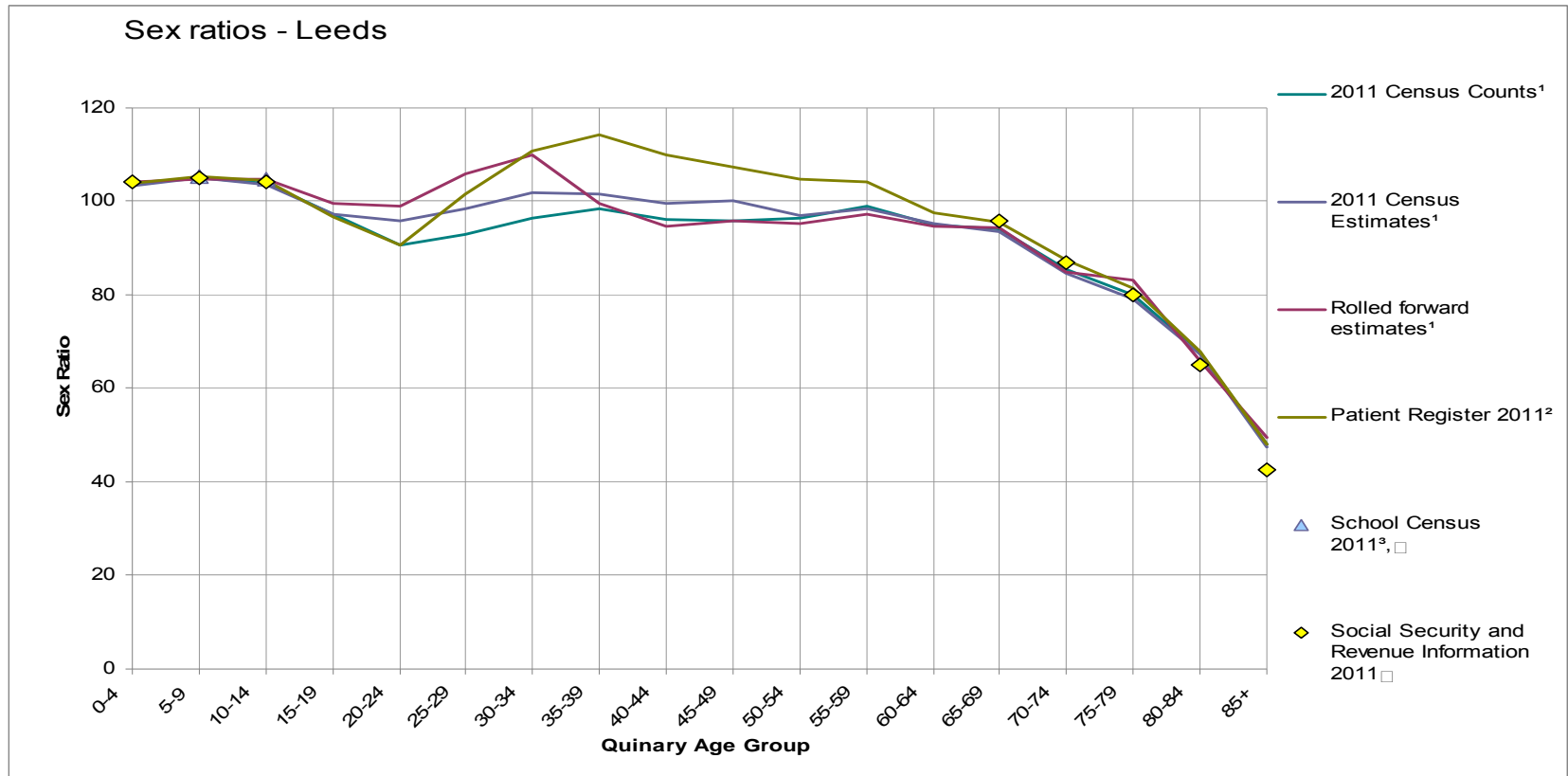National Records of Scotland

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Quality assurance pack

▶ To accompany the first release of population and household statistics, Office for National Statistics (ONS) published detailed data used in the quality assurance process

▶ National Records of Scotland (NRS) are considering using the same tool for publishing QA material relating to the first release.

▶ This can be accessed via ONS website

▶ The following slides are extracts from the pack

Results for Leeds

Sex ratios in Leeds

Thank You!