

Be Cheerful, Strive to be happy Identifying Disadvantaged Areas: Health, Wealth and Happiness

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0. Abstract

This document was originally a position paper prepared for the forthcoming Joseph Rowntree Foundation Area Regeneration Programme. It discusses the problems of identifying disadvantaged areas and suggests that an alternative to many of the current indexes used might be to concentrate on more direct measures of health, wealth and happiness. ("Be cheerful, strive to be happy" is taken from the poem *Desiderata*).

1. Introduction and summary - the poverty in the debate

The debate concerning the identification of disadvantaged areas in Britain has become unnecessarily convoluted. One reason for this is that much of the work has been conducted by academic researchers who are rewarded according to their ability to explain how complicated the world is! There has also been a lack of clarity concerning the aims of many previous studies and, because significant financial and political implications follow from the ways in which disadvantaged areas are identified, there are often multiple motives for the choice of particular methods. However, most importantly the general public believe that they have a very good knowledge of where the advantaged and disadvantaged areas in their locality are. It is difficult to believe that so many people find it so easy to identify these areas, whereas social scientists find it so difficult.

For reasons which are outlined in more detail below, there are viable alternatives to the way in which we traditionally define deprived neighbourhoods using statistical methods. Three major changes to standard practice are possible. Firstly, the geographical areas which are used to group the populations to be compared need not have standard administrative boundaries. They could be chosen to have roughly equal populations (among other criteria) which would circumvent the debate over whether absolute or relative numbers of people should be counted and compared. Secondly, the statistics which are used to compare areas could be direct measures of disadvantage (rather than abstract indicators representing a confused amalgam of information). This is possible because sources of data on people in Britain have improved recently. Thirdly, the variables which are used in constructing these measures could be chosen to represent the most important aspects of disadvantage, rather than being proxies for such outcomes and causes.

The measures I recommend to identify areas of disadvantage are of health, wealth and happiness, hence the subtitle of the paper. It might be advisable not to use 'indicators' in the future as the term suggests some degree of uncertainty as to whether deprivation is to be found in the areas identified, although the techniques used to calculate indicators often justify this uncertainty. Areas where many people suffer from poor health are likely to be disadvantaged in a number of ways. Few commentators would argue that concentrations of such people are an inevitable outcome of life, even in a competitive society. Areas where many people lack wealth are areas in which many lack the means to partake in many activities of citizenship in a country where access to most amenities requires money. This is clearly disadvantage. The inclusion of measures of happiness is the more contentious, but I have included it for three reasons. Firstly, the prevalence of good health and adequate wealth in an area does not ensure the quality of life of people living there is high. Secondly, longitudinal survey data is now available in which a large sample of people in Britain are questioned concerning whether they are happy with their life and, if not, why not. This information could be used as a viable alternative to the way we currently define deprived neighbourhoods. Thirdly, not all people aspire to the principle of maximizing wealth and many value other aspects of life more highly than affluence.

What?
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Below is a summary of what is conventionally understood by 'disadvantaged areas' and some more details of the viable alternatives that exist. The practice of identifying such areas in Britain is reviewed in brief. Gaps in policy and practise exist because we tend to rely on indicators rather than measures and because (as researchers) we have little consensus over what our indicators are supposed to be indicating. Work which has been conducted for the Economic and Social Research Council looking at changes in the regional and intra-urban patterns of disadvantaged areas over the last two decades is summarized and I discuss the extent to which census data can be used to measure changes in the location of absolute and relative poverty. Finally I review the very limited evidence of the social exclusion of deprived areas and of comparisons of geographical patterns with other countries. I conclude with a series of recommendations concerning how we might better identify areas of disadvantage in the future.

2. What is conventionally understood by disadvantaged area

Although the remit for this paper uses the term disadvantaged, most work in Britain has been on deprived areas, and so conventional understanding concentrates on this:

"The fundamental implication of the term deprivation is of an absence of essential or desirable attributes, possessions and opportunities which are considered no more than the minimum by that society" (Coombes et al., 1995, 5)

Disadvantaged is a more useful term because it does not require the definition of a minimum level below which people and groups of people (from here on termed 'areas') are deprived. However, the objects which are conventionally included in definitions of deprivation may still be useful in discussing disadvantage (Townsend, 1987a). People can be deprived of adequate education, housing of good quality, rewarding employment, sufficient income, good health, opportunities for enjoyment; the list is virtually endless. In practise very few of these aspects of deprivation are considered as most are very difficult to measure nationally for small areas, and it is "objective" small area measurements which are seen as being useful in the targeting of resources aimed at reducing deprivation levels. Leading proponents of the importance of relative definitions of poverty have also used the term disadvantaged in their definitions of deprivation and so by using this term we implicitly accept

the argument that it is relative poverty which makes some people's lives a misery:

"Deprivation may be defined as a state of observable and demonstrable disadvantage relative to the local community or the wider society or nation to which an individual, family or group belongs." (Townsend, 1987b, emphasis added)

Social statistics are used to identify disadvantaged areas because of the need to be able to demonstrate their disadvantage and to be confident that areas which are disadvantaged are not being unobserved when public money is being allocated to areas with the aim of redressing disadvantage. The term disadvantage appears again in current debate over the role of social exclusion in Europe:

"A working definition of social exclusion was developed by the European Observatory on Policies to Combat Social Exclusion which referred to generalized disadvantage in terms of education, training, employment, housing and financial resources." (Lee et al., 1995, 15)

In a recent report funded by the Joseph Rowntree Foundation, the suggestion is made that a particularly useful measure of deprivation can be calculated from income support data (Dobson et al., 1996). In essence, some people are disadvantaged because they have less money than other people. The report finds that the distribution of households with very low income is similar to that shown by census proxies of income generated by comparing mixes of different socioeconomic groups. This is not surprising as the mixes of socioeconomic groups used in the report had been defined to differentiate people according to their income by earlier research.

A disadvantaged area is conventionally understood as a place in which people tend to be relatively poor and are relatively likely to suffer from misfortunes such as ill health (and social misery in more general terms). Researchers have used census 'indicators' to identify these areas and have found that these indicators tend to mirror direct measures.

3. Alternative geographies to define neighbourhoods

Having briefly discussed what is conventionally understood by 'disadvantaged area', a review of how disadvantaged areas are currently identified is presented below. However, the remit for this paper questioned whether there was a viable alternative to current methods of identifying disadvantaged areas. I contend that there is such an alternative and that is to use equal population sized areas and to use

measures of disadvantage which have resonance with popular perceptions of deprivation. Here the proposition to search a wider range of geographical areas for deprivation is made.

A significant debate concerning the statistical identification of deprived neighbourhoods revolves around whether absolute numbers of people are used, whether proportions are used or whether statistics which are a mix of these are employed (such as the infamous chi-squared statistic employed in the DoE 1991 index). This is a sterile debate which can be circumvented by simply comparing areas which have roughly the same number of people in them, such as parliamentary constituencies. When this is done the results of comparing absolute or relative numbers of people are the same and so the controversy disappears.

There are three main problems with using areas of equal population to define deprived neighbourhoods. Firstly, such areas differ in size themselves and so if parliamentary constituencies were used many smaller pockets of deprivation may be ignored. Secondly, statistics are often only available for areas which vary in population size greatly, such as local government wards. Thirdly, intervention may only be practicable through particular administrative areas, such as local authority districts. None of these problems are insurmountable.

Deprived neighbourhoods can be identified for areas whose geography is independent of established boundaries, while intervention can still incorporate established boundaries. To explain this most simply, a grant can be targeted towards districts which contain large populations who fall within alternative areas which have been defined as disadvantaged neighbourhoods. Disadvantaged neighbourhoods can be defined using a range of population thresholds, for instance areas containing ten, twenty, thirty, forty or fifty thousand people. As long as comparisons are only made between areas of similar population sizes problems of statistical comparison are largely overcome. Lastly, techniques of spatial smoothing can be used to calculate statistics for areas such as wards incorporating data from their neighbouring wards so that each number is based on a minimum threshold population. Unfortunately, given the way in which census data is currently released, it is not possible to identify areas much smaller than wards as disadvantaged with any degree of confidence, particularly if we wish to be able to study how levels of disadvantage have changed over time.

4. The practice of identifying disadvantaged areas

Disadvantaged areas are often discussed using medical analogies, such as the cancerous cells in the otherwise healthy body. Following this analogy, they can be identified through local symptoms - the unemployment rate acting as a social stethoscope - being used to discover which part of the body is not working. The analogy extends to debating whether the disadvantaged areas are new strains of tumour which no longer respond to the conventional medicine. These are areas of the city which might grow and spread if the disease is not quickly removed. However, such metaphors may imply a degree of scientific (medical) precision which is not achievable in practice and, unlike people, areas rarely die:

"...many neighbourhoods exhibit symptoms of deep-seated and intractable disadvantage. This is reflected both in the intensity of disadvantage (very high unemployment rates, very low average incomes) and its comprehensiveness (declining housing quality, poor educational services, bad health, and high rates of crime). This has led to the development of concerns that the poorest parts of urban Britain may be beginning to constitute a drag on national economic recovery. In its most controversial manifestations, this is seen in debates about the development of the 'underclass' - a small but growing (it is argued) group within society not responding to the conventional economic cues of progress through education, training and employment" (MacLennan 1994, page 3)

The underclass debate has managed to survive for so long because we have such an abstract concept of which neighbourhoods are disadvantaged. We can talk about an underclass developing in the poorest parts of Britain because no researcher is quite sure where those poorest parts are and because there has consequently been no adequate research to see whether people in such areas are behaving particularly differently than before in their responses to adverse circumstances. I very much doubt that such a process is occurring although I do suspect that quite dramatic changes may be occurring in the nature of British society which will have neighbourhood implications. These are changes in the behaviour of the youngest adult generation who have benefitted from access to unprecedented levels of wealth and education as children but are often being denied access to employment when adults, again at unprecedented levels. It may be that what is a general trend in changing aspirations is being misinterpreted as unusual behaviour by the poor. Nobody has made the necessary comparisons as they do not know what to

compare. This is one danger of conducting a debate without first constructing robust (if inevitably quite sterile) facts.

5. Past indices of deprivation in Britain

Having discussed the problems of the areas which are used to locate disadvantage, the next step is to consider how disadvantage is conventionally identified within an area. In practise disadvantaged areas in Britain are identified using indices constructed largely from census data. These indices often involve the combination of a number of variables which have also often been transformed in numerous ways. One effect of this is to complicate the process to the point where even mathematically literate observers lose interest due to the nuances of the debate. The discussion of apparently complicated technicalities also leads many observers to ignore some of the most simple problems of using census data. This is best illustrated when considering measures of unemployment, which have been incorporated in almost all past indices.

Almost all deprivation indices include an "unemployment component" and this is often the most important element of each index, usually expressed as the proportion of the economically active population of an area who claimed they were unemployed in the week before the census.

The use of this measure does have one advantage over the official rate in that people are allowed to define themselves as being unemployed (whereas the official claimant count is designed to exclude many groups). However, there are many people of working age who are neither working, nor are unemployed and yet are just as disadvantaged as the unemployed through their lack of work. It could be even argued that many of these people are even more disadvantaged than those who are unemployed because they are not able even to seek work. These groups include people within the normal working age range who are permanently sick or who have retired early on grounds of ill health, people on government training schemes or college students, single people with children or with elderly care responsibilities and so on. If, instead of using the unemployment rate, the proportion of people "of working age not working" were measured, a different geographical pattern would be mapped which more closely reflected disadvantage in Britain today. Unfortunately such a measure would still treat all people not working as equally disadvantaged, from an unemployed princess to a 55 year old man too sick to leave his

flat. A possibly more useful measure, based partly on wealth, is proposed below. We can do better than simply using the traditional 'unemployment rate' in identifying disadvantage.

In their report on area measures of deprivation, Peter Lee, Alan Murie and David Gordon provide brief summaries of the various indexes of deprivation and disadvantage which have been used in Britain since 1981 (Lee et al., 1995, chapter 3). Unsurprisingly, aspects of unemployment have been most important, with one of the earliest indices including this twice (the DoE 1981 index). The first index to explicitly attempt to identify areas of material deprivation using census data proxies was developed for use in explaining inequalities in health in Scotland (Carstairs and Morris, 1991). This index used four variables which could be measured from the census, namely: overcrowding, high male unemployment, being in a low social class and having no access to a car. Later researchers constructed an index from census data which best predicted the average household income of small areas in Oxford and Oldham (Lee et al, 1995, 27). However the weights in this index are only calibrated for the populations of the two cities for which housing benefit data was available (to measure low income levels). More recently, data has been used to identify a set of variables from the 1991 census which best predict the proportion of people found to be poor by the Breadline Britain survey (Gordon and Forrest, 1995). This is known as the breadline index. Although their weightings differ, the components used in the index are remarkably similar to those chosen more subjectively by Carstairs and Morris from the 1981 census, except that overcrowding is not included, while the proportions of households renting, lone parent families and people with long term illness are part of this new index.

To attempt to validate which index 'best' identifies areas of deprivation, Lee and his colleagues considered the correlation between the various indexes and three single variable indicators of deprivation: the estimated mean weekly earnings in an area, the standardised illness ratio and the standardized mortality ratio of each area. The first two of these variables are weighted averages of existing census variables and it may not be surprising to find that the Breadline in Britain Index, which was the only index to include both the social class and the illness variables, correlated highly to weighted averages constructed from them. What is more surprising was the finding that the Carstairs and Morris index (described above) most accurately identified areas of high morbidity and mortality nationally, despite being constructed using 1981 variables, being

constructed for Scotland and not overtly incorporating any measure of illness (Lee et al., 1995, 72). Over a long period of research on indices of deprivation and disadvantage we have not moved much further on from the realization that different ways of counting the same thing tend to come up with similar, if subtly different, answers. Another conclusion is that researchers in this debate and government departments using particular indices are unlikely to come to any agreement over 'which index is best' because so much effort has been vested in these inquiries.

6. Alternative measures of disadvantage today

The route out of the impasse of indices I would advocate involves looking at what the indices are being asked 'to be best at' and then using those statistics as measures of disadvantage rather than indices:

"the most valid (accurate) indexes are likely to be those with the highest correlations with ill health and low incomes..." (Lee et al., 1995, 18)

Low income and poor health are frequently and increasingly seen as the major causes and effects of disadvantage in Britain. A review of why this has come to be is beyond the scope of this paper, suffice to say that there is remarkably little dissent to this view. Why then were measures of income and health not used in indices of deprivation before? Measures of income were not used because they were not contained in the census and because the government does not wish this information to be known from some other sources. For instance, the Inland Revenue will not divulge statistics for areas smaller than England. There are also questions concerning whether it might be better to measure wealth rather than income. Measures of health, on the other hand, were not incorporated in indices of disadvantage because so many indices were created by health researchers searching for connections between ill health and other forms of disadvantage, or because the indices were used to determine the allocation of resources to tackle ill health (where it was thought that to allocate more resources to a hospital when more of their patients died might be construed as a perverse incentive).

I do not believe that the lack of questions on income or wealth in the decennial census is a good enough reason to think that census data could not be used to produce reasonably accurate estimates of these statistics for local areas in conjunctions with other information. Information from other official surveys can be used to say what the likely income is of a

person doing a particular job (which is recorded in the census) or what the likely wealth is of a household with a mortgage (also recorded in the census). What is more, this alternative information is updated annually. Therefore, my assertion is that for any given area of the country an estimate could be made of the range of incomes and the availability of wealth of the individuals and families living there. If this estimate could be shown to be reasonably accurate it could be used as a measure of comparative material deprivation which would be relatively simple to describe and understand. For instance: "Half the families in area X live on less than £150 a week and most of these have recourse to less than £500 of savings. Area X is typical of most communities of this size in Britain". I am not suggesting the construction of these statistics would either be trivial or non-controversial, but I do believe it is possible and worthwhile. A clear way to be at a disadvantage in our society is to lack money, and next to wealth, health.

The use of health statistics as a complementary measure of disadvantage may cause less controversy although it may be more difficult to agree on an appropriate single measure of health. The argument for having a single measure is that people will tend to use one by default so it is better to think carefully about which should be used rather than simply give advice that 'its all very complicated' and provide a series of alternatives. Poor health is an appropriate measure of disadvantage because good health is so important to quality of life (ask people what they would miss most!) and because the demand for so many local services is directly or indirectly effected by levels of health. I would suggest that census measures of morbidity could be combined with annual data on mortality to produce a measure of the proportion of people suffering from 'ill health' in an area. The proportion would be above or below what you would expect given the ages of the residents living there. There is difficulty in constructing such a measure, but if constructed the following might be said: "One person in six in area Y has a long standing illness and this is unusual even given its elderly population. Changes in the distribution of mortality over the last year suggest its poor position is not improving". There are many problems with using health data to measure disadvantage but it has one strong political advantage - few commentators would argue that it is necessary for there to be great inequalities in health for our society to operate; whereas many, including much of the British electorate, now accept areas of high unemployment as practically inevitable.

Finally we may need a more 'objective' measure of what is now important to quality of life in Britain. This is where measures of happiness need to be incorporated. Since 1991 a sample of 10,000 people have been interviewed annually in the British Household Panel Study undertaken as a long interview questionnaire by researchers at the University of Essex. One of the most interesting parts of the survey are a series of questions about whether respondents are happy with their lives and, if not, why not. This information could be used to determine what aspects of life in Britain currently cause most misery and this could then be used in constructing measures of disadvantage. A more unconventional approach would be to identify what types of things people expressing dissatisfaction with their life do (or what tends to happen to them) and use these in conjunction with the census to identify 'areas of misery'. Such an approach is unusual but if we stop and think about what problems unemployment, poor housing, illness, etc. cause - unhappiness is not the least significant! Conventional measures of poverty have their origins in the work of a generation of researchers from a Victorian age which was dominated by morals which often saw the pursuit of happiness as frivolous. One hundred years after Rowntree's first survey of poverty in York, should we still be valuing the eight hour working day and an inside toilet as the pinnacles of achievement?

7. Comparing disadvantage and social exclusion

"Urban problems, however measured, are becoming both more extensive in scale and concentrated in nature" (MacLennan 1994, page 1)

Changes in the location of poverty over time can be studied. There are historical researchers using very limited documentary evidence to conduct studies of social changes over the last few centuries in Britain. We have access to far more information than they have in a far more convenient form: from the computer based censuses of 1971, 1981 and 1991 some of these issues have been studied for the ESRC and the combined dataset has been made available for other researchers (Dorling and Woodward 1996). The most pertinent finding of that study for this paper was that most groups in society became less polarized spatially over the 1980s - a finding not expected and against most popular and academic perceptions of social change in the 1980s. However, a few groups had become more polarized. Most importantly, 'people of working age not in work nor unemployed' have become more concentrated geographically. These

people are likely to constitute a large proportion of the poorest two deciles and, in that sense, there may have been a concentration in relative poverty. However, without more research, perhaps using some of the methods concerning the measurement of wealth discussed in the last section (and necessitating some assumptions about pensioners), we cannot say this with confidence. There is no evidence from the censuses of any rise in absolute poverty since 1981.

There has been little research published to date on the evidence for the exclusion of deprived areas from metropolitan centres using migration and commuting flow data from the censuses. Research has been conducted for the Department of the Environment analysing migration and workplace flows from the 1991 census, but it remains to be published (Atkins et al., 1996). This research confirms that inner city areas have lost many people through out migration over the 1980s although the increase in students numbers over the decade meant that a few inner areas have seen an inflow of young adults. The analysis of commuting flows found evidence that, despite the job losses which took place in many inner areas over the 1980s, rates of in-commuting to them had not fallen (more of the jobs which were there may now be being taken from people who are living in, or who have moved, outside the area). To know whether certain areas are becoming socially isolated we need to compare the flow matrices from two censuses, and this has not been done. The task is made difficult because many of the wards (between which flows are recorded) were changed between 1981 and 1991.

Finally, there is the question of whether there is good evidence that the pattern to areas of disadvantage in Britain is any different to that found in other rich countries. Given the comments above about the problems of undertaking this work within this country it is not surprising that there has been little work which provides strong evidence that the patterns found in Britain are particularly different to geographical patterns of disadvantage seen elsewhere. This is true even in countries with very different social and political structures. In general there appears to be a remarkable rigidity to the outcomes of inequality across the globe. Of what evidence does exist, the most useful may be in the field of health data, where much recent research has been conducted. However here cultural differences between countries can be very important. With the rapid growth of social statistics in the European Community the opportunity does now exist for research to produce the kind of evidence which is required. Comparisons with distributions of poverty in the

United States could be made because their census data is easily available and includes questions on income (despite the study of disadvantage not having a high priority in America), but comparisons with other countries, other than with rich commonwealth countries, would be more difficult.

8. Conclusion and recommendations

The following need to be done and are not currently done or are done inadequately:

1. Areas of disadvantage should be identified in ways which are not determined by the arbitrary nature of administrative geographical boundaries.
2. Areas of disadvantage should be identified so that populations are only being measured if they are of similar size, so as to be statistically comparable.
3. Areas of disadvantage should be identified using simple measures which directly reflect the causes and consequences of such disadvantage to people.
4. If our actions are to reflect the concerns of people in Britain today the measures we use should emphasise what most affects their quality of life.
5. As British society becomes more affluent in general, concern will move from material to social disadvantage and then to more general concepts of what makes people happy.
6. To make comparisons over time, across space (to identify isolation) or with other countries we have to first be more sure of what we mean by disadvantage here and now.

Finally, if you want researchers to stop arguing about how areas of disadvantage can be identified from statistical information, the best action would be to argue (quickly) for the inclusion of a question on income in the census of 2001 and an additional question on wealth in 2011 (by which time, with any luck, British society will be able to cope with such a thing!): "Excluding the possibility that resource and income data are included in the next decennial census, indexes, properly constructed are the best method of identifying multiply deprived areas" (Lee et al, 1995, 81).

I have come to quite different conclusions to those expressed by Peter Lee and his colleagues, but in part this is a question of semantics. What I refer to as measures, they may well call indexes. The bulk of the debate concerns how measures might be 'properly constructed' to act as the best possible proxies for direct counts of local resources, incomes and so on. We must also decide whether these are the most important aspects of quality of life to people in Britain today and how we might determine whether those we are seeking to label as disadvantaged feel themselves to be so.

If the purpose of the Foundation's Area Regeneration programme is to 'search out ways of improving the social and economic quality of life for people in

deprived and excluded areas' then you must first identify those areas. This is best done by finding places where people feel that the quality of their life is inadequate. One possible first step is to discover what it is that people in Britain feel is wrong with their quality of life. This could be addressed by looking at how they answer questions on why they are unhappy in the British Household Panel Study. We need to move from assuming what is best for people, to letting them say what they think would be better.

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