

The Index of Deprivation 2007 (ID2007)

Introduction

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

As in ID 2004, ID 2007 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 ID2007 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 2007 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 both 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 2004 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 (IDAOPI).

Measures at local authority district level

In addition (as with the ID 2004), there are six district level 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 2004 and the ID 2007 is possible because there have been relatively few changes in the indicators used. Only the Income domain has been markedly changed, and Appendix 3 gives details of these changes. Therefore, most change is likely to reflect real relative change between the two time periods. The table below gives comparisons between 2004 and 2007 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>ID2004</i>	6	5	30	51	31	11
	ID2007	6	4	32	52	31	11
Calderdale	<i>ID2004</i>	68	70	86	87	83	65
	ID2007	74	73	107	119	98	71
Kirklees	<i>ID2004</i>	16	21	77	81	73	68
	ID2007	15	12	82	102	75	59
Leeds	<i>ID2004</i>	4	4	68	91	64	24
	ID2007	4	5	85	114	67	48
Wakefield	<i>ID2004</i>	11	29	54	53	56	61
	ID2007	11	37	66	74	62	68

Note: Rank of 1 = most deprived, 354 least deprived (354 local authorities in England).

As was the case in the ID 2004, Kirklees is identified as one of the most deprived 50 districts in England for both the Income and Employment Domains, particularly Income where Kirklees ranks worse than in 2004, going from 21st worst to 12th worst in England. These domains count absolute numbers of people who are income or employment deprived.

Changes in the indicators used within the Income domain has had a dramatic affect on the number of income deprived people within Kirklees, rising from 57,957 people in 2004 to 70,714 in 2004. However, this rise has not been shared by all districts in the country with eight districts seeing a decrease in absolute numbers (Liverpool, Knowsley, Wirral, Newcastle upon Tyne, Sefton, Stockton-on-Tees, Halton, and South Tyneside), though generally most have seen an increase, varying from 0.1% to 44.6% (Kirklees 22%, England 14.9%).

In the other domains, 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. Of these other domains only the Local Concentration Rank worsened for Kirklees, from 68th worst to 59th worst in England.

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 34 LSOAs in the worst 10% nationally for the IMD combined index, an increase of one since 2004.

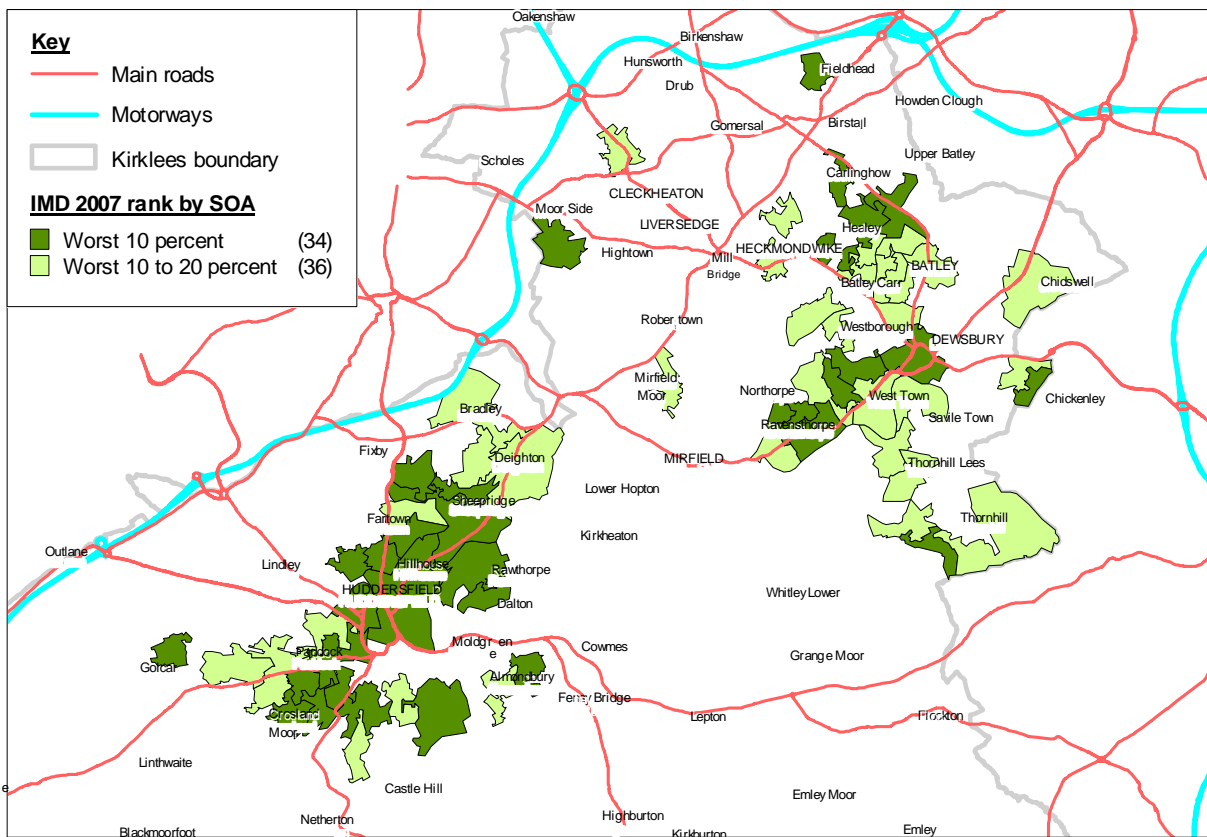
Domain	LSOAs in worst 10% ID 2007	LSOAs in worst 10% ID 2004
Income	43	24
Employment	20	19
Health Deprivation and Disability	23	23
Education Skills and Training	39	31
Barriers to Services	0	6
Crime	26	35
Living Environment	92	108
IMD (Combined Index)	34	33
IDACI (Children)	20	17
IDAOP (Older People)	36	40

There are four domains in which Kirklees scores significantly worse than expected, Income, The Living Environment, Education Skills and Training, and the 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, though Kirklees does better in 2007 with markedly fewer LSOAs in the worst 10% (108 in 2004, 92 in 2007).

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 has improved in Kirklees with four fewer LSOAs in the worst 10% compared to 2004.

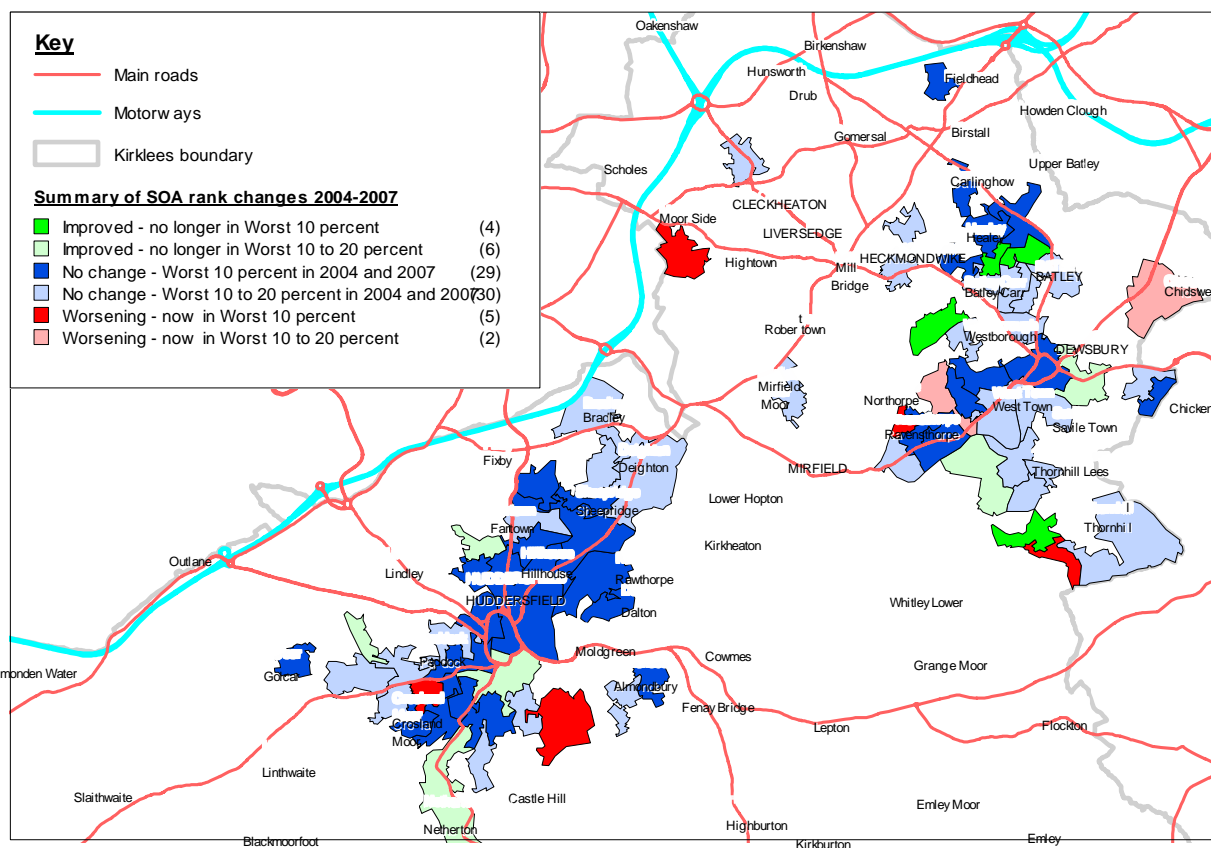
The Education Skills and Training domain consists of seven varied indicators looking at Key Stage results, staying on rates/entrance to higher education, absence from secondary schools, and qualifications of adult residents. Since 2004 8 more Kirklees LSOAs fall within the worst 10%, a notable increase. More significant is the addition of 19 further LSOAs in the worst 10% within the Income domain, increasing from 24 in 2004 to 43 in 2007.

Over the last three years, the ID 2004 has been used to identify deprived areas within districts (e.g. Neighbourhood Renewal funding was directed at the worst 10.3% of LSOAs nationally). The ID2007 map below shows Kirklees LSOAs which fall into the worst 20% of LSOAs nationally. Again there is a similar pattern as in ID 2004, with concentrations around Huddersfield, Batley and Dewsbury, together with other outlying areas such as Botham Hall in Golcar, Fieldhead in Birstall, Greenside in Almondbury, London Park in Mirfield, part of Cleckheaton, and Windybank in Liversedge.



The map below shows changes in the relative position of LSOAs between 2004 and 2007 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 5 areas:

- Windybank, Liversedge (LSOA E01011251)
- Part of Ravensthorpe (Dewsbury) covering Northstead estate (LSOA E01011143)
- Part of Thornhill (Dewsbury) covering Thornhill Edge estate and part of Overthorpe estate (LSOA E01011253)
- Lowerhouses (Huddersfield) LSOA E01011223
- Part of Crosland Moor covering Yews Hill and lower part of Blackmoorfoot Road (LSOA E01011080)



If you wish to know more information about the index and what it tells us about Kirklees please contact Andy Shackleton in the Policy and Governance Service on 860 1762 (01484 221762) 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 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)

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
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: Skills
Proportions of working age adults (aged 25-54) in the area with no or low qualifications (Source: 2001 Census)
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))

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 (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, 2005)
Difficulty of Access to owner-occupation (Source: modelled 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)
Violence (14 recorded crime offence types including Robbery, Police Force data for April 2004-March 2005, constrained to CDRP level).

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
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 LLSOA level)
Road traffic accidents involving injury to pedestrians and cyclists (2003-2005 average, Source: DfT, STATS19 (Road Accident Data) smoothed to LLSOA level)

The Income Deprivation Affecting Children Index
<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) 2005)
Children in Income-Based JSA Households (Source: DWP 2005)
Children in Pension Credit (Guarantee) Households (Source: DWP 2005)
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)
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)

The Income Deprivation Affecting Older People Index
<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 in Pension Credit (Guarantee) Households (Source: DWP 2005)

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 Local Concentration measure defines the 'hot spots' by reference to a percentage of the district's population. This is the mean of the population weighted rank of a district's most deprived LSOAs that capture exactly 10% of the district's population. 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 is the proportion of a district's population living in the LSOAs which rank within the most deprived LSOAs in England (comprising 100% of the population of LSOAs in the worst 10%, 95% of the population in the next decile and 5% of the population in the third most deprived decile.) It only includes districts which contain LSOAs which fall within the top thirty percent of the most deprived LSOAs in England. Therefore some districts will not have an overall score for this measure. A rank of 309 indicates a district with no score.

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 first of all population weighted within a district to take account of the fact that LSOA size can vary in that district. 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

Income domain

Adults and children in Disabled Person's Tax Credit households indicator **removed**

Adults and children in Child Tax Credit Households **added**

Adults and children in Pension Credit (Guarantee) Households **added**

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.

The Income Deprivation Affecting Children Index

Children in Disabled Person's Tax Credit households **removed**

Children in Child Tax Credit Households **added**

Children in Pension Credit (Guarantee) Households **added**

The Income Deprivation Affecting Older People Index

Adults (and their partners) aged 60 and over in Income Support households (2001) **removed**

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

Adults aged 60 and over in Pension Credit (Guarantee) Households **added**

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