

The Index of Deprivation 2015 (ID2015)

Introduction

The Index of Deprivation 2015 (ID 2015) is an update of the Index of Deprivation 2010 (ID 2010) which was released by the Department for Communities and Local Government in March 2011.

As in ID 2010, ID 2015 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 ID2015 uses 37 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 2015 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 2015, ID 2010 and ID 2004. In 2015 there were 259 LSOAs in Kirklees created by aggregating a number of 2011 Census Output Areas, compared to 260 LSOAs in 2010, 2007 and 2004. Each LSOA has a population of about 1,500 residents (between 1000 and 3200 in Kirklees, Mid-year estimates 2013) and about

500 households (between 414 and 1,003 in Kirklees, 2011 Census). 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 2011 Census. When non-Census numerators are used, the denominators were based on the Lower Super Output Area 2012 Mid-Year Estimates.

Measures of Deprivation

Measures at Super Output Area level

Each of the 32,844 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 (IDAOPI).

Measures at local authority district level

In addition, there are seven district level summary measures of deprivation (one more than in 2010), 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

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

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

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.

Proportion of Lower-layer Super Output Areas in most deprived 10 per cent nationally

There are also a number of district measures for each of the Domains.

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 2010 and the ID 2015 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 2010 and 2015 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	Most deprived 10% nationally rank
Bradford	ID2015	6	5	19	30	18	18	11
	ID2010	6	5	26	33	27	11	
Calderdale	ID2015	73	77	89	96	83	58	59
	ID2010	73	79	105	110	88	80	
Kirklees	ID2015	11	16	94	101	82	95	95
	ID2010	16	16	77	95	67	58	
Leeds	ID2015	3	3	70	100	58	24	31
	ID2010	4	4	68	97	59	44	
Wakefield	ID2015	17	33	65	73	60	54	65
	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 2010, 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 is unchanged for the Rank of Income Scale, but has become more deprived under the Rank of Employment Scale.

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 2015 all these summary measures show higher ranks than in 2010 which indicates that Kirklees has become **relatively less deprived** over the period, with one particularly large rank change - Local Concentration Rank moved from 58 to 95. A description of each measure is given in Appendix 2 below.

Lower 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 23 LSOAs in the worst 10% nationally for the IMD combined index, a decrease of 14 since 2010, showing that Kirklees has a **lower** proportion of highly deprived LSOAs compared to the national average.

Domain	LSOAs in worst 10% ID 2010	LSOAs in worst 10% ID 2015
Income	29	16
Employment	25	24
Health Deprivation and Disability	14	14
Education Skills and Training	39	34
Barriers to Services	0	0
Crime	56	10
Living Environment	92	44
IMD (Combined Index)	37	23
IDACI (Children)	16	15
IDAOP1 (Older People)	36	32

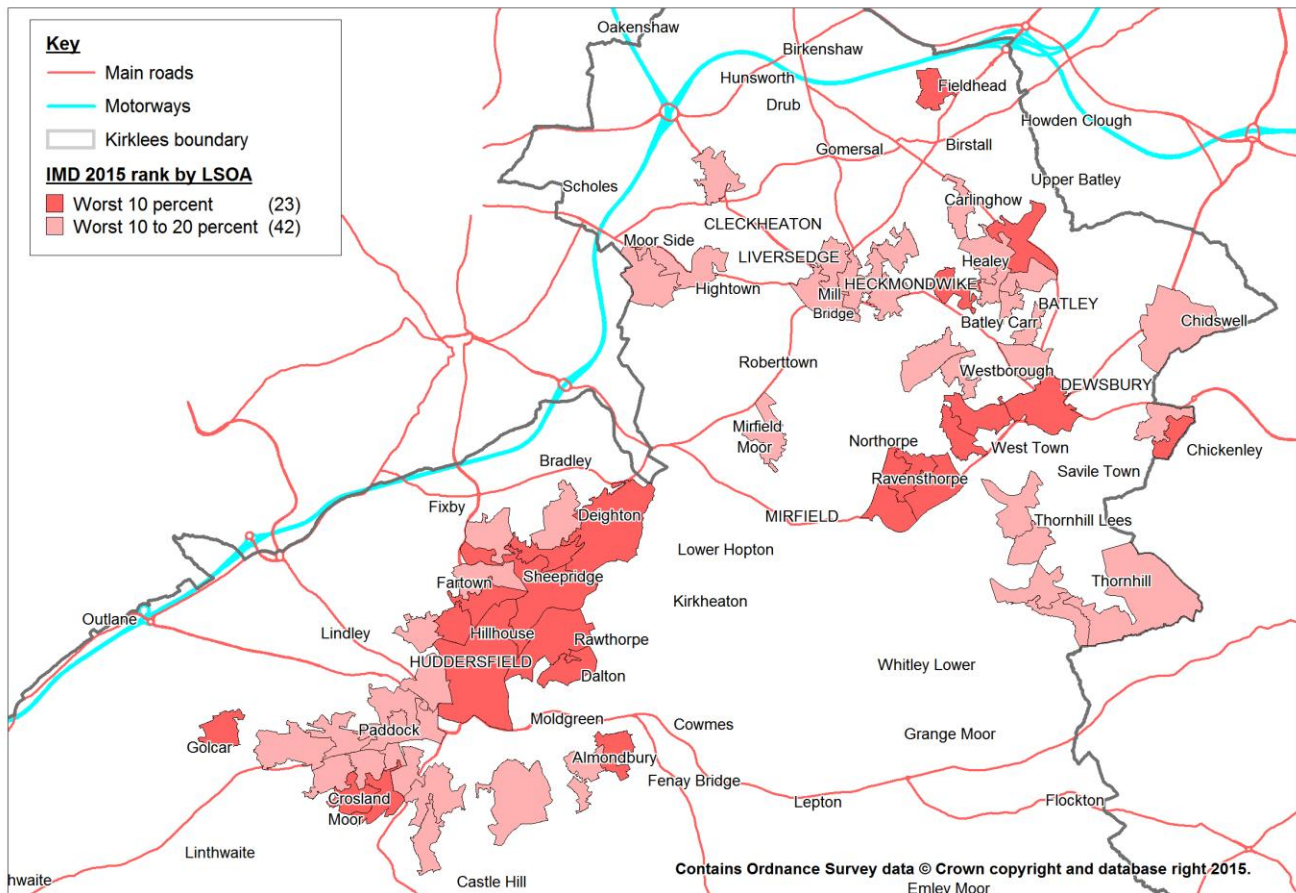
There are four domains in which Kirklees scores significantly worse than expected, The Living Environment, Education Skills and Training and Income Deprivation Affecting Older People Index. The Living Environment is not a robust domain because it is made up of just two indicators, one of which is modelled air quality. Estimates of local air quality for small areas are rarely reliable; however, the Kirklees position is shown as much improved from 2010 with 44 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. However, the position in Kirklees has improved with 32 LSOAs in 2015 compared to 2010 with 36 LSOAs.

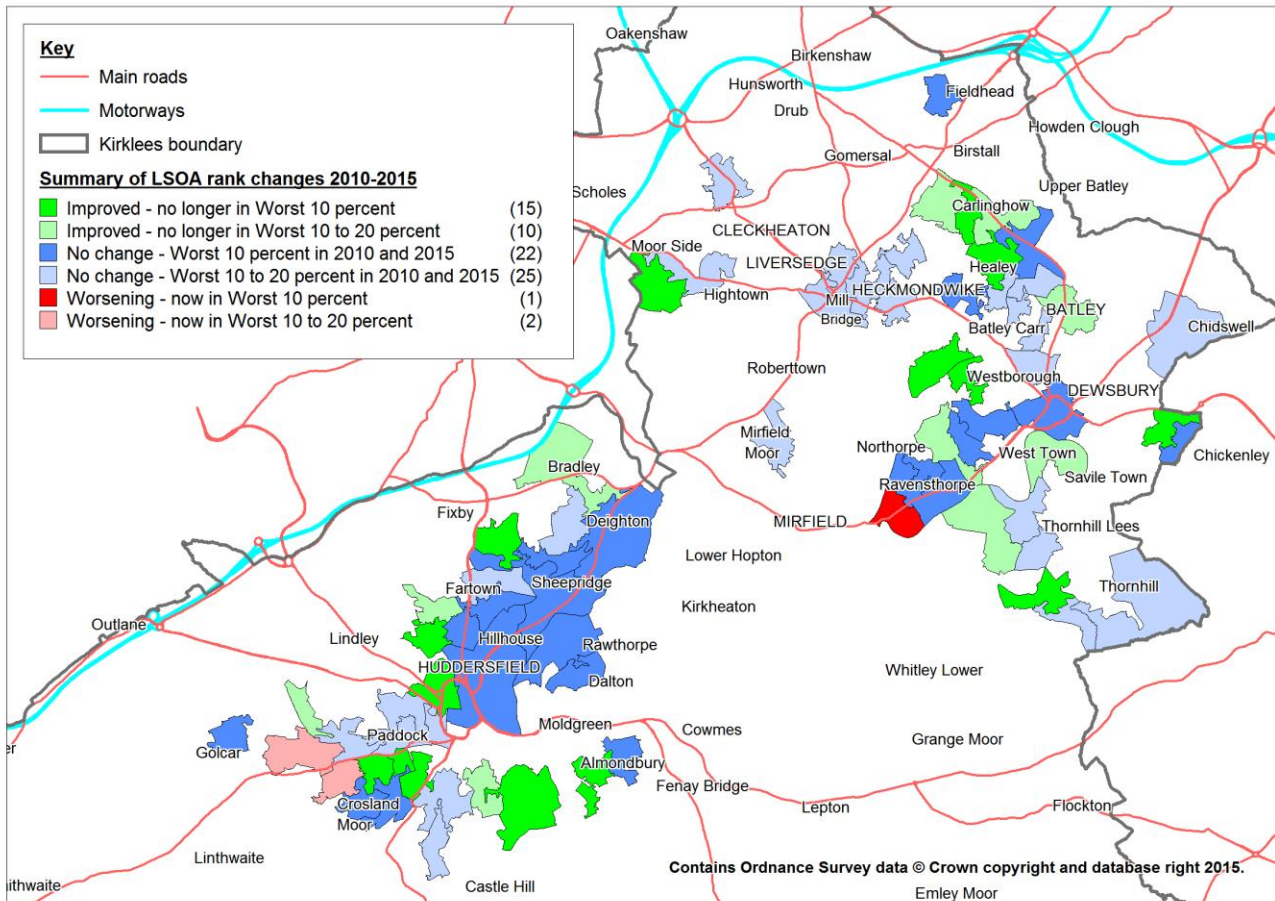
The Education Skills and Training domain consists of seven varied indicators looking at Key Stage results, staying on rates/entrance to higher education, absence from secondary schools, and qualifications of adult residents. Again the position in Kirklees has improved with 34 LSOAs in 2015 compared to 2010 with 39 LSOAs.

The Crime Domain from having 56 LSOAs in the worst 10% in 2010 has fallen to 10 LSOAs in 2015.

Over the last four years, the ID 2010 has been used to identify deprived areas within districts. The ID2015 map below shows Kirklees LSOAs which fall into the worst 20% of LSOAs nationally. Again there is a similar pattern as in ID 2010, 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 2010 and 2015 using the combined overall index. There is only one LSOA which moved into the worst 10% (E01011133 - Ravensthorpe, Fir Cottage), and two which moved into the Worst 10 to 20% decile (E01011079 Crosland Moor, Barton and E01011149 Milnsbridge (centre)). The majority of the movement between deciles is where LSOAs have become relatively less deprived with 15 LSOAs moving out of the Worst 10% and 10 out of the Worst 10 to 20%.



If you wish to know more information about the index and what it tells us about Kirklees please contact Andy Shackleton in the Policy Unit on 01484 221000) or by email Andy.Shackleton@Kirklees.gov.UK.

Appendix 1

Indicators and 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 families. Source: Department for Work and Pensions (DWP) August 2012.
Adults and children in Income-Based JSA families. Source: DWP August 2012.
Adults and children in income-based Employment and Support Allowance families. Source: DWP August 2012.
Adults and children in Pension Credit (Guarantee) families. Source: DWP August 2012.
Adults and children in Working Tax Credit and Child Tax Credit families not already counted, that is those who are not in receipt of Income Support, income-based Jobseeker's Allowance, income-based Employment and Support Allowance or Pension Credit (Guarantee) and whose equivalised income (excluding housing benefit) is below 60 per cent of the median before housing costs. Source: HMRC August 2012
Asylum seekers in England in receipt of subsistence support, accommodation support, or both. Source: Home Office 2012.

Employment Deprivation Domain
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 May 2012 – February 2013.
Claimants of Employment and Support Allowance (both contribution-based and income-based) women aged 18-59 and men aged 18-64 averaged over four quarters. Source: DWP May 2012 – February 2013.
Claimants of Incapacity Benefit women aged 18-59 and men aged 18-64, averaged over four quarters. Source: DWP May 2012 – February 2013.
Claimants of Severe Disablement Allowance women aged 18-59 and men aged 18-64, averaged over four quarters. Source: DWP May 2012 – February 2013.
Claimants of Carer's Allowance, women aged 18 to 59 and men aged 18 to 64, averaged over four quarters. Source: DWP May 2012 – February 2013.

Health Deprivation and Disability Domain

The Health Deprivation and Disability Domain measures the risk of premature death and the impairment of quality of life through poor physical or mental health.

Years of potential life lost: An age and sex standardised measure of premature death, mortality data in five-year age-sex bands, for 2008, 2009, 2010, 2011 and 2012. Source: Office for National Statistics.

Comparative illness and disability ratio: An age and sex standardised morbidity/disability ratio. Non-overlapping counts of people in receipt of Income Support, 65 Disability Premium, Attendance Allowance, Disability Living Allowance, Severe Disablement Allowance, Incapacity Benefit in five-year age-sex bands, 2013. Source: Department for Work and Pensions.

Acute morbidity: An age and sex standardised rate of emergency admission to hospital. Hospital spells starting with admission in an emergency in five-year age-sex bands, 2011/12 and 2012/13. Source: Health and Social Care Information Centre, Hospital Episode Statistics.

Mood and anxiety disorders: A composite based on the rate of adults suffering from mood and anxiety disorders (source: Health and Social Care Information Centre, 2013), hospital episodes data (source: Health and Social Care Information Centre, Hospital Episode Statistics, 2011/12 and 2012/13), suicide mortality data (Source: Office of National Statistics, 2008, 2009, 2010, 2011 and 2012) and health benefits data (Source: Department for Work and Pensions, 2013).

Education, Skills and Training Deprivation

This domain captures the extent of deprivation in terms of education, skills and training in a local area. The indicators fall into two sub-domains: one relating to children and young people and one relating to adult skills.

Sub Domain: Skills

Adult skills: The proportion of working-age adults with no or low qualifications, women aged 25 to 59 and men aged 25 to 64. Source: 2011 Census.

English language proficiency: The proportion of working-age adults who cannot speak English or cannot speak English well, women aged 25 to 59 and men aged 25 to 64. Source: 2011 Census.

Sub Domain: Children/Young People

Key Stage 2 attainment: The average points score of pupils taking reading, writing and mathematics Key Stage 2 exams 2010/11, 2011/12 and 2012/13. Source: Department for Education (DfE).

Key Stage 4 attainment: The average capped points score of pupils taking Key Stage 4, 2010/11, 2011/12 and 2012/13. Source: Department for Education (DfE).

Secondary school absence: The proportion of authorised and unauthorised absences from secondary school, 2010/11, 2011/12 and 2012/13. Source: Department for Education (DfE).

Staying on in education post 16: The proportion of young people not staying on in school or non-advanced education above age 16, 2010, 2011 and 2012. Source: HMRC Child Benefit data.

Entry to higher education: Young people aged under 21 not entering higher education, 2009/10, 2010/11, 2011/12 and 2012/13. Source: Higher Education Statistics Agency.

Barriers to Housing and Services (Housing Deprivation and Geographical Access to Services)

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: The proportion of all households in a Lower-layer Super Output Area which are judged to have insufficient space to meet the household's needs. Source: 2011 Census.

Homelessness: Local authority district level rate of acceptances for housing assistance under the homelessness provisions of the 1996 Housing Act, assigned to the constituent Lower-layer Super Output Areas, average of 2011/12, 2012/13 and 2013/14. Source: Department for Communities and Local Government.

Housing affordability: Difficulty of access to owner-occupation or the private rental market, expressed as the inability to afford to enter owner-occupation or the private rental market. These are modelled estimate of households unable to afford to enter owner-occupation or the private rental market on the basis of their income, estimated primarily from the Family Resources Survey, Regulated Mortgage Survey, Land Registry house prices, and Valuation Office Agency market rents, 2012.

Sub Domain: Geographical Barriers
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Road distance to a GP surgery: A measure of the mean distance to the closest GP surgery for people living in the Lower-layer Super Output Area 2014. Source: Health and Social Care Information Centre.

Road distance to a general store or supermarket: A measure of the mean distance to the closest supermarket or general store for people living in the Lower-layer Super Output Area 2014. Source: Ordnance Survey.

Road distance to a primary school: A measure of the mean distance to the closest primary school for people living in the Lower-layer Super Output Area 2014. Source: Department for Education Edubase.
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Road distance to a post office: A measure of the mean distance to the closest post office for people living in the Lower-layer Super Output Area 2014. Source: Post Office Ltd.

Crime Domain

The Crime Domain measures the risk of personal and material victimisation at local level.

Burglary: The rate of burglary per 1,000 at-risk properties, 4 recorded crime offence types, 2013/14. Source: Association of Chief Police Officers, provided by the Home Office.
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Theft: The rate of theft per 1,000 at-risk population, 5 recorded crime offence types, 2013/14. Source: Association of Chief Police Officers, provided by the Home Office.
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Criminal Damage: The rate of criminal damage per 1,000 at-risk population, 8 recorded crime offence types, 2013/14. Source: Association of Chief Police Officers, provided by the Home Office.
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Violence: The rate of violence per 1,000 at-risk population, 18 recorded crime offence types, 2013/14. Source: Association of Chief Police Officers, provided by the Home Office.

The Living Environment

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

Houses without central heating: The proportion of houses that do not have central heating. Source: 2011 Census.

Housing in poor condition: The proportion of social and private homes that fail to meet the Decent Homes standard. These are modelled estimates of the probability that any given dwelling in the Output Area (aggregated to Lower-layer Super Output Area level) fails to meet the Decent Homes standard, estimated from the English Housing Survey, 2011.

Sub-domain: The “outdoors” living environment

Air quality: A measure of air quality based on emissions rates for four pollutants using modelled estimates of air quality based on the concentration of four pollutants (nitrogen dioxide, benzene, sulphur dioxide and particulates), estimated from UK Air Information Resource air quality, 2012.

Road traffic accidents: Proportion of injuries to pedestrians and cyclists caused by road traffic accidents, 2011, 2012 and 2013. Source: Department for Transport.

The Income Deprivation Affecting Children Index

The Income Deprivation Affecting Children Index is the proportion of all children aged 0 to 15 living in income deprived families.

Income deprived families are defined as families that either receive Income Support or income-based Jobseekers Allowance or income-based Employment and Support Allowance or Pension Credit (Guarantee) or families not in receipt of these benefits but in receipt of Working Tax Credit or Child Tax Credit with an equivalised income (excluding housing benefit) below 60 per cent of the national median before housing costs, 2012. Source: Department for Work and Pensions.

The Income Deprivation Affecting Older People Index

The Income Deprivation Affecting Older People Index (IDAOPI) is a subset of the Income Deprivation Domain and shows the proportion of an LSOA’s population aged 60 and over that are income deprived

Adults aged 60 or over receiving Income Support or income-based Jobseekers Allowance or income-based Employment and Support Allowance or Pension Credit (Guarantee), 2012. Source: Department for Work and Pensions.

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.

The local concentration measure is a summary of how the most deprived Lower-layer Super Output Areas in the higher-level (local authority district) area compare to those in other areas across the country. This measures the population-weighted average rank for the Lower-layer Super Output Areas that are ranked as most deprived in the higher-area, and that contain exactly 10 per cent of the higher-area population.

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

The extent measure is a summary of the proportion of the local population that live in areas classified as among the most deprived in the country. The extent measure uses a weighted measure of the population in the most deprived 30 per cent of all areas:

- The population living in the most deprived 10 per cent of Lower-layer Super Output Areas in England receive a 'weight' of 1.0;
- The population living in the most deprived 11 to 30 per cent of Lower-layer Super Output Areas receive a sliding weight, ranging from 0.95 for those in the most deprived eleventh percentile, to 0.05 for those in the most deprived thirtieth percentile.

Income Scale and Employment Scale

The two scale measures summarise the number of people in the higher-level area who are income deprived (the income scale) or employment deprived (the employment scale). is the number of people who are Income 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.

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 homogenously poor will have a greater chance of scoring highly on an average measure.

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.

Proportion of Lower-layer Super Output Areas in most deprived 10 per cent nationally, as the indicator name suggests this is the proportion of Lower-layer Super Output Areas that are in the most deprived 10 per cent nationally.

Appendix 3 - Changes to Indicators 2010 to 2015

There have been changes to all domains due to the inclusion of new indicators and changes in data definitions. These changes are documented in [The English Indices of Deprivation 2015 Technical Report](#) Appendix C p68-74.

References

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