

## **The Index of Deprivation 2010 (ID2010)**

### **Introduction**

The Index of Deprivation 2010 (ID 2010) is an update of the Index of Deprivation 2007 (ID 2007) which was released by the Department for Communities and Local Government in December 2007. Prior to this in May 2004, ID 2004 was released by The Office for the Deputy Prime Minister (ODPM), and later re-released to correct errors in June 2004.

As in ID 2007, ID 2010 recognises that deprivation has many aspects and this is reflected in the seven domains all of which combine a number of individual indicators. Criteria for selection of the indicators were 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
- Available for the whole of England at a small area level in consistent form.

### **Indicators**

In total the ID2010 uses 38 indicators which are grouped into seven domains. These are:

- Income Deprivation Domain
- Employment Deprivation Domain
- Health Deprivation and Disability Domain
- Education, Skills and Training Deprivation

(Sub Domains: Skills; Children/Young People)

- Barriers to Housing and Services

(Sub Domains: Wider Barriers; Geographical Barriers)

- Crime Domain
- The Living Environment

(Sub-domains: the “indoors” living environment; The “outdoors” living environment)

Some Income Deprivation indicators are also included in two supplementary indices  
The Income Deprivation Affecting Children Index and  
The Income Deprivation Affecting Older People Index

Please refer to Appendix 1 for a full list of indicators and domains.

### **ID 2010 geography**

Lower Super Output Areas (LSOAs) are a relatively new geography created by the Office for National Statistics for the purpose of releasing small area statistics and have been used by the DCLG as the geographical areas for ID 2010, ID 2007 and ID 2004. There are 260 LSOAs in Kirklees created by aggregating a number of 2001 Census Output Areas. Each LSOA has a population of about 1,500 residents (between 1000 and 2300 in Kirklees) and

about 500 households (between 400 and 820 in Kirklees). LSOA boundaries coincide with pre-2004 ward boundaries but not with post-2004 ward boundaries.

### Population denominators

Where Census indicators are used, the denominators (i.e. the rest of the relevant population) were also drawn from the 2001 Census. When non-Census numerators are used, the denominators were based on the Super Output Area 2008 Mid-Year Estimates.

### Measures of Deprivation

#### Measures at Super Output Area level

Each of the 32,482 LSOAs in England has been assigned a score and a rank for the Index of Multiple Deprivation (the combined index), for each of the seven Domain indices and for two additional indices; the Income Deprivation Affecting Children Index (IDACI) and the Income Deprivation Affecting Older People (IDAOP).

#### Measures at local authority district level

In addition (as with the ID 2007), there are six district level summary measures of deprivation, which offer different ways of expressing material disadvantage. These are:

**Income Scale** is the number of people who are Income deprived

**Employment Scale** is the number of people who are Employment deprived

**Local Concentration** is the population weighted average of the ranks of a districts most deprived LSOAs that contain exactly 10% of the district's population.

**Extent** is the proportion of a districts population living in the most deprived LSOAs in the country

**Average of LSOA Ranks** is the population weighted average of the combined ranks for the LSOAs in a district

**Average of LSOA Scores** is the population weighted average of the combined scores for the LSOAs in a district

See Appendix 2 for a brief description of each measure.

### Weighting of indicators

Where domains are combined in the measures above the following system of weighting has been used.

Domain	Weight
Income	22.5%
Employment	22.5%
Health Deprivation and Disability	13.5%
Education Skills and Training	13.5%
Barriers to Services	9.3%
Crime	9.3%
Living Environment	9.3%

## District Analysis

A direct comparison between the ID 2007 and the ID 2010 is possible because there have been relatively minor changes to data used by the indicators (see Appendix 3). Therefore, most change is likely to reflect real relative change between the two time periods. The table below gives comparisons between 2007 and 2010 for all West Yorkshire districts.

		Rank of Emp Scale	Rank of Income Scale	Rank of Average Scores	Rank of Average Ranks	Extent Rank	Local Concentration Rank
Bradford	<i>ID2007</i>	6	4	32	52	31	11
	ID2010	6	5	26	33	27	11
Calderdale	<i>ID2007</i>	74	73	107	119	98	71
	ID2010	73	79	105	110	88	80
<b>Kirklees</b>	<b><i>ID2007</i></b>	<b>15</b>	<b>12</b>	<b>82</b>	<b>102</b>	<b>75</b>	<b>59</b>
	<b>ID2010</b>	<b>16</b>	<b>16</b>	<b>77</b>	<b>95</b>	<b>67</b>	<b>58</b>
Leeds	<i>ID2007</i>	4	5	85	114	67	48
	ID2010	4	4	68	97	59	44
Wakefield	<i>ID2007</i>	11	37	66	74	62	68
	ID2010	17	37	67	77	69	66

Note: Rank of 1 = most deprived, 326 least deprived (326 local authorities in England).

As was the case in the ID 2007, Kirklees is identified as one of the most deprived 50 districts in England for both the Income and Employment summary measures. These summary measures count absolute **numbers** of people who are income or employment deprived, therefore 'favouring' larger districts such as Kirklees. Kirklees apparent "improvement" in these indicators is in part due to the creation of some large new unitary authorities in relatively deprived areas. Recently formed Durham and Cornwall Councils have populations of over 500,000 and both have risen above Kirklees for these domains in the 2010 index.

For the other summary measures, most of the indicators are expressed as a proportion of the population so that Kirklees, which has a significantly large non-deprived population, ranks as comparatively less deprived. However, in 2010 all these summary measures show lower ranks than in 2007 which indicates that Kirklees has become relatively more deprived over the period, though the rank changes are by no means huge, e.g. Local Concentration Rank moved from 59 to 58.

## Super Output Area Analysis

The table below identifies the number of areas which fall within the worst 10% of areas nationally. If deprivation was spread evenly across all local authority areas, we would expect 10% of Kirklees LSOAs to be in the worst 10% nationally (i.e. 26 LSOAs). Instead Kirklees has 37 LSOAs in the worst 10% nationally for the IMD combined index, an increase of three since 2007.

Domain	LSOAs in worst 10% ID 2010	LSOAs in worst 10% ID 2007
Income	29	43
Employment	25	20
Health Deprivation and Disability	14	23
Education Skills and Training	39	39
Barriers to Services	0	0
Crime	56	26
Living Environment	92	92
IMD (Combined Index)	37	34
IDACI (Children)	16	20
IDAOP (Older People)	36	36

There are four domains in which Kirklees scores significantly worse than expected, The Living Environment, Education Skills and Training, Income Deprivation Affecting Older People Index, and Crime. The Living Environment is not a robust domain because it is made up of just two indicators, one of which is modelled air quality. Estimates of local air quality for small areas are rarely reliable; the Kirklees position is unaltered from 2010 with 92 LSOAs in the worst 10%.

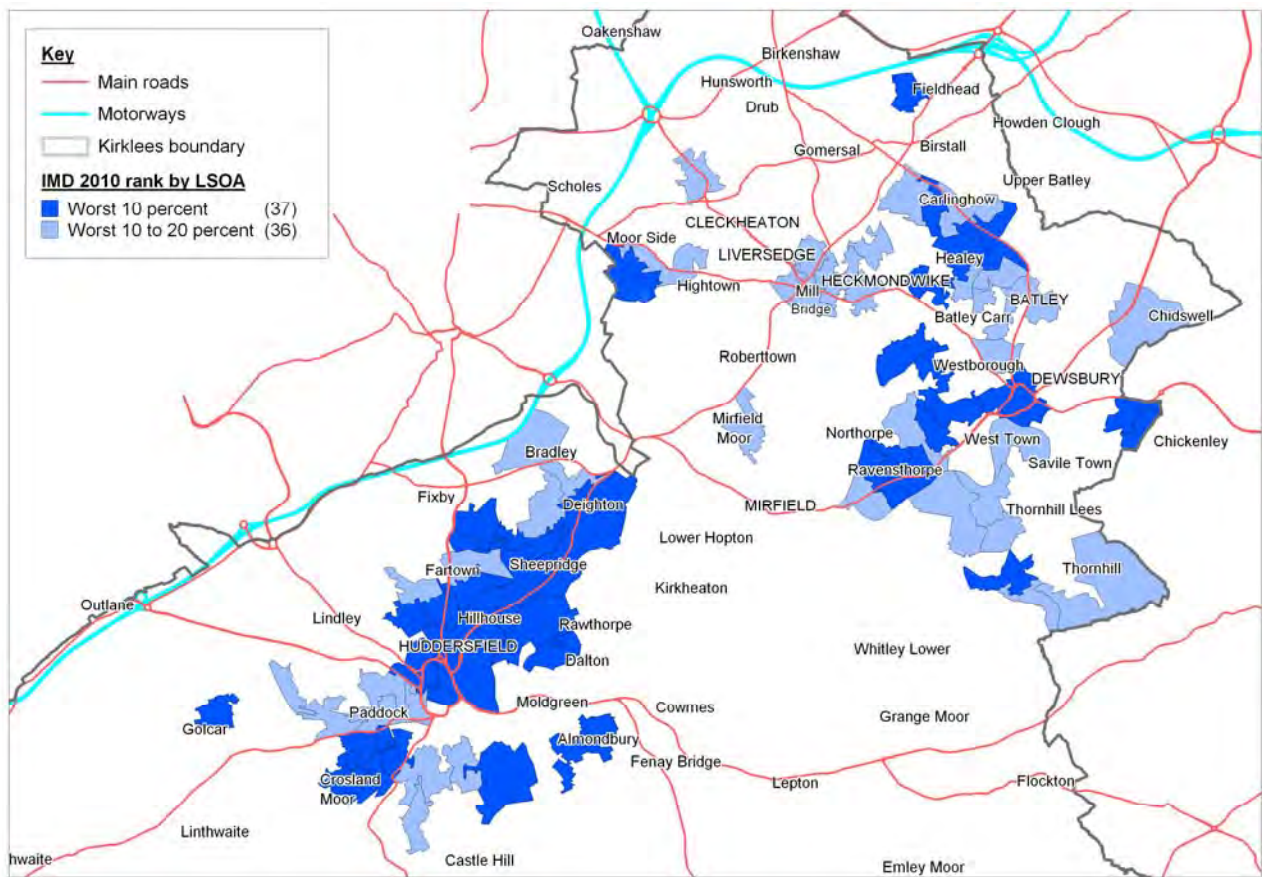
The identification of pockets of deprived older people is potentially more significant although from the published data it is impossible to determine whether Kirklees has a greater than average proportion of deprived older people or they are concentrated into fewer areas. Again the position in Kirklees remained unaltered in 2010 compared to 2007 with 36 LSOAs.

The Education Skills and Training domain consists of seven varied indicators looking at Key Stage results, staying on rates/entrance to higher education, absence from secondary schools, and qualifications of adult residents. There has been no change since 2007 with the same number (39) of Kirklees LSOAs falling within the worst 10%.

The Crime Domain from having 26 LSOAs in the worst 10% in 2007 has jumped to 56 LSOAs in 2010. Two LSOAs in Kirklees rank within the worst 50 in England for Crime;

Lowerhouses / Ashenhurst (E01011223), Dewsbury - Westborough, Schools Estate, Stockhill Street, Healds Road area (E01011136)

Over the last three years, the ID 2007 has been used to identify deprived areas within districts (e.g. Neighbourhood Action activity is being directed mainly at the worst 10% of LSOAs nationally). The ID2010 map below shows Kirklees LSOAs which fall into the worst 20% of LSOAs nationally. Again there is a similar pattern as in ID 2007, with concentrations around Huddersfield, Batley and Dewsbury, together with other outlying areas such as Botham Hall in Golcar, Fieldhead in Birstall, Fernside in Almondbury, London Park in Mirfield, part of Cleckheaton, Heckmondwike, and Windybank in Liversedge.

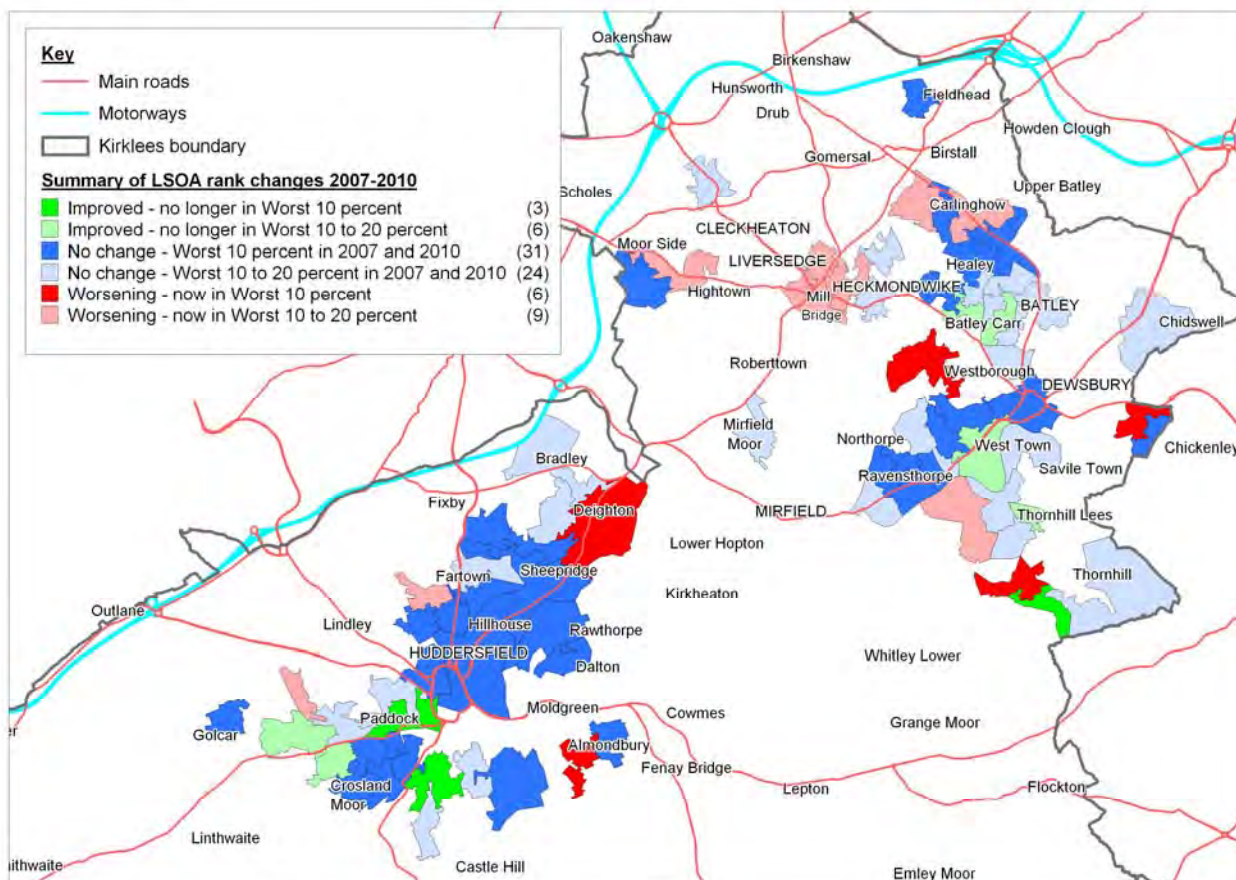


The map below shows changes in the relative position of LSOAs between 2007 and 2010 using the combined overall index. Perhaps the most interesting change concerns those LSOAs which have moved into the worst 10% (nationally), of which there are 6 areas:

- Almondbury - Fernside, High Croft and Farfield Road Estates (LSOA E01011010)
- Dewsbury Moor - Moorside Estate, Dewsbury Gate Road area (LSOA E01011025)
- Bradley / Colne Bridge - Leeds Road, Huntingdon Avenue, Elder Road area (LSOA E01011103)
- Chickenley - Princess Estate (LSOA E01011121)
- Dewsbury - Westborough, Schools Estate, Stockhill Street, Healds Road area (LSOA E01011136)
- Thornhill – Overthorpe (E01011255)

Three other LSOAs moved out of the worst 10% decile to the Worst 10 to 20% decile Primrose Hill/Newsome (E01011224), Paddock / Springwood (E01011235), Thornhill Edge Estate (E01011253).

*If you wish to know more information about the index and what it tells us about Kirklees please contact Andy Shackleton in the Chief Executives Policy and Partnership Unit (CEPPU) on 860 1762 (01484 221762) or by email [Andy.Shackleton@Kirklees.gov.UK](mailto:Andy.Shackleton@Kirklees.gov.UK).*



## Appendix 1

### Indicators and Domains

<b>Income Deprivation Domain</b>
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 families (Source: Department for Work and Pensions (DWP) 2008)
Adults and children in Income-Based JSA families (Source: DWP 2008)
Adults and children in Pension Credit (Guarantee) families (Source: DWP 2008)
Adults and children in Child Tax Credit families (who are not claiming Income Support, income-based Jobseeker's Allowance or Pension Credit) whose equivalised income (excluding housing benefits) is below 60% of the median before housing costs (Source: HMRC 2008)
Adults and children in Child Tax Credit families (who are not claiming Income Support, income-based Jobseeker's Allowance or Pension Credit) whose equivalised income (excluding housing benefits) is below 60% of the median before housing costs (Source: Home Office 2008)

<b>Employment Deprivation Domain</b>
This domain measures employment deprivation conceptualised as involuntary exclusion of the working age population from the labour market.
Claimants of Jobseeker's Allowance (both contribution-based and income based) women aged 18-59 and men aged 18-64, averaged over four quarters (Source: DWP 2008)
Claimants of Incapacity Benefit women aged 18-59 and men aged 18-64, averaged over four quarters (Source: DWP 2008)
Claimants of Severe Disablement Allowance women aged 18-59 and men aged 18-64, averaged over four quarters (Source: DWP 2008)
Claimants of Employment and Support Allowance (those with a contribution-based element) women aged 18-59 and men aged 18-64 (Source: DWP 2008)
Participants in New Deal for the 18-24s who are not in receipt of Jobseeker's Allowance, averaged over four quarters (Source: DWP 2008)
Participants in New Deal for 25+ who are not in receipt of Jobseeker's Allowance, averaged over four quarters (Source: DWP 2008)
Participants in New Deal for Lone Parents (after initial interview) aged 18 and over, averaged over four quarters (Source: DWP 2008)



<b>Health Deprivation and Disability Domain</b>
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) (2004 to 2008, Source: ONS)
Comparative Illness and Disability Ratio (CIDR) (2008, Source: DWP)
Measures of acute morbidity, derived from Hospital Episode Statistics (2006-07, 2007-08, Source: NHS Information Centre)
The proportion of adults under 60 suffering from mood or anxiety disorders based on prescribing (2005, Source: NHS Prescription Service), Hospital Episode Statistics (2006-07 and 2007-08, Source: NHS Information Centre), suicide mortality data for 2004-2008 (Office for National Statistics) and health benefits data for 2008 (DWP)
<b>Education, Skills and Training Deprivation</b>
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.
<b>Sub Domain: Skills</b>
Proportions of working age adults (aged 25-54) in the area with no or low qualifications (Source: 2001 Census)
<b>Sub Domain: Children/Young People</b>
Average test score of pupils at Key Stage 2 (2 year weighted average, 2006-07 and 2007-08, Source: Department for Education (DfE))
Average test score of pupils at Key Stage 3 (2 year weighted average, 2006-07 and 2007-08, Source: Department for Education (DfE))
Total capped (best 8) score of pupils taking Key Stage 4 in maintained schools (2 year weighted average, 2006-07 and 2007-08, Source: Department for Education (DfE))
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 weighted average, 2006-07 and 2007-08, Source: Department for Education (DfE))
Successful entrants under 21 to higher education, four year average 2005-06–2008-09 (Higher Education Statistics Agency)



<b>Barriers to Housing and Services (Housing Deprivation and Geographical Access to Services)</b>
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.
<b>Sub Domain: Wider Barriers</b>
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 LSOAs (Source: Communities and Local Government, 2008-09)
Difficulty of Access to owner-occupation (Source: modelled estimates produced by Heriot-Watt University, 2008)
<b>Sub Domain: Geographical Barriers</b>
Road distance to a GP surgery (Source: NHS Connecting for Health, 2008)
Road distance to a convenience store or supermarket (Source: MapInfo Ltd, 2008)
Road distance to a primary school (Source: DfE 2008)
Road distance to a Post Office or sub post office (Source: Post Office Ltd, 2008)
<b>Crime Domain</b>
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 2008-March 2009, constrained to Crime and Disorder Reduction Partnership (CDRP) level)
Theft (5 recorded crime offence types, Police Force data for April 2008-March 2009, constrained to CDRP level)
Criminal damage (11 recorded crime offence types, Police Force data for April 2008-March 2009, constrained to CDRP level)
Violence (19 recorded crime offence types including Robbery, Police Force data for April 2008-March 2009, constrained to CDRP level).

<b>The Living Environment</b>
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.
<b>Sub-domain: the "indoors" living environment</b>
Housing in poor condition, Source BRE and Communities and Local Government, modelled English House Condition Survey 2005
Houses without central heating (Source: 2001 Census)
<b>Sub-domain: The "outdoors" living environment</b>
Air quality (Modelled estimates 2008, Source: Geography Department at Staffordshire University)
Road traffic accidents involving injury to pedestrians and cyclists (2007-2009 average, Source: DfT, STATS19 (Road Accident Data) smoothed to LLSOA level)

<b>The Income Deprivation Affecting Children Index</b>
<i>The Income Deprivation Affecting Children Index (IDACI) is a subset of the Income Deprivation Domain and shows the percentage of children in each LSOA that live in families that are income deprived</i>
Children in Income Support Households (Source: Department for Work and Pensions (DWP) 2008)
Children in Income-Based JSA Households (Source: DWP 2008)
Children in Pension Credit (Guarantee) Households (Source: DWP 2008)
Children in those households not in receipt of Income Support, JSA or Pension Credit but 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 2008)

<b>The Income Deprivation Affecting Older People Index</b>
<i>The Income Deprivation Affecting Older People Index (IDAOPI) is a subset of the Income Deprivation Domain and shows the percentage of an LSOA's population aged 60 and over that are income deprived</i>
Adults aged 60 and over living in Income Support, JSA or Pension Credit (Guarantee) Households (Source: DWP 2008)

## Appendix 2

**Local Concentration** is the population weighted average of the ranks of a districts most deprived LSOAs that contain exactly 10% of the district's population.

Local concentration is an important way of identifying districts' 'hot spots' of deprivation. The measure defines these hot spots by reference to a percentage of the district's population. This involves taking the mean of the population weighted rank of a district's most deprived LSOAs that capture exactly 10% of the district's population. In many cases this was not a whole number of LSOAs. For the purposes of calculating this score the LSOAs were ranked with the most deprived LSOA given the rank of 32,482.

**Extent** is the proportion of a districts population living in the most deprived LSOAs in the country

The aim of this measure is to portray how widespread high levels of deprivation are in a district. It only includes districts containing LSOAs which fall within the most deprived 30% of LSOAs in England. Therefore some districts do not have an overall score for this measure and they are given a joint rank of 294. In this measure, 100% of the people living in the 10% most deprived LSOAs in England are captured in the numerator, plus a proportion of the population of those LSOAs in the next two deciles on a sliding scale – that is 95% of the population of the LSOA at the 11th percentile, and 5% of the population of the LSOA at the 29th percentile. This describes districts that contain high levels of deprivation when compared across England but with a less abrupt cut-off point than that adopted in the ID2000.

**Income Scale** is the number of people who are Income deprived

**Employment Scale** is the number of people who are Employment deprived

These two measures are designed to give an indication of the sheer numbers of people experiencing Income deprivation and Employment deprivation at district level. The Income Scale score is a count of individuals experiencing income deprivation. The Employment Scale score is a count of individuals experiencing employment deprivation. It is useful to present both measures as they are real counts of the individuals experiencing these deprivations.

**Average of LSOA Ranks** is the population weighted average of the combined ranks for the LSOAs in a district

This measure is useful because it summarises the district taken as a whole, including both deprived and less deprived LSOAs. All the LSOAs in a district need to be included to obtain such an average, as each LSOA contributes to the character of that district. This measure is calculated by averaging all of the LSOA ranks in each district. The LSOA ranks are population weighted within a district to take account of the fact that LSOA size can vary.

The nature of this measure means that a highly polarised district would not score highly because extremely deprived and less deprived LSOAs will 'average out'. Conversely, a district that is more homogeneously poor will have a greater chance of scoring highly on an average measure. For the purposes of calculating this score the LSOAs were ranked with the most deprived LSOA given the rank of 32,482

**Average of LSOA Scores** is the population weighted average of the combined scores for the LSOAs in a district

This measure also describes the district as a whole, taking into account the full range of LSOA scores across a district. The advantage of the Average of LSOA Score measure is that it describes the LSOAs by retaining the fact that the more deprived LSOAs may have more 'extreme' scores, which is not revealed to the same extent if the ranks are used. This measure is calculated by averaging the LSOA scores in each district after they have been population weighted.

### **Appendix 3 - Changes to Indicators 2007 to 2010**

#### Income Deprivation Domain

There is now only one indicator for adults and children in Child Tax Credit households. Previously there were two indicators which differentiated between households claiming Working Tax Credit and those who were not eligible.

#### Employment Deprivation Domain

An additional indicator has been added to this Domain - Claimants of Employment and Support Allowance.

#### Education, Skills and Training Deprivation (Sub Domain: Children/Young People)

This domain now 'pools' together data from more than one year when calculating many of the indicators. However, the indicators used remain the same as in 2004.

#### Crime Domain

Slight increases in the number of crime categories covered by two of the indicators (Criminal damage and Violence).

#### The Income Deprivation Affecting Older People Index

Adults (and their partners) aged 60 and over in Income Support households (2001) **added**  
Adults (and their partners) aged 60 and over in Income-based Job Seekers Allowance Households (2001) **added**

### References

The English Indices of Deprivation 2010 (Summary Report, DCLG)  
<http://www.communities.gov.uk/documents/statistics/pdf/1871208.pdf>

English Indices of Deprivation 2010 (Guidance document, (DCLG)  
<http://www.communities.gov.uk/documents/statistics/pdf/1871538.pdf>

The English Indices of Deprivation 2010 (Technical Report, DCLG)  
<http://www.communities.gov.uk/documents/statistics/pdf/1870718.pdf>

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Revisions: 'The Income Deprivation Affecting Older People Index' Source: DWP 2005 incorrect should be DWP 2008 (page 10), also 354 local authorities revised to 326 (page 3).