



Guide to Segmentation

Customer Satisfaction Measures for Local Government Services

Prepared for the

**Local Government Association, Improvement and Development Agency and
National Consumer Council**

by

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This guide has been prepared as part of the “Customer Satisfaction Measures for Local Government Services” project commissioned by the Local Government Association (LGA) Improvement and Development Agency (IDeA) and National Consumer Council (NCC).

Dr Foster Research Ltd in association with Tetlow Associates prepared this guide alongside a number of other project reports that arose from a four month programme of research with four case study local authorities. This guide provides outline detail and specifications regarding the format and processing of survey data, for which full technical detail is provided in the accompanying Customer Insight Protocol.

This programme of work involved Dr Foster Research and Tetlow Associates working closely with the case study authorities, namely Birmingham City Council, Uttlesford District Council, Taunton Deane Borough Council and Somerset County Council. Each authority provided a range of locally held survey data for illustrative segmentation analyses and to support the design and evaluation of a Customer Insight Protocol.

Questions you may ask...

1.	Why do we need a Customer Insight Protocol and Guide?	4
2.	What is the Customer Insight Protocol and how does it relate to segmentation?	6
3.	What is segmentation?	7
4.	Why should I segment?	8
4.1.	What are the benefits for the local authority?	9
4.2.	What are the benefits to our residents?	10
5.	What steps are required to segment in this way?	11
5.1.	Collecting and storing standard information.....	11
5.2.	Identifying key population segments.....	12
5.3.	Map, analyse and create local community profiles	13
5.4.	Do we have to use the same segmentation model?	14
6.	When should we segment data?	16
6.1.	Is a segmentation approach always appropriate?	16
6.2.	What sample size is needed?	16
6.3.	How frequently do we need to segment our populations?	17
7.	What were the findings in the case study authorities?.....	18
	Understanding Somerset’s population and levels of satisfaction.....	18
7.1.	Segmenting a small, homogenous area – Uttlesford.....	20
7.2.	Identifying bespoke population segments in Birmingham.....	21
8.	What are the disadvantages of this approach?	24
8.1.	Is this safe and legal? Can we maintain confidentiality?	24
8.2.	Isn’t this just stereotyping?.....	24
8.3.	Doesn’t this reinforce prejudices towards minority groups?	25
8.4.	Can we future proof analyses for different segments?	25
8.5.	Is this expensive?.....	25
9.	Where can I find out more?	26

For further technical detail, please refer to the accompanying document: ***The Customer Insight Protocol.***

Purpose of this guide

This guide is designed to:

1. Explain the benefits of segmentation

Segmentation is a way of understanding the needs and views of a population in terms of the different communities that make up the population. Segmentation analysis provides the most efficient way to understand the important differences among the various groups of people served by a local authority.

2. Describe best practice in segmentation

The guide sets out how a local authority might develop segmentation models for its own population. Different services within a local authority will have different requirements from a segmentation model. The guide explains how these different requirements can be met while still maintaining a consistent approach across all local authority services.

3. Recommend how survey data should be collected and held

Segmentation analyses are only possible if data is held in appropriate formats. We recommend an approach that will allow local authorities freedom to model their local communities in any way they choose while at the same time ensuring they are able to share data among agencies and benchmark performance against other local authorities.

1. Why do we need a Customer Insight Protocol and Guide?

The approaches outlined here represent best practice from many years of research and practice in other domains. These approaches are now not only relevant to local authority work, but also have the potential to achieve efficiency gains and uplifts in performance, through targeting local services more effectively. This approach supports the aspirations of *Strong and Prosperous Communities: the Local Government White Paper*, and many local authorities are already making progress in this direction. Ultimately;

- It can improve services locally by helping to differentiate between communities
- It provides opportunities for sharing information at the local level
- It provides opportunities for sharing information at the national level
- In doing so, it will help target local service delivery more effectively

The Customer Insight Protocol and Guide will lead decision makers through this process, providing a flexible framework that promotes local decision making whilst also providing a foundation for local, regional and national comparisons. This is a recommended framework, commissioned by the Local Government Association, Improvement and Development Agency and the National Consumer Council, to promote the *local* delivery of services and improve the customer experience of local services.

Local authorities should be free to choose segmentation models that suit their own needs. These may be based on National Statistics, proprietary solutions or bespoke in-house classifications. The options are considerable and decisions should be made locally; no preferred solution is championed here. Rather the Customer Insight Protocol provides a foundation for consistency that will ensure:

- authorities are not locked into one proprietary solution
- it will be possible to benchmark between populations and authorities even if they adopt different solutions.

At the same time, each authority is able to seek and use data according to its own specific requirements.

This Guide has been prepared principally for use by performance, research and customer service specialists in local government and LAAs. The underlying concepts and benefits of this approach are highlighted for wider consumption by decision makers and senior managers within local authorities, their partners and umbrella organisations. This document will assist these practitioners in directing the design



and analysis of future local surveys and in leveraging extra value and information from existing data sources.

2. What is the Customer Insight Protocol and how does it relate to segmentation?

A Customer Insight Protocol is a standard way of keeping data. In the case of this project the data are survey data about people who use local services. The data is recorded in a standard way prescribed by the protocol so that it can be stored and compared with other data. In this way, information from several different sources, such as other surveys and information about the local area, can be brought together and analysed alongside other data. This enables us to build up a clear picture of people in a local area and their preferences, opinions, and experience of services.

Although the protocol has been developed with regard to survey data, the same protocol could be applied to other data sources – such as recording which people have used particular services. This would allow these data sources also to be analysed by population segments.

The Customer Insight Protocol developed in this project also contains guidance on related issues. These include ethical issues related to using information about individuals and a suggested approach to ensuring that people's identity is protected when data is analysed.

Authorities and others commissioning surveys would be able to require that the Customer Insight Protocol is used by survey companies. Using the Customer Insight Protocol and segmentation together, data can be compared from a range of sources to gain insight into patterns of response to services, and opinions.

This is useful at the strategic level because it gives a clear overall picture of trends throughout the authority's area and highlights differences among the responses of different groups and in different areas. It can also be useful in pinpointing areas where more work may be needed to understand a problem and design a solution.

At the national level, aggregated detailed local data can provide a rich resource for understanding trends. This has many potential uses in performance measurement, policy development and developing appropriate and meaningful approaches to benchmarking.

3. What is segmentation?

Segmentation is simply the classification of a population into different groups. It is an approach for providing services based on an understanding of local populations and neighbourhood context.

It is a method for generalising and summarising data into groups, which can be used to characterise different segments of the population. We already do this every day; we may classify a population into those who are children, adults of working age, or are retired. In addition to age, we also define different population segments using information such as social class, employment status, ethnicity, households on income support/benefits, or areas of relative deprivation. Significantly, we also segment the population by geography; many public services are provided through our local authorities, and budgets, priorities and services are provided through administrative geographies such as County Councils, District Councils, Parliamentary Constituencies and/or local priority areas (such as neighbourhood renewal areas, priority wards, etc). Rural and urban locations are also often classified into separate groups.

Ideally, when segmenting populations one should aim to define a small number of groups that maximise between group variance, but minimise within group variance. This means that the people or households contained within Segment A should be as similar to one another as possible, and as different from individuals in Segment B as possible. These groups should be representative of different segments of the population, which have characteristic traits in terms of the use of public services or indeed attitudes towards and satisfaction with these services.

For example, a local authority considers encouraging active lifestyles and attempting to reduce traffic congestion through a targeted campaign promoting walking and cycling rather driving to work. For this we might want to segment the population into the following groups:

	Group A	Group B	Group C	Group D	Group E
Characteristics	Residents who are active & walk/cycle to work	Residents living close to place of work, who drive	High frequency users of public transport	Non-residents / commuters into the area.	Disabled and elderly / frail
Priority for campaign	Low	High	Medium / Low	Medium	N/A for this campaign

This example is purely illustrative. This type of segmentation, based on lifestyle characteristics, in addition to the more traditional segmentation approaches provides a far richer and more detailed understanding of the local population than merely segmenting on the basis of age, sex, ethnicity or geography alone. Segmentation is an approach to analysing local populations, to understand better the needs and traits of different groups. It enables more effective targeting of services and a richer understanding of local communities. A better understanding of the local population,

their needs and usage of public services will support local authorities in delivering targeted services more efficiently.

Whilst the local populations and neighbourhoods may be segmented on the basis of satisfaction with public services alone, this approach and the targeted delivery of services should ultimately enable local authorities to provide local services to match need and improve satisfaction accordingly.

4. Why should I segment?

The key argument for devolving responsibility for any public service to a local level is to bring them closer to the needs of the communities they serve. Differences in values, concerns and priorities necessarily reflect the differences in the population composition of areas covered by local authorities (LAs), and sub-regions within LAs. Key issues in a large metropolitan authority serving multi-cultural communities will clearly differ from those that are important to residents of small district authorities covering retirement areas, predominantly rural areas or ex-mining communities. However, no adequate framework has yet been developed or implemented to enable local service delivery within a national context from which one can share best practice and assess comparative performance. Segmentation models can achieve this.

Just as the population composition of different regions varies from local authority to local authority, so too does the population make up of the different neighbourhoods and communities served by any one authority, any ward, any constituency or indeed within any local neighbourhood area. No ward is entirely homogenous in terms of its population structure; indeed many small areas have very diverse communities. Such areas may be erroneously considered as homogenous in policy, assessment, resource determination and strategy if the characteristics of the local population are poorly understood and populations are not segmented.

Different communities differ not just in terms of their incomes, age distributions, levels of deprivation, ethnic makeup and proportions of families with children, etc., but they also differ in terms of the level of satisfaction and engagement with local authorities among their residents. They differ in terms of the types of service that are used; in terms of preferred communication channels to service providers, their attitudes and lifestyles, and in terms of the needs and expectations of their local authority.

The use of classification techniques can assist in the description and identification of population segments with higher than average propensities for particular incidents, needs, attitudes and behaviours. This approach can be used to develop further effective service delivery and engage proactively with local communities.

For many questions that a local authority faces, the question is best answered by considering segmentation. For example:

“Would internet services be useful?”

or

“Which communities would find internet services useful?”

“Are local people satisfied with the local authority?”

or

“Which communities are more satisfied with local authorities and which are less satisfied?”

4.1. *What are the benefits for the local authority?*

Segmentation analyses can provide authorities working with local partners with a detailed understanding of the local population that enables them to:

- Use resources more efficiently by targeting service delivery to relevant community segments
- Achieve higher public satisfaction through better targeting and understanding of local need
- Obtain greater value from existing research by combining and re-using survey data, including data from partner organisations
- Conduct survey research efficiently by identifying the minimum sample sizes necessary to understand key segments.

The benefits of a consistent approach to segmentation will mean that:

- Authorities and their partners will be free to determine the communities they wish to prioritise
- Local authorities will still be able to benchmark performance against other authorities if they wish
- Local authorities will be able to share their understanding of different communities
- It will be possible to pool data to understand better the needs of smaller, less visible communities
- Local authorities will have the flexibility to design custom segments for local prioritisation whilst retaining a framework for the national benchmarking and comparison of data.

Please note that a consistent approach to segmentation does *not* mean every authority has to use the same segmentation model. It simply ensures that authorities *are able to* compare among different segmentation models if they wish.

4.2. *What are the benefits to our residents?*

The benefits to the local population may include:

- More appropriate, efficient services through the promotion of the most relevant services, benefits and offerings targeted to the local residents' likely needs
- Efficient and targeted communication from the local authority
- A local authority that more effectively prioritises the needs and aligns to the expectations of local residents
- More satisfied residents
- A much more co-ordinated service from local partnership organisations as a result of sharing data

5. What steps are required to segment in this way?

There are three core steps which local authorities should follow to begin segmenting local populations and targeting local services:

1. Collect and store standard information on all surveys to enable the segmentation and combination of different data sources
2. Identify the key population segments of interest
3. Map, analyse and profile the data by the different population segments

5.1. *Collecting and storing standard information*

The Customer Insight Protocol that accompanies this document details the specific variables that should be retained on local surveys to ensure consistency and flexibility in analysing population segments. We recommend that you should retain a set of data from any survey at the level of individual respondents with the following demographic variables recorded for each respondent:

Minimum requirement: critical variables for segmentation:

- Geographical reference – residential postcode
- Date of birth
- Sex
- Ethnic group

Recommended collection: potentially useful, non-critical variables:

- Carer status
- Disability status
- National Statistics Socio-Economic Classification (NS-SEC)
- Employment status
- Rural / urban (drawn as appropriate from geographical reference)

Sensitive discretionary variables:

- Household Income
- Religion
- Sexual orientation

We would recommend following the Office for National Statistics (ONS) classifications, where available, for those data fields listed above. No new standards or procedures are proposed here; rather the best practice existing from data providers and organisations should be adopted. For further technical detail and specification please refer to the full Customer Insight Protocol.

5.2. Identifying key population segments

There are many approaches to segmentation with which analysts, policy makers, practitioners and the public are already familiar. For example, 'traditional' ways to segment and analyse populations include classifying populations by:

- Age
- Sex
- Ethnicity
- Deprivation (e.g. Index of Multiple Deprivation)
- Social class
- Administrative geography (e.g. LA, Ward or Constituency)
- Rural or urban locations

There are, however, many other additional approaches to classification, which may be used at the level of the individual, neighbourhood or region. A number of 'lifestyle' classifications are available commercially, which segment each unit postcode (on average 17 households) into different neighbourhood types. This process of segmenting different neighbourhoods on the basis of the characteristics of the resident population is known as geodemographics. A number of proprietary classifications are available, which segment the national population at postcode levels, based upon the clustering of a range of census, lifestyle, financial and survey information. Such commercial classifications include Experian's Mosaic¹ classification and CACI's ACORN² classification. A number of other systems also exist. An example of the Mosaic Neighbourhood groups is provided below.

Mosaic UK Public Sector –Neighbourhood Groups © Experian Ltd.

Group A.	Career professionals living in sought after locations.
Group B.	Young families living in newer homes.
Group C.	Older families living in suburbs.
Group D.	Close knit, inner city and manufacturing town communities.
Group E.	Educated, young, single people living in areas of transient populations.
Group F.	People living in social housing with uncertain employment in deprived areas.
Group G.	Low-income families living in estate based social housing.
Group H.	Upwardly mobile families living in homes bought from social landlords.
Group I.	Older people living in social housing with high care needs.
Group J.	Independent older people with relatively active lifestyles.
Group K.	People living in rural areas far from urbanisation.

At a more aggregated level, the Office for National Statistics (ONS) has produced a number of Area Classifications³ based entirely upon 2001 Census statistics. The lowest level of geography for which this is available is the Census Output Area (OA); an OA contains approximately 125 households. Classifications are also available for local authorities, wards and health areas.

Some areas may also have bespoke, local classifications created within the local authority or partner organisations.

¹ Mosaic Public Sector (Experian, Nottingham) - www.business-strategies.co.uk

² ACORN (CACI, London) - www.caci.co.uk/acorn

³ Area Classification (ONS, London) - www.statistics.gov.uk/about/methodology_by_theme/area_classification/default.asp

5.2.1. Which neighbourhood classification should I use?

It is beyond the scope of this project to suggest which classification should be used in all circumstances. There is no correct and definitive answer regarding which classification will perform best, in different areas, and across different domains of local government. A decision should be made locally regarding which commercial classification system should be adopted, whilst consideration should also be given to the potential of leveraging favourable terms through regional licensing deals. The following aspects are important in choosing a classification;

1. At what level of spatial granularity and accuracy should the classification operate (i.e. individual, postcode, Output Area, larger region)?
2. How important is the currency of the data (i.e. are 2001 Census data sufficient, or are annual updates required)?
3. What aspects of the population need to be defined (i.e. variable choice in the classification; Census statistics alone, lifestyle data, financial information, etc)?
4. Financial implications – are there budgetary constraints and what is the cost-benefit of different solutions?
5. What is the level of capacity and competence of local analysts to conduct such analyses?

5.3. *Map, analyse and create local community profiles*

There is no universally accepted definition of what makes up a neighbourhood profile. Indeed the term neighbourhood means different things to different people and different organisations. Each of the classifications above, applied to a local area, may be considered a neighbourhood/community profile. A number of examples of community and neighbourhood profiles are given by the providers of the classifications (e.g. see web URLs provided above). Furthermore, the Audit Commission has produced 'Area Profiles'⁴, and an online Neighbourhood Profiling Guide⁵. Examples of analyses are given in the case study findings (Section 7).

5.3.1. Which statistical techniques and measures should I use?

There are many ways to present and analyse data. The Customer Insight Protocol and Guide are intended to provide the flexibility and freedom for analysts to incorporate their preferred techniques locally. No single method is preferred or endorsed here. The Customer Insight Protocol details how to calculate index scores, a simple measure of over/under representation, which have been conventionally

⁴ Audit Commission Area Profiles - www.areaprofiles.audit-commission.gov.uk

⁵ Audit Commission Neighbourhood Profiling Guide - www.audit-commission.gov.uk/neighbourhoodcrime/profiling.asp

used in neighbourhood profiling and present a simple way to represent segmentation findings. Other methods, as preferred locally, may be equally valid.

5.3.2. Do we need a Geographical Information System (GIS)?

The geographical reference, preferably postcode, is often the key to the best performing segmentation model. Neighbourhood classifications based on postcode may require a GIS at various stages of analysis. A GIS is fundamental in integrating and exploring spatial trends and mapping neighbourhood classifications and attributes to a local level. Most local authorities will have sufficient capabilities and expertise in mapping to conduct those general GIS analyses required.

5.3.3. What expertise is needed?

The range of expertise required is varied, and a steep learning curve may exist for analysts new to segmentation techniques. However, general analytical skills, some spatial analysis knowledge and experience in scrutinising databases are the major prerequisites for the analyses outlined here. This approach is not rocket science, but some thought leadership regarding the interpretation and implementation of geodemographics may be required. Expert capabilities exist in a number of specialised consultancy units and data providers.

5.4. *Do we have to use the same segmentation model?*

The purpose of this guidance and protocol is to provide a flexible framework from which different LAs, partners and departments within LAs can design, commission, purchase or customise a segmentation model relevant to their specific activities. Within a local authority different departments may select different models. For example social services may select a different model from the police and Crime and Disorder Reduction Partnership. Different local authorities may also select different models (e.g. LA 1 uses Mosaic Public Sector and LA 2 uses Acorn). The approach outlined here, however, provides the flexibility for comparisons and the sharing of data among organisations, partners and departments without locking any single authority into one specific solution (proprietary or otherwise).

The example below illustrates how different departments may approach segmentation, and how the use of this protocol will ensure compatibility across these departments, whilst specifically recognising any local needs.

Local Authority X may segment the entire population into 15-20 groups based on knowledge of the local population and a range of general purpose data sources. However, this model may then be customised within local services in quite different ways. For example, using age, sex, ethnicity, postcode and specific data from each service area the following different models may be developed.

Social services segmentation model:

Segment	A	B	C	D	E	F	G
Description	Elderly population in care homes	Elderly population receiving domiciliary care	Elderly population receiving other care packages	Elderly population likely to require care packages, living in deprived neighbourhoods	Non-elderly population receiving care	Other populations at high risk of needing care	Low risk / NA populations
Key data required to create segmentation	Age, and user data			Age, postcode	Age, postcode	Age, postcode, sex, ethnicity	Age, postcode, sex, ethnicity

Police, for youth justice

Segment	1	2	3	5	6
Description	Youth offenders known to police	Highest risk: Male youths from the most deprived, highest crime neighbourhoods	Other residents in inner city areas with high victimisation	Affluent areas with a mature population (few children) and low crime rate	Low risk / NA populations (e.g. retirement areas and rural retreats)
Key data required to create segmentation	User data (including age, sex, ethnicity and postcode)	Age, sex, postcode	Postcode	Age, postcode	Age, postcode, sex, ethnicity

The same underlying data are required for both models. However, customising a model for a specific purpose enables a relevant and targeted approach for each service, whilst maintaining a framework developed for all services across the local authority. A hierarchy of such segmentation models enables local flexibility whilst maintaining universal comparability.

6. When should we segment data?

Segmentation is a process that enables the generalisation of many data sources and fields into meaningful groups for analysis and subsequent action. It is a process of characterising data into a useful and manageable number of groups, and hence some information available at the level of the individual (or unit) will be lost. However, a balance needs to be achieved between generalisation, informative trends and data overload. There is little value for many analysts or decision makers in working with the millions of individual records produced from, say, the Census. We may want to focus on just one region (the North-East), one type of area (urban/rural), a range of neighbourhood types (e.g. areas characterised as 'blue collar' versus 'wealthy achievers' or 'countryside'), a certain age cohort (e.g. over 75s) or particular ethnic groups. The more information we have about a population and the more options available to us in segmenting, the more intelligent we can be about characterising populations for specific purposes.

6.1. *Is a segmentation approach always appropriate?*

It is not contended here that segmentation is a panacea. However, a segmented and targeted approach to population analyses, interventions and service provision should enable a more efficient and context sensitive approach to many challenges facing local authorities. It can be seen as an intelligent first sweep through local information, which can then be supplemented and acted on through further local knowledge and targeted primary research.

6.2. *What sample size is needed?*

It is difficult to provide a rule-of-thumb or, indeed, anything more prescriptive regarding the precise sample size required for effective segmentation analyses. The stability of any results depends on the quality and quantity of data provided, and as one segments any data set the sample size within any one category may become very low. The more segments, the smaller the number of records in each cell and hence the more volatile any statistical rates may become. A survey, even with sample size of 4,000, may soon produce erratic results depending on the nature of the segmentation model and questions asked. For example, 3,000 respondents answer a question with 6 possible answers and a segmentation model is used with 10 categories. Even if all responses were perfectly evenly distributed there would only be 50 responses per cell (i.e. $3000 / 6 = 500$, $500 / 10 = 50$). Small numbers such as this will often produce spurious trends and results.

However, an advantage of a segmentation approach is that strength may be borrowed from larger scale data sets, if the sample size for local surveys is small. For example, if a small survey had been conducted with a total sample size of 400 respondents, average rates may be taken from larger national level trends and extrapolated to the local level using an existing classification model. These results could then be compared to the smaller local survey.

If a segmentation model has been developed in the local area and is hence known in advance of a local survey this may assist in the sampling methodology and design. If it is known in advance of a survey which key segments need to be understood and analysed, then the sample may be designed in the most cost effective way by ensuring sufficient samples are recorded from each segment.

6.3. *How frequently do we need to segment our populations?*

The advantage of a flexible segmentation model and framework Customer Insight Protocol is that such analyses can be conducted on an ongoing basis. Traditionally, geodemographic classifications are completely revised on a decennial basis following the publication of Census statistics. Furthermore, products such as Mosaic and ACORN are updated annually. Customised bespoke segmentation models for local populations may be created and updated as is deemed appropriate.

7. What were the findings in the case study authorities?

The examples provided here are illustrative rather than conclusive and are based on a limited collection of survey data provided for this study. These analyses are illustrative examples that highlight the approach, rather than providing conclusive evidence on which to base the delivery of local services.

Understanding Somerset's population and levels of satisfaction

Step 1:	Collect and store standard information	Data were taken from the BVPI survey and the ONS Output Area Classification
Step 2:	Identify the key population segments	OAC Super Groups were used
Step 3:	Map, analyse and profile your data population	Using OAC and the survey data the profiles below were calculated

In Somerset and Taunton Deane a range of segmentation analyses were conducted using those techniques outlined above. Without a commercial licence for a proprietary neighbourhood classification tool, the analyses were conducted primarily using the Office for National Statistics (ONS) Output Area Classification (OAC)⁶.

Using the OAC classification it is possible to break down the distribution of different area types by the district authorities within Somerset County Council. The table below represents this, illustrating that Taunton Deane, for example, contains fewer 'Countryside' areas than the other Somerset districts, and has an over proportion of 'Constrained by Circumstances' areas relative to the Somerset average.

	Blue Collar Communities	City Living	Countryside	Prospering Suburbs	Constrained by circumstances	Typical Traits	Total Population
Mendip	14%	1%	42%	14%	5%	24%	107000
Sedgemoor	16%	1%	37%	18%	5%	23%	109600
South Somerset	18%	1%	45%	12%	5%	18%	156056
Taunton Deane	13%	3%	28%	15%	12%	28%	106600
West Somerset	16%	0%	57%	4%	6%	17%	35500
SOMERSET	16%	1%	40%	14%	7%	22%	514756

Whilst such contextual information regarding the population composition is a useful starting point, the addition of local survey data to such a classification provides further insight.

Using the resident Output Area of BVPI respondents as the georeference for segmentation it is possible to provide summary measures of satisfaction and

⁶ Source: 2001 Census, Area Classification of Output Areas, Crown copyright 2004. Crown copyright material is reproduced with the permission of the Controller of HMSO and the Queen's Printer for Scotland.

attitudes and so on for the different OAC neighbourhood types. Using a range of data the following summary points became evident:

- *Blue Collar Communities* do not believe that the local area is a place where people from different backgrounds get on well.
- *City Living* neighbourhoods are satisfied with the opportunities to participate in decision making and would only want to become more involved in decision making depending on the particular issue.
- *Blue Collar Communities* tend to believe that they can not influence decisions affecting the local area.
- *Constrained by Circumstances areas* are generally well satisfied with personal social services

This can be further summarised into a matrix, which characterises the different neighbourhood segments in Somerset. These data can then be mapped locally and spatial variations analysed on the ground.

	Population	Priorities for improvement	Key differences	Social Capital	Voice	General Satisfaction
<i>Blue Collar Communities</i>	16%	Teenagers, Crime, Traffic, Housing, Roads	Crime higher priority than norm	Low: large proportion believe different communities do not get on well	Low: high proportion believe they do not have a voice	<i>More dissatisfied than norm - especially for personal social services and education</i>
<i>City Living Countryside</i>	1% 40%	- Housing, Roads, Teenagers, Traffic, Public Transport	- Housing higher priority than norm	- High: 80% believe they get on well	- High: believe they can influence decisions (esp. in Taunton Deane) and like to be involved	- <i>Less likely to be satisfied with housing.</i> <i>Concern regarding fire services.</i>
<i>Prospering Suburbs</i>	14%	Teenagers, Traffic, Roads, Crime, Housing	average	average	Low: 72% do not think they can influence local decisions	<i>average - high</i>
<i>Constrained by circumstances</i>	7% (12% in Taunton Deane)	Teenagers, Traffic, Roads, Crime, Clean Streets	Groups around signs of social disorder (crime, dirty streets, teenagers, etc)	Medium-low: some communities from different backgrounds may not get on well	Above average A high proportion strongly agree they have a voice	<i>Very satisfied with most services (esp. social services and housing).</i> <i>Satisfied with opportunities to participate.</i>
Typical Traits	22%	Teenagers, Traffic, Roads, Crime, Housing	average	Higher: communities generally get on well	Average	<i>Satisfied</i> <i>Above average for education</i>

Arising from these illustrative analyses it was hypothesised that the above average satisfaction in the ‘Constrained by Circumstances’ group may be attributed to either:

- 1) the possibility that by random chance, a small group of local ‘champions’ were interviewed who were very active locally and highly satisfied; or
- 2) this group was disproportionately well served and engaged by the local authority and hence satisfaction was higher than one might expect.

Anecdotal evidence from the LGA Task Group meetings for the Satisfaction project suggested that the latter may well be the case; i.e. it might be that people living in areas classified as ‘Constrained by Circumstances’ are highly satisfied perhaps due to locally targeted authority initiatives. However, this may have been to the detriment of those ‘Blue Collar Communities’, in which people were relatively dissatisfied and unengaged.

7.1. *Segmenting a small, homogenous area – Uttlesford*

Step 1:	Collect and store standard information	Data were taken from the BVPI survey and the ONS Output Area Classification
Step 2:	Identify the key population segments	OAC Super Groups were used
Step 3:	Map, analyse and profile your data population	Using OAC and the survey data the profiles below were calculated

Uttlesford is one of 12 district authorities in the Essex County Council area. It is a largely rural area, with a relatively small and homogenous population.

Output Area Classification (OAC)	Population	Percentage Share
Blue Collar Communities	6874	10%
City Living	1162	2%
Countryside	28013	39%
Prospering Suburbs	19031	27%
Constrained by Circumstances	2989	4%
Typical Traits	13331	19%
	71400	100%

Whilst the population composition is not as diverse as one might expect with many larger metropolitan areas, this approach to segmentation remains of relevance and value to all authorities. Feedback from Uttlesford council senior decision makers regarding the findings has been very positive.

Headline findings in the Uttlesford analyses included:

- Anti-social behaviour does not seem to be a concern for the majority of the population, with the exception that 52% believe ‘parents not taking responsibility for their children’ is a problem.

- There is no significant variation (by different neighbourhood types) regarding the extent to which people from different backgrounds get on – consistently approximately 85% think they get on well.
- General levels of satisfaction with the local authority are high – average dissatisfaction of approximately 12-13% across services
- Of those that are ‘very dissatisfied’ with the local authority, 46% are within the *Prospering Suburbs*. Only 24% of respondents to this question come from this group.
- People living in *Blue Collar Communities* and *Constrained by Circumstances* areas are most likely to think the local authority has got better over the last three years.
- People living in *Typical Traits* areas are more likely to think things have got worse.

Despite concerns that such an approach may not prove as relevant in small homogenous areas as it is in larger more diverse authorities, the perceived value of segmentation by senior managers in Uttlesford was very positive and engaging.

7.2. *Identifying bespoke population segments in Birmingham*

Step 1:	Collect and store standard information	Data were taken from the BVPI survey and the ONS Output Area Classification
Step 2:	Identify the key population segments	Mosaic was used to create local segments
Step 3:	Map, analyse and profile your data population	Using OAC and the survey data the profiles below were calculated

The Birmingham case study was approached from a different perspective from that of the other case study areas. The base level of analysis conducted in Birmingham was somewhat more advanced than had been observed in smaller, more rural areas. This is to be expected given the relative size and challenges of different local authorities. Birmingham City Council is believed to be one of the leading authorities in terms of the level of development of segmentation analyses and hence the base from which these exploratory analyses began was rather higher.

Birmingham uses Mosaic Public Sector to segment the local population across different services. Mosaic, through the classification of every unit postcode in the UK, enables the linkage of many national data sets and external data sources to be attributed to the local level. Therefore, using such a postcode classification it is possible to attribute expected levels of satisfaction, attitudes, lifestyle characteristics, and other data to every neighbourhood within a study area. Such estimates provide valuable intelligence when locally collected data are not available, or where coverage is incomplete across a region.

Significantly, using a proprietary neighbourhood classification such as Mosaic it is possible to work within a national framework that enables comparisons across regions and localities, and furthermore provides the flexibility to develop bespoke local solutions that are customised to the needs of a local population.

In Birmingham, using the Mosaic Public Sector classification as a foundation, it was possible to categorise the population into seven custom segments for the analysis of customer satisfaction. These seven segments were aggregated from the standard 61 Mosaic types. These are summarised below.

	Birmingham	Birmingham %	England %	Index
Sought after Neighbourhoods	132,886	13.5	20.7	65
Middle Incomes	189,425	19.3	29.5	65
Older Terraces	135,747	13.8	17.4	79
Ethnic Newcomers	171,626	17.5	3.4	517
Social Housing : Flats	83,790	8.5	5.1	168
Social Housing : Dependency	127,875	13.0	6.5	200
Better Quality Social Housing	138,450	14.1	12.8	110
Population estimate	983,235	100.0	100.0	100

The nomenclature here intends to be illustrative and characteristic of the average traits of each segment. The naming process, however, is always contentious and sensitive and can detract from the fundamental purpose of segmenting – a statistical process and many hundreds of data sets have been analysed and clustered to produce different population segments. Subsequently, such clusters are prescribed short names to aid the user – these will always be an over-generalisation but do help in characterising the groups. However, Group A-G, or 1-7 would be equally valid.

The underlying data clustered for each segment provides a rich portrait of the traits of each segment. From this it is possible to characterise each group by way of a pen-portrait, for example:

Sought After Neighbourhoods



These neighbourhoods attract well educated professionals and business leaders, most of them living in large houses in large sized plots in established suburbs. This group also contains a number of more modern developments of smart flats, mostly designed for well educated singles and couples without children. These are areas

where people patronise the arts and pay marginal rates of tax of 40%.

Developing a customised segmentation model that builds on existing classifications requires some degree of expertise and competence with neighbourhood modelling. However, the concept remains simple and the results should be of value and relatively simple to interpret across many levels of local authority management:

Question and response code	Most sought after neighbourhoods	Middle Incomes	Older terraces	Ethnic Newcomers	Social housing : flats	Social housing : dependency	Better quality social housing
Overall, how satisfied or dissatisfied are you with your local area as a place to live?	Highest	High		Below average	Low	Below average	
Problem with parents not taking responsibility for the behaviour of their children	Low			Above average		High	Above average
Problem with people not treating other people with respect and consideration	Low					High	
Problem with noisy neighbours or loud parties					High	Highest	
Problem with teenagers hanging around on the streets	Low					Highest	Above average
Problem with rubbish and litter lying around	Low			Highest	High	High	Above average

8. What are the disadvantages of this approach?

During the course of the study, some concerns were voiced regarding the adoption of such an approach. One key issue was that such an approach may turn into a standardised national requirement, hence crushing rather than supporting local individuality and responsiveness. Used wisely however, the Customer Insight Protocol and segmentation approach should increase rather than hamper local options. It is very important that local authorities should be free to choose segmentation models that suit their own needs. These may be based on ONS data, commercially available software or locally sourced information and techniques; the Customer Insight Protocol leaves options open for each authority to seek and use data according to its own specific requirements.

8.1. *Is this safe and legal? Can we maintain confidentiality?*

A further concern raised during the project was for the confidentiality of data about individuals. In the course of this project, no individual could be identified from the data we worked with. The accompanying Customer Insight Protocol contains guidance on protecting identity, which should allay these concerns.

8.2. *Isn't this just stereotyping?*

It is accepted that such an approach does generalise individuals into categories. These categories can then be given names to help describe the typical traits of the segment. These are necessarily a crude over-generalisation and will never fully represent the full variation observed at the individual level. Using a postcode classification, for example, statistical segments may be created that cluster a number of demographic and lifestyle characteristics into different categories. Subsequent descriptions of these categories or communities are fundamentally based upon the concept of 'ideal types' to which each postcode in each category fits to a greater or lesser extent. These are therefore indicators rather than explanatory variables. Furthermore, emotive nomenclature can sometimes prove controversial in the implementation of such systems. This can detract from the fundamental, underlying rationale for segmentation, which is to understand better different sections of the population.

Any stigmatisation through inappropriate labelling of categories should be avoided where possible, and the underlying process should be seen as a robust, open, objective and defensible categorisation. Ultimately, categorising communities or individuals using customised segmentation techniques should be seen as no different from generally accepted segmentation techniques such as; Indices of Deprivation, age-sex standardisation, analyses by ethnicity, means-testing, or simply comparisons by local authority area.

8.3. *Doesn't this reinforce prejudices towards minority groups?*

The approach outlined here should certainly enable the identification of 'high risk' groups, be that for those population segments most are likely to be dissatisfied with the local authority, or for minority communities that do not feel they can significantly affect change or influence decision making. Such a segmentation model may correlate with, say, minority ethnic communities. However, this approach is not intended to be used to discriminate positively or negatively. Rather it highlights those population segments for which different services might be most appropriate, it may help develop priorities for different areas, or it may illustrate current practices that are inadvertently prejudicing or disadvantaging different population segments. There are dangers associated with any segmentation model – these could be used for negative purposes – but the approach outlined here is again no different from segmenting simply by area (e.g. by priority ward), by deprivation (e.g. by Index of Deprivation scores), by age, by sex or by ethnicity. The same principles apply and the same safeguards and responsible use policies should be used.

8.4. *Can we future proof analyses for different segments?*

Using the framework outlined here, and those standards detailed in the Customer Insight Protocol, will future proof segmentation analyses as far as is reasonable. For example, postcodes are variable and may change over time, but these are recorded by the Royal Mail and updates provided. Date of birth in a standard format is very likely to remain of relevance. Ethnicity classifications do change, but the Office for National Statistics will advise and develop look-ups across different classifications, as far as is reasonable. The approach here is flexible and any segmentation model could be recreated to incorporate such changes.

8.5. *Is this expensive?*

Some authorities during the study expressed a concern about costs; worrying that adopting complex segmentation is going to be expensive and will divert resources away from front line services. This is one of the key reasons why a flexible solution is advisable, which allows some authorities to opt for complexity whilst others might find it a significant step forward to adopt a relatively simple segmentation (e.g. older people and younger people, urban and rural and so on). If such a simple model were applied rigorously to strategy and delivery there may be much to gain in terms of insight for very little additional cost.

A segmentation approach can be relatively cheap, and need not necessarily involve any external proprietary system. Furthermore, the entire approach is built on the prospect of leveraging considerable extra value from existing data resources, subsequently making both efficiency savings and improved customer satisfaction.

9. Where can I find out more?

Please refer to the accompanying Customer Insight Protocol for further technical detail from this study.

Below are a number of useful reference sources for further information. This list is not intended to be comprehensive but represents a valuable cross-section of resources from which further information may be available.

The Office for National Statistics and Neighbourhood Statistics websites are a very useful starting point to obtain data and information relating to standards, etc.

- www.statistics.gov.uk
- neighbourhood.statistics.gov.uk

Useful resources regarding Data Protection and information management include:

- The Information Commissioner's Office: www.ico.gov.uk
- Records Management Society: www.rms-gb.org.uk/resources/140 (specifically Data Protection Code of Practice for Records Managers and Archivists 2007)
- National Statistics Code of Practice - www.statistics.gov.uk/about_ns/cop/

ONS Area Classifications (Local Authority, Ward, Health Area and Output Area) are online at www.statistics.gov.uk/about/methodology_by_theme/area_classification/. The Output Area User Group website can be found at www.areaclassification.org.uk.

Area profiling techniques and methods are detailed in a variety of sources, including:

- Audit Commission Area Profiles: www.areaprofiles.audit-commission.gov.uk
- The Audit Commission neighbourhood profiling guide www.audit-commission.gov.uk/neighbourhoodcrime/profiling.asp (primarily for crime/anti-social behaviour profiling)
- University College London's Spatial Literacy resources on profiling: www.spatial-literacy.org/index.php?p=crime&s=audit

Proprietary neighbourhood classification and data providers:

- Experian Business Strategies (Mosaic) www.business-strategies.co.uk
- CACI (Acorn) www.caci.co.uk/acorn
- Beacon Dodsworth (P² People & Places) www.beacon-dodsworth.co.uk

Other solutions are available.

Survey providers and experts in the field can be found in the Market Research Society research buyers' guide <http://www.rbg.org.uk/>.

Electronic Service Delivery (ESD), particularly the ESD Toolkit and ESD Standards, should also be highlighted. esd-toolkit is a hosted, secure, online resource that enables all local authorities to record their public facing services against a comprehensive list of services, processes and interactions. esd-standards features controlled lists suitable for populating metadata associated with local government resources. Further information on both can be found at www.esd.org.uk.