Beyond 2011

A local authority perspective

Mark Fransham
Oxford City Council
&
co-chair of Local Authorities’ liaison with central government on population statistics
(CLIP population)
Weaknesses of current system

- Unreliable inter-Censal population estimates in some areas with large migration flows
- Census comes once every ten years - at times, we are using very old statistics as our best picture of the situation today
- But its strength is the level of detail it provides

Concerns about admin + survey system

- Reliability of administrative data in high turnover areas
- Plans for workplace-based statistics and origin-destination commuting statistics
- No Output Area or other small number data for characteristics data
- Much reduced precision in other characteristics outputs
Output Area and Parish data

- Of greatest concern to rural areas which have smaller communities than urban areas
- Parishes are a small but integral part of local government, which use Census statistics in parish planning and neighbourhood plans

RIGHT: Suffolk parishes which are smaller than LSOA
i.e. are likely not to have population characteristics data under admin solution
My initial thoughts about survey solution

We don’t use Output Area data much – no problem

Frequent outputs would be a big improvement on once every 10 years

But what does the reduced precision mean in practice?

- Precision is important, because we want to be able to measure difference (between groups and areas) and change (over time)

- **Illustration using a practical example:** identifying houses in multiple occupation, or ‘other household types’ in the 2011 Census
  - comparison of Census 2011 results with simulated survey results constructed using ONS confidence interval calculator
What’s the trend?

Census outputs, LA


<table>
<thead>
<tr>
<th>Year</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>7,630</td>
</tr>
<tr>
<td>2011</td>
<td>9,017</td>
</tr>
</tbody>
</table>

Simulated survey outputs (3 yr sample, LA)

No observable change from 1 year sample

Household type: 'other' households in Oxford (simulated survey outputs)

<table>
<thead>
<tr>
<th>Period</th>
<th>Observed significant change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000-2002</td>
<td>1 in 7 households</td>
</tr>
<tr>
<td>2003-2005</td>
<td>1 in 6 households</td>
</tr>
<tr>
<td>2006-2008</td>
<td></td>
</tr>
<tr>
<td>2009-2011</td>
<td></td>
</tr>
</tbody>
</table>
Where are the ‘other’ households?

Census outputs (LSOA)

Simulated survey outputs (5 yr sample, LSOA)
Where has the change occurred?

Census outputs (LSOA)
5-yr samples, 1999-2003 – 2009-2013

Simulated survey outputs (LSOA)

2001-2011 change by LSOA
Absolute change

-30 - 0
1 - 39
40 - 102

1999-2003 to 2009-2013 change (simulated)
Significance of change

#N/A
Not significant
Significant increase
Suppressed
Who is living in ‘other’ households?

Census outputs
• Output area detail
• Age and sex
• Tenure
• Number of bedrooms
• Overcrowding
• Ethnic group
• Household size
• Etc…

Simulated survey outputs
Not yet investigated in detail, but lower level of detail compared to Census:
• No Output Area detail, and
• small numbers will mean
  – suppression of crosstabs probably at LA, certainly sub-LA level
  – Reduced ability to measure change in subgroups
In summary:

• Simulated survey outputs delivered identification of LA-level trend three years earlier than 2011 Census

• But:
  – Reduced ability to identify within-LA differences
  – Much reduced ability to identify small area trends, despite increased frequency of small area outputs
  – Loss of geographic and demographic detail

Which information would we prefer?

• In order to plan effectively, LAs need to know where people and households are, who they are, and how things are changing
  ➢ In this case, I think we need the geographic detail more than the marginal benefit of increased frequency
  ➢ But we need to evaluate other examples too
What LAs should consider in their response

• Do you need Output Area and other small number data?

• Will the more frequent data outputs be useful with a reduced level of precision?

• Is the increase in frequency at LA level worthwhile if:
  – you have reduced understanding of where and to whom things are happening?
  – it becomes difficult to measure change in small areas within the LA?

• Plans for workplace-based statistics and origin-destination commuting statistics are currently unclear

• If the loss of this information matters: tell ONS why!