The Future of Small Area Population Statistics:

Views from some Commercial Users

Keith Dugmore
Demographic Decisions, & the
Demographics User Group
The Headlines

• Who?
• Why?
• How?
• What?
• ….. and Whither?
Who?

Commercial – DUG as the tip of the iceberg of 2.3 million businesses
Who? Other users have similar needs too

Commercial – DUG as the tip of the iceberg of 2.3 million businesses

Other sectors also have similar needs, seeking to target services to the public efficiently
- Central government
- Local government
- Health Service
- Charities

Or have similar interests in society
- Academics
- Citizens

Or provide information services
- Value Added Resellers
Why is Census data so important to commercial companies?

• Decisions, decisions……
  – Which areas are best for our new stores?
  – What products should we offer in each particular outlet?
  – Who are our best customers, and prospects?
  – Which areas & people should we survey?

• Investments of £00s of millions to be targeted every year

• The Census provides statistics for small areas, a unique range of topics, & consistent and often UK-wide coverage (but it can be 10 years out of date…….)
Sainsbury’s estate since release of 2001 Census data

March 2003

March 2010
How is data used?

Analyses

1. Local areas

2. Profiling individuals

3. Designing surveys

Data – with national coverage

- Statistics
  - Census-type counts for very small areas
  - Sample surveys

- Map data
  - Background, point locations, road network, boundaries, postcode look-ups

- Lists
  - Big files of individual customers, their addresses, and transactions; plus other address lists
What do DUG member companies need? ONS’s Beyond 2011 trade-offs:
What do DUG member companies need?

- **Geography?** Output Areas (or postcodes) are absolutely essential
  - Creating ad hoc catchments
  - Geodemographic classifications (Acorn, Mosaic, OAC, etc.)
  - Applying models to customer databases

- **Frequency?** Annual would add real value (as would speed)

- **Accuracy?** No need for perfection – 90% is usually fine

- **Topics?** Top of the list:
  - Age, M/F, students, affluence (e.g. income, social grade), employment, ethnicity, religion, internet usage, and also households, household composition / dependents, housing tenure, and car ownership
  - & counts and simple classifications of Workplace or Daytime populations are vital

- **Univariate or Multivariate counts?**
  - Univariate counts are the starting point, but to have some bivariate counts at small area level can add more value (& avoid the ecological fallacy)
  - ……..scope for using admin data, or modelling?
Whither: create small area statistics by using Big Data?

• Geography – Output Areas
• Frequency – e.g. annual

• Topics [ONS’s current proposals are very limited]
  – Additions (e.g. Income); also proxies
  – Omissions (e.g. Language)?
  – Coverage / Quality?
  – All UK?
  – Change / instability?

• Multivariate analysis, & Government Data Sharing
  – Scope for matching administrative records, using the National Address Gazetteer

• plus Non-Government Big Data?
  – Existing precedents / New research / Creating the expectation
Keith Dugmore
Demographic Decisions Ltd.

Tel: (0044) 020 7834 0966
Email: dugmore@demographic.co.uk
Web: www.demographic.co.uk