Summary

Sparsely populated areas show higher levels of deprivation than less sparsely populated areas. Many rural areas score poorly on particular aspects such as indoor environment, housing and access to services. There is a ‘north-south’ divide - areas in the north have improved, areas in the south have deteriorated, with sparse rural areas in Herefordshire, Norfolk and parts of the South West faring especially badly. This pattern seems to be due to further deterioration of rural areas in the south that had been already relatively deprived. It is possible that the policy of targeting regeneration on the most deprived areas may have been effective in raising scores for those areas from the lowest levels, but that most rural areas have not benefited.

Introduction

The Index of Multiple Deprivation (IMD) measures a range of factors that indicate whether people living in small areas (called Lower level Super Output Areas or LSOAs) are experiencing various forms of deprivation. In all, 38 indicators are used to create the seven separate domains of deprivation which (with their relative weightings) are:

<table>
<thead>
<tr>
<th>Domain</th>
<th>Indicators used in calculation</th>
<th>Weighting (total = 100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>Based on benefit claimants (6 indicators)</td>
<td>22.5</td>
</tr>
<tr>
<td>Employment</td>
<td>Job seekers, incapacity, disability claimants; participants in new deal schemes (6 indicators)</td>
<td>22.5</td>
</tr>
<tr>
<td>Health and disability</td>
<td>4 physical and mental health indicators</td>
<td>13.5</td>
</tr>
<tr>
<td>Education, skills and training</td>
<td></td>
<td>13.5</td>
</tr>
<tr>
<td>Children sub domain</td>
<td>Average test scores, not staying on at school over 16 and absenteeism</td>
<td></td>
</tr>
<tr>
<td>Skills sub domain</td>
<td>No or low skills indicator</td>
<td></td>
</tr>
<tr>
<td>Housing and services</td>
<td></td>
<td>9.3</td>
</tr>
<tr>
<td>Wider barriers sub domain</td>
<td>Overcrowding, difficulty in becoming owner/occupier, and homelessness decisions</td>
<td></td>
</tr>
<tr>
<td>Geographical barriers sub domain</td>
<td>Road distance to services</td>
<td></td>
</tr>
<tr>
<td>Crime domain</td>
<td>Burglary, theft, violence and criminal damage</td>
<td>9.3</td>
</tr>
<tr>
<td>Living environment</td>
<td></td>
<td>9.3</td>
</tr>
<tr>
<td>Indoors living sub domain</td>
<td>Housing in poor condition or without central heating</td>
<td></td>
</tr>
<tr>
<td>Outdoors living sub domain</td>
<td>Air quality; pedestrian and cyclist injuries</td>
<td></td>
</tr>
</tbody>
</table>
The published IMD therefore gives an indication of how deprived each LSOA is. There are about 32,000 LSOAs with populations of about 1,000 to 3,000 in England.

**Urban and rural differences in IMD**

Figure 1 shows median IMD scores for each rural and urban area type.

![Figure 1 - IMD 2007 median scores for ONS small area definition](image)

Urban areas show the highest scores (which means that they tend to be more deprived). Sparse areas show higher scores whether they are urban, town and fringe, villages and hamlets or dispersed settlements. Less sparse rural areas containing both small towns and smaller settlements show the lowest scores.

There not been much overall change in scores since 2004 but less sparse rural towns are the only category that have seen an improvement, while sparse areas of all types have deteriorated.

**Analysis of IMD domains for urban and rural areas**

Most domains show worse scores for urban areas, but village and hamlet areas both score much worse on Housing, and sparse hamlets score worse for Environment. It may seem surprising that rural areas can score badly on environment. This is because this domain includes house condition, lack of central heating and road traffic accidents as well as air quality.

It is not surprising that the barriers to housing and services domain score is lower as much of the calculation for this domain is based on distance to services. What is also noticeable is that the Employment, Income, and Education and skills domains all have very similar profiles.

**Mapping rural deprivation**

Figure 10 shows the IMD for rural areas for 2007, grouped into fifths (quintiles) from the highest to lowest scores. The mauve colour shows the highest scores (most deprived) and the yellow shows the lowest scores (least deprived).
It is apparent that most areas defined as 'sparse' have high levels of deprivation, as do former mining areas in areas such as the North East, Yorkshire and the Humber and the East Midlands, as well as some areas less commonly thought to be deprived such as Kent, Essex and the Isle of Wight.

**Change since 2004**

The analysis shows ‘north-south’ divide in terms of change in the IMD in rural areas. Broadly speaking, while those north of a line connecting the Mersey and the Wash have improved, while those south of this have deteriorated, with sparse rural areas such as Herefordshire, Norfolk and parts of the South West faring especially badly – housing affordability is thought to have been a major factor here. Virtually all
categories in the Northern four regions have seen improvements in the averages, while all in the other more Southern regions have seen a deterioration.

However, it does not seem that this pattern shows rich areas becoming poorer while poorer areas become richer, but that those rural areas in the south that had been already relatively deprived are deteriorating.

Many urban areas, especially inner urban areas, have seen improvements, while suburbs have become worse. It is possible that the policy of targeting regeneration on the most deprived areas may have been effective in raising scores for those areas from the lowest levels, but that most rural areas have not benefited, and in some areas fallen behind.

Comparing analysis of the concentration of low income households with IMD areas

In urban areas there is a much greater likelihood of a low income household living in the same area as other low income households. 40% of those in the lowest income quintile lived in areas with the lowest fifth of IMD 2004 scores, compared with 13% in town sized settlements and just 4% for settlements of under 3000 population. 58% of those in the lowest income quintile (NTS) in village and hamlet sized settlements lived in areas that were in the highest two IMD quintile areas.

There are fewer lowest quintile income households living in rural areas, so one would expect that those on lower incomes would be more likely to live in higher IMD score areas. 24.5% of those in urban areas were in the lowest income quintile, compared with 20.8% in towns, and 15.7% in smaller settlements. But this does not alter the conclusion that rural people with low incomes are more likely to live in areas classified by the IMD as less deprived.

Although having a low income does not necessarily equate to having a deprived IMD score in any area type, the distribution does tend to mean that the IMD is a poor indicator of the location of the majority of low income households in rural areas.

Discussion

There are characteristics of life in rural areas that mean the use of summary measures, such as IMD, that produce area based scores for deprivation, do not give a full picture. Rural deprivation has some particular characteristics which are not picked up by the indicators and the methodology underlying the IMD. In particular, firstly deprivation in rural areas tends to be dispersed and not concentrated in small areas as it is in urban areas and secondly, the factors that contribute to deprivation in rural areas are often different from those in urban areas. People with low incomes in rural areas tend to be working and not claiming benefits. There is a tendency for people who are eligible not to claim benefits, especially older people. People with poor health are less likely to have called upon health services, particularly in the case of poor mental health, so are not recorded in the health service statistics.

More recent analysis has shown that only 158 (or 2.4%) of the 6496 (lowest 20%) most deprived Lower level Super Output Areas on the IMD, are rural. Even when the data are analysed at the Census Output Area level (populations of about 250 to 300), only around 3.6% of the most deprived 20% are in rural areas. However, using other indicators of deprivation for the population of rural England:

- 18% of all people have limiting long term illness;
- 16% claim pension credit guarantee;
- 15% of all adults have no qualifications;
- 13% claim benefits
- 14% have housing with no central heating.
- 17% of households in rural areas were living below the poverty line.

The types of rural areas that are most likely to be deprived are:
In general, housing type and quality appear to be the most common characteristic identifying rural disadvantage.

The analysis which breaks down the IMD into its component domains shows that the factors these measure are not as strongly linked in rural areas as in urban areas. The model of multiple deprivation which associates low levels of educational qualification, poor employment levels and low incomes, which in turn influence health and poor housing with high crime rates and a poor environment, is more applicable in areas of concentrated deprivation in large towns and cities.

The overall conclusion of this analysis therefore, is that whilst analysis of the IMD shows some interesting patterns of deprivation across rural areas, there is a strong need to use other measures in addition to give a full picture of rural deprivation and provide a strong evidence base for policies designed to address rural disadvantage.

Alan Spedding, 17 December 2008

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