Poverty, Wealth and Place in Britain, 1968-2005

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Introduction

This paper examines long-term trends in the geography of poverty and wealth in Britain since 1968. To date, analysis of long-term trends in the spatial distribution of poverty in Britain have been frustrated by an absence of consistency in definitions, data sources and measures, as well as by changes over time in census and administrative geography. The research described here draws upon a series of nationally representative poverty surveys conducted in 1968, 1983, 1990, and 1999 in order to derive methodologically consistent measures of ‘breadline poverty’ and ‘core poverty’. These results are then be applied to UK Census data using longitudinally consistent boundary data (census tracts) in order to explore the changing geography of poverty in Britain.

In comparison with poverty, much less is known about the geography of wealth in Britain, and establishing its distribution is essential for a more thorough understanding of the dynamics of social inequality in Britain. This study represents the first attempt to operationalise such a measure in order to produce longitudinally consistent small area measures of ‘asset wealth’ based on housing wealth data, and ‘exclusive wealth’ based upon analysis of Family Expenditure Survey data.

These analyses suggest that not only is poverty widespread in Britain today, but that both poverty and wealth have become increasingly spatially concentrated since 1968. Rich and poor households are increasingly clustering together in different areas, and the ‘average’ group of households which are neither rich nor poor has gradually diminished in size during this period. As a result, poor, rich and ‘average’ households became progressively less likely to live next door to one another between 1971 and 2001.
Researching the Geography of Poverty in Britain

Our understanding of the geography of poverty in the UK has its roots in the work of the early pioneers of poverty research. Booth’s (1902) monumental study is a significant landmark in mapping the distribution of poverty and affluence in London street by street, and Rowntree’s (2000/1901) groundbreaking York studies reflected a similar concern with the spatial distribution of poverty at a small area level. Rowntree developed a more scientific rigorous approach to poverty measurement, subsequently refined and developed in a whole series of local area studies in the inter-war years.

In the post-war period attempts to understand the geography of disadvantage in Britain have needed to address problems relating to the definition and measurement of poverty and disadvantage, as well as the availability of suitable small area data. One especially influential approach has focused upon developing various indices of deprivation using multiple indicators derived from administrative and/or census sources. Although their construction and validation have been subject to intense discussion (e.g. Morris & Carstairs, 1991; Gordon, 1995; Lee, 1999; Deas et al., 2003), such approaches have been highly influential in shaping our understanding of the geography of disadvantage. Recent work by Gregory et al. (2000) has shed much light on changes (and continuities) in the pattern of disadvantage since the nineteenth century on the basis of consistent geography and using longitudinally consistent measures of child mortality, ill health, unemployment and so on derived from Census data.

Nevertheless, ensuring consistency over time in definitions and measures is difficult, and changes in census and administrative geography over time also make it difficult to ensure consistency over time in the output geography of such indices. The research described here addresses these concerns using a ‘synthetic modelling’ approach to generate small area estimates on the basis of sample survey data on poverty and deprivation. On the basis of re-analysis of nationally-representative poverty surveys conducted in 1968/9 (Townsend, 1979), 1983 (Mack & Lansley, 1983), 1990 (Gordon & Pantazis, 1990), and 1999 (Gordon et al., 2001) we estimate a poverty threshold which is theoretically consistent in its application across time, and subsequently model poverty vulnerability on the basis of harmonised definitions and measures. The results of modelling poverty vulnerability based on these survey sources can then be applied to UK census data to providing small area estimates of poverty right down to Output Area level.

Here, we estimate two different models of poverty: ‘breadline poverty’ and ‘core poverty’. The breadline indicator is reflects a relative and consensual approach to poverty measurement which is well-established in mainstream poverty research (see e.g. Pantazis & Gordon, 1990; Gordon et al., 2001; Pantazis et al., 2007). By applying the breadline methodology on a
consistent basis to the above surveys, households can be identified as ‘breadline’ poor where they have both a low income and lack many of those items considered by a majority of the UK public to constitute contemporary necessities of life (i.e. in 1983, 1990 and 1999). Contemporary poverty thresholds are then estimated which maximise the statistical fit between material and social deprivation on the one hand, and low equivilised household income on the other (see Gordon, 1995). Hence, the breadline approach allows for change over time in the public’s perceptions of the necessities of life, not least as a result of rising consumer expectations.

In contrast, the estimation of ‘core poverty’ describes households that are simultaneously income poor, deprivation poor and also subjectively poor. Here income poor households are defined as those with net weekly household income less than 70% of the contemporary median. Adapting Whelan et al.’s (2001) work to the poverty surveys, households are identified as deprivation poor where they lack any items comprising the Basic Deprivation Index. Households are therefore defined as ‘core poor’ if they have a low income (less than 70% of the equivilised median), and they are deprivation poor (Basic Deprivation Index), and they genuinely also consider their household to be poor ‘sometimes’ or ‘all the time’ (i.e. subjectively poor).

**Measuring Asset and Exclusive Wealth**

In comparison with poverty, far less is known about the social geography of wealth in Britain and how this has changed over time. The ways in which the wealth of the rich can be ‘hidden’, for example in asset ownership by companies rather than individuals, and by means of complex overseas financial management arrangements mean that existing data on wealth and asset holdings is patchy and unreliable. Nevertheless, recent years have a resurgence of popular interest in the most wealthy and high earners. Overall inequalities in wealth ownership appear to have declined during the twentieth century as a whole with the share of national wealth held by the wealthiest 1% declining from a colossal 70% in 1911 to 42% by 1960 (ONS, 2007). However, inequalities in wealth have begun to increase during the late 1980s and 1990s. Official estimates suggest that the proportion of total of marketable wealth held by the wealthiest 1,000 people increased from 17% to 24% between 1991 and 2002, whilst that shared by the least wealthy 50% of the population declined from 85 to just 6% over the same period (ONS, 2007). Independent research studies have broadly come to similar conclusions namely that in line with increasing income inequalities during the period, trends in wealth inequalities since the mid/late 1980s have moved Britain back towards levels of wealth inequality last seen more than 30 years ago (e.g. Lansley, 2006; Williams, 2006).
However, whilst these estimates give some idea of the accumulation of wealth and inequality in recent decades they tell us little about its spatial distribution. Wealth understood as assets can be estimated on the basis of fixed asset holdings in domestic property and this is the main approach pursued here. Using tract level data derived from previous research (Thomas & Dorling, 2004), housing wealth is estimated as a function of average house prices (by dwelling type), and the proportion of dwellings owned outright and on mortgage (by dwelling type). Identifying a wealth threshold is inevitably contentious and here we use the contemporary inheritance tax threshold for each time period weighted by the proportion of national wealth held in housing at that time.

Nevertheless, housing asset data are clearly influenced by national, regional and local variations in the housing market, for example in southern England as a result of the early 1990s housing market crash. For this reason we also investigate theoretically derived measures of ‘exclusive wealth’ which can be applied to Family Expenditure Survey (FES) data in order to provide weights for tract-level census analysis. Following the work of Veblen (1899/1994) and Scott (1994), individuals and households are defined here as ‘exclusive wealthy’ if their resource level enables them to voluntarily exclude themselves from participation in the normal activities of society and to engage in ‘conspicuous consumption’ as a social signifier of status if they so choose.

Fortunately, FES diary data gives us a good idea of the pattern of household expenditure on items denoting conspicuous consumption (e.g. spending on overseas holidays, second homes, new cars, large homes, etc.) as well as exclusivity and the capacity to opt out of public provision (e.g. spending on private schools, private members clubs, health insurance, domestic services, etc). By pooling FES data for the relevant census periods (1970-72, 1980-81, 1990-92, 1999-2001) it is therefore possible to identify specific clusters of wealthy households based upon their expenditure profile using cluster analysis methods. The odds of cluster membership (that is of ‘exclusive wealth’) can subsequently be modelled using classificatory variables common to both the FES and the census of population for the relevant time period in order to derive tract-level census weightings.

Using the above indicators we can then model the odds of poverty and wealth using classificatory variables common to both the relevant poverty survey data and population census. An overview of this synthetic modelling approach is described in Figure 1 (below). Firstly, definitions and measures need to consistent both across time (i.e. between different sample surveys) and between data sources (i.e. between sample survey and census) (Step 1). Since our estimates are applied to census counts, sample survey data are re-weighted to reflect the census population distribution for the relevant time period (Step 2), prior to the derivation of poverty and wealth thresholds as described above (Step 3).
Based upon these binary indicators the odds of poverty and wealth can then be estimated from the survey data using predictor variables also present in the relevant census (Step 4). Finally, the model coefficients are inflated so that they accurately predict the national incidence of poverty and wealth based upon the sample estimates for each time period. The resultant weights can then be combined additively to produce an estimate of the number of households within any given census tract (i.e. Output Area or higher geography) classified as breadline and core poor, and exclusive wealthy respectively. Since asset wealth is estimated separately based on domestic housing assets (see above), we therefore derive four small area estimates in total. The remainder of this paper describes how the spatial distribution of these indicators has changed over the 1971-2006 period, and also how these processes have varied on a national basis in England, Scotland and Wales separately.

The Changing Geography of Poverty and Wealth

Although our main focus here is on the changing spatial distribution of poverty and wealth, it is useful to look first at national estimates for Britain for the 1971 to 2001 period, as indicated in Table 1 (below). During the 1970s it is clear that levels of breadline and core poverty both dropped at fairly similar rates, declining by around a third over the decade. During the 1980s, breadline and core poverty increased substantially, effectively reversing the improvements seen in the previous decade. During the 1990s, breadline poverty rates rise, reaching 27% of households - a level unprecedented in this study period - whilst the core poverty percentage actually dropped to levels similar to 1981.
Table 1: Poor and wealthy households in Britain, 1971-2001.

<table>
<thead>
<tr>
<th></th>
<th>Core poor</th>
<th>Breadline poor</th>
<th>Non-poor, non-wealthy</th>
<th>Asset wealthy</th>
<th>Exclusive wealthy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>14.4</td>
<td>23.1</td>
<td>-</td>
<td>-</td>
<td>7.4</td>
</tr>
<tr>
<td>1981</td>
<td>9.8</td>
<td>17.1</td>
<td>66.1</td>
<td>16.8</td>
<td>6.9</td>
</tr>
<tr>
<td>1991</td>
<td>14.3</td>
<td>21.3</td>
<td>55.7</td>
<td>23.0</td>
<td>3.4</td>
</tr>
<tr>
<td>2001</td>
<td>11.2</td>
<td>27.0</td>
<td>50.4</td>
<td>22.6</td>
<td>5.6</td>
</tr>
</tbody>
</table>

Asset wealth also increased during the 1980s, before falling back sharply in the early 1990s (almost certainly as a result of the housing price crash) before increasing again almost to 1991 levels by 2001. Interestingly, however, the proportion of exclusive wealthy households declined slightly during the 1970s and more sharply during the 1980s indicating that the very wealthy became a smaller and more exclusive group over this period. During the 1990s, exclusive wealth also became somewhat more widely dispersed increasing to around 5% by 2001.

However, our main concern here is with the changing spatial distribution of poverty and wealth, and here we broadly find that social polarisation declined during the 1970s prior to a period of further significant increases the spatial concentration of poverty and wealth at a small-area level in Britain in the 1980s and 1990s. Over the period as a whole, the proportion of ‘middling’ households (neither rich nor poor) has declined steadily so that, more than ever before in recent decades, rich and poor households lead increasingly separate lives. This is illustrated in the maps below which describe the changing geography of poverty and wealth in Britain using a Universal Data Mapping approach in which each tract is accorded the same population (Figs. 2-5). Whilst this distorts the traditional map projection of Britain, it gives a much clearer picture of urban poverty. Since each tract contains roughly the same population, the cartogram is also a more ‘democratic’ view of population statistics, effectively according each person the same space on the map.
Figure 2: The geography of breadline poor households, 1971-2001.

Figure 2 shows that the proportion of breadline poor households varied between about 10% and 30%, with higher rates tending to be concentrated in the north of England, Wales and Scotland, and especially in industrial and urban conurbations (e.g. inner London, Glasgow, the northern industrial towns, the West Midlands, South Wales valleys). Although concentrations of breadline poverty declined during the 1970s significant pockets of breadline poverty remained in these areas. The rapid increase in concentrations of breadline poverty witnessed during the 1980s and 1990s again bore heaviest upon already impoverished areas of London, Glasgow, the northern industrial towns and cities and the West Midlands. By 2001 rates of breadline poverty in excess of 40% (and in some cases of 50%) were widespread in the areas.

The changing profile of core poverty broadly reflects that of breadline poverty until 1991, and is illustrated in Figure 3 (below). Thereafter unlike breadline poverty, core poverty levels appear to decline in many areas, though less so in (post)industrial and metropolitan areas including Glasgow, the North, West Midlands, and London. Moreover, whilst overall levels of core poverty in 1970 and 1990 are very similar, at around 14%, their geography is quite different, with the urban clustering of poverty being
much more pronounced in the later census periods, especially for inner city areas.

**Figure 3: The geography of core poor households, 1971-2001.**

The mapping of asset and exclusive wealthy households shows different but equally interesting geographical patterns developing over time, as shown in Figures 4 and 5 respectively (*below*). In 1981, asset wealth is concentrated in southern England, and more generally in rural, lowland parts of the country including the West Country and mid Wales. By the mid-1990s the pattern starts to take on a more south-east-centric concentration and this is reinforced by change during the late 1990s resulting in the increasing concentration of wealth in the south east, and a decline in the number of wealthy households in much of the rest of Britain including large parts of the capital itself.
The changing geography of exclusive wealth is illustrated in Figure 5 (below). This shows a broadly similar tendency for exclusive wealth to cluster spatially over time with the gradual concentration of exclusive wealth again in the south east, and especially in the commuter belts to the west of London. As with poverty, the geography of exclusive wealth in Britain also reveals a similar growing concentration in urban areas over time and decline in remote rural areas of northern England, Wales and the West Country.
Spatial Concentration and Polarisation

In order to better understand the changing geography described by the maps above it is useful to analyse the changing fortunes of census tracts in relation to some fixed (and essentially arbitrary) central rate. In Figures 6 below, we examine the prospects of census tracts by studying their movement over time between 14 ‘bins’ defined as proportions set relative to a fixed Breadline Poverty (BP) rate of 20%. Each chart in this figure shows the changing distribution of the population over time across tracts by poverty category. For example, Bin 1 in Chart A shows that from 1970 to 1980, the proportion of the population in Britain living in tracts where less than 10% of households were breadline poor (i.e. where BP<0.5) increased by about 7%. The bar for Bin 14 in the same chart shows that during the same time period, the proportion of the population living in tracts where more than 40% of households were poor (i.e. where BP>2.0) declined by around 1%.
Figure 6 shows that from 1970 to 1980, the proportion of the population living in areas of low poverty increased substantially, whilst the proportion living in areas characterised by extensive poverty decreased substantially. Britain's population thus became less concentrated in areas of high poverty during the 1970s, and areas became more similar in terms of poverty rates. The reverse however is the case when we consider the 1980s and 1990s (Charts B and C respectively) with more and more people living in enclaves of high poverty.

**Figure 6: Spatial polarisation of the population by census tract breadline poverty density, 1971-2001.**

![Chart A: 1970s](chart_a.png)
![Chart B: 1980s](chart_b.png)
![Chart C: 1990s](chart_c.png)
![Chart D: 1971-2001](chart_d.png)

**NOTE:** X-axis categories represent the proportion of the population living in tracts with a given proportion of the central poverty rate (set at 20%) as follows: 1 (least poor)<.05; 2=0.5-0.67; 3=0.67-0.71; 4=0.71-0.77; 5=0.77-0.81; 6=0.83-0.91; 7=0.91-1; 8=1-1.1; 9=1.1-1.2; 10=1.2-1.3; 11=1.3-1.4; 12=1.4-1.5; 13=1.5-2.0; 14 (poorest)>2.0.

Finally, Chart D illustrates the long term direction of change over the 1971-2001 period. What is most striking here is that the only types of area to
increase in population in Britain over the period as a whole were those in which 28% or more of households were poor (i.e. Bins 12, 13 and 14). This UK trend may reflect several causal processes. It may be that poorer populations have been growing fastest in poor areas, replacing households that were more average, but which had dissolved, left or died, or that more affluent people have been moving out of poor areas to more wealthy places. The mechanisms, and possibly the trends, are likely to vary from place to place and at the very least merit further study within the context of a full longitudinal design.

A similar methodology was used in order to investigate trends in the concentration and spatial polarisation of asset wealth in Britain, as illustrated in Figure 7 (below), and again based upon a central asset wealth rate of 20%. Chart A indicates that Britain’s population became increasingly polarised with respect to the distribution of asset wealthy households during the 1980s with the largest population increases in those areas of highest wealth. The early 1990s saw a dramatic reversal of this trend largely as a result of the 1990/91 recession and associated property crash (Chart B). However, the late 1990s witnessed a resumption of the earlier trend towards a greater concentration of the population in those tracts with the greatest concentrations of wealth (Chart B). As with poverty the overall trend in the 1980-2001 period is towards an overall increase in the population living in the areas with the highest density of wealthy households, and a decrease in the population living in areas with few wealthy households.
Poverty, Wealth and Place: The situation of England, Scotland and Wales

The previous section has argued that the 1980s and 1990s witnessed a significant trend towards the further spatial concentration of poverty and wealth across Britain as a whole. However, these changes in the geography of poverty and wealth in Britain nevertheless hide significant local variations in the extent of spatial concentration and social polarisation, both between nations and regions as well as at a small area level. The period since 2001 has been one of rapid change with regard to the development of policies.
directed at poverty reduction and social inclusion - and not least in Scotland and Wales as a result of devolution and devolved administration respectively. It is therefore useful in this context to assess how the fortunes of areas have changed over time with regard to the spatial concentration of poverty and wealth in England, Scotland and Wales. Figures 8 and 9 (below) disaggregate the broad trends discussed above by examining population changes over time between rich and poor areas defined by Breadline poverty (Figure 8) and asset wealth rates (Figure 9).

Figure 9 (below) shows how the proportion of the population within England, Scotland and Wales living in areas defined by their Breadline index scores has changed across the 1970-2000 period as a whole. The proportion of the population of both Scotland and Wales living in the poorest census tracts (with rates of 26% or more) has increased substantially and more so than in England. Similarly, the proportion of the population of both Scotland and Wales living in the ‘middling’ census tracts according to the breadline measure (i.e. with rates of 26% or more) has declined markedly.

**Figure 9: Change over time in population living in Breadline poor areas in England, Scotland, and Wales, 1971-2001.**

Figure 10 (below) adopts a similar approach to show the changing proportion of the population within England, Scotland and Wales living in asset wealthy areas in the 1971-2001 period. Again, the overall increase in the population living in wealthy areas, and decline in the population living in areas with fewer wealthy households, masks substantial national differences. Population growth in areas containing the greatest concentrations of wealthy households (30% or more) has been concentrated mostly in England, and at more modest levels (26% or more) in Scotland also. Wales has seen little or no growth in the population living in these
wealthier areas, but - against the trend - some growth in tracts containing very few asset wealthy households (less than 10% of households).

**Figure 10: Change over time in population living in asset wealthy areas in England, Scotland, and Wales, 1971-2001.**

These findings clearly indicate the need for further research into local variations in rates of poverty and wealth at national, regional, and local levels. In particular, the modelling of poverty and wealth described here derives ‘global’ weights which assume the relationship between census predictors and poverty to be the same in all areas of Britain. Clearly, there is scope for more complex spatial regression modelling approaches in understanding local variability. Nevertheless, the results described here do suggest a number of key challenges for national (and regional) strategies for social inclusion and poverty reduction – not least in the context of devolution in Scotland and devolved administration in Wales. Firstly, in general the period has a significant concentration of personal wealth in the Home Counties of England, and away from Scotland and Wales, (as well as northern England).

Secondly, the substantial increase in breadline poverty rates recorded here is concentrated in Scotland and more particularly in Glasgow and the Clydeside area. Figure 12 (below) shows the spatial distribution of breadline poor households across the greater Glasgow area. It is clear from these maps that poverty rates have always been highest in the central areas including Ibrox, Easterhouse and Parkhead, and that after some decline in poverty during the 1970s, breadline poverty rates have continued to rise quite sharply across the region as a whole during the 1980s and 1990s, and especially in these ‘hotspot’ areas. Within the seven poorest tracts in the city more than half of their households are breadline poor, and across the region as a whole, the number of individuals estimated to be experiencing...
breadline poverty has risen from 33.4% (110,000 people) in 1971 to 41.3% (142,000 people) by 2001.

**Figure 11: Breadline poor households across the Glasgow area, 1970 to 2000.**

Alongside increasing poverty rates in the eastern coastal areas, these findings demonstrate the scale of the challenge facing Scotland. In addition to tackling poverty and social exclusion, however, the increasing spatial polarisation of wealthy and poor households should itself be a cause for equal concern in the longer term. Some progress has undoubtedly been made since 2001 not least in raising the profile of social inclusion with a view to the development of a comprehensive framework for tackling social exclusion in Scotland by the end of 2008 (Scottish Govt., 2008). The timing of this study in the context of Scottish devolution therefore means that it offers be interesting ‘baseline’ for assessing progress in countering increasing rates of poverty and social polarisation both within Scotland and across Britain as a whole, including at a very small area level.

**Conclusions**

Despite the welcome emphasis upon tackling poverty and exclusion in current government thinking, less attention has been paid to the social geography of inequality and how this is changing in contemporary Britain. This study begins to address this lacuna by seeking answers to the question of where do the wealthy and the poor live, and are these groups becoming more distinct in their patterns of settlement? Of course, households which are not poor are not a uniform group. Indeed, focusing solely upon the distinction between an ‘excluded’ minority and an ‘included’ majority
renders invisible those barriers at the top of social hierarchy which allow the wealthy to exclude themselves from the rest of society, or more precisely, to exclude the majority of their fellow citizens from the lifestyles and privileges they enjoy.

Poverty and wealth are fundamentally about being excluded from society or included in it, and as such these social divides are clearly more fundamental than merely income alone. Here we distinguish five key groups which reflect individuals’ capacity to participate in the norms of society on the basis of the material resources and assets to which they have access: core poor (poorest of the poor); breadline poor (overall poverty); neither rich nor poor; asset wealthy; exclusive wealthy. Overall, these analyses show that rates of breadline poverty have increased substantially in many areas of Britain over the study period. At the same time our data record a decline in rates of core poverty over the 1991-2001 decade which may suggest that whilst poverty has generally become more prevalent fewer households may be experiencing extreme poverty than was the case in 1991, possibly as a result of anti-poverty initiatives since 1997 such as the National Minimum Wage and tax credits.

At the same time, these data suggest that wealth is concentrated in fewer and fewer hands, and is also more spatially concentrated in south east England than at any point since 1971. Whilst many households are undoubtedly better-off today than ever before, in distributional terms most has gone to those who already held most - and more households can no afford basic necessities of life as a result of breadline poverty. In general, relatively little change is observed in the relative ranks of areas over time and changing rates of poverty and wealth tend to be uniform in their effects so that when poverty rises (or falls) it tends to rise (or fall) everywhere at broadly similar rates. One striking and unexpected exception however is the sharp decline in the proportion of households classified as ‘neither rich nor poor’ across Britain as a whole and in South East England in particular. These findings suggest an increasing social polarisation in the prospects of places with less and less room for the ‘neither rich nor poor’ group, especially in South East England.

The underlying drivers of such trends are of course complex and require considerable further analysis, not least on the basis of individual-level census longitudinal data. It may be that demographic changes offer a partial explanation for these trends though the overall effect is likely to be modest. More important perhaps are differential patterns of migration since it is evident that the best resourced individuals are also typically those most likely to leave poorer areas, and also help to boost the population of affluent areas (Norman et al., 2005). Although the period since 2001 has seen some signs of progress (Dorling et al., 2007) it is evident that the long-term nature of these trends requires radical policy solutions focused upon a redistribution of wealth - and encompassing not only those at the bottom of society but also those at the top.
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References