

## The Index of Deprivation 2004 (ID2004)

### Introduction

The Index of Deprivation 2004 (ID 2004) is a major revision and update of the Index of Deprivation 2000 (ID 2000) which was released by the Office for the Deputy Prime Minister (ODPM) in May 2004.

When it was published, the ID 2000 represented a new approach to measuring deprivation by central government. It recognised that deprivation has many aspects and this was reflected in the construction of six domains all of which combined 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.

The ID 2004 follows these principles but differs from the ID 2000 in the following ways;

- Revised indicators (which are more imaginative and ambitious and reflect the growing availability of appropriate data)
- The inclusion of two new domains; Crime and Disorder and the Living Environment
- A finer geographical scale of output

### Indicators

In total the ID2004 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 2004 geography**

Super Output Areas (SOAs) are a new geography created by the Office for National Statistics for the purpose of releasing small area statistics and have been used by the ODPM as the geographical areas for the ID 2004. There are 260 Super Output Areas in Kirklees created by aggregating a number of 2001 Census Output Areas. Each SOA has a population of about 1,500 residents (between 1000 and 2300 in Kirklees) and about 500 households (between 400 and 820 in Kirklees). SOA 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 mainly based on the 2001 Mid-Year Estimates (MYEs). However, as MYEs are only produced at local authority district level, SOA level denominators were created by apportioning the 2001 MYEs to the SOA level using Census derived ratios.

## **Measures of Deprivation**

### Measures at Super Output Area level

Each of the 32,482 SOAs 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).

*Kirklees SOA data are in the accompanying Excel spreadsheet **KMC ID2004 SOA data.xls***

### Measures at local authority district level

In addition (as with the ID 2000), 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 SOAs that contain exactly 10% of the district's population.

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

**Average of SOA Ranks** is the population weighted average of the combined ranks for the SOAs in a district

**Average of SAO Scores** is the population weighted average of the combined scores for the SOAs in a district

See Appendix 2 for a brief description of each measure.

*Kirklees district level measures and those for all other local authorities in England are in the accompanying Excel spreadsheet **LA summaries 2004.xls***

## 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%

## Analysis

A direct comparison between the ID 2000 and the ID 2004 is not possible because of the changes in the indicators and some changes in the ways the indices have been constructed.

However, as the table below shows, there is a great degree of consistency in the district measures for Kirklees and the other West Yorkshire authorities between 2000 and 2004. The greatest inconsistencies lie with the Local Concentration measure. This reflects the move to the smaller Super Output Areas and the identification of small areas in ID 2004 whose relative deprivation was masked by their inclusion in the larger ward areas in ID 2000.

		Rank of Emp Scale	Rank of Income Scale	Rank of Average Scores	Rank of Average Ranks	Extent Rank	Local Concentration Rank
Bradford	<i>ID2000</i>	6	5	33	64	42	17
	ID2004	6	5	30	51	31	11
Calderdale	<i>ID2000</i>	69	63	97	97	75	80
	ID2004	68	70	86	87	83	65
<b>Kirklees</b>	<b><i>ID2000</i></b>	<b>19</b>	<b>8</b>	<b>85</b>	<b>93</b>	<b>92</b>	<b>90</b>
	<b>ID2004</b>	<b>16</b>	<b>21</b>	<b>77</b>	<b>81</b>	<b>73</b>	<b>68</b>
Leeds	<i>ID2000</i>	4	4	114	146	71	78
	ID2004	4	4	73	91	64	24
Wakefield	<i>ID2000</i>	11	22	58	62	64	72
	ID2004	11	29	54	53	56	61

Note: Rank of 1 = most deprived

As was the case in the ID 2000, Kirklees is identified as one of the most deprived 50 districts in England for both the Income and Employment Domains. These domains count absolute numbers of people who are income or employment deprived. 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.

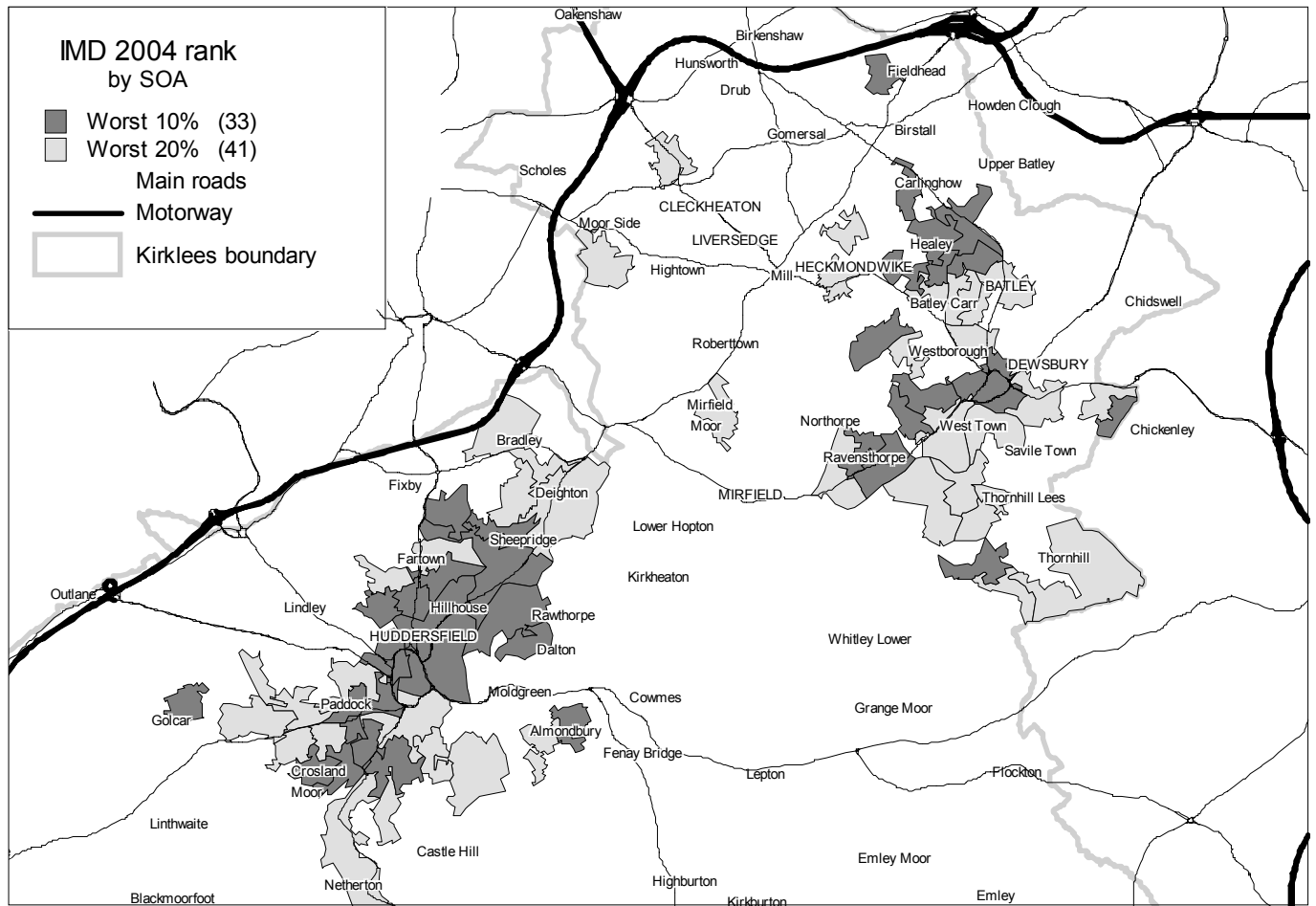
Over the last four years, the ID 2000 has been used to identify deprived areas within districts. For example, some Neighbourhood Renewal funding was directed at the worst 10% of wards nationally (which included Deighton, Thornhill and Dewsbury West.)

The table below identifies the number of areas (SOAs for 2004 and wards for 2000) 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 SOAs to be in the worst 10% nationally (i.e. 26 SOAs).

There are two domains in which Kirklees scores significantly worse than expected. The Living Environment 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. 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.

<b>Domain</b>	<b>SOAs in worst 10% ID 2004</b>	<b>Wards in worst 10% ID 2000</b>
Income	24	5
Employment	19	1
Health Deprivation and Disability	23	1
Education Skills and Training	31	5
Barriers to Services	6	n/a
Crime	35	n/a
Living Environment	108	n/a
IMD (Combined Index)	33	3
IDACI (Children)	17	6
IDAOP (Older People)	40	n/a

The map below shows the SOAs in Kirklees which fall into the worst 20% of SOAs nationally. As expected, most of these areas are concentrated around Huddersfield, Batley and Dewsbury. However, because of the finer geographic detail of SOAs, other areas are also identified, such as Botham Hall in Golcar, Fieldhead in Birstall, Greenside in Almondbury and Windybank in Liversedge.



*If you wish to know more information about the index and what it tells us about Kirklees please contact Steve Jones in the Corporate Development Unit on 860 1757 (01484 221757) or by email [Steve.Jones@Kirklees.gov.UK](mailto:Steve.Jones@Kirklees.gov.UK).*

## Appendix 1

### Indicators and Domains

<b>Income Deprivation Domain</b>
<i>The purpose of this Domain is to capture the proportion of the population experiencing income deprivation in an area.</i>
Adults and children in Income Support households (2001)
Adults and children in Income-based Job Seekers Allowance Households (2001)
Adults and children in Working Families Tax Credit households whose equivalised income (excluding housing benefits) is below 60% of median before housing costs (2001)
Adults and children in Disabled Person's Tax Credit households whose equivalised income (excluding housing benefits) is below 60% of median before housing costs (2001)
National Asylum Support Service supported asylum seekers in England in receipt of subsistence only and accommodation support (2002)

<b>Employment Deprivation Domain</b>
<i>This domain measures employment deprivation conceptualised as involuntary exclusion of the working age population from the world of work</i>
Unemployment claimant count (JUVOS) of women aged 18-59 and men aged 18-64 averaged over 4 quarters (2001)
Incapacity Benefit claimants women aged 18-59 and men aged 18-64 (2001)
Severe Disablement Allowance claimants women aged 18-59 and men aged 18-64 (2001)
Participants in New Deal for the 18-24s who are not included in the claimant count (2001)
Participants in New Deal for 25+ who are not included in the claimant count (2001)
Participants in New Deal for Lone Parents aged 18 and over (2001)

<b>Health Deprivation and Disability Domain</b>
<i>This domain 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 across the whole population</i>
Comparative Illness and Disability Ratio (CIDR) (2001)
Years of Potential Life Lost (YPLL) (1997 to 2001)
Measures of emergency admissions to Hospital (1999 to 2002)
Adults under 60 suffering from mood or anxiety disorders (1997 – 2002)

<b>Education, Skills and Training Deprivation</b>
<i>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 education deprivation for children/young people in the area and one relating to lack of skills and qualifications among the working age population.</i>
<b>Sub Domain: Skills</b>
Proportion of working age adults (aged 25-59) in the area with no qualifications (2001)
<b>Sub Domain: Children/Young People</b>
Proportion of young people not staying on in school or school level education above 16 (2001)
Proportion of those aged under 21 not entering Higher Education (1999-2002)
Secondary school absence rate (2001/2)
Average points score of children at Key Stage 2 (end of primary). (2002)
Average points score of children at Key Stage 3 (2002)
Average points score of children at Key Stage 4 (2002)

<b>Barriers to Housing and Services (Housing Deprivation and Geographical Access to Services)</b>
<i>The purpose of this domain is to measure barriers to housing and key local services. The indicators fall into two sub domains: "geographical barriers and "wider barriers" which also includes issues relating to access to housing such as affordability.</i>
<b>Sub Domain: Wider Barriers</b>
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 SOAs (2002)
Household overcrowding (2001, ONS Census)
Difficulty of Access to owner-occupation (2002)
<b>Sub Domain: Geographical Barriers</b>
Road distance to a Post Office (End of March 2003, Source: Post Office Ltd)
Road distance to a supermarket or convenience store (December 2002, Source: MapInfo Ltd)
Road distance to a GP surgery (May 2003, Source: National Health Service Information Authority)
Road distance to a primary school (2001-02, Source: DfES)

### **Crime Domain**

*This domain measures the incidence of recorded crime for four major crime themes representing the occurrence of personal and material victimisation at small area level.*

Burglary (4 recorded crime offence types April 2002 – March 2003)

Theft (5 recorded crime offence types April 2002 – March 2003, constrained to CDRP level)

Criminal damage (10 recorded crime offence types April 2002 – March 2003)

Violence recorded (14 crime offence types April 2002 – March 2003)

### **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 (2001)

Houses without central heating (2001)

#### **Sub-domain: The “outdoors” living environment**

Air quality (2001)

Road traffic accidents involving injury to pedestrians and cyclists (2001)

### **The Income Deprivation Affecting Children Index**

*The Income Deprivation Affecting Children Index (IDACI) is a subset of the Income Deprivation Domain and shows the percentage of children in each SOA that live in families that are income deprived*

Children in Income Support households (2001)

Children in Income-based Job Seekers Allowance Households (2001)

Children in Working Families Tax Credit households whose equivalised income (excluding housing benefits) is below 60% of median before housing costs (2001)

Children in Disabled Person’s Tax Credit households whose equivalised income (excluding housing benefits) is below 60% of median before housing costs (2001)

### **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 percentage of an SOA’s population aged 60 and over that are income deprived*

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

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



## Appendix 2

**Local Concentration** is the population weighted average of the ranks of a districts most deprived SOAs 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 SOAs that capture exactly 10% of the district's population. For the purposes of calculating this score the SOAs were ranked with the most deprived SOA given the rank of 32,482.

**Extent** is the proportion of a districts population living in the most deprived SOAs 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 SOAs which rank within the most deprived SOAs in England (comprising 100% of the population of SOAs 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 SOAs which fall within the top thirty percent of the most deprived SOAs in England. Therefore some districts will not have an overall score for this measure. A rank of 306 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 SOA Ranks** is the population weighted average of the combined ranks for the SOAs in a district

This measure is useful because it summarises the district taken as a whole, including both deprived and less deprived SOAs. All the SOAs in a district need to be included to obtain such an average, as each SOA contributes to the character of that district. This measure is calculated by averaging all of the SOA ranks in each district. The SOA ranks are first of all population weighted within a district to take account of the fact that SOA size can vary in that district. For the purposes of calculating this score the SOAs were ranked with the most deprived SOA given the rank of 32,482

**Average of SAO Scores** is the population weighted average of the combined scores for the SOAs in a district

This measure also describes the district as a whole, taking into account the full range of SOA scores across a district. The advantage of the Average of SOA Score measure is that it describes the SOAs by retaining the fact that the more deprived SOAs 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 SOA scores in each district after they have been population weighted.

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*Version 1d: Revised July 2004 due to disclosure of errors by the authors in the calculation of the Living Environment and Crime domains and subsequent issue of revised figures.*