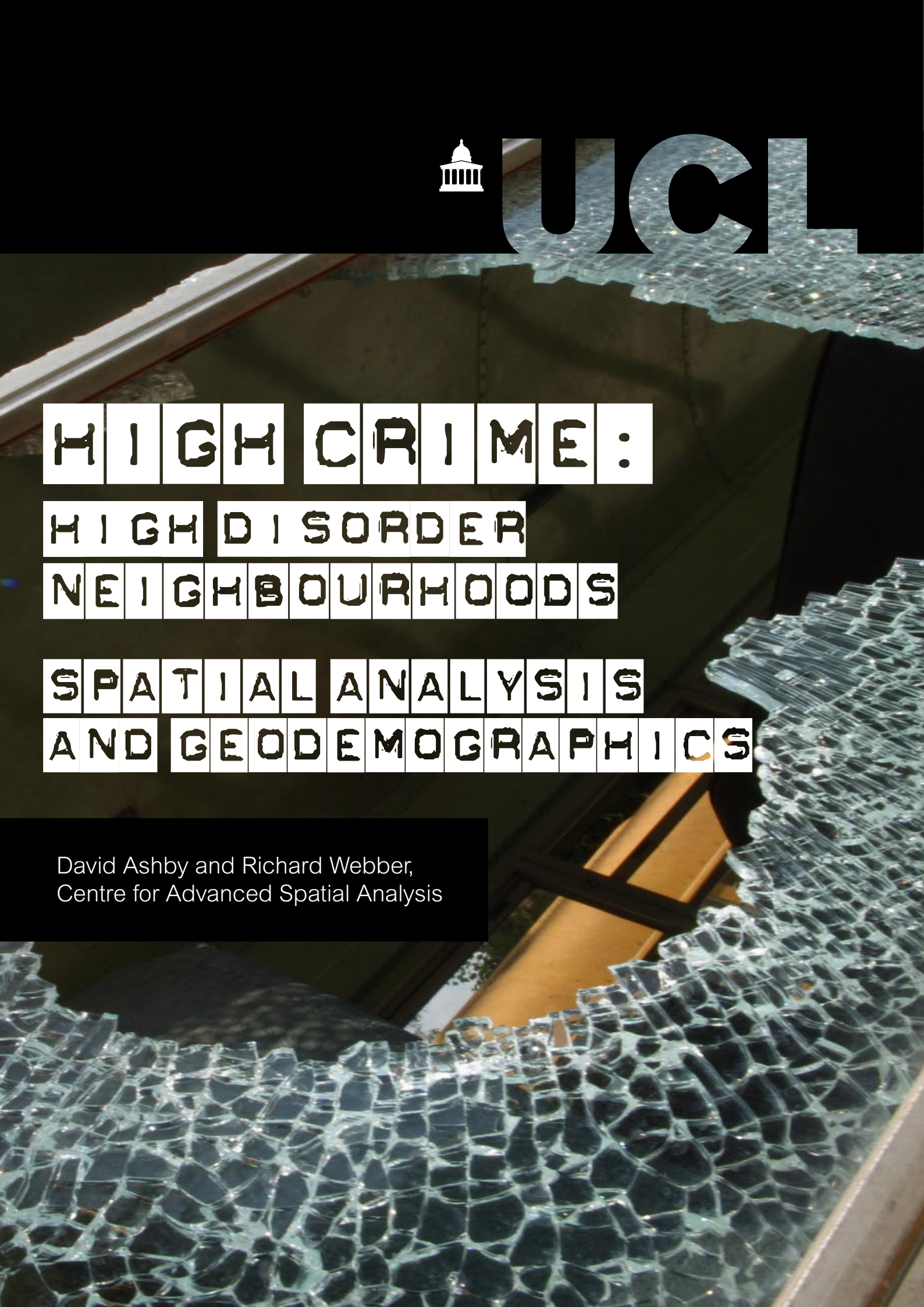

HIGH CRIME: HIGH DISORDER NEIGHBOURHOODS

SPATIAL ANALYSIS AND GEODEMOGRAPHICS

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1 Executive Summary

1.0.1 The Audit Commission expressed an interest in commissioning the geospatial analysis and geodemographic analytical profiling of ten small areas that were selected for study under the *High Crime: High Disorder Neighbourhoods* project. University College London's (UCL) Centre for Advanced Spatial Analysis (CASA) conducted this consultancy project to provide exemplar case-study evidence, and to advise on the appropriate methodologies, data sources and analytical techniques which may assist the Audit Commission in delivering their project specification.

1.0.2 The ten study wards (pre-selected as 'high-crime' areas) within five CDRP/CSP regions were identified as follows;

Crime & Disorder Reduction / Community Safety Partnership	Electoral Wards	
Liverpool	Anfield	Warbreck
Bradford	Tong	Eccleshill
Rhondda Cynon Taf	Pen-y-Waun	Talbot Green
Thanet	Cliftonville West	Newington
Kerrier	Redruth North	Illogan South

1.0.3 Geodemographic analyses and exploratory spatial analysis of a wide range of data sources were prescribed. Data supplied by the Audit Commission were analysed in conjunction with those made available by the authors and their research partners.

1.0.4 A proprietary geodemographic typology was used to classify every unit postcode (c. 15 households) residing within each of the study wards. The neighbourhood typology used classifies postcodes into 61 types (labelled 1 – 61) which can be further aggregated up to 11 broader groups (labelled A–K). A geodemographic classifier has been appended to all data sets supplied by the Commission for neighbourhood based analyses.

1.0.5 A variety of data sets were considered, explored and analysed on behalf of the Commission for each of the ten wards. These data included some of the following for each ward.

- Recorded crime
- Reports of abandoned waste (fly-tips) / vehicles
- School exclusions
- Benefit fraud – allegations / investigations
- Emergency requests (valid and hoax) – ambulance / fire and rescue
- Anti-social behaviour – general / dogs / noise / smoke
- Assaults on fire and rescue / local authority staff
- Incident reports – police / British Transport Police / CCTV control
- Damage to highway utility equipment / public amenity facilities / school buildings / social housing communal areas / street lighting
- British Crime Survey (BCS)
- Pupil Level Annual School Census (PLASC)
- Mosaic UK neighbourhood classification (with associated data profiles)

1.0.6 The analyses presented here suggest that geodemographic profiling is an efficient tool for identifying and isolating the relative occurrence of salient communities at a local level (e.g. ward) compared with the country as a whole. Furthermore, these analyses suggest that there is merit in profiling 'communities' against both the national average, and the local authority districts (or CDRPs/CSPs) of which they are part.

1.0.7 The interpolation of British Crime Survey data to the unit postcode level using geodemographics as a 'bridge' does, we believe, show patterns which support rather than conflict with evidence from local policing operations. Evidence presented here suggests that the modelling of national survey data, such as the BCS, is consistent with observations from those local operational data sets supplied by the Audit Commission.

1.0.8 Furthermore our experience suggests that such modelling of national data sets and the description / classification of local area population composition largely confirms and supports local knowledge on the ground. Such assertions should be reliably verified through a continuous review process as these techniques are adopted in an increasing number of domains and areas.

1.0.9 The linkage of further national databases (such as the Pupil Level Annual School Census and young offender data from the Youth Justice Board) provides an additional intelligence resource which is largely overlooked at a local level. The geodemographic model presented here provides a framework for leveraging extra value from such nationally available data sets, and facilitates the extrapolation of modelled trends to a very local level.

1.0.10 The analyses, methodology and framework presented here provide a most important additional intelligence resource for local service provision in addressing High Crime and High Disorder Neighbourhoods. Geodemographics and associated spatial analyses are never likely to become a panacea for local area analyses and neighbourhood service delivery (nor do we purport this to be so). However, we do advocate the adoption, consideration and review of these more advanced spatial analytical techniques at a strategic level to complement standard crime mapping and local analytical practices.

2 Context

2.0.1 The principal objective of the project was to evaluate the extent to which spatial analysis and geodemographic profiling may prove of benefit to the Audit Commission, their stakeholders and their subjects, in their endeavours to address a variety of problems and issues in high crime and high disorder neighbourhoods.

2.0.2 It is accepted that significant research and front-line resource has already been directed towards the use of spatial analysis and Geographical Information Systems (GIS) in policing. Suggestions for further reading (see page 104) are provided on such topics, whilst this report maintains a focus on advancing contemporary common analytical practices and highlighting new directions within this domain. We do not review or provide any detailed commentary upon the state of crime mapping in UK policing which can be found elsewhere (see Policing Standards Unit, 2005).

2.0.3 Increasing significance and impetus has been waged upon local area service provision and neighbourhood-level strategy development in recent years. Government policy and much political rhetoric now concerns the *New Localism*, the 'neighbourhood', the 'local', citizen-focused service delivery and evidence based policy. Furthermore, the drive to adopt the best practice of business and develop the customisation of policing is also of relevance here. It is within these contexts which our research interests at CASA, and this report should be read.

2.0.4 We refer here to **geodemographics**; 'the analysis of people by where they live' or 'locality marketing' (Sleight, 2004). Detailed definitions and histories are offered in a number of works (Brown, 1991; Batey and Brown, 1995; Birkin, 1995) and it is generally accepted that the term refers to small area typologies which discriminate neighbourhood type and often 'consumer' behaviour. In essence the maxim of 'birds of a feather flock together' is utilised to characterise neighbourhoods and analyse likely behavioural patterns. Whilst the dominant applications of geodemographics throughout the late 1970s, 1980s and 1990s were in the financial and commercial sectors, the origins of the technique lie in deprivation analysis and thus the public sector (see Webber, 1975; 2004). Geodemographics now sustains a multi-million pound industry in the UK, and a significant research domain.

2.1 Why treat neighbourhoods differently?

2.1.1 The key argument for devolving responsibility for policing to individual forces 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 different forces. Key issues in a metropolitan force serving multi-cultural communities will

clearly differ from those that are important to residents of forces covering retirement areas, predominantly rural areas or ex-mining communities. However, no adequate framework has yet been developed to enable *local* service delivery within a national context from which one can share best-practice and assess comparative performance.

2.1.2 Just as the population composition of the areas covered by police forces varies from force to force so too does the population make up of the different neighbourhoods and communities served by any one force, any one BCU or indeed contained within any one ward. No ward is entirely homogenous in terms of its population structure. Example findings presented later in this report highlight the extraordinary extent of heterogeneity observed within small area geographies (wards), which may be erroneously considered as homogenous in policy, assessment, resource determination and strategy.

2.1.3 These different communities differ not just in terms of their incomes, age distributions, levels of deprivation, and proportions of families with children, etc., but they also differ in terms of the level of offending and victimisation among their residents. They differ in terms of the types of crime which are perpetrated; in terms of how they communicate these crimes to the police and in terms of the speed of police response and clear up rates. They likewise vary in terms of their attitudes towards the police, the effectiveness of neighbourhood watch schemes and the appropriateness of different crime prevention strategies. Whilst postcode marking may prove a very effective policing strategy for student areas around universities, campaigns to alert pensioners to the danger of rogue callers may be a much more appropriate use of police resources in Scarborough or Worthing. It is a common oversight in much criminological and evidence-based policy research whereby neighbourhood context is inadequately accounted for in analysis.

2.1.4 It is contended here that most who are involved in the delivery of services to the community, e.g. doctors, teachers, social workers and the police, understand these local differences and some intricate nuances. Indeed, most are given *some* freedom to adapt the way in which they deliver their services to take into account local needs and circumstances. Unfortunately, the nature of this customisation of service delivery has tended to be individual, personal and seldom reflected in any systematic strategic recognition on the part of the service delivery agency as a whole. Different individuals have developed their own views from their own personal experiences. These views are not shared, conceptualised or organised in the consistent manner that would be necessary for them to inform policy at the level of the force or indeed nationally. The manner in which operational data are organised does not allow the service to come to a common agreement of which communities share similar characteristics and therefore common needs, and does not allow incident data to be used to measure which policies are appropriate for different communities, or to identify the environments in which

different strategies work best. The challenge here is to develop an analytical framework which addresses these reservations.

2.1.5 Furthermore, whilst local knowledge of service providers is an essential intelligence resource in neighbourhood service delivery, academic research has identified that perceptions often differ significantly to the observed spatial trends. Ratcliffe and McCullagh (2001), amongst others, have analysed the great differences witnessed between those crime hotpots perceived by local Police Officers with those actually observed in the recorded crime data. Such inconsistencies should be highlighted and should emphasise the great value provided by crime analysts working at a local level.

2.1.6 The use of geodemographics can assist in the description and identification of neighbourhoods at elevated risk of particular incidents, attitudes and behaviours. Geodemographic methodologies can be used further to develop appropriate response strategies and assist the police in effectively engaging with their local communities.

2.1.7 The research consultancy presented here can also be examined from both 'reassurance policing' and social capital perspectives. The authors' research extends into these areas and previous projects include collaborations with the National Reassurance Policing Programme.

2.2 Research and Policy Foundations

2.2.1 Whilst much contemporary performance assessment literature and strategic management models within UK policing increasingly drive towards enhanced public accountability and the delivery of those services of most importance to local communities, the framework for delivering and assessing policing at a neighbourhood level is underdeveloped. The *new localism* agenda apparent within public service reform has of yet failed to address many of the most important and fundamental data management requirements necessary for the effective and efficient service delivery at a local level. The geodemographic tradition, though developed to a greater degree in the private rather than in the public sector over the past two decades, nevertheless does address such a void of knowledge and expertise. Furthermore, geodemographics enables analysts to examine truly local trends at a spatial granularity far finer than the administrative geographies typically used as the basis for the mapping of operational datasets.

2.2.2 A multitude of research studies over past decades have consistently shown the extent to which social disadvantage is disproportionately concentrated in a limited number of areas with high levels of deprivation. More recently researchers have begun to quantify the extent to which high crime incidence and social disorder is related to elevated levels of social

disadvantage. However, variations in the level of social disadvantage in different areas can be measured in a number of different ways. One popular approach involves the ranking of administrative wards on a composite index of social disadvantage constructed from a number of individual indicators of disadvantage. This method places each UK ward on a continuum from least to most deprived. Many social programmes are targeted at wards in the 'worst' 10% or 20% on this composite score.

2.2.3 The approach used in this analysis is somewhat different and relies on techniques pioneered during the Liverpool Inner Area Study in the early 1970s and enhanced during the 1980s and 1990s in the commercial sector by many of the country's leading retailing and financial organisations. This approach starts from the proposition that socially disadvantaged areas differ in terms of their pathology of social disadvantage as well as in terms of their level of disadvantage; that there exist qualitatively different types of disadvantaged areas; that their different forms of social disadvantage originate from significantly different historical trajectories; and that the different types of neighbourhood are often suited to quite different types of priority area programme (Ashby, 2005; Ashby and Longley, 2005; Webber 1978a; 1978b; 1985; 1998, Webber and Craig, 1978; Webber and Evans, 1995; Webber and Nairn, 1999; Webber and Farr, 2001; Williamson *et al.*, 2005).

2.2.4 Whilst Indices of Deprivation are of certain value to strategic policing, we argue that multivariate typologies can offer significant and complementary insight, two specific advantages of which are outlined below:

- Primarily, traditional analytical methodologies regarding deprivation studies utilise aggregated data which are often further reduced to some classification scale from least to most deprived. This may even be a binary code, for example whether or not an area is considered within the most deprived twenty per cent. One fundamental concern here is the nature of the data aggregation. To elaborate, if income is aggregated for a Local Authority District, the mean or median statistic used will invariably conceal a variety of conditions. Using these summary measures for such an area with an average household income of £30,000 may be appropriate for a homogeneous population where this is typical of the constituents. However, if such an area contained two or more very different estates, (e.g. one with an average income approaching £50,000 and the other below £20,000) the social, environmental and criminological conditions are likely to be very different. Such tendency towards a potentially misleading crude aggregate average statistic is ameliorated by a multi-variate geodemographic approach which explicitly recognises such non-uniformities, and operates at a finer spatial scale.
- Secondly, whilst a deprivation score alone may serve as an effective proxy for crime rate, it provides little assistance in identifying the most efficient form of service delivery or of targeting communication. Geodemographics is particularly valuable in the targeting of specific interventions such as the distribution of literature promoting the need for heightened awareness as in the case of rogue meter readers, for example.

2.2.5 The geodemographic approach depends on the construction of a typology of UK neighbourhoods, built using statistics at the finest level of geographic resolution possible,

whereby each of the UK's 1.6 million postcodes is assigned to one of 61 different 'Mosaic' neighbourhood types and 11 aggregate neighbourhood groups (see Appendix 1 for further detail). The precise nature of these 61 neighbourhood types is determined by the cluster analysis of over four hundred data variables. This seeks to create a set of neighbourhoods which are as different from each other as is possible across an extensive range of small area demographic indicators.

2.2.6 This statistical process results in every one of the country's 1.6 million postcodes being assigned to the type of neighbourhood that it best fits. The relationship between postcode and type of neighbourhood thereby makes it possible to take any file of administrative records which contains the postcodes of a client group; to identify which types of neighbourhood have the highest overall incidence of clients (such as victims of crime); and to identify which types of neighbourhood have the highest incidence of specific categories of client (such as victims of a particular crime type).

2.2.7 Prior to this study, this geodemographic methodology has been used by the authors to analyse the relationship between type of neighbourhood and the wide variety of questions covered in the British Crime Survey. It has also been used to analyse the relationship between neighbourhood and a wide variety of characteristics held on the crime incidence files of a number of police forces, for youth crime incidence within Nottinghamshire (in association with the Youth Justice Board), and in some pilot study analyses for the National Reassurance Policing Programme.

2.3 Geodemographics and Mosaic UK Overview

2.3.1 In this report we use the Mosaic UK proprietary geodemographic typology which is developed by Experian Business Strategies. Other geodemographic classifications exist including ACORN (Caci Ltd.) CAMEO (EuroDirect) and a new National Statistics 2001 Area Classification. Professor Webber, the co-author of this report, is the original author of both leading geodemographic classifications in the UK (Mosaic and Acorn). See Sleight (2004) for comprehensive listings and details of the various geodemographic solutions available and forthcoming.

2.3.2 Mosaic UK classifies each of the 1.6 million postcodes in the United Kingdom into one of 61 neighbourhood types and 11 aggregate groups. Each of the 61 types and 11 groups are identified by a 20 character label and code (01-61 and A-K). Each of these types of neighbourhood is attributed a label such as 'Counter Cultural Mix', 'Coronation Street', 'Corporate Chieftains' or 'Childfree Serenity'. These labels have met some resistance in public sector applications with some Police Forces adopting the convention to only refer to the codes

(e.g. G43) rather than the full labels (e.g. G: Municipal Dependency, G43: Ex-Industrial Legacy). The inherent difficulties in reducing 400 data variables to sharp 'characteristic' labels are acknowledged and whilst issues regarding nomenclature remain, we do use the labels in this paper for identification purposes.

2.3.3 On average each unit postcode contains just 15 addresses. Examples of unit postcodes are SW1P 4HQ, CF37 5TF, or L69 2DH. See Figure 1 for an illustration of UK postal geographies.

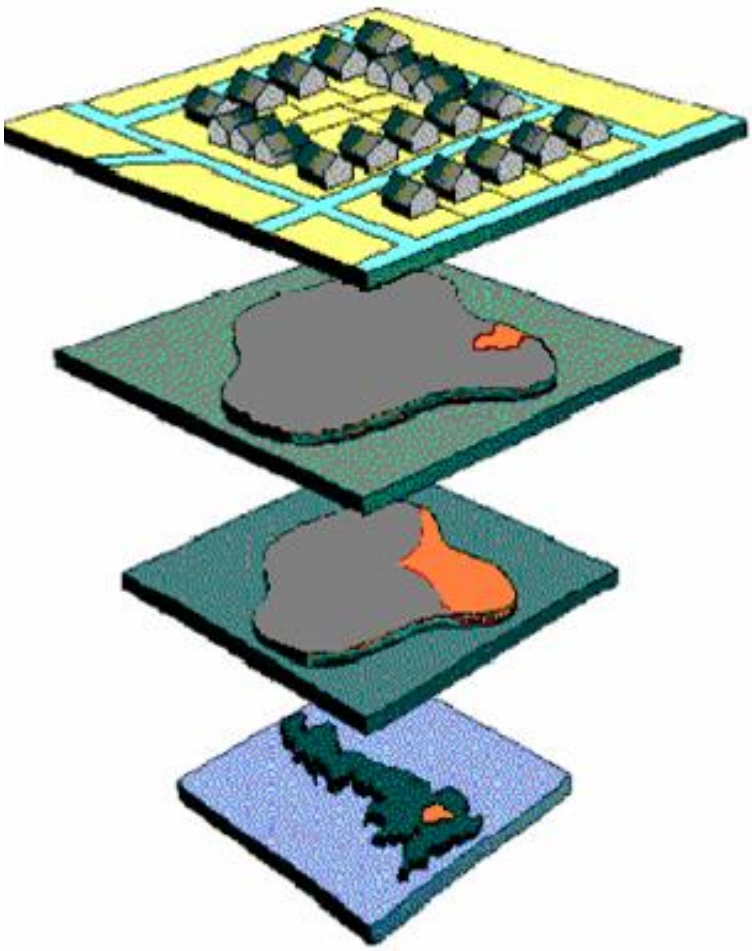

Figure 1: UK postal geography hierarchy

2.3.4 In order to place postcodes as accurately as possible into an appropriate classification Mosaic UK makes extensive use of the statistics published by the Office of National Statistics based on the returns from each decennial census. These statistics are supplemented with summary data gleaned from other public data sources such as the electoral register, the Postal Address file, Companies House and shareholders files. These supplementary data sources are helpful in that they provide information at full postcode level, unlike the Census which reports on groups of adjacent postcodes for units referred to as Census Output Areas. Because the non census data sources are updated on an annual basis it is possible to assign classification codes for new postcodes (for example as and when new houses/estates are built) and to modify the

classification for existing areas whose demographic profile changes significantly between the publication of statistics from successive Censuses.

2.3.5 Approximately 54% of the c.400 variables used in developing the Mosaic UK classification are obtained from the Census 2001 with the remainder originating from a variety of sources including those outlined above. Further details regarding the construction of the classification are given in the Mosaic UK documents accompanying this report. Webber (2004) also further discusses in detail how such classifications are created.

2.3.6 Designed originally to support the analysis of inner city deprivation, geodemographic systems such as Mosaic UK have been adopted by most of the country's most successful banks and retailers and now play an integral role in the way motor manufacturers manage their dealers, media owners promote themselves to advertisers and developers evaluate the size of local markets around proposed new shopping centres.

2.3.7 A key reason for the adoption of these classifications is that many of the country's leading market research companies have classified the respondents to their surveys according to the types of neighbourhood in which they live. This would help Tesco, for example, to identify whether a particular store's catchment area was rich in the types of people who would tend to purchase specialist cheese or would allow a manufacturer of conservatories to avoid dropping promotional literature through letter boxes in high rise flats. The British Crime Survey is an example of a national research survey that can now be analysed in this way to show, for example, whether residents in rural areas suffer lower levels of victimisation that urban ones and, if so, by what amount.

2.3.8 The practical benefit of the link between postcodes and classification codes is that it allows organisations to code their operational files with the types of neighbourhood in which different 'clients' live. It is by this means that a bank can gauge whether a particular customer is likely to be a good prospect for a credit card, or a cable TV company identify which of its customers are likely to be interested in Asian or Cypriot channels. This link is also relevant to policing since it makes it possible to establish in which sorts of neighbourhood residents are most or least likely to experience particular types of incident and how one might best engage with these communities.

2.3.9 The public sector has been slower than commerce to adopt geodemographic techniques. However, there are now many examples of successful public sector applications. If your child applies to university the admissions organisation UCAS will append to his or her application the Mosaic UK code of your postcode and may increase your child's chance of a university place should you be living in a neighbourhood classification such as 'Ex-Industrial Legacy' or 'Upper Floor Families'. Likewise the TV Licensing office has for many years used geodemographic classifications to target addresses where licence fee evaders are most likely to

live. Health is another service where geographers are increasingly recognising the relationship between the likelihood of recovery from an operation and the type of neighbourhood in which patients live. Health authorities such as Slough PCT have also found geodemographics an effective tool for targeting their diabetes/obesity concern campaign literature to the types of residents to whom this is particularly pertinent.

2.3.10 The UK has an international lead in the supply and provision of geodemographic products, and CASA is at the vanguard of applications in public sector applications for policing, health (Primary Care Trusts and Dr. Foster) and education (UCAS, PLASC).

2.4 Report Structure

2.4.1 The following sections of this report are structured to highlight the key findings of those data analysed on behalf of the Audit Commission. All data sets supplied to the authors have been coded and profiled by Mosaic UK and have been converted into a mappable form. Where necessary, data have been geocoded and imported into the MapInfo GIS format. All processed data are supplied back to the Commission, with all images, profiles, maps and charts of our analyses.

2.4.2 A wealth of data was supplied by the Commission and was made available by the authors. Within the constraints of this report it has proven impossible and unfeasible to discuss and comment upon all those data sets accessible to this project. Key and significant findings are represented, and all remaining data accompanying this report are supplied for further analysis by the Commission as deemed appropriate.

2.4.3 The report is structured to primarily present the geodemographic composition of all ten wards. Subsequent analyses, maps and discussions are formed around key data sets (such as the British Crime Survey, Pupil Level Annual School Survey) and those data supplied by the Commission. In the case of the latter, many data sets proved to contain too few records for any meaningful geodemographic profiling and statistical analysis at this juncture. An outline of the related data specifics were supplied to the Audit Commission in a Technical Annex to this report.

2.4.4 Profile values are cited throughout this report. These profiles are displayed in the form of a set of 11 (or 61) 'index' values, one for each Mosaic group (or type) such that an index score of 100 indicates a level of occurrence of that variable, such as 'theft from a car', equal to the average or expected level. Depending upon the data set being analysed the 'average' level to which 100 corresponds may be the national average score or the average for the Local Authority District (LAD) whose operational data is being analysed. A score of 120 would indicate a level 20% above the national/study area average and a score of 200 twice the expected rate.

These index values are used to calculate propensities for victimisation, criminal offences, attitudes, and also in the visualisation of the neighbourhood composition of wards compared to the national average distribution.

2.4.5 The geodemographic composition of each ward is summarised in tabular form at the aggregate 11-group level. Pie charts have been created for each ward to illustrate the distribution of the population in each ward, by Mosaic Group. Furthermore, each table provides an index score for each group relative to the National population ('UK Base') and the Local Authority District ('LAD Base'). These have been charted and included in the report where appropriate. These charts are available for all areas on the accompanying CD in the spreadsheet data files.

2.4.6 Illustrative maps have also been included in the report and example index profiles mapped for each ward. Any and all of those profiles presented here (in any form) can be mapped for each ward as necessary. Those included in this report are significant illustrative examples of the multitude of outputs which are available.

2.4.7 The analysis presented in this report is supplemented with detailed commentaries by a leading protagonist in the field of geodemographics; Professor Richard Webber. These commentaries are presented in the Boxes spread throughout the report and provide detailed interpretations of the geodemographic composition and likely community characteristics of each area.

3 Neighbourhood Composition of Study Wards

3.0.1 This chapter sequentially provides an outline of the geodemographic composition of the ten wards selected for this study. A *basic* knowledge of the demographic make-up of the wards is assumed, as such information is available elsewhere, and local analysts are likely to be familiar with such resources (e.g. the Neighbourhood Statistics website which has been recently updated).

3.0.2 Summary statistics, to the ward level of spatial granularity, are freely available through the ONS Neighbourhood Statistics programme[1]. Such statistics are commonly used with Census Statistics (down to Output Area geographies) to provide 'small area' analyses of different neighbourhoods. However, these fail to adequately highlight much of the heterogeneity present within wards, or even the smaller Census Output Areas.

3.0.3 Experian use ONS statistics with complementary data from their Consumer Segmentation database to create a national framework which clusters similar neighbourhoods at a very fine spatial granularity. Such value-added data effectively highlight subtle neighbourhood differences within cruder aggregate areal units of analysis. The geodemographic classification also offers a large volume of neighbourhood profiles which provide a valuable insight into the composition of neighbourhoods at a level of spatial aggregation otherwise unavailable through National Statistics.

3.0.4 Whilst the Mosaic 61-type classification may be appropriate for a bank experienced in the use of market segmentation for customer communications, the coarse 11 level classification is probably more appropriate for an illustration of concept within the policing domain. Whilst we intend not to overly complicate this report with detailed discussions of the intricacies of variations at the 61-type level, some identification at this level will be made where appropriate.

3.0.5 Due to the nature of the small-area analyses conducted here, and consequently the low frequency of crime incidents and victim data to process, the data profiles may contain some instability at the 61-type level. Greater confidence can be placed in those profiles with larger underlying target and base counts. Therefore, the aggregate 11-group level classification may prove most applicable for some portions of these analyses.

3.0.6 Further detail pertaining to the geodemographic typology used here is available in Appendix 1, the digital data files and Mosaic UK Dictionary supplied with this report.

[1] http://neighbourhood.statistics.gov.uk

3.1 Anfield ward (Liverpool CDRP)

3.1.1 Anfield ward in Liverpool is amongst the larger of those study areas profiled in this study with a population of over thirteen thousand. Table 1 and Figure 2 summarise the geodemographic composition of the population of Anfield. Furthermore, index profiles are illustrated in Figure 3 and the spatial distribution of different neighbourhood groups mapped in Figure 4. Similar, comparable representations will be made for each study ward.

3.1.2 Table 1 compares the relative population distribution in Anfield, by Mosaic UK Group, with that of the nation as a whole (UK base) and Liverpool (LAD base). Figure 3 also illustrates these index scores for Anfield's population distribution relative to that of the UK. To reiterate, those index profiles created for each of the Mosaic UK groups are standardised scores. Here a value of '100' represents the average or expected value, a value of '200' denotes that such an observation is twice the average, and an index value of '50' denotes the observed value is only half that which one would expect. Similarly, for all subsequent bar charts, those values above the x-axis (y-axis value=100) are overrepresented in the ward and those below this value are underrepresented.

	Mosaic UK Group	Population	% Population	Index (LAD base)	Index (UK base)
A	Symbols of Success	*0*	*0*	**0**	**0**
B	Happy Families	*304*	*2*	**36**	**19**
C	Suburban Comfort	*0*	*0*	**0**	**0**
D	Ties of Community	*7,995*	*59*	**327**	**364**
E	Urban Intelligence	*0*	*0*	**0**	**0**
F	Welfare Borderline	*1,524*	*11*	**89**	**212**
G	Municipal Dependency	*2,434*	*18*	**66**	**260**
H	Blue Collar Enterprise	*733*	*5*	**82**	**46**
I	Twilight Subsistence	*550*	*4*	**152**	**142**
J	Grey Perspectives	*0*	*0*	**0**	**0**
K	Rural Isolation	*0*	*0*	**0**	**0**
	Total	***13,540***	***100***		

Table 1: Mosaic UK Group profiles for Anfield, Liverpool.

3.1.3 In Anfield the predominant postcode classification is *Group D: Ties of Community* which accounts for some 59% of the resident population. Within this group, interestingly the distribution at the type level is predominantly within the 'D24: Coronation Street' (36%) and 'D23: Industrial Grit' (18%). Despite a disproportionately high number of D24 areas being located in Liverpool as a whole (over fourteen times the expected rate), Anfield compared to the Liverpool CDRP still contains three and a half times the proportion of these areas.

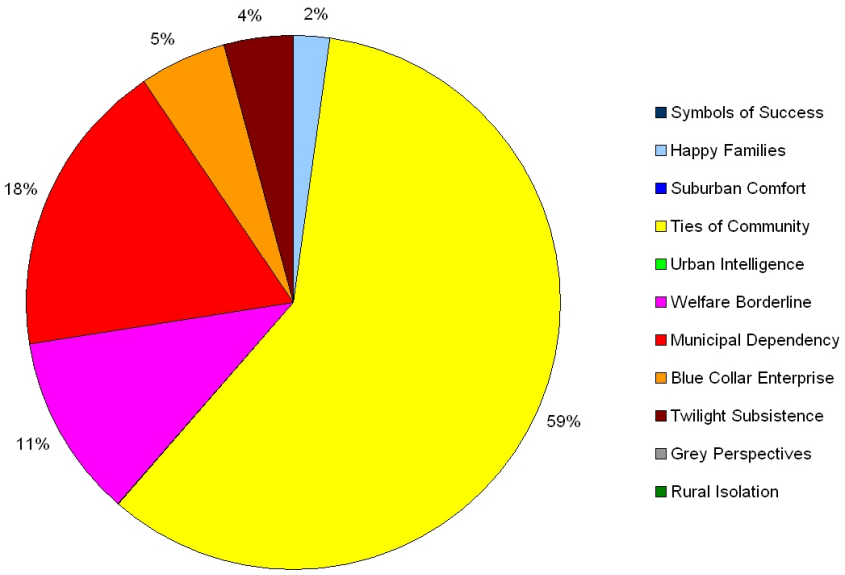

Figure 2: Mosaic UK Group population distribution within Anfield, Liverpool

3.1.4 Figure 2 illustrates the prominence of Groups D, F and G in Anfield. To compare this to the UK as a whole Figure 3 illustrates the index values observed for all Mosaic Groups.

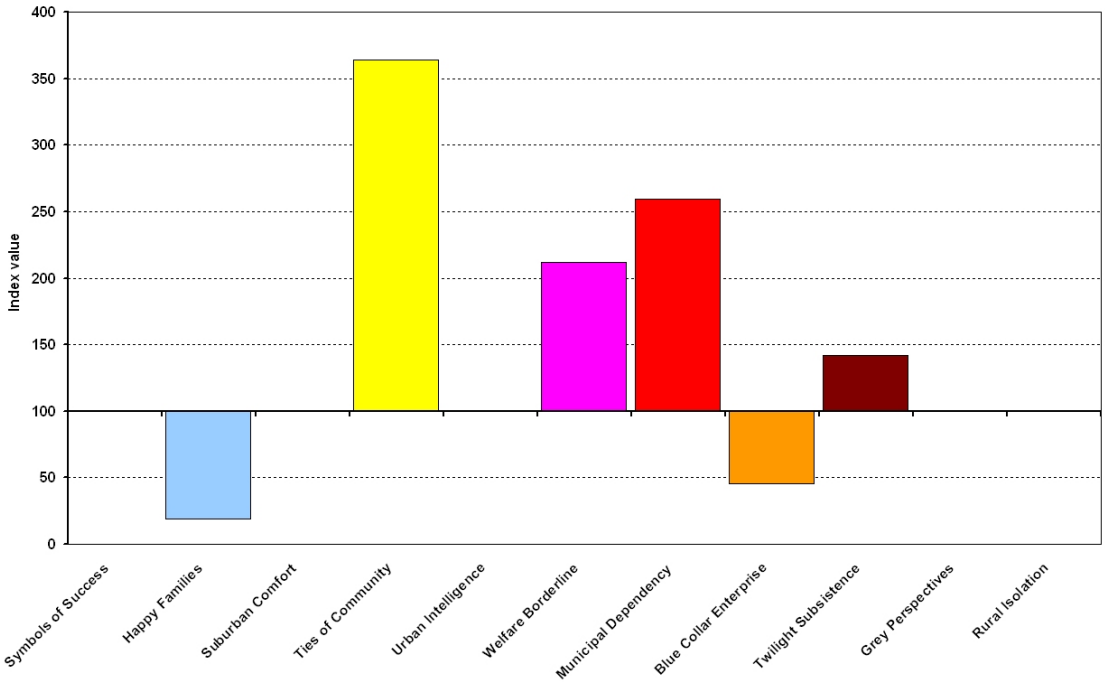

Figure 3: Anfield population index values by Mosaic UK Group, UK base.

3.1.5 Figure 4 illustrates the spatial distribution of Mosaic groups, by unit postcode centroid in Anfield. The heterogeneity of the ward is illustrated, and the juxtaposition of different neighbourhood types adjacent to one another is apparent.

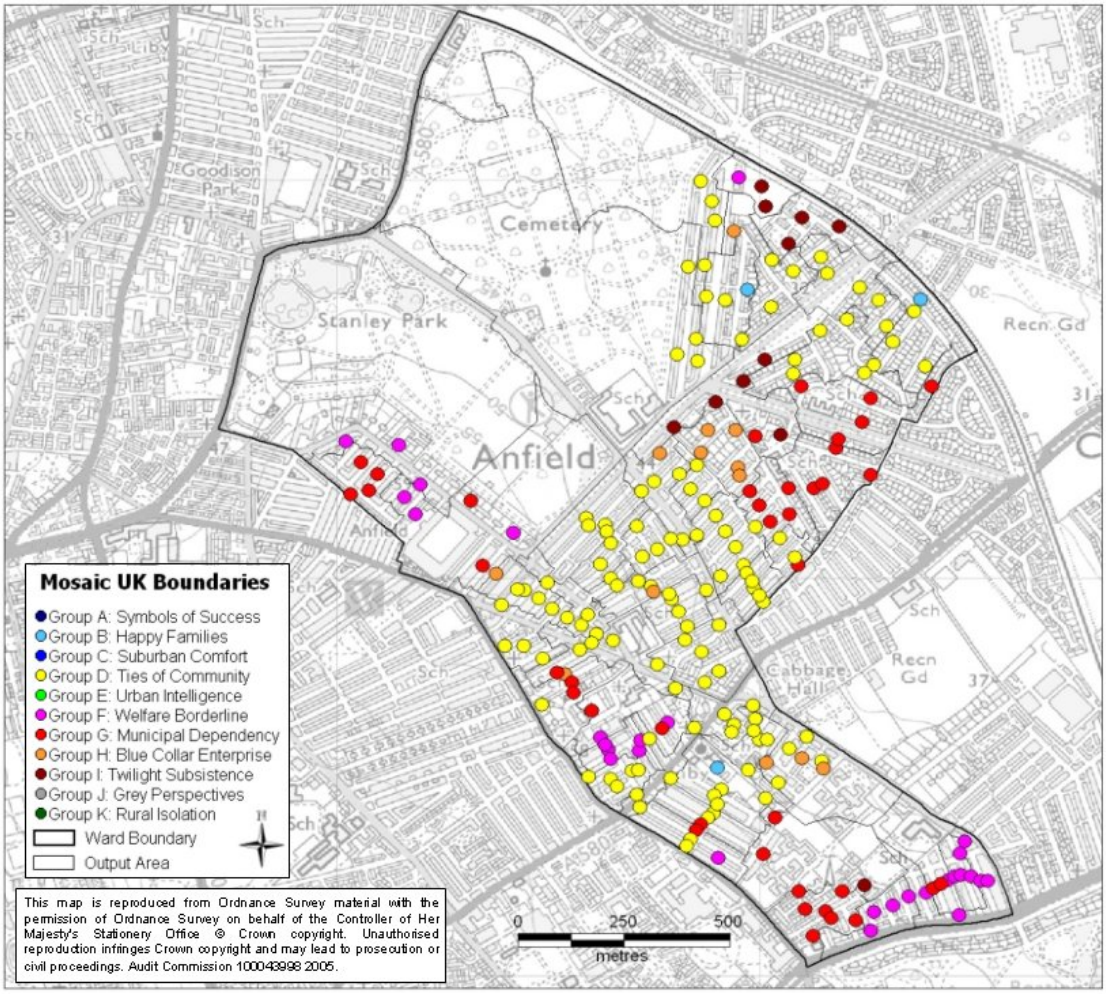

Figure 4: Mosaic UK neighbourhood Group distribution within Anfield ward, Liverpool.

3.1.6 Additional interpretive commentary regarding Anfield and Warbreck wards in Liverpool in provided in Box 1.

3.2 Warbreck ward (Liverpool CDRP)

3.2.1 Warbreck ward in Liverpool hosts the largest population of those ten wards profiled in this study with some 17,541 resident population (as classified by Mosaic).

	Mosaic UK Group	Population	% Population	Index (LAD base)	Index (UK base)
A	Symbols of Success	*0*	*0*	**0**	**0**
B	Happy Families	*1,112*	*6*	**97**	**52**
C	Suburban Comfort	*245*	*1*	**12**	**8**
D	Ties of Community	*11,128*	*63*	**339**	**378**
E	Urban Intelligence	*0*	*0*	**0**	**0**
F	Welfare Borderline	*933*	*5*	**40**	**97**
G	Municipal Dependency	*2,486*	*14*	**51**	**198**
H	Blue Collar Enterprise	*1,326*	*8*	**111**	**62**
I	Twilight Subsistence	*168*	*1*	**35**	**32**
J	Grey Perspectives	*143*	*1*	**36**	**12**
K	Rural Isolation	*0*	*0*	**0**	**0**
	Total	***17,541***	***100***		

Table 2: Mosaic UK Group profiles for Warbreck, Liverpool

3.2.2 Once again, as was the case with Anfield, the dominance of Groups D, F and G is apparent (see Figure 5). The ward hosts no population classified in Groups A, E or K. The diversity across all other Groups within the ward does however illustrate the level of 'community' heterogeneity one might expect within this administrative unit.

3.2.3 Whilst a similar proportion of the population in Warbreck is classified as 'D: Ties of Community' to that observed in Anfield, at the type level the composition differs slightly. In Warbreck the modal class with 26% of the population residents is 'D23: Industrial Grit' with a further 25% of the population resident within the areas classified as 'D24: Coronation Street'.

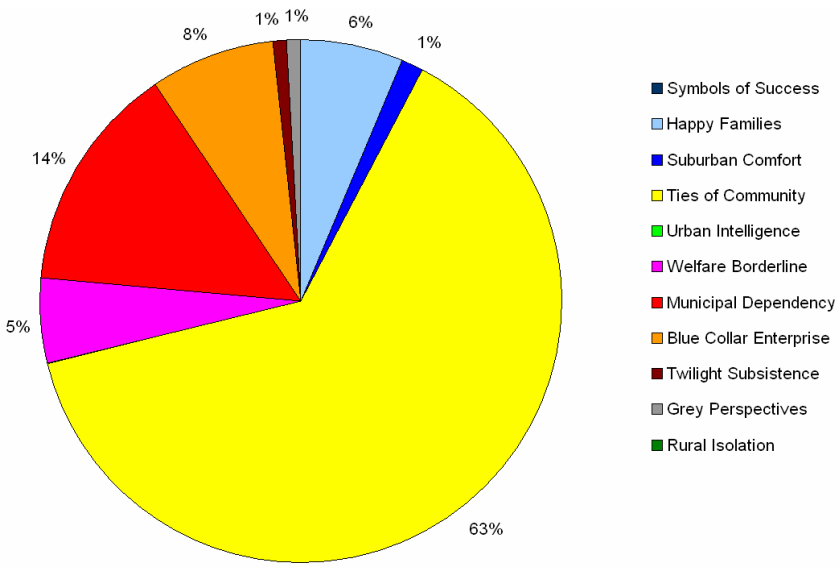

Figure 5: Mosaic UK Group population distribution within Warbreck, Liverpool.

3.2.4 In Figure 6 below we illustrate the relative index values by Mosaic UK Group for Warbreck. This highlights an important distinction which is largely holds true in Anfield. Despite the dominance of Groups D, F and G in these wards, and their relatively high rates compared to the nation as a whole, when we compare the population distribution to the Liverpool CDRP we note that relatively speaking there are fewer neighbourhoods classified as 'F: Welfare Borderline' and G: Municipal Dependency' than one might expect.

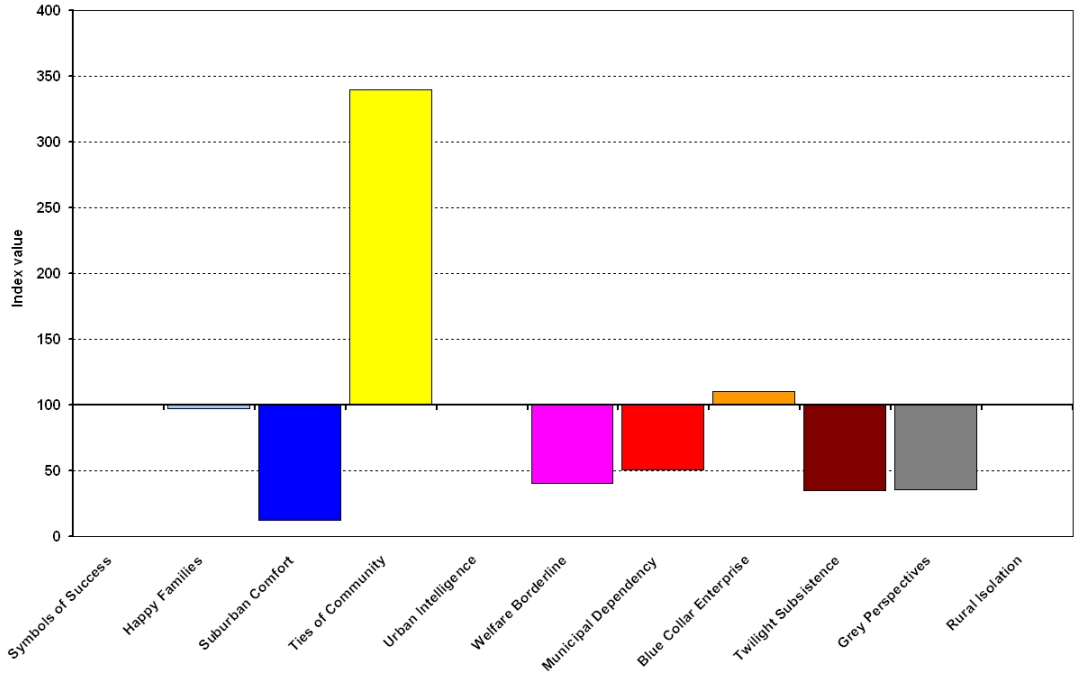

Figure 6: Warbreck population index values by Mosaic UK Group, LAD base.

3.2.5 The spatial distribution of neighbourhood types is depicted in Figure 7. Here the spatial clustering of similarly classified neighbourhoods is apparent (as one might reasonably expect) thus potentially enabling local managers to better decipher appropriate neighbourhood / community beats and strategies within the CDRP.

3.2.6 See Box 1 for further description, discussion and interpretation of those communities and neighbourhoods in the two profiled wards in Liverpool.

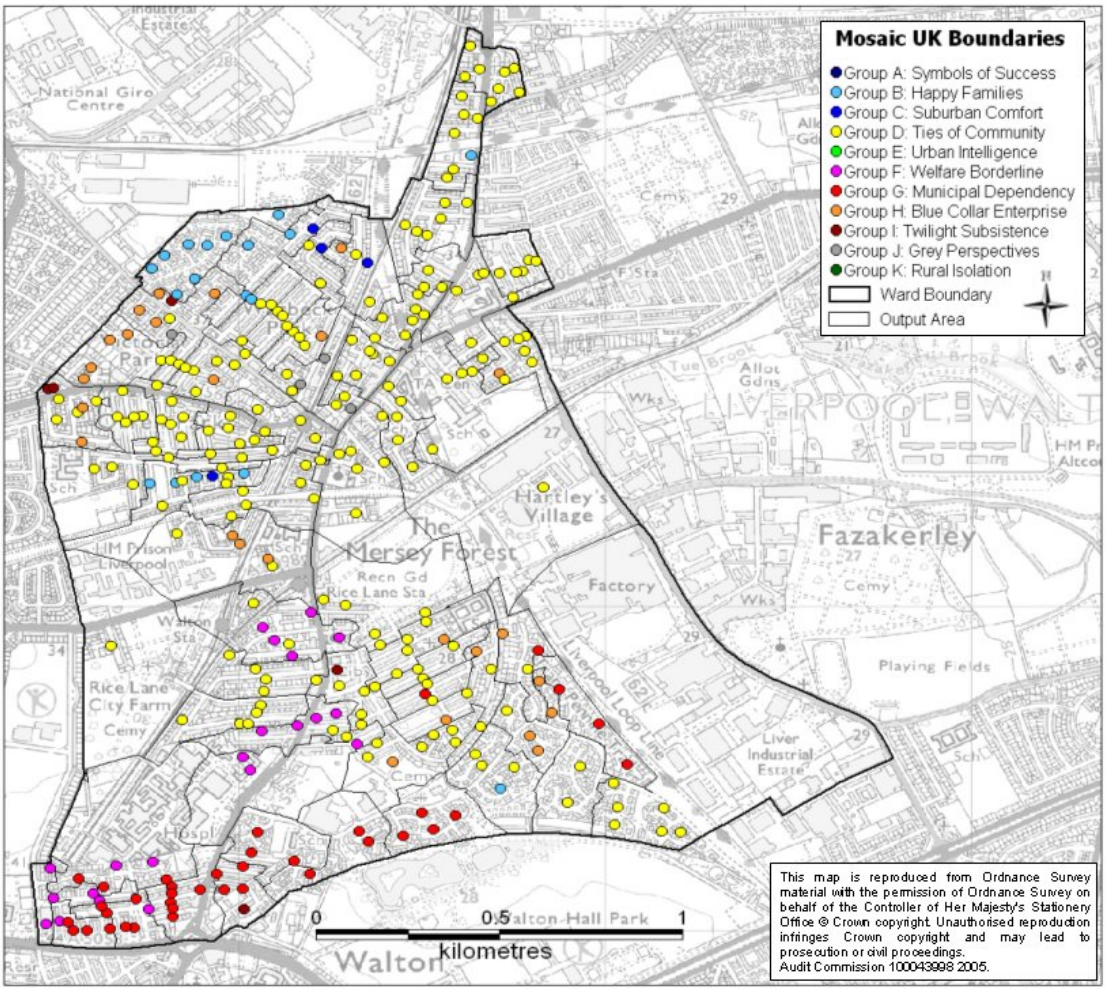

Figure 7: Mosaic UK neighbourhood Group distribution within Warbreck, Liverpool.

Liverpool study wards commentary

Liverpool's **Anfield** ward could provide many ideal potential locations for the television soap opera 'Coronation Street', having one of the largest remaining concentrations of inner city Victorian terraced housing in Britain. Indeed the Mosaic type 'Coronation Street' accounts for over a third of all households. Another 15% of the population live in other types of Victorian inner city housing.

Built to what in the late nineteenth century were comparatively good design standards, these neighbourhoods of two up two down terraces were of just sufficient quality to escape the slum clearance schemes that transformed the even older and slightly more central districts of inner Liverpool. Arranged in long rows of parallel streets these houses typically open directly onto the street. There is typically a small back garden which may occasionally be accessed by a rear alley.

These neighbourhoods were built at sufficiently high densities for most facilities to be within easy walking distance. There remains a plentiful range of public houses. Primary schools are typically within easy reach and shopping is undertaken in local parades of independently owned shops, typically operating out of premises built in Victorian times.

Neighbourhoods of this sort have traditionally relied on unskilled and semi skilled jobs in the city centre and in utilities and distribution rather than on craft manufacturing. Today this form of housing frequently accommodates owner occupiers as well as private renters. Many of the owner occupied houses will have been handed down over generations of families and a relatively small proportion of the population are likely to originate from outside Liverpool.

Compared with the inner city council flats and peripheral overspill estates, such neighbourhoods are proud of their respectability and, despite the potential tendency for anti social behaviour amongst some of its poorer members and their children, there is a strong sense of community cohesion which is reflected in active campaigning on local issues.

Few people own cars and many people rely on buses to get to work or for leisure trips outside the immediate area. Most leisure and entertainment activities are undertaken locally.

In addition to the neighbourhoods of Victorian older terraces a significant proportion of **Anfield**'s population live in mid to high rise council blocks. These blocks tend to have been built in the 1960s and 1970s to replace the poor quality terraces on the side of the ward closest to the city centre. Many of these now accommodate single people including a large number of pensioners. Typically the population of these blocks have very low incomes, many depending exclusively on state benefits.

{continues…}

{continued…}

In other parts of the ward we find developments of low rise council housing suffering from very low levels of household income. However by contrast with the peripheral estates, this council housing is marked more by low education and skills than it is by large numbers of single parents, large families and overcrowded households and by unemployment. As a result, despite the relative poverty, these are not estates which are likely to suffer excessively from young offenders.

A striking feature of the ward is the total absence of middle class residential areas. The ward is too distant from the university to have become attractive to students and to recent post graduates working in the creative industries. The size and nature of the housing does not lend itself to gentrification. Distance from the waterfront has also resulted in this not being an attractive area for the development of modern 'yuppie' apartments. Nor in Victorian times was this an area attractive to the middle classes.

Though **Warbreck** ward shares many of the characteristics of **Anfield,** for instance having large tracts of Victorian terraces interspersed with council housing, **Warbreck**'s terraces tend to be more modern, more spacious and better built. There has been less slum clearance, resulting in many fewer neighbourhoods of mid to high rise council housing. Unlike **Anfield**, **Warbreck** does contain pockets of middle class housing, including a few neighbourhoods where large developers have built modern estates for private occupation.

Thus whilst the **Anfield** terraces belong mostly in the Mosaic category 'Coronation Street' many of **Warbreck**'s fall within the category 'Industrial Grit' and even 'Affluent Blue Collar', these typically being more spacious houses with small front gardens, built perhaps in Edwardian times and designed for craft industrial workers as well as for workers in lower white collar occupations.

Likewise **Warbreck**'s council estates are more likely to take the form of greenfield estates, often developed during the 30s and 50s to reasonable design standards, rather than the brownfield developments which were built in the 60s to accommodate populations from slum clearance schemes. Many more of the homes on the **Warbreck** estates have been sold to their tenants, many more of whom are car or van drivers allowing them access to a wider range of the better paid manual jobs that are found outside the inner areas of the city.

In these slightly more modern and better off neighbourhoods one is likely to find slightly lower levels of social capital than in **Anfield**. Leisure and entertainment takes place to a greater extent within the home and with selected friends and, although levels of migration are low, there is likely to be a lower level of engagement in campaigns which mobilise the opinions of the community.

Box 1: Interpretative commentary for Anfield and Warbreck wards, Liverpool.

3.3 Tong ward (Bradford CDRP)

3.3.1 Tong ward in Bradford is another of the larger wards profiled in this study. However, the population distribution by Mosaic is very different to those observed in the Liverpool CDRP highlighting the potential differences one may face in developing strategies for high crime, high disorder neighbourhoods in different localities.

	Mosaic UK Group	Population	% Population	Index (LAD base)	Index (UK base)
A	Symbols of Success	233	2	22	16
B	Happy Families	1,816	13	135	109
C	Suburban Comfort	975	7	46	42
D	Ties of Community	2,241	16	40	98
E	Urban Intelligence	0	0	0	0
F	Welfare Borderline	710	5	144	95
G	Municipal Dependency	6,434	46	545	658
H	Blue Collar Enterprise	1,046	7	98	62
I	Twilight Subsistence	477	3	103	118
J	Grey Perspectives	101	1	21	11
K	Rural Isolation	78	1	63	10
	Total	14,111	100		

Table 3: Mosaic UK Group profiles for Tong, Bradford.

3.3.2 Significantly, all Groups apart from 'E: Urban Intelligence' are represented to varying extents in Tong. Whilst absolute populations are given above, those Groups and Types with less than 100 persons are reaggregated to similar categories in subsequent analyses where appropriate. This is to safeguard against the statistical instability of using very small numbers.

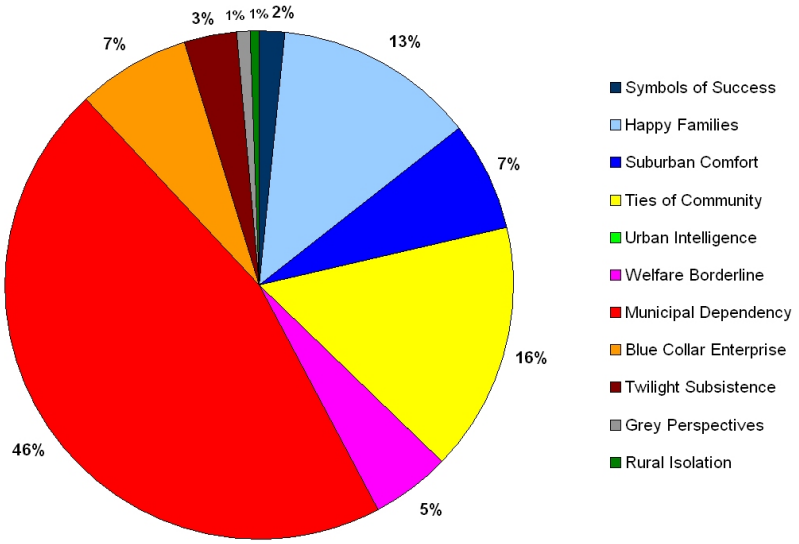

Figure 8: Mosaic UK Group population distribution within Tong, Bradford.

3.3.3 Approaching six and a half thousand people (46%) resident in Tong reside in areas classified as 'Group G: Municipal Dependency'. Our experience suggests that such neighbourhoods are often amongst the highest crime areas. The predominance of this category is evident in Figure 9 whereby over six and a half times the expected proportion of the population reside in Group F neighbourhoods when compared to the UK as a whole.

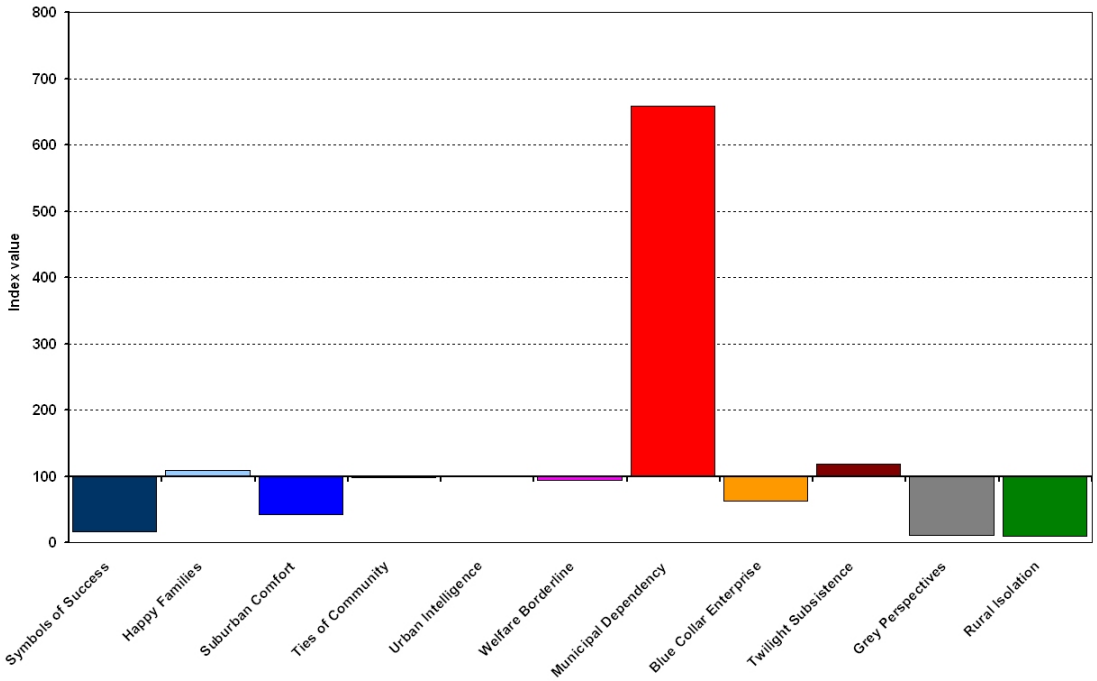

Figure 9: Tong population index values by Mosaic UK Group, UK base.

3.3.4 The spatial representation of these neighbourhood types in Figure 10 is also insightful. One can easily identify those small clusters of higher income neighbourhoods and rural outposts (Groups A and K respectively), often some distance from those areas of higher population density and predictably higher crime rates / demands upon the police. This heterogeneity of neighbourhoods within one administrative unit does pose the question as to how appropriate devolving policing strategies at a ward level may be in this locality.

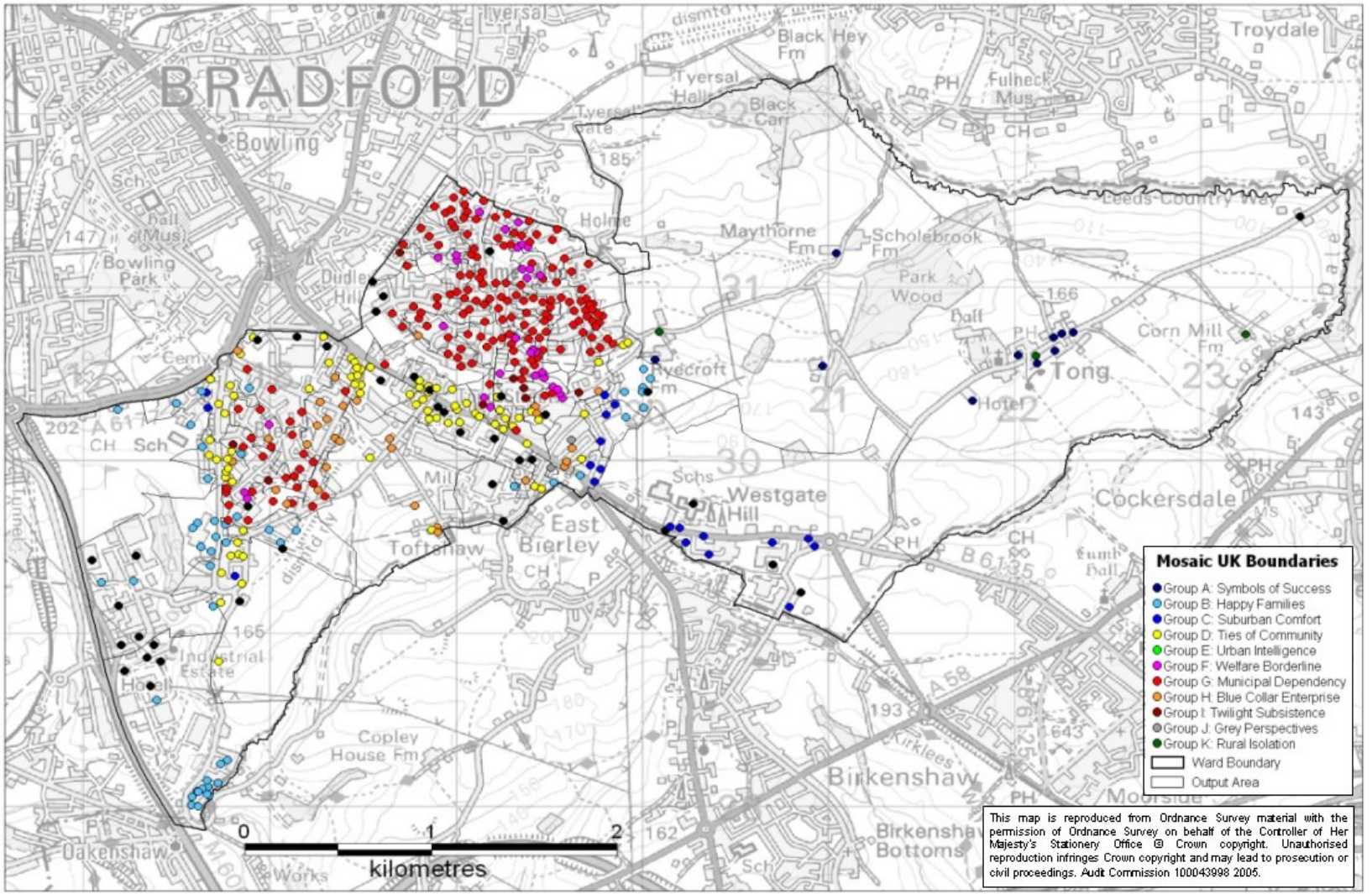

Figure 10: Mosaic UK neighbourhood Group distribution within Tong, Bradford.

3.3.5 Figure 11 further illustrates the heterogeneity of a sub-ward area in Tong. Unit postcodes do not officially have areal unit boundaries, only centroids and associated household addresses. This accounts for the unorthodox shape of some of these units. However, the juxtaposition of different neighbourhood groups with demonstrably different characteristics is evident here at a very fine level of spatial granularity.

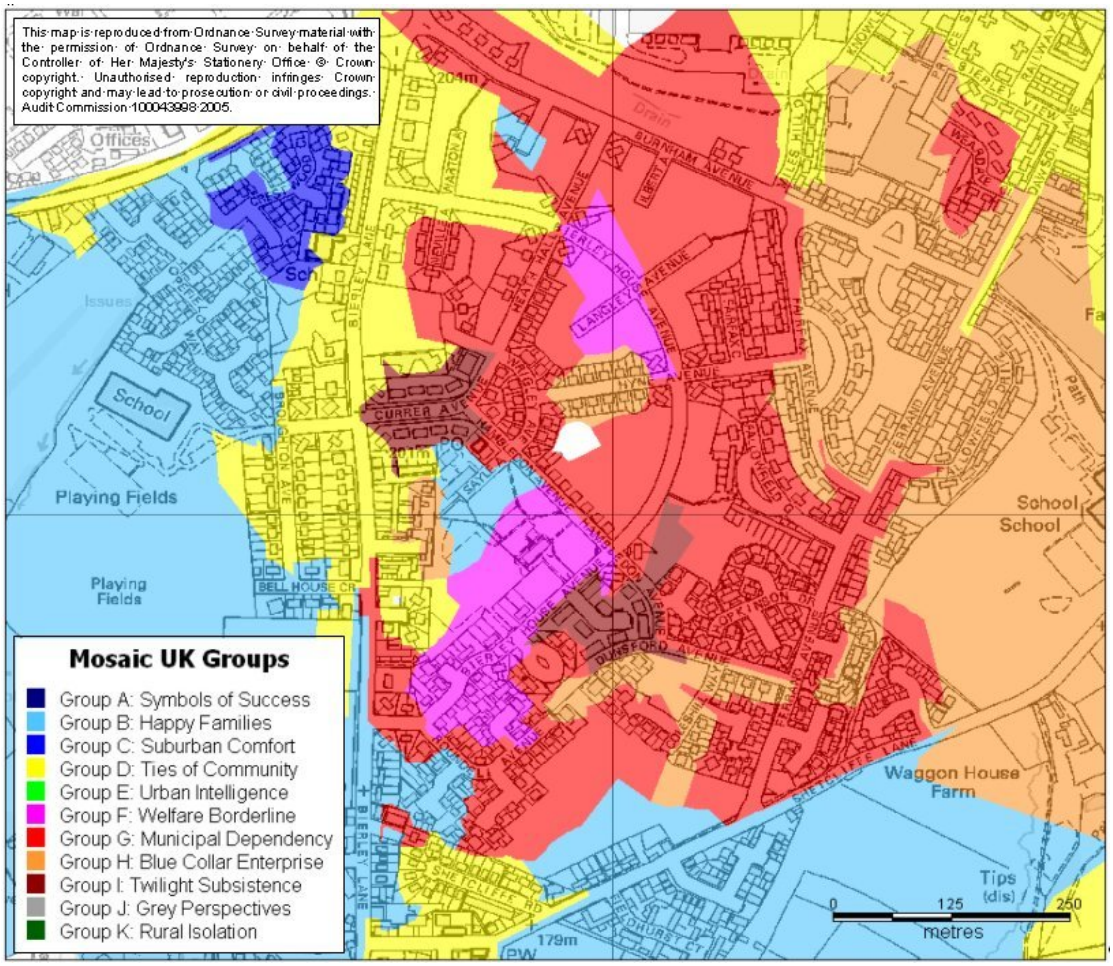

Figure 11: Mosaic UK neighbourhood Group distribution within Tong, Bradford.

3.3.6 Additional interpretive commentary regarding Tong and Eccleshill wards in Bradford is provided in Box 2.

3.4 Eccleshill ward (Bradford CDRP)

3.4.1 Eccleshill's population distribution by Mosaic Group, whilst arguably not as diverse as Tong, remains heterogeneous with four main Groups dominating the ward.

	Mosaic UK Group	Population	% Population	Index (LAD base)	Index (UK base)
A	Symbols of Success	*0*	*0*	**0**	**0**
B	Happy Families	*854*	*6*	**66**	**54**
C	Suburban Comfort	*1,945*	*14*	**96**	**88**
D	Ties of Community	*3,921*	*29*	**72**	**179**
E	Urban Intelligence	*0*	*0*	**0**	**0**
F	Welfare Borderline	*76*	*1*	**16**	**11**
G	Municipal Dependency	*4,005*	*29*	**353**	**427**
H	Blue Collar Enterprise	*1,976*	*14*	**193**	**123**
I	Twilight Subsistence	*549*	*4*	**123**	**141**
J	Grey Perspectives	*346*	*3*	**75**	**38**
K	Rural Isolation	*0*	*0*	**0**	**0**
	Total	***13,672***	***100***		

Table 4: Mosaic UK Group profiles for Eccleshill, Bradford

3.4.2 Compared to the UK, Groups D, G, H and I are each over-represented in Eccleshill. However, the four dominant Groups include 'C: Suburban Comfort' which has thus far featured onto to a minor extent in any of these 'high-crime, high-disorder wards'. Nevertheless, with 14% of the ward population residing in Group C neighbourhoods this figure is still less than one observes across the UK as a whole and indeed slightly less than is the case for Bradford CDRP.

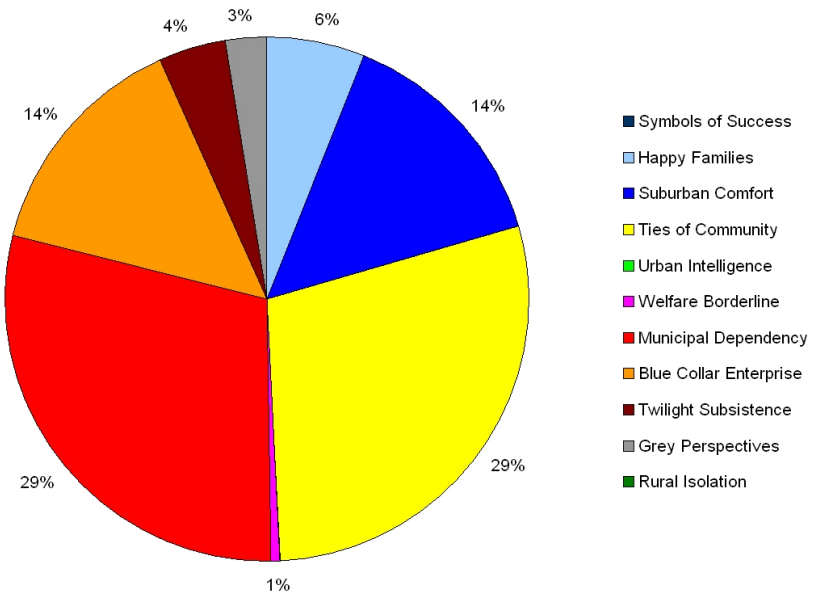

Figure 12: Mosaic UK Group population distribution within Eccleshill, Bradford.

3.4.3 In Figure 13 below we observe the relative index values for Eccleshill compared to the Bradford LAD as a whole. Whilst at this 'regional' level we observe that Eccleshill has some three and a half times the expected proportion of 'G: Welfare Borderline' neighbourhoods, indeed compared to the UK as a whole this proportion provides an index value of 427.

3.4.4 Conversely, whilst Figure 13 illustrates an under-representation of Group D within Eccleshill when compared to the Bradford LAD, when compared to the UK this proportion is over represented (index value of 179). This variation, which highlights the importance of looking both at national and regional relative proportions, can be attributed in no small part to the absence of 'D26: South Asian Industry' neighbourhoods in Eccleshill. The D26 category is heavily over-represented in Bradford as a whole, and indeed characterises much of the Bradford CDRP population landscape. This further highlights the value of exploring data at the 61-type level to grasp a fuller understanding of the neighbourhood composition of small areas.

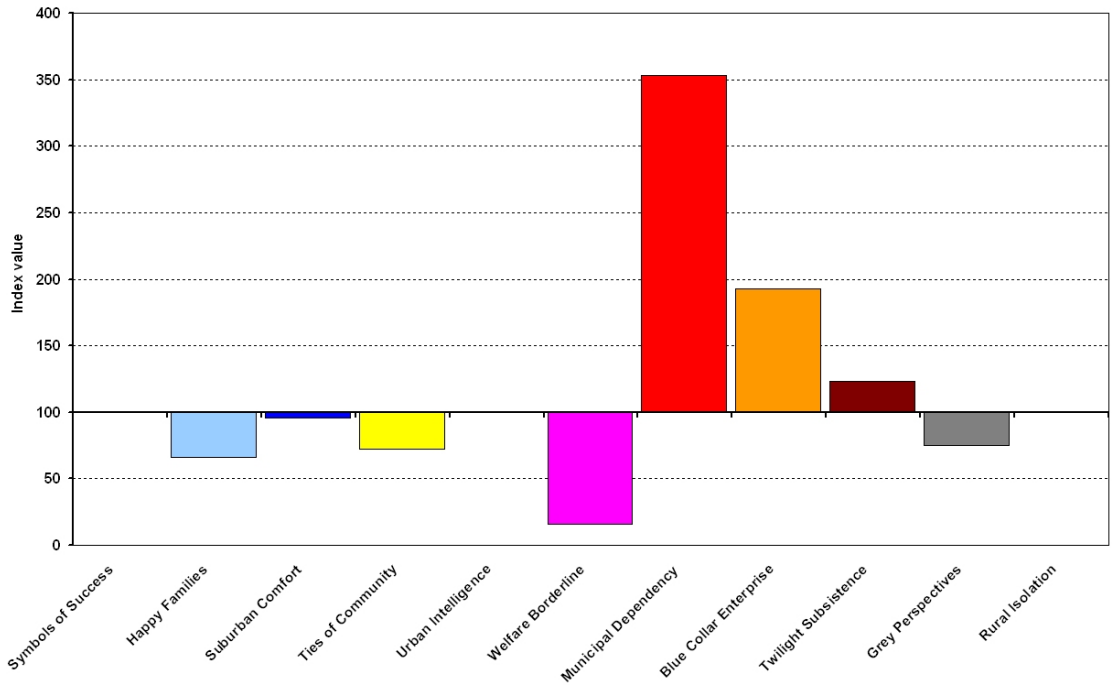

Figure 13: Eccleshill population index values by Mosaic UK Group, LAD base.

3.4.5 The spatial distribution of neighbourhood groups illustrated in Figure 14 portrays a vague gradient from Groups G and H in the north and east through a central plateau of Group D into neighbourhoods classified as 'C: Suburban Comfort'.

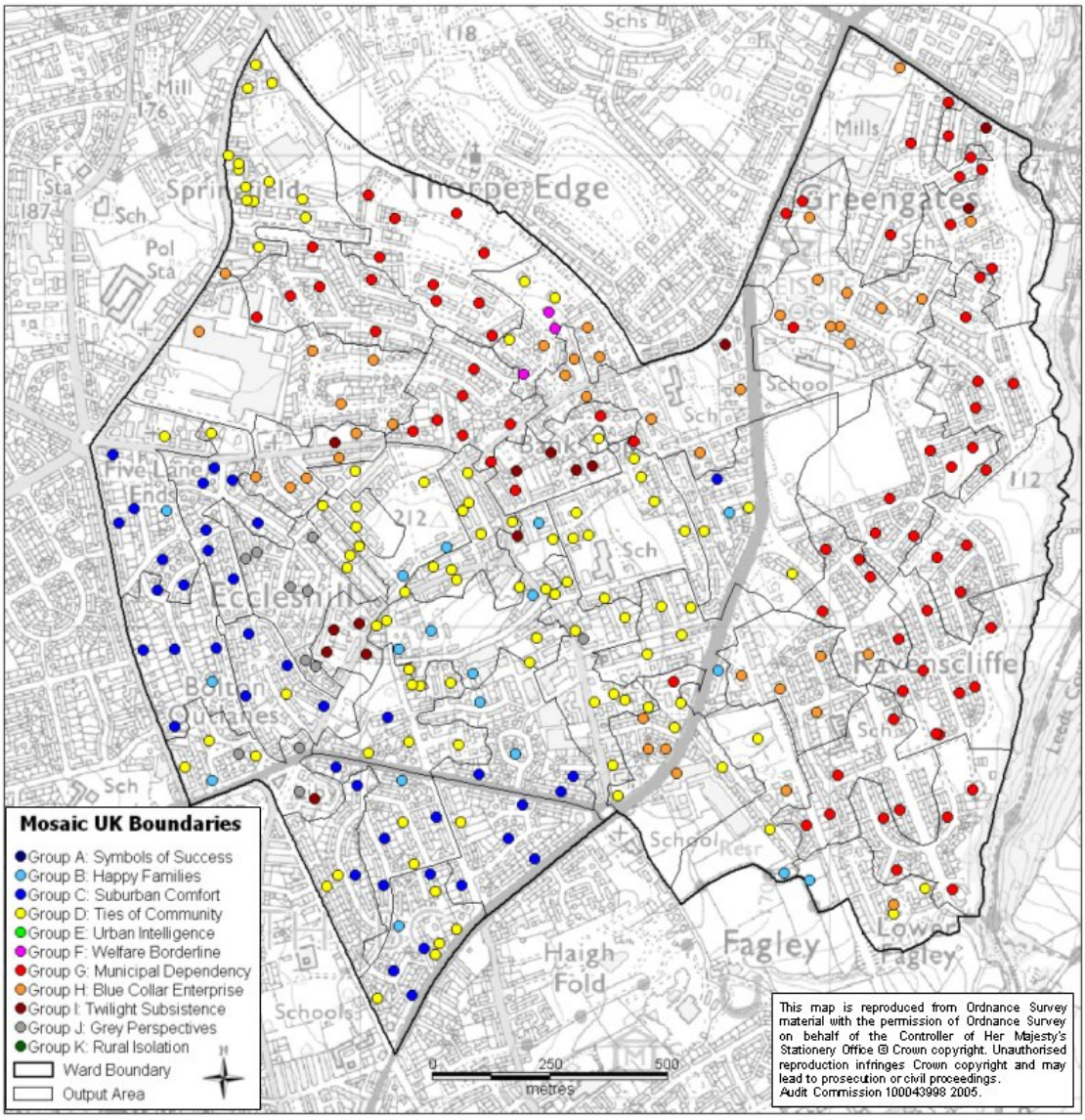

Figure 14: Mosaic UK neighbourhood Group distribution within Eccleshill, Bradford.

3.4.6 See Box 2 for further description, discussion and interpretation of those communities and neighbourhoods in the two profiled wards in Bradford.

Bradford study wards commentary

By contrast with Liverpool, whose residential neighbourhoods grew from an inner core outwards, many of Bradford's residential neighbourhoods have developed around local centres of manufacturing activity which have only more recently been absorbed within a large city. This poly-nuclear structure has resulted in communities which often contain housing from a wide range of periods and which contain a greater diversity of different types of neighbourhood. **Eccleshill** is a Bradford ward that typifies this pattern. It contains a wide range of different types of residential neighbourhood and, as a result, is dominated by no one over-riding social group. It is debatable whether such a balance in population profile results in a more balanced and cohesive community or whether the lack of a distinctive character undermines the formation of a distinctive identity.

Some 30% of the **Eccleshill** ward consists of residents living in streets of older terraced housing. These vary in quality from the very low income category 'Coronation Street', which in Eccleshill comprises only 8% compared with 33% in **Anfield**, through 'Industrial Grit' and 'Affluent Blue Collar' to 'Respectable Rows', a type which would typically date from either just before or just after the 1914 – 1918 war and which would have been developed for renting to a white collar salariat rather than by the manual labour force employed in textile mills or engineering works.

However, by contrast with other wards in Bradford, **Eccleshill**'s older terraces have not experienced any significant influx of Asians. The population of the ward's older terraces pride themselves in being respectable, and it is likely that the economically more successful members of the community will have been happy to move into one of the quite large number of semi detached houses that were built during the inter war periods in the more outer areas of the ward. Both the older terraces and the more modern inter war suburban sprawl consists mostly of owner occupiers.

By contrast with these piecemeal, small scale developments, **Eccleshill** also contains one of Bradford's largest concentrations of peripheral overspill council estates. These represent some 30% of the ward's population and are particularly characterised by the Mosaic types 'Families on Benefit' and 'Low Horizons'.

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In Bradford which, by contrast with Liverpool, is a city which has traditionally been relatively inactive in developing public sector housing and where privately owned houses have typically been inexpensive to buy, a pattern has arisen in which the limited amount of available public sector housing is disproportionately occupied by families with high levels of need. As a result the few council estates that Bradford does have contain particularly high concentrations of households with acute levels of deprivation. **Eccleshill**'s estates are no exception. Here we find particular concentrations of households who have not exercised their right to buy, where there is a particularly large child proportion and where disproportionate numbers of households are headed by single parents. These are not estates where would-be owners would likely want to purchase – most will transfer to a 'better' Bradford estate before doing so. Large numbers of households have no-one in paid employment, the majority rely on means tested state benefits and very few can afford to purchase or maintain a car. These are the types of neighbourhood where the anti-social behaviour of young people is a particular source of irritation and where the bad reputation of the 'estate' causes estrangement with the more thrifty and self reliant residents in nearby neighbourhoods of older terraces and inter war semis.

The ward of **Tong** has many similarities with **Eccleshill**, having a mixture of peripheral low rise council estates and a core of middle and lower middle income owner occupiers. However, compared with **Eccleshill**, **Tong** has a much higher proportion of its residents living in what Mosaic describes as neighbourhoods of 'Municipal Dependency', 45% as against 30%, and many fewer residents in neighbourhoods of better off council housing.

Additionally whereas **Eccleshill** has private housing from a wide range of periods and of a diverse range of styles, much more of **Tong**'s private housing consists of post war estates built for young families with growing children. Though there is a nucleus of older Victorian housing, this comprises only 10% of the ward as compared with nearly 30% of **Eccleshill.**

Tong therefore is very much more of a modern residential area grafted on to a much smaller traditional community. Many fewer of the residents are likely to have local roots. It is likely that many of the council tenants who live in the ward will have made no elective decision to live in **Tong** – this is just the estate to which they have been decanted by the council. Meanwhile many of the residents of the private estates may be using their homes as stepping stones either on a local property ladder or, in the case of those with footloose employment, for the duration of their work in Bradford.

Box 2: Interpretative commentary for Tong and Eccleshill wards, Bradford.
Percentages rounded

3.5 Pen-y-Waun ward (Rhondda Cynon Taf CSP)

3.5.1 Those wards presented for Rhondda are far smaller than those detailed above for Liverpool and Bradford. With a population of only 3,266 Pen-y-Waun represents the second smallest ward population detailed here (Talbot Green, also in Rhondda, being the smallest).

	Mosaic UK Group	Population	% Population	Index (LAD base)	Index (UK base)
A	Symbols of Success	*0*	*0*	**0**	**0**
B	Happy Families	*0*	*0*	**0**	**0**
C	Suburban Comfort	*0*	*0*	**0**	**0**
D	Ties of Community	*142*	*4*	**14**	**27**
E	Urban Intelligence	*0*	*0*	**0**	**0**
F	Welfare Borderline	*0*	*0*	**0**	**0**
G	Municipal Dependency	*2,301*	*70*	**759**	**1,027**
H	Blue Collar Enterprise	*799*	*24*	**83**	**208**
I	Twilight Subsistence	*0*	*0*	**0**	**0**
J	Grey Perspectives	*24*	*1*	**35**	**11**
K	Rural Isolation	*0*	*0*	**0**	**0**
	Total	***3,266***	***100***		

Table 5: Mosaic UK Group profiles for Pen-y-Waun, Rhondda Cynon Taf.

3.5.2 With a much reduced total population in Pen-y-Waun ward the diversity observed at the Mosaic Group level is predictably less than that detailed above. However, with this small population comes the highest index values, with over ten times the proportion of Municipal Dependency neighbourhoods observed in the ward when compared to the UK as a whole. This represents a more homogenous population distribution than otherwise observed in those wards above.

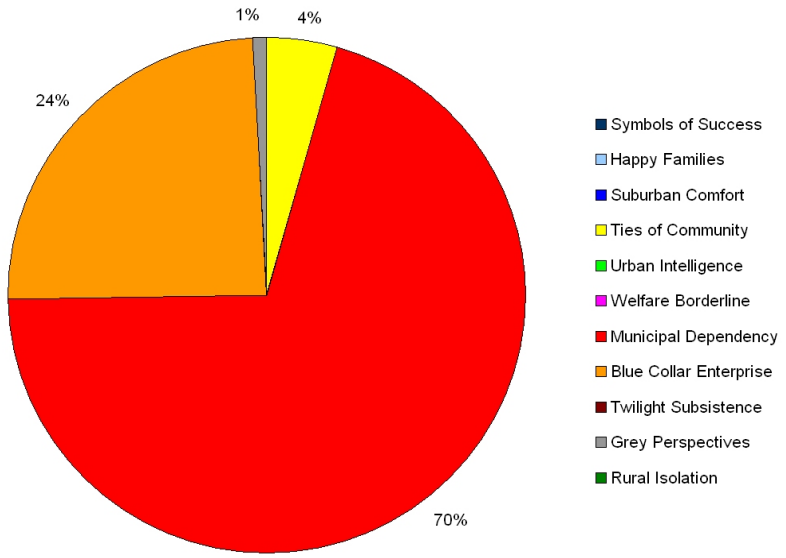

Figure 15: Mosaic UK Group population distribution within Pen-y-Waun, Rhondda Cynon Taf.

3.5.3 With some seventy per cent of the population resident in neighbourhoods classified as 'G: Municipal Dependency' it is understandable that such an area may be deemed a high-crime neighbourhood. The relative homogeneity of this ward (compared to those presented above) presents a different perspective to those wards already detailed. In this instance strategies to address high disorder neighbourhoods may prove similarly effective if one were to target geographical areas (perhaps housing estates) rather than fully adopting a geodemographic approach. However, the geodemographic approach still has value in the further intelligence provided here, and the framework for disseminating best practice and evaluating performance across different regions.

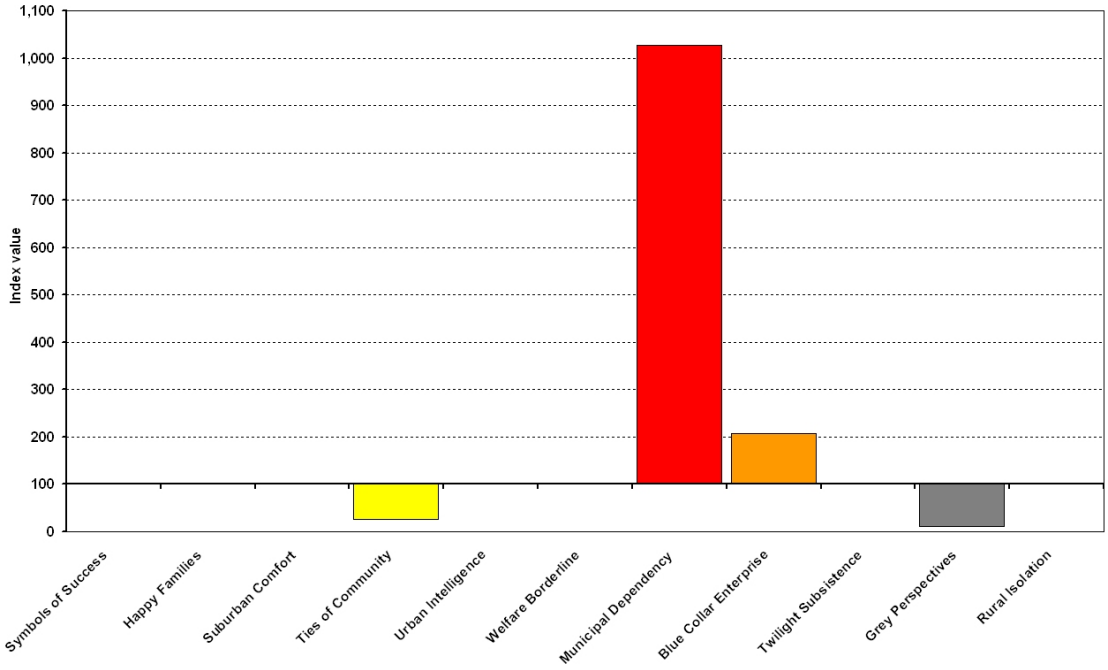

Figure 16: Pen-y-Waun population index values by Mosaic UK Group, UK base.

3.5.4 The spatial distribution of the neighbourhood classification in Figure 17 clearly corresponds to the housing distribution as depicted by the Ordnance Survey raster map – i.e. the housing footprints are similar to those one might reasonably expect for those neighbourhood types coloured above.

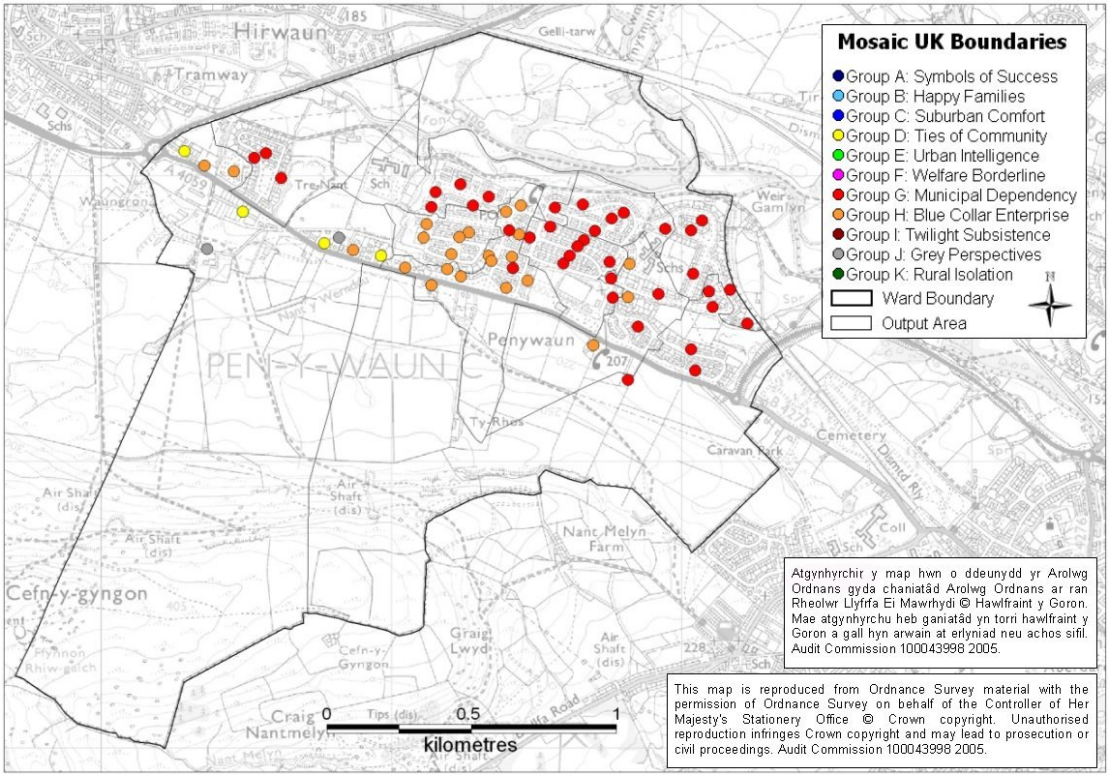

Figure 17: Mosaic UK neighbourhood Group distribution within Pen-y-Waun, Rhondda Cynon Taf.

3.5.5 Additional interpretive commentary regarding Pen-y-Waun and Talbot Green wards in Rhondda Cynon Taf is provided in Box 3.

3.6 Talbot Green ward (Rhondda Cynon Taf CSP)

3.6.1 Talbot Green is a very interesting ward in that whilst it has the smallest total population the distribution by neighbourhood group is arguably the most diverse observed for any of the wards.

	Mosaic UK Group	Population	% Population	Index (LAD base)	Index (UK base)
A	Symbols of Success	*284*	*12*	**560**	**111**
B	Happy Families	*136*	*6*	**46**	**47**
C	Suburban Comfort	*468*	*19*	**250**	**117**
D	Ties of Community	*177*	*7*	**23**	**45**
E	Urban Intelligence	*0*	*0*	**0**	**0**
F	Welfare Borderline	*219*	*9*	**783**	**168**
G	Municipal Dependency	*311*	*13*	**136**	**184**
H	Blue Collar Enterprise	*112*	*5*	**15**	**39**
I	Twilight Subsistence	*200*	*8*	**362**	**285**
J	Grey Perspectives	*562*	*23*	**1,069**	**341**
K	Rural Isolation	*0*	*0*	**0**	**0**
	Total	***2,469***	***100***		

Table 6: Mosaic UK Group profiles for Talbot Green, Rhondda Cynon Taf.

3.6.2 Those index values and proportions represented in Table 6 and Figure 18 illustrate the unusually heterogeneous social mix within the ward. Significantly, Talbot Green is the only ward to host a significant proportion of the population in neighbourhoods classified as 'A: Symbols of Success'. Not only are there are higher proportion of these high income neighbourhoods in the ward compared to the UK as a whole, but this also seems to represent a desirable locality compared to the LAD given the index value of 560.

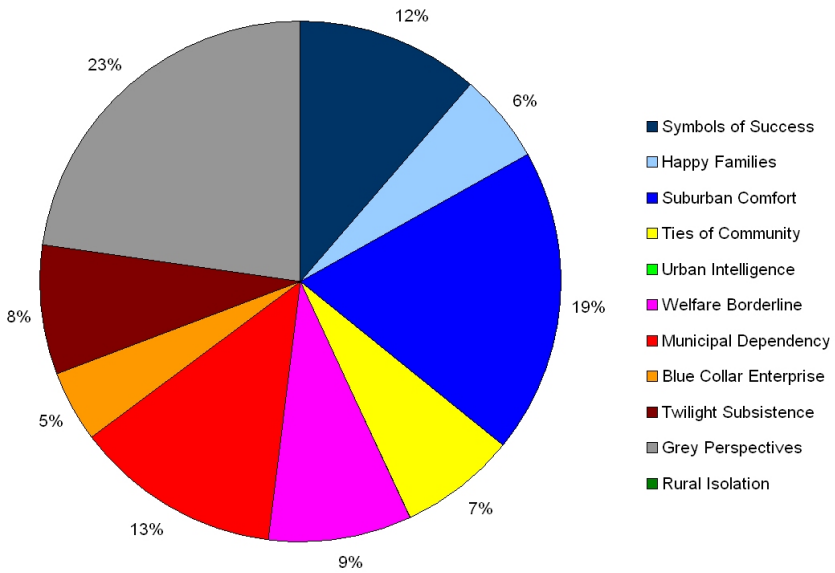

Figure 18: Mosaic UK Group population distribution within Talbot Green, Rhondda Cynon Taf.

3.6.3 Given the relatively small populations represented in each of the neighbourhood groups there is potentially some instability when making comparisons with the Rhondda CSP area which also has a small total population. However, Figure 19 illustrates these propensities which may also be usefully compared to those relative to the UK as a whole from Table 6.

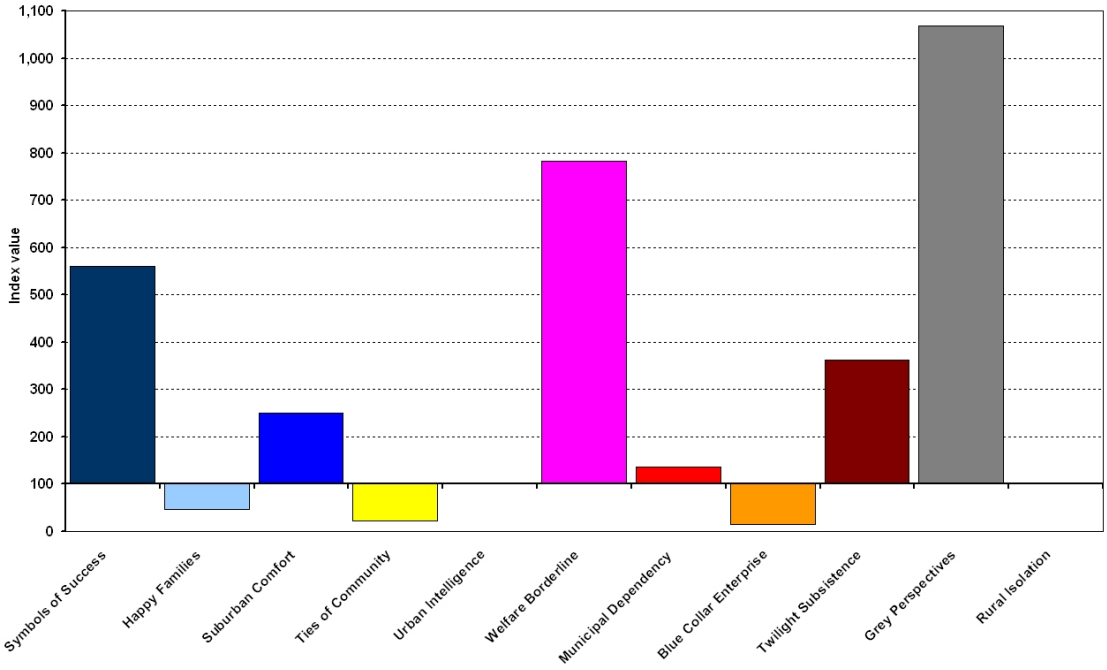

Figure 19: Talbot Green population index values by Mosaic UK Group, LAD base.

3.6.4 The map of the spatial distribution of neighbourhood groups in Figure 20 illustrates the diversity of different neighbourhood types within the ward. Notably, this distribution is quite distinct from those presented previously where it has been observed that Groups D, F and G often dominant the landscape of these 'high-crime wards'. Indeed, at first glance of the geodemographic composition it is not evident why such an area would experience sufficient crime rates to justify inclusion in this *High Crime: High Disorder Neighbourhoods* programme. The underlying geography of Figure 20 may provide some indication of a possible contributing factor; the proximity of the motorway and major transport links may affect the local crime rate and crime mix.

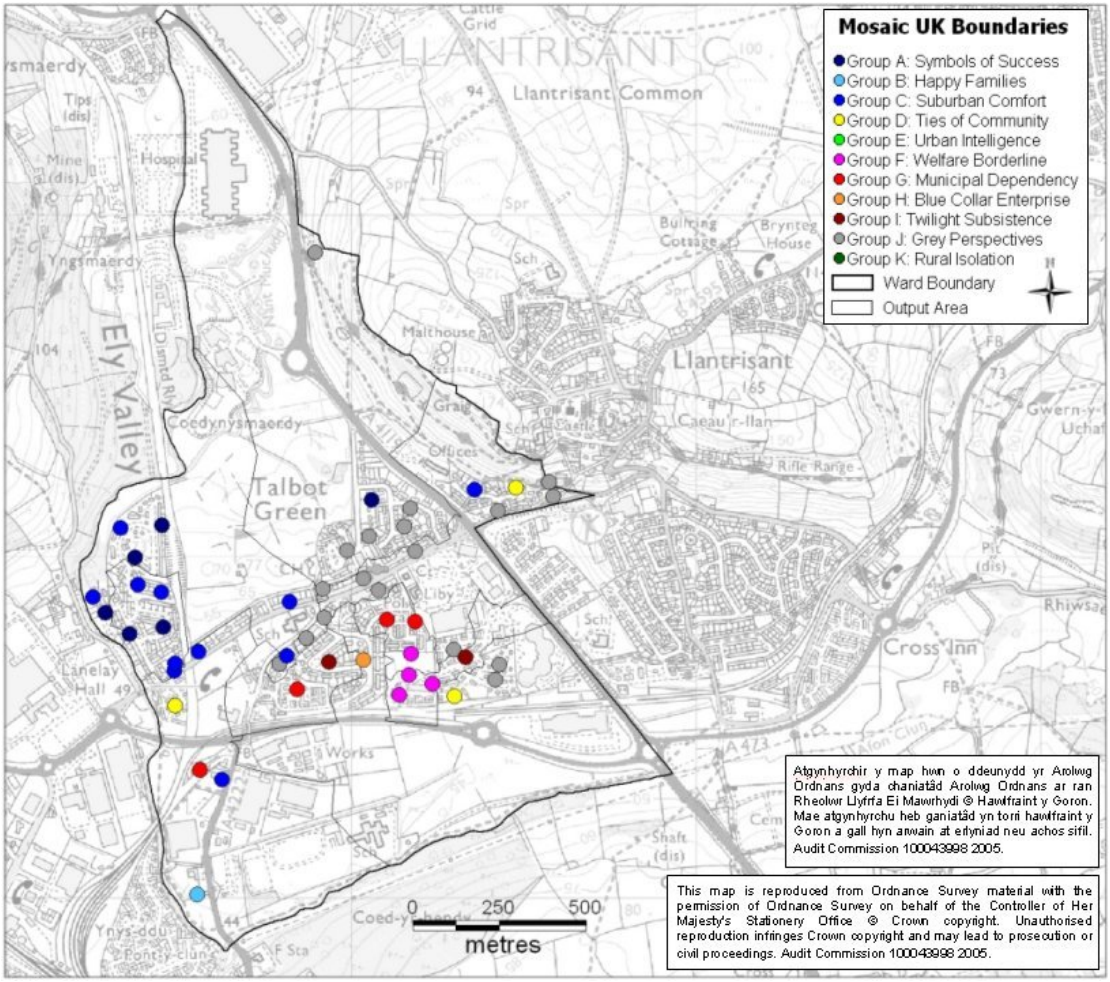

Figure 20: Mosaic UK neighbourhood Group distribution within Talbot Green, Rhondda Cynon Taf.

3.6.5 See Box 3 for further description, discussion and interpretation of those communities and neighbourhoods in the two profiled wards in Rhondda Cynon Taf.

Rhondda Cynon Taf study wards commentary

Pen-y-Waun ward in Rhondda Cynon Taf is, in terms of its mix of Mosaic types, the most homogenous of all the wards in this study with 60% of its population falling into just one type, 'Low Horizons' and a further 21% falling into a second type, 'Rustbelt Resilience'.

'Low Horizons' is characterised by large developments of uniformly designed low rise council housing, typically on the outskirts of large industrial cities. Though these types of neighbourhood are not characterised by the large families, high child populations and large proportions of children from single parent families that are found in the type 'Families on Benefit' they are neighbourhoods which are characterised by particularly low levels of economic and social aspiration.

In **Pen-y-Waun** as in other neighbourhoods of this sort, there is almost a complete absence of a middle class population, of private estates, of expensive cars and of well dressed people leaving home for well paid jobs. Affluent lifestyles are recognised only from their representation on the television and in the media – they are not generally objects of aspiration or of realistic expectation.

Whilst for the older generation, which has been brought up to seek security through collective institutions such as trades unions and the welfare state, life on wages little above the legal minimum or on state entitlements, means tested or otherwise, provides an acceptable standard of existence, the younger generation are vulnerable to serious feelings of anomie and boredom, particularly in a period when the traditional economic base of these areas have collapsed and when the traditional institutions of collective self help are in decline. These are not neighbourhoods in which it is easy for the young to identify challenging but realistic targets.

Such circumstances in **Pen-y-Waun** and similar communities may result in a retreat into drug and alcohol abuse, and often into significant levels of domestic violence and interest in internet pornography rather than into the more threatening manifestations of social disorder. These are, after all, neighbourhoods where most people are still well known to other members of the community and where any escape into anonymity would involve some degree of enterprise in uprooting oneself from the only community that the majority of the population will have ever known.

The ward of **Talbot Green** shares very little with **Pen-y-Waun** except the same local authority district. This ward, which lies close to the M4 and to Cardiff, contains as broad a cross section of neighbourhoods as **Pen-y-Waun's** is narrow.

Uniquely among the study wards, **Talbot Green** contains representatives from the most affluent of the Mosaic groups, 'Symbols of Success', as well as neighbourhoods such as 'Conservative Values', 'Small Time Business' and 'Close to Retirement', types of neighbourhood which traditionally accord the highest importance to responsible social behaviour and which are most likely to be supportive of policing practices such as neighbourhood watch, postcode marking or identification cards for utility meter readers. The ward also contains a significant population living in neighbourhoods of well off retired people, both in the centres of small towns ('Small Town Seniors') and in luxury estates ('High Spending Elders').

These affluent neighbourhoods contrast with the 30% of the ward population which lives in areas of council housing, among which we find some estates which accommodate the elderly, whether in the form of conventional low rise housing or in the form of small flats in apartment blocks.

Box 3: Interpretative commentary for Pen-y-Waun and Talbot Green wards, Rhondda Cynon Taf.

3.7 Cliftonville West ward (Thanet CDRP)

3.7.1 Returning to English CDRPs, and Cliftonville West in Thanet, we observe a total population bridging the gap between those very small wards of the Rhondda and those very large ones of Bradford and Liverpool.

	Mosaic UK Group	Population	% Population	Index (LAD base)	Index (UK base)
A	Symbols of Success	0	0	0	0
B	Happy Families	128	2	34	17
C	Suburban Comfort	0	0	0	0
D	Ties of Community	4,594	71	251	432
E	Urban Intelligence	0	0	0	0
F	Welfare Borderline	324	5	210	93
G	Municipal Dependency	0	0	0	0
H	Blue Collar Enterprise	220	3	26	28
I	Twilight Subsistence	471	7	196	251
J	Grey Perspectives	773	12	45	175
K	Rural Isolation	0	0	0	0
	Total	6,510	100		

Table 7: Mosaic UK Group profiles for Cliftonville West, Thanet.

3.7.2 In Cliftonville the dominant neighbourhood group is once again 'Group D: Ties of Community'. However, distinct from those detailed above from Bradford and Liverpool almost half of the population in Cliftonville West reside in 'D25: Town Centre Refuge' neighbourhoods. These areas constitute only 0.85% of the UK population hence producing an index value for D25 of 5,594 – i.e. 56 times the expected proportion.

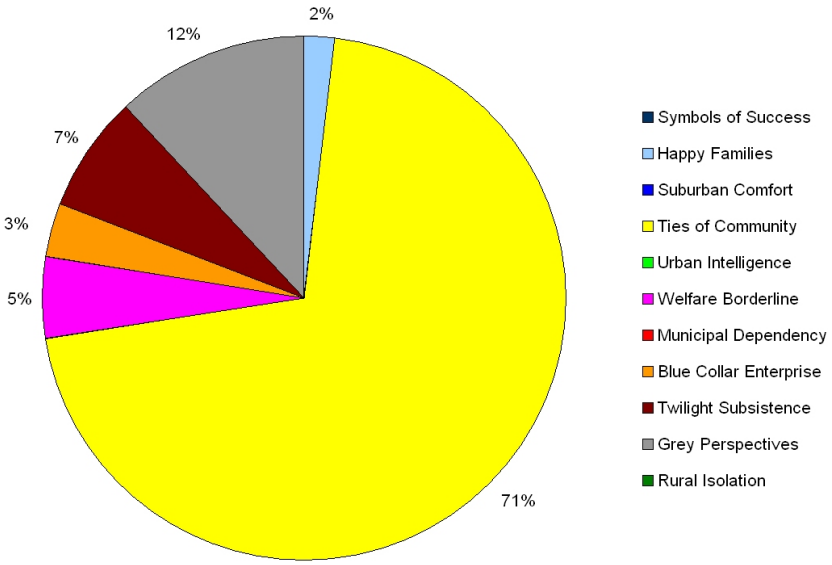

Figure 21: Mosaic UK Group population distribution within Cliftonville West, Thanet.

3.7.3 Those neighbourhood groups over-represented in Figure 22 reflect neighbourhoods which are largely found within city centres or on the periphery of a town centre. Specifically, the Cliftonville West ward is characterised by neighbourhood types such as 'D24: Coronation Street', 'D25: Town Centre Refuge', 'F35: Bedsit Beneficiaries', 'I48: Old People in Flats', and 'J55: Small Town Seniors'.

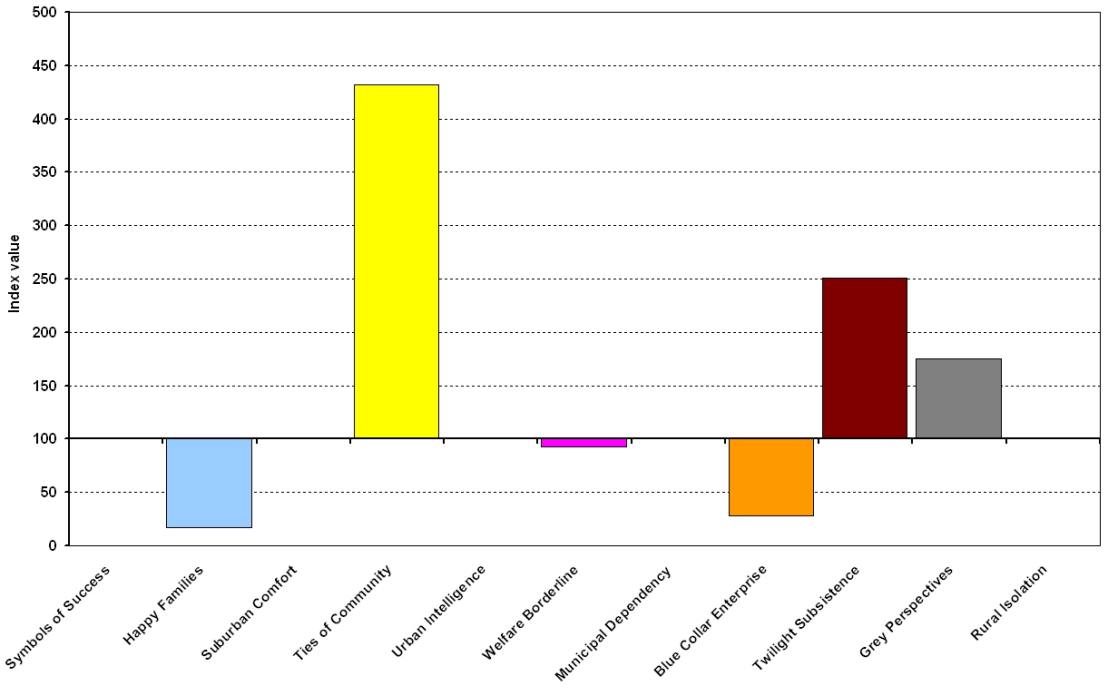

Figure 22: Cliftonville West population index values by Mosaic UK Group, UK base.

3.7.4 The dominance of 'D: Ties of Community' neighbourhoods in Cliftonville West is clearly illustrated in the map of Figure 23. Small discrete pockets of other neighbourhood groups with some similar characteristics are identified in the ward.

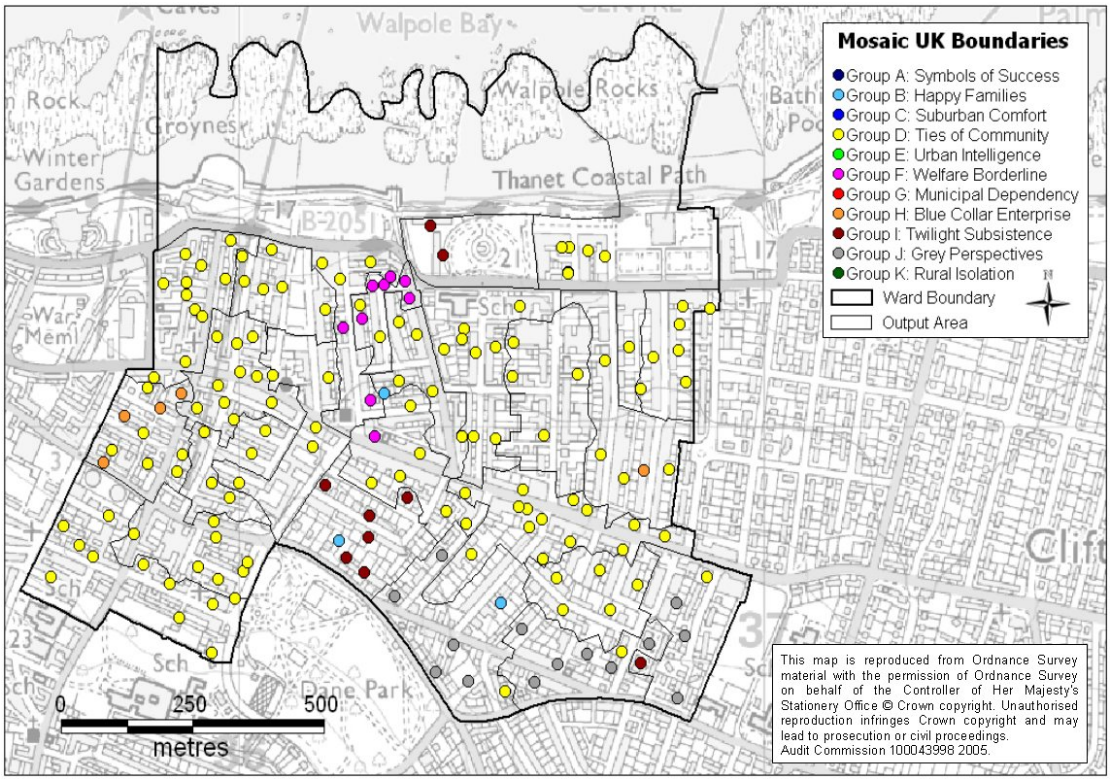

Figure 23: Mosaic UK neighbourhood Group distribution within Cliftonville West, Thanet.

3.7.5 Additional interpretive commentary regarding Cliftonville West and Newington wards in Thanet is provided in Box 4.

3.8 Newington ward (Thanet CDRP)

3.8.1 Newington ward appears to exhibit a very different neighbourhood composition to that of the Cliftonville West also within the Thanet CDRP. Compared to both regional and national bases, Newington's neighbourhoods are disproportionately classified as Group F, G or H.

	Mosaic UK Group	Population	% Population	Index (LAD base)	Index (UK base)
A	Symbols of Success	*0*	*0*	**0**	**0**
B	Happy Families	*162*	*3*	**55**	**27**
C	Suburban Comfort	*0*	*0*	**0**	**0**
D	Ties of Community	*620*	*12*	**44**	**75**
E	Urban Intelligence	*0*	*0*	**0**	**0**
F	Welfare Borderline	*639*	*12*	**532**	**236**
G	Municipal Dependency	*727*	*14*	**318**	**206**
H	Blue Collar Enterprise	*2,770*	*54*	**427**	**458**
I	Twilight Subsistence	*22*	*0*	**12**	**15**
J	Grey Perspectives	*208*	*4*	**16**	**61**
K	Rural Isolation	*0*	*0*	**0**	**0**
	Total	***5,148***	***100***		

Table 8: Mosaic UK Group profiles for Newington, Thanet

3.8.2 The predominance of 'Group H: Blue Collar Enterprise' in Newington is a first within these 'high-crime' study wards. With over half of the population residing in these neighbourhoods, index values to both regional and national bases are over four times the expected proportion.

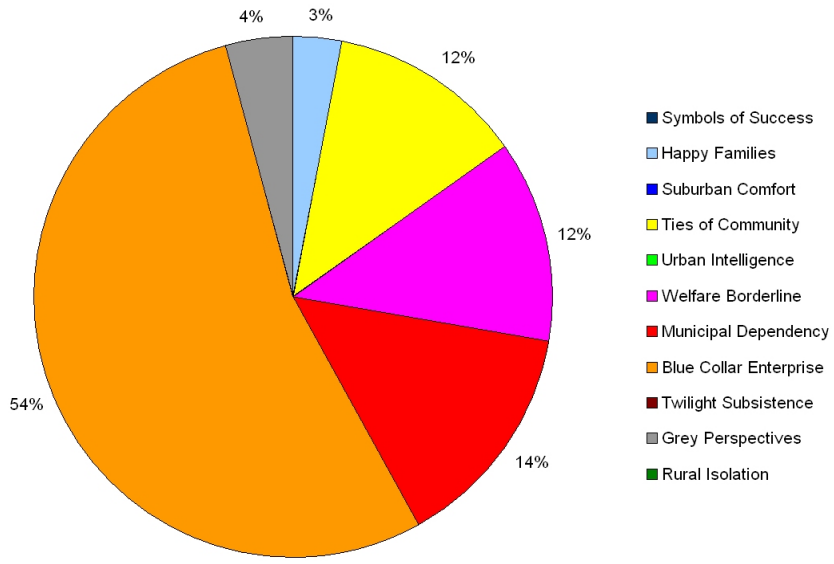

Figure 24: Mosaic UK Group population distribution within Newington, Thanet.

3.8.3 Despite the dominance of Group H, when considering Newington compared to the Thanet CDRP one observes that 'Group F: Welfare Borderline' neighbourhoods exhibit the highest index score (532; Table 8 Figure 25).

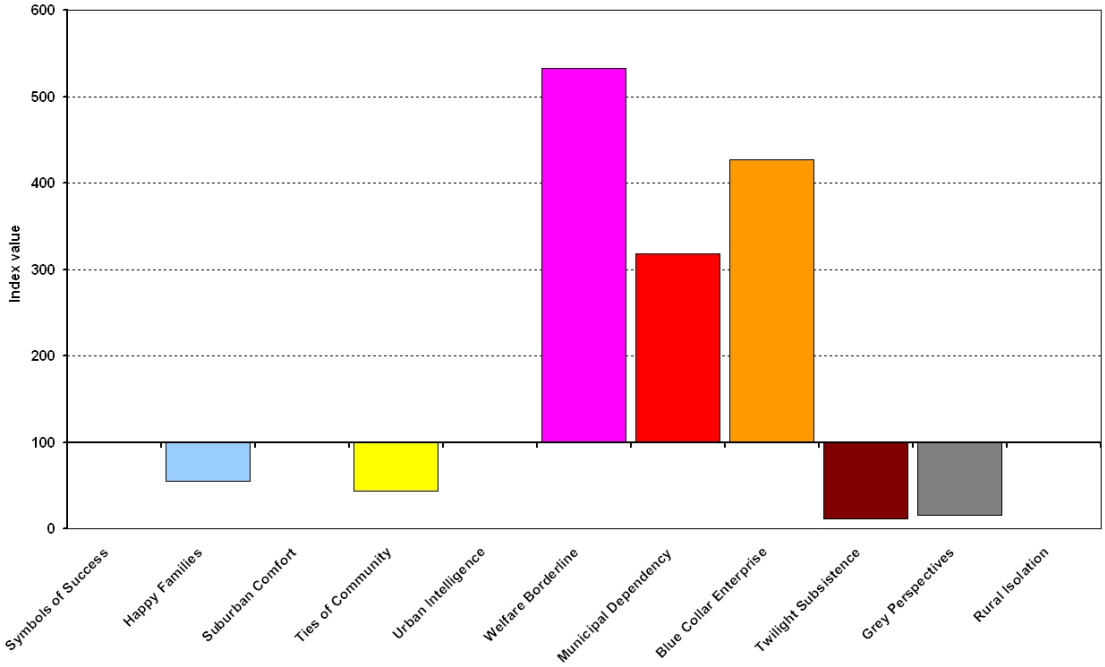

Figure 25: Newington population index values by Mosaic UK Group, LAD base.

3.8.4 The map of Figure 26 clearly illustrates the spatial distribution of neighbourhood groups within this small ward in Thanet. Group H is clearly dominant in this area.

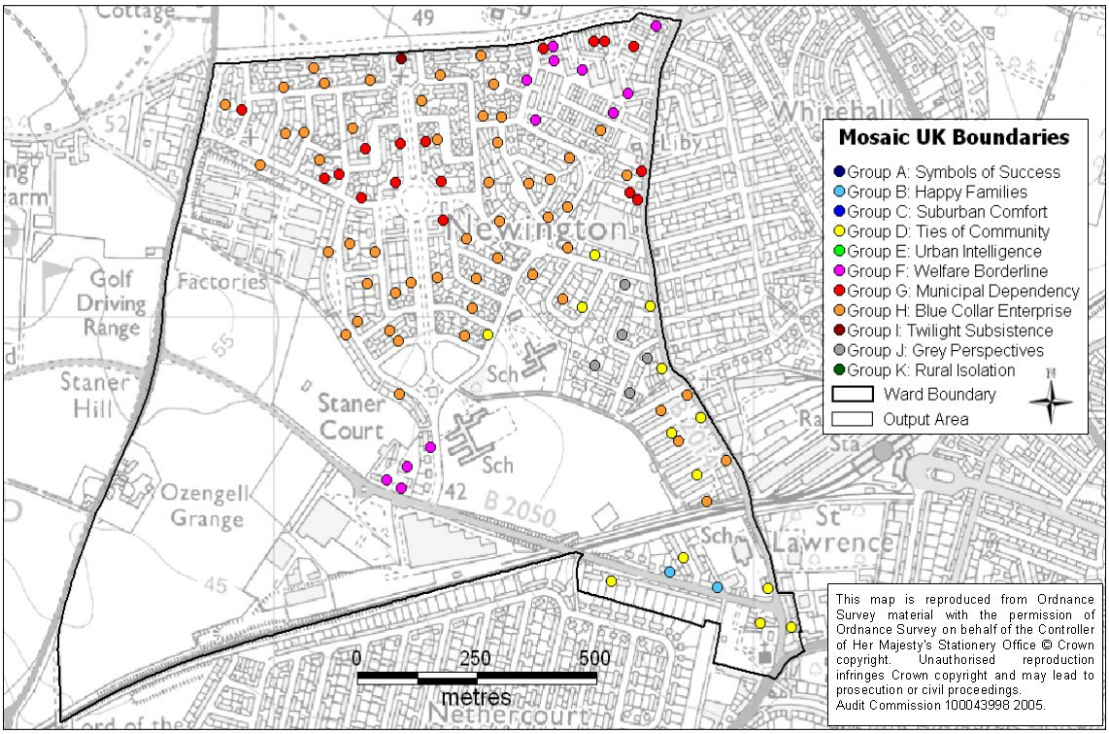

Figure 26: Mosaic UK neighbourhood Group distribution within Newington, Thanet.

Thanet study wards commentary

Margate's **Cliftonville West** ward is dominated by what the Mosaic classification describes as 'Town Centre Refuge'. This type of neighbourhood is common close to the centres of small market towns and to an even greater degree former seaside resorts where small flats above shops, guest houses and boarding houses provide opportunities for a variety of social groups which have difficulty, for one reason or another, finding accommodation in more family oriented residential areas.

The layout of these types of accommodation often make them suitable for young single people and for groups of flat or house sharers, many of whom look to rent a cheap, unimproved flat or house for an uncertain period of time. For landlords in these neighbourhoods, who once made a living from bed and breakfast and long stay summer visitors, it often may become an attractive proposition to rent out small units to people on local authority 'homeless' registers or to obtain income from accommodating asylum seekers. Other properties are sold off to local authorities or social charities who convert them into hostels for a variety of vulnerable groups such as people who may have suffered from mental illness, physical abuse or drug or alcohol dependency.

Cliftonville West ward is a classic neighbourhood of this sort, its accommodation adapting in these ways to the decline of the classic English seaside holiday in favour of the Mediterranean package holiday or the combination of overseas property ownership and low cost airlines.

In parallel to the decline of Margate as a holiday destination we can identify the decline of Margate and many other seaside resorts as retirement destinations. The physical and social decline caused by the demise of the seaside holiday industry has additional knock on effects. The increased numbers of young, unattached residents in temporary accommodation, many of them not speaking English, others dependent on drugs and alcohol, renders these neighbourhoods less attractive than they used to be to the retired population on whom they used to rely.

To compound these effects one can see a transformation in the character of the workforce of local shops and entertainment centres to include large numbers of casual, unskilled and/or foreign workers, many of whom find it convenient to obtain accommodation close to their place of work.

In addition to these population groups the ward also contains a significant number of low income residents living in some of Thanet's cheapest family accommodation, typically small terraced houses in cramped locations close to the town centre. Further from the seafront and from the town centre we also find clusters of 'Small Town Seniors'. Residents in this type of neighbourhood are often in older working age groups or newly retired and tend to be of middling incomes. People of this sort tend to have deep roots in the local community, to work and shop locally and to be active members of local community groups. About 10% of **Cliftonville West**'s population fall within this group.

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In addition to these groups the ward is also home to one of Thanet's most deprived council estates.

Thanet's **Newington** ward has a wholly different population structure from **Cliftonville West**. In this ward we find virtually the entire population living in what were originally developed as council houses and flats. By comparison with the council estates in Liverpool, Bradford and Kerrier, the population of these estates mostly belongs to the Mosaic group 'Blue Collar Enterprise', a grouping characterised by a high proportion of households who have exercised their right to buy. Mostly two storey houses, laid out at low residential densities, these estates divide between an earlier phase of development which now contains a relatively stable, older population ('Rustbelt Resilience') and a more recent development phase ('New Town Materialism') in which we find younger residents, many with relatively low levels of education and who nevertheless aspire to 'middle class' consumption patterns and, as a result, are prone to serious financial difficulties.

It is in this latter group that we typically find high child populations and significant proportions of children from single parent families. Though incomes and unemployment are not especially low, this results from the buoyancy of the local labour market rather than the skill levels of the local labour force. Neighbourhoods of this sort typically generate pupils who perform particularly weakly in GCSE tests and who, on the evidence of data from Nottinghamshire, have a high risk of becoming recorded as young offenders.

In addition to the 55% of **Newington** residents that belong to the 'Blue Collar Enterprise' group we can also identify significantly smaller populations living in various types of high rise council flat (13%) and low rise council housing with especially high levels of deprivation (14%). Among the residents of the high rise blocks there is an unusually (for England) high proportion of families with children.

Newington therefore represents a neighbourhood of broadly similar character, albeit with variations in age, affluence and accommodation type, which is poorly integrated with the rest of Thanet and which forms the type of community in which it is often difficult to develop social capital.

Box 4: Interpretative commentary for Cliftonville West and Newington wards, Thanet.

3.9 Redruth North ward (Kerrier CDRP)

3.9.1 In our final CDRP of Kerrier, Redruth North poses as another fine example of the relative heterogeneity observed within small area administrative geographies. Only two of the neighbourhood groups are not represented in Redruth, whilst Groups D and G constitute some 59% of the total population.

	Mosaic UK Group	Population	% Population	Index (LAD base)	Index (UK base)
A	Symbols of Success	0	0	0	0
B	Happy Families	549	8	89	70
C	Suburban Comfort	306	5	34	28
D	Ties of Community	2,306	34	164	214
E	Urban Intelligence	0	0	0	0
F	Welfare Borderline	130	2	371	37
G	Municipal Dependency	1,657	25	403	361
H	Blue Collar Enterprise	435	6	84	55
I	Twilight Subsistence	458	7	224	241
J	Grey Perspectives	343	5	30	77
K	Rural Isolation	515	8	36	141
	Total	6,699	100		

Table 9: Mosaic UK Group profiles for Redruth North, Kerrier.

3.9.2 Over four thousand of the total population of 6,699 in Redruth North reside within those neighbourhood Groups classified as 'D: Ties of Community' or 'G: Municipal Dependency'. As Figure 27 clearly illustrates the distribution of the population into the other neighbourhood groups is fairly even, with the notably exception of 'F: Welfare Borderline'.

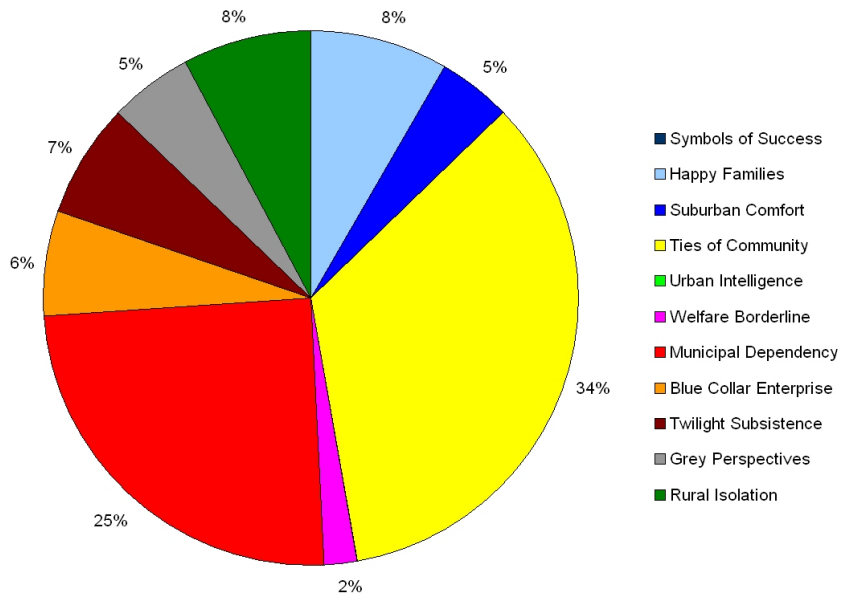

Figure 27: Mosaic UK Group population distribution within Redruth North, Kerrier.

3.9.3 The index values plotted in Figure 28 compare the ward population to that of the Kerrier LAD. Here it is highlighted that although when compared to a national base Redruth North appears to have relatively few 'F: Welfare Borderline' neighbourhoods, when compared to Kerrier there are over three times the expected proportion.

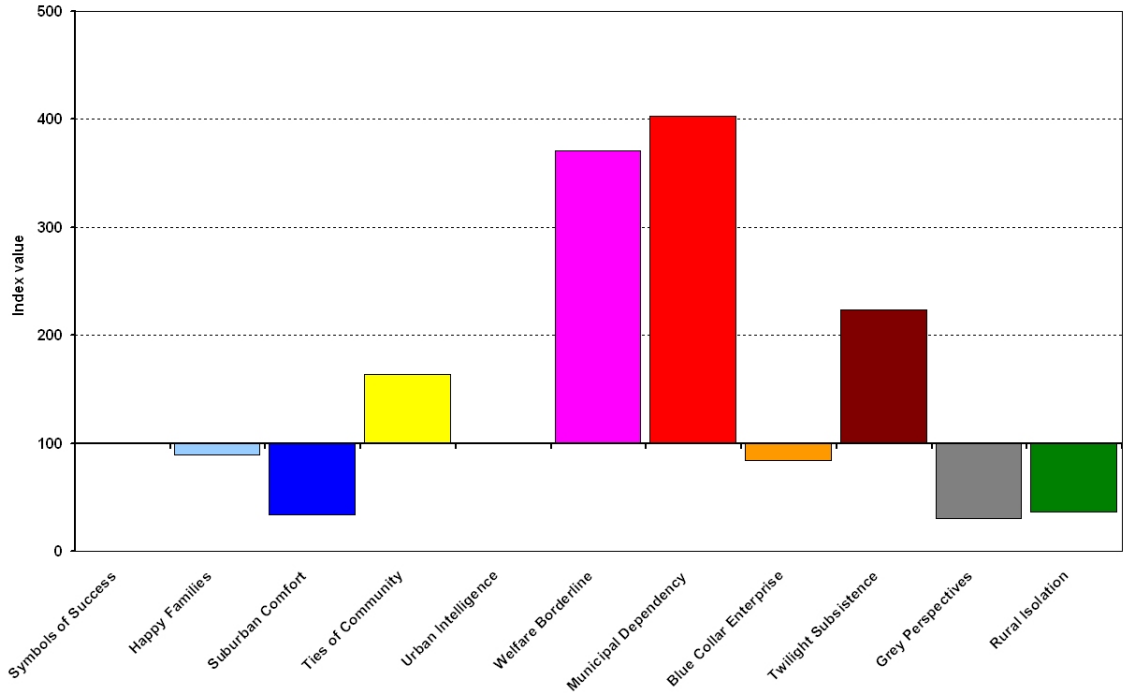

Figure 28: Redruth North population index values by Mosaic UK Group, LAD base.

3.9.4 Figure 29 provides an excellent example of the spatial clustering of similar neighbourhood groups. The heterogeneity of the more densely populated areas of Redruth in the south with those rural neighbourhoods fanning out to the north again raises questions as to the suitability of defining 'local' area strategies at the ward level.

3.9.5 Additional interpretive commentary regarding Redruth North and Illogan South wards in Kerrier is provided in Box 5.

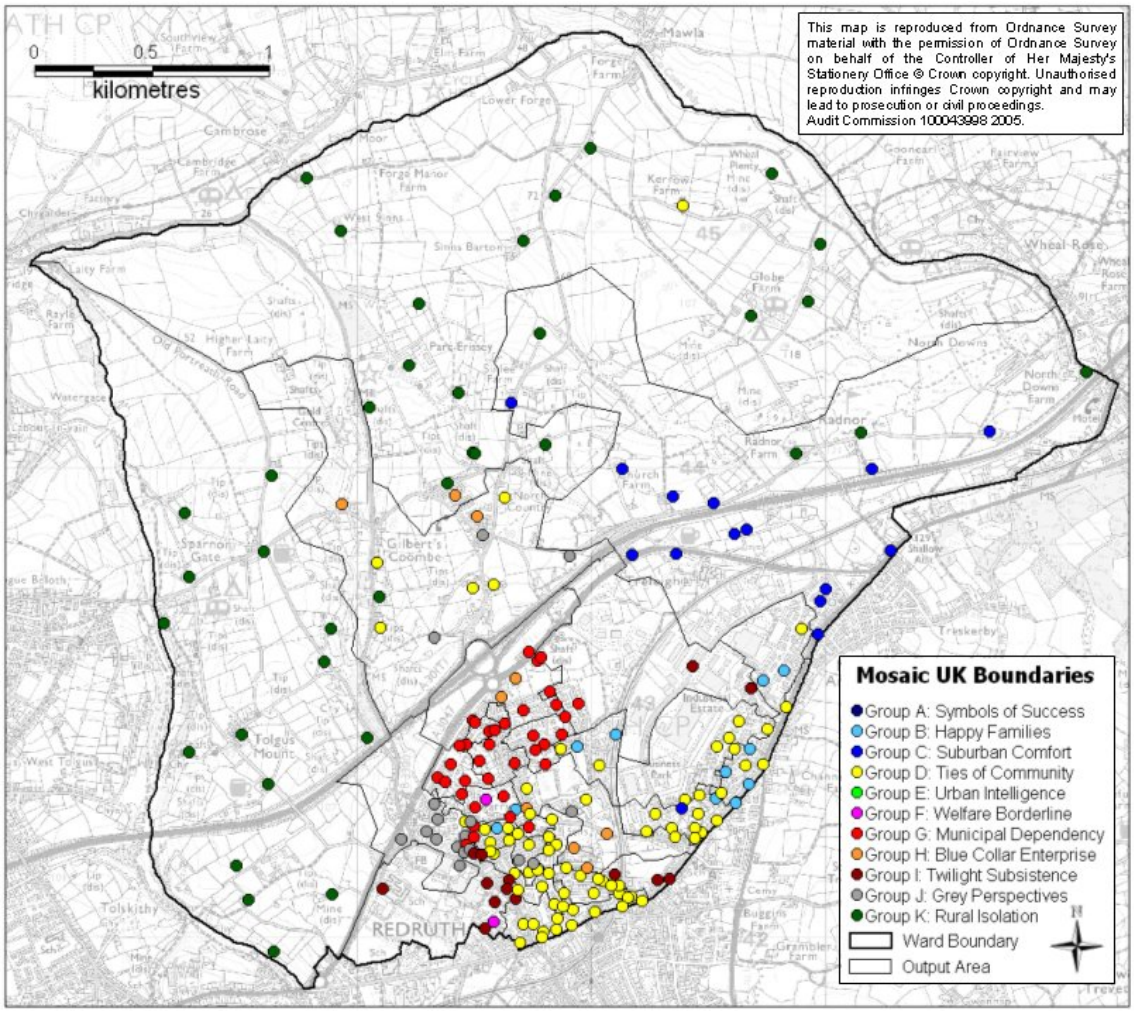

Figure 29: Mosaic UK neighbourhood Group distribution within Redruth North, Kerrier

3.10 Illogan South ward (Kerrier CDRP)

3.10.1 The tenth and final ward described here is Illogan South in Kerrier. Once again, a diversity of population across all but two neighbourhood groups highlights the necessity to implement neighbourhood policing strategies at a spatial granularity likely to be finer than the ward.

	Mosaic UK Group	Population	% Population	Index (LAD base)	Index (UK base)
A	Symbols of Success	*0*	*0*	**0**	**0**
B	Happy Families	*444*	*6*	**66**	**52**
C	Suburban Comfort	*837*	*11*	**84**	**70**
D	Ties of Community	*3,205*	*44*	**208**	**272**
E	Urban Intelligence	*0*	*0*	**0**	**0**
F	Welfare Borderline	*61*	*1*	**159**	**16**
G	Municipal Dependency	*707*	*10*	**157**	**140**
H	Blue Collar Enterprise	*618*	*8*	**109**	**72**
I	Twilight Subsistence	*291*	*4*	**130**	**140**
J	Grey Perspectives	*839*	*11*	**67**	**171**
K	Rural Isolation	*341*	*5*	**22**	**85**
	Total	***7,343***	***100***		

Table 10: Mosaic UK Group profiles for Illogan South, Kerrier.

3.10.2 As has been previously noted in these examples of 'high-crime' wards, the dominant neighbourhood group is 'D: Ties of Community', with 44% of the population residing in these areas.

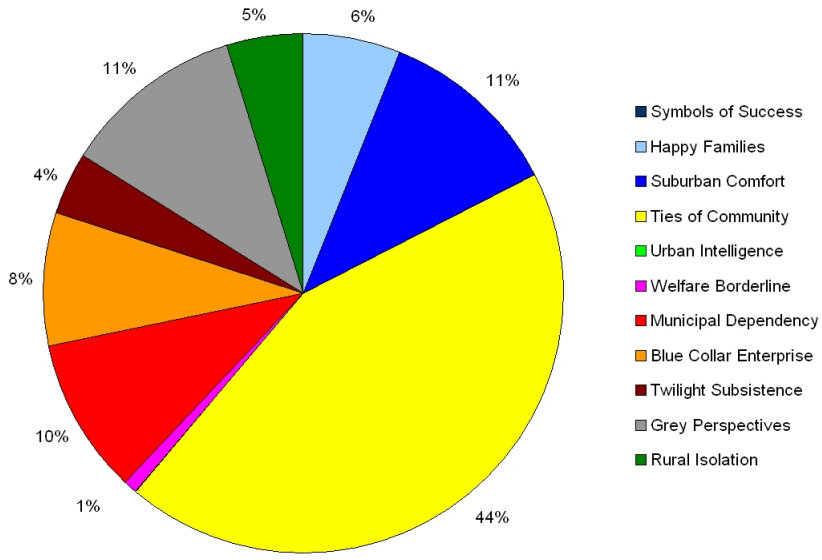

Figure 30: Mosaic UK Group population distribution within Illogan South, Kerrier.

3.10.3 Evaluating those index scores compared to both Kerrier and the nation as a whole, one may note the relative difference in 'Group K: Rural Isolation'. From this, and those other

index scores, one may note that Kerrier has a relatively high proportion of rural neighbourhoods (particularly 'K57: Summer Playgrounds', 'K59: Parochial Villagers' and 'K60: Pastoral Symphony'). However, when selecting a 'high-crime' ward within a CDRP with a high proportion of rural neighbourhoods, it comes as no surprise that the wards selected are under-represented in this category, and those wards containing more urban localities have been defined.

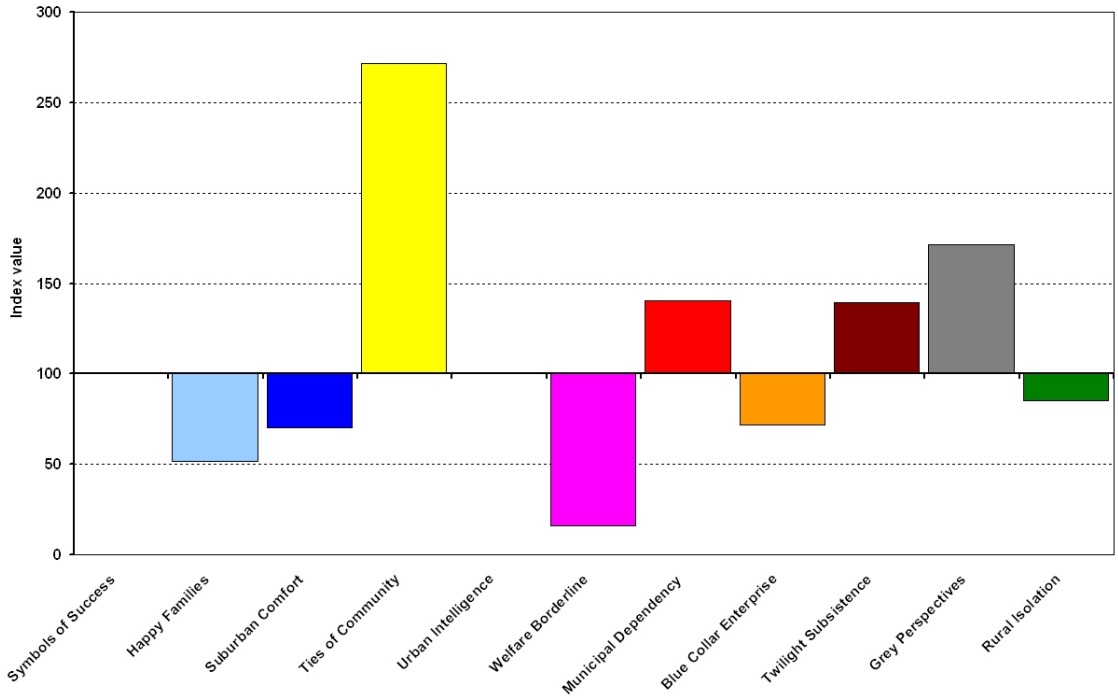

Figure 31: Illogan South population index values by Mosaic UK group, UK base.

3.10.4 The areal extent of Illogan South ward in Figure 32 highlights another important dimension when developing neighbourhood policing strategies – the physical geography of this ward evidently differs greatly to that observed for Anfield or any other ward in a major urban locality. Moreover, those neighbourhood groups mapped here further illustrate the clustering of potential very different communities within an administrative areal unit for which policy makers may erroneously assume 'one-size fits all'.

3.10.5 See Box 5 for further description, discussion and interpretation of those communities and neighbourhoods in the two profiled wards in Kerrier.

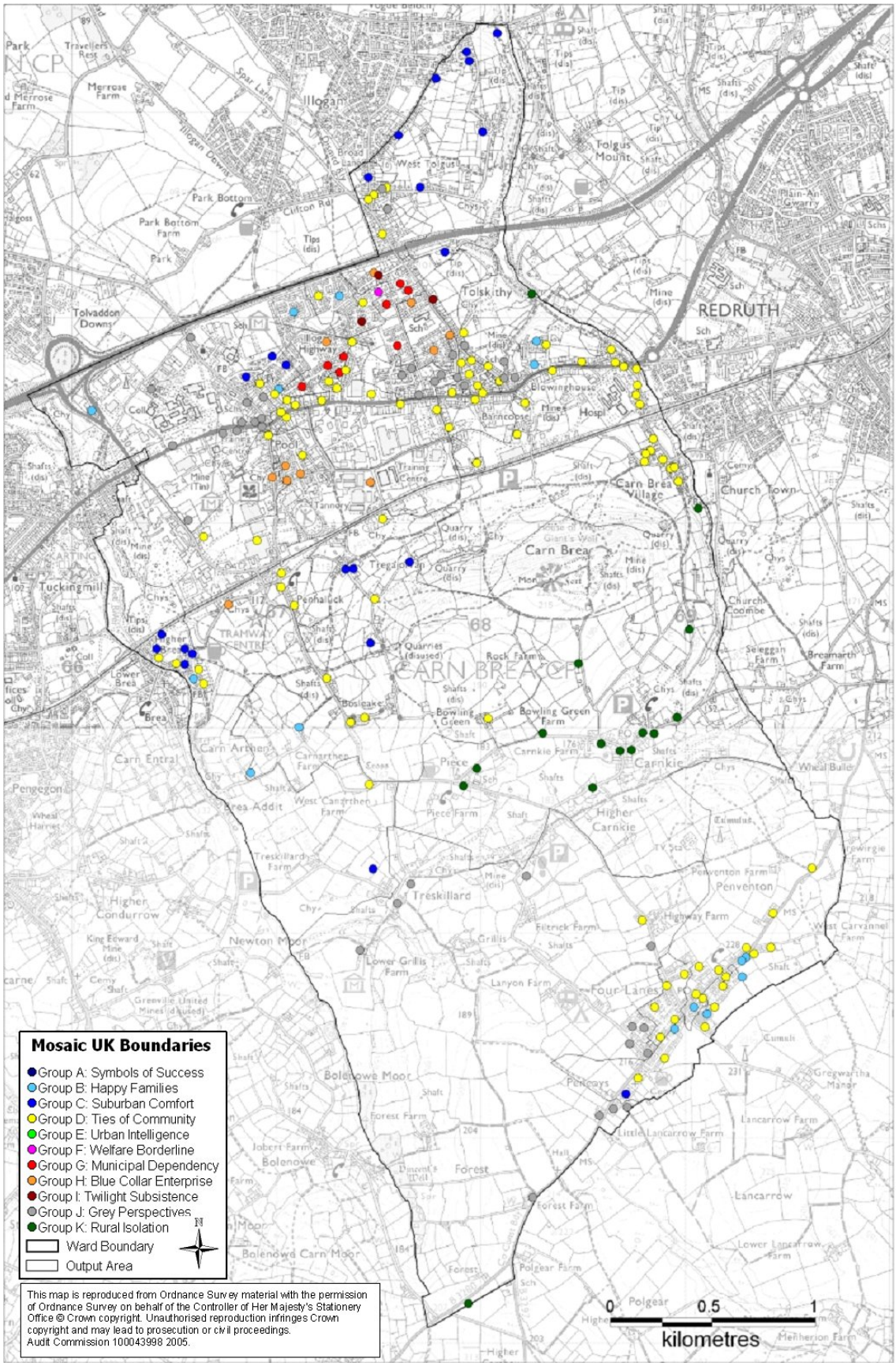

Figure 32: Mosaic UK neighbourhood Group distribution within Illogan South, Kerrier.

Kerrier study wards commentary

Kerrier's **Redruth North** and **Illogan South** wards are situated close to what over a hundred years ago were the world's most productive deposits or tin and copper. Over the years since then the wards have experienced a gradual but persistent decline and even today are characterised by an elderly population and a set of residents lacking the skills that would command incomes above the average for the country.

Redruth North contains a wide variety of neighbourhoods. However the largest proportions of residents live either in down at heel areas of older terraced housing or in council estates with a high level of deprivation.

The areas of older terraced housing are mostly built of local stone in small streets many of which are characterised by front doors opening directly onto the street. Until recently in Cornwall many of these houses had been poorly maintained and many of them lacked modern amenities. These streets were built close to the mine shafts and benefited from close proximity to shops, pubs and other entertainment facilities. Despite their attractive physical appearance the poor image of the tin mining towns militated against them being gentrified by young professionals working in Truro, despite its proximity, or attracting retirees from other parts of the country. However in the past two years these houses have witnessed some of the largest increases in property prices in Great Britain.

Most of these terraces are occupied by people with longstanding roots in the local area, many of whom are culturally 'opposed' to the more affluent incoming retirees who have had the resources to take over properties in the more sought after rural and coastal communities in West Cornwall. Redruth therefore had become a kind of 'sink' town to which young people who could not afford to purchase in other West Cornwall towns tended to move.

Whereas around a third of the local population live in neighbourhoods of this sort, a further 25% live in the three Mosaic types which are characterised by low rise council estates with extremely high levels of multiple deprivation. The categories which particularly feature in **Redruth North** are 'Low Horizons' and 'Ex Industrial Legacy', estates which are characterised by particularly low levels of income, low educational attainment and very low levels of material aspiration. By way of contrast these are not the types of estate that tend to suffer from unstable household arrangements and large numbers of delinquent teenagers. Most residents of these neighbourhoods will be the descendents of former tin miners whose parents and grandparents have failed to develop the skills needed to the altered economic landscape. Indeed in these neighbourhoods we also find the characteristics of many economically declining regions, where the more enterprising and better educated members of the community have left for better employment opportunities in other parts of the country, leaving behind the less enterprising, the less confident and the less healthy.

Besides these two groups we find a small but not insignificant number of residents living in estates of post war private housing, in rural areas, in sheltered accommodation for the elderly and in small villages dominated either by retirees or by proprietors of local small businesses.

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An interesting feature of the ward is that it has one of the highest proportions of residents with local surnames in England, an indication of the isolated and tight knit nature of a community which has traditionally had little experience of in migration from other parts of the country.

Such a community as this has the benefit of sharing a distinctive sense of history and identity even though, in terms of age, housing and social class, it is very varied. Such communities are likely to benefit from high levels of social capital but are likely to express this in terms of maintaining controls directly rather than through external agencies.

Though part of a smaller community than **Redruth North**, **Illogan South** shares many of the characteristics of **Redruth North**, being based on a collection of old tin mining communities now supplemented by small private estates attractive to retired people from the local community rather than from elsewhere in Britain.

Some 42% of **Illogan South's** population live in very poor quality older terraced housing, much of which until recently was in a very poor condition. These older terraces are typically arranged in small streets in small ex-mining villages which offered particular poor employment opportunities to people without a car. A significant portion of the male residents have had cultural difficulties adapting to an economy based on servicing tourists. Average male wages are lower in this part of Cornwall than anywhere else in Britain and, in common with many other ex-mining areas, there is no assumption that wives should work. As in many of the Welsh valley communities (such as **Pen-y-Waun**) we find very low levels of confidence in the benefits of economic entrepreneurship despite the very high levels of owner occupation.

By comparison with **Redruth North Illogan South** contains only a few small council estates. However these have much higher levels of deprivation, unusual for such a small community. As in South Wales (and as we have seen in Bradford) it is common where social housing is available to only a very small minority of residents in a relative poor community that it is only the most deprived who qualify for access to it.

By contrast with the high levels of deprivation in the older terraces and council estates in **Illogan South** we do also find a number of comfortably off semi rural neighbourhoods, many of which have attracted relatively well off older couples ('Small Town Seniors') and small proprietors ('Small Time Business'). Given the physical separation of poor and middling neighbourhoods in **Illogan South**, it would not be surprising if these two groups had relatively little social contact with each other.

Box 5: Interpretative commentary for Redruth North and Illogan South wards, Kerrier.

4 Geospatial and Geodemographic Analysis

4.0.1 This section details the geodemographic profiling of the ten wards using both British Crime Survey data and recorded crime data taken from operational records. The final two sections of this chapter present findings from the PLASC database and key findings from other data sources analysed on behalf of the Audit Commission.

4.0.2 Whilst the absolute population distributions observed in the ten wards were reported in the previous section, all subsequent statistical analyses have been conducted using population distributions which may contain minor revisions to promote more robust findings. All Mosaic UK types containing less than 100 persons were redistributed to the most similar type. This redistribution of small numbers of persons to similar types is detailed in the Technical Annex and digital data files supplied to the Commission.

4.1 Evidence from the British Crime Survey

How attitudes and victimisation patterns differ by neighbourhood

4.1.1 When British Crime Survey (BCS) results are analysed by neighbourhood group it is evident that there is a very wide disparity between types of neighbourhood in terms of not just the overall level of crime but also the mix of crime.

4.1.2 Those analyses presented here should be grounded within the context of relationship between both public concerns and crime prevalence. With the experience of expanding perception gap (the divergence between observed improvements in crime rates and the declines in the level of satisfaction coupled with a perception of increasing crime rates and associated fears), estimates and indicators of public perception are of great importance to local and regional service providers.

4.1.3 The immense volume of variables available to profile by neighbourhood type prevents comprehensive analyses here. Summary trends are presented here which may be of immediate interest for the High Crime; High Disorder Neighbourhoods study. The full profile library has been made available to the Audit Commission for further exploratory analysis.

4.1.4 Those living in areas classified as 'A: Symbols of Success' and 'K: Rural Isolation' are unlikely to experience crimes within fifteen minutes walk of their home; these groups are much more likely to experience crime at sports grounds, entertainment complexes, public car-parks or at work. These groups also hold their neighbourhoods in high regard, feel very safe at home

and walking alone after dark, and perceive crime rates to be 'about the same' as the previous couple of years.

4.1.5 Conversely, Groups F and G ('Welfare Borderline' and 'Municipal Dependency') perceive crime rates to have increased considerably over the past two years, are likely to rate the police service as 'fairly poor' or 'very poor', feel very unsafe walking alone after dark, are unlikely to consider their neighbourhood a nice place to live, commonly perceive local homes to be in bad physical condition and see this as a problem in the neighbourhood.

4.1.6 Although, there are often similarities between groups F and G, or to lesser extent between groups A and K, there are often subtle important differences in the crime profile mix and attitudes, which thus may affect the most appropriate policing response. For example, teenagers hanging around on the street are considered a problem in both groups F and G, but those 'Municipal Dependency' neighbourhoods are far more likely to consider this to have a bad effect on their lives. Additionally, 'Welfare Borderline' neighbourhoods are more likely to be worried about being insulted or pestered.

4.1.7 'Urban Intelligence' neighbourhoods are commonly populated with those who do not have elevated fear of crime, but are particularly susceptible to criminal damage and damage to their cars. Residents of these neighbourhoods are likely to 'go their own way' and do not have a problem with youths hanging around on the street perhaps because the street scene is so busy with everyone else walking up and down it, these not being areas dominated by car as a mode of travel.

4.1.8 Neighbourhoods of 'Happy Families' are unlikely to be affected by litter, vandalism and drugs, and generally feel fairly safe in and around their home. The crime and fear profiles for these areas are often around the national average. Such neighbourhoods are 25% more than the national likely to consider teenagers hanging around as the most common problem in the area although this is unlikely to have a bad effect on the residents' lives.

4.1.9 'Ties of Community' neighbourhoods frequently host homes in bad physical condition and residents are likely to think that crime has increased in recent years. Profiles from the BCS suggest that respondents from these areas are 33% more likely to consider teenagers hanging around on the streets as a common problem which has a bad effect on their lives. Rubbish and litter on the street is likely to be a fairly big problem for residents and is perceived as very common. Residents are also worried about household burglary, and have an elevated risk of damage to their cars.

4.1.10 From the analysis of profiles such as those highlighted in Table 11 one can confidently identify in which neighbourhood types such events are most likely to occur, and further achieve an insight into local residents' likely perceptions of these events and local issues. For example,

the propensity of residents to perceive teenagers hanging around on the street, rubbish or litter lying about, and vandalism, graffiti and criminal damage as common within their local area is consistently above the national average in Groups F and G.

BCS Question		How common is/are…			Feelings about…		
		teenagers?*	rubbish?*	vandals?*	burglary?	physical attack?	neighbours?
BCS Response		*Very common*	*Very common*	*Very common*	*Very worried*	*Very worried*	*Go own way*
A	Symbols of Success	38	28	36	53	55	84
B	Happy Families	83	58	63	76	87	107
C	Suburban Comfort	59	55	46	92	89	85
D	Ties of Community	124	139	107	124	124	106
E	Urban Intelligence	75	104	85	93	101	129
F	Welfare Borderline	178	186	237	151	153	130
G	Municipal Dependency	187	181	227	154	149	120
H	Blue Collar Enterprise	138	121	132	110	100	111
I	Twilight Subsistence	102	91	131	96	110	89
J	Grey Perspectives	49	48	61	66	67	80
K	Rural Isolation	9	26	4	50	50	50

Table 11: Selected BCS profiles by Mosaic group

* Abbreviations of BCS questions used in Table 11 above:
* *Teenagers:* 'Teenagers hanging around on the street'
* *Rubbish*: 'Rubbish or litter lying about'
* *Vandals*: 'Vandalism, graffiti and other deliberate damage to property'

4.1.11 Whilst there are many consistencies and general trends that one may draw across the neighbourhood group classification, variations in index scores do fluctuate more significantly at the 61-type level, highlighting many intricacies and deviations from general trends. Furthermore, these analyses are enlightening when mapped to local areas and spatial variation is observed.

4.1.12 Local variations in attitudes by neighbourhood type can also be examined using geodemographics if, for example, the postcodes of respondents to a police fear of crime survey within the local CDRP or Force area were retained and analysed. Such data sources may be available from Crime and Disorder Audits and/or may include those quantitative surveys commissioned by the Audit Commission for this (and related) project(s). The pooling of such resources into a geodemographic framework not only leverages extra value from existing data

sources but also enhances our collective understanding of geodemographic trends and enhances the statistical robustness of those assertions drawn from such research.

Extrapolating the BCS to the Neighbourhood Level

4.1.13 The British Crime Survey[2] has insufficient numbers of respondents within police authority areas to provide reliable statistical sample at force level (for some questions), let alone BCU or ward level as is often required for local service delivery. Even in the advent of significantly increasing the sample size in recent years, these data remain unreliable (and hence suppressed) at any spatial granularity finer than the Police Force. The most efficient means of using the survey to target policing within a local area is therefore through the medium of geodemographics.

4.1.14 For example, if one wanted to ascertain some estimate of the extent to which social disorders such as groups of youths are likely to a serious problem in different communities and consequently map such phenomena, geodemographics can provide stable, modelled estimates from data sources such as the BCS without the expense of additional local data collection.

4.1.15 The first step is to identify the Mosaic UK category which is given to each of the individual postcodes in the subject ward. The next stage is to look up for each postcode the score of its classification on the profiles associated with 'teenagers hanging about' on the British Crime Survey. If, for example, a postcode is classified as 'F37: Upper Floor Families', which has a national index for 'teenagers hanging about' being a 'very big problem' of 183, then it is reasonable to assume that the postcode is of a sort which is more likely than average to suffer from this source of annoyance which thus may constitute a signal of social disorder. If in a local community of twenty postcodes, all twenty have classifications which nationally have index values of over 150, then there is a very high probability that groups of youths will be a particular problem in this community, even if not necessarily in each and every postcode.

4.1.16 This method of interpolation differs from the analysis of incident data/recorded crime data in that it provides modelled estimates of risk rather than that of past local experience. Very few rape incidents in the next 12 months will be in postcodes where a rape has been reported in the past 12 months. For low frequency crimes, for crime with low reporting rates and for attitudinal variables which can not be identified from operational statistics the geodemographic interpolation method has many advantages. For high volume crimes, which have high report rates or which are poorly related to population characteristics the method will be less appropriate than the use of operational records.

[2] These analyses are based on the responses to the BCS obtained in the year 2000.

4.1.17 The following ten maps highlight the modelled likelihoods of different phenomena which may be of interest to the Commission in the ten study wards. The analysis of these and exploratory analysis of the range of additional variables contained within the BCS profile library may help to identify significant trends, and their strength, in these high crime neighbourhoods.

4.1.18 Further to the illustration and mapping of these likelihoods, geodemographic output can also be compared to a range of recorded crime data sets, and indeed lifestyles data sets, from which one may hence infer appropriate remedial strategies and appropriate channels through which one can engage with those communities 'at risk'.

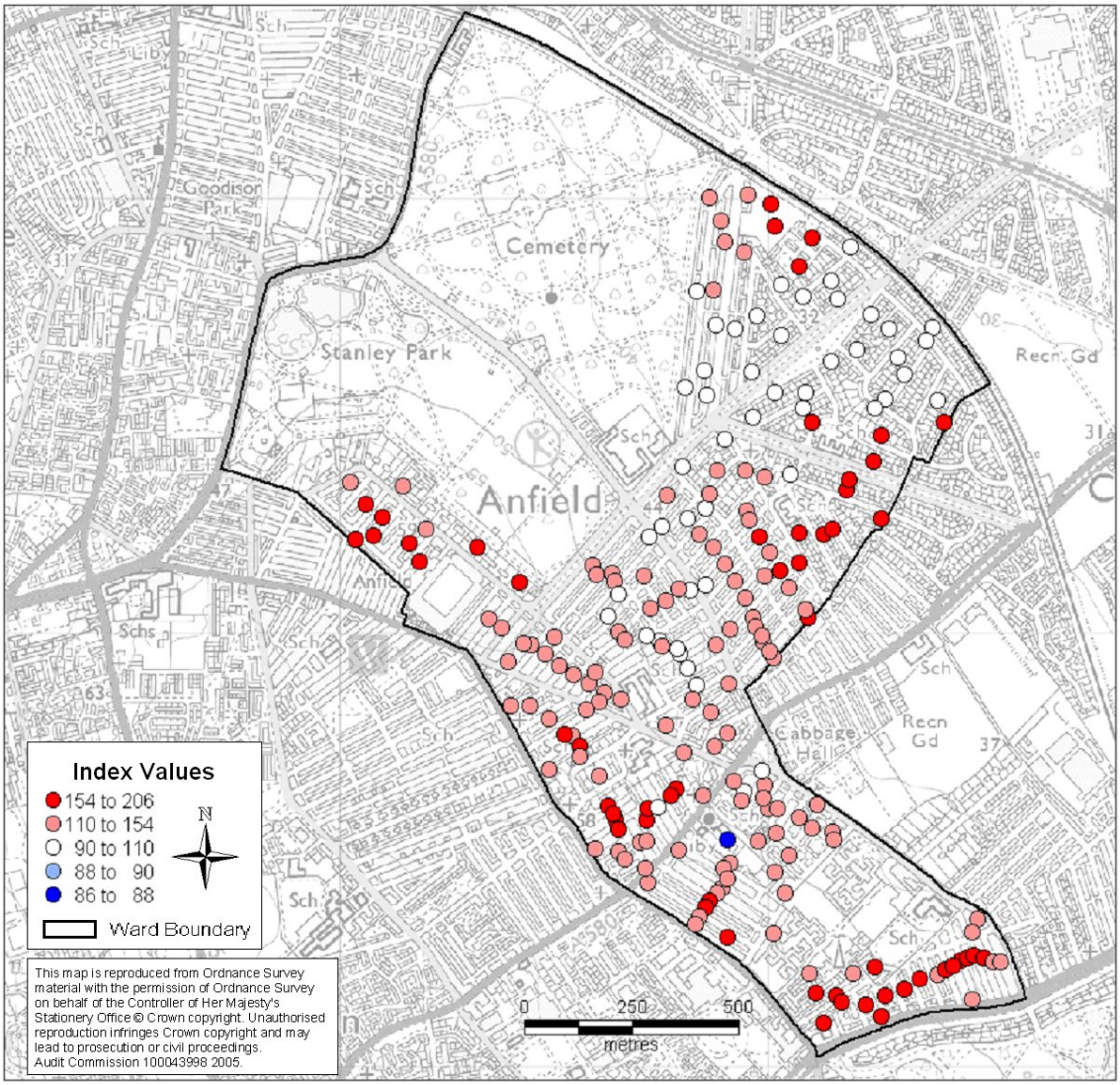

Figure 33: Modelled propensities: the relative likelihood of resident car owners being very worried about possessions being stolen from their car in Anfield, Liverpool.

4.1.19 One dominant characteristic of Figure 33 is that most areas appear to have elevated levels of relative risks for this variable. This may lend support to the selection of Anfield as a 'high crime, high disorder neighbourhood'. However, spatial patterns in intensity are

nevertheless observed in this locality and such mapping could be extended beyond the Anfield boundary to compare relative risk with the CDRP or region as a whole.

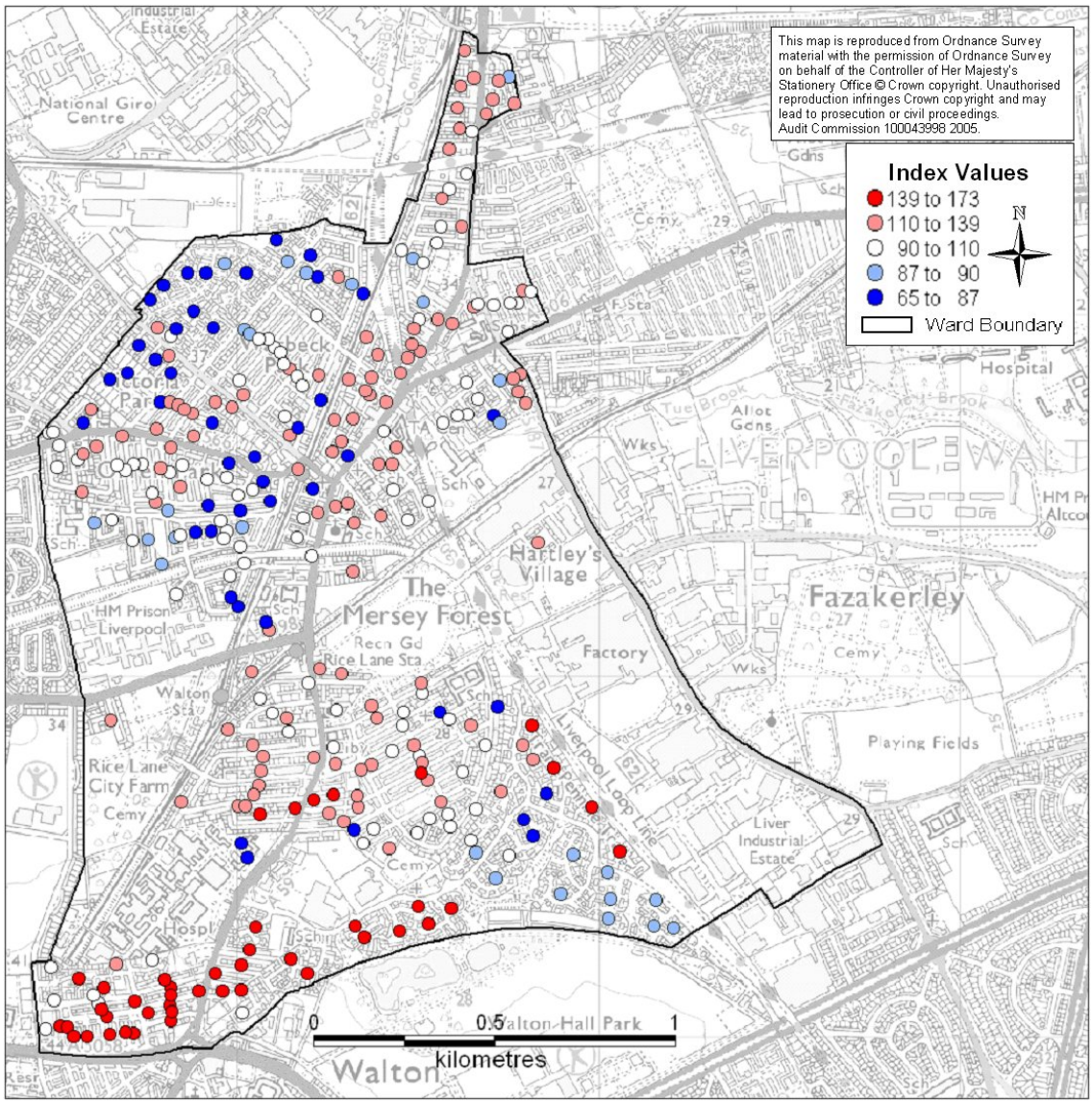

Figure 34: Modelled propensities: the relative likelihood of the resident population being very worried about burglary in Warbreck, Liverpool.

4.1.20 The relative likelihood to be very worried about burglary for residents in Warbreck neighbourhoods shows considerable spatial variation (Figure 34). One may further want to overlay or compare such modelled surfaces with those observed from recorded crime data sets and/or local fear-of-crime surveys to assess the validity of the model in this locality.

4.1.21 In Figure 35 we observe the relative likelihood of the resident population being very worried about a racial attack in Tong, Bradford. A strong spatial pattern is observed which may be verified with local knowledge or other intelligence resources available to local analysts/practitioners.

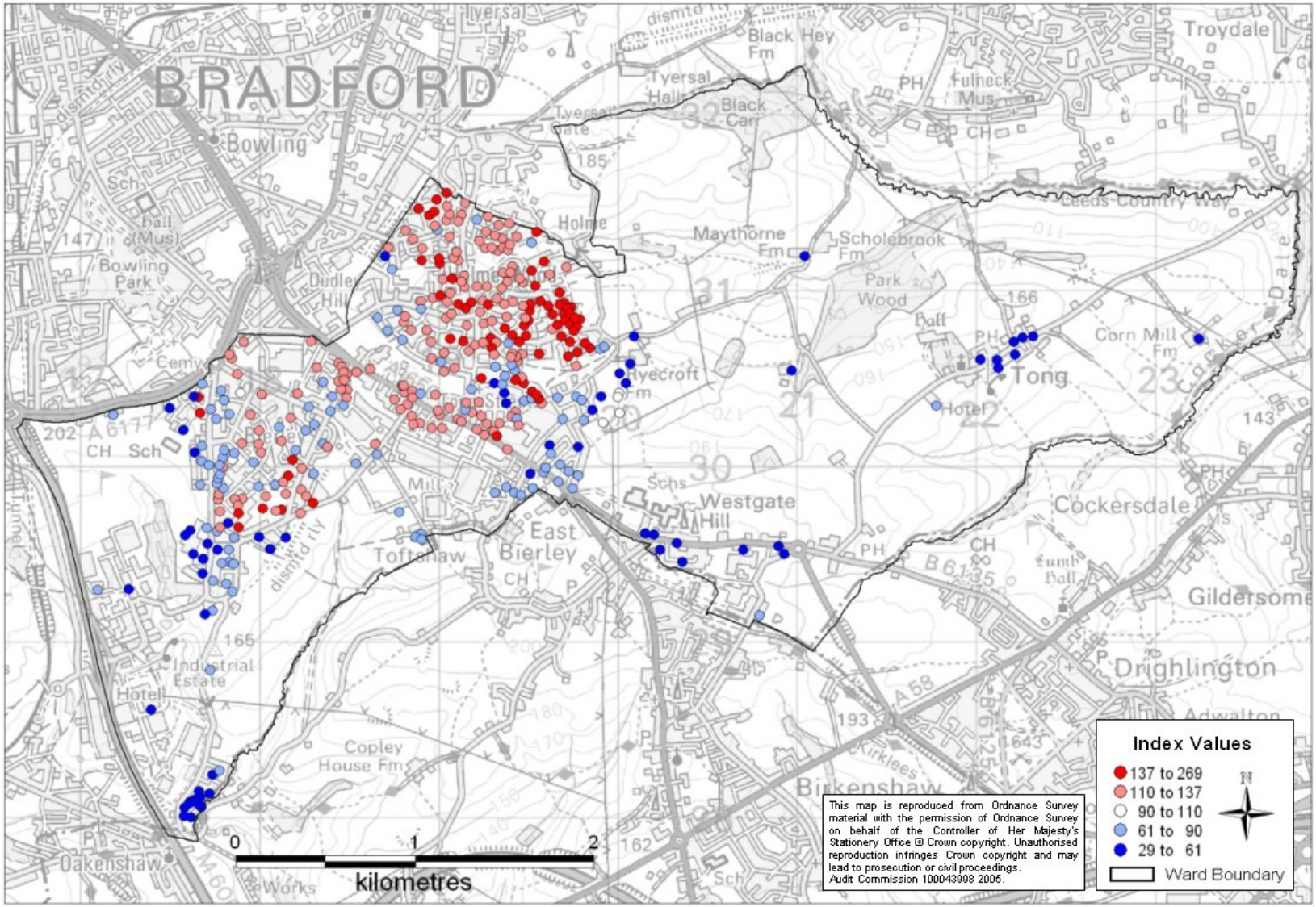

Figure 35: Modelled propensities: the relative likelihood of the resident population being very worried about a racial attack in Tong, Bradford.

4.1.22 In Figure 36 a very useful variable, that the local perception of teenagers on the street posing a problem, is extrapolated to the unit postcode level in Eccleshill, Bradford. Achieving an estimate of the local spatial variation in variables such as this (which are often key concerns in many local communities) is inherently problematic and/or resource intensive. The modelling of national trends, from readily available existing data sources, through geodemographic segmentation techniques poses an efficient solution to this quandary.

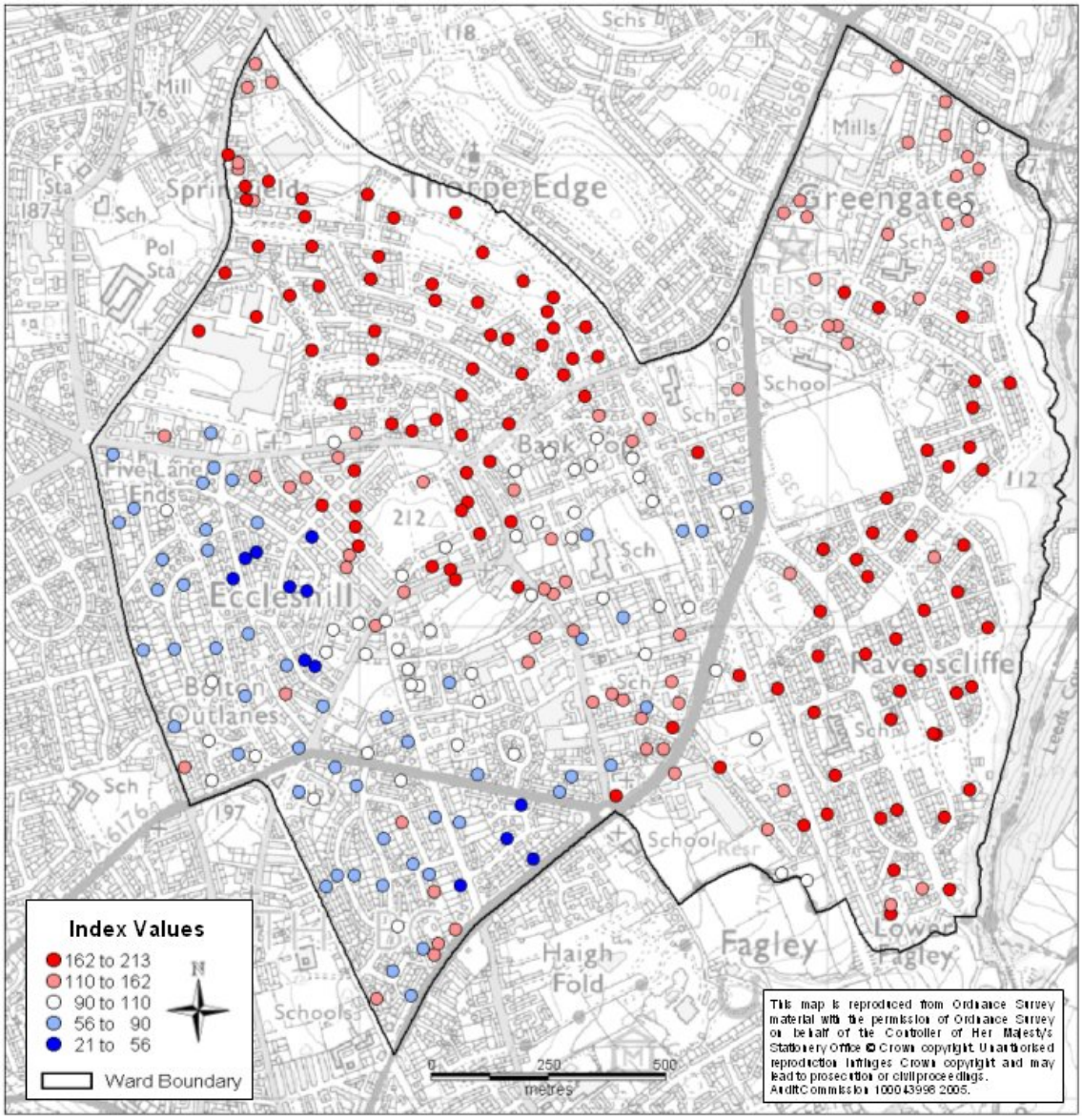

Figure 36: Modelled propensities: the relative likelihood of the resident population perceiving teenagers hanging around as a very big problem in Eccleshill, Bradford.

4.1.23 One may recall the earlier description of the relative homogeneity of neighbourhood groups in the small ward of Pen-y-Waun in Rhondda. However, even within this locality it is possible to model and observe some spatial variation in profiles derived from the British Crime Survey. Figure 37 illustrates the relative likelihood of residents expressing a fear of being mugged in their local area. Whilst we do not at this juncture have any data pertaining to local fear and anxieties in the area, modelling such variation by neighbourhood type establishes a decent origin from which local service providers may wish to further explore the needs of the local community.

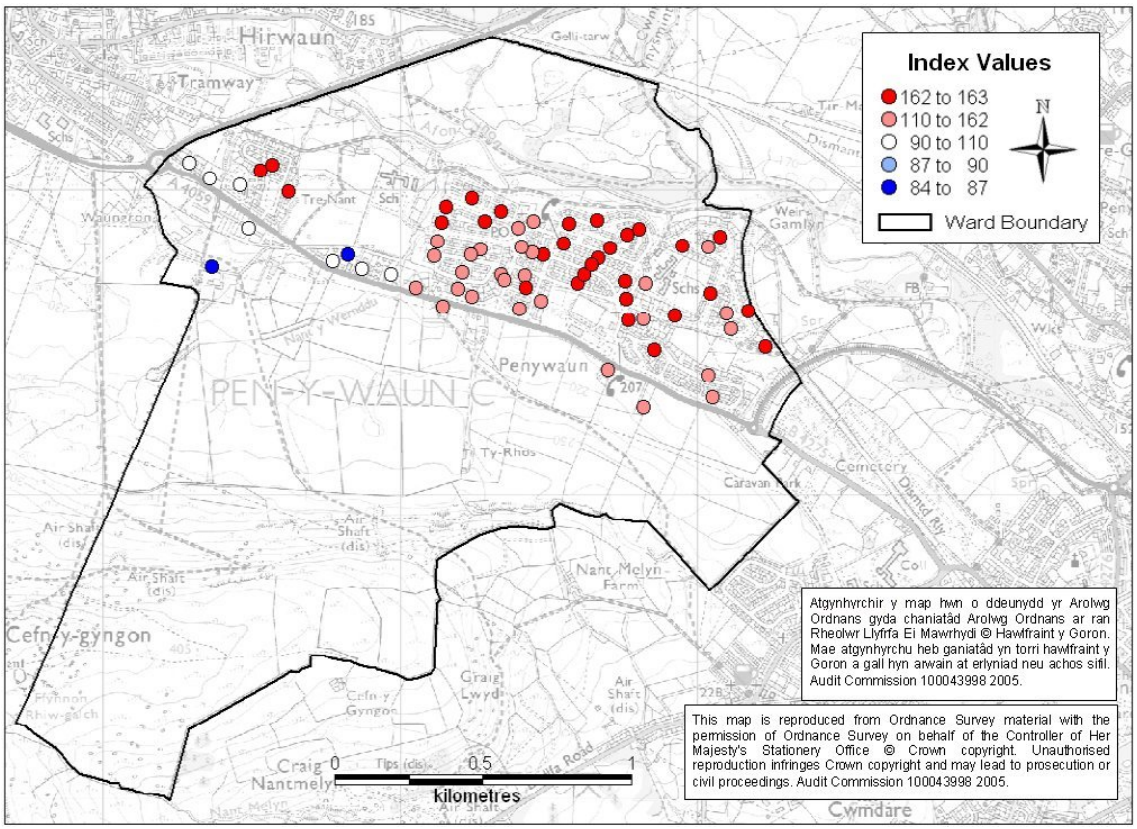

Figure 37: Modelled propensities: the relative likelihood of the resident population expressing that they are very worried about being mugged within Pen-y-Waun, Rhondda Cynon Taf.

4.1.24 In the very diverse ward of Talbot Green we observe significant spatial variation in a variable conveying the relative likelihood of residents thinking their local area is a good place to live (Figure 38). Resident satisfaction, pride and relationship with their local area is likely to be of palpable interest to local decision makers and service providers.

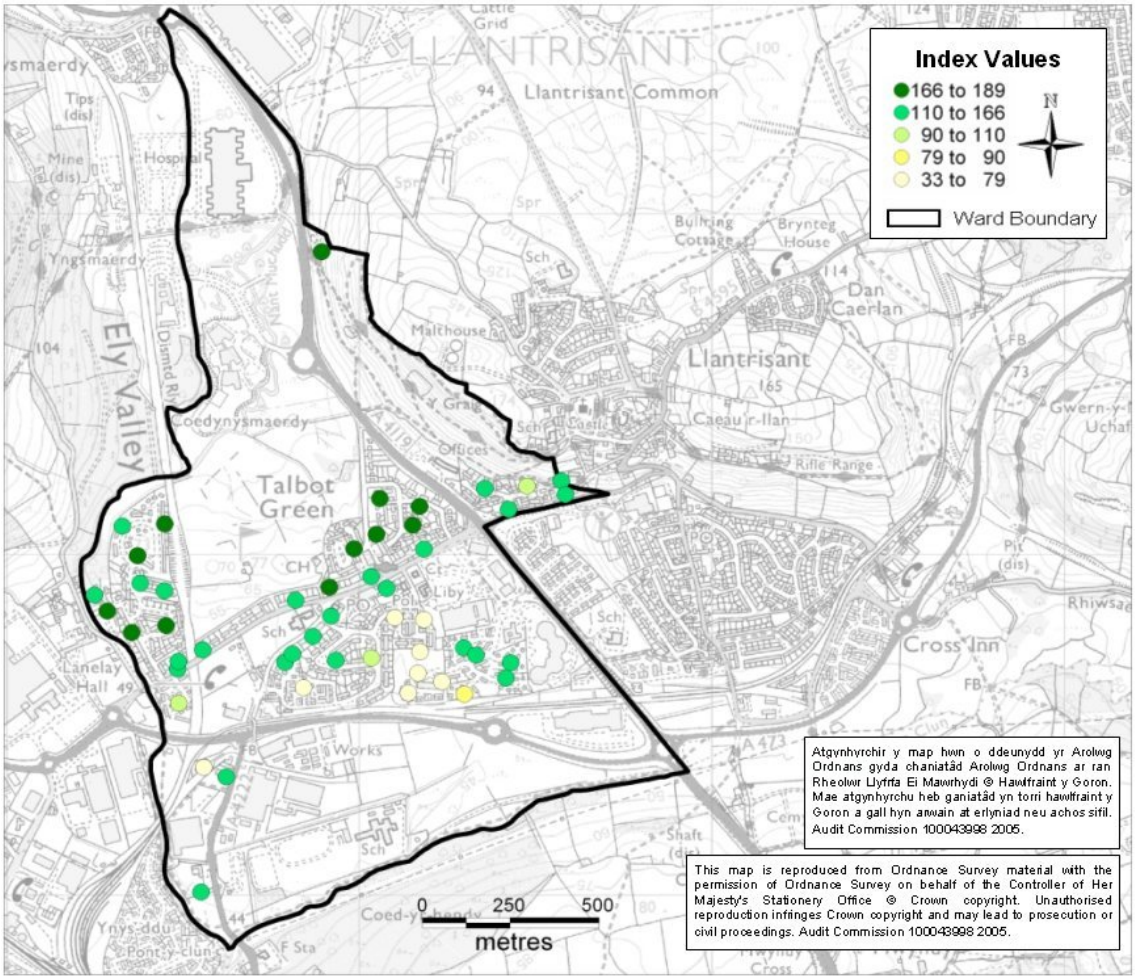

Figure 38: Modelled propensities: the relative likelihood of the resident population feeling that Talbot Green, Rhondda Cynon Taf is a very good place to live.

4.1.25 In Figure 39 below we illustrate one of the geographical context variables contained on the BCS. Here we map the likelihood of those residents that do become victims of crime, experiencing the said event directly outside their home. In those areas where the index value is significantly below the average, one may wish to further explore the other responses to this question from the BCS to ascertain where/when residents from these areas are more likely to become a victim of crime.

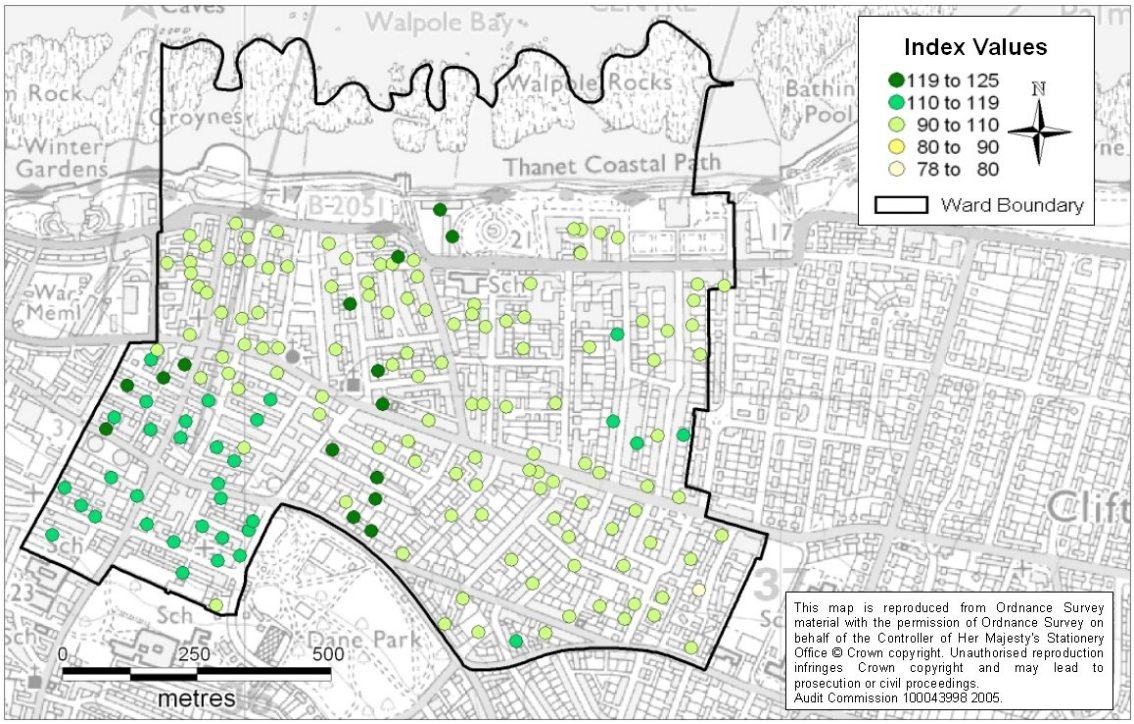

Figure 39: Modelled propensities: the relative likelihood of victims of crime experiencing that offence outside their home, within Cliftonville West, Thanet.

4.1.26 In Newington the likelihood of the resident population perceiving vandalism and graffiti as a big problem is mapped in Figure 40 below. One should maintain that these propensities often reflect relative likelihoods of perceptions, not necessarily that of experience.

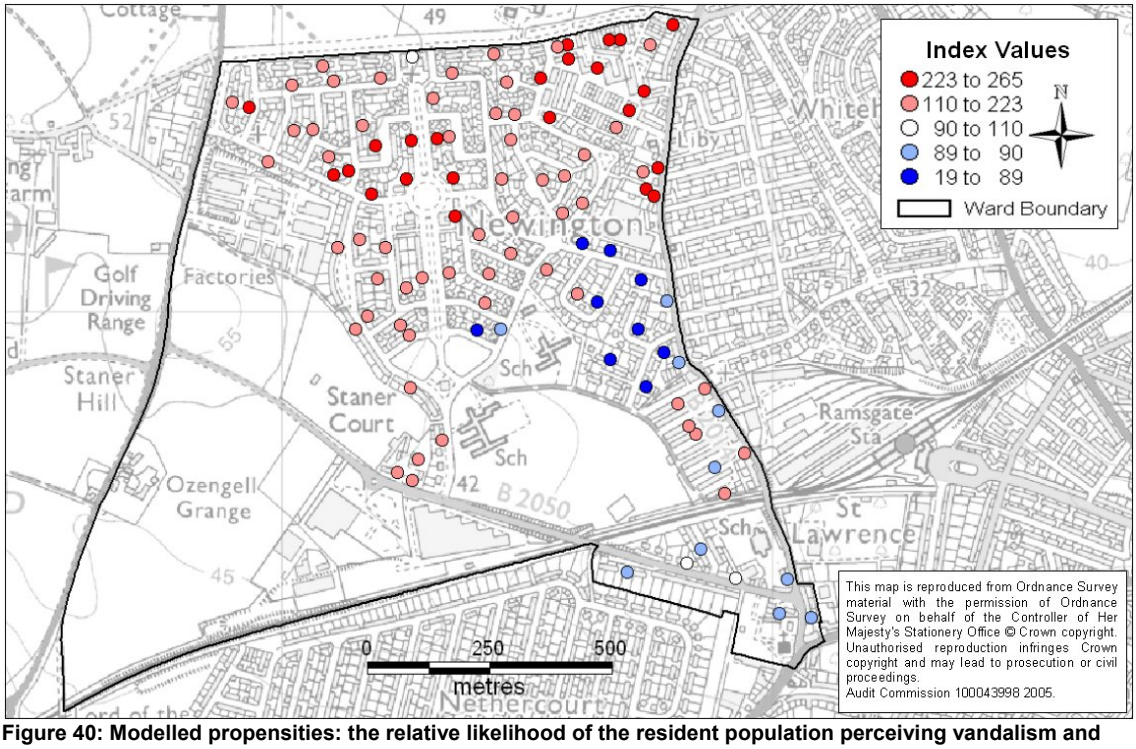

Figure 40: Modelled propensities: the relative likelihood of the resident population perceiving vandalism and graffiti as a very big problem within Newington, Thanet.

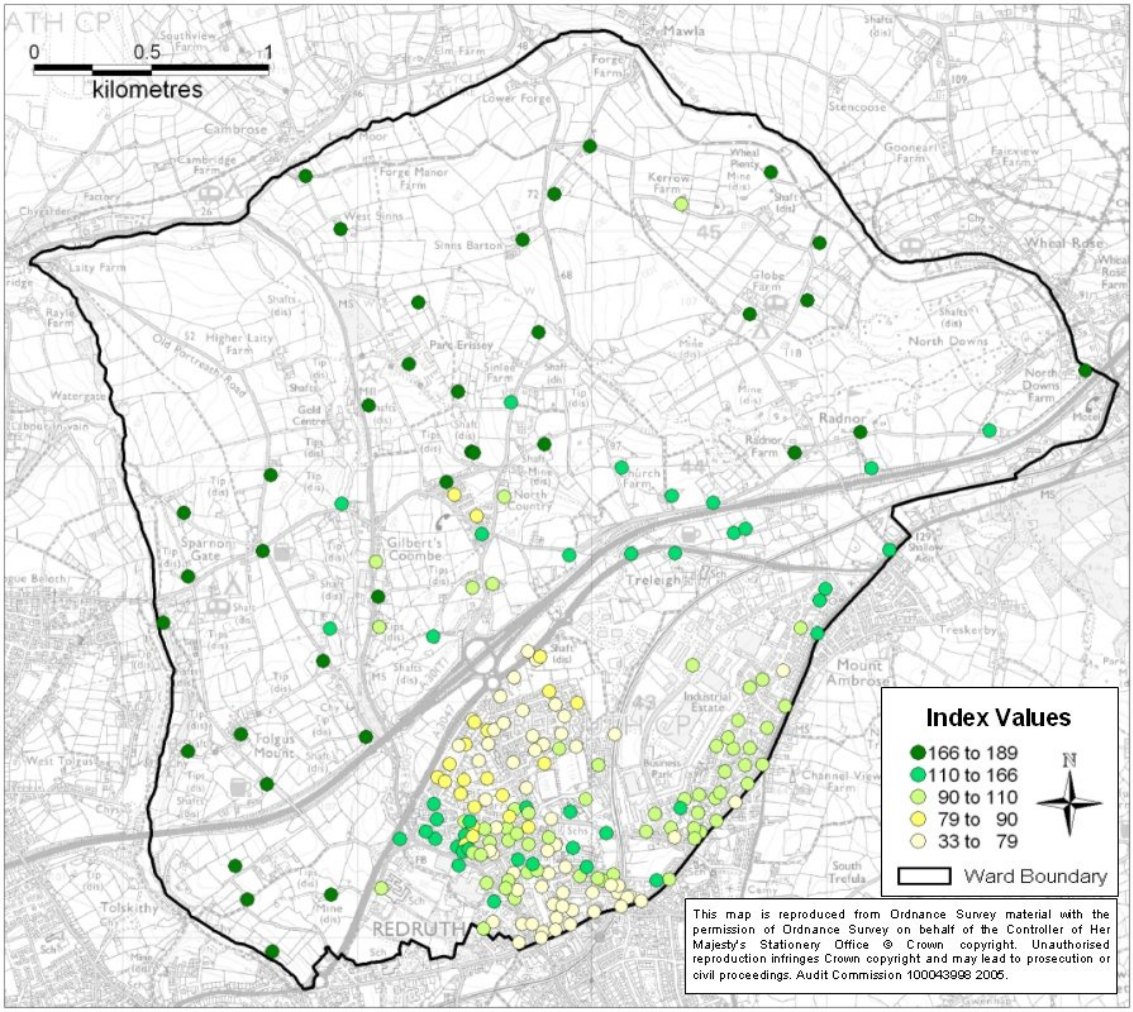

Figure 41: Modelled propensities: the relative likelihood of the resident population to help their neighbours, within Redruth North, Kerrier.

4.1.27 In Figure 41 above an intuitive pattern is represented in one of the BCS variable which may be used as a proxy indicator for social capital. Here we map the likelihood of residents of different neighbourhoods expressing that locals tend to help their neighbours rather than go their own way. In the rural areas spanning out to the north we may reasonably assume that there is a likely to be a greater sense of community spirit and even collective efficacy. In those blue coloured areas it may be reasonable to assume that local agencies may have to play a more active role in promoting social capital and neighbourhood development responsibilities.

4.1.28 In the final of this batch of BCS profile map examples we illustrate the relative likelihood of the resident population being very worried about their car being stolen within Illogan South, Kerrier. Distinct spatial variations are again observed within this modelled output.

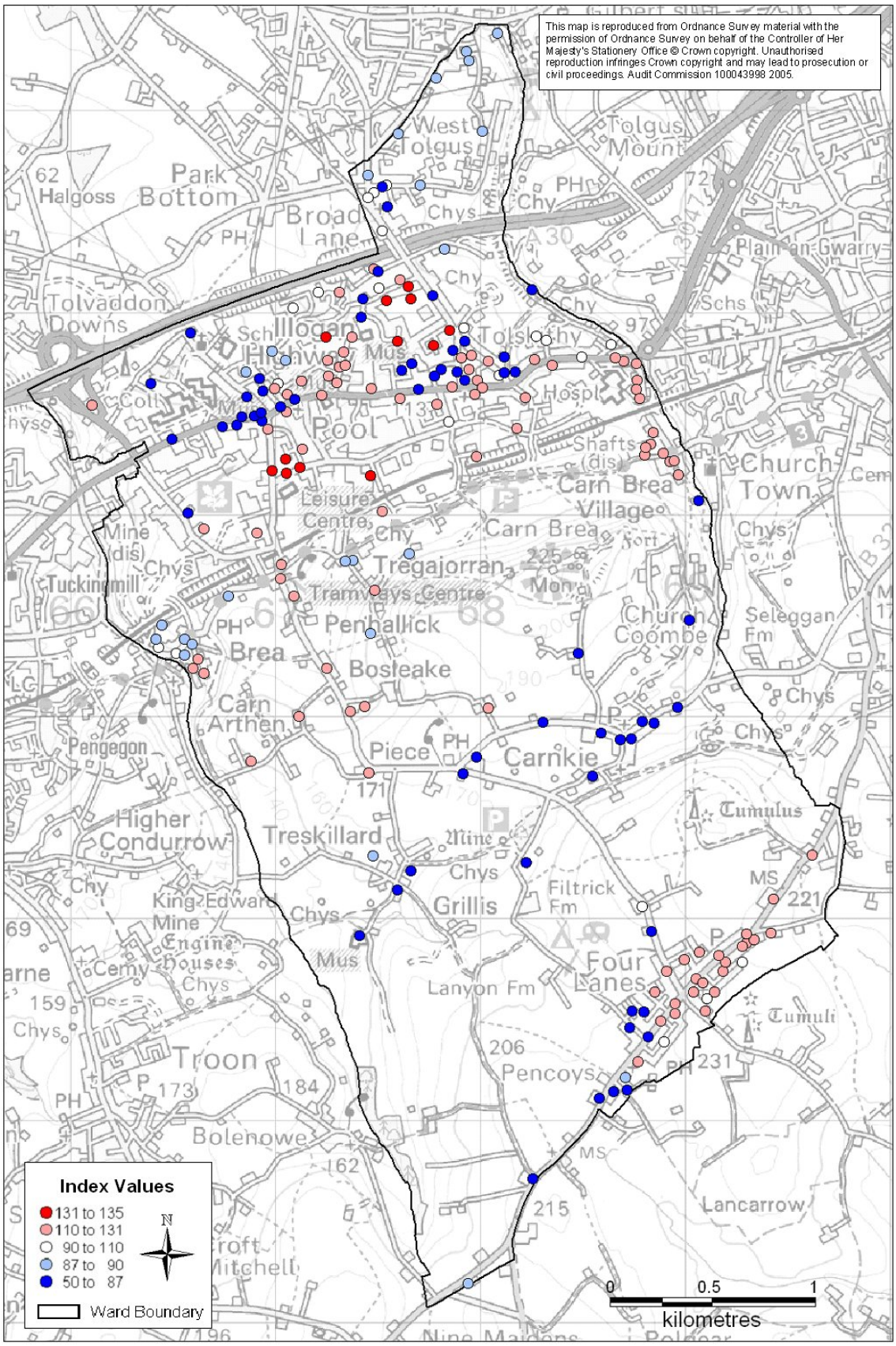

Figure 42: Modelled propensities: the relative likelihood of the resident population being very worried about their car being stolen within Illogan South, Kerrier.

4.1.29 Profiles graphs, charts, tables and maps similar to those examples above could be created for a very wide variety of variables pertinent to neighbourhood policing. Examples,

include, but are not limited to those illustrated above. The full BCS profile library offers a great resource for the modelling of likely fears, anxieties, attitudes towards the police, feelings about the local area, proxies of social capital, and likely experiences of crime and disorder at a local scale. If a framework were developed at a national level, such modelled output could be used to benchmark local indicators collected within a similar vein to the Policing Performance Assessment Framework and Best Value.

4.1.30 An alternative and complementary method is the calculation of average or expected profile values for the study area (ward) as a whole. Table 12 below outlines the average response profile for each of the study wards for a range of relevant variables. Here the British Crime Survey profiles, by neighbourhood type, were multiplied by the percentage share of each neighbourhood type in the ward. These values are then summed to provide an average value for the entire ward (i.e. a weighted average response).

Question, prompt or theme	Response	Anfield	Warbreck	Tong	Eccleshill	Pen-y-Waun	Talbot Green	Cliftonville West	Newington	Redruth North	Illogan South
How common are burnt out cars?	Fairly common	118	110	133	117	142	71	54	125	100	92
How common is people using or dealing in drugs?	Fairly common	131	124	123	114	144	99	140	137	116	111
How common is rubbish?	Very big problem	159	134	152	128	184	71	118	161	116	102
How common is vandalism and graffiti	Very big problem	165	132	172	139	224	88	131	177	127	99
Have bad effect on your life?	Teenagers hanging around on the streets	153	143	140	134	177	87	99	139	123	113
Feel safe walking alone after dark?	Very unsafe	145	127	145	130	155	106	131	133	125	106
How worried about burglary?	Very worried	128	114	128	117	143	86	109	130	109	97
How worried about having car stolen?	Very worried	112	113	113	112	122	89	77	122	105	108
How worried about being insulted or pestered?	Very worried	125	107	128	114	139	82	82	128	99	89
How worried about mugging?	Very worried	127	113	127	116	144	89	109	126	108	96
Interest shown by police	Inadequate	114	108	112	108	120	95	114	113	106	101
Nice place to live?	Very good place to live	57	68	64	74	51	124	80	57	87	95
Social capital	Neighbours help each other	81	87	81	86	75	110	73	76	97	102
Rating of police	Very good	82	83	82	88	81	112	108	86	92	89

Table 12: Average index scores from the British Crime Survey profiles for the ten study wards.

4.1.31 Average profile scores for the study areas can be most useful when presented in a matrix such as Table 12. Here one can identify the most likely problems, attitudes or fears

within a ward (analysis by column) or one can compare the relative propensity of any one of the variables across the ten study wards (analysis by row). This table concisely summarises modelled output for a range of fear of crime drivers which are rarely disentangled, or compared at such local scales.

4.1.32 For illustrative purposes, one might take the example of Anfield and conclude that rubbish, litter and graffiti are likely to be common problems high on the priorities of local residents. However, these issues may conceivably be of greater concern in Pen-y-Waun. Alternatively, one may highlight that the modelled propensities suggest that abandoned cars seem to be unlikely to pose a problem in Cliftonville West (which appears reasonable given the 'town centre' nature of the ward) and that feeling safe walking alone after dark is a much greater concern for local residents.

4.1.33 In Table 12 significant variation is observed in the average propensities for each ward and for each variable. In general, one may observe that of these ten 'high-crime' wards Talbot Green appears to have consistently lower intensities on those chosen variables. This is not unexpected given the diverse geodemographic composition of the ward and the presence of some high income neighbourhoods ('A: Symbols of Success') which are not observed in any of the other wards.

4.1.34 In the lower portion of Table 12 three variables are provided which are of a different nature (and scale orientation) to those concerns in the top of the table. One of the most directly relevant British Crime Survey questions for examining social capital is whether neighbours pull together or go their own way. Once again, it is notable that Talbot Green stands out from all other wards in this respect and indeed in an above average rating of the police which is generally unlikely to be observed in any of the other study wards.

4.2 Evidence from Recorded Crime data sources

Data acquisition

4.2.1 Recorded crime data were supplied for all ten study wards. Such data can be profiled by three different spatial references; 1) Victim postcode, 2) Offender postcode, 3) Incident location postcode. Our experience suggests that profiling victimisation rates using the postcode of the victim's residence can be most insightful, the offender postcodes can also be useful (although many crime records will not contain such information), whilst the spatial referencing of the crime location is often not readily available in postcode format.

4.2.2 Profiling the location of crimes *per se* is arguably not the most discerning use of geodemographics. The hot-spot mapping of crime locations is a relatively well developed characteristic of many crime analysts' staple duties. Producing a surface of high-low crime areas is of great value, and is well documented elsewhere. The use of geodemographics adds an additional dimension by including the comparison of records to a base set such as the local population or number of households, which is then segmented by neighbourhood type. Using the number or crimes as a numerator, and the local population per group as the denominator can present skewed and unenlightening profiles when using a residential neighbourhood classification. These may be misleading and difficult to interpret in areas where victims are not resident in the area; e.g. violent crime in a city centre should not be profiled against the small residential population of the area, particularly when both perpetrator and victim are likely to be non-resident. Such analyses should only be conducted where the crime location is synonymous with the victim's residential location, hence by proxy providing a neighbourhood profile of the likely victimisation rate. It is accepted that due to time constraints the provision of victim referenced geocoded data was not possible in all cases, although this should be aspired to in future programmes.

4.2.3 Offender locations can provide useful information on the propensity for criminals to reside in different neighbourhood types. In Devon and Cornwall the CASA team discovered that the ratio of minimum-to-maximum offender profile values by Mosaic neighbourhood group was almost 25:1; i.e. some neighbourhoods within the North and East Devon BCU are 25 times more likely to host any given offender than other neighbourhoods. However, it is our experience that spatially referenced offender data are not readily available for the vast majority of recorded crime incidents. This is indeed the case within the limits of this study.

4.2.4 The primary focus of geodemographic analysis for all policing purposes should be the location of victims; i.e. victimisation risk. Victim postcodes are thus essential to calculate robust

and insightful profile propensities for different neighbourhood groups and types. These profiles provide relative risk values for different neighbourhoods based on past experience.

4.2.5 The geodemographic profiling of client data is fundamentally dependent upon the spatial referencing of crime records to the postcode level. Only minor, essential data cleansing operations were performed on the acquired data sets, thus if a record did not have a full unit postcode reference, or an adequate geocoded, these data could not be matched to a Mosaic category.

4.2.6 As with all statistical modelling, the greater the quality and quantity of records used, the more stable the model becomes. It was discovered that with only six months data at a ward level geography, the small number of records can often prove too few to support detailed geodemographic analysis. In such cases, where data for profiling are relatively sparse, British Crime Survey data become most useful proxies. Alternatively, data may be processed for a larger region, such as the CDRP or force, to enable more robust models which may then be reapplied to small area geographies such as the ward.

4.2.7 Whilst geodemographics evidently has much to offer local service providers and neighbourhood policing teams, it should be articulated that the data, analytical capability and overall resource capacity required to conduct stable, timely insightful and efficient analyses would need the support of regional headquarters, and ideally a Force Level commitment. Large organisations (Forces and Government Office Regions) are in the best position to adopt such techniques and make these available to local partners delivering neighbourhood policing.

Data processing

4.2.8 As with the British Crime Survey, we have profiled by Mosaic all the key codes on each of the relevant data fields and organised these profiles in the form of a 'library' for each pilot ward. To create these libraries we have excluded those incidents occurring outside of the CDRP. This prevents the distortion/skew of neighbourhood profiles by victims who do not live in the area.

4.2.9 The database has been organised in such a manner that it can be queried using Excel. These data profiles are available in the accompanying Excel spreadsheet files provided on a CD.

4.2.10 Analyses of this sort have been based only on those crime categories where there is a victim and therefore should exclude incidents relating to drugs. The analyses should also exclude shop thefts. This is because these predominantly occur in non-residential neighbourhoods and may skew the observed profile values.

Results summary

4.2.11 The following section provides examples of some of the likely differences in the local experience of crime, based on past experience, according to neighbourhood type. Those profiles with which we can assert some degree of confidence are detailed below. We appreciate that in processing only six months data for small area geographies that there is not insignificant scope for some random variation and even systematic bias in some of these findings. The output detailed here illustrates the best achievable results with those limited data supplied.

4.2.12 For Liverpool, we provide the example of Burglary Dwelling. The location reported in the database here is most likely to be synonymous with the victim of the crime, and hence we can produce a profile for all Mosaic groups and types. Table 13 below illustrates these data for Liverpool as segmented by Mosaic UK Group.

Households (per cent)		Number of burglaries	Percentage	Index Value
3.8	**A: Symbols of Success**	160	8	**211**
6.0	**B: Happy Families**	87	4	**73**
10.0	**C: Suburban Comfort**	208	10	**105**
17.9	**D: Ties of Community**	237	12	**66**
7.4	**E: Urban Intelligence**	224	11	**151**
16.1	**F: Welfare Borderline**	456	23	**142**
26.3	**G: Municipal Dependency**	424	21	**81**
6.1	**H: Blue Collar Enterprise**	78	4	**64**
3.8	**I: Twilight Subsistence**	71	4	**93**
2.5	**J: Grey Perspectives**	45	2	**91**
0.0	**K: Rural Isolation**	0	0	**0**
	Total	***1990***	***100***	

Table 13: Burglary Dwelling profile for the Liverpool CDRP

4.2.13 It is interesting to find that those 'Symbols of Success' neighbourhoods in Liverpool experienced over twice the average rate of Burglary Dwelling compared to that which one would expect for the CDRP as a whole. The null hypothesis would suggest that with only a 3.8 per cent share of the households, one might reasonably conclude that these areas would experience approximately 76 burglaries in the study period. The observed number was some 160 burglaries, thus giving an index score of 211.

4.2.14 The finding above pertaining to Burglary Dwellings in the highest income neighbourhood group may be related to phenomena particular for Liverpool, or indeed a

particular spate of incidents of this type within the six month timeframe being studied here. If we drill down to the 61-type level we observe that it is particularly the 'A03: Corporate Chieftains' and 'A04: Golden Empty Nesters' which are disproportionably targeted for this type of crime.

4.2.15 The finding that 'Urban Intelligence' neighbourhoods also experienced higher than average burglary rates is consistent with many other of our geodemographic studies which highlight the prevalence of break-ins particularly in predominantly student areas. However, it is notable that for all ten wards selected no 'E: Urban Intelligence' neighbourhoods were found.

4.2.16 Table 14 should be interpreted with caution. The data used here represent all those crimes entered into the recorded crime data base and flagged as 'detected'. These profiles should merely be taken as illustrative of concept rather than concrete evidence. This is because all crimes have been profiled from the data set, without accounting for (or excluding) those incidents where the geocoded location may not represent a victim residence. However, the variations in detection rates by neighbourhood type here are broadly consistent with previous findings from other studies; those high crime neighbourhoods which frequently observe interaction with the police, and consistently illustrate the lowest satisfaction levels with the police do in fact enjoy above average detection rates (those with index values above 100). Conversely, those neighbourhoods which rarely experience crime are often beset with low detection rates but nevertheless remain satisfied with the police service (finding from the BCS).

	Number detected	Percentage detected	Index Value
A: Symbols of Success	143	16.0	**60**
B: Happy Families	185	24.7	**92**
C: Suburban Comfort	256	16.6	**62**
D: Ties of Community	1151	28.6	**106**
E: Urban Intelligence	923	25.9	**97**
F: Welfare Borderline	1856	28.6	**107**
G: Municipal Dependency	2169	28.7	**107**
H: Blue Collar Enterprise	305	23.0	**86**
I: Twilight Subsistence	116	22.1	**82**
J: Grey Perspectives	120	19.4	**72**
K: Rural Isolation	0	0.0	**0**
	Average	***26.8***	

Table 14: Relative inequalities in detection rates by Mosaic Group in Liverpool. (Illustrative example only – see caveat / health warning directly above)

4.2.17 The Bradford geodemographic profiles by crime type have also been included in the accompanying data files. We continue here to explore the volume crime, and key indicator variable, or Burglary Dwelling. The profiles of Table 15 below can be compared to those of Liverpool in Table 13 above.

Households (per cent)		Number of burglaries	Percentage	Index Value
7.1	**A: Symbols of Success**	77	4	**63**
9.2	**B: Happy Families**	135	8	**85**
14.7	**C: Suburban Comfort**	171	10	**67**
36.7	**D: Ties of Community**	648	37	**102**
1.7	**E: Urban Intelligence**	49	3	**167**
5.1	**F: Welfare Borderline**	159	9	**180**
8.2	**G: Municipal Dependency**	227	13	**159**
7.4	**H: Blue Collar Enterprise**	119	7	**93**
4.9	**I: Twilight Subsistence**	82	5	**96**
4.2	**J: Grey Perspectives**	65	4	**90**
0.9	**K: Rural Isolation**	3	0	**18**
	Total	***1735***	***100***	

Table 15: Burglary Dwelling profile for the Bradford CDRP

4.2.18 The Bradford profiles by neighbourhood group presented in Table 15 are consistent with similar profiles created for other police forces and again highlight the unusual nature of the 'Symbols of Success' profile for Liverpool. In this instance for Bradford, it is Groups E, F and G which exhibit the highest relative propensities for Burglary Dwelling.

4.2.19 The detection rate profiles for Bradford are consistent with those presented above for Liverpool in Table 14. Respecting the tentative and illustrative nature of this profile, given the caveats detailed in paragraph 4.2.16 above, no further detailed analysis of this data is presented at this stage.

4.2.20 As one might expect, the level of crime observed in Rhondda Cynon Taf was relatively low during the six month period. Composite variables such as 'all criminal damage' were thus created to increase the frequency of record counts within each neighbourhood type to facilitate the calculation of profiles.

Population (per cent)		Count	Percentage	Index Value
2.0	**A: Symbols of Success**	13	1	**34**
12.0	**B: Happy Families**	60	3	**27**
7.6	**C: Suburban Comfort**	79	4	**56**
31.6	**D: Ties of Community**	619	33	**105**
2.3	**E: Urban Intelligence**	45	2	**104**
1.1	**F: Welfare Borderline**	60	3	**283**
9.3	**G: Municipal Dependency**	322	17	**185**
29.4	**H: Blue Collar Enterprise**	581	31	**105**
2.2	**I: Twilight Subsistence**	31	2	**74**
2.1	**J: Grey Perspectives**	58	3	**145**
0.2	**K: Rural Isolation**	2	0	**59**
	Total	***1870***	***100***	

Table 16: 'All criminal damage' profile for the Rhondda Cynon Taf CSP

4.2.21 Table 16, as with some earlier profiles, should be analysed with some degree of caution. The record counts detailed in Table 16 are very small for some groups (A, E, I, and K each have fewer than 50 occurrences) and thus care should be taken before any subsequent

analyses or mapping of this propensity. Some uncertainty also surrounds the nature of the geocoded reference used for this profile, as it is unclear for each record whether or not the location represents a victim. The relative prevalence of incidents in Groups F and G is once again a feature of this recorded crime data set. The high profile score for Group J is explained by the small number of incidents, and as a potential construct of those caveats detailed directly above.

4.2.22 Bearing in mind those caveats now detailed a number of times above, one should consider Table 17 with some caution. Here a range of profile scores are detailed by Mosaic Group for Thanet. These profile scores are calculated against the base population for Thanet and in such cases one should always ensure that the correct/most appropriate denominators are used for the desired purpose. Here all aforementioned health warnings still apply, but Table 17 is illustrative and indicative of those analyses which may be conducted across a range of linked data sets and diverse variables.

Pop'n share (%)		Abandoned Cars	Criminal Damage Offences	Anti-Social Behaviour Complaints	Nuisance Youths	Public Disorder	Burglary Dwelling	Theft From Motor Vehicle	Violence Against The Person
2.0	**A: Symbols of Success**	90	70	46	35	41	39	30	13
5.8	**B: Happy Families**	49	47	50	61	34	36	78	49
14.7	**C: Suburban Comfort**	52	43	51	35	19	49	61	30
27.8	**D: Ties of Community**	143	165	183	165	205	176	160	181
0.0	**E: Urban Intelligence**								
2.3	**F: Welfare Borderline**	211	186	145	181	218	154	175	196
4.5	**G: Municipal Dependency**	143	181	118	171	143	115	96	273
12.6	**H: Blue Collar Enterprise**	141	106	97	131	85	100	108	95
3.7	**I: Twilight Subsistence**	87	93	84	93	76	84	91	68
25.8	**J: Grey Perspectives**	58	55	49	49	46	61	57	39
0.9	**K: Rural Isolation**	-	-	-	-	-	-	-	-
100.0	*Total Count*	*848*	*1538*	*1233*	*591*	*1254*	*389*	*512*	*805*

Table 17: Profile scores by neighbourhood group for a range of crime variables in Thanet.

4.2.23 Table 17 illustrates significant variation in index value both across different neighbourhood types and the different variables. Such index values can subsequently be mapped back to local regions to identify areas of high risk, or conversely those areas where one might expect higher crime rates than that which are observed. In such cases, proactive policing

strategies may include heightened awareness campaigns and target hardening, whilst the difference between modelled data and observed trends may lead one to explore local conditions and discover those circumstances which may indeed be examples of best practice.

4.2.24 The recorded crime data supplied for Kerrier District for the study period totalled only c. 3,500 records. Therefore, with specific crime types totalling only a few hundred cases, subsequent geodemographics analysis are somewhat limited. In Table 18 below one such profile is presented. Here we illustrate the distribution of criminal damage to vehicles by geodemographics group. Whilst the total counts used here are small, additional confidence in these trends may be asserted given the correspondence with previously profiled datasets consisting of two years records for the nearby North and East Devon Basic Command Unit (see Ashby, 2005; Ashby and Longley, 2005). Furthermore, Devon and Cornwall as a force are now taking a lead in this analytical approach and have recently commissioned the processing of a complete five year dataset for the entire force region. Such an analytical resource inevitably will be of great value in evaluating the statistical robustness of such profiles, and will provide the opportunity to profile many variables and potential trends which may otherwise go unobserved due to a small number of records in those studies adopting smaller temporal scales.

Population (per cent)		Count	Percentage	Index Value
0.3	**A: Symbols of Success**			
9.2	**B: Happy Families**	10	3.6	**39**
13.6	**C: Suburban Comfort**	23	8.4	**62**
21.1	**D: Ties of Community**	100	36.4	**173**
0.0	**E: Urban Intelligence**			
0.5	**F: Welfare Borderline**	5	1.8	**346**
6.2	**G: Municipal Dependency**	33	12.0	**195**
7.8	**H: Blue Collar Enterprise**	30	10.9	**141**
3.1	**I: Twilight Subsistence**	15	5.5	**178**
17.1	**J: Grey Perspectives**	26	9.5	**55**
21.2	**K: Rural Isolation**	33	12.0	**57**
	Total	***275***	**100**	

Table 18: Criminal damage to vehicle profile for the Kerrier CDRP.

4.2.25 Any, and all, of the recorded crime profiles detailed above can be mapped within a GIS. Those trends observed in tabulated profiles can be further explored in a spatial manner, through the mapping of index scores for each postcode according to its geodemographics code. This approach is complementary to those more conventional crime mapping practices (e.g. the presentation of recorded crime data in choropleth, proportional symbol or dot-density forms); see Policing Standards Unit (2005) and Chainey and Ratcliffe (2005).

4.3 Evidence from the PLASC database

4.3.1 The Pupil Level Annual School Census (PLASC) has been made available to Professor Webber by the Department for Education and Skills (DfES). Detailed analyses are presented elsewhere in a comprehensive assessment of the PLASC database using geodemographics (contact the authors for details). The Technical Annex also provides further detail on the PLASC database.

4.3.2 Prior analyses of the PLASC database have shown conclusively that the type of residential neighbourhood in which a pupil lives is more predictive of pupil performance than the level of deprivation in the ward in which the pupil lives. Furthermore, it was found that the types of neighbourhood from which a school draws its pupils is a useful predictor both of pupil attainment and of change in pupil attainment (value-added). Such findings will inevitably be correlated to the crime / disorder profile of different neighbourhoods in keeping with evidence from criminology literature.

4.3.3 Table 19 and Table 20 provide interesting summary statistics for the eight English study wards based on those pupils taking GCSEs in 2003. Table 19 gives some important contextual information and also provides the expected GCSE points average for each ward based on Mosaic. This was based upon the performance of all pupils in the database profiled by Mosaic, with the subsequent geodemographic composition of pupils observed in each ward.

4.3.4 Table 20 provides further summary insight regarding ethnicity of pupils and whether these pupils speak English at home. These data may prove valuable in a range of circumstances, including crime and disorder strategies in subject wards. For example, Cliftonville West makes an interesting example in the relative high levels of pupils with refugee status and the coincident high proportion of pupils not speaking English at home.

4.3.5 Whilst these summary tables provide a sample of those data available from the PLASC database, the most significant interest expressed by the Commission regarding these data were relative youth offender risk levels by Mosaic, and the relative performance of each school, which may then be analysed alongside other ancillary data sources.

	Count by refugees status			Grade A - G in both English and Maths (per cent)		Free School Meals eligibility (per cent)			5 x Grade A-C (per cent)		Average points score	Expected Mosaic average points score	
	N	Y	Total	N	Y	Not given	N	Y	N	Y	Mean	Mean	Index
Anfield	202	0	202	16.8	83.2	0.0	63.9	36.1	63.9	36.1	39.4	36.8	107
Warbreck	277	0	277	15.2	84.8	0.0	73.7	26.4	56.7	43.3	43.4	39.4	110
Eccleshill	221	0	221	33.5	66.5	0.0	75.6	24.4	75.1	24.9	30.7	37.9	81
Tong	222	0	222	25.2	74.8	0.0	68.5	31.5	70.7	29.3	34.1	35.0	97
Illogan South	99	0	99	17.2	82.8	0.0	84.9	15.2	61.6	38.4	37.5	41.2	91
Redruth North	104	1	105	25.7	74.3	0.0	78.1	21.9	64.8	35.2	38.7	39.2	99
Cliftonville West	67	4	71	19.7	80.3	0.0	88.7	11.3	60.6	39.4	39.6	40.2	98
Newington	87	0	87	42.5	57.5	0.0	81.6	18.4	79.3	20.7	33.2	35.3	94
England	*620698*	*1853*	*622552*	*13.4*	*86.7*	*7.7*	*79.2*	*13.0*	*47.1*	*52.9*	*44.3*		

Table 19: PLASC summary statistics for the 8 wards within England.
These data represent all pupils who were taking GCSEs in 2003 (excluding those with Special Educational Needs)
Note results are only available for England hence the omission of data for those two wards in Rhondda Cynon Taf.

	White British	White English	Not recorded	Indian	Refused to say	Pakistani	Black Caribbean	Bangladeshi	Other white	Kashmiri	Mixed white / black Caribbean	Black African	Do not speak English at home
Anfield	98.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Warbreck	98.2	0.0	0.4	0.4	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1.1
Eccleshill	96.8	0.0	0.0	0.9	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	1.8
Tong	89.2	0.0	0.0	3.6	0.5	0.0	0.5	0.0	0.9	0.9	2.3	0.0	5.0
Illogan South	49.5	0.0	49.5	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Redruth North	92.4	0.0	4.8	0.0	1.9	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.0
Cliftonville West	0.0	81.7	2.8	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	2.8	8.5
Newington	0.0	85.1	12.6	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	1.2
England	*66.5*	*7.0*	*3.3*	*2.3*	*1.9*	*1.4*	*1.4*	*0.9*	*0.6*	*0.6*	*0.6*	*0.5*	*8.2*

Table 20: Ethnicity indicators based on the PLASC database for 2003.
All values are percentage rates for those children resident in the wards and entered into GCSE examinations in 2003.

Secondary Schools							
Ward	**School Postcode**	**Mean GCSE points (Observed)**	**Mean GCSE Points expected / target**	**Performance Index**	**% Grades A to G in English & Maths**	**% 5 Grades A to C**	**% with SEN**
Anfield	L4 2SL	30.22	35.95	**84**	25.11	82.82	19.38
Warbreck	L9 9AF	31.08	36.81	**84**	26.69	85.59	9.75
Tong	BD4 6NR	29.12	35.44	**82**	33.71	75.28	11.61
Tong	BD4 6NR	28.89	39.28	**74**	29.57	79.03	26.34
Illogan South	TR15 3PZ	33.46	41.33	**81**	40.64	87.17	16.58
Redruth North	TR15 1TA	39.73	42.00	**95**	44.61	84.76	17.10

Primary Schools						
Ward	**School Postcode**	**KS2 E5 as % of 2 – 5 (Observed)**	**Target / expected**	**Performance Index**	**Pupils in cohort**	**Number of grades 2 - 5 KS2 E**
Anfield	L4 0TN	48.15	39.30	**123**	28	27
Anfield	L4 7UF	75.00	40.53	**185**	16	16
Anfield	L6 4BX	31.67	37.60	**84**	60	60
Warbreck	L9 0EU	43.04	34.52	**125**	83	79
Warbreck	L9 1HW	55.22	45.89	**120**	70	67
Warbreck	L9 3BU	33.90	19.83	**171**	61	59
Warbreck	L9 9AF	44.83	45.22	**99**	58	58
Eccleshill	BD10 0EF	18.60	23.93	**78**	53	43
Eccleshill	BD2 2DS	26.14	36.82	**71**	90	88
Tong	BD12 7EZ	4.66	25.87	**18**	55	43
Tong	BD4 0LS	42.86	32.21	**133**	35	35
Tong	BD4 0NQ	80.77	39.98	**202**	26	26
Tong	BD4 6JF	18.75	39.98	**47**	16	16
Tong	BD4 9AE	25.00	32.82	**76**	29	28
Tong	BD4 9PY	40.74	44.52	**91**	82	81
Illogan South	TR15 3JL	35.00	30.73	**114**	20	20
Illogan South	TR16 6SF	45.45	36.33	**125**	33	33
Redruth North	TR16 4AY	36.36	32.29	**113**	13	11

Table 21: School performance indicators with targets based upon the geodemographic profile of schools. SEN – Special Educational Needs.

4.3.6 Those data detailed above in Table 21 provide a most insightful summary into the relative performance of both Primary and Secondary Schools in the study wards. Given that the postcode geocode for each school is provided, these relative performance values, and a range of other data records contained on the database may be mapped and viewed together with other crime and disorder data.

4.3.7 Any potential discrepancy observed between those performance indexes at the school level (Table 21) and at the individual level, aggregated to wards (Table 19) should be perceived in the context that data were extracted. In Table 19 pupils with Special Educational Needs (SEN) are included and a proportion of this illustrated. Pupils with SEN are excluded from Table 21.

4.3.8 Due to confidentiality constraints those schools with less than 10 pupils in the subject cohort were omitted from these analyses. Other limitations of the data and of those few small

study areas studied here consequently results in the ward with the most individual school data to analyse was Tong (with six Primary and two Secondary Schools). Whilst mapping of these data would prove of potential interest to local service providers, direct comparisons of those statistics presented above, with other crime/incident data would prove inconclusive and potentially misleading for such a small number of units.

Appending recorded youth crime data

4.3.9 Williamson *et al*. (2005) analysed youth crime in Nottinghamshire by Mosaic UK on behalf of the Youth Justice Board. The database from which analyses were reported contained information on 33,905 offences that were notified to the Nottinghamshire Police during the period 1 January 1999 to 7 June 2003. Information about these offences was linked to a separate file containing more detailed information about the 12,879 offenders who were apprehended in relation to these offences.

4.3.10 Whilst Williamson *et al*. (2005) highlight the potential to extrapolate those trends observed in Nottinghamshire to other regions, they conclude that in doing so one may risk introducing bias if there were some regional phenomenon inherent in the data which is particular to the Nottinghamshire region. Further research is required to validate such trends observed in the neighbourhood types of Nottinghamshire. Complementary analyses of different regions would substantiate such evidence, such that inferences could be made (based on geodemographic neighbourhood composition alone) about the likely risks and priority areas of regions for which such a rich database on youth crime may not be available.

4.3.11 The Commission expressed an interest in such extrapolation of the Nottinghamshire data sets to those study regions identified in this study. It is therefore with the above caveats in mind (regarding potential regional bias) that one should examine the following trends.

4.3.12 Figure 43 portrays the uplift that one can achieve above the null hypothesis when segmenting by geodemographics. Here one can observe that in Nottinghamshire those neighbourhood types accounting for some 10% of all households account for some 30% of all young offenders offences. The area apparent under the curve and above the diagonal (null hypothesis) is the increased discrimination afforded by coding these data by Mosaic. Such findings inevitably have significant implications for local targeting of resources and the implementation of co-ordinated strategies.

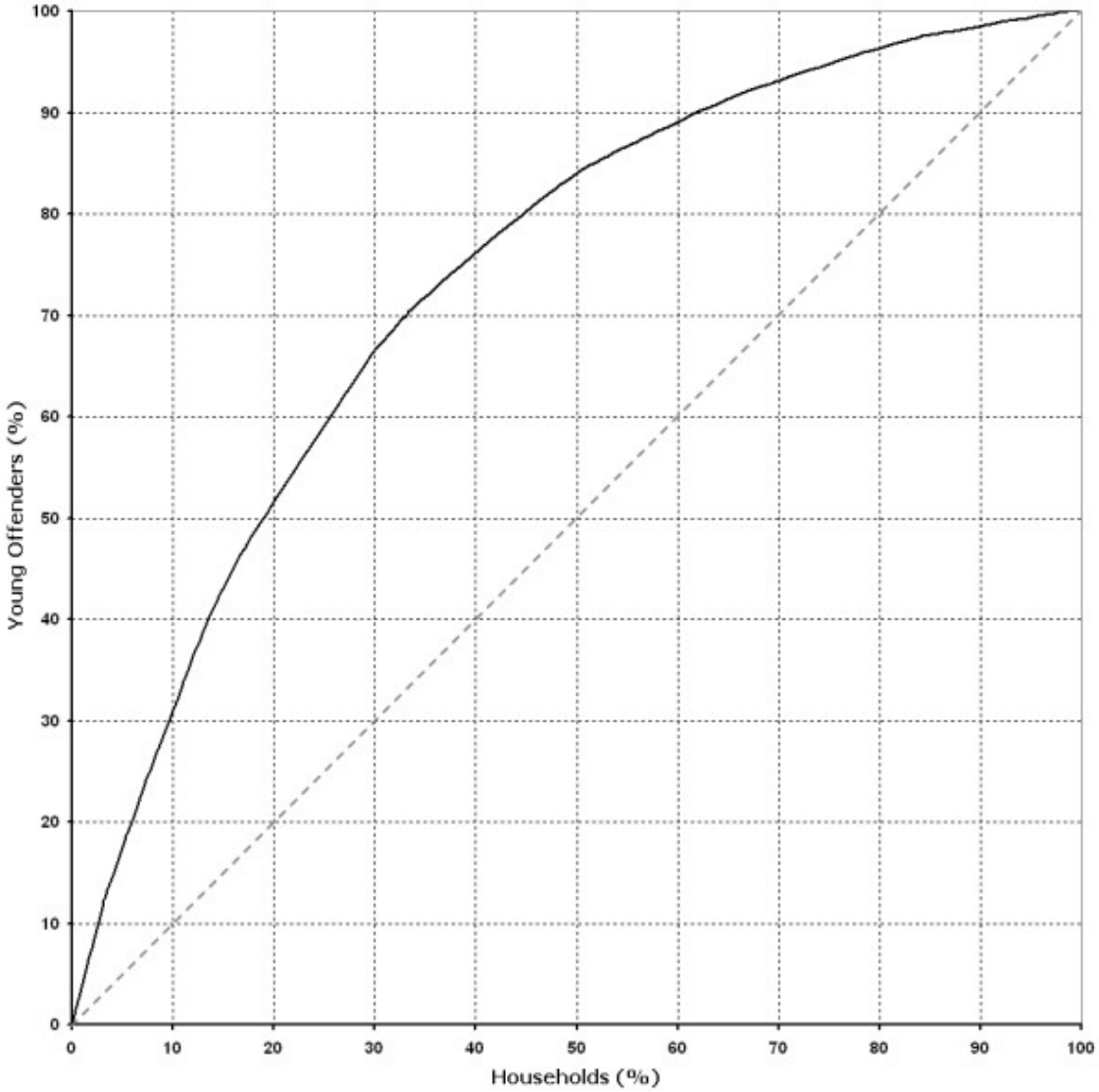

Figure 43: Lorenz curve of young offenders in Nottinghamshire against cumulative number of households, when segmented by Mosaic UK type.
Source: Williamson *et al*. (2005)

4.3.13 Whilst the Lorenz curve above illustrates the observed increased discrimination achieved by geodemographics, underlying this graph are profile scores for each neighbourhood type. If one adopts these profiles scores (youth crime propensity in Nottinghamshire), multiplies these by the geodemographic profile of a school, and sums the results, an average relative 'risk' level is achieved. Williamson *et al*. (2005) conducted such calculations for Nottinghamshire schools and mapped the output.

4.3.14 Similarly, using PLASC data for those study areas detailed here one can obtain the geodemographic profile of local schools. First, we filtered the PLASC data base to identify all schools which drew at least one pupil from our study ward areas. We then profiled the geodemographic composition of each of these schools and multiplied this vector by the index value associated neighbourhood type for Nottinghamshire youth crime. Finally, in summing this output for each school one acquires the average / modelled 'risk' for young offenders by school.

Ward	School postcode	Youth crime risk index
Anfield	L4 2SL	169
Warbreck	L9 9AF	154
Tong	BD4 6NR	219
Tong	BD4 6NR	140
Illogan South	TR15 3PZ	107
Redruth North	TR15 1TA	99

Table 22: Secondary schools within the 8 study wards: the relative risk of pupils being young offenders.

4.3.15 The calculation of the relative risk profiles (see Table 22) for each school assumes that those processes and trends observed in the Nottinghamshire data set hold true in the study areas. There may be legitimate reasons to question such an assumption and results should be verified against local records where possible. However, if a stable and robust framework were developed and populated with more data, any reservations about such extrapolation could be ameliorated.

4.3.16 The final process in analysing the PLASC and youth crime data is to map the relative risk index values for schools within our study areas. As Table 22 illustrates only six secondary schools within our wards could be mapped, and thus all schools which draw at least one pupil from our study wards are illustrated in Figure 44 for Bradford.

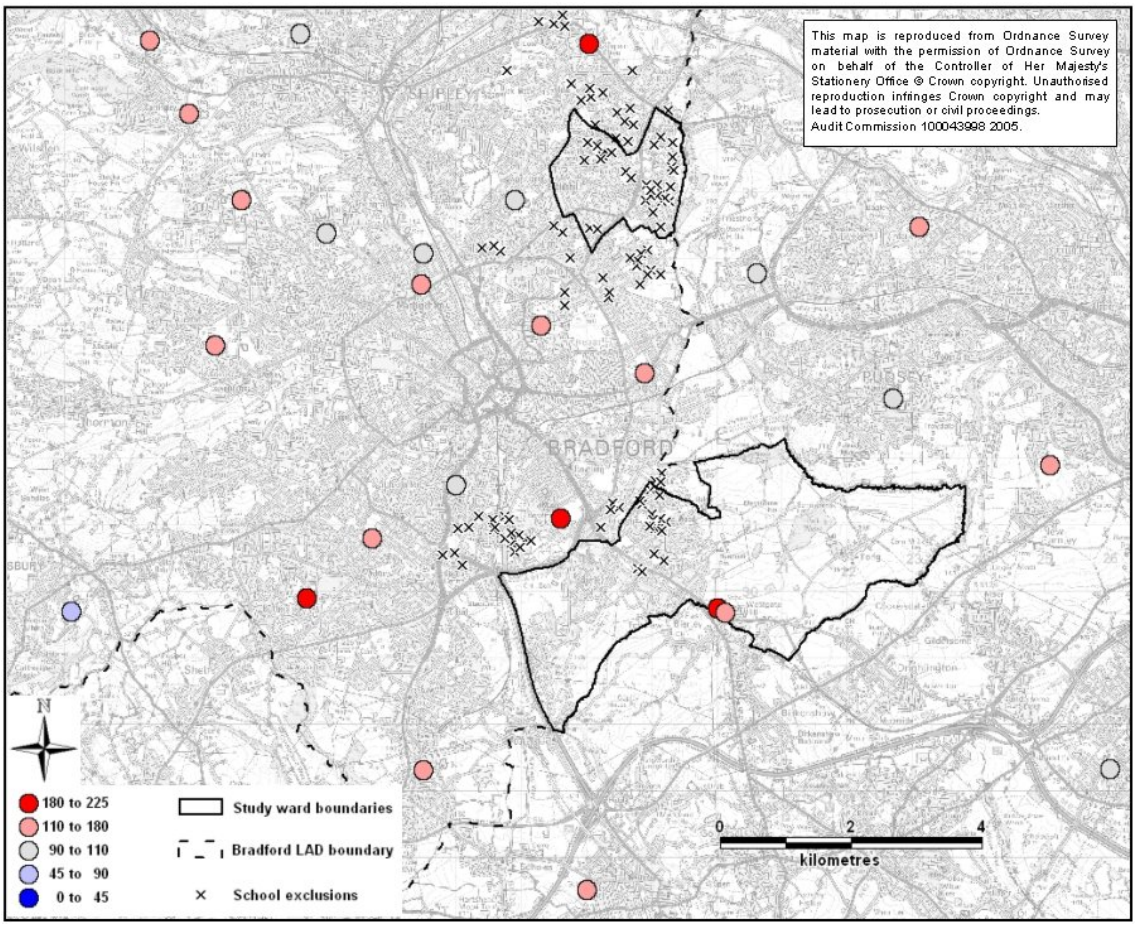

Figure 44: Bradford secondary schools: the relative risk of pupils being young offenders.
Only those schools drawing pupils from the study wards are illustrated. For illustrative purposes the locations of pupil exclusion data are also plotted (it is recognised that only a subset of data for the two wards within the Bradford LAD were supplied rather than the entire areal extent of the map detailed here).

4.4 Evidence from other ancillary data sources

4.4.1 The Commission provided a range of data sets to complement those analyses already presented within this report. Reported Incident data were provided for all wards, with additional data sets including Benefit Fraud, Municipal Asset Damage, Pupil Exclusions, Fire and Rescue, Anti-Social Behaviour, Abandoned Vehicles and Ambulance data.

4.4.2 Many of these data sets presented were unsuitable for robust geodemographic profiling. Initially, many of the files contained only a small number of incidents (frequently less than one hundred in total) which therefore could not be segmented by incident classes and neighbourhood type in any significant manner. Secondly, as detailed above in Section 4.2, some uncertainty regarding the geocoding restricted analyses. In particular, for many incidents it was inappropriate to assume that the geocode corresponded to a 'victim' address as prescribed above. In these instances no geodemographic analyses are presented, only spatial analysis where relevant.

4.4.3 Consistent with those other data sets supplied by the Audit Commission, all data have been geocoded and where relevant, a geodemographic code appended. Subsequent profiling by neighbourhood type is detailed below in conjunction with mapping and spatial comparisons for exploratory purposes.

4.4.4 The Liverpool incident data supplied were amongst the richest of the additional data sources provided. Unfortunately, it was observed that all locations were geocoded (or subsequently aggregated) to a one hundred metre grid. Therefore, despite a postcode location having been derived and some initial geodemographic analyses conducted the potential for inaccuracy here was deemed significant. Postcode locations were derived by determining within which unit postcode polygon the incident point location fell. Given the spatial granularity of unit postcodes and the cruder generalisation of incident data to a 100x100m grid geodemographic profiles were deemed too unstable and potentially inaccurate for presentation here.

4.4.5 Alternatively, surfaces were created for the Liverpool data, and some anecdotal comparisons made between BCS profiles and some observed incident data sets. Figure 45 provides a surface depicting all incident data, thus essentially a 'demand' surface for policing. To provide further context, the location of anti-social behaviour noise data and pupil exclusion data are plotted.

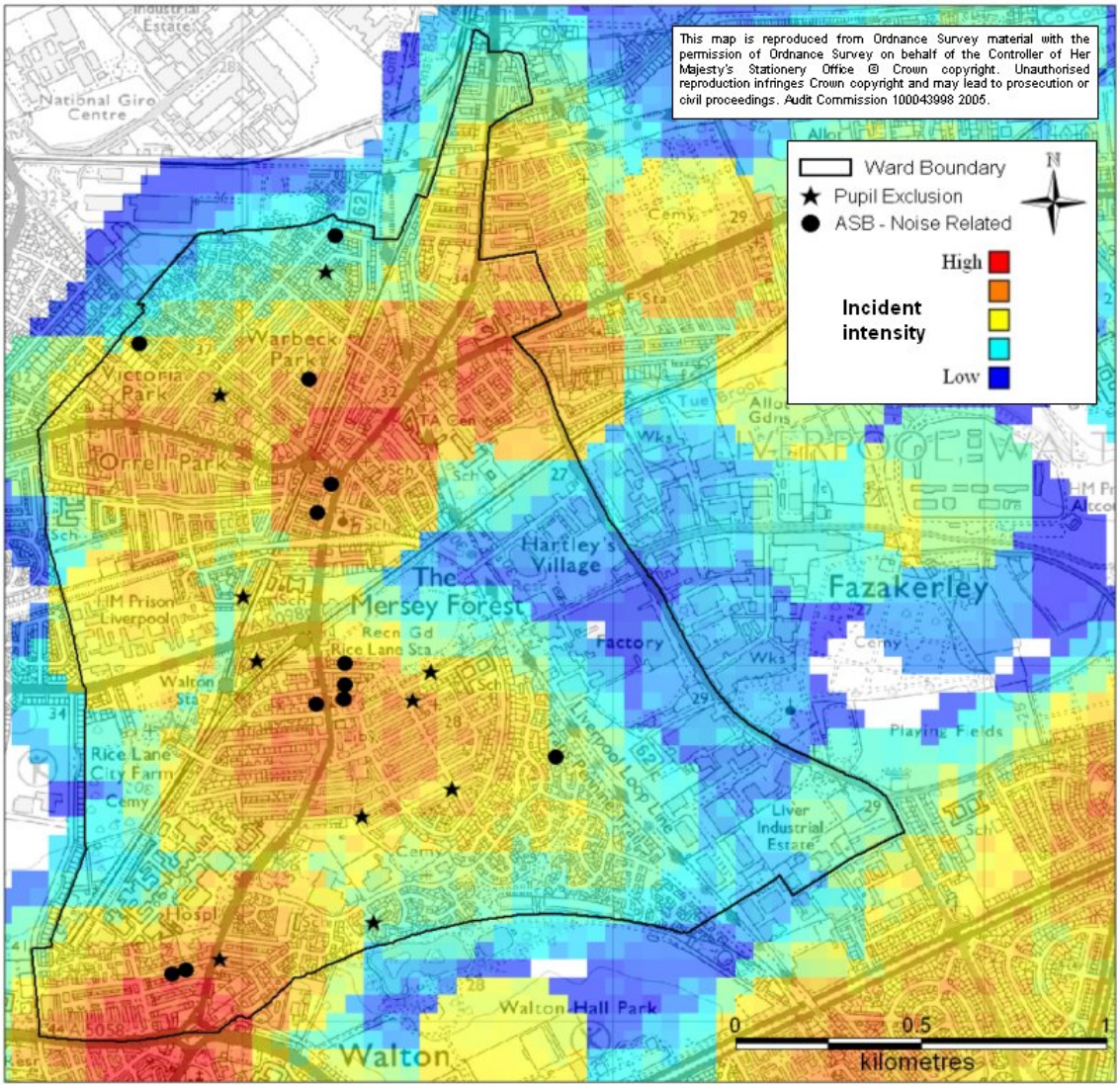

Figure 45: Surface of Warbreck incidents, with anti-social behaviour (noise) and pupil exclusion data.

4.4.6 Figure 46 provides a very interesting illustration of how one may begin to verify modelled results with those experienced at a local level. Here we have plotted the BCS profile for the response 'fairly common' when residents were asked how common it was to see burnt out cars in the area. We have also plotted the actual locations of vehicle fires experienced in the area in the six month study period. The location of these incidents appears to coincide rather well with those areas one might reasonably expect from analysis of the modelled BCS profile.

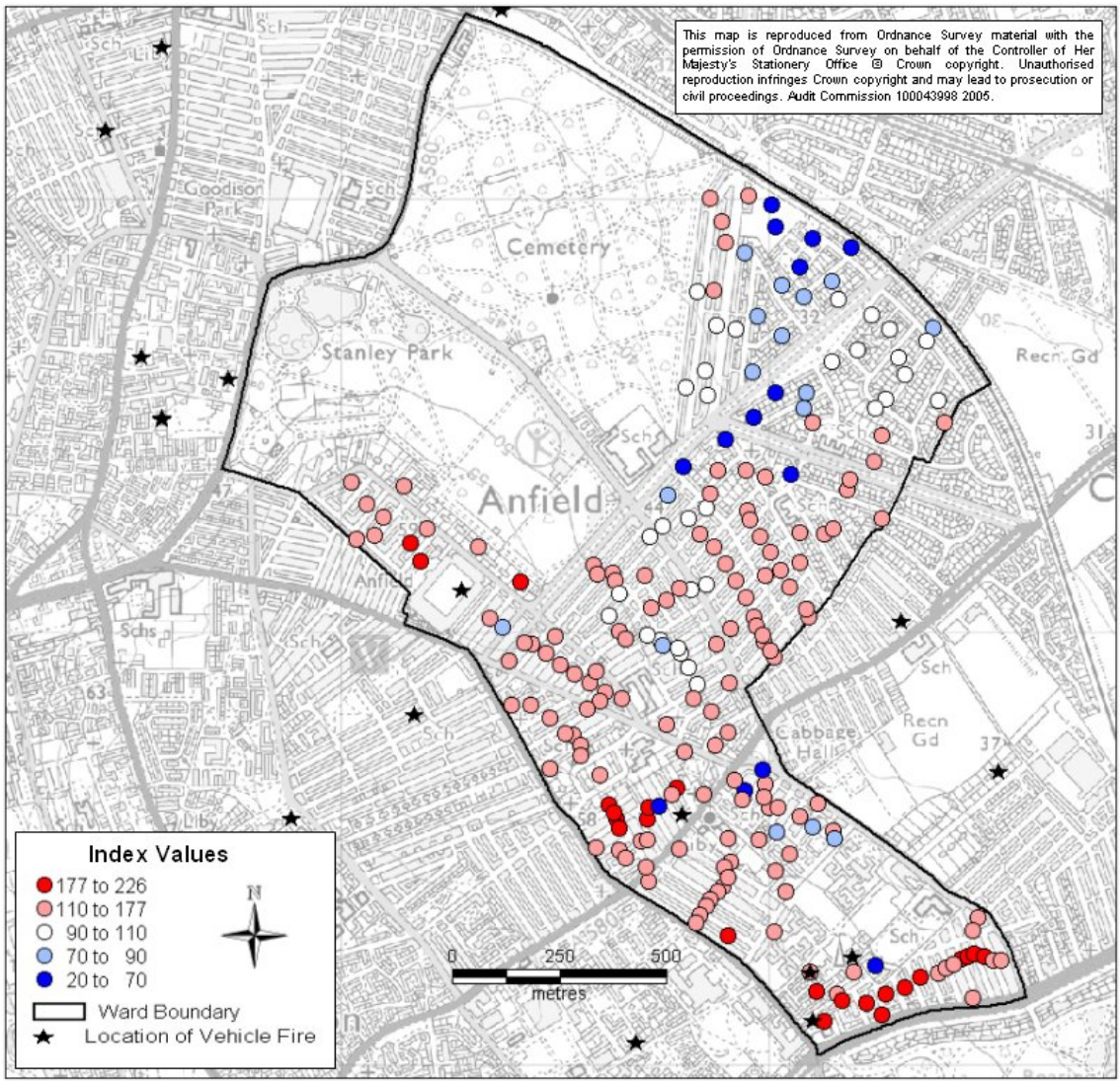

Figure 46: The relationship between the observed location of vehicle fires in Anfield and a modelled BCS propensity.
BCS data portray the relative likelihood of residents perceiving it 'fairly common' to see burnt out cars in the local area.

4.4.7 Those data supplied for Bradford afforded the geodemographic profiling of some incident data. The co-ordinates provided for the Incident data were used to derive the unit postcode, which was then processed by Mosaic for incidents where it was deemed appropriate to assume a 'victim' location; namely 'Domestic Disputes' (see Table 23).

Population (per cent)		Count	Percentage	Index Value
7.3	**A: Symbols of Success**	21	0.9	**12**
9.4	**B: Happy Families**	95	3.9	**41**
14.9	**C: Suburban Comfort**	139	5.7	**38**
39.7	**D: Ties of Community**	1040	42.6	**107**
1.8	**E: Urban Intelligence**	15	0.6	**34**
3.5	**F: Welfare Borderline**	291	11.9	**343**
8.3	**G: Municipal Dependency**	521	21.3	**257**
7.5	**H: Blue Collar Enterprise**	221	9.0	**120**
3.3	**I: Twilight Subsistence**	75	3.1	**94**
3.4	**J: Grey Perspectives**	17	0.7	**21**
0.9	**K: Rural Isolation**	7	0.3	**33**
	Total	***2442***	***100***	

Table 23: Domestic disputes by Mosaic neighbourhood group in Bradford LAD.

4.4.8 The profile detailed in Table 23 paints a familiar portrait (if not more extreme) to those already observed in this report. Disproportionately high incidence of domestic disputes are observed in Groups F and G – in total these areas constitute less than twelve per cent of the population but account for over one third of all incidents of domestic disputes recorded on the database.

4.4.9 Bradford, being one of the larger CDRPs examined here, also serves as a good example to spatially explore and assess any potential relationships between various related data sources. All data have been geocoded and a provided to the Audit Commission for further inspection as deemed appropriate. Figure 47 provides a 'demand surface' for policing (akin to Figure 45 for Warbreck). To provide further context, the location of municipal assess damage and pupil exclusion data overlay the surface.

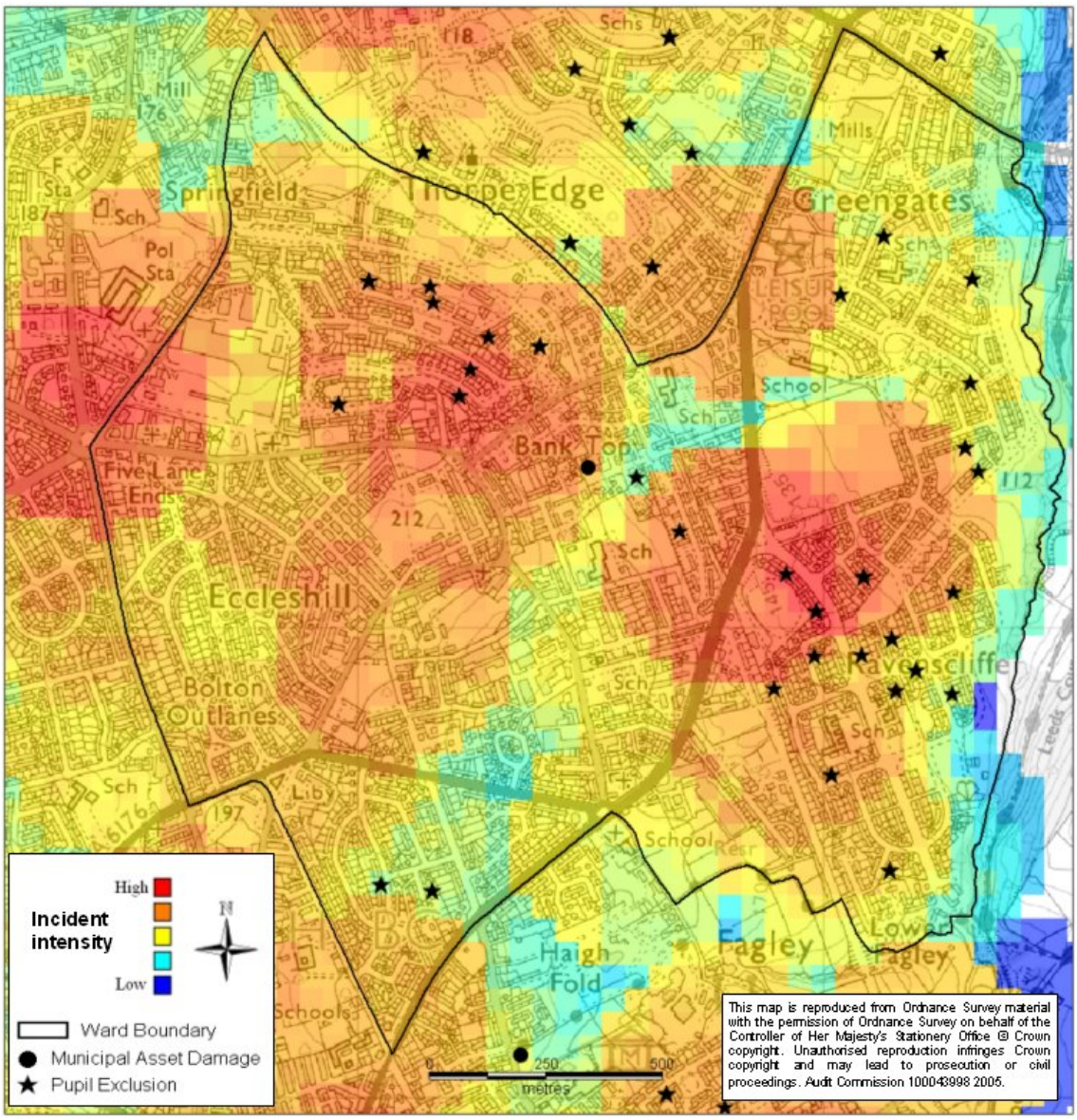

Figure 47: Surface of Eccleshill incidents data, with Municipal Asset Damage data and Pupil Exclusion data as point overlay layers.

4.4.10 One may also feasibly compare a surface of incident locations (and hence the demand for the police) with a similar surface for recorded crime data. Whilst the data here are not sufficient for any such analysis at this stage, one may then begin to geodemographically profile any deviation between incident data and recorded crime. Such analyses may prove most insightful in identifying those neighbourhood types which make disproportionate calls on local services, and hence one may be able to facilitate appropriate engagement strategies in the implementation of any necessary/desired services required by the community.

4.4.11 Pupil exclusion data in Eccleshill have already been plotted in this report in Figure 44 when examining relative levels of risk at the school level using PLASC data. In Figure 48 below a marked correlation between modelled BCS data and pupil exclusions is seen at the local level. The BCS variable here conveys the expected relative levels of concern regarding teenagers

hanging around on the street as a very big problem. Notably, observed pupil exclusions are predominately clustered in those areas with the highest intensities for the modelled variable.

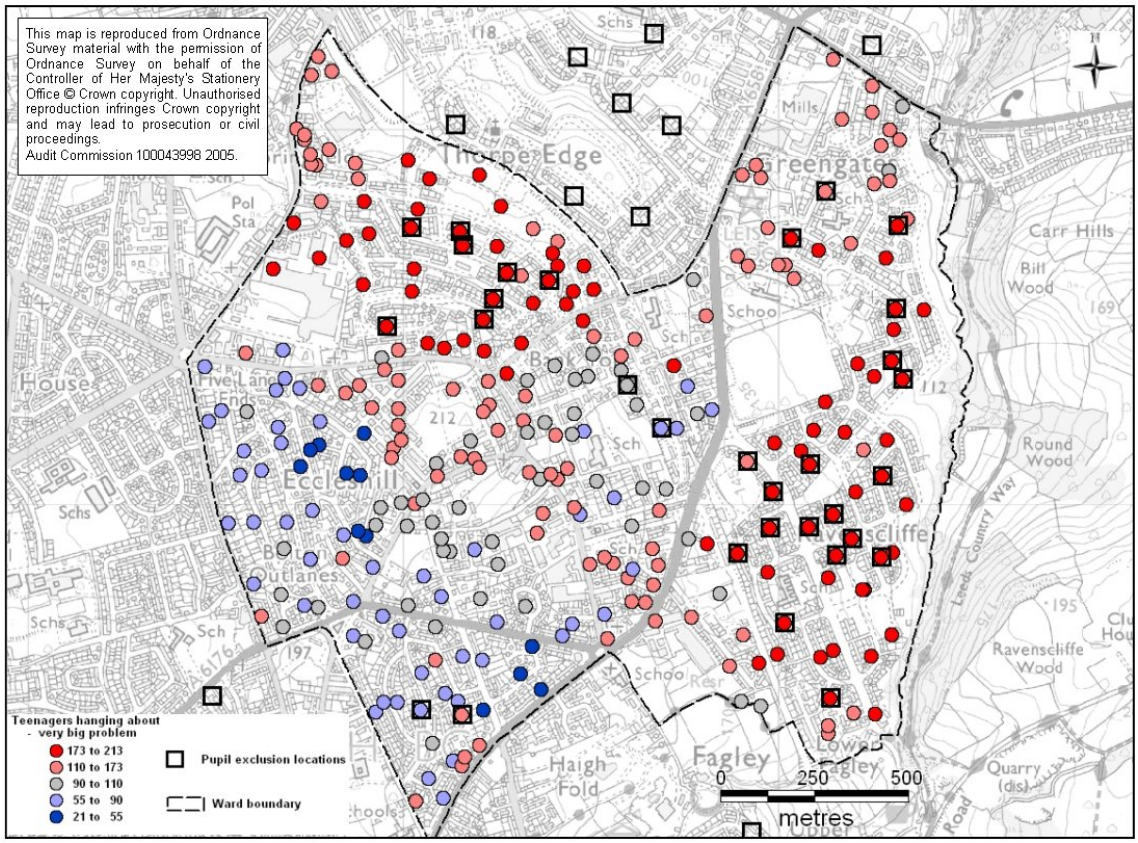

Figure 48: The relationship between observed pupil exclusions and modelled propensities from the BCS in Eccleshill, Bradford.
BCS data depict the relative likelihood of residents perceiving teenagers hanging about on the street as a very big problem in the local area.

4.4.12 The incident data provided for Rhondda Cynon Taf were limited. Only some c.2600 records could be coded by a geodemographic classifier, with some 120 different 'types' of incident classified. Therefore, very small numbers were encountered, which did not support robust geodemographic statistical profiling here. The coded spreadsheet file has been returned to the Audit Commission for review and augmentation with any other data / time-scales which may be available.

4.4.13 The Thanet ancillary data sources originally supplied were generally very sparse and predominantly limited to the two wards, rather than the entire LAD as was the case with the other study areas. It was therefore requested that additional data be supplied, which were subsequently processed, and have already detailed above in Table 17. This point emphasises the requirement of a quality data volume which is fit-for-purpose; the processing of a very small number of records negates any meaningful geodemographic profiling.

4.4.14 The Ambulance data supplied for Thanet have been segmented by Mosaic (c. 21,000) and represent a valuable new intelligence resource. One limitation remains in that a base-zone

set is required to calculate the final geodemographic profiles. The areal extent of the data set is not coterminous with the LAD and extends well beyond this border. However, if a clearly defined base-zone set were to be delineated the final calculation required to produce a new profile set could be achieved.

4.4.15 Figure 49 provides one further example of local data compared to BCS modelled output. Here the locations of abandoned vehicles are plotted with the relative likelihood of residents perceiving abandoned cars *not* as a problem in the locality. The colour ramp has been inverted here for consistency with the look and feel of previous figures.

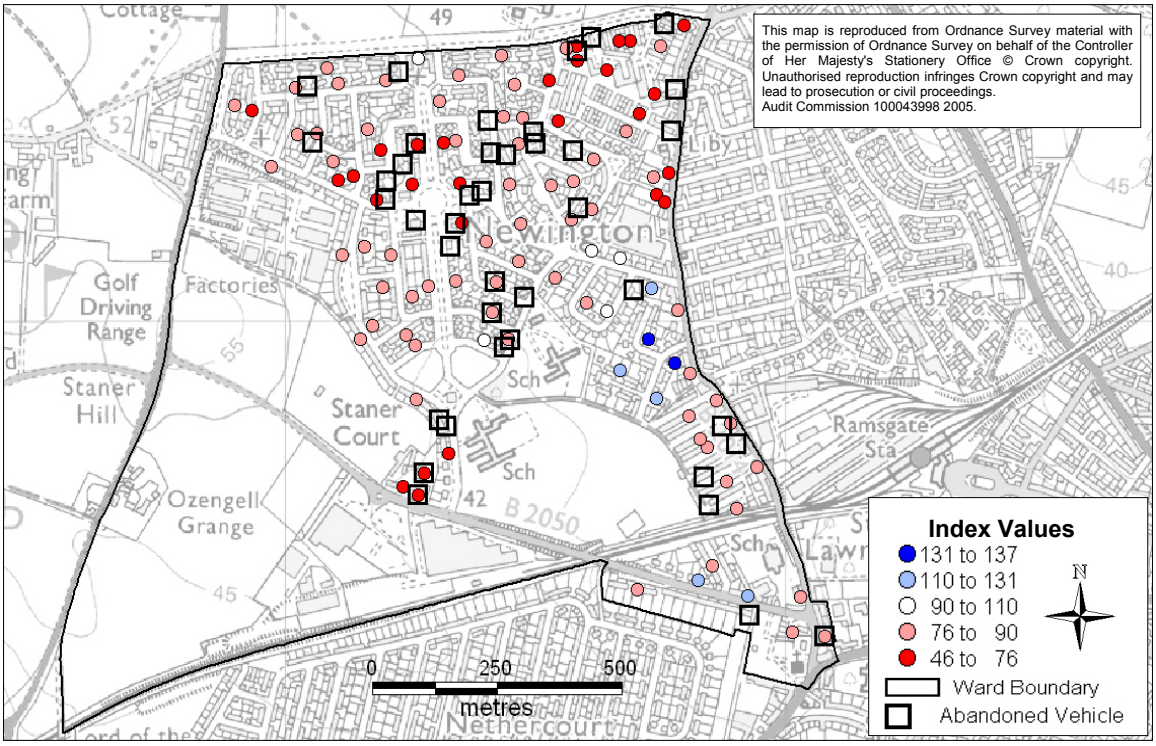

Figure 49: The relationship between observed abandoned vehicle locations and modelled propensities from the BCS in Newington, Thanet.
BCS data depict the relative likelihood of residents perceiving that abandoned cars are *not* a problem.

4.4.16 Finally, the Kerrier data sets afforded some scope for geodemographic analysis. Some evidence of skewing of these data was apparent due to the incorporation of some incidents which may not directly relate to the resident population (as victim locations). Disproportionately high rates were observed in city centre types characterised by low populations, and within which one may expect many incidents of crime or disorder involving people coming into the area (e.g. in 'D25: Town Centre Refuge' areas which are often commercial areas bordering the city centre). Those profiles presented below were selected to minimise this effect, whilst ideally carefully selected pre-processed data sets would be used to ensure statistical reliability.

4.4.17 In Table 24 below, we observe the profile score distribution by Mosaic group for a range of 'primary qualifiers' coded in the incident database. Here we can observe the geodemographic variations in the relative propensities for different types of incident records.

Pop'n share (%)		Administration	Anti Social Behaviour	Crime Recorded	Public Safety
0.3	**A: Symbols of Success**	-	-	-	-
9.2	**B: Happy Families**	26	50	55	102
13.6	**C: Suburban Comfort**	73	54	52	25
21.1	**D: Ties of Community**	156	152	156	135
0.0	**E: Urban Intelligence**				
0.5	**F: Welfare Borderline**	184	215	103	178
6.2	**G: Municipal Dependency**	161	199	252	345
7.8	**H: Blue Collar Enterprise**	137	98	121	185
3.1	**I: Twilight Subsistence**	149	171	135	51
17.1	**J: Grey Perspectives**	70	101	78	64
21.2	**K: Rural Isolation**	75	58	56	46
100.0	*Total Count*	*414*	*973*	*553*	*320*

Table 24: Incident profile index scores (primary qualifiers) by geodemographic group for Kerrier CDRP.

4.4.18 In Table 25 further analyses of the same database are presented. Here we have segmented the 'secondary qualifiers' for incident records by Mosaic Group. Interesting and characteristic variations by group are observed, whilst those familiar caveats detailed above should also be maintained in this instance. Further secondary qualifiers which may be of great interest are those incidents classified as 'complaint about police' and 'information/intelligence'. Analysing such phenomena by geodemographics type could prove most interesting and insightful into both customer satisfaction and intelligence channel domains. Unfortunately, due to the small number of records in both of these categories for the six month period (less than 100 cases) it was deemed inappropriate to present such profiles here.

Pop'n share (%)		Burglary	Concern for Safety	Criminal Damage	Domestic Incident	Rowdy / Nuisance Behaviour	Vehicles	Violence
0.3	**A: Symbols of Success**	-	-	-	-	-	-	-
9.2	**B: Happy Families**	26	50	55	102	56	53	62
13.6	**C: Suburban Comfort**	73	54	52	25	46	87	23
21.1	**D: Ties of Community**	156	152	156	135	149	122	183
0.0	**E: Urban Intelligence**							
0.5	**F: Welfare Borderline**	184	215	103	178	273	201	363
6.2	**G: Municipal Dependency**	161	199	252	345	255	135	270
7.8	**H: Blue Collar Enterprise**	137	98	121	185	126	105	132
3.1	**I: Twilight Subsistence**	149	171	135	51	160	143	96
17.1	**J: Grey Perspectives**	70	101	78	64	95	114	89
21.2	**K: Rural Isolation**	75	58	56	46	42	72	27
100.0	*Total Count*	*414*	*973*	*553*	*320*	*1813*	*567*	*577*

Table 25: Incident profile index scores (secondary qualifiers) by geodemographic group for Kerrier CDRP.

4.4.19 The Kerrier data have been geocoded and imported into the MapInfo GIS where appropriate and similar analysis to those presented above could be replicated for Redruth North and Illogan South. Figure 50 below illustrates a surface of incidents categorised as 'Public Safety' with a BCS propensity indicating the relative likelihood of residents in different regions feeling very unsafe walking alone after dark.

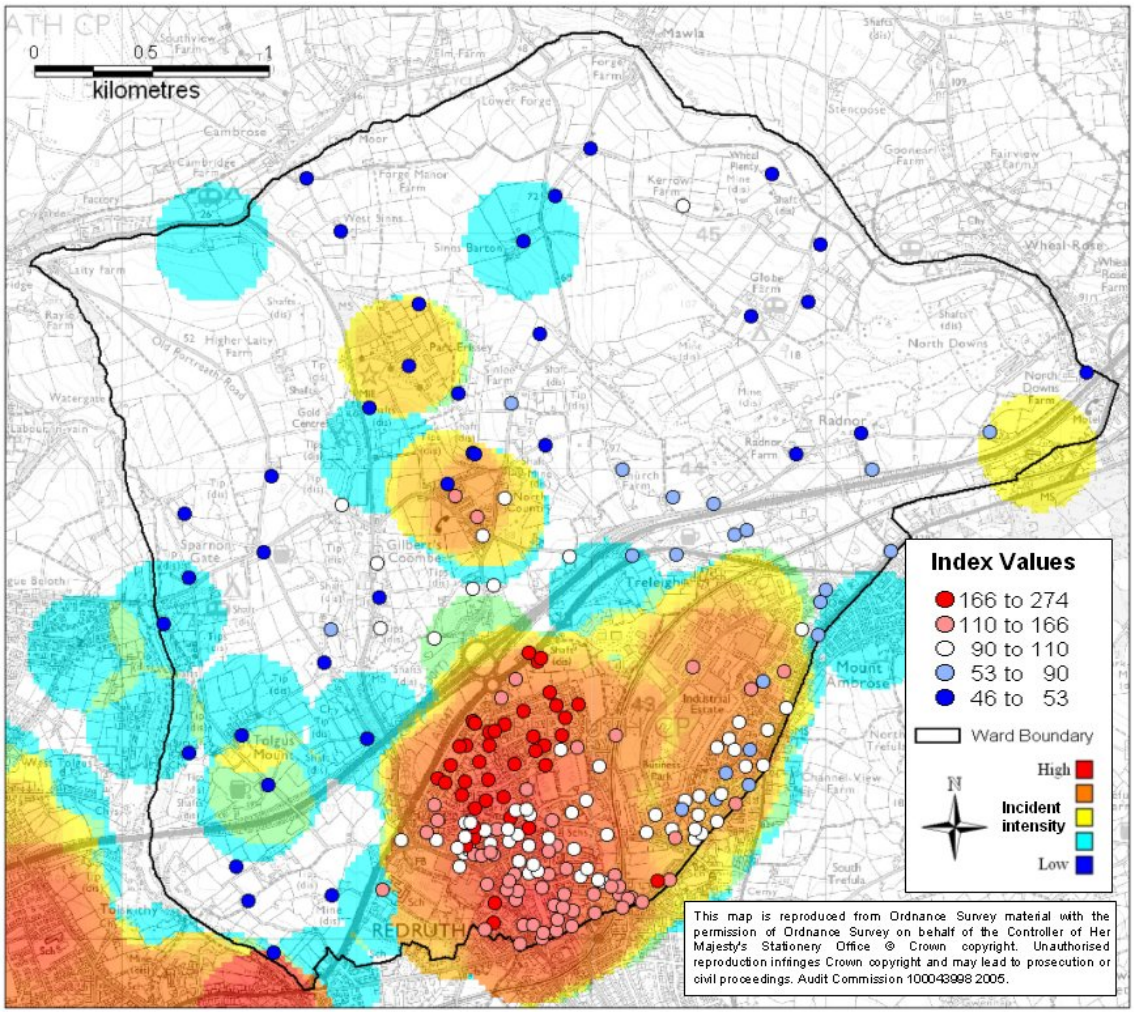

Figure 50: Surface of Incidents of 'Public Safety' and a modelled BCS propensity in Redruth North, Kerrier BCS data depict the relative likelihood of residents who may feel 'very unsafe' walking alone after dark.

4.5 Implications for Neighbourhood Policing

4.5.1 The final commentary box (Box 6) and Table 26 briefly summarise some of the likely implications that demographics may have on neighbourhood policing in the ten wards. This commentary has been largely prepared using a the analysis of the geodemographic composition of the ward and a knowledge of BCS general trends, which was finally supplemented with any key observations found from those analyses of crime and disorder data sets above. Such commentary should be considered complementary to those analytical outputs above.

The ten wards show a number of similarities and a number of dissimilarities with respect to the policing issues that are likely to be locally important.

One key characteristic of all ten wards is their low proportions of non-White residents. Similarly, when considering 'high-crime' neighbourhoods it is important to note that none of those areas studied here contain significant student populations (e.g. 'E: Urban Intelligence'), which are likely to suffer high rates of burglary dwelling and some criminal damage.

Other than Talbot Green the wards all experience severe levels of poverty and 'deprivation'. Although it would be possible to rank the wards according to their position on a composite measure of deprivation, it may be more instructive to contrast them in terms of the form that deprivation takes in them.

A key source of deprivation in Eccleshill and Tong is the presence of highly unpopular peripheral council estates with very large numbers of poorly disciplined young people. These are neighbourhoods in which the concept of respect for property is not fully accepted. Another key policing problem in these wards is the lack of common identity between the residents of these estates and the residents of owner occupied properties in immediately surrounding streets. Similar tensions exist to a smaller degree in Redruth North and Illogan South. Such cleavages make it difficult for the local community to speak with one voice. Territorial definition is likely to present serious policing issues in these wards.

Newington by contrast has the largest proportion of its residents living in what was originally built as council housing. Here the sheer size of the council estate gives the local community a stronger sense of identity and coherence. Territorial issues, to the extent that they exist here, are between the ward and the rest of Thanet rather than between one part of the ward and another. Though the extent of the disadvantaged community may be greater in Newington, the intensity of deprivation is much lower. It is much more likely that the police will be able to engage with representatives of the local community in a ward such as this.

Eccleshill, Tong and Newington are all examples of communities where partnerships with local schools could play a useful role in combating anti social behaviour.

In Cliftonville West, by contrast, deprivation originates from the large population of young, rootless, single people and their lack of integration with the rest of the community. In this community issues such as drug and alcohol addiction are likely to be more serious and many more offenders are likely to be known to the local social services department. A major source of risk of lies in the large number of refuges and hostels. Close liaison with the operators of these hostels is likely to be helpful in combating crime. This ward in particular presents risks relating to the transfer of the mentally ill to community hostels and to protection rackets surrounding prostitutes.

{continues…}

{continued…}

In Pen-y-Waun by contrast we find a very stable community where the density of kinship networks can create an almost claustrophobic 'Under Milk Wood' environment. It is in communities of this sort that the local population is most prone to make attempts to take the delivery of justice its own hands. Members of the community are likely to have information about the perpetrators of crime but may be reluctant to come forward with information for fear of witness intimidation. Such problems may also be apparent to a lesser extent in Anfield. Witness protection schemes are likely to be particularly appropriate in such areas.

In Redruth North and Illogan South we find communities significantly divided between poor council tenants and moderately well off older people living in their own properties. In communities of this sort there may be a serious requirement for reassurance of the elderly population. Reassurance is also an important requirement in wards such as Cliftonville West which are divided between 'refuges' and the homes of retired people. In Redruth and Illogan but also in Anfield, Warbreck and Cliftonville West local independent retailers are likely targets for shoplifting but may also be valuable sources of police intelligence.

Getting the community to speak with a single and coherent voice on policing issues is likely to be easier in Anfield and in Pen-y-Waun. Community representatives in Eccleshill and Tong, by contrast, could easily be representing just the views of certain segments of the community. The Talbot Green population is so varied and fragmented that it may well be difficult for community representatives to speak with a single voice.

Box 6: Commentary regarding the likely relevance of ward demographics to policing strategies.

4.5.2 In Table 26 below we attempt to summarise some of the key issues for neighbourhood policing in the ten wards. This table acts as a concise summary of some of those issues discussed above. Further development of the ideas and potential policing strategies is given in Table 28 for all neighbourhood types.

	Is ward relevant unit for policy analysis?	Is ward broadly homogenous?	Likely policing issues	Likely level of co-operation from/with the community	Potential partnership strategies	Level of self policing
Anfield	Yes	Yes	Graffiti; intimidation; shop theft; back alleys	High	Housing	High
Warbreck	Yes	Yes	Shop theft; back alleys	Medium		Quite high
Tong	No	No	Petty crime; youth offending	Moderate	Schools	Low
Eccleshill	No	No	Petty crime; youth offending	Moderate	Schools	Low
Pen-y-Waun	Yes	Yes	Domestic violence; drugs; drinking; intimidation	High		High
Talbot Green	No	No	Fear of crime	High		Low
Cliftonville West	Yes	Yes	Mental illness; drugs; alcohol	Low	Social Services	Low
Newington	Yes	Yes	Petty crime; youth offending	Moderate	Schools	Moderate
Redruth North	Yes	No	Fear of crime among elderly; domestic violence	High		Quite high
Illogan South	Yes	No	Fear of crime among elderly	High		Quite high

Table 26: Summary of likely policing issues for the ten study wards

5 Conclusion

5.0.1 In the following section we comment upon the major implications these analyses pose for neighbourhood policing, and provide some potential solutions, opportunities, options and summary suggestions for best practice.

5.0.2 Primarily, it should be noted that these analyses are exploratory rather than explanatory in nature. Whilst geodemographics do provide reasonable estimates and characteristics of local 'communities' these 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, many of those relationships presented here between crime/disorder variables and neighbourhood categories are associations / or correlations and do not necessarily reflect any causal relationship. One should also be mindful of the *ecological fallacy* in interpreting these data, as one should when processing any relationship data at an aggregate level. Those average, aggregated data and subsequent likelihoods derived for different neighbourhoods are best estimates and such values should not be prescribed to the level of the individual.

5.0.3 It is important to reassert that many of those modelled data presented here represent best estimates of local conditions given national trends. Other data here are based upon only six month snapshots of small areas. The areas selected may also introduce some bias if broader conclusions are to be made – only those areas predefined as 'high-crime' were studied here.

5.0.4 The accuracy and validity of these profiles is also entirely dependent upon the input data. The accuracy with which data are recorded and geocoded is paramount in any such analyses, and further working examples of how these findings may demonstrably assist practitioners in their jobs is necessary to ensure more efficient and accurate data capture in the future.

5.0.5 To identify the most appropriate ways in which to engage with communities the wider Mosaic profile library provides a sound foundation for additional analyses. Outline examples are listed below (Table 27); the diverse array of profiles may be the subject for much more detailed analysis in this field although this is beyond the scope of this study. Profiles detailing lifestyle choices, leisure interests, shopping patterns, internet use, newspaper readership, etc may be of interest in developing appropriate strategies and efficiently targeting resources within the context of reassurance and neighbourhood policing models. For example, the North and East

Devon BCU have recently used geodemographics to identify vulnerable communities and further utilise lifestyles data to ascertain estimates of the most efficient ways to engage with these populations (e.g. through poster advertising at selected bus-stops).

Category	Example	Data source
Neighbourhood stability	Length of residency	Census
Health	Permanently sick	
Personal characteristics	Region of birth, religion, qualifications, etc	
Employment	Occupation, Industry, Travel to work, etc	
Income	Household income, personal income, tax, etc	Experian
State Benefits	Income support, child benefit, etc	
County Court Judgements	Number of CCJs	
Credit / indebtedness	Banking types, credit card use, loans, savings, etc	
Consumption patterns	Shops visited, learn about products, internet use, etc	
University	Applications by subject	UCAS
Lifestyle / behaviours	Restaurant visits, smoking, purchasing	TGI
Voting	By major political party	MORI
Hospital Admissions	Hospital Episode Statistics by condition	HES

Table 27: Additional profile examples that may assist in the implementation and delivery of neighbourhood policing strategies.

5.0.6 An additional advantage of adopting a national classification of neighbourhood type at a fine spatial granularity is the facility to compare local strategies across the country for the dissemination of best practice. Table 28, whilst very much a heuristic device and work in progress, identifies some key facets of the Mosaic neighbourhood groups based on the analysis of the British Crime Survey and limited operational data set analysis. Research is ongoing to further populate this model with empirical evidence. The appropriate policing options suggested here are tentative and subject to consultation with partnership police forces. However, such a model could be employed in the identification of potential policing strategies in different neighbourhoods and would be generally transferable across other geographies.

MOSAIC UK GROUPS		Crime Profile			Social Capital				Appropriate policing strategies
		Common crimes / disorders	Crime Level	Fear Level	Level of trust	Informal Contacts	Formal Association	Summary	
A	**Symbols of Success**	Fraud, Traffic Offences	Low	Low	Fairly high (excluding "Global Connections")	Low	High	Networks are often instrumental and not locally based	Engage with local representatives. Leaflet drops to communicate information and promote campaigns.
B	**Happy Families**	Fraud, some marital violence	Moderate	Low	Fairly high	Moderate	Moderate	New communities tend to have shallow networks	Child safety orientation. School based programmes.
C	**Suburban Comfort**	Traffic Offences	Low	Low	High	Quite high	High	Well established networks	Engage with local representatives. Establish 'Neighbourhood Watch' schemes. Leaflet drops to communicate information and promote campaigns.
D	**Ties of Community** *{e.g. Anfield, Warbreck, Redruth North (part) and Illogan South (part)}*	Alcohol related; domestic violence	Average	Moderate - low	High among local residents: apprehensive of outsiders	Quite high	Quite high	Tends towards self policing.	Identify representatives and attempt to recognise parallel communities. Community Support Officers. Rapid response to environmental disorders such as abandoned cars.
E	**Urban Intelligence**	Snatching; mugging; credit card theft	High	Considered fact of life	Low	Informal contacts are not local	Patchy : high for those who are not transient	Networks are often not local. Local networks are often transient and one dimensional.	Reliance on communications programmes; target hardening. Community Support Officers.
F	**Welfare Borderline**	Drug dealing; youth crime; car crime	Very high	High	Low	Low	Very low	Low levels of social cohesion	Target hardening. Increased law enforcement. Partnership work with housing department and social services; Community Support Officers.

MOSAIC UK GROUPS		Crime Profile			Social Capital				Appropriate policing strategies
		Common crimes / disorders	Crime Level	Fear Level	Level of trust	Informal Contacts	Formal Association	Summary	
G	**Municipal Dependency** *{e.g. Tong, Pen-y-Waun, Eccleshill (part)}*	Drug usage; marital disputes; vandalism; graffiti; petty theft	Very high	High	Low	Low	Low	People may know each other but not trust each other	Liaison with schools and social services. Increased surveillance. Target hardening. Rapid response to criminal damage and signal disorders.
H	**Blue Collar Enterprise** *{e.g. Newington}*	Alcohol related offences; serious traffic offences	Moderately high	Above average	Moderate	Moderate	Below average	Not ideologically communitarian but are responsible on specifics	Default strategy
I	**Twilight Subsistence**	None	Moderate	Quite high	Moderate	Moderate	Below average	Low level of mobility impairs social integration	Reassurance; high visibility policing. CCTV. Anti-fraud campaigns.
J	**Grey Perspectives**	Few	Low	Underlying but unfocussed need for reassurance	High among known people / low among outsiders	High	Above average	Highly responsible for local conditions. Are at home much of the day. Natural 'wardens'	Reassurance; high visibility policing; anti fraud campaigns; neighbourhood watch.
K	**Rural Isolation**	Theft of equipment; planned, high value burglaries	Low	Anxiety about quality of police response	High among known people	High	High	High levels of responsibility to other community members	Reassurance on response times. More intensive communications with community leaders

Table 28: Neighbourhood types, crime profiles, fear profiles and social capital, with examples of appropriate policing styles. Source: Ashby, 2005

5.0.7 The original intention of the project has been to identify the extent to which geodemographic analysis could be employed in neighbourhood policing. Importantly, this study has demonstrated the value of geodemographic analysis in this domain, and begins to explore how such an approach can bridge the current gap between post-hoc analyses and strategic pro-active policing styles at a local level. A geodemographic framework potentially offers the capacity to drive forward local strategies, and most significantly assists in the implementation of those techniques which are deemed appropriate. The evaluation of what works, in a local neighbourhood context, adds further value in the dissemination of best practise in a drive for efficiency and VfM in policing.

5.0.8 On the basis of this study in ten wards, each with a quite different demographic composition, we believe that a geodemographic profile is an efficient tool for identifying and isolating the salient communities which are more and less present in the ward compared with the country as a whole. We conclude that there are benefits in simplifying this profile so that it incorporates household distribution by the 11 aggregate groups and that information should be provided at the more detailed 1 – 61 type level only for a small number of types, not all 61.

5.0.9 In the case of all ten of the wards we believe that the geodemographic profile is helpful in isolating the differences that exist within the wards as well as the differences between the wards and the UK, or local region. Whilst aggregate census measures would be effective in distinguishing the differences between the wards, we believe there is evidence to show that a geodemographic profiling approach can be more useful when the requirement is to drill down within the ward to identify differences within it.

5.0.10 We have argued that heterogeneity of neighbourhoods within a ward leads not only to a requirement for more sensitive policing strategies within the ward but to greater difficulty in citizens articulating their concerns coherently whether using formal political channels or informal community based conduits.

5.0.11 Whilst we have profiled these ten 'communities' in the main against the national average, we do believe there is merit in making comparisons with the local authority districts of which they are part.

5.0.12 The interpolation of British Crime Survey data to individual postcode level using geodemographics as a 'bridge' does, we believe, show patterns which support local knowledge on the ground and confirms rather than conflicts with evidence from local policing operations. We believe that areas of similar demographics are broadly similar to each other in terms of policing issues even where they occur in different parts of the country. In particular we believe that this way of comparing areas does manage to incorporate dimensions other than affluence – poverty that are relevant to policing; specifically the differences in policing strategies needed

by communities in a global as distinct from a provincial city. Residential mobility, housing tenure and ethnic mix have significant implications for policing strategy as well as the overall level of affluence – deprivation.

5.0.13 Whilst we would propose that the most appropriate strategy would be to combine the analysis of local operational data with British Crime Survey data, we believe that the number of incidents available for analysis does make it difficult to use operational data to draw definitive conclusions for areas much smaller than the ward itself. Other than with very common crime categories and where just one type dominates a ward, there is a tendency for analysis to run out of sample size at a finer level of scale. Yet in all those examples presented here it is evident that data summarised at the ward level conceals significant differences among types of neighbourhood within the ward.

5.0.14 We do believe that the ranking of Mosaic groups in terms of actual levels of crime is significantly different from the ranking based on fear of crime. Clearly there is a statistical correlation between the two. However, we believe there is strong evidence to show that young, transient and well educated people are less bothered by crime, or can more easily re-adapt after having been victims, than older, poorer and more traditionally oriented people. Differences between levels of victimisation and fear of crime are not therefore 'illogical' problems of perception but reasonable and justifiable. This suggests that the target areas for reassurance will not necessarily be the same as areas with the highest recorded levels of crime.

5.0.15 We also believe that whilst different categories of crime are statistically correlated at an area level, there is clear evidence for differences in the types of criminal, the motivations of the criminal and the patterns of criminal activity in different types of neighbourhood. This reflects not just the 'supply' of criminals but also the 'supply' of opportunities for profitable criminal activity.

5.0.16 In our discussion of social capital we believe that a geodemographic typology can be used to identify not just where there will be strong or weak levels of cohesion, but where social capital will be expressed through formal and where through informal networks. We believe that the typology is also helpful for identifying where there are unified and where there are parallel networks which represent the opinions of social groups to the police.

5.0.17 We believe that the detailed analysis of a combination of crime and attitudinal profiles deemed relevant to neighbourhood policing models can help identify key disorders and inform local policing strategies. The strength and coherence of such 'signals' could be assessed through the detailed profiling the wide variety of data now available, and is likely to be enhanced by local knowledge and traditional crime analysis techniques.

5.0.18 In our opinion one of greatest uncertainties is the extent to which the policing profession can recognise (and accept) the different types of community characterised by the geodemographic classification. Are the labels intelligible and appropriate? Will users of this information be able to see behind the quantitative evidence in such a way as to make qualitative inferences in areas where hard evidence does not exist (for example over the existence of parallel communities in neighbourhoods such as 'Counter Cultural Mix')? Will the supporting documentation supplied by geodemographic vendors be considered useful and will the labelling be considered politically correct?

Data issues

5.0.19 The project has demonstrated that, as with most analytical and profiling exercises, data quality is the key. The maxim 'garbage in, garbage out' certainly applies in this context, and it is of paramount importance to have both a sound understanding of the techniques and appropriate data, if misinterpretation and erroneous conclusions are to be avoided.

5.0.20 Our experience in the field suggest that it can take protracted time periods and significant effort to extract all the relevant data from the operational systems and considerable time to link the various files together and to process them in such a way as to support the profiling and mapping systems. This process is becoming more efficient and rationalised but a steep learning curve may nevertheless apply to the novice.

5.0.21 We recognise that there is a need to current information wherever possible. However, for most of the analyses and maps it is necessarily to have quite a large sample of records, in which case it is typically appropriate to be studying at least a whole year's records, probably for areas larger than a single ward. An informed analyst needs to be assigned the task of managing the annual extract and of documenting the form of post extract processing.

5.0.22 Whilst it has been quicker and cheaper for the analysis work to be undertaken by the collaborators than the crime analysts, it is clear that if the approach is to be used as an integral part of neighbourhood policing such processing needs to be adopted 'in-house'. This again highlights the important duplicity of the context of this report;

1) A critical mass of data, expertise, resource and capacity is required for efficient and effective data processing and analysis. This ideally requires the commitment of central departments at Force Headquarters.
2) Those trends, applications and frameworks presented here support local neighbourhood policing at the small-area practitioner level. Those on the ground delivering neighbourhood policing are ideally positioned to benefit from the adoption of such an approach, provided that the support of the larger institution/organisation is afforded.

5.0.23 The profiling of incident data is fundamentally reliant on the quality of the data and georeferencing. For the purposes of this study the data were not cleaned to increase the

postcode geocoding hit-rate. Such data cleansing should be considered in the advent of a larger study, or the national roll-out of such a methodology.

5.0.24 The value of the geodemographic profiling of additional data sources should also be considered. For example, local variations in attitudes by neighbourhood type could be analysed from local surveys conducted for Crime and Disorder Audits or alike.

Communicating results to the front line

5.0.25 Experience from the commercial sector and increasingly recent experience with the public sector suggests that in an organisation with large numbers of 'customer' facing staff, segmentation strategies are successful only if the segments are few and easy to understand, in which case the Commission may be advised to work only with the 11 aggregate Mosaic Groups.

5.0.26 There is some scope to drill down to the 61-type level if sufficient data are available for statistical stability in the profile scores.

5.0.27 It is particularly important that care should be taken in how the key features of these groups are communicated to front line staff. It is for this reason that geodemographic vendors have in the past made heavy investment in multimedia based visualisation material, including photographs, collages and video.

5.0.28 It would be helpful if such generic material were supplemented by a good stock of photographs illustrating the key classifications in different neighbourhoods within those local areas adopting such a framework. Within the constraints of this project no photographs or local knowledge were incorporated in our analyses but such information is likely to prove most useful in making a neighbourhood classification more real both to front line staff and collaborators in partnership agencies.

Review process

5.0.29 When geodemographics is applied in a new field or for the first time in a complex organisation, it is important to recognise the tentativeness of many of the hypothesis on the basis of which policies may be developed. Rapid and responsive feedback from front line staff is therefore very important.

5.0.30 Likewise classifications should prove very helpful in identifying the issues that one might want to probe in more detail with local communities and with partnership agencies. However it is important that reactions, whether supportive or contradictory, are fed back promptly in the initial stage.

5.0.31 Steps also need to be taken to formally measure the impact of strategies. Does high-visibility policing alleviate fear of crime in areas of 'Grey Perspectives'? Have the policies addressing the clear up of litter and criminal damage successfully reduced the 'fear' of crime and disorder in a locality?

The example analyses presented here illustrate ongoing research interests of a team of researchers at UCL. The drive to reconcile the political rhetoric concerning local, neighbourhood service provision and contemporary practice across all public services is a key facet of our research.

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Department for Education and Skills (DfES)	-	PLASC data
Youth Justice Board / Nottinghamshire Constabulary	-	Youth offender data
Experian Business Strategies	-	Mosaic UK

Suggested Further Reading

For a comprehensive background to GIS and the state of the art in spatial analysis see Longley *et al*. (2005) and Longley and Batty (2003). Harris *et al*. (2005) provide a thorough background to GIS and geodemographics, whilst Chainey and Ratcliffe (2005) detail GIS and Crime Mapping in the same book series. Sleight (2004) provides the benchmark for geodemographic textbooks. A series of related papers have been published and are in progress from the team of authors of this report – see Ashby (2005), Ashby and Longley (2005), Ashby *et al*. (2006) Williamson *et al*. (2005; 2006) and contact the author for the most recent (and in progress) research.

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Appendices

Appendix 1

Mosaic UK Geodemographic Typology

Experian Business Strategies
http://www.business-strategies.co.uk

The proprietary owner of Mosaic UK is Experian Business Strategies Ltd. Experian is based in Nottingham and is owned by Great Universal Stores. Its principal business is the provision of credit referencing services both in the United Kingdom and the United States. The division which commercialises Mosaic within Experian contains some two hundred employees, the majority of whom work on marketing and retail projects with major blue chip companies.

The analyses conducted employed Experian's Mosaic UK neighbourhood segmentation system. Each of the 1.6 million unit postcodes in the United Kingdom have been categorised into one of 61 Mosaic neighbourhood types and aggregated into 11 neighbourhood groups. The latest version of the Mosaic UK classification, launched in November 2003, was built using over 400 data variables. Approximately 54% of the data used to build Mosaic were sourced from the 2001 census and the remaining 46% was derived from Experian's Consumer Segmentation Database which includes the edited Electoral Roll, Experian Lifestyle Survey information and Consumer Credit Activity, the Post Office Address File, Shareholders Register, house price and council tax information and ONS local area statistics.

Each of the neighbourhood groups and types has comprehensive descriptions and visualisation material which is to be published on a Multimedia CD-ROM guide. Copies of a Multimedia Guide designed for the public sector will be forwarded to the client upon release from Experian. Descriptions of the groups and types can alternatively be downloaded from the Experian website[3] and have also been supplied on the data CD supplied with this report. Finally, a small (2.7 MB) Mosaic help file which details the neighbourhood groups and types has also been supplied on the data CD supplied with this report (and see 'Mosaic UK Group & Type Descriptions.pdf'[4] – the "Dictionary" of Neighbourhood Types.

Appendix Table 1 lists the 11 Mosaic UK groups and the 61 types. Full descriptions of these groups and types can be found on the Mosaic UK multimedia CD, the Mosaic help file and in the Adobe PDF document.

[3] http://www.business-strategies.co.uk/Content.asp?ArticleID=566
[4] These documents are provided on the associated CD.

	Group Description	% HH	Type	Type Description	% HH
A	Symbols of Success	9.62	A01	Global Connections	0.72
			A02	Cultural Leadership	0.92
			A03	Corporate Chieftains	1.12
			A04	Golden Empty Nesters	1.33
			A05	Provincial Privilege	1.66
			A06	High Technologists	1.82
			A07	Semi-Rural Seclusion	2.04
B	Happy Families	10.76	B08	Just Moving In	0.91
			B09	Fledgling Nurseries	1.18
			B10	Upscale New Owners	1.35
			B11	Families Making Good	2.32
			B12	Middle Rung Families	2.86
			B13	Burdened Optimists	1.96
			B14	In Military Quarters	0.17
C	Suburban Comfort	15.10	C15	Close to Retirement	2.81
			C16	Conservative Values	2.84
			C17	Small Time Business	2.93
			C18	Sprawling Subtopia	3.08
			C19	Original Suburbs	2.41
			C20	Asian Enterprise	1.02
D	Ties of Community	16.04	D21	Respectable Rows	2.65
			D22	Affluent Blue Collar	3.12
			D23	Industrial Grit	3.82
			D24	Coronation Street	2.81
			D25	Town Centre Refuge	1.13
			D26	South Asian Industry	0.88
			D27	Settled Minorities	1.62
E	Urban Intelligence	7.19	E28	Counter Cultural Mix	1.36
			E29	City Adventurers	1.27
			E30	New Urban Colonists	1.36
			E31	Caring Professionals	1.08
			E32	Dinky Developments	1.10
			E33	Town Gown Transition	0.76
			E34	University Challenge	0.26
F	Welfare Borderline	6.43	F35	Bedsit Beneficiaries	0.71
			F36	Metro Multiculture	1.67
			F37	Upper Floor Families	1.72
			F38	Tower Block Living	0.49
			F39	Dignified Dependency	1.34
			F40	Sharing a Staircase	0.50
G	Municipal Dependency	6.71	G41	Families on Benefits	1.21
			G42	Low Horizons	2.64
			G43	Ex-industrial Legacy	2.86
H	Blue Collar Enterprise	11.01	H44	Rustbelt Resilience	3.00
			H45	Older Right to Buy	2.67
			H46	White Van Culture	3.17
			H47	New Town Materialism	2.17
I	Twilight Subsistence	3.88	I48	Old People in Flats	0.83
			I49	Low Income Elderly	1.63
			I50	Cared for Pensioners	1.43
J	Grey Perspectives	7.88	J51	Sepia Memories	0.75
			J52	Childfree Serenity	1.34
			J53	High Spending Elders	1.53
			J54	Bungalow Retirement	1.26
			J55	Small Town Seniors	2.71
			J56	Tourist Attendants	0.30
K	Rural Isolation	5.39	K57	Summer Playgrounds	0.29
			K58	Greenbelt Guardians	1.74
			K59	Parochial Villagers	1.64
			K60	Pastoral Symphony	1.31
			K61	Upland Hill Farmers	0.41

Appendix Table 1: Mosaic UK groups and types with percentage UK household distribution.

Appendix 2

Principal data sets and reference material

All data are supplied in Microsoft Excel format, with additional MapInfo files for incorporation into the Audit Commission Geographical Information System. Mosaic data supplied are subject to the licence terms and agreements of Experian Business Strategies, and may not be shared without prior consent / licensing agreements with the vendor.

- Mosaic UK profiles for the ten study wards.
- Recorded Crime data profiles for the ten study wards.
- British Crime Survey profile library for all 61 Mosaic types and 11 aggregate groups.
- Extensive profile library from additional Experian lifestyle survey data sets.
- Mosaic UK Multimedia CD-Rom with British Crime Survey profiles.
- Mosaic UK help-file.
- Mosaic UK Group and Type Descriptions – 'Dictionary'
- GIS mapping workspaces and data libraries
- Image captures of significant findings

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