The Census 2011 data on Big Local areas

Sonia Bussu

Most of these data are all from the 2011 Census. Data are available at Lower Super Output Areas (LSOAs) and OA (Output Area). Lower Super Output Areas (LSOAs) are a sub-ward geography averaging approximately 1,500 people. The OA is the lowest geographical level at which census estimates are provided. OAs were built from clusters of adjacent unit postcodes but cannot be generated until after data processing. They were designed to have similar population sizes and be as socially homogenous as possible based on tenure of household and dwelling type. The minimum OA size was 40 resident households and 100 resident people, but the recommended size was rather larger at 125 households. These size thresholds meant that unusually small wards and parishes were incorporated into larger OAs.

The Big Local geographical boundaries are not designed to exactly match routine data boundaries, so population-based weighted averages were used to take account of data boundaries that intersect with Big Local area boundaries.

Based on relevant routine data, we have estimated area and demographic characteristics for all 150 BL areas. These are the most accurate data based on the actual boundaries of areas.

Box 1 details the variables available.

Box 1: List of variables
Total population count (OA)
Population density (OA)
Age (OA)
Ethnic groups (OA)
Marital and civil partnership status (OA)
Sex (OA)
Accommodation type (OA)
Economic activity (OA)
Highest qualification (OA)
Households by deprivation status (OA)
National statistics socio-economic classification (OA)
Occupation (OA)
Tenure (OA)
General health (self-reported) (OA)
Long-term health problem or disability (OA)
Unpaid Care (OA)
Religious beliefs (OA)
Country of birth (OA)
Language (OA)
Multiple-deprivation score (OA)
Traffic accidents
Crime levels

Clarifications:

Traffic accidents

The data is taken from https://data.gov.uk/dataset/road-accidents-safety-data/resource/1ae84544-6b06-425d-ad62-c85716a80022

SPHR took the latest round data available - 2014. They aggregated data of counts of accidents per LSOA and calculated an approximate number of accidents count in each Big Local area.

The problem with traffic accidents data is that, similar to the Crime level data (see below), this is unstructured data. 9277 out of 146322 records were not assigned value for LSOA. The dataset did not contain any records or values for LSOA E01017205, which eventually led to no observations in aggregated data for Harefield/Townhill in our dataset.

The problem is that if with other variables we can assume, with reasonable confidence, more or less equal distribution of the population across Big Local areas, this is less likely with accidents.

Crime levels

The data is taken from: https://data.police.uk/data/

The data is published monthly. It mentions LSOA but, as far as I am aware, they should mask the location by not providing complete coordinates (for privacy concerns). Aggregation of 5 years period data (56 months each having 44-88 files) is not feasible, as data is unstructured, requires aggregations, and the chance that locations would fall into the Big Local boundaries is quite low. This is why SPHR have some reservations about the usefulness of this type of data for Big Local areas.

We can, however, provide data from Census IMD crime score and rank of crime score, which is more user-friendly and useful for comparison of Big Local areas.

Four dimensions of deprivation

The dimensions of deprivation used to classify households are indicators based on the four selected household characteristics. A household is deprived in a dimension if they meet one or more of the following conditions:

Employment: any member of a household not a full-time student is either unemployed or long-term sick,

Education: no person in the household has at least level 2 education (see highest level of qualification), and no person aged 16-18 is a full-time student,

Health and disability: any person in the household has general health 'bad or very bad' or has a long term health problem, and

Housing: Household's accommodation is ether overcrowded, with an occupancy rating -1 or less, or is in a shared dwelling, or has no central heating.¹

Levels of qualifications

The highest level of qualification is derived from the question asking people to indicate all types of qualifications held. People were also asked if they held foreign qualifications and to indicate the closest equivalent. There were 12 response options (plus "no qualifications") covering professional and vocational qualifications, and a range of academic qualifications. These are combined into five categories for the highest level of qualification, plus a category for no qualifications and one for other qualifications.

No academic or professional qualifications (England & Wales & Northern Ireland)

Level 1: 1-4 O Levels/CSE/GCSEs (any grades), Entry Level, Foundation Diploma, NVQ level 1, Foundation GNVQ, Basic/Essential Skills (England & Wales & Northern Ireland)

Level 2: 5+ O Level (Passes)/CSEs (Grade 1)/GCSEs (Grades A*-C), School Certificate, 1 A Level/ 2-3 AS Levels/VCEs, Intermediate/Higher Diploma, Welsh Baccalaureate Intermediate Diploma, NVQ level 2, Intermediate GNVQ, City and Guilds Craft, BTEC First/General Diploma, RSA Diploma (England & Wales & Northern Ireland) Apprenticeship (England & Wales & Northern Ireland)

Level 3: 2+ A Levels/VCEs, 4+ AS Levels, Higher School Certificate, Progression/Advanced Diploma, Welsh Baccalaureate Advanced Diploma, NVQ Level 3; Advanced GNVQ, City and Guilds Advanced Craft, ONC, OND, BTEC National, RSA Advanced Diploma (England & Wales & Northern Ireland)

Level 4+: Degree (for example BA, BSc), Higher Degree (for example MA, PhD, PGCE), NVQ Level 45, HNC, HND, RSA Higher Diploma, BTEC Higher level, Foundation degree (NI), Professional qualifications (for example teaching, nursing, accountancy) (England & Wales & Northern Ireland)

Other: Vocational/Work-related Qualifications, Foreign Qualifications/ Qualifications gained outside the UK (NI) (Not stated/ level unknown) (England & Wales & Northern Ireland)

Economic activity

Due to definitional differences, and because the census questionnaire is self-completed by the population of England and Wales, the census estimates of people in employment may differ from other sources as, for example, some respondents may include voluntary work when asked about employment. The most authoritative and up to date estimates of the labour market status, including employment and unemployment, are the labour market statistics that ONS publishes monthly. The census is valuable in providing a detailed picture at the time of the census of the characteristics of the economically active population.

¹ A value of –1 indicates that there is one room too few and therefore overcrowding in the household.

N.B. Full-time students and the self-employed may also be part-time workers.

Indices of Multiple Deprivation

We can offer IMD for 2010 and 2015. There are 32,844 small areas or neighbourhood - called Lower-layer Super Output Areas (LSOAs) - in England. The Index of Multiple Deprivation combines a number of indicators, chosen to cover a range of economic, social and housing issues, into a single deprivation score for each LSOA in England. This allows each area to be ranked relative to one another according to their level of deprivation, where 1=most deprived.