

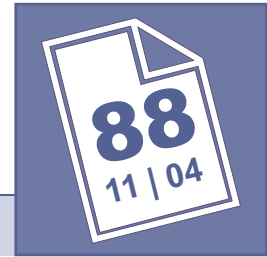


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Neighbourhood Segregation and Social Mobility among the descendants of Middlesbrough's 19th

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The Quantitative Analysis of Family Names

Neighbourhood Segregation and Social Mobility among the descendants of Middlesbrough's 19th century Celtic Immigrants

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Abstract

This paper is one of a series of research papers which form part of an ESRC funded research project on 'The Quantitative Analysis of Family Names'. The purpose of this project is to assess the contribution that information on the geographic distribution of family names can make to the study of historic migration patterns within local areas of Great Britain. The particular focus of this paper is Middlesbrough and East Cleveland, to which economic migrants were drawn in large numbers from Scotland, Ireland and Cornwall as well as from the North East of England during its rapid nineteenth century industrialisation.

By examining the geographic distribution of different types of family name in the Middlesbrough area in 2003 it is possible to infer that the descendants of Scottish migrants have been more upwardly mobile than descendants of Irish migrants and that few descendants of Cornish migrants have moved out of the mining villages in which they originally settled. Among the descendants of Scottish and Irish migrants there is clear evidence of social stratification between the descendants of those who originally migrated directly to Middlesbrough and those who reached Middlesbrough indirectly and / or only in recent years. Both communities have fared less successfully than those who moved to Middlesbrough from elsewhere in the North East of England whilst the most economically successful Middlesbrough residents appear to be drawn predominantly from people with names traditionally found in regions of the country other than the North East.

1 The quantitative analysis of family names

There has long been anecdotal evidence of the relationship between family names (or surnames) and places. This is because it was often the practice, when family names were first adopted in the late Middle Ages, for people to be assigned names taken from the localities from which they originated. Names of this sort are known as toponyms and people with names such as Illingworth or Cheney as still predominantly concentrated in communities close to the place names from which these surnames derive their origin. Variation across Great Britain in the terms formerly used to describe topographic features also contributes to local variations in surname frequencies. For example names ending in -bottom are most common in the North and in -thorp in the East Midlands, as can be seen in figure one, whilst names ending in -combe and -cott are still much more common in the South West than in other regions of the country.

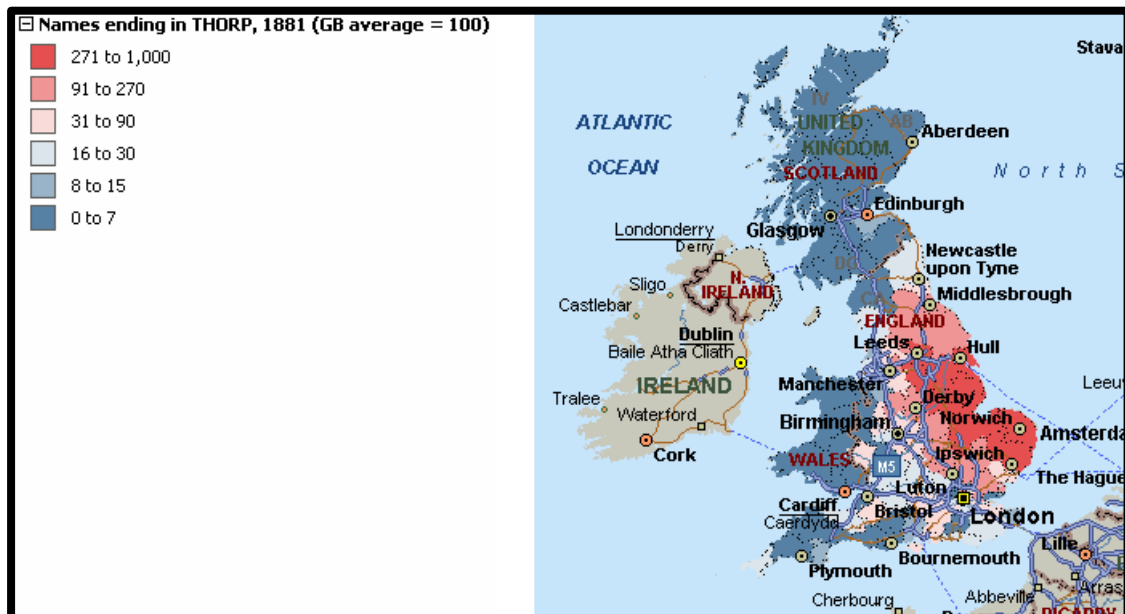


Figure one : Frequency of persons with names ending in -thorp in 1881, index values (GB average = 100)

Other names are derived from occupational groupings. These are known as metonyms. Since some of these occupations were specific to individual regions, many of these names are highly regionalised. Regional differences in the words used to describe different occupations also contribute to regional variations in surname frequency. For example the occupation described as a 'Walker' in the North was known as a 'Fuller' in the South East and as a 'Tucker' in the South West.

A third important class of surnames contains ones such as Jones and Johnson that originate from a parental name, which can be either male or female. Such names are known as patronyms. Patronyms are particularly common in Wales and the South West, where it was common for an 's' to be added to a first name, as in Richards, Nicholls. In the North East, where patronyms are also common, a more common practice was to add the suffix -son, as in Richardson or Nicholson.

Immigration from Scotland, Ireland, Wales and Cornwall has contributed many other classes of surnames while new sets of names, such as Goldstein, Patel and Hussain, have been added more recently as a result of the immigration of Jews, Asians and Muslims. Indeed of all immigrants groups only the Caribbeans have not brought with them a distinctive set of family names. Given the tendency of these immigrant groups to settle in particular localities, their family names are often even more geographically concentrated than traditional Anglo-Saxon or Norman names.

The purpose of the ESRC project 'The Quantitative Analysis of Family Names' is to provide researchers with access to a database containing a number of key attributes of each of Britain's more common family names. In addition to the national frequency of the name, both in Great Britain and in other countries of the Anglophone diaspora¹, these attributes include a number of measures of geographical distribution such as the identity of the postal area which has the highest concentration of that name, the level of concentration of the name in its historic heartland and the relative change in the frequency of the name since 1881.

From an evaluation of these and other attributes the majority of names have also been assigned to one of a set of 224 different name types, such as patronyms ending in -son, toponyms ending in -combe or metonyms relating to manufacturing occupations. This classification of names also includes a number of classes based on country or culture of origin.

In addition to the creation and dissemination of the database a key objective of the surnames project is to demonstrate the contribution the database can make to the understanding of social processes, particularly in relation to migration and to the delineation of regional identity. The analysis of the geographic distribution of names associated with particular regions or sub-regions of origin is helpful in identifying and explaining important migration paths between population importing and population exporting localities; in demonstrating the inertial effect of distance on the migration of populations; in quantifying the extent to which local areas are likely to have higher or lower levels of genetic kinship; and in identifying natural boundaries between areas of differing cultural traditions.

2 The pattern of migration to Middlesbrough : data sources

The purpose of this particular paper is to demonstrate how the analysis of contemporary sources of information on name distributions can throw light not only on the areas of the British Isles from which Middlesbrough and East Cleveland derived its expanding nineteenth century population but also on the social mobility of subsequent generations descended from these different migrant communities. Unlike many other northern industrial towns, Middlesbrough was no more than a fishing village in 1831, with 383 residents enumerated in the census of that year. With the development of a coal port and in 1840 of a steel works, the population of the town grew to 5,709 in 1841 and to 56,000 in 1881. During this time it attracted a disproportionate number of migrants from the remoter corners of the British Isles

The analysis of the social mobility of these economic migrants makes use of a number of data sources, the three most important of which are as follows.

The first data source is a database created by the Centre for Advanced Spatial Analysis at UCL, on behalf of ESRC, containing information relating to each of the 25,615 surnames for which more than a hundred occurrences appear on the 1998 versions of electoral registers in Great Britain². The raw information on which this database is built is supplied by the information services company Experian, who arrange for the annual data capture of registers containing the names and addresses of all electors entitled to vote in British elections.

These 25,615 names account for 37,246,881 registered electors and range from Smith, the most numerous with 514,898 occurrences, to 147 different names with exactly one hundred and one occurrences.

For each of these 25,615 names the database contains a count of the number of occurrences in each of Britain's 120 postal areas (such as Tees-side, TS). These counts are then compared with the total number of electors in the postal area with names having more than a hundred occurrences nationally. By comparing these figures it is possible to identify whether any name is more or less common in each postal area, relative to the total number of electors, than it is across the country as a whole, and by how much.

Such measures are expressed in the form of an 'index' value, where a value of 100 indicates a proportional level of frequency of a name in a postal area equal to its national average frequency. A value of 200 indicates twice as many occurrences of a name in a postal area as one would expect on the basis of a purely random national distribution. By identifying for each name the postal area with the highest index value it is possible to locate the region of the country from which the name is most likely to have originated. This can be considered as the name's 'heartland'.

A file of a similar sort has also been created using the names of respondents to the 1881 census³. Unlike the 1998 electoral register, the 1881 census summary file contains information on all residents. However comparisons of the numbers of occurrences of a name on the 1881 census with the number on the 1998 electoral register provides useful information, both at local and national level, on the relative movements of particular population groups, at both a national and at a local level.

Whereas this national database provides statistics for each of these 25,615 names at the level of the postal area, a second dataset supplied by Experian provides information on the names and addresses of all registered electors in the two parliamentary constituencies of Middlesbrough and of Middlesbrough South and Cleveland East⁴ (henceforth referred to as the 'study area'). The area covered by these two constituencies is shown in figure two. This database is taken from the 2003 electoral register.

Overall these two electoral registers contain information on the names and addresses of 147,110 electors. 12,073 different names are recorded on these registers. 8,261 of these names are ones which are also found on the list of national names containing more than one hundred electors nationwide. These 8,261 names account for 137,619 of the 147,110 electors in the study area (93.5%).

3 Current mix of names in the study area

In order to compare the life experiences of the descendants of Middlesbrough's historic immigrant groups, we have taken a class of name as a proxy for each of seven immigrant groups. Four of these groups are people of Asian, Irish, Scottish and Cornish descent⁷. The three other groups are people descendant from families local to Middlesbrough, people descendant from people from other parts of North East England and people descendant from other areas of Great Britain excluding Scotland, Wales and Cornwall.

Study area electors by type of name						
	Study Area Index	Study area	GB	Study area %	GB %	Index
All names (>100 in GB)	any	137,619	37,246,881	100.00	100.00	100
Asian	any	3,377	958,797	2.45	2.57	95
Irish	any	7,019	1,429,599	5.10	3.84	133
Scottish	any	2,157	1,142,092	1.57	3.07	51
Cornish	any	95	41,401	0.07	0.11	62
Middlesbrough	over 2000	5,046	42,518	3.67	0.11	3212
North Eastern (GB > 20k)	over 175	2,429	1,287,073	1.77	3.46	51
Other English (GB > 20k)	below 66	11,206	1,334,699	8.14	3.58	227

Table one : Study area electors by type of name

The top row of table one shows the number of electors within the study area and within Great Britain whose names have more than one hundred occurrences nationwide. The other rows of table one show the corresponding numbers and percentages of these electors whose names fall into the various cultural groupings whose current life experiences we are interested in comparing.

As can be seen from the 'Index' column, electors with Irish names are significantly overrepresented in Middlesbrough, their level being some 33% above the national average. The proportion of electors with Asian names is broadly in line with the national average whilst the proportions with Scottish and Cornish names are just over one half the national average rates. The disparity between the concentrations of Scottish and Cornish names as compared Asian and Irish names is caused by the Great Britain register including Scotland and Cornwall, not Ireland or South Asia. In comparison with postal areas bordering on Tees-side, the postal area in which the study area is situated, York (YO), Durham (DH) and Darlington (DL), the study area has a relatively high concentration of both Scottish and Cornish names.

Comparing tables one and two it is evident that a slightly smaller proportion of names on the electoral roll are of Asian origin compared with the proportion of people giving Asian as their ethnic status on the census form. By comparison the proportion of people in the study area who have Irish names is ten times greater than the proportion of people who describe themselves as Irish. This compares with a national average of three times. The study area therefore is a place where most of the descendants of Irish immigrants would no longer describe themselves as Irish. Therefore it is only by studying the location of electors with Irish names that we can identify what has happened to the descendants of the town's original Irish immigrants⁸.

Whilst Asian, Irish and Scottish names are relatively easy to define in terms of linguistic structure⁹, Cornish names can only be defined by examining their concentration in Cornwall¹⁰. The method used in this study to define Cornish names was to identify for each name the postal area in which it has the highest concentration. From those names which were more frequent in Truro (TR) postal area than any other postal area, we then defined as 'Cornish' those names whose index in postal area TR exceeded 2000. In other words to be considered Cornish, the name had to be at least twenty times more common in the Truro postal area (relative to all names) than in Great Britain as a whole.

In addition to these four cultural groups we also sought to identify a number of types of English name.

Population by Ethnic Group, Study Area, 2001 (Source 2001 census)					
Ethnic Group	Study Area	Study Area %	GB %	Index	
White: British (inc. White Scottish)	173,614	94.03	88.2	107	
White: Irish	877	0.47	1.21	39	
White: Other White	1,435	0.78	2.49	31	
Asian or Asian British	6,220	3.37	4.08	83	
Black or Black British	479	0.26	2.01	13	
Chinese or Other Ethnic Group	658	0.36	0.83	43	
Mixed	1,359	0.74	1.18	62	
All People	184,642	100.00	100.00	100.00	

Table two : Study area population by ethnic group : source 2001 census.

One group of English names which we were keen to identify were names which were peculiar to Middlesbrough, names which, because they are still hardly found anywhere else in the country in any concentration, are likely to have been native to the study area prior to the period in the nineteenth century when the process of industrialisation began. This group was defined in a manner not dissimilar to the method used to define Cornish names, this being that the names should be at least twenty times more common in the study area than they are in the country as a whole.

This condition was satisfied by a set of 168 names containing 42,518 electors (0.11% of Great Britain electors). By contrast 3.67% of all study area electors have these names. All these names are relatively few occurrences elsewhere in the North East region. Profitt, Postgate, Cairnes, Limon, Mendum and Harbisher are the six names on this list which have the highest representation in the study area compared to the country as a whole.

The second group of English names was defined in such a way as to identify residents whose ancestors are likely to have originated from areas of North East England other than the immediate vicinity of Middlesbrough and who, unlike the previous group, are likely to have migrated a relatively short distance from their ancestral homelands to live and work in Middlesbrough.

This group of names is defined using a different set of criteria. To qualify as a member of this group a resident's name has to be relatively common nationwide, in this case with a minimum of 20,000 occurrences, as well as to have an index within the study area of 175 or more. A third requirement is that the name must also not fall within any of the ethnic categories previously defined. This last criterion removes two names that would otherwise have qualified for this list, Hussain and Quinn.

These selection criteria resulted in a definition comprising 27 names. The ones on this list with the highest index values for the study area are Hodgson, Robson, Stephenson, Hutchinson and Atkinson. Eighteen of these 27 names are Patronyms ending in -son, including all eight with the highest index values. This provides evidence of the extent to which specific naming conventions as well as specific names can be associated with particular regions within the country.

It is interesting to note that the name Hodgson, which leads this list, has the same meaning, son of Hodge or Roger, as Hodges. Earlier we have seen that Hodges is the name with the largest number of occurrences nationwide which is not present at all in the study area.

In the third group of English names we seek to identify residents whose family names originate from a 'heartland' region of Britain far away from Teesside other than Scotland, Cornwall or Wales. To qualify for membership names had to be relatively common at a national level, ie with a minimum of 20,000

occurrences, but to have an index in the study area of 66 or lower. These people, one would suppose, are particularly likely to be descendants of people originating from regions of the country which had plentiful employment opportunities during the late nineteenth century or which, if they did not, were more conveniently placed in relation to other employment magnets than they were to Middlesbrough.

Names in this list with the lowest index are Barton, Sutton and Walsh, all of which are centred in the North West, Griffin, which is centred on Dudley (DY), and Wheeler and Miles, both of which are centred on the Swindon (SN) postal area. There are reasonable grounds to suppose that study area residents with these names are relatively likely to be recent migrants to the area or descendants of families who arrived more recently than the economic migrants from the Celtic periphery of Britain.

4 Analysis of name groups by type of neighbourhood

Having defined these seven mutually exclusive populations, we were now interested to see whether they are distributed randomly across the study area or whether the residents belonging to certain name groups are more likely to find themselves living in certain types of neighbourhood than others.

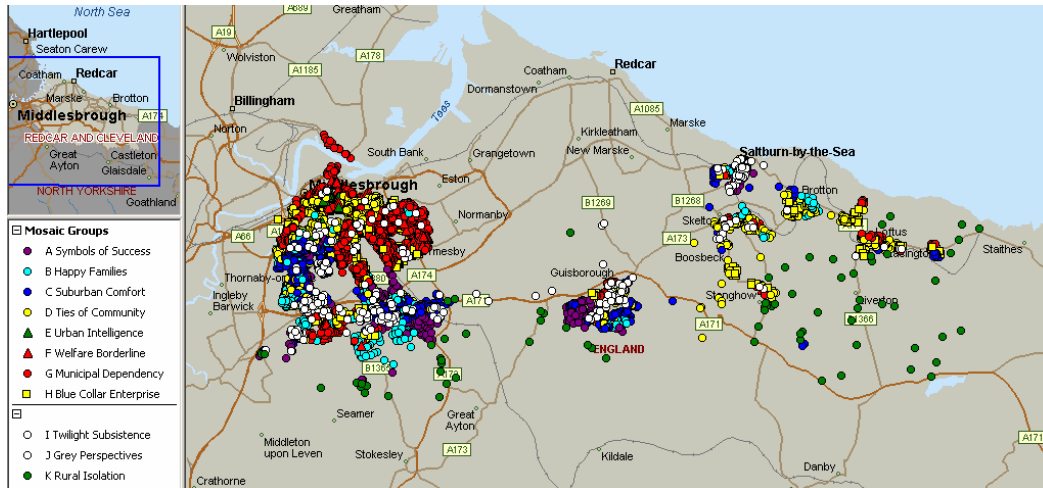


Figure three : Study area postcodes by type of neighbourhood

We therefore coded each elector according to the Mosaic group corresponding to his or her postcode. By comparing the proportion of electors in each Mosaic type belonging to each name type with the total number of electors, we have been able to create a table of index values indicating the extent to which different types of name are concentrated in different types of neighbourhood. These index values are shown in table three.

Overall Mosaic defines eleven of these groups together with an unclassified group. The first group, *Symbols of Success*, identifies postcodes characterised by very high levels of household income, typically areas of pleasant, detached houses in the better areas of town, with an older population of professionals and senior managers, mostly with children of university age or beyond.

By contrast *Happy Families* consists of areas of modern, owner occupied housing, typically built in the last thirty years by large developers, at fairly high residential densities. Households in these sorts of area are typically climbing career ladders in large organisations, are first time or second time mortgagees and have one or two children, typically of school or pre school age.

Suburban Comfort typically describes areas of inter war, semi detached houses, where older people have now paid off a large proportion of their mortgages. These are areas of higher than average incomes, but contain many middle rather than senior managers.

Ties of Community typically describes areas of older terraced housing, much of which was originally built to house a late Victorian manufacturing labour force. In the older, inner areas of the city, close to sources of industrial employment, many of these neighbourhoods have been taken over by Asians. However the type also occurs in older mining communities in East Cleveland.

Urban Intelligence, which is relatively underrepresented in Middlesbrough, describes areas containing a mix of well educated, single and transient populations, typically including students and young professionals, many of whom live in small but smart rented flats. These areas also contain large old houses, many of which are suitable for subdivision, suitable for first generation migrants.

Relationship between type of name and type of neighbourhood								
Type of neighbourhood	Type of name							
	All	Asian	Irish	Scottish	Cornish	Middles brough names	North Eastern	Other English
A Symbols of Success	100	65	85	116	39	54	131	97
B Happy Families	100	54	93	106	75	104	92	104
C Suburban Comfort	100	90	89	101	94	87	111	103
D Ties of Community	100	246	94	91	131	107	92	97
E Urban Intelligence	100	329	104	71	218	48	114	72
F Welfare Borderline	100	98	135	95	85	107	108	92
G Municipal Dependency	100	26	126	110	96	121	95	98
H Blue Collar Enterprise	100	28	87	95	156	111	82	113
I Twilight Subsistence	100	25	90	89	67	90	108	101
J Grey Perspectives	100	42	75	93	50	63	122	104
K Rural Isolation	100	0	58	69	41	66	72	101

Table three : Relationship between name type and neighbourhood type, study area, 1998, index values (study area average = 100)

Welfare Borderline is a Mosaic category which describes inner city areas of social housing, many of which result from the clearance of older terraces and which often take the form of mid rise or high rise flats. This group has a high proportion of households with only a single person resident.

Municipal Dependency by contrast typically describes large estates of low rise social housing, mostly on the periphery of large cities, which have been abandoned by the more enterprising skilled manual workers and where, as a result, few residents have exercised the right to buy. These areas typically have large proportions of single parent families, people who are sick or unemployed, who do not have access to a car and who are troubled by vandalism and delinquency.

Blue Collar Owners, by contrast, are found typically among the better and smaller council estates where former tenants have espoused more middle class lifestyles and where people are sufficiently enamoured by the quality of their estate to have exercised their right to buy homes previously rented from the council.

Low Income Elders contain postcodes with high proportions of old people reliant on state benefits. They mostly live in council accommodation and pay bills at the Post Office.

Grey Perspectives also contains postcodes with high proportions of old people but, by contrast with Low Income Elders, these tend to be better off, enjoying reasonable health and life expectancy as well as active leisure pursuits funded by incomes from occupational pension schemes.

Rural Isolation is the final Mosaic group. This group contains postcodes which are genuinely rural in character, not just commuting countryside. Though only a minority of the workforce is now engaged in agriculture, these postcodes are the last bastions of Britain's rural way of life and places where neighbours are most likely to look out for each other.

As would be expected, the study area shows a significant over-representation of the Mosaic groups Municipal Dependency and Blue Collar Owners and, compared with the country as a whole, relatively few electors resident in neighbourhoods characterised by Urban Intelligence.

Of the eleven Mosaic groups, by far the most prestigious is Symbols of Success. In these neighbourhoods of higher status households we find particularly high proportions of people with English names from regions other than the North East. Houses in such neighbourhoods are particularly likely to have residents

with names such as Butler, Gardiner or Parker, typically Southern or Midland names which would have been poorly represented in the Middlesbrough area a hundred years ago. Residents are also relatively more likely to be named McPherson or Christie than Murphy or O'Connor. By contrast these are not the neighbourhoods in which people have old standing Middlesbrough names. Asian names are also underweight, although less so that would probably have been the case ten years ago.



Figure four : Example of different types of neighbourhood in the study area

By contrast the least prestigious of the Mosaic neighbourhood groups are Ties of Community, Welfare Borderline and Municipal Dependency. It is in Ties of Community that we find the highest concentration of Asian names and, to a degree, Cornish names (though for different reasons as will become clear later). The descendants of the Irish migrants are more likely to be found in the areas of inner city and peripheral council housing (Welfare Borderline and Municipal Dependency), which they occupy to a much greater degree than the Scots. Whilst Asian names are numerous among inner city council estates (Welfare Borderline) relatively few Asians have tenancies on the deprived peripheral council states. People with local names are particularly likely to live in areas of Municipal Dependency.

Other patterns are the tendency for people with Cornish names or names typical of the North East to live in the better and increasingly privatised low rise council estates (Blue Collar Enterprise), for the people with names from elsewhere in Britain to live in areas of Grey Perspectives, such as occur in Saltburn by the Sea. None of the seven types of name are well represented in areas of Rural Isolation.

These patterns of relationship between name type and geography are equally evident when we examine the distribution of the name types across the study area (table four). Asian names are highly concentrated in the central districts of Middlesbrough whilst names of Irish and Scottish origin are much more evenly diffused. Nevertheless there is clear evidence that the suburbanisation of the Irish is stronger in areas of overspill council housing than it is an areas of high status or young family housing. Neither the Irish nor the Scots have moved out in significant numbers into the rural, small town or retirements neighbourhoods in the eastern parts of the study area.

Index of concentration of name types in study area sectors (GB average = 100)							
Location	Postcode Sector	Asian	Irish	Scottish	Cornish	North East names	Non Local English names
Middlesbrough Central	TS1 1	61	128	190	0	78	114
Middlesbrough Central	TS1 2	745	83	63	26	81	101
Middlesbrough Central	TS1 3	896	101	71	71	60	82
Middlesbrough Central	TS1 4	338	108	87	51	88	103
Middlesbrough Central	TS1 5	62	137	107	132	109	86
Middlesbrough : Port Clarence	TS2 1	13	136	148	160	99	55
Middlesbrough : Ormesby	TS3 0	18	134	113	107	86	109
Middlesbrough : North Ormesby	TS3 6	103	141	114	0	103	115
Middlesbrough : Ormesby	TS3 7	17	143	126	30	99	80
Middlesbrough : Ormesby	TS3 8	28	137	121	53	103	96
Middlesbrough : Ormesby	TS3 9	22	130	116	58	106	88
Middlesbrough : Marton Road	TS4 2	315	133	89	104	93	80
Middlesbrough : Marton Road	TS4 3	35	151	96	37	101	122
Middlesbrough : Acklam	TS5 4	53	137	123	23	99	102
Middlesbrough : Acklam	TS5 5	256	97	105	52	91	103
Middlesbrough : Acklam	TS5 6	185	140	115	27	93	81
Middlesbrough : Acklam	TS5 7	125	114	120	76	98	119
Middlesbrough : Acklam	TS5 8	97	102	93	58	109	106
Middlesbrough : Nunthorpe	TS7 0	32	92	104	4	104	135
Middlesbrough : Marton	TS7 8	49	100	114	63	100	98
Middlesbrough : Coulby Newham	TS8 0	23	121	112	0	105	118
Middlesbrough : Hemlington	TS8 9	20	95	113	33	95	127
Saltburn	TS12 1	15	49	91	138	110	121
Brotton	TS12 2	16	31	81	260	116	72
Lingdale	TS12 3	5	54	48	808	101	98
Loftus	TS13 4	6	42	68	411	115	72
Guisborough	TS14 6	10	51	69	145	96	98
Guisborough	TS14 7	12	43	80	90	109	77
Guisborough	TS14 8	12	67	108	29	101	108

Table four : Concentration of name types by postcode sector (Index values, study area average = 100)

Cornish migrants by comparison, who came to work the iron ore mines rather than to labour in the shipyards and steel works, originally settled in the eastern part of the study area, where the majority of their descendants can still be found in Lingdale, Brotton and Loftus. Very few of the descendants of the Cornish migrants have moved from the coastal mining communities to Middlesbrough. Likewise very few of the descendants of Irish or Scottish immigrants have moved from Middlesbrough into the surrounding towns and villages.

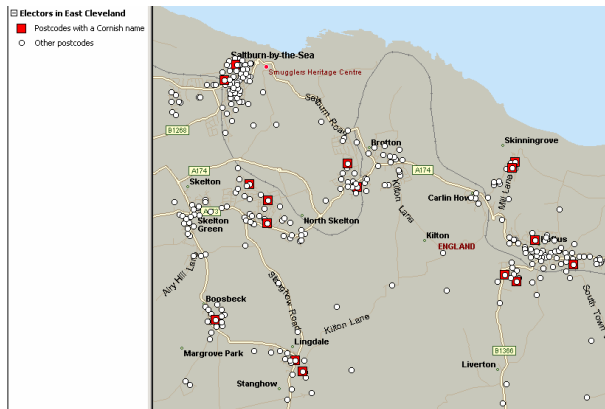


Figure five : current locations of postcodes in East Cleveland with rare Cornish names.

Differences in the mix of housing types between the west and east of the study area explain why it is that Cornish names should be so uncommon in areas of Welfare Borderline and Municipal Dependency (which mostly occur in Middlesbrough) and more common in Ties of Community (which characterise many of the ex mining settlements).

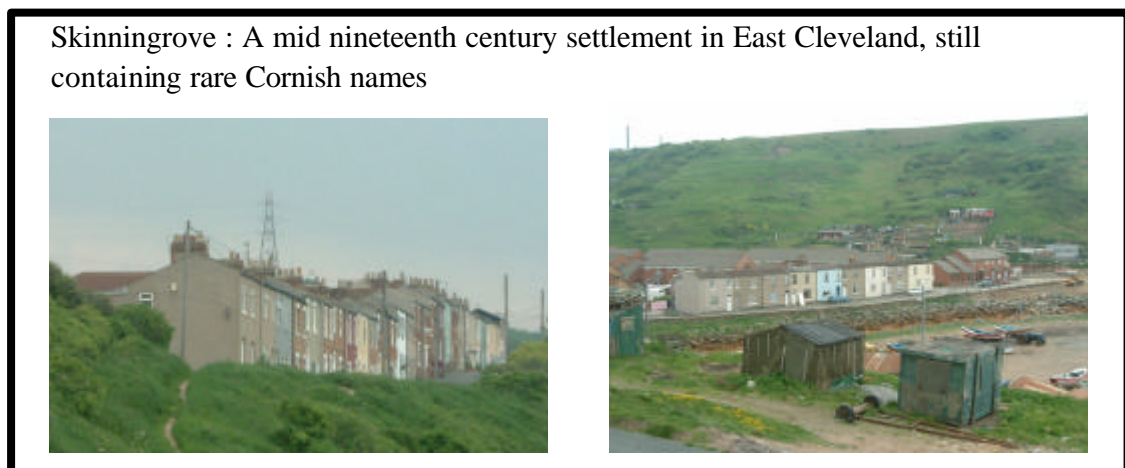


Figure six : Skinningrove, East Cleveland

The differences in the demographic profiles within the study area are reflected in the distribution of English name types. Names common in the North East are much more prevalent in the eastern part of the study area, such as in Saltburn, Brotton and Loftus, than they are in Middlesbrough, reflecting the pre-existence of significant populations in these areas prior to 1851. By contrast English names common in other parts of the country but not in the North East are more common in the southern suburbs of Middlesbrough, such as Hemlington and Nunthorpe, and in the retirement coastal town of Saltburn, places in which professional classes moving from the South would feel more comfortable. They are less common in the rural and mining communities and in the older inner areas of Middlesbrough.

5 Methods of differentiating within Celtic immigrant groups

The propensity of Middlesbrough people with English names from other regions of the country to live in more up-market neighbourhoods than those with local names is consistent with patterns found in the constituencies of Falmouth and Camborne in Cornwall¹¹ and Copeland¹². A likely explanation is that, at least in normal economic circumstances, people from lower occupational groups and who have experienced lower levels of education are likely to live their lives within a more constrained geographical area than people from higher occupational groups who have benefited from higher levels of education.

The overall national labour market, under such a hypothesis, consists of a series of overlapping labour markets, ranging from a truly national market for higher level graduates and professionals working for large organisations to a series of very local markets for people with no qualifications, living in council accommodation and dependent on public transport to get to work. Since British names, unlike Asian names, do not relate to status, it would be expected that people of lower status in any locality would be more likely to be in possession of a local name largely on account of their lower level of mobility. People with a name from a particular locality who are better educated are more likely to migrate to other regions while people who migrate from other regions, with their non local names, are more likely to be well rather than poorly educated.

This general pattern of the relationship between education and mobility may however be disrupted at moments in time and in particular places characterised by abnormal economic conditions, for instance the sudden collapse or a local economy or sudden local economic expansion. In these circumstances it is not just the privileged who emigrate from the location of the locally collapsed economy. Out migration is an appropriate strategy for all social classes. Likely, in a region that grew as fast as Middlesbrough's did in the late nineteenth century, the requirement for unskilled and semi skilled labour was far greater than could be satisfied by short distance migration from other localities within the North East region.

The co-incidence in time of collapsing and expanding local economies therefore results in significant long distance migration streams between specific communities. Examples of these are the migration from the west of Ireland to Tees-side during and the Potato Famine and from West Cornwall to Furness and Cleveland as the opening of new haematite mines co-incided with the collapse in world demand for Cornish tin and copper.

Whilst we can talk in general terms about the migration of the Irish to North East England, in practice these general migratory movements often consist of a series of very distinct and localised migratory paths linking individual local communities in Ireland to specific points of destination in the North East. As today with the migration of South Asians to England, migratory paths were facilitated by pioneers who subsequently assisted other family members or acquaintances in their local communities. Given the high degree of localisation of many family names in Ireland – as is equally the case in much of South Asia – it would be surprising if one did not find as strong a degree of localisation of Irish names in Britain as one finds with traditional English names.

The question that then arises is whether some subdivisions of Irish and Scottish names could differentiate on the one hand those residents who would appear to be descendants of early economic migrants to Middlesbrough and who would not have moved out of Middlesbrough in six or more generations as compared with those who are likely to have arrived in Middlesbrough indirectly, perhaps as a result of their ancestors having migrated to London or Birmingham and subsequent generations having moved to Middlesbrough more recently. One would expect that this latter group would be much more likely than the first group to have benefited from going 'away' to university and to have moved to Middlesbrough to take up an appointment in a relatively well paid position with a national organisation.

The national names database provides evidence to support both this proposition and this quest. Whilst the population with any Irish name is slightly more evenly distributed across Britain than the population with most other name types (such as patronyms ending in –son or toponyms ending in –by), the geographical

distribution of individual Irish names is typically no less concentrated than the distribution of individual English names.

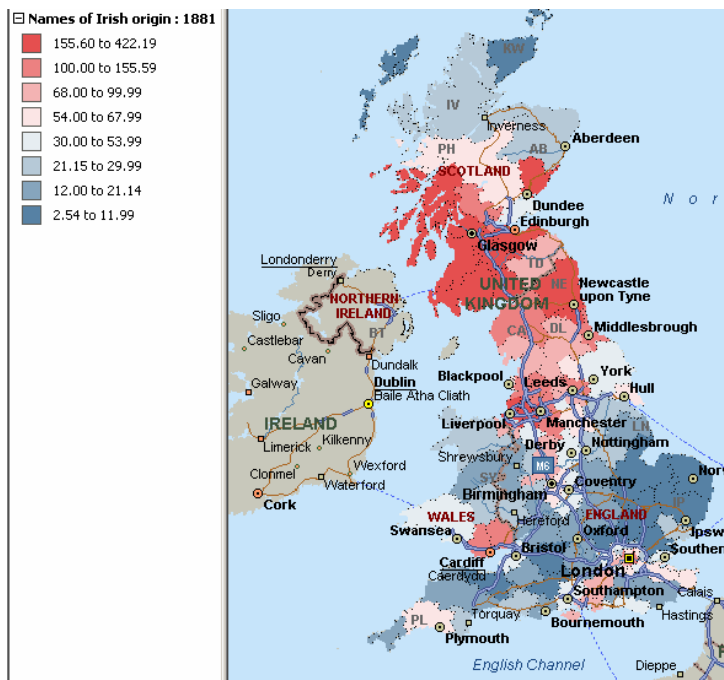


Figure seven : Distribution of Irish names, 1881, expressed in index form to GB average = 100. Source 1881 census

To obtain a clearer understanding of relationship between current population distributions and those of nineteenth century settlers it was thought that it might be productive if Irish, Scottish and Cornish names were divided into groups on the basis of a number of different criteria.

One useful criterion for distinguishing Irish and Scottish names is by locality of likely origin. The ESRC database identifies, among the set of attributes associated with each name, the GB postal area in which the name is more highly concentrated. This enables us to identify and distinguish Scottish names whose heartland is on the Clyde (G – Glasgow, ML – Motherwell and PA – Paisley) from Scottish names originated in the East of Scotland or in the Highlands. A separate file containing the names of 2,917,177 electors on the 2001 electoral register for the Republic of Ireland also allows us to organise Irish names according to the Irish county in which each name is relatively most common.

By analysing the frequency of names in the study area by Scottish Postal Area or Irish county of origin with corresponding frequencies in Great Britain as a whole we can identify Scottish Postal Areas and Irish counties from which the study area has disproportionately obtained its immigrant population.

When Irish names are analysed according to GB postal area with the highest concentration, it is possible to obtain an understanding of the entry ports through which people with different Irish names entered Britain. Nearly three quarters of Irish names have their GB heartlands in one of four regions, Liverpool and Manchester, the Clyde Valley, Cardiff and Newport and London. By comparing the numbers of study area electors with names associated with these heartlands with the corresponding numbers for the country as a whole, we can begin to identify the routes disproportionately used by Irish immigrants to the study area.

A third possible way of differentiating Irish names is according to the relative numbers of these names in the Republic of Ireland (ROI) and in Great Britain. Overall the number of occurrences of names of Irish origin is broadly similar on the ROI file and the GB electoral roll, 1,179,565 to 1,414,885. However this

ratio varies considerably. The name Driscoll, for example, has 4,177 occurrences on the GB electoral roll but only 444 on the ROI file. From this we may deduce that this is either a name from a community which is likely to have generated early waves of economic migrants or a name which, though common in Ireland, is not exclusive to Ireland. By contrast the name O Donovan has 6499 occurrences on the ROI file but only 1,925 on the GB electoral roll. Can we infer from this that the name originates from an Irish region where migration was later and/or less intense?

In a similar way by comparing the occurrences of people with Irish names at the time of the 1881 census with the corresponding names on the 1998 GB electoral roll, it might be supposed that we could distinguish Irish names according to period of emigration. Brannan is an example of an Irish name most of whose members had emigrated to Britain by 1881 - their numbers only grew between 1881 and 1998 from 2,046 to 2,766. By contrast O Donovan, whose numbers grew from 79 to 2,039, could be an example of an Irish name whose members have migrated more recently. Clearly some of these differences in name frequency growth may be caused by changes in spelling.

A fifth potentially useful basis for classifying Irish names is the extent to which they occur in the study area compared with elsewhere in Britain. Table five lists the fourteen Irish names which are at least ten times more common in the study area than in Britain as a whole. Residents with these names, we might suppose, are likely to be descendants of people who that originated from a community in Ireland which had a disproportionate connection with Middlesbrough and which probably generated migrants at a relatively early stage in Middlesbrough's industrial growth.

12 Irish names most common in study area compared with GB	
KINLAN	HORRIGAN
MCGLADE	BRANAGAN
FLANIGAN	HANRATTY
MOHAN	MCCARRICK
LOUGHRAN	OMELIA
DONAGHUE	COONAN
MCMENAMIN	DEEHAN

Table five : Irish names ten or more times more common in the study area than in Great Britain as a whole

A not dissimilar approach can be applied to distinguishing names which are specific to Cornwall from other names that are more common in Cornwall than elsewhere but which are nonetheless not uncommon in other parts of the South West. In this approach we can consider as a group those names which are more concentrated in Truro (TR) than in any other postal area and whose concentration in Truro exceeds the national average by a factor of 40 (extremely Cornish names); those whose concentration in Truro is between 20 and 40 (typically Cornish names) and those whose concentration in Truro is higher than elsewhere but whose concentration is below 20 times the national average (names more common in Truro than elsewhere).

6. Social differences among Irish and Scottish immigrant groups

To show the areas of Ireland which generated disproportionate numbers of emigrants to the study region we first establish for each Irish name on the national database the proportions of occurrences of that name that occur in the study area. We then divide these figures by the proportion of electors with any Irish name that occur in the study area. This ratio is expressed in index form so that the study average is 100. In this way we can identify Irish names which are relatively more common in the study area than they are elsewhere in Britain, which have index values of over 100. Ranking the Irish name on this criterion we were able to assign each one into one of three groups, names twice as common in the study area as in Britain as a whole, names more common but with an index of less than 200 and names less common in Middlesbrough than elsewhere in Britain.

We can then examine each of the 26 counties in the Republic of Ireland and, excluding names that are not Irish in origin, measure the relative frequencies of these three groups.

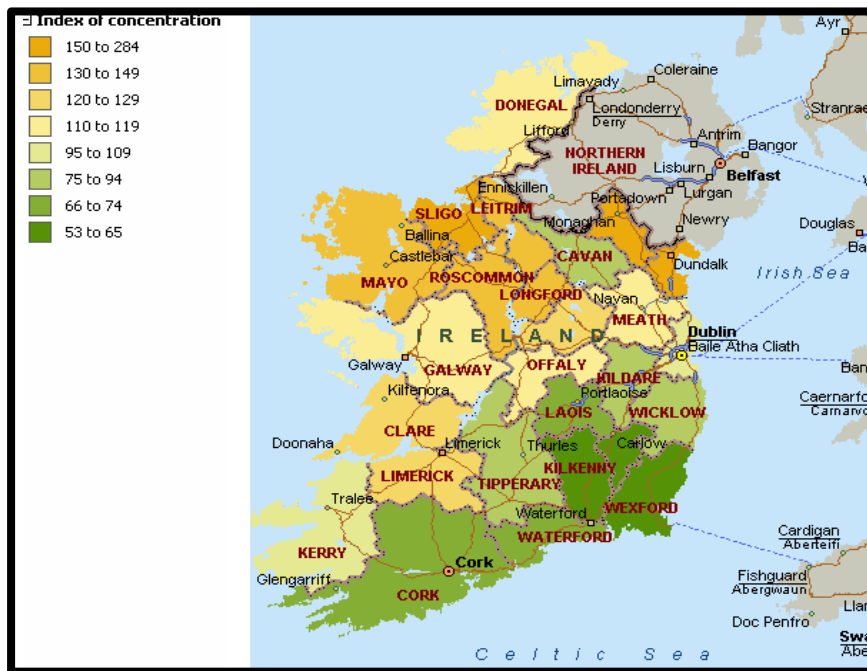


Figure eight : Distribution of Irish names more than twice as common in Middlesbrough as in GB (Republic of Ireland average = 100)

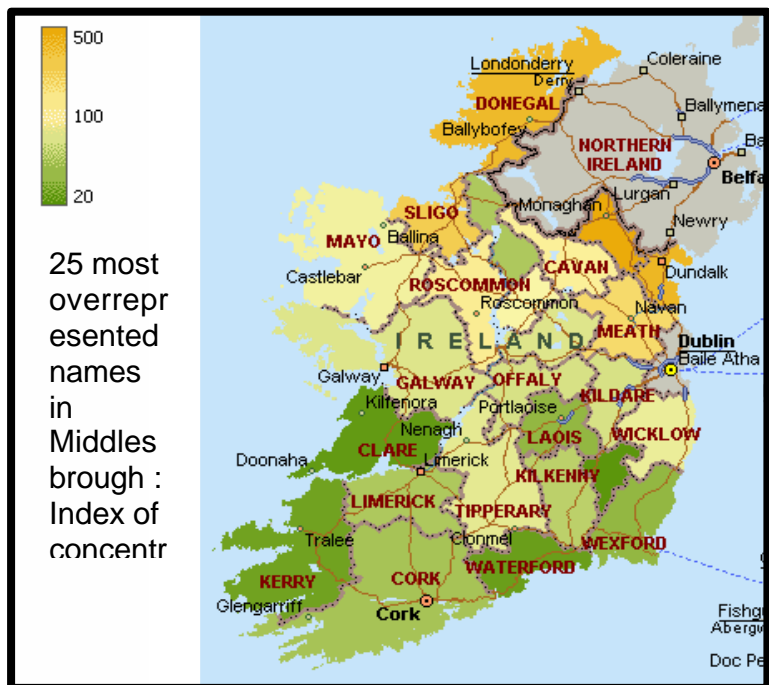


Figure nine : Distribution of 25 Irish names most common in Middlesbrough compared with GB (Republic of Ireland average = 100)

Figure eight shows the distribution in Ireland of those names which are more than twice as common in the study area as elsewhere in Great Britain. The map shows very clearly how Irish names that are most common in Middlesbrough are also particularly common in the North of the Republic, particularly in the counties of Monaghan and Sligo. By contrast common names among Middlesbrough's Irish are much less common in the South Eastern counties of the Republic, particularly those round the port of Waterford such as Carlow, Kilkenny and Wexford. It is likely that migration from these counties was much later, was less economic in its nature and was focussed on Bristol and London rather than Britain's Northern entry ports.

This pattern is demonstrated even more sharply if we restrict the analysis to the twenty five names which have the highest concentration in the study area compared with the country as a whole (figure nine). This shows even greater differences between the northern and southern counties and highlights County Donegal in particular as a county with common names with Middlesbrough.

When we examine Middlesbrough residents with Irish names which are common in particular ports of entry we find that Middlesbrough has relatively larger numbers of people of Irish descent who are likely to have relations (or at least people of the same name) living in the Clyde Valley (Postal areas G – Glasgow, ML – Motherwell and PA – Paisley). Maybe Middlesbrough residents migrated first to the Clyde and thence to the Tees, steel-making being the common link. An alternative explanation is that the Irish communities that migrated to the Clyde were the same that generated labour for the Tees.

South Wales (Postal areas CF – Cardiff, NP - Newport) have Irish names which are more typical of Middlesbrough's than those of the North West and particularly of London. The London Irish migrants are more likely to have originated from the southern counties of the Republic, are likely to have migrated at a later date and are unlikely to have developed skills which were relevant to the Tees-side economy.

Irish Names				
Region with highest concentration	South Wales	Scotland	North West	London
Index of concentration by type of neighbourhood (study area = 100)				
A Symbols of Success	63	91	102	126
B Happy Families	170	93	89	88
C Suburban Comfort	102	109	97	86
D Ties of Community	95	99	107	101
E Urban Intelligence	57	110	72	146
F Welfare Borderline	151	103	90	109
G Municipal Dependency	64	99	101	99
H Blue Collar Enterprise	105	105	109	93
I Twilight Subsistence	149	93	75	102
J Grey Perspectives	158	92	111	114
K Rural Isolation	64	117	100	152
Occurrences				
Study area electors with names	308	2720	1581	785
GB electors with name	58,133	495,658	365,492	240,091
ROI persons with name	37,808	283,709	331,781	346,009
Study area concentration	108	112	88	67

Table six : Irish names occurring in the study area according to GB 'heartland'

This pattern is supported by the relationship between the status of residents and the period of migration. As we might have expected from an area whose growth was fastest prior to the time of the 1881 census, the study area contains relatively more people with Irish names whose growth in number of occurrences has been relatively low since 1881. By contrast there are relatively fewer people in the study area with Irish names that have grown fastest since 1881.

Irish names			
Increase in occurrences, GB, 1881 to 1998	high	medium	low
Number of names	121	242	121
Index of concentration by type of neighbourhood (study area = 100)			
A Symbols of Success	133	100	94
B Happy Families	156	99	92
C Suburban Comfort	87	106	92
D Ties of Community	81	101	102
E Urban Intelligence	116	107	85
F Welfare Borderline	93	102	99
G Municipal Dependency	110	96	105
H Blue Collar Enterprise	75	102	102
I Twilight Subsistence	51	94	120
J Grey Perspectives	80	101	102
K Rural Isolation	44	106	100
Occurrences			
Study area electors with names	453	4107	2383
GB electors with name	122,179	824,803	467,903
ROI persons with name	204,440	725,031	250,094
Study area concentration	76	101	104

Table seven : Irish names by growth in numbers, 1881 to 1998

Irish names according to representation in ROI vs GB			
Representation in ROI vs GB	high	medium	low
Number of names	121	242	121
Index of concentration in study area by type of neighbourhood (study area = 100)			
A Symbols of Success	117	98	101
B Happy Families	121	94	114
C Suburban Comfort	58	110	78
D Ties of Community	108	102	90
E Urban Intelligence	61	89	149
F Welfare Borderline	115	98	101
G Municipal Dependency	111	100	95
H Blue Collar Enterprise	61	98	118
I Twilight Subsistence	44	84	171
J Grey Perspectives	124	92	122
K Rural Isolation	92	106	81
Occurrences			
Study area electors with names	431	5,036	1,476
GB electors with name	150,519	1,018,598	245,768
ROI electors with name	295,106	837,065	47,394
Study area concentration	58	101	122

Table eight : Irish names by relative numbers, Great Britain compared with Republic of Ireland

In general the residents whose names are more recent tend to live in the better neighbourhoods, suggesting that they may have arrived from more prosperous areas of Ireland and reached the study area after having (or their parents having) lived in other parts of Britain.

It might be expected that the well established nature of Middlesbrough's Irish community would be supported by the analysis of names according to the relative numbers of occurrences in Great Britain and the Republic of Ireland. In practice it is not. When one compares name frequencies of Irish and British names of Irish origin, it is evident that most names with the prefix 'O', as for example in O'Sullivan are far more common in Ireland than in Britain, many Irish emigrants having dropped the 'O'. For this reason there is no support for the proposition that names which are relatively more common in Ireland than in Britain are indicative of more recent emigrants and the distribution of these names by type of neighbourhood in the study area, as shown in table eight, is little different from that of Irish names in general.

To test the hypothesis that Irish and Scottish names especially associated with Middlesbrough would have belonged to early economic migrants, who might be proportionately more likely to live in lower status neighbourhoods, we decided to sub-divide the Irish and Scottish names according to the degree to which these names were more or less common in the study area compared with the rest of Great Britain. For both the Scottish and Irish communities we created three divisions: names which were twice as common in the study area pro rata to their representation in Britain as a whole; names which were more common in the study area but not twice as common; and names which were less common in the study area as elsewhere in Great Britain. This last group included a number of Irish names which were not present at all in the study area.

	Irish names			Scottish names		
	concentration in study area compared with GB			Concentration in study area compared with GB		
	high	medium	low	high	medium	low
Number of names	357	145	54	449	129	51
Index of concentration by type of neighbourhood (study area = 100)						
A Symbols of Success	57	90	129	90	103	148
B Happy Families	88	98	92	118	109	94
C Suburban Comfort	76	97	97	96	107	99
D Ties of Community	93	95	93	75	98	95
E Urban Intelligence	85	90	176	68	47	99
F Welfare Borderline	129	151	109	105	82	101
G Municipal Dependency	147	114	111	134	112	92
H Blue Collar Enterprise	97	87	70	107	80	100
I Twilight Subsistence	98	84	86	89	88	90
J Grey Perspectives	63	74	100	59	87	123
K Rural Isolation	40	64	79	49	81	72
Occurrences	43	61	86	126	86	87
Study area electors with names	2,614	3,095	1,310	1,492	2,186	2,157
GB electors with name	198,414	577,765	653,420	90,002	459,796	1,142,092
Study area concentration	268	109	41	338	97	38

Table nine : Irish names by the extent to which they are concentrated in the study area compared with other parts of Great Britain

When we analyse these name types by type of neighbourhood and by postcode sector, we find this hypothesis confirmed to a striking degree. Table nine shows that people with Irish and Scottish names which are relatively more common outside the study than in it are much more likely to live in better off suburbs and much less likely to find themselves resident on the more deprived council estates. These people are less likely to live in the inner postcode sectors of Middlesbrough where large numbers of Irish names are found and are more likely to live in better of suburbs, on new estates, in commuter settlements and in the small towns and rural communities in the east of the study area. The patterns are equally apparent for both Scottish and Irish names and are very striking.

6 The Cornish

The Cornish names were also placed in two sub divisions, one containing names which were especially common in Truro postal area (index > 4000) and which therefore may reasonably be expected to efficiently identify people whose names are definitely Cornish and whose ancestors are likely to have been involved in the Cornish mining industry in the early nineteenth century. The second group contains names which are less exclusively Cornish (index between 2000 and 4000).

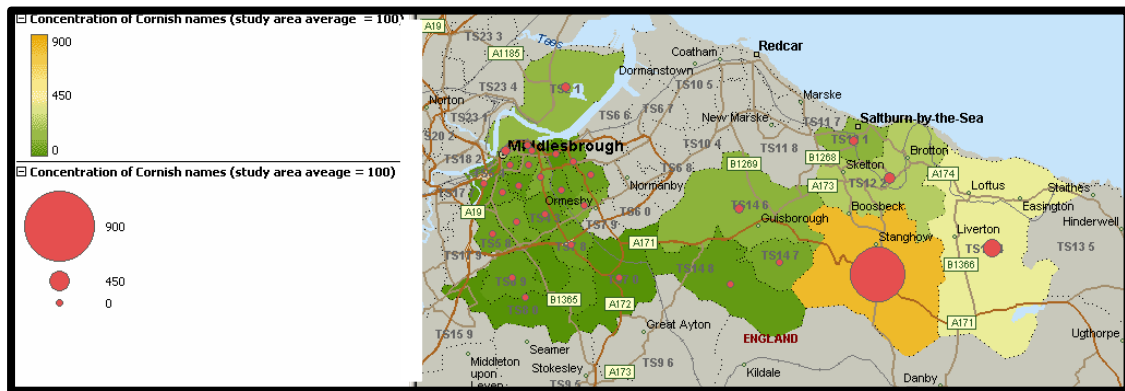


Figure ten : geographical distribution of residents with Cornish names

When the residents with Cornish names are divided in this way, the strength of the links between Tees-side and Cornwall are even clearer. Overall a study area resident is 20% less likely than a GB resident to have a Cornish name. However if we take as a definition of a Cornish name one which is 40 times more likely than average to occur in the TR (Truro) postal area ('extremely' Cornish names), this difference reduces to just 3%. By contrast study area residents are 38% less likely than their GB counterparts to have 'very' Cornish names (ones 20 to 40 times more common in Truro than elsewhere).

Postcodes with Cornish names : Postcode Districts TS12 and TS13					
Name	Postcode	Type of neighbourhood	Name	Postcode	Type of neighbourhood
			CURNOW	TS12 3ED	H45 Older Right to Buy
MAGOR	TS12 1BS	J55 Small Town Seniors	CURNOW	TS12 3HS	D22 Affluent Blue Collar
TREGONNING	TS12 1EF	D25 Town Centre Refuge	MAGOR	TS13 4AX	G43 Ex-industrial Legacy
TREMBATH	TS12 2LX	D22 Affluent Blue Collar	TRELOAR	TS13 4BE	G43 Ex-industrial Legacy
LAITY	TS12 2SN	H44 Rustbelt Resilience	BENNETTS	TS13 4EL	D24 Coronation Street
LAITY	TS12 2TW	H45 Older Right to Buy	TREMAIN	TS13 4JN	D22 Affluent Blue Collar
TREGONNING	TS12 2XZ	D23 Industrial Grit	OLDS	TS13 4QP	H44 Rustbelt Resilience
CURNOW	TS12 2YN	D22 Affluent Blue Collar	MAGOR	TS13 4QS	G43 Ex-industrial Legacy
CURNOW	TS12 3BE	H44 Rustbelt Resilience	TREMBATH	TS13 4SH	G43 Ex-industrial Legacy

Table ten : Examples of postcodes in East Cleveland that have Cornish names

This pattern is repeated when we look at the concentration of Cornish names within the study area (table eleven). In the case of postcode sector TS12 3 (Lingdale), which has the highest concentration of residents with Cornish names in the study area, we find 'extremely' Cornish names to be nearly nine times more common than in the study area (and GB) as a whole, whilst 'very' Cornish names are on average 66 times more common.

The more restrictive the definition of names that we consider Cornish, the greater the number of these names we find in the study area, relative to Great Britain. Likewise the more concentrated the definition the more we find these names to be in hard-core 'Cornish' communities. The less Cornish the name, the more recent is likely to be the migration and the less likely the migrants are to have settled in Cornish areas.

Concentrations of Cornish names in East Cleveland			
Location	Postcode Sector	'Very' Cornish names (TR Index >2000)	'Extremely' Cornish names (TR Index >4000)
Saltburn	TS12 1	109	155
Brotton	TS12 2	189	302
Lingdale	TS12 3	664	893
Loftus	TS13 4	409	411
Guisborough	TS14 6	173	129
Guisborough	TS14 7	83	94
Guisborough	TS14 8	78	0
(study area average)		62	97
(GB)		100	100

Table eleven : Concentrations of Cornish names in the eastern part of the study area.

To set this in perspective it would seem that TS12 3 (Lingdale) has a more distinctively Cornish genetic inheritance than the city of Plymouth.

8 Conclusions

The conclusions of this brief study can be considered both in terms of substantive findings and in terms of analysis methods.

Key substantive findings can be summarised as follows:

The question in the 2001 census covering on culture of origin significantly underestimates the proportion of the population of Middlesbrough that are of Scottish or Irish descent. The genetic make up of the city and its surroundings are much more mixed than would appear from conventional population statistics.

Whilst the region has fewer people of recent Irish origin (as measured by ethnicity on the census) than other regions of Great Britain, it has a relatively larger proportion than other parts of Britain of people who are descended from early Irish immigrants.

In terms of the social status of the neighbourhoods in which they live, the descendants of both the Irish and the Scottish communities have achieved a fair level of integration, though neither live in as good neighbourhoods as the descendants of economic migrants from other parts of England.

Overall the descendants of Scottish migrants have prospered to a slightly greater degree than the descendants of the Irish.

Though both communities have expanded geographically from the inner city heartlands, neither community has migrated outside the city to surrounding commuter settlements, retirement resorts of rural villages.

Cornish migrants, by contrast, who came to work in the iron ore mines rather than in the steel works or chemical plants, settled in very distinct communities outside the city of Middlesbrough. Their descendants are still highly localised in these communities and very few of them have moved to live in Middlesbrough.

It is evident that the Irish migrants to Middlesbrough came from different regions of Ireland to those who migrated to London and that the Middlesbrough Irish are likely to have greater genetic affinity with the Irish in Scotland and South Wales than with those who migrated to London.

As with the Cornish, residents descendants from Irish and Scottish immigrant communities who migrated en masse in earlier waves of emigration appear to have been significantly less successful than residents descendant from more recent waves of migration. It is descendants from these early immigrant waves that are particularly concentrated in the more deprived overspill council estates, characterised by low levels of education, income and car ownership and high levels of single parents, people without a job and young offenders.

Among those with English names, people from families who lived in the Middlesbrough area prior to its rapid nineteenth century industrialisation appear to have been less successful than those from families who have traditionally lived elsewhere in the North East. Residents whose families originally came from other regions of the country have proved to be the most successful in terms of the neighbourhoods they live in.

Middlesbrough, its wealthier southern dormitory suburbs and the Cleveland coast have very different genetic mixtures, with the Cleveland coast containing a much higher proportion of indigenous North East families, inner Middlesbrough much higher proportions of residents of Celtic origin and many fewer originating from the South of England, with the dormitory suburbs having by far the largest proportion of people from other regions of England.

Key methodological findings are as follows:

Analysis of family names is more revealing if the practice of classification is extended beyond the study of 'English' surnames to include those of Celtic and overseas origin.

The identification of the geographic region, such as a postal area, which has the highest concentration of a name is helpful in defining both Scottish and Cornish names.

Measurement of the relative frequency of names in different countries, as for instance in Great Britain and the Republic of Ireland, is a useful means of defining the culture of origin of different names.

A measure of the degree of concentration of names within the region where they are most concentrated is useful tool for identifying names which are specific to that heartland from names which reflect naming conventions across a wider geographical area and which, therefore, are less effective proxies for migrants from a very specific locality.

Identifying the region (postal area) with the highest concentration of names from a different country, such as Ireland, can be helpful in differentiating the region of that country from which people of that name originally came and the period of history during which that migration flow was at its peak.

The measurement of the relative frequency of a name in two countries as an indication of the period of migration of that name seems is not effective in this case due to the manner in which certain types of surname have been altered in the host country.

¹ Specifically in Australia, Canada, Ireland, New Zealand and USA

² No information is available for electors in Northern Ireland

³ For which thanks are due to Kevin Schurer, Director of the ESRC Archive at the University of Essex.

⁴ More specifically the study area consists of a set of postcode sectors which are entirely contained within or fall predominantly within the two constituencies.

⁵ For a review of commercial applications, see 'Targeting Customers : How to use Geodemographic and Lifestyle Data in Your Business', Peter Sleight, WARC, 2004

⁶ A full description of the UK Mosaic types can be found on the website of Experian Business Strategies <http://www.business-strategies.co.uk/Content.asp?ArticleID=566>

⁷ An important factor in the growth of Middlesbrough in the 1850s the development of the iron ore industry. This co-incided with the decline of the tin and copper mines of West Cornwall with the result that many redundant Cornish miners moved to Teesside during this period, hence the high concentration of Cornish names today, notwithstanding the distance of Middlesbrough from Cornwall.

⁸ This and other following arguments are based solely on the geographical distribution of descendants through direct male descent. Clearly it could be the case that mobility among female descendants differed from that among male descendants. However there is little evidence to suggest that this potential source of bias is a significant one.

⁹ Names originating in Scotland are identified partly on the basis of linguistic structure, ie names starting with Mac- or ending in -ie. Confusions can be resolved by calculating the proportion of occurrences of the name which are currently resident in Scotland. A file containing the frequencies of different names in the Republic of Ireland enables us to compare the relative frequencies of names in Britain and the Republic of Ireland, which also assists in the allocation of names of uncertain provenance. Asian names can also be identified in part from their linguistic structure, in part from studying their geographical distribution. The result is surprisingly accurate. For example the correlation between the degree of under or over representation of Asian names defined in this way across each of the 61 Mosaic geodemographic clusters with the degree of under or over representation of persons born in South Asian according to census is 0.957.

¹⁰ A number of Cornish names can be defined from linguistic analysis. Examples are names with the prefix 'Tre', 'Bos' and 'Pol'. Tremayne and Tregonning are examples. However there are many other Cornish names, such as Laity, which are toponymic but which have no apparent Celtic linguistic root.

¹¹ See CASA Working Paper, Names and the Cornish Diaspora

¹² See CASA Working Paper, The Cornish in Furness and West Cumbria