The English Indices of Deprivation 2007

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Introduction

Communities and Local Government commissioned the Social Disadvantage Research Centre (SDRC) at the Department of Social Policy and Social Work at the University of Oxford to update the Indices of Deprivation 2004 (ID 2004) for England. Following an extensive public consultation, an independent academic peer review and a significant programme of work, the new Indices of Deprivation 2007 were produced in late 2007.

The new Index of Multiple Deprivation 2007 (IMD 2007) is a Lower layer Super Output Area (LSOA) level measure of multiple deprivation, and is made up of seven LSOA level domain indices. There are also two supplementary indices (Income Deprivation Affecting Children and Income Deprivation Affecting Older People). Summary measures of the IMD 2007 are presented at local authority district level and county council level. The LSOA level Domain Indices and IMD 2007, together with the local authority district and county summaries are referred to as the Indices of Deprivation 2007 (ID 2007).

The ID 2007 are based on the approach, structure and methodology that were used to create the previous ID 2004. The ID 2007 updates the ID 2004 using more up-to-date data. The new Index of Multiple Deprivation 2007 contains seven domains which relate to income deprivation, employment deprivation, health deprivation and disability, education skills and training deprivation, barriers to housing and services, living environment deprivation, and crime.

This summary report outlines the components of the ID 2007. Communities and Local Government will release a full report about the ID 2007 by the Spring of 2008.
Acknowledgements

The ID 2007 was constructed by the Social Disadvantage Research Centre (SDRC) at the Department of Social Policy and Social Work at the University of Oxford. The team comprised: Michael Noble, David McLennan, Kate Wilkinson, Adam Whitworth, Sonia Exley, and Helen Barnes. In addition, the Health Domain was constructed by Chris Dibben from the University of St Andrews; the ‘air quality’ indicator by Jon Fairburn at Staffordshire University; the ‘housing affordability’ indicator by Professor Glen Bramley at Heriot-Watt University; and GIS work was undertaken by SDRC’s GIS consultant David Avenell.

The team would like to thank Communities and Local Government’s Advisory Group, the academic peer reviewer Professor Pete Alcock from the University of Birmingham, and the many respondents to the consultation, for all their helpful contributions.

The Concept of Multiple Deprivation

The IMD 2007 is a measure of multiple deprivation at the small area level. The model of multiple deprivation which underpins the IMD 2007 is based on the idea of distinct dimensions of deprivation which can be recognised and measured separately. These are experienced by individuals living in an area. People may be counted in one or more of the domains, depending on the number of types of deprivation that they experience. The overall IMD is conceptualised as a weighted area level aggregation of these specific dimensions of deprivation.

Domains and Indicators

Each of the seven Domains contains a number of component indicators. The criteria for inclusion of these indicators are that they should be ‘domain specific’ and appropriate for the purpose (as direct as possible measures of that form of deprivation); measuring major features of that deprivation (not conditions just experienced by a very small number of people or areas); up-to-date; capable of being updated on a regular basis; statistically robust; and available for the whole of England at a small area level in a consistent form.
Data Time Point, Spatial Scale and Denominators

Where possible, the indicators relate to 2005 and, as has been indicated, the IMD 2007 and component domains are presented at LSOA level. Summaries of the IMD 2007 are presented at district and county council levels.

Denominators at LSOA level for 2005 were provided by the Office for National Statistics’ Small Area Population Estimation Unit. For the few indicators where numerators were derived from the 2001 Census, the denominators were also drawn from the Census.

The Domains

**Income Deprivation Domain**

The purpose of this domain is to capture the proportion of the population experiencing income deprivation in an area.

- Adults and children in Income Support Households (Source: Department for Work and Pensions (DWP) 2005)
- Adults and children in Income-Based JSA Households (Source: DWP 2005)
- Adults and children in Pension Credit (Guarantee) Households (Source: DWP 2005)
- Adults and children in those Working Tax Credit households where there are children in receipt of Child Tax Credit whose equivalised income (excluding housing benefits) is below 60 per cent of the median before housing costs (Source: HMRC 2005)
- Adults and children in Child Tax Credit Households (who are not eligible for IS, Income-Based JSA, Pension Credit or Working Tax Credit) whose equivalised income (excluding housing benefits) is below 60 per cent of the median before housing costs (Source: HMRC 2005)
- National Asylum Support Service (NASS) supported asylum seekers in England in receipt of subsistence support, accommodation support, or both (Source: NASS 2006)
In addition, an Income Deprivation Affecting Children Index and an Income Deprivation Affecting Older People Index were created. These two indices represent the proportion of children aged 0-15 living in income deprived households and the proportion of older people aged 60 and over living in income deprived households respectively.

**Employment Deprivation Domain**

This domain measures employment deprivation conceptualised as involuntary exclusion of the working age population from the labour market.

- Recipients of Jobseekers Allowance (both contribution-based and income-based): men aged 18-64 and women aged 18-59 (Source: DWP 2005)
- Recipients of Incapacity Benefit: men aged 18-64 and women aged 18-59 (Source: DWP 2005)
- Recipients of Severe Disablement Allowance: men aged 18-64 and women aged 18-59 (Source: DWP 2005)
- Participants in the New Deal for the 18-24s who are not in receipt of JSA (Source: DWP 2005)
- Participants in the New Deal for 25+ who are not in receipt of JSA (Source: DWP 2005)
- Participants in the New Deal for Lone Parents (after initial interview) (Source: DWP 2005)

**Health Deprivation and Disability Domain**

This domain measures rates of poor health, early mortality and disability in an area and covers the entire age range.

- Years of Potential Life Lost (YPLL) (2001 to 2005, Source: ONS)
- Comparative Illness and Disability Ratio (CIDR) (2005, Source: DWP)
- Measures of acute morbidity, derived from Hospital Episode Statistics (2004 to 2005, Source: Department of Health)
• The proportion of adults under 60 suffering from mood or anxiety disorders based on prescribing (2005, Source: Prescribing Pricing Authority), Hospital Episode Statistics (2004 to 2005, Source: Department of Health) and Incapacity Benefit data (2005, Source: DWP)

**Education, Skills and Training Deprivation Domain**

This domain captures the extent of deprivation in terms of education, skills and training in a local area. The indicators are structured into two sub domains: one relating to education deprivation for children/young people in the area, and one relating to lack of skills and qualifications among a sub-set of the working age adult population.

**Sub Domain: Children/young people**

• Average test score of pupils at Key Stage 2 (2 year weighted average, 2004-2005, Source: Department for Children, Schools and Families (DCSF))

• Average test score of pupils at Key Stage 3 (2 year weighted average, 2004-2005, Source: DCSF)

• Best of 8 average capped points score at Key Stage 4 (this includes results of GCSEs, GNVQs and other vocational equivalents) (2 year weighted average, 2004-2005, Source: DCSF)

• Proportion of young people not staying on in school or non-advanced education above the age of 16, Source: HMRC Child Benefit (CB) data

• Secondary school absence rate
  (2 year average 2004-2005, Source: DCSF)

• Proportion of those aged under 21 not entering higher education (5 year average, 2001-2005, Source: Universities and Colleges Admission Service (UCAS), Higher Education Statistics Agency (HESA))

**Sub Domain: Skills**

• Proportions of working age adults (aged 25-54) in the area with no or low qualifications (Source: 2001 Census)
Barriers to Housing and Services Domain

The purpose of this domain is to measure barriers to housing and key local services. The indicators are structured into two sub-domains: ‘geographical barriers’, and ‘wider barriers’ which includes issues relating to access to housing, such as affordability.

Sub Domain: Wider Barriers

- Household overcrowding (Source: 2001 Census)
- LA level percentage of households for whom a decision on their application for assistance under the homeless provisions of housing legislation has been made, assigned to the constituent SOAs (Source: Communities and Local Government, 2005)
- Difficulty of Access to owner-occupation (Source: modeled estimates produced by Heriot-Watt University, 2005)

Sub Domain: Geographical Barriers

- Road distance to a GP surgery (Source: National Administrative Codes Service, 2005)
- Road distance to a general stores or supermarket (Source: MapInfo Ltd, 2005)
- Road distance to a primary school (Source: DCFS, 2004-05)
- Road distance to a Post Office or sub post office (Source: Post Office Ltd, 2005)

Crime Domain

This domain measures the rate of recorded crime for four major crime types, representing the risk of personal and material victimisation at a small area level.

- Burglary (4 recorded crime offence types, Police Force data for April 2004-March 2005, constrained to Crime and Disorder Reduction Partnership (CDRP) level)
- Theft (5 recorded crime offence types, Police Force data for April 2004-March 2005, constrained to CDRP level)
- Criminal damage (10 recorded crime offence types, Police Force data for April 2004-March 2005, constrained to CDRP level)
The Living Environment Deprivation Domain

This domain focuses on deprivation with respect to the characteristics of the living environment. It comprises two sub-domains: the ‘indoors’ living environment which measures the quality of housing, and the ‘outdoors’ living environment which contains two measures about air quality and road traffic accidents.

Sub-Domain: The ‘indoors’ living environment

• Social and private housing in poor condition (2003 – 2005 average, Source BRE and Communities and Local Government, modelled EHCS)
• Houses without central heating (Source: 2001 Census)

Sub-Domain: The ‘outdoors’ living environment

• Air quality (2005, Source: Geography Department at Staffordshire University and NAEI modelled at LSOA level)
• Road traffic accidents involving injury to pedestrians and cyclists (2003-2005 average, Source: DfT, STATS19 (Road Accident Data) smoothed to LSOA level)

The methodological steps that were taken to create the IMD 2007 are described in the full report. The table overleaf sets out the domain weights which were used to combine the domains into an index of multiple deprivation.

Outputs

1. Each of the 32,482 LSOAs in England has been assigned a score and rank for the IMD 2007; the seven domain indices; the sub-domains; and the two supplementary indices (Income Deprivation Affecting Children and Income Deprivation Affecting Older People).

2. Six local authority district level summary measures of the IMD 2007 have been produced. No single summary measure is favoured over another: there is no single best way of describing or comparing England’s 354 local authority districts.
Table 1: Domain Weights for the IMD 2007

<table>
<thead>
<tr>
<th>Domain Weight</th>
<th>Domain Weight</th>
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<tbody>
<tr>
<td>Income Deprivation Domain</td>
<td>22.5 %</td>
</tr>
<tr>
<td>Employment Deprivation Domain</td>
<td>22.5%</td>
</tr>
<tr>
<td>Health Deprivation and Disability Domain</td>
<td>13.5%</td>
</tr>
<tr>
<td>Education, Skills and Training Deprivation Domain</td>
<td>13.5%</td>
</tr>
<tr>
<td>Barriers to Housing and Services Domain</td>
<td>9.3%</td>
</tr>
<tr>
<td>Crime Domain</td>
<td>9.3%</td>
</tr>
<tr>
<td>Living Environment Deprivation Domain</td>
<td>9.3%</td>
</tr>
</tbody>
</table>

- Local Concentration is the population weighted average of the ranks of a district’s most deprived LSOAs that contain exactly 10% of the local authority district’s population
- Extent is the proportion of a local authority district’s population living in the most deprived LSOAs in the country
- Income Scale is the number of people who are Income deprived
- Employment Scale is the number of people who are Employment deprived
- Average of LSOA Ranks is the population weighted average of the combined ranks for the LSOAs in a local authority district
- Average of LSOA Scores is the population weighted average of the combined scores for the LSOAs in a local authority district

3. County level summaries of the IMD 2007 have also been produced using the same approach detailed above.

A Glimpse at the Results

LSOA Level

England’s most deprived 20% of LSOAs have the following characteristics on average:
- Just over a third of people (35.4%) are income deprived
- One in five of women aged 18 to 59 and men aged 18-64 (20.3%) are employment deprived
- Just under half of children (48.8%) live in families that are income deprived
- 37.5% of older people are income deprived

Table 2 summarises the most deprived 20% of LSOAs on the IMD 2007 at Regional level, while Chart 1 shows this picture alongside England’s 20% least deprived LSOAs by Region.

<table>
<thead>
<tr>
<th>Number of LSOAs in ‘most deprived 20% of LSOAs in England’</th>
<th>Number of LSOAs in the Region</th>
<th>% of LSOAs in each Region falling in ‘most deprived 20% of LSOAs in England’</th>
</tr>
</thead>
<tbody>
<tr>
<td>East</td>
<td>223</td>
<td>3,550</td>
</tr>
<tr>
<td>East Midlands</td>
<td>460</td>
<td>2,732</td>
</tr>
<tr>
<td>London</td>
<td>1,351</td>
<td>4,765</td>
</tr>
<tr>
<td>North East</td>
<td>566</td>
<td>1,656</td>
</tr>
<tr>
<td>North West</td>
<td>1,420</td>
<td>4,459</td>
</tr>
<tr>
<td>South East (excluding London)</td>
<td>318</td>
<td>5,319</td>
</tr>
<tr>
<td>South West</td>
<td>300</td>
<td>3,226</td>
</tr>
<tr>
<td>West Midlands</td>
<td>951</td>
<td>3,482</td>
</tr>
<tr>
<td>Yorkshire &amp; the Humber</td>
<td>907</td>
<td>3,293</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6,496</strong></td>
<td><strong>32,482</strong></td>
</tr>
</tbody>
</table>
The Region which has the greatest percentage of its LSOAs that fall in England’s most deprived 20% is the North East (34.2%), followed by the North West (31.8%). The North West has the greatest number of LSOAs that fall in England’s most deprived 20% (1,420), followed by London with 1,351.

Chart 1: Percentage of LSOAs in the Most and Least Deprived 20% of LSOAs in England on the IMD 2007 by Region

Local Authority District Level

In the ID 2007, 82 districts fell into the ‘most deprived 50’ on one or more of the six district level summaries. In the ID 2004, 80 districts fell into this category. Of the 80 districts in the ‘most deprived 50’ in the ID 2004, 78 remain within this category in the ID 2007.

Reasons for Change between the ID 2004 and the ID 2007

Reasons for change in rank position between the two indices include:

- The domains and methodology are the same in the ID 2007 as in the ID 2004 and as far as possible most indicators are equivalent to their ID 2004.
 counterparts. Therefore, most change is likely to reflect real relative change between the two time periods;

• Notwithstanding this, some change will be occasioned by the substitution of some new indicators in the ID 2007 – especially in the Income Deprivation Domain;

• Denominators have been recalibrated by ONS.

Each of these points is addressed in the main report.