

# LEEDS ECONOMY

## • *Briefing Note* •

Issue 46

April 2011

## INDEX OF DEPRIVATION 2010

### SUMMARY

Work commissioned from the University of Oxford by Communities and Local Government on updating the Index of Deprivation 2007 using more up-to-date data, has now been published.

The domains and methodology are the same in the ID2010 as in the ID2007. Comparisons can be made on the relative rankings of districts between 2007 and 2010.

Oxford has produced six measures of deprivation, which it stresses should be treated equally. They are based on seven domains of deprivation: income; employment; health; education, barriers to housing & services; living environment; and crime. Each domain contains a number of indicators, totaling 38 overall. (See Details for details).

Most of the indicators used are for 2008, though some indicators come from the 2001 Census of Population.

### THE SIX DISTRICT RANKINGS

(See Details for definitions)

With a rank of 1 equating to the most deprived area, out of 354 local authority districts Leeds is ranked:

- 44<sup>th</sup> (48<sup>th</sup> in 2007) most deprived local authority on the Local Concentration measure.
- 59<sup>th</sup> (67<sup>th</sup> in 2007) on the extent measure
- 68<sup>th</sup> (84<sup>th</sup> in 2007) on the rank of average of SOA scores
- 97<sup>th</sup> (114<sup>th</sup> in 2007) on average of SOA ranks
- 4<sup>th</sup> most deprived on both the Income and the Work Scale measures (5<sup>th</sup> and 4<sup>th</sup> in 2007), reflecting the fact that Leeds is the second largest local authority after Birmingham.

### DEPRIVED SOA'S AT THE DISTRICT LEVEL

The whole of England has been divided into 32,482 SOAs, with 476 in Leeds.

- In Leeds, 19% of SOAs are in the 10% most deprived SOAs nationally, and 29% in the 20% most deprived.
- This compares with 17% and 28% respectively for the region; 31% and 45% for the Core Cities; and 16% and 27% for the Leeds City Region.

### WARD RANKINGS

Leeds City Council has long argued that "overbounding", where the relatively deprived inner area is surrounded by a more affluent outer area, significantly affects the ranking of Leeds in the district ranking given above. This is clearly demonstrated by the fact that:

- 15 of the 33 wards in Leeds do not have any SOAs in the worst 10% nationally
- 11 wards do not have any SOAs in the worst 20% nationally
  
- 5 wards in Leeds have more than half their SOAs in the 10% most deprived SOAs nationally:
  - Burmantofts & Richmond Hill, City and Hunslet, Gipton and Harehills, Killingbeck and Seacroft and Middleton Park.
- 7 wards in Leeds have more than half their SOAs in the 20% most deprived SOAs nationally.
  - The above wards, plus Armley and Chapel Allerton wards.

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### DETAILS

#### Introduction

- 1 In the 1990s, the former DETR produced two Index of Deprivation rankings based on the studies undertaken by the University of Manchester. The first study used data solely from the 1991 Census of Population and the results were used to determine national wards eligible for Objective 2 status. This index was updated in 1998, using revised methodology and some new data.
- 2 In 1998 the University of Oxford was commissioned to review and update the 1998 index. Oxford undertook a series of consultation exercises during 1999 and Leeds City Council responded in depth to the final consultation. The ID2000 index, which was published in 2000, was used to determine which wards were eligible for funding from the Neighbourhood Renewal Fund.
- 3 In 2003 the ODPM commissioned Oxford to update the ID2000. Following two consultation exercises, to which Leeds City Council responded, the results of the ID2004 were published in May 2004, with revised data published in June. Previous analyses had used wards as the basic geography, even though it was acknowledged that they masked pockets of high deprivation. These were replaced in 2004 with Super Output Area (SOA), which are of approximately equal size (1,500 people) and nest within ward boundaries.
- 4 In 2007 Communities and Local Government commissioned the Social Disadvantage Research Centre at the University of Oxford to update the ID2004 index. The ID2007 is based on the approach, structure and methodology that were used to create the ID2004. The ID2007 updates the ID2004 using more up-to-date data.
- 5 In 2010 Communities and Local Government again commissioned the University of Oxford to update the index. The ID2010 is broadly based on the approach, structure and methodology that were used to create the ID2007.
- 6 The Index of Deprivation district and imputed ward rankings are discussed briefly below.

#### DISTRICT RANKINGS

- 1 Oxford has produced six indicators of deprivation (details given at the end of this note), which it stresses should be treated equally.
- 2 Leeds City Council has long argued the case that using a district-wide indicator is invalid for Leeds because of the over-bounding problem. Indeed, the original study by Manchester University accepted that this was a problem and that a district index would mask the high concentrations of multiple deprivation within its boundary. This is highlighted in the ward-based analysis

Leeds is ranked 4<sup>th</sup> most deprived for the Income Scale and the Work Scale measures, reflecting the fact that Leeds is the second largest local authority after Birmingham. It is also ranked 44<sup>th</sup> most deprived local authority on the Local Concentration measure.

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INDEX OF DEPRIVATION 2010 LOCAL AUTHORITIES							
Most Deprived Local Authorities							
Local Authority	Local Concentration Rank	Extent Rank	Rank of Average of SOA Scores	Rank of Average of SOA Ranks	Rank of Income Scale	Rank of Work Scale	% of SOAs in worst 10% nationally
Blackpool	1	16	6	10	74	63	37
Liverpool	2	4	1	5	3	2	51
Knowsley	3	7	5	12	51	50	45
Burnley	4	19	11	21	125	115	33
Middlesborough	5	9	8	27	67	66	47
Hull	6	12	10	15	18	18	43
Blackburn	7	14	17	28	70	75	34
Manchester	8	5	4	4	2	3	46
Salford	9	23	18	26	42	28	33
Rochdale	10	25	23	29	47	39	26
Bradford	11	27	26	33	5	6	31
Barrow	12	38	32	37	188	148	26
Hartlepool	13	21	24	30	112	100	36
Wirral	14	54	60	103	22	10	23
Newcastle	15	35	40	66	29	20	25
NE Lincs	16	37	46	78	83	89	25
Redcar & Cleveland	17	49	48	71	94	79	22
Bolton	18	31	36	48	35	25	22
Hastings	19	24	19	23	124	126	28
Birmingham	20	10	9	13	1	1	39
Leicester	21	28	25	22	11	14	25
Stoke	22	15	16	18	36	19	31
Wolverhampton	31	18	21	20	27	24	27
Sheffield	33	48	56	84	6	7	22
Nottingham	35	17	20	17	17	13	26
Sandwell	36	6	12	9	12	15	34
Tower Hamlets	38	3	7	3	10	38	40
Leeds	44	59	68	97	4	4	19
Wigan	47	60	65	85	40	12	13
Hackney	49	1	2	1	15	30	42
Sunderland	50	43	44	38	28	11	18
Newham	51	2	3	2	8	32	31
Haringey	53	8	13	11	19	41	29
Bristol	57	73	79	93	14	9	13
Kirklees	58	67	77	95	16	16	14
Brent	60	53	35	24	20	42	14
Waltham Forest	62	13	15	7	32	54	17
Wakefield	66	69	67	77	37	17	12
Islington	68	11	14	6	41	46	16
Durham	69	62	62	70	7	5	12
Greenwich	71	29	28	19	39	51	17
Barking & Dagenham	89	20	22	8	46	74	10
Enfield	93	68	64	63	13	44	10
Lambeth	120	41	29	14	21	23	5
Lewisham	128	40	31	16	31	35	3
Cornwall	152	154	110	82	9	8	2

The **six district indicators** are explained at the end of this Note.

1. Includes Districts ranked in first 20 for any of the six indicators
2. Ranking out of 354 Local Authority Districts in England.

**Deprived SOA's at the district level:** percentage of SOA's in each district which are in the most 10% deprived SOA's nationally.

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The table below gives the rankings for the:

- Core cities: Bristol, Leeds and Sheffield have similar rankings
- Leeds City Region: significant difference between metropolitan districts and the rest

INDEX OF DEPRIVATION 2010- CORE CITIES & LEEDS CITY REGION							
Local Authority	Local Concentration Rank	Extent Rank	Rank of Average of SOA Scores	Rank of Average of SOA Ranks	Rank of Income Scale	Rank of Work Scale	% of SOA's in worst 10% nationally
<b>CORE CITIES</b>							
Birmingham	20	10	9	13	1	1	39%
Bristol	57	73	79	93	14	9	13%
Leeds	44	59	68	97	4	4	19%
Liverpool	2	4	1	5	3	2	51%
Manchester	8	5	4	4	2	3	46%
Nottingham	35	17	20	17	17	13	26%
Newcastle	15	35	40	66	29	20	25%
Sheffield	33	48	56	84	6	7	22%
<b>LEEDS CITY REGION</b>							
Barnsley	55	50	47	44	54	27	18%
Bradford	11	27	26	33	5	6	31%
Calderdale	80	88	105	110	79	73	10%
Craven	243	222	246	241	316	311	-
Harrogate	279	242	282	283	207	196	1%
Kirklees	58	67	77	95	16	16	14%
Leeds	44	59	68	97	4	4	19%
Selby	207	208	235	236	287	268	2%
Wakefield	66	69	67	77	37	17	12%
York	175	178	234	244	136	131	1%

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### Concentration of Deprivation

The table below shows the high concentration of deprivation, particularly in the Core Cities.

The results for Leeds highlight the problems of overbounding: high levels of multiple deprivation in the inner area being masked by low levels in the more affluent outer areas. This is clearly demonstrated in the ward analysis below.

	Percentage of SOAs in worst 5% nationally	Percentage of SOAs in worst 10% nationally	Percentage of SOAs in worst 20% nationally
Yorkshire & Humber	9%	17%	28%
West Yorkshire	9%	19%	31%
Bradford	16%	31%	43%
Calderdale	5%	10%	22%
Kirklees	7%	14%	28%
Leeds	9%	19%	29%
Wakefield	5%	12%	29%
Core Cities	18%	31%	45%
Birmingham	22%	39%	55%
Bristol	6%	13%	24%
Leeds	9%	19%	29%
Liverpool	40%	51%	66%
Manchester	25%	46%	65%
Newcastle	16%	25%	38%
Nottingham	11%	26%	52%
Sheffield	14%	22%	35%
Leeds City Region	7%	16%	27%
Barnsley	7%	18%	33%
Bradford	16%	31%	43%
Calderdale	5%	10%	22%
Craven	-	-	6%
Harrogate	-	1%	1%
Kirklees	7%	14%	28%
Leeds	9%	19%	29%
Selby	-	2%	2%
Wakefield	5%	12%	29%
York	-	1%	7%

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### WARD RANKINGS

- Pre-2004 studies on the Index of Deprivation produced national ward rankings for the 8,414 wards in England. There was general consensus in the consultation for the ID 2004 indicators should be constructed at the smallest practicable spatial scale and the geography should be relatively even sized populations.
- The Office for National Statistics developed units called 'Super Output Areas', which contain on average 1,500 people. England contains 32,484 SOAs, with 476 in Leeds. These are used as the base-geography for the ID2007 and ID2010.
- Ward rankings are not published because they mask high levels of multiple deprivation within wards. However, it is possible to re-analyse the results to highlight the concentration of deprivation within wards in Leeds. SOA boundaries in Leeds do not map onto ward boundaries; a "best-fit" approach is used.

### Concentration of deprivation in Leeds

- The table below highlights the problem of overbounding in Leeds:
  - 15 wards in Leeds do not have any SOAs in the worst 10% nationally
  - 11 wards do not have any SOAs in the worst 20% nationally
- 5 wards in Leeds have more than half their SOAs in the 10% most deprived SOAs nationally.
- 7 wards in Leeds have more than half their SOAs in the 20% most deprived SOAs nationally.
- In Leeds as a whole, 19% of SOAs are in the 10% most deprived nationally. This compares with 17% for the Yorkshire and Humber region as a whole and 16% for Leeds City Region.
- 29% of Leeds SOAs are in the worst 20%, marginally higher than Yorkshire and the Humber and Leeds City Region.

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<i>LEEDS WARD RANKINGS</i>	Total SOAs in ward	% in worst 5% nationally	% in worst 10% nationally	% in worst 20% nationally
Adel & Wharfedale	12	-	-	8
Alwoodley	14	-	14	21
Ardsley & Robin Hood	12	-	-	-
Armley	16	19	31	62
Beeston & Holbeck	14	14	36	50
Bramley & Stanningley	16	6	19	37
Burmantofts & Richmond Hill	16	25	75	87
Calverley & Farsley	14	-	-	-
Chapel Allerton	13	23	46	54
City & Hunslet	12	58	75	92
Cross Gates & Whimoor	15	-	7	33
Farnley & Wortley	16	12	31	50
Garforth & Swillington	13	-	-	-
Gipton & Harehills	16	50	81	100
Guiseley & Rawdon	16	-	-	-
Harewood	13	-	-	-
Headingley	14	-	-	-
Horsforth	14	-	-	-
Hyde Park & Woodhouse	13	-	8	31
Killingbeck & Seacroft	17	47	59	82
Kippax & Methley	14	-	-	-
Kirkstall	14	7	7	29
Middleton Park	17	24	71	76
Moortown	14	-	7	14
Morley North	14	-	-	-
Morley South	14	-	-	14
Otley & Yeadon	13	-	-	-
Pudsey	15	-	-	7
Rothwell	15	-	-	7
Roundhay	17	-	6	6
Temple Newsam	13	15	31	31
Weetwood	16	-	6	12
Wetherby	14	-	-	-
<b>Leeds MD</b>	<b>476</b>	<b>9</b>	<b>19</b>	<b>29</b>

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### Level of Ward Deprivation by Domain

The table below shows the percentage of SOAs by ward in the 10% and 20% most deprived nationally for each of the domains. (Blank cells have a value of zero)

It demonstrates that for most of the domains, deprivation tends to be concentrated in certain wards

	Overall		Income		Employment		Health		Education		Housing		Crime		Living	
	10%	20%	10%	20%	10%	20%	10%	20%	10%	20%	10%	20%	10%	20%	10%	20%
Gipton & Harehills	81	100	63	100	38	63	31	63	88	100		6	81	100	88	94
City & Hunslet	75	92	58	75	50	75	50	83	83	92	8	25	67	83	58	67
Burmantofts & Richmond Hill	75	87	44	88	38	69	31	75	56	88		6	75	81	75	81
Middleton Park	71	76	29	71	24	71	18	65	82	88		24	82	88	12	53
Killingbeck & Seacroft	59	82	24	65	35	71	35	76	59	82		24	65	82	76	76
Chapel Allerton	46	54	23	54	31	46	31	54	15	46		31	46	69	46	54
Beeston & Holbeck	36	50	7	43	21	43	36	50	43	64		21	36	64	71	86
Armley	31	62	19	31	19	38	19	44	31	63		25	81	94	38	75
Farnley & Wortley	31	50		31	13	31	13	50	44	50		25	44	69	50	50
Temple Newsam	31	31	15	31	23	31	15	23	31	31	15	38	23	46		8
Bramley & Stanningley	19	37	6	19		25	6	31	31	56	6	13	44	69	25	56
Alwoodley	14	21		14	7	21	14	14			7	36	7	14	21	21
Hyde Park & Woodhouse	8	31	8	15	8	23	15	46	8	15	31	62	8	62	31	77
Cross Gates & Whinmoor	7	33		13		27		27	27	40	20	47	20	40	13	33
Kirkstall	7	29	7	14	7	21		36	7	21		7	36	71	79	100
Moortown	7	14		14	7	14	7	14				7	7	21	7	7
Weetwood	6	12		13		19	6	13		13	25	31	6	38	19	25
Roundhay	6	6		6	6	6	6	6				6	6	35	6	12
Morley South		14				7		14	7	21	14	57		7	64	64
Adel & Wharfedale		8			8	8		8			33	50		8		
Pudsey		7		7		7	7	13		27	7	13	33	47	27	47
Ardsley & Robin Hood									8	17	8	43		8		8
Calverley & Farsley								7		7					14	21
Garforth & Swillington											8	15				
Guiselley & Rawdon										6		13			13	19
Harewood											46	77				
Headingley							7	14		7	14	50	14	50	7	57
Horsforth												7			14	29
Kippax & Methley										14	29	29				
Morley North										7	14	14			7	29
Otley & Yeadon										8	8	8			8	15
Rothwell		7		7		7		7	7	20					13	
Wetherby										7	14	43		7		
<b>LEEDS MD</b>	<b>19</b>	<b>29</b>	<b>9</b>	<b>22</b>	<b>10</b>	<b>23</b>	<b>11</b>	<b>26</b>	<b>20</b>	<b>31</b>	<b>9</b>	<b>25</b>	<b>25</b>	<b>40</b>	<b>27</b>	<b>39</b>

## **Domain Indicators**

The Index of Multiple Deprivation 2010 is based on seven independent domains of multiple deprivation, each with its own additive impact.

There are 38 separate indicators, organized over seven district domains of deprivation which can be combined, using appropriate weights, to calculate the Index of Multiple Deprivation 2010. This is an overall measure of multiple deprivation experienced by people living in an area and is calculated for every Lower Layer Super Output Area (LSOA). The IMD2010 can be used to rank every LSOA according to their relative level of deprivation.

The indices are a continuous measure of relative deprivation therefore there is no definitive point on the scale below which areas are considered to be deprived and above which they are not.

❖ *Income : measures proportion of people experiencing income deprivation.*

Adults and children in Income Support families (DWP 2008)  
Adults and children in income-based Job Seeker's Allowance families (DWP 2008)  
Adults and children in Pension Credit (Guarantee) families (DWP 2008)  
Adults and children in Child Tax Credit families: equivalised income below 60% of median (HMRC 2008)  
Asylum seekers in receipt of subsistence and/or accommodation support (Home Office 2008)

❖ *Employment: measures involuntary exclusion of working age population from world of work*

Claimants of Job Seekers Allowance (DWP 2008)  
Claimants of Incapacity Benefit (DWP 2008)  
Claimants of Severe Disability Allowance (DWP 2008)  
Claimants of Employment and Support Allowance (DWP 2008)  
Participants in New Deal for 18-24s not in receipt of JSA (DWP 2008)  
Participants in New Deal for 25+ not in receipt of JSA (DWP 2008)  
Participants in New Deal for Lone Parents (DWP2008)

❖ *Health Deprivation and Disability: identifies areas with relatively high rates of people who die prematurely or whose quality of life is impaired by poor health or who are disabled*

Years of Potential Life Lost (ONS 2004-2008)  
Comparative Illness and Disability Ratios (DWP 2008)  
Measures of acute morbidity (DHS 2006-07 and 2007-08)  
Adults under 60 suffering from mood or anxiety disorders (NHS, ONS, DWP: various years)

❖ *Education, Skills and Training: measures extent of deprivation*

Children/young people:  
Key Stage 2 attainment : (DfE 2006-07 and 2007-08)  
Key Stage 3 attainment : (DfE 2006-07 and 2007-08)  
Best of 8 average capped points score at Key Stage 4 (2006-07 and 2007-08)  
Secondary school absence rate (DfE 2006-07 and 2007-08)  
Proportion of young people not staying on in school or school level education above 16 (HMRC 2009)  
Proportion of those aged under 21 not entering higher education in 2005-06 to 2008-09 (HESA)  
Skills  
Proportions of working age adults (aged 25-54) with no or low qualification (Census 2001)

❖ *Barriers to Housing and Services*

Wider Barriers  
Household overcrowding (2001 Census)  
Accepted decisions for assistance under the homeless provisions of housing legislation (DCLG 2008/9)  
Proportion of households unable to afford access to owner occupation in 2008  
Geographical Barriers  
Road distance to GP premises in 2008  
Road distance to supermarket or convenience store in 2008  
Road distance to primary school in 2008  
Road distance to a Post Office in 2008

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### ❖ Crime: measures incidence of recorded crime

Violence (19 recorded criminal offence types) for April 2008 –March 2009  
Burglary (4 recorded crime offence types) for April 2008 –March 2009  
Theft (5 recorded criminal offence types) for April 2008 –March 2009  
Criminal damage (11 recorded criminal offence types) for April 2008 –March 2009

### ❖ Living Environment Deprivation: quality of housing, air quality and road traffic accidents

Housing in poor condition in 2005  
Housing without central heating in 2001  
Air quality in 2008  
Road traffic accidents involving injury to pedestrians and cyclists in 2007-2009

## DOMAIN INDICES

1. There are seven **domain indices**, which consist on the combined indicators in that domain:

- Income and Employment are rates
- Health, Education, Barriers to Housing & Services, Crime & Disorder and Living Environment are factor scores.

2. The overall **Index of Multiple Deprivation 2007** is the combined sum of the weighted, exponentially transformed domain rank of the domain score.

## DISTRICT LEVEL

Six summary measures of the overall IMD 2007 have been produced at the district level. No single measure is favoured over another: there is no single best way of describing or comparing England's 354 districts.

### Local Concentration

Population weighted average of the ranks of the district's most deprived SOAs that contain exactly 10% of the district's population

*Way of identifying 'hot spots' of deprivation*

### Extent

Proportion of the district's population living in the most deprived SOAs in the country.

*Overbounding severely affects the score for Leeds.*

### Average of SOA Scores

Population weighted average of the combined scores for the SOAs in the district

*Overbounding severely affects the score for Leeds..*

### Average of SOA Ranks

Population weighted average of the combined ranks for the SOAs in the district

*Overbounding severely affects the score for Leeds.*

### Scale

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

*These appears to be included to mop-up the larger local authorities which were not included in the 'most deprived 50' in the four factor score indicators above. The measures are designed to give an indication of the number of people experiencing deprivation.*