

Royal Geographical Society

21 October 2013

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?



Making Data Work

YOUR M&S



The **co-operative**



centrica

John Lewis



serco

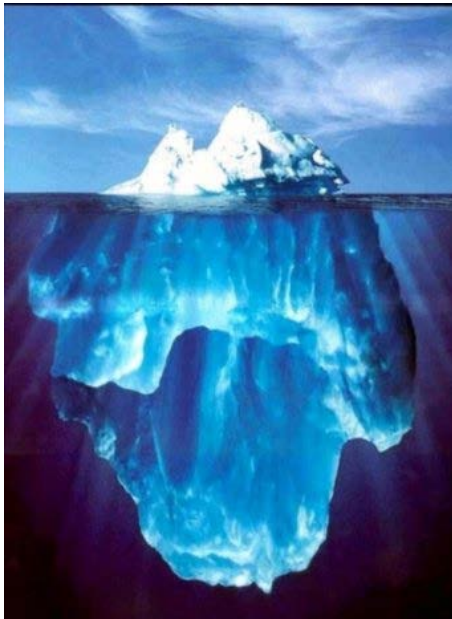


WHITBREAD



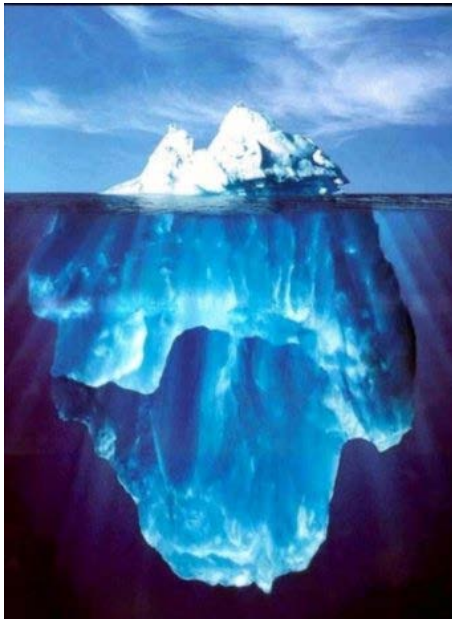
Who?

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

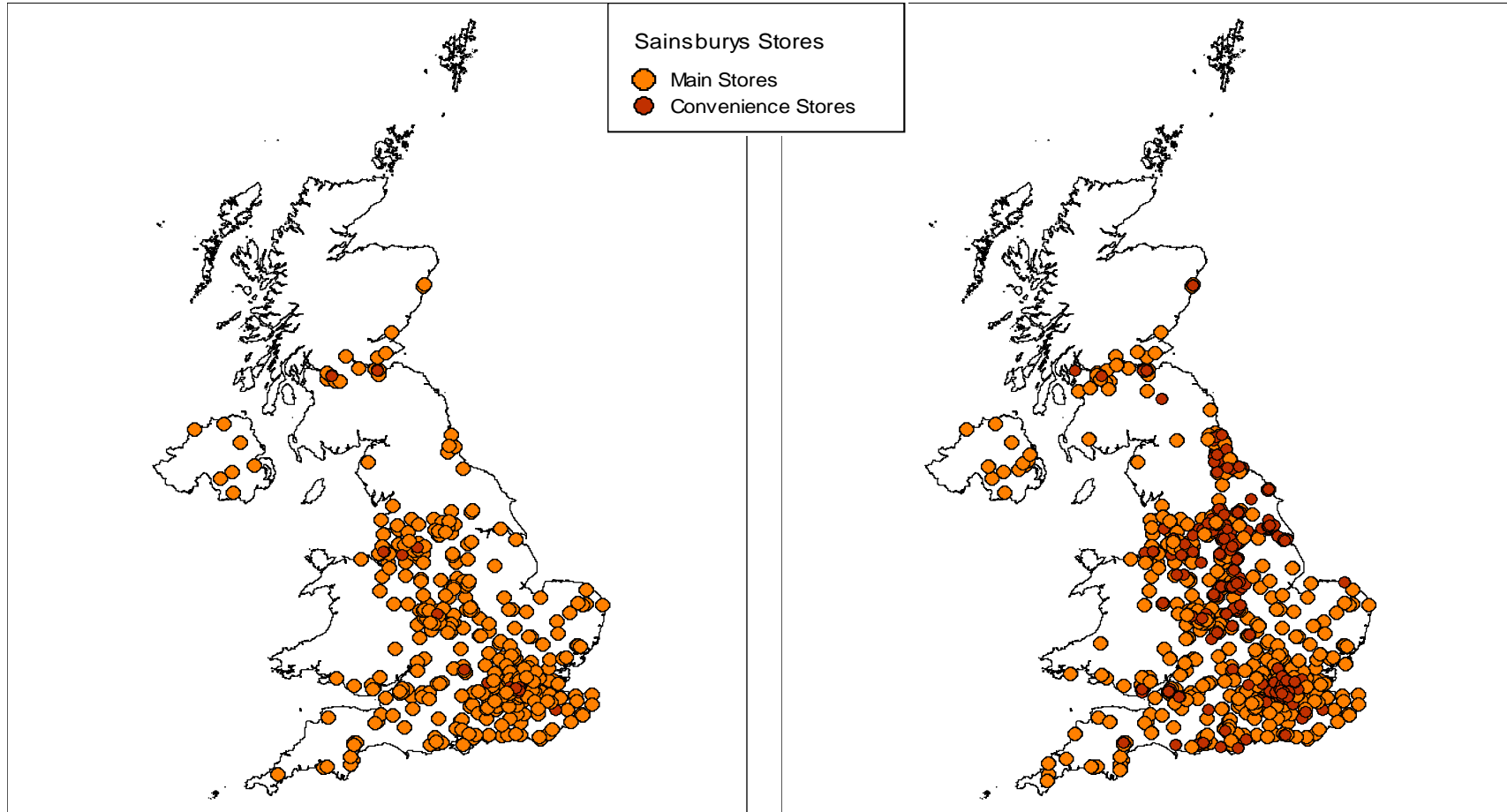
Or provide information services

- 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statistics for small areas, a unique range of topics, & consistent and often UK-wide coverage (*but it can be 10 years out of date.....*)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



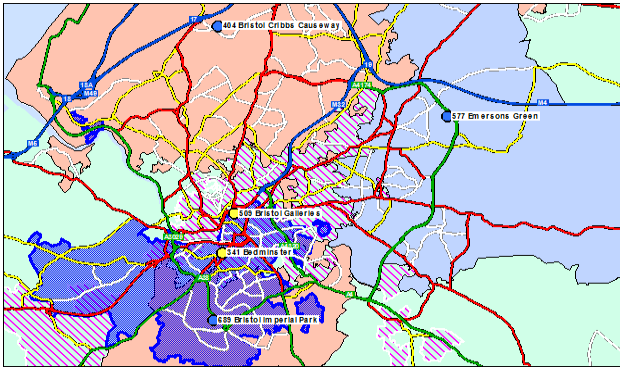
March 2003

March 2010

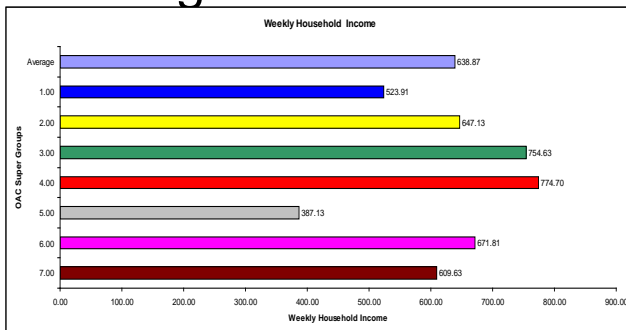
How is data used?

Analyses

1. Local areas



2. Profiling individuals



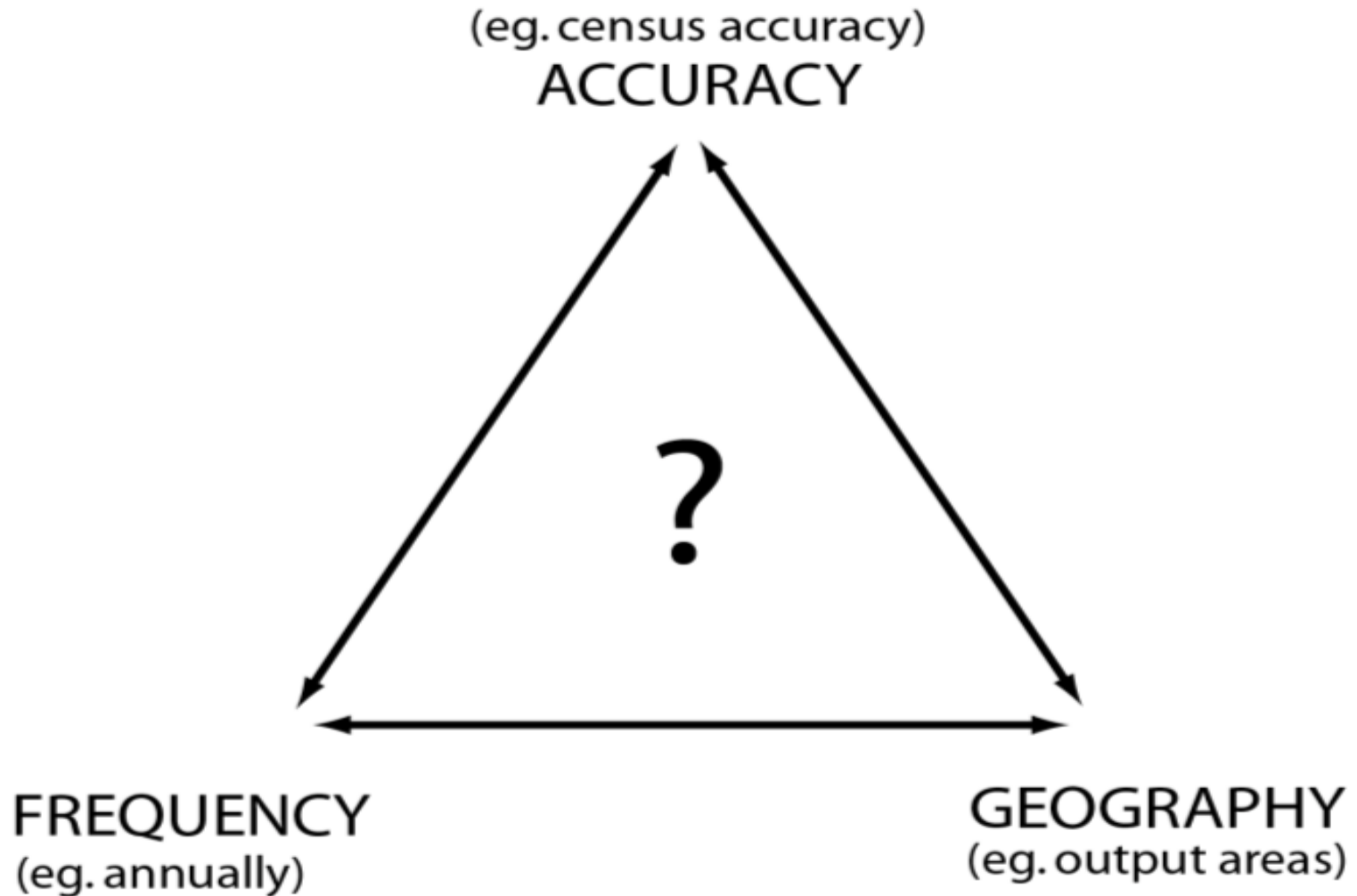
3. Designing surveys

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

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