



Research Methodology

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Technical Note 1

AREA DEFINITIONS IN SANDWELL

Geography across the Country is a complex subject, and Sandwell is no exception. Whilst much of the data produced by *Research Sandwell* and other agencies such as the *Office for National Statistics (ONS)* is based on administrative boundaries, there are boundaries that are commonly used within the Borough that have been derived locally. This note aims to give an overview of the different boundaries and the situations in which they are often used.

Why do we need Small Area Statistics?

- To enable the targeting of resources
- To enable the definition of priority areas and the provision of baseline data for those areas
- Monitoring and evaluation of programmes

How do we derive data for Small Areas?

We are able to produce socio-economic and operational data for the majority of geographies because most data is geographically referenced in some way – this means it is either allocated to a very small area which can act as a building block to aggregate to match larger boundaries, or it is grid referenced (and so can be pinpointed on a map), or more commonly, it is address based. Postcode or address data can be matched to a directory file such as *AddressPoint*, meaning that the data can then be mapped, area boundaries overlaid and then data aggregated to match those boundaries.

Current Geographical Areas in Sandwell



1. Output Areas (2001)

These 2001 Census areas are among the smallest building blocks in terms of small area data. There are 925 Output Areas (OAs) in Sandwell. Some Census data is available at this detailed level (although there is some randomisation of data to ensure that individuals cannot be identified), however other data sources are generally not published at this level due to confidentiality issues.



Prior to the 2001 Census, these small building blocks were known as Enumeration Districts (EDs).

2. Super Output Areas

Super Output Areas (SOAs) are a new geography designed for the collection and publication of small area statistics. These are groups of Census Output Areas - three levels of Super Output Areas (SOAs) have been defined by the Office for National Statistics, each nesting inside the layer above.



- There are 187 lower layer SOAs, sometimes known as LSOAs. These nest into the wards that existed before 2004 (see [Wards](#)), and have a population of around 1,500.
- 38 middle layer SOAs (sometimes known as MSOAs) were defined in consultation with Council officers. These are groups of lower layer SOAs, which can cross ward boundaries. Sandwell neighbourhood and Town boundaries were taken into account when these were defined.
- The upper layer SOAs have yet to be defined. These will be built up using middle layer SOAs and it is envisaged that these will have a population of around 25,000 each.

The aim of Super Output Areas is to provide a consistent set of boundaries with similar sized populations, that will not change over time. This allows comparison across the country as well as within Local Authority areas. The *Office for National Statistics* are gradually increasing the number of datasets that they publish for SOAs – the SOA level chosen depends on the type of data (to avoid disclosure). Most Census data is also available at all levels.

3. Wards

Prior to 2000, wards formed the basis of the majority of operational and socio-economic statistics published in Sandwell. Although these areas have similar populations, making comparisons reliable, they are purely administrative boundaries, which take no account of natural communities or geography. There are only 24 wards in the Borough, which does not provide the level of focus required for targeting of resources, and being administrative boundaries, wards are subject to boundary changes (which did happen in Sandwell in 2004). This makes any monitoring of change over time difficult. However, these boundaries are of obvious interest to elected members.



4. Towns

The six Towns in Sandwell are based on Wards. They were originally defined using pre-2004 wards, but were altered to take account of the 2004 ward boundary changes. The Town boundaries vary in size, and if they continue to be based on wards, are subject to change in the future. The size of the Towns are such that comparisons between town are of little relevance, and targeting of resources on this broad basis is difficult.





5. Parliamentary Constituencies

There are four parliamentary constituencies which cover Sandwell – West Bromwich East, West Bromwich West, Warley and Halesowen & Rowley Regis. The boundaries of these are based on pre-2004 wards, and each cover seven wards (four of those within Halesowen & Rowley Regis fall are within Dudley borough). These are purely administrative boundaries, and very little data is published for these areas.



6. Neighbourhoods

Introduced in 2000, the 79 neighbourhoods in Sandwell were defined using statistical analysis and in consultation with Members, practitioners and residents. These encompass the residential areas of the Borough, and vary considerably in size and population (being based entirely on “natural neighbourhoods”). Since inception, the boundaries of the neighbourhoods have not changed, which has allowed comparison of data over time (for example in the All Domains Index), however this does mean that new residential developments outside of current neighbourhoods will be excluded from any analysis. Whilst the large number of neighbourhoods allows a level of targeting not previously known in Sandwell, the small population size of some neighbourhoods (particularly Black Patch) does call the reliability of some comparisons into question, and raises issues of disclosure.

Neighbourhoods have been used widely in Sandwell (by the Council and its partners), notably as part of the Neighbourhood Strategy and as the basis for a number of regeneration initiatives (such as SureStart).



7. Police Neighbourhoods

These 31 areas have been recently defined by *West Midlands Police* for the delivery of neighbourhood policing. With the exception of two small mainly non-residential areas, these nest within Sandwell’s six Towns. Although the definition of these areas has to some extent taken account of the Sandwell neighbourhood boundaries to the north of the Borough, the use of ward boundaries to the south of the Borough however, means that these are again not “natural neighbourhoods”. This number of areas may also not provide enough scope for the targeting of resources.

8. Other areas

A number of ad-hoc boundaries exist in the Borough, including the NDC area, SureStart areas, HMRA, and Regenco. Whilst some of these have been defined on the basis of neighbourhoods, others are defined more on the basis of land availability or development opportunities, for example.



Table 1. Geographical Areas in Sandwell, as at July 2008

	No. of Areas	Population per Area
Census Enumeration Districts	561	10 to 120
Census Output Areas	925	100 to 590
Lower Layer Super Output Areas	187	1,010 to 2,190
Middle Layer Super Output Areas	38	5,200 to 11,560
Upper Layer Super Output Areas (proposed)	-	25,000
Wards	24	11,100 to 13,400
Towns	6	36,100 to 69,600
Parliamentary Constituencies (Sandwell parts)	4	37,700 to 89,800
Neighbourhoods	79	380 to 10,980
Police Neighbourhoods (or clusters)	31	1,200 to 18,840

Source: Research Sandwell.

Issues surrounding data collection and publication at different geographical levels

Research Sandwell and other agencies hold a wealth of data at all geographical levels. Much of the data held by Research Sandwell has been published in Sandwell Trends and the SNIP Neighbourhood Profiles – the team currently holds over 100 indicators at various geographical levels, and this number increases regularly.

- Much Council-held data is now postcoded, enabling aggregation to any geographical area. However it is necessary to ensure certain criteria are met in terms of disclosure control and data reliability.
- Census data is held down to the Output Area level, and so this wealth of data can only be aggregated using OAs or SOAs as the basis. This can introduce some level of inaccuracy where OAs/SOAs don't nest easily within a larger ad-hoc boundary.
 - This is a particular issue in terms of calculating population bases for ad-hoc geographical areas to enable comparison of rates or percentages. These problems can be avoided if aggregated Output Areas or Super Output Areas are used. Also, population estimates are now produced by ONS at Super Output Area level on an annual basis, enabling much more accurate rate calculation.
- The increased workload involved in producing indicators for a number of different geographical areas has implications for Research Sandwell in terms of capacity. A useful set of indicators must be accurate, timely and up-to-date. This involves an ongoing process of data collection, checking, analysis and publication for every geographical level. The Local Intelligence System (LIS) currently being developed by Research Sandwell will enable researchers, policy makers and other users to aggregate data at any level “on-the-fly”, enabling Research Sandwell officers to concentrate on developing analysis of the issues arising from the evidence.
- There is increasing demand for data comparison, both within Sandwell (to allow targeting of resources) and with other authorities (to enable benchmarking and evidence of “what works”). To enable this, datasets need to be comparable across areas, both in terms of the actual indicators available, and in terms of the similarity of areas to be compared. The increasing use of Super Output Areas particularly meets this demand – both in terms of the range of data being made available at a national level, and in comparability of areas in terms of size.



- The increasing number of geographical areas being used across the Borough has a detrimental effect in terms of ease of use and understanding of data – too many areas with similar names only causes confusion as to which geographical scale is being referred to, and this is compounded over time by boundary changes. Any reporting of indicators on a geographical basis should make it clear what type of area data refers to, and on what basis ad hoc boundaries have been created.

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