

# Local Ethnic Inequalities

## **Ethnic Differences in Education, Employment, Health and Housing in Districts of England and Wales, 2001–2011**

The University of Manchester in Association  
with The Runnymede Trust

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Local Ethnic Inequalities Local Area Profiler, with full data, calculations and tables. Available at [www.ethnicity.ac.uk](http://www.ethnicity.ac.uk).

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# Executive Summary

## Aims

This project has:

- Produced measures of ethnic inequality for local authority areas across England and Wales in 2001 and 2011 for indicators of education, employment, health and housing.
- Analysed change in local ethnic inequalities in England and Wales between 2001 and 2011.

Via the dissemination of these analyses this project aims to:

- Highlight to policy audiences the need to tackle racial and ethnic inequality in contemporary Britain.
- Generate evidenced-based debate that can result in initiatives to reduce ethnic inequalities across the country.

## Findings: Local Ethnic Inequalities, 2001–2011

The key findings of the project are:

- Ethnic inequalities in education, employment, health and housing are widespread in England and Wales and persistent since 2000.
- There has been an increase in ethnic inequalities in employment and housing.
- Ethnic inequalities exist in diverse and deprived areas (e.g. Tower Hamlets) but also in areas with low ethnic minority concentrations, in more affluent areas, and rural areas (e.g. Breckland).
- Many of the districts that have become more unequal between 2001 and 2011 are semi-rural and rural districts that had low ethnic diversity levels and small ethnic minority populations at the start of the decade.
- Some districts are success stories (e.g. Bradford) for having reduced ethnic inequalities over the 2000s.

For ethnic minorities, the Index of Multiple Inequality (IMI) indicates that the most unequal districts of England and Wales are Lambeth, Haringey, Rotherham, Oldham, and Tower Hamlets. The most equal districts are Knowsley, Copeland, The Vale of Glamorgan, Hartlepool and North Warwickshire.

## Local Ethnic Inequalities in Education

- For minorities as a whole education inequality worsened in nearly half of all districts in England and Wales between 2001 and 2011.
- Inequality in education is most severe for the White Other and Mixed groups with three quarters of districts having worse outcomes for the White Other compared to the White British group and two thirds of districts having worse outcomes for the Mixed group compared to the White British group.

## Local Ethnic Inequalities in Employment

- Local ethnic inequalities in terms of higher levels of unemployment for ethnic minorities than the White British are most widespread for the Mixed group, the Black group and the Asian group.
- In over a third of districts there were increases in ethnic inequalities in employment over the 2000s.

## Local Ethnic Inequalities in Health

- Health inequality is most severe for the Mixed group which fares worse in terms of health than the White British group in the majority of districts.
- In terms of ethnic minorities as a whole in nearly half of the districts in England and Wales ethnic minorities fared better in terms of health compared to the White British in both 2001 and 2011. During this period health inequality increased in just seven local authority districts, most located in London.

## Local Ethnic Inequalities in Housing

- Housing inequality for the Black group has worsened between 2001 and 2011 in terms of the average level of absolute inequality in overcrowding across districts and the proportion of districts with a higher incidence of overcrowding compared with the White British group.
- In all districts in England and Wales in 2011 ethnic minority groups had higher levels of overcrowding than the White British.

## Methods

Absolute inequality for ethnic minorities in relation to the White British in education, employment, health and housing has been reported for districts in England and Wales using data from the 2001 and 2011 England and Wales censuses. Absolute

inequality is the difference in the proportion of the White British group and the ethnic minority group who experience disadvantage on a particular indicator.

The indicators of inequality are: percent aged 16–24 with no qualifications (education); percent aged 25 and over who are unemployed (employment); percent with a limiting long term illness (indirectly age standardised) (health); percent living with an occupancy rating of -1 or below, indicating overcrowding (housing).

An Index of Multiple Inequality (IMI) has been calculated as an average of the ranks of each indicator of inequality, for district-ethnic group combinations that have a score on at least two indicators. Inequality is calculated only where district-ethnic group populations are at least 100.

The full dataset, available in the Local Ethnic Inequalities Local Area Profiler ([www.ethnicity.ac.uk](http://www.ethnicity.ac.uk)) contains full data and calculations. It contains calculations of inequality measures for seven ethnic minority groups: Minority other than White British, White Irish, White Other, Black, Asian, Mixed and Other.

## Conclusions

Ethnic inequalities are found in districts across England and Wales, where there are small and large minority populations with high and low deprivation levels. Many of the districts that have become more unequal between 2001 and 2011 are less deprived, semi-rural and rural districts with relatively small ethnic minority populations. Addressing inequality is not purely an issue for authorities with diverse and poor populations.

Some districts need to address inequality across several social dimensions. Others can target policy initiatives at particular outcomes and populations. However, ethnic inequalities in employment and housing should be a concern for authorities across the country.

## 1. Introduction

The inequality experienced by ethnic minorities in the UK has been well documented over the past 50 years (Collins, 1957; Rex, 1973; Bhat et al., 1988; Modood et al., 1997; Simpson et al., 2006; Finney et al., 2008; Jivraj and Simpson, forthcoming). Latest evidence illustrates the persistence of ethnic inequalities despite many ethnic minority groups having lived in Britain for several generations (Jivraj and Simpson, forthcoming). This report asks how this ethnic inequality manifests itself at a local level; how do the experiences of ethnic minorities, in terms of how they fare compared to the White British, vary between local authority districts. This raises questions about the causes of local ethnic inequalities; where efforts need to be particularly targeted to address these inequalities; and from where lessons can be learnt about how to create more equal neighbourhoods.

The aim of this report is therefore to convince policy audiences of the need to tackle racial and ethnic inequality in contemporary Britain, and to generate evidenced-based debate that can result in initiatives to reduce ethnic inequalities across the country. The evidence provided comes from analysis of census data; the project has produced measures of ethnic inequality for local authority areas across England and Wales in 2001 and 2011 for indicators of education, employment, health and housing. This enables us both to assess levels of inequality and see how they have changed, for ethnic groups in particular localities, through the 2000s.

### Ethnic Inequalities: Literature Review

The disadvantage faced by ethnic minority groups has been noted since the mass arrival of immigrants from the new commonwealth (Collins, 1957; Smith, 1977; Rex and Tomlinson, 1979; Bhat et al., 1988; Modood et al., 1997; Simpson et al., 2006). This literature has highlighted the experience of persistent discrimination and more recently shown that the inequality will not disappear of its own accord but requires active policy intervention (Heath and Li, 2007; Jivraj and Simpson, forthcoming). Research into structural inequalities in education (Gillborn and Mirza, 2000; Lymperopoulou and Parameshwaran, 2014), health (Nazroo, 2006; Bécares, 2013), employment (Heath and Li, 2007; Nazroo and Kapadia, 2013), housing (Lakey, 1997; Finney and Harries, 2013) and income and deprivation (Berthoud, 1997; Jivraj and Khan, 2013) has shown

that disadvantage remains consistent across all dimensions of inequality, although variations between ethnic groups exist.

Inequalities in employment, education, health and housing have been documented over time and evidence has shown that such inequalities still remain for all minority groups, and persist for ethnic minorities born in the UK. The issue remains, therefore, not just for more recently arrived immigrants but for ethnic minorities as a whole. In fact, analysis of the 2001 census showed 'the net disadvantage of ethnic minorities in the labour market has become greater for men born in the UK' (Simpson et al., 2006: 2). That is, despite gaining higher qualifications on average than their overseas-born parents, ethnic penalties remain and there is even greater unemployment for Indian, Pakistani, Bangladeshi and Caribbean men born in the UK. Similarly, analysis of health outcomes has shown that poor health has persisted for non-migrant ethnic minorities and may even be worse for those born in the UK (Nazroo, 1997). Likewise research into educational inequality has shown that Pakistani and Caribbean pupils have not shared equally in rising GCSE attainment levels, increasing the inequality in recent years for these groups (Gillborn and Mirza, 2000), and that attainment gaps are persisting for Pakistani, Bangladeshi Black African and Black Caribbean groups (Strand, 2007).

The extent of inequality has been shown to vary between groups. Unemployment levels are particularly high for Pakistani, Bangladeshi, Black Caribbean and African men with the unemployment rate for those aged 25 and over in each group being more than double the national rate (Simpson et al., 2006: 97). For females aged 25 and over, it is Pakistani, Bangladeshi and Black African women that had the highest unemployment rates (Simpson et al., 2006). Nevertheless, for both men and women White Britons had the lowest rates of unemployment compared to all other ethnic groups.

There is also diversity amongst the health experiences of ethnic minorities in the UK. While Caribbean, Indian, Pakistani, Bangladeshi and Chinese people are all more likely to report fair or poor health than the White English ethnic group, there is variation within the minority groups. This is most notable amongst South Asians, with Bangladeshis reporting the worst health, followed by Pakistanis and then Indians. This diversity in health experience reflects the differences in migration history, pattern of



settlement in the UK and the economic experiences of these groups. As already noted, Pakistanis and Bangladeshis are also amongst those with the highest rates of unemployment. Unemployment and health outcomes are related: it has been shown that when a variety of socio-economic differences are considered, including income differences, the health inequalities between groups are much reduced (Nazroo, 1997, 2006; Bécares, 2013). Inequalities in one dimension may therefore have an effect on others, further exacerbating overall inequality.

Inequalities in education show similar findings. A number of reports have shown that while inequalities vary between ethnic groups, distinct patterns of inequality remain visible (Gillborn and Mirza, 2000; Tikly et al., 2006; Strand, 2007). Inequalities in attainment of GCSEs have been shown to be most severe for African-Caribbean, Pakistani and Bangladeshi pupils and while social class and gender differences were associated with inequalities, ethnic/racial inequalities remained for these groups. Racism in schools and the educational system has been shown to play a part in explaining the remaining disadvantage and some schools have been less successful at implementing the duties placed on them in the Race Relations (Amendment) Act 2000 in order to address this (Gillborn, 1990; Wright, 1992; Parsons et al., 2004). More recent evidence from the 2011 census shows that ethnic minorities have experienced large improvements in attainment in recent years, with younger members of ethnic minority groups, including Pakistani and Bangladeshi groups, being considerably more qualified than their older counterparts (Lymperopoulou and Parameshwaran, 2014). In 2011, among the 16 to 24 age group the Other White and Mixed groups were more likely to have no qualifications than Asian, Black and White British groups (Lymperopoulou and Parameshwaran, 2014).

During the periods of major immigrant settlement in the 1950s, 1960s and 1970s, a combination of poverty and hostility forced Black and Asian migrants 'into poor private rental accommodation and the worst of owner-occupied housing in the declining inner cities' (Phillips, 1998: 1682). Settlement patterns reflected the areas where demand for migrant labour was most prominent which were within metropolitan areas such as Birmingham and London, as well as industrial towns such as Oldham and Bradford. At the local level patterns of inner-city

clustering, overcrowding and housing deprivation emerged. Over time upward social mobility of some ethnic minorities has altered this geography so that concentrations exist outside these main settlement areas. More recently it has been found that ethnic minorities tend to live in areas with higher than average levels of unemployment, are more likely than the White British to mention environmental problems such as graffiti, vandalism and vermin infestation and more likely to report problems of personal and property crime (Lakey, 1997: 221). While levels of overcrowding have been found to have decreased over time, the inequality has remained intact, with Pakistani and Bangladeshi households living in the most overcrowded accommodation (Lakey, 1997: 223). Overcrowding and poor housing conditions have also been prevalent among recently arrived migrants particularly from the eight Central and Eastern European countries that joined the European Union (EU) in 2004 (Robinson and Reeve, 2006; Spencer et al., 2007).

Studies have highlighted that ethnic minority people are much more likely than the White British to live in deprived areas (Karlsen et al., 2002; Jivraj and Khan, 2013). However, analysis of regional and neighbourhood inequality has shown inequalities persist across geographies. It is not that inequalities only exist in areas with large concentrations of minorities, often the original settlement areas, but that they persist in majority White British areas so that in the latter ethnic minorities are still twice as likely to be unemployed as their White counterparts (Simpson et al., 2006: 108). More recent analysis has shown that the proportion of people from ethnic minorities living in the most deprived neighbourhoods has decreased between 2001 and 2011 although in 2011 ethnic minorities were still more likely to live in deprived areas and were more disadvantaged than the White British group (Jivraj and Khan, 2013). For example, more than one in three in the Bangladeshi and Pakistani groups lived in a deprived neighbourhood in 2011 and the unemployment rate of most ethnic minority groups in deprived neighbourhoods was higher than the unemployment rate of the White British group (Jivraj and Khan, 2013). Inequalities therefore persist across place and do not appear to be related to the ethnic composition of a neighbourhood. Assessing contemporary spatial patterns of ethnic inequalities is an important step to understanding the differential experience of ethnic minority groups, and to tackling ethnic inequalities.

## 2. Local Ethnic Inequalities Case Studies

### 2.1 Tower Hamlets

**Tower Hamlets is a diverse, deprived London borough that has seen worsening ethnic inequalities over the 2000s especially in terms of employment and housing.**

Tower Hamlets is an inner London borough which ranks as the 7th most deprived district in England on the 2010 Index of Multiple Deprivation (IMD). In 2011, around 175,000 people or more than two thirds (69%) of the borough population belonged to an ethnic group other than White British making it the fifth most ethnically diverse district in England and Wales. Tower Hamlets ranked as the 5th most unequal district in England and Wales on the Index of Multiple Inequality (IMI) in 2011 for the minority population as a whole. In 2001 it ranked as the 8th most unequal district in England and Wales.

In terms of overall inequality for the Asian group, Tower Hamlets ranked as the worst district in England and Wales in 2011. The IMI for the Asian group ranked Tower Hamlets as the 5th most unequal district in 2001. Overall ethnic inequalities for the White Irish, White Other and Mixed groups were lower in 2011 than in 2001. Ethnic inequalities in Tower Hamlets improved the most for the Mixed ethnic group. In 2011 Tower Hamlets ranked 135 on the IMI for the Mixed group while it ranked 42 on the IMI in 2001.

Ethnic inequalities in Tower Hamlets were least pronounced in the education domain. Tower Hamlets had a similar proportion of 16–24 year olds without qualifications from ethnic minority groups (7%) and the White British (6%) in 2011 ranking 187 (out of 348) in terms of absolute inequality in education in 2011 (it ranked 91 in 2001). Although ethnic inequalities in terms of education were lower in 2011 than in 2001 for most ethnic groups, Tower Hamlets ranked worse in 2011 on the education domain for the Black group (rank 24 in 2001, rank 39 in 2011) and the Irish group (rank 78 in 2001, rank 51 in 2011).

In contrast, in the employment domain Tower Hamlets in 2011 was the 7th most unequal district for the minority population as a whole and the most unequal district for the Asian population. The proportion of people aged 25 and older from ethnic minorities as a whole, Asian and Black groups who were unemployed in 2011 was double and three

times that of the White British group (11%, 14% and 19% compared with 6% respectively). Ethnic inequalities in employment became less severe in Tower Hamlets for the Mixed group which ranked 88 in terms of employment in 2001 and 184 in 2011 but became more severe for the White Other group which ranked 345 in 2001 but 268 in 2011.

The most severe ethnic inequalities in Tower Hamlets were in terms of housing with nearly half (48%) of Asian households and 43% of households from ethnic minority groups as a whole being overcrowded compared with a quarter (24%) of White British households. In terms of housing, Tower Hamlets ranked as the 2nd worst district in 2011 for the Asian group and the 6th worst district for the ethnic minority population as a whole. Although overcrowding was higher for ethnic minority groups than the White British in both 2001 and 2011, Tower Hamlets ranked lower on ethnic inequalities in housing in 2011 than in 2001. Health inequalities between ethnic minority groups and the White British are less pronounced in Tower Hamlets with the limiting long term illness rate for ethnic minority groups and the White British being somewhat similar (22% and 21% respectively). The limiting long term illness rate is highest for the Asian group (26%) making Tower Hamlets the 10th most unequal district in terms of absolute inequality in health for the Asian group in 2011. Between 2001 and 2011 health inequalities improved for the Mixed group and worsened for the Black group (Tower Hamlets ranked 166 in 2001 and 243 in 2011 for the Mixed group on health while it ranked 134 in 2001 for the Black group and 37 in 2011).

### 2.2 Bradford

**Bradford is a diverse urban district in the north of England which has seen a reduction in ethnic inequalities over the 2000s, particularly in terms of education. However, the White Other ethnic group is not faring well in Bradford compared to the White British.**

In 2011 around 189,000 people or just over a third (36%) of the population in Bradford were from an ethnic group other than White British. The Asian population was the largest ethnic group representing 27% of the total population in 2011.

Bradford was the 5th most unequal district in 2001 for minority populations (6th most unequal for the

Asian group) on the IMI. Ethnic inequalities were less severe in 2011 when it ranked as the 22nd most unequal district in England and Wales (15th most unequal district for the Asian group). Ethnic inequalities in Bradford, however, became more severe for the White Other group between 2001 and 2011. Bradford was the 11th most unequal district for the White Other group in 2011 while it ranked 165 in 2001.

In 2001 the proportion of 16–24 year olds with no qualifications from ethnic minority groups in Bradford was higher than for the White British (25% compared with 19%) and it ranked among the 50 most unequal districts in terms of ethnic inequalities in education. In 2011, the minority population in Bradford had similar levels of education as the White British group (14% of 16–24 year olds from each group had no qualifications). Ethnic inequalities in education were lower in 2011 than in 2001 for all ethnic groups apart from the White Other group. Bradford ranked 234 in education inequality for the White Other group in 2001 but ranked 116 in 2011. In contrast, Bradford ranked 35 in terms of education inequality for the Asian group in 2001 but ranked 107 in 2011.

The proportion of people aged 25 and older who were unemployed from the ethnic minority group as whole (12%) in 2011 was double that of the White British group (6%) while for the Black group it was nearly three times as high (16%). Bradford became more unequal in terms of employment inequality for the Mixed group (rank for the Mixed group was 55 in 2001 but 13 in 2011). Employment inequality for the Asian group remained as high in 2011 as in 2001 (Bradford ranked as the 4th and 5th most unequal district in employment in 2011 and 2001 respectively).

Ethnic minorities in Bradford were three times more likely to be overcrowded than White British households in 2011 (20% compared with 6% respectively). Inequality in housing worsened the most for the White Other ethnic group with a quarter (24%) of White Other households being overcrowded in 2011 compared with 7% of White Other households in 2001. In comparison just 6% of White British households in 2001 and 2011 were overcrowded. Bradford ranked among the 20% most unequal districts in terms of overcrowding for the White Other group in 2011 although in 2001 it was among the 20% least unequal for the same group. Overcrowding in Bradford for the Black group compared with the White British group was also worse in 2011 than in 2001 (Bradford ranked 64 for the Black group in 2011 and 122 in 2001).

The long term limiting illness rate of ethnic minorities was higher than the long term limiting illness rate of

the White British in 2011 (24% compared with 18%). The Asian group had the highest long term limiting illness rate (25%) compared with all other ethnic groups with Bradford being the 5th most unequal district in 2011 in terms of health inequality for the Asian group.

## 2.3 Breckland

**Breckland is a rural district in the East of England whose ethnic minority population has grown as a result of immigration from the EU. Ethnic inequalities in Breckland worsened over the 2000s for all ethnic groups in education, employment, health and housing.**

Breckland has a population of 130,500 of which 11,500 belong to an ethnic minority group other than White British. The minority population in Breckland increased significantly between 2001 and 2011 (from 5% to 9%). The largest ethnic group in 2011 was the White Other group which more than doubled during this period accounting for 6% of the population. According to the 2011 census a third of the population (3%) are migrants from the EU Accession countries. Breckland ranked 58th on the IMI for all minorities in 2011 and is one of the districts that became most unequal over the last ten years in England and Wales. It was among the 20% least unequal districts in 2001 (IMI rank 314) but one of the 20% most unequal districts in 2011 (IMI Rank 58). Breckland fared worse on the IMI in 2011 than in 2001 for all ethnic minority groups apart from the White Irish group (Breckland ranked 263 on the IMI for the White Irish group in 2011 while it ranked 52 in 2001). Breckland ranked as the 35th most unequal district for the White Other group on the IMI in 2011. In 2001 it ranked 316 for the White Other group.

Ethnic inequalities between the White British group and ethnic minorities widened on all indicators between 2001 and 2011. In 2011, the proportion of 16–24 year olds with no qualifications from ethnic minority groups was significantly higher than for the White British. For example, 23% of 16–24 year olds from ethnic minorities and 26% of those from the White Other group had no qualifications in 2011 compared with 13% of those from the White British group. Breckland ranked as the 34th most unequal district for the White Other group in terms of education in 2011. In 2001 it ranked 163 in terms of education inequality for the White Other group.

In 2011 the unemployment rate of ethnic minorities in Breckland was only slightly higher than that of the White British group (6% compared with 4%). Ethnic inequalities, however, worsened between 2001 and 2011. In terms of employment inequality Breckland

ranked 313 for the minority group in 2001 but ranked 130 in 2011. It fared worse for the Mixed ethnic group on employment in 2011 ranking 56 in 2011 from 260 in 2001.

Overcrowding was five times as high for ethnic minorities as it was for the White British in 2011 (17% compared with 3%). Around 20% of White Other households and 15% of Asian households were overcrowded compared to 3% of White British households. Between 2001 and 2011 inequalities in housing in Breckland increased the most for the Mixed and White Other groups.

Breckland had a lower long term limiting illness rate for ethnic minority groups compared with the White British (13% compared with 17%) and ranked among the least unequal districts in terms of absolute inequality in health for ethnic minorities (ranked 290 for minorities in 2011 and 312 in 2001). Health inequalities were less severe in 2011 than in 2001 for the Mixed group. In terms of health, Breckland ranked 24 for the Mixed group in 2001 but ranked 260 in 2011.



# 3. Local Ethnic Inequalities: An Overview

## 3.1 Ethnic Inequalities 2001–2011: The Index of Multiple Inequality

The Index of Multiple Inequality provides a summary measure of inequality between the minority population (taken as a whole) and the White British population of a district. The Index is based on the district's ranking on inequality in education, employment, health and housing; it is the average of these ranks. Table 1 lists the 20 districts of England and Wales which were most unequal when considering the four dimensions of inequality together, and the 20 districts which had greatest equality between minorities and the White British in 2011. The results for all districts are displayed in Map 1. The equivalent data are provided for 2001 in Table 2 and Map 2.

Districts with the greatest ethnic inequalities are found throughout England and are generally in urban or semi-rural areas with relatively large ethnic minority populations, where minority communities are well established. This is the case in 2001 and in 2011. However, many of the districts that have become more unequal between 2001 and 2011 are semi-rural and rural districts that historically have had lower ethnic diversity levels and small ethnic minority populations including Breckland, Fylde, Purbeck, Mid Suffolk and Anglesey.

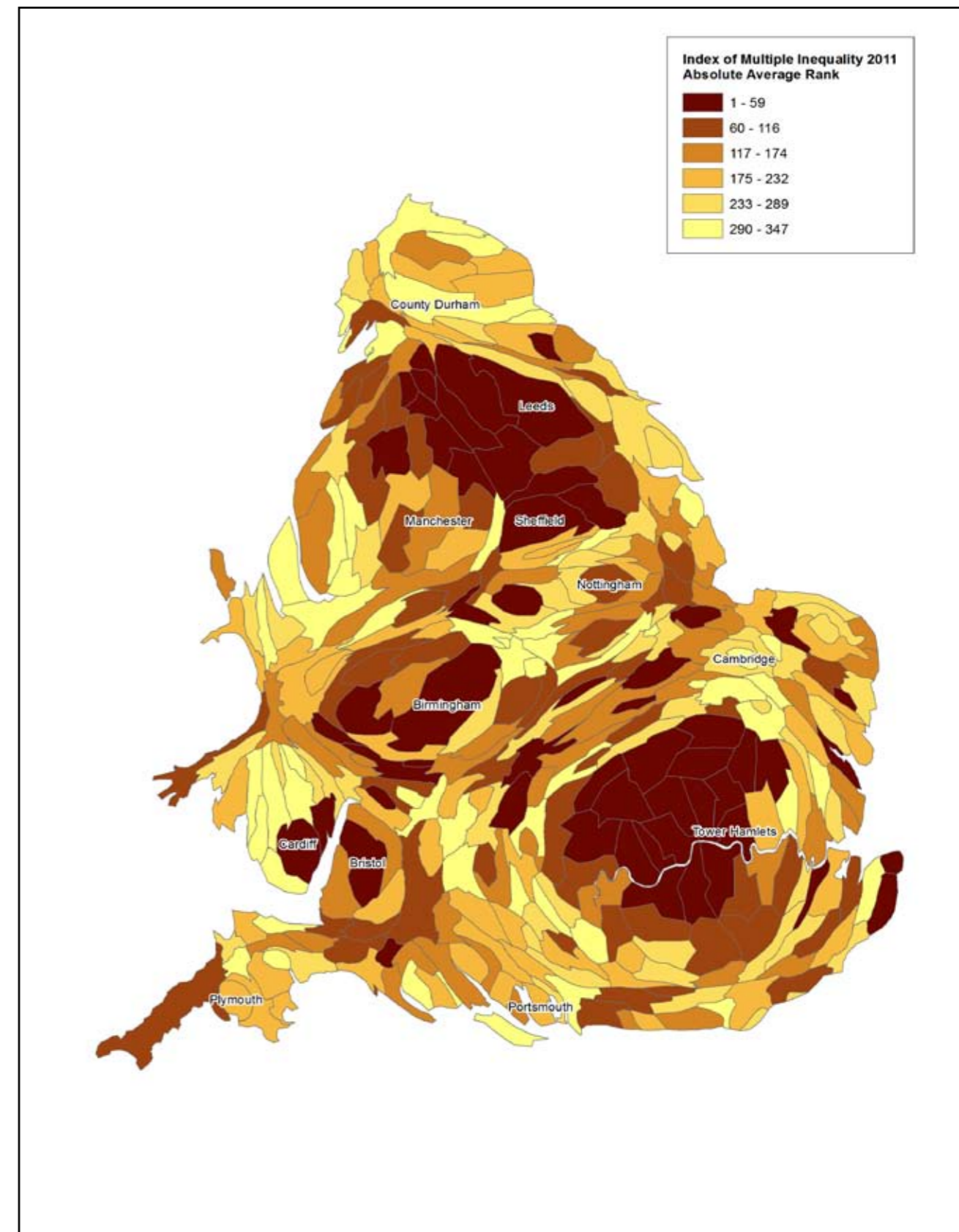
The five districts with the greatest ethnic inequalities in 2011 were Lambeth, Haringey, Rotherham, Oldham and Tower Hamlets. The five districts with the greatest ethnic inequalities in 2001 were Pendle, Oldham, Kirklees, Haringey and Bradford. Although there is some stability in the districts that had greatest ethnic inequality in 2001 and 2011 with Bedford, Calderdale,

**Table 1.** Multiple inequality in England and Wales, 2011

20 districts with minority most inequality in 2011 (IMI)		Absolute average rank	Minority population
1	Lambeth	33.5	184,836
2	Haringey	36.5	166,502
3	Rotherham	48.0	20,842
4	Oldham	49.8	54,942
5	Tower Hamlets	56.5	174,865
6	Brent	59.8	255,328
7	Bristol, City of	62.5	94,802
8	Bedford	65.0	44,891
9	Peterborough	65.5	53,399
10	Sheffield	67.3	105,861
10	Kirklees	67.3	98,568
12	Wycombe	69.3	41,331
13	East Staffordshire	69.8	15,729
14	Hammersmith and Fulham	72.3	100,504
15	Hyndburn	72.5	11,900
16	Leeds	73.5	141,771
16	Wandsworth	73.5	143,256
18	Calderdale	73.8	27,094
19	Ipswich	75.8	22,760
20	Pendle	76.0	20,378

20 districts with minority least inequality in 2011 (IMI)		Absolute average rank	Minority population
20	Forest Heath	257.0	13,606
19	Canterbury	257.3	18,876
18	Lancaster	261.5	11,751
17	Stevenage	262.0	14,176
16	Caerphilly	264.3	4,907
15	Runnymede	264.5	16,113
14	Newcastle-under-Lyme	269.0	8,361
13	Epping Forest	270.0	18,426
12	Bracknell Forest	270.3	17,125
11	St Helens	275.5	5,962
10	Three Rivers	279.0	16,101
9	North Tyneside	276.5	9,865
8	Wirral	279.0	16,101
7	North West Leicestershire	295.0	4,352
6	County Durham	297.0	17,578
5	North Warwickshire	306.5	2,515
4	Hartlepool	311.0	22,760
3	The Vale of Glamorgan	311.0	7,124
2	Copeland	311.5	1,924
1	Knowsley	321.0	5,758

**Map 1.** Index of multiple inequality for ethnic minority population, 2011



Note: Absolute inequality is calculated as the White British score for the district minus the minority group's score for that district. A value above zero indicates minority advantage; a value below zero represents minority disadvantage.

**Table 2.** Multiple inequality in England and Wales, 2001

20 districts with minority most inequality in 2001 (IMI)		Absolute average rank	Minority population
1	Pendle	7.3	14,649
2	Oldham	7.8	34,002
3	Kirklees	16.5	63,226
4	Haringey	16.8	118,471
5	Bradford	17.3	111,994
6	Hyndburn	17.8	8,120
7	Burnley	22.0	8,861
8	Tower Hamlets	28.3	111,952
9	Wycombe	30.5	26,555
10	Calderdale	32.0	17,620
11	Birmingham	33.3	335,749
12	Lambeth	34.0	134,227
13	Rotherham	37.0	10,097
14	Blackburn with Darwen	38.3	32,832
15	Dudley	45.3	22,888
16	Hammersmith and Fulham	46.8	69,318
17	Bedford	48.8	28,427
18	Bolton	50.3	33,404
19	Luton	50.5	64,605
20	Rochdale	50.8	28,556

20 districts with minority least inequality in 2001 (IMI)		Absolute average rank	Minority population
20	Wirral	270.3	10,982
19	Tamworth	271.3	2,589
18	Cheshire West and Chester	274.0	11,387
17	Sevenoaks	275.5	6,078
16	Broadland	276.8	3,078
15	Harrogate	278.0	7,879
14	Anglesey	278.0	1,858
13	Northumberland	278.3	5,846
12	Tonbridge and Malling	279.5	4,414
11	Runnymede	280.0	9,627
10	Three Rivers	282.5	10,703
9	Epping Forest	285.0	10,591
8	Mansfield	291.0	3,014
7	Rhondda, Cynon, Taff	295.5	5,855
6	Gwynedd	295.8	4,076
5	County Durham	304.8	9,670
4	Fylde	306.0	2,590
3	Forest Heath	310.3	13,074
2	Hambleton	326.0	1,664
1	Purbeck	328.3	1,509

Hammersmith and Fulham, Haringey, Hyndburn, Kirklees, Lambeth, Oldham, Pendle, Rotherham, Tower Hamlets and Wycombe featuring in the 20 most unequal districts at both time points, there was also notable change. For example, Birmingham, Blackburn, Bolton, Bradford, Burnley, Dudley, Luton and Rochdale moved out of the 20 most unequal districts list, i.e. they reduced their ethnic inequalities, over the 2000s. This group represents some of the districts that have been most stigmatised for poor ethnic relations during this period. In contrast, over the 2000s a number of districts entered the list of 20 with the greatest ethnic inequalities in 2011: Brent, Bristol, East Staffordshire, Ipswich, Leeds, Peterborough, Sheffield and Wandsworth.

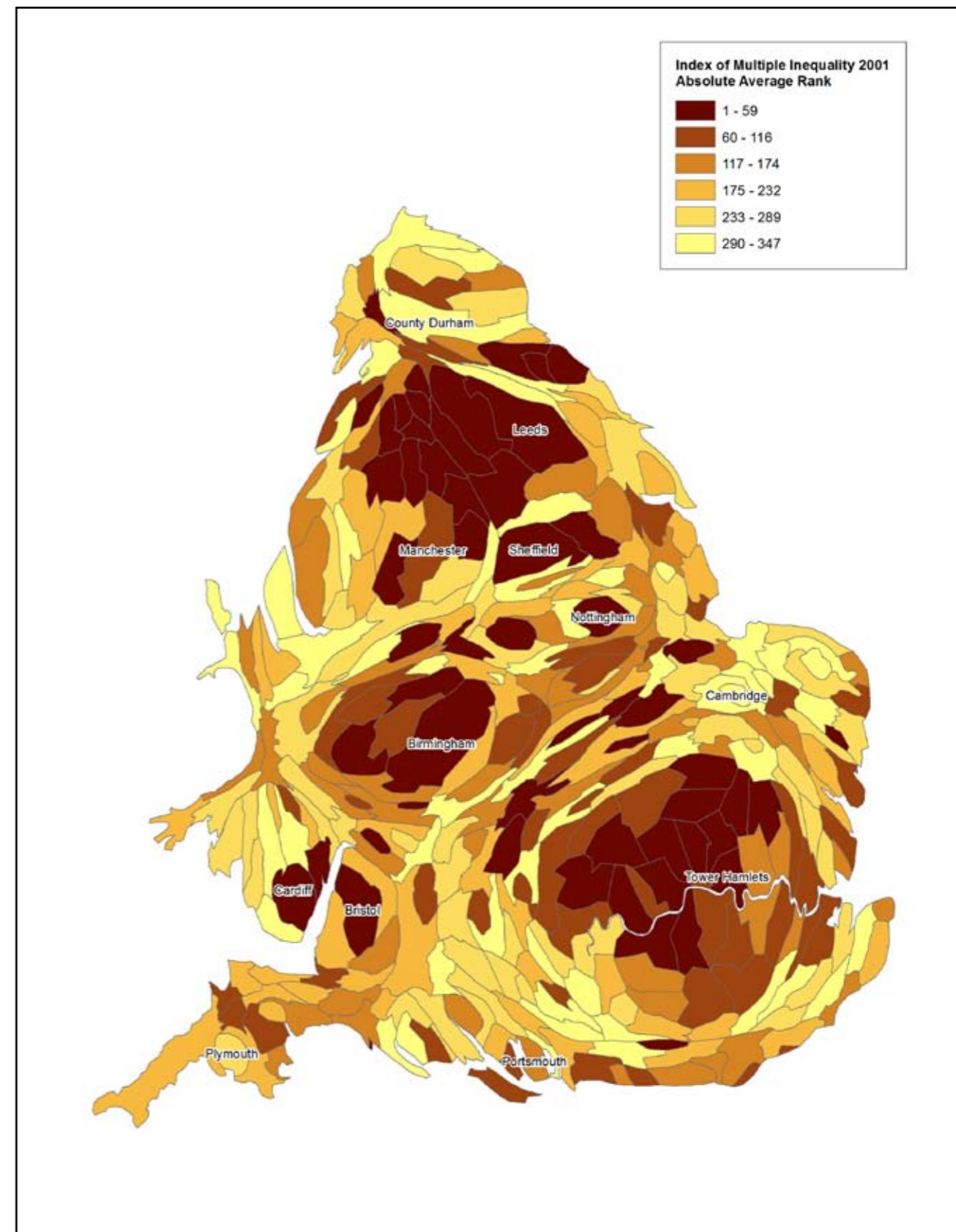
This picture of local ethnic inequalities takes all ethnic minority groups together. It is also possible to examine the Index of Multiple Inequality for broad ethnic groups separately. This is what is shown in Maps 3–7 for the Asian, Black, Mixed, White Irish and White Other ethnic groups for 2011. For the Asian group, ethnic inequalities were greatest in urban centres in the North of England, the South East, the Midlands and London. Broadly, inequalities between White British and Asian groups decrease with distance from urban centres (Map 3).

This general pattern is more pronounced for the Black ethnic group, with inequality between Black and White British ethnic groups being greatest in London districts, in Inner and Outer London, and these London districts accounting for a large proportion of the 'worst 50' districts in terms of overall ethnic inequalities for the Black group (Map 4). The Mixed ethnic group also experiences inequality most notably in highly urban areas though there are exceptions to this in the districts with greatest inequality, including districts in the South Wales valleys and Devon (Plymouth, for example) (Map 5).

The White ethnic minority groups, White Irish and White Other, have a less distinct urban pattern of inequality. This is particularly the case for the White Other ethnic group for whom the districts with greatest overall inequality were scattered throughout England and Wales and are predominantly suburban and semi-rural districts (Map 7).

What these analyses demonstrate is that ethnic inequalities are widespread and persistent; that they are a concern in urban centres but not only in these districts, particularly for the White Other ethnic group.

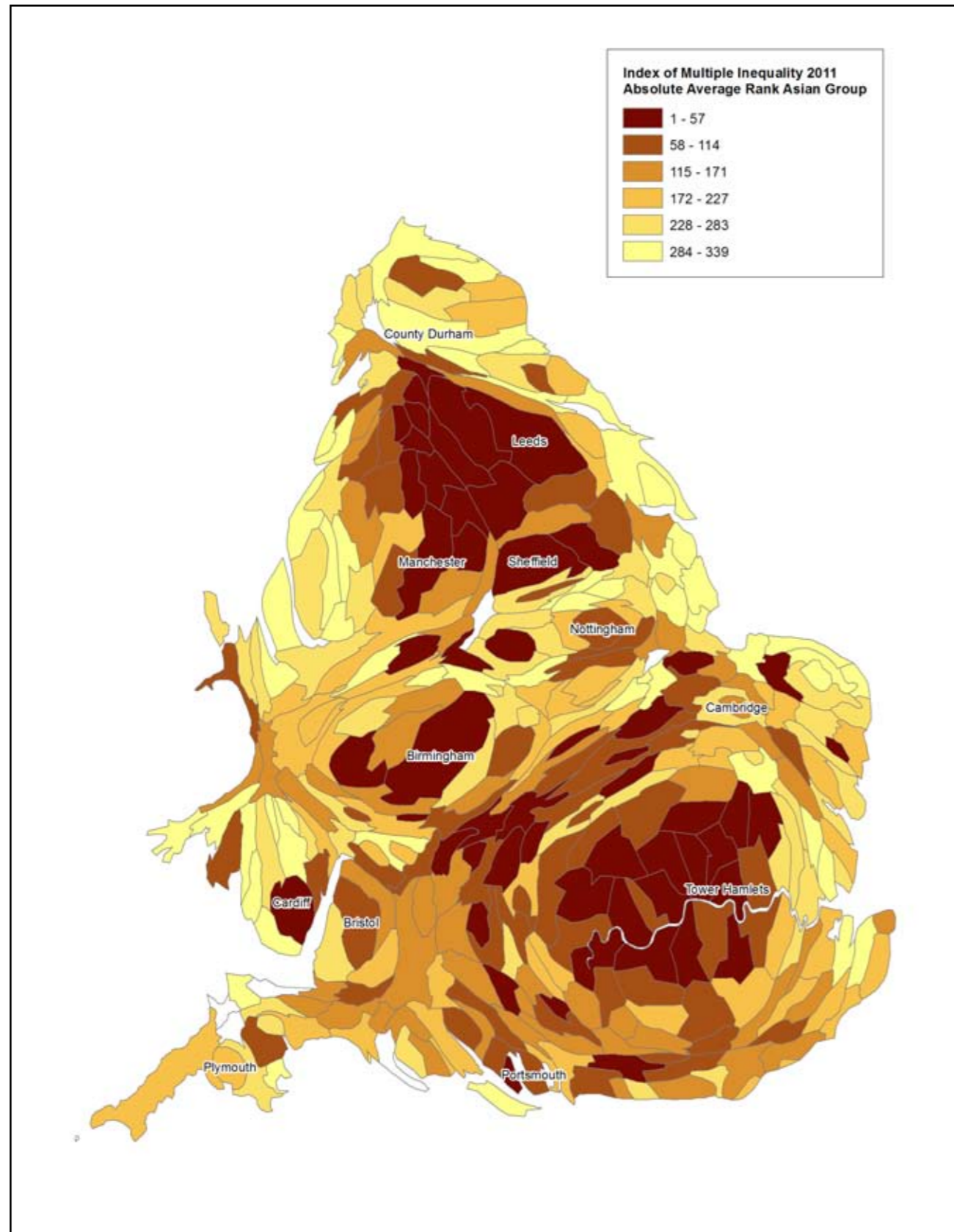
**Map 2.** Index of multiple inequality for ethnic minority population, 2001



Note: Absolute inequality is calculated as the White British score for the district minus the minority group's score for that district. A value above zero indicates minority advantage; a value below zero represents minority disadvantage.

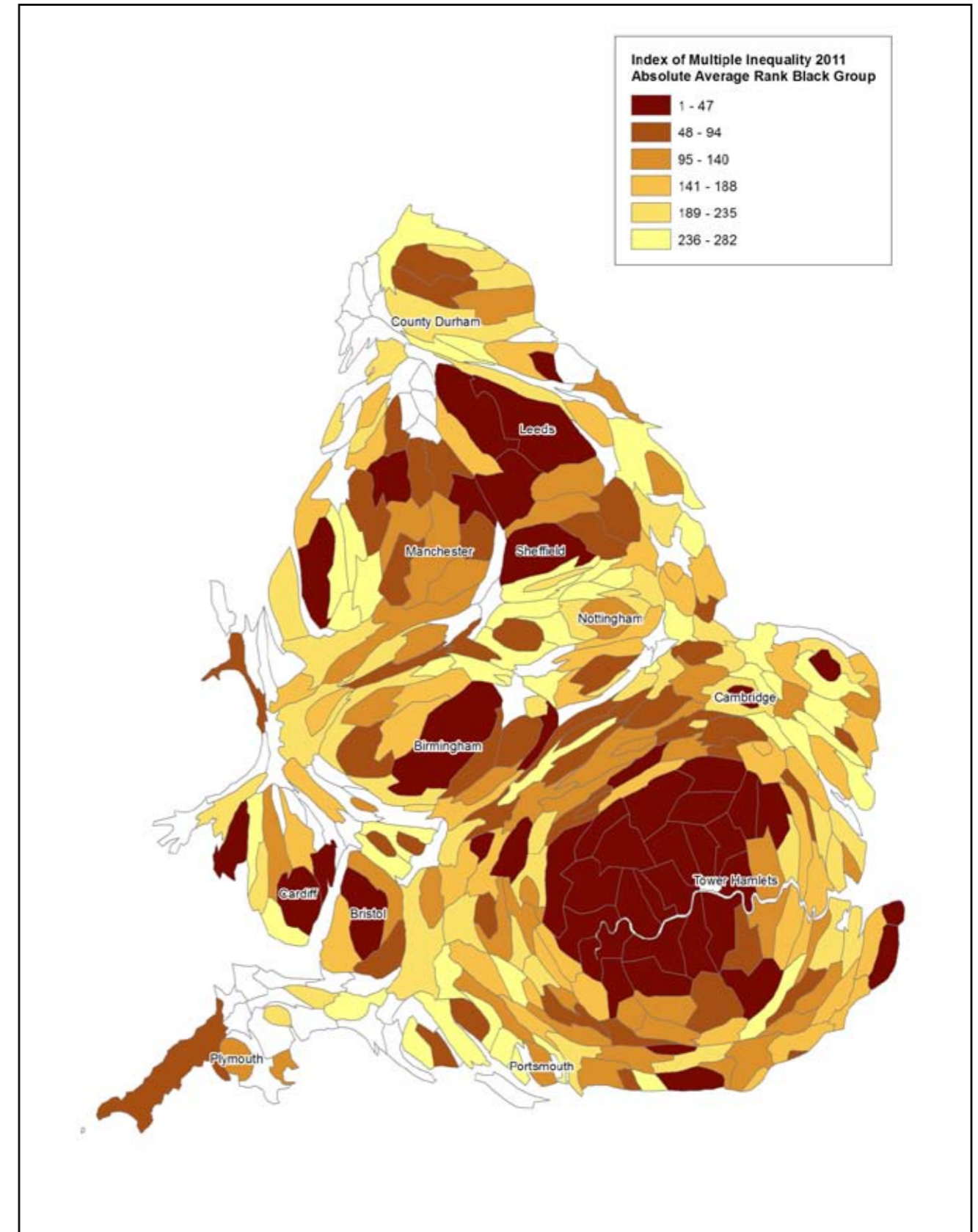


**Map 3.** Index of multiple inequality for Asian ethnic group, 2011



*Note:* Absolute inequality is calculated as the White British score for the district minus the minority group's score for that district. A value above zero indicates minority advantage; a value below zero represents minority disadvantage.

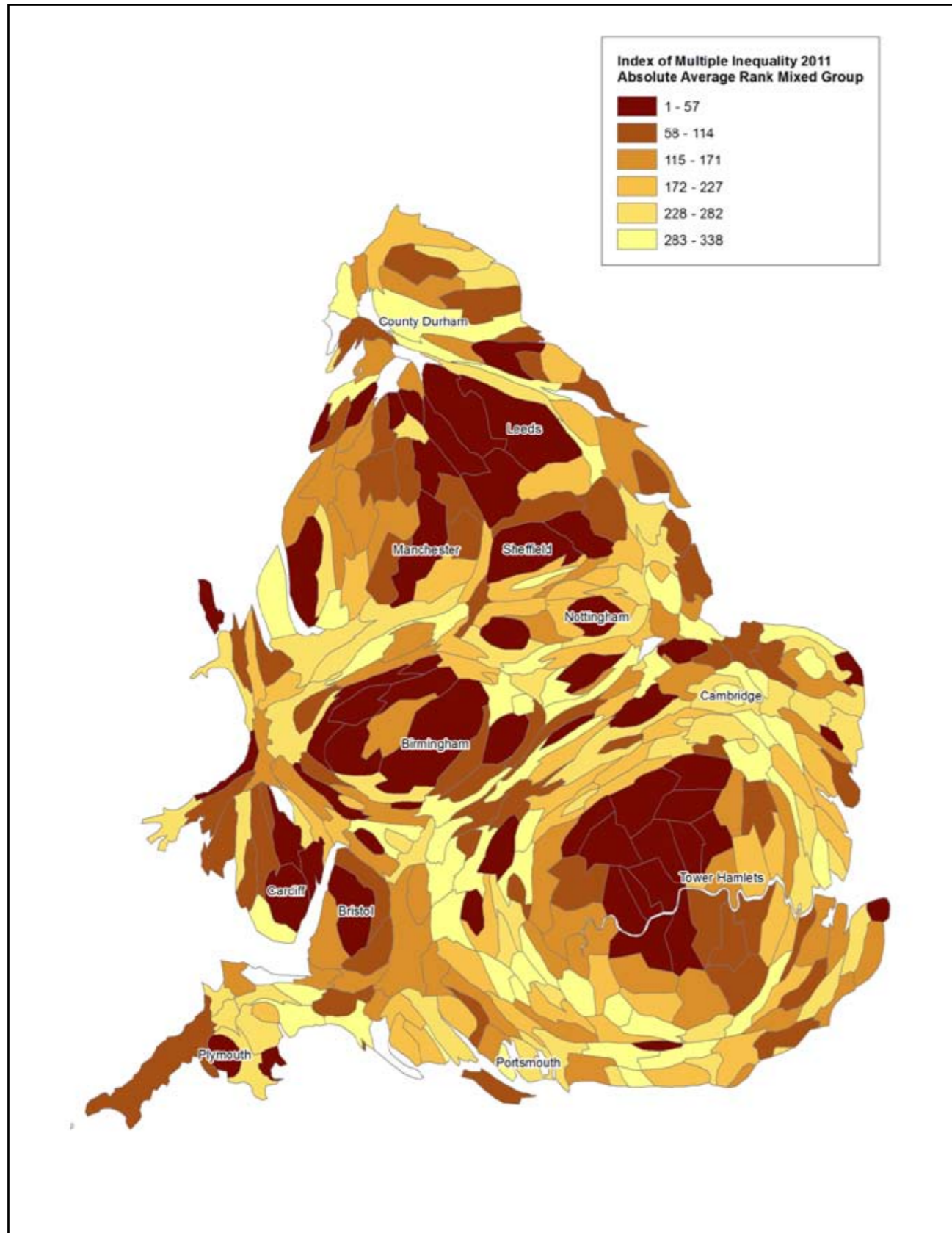
**Map 4.** Index of multiple inequality for Black ethnic group, 2011



*Note:* Absolute inequality is calculated as the White British score for the district minus the minority group's score for that district. A value above zero indicates minority advantage; a value below zero represents minority disadvantage.

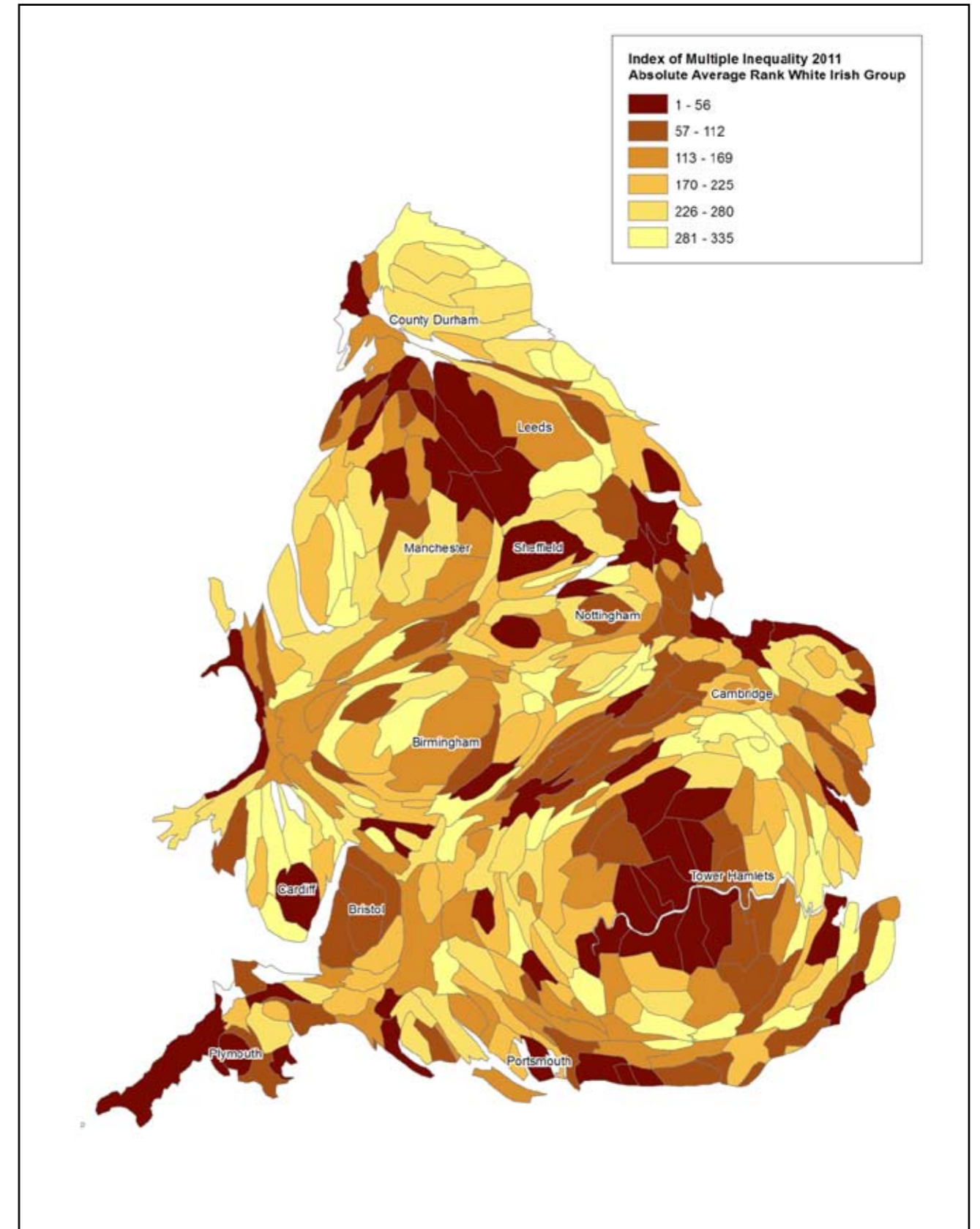


**Map 5.** Index of multiple inequality for Mixed ethnic group, 2011



*Note:* Absolute inequality is calculated as the White British score for the district minus the minority group's score for that district. A value above zero indicates minority advantage; a value below zero represents minority disadvantage.

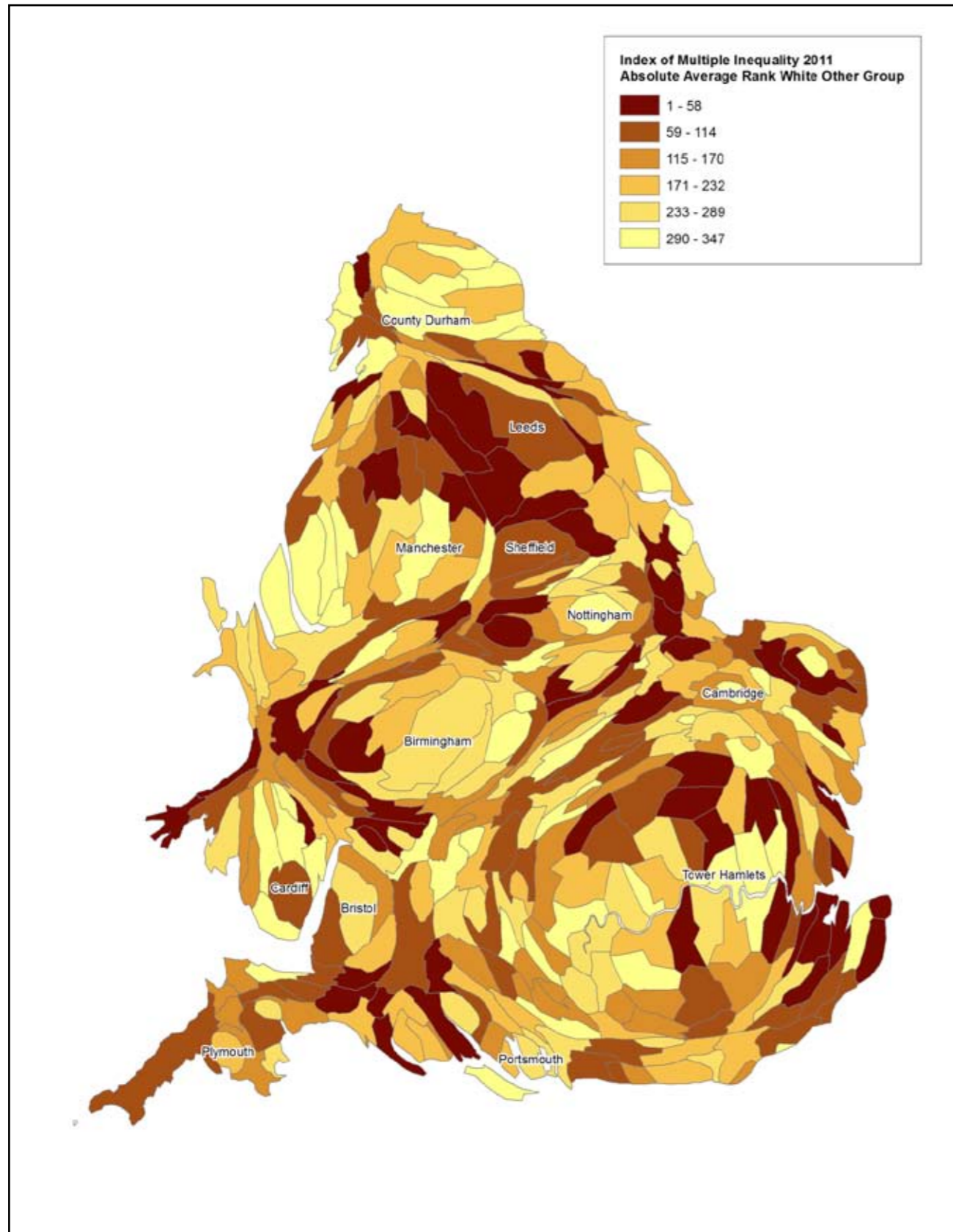
**Map 6.** Index of multiple inequality for White Irish ethnic group, 2011



*Note:* Absolute inequality is calculated as the White British score for the district minus the minority group's score for that district. A value above zero indicates minority advantage; a value below zero represents minority disadvantage.



**Map 7.** Index of multiple inequality for White Other ethnic group, 2011



Note: Absolute inequality is calculated as the White British score for the district minus the minority group's score for that district. A value above zero indicates minority advantage; a value below zero represents minority disadvantage.

### 3.2 Variation between Districts in Levels of Ethnic Inequality?

The inequalities experienced by ethnic minorities are characterized by local variation: in some districts there is a large inequality, while in others, ethnic minority groups may have equal or better outcomes than the White British population. As well as mapping the patterns we can ask how much difference there was between districts in inequality scores for each indicator, in 2001 and 2011 and for each ethnic group. This is done in Figures 1 to 4. These figures are helpful because they allow a visual overview of the range of difference between districts' inequality scores, the proportion of districts where there was minority disadvantage, how this varies between ethnic groups and indicators of inequality, and how this has changed between 2001 and 2011.

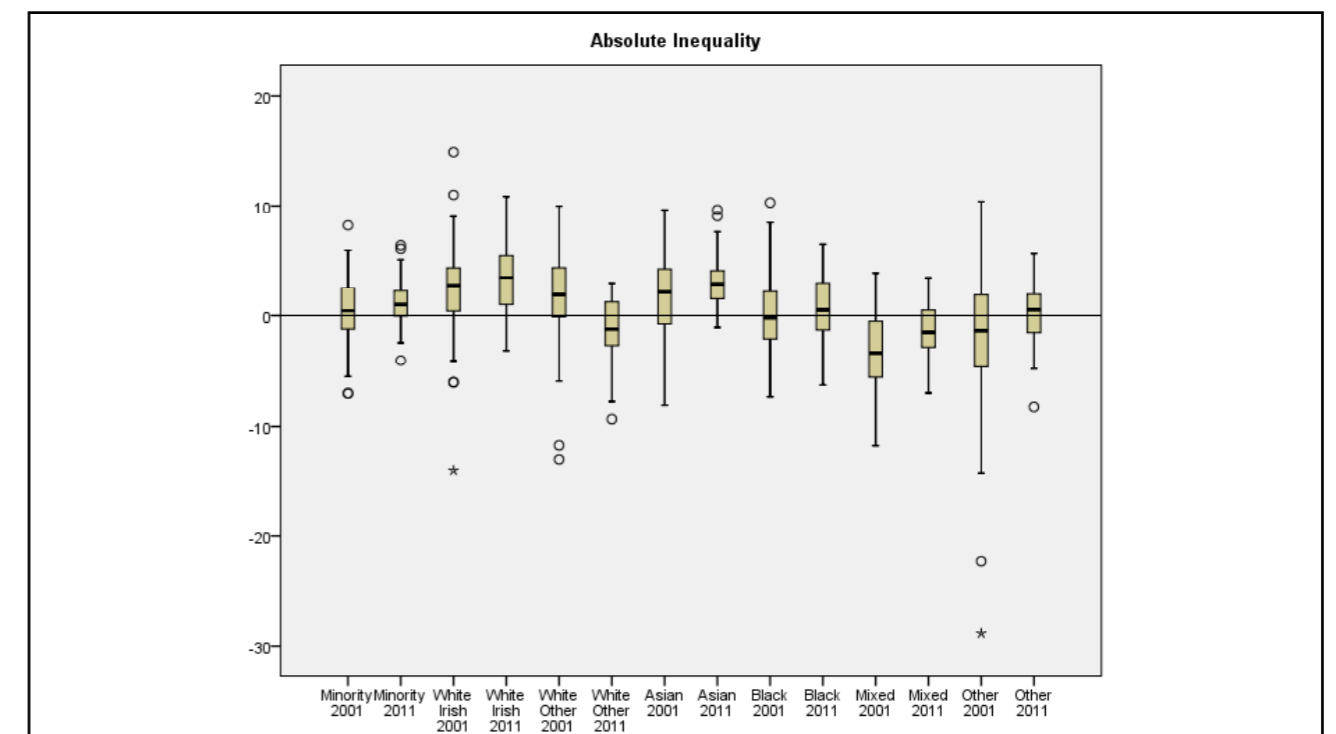
Figures 1 to 4 give the variation in the inequality scores for districts for the education, employment, health and housing indicators respectively. The district variation in scores on each indicator and ethnic group is displayed for 2001 and 2011 as a series of box plots (Figures 1 to 4). So, each figure has fourteen box plots: one for each of the six broad ethnic minority groups plus one for all minorities taken together, for 2001 and 2011. The vertical axis of the chart gives the absolute inequality for the minority groups in relation to the White British group

(calculated as the White British score for the district minus the minority group's score for that district). A value above zero indicates minority advantage; a value below zero represents minority disadvantage. The box plot for each ethnic group represents the inequality scores of all districts in England and Wales. The top point on each plot represents the district where there was least minority disadvantage and the bottom point on each plot represents the district where there was greatest minority disadvantage. The box itself represents the middle 50% of district scores; the line above shows the spread of the 25% most equal districts and the line below shows the spread of the 25% least equal districts.

#### Education

The degree of inequality in education varies greatly across districts for each ethnic group. Starting with results for 2011 for all minority groups taken together, more than half of districts in England and Wales have higher proportions of minorities with no qualifications compared to White British. In around two-fifths of districts, a higher proportion of minorities than White Britons have educational qualifications. However, this is not the case for all ethnic groups within this broad minority category. White Irish, Black and Asian groups are advantaged educationally compared with White Britons in three-quarters (or more) of districts in 2011; White Other and Mixed groups in contrast are disadvantaged educationally compared with White Britons in three quarters and two thirds of districts in England and Wales respectively.

**Figure 1.** Local ethnic inequalities in education, 2001 and 2011





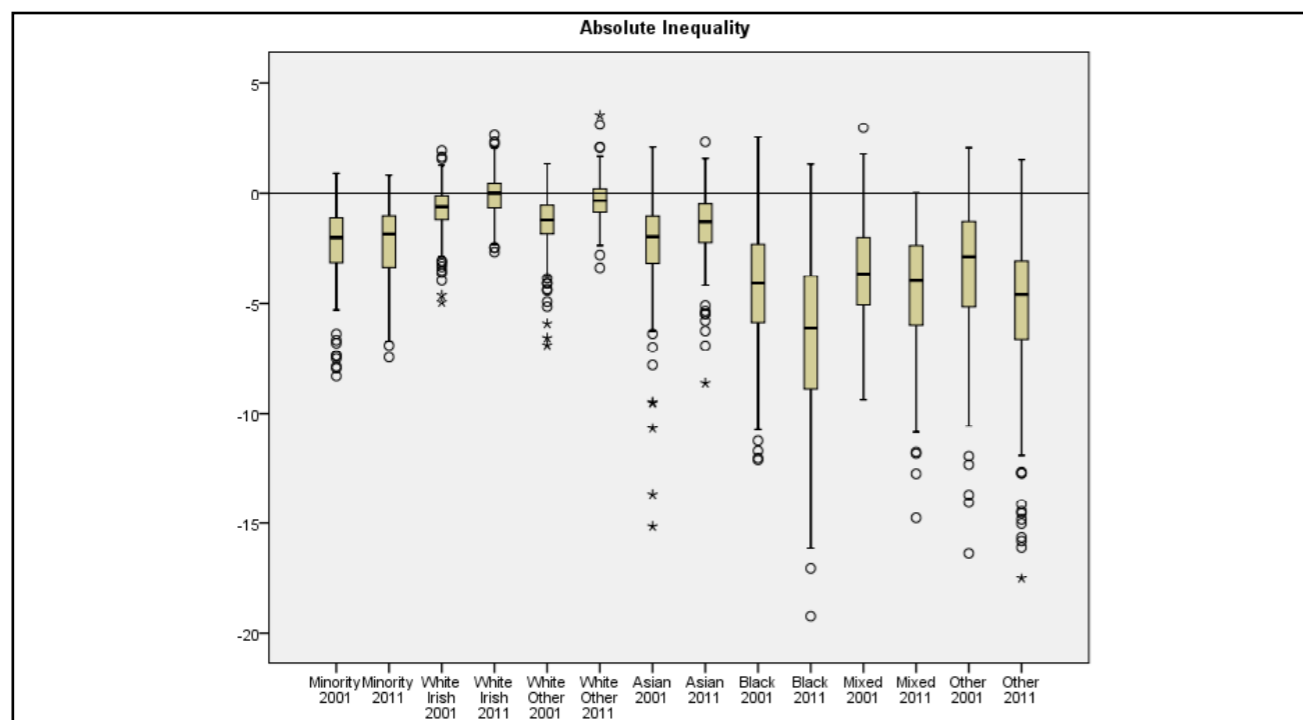
There has been change between 2001 and 2011 in local ethnic educational inequalities such that, for all ethnic groups, the range of ethnic inequality experienced in districts has decreased. Apart from for the White Other group which has seen a notable increase in the proportion of districts in which it is disadvantaged (from around 50 to 75%), the proportion of districts in which ethnic minorities experience educational disadvantage has remained stable (at around 60%).

**Employment**

Levels of unemployment inequality vary widely across districts particularly for the Black, Mixed and Asian ethnic groups in 2011. Figure 2 shows that minority disadvantage in terms of employment is evident in the majority of districts for all ethnic groups in 2011, and in over three-quarters of districts for the Black, Asian and Mixed groups and minorities taken as a whole. The range in levels of employment inequality between districts for the Black ethnic group in 2011 is marked, with some districts experiencing extreme inequality on this dimension.

For most ethnic groups both the proportion of districts where minorities are disadvantaged and the range in employment disadvantage between districts have decreased slightly through the 2000s. However, this is not the case for the Black group: Black people experience employment disadvantage in more districts in 2011 than 2001, and the levels of disadvantage of the Black ethnic group are greater in 2011 than 2001. This is also the case for the Mixed ethnic group.

**Figure 2.** Local ethnic inequalities in employment, 2001 and 2011



**Health**

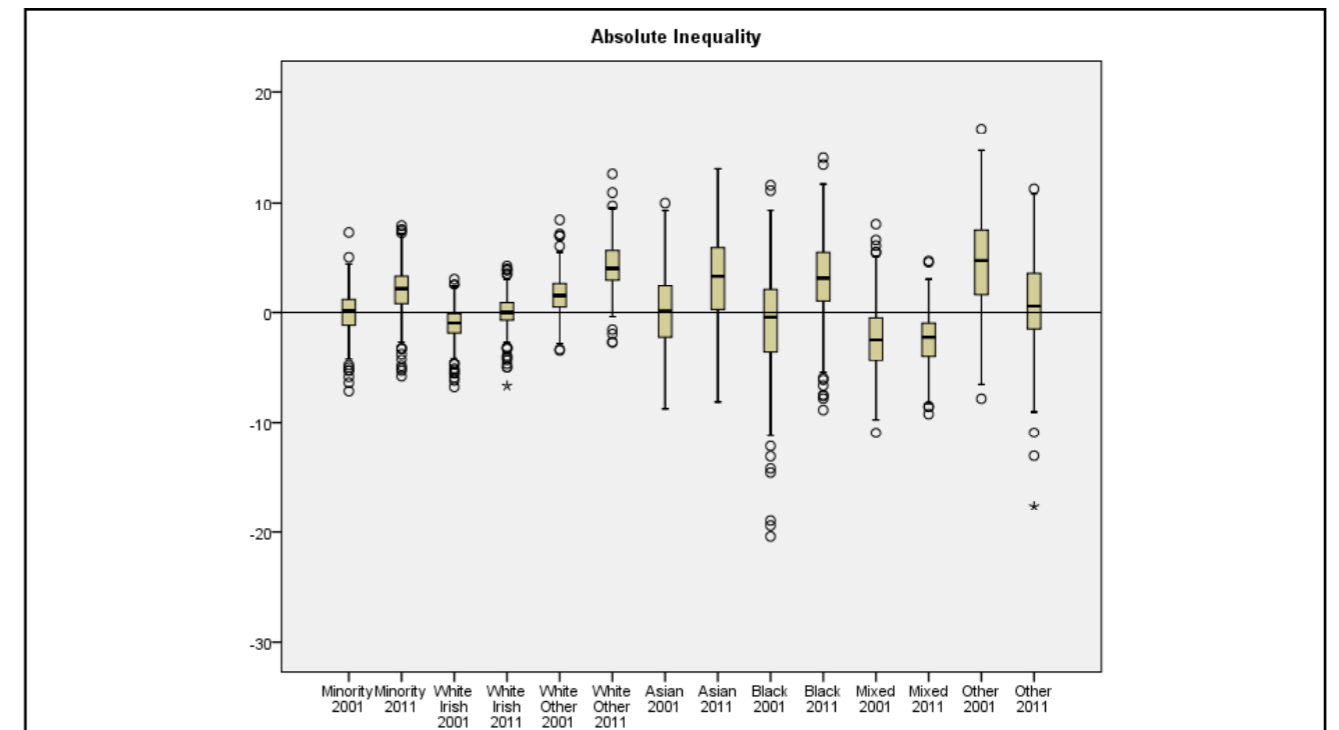
For minorities as a whole, and for the White Irish and White Other ethnic groups, the difference in health between minorities and White British does not vary greatly between districts in England and Wales in 2001 or 2011. In around half of districts in 2001 minorities fared better than the White British in terms of limiting long term illness (and in around half they fared worse). In 2011, however, in the majority of districts minorities fared better than the White British in terms of limiting long term illness. The exception is the Mixed group which was disadvantaged in terms of health in the majority of districts in England and Wales in 2011.

There is some indication that the difference in health inequality between the most equal and the least equal districts decreased over the 2000s. This is particularly the case for the Black and Asian ethnic groups: in 2011 the level of health inequality was significantly lower than in 2001.

**Housing**

Of the four dimensions of inequality considered in this study, ethnic inequality in housing (overcrowding) is the most widespread across districts in England and Wales. In all districts in England and Wales in 2011, minorities (taken as a whole) had higher levels of overcrowding than the White British. The only group for whom this was an exception was the White Irish group, who experienced more overcrowding than the White British group in two-thirds of districts. The greatest differences between districts in the levels of overcrowding of minorities compared with the

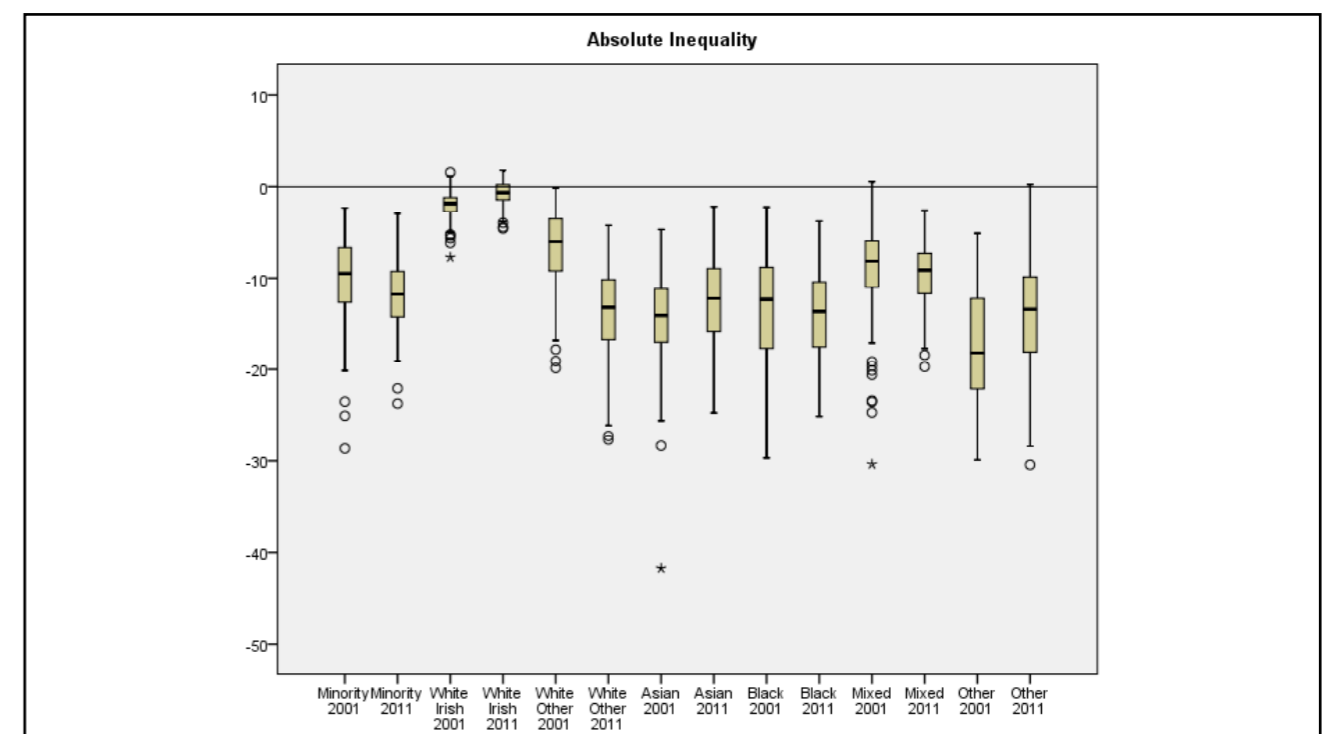
**Figure 3.** Local ethnic inequalities in health, 2001 and 2011



White British were seen for the White Other, Asian and Black groups. Inequality in housing for the Asian group across districts in England and Wales reduced slightly between 2001 and 2011 as indicated by the median inequality values but for most groups housing inequality increased slightly during this period.

There is some evidence that there are fewer districts with extreme housing inequality in 2011 compared with 2001, but housing disadvantage for minorities remains the predominant experience of minorities in 2011 as in 2001.

**Figure 4.** Local ethnic inequalities in housing, 2001 and 2011



# 4. Local Ethnic Inequalities in Education

## 4.1 Ethnic Inequalities in Education, 2011

Local ethnic inequality in education is measured as the difference between the proportion of 16–24 year olds with no qualifications in White British and ethnic minority groups in a district. A wide range in experiences of educational inequality within each ethnic group has already been shown. Table 3 shows the top and bottom 20 ranked districts for education inequality in 2011 and Map 8 provides a summary for all districts. Table 3 shows that the districts with the highest levels of inequality all have a very small ethnic minority population. With the exception of Forest Heath the minority populations are all less than 2000. The districts are geographically spread across England and Wales although the most unequal districts are located outside major urban areas and along the coastline, and are not areas that have been places of original settlement for many of the large ethnic

minority groups in Britain. Many of these districts, particularly those with a minority population over 1,000, are places where the White Other group is the largest ethnic minority group. In some of these districts such as Boston and Fenland, the White Other group grew significantly over the last decade as a result of immigration from Central and Eastern Europe. The districts include those ranking lower on deprivation indices with the exception of Merthyr Tydfil which is the most deprived district in Wales.

Areas with the greatest inequality for the White Other group are similar to those shown in Table 3 while districts with the greatest inequality for the White Irish group include London Boroughs such as Camden and Croydon and districts in the East of England including Cambridge and Luton. Kirklees in West Yorkshire ranks as the district with the highest level of inequality for the White Irish group. Areas with the greatest inequality for the Asian ethnic group are also spread across the country with the worst

**Table 3.** Local ethnic educational inequality in England and Wales, 2011

20 districts with minority most inequality in education in 2011		Absolute inequality	% White British	% Minority	Minority population
1	Wyre	-23.3	10.2	33.5	550
2	Merthyr Tydfil	-14.7	16.6	31.3	384
3	Boston	-13.3	14.9	28.1	1,709
4	Selby	-12.2	8.7	20.9	421
5	Forest Heath	-11.6	12.7	24.4	2,161
6	Wychavon	-11.4	10.5	21.9	776
7	South Holland	-11.1	12.5	23.7	1,230
8	Wyre Forest	-10.8	13.2	24.0	620
9	Herefordshire, County of	-10.8	11.8	22.6	1,411
10	West Lancashire	-10.2	9.0	19.2	771
11	Breckland	-10.0	12.9	22.9	1,533
12	Fenland	-9.4	14.1	23.4	1,272
13	Flintshire	-9.3	11.7	21.0	809
14	Mid Devon	-9.1	11.4	20.6	423
15	Swale	-8.4	14.1	22.4	1,124
16	North Kesteven	-8.3	8.6	16.9	497
17	Cardiffshire	-8.2	11.9	20.1	917
18	Thanet	-7.9	12.5	20.4	1,615
19	Eden	-7.8	8.6	16.4	171
20	Sedgemoor	-7.8	11.9	19.8	643

20 districts with minority least inequality in education in 2011		Absolute inequality	% White British	% Minority	Minority population
20	County Durham	3.4	11.2	7.8	3388
19	Leicester	3.4	12.4	9.0	30852
18	Rushmoor	3.4	10.7	7.3	2594
17	Kingston upon Hull, City of	3.6	14.8	11.2	5489
16	Welwyn Hatfield	3.6	7.7	4.1	6327
15	Sunderland	3.7	12.2	8.5	3241
14	The Vale of Glamorgan	3.8	12.6	8.7	942
13	Sandwell	3.9	17.3	13.4	14188
12	Hartlepool	4.0	13.9	9.9	354
11	Slough	4.0	13.5	9.5	11093
10	Walsall	4.2	16.9	12.7	8466
9	Wolverhampton	4.7	16.1	11.4	13086
8	Hounslow	5.1	12.8	7.7	19686
7	Colchester	5.2	9.1	3.9	5108
6	Newcastle-under-Lyme	5.3	9.6	4.4	2505
5	Copeland	5.6	12.7	7.0	213
4	Greenwich	6.1	14.5	8.4	16674
3	Newham	6.4	14.5	8.1	42053
2	Rhondda, Cynon, Taff	6.6	14.5	7.8	1763
1	Barking and Dagenham	8.1	17.9	9.9	11678

districts concentrated in the South East and the East of England. The 20 districts with the greatest inequality all have small Asian populations under 700, with the exception of Peterborough. Again there is diversity in terms of the average deprivation scores of the districts which include more deprived districts, for example, Thanet and less deprived districts such as West Oxfordshire.

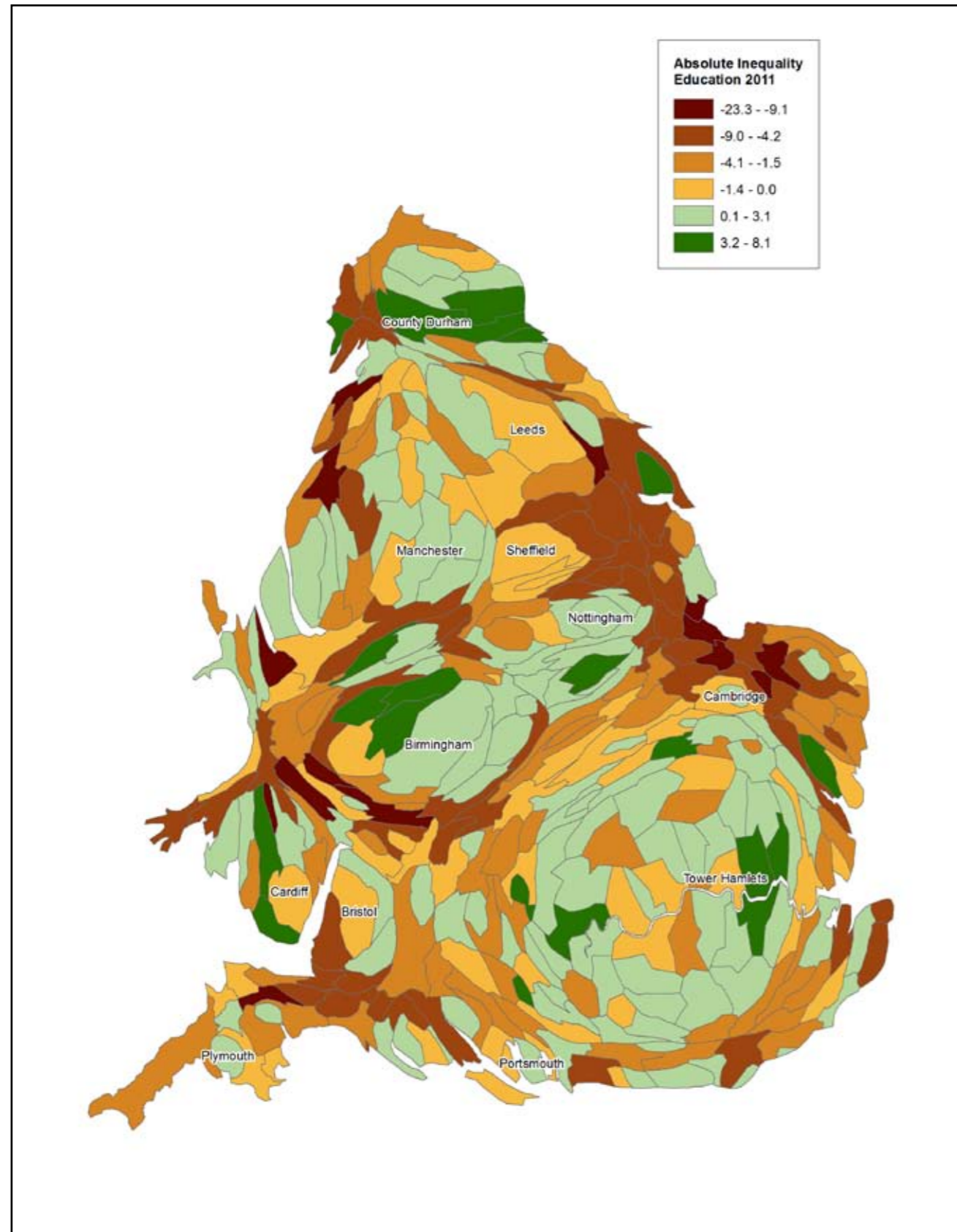
The analysis of the districts with the greatest inequality for the Black ethnic group shows similar results. Most of the districts have small Black populations, although Lambeth and Brent with significantly larger populations also feature amongst the top 20. The areas are spread across England and Wales and range in terms of average deprivation scores. For example, they include Huntingdonshire which is ranked amongst the least deprived districts in the country as well as Lambeth and Brent which are amongst the most deprived. The districts with the greatest inequality for the Mixed ethnic group are concentrated in the Midlands, Wales and Yorkshire and also include very deprived places in the North West such as Burnley and Blackpool in the North West.

The top 20 districts showing least inequality for all minority groups are also shown in Table 3. The table

shows a range of districts with smaller and larger ethnic minority populations. Among the least unequal districts are Newham, Greenwich and Barking and Dagenham that feature larger minority populations and are among the most deprived districts in the country. These districts are also spread across England and Wales. For the White Irish group the districts with the least inequality include districts that are least deprived such as Chelmsford and more deprived districts such as Newham and Liverpool.

For the Asian and Black ethnic group, the districts include those with large and small concentrations of ethnic minority populations. Newham, Barking and Dagenham, Wolverhampton, Greenwich and Hounslow all have sizeable Asian populations and rank amongst those with greatest equality for the Asian group. Newham and Wolverhampton are also ranked among the most deprived districts in the country. Newham, Greenwich and Barking and Dagenham which have significant Black populations are also amongst those with the greatest equality for the Black ethnic group. The districts with the greatest equality for the Mixed ethnic group are concentrated in the South East and the East of England and include some of the least deprived areas in the country such as Uttlesford and some of the most deprived such as Gateshead in the North East.

**Map 8.** Education absolute inequality, 2011



*Note:* Absolute inequality is calculated as the White British score for the district minus the minority group's score for that district. A value above zero indicates minority advantage; a value below zero represents minority disadvantage.

## 4.2 Ethnic Inequalities in Education, 2001–2011

Table 4 shows the top and bottom 20 ranked districts for education inequality in 2001 which are significantly different from those shown in Table 3. The changes in education inequality can be better observed in Map 9 which shows change in inequality between 2001 and 2011 for all the districts.

The maps examining change in ethnic inequalities between 2001 and 2011, in this and subsequent sections, classify districts into one of five categories:

1. districts with 'no inequality' in 2001 but inequality in 2011.
2. districts with inequality in 2001 and 2011 whereby inequality increased over time.
3. districts with inequality in 2001 and 2011 whereby inequality reduced over time.

4. districts with 'no inequality' in 2001 or 2011.

5. districts with inequality in 2001 but 'no inequality' in 2011.

'No inequality' refers to there being no disadvantage for ethnic minority groups (i.e. there is no difference in the indicators for White British and ethnic minorities, or ethnic minorities have a better experience than the White British group). The first and second categories capture districts where inequality indicated by worse outcomes for ethnic minorities compared with the White British has worsened between 2001 and 2011 and the third and last categories capture districts where inequality has become less severe during this period.

**Table 4.** Local ethnic educational inequality in England and Wales, 2001

20 districts with minority most inequality in education in 2001		Absolute inequality	% White British	% Minority	Minority population
1	Gateshead	-21.4	20.7	42.1	1278
2	Stroud	-14.8	15.0	29.8	389
3	West Dorset	-14.7	16.9	31.6	412
4	Uttlesford	-14.2	13.5	27.7	494
5	Rutland	-12.4	15.2	27.5	276
6	Torfaen	-12.2	20.2	32.4	173
7	South Somerset	-12.2	14.3	26.5	461
8	Maldon	-10.6	16.7	27.3	150
9	Hyndburn	-10.3	19.3	29.7	1361
10	Ribble Valley	-10.2	14.6	24.8	274
11	Daventry	-9.9	18.6	28.5	375
12	Weymouth and Portland	-9.7	18.3	28.0	300
13	Pendle	-9.5	19.0	28.5	2775
14	Wyre	-9.3	15.4	24.6	345
15	Dover	-9.3	17.0	26.3	574
16	St Edmundsbury	-8.7	14.4	23.2	544
17	Richmondshire	-8.7	14.0	22.7	409
18	South Staffordshire	-8.4	16.3	24.7	388
19	Shepway	-8.3	19.3	27.6	547
20	Oldham	-8.1	20.6	28.7	5773

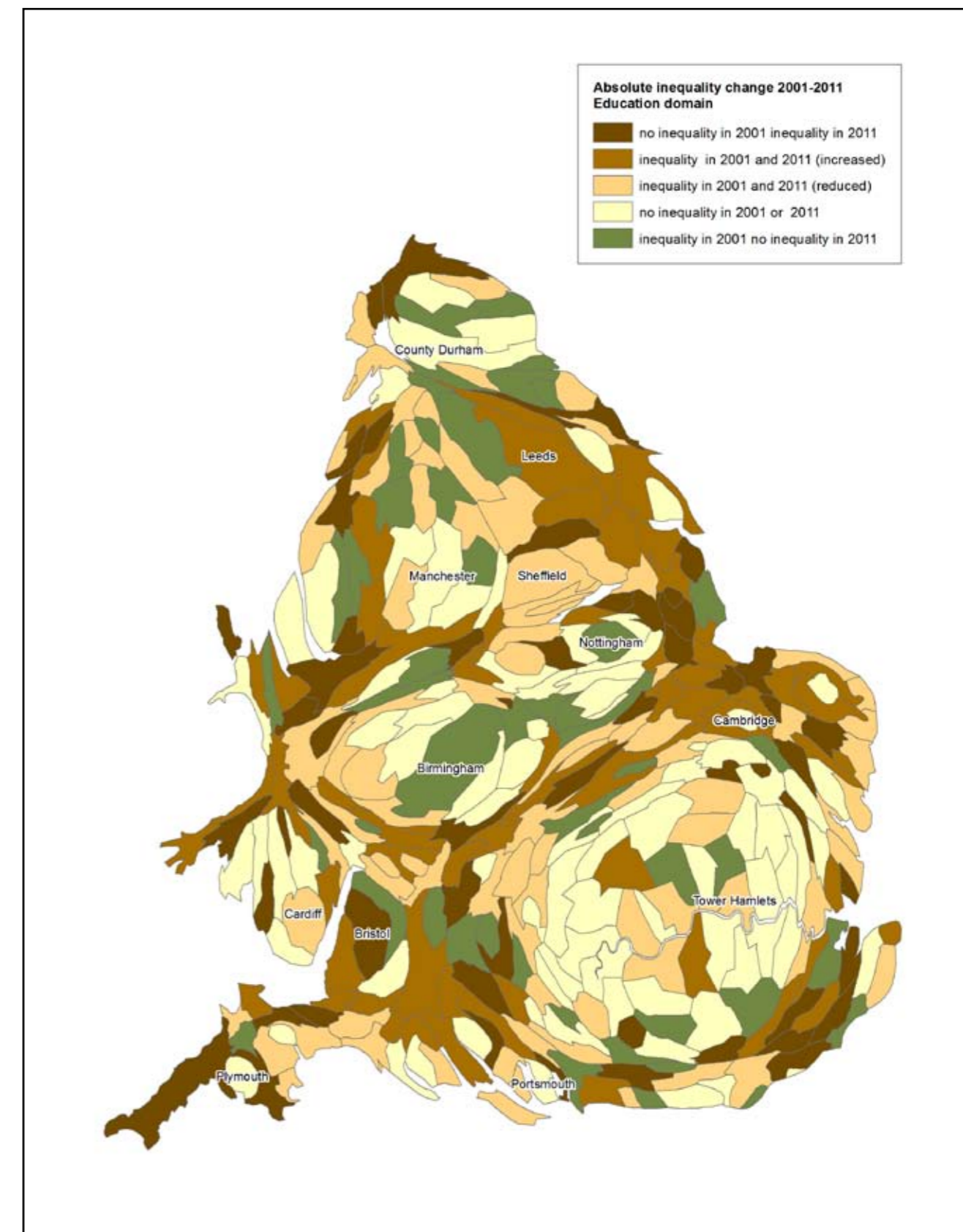


20 districts with minority least inequality in education in 2001		Absolute inequality	% White British	% Minority	Minority population
20	Greenwich	5.3	19.1	13.9	9049
19	Tamworth	5.3	19.9	14.6	254
18	Halton	5.3	18.4	13.1	289
17	Anglesey	5.4	18.3	12.9	140
16	Wrexham	5.4	19.2	13.7	495
15	Sunderland	5.5	18.3	12.8	2015
14	Canterbury	5.5	12.0	6.5	3130
13	Norwich	5.5	14.2	8.6	1912
12	Liverpool	6.0	18.1	12.1	7777
11	Broxtowe	6.0	14.9	8.9	1250
10	Merthyr Tydfil	6.4	27.1	20.7	121
9	Welwyn Hatfield	6.4	12.2	5.7	2415
8	Havant	6.8	20.9	14.2	317
7	Wolverhampton	6.9	23.5	16.6	9294
6	Barking and Dagenham	7.4	21.5	14.2	4494
5	Kingston upon Hull, City of	7.8	22.2	14.4	2144
4	Newham	8.2	22.9	14.7	26317
3	County Durham	8.5	18.5	10.0	1861
2	Purbeck	9.7	16.0	6.3	301
1	Rhondda, Cynon, Taff	10.4	21.5	11.1	1158

The patterns shown in Map 9 are similar to those of Map 8. There is a concentration of districts that have become more unequal over the last decade in parts of the Midlands, parts of the South and North of England along the coastline and in Wales. Some of the districts that have become more unequal have very small ethnic minority populations.

The districts that have become more equal for all ethnic minority groups in comparison with the White British range in geographical location and deprivation include some of the most deprived districts in England, such as Gateshead and Hartlepool in the North East, and Birmingham, that have large minority populations and some of the least deprived districts that have relatively small minority populations such as Harborough.

Map 9. Education absolute inequality, 2001–2011



Note: Absolute inequality is calculated as the White British score for the district minus the minority group's score for that district. A value above zero indicates minority advantage; a value below zero represents minority disadvantage.

## 5. Local Ethnic Inequalities in Employment

### 5.1 Ethnic Inequalities in Employment, 2011

Local ethnic inequalities in employment are measured as the difference between the proportion of those aged 25 and over who are unemployed in White British and ethnic minority groups in a district. In Section 3.2 we saw that in the majority of districts minorities experience employment disadvantage. That is, the White British unemployment rate is lower than the ethnic minority unemployment rate in the majority of districts across England and Wales. Table 5 and Map 10 show the districts with the greatest and least employment inequality for minority groups taken as a whole, for 2011.

The districts with the greatest levels of inequality in employment are found in urban centres of England and Wales. There is a concentration of districts in central London as well as the principal cities of

Birmingham, Manchester, Leeds, Sheffield, Cardiff and Bristol. Map 10 shows a general distance-decay effect, with employment inequality for minorities compared with White British decreasing as distance from urban centres increases. There also appears to be an association between employment disadvantage and area deprivation: Table 5 shows that the greatest employment inequality is found in 2011 in Hackney, Sheffield, Oldham, Birmingham, Lambeth and Bradford; urban districts with relatively high levels of deprivation and relatively large minority populations. Employment disadvantage is also found in more affluent, less urban districts including Wokingham, Fareham, South Gloucestershire and Rushcliffe. It is noteworthy that there is not direct overlap of districts displaying education disadvantage and employment disadvantage: Boston, South Holland and Fenland for example were among the most unequal in terms of education but they are among the most equal districts in terms of employment. This again reflects the preponderance of migrants from Central and Eastern

**Table 5.** Local ethnic employment inequality in England and Wales, 2011

20 districts with minority most inequality in employment in 2011	Absolute inequality	% White British	% Minority	Minority population	
1	Hackney	-7.4	5.2	12.6	68,043
2	Sheffield	-6.9	5.4	12.3	34,127
3	Oldham	-6.7	5.5	12.2	15,576
4	Birmingham	-6.3	7.4	13.7	168,422
5	Lambeth	-6.1	4.1	10.3	89,708
6	Bradford	-6.0	5.8	11.8	58,765
7	Tower Hamlets	-5.6	5.7	11.3	70,136
8	Rotherham	-5.4	5.9	11.3	7,310
9	Haringey	-5.1	5.1	10.2	75,187
10	Leeds	-5.1	5.3	10.4	57,107
11	Rhondda, Cynon, Taff	-5.0	5.8	10.8	3,579
12	Barnsley	-4.9	5.9	10.8	4,093
13	Newport	-4.9	6.0	10.8	7,527
14	Southwark	-4.8	5.3	10.1	83,155
15	Swansea	-4.8	4.9	9.7	7,618
16	Pendle	-4.8	5.0	9.7	6,208
17	Cardiff	-4.7	5.2	9.9	25,460
18	Kirklees	-4.7	4.9	9.7	32,490
19	Rochdale	-4.7	6.7	11.4	14,575
20	Stoke-on-Trent	-4.7	6.4	11.1	12,037

20 districts with minority least inequality in employment in 2011	Absolute inequality	% White British	% Minority	Minority population	
20	Halton	-0.1	6.6	6.7	2,136
19	Harrogate	-0.1	3.0	3.0	6,672
18	Knowsley	0.0	8.5	8.6	2,366
17	Braintree	0.0	4.3	4.3	5,172
16	Herefordshire, County of	0.0	3.7	3.7	6,438
15	Taunton Deane	0.1	3.1	3.0	3,651
14	Rutland	0.2	2.9	2.7	965
13	The Vale of Glamorgan	0.3	5.2	4.9	3,298
12	Flintshire	0.3	4.5	4.1	3,285
11	North East Lincolnshire	0.4	7.9	7.5	3,475
10	Fenland	0.5	5.1	4.6	4,751
9	Corby	0.6	5.7	5.1	4,876
8	Mansfield	0.8	5.5	4.7	3,430
7	Boston	0.8	5.1	4.3	5,630
6	Forest Heath	0.8	3.9	3.1	6,454
5	Bolsover	0.9	5.6	4.7	1,438
4	West Somerset	1.2	3.7	2.5	843
3	Merthyr Tydfil	1.5	7.3	5.8	1,576
2	South Holland	1.8	5.0	3.2	4,847
1	Blaenau Gwent	2.5	9.2	6.7	854

Europe in these districts, a group largely comprised of labour migrants.

For the Black ethnic group, the most unequal districts are found in parts of London and the north of England. These districts tend to have among the highest deprivation levels in England and include, for example, Hackney, Middlesbrough and Islington. Gwynedd, Rhondda, Newport, Cardiff and Caerphilly in Wales were also among the most unequal districts in 2011 for the Black group in terms of unemployment.

The most unequal districts for the Asian group include districts with large Asian populations such as Tower Hamlets, Hackney, Bradford and Birmingham. The most unequal districts also include semi-rural and rural areas with small Asian populations such as Richmondshire and the Derbyshire Dales.

The districts with the greatest inequality for the Mixed ethnic group are found across England and Wales and include more deprived areas including some of the most deprived districts in England such as Blackpool, Birmingham, Middlesbrough and Wolverhampton although they include areas with large and small ethnic minority populations.

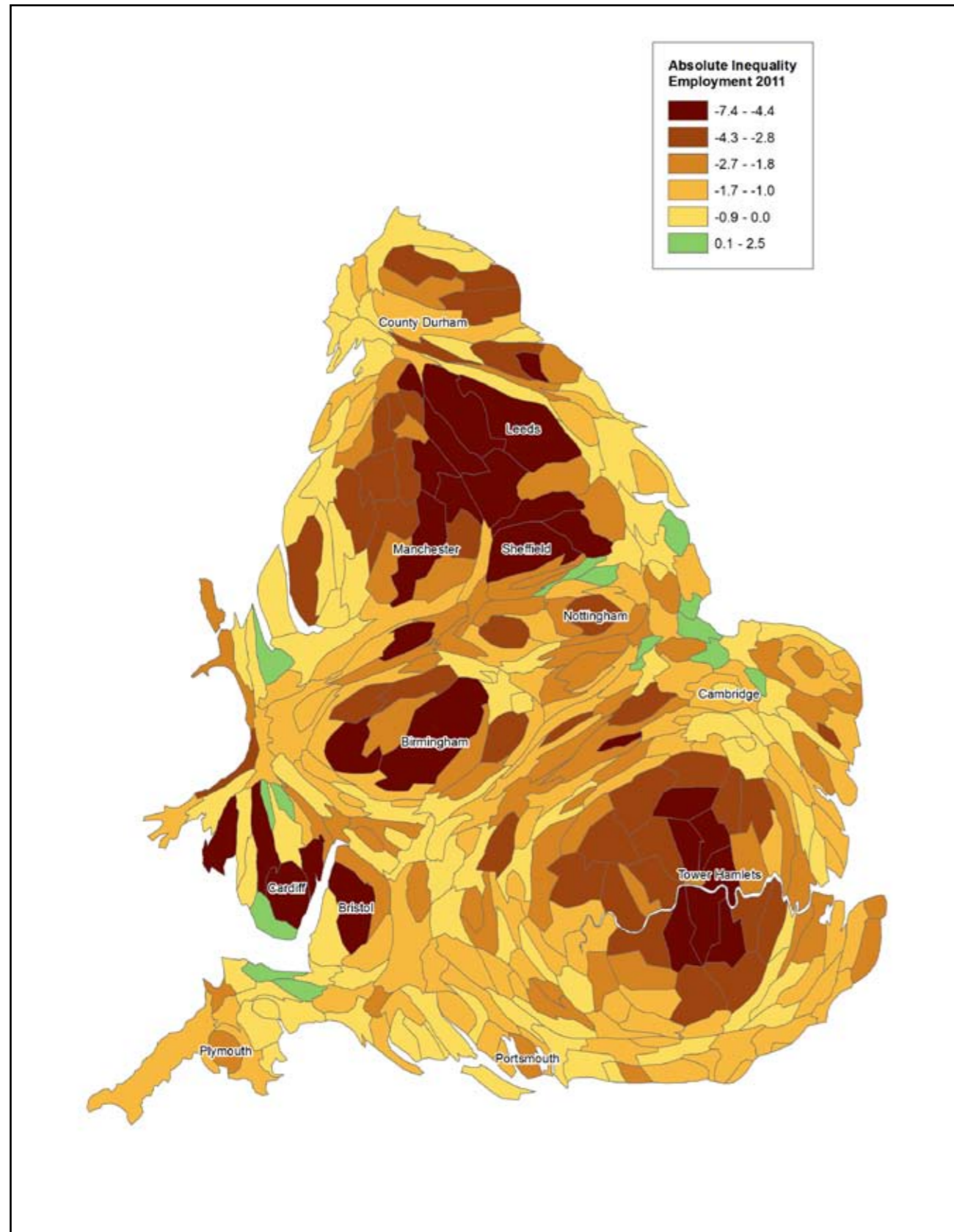
In contrast, the greatest employment inequalities for the White Other group are found in more deprived areas such as Rochdale and Bolton and less deprived areas such as Richmondshire and Maldon.

The most equal districts for the Black group have small Black populations and include semi-rural and ex industrial areas such as Tamworth, Selby, West Lindsey and Bolsover.

The most equal districts for the Asian group include several deprived industrial areas with small Asian populations such as Hartlepool, Bridgend, Merthyr Tydfil, Blaenau Gwent and Copeland and semi-rural areas in the East Midlands and East Anglia. There are only four districts that have less employment inequality for the Mixed group – Runnymede, Gosport, Wyre and Taunton Deane. For the White Other group the most equal districts include a mix of ethnically diverse areas such as Newham and Slough, and less diverse areas with smaller minority populations but large concentrations of Central and Eastern European migrants such as South Holland and North East Lincolnshire.



Map 10. Employment absolute inequality, 2011



Note: Absolute inequality is calculated as the White British score for the district minus the minority group's score for that district. A value above zero indicates minority advantage; a value below zero represents minority disadvantage.

## 5.2 Change in Ethnic Inequalities in Employment, 2001–2011

As shown in Table 6 many of the districts that ranked among the 20 most unequal in employment in 2011 were also among the most unequal in 2001. Map 11 shows change in inequality between 2001 and 2011 for all districts. The green coloured districts (with inequality in 2001 but no inequality in 2011) have become the most equal since 2001 while brown coloured districts are those in which employment inequality between the White British and minorities (as a whole) has increased between 2001 and 2011.

More than half of the districts in England and Wales had worse employment outcomes for minorities compared with the White British in both 2001 and 2011 but employment inequality was less severe in

2011 than in 2001. This is the case for urban areas in the North of England and London such as Sheffield and Tower Hamlets. It is also the case for more rural areas, in Yorkshire, the South East and the South West of England. However, in over a third of districts there were increases in ethnic inequalities in employment over the 2000s. Ethnic minorities in Durham, Dover, Fylde and Ribble Valley had better employment outcomes than the White British in 2001 but worse outcomes in 2011. Districts with inequality in 2001 and 2011 whereby inequality became more severe over time include Newcastle, Leeds, and Bristol; and districts in south Wales such as Cardiff, Rhondda and Swansea. Industrial and semi-rural areas with small ethnic minority populations such as Amber Valley, Anglesey, Ribble Valley, North East Derbyshire, Hambleton and Cannock Chase have seen some of the largest increases in ethnic inequalities in terms of employment.

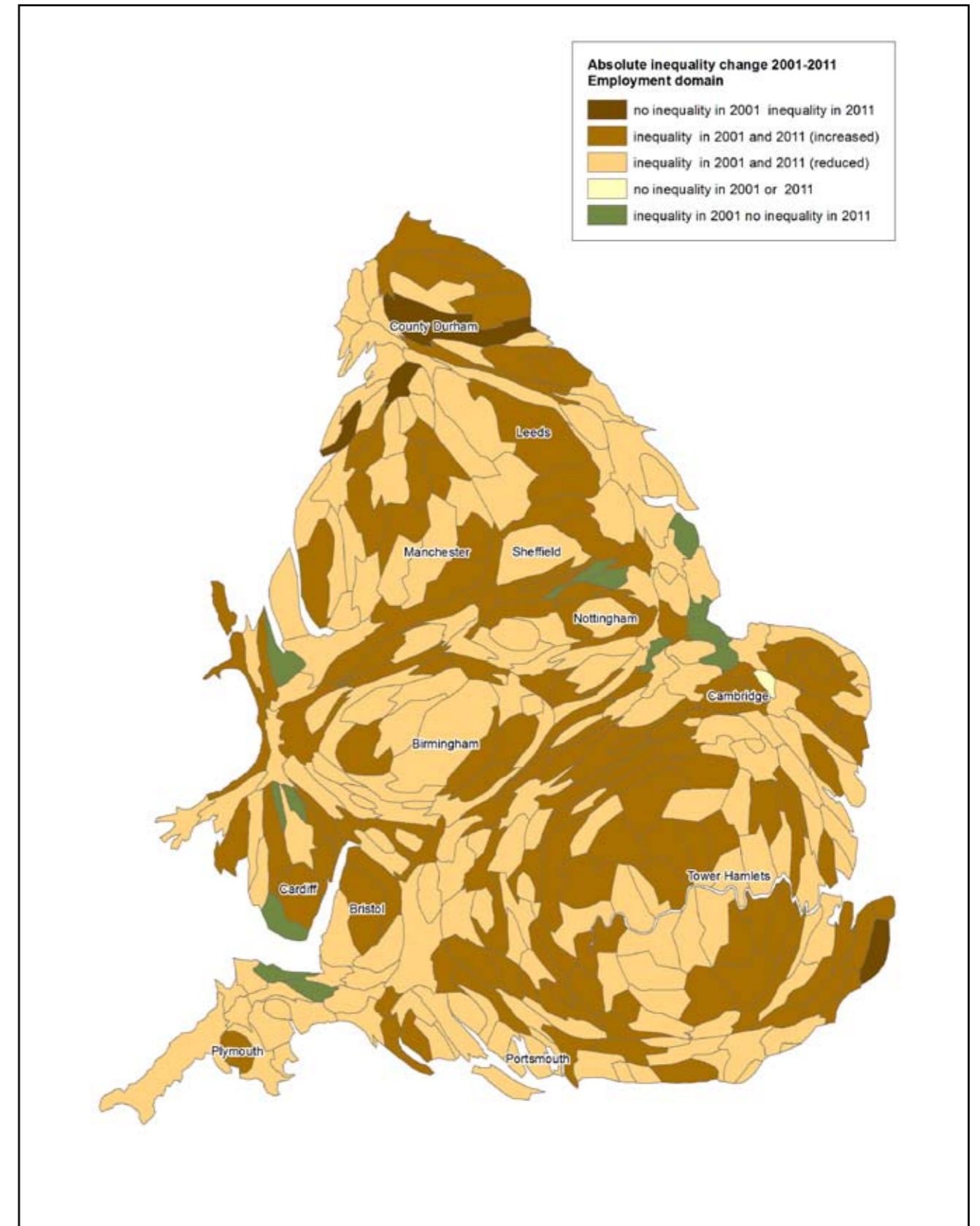
Table 6. Local ethnic employment inequality in England and Wales, 2001

20 districts with minority most inequality in employment in 2001	Absolute inequality	% White British	% Minority	Minority population	
1	Tower Hamlets	-8.3	6.9	15.2	29,420
2	Bradford	-8.0	4.5	12.4	25,067
3	Oldham	-7.9	4.0	11.8	7,350
4	Calderdale	-7.5	4.3	11.8	4,821
5	Hackney	-7.4	6.9	14.3	38,112
6	Sheffield	-7.4	5.3	12.7	15,252
7	Pendle	-7.3	3.9	11.2	2,910
8	Haringey	-6.8	5.2	11.9	43,849
9	Lambeth	-6.7	5.2	11.9	54,445
10	Blackburn with Darwen	-6.5	4.6	11.1	7,176
11	Birmingham	-6.4	6.6	12.9	92,691
12	East Staffordshire	-6.1	3.5	9.7	2,311
13	Hyndburn	-5.9	3.4	9.3	1,831
14	Burnley	-5.5	3.6	9.1	2,130
15	Southwark	-5.3	6.5	11.8	46,549
16	Merthyr Tydfil	-5.3	5.7	11.0	473
17	Kirklees	-5.3	3.8	9.0	16,380
18	Stoke-on-Trent	-5.1	5.1	10.2	3,773
19	Rotherham	-5.1	4.9	10.0	2,804
20	Waltham Forest	-5.0	4.6	9.7	36,038



20 districts with minority least inequality in employment in 2001		Absolute inequality	% White British	% Minority	Minority population
1	Northumberland	-0.4	4.8	5.2	2,397
2	Cambridge	-0.4	3.4	3.8	8,757
3	Chichester	-0.3	2.5	2.9	1,949
4	Tewkesbury	-0.3	2.4	2.7	1,137
5	Rhondda, Cynon, Taff	-0.3	4.9	5.2	1,863
6	Bassetlaw	-0.3	5.2	5.5	999
7	North Tyneside	-0.3	5.4	5.7	2,356
8	Sevenoaks	-0.3	2.4	2.6	2,718
9	Amber Valley	-0.3	3.8	4.1	1,098
10	South Northamptonshire	-0.2	2.0	2.2	1,669
11	Poole	-0.2	2.9	3.1	2,447
12	Lichfield	-0.2	3.1	3.3	1,436
13	North East Derbyshire	-0.2	4.4	4.5	836
14	Purbeck	-0.2	2.6	2.8	543
15	Hambleton	-0.1	2.6	2.7	753
16	Ribble Valley	0.0	1.9	1.9	676
17	Fylde	0.0	2.7	2.6	1,060
18	County Durham	0.0	5.1	5.1	3,456
19	Dover	0.4	4.3	3.9	1,579
20	Forest Heath	0.9	2.8	1.9	5,131

Map 11. Employment absolute inequality, 2001–2011



Note: Absolute inequality is calculated as the White British score for the district minus the minority group's score for that district. A value above zero indicates minority advantage; a value below zero represents minority disadvantage.

# 6. Local Ethnic Inequalities in Health

## 6.1 Ethnic Inequalities in Health, 2011

Local ethnic inequalities in health is measured as the difference between the proportion of the population with a limited long term illness (age standardised) in White British and ethnic minority groups in a district. The geography of health inequalities is varied as shown in Table 7 and Map 12. Many of the districts with the greatest inequalities are located in the North West and Yorkshire but also include parts of the West Midlands and London including Westminster and Dudley. They also range in terms of minority population size and deprivation. The districts with smaller ethnic minority populations include Rossendale and Wyre Forest, while those with larger minority populations include Bradford, Kirklees, Birmingham, Islington, and Lambeth. Some districts have high average deprivation scores while others can be described as more affluent areas. Overall the data shows health inequality is persistent across different types of geography.

Nearly half of the districts among the top 20 with the most health inequalities for the White Irish group are concentrated in London where there are larger populations of White Irish people although they vary in terms of deprivation levels. The districts with the most health inequalities for the White Other group are spread across the country and include urban and rural districts. The top 20 most unequal local authorities for the White Other group vary in terms of deprivation levels and include deprived districts such as Hackney which is the second most deprived district in England and some of the least deprived districts, for example Epsom and Ewell. For the Asian ethnic group, although there are concentrations of health disadvantage in the North West, health inequality is more geographically spread across the country. The highest levels of inequality occur in districts of high and moderate Asian concentrations. They also range in terms of deprivation and area type with rural areas such as East Staffordshire ranking alongside urban areas such as Bradford, Oldham and Rochdale.

**Table 7.** Local ethnic health inequality in England and Wales, 2011

20 districts with minority most inequality in health in 2011		Absolute inequality	% White British	% Minority	Minority population
1	Kirklees	-5.8	17.6	23.5	98,568
2	Pendle	-5.7	20.4	26.1	20,378
3	Oldham	-5.3	20.4	25.7	54,942
4	Bradford	-5.1	18.2	23.3	188,824
5	Calderdale	-4.9	17.5	22.4	27,094
6	Hackney	-4.3	18.7	23.0	157,240
7	Hyndburn	-3.9	22.0	25.9	11,900
8	Haringey	-3.8	16.4	20.2	166,502
9	Westminster	-3.3	15.2	18.4	142,062
10	Blackburn with Darwen	-3.3	22.3	25.5	49,345
11	Rochdale	-3.2	21.8	25.0	45,218
12	Bolton	-2.7	20.3	23.0	56,992
13	Islington	-2.5	19.9	22.4	107,803
14	Wycombe	-2.4	13.0	15.4	41,331
15	Rossendale	-2.3	19.9	22.2	5,466
16	Burnley	-2.2	22.3	24.5	12,595
17	Dudley	-2.2	19.1	21.3	35,875
18	Lambeth	-2.1	16.7	18.8	184,836
19	Wyre Forest	-2.0	17.5	19.6	5,153
20	Birmingham	-1.8	20.8	22.6	502,828

20 districts with minority least inequality in health in 2011		Absolute inequality	% White British	% Minority	Minority population
20	Newcastle-under-Lyme	5.2	20.0	14.7	8,361
19	South Holland	5.3	17.8	12.5	8,701
18	Newham	5.4	24.9	19.6	256,468
17	Cambridge	5.4	16.8	11.3	42,125
16	Corby	5.6	20.2	14.6	9,186
15	Hartlepool	5.9	22.8	16.9	3,104
14	Kingston upon Hull, City of	6.2	21.7	15.5	26,486
13	Sunderland	6.3	23.0	16.7	14,297
12	Thurrock	6.3	18.3	12.0	30,118
11	Lincoln	6.4	20.5	14.2	9,888
10	Mansfield	6.7	23.4	16.7	7,058
9	County Durham	7.0	22.6	15.6	17,578
8	Wrexham	7.1	20.7	13.6	9,367
7	Norwich	7.2	20.4	13.2	20,275
6	Bolsover	7.3	23.5	16.3	2,808
5	Rhondda, Cynon, Taff	7.5	25.6	18.2	8,694
4	Forest Heath	7.5	16.4	8.8	13,606
3	Boston	7.9	19.1	11.2	10,416
2	Barking and Dagenham	7.9	23.3	15.4	93,962
1	Merthyr Tydfil	9.7	27.0	17.3	3,167

There are greater concentrations of health inequalities in the south of England, particularly London and also the Midlands for the Black ethnic group. Many areas with the greatest inequality have small Black populations and include rural and coastal districts. They are therefore not the areas with high Black ethnic group concentrations which have received more attention. Inequalities persist across different geographies.

The deprivation scores of the top 20 districts that have the best outcomes for all ethnic minority groups, in comparison with the White British range in geographical location and deprivation, are much more varied – with Newham and Hull which are ranked 3 and 10 in the ranks of average deprivation scores for local authority districts on the 2010 IMD alongside districts of Forest Heath and Cambridge which are amongst the least deprived (ranking 227 and 193 respectively). This pattern is persistent when the White Irish and Black group are examined separately. However, Barking and Dagenham which is an area where experiences of limiting long term illness are less for Black people than for the White British has a sizeable concentration of Black people (37,140) and is also quite highly deprived. The top districts with the least health inequalities for the White Other

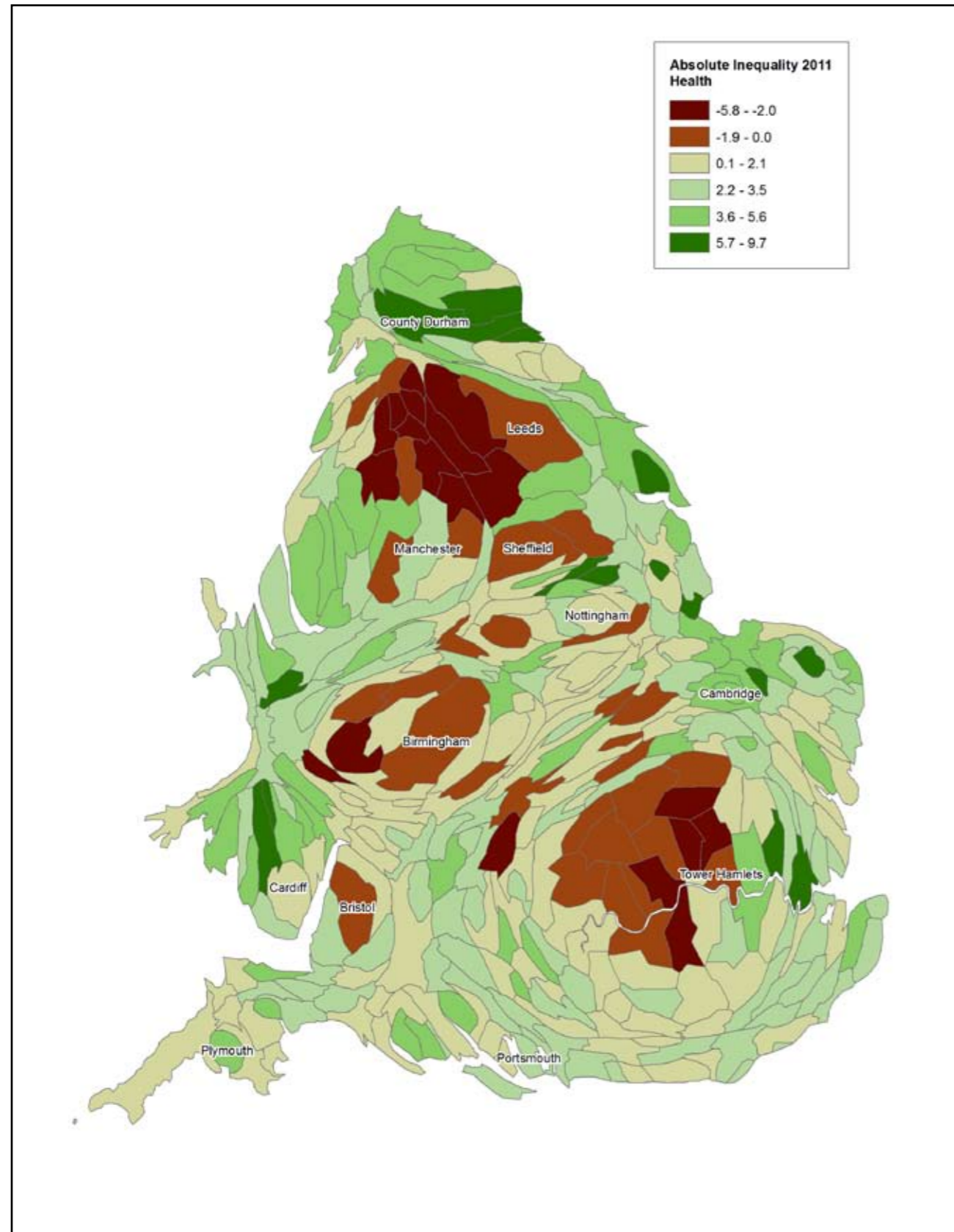
ethnic group seem to be more concentrated in the most deprived local authority districts in the country – Liverpool, Newham, Manchester, Tower Hamlets and Hull. The top 20 most equal local authorities for the Asian group on health are amongst the most deprived in England and Wales and are spread around England with half being in Wales. Many are amongst the most deprived local authorities including Knowsley in England and Merthyr Tydfil and Blaenau Gwent in Wales. The least ethnic inequalities for the Mixed group are also geographically spread around England and Wales although with the exception of Newham and Barking and Dagenham they are less deprived districts.

## 6.2 Changes in Ethnic Inequalities in Health, 2001–2011

Table 8 shows the top and bottom 20 ranked districts for health inequality in 2001 and Map 13 shows change in inequality between 2001 and 2011 for all the districts. Most local authority districts that were among the top 20 most unequal in terms of health in 2011 were also the most unequal in 2001.



Map 12. Health absolute inequality, 2011



Note: Absolute inequality is calculated as the White British score for the district minus the minority group's score for that district. A value above zero indicates minority advantage; a value below zero represents minority disadvantage.

Table 8. Local ethnic health inequality in England and Wales, 2001

20 districts with minority most inequality in health in 2001		Absolute inequality	% White British	% Minority	Minority population
1	Bradford	-7.2	18.7	25.9	111,994
2	Pendle	-7.0	20.8	27.8	14,649
3	Kirklees	-6.4	18.0	24.5	63,226
4	Oldham	-5.9	20.7	26.6	34,002
5	Calderdale	-5.3	18.0	23.3	17,620
6	Hyndburn	-5.3	22.4	27.7	8,120
7	Bolton	-5.3	20.5	25.8	33,404
8	Rochdale	-5.0	21.3	26.3	28,556
9	Burnley	-4.8	22.4	27.2	8,861
10	Blackburn with Darwen	-4.8	21.8	26.6	32,832
11	Rossendale	-4.7	20.9	25.6	3,828
12	Bedford	-4.2	15.5	19.7	28,427
13	Birmingham	-4.1	20.3	24.4	335,749
14	Preston	-4.1	20.0	24.1	21,824
15	Dudley	-3.9	18.4	22.4	22,888
16	Islington	-3.9	20.6	24.5	76,024
17	East Staffordshire	-3.9	17.0	20.8	7,880
18	Haringey	-3.7	17.7	21.4	118,471
19	Hackney	-3.6	21.8	25.4	113,317
20	Tower Hamlets	-3.4	21.9	25.3	111,952

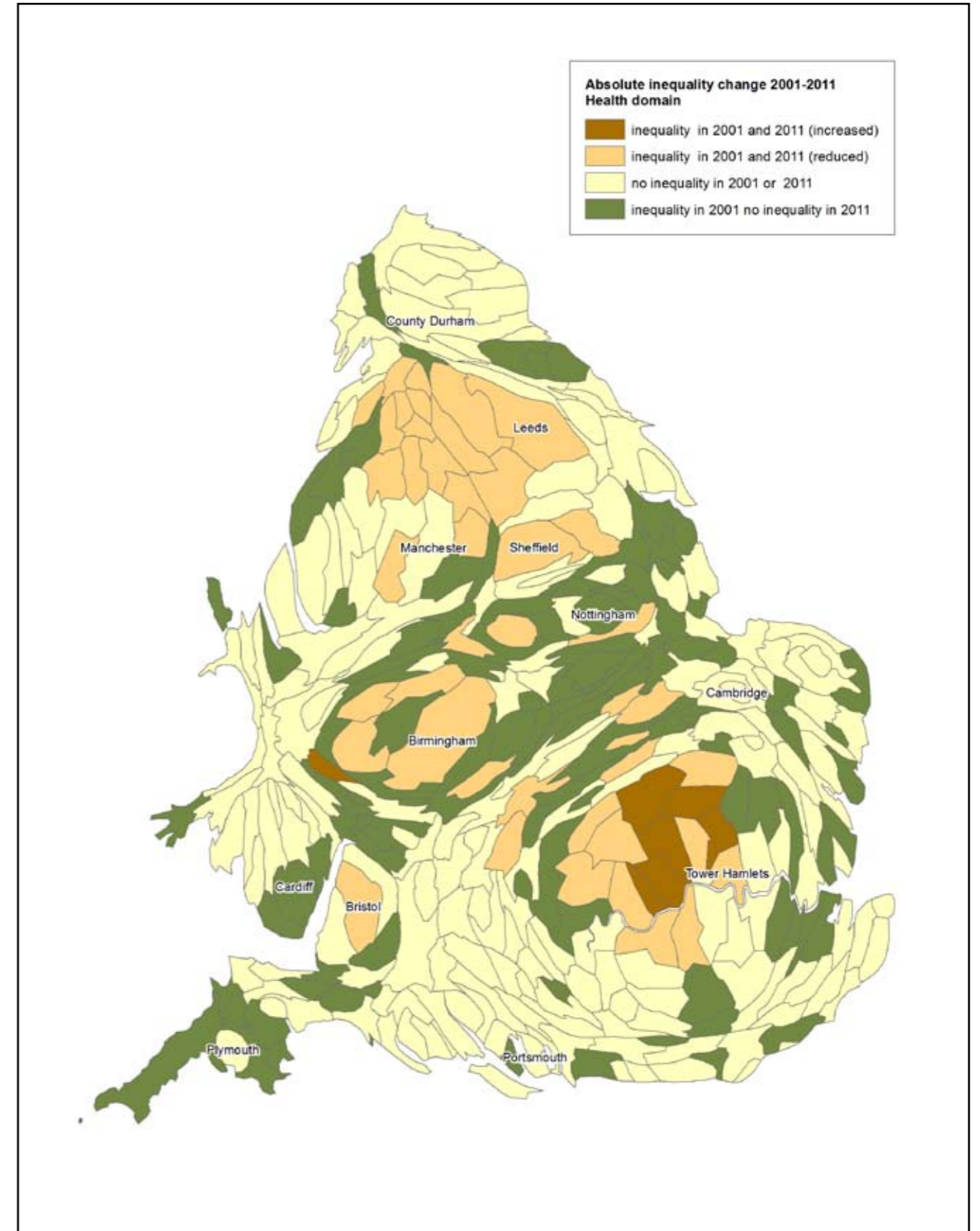
20 districts with minority least inequality in health in 2001		Absolute inequality	% White British	% Minority	Minority population
20	St Helens	2.7	23.7	21.1	3,989
19	Wrexham	2.7	21.3	18.6	3,314
18	East Cambridgeshire	2.7	14.9	12.3	4,661
17	Bridgend	2.7	24.6	21.9	3,713
16	Mole Valley	2.8	13.2	10.4	5,366
15	Elmbridge	2.9	12.4	9.5	19,247
14	Newcastle upon Tyne	3.0	22.5	19.5	24,287
13	Rhondda, Cynon, Taff	3.1	27.2	24.1	5,855
12	Runnymede	3.1	13.7	10.6	9,627
11	King's Lynn and West Norfolk	3.1	17.8	14.6	5,285
10	Harrogate	3.2	14.8	11.6	7,879
9	Gateshead	3.2	23.2	20.0	5,912
8	Richmondshire	3.3	15.6	12.3	1,515
7	Hartlepool	3.3	24.7	21.3	1,744
6	Barrow-in-Furness	3.4	24.1	20.8	1,461
5	Cambridge	4.0	16.1	12.1	23,371
4	Merthyr Tydfil	4.0	30.1	26.1	1,191
3	Sunderland	4.4	24.7	20.3	8,096
2	County Durham	5.0	24.1	19.0	9,670
1	Forest Heath	7.3	16.1	8.8	13,074

As shown in Map 13 in half of the districts in England and Wales ethnic minorities fared better in terms of health compared to the White British in both 2001 and 2011. In a third of districts ethnic minorities fared worse in terms of health in 2001 but fared better in 2011 compared to the White British.

The districts that have become more unequal are concentrated in London Boroughs with large ethnic minority populations including Hackney and Westminster. They also include Wyre Forest in Worcestershire which has a very small ethnic minority population.

The districts that have become more equal (despite experiencing inequality in health in both 2001 and 2011 for all ethnic minority groups in comparison with the White British range in geographical location and deprivation) include deprived urban areas such as Tower Hamlets, Birmingham, Bradford, Burnley, Blackburn and Rochdale and less deprived semi-rural areas such as Warwick, Ribble Valley and Aylesbury Vale.

**Map 13.** Health absolute inequality, 2001–2011



*Note:* Absolute inequality is calculated as the White British score for the district minus the minority group's score for that district. A value above zero indicates minority advantage; a value below zero represents minority disadvantage.



# 7. Local Ethnic Inequalities in Housing

## 7.1 Ethnic Inequalities in Housing, 2011

Local ethnic inequalities in housing are measured as the difference between the proportion of households in overcrowded accommodation for White British and ethnic minority groups in a district. Inequality in overcrowding is an experience that affects a large proportion of ethnic minority groups. Table 9 and Map 14 show the top 20 districts where inequality is most severe for all ethnic minority groups. Most of the areas have large ethnic minority concentrations with the exception of Boston, South Holland and Fenland which have smaller minority populations comprised of mainly new immigrants belonging to the White Other ethnic group. These include districts that rank amongst the most deprived districts in England such as Tower Hamlets, Newham, Haringey and Hull while there are also less deprived districts including Rushmoor which is ranked amongst the

least deprived. The districts with the highest levels of inequality are mostly concentrated in the South of England and particularly Greater London.

The districts with the greatest levels of inequality in housing for the White Other ethnic group are dispersed across the country and include large urban centres, small towns, rural and semi-rural areas and seaside resorts many of which have attracted recent EU Accession migrants.

For the Mixed group 18 out of the 20 worst districts in terms of housing inequality are in Greater London although they vary in terms of deprivation levels. These districts tend to have higher concentrations of Mixed ethnic groups. The exceptions are Great Yarmouth and the City of London which have smaller Mixed ethnic minority populations.

For the Asian population the worst inequality in overcrowding occurs in districts with relatively high Asian concentrations but districts with small

**Table 9.** Local ethnic housing inequality in England and Wales, 2011

20 districts with minority most inequality in housing in 2011	Absolute inequality	% White British	% Minority	Minority population	
1	Newham	-23.7	17.1	40.8	76,305
2	Waltham Forest	-22.1	11.0	33.0	53,585
3	Boston	-21.8	4.1	25.9	3,369
4	Arun	-19.9	5.4	25.3	4,430
5	Barking and Dagenham	-19.1	12.1	31.2	29,360
6	Tower Hamlets	-19.0	23.5	42.6	59,951
7	Southwark	-19.0	18.6	37.5	65,257
8	South Holland	-18.4	2.7	21.1	2,865
9	Bournemouth	-18.3	11.5	29.7	11,639
10	Sheffield	-18.1	6.9	25.0	32,751
11	Greenwich	-17.8	12.1	29.9	40,994
12	Fenland	-17.7	4.0	21.7	3,042
13	Portsmouth	-17.4	8.8	26.1	10,341
14	Southampton	-17.3	10.4	27.7	18,196
15	Bristol, City of	-17.2	9.8	27.0	35,072
16	Haringey	-17.0	18.2	35.2	61,978
17	Hounslow	-16.8	12.7	29.5	51,618
18	Ealing	-16.8	13.1	29.8	78,147
19	Kingston upon Hull, City of	-16.7	6.6	23.3	9,836
20	Rushmoor	-16.5	7.7	24.2	5,421

20 districts with minority least inequality in housing in 2011	Absolute inequality	% White British	% Minority	Minority population	
20	East Northamptonshire	-3.9	2.9	6.9	2,043
19	Havant	-3.9	6.4	10.2	2,034
18	Broadland	-3.9	1.8	5.7	1,792
17	North Tyneside	-3.7	4.1	7.9	3,723
16	Gedling	-3.7	3.5	7.2	3,953
15	Wirral	-3.7	3.7	7.4	6,325
14	Rutland	-3.6	2.3	5.9	590
13	Monmouthshire	-3.5	3.4	7.0	1,304
12	Forest Heath	-3.5	5.6	9.1	4,825
11	Three Rivers	-3.4	5.7	9.2	6,065
10	South Derbyshire	-3.2	3.1	6.3	1,830
9	South Bucks	-3.2	3.6	6.8	4,767
8	Oadby and Wigston	-3.1	3.6	6.7	4,499
7	Harborough	-3.1	2.9	6.0	1,915
6	Solihull	-3.0	4.2	7.1	10,264
5	South Northamptonshire	-2.2	2.4	4.7	1,826
4	South Staffordshire	-2.2	3.2	5.4	1,792
3	Castle Point	-2.0	4.3	6.4	1,427
2	Knowsley	-1.4	5.9	7.3	2,115
1	Bromsgrove	-1.3	2.9	4.2	1,890

populations such as East Devon, Richmondshire, Arun and Horsham also feature in the top 20 worst districts. Newham and Tower Hamlets, which are the most unequal districts in terms of housing, are the 3rd and 7th most deprived districts in England according to the 2010 IMD and are home to large concentrations of Bangladeshi and Pakistani groups. These districts also have a relatively high proportion of poor quality housing stock where low income for larger households has been shown to be a major cause of overcrowding and poor housing conditions (Lakey, 1997).

While there may be a preference for Asian groups to live close to kin, which is sometimes given as a reason for overcrowding, analysis of inequality in overcrowding for the Black group shows a similar picture. Overcrowding inequality is overwhelmingly concentrated in London but the worst areas are not just those with high concentrations of people from the Black group. Local authorities with small populations such as Worthing, Middlesbrough, and Rhondda, which is the only Welsh local authority to appear in the top 20 unequal local authorities for any ethnic group, also rank amongst those with the greatest inequality.

The areas with the least inequality in terms of housing, particularly for the Mixed and Black

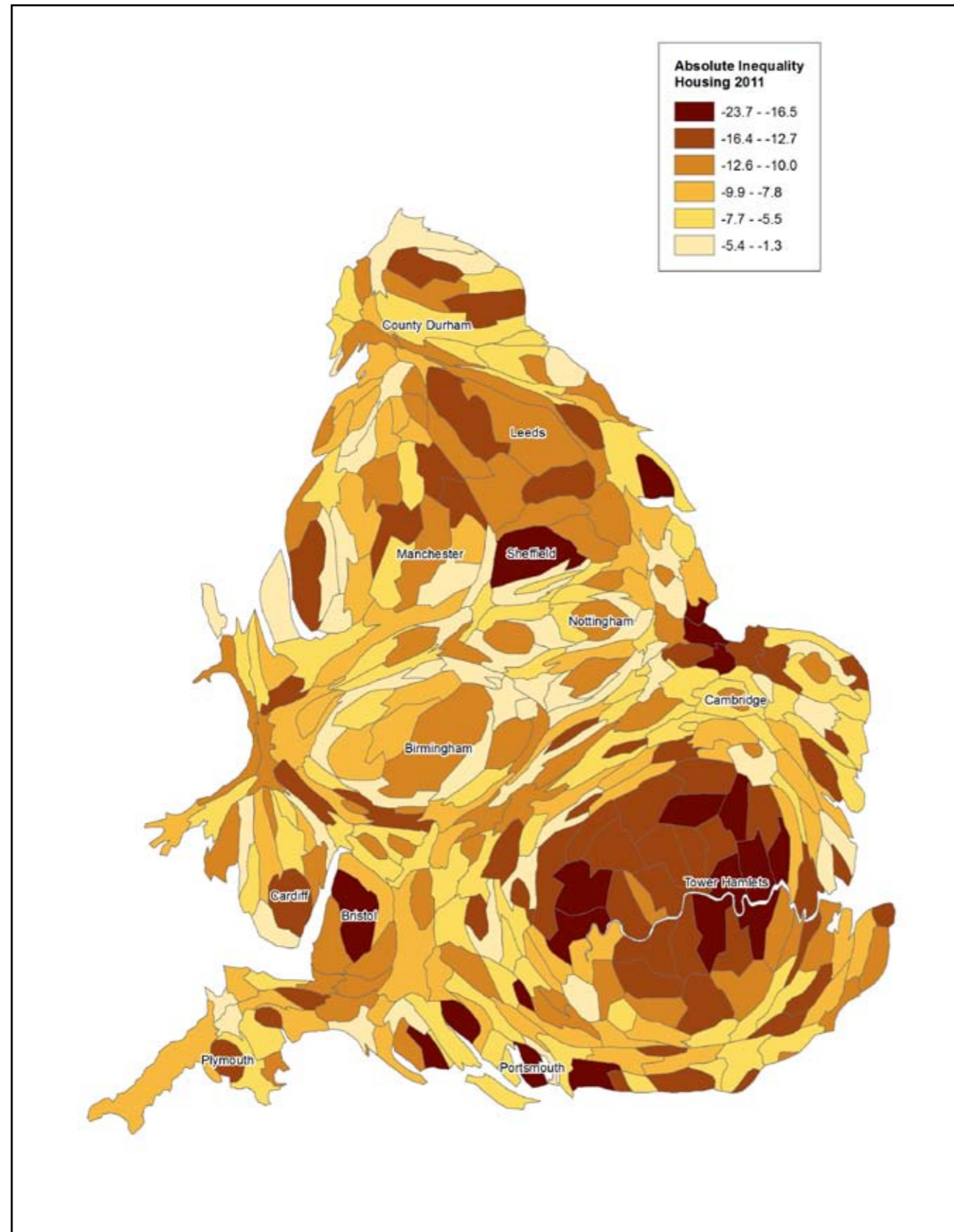
ethnic groups tend to have small ethnic minority populations. The most equal districts also tend to be more geographically widespread across English regions and Wales although they tend to include small towns and rural and semi-rural areas.

## 7.2 Changes in Ethnic Inequalities in Housing, 2001–2011

Table 10 shows the top and bottom 20 ranked districts for housing inequality in 2001 and Map 15 shows change in inequality between 2001 and 2011 for all the districts.

As shown in Map 15 the majority of districts in England and Wales have become more unequal in terms of housing between 2001 and 2011. The districts that have become more unequal are located outside inner London and the major urban centres and include rural and coastal areas around the country. The districts that have become more unequal include many less deprived districts such as South Somerset, South Lakeland and Rushmoor and have small ethnic minority populations. They also include local authority districts that have attracted EU Accession nationals such as South Holland, Fenland and Boston.

Map 14. Housing absolute inequality, 2011



Note: Absolute inequality is calculated as the White British score for the district minus the minority group's score for that district. A value above zero indicates minority advantage; a value below zero represents minority disadvantage.

Table 10. Local ethnic housing inequality in England and Wales, 2001

20 districts with minority most inequality in in housing in 2001		Absolute inequality	% White British	% Minority	Minority population
1	Tower Hamlets	-28.7	16.8	45.4	34,210
2	Newham	-25.0	12.2	37.3	51,698
3	Southwark	-23.5	15.3	38.9	44,790
4	Oldham	-21.5	5.1	26.6	9,029
5	Hackney	-20.2	17.5	37.7	43,017
6	Waltham Forest	-18.5	9.1	27.6	33,761
7	Pendle	-17.3	4.3	21.6	3,717
8	Lambeth	-17.3	14.0	31.3	54,505
9	Hammersmith and Fulham	-17.2	18.7	36.0	28,346
10	Brent	-17.1	12.8	29.9	65,234
11	Lewisham	-17.1	10.9	28.0	41,870
12	Haringey	-16.6	13.9	30.4	46,372
13	Greenwich	-16.4	9.8	26.2	23,963
14	Kensington and Chelsea	-15.5	22.6	38.2	34,841
15	Islington	-15.5	18.8	34.3	32,442
16	Kirklees	-15.5	5.9	21.4	18,137
17	Bradford	-15.3	5.8	21.1	28,817
18	Camden	-15.3	23.6	38.8	37,571
19	Ealing	-15.2	11.8	27.1	56,630
20	Barking and Dagenham	-15.0	9.9	24.9	11,093

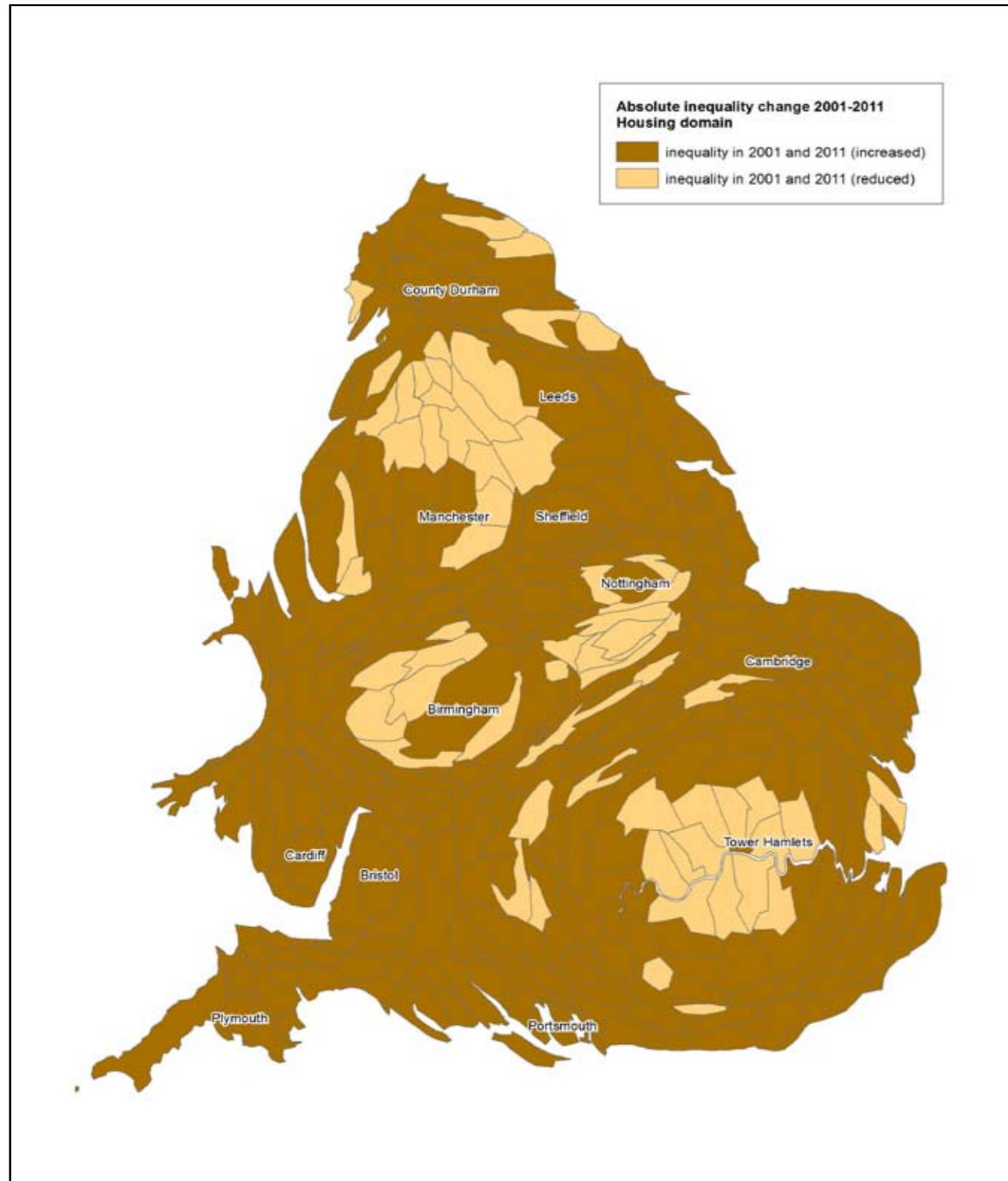
20 districts with minority least inequality in in housing in 2001		Absolute inequality	% White British	% Minority	Minority population
20	South Lakeland	-1.9	3.5	5.4	874
19	Amber Valley	-1.9	2.5	4.4	977
18	Sevenoaks	-1.8	3.7	5.5	2,087
17	Cotswold	-1.8	2.9	4.7	1,257
16	South Staffordshire	-1.8	3.3	5.0	1,192
15	Mid Suffolk	-1.7	2.4	4.2	913
14	North East Derbyshire	-1.7	2.7	4.4	777
13	Torfaen	-1.7	4.2	5.9	831
12	East Dorset	-1.7	2.7	4.4	886
11	West Devon	-1.6	3.5	5.2	446
10	Derbyshire Dales	-1.6	3.2	4.8	561
9	North Norfolk	-1.6	2.8	4.3	898
8	Rutland	-1.3	2.6	3.9	432
7	Forest Heath	-1.3	4.9	6.2	4,455
6	Maldon	-1.3	3.5	4.8	736
5	South Derbyshire	-1.2	2.4	3.6	1,067
4	North Kesteven	-1.1	2.2	3.3	998
3	Mendip	-1.0	4.0	5.0	1,434
2	Hambleton	-0.9	2.4	3.3	606
1	North Warwickshire	0.0	3.2	3.3	669



The districts that have become more equal for all ethnic minority groups in comparison with the White British tend to have higher deprivation levels and include several inner London Boroughs such as

Tower Hamlets, Hackney, Lambeth and Islington and Northern towns such as Oldham, Pendle, Blackburn with Darwen and Burnley as well as parts of the Midlands such as Walsall, Wolverhampton and Sandwell.

**Map 15.** Housing absolute inequality, 2001–2011



*Note:* Absolute inequality is calculated as the White British score for the district minus the minority group's score for that district. A value above zero indicates minority advantage; a value below zero represents minority disadvantage.

## 8. Summary and Conclusions: Dealing with Local Ethnic Inequalities

This report has examined ethnic inequality for local authority areas across England and Wales in 2001 and 2011 for indicators of education, employment, health and housing, together with an overall Index of Multiple Inequality. The study has made use of the England and Wales census which is marvelously detailed in providing data on ethnic group and local authority district together with socio-economic measures.

This report has assessed both levels of inequality and how they have changed, for ethnic groups in particular localities. Evidence from our analysis adds weight to the literature that has consistently documented the persistence of inequality for ethnic minorities in the UK. The key findings are:

- Ethnic inequalities in education, employment, health and housing are widespread in England and Wales and persistent since 2000.
- There has been an increase in ethnic inequalities in employment and housing.
- Ethnic inequalities exist in diverse and deprived areas (e.g. Tower Hamlets) but also in areas with low ethnic minority concentrations, in more affluent areas, and rural areas (e.g. Breckland).
- Many of the districts that have become more unequal between 2001 and 2011 are semi-rural and rural districts that had low ethnic diversity levels and small ethnic minority populations at the start of the decade.
- Some districts are success stories (e.g. Bradford) for having reduced ethnic inequalities over the 2000s.

The analyses have shown that ethnic inequality in all dimensions persists across England and Wales so that the greatest levels of inequality occur in districts with high and low ethnic minority concentrations; they also occur in deprived and more affluent areas, in urban conurbations, rural and semi-rural areas and coastal areas. The map of ethnic inequality is not a straightforward one.

Nevertheless, inequalities for non-White ethnic minorities are particularly marked in diverse, deprived urban areas. In contrast, though, the White Other ethnic group – predominantly made up of relatively recent migrants – experiences the greatest inequality in more rural districts.

Inequality is greatest in employment and housing for all ethnic groups. For example, in all districts in England and Wales in 2011, all ethnic minority groups apart from the White Irish group had higher levels of overcrowding than the White British. Employment inequality is experienced in most districts by all minority groups considered together, the Mixed group, the Black group and the Asian group. For the Black group, districts with the greatest levels of employment and housing inequality had particularly severe inequality in 2011 compared to the average.

Inequality is lower for the indicator of education than for employment and housing, at least for the Black and Asian ethnic groups. Educational inequality was evident for the White Other and Mixed groups with three-quarters of districts having worse outcomes for the White Other compared to the White British group and two-thirds of districts having worse outcomes for the Mixed group compared to the White British group.

There is a somewhat more positive picture for health: in around half of the districts of England and Wales ethnic minorities fared better than the White British. However, health inequalities are notable for the Mixed group which fares worse in terms of health than the White British group in the majority of districts.

In terms of change, the story of local ethnic inequalities is mixed. In over a third of districts there were increases in ethnic inequalities in employment over the 2000s. Housing inequality has worsened between 2001 and 2011. For minorities as a whole education inequality worsened in nearly half of all districts in England and Wales between 2001 and 2011; whereas few districts saw worsening ethnic inequalities in terms of health over the 2000s.

These findings have a number of implications for tackling local ethnic inequalities:

- Ethnic inequality is clearly a persisting issue affecting local areas countrywide. Given that inequalities can reflect discrimination and failure to meet potential, and that inequalities can be a source of resentment and tension, addressing inequality should be central to local authority initiatives.
- Ethnic inequalities are found in districts across England and Wales, in urban and rural areas where there are small and large minority populations and low and high levels of deprivation. Addressing

inequality is not purely an issue for authorities with diverse and poor populations.

- Some districts need to address inequality across several social dimensions. Others can target policy initiatives at particular outcomes and populations.
- Poor education, employment, health and housing are experienced by ethnic minorities and White British groups. Research and policy attention should be directed towards understanding the causes of ethnic inequality and its geographical variation, where necessary, addressing discrimination as well as addressing poor conditions for all those experiencing them.

## Appendix: Methods

### A.1 Methodological Approach

A quantitative approach is required for this project, in order to meet the first research aim to provide measures of inequality for every district in England and Wales. Primary bespoke fieldwork is not possible within the budget and timeframe of this project so we turn to existing datasets to provide the information that is needed. As in all secondary data analysis, the final research design will be a compromise between the data available and the research specifications.

There is an established body of work on ethnic inequalities and their geographies which uses secondary data analysis. The findings of this work are reviewed in the Findings section. Methodologically, this work has made use of a variety of data sources including the Labour Force Survey, the General Household Survey, the census including its microdata output the Samples of Anonymised Records, the Citizenship Survey, the National Surveys of Minorities, and the British Social Attitudes Survey. These datasets enable cross sectional investigation, i.e. investigation of one point in time.

Research on ethnic inequalities has developed particularly since the mid-1990s in response to race equality legislation and as a result of the availability of ethnic group data in these data sets. An ethnic group question was first asked in the census in 1991. Studies of ethnic difference, inequality and disadvantage have looked at many aspects of society (Modood et al., 1997; Mason, 2003). However, the greatest attention has been paid to the arenas of education, employment and health with very in-depth studies of social outcomes and experiences in these areas. For example, Heath and Cheung (2006) looked at four aspects of ethnic differences in the labour market: labour market participation, unemployment, occupation and earnings.

Studies of ethnic difference look at both the gross differences between ethnic groups, for example in rates of unemployment, and also the differences after controlling for group or individual characteristics such as age, sex, education and social class (Heath and Cheung, 2006). If differences remain after these characteristics are accounted for, such that the minority ethnic group is disadvantaged, this is referred to as an ethnic penalty. Ethnic penalty therefore refers to differences between ethnic groups – usually minorities and the White majority – that do not appear to be a result of the composition of the group (age,

sex, social class, education, etc.) and may therefore have a racial cause such as discrimination.

There have been a number of developments in the approaches to investigating ethnic inequalities. The importance of looking at gender differences and life course or generation effects has been demonstrated (Dale et al., 2006; Li and Heath, 2007). There has been focus on distinguishing between ethnic groups – studies have moved on from broad analyses of White and non-White to individual ethnic groups and distinguishing, for example, between immigrants and British born in different ethnic groups (Model, 1999). It is clear that there are different stories for different groups and considerable variation within groups. Other studies have assessed change over time (Mason, 2003; Simpson et al., 2006; Li and Heath, 2007). A continuous challenge is how to operationalise concepts and categories of ethnicity and inequality using the data that is available.

In terms of explaining ethnic penalty there have been studies directly of discrimination (Riach and Rich, 2002) and also assessments of perceptions of discrimination (Heath and Cheung, 2006). Some research has explicitly focused on how racial discrimination itself impacts on life outcomes for different ethnic groups (for example, on health see Karlsen and Nazroo, 2002). Modelling (such as multivariate regression) can identify factors that explain ethnic differences and disadvantage and their relative importance (Karlsen and Nazroo, 2002; Dale et al., 2006; Heath and Cheung, 2006). Multi-level modelling techniques have been used to assess the effects of neighbourhood as well as individual or group characteristics on social outcomes for different ethnic groups (Fieldhouse and Gould, 1998).

Relatively few studies have examined the geography of ethnic inequality. This was a focus of the study by Simpson et al. (2006) that compared labour market circumstances of ethnic minorities in Britain in 1991 and 2001 for regions and neighbourhoods using census aggregate data and microdata. One element of this study was to investigate whether ethnic penalties were greater in diverse areas than unmixed areas. Although relatively few studies have investigated the geography of ethnic inequalities there is an established field of geographical research that investigates spatial differences in social phenomena. The work of Danny Dorling and colleagues provides a good example (e.g. Dorling et al., 2007). The idea of rating areas has also caught the public imagination, being used, for example, by Channel 4 to determine the best and worst places to live in Britain.<sup>1</sup>



Work by CoDE and Runnymede provide the most recent examples of projects to investigate, understand and address ethnic inequalities in particular localities of the UK. The CoDE series of Briefings 'Dynamics of Diversity' using 1991, 2001 and 2011 census data examine ethnic inequalities on a range of topics and indicators.<sup>2</sup> The Runnymede Trust's Race Equality Scorecard project works with local authorities and other local stakeholders to tackle racial inequalities including in employment, criminal justice, education and health. The project has produced case studies in collaboration with Croydon, Kingston and Redbridge boroughs of London.<sup>3</sup>

## A.2 Data Sources

The requirements for this study are datasets that include indicators of all of the following:

- Inequality.
- Ethnic Group.
- Local Authority District/Unitary Authority.
- Age (for the calculation of age-standardised health inequality).

While there are many large-scale surveys and census datasets that contain this information, it is more challenging to find them together in a form that can yield meaningful analysis. The size of samples in social surveys, particularly of ethnic group populations, is often too small to allow further disaggregation. In addition, concerns about identification of individuals can result in restrictions or alterations to published data.

Afkahmi (2007) provides a useful summary of datasets that include ethnicity. It can be seen that those which also provide inequality indicators and local geography are limited. In many cases survey data is unavailable for ethnic groups at district level (e.g. Health Survey for England, British Crime Survey) or unreliable due to small sample sizes. Administrative statistics, such as Incapacity Benefits (IB) Claimants, Higher Education Statistical Agency data or the School Census, are considered inappropriate because of the restrictions on the samples, such as the datasets only including people who claim benefit, attend Higher Education institutions or attend state schools.

The census is the most complete source of information about the population of England and Wales. The 2001 and 2011 censuses provide data on a wide range of social, economic and demographic indicators available at different levels of geography. For this reason the 2001 and 2011 censuses are

the data source used in this project. The main disadvantage of using the census is that social conditions and their geographies may have changed since the data were collected. However, it is likely that the changes over time are less than the differences between areas and ethnic groups meaning that the main policy messages of the project will still be valid (Dorling and Thomas, 2002, for example, show the persistence of social inequalities over time).

## A.3 Dimensions of Inequality

The Race Relations Act 1976 made discrimination on the grounds of race unlawful. In 2001, amendments to the Act extended its remit to cover public authorities who are now required to meet the general duty to promote race equality. Inequality can be considered in numerous dimensions. As seen above, studies have variously focused on ethnic penalties in health, housing, education and employment. The Equality and Human Rights Commission identify a number of dimensions of inequality and discrimination:

*Racial discrimination may occur in the way that someone provides you with goods, facilities and services, including housing. It can also occur in public services, such as health and education and other public services. Racial discrimination may also occur in the field of employment.*<sup>4</sup>

The dimensions of inequality used in this project represent key areas of policy interest in relation to social and spatial inequality. The four dimensions of inequality that have been assessed are education, employment, health and housing (see Table 11).

## A.4 Indicators of Inequality

Each of the four dimensions of inequality considered in this study must be represented by an indicator or indicators. In other words, precisely how the dimension is measured must be defined. This study has used one indicator for each dimension of inequality and these are detailed and justified below (see Table 11 for a summary). Each of the indicators used is a measure of outcome on each dimension of inequality, which may be interpreted as resulting from inequality of opportunity and/or inequality of treatment (discrimination).

### Education

Education is recognised as an important dimension in combating general disadvantage. Education makes a strong contribution to ending child poverty and is related to general well-being (Machin and McNally, 2006). It is recognised that chances of employment

**Table 11.** Dimensions, indicators and data sources for ethnic inequalities

Dimension of inequality	Indicator	Data source
1. Education	% with no qualifications out of those aged 16–24	Census 2001 (Standard Table 117) Census 2011 (Detailed Characteristics 5202)
2. Employment	% unemployed out of economically active for those aged 25 and over	Census 2001 (Standard Table 108) Census 2011 (Detailed Characteristics 6201)
4. Health	% with Limiting Long Term Illness (indirectly age standardised)	Census 2001 (Standard Tables 16, 65, 101 and 107) Census 2011 (Detailed Characteristics 2101, 3402, Local Characteristics 3302, 3205)
5. Housing	Overcrowding: % with occupancy rating -1 or lower	Census 2001 (Standard Table 124) Census 2011 (Detailed Characteristics 4205)

improve as one's level of qualifications increase and that educational attainment aids greater participation in society. Therefore, it is those with no qualifications that are at risk of becoming the most socially excluded and the most disadvantaged. As such this project used those aged 16–24 with no qualifications as an indicator of inequality in education. It is between these ages that we would expect individuals to have obtained at least a level 1 qualification (1 or more 'O' level or GCSE pass or equivalent). By focusing on this age category the analysis does not take account of inequalities in education for other age groups.

### Employment

Employment is recognised as one of the main dimensions at the centre of the issues of life chances and equality (Modood et al., 1997; Heath, 2006) and as such it is appropriate that an analysis of inequality considers access to the labour market. Various indicators such as employment, unemployment, economic activity and part-time working have been used in the literature to measure inequalities (see for example Simpson et al., 2006), all of which contribute a different perspective.

The indicator used in this project is unemployment rates for those aged 25 and over. Unemployment is a specific measure of those who are willing and able to work but unable to get a job, taken as a proportion of all those who are economically active. It is arguably therefore one of the strongest measures of labour

market hardship. We consider only those aged 25 and over due to the fact that younger people are more likely to be transient between education and work and generally show higher rates of unemployment. This would particularly affect ethnic minority groups given their younger population structures.

### Health

The connection between social deprivation and ill health is well documented and accepted (Haynes and Gale, 1999; Bécares et al., 2012). As such an indicator of health inequalities is an important element of any study of ethnic disadvantage.

The census measures of self-assessed health are essential because survey estimates are either unavailable or unreliable for districts. There are three census questions that attempt to capture the health of the population: limiting long term illness (LLTI), self-assessed general health (SAGE), economic activity (option for economic inactivity due to permanent sickness/disability).

The LLTI question is preferred as a health indicator for two key reasons. First, it explicitly asks for conditions that limit a person in their everyday activities or work and so is well suited to the measurement of inequality. Second, unlike the economic activity question, it is asked of the total population including children and – importantly – older populations where the prevalence of poor health is highest.

A large body of work supports the validity of self-reported measures of health as predictors of morbidity, mortality and demand for healthcare (Dale and Marsh, 1993; Manor et al., 2001; Mitchell, 2005; Norman and Bambra, 2007). Research suggests that the use of a single item measure of self-rated health to measure health status in different ethnic groups is valid (Chandola and Jenkinson, 2000).

There is a strong relationship between LLTI and age; prevalence rates are lowest for the young, rise with increasing age and are highest for older people (Marshall, 2006). Comparison of crude LLTI rates between ethnic minority groups and the White British population is not valid because of the older age structure of the White British population who experience the greatest risk of LLTI. For this reason LLTI rates have been age standardised (indirectly, see Rowland, 2003) to account for the differing age structures in each ethnic group population. The calculation essentially applies the England and Wales age-specific illness rates to the ethnic group's population structure to compute an 'expected' number with LLTI. The age-standardised rate is the observed number with LLTI divided by the expected number with LLTI (Bécares, 2013).

The 2011 census question on limiting long-term illness asked respondents to specify whether their day-to-day activities were limited because of a health problem or disability which has lasted, or is expected to last, at least 12 months. The wording of the question on limiting long-term illness has slightly changed since 2001 and so comparisons across years have to be interpreted with caution (Bécares, 2013).

### Housing

There are numerous aspects of housing that could be considered in a study of inequality. What we want to represent is whether the quality of housing differs between ethnic groups, and differently in different places. The indicator used in this project is overcrowding, as a measure of whether each individual has adequate space to live in. Overcrowding is an appropriate measure because it can be precisely defined on the basis of legal requirements and can be precisely measured using census data.

If your accommodation is much too small for your household you may be considered to be living in overcrowded conditions under the law. The number of rooms required, as defined in official measures, depends on the demographic make-up of the household in terms of age, sex and relationships (see Finney and Harries, 2014). Based on this information, the Office for National Statistics (ONS) calculates an Occupancy Rating which indicates if a household is under-occupied (has more rooms than required) or overcrowded (has fewer rooms than required). ONS produces two measures of occupancy, one based on rooms and one based on bedrooms. The bedroom-based measure is available only in the 2011 census. The room-based measure of occupancy is available in both the 2001 and 2011 censuses and is thus used in this study. The measure relates the actual number of rooms to the number of rooms required by the members of the household based on a relationship between them and their ages and sexes. A negative value indicates that there are too few rooms for the people in a household. In this study, overcrowding is measured as a Room-based Occupancy Rating of -1 or lower.

## A.5 Measuring Inequality

Inequality can be measured in a number of ways depending on the type of differences between ethnic groups that are of interest. Throughout this study inequality has been measured using negative indicators, i.e. no qualifications, unemployment, poor health, overcrowding. Thus, if a minority ethnic group has a higher score on an indicator than the White

British group there is disadvantage for the minority group. The absolute difference between White British and minority scores has been calculated to indicate 'absolute inequality'. This measure is conceptually straightforward and does not encounter problems of biasing districts with large minority ethnic populations.

Absolute inequality is the difference between the White British score and the minority score calculated as the minority score subtracted from the White British score. If the value is negative, the minority group can be considered to be disadvantaged. For example, if 5% of the white British and 15% of the minority ethnic population aged 25 and over is unemployed the score for absolute inequality is -10% (5–15) indicating disadvantage for the minority population.

The measures of inequality on each of the four individual indicators can be combined to create an Index of Multiple Inequality (IMI). This is useful to give an overall measure of ethnic inequality for an area. The IMI can be calculated using an average of the scores on each indicator or as an average of the ranks on each indicator.

The disadvantage of calculating an Index of Multiple Inequality using an average of the scores on each indicator is that the scores for different indicators have to be made comparable. So, it is necessary to transform the data in a standard way so that, for example, a value of '5' indicates the same level of disadvantage whether for unemployment, health, education or housing. This can be done by dividing all the scores (for ethnic groups and districts) on an indicator by the range of scores on that indicator. However, it is possible that for an indicator there are cases of particular ethnic groups in particular districts where there are extreme values, either high or low or both. When the data are skewed or have a very large range in this way, dividing by the range results in the indicator being scaled down more than is desirable, effectively giving greater weight, or importance, in the Index of Multiple Inequality to indicators with smaller ranges. In the calculation of the Index of Multiple Inequality using employment inequality scores standardised by the range, the importance of this indicator in relation to the others would be de-valued. However, in this study we want each of the four indicators of inequality to have equal importance in the Index of Multiple Inequality.

The final IMI was therefore calculated as an average of the ranks for each indicator. For example, if a district ranked 45, 62, 3, and 121 on the four indicators of inequality it would have an Index of Multiple Inequality value (ranking) of 58. This method gives equal weight to each of the indicators.

It should be noted that not all districts will have a score for each indicator of inequality for each ethnic group. There may be no score if:

- There is no population in an ethnic group in an area.
- The ethnic group population in an area is below the threshold (see below).
- There are no people in an ethnic group in an area captured by the indicator of inequality used. For example, no people aged 25 and over who are unemployed.

It is possible, therefore, for an IMI to be based on any number of indicators. To ensure that the index has meaning as a composite measure, only districts that have an IMI based on two or more indicators have been reported.

It is beyond the scope of this project to assess variation in inequality by, for example, generation or sex, even though it is known that these are important distinguishers of experience (see Heath, 2007). The project does not provide evidence to explain the geographies of inequality and interpretations are therefore speculative. Neither does it provide any investigation of inequalities between areas, i.e. the extent to which there is polarisation geographically of 'equal' and 'unequal' districts.

## A.6 Geographies

With any study of geographical variation there is always a question of what scale of analysis is meaningful. The smaller the geographical scale the more detailed the results and arguably the more interpretable in relation to factors of neighbourhood and population characteristics. However, the smaller the geographical scale, the greater the data restrictions particularly when dividing the population into subgroups such as by ethnicity and employment (see section A.8 on population thresholds).

This study has used local authority districts/unitary authorities as the comparison geography. Districts are administrative local government boundaries and therefore have meaning in policy terms. 2011 Local Authority boundaries have been used for both the 2011 and 2001 census data. Districts vary in area and population size, from 2,200 people in the Isle on Scilly to over one million people in Birmingham. On average, districts have a population of 161,000. There are 348 districts in England and Wales.

## A.7 Ethnic Group Categories

There are many questions about the measurement and meaning of ethnic group categories. Indeed, this has been a subject of debate for several decades in the UK and elsewhere (for example see Bulmer, 1996; Guibernau and Rex, 1997; Aspinall, 2000; Modood, 2013). The UK census and many large-scale surveys use ethnic group categories based around the colour-origin groups of White, Black, Asian and Other. The 2011 census provides 18 ethnic group categories including four categories of the White group as shown in Table 12. A 12 group categorisation is recommended for 2001–2011 comparisons because of changes in the way the census collected information on ethnicity in 2001 and 2011 (Simpson, 2014). However, it is not possible to provide results for the full 12 group ethnic breakdown because of issues of sample size and data availability. The analysis presented in this report draws on seven ethnic group categories as shown in Table 12. For all indicators of inequality a comparison is provided between the White British and ethnic minority (all groups other than White British) groups. Where possible the interpretation is extended to the White Irish, White Other, Mixed, Black and Asian groups, constructed for census categories as indicated in Table 12. It is important to bear in mind that the meaning of these groups is contested. The Black and Asian groups, for

**Table 12.** Ethnic group categories from the 2001 and 2011 censuses<sup>7</sup>

Categories used in this project		Constituent categories from census classification
White British		White British
Minorities	White Irish	White Irish
	White Other	White Gypsy/Irish Traveller
	Black	Black Caribbean Black African Black Other
	Asian	Indian Pakistani Bangladeshi Chinese Other Asian
	Mixed	White and Black Caribbean White and Black African White and Asian Other Mixed
Other	Arab Other	



example, are very heterogeneous while the Mixed and residual Other group may be considered so diverse as to render their classifications meaningless.

## A.8 Population Threshold

Even at district scale, which could be considered a large 'local' scale (districts have an average population of around 161,000 people in 2011); there are challenges to analysing the situation of ethnic minority groups because some districts have very small populations of some minorities. Basing calculations on very small numbers can produce rates of inequality that are unstable and therefore unreliable. To avoid this problem a population threshold has been set such that only districts that have an ethnic group population of the required size have been included in the calculations. For each indicator a measure of inequality is only calculated for an ethnic group if the population at risk<sup>5</sup> for that indicator, district and ethnic group is at least 100.<sup>6</sup>

## A.9 Visual Representations

The results of the analysis are presented in tables and in maps. Thematic maps have been produced to visualise the geographic distribution of the data. These maps represent the distribution of different classes of data according to a colour gradient. A population cartogram with boundary information on the 2011 districts of England and Wales has been used as a base map. The areas in these cartograms are represented in proportion to the population size in 2011, maintaining the topology wherever that is possible. The rationale for using this type of map is that urban areas with large populations are displayed more clearly than with traditional maps, which tend to highlight patterns of sparsely populated areas (i.e. where few people live).

## A.10 Methods Summary

Inequality has been calculated for ethnic minorities in relation to the White British group in education, employment, health and housing for districts in England and Wales. Measures of absolute inequality have been calculated for seven ethnic minority groups: Minority other than White British, White Irish, White Other, Black, Asian, Mixed and Other. To avoid problems of small populations, inequality has been calculated only where district ethnic group populations are at least 100.

Data have been sourced from the 2001 and 2011 censuses. The indicators of inequality used are: percent aged 16–24 with no qualifications; percent aged 25 and over who are unemployed; percent

with a limiting long term illness (indirectly age standardised); and percent living with an occupancy rating of -1 or below (overcrowded). An Index of Multiple Inequality (IMI) has been calculated as an average of the ranks of each indicator of inequality, for district-ethnic group combinations that have a score on at least three indicators. The data have been summarised as tables and maps.

## Appendix Notes

1. Research conducted by University College London for the Channel 4 programme 'Location, Location, Location'. For details see: <http://www.channel4.com/4homes/ontv/best&worst/2007/Best-Worst-2007-Methodology.html>.
2. CoDE Briefings are available at [www.ethnicity.ac.uk/research/outputs/briefings/](http://www.ethnicity.ac.uk/research/outputs/briefings/)
3. <http://www.runnymedetrust.org/projects-and-publications/community-cohesion/scorecard.html>
4. Information taken from: <http://www.equalityhumanrights.com/en/yourrights/equalityanddiscrimination/race/Pages/Whatisracediscrimination.aspx>
5. Populations at risk are, for each ethnic group in a district: aged 16–24 for education, economically active aged 25 and over for employment, and total population for health (people) and housing (households).
6. A population threshold is required for an additional reason related to the age standardisation of limiting long term illness (LLTI). For example, in 2001 age standardisation uses two census tables: Table ST101 provides a detailed age breakdown for each ethnic group population and Table ST107 gives an estimate of the total ethnic group population with an LLTI. In 2011, Table DC2101 provides a detailed age breakdown for each ethnic group population and LC3205 gives an estimate of the total ethnic group population with an LLTI. Tables ST101 and DC2101 give more detailed output than ST107 and LC3205 and so have more small counts of population that are prone to adjustments of (random alteration of ones and twos to zero or three for the purposes of anonymity). This rounding can result in differences between total populations derived from each census table which in turn leads to unreliable age standardised LLTI rates. Setting a population threshold minimises the effects of this discrepancy. The discrepancy between ethnic group populations with LLTI and the sum of ethnic group populations by age with LLTI can also result in age standardised illness rates that are greater than 100%. The calculations are not incorrect but result such as this should be treated with caution.

7. The Asian and Other broad categories changed between the 2001 and 2011 censuses because of the move of Chinese from the Other category in 2001 to the Asian category in 2011. We have counted the 2001 Chinese group in with the Asian group to make comparison but these categories are only broadly comparable since the Other Asian category is likely to have changed in nature (see Simpson, 2014).

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