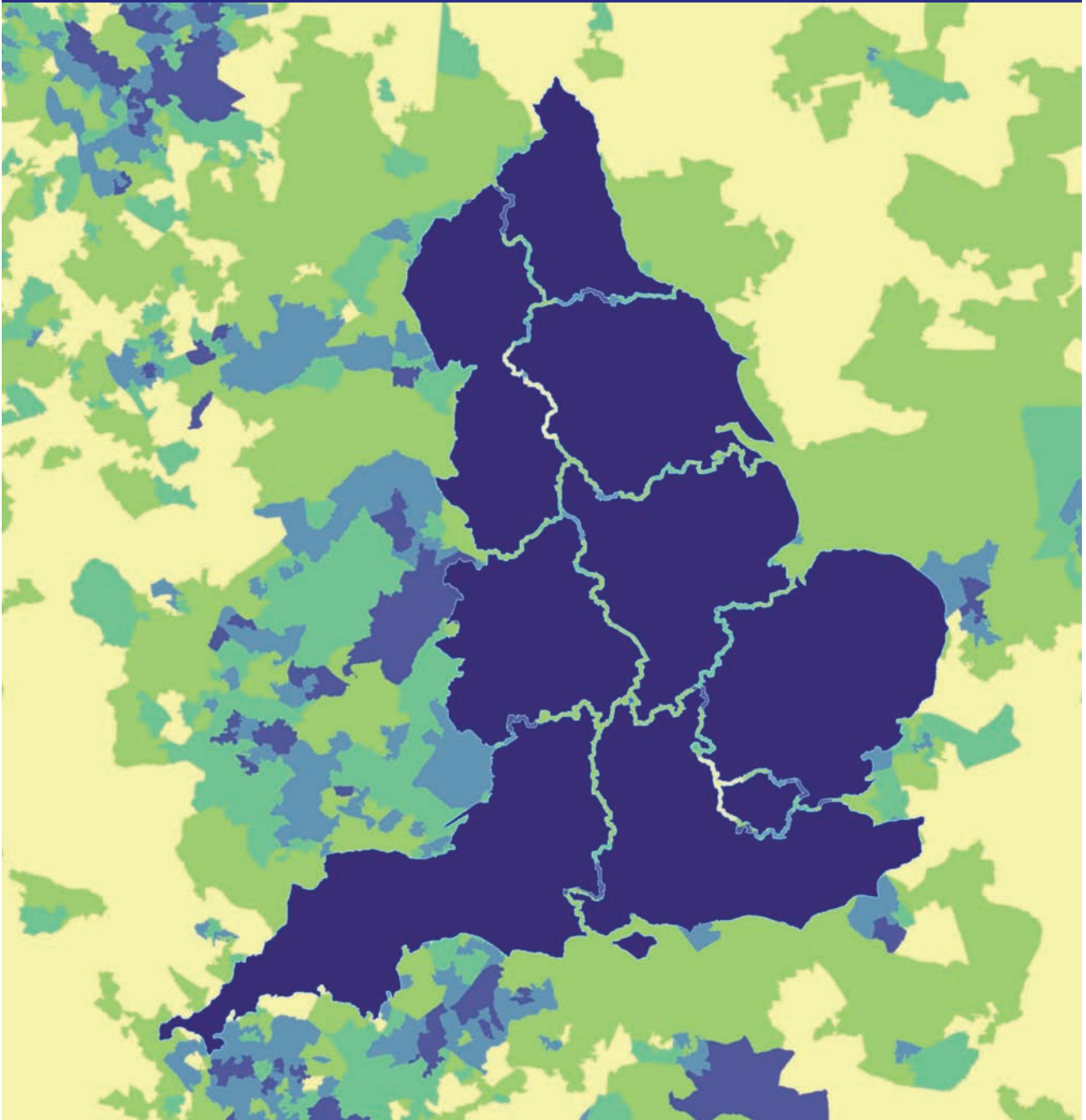


## The English Indices of Deprivation 2007







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# Preface

Indices of Deprivation are an important tool for identifying the most disadvantaged areas in England so that resources could be appropriately targeted.

Significant changes were made to the Indices in 2004 which allowed us to measure deprivation at a smaller spatial scale through the introduction of Lower Super Output Areas (LSOAs). We also introduced new domains and indicators to capture other dimensions of deprivation, for example crime and the living environment.

Following fundamental changes in the measurement of deprivation in both the 2000 and 2004 Indices, we have listened to requests from key stakeholders and users of the Index to provide a consistent measure to allow change over time to be measured.

The Indices of Deprivation 2007 (ID 2007) therefore updates the Indices of Deprivation 2004, retaining the same methodology, domains and indicators.

This report rehearses the conceptualisation underpinning the model of multiple deprivation used and outlines the indicators and domains that make up the ID 2007. The datasets underpinning the ID 2007 can be accessed at: [www.communities.gov.uk/communities/neighbourhoodrenewal/deprivation/deprivation07/](http://www.communities.gov.uk/communities/neighbourhoodrenewal/deprivation/deprivation07/)

We would like to thank all those who assisted in the production of the ID 2007. In particular we thank all those who responded to the consultation, Professor Pete Alcock who peer reviewed the work of SDRC, Professor Jonathan Bradshaw, Dr Chris Dibben and Dr Ben Anderson who undertook specific analysis to support the Indices and the inter-departmental advisory group for their many helpful suggestions.



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# Introduction

Communities and Local Government commissioned the Social Disadvantage Research Centre (SDRC) at the Department of Social Policy and Social Work at the University of Oxford to update the Indices of Deprivation 2004 (ID 2004) for England. Following an extensive public consultation (see **Annex A**), an independent academic peer review and a significant programme of work, the new Indices of Deprivation 2007 were produced in December 2007.

The new Index of Multiple Deprivation 2007 (IMD 2007) is a Lower layer Super Output Area (LSOA) level measure of multiple deprivation, and is made up of seven LSOA level domain indices. There are also two supplementary indices (Income Deprivation Affecting Children and Income Deprivation Affecting Older People). Summary measures of the IMD 2007 are presented at local authority district level and county council level. The LSOA level Domain Indices and IMD 2007, together with the local authority district and county summaries are referred to as the Indices of Deprivation 2007 (ID 2007).

The ID 2007 are based on the approach, structure and methodology that were used to create the previous ID 2004. The ID 2007 updates the ID 2004 using more up-to-date data. The new IMD 2007 contains seven domains which relate to income deprivation, employment deprivation, health deprivation and disability, education skills and training deprivation, barriers to housing and services, living environment deprivation, and crime.

This report presents the conceptual framework of the new ID 2007; the component indicators and domains; the methodology for creating the domains and the overall IMD; the LSOA level results and the LA level summaries.

# Acknowledgements

The ID 2007 was constructed by the Social Disadvantage Research Centre (SDRC) at the Department of Social Policy and Social Work at the University of Oxford. The team comprised: Michael Noble, David McLennan, Kate Wilkinson, Adam Whitworth, Sonia Exley, and Helen Barnes. In addition, the Health Domain was constructed by Chris Dibben from the University of St Andrews; the 'air quality' indicator by Jon Fairburn at Staffordshire University; the 'housing affordability' indicator by Professor Glen Bramley at Heriot-Watt University; and GIS work was undertaken by SDRC's GIS consultant David Avenell. The population denominators were kindly provided by the Small Area Population Estimation Unit at the Office for National Statistics (ONS).

The team would like to thank Communities and Local Government's Advisory Group, the academic peer reviewer Professor Pete Alcock from the University of Birmingham, and the many respondents to the consultation, for all their helpful contributions.

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# Chapter 1: Measuring Multiple Deprivation at the small area level: The conceptual framework

The Index of Multiple Deprivation 2007 (IMD 2007) is a measure of multiple deprivation at the small area level. The model of multiple deprivation which underpins the IMD 2007 is the same as that which underpinned its predecessor – the IMD 2004 (Noble et al., 2004) and is based on the idea of distinct dimensions of deprivation which can be recognised and measured separately. These are experienced by individuals living in an area. People may be counted as deprived in one or more of the domains, depending on the number of types of deprivation that they experience. The overall IMD is conceptualised as a weighted area level aggregation of these specific dimensions of deprivation. This chapter, which draws from the ID 2004 Report, elaborates on the model of multiple deprivation that has been used and addresses issues relating to it.

## Background

*We must first know what poverty is before we can identify where and when it is occurring or attempt to measure it; and before we can begin to do anything to alleviate it' (Alcock, 1997, p.57)*

In his 1979 account of *Poverty in the United Kingdom* Townsend sets out the case for defining poverty in terms of relative deprivation. Thus his definition of poverty is: *'Individuals, families and groups can be said to be in poverty if they lack the resources to obtain the types of diet, participate in the activities and have the living conditions and amenities which are customary, or at least widely encouraged or approved in the societies to which they belong'* (Townsend, 1979, p.31). Though 'poverty' and 'deprivation' have often been used interchangeably, many have argued that a clear distinction should be made between them (see for example the discussion in Nolan and Whelan, 1996). It could be argued that the condition of poverty means not having enough financial resources to meet needs. Deprivation on the other hand refers to unmet need, which is caused by a lack of resources of all kinds, not just financial. In a similar vein, Atkinson (1998) notes that in recent debates on 'Social Europe', the terms 'poverty' and 'social exclusion' have been used on occasions interchangeably, but he defines poverty as a 'lack of money or material possessions'. Townsend himself concurs. In his article 'Deprivation' Townsend argues that 'people can be said to be *deprived* if they lack the types of diet, clothing, housing, household facilities and fuel and environmental, educational, working and social conditions, activities and facilities which are customary ...' [our italics]. People are in poverty if they lack the resources to escape deprivation (Townsend, 1987, p131 and 140).

In his 1987 article Townsend elaborates on the distinctions between social and material deprivation. The former – which he acknowledges is more difficult to measure – he describes as ‘providing a useful means of generalising the condition of those who do not or cannot enter into ordinary forms of family or other relationships’. The more easily measured material deprivation relates to diet, health, clothing, housing, household facilities, environment and work (Townsend, 1987, p136). By identifying both social and material deprivation, he is anticipating some aspects of what one might now call ‘social exclusion’. In this study Townsend also lays down the foundation for articulating multiple deprivation as an accumulation of several types of deprivation.

Townsend’s formulation of multiple deprivation is the starting point for the model of small area deprivation which is presented here in respect of the design of new measures of deprivation for England.

## Area based measures

Though Townsend’s work mainly (though not entirely) referred to individuals experiencing deprivation – single or multiple – the arguments can, in modified form, extend to area based measures. However, limitations of data availability inevitably cause some of the sophistication of his original concept to be lost in practice. At an area level it is very difficult to measure the percentage of the population experiencing deprivation on one, two or more dimensions. It is possible to look at single forms of deprivation at an area level and state that a certain proportion of the population experiences that deprivation or a proportion experiences some other forms of deprivation etc. and describe at an area level the combination of single deprivations as area level multiple deprivation. The approach used here conceptualises multiple deprivation as a composite of different dimensions or domains of deprivation. It, however, says little about the *individual* experience of *multiple* deprivation.

The area itself can be characterised as deprived *relative to other areas*, in a particular dimension of deprivation, on the basis of the proportion of people in the area experiencing the type of deprivation in question. In other words, the experience of the people in an area give the area its deprivation characteristics. The area itself is *not* deprived, but the presence of a concentration of people experiencing deprivation in an area may give rise to a compounding deprivation effect – this is still *measured* by reference to those individuals. Having attributed the aggregate of individual experience of deprivation to the area, it is possible to say that an area is deprived in that particular dimension. Once the specific dimensions of deprivation have been measured, these can be understood as elements of multiple deprivation.

## Dimensions of deprivation

The approach allows the separate measurement of different dimensions of deprivation, such as education deprivation and health deprivation. There is a question as to whether there should be an additional domain for low income or one that measures the lack of socially perceived necessities (Gordon *et al.*, 2000) (e.g.

adequate diet, consumer durables, ability to afford social activities etc.). To follow Townsend, within a multiple deprivation measure only the deprivations resulting from a low income would be included so low income itself would not be a component, but lack of socially perceived necessities would. However, there are no readily available small area data on the lack of socially perceived necessities and therefore low income is an important indicator for these aspects of material deprivation. Moreover, it could be argued that measures of consumption are themselves problematic as lack of certain items may be by choice rather than inability to pay for them. Therefore, it is appropriate to measure low income itself rather than the possession of certain items.

Despite recognising income deprivation in its own right, it should not be the only measure of area deprivation. Other dimensions of deprivation contribute crucial further information about an area. However, low income remains a central component of the definition of multiple deprivation for the ID 2007. As Townsend writes 'while people experiencing some forms of deprivation may not all have low income, people experiencing multiple or single but very severe forms of deprivation are in almost every instance likely to have very little income and little or no other resources' (Townsend, 1987, p131).

'Multiple deprivation' is thus not some separate form of deprivation. It is simply a combination of more specific forms of deprivation, which themselves can be more or less directly measurable. It is an empirical question whether combinations of these different forms of deprivation are more than the sum of their parts, that is, whether they are not simply additive but interact and may have *greater* impact, if found in certain combinations.

Measuring different aspects of deprivation and combining these into an overall multiple deprivation measure raises a number of questions. Perhaps the most important one is the extent to which area deprivation in one dimension can be cancelled out by lack of deprivation in another dimension. Thus if an area is found to have high levels of income deprivation but relatively low levels of education deprivation, should the latter cancel out the former and if so to what extent? The IMD 2007 is essentially based on a weighted cumulative model and the argument for limited cancellation effects is presented.

Another question concerns the extent to which the same people or households are represented in more than one of the dimensions of deprivation. In previous Indices based on Census data no explicit information is available on this aspect of the conceptual framework. The 'households with no access to a car' may well have been the same households who 'live in overcrowded accommodation'. The combination in earlier Indices takes no account of possible double counting nor do the published accounts address the potential problem. The position taken in the IMD 2007 is that if a family or area experiences more than one form of deprivation this is 'worse' than experiencing only one form of deprivation. The aim is not to eliminate double counting *between* domains – indeed it is desirable and appropriate to measure situations where deprivation occurs on more than one dimension.

To summarise, the model which emerges from this theoretical framework is of a series of uni-dimensional domains of deprivation which may be combined, with appropriate weighting, into a single measure of multiple deprivation.

## The Concept of Multiple Deprivation

The IMD 2007 is therefore underpinned by a coherent conceptual model of multiple deprivation at the small area level. To reiterate, the model of multiple deprivation is underpinned by the idea of separate dimensions of deprivation which can be recognised and measured. These are experienced by individuals living in an area. The area itself can be characterised as deprived, relative to other areas, in a particular dimension of deprivation on the basis of the proportion of people in the area experiencing the type of deprivation in question. In other words, the experience of the people in an area give the area its deprivation characteristics. The area itself is not deprived, though the presence of a concentration of people experiencing deprivation in an area may give rise to a compounding deprivation effect, but this is still measured by reference to those individuals. Having attributed the aggregate of individual experience of deprivation to the area, it is possible to say that an area is deprived in that particular dimension. Having measured specific dimensions of deprivation, these can be understood as elements of multiple deprivation.

# Chapter 2: Domains and Indicators

## Section 1: An Introduction to the Domains and Indicators

### Domains

The IMD 2007 contains seven Domains of deprivation:

- Income deprivation
- Employment deprivation
- Health deprivation and disability
- Education, skills and training deprivation
- Barriers to housing and services
- Living environment deprivation
- Crime

### Indicators

There are a total of 38 indicators, distributed across the seven domains. Where possible, the indicators relate to 2005. The criteria for inclusion of these 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 a consistent form.

The aim for each domain was to include a parsimonious (i.e. economical in number) collection of indicators that comprehensively captured the deprivation for each domain, within the constraints of data availability and the criteria listed above.

**Annex B** lists the indicators on a domain by domain basis, and **Annex C** lists the data sources.

## Data where indicators have changed or ceased to exist since the ID2004

For the most part, the same indicators (updated where possible) have been used for the ID 2007 as were used for the ID 2004. This has, however, not been possible for the Income Domain where as a result of major changes to the social security system – particularly in the area of tax credits – indicators have ceased to exist. Where possible indicators have been selected in that domain which map as closely as possible to their predecessors.

## Census Data

As with the ID 2004, the ID 2007 only uses Census data when alternative data from administrative sources are not available. Three such indicators were derived from the 2001 Census – adult skill levels in the Education, Skills and Training Deprivation Domain, ‘overcrowded households’ in the Wider Barriers Sub Domain of the Barriers to Housing and Services Domain and ‘households without central heating’ in the Living Environment Domain.

## Data time point, spatial scale and denominators

Where possible the indicators relate to 2005 and, as has been indicated, the IMD 2007 and component domains are presented at LSOA level. Summaries of the IMD 2007 are presented at district and county council levels.

Denominators at LSOA level for 2005 were provided by the ONS Small Area Population Estimation Unit. For the few indicators where numerators were derived from the 2001 Census, the denominators were also drawn from the Census.

## Preparing the indicators for combination: dealing with small numbers

The shrinkage estimation methodology has been used, where necessary, to improve the reliability of an indicator where it is based on small numbers. The effect of shrinkage is to move such a score towards the district average for that indicator. The extent of movement depends on both the reliability of the indicator and the heterogeneity of the district. If scores are not unreliable, the movement is negligible as the amount of shrinkage is related to the standard error. A further advantage of the shrinkage technique is that movement is less in heterogeneous districts. The shrinkage technique does not mean that the score necessarily gets smaller, i.e. less deprived. Where LSOAs do move this may be in the direction of more deprivation if the ‘unreliable’ score shows less deprivation than the district mean. For further details about the shrinkage technique, see **Annex D**.



## Combining indicators to create a Domain

For each domain of deprivation the aim is to obtain a single summary measure whose interpretation is straightforward in that it is, if possible, expressed in meaningful units (e.g. proportions of people or of households experiencing that form of deprivation). In two domains (i.e. the Income and Employment domains) where the underlying metric is the same and where the indicators are non-overlapping, the indicators can be simply summed and divided by the population at risk to create an area rate.

In several of the domains where a simple rate is not possible, Maximum Likelihood Factor Analysis has been used to find appropriate weights for combining indicators into a single score based on the inter-correlations between all the indicators. This has been applied to the following domains or sub-domains: Health Deprivation and Disability Domain; Children/Young People sub-domain in the Education, skills and training deprivation Domain; and the Crime Domain. For further details about the factor analysis technique, see **Annex E**.

## Section 2: Income Deprivation Domain

### Purpose of the Domain

The purpose of this domain is to capture the proportions of the population experiencing income deprivation in an area. This has been achieved in previous versions of the Index (ID 2000 and ID2004) by reference to the percentage of the population reliant on various means tested benefits (see e.g. Noble et al., 2004).

It has been the long term goal to move the Income Domain from proxy indicators based on benefit receipt to a measure more similar to the national income poverty measure – i.e. proportion of the population of an LSOA living in households below 60% of equivalent median income. Since the publication of the ID 2004, research has been undertaken by the University of Essex to create synthetic income estimates at small area level (See Communities and Local Government Website for a note on the methodology adopted).

However, following a careful consideration of the results of that research and after taking into account the views expressed during the consultation, it was decided not to implement a domain based on synthetic estimates of income at this time.

### The Indicators:

- Adults and children in Income Support Households (Source: DWP 2005)
- Adults and children in Income-Based Job Seekers Allowance 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 2005)

Shrinkage estimation (see **Annexe D**) was applied to the combined indicators.

## Issues

### **Adjustments arising from the introduction of Pension Credit, Child Tax Credit and Working Tax Credit**

As in the ID 2004, the Income Domain includes comprehensive, non-overlapping counts of both in-work and out-of-work means-tested benefits. However, some adjustments were required in order to reflect recent changes to the structure of benefits and tax credits.

In October 2003 Income Support (IS) for those aged 60 and over was replaced by a new benefit for those with no income/ an income below the Minimum Income Guarantee. This benefit is known as the Pension Credit (PC) and it comprises two component parts: Guarantee Credit (available to those aged 60 and over) and Savings Credit (available to those aged 65 and over). In order to capture income deprivation within this age group (thus rendering the ID 2007 comparable with the ID 2004 which captured this age group through IS receipt), it was necessary for PC to be included as an indicator within the current income domain. Following DWP advice only those receiving the 'Guarantee Credit' element of PC are counted as income deprived. This is because the low-income status of those receiving only the 'Savings Credit' element of PC is less clear-cut given the different nature of this benefit and its differing eligibility rules. However, PC recipients receiving 'Savings Credit' in addition to 'Guarantee Credit' are included.

Since April 2003 most Income Support (IS) and income-based Job Seekers Allowance (JSA-IB) claimants who have children have received Child Tax Credit (CTC) in respect of their children rather than an IS/JSA-IB allowance for them. This means that data on children in IS/JSA-IB data are no longer reliable. The same holds true for the relatively small number of adults receiving Pension Credit who have dependent children. However, the children in such households can now be identified by 'patching in' data from Child Benefit records and this was undertaken by DWP.

Tax credit data used in the ID 2004 comprised data for Working Families Tax Credit (WFTC) and data for the Disabled Person's Tax Credit (DPTC). In April 2003, WFTC and DPTC were replaced with a single Working Tax Credit (WTC). It should also be noted that, in addition to replacing dependent allowances within IS and JSA-IB, CTC also replaced provisions for dependent children within these tax credits.

Thus, in order that the ID 2007 income domain remains comparable with the ID 2004 income domain, it was necessary to include families (WTC+CTC cases or CTC cases only) within counts of those who are income deprived (subject to the threshold described below). In addition it would theoretically be possible to include WTC only cases. However this was not undertaken for two reasons. First HMRC does not have reliable address data for them and second they were not, in the main, included in the ID2004 so there would be a loss of 'backwards' compatibility. It was also necessary to ensure there was no 'double counting' where families are in receipt of both CTC and one of IS/ JSA-IB/ PC.

### **Selecting WTC/CTC cases below an income threshold**

Eligibility for WTC and CTC reaches reasonably far up the income scale, and will include some households that would not be described as 'income deprived' under any of the definitions currently in operation in England.

An income threshold was therefore defined to designate certain recipients of WTC/CTC 'income deprived'. This threshold was not applied to those in receipt of 'out of work' means tested benefits (IS/JSA-IB/PC).

The headline income poverty measure used in the Government's poverty and social exclusion report 'Opportunity for All' is households below 60 per cent of 'equivalised' median income. This measure has been adopted by Eurostat and is widely used by academics. A version of this measure – 60 per cent of 'equivalised' median income (before housing costs and excluding housing benefit and maintenance) – was used as a threshold for income deprivation and applied to families in receipt of WFTC and DPTC in the ID2004. This approach was adopted in the ID 2007 and applied to WTC/CTC<sup>1</sup>.

### **Asylum Seekers**

During construction of the ID2004 there was strong support for the inclusion of refugees and asylum seekers within the Income Domain as groups at high risk of income deprivation. Asylum seekers who have been granted refugee status or exceptional leave to remain (ELR) are entitled to Income Support and so are included in the domain in this way. Prior to this, asylum seekers receive either IS or voucher assistance via the National Asylum Support Service (NASS). The ID 2004 included information on NASS voucher recipients which was made available by the Home Office and this has also been included in the ID 2007.

### **Take-up of Benefits**

As this domain reflects recipients of means tested benefits, the issue of take up and the extent to which this varies by benefit type, claimant type and geographical area is of crucial importance. As recommended in the ID 2004 Report further research has been undertaken by the University of York to investigate spatial variations in benefit take up using the Family Resources Survey (FRS). The results of the research are contained in a Report which is available from the Communities and Local Government website. The Report found that there were spatial variations in take up but there was also under-reporting of benefit receipt in the FRS. DWP had conducted an exercise with Pension Credit (but not other benefits) linking actual receipt to the FRS data and this produced higher estimates of take-up and resulted in different spatial variations in take-up.

The Report concludes that

"In the light of this we conclude that it would be unsafe to re-weight area based receipt data to take account of non take-up estimates based on reported receipt in the FRS. It is possible to re-weight Pension Credit receipt to take account of non take-up using our model based on actual take-up for 2004/5. But ideally we would want to ensure that such a model was robust over more than one year. Even then the most robust model explains only 19 per cent of the variance in non take-up.

Until a matching exercise is undertaken to establish actual take-up of tax credit and IS/JSA in the Family Resources survey, the models that we have derived using estimated take-up are suspect.

If the receipt figures in the income domain were adjusted using our coefficients derived from actual take-up for Pension Credit but not adjusted at all or adjusted

<sup>1</sup> The McLements Scale used as in the ID 2004

by estimated take-up of tax credit and IS/JSA then it might damage the balance in the ID2007. Those areas with large proportions of eligible non claiming pensioners would benefit but not those areas with large proportions of eligible non claiming families with children or childless unemployed.

On balance we conclude that it would be the best course to leave well alone for the ID 2007. Meanwhile HMRC should be encouraged to match administrative data on tax credit claiming data in the FRS and DWP to continue to match Pension Credit data and extend the exercise to IS/JSA.

There remains an anxiety that area variation in take-up undermines the validity of the Income Domain."

In the light of these conclusions and taking into account the responses received from the consultation, it was decided not to adjust the numerator of this domain to take into account non-take up.

## Income Deprivation Affecting Children Index

As in the ID2004, a supplementary index – Income Deprivation Affecting Children Index (IDACI) – has been produced alongside the ID 2007. This covers only children aged 0–15 living in income deprived households – defined as either households receiving IS/ JSA-IB/ PC or those not in receipt of these benefits but in receipt of WTC/ CTC with an equivalised income below 60 per cent of the national median before housing costs. The IDACI is the proportion of children 0–15 living in such households as a proportion of all children 0–15.

## Income Deprivation Affecting Older People Index

A second supplementary index also produced in 2004 was that for Income Deprivation Affecting Older People Index (IDAOPI). This index has also been produced alongside the ID 2007, and represents income deprivation affecting older people defined as those adults 60 or over living in pension credit (guarantee) households as a proportion of all those 60 or over.

## Combining the indicators

The indicators are summed and expressed as a rate of the whole population.

## Changes from the ID 2004

The introduction of Pension Credit, Working Tax Credit and Child Tax Credit have meant that there are significant and inevitable changes from the indicators in the ID 2004 and these changes are described in detail above. The aim has been, in spite of these changes, to maximise comparability.

## Section 3: Employment Deprivation Domain

### Purpose of the Domain

This domain measures employment deprivation conceptualised as involuntary exclusion of the working-age population from the world of work.

### The Indicators

- Recipients of Jobseekers Allowance (both contribution-based and income-based) for 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)
- Incapacity Benefit recipients aged 18–59 (women); 18–64 (men) (Source: DWP 2005)
- Severe Disablement Allowance recipients aged 18–59 (women); 18–64 (men) (Source: DWP 2005)

Shrinkage estimation (see **Annex D**) was applied to the combined indicators.

### Issues

For this domain, unemployment claimant counts, as used in previous indices, are replaced by counts of those receiving Jobseeker's Allowance (both contribution-based and income-based) derived from the DWP Work and Pensions Longitudinal Study (WPLS). This is now the principal indicator for unemployment used in other work on deprivation at the small area level and, in effect, such a change makes no real difference to numbers because previously used claimant counts were derived from JSA data. Using JSA data from WPLS has a clear methodological advantage in that this database also includes information on the New Deals and other workless benefits, hence 'double counting' of claimants can be consistently avoided.

For the purposes of consistency with the ID 2004, comprehensive and non-overlapping counts of those on compulsory New Deal programmes and the 'hidden unemployed' (i.e. those claiming work-limiting illness and disability benefits) are included in the numerator, as are counts of lone parents who have signalled involuntary labour market exclusion through their participation in the New Deal for Lone Parents beyond an initial work-focused interview.

In order to improve consistency across all the indicators of employment deprivation, all indicators (rather than just unemployment as in the ID 2004) are averaged across four quarter time points around the index data point, to account for seasonal variations.

## Combining the indicators

The indicators are summed and expressed as a rate of the relevant population (the whole population aged 18–59 plus men aged 60–64).

## Changes from the ID 2004

There are no substantive changes in respect of the indicators but a small methodological shift.

## Section 4: Health Deprivation and Disability Domain

### Purpose of the Domain

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. This domain measures morbidity, disability and premature mortality but not aspects of behaviour or environment that may be predictive of *forthcoming* health deprivation.

### The Indicators

- 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 (April 2003 to March 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), suicide mortality rate (2001 to 2005, source: ONS), hospital episode (ICD-10 F3–F4) (April 2003 to March 2005, Source: Department of Health) and health benefits data (ICD-10 F3–F4) (2005, Source: DWP)

### Issues

The YPLL is a directly age and sex standardised measure of premature death (i.e. under the age of 75). It is measured at the LSOA level, using a combination of 5 years of data. The shrinkage method is applied to the individual age/sex death rates in order to reduce the impact of small number problems on the YPLL.

The CIDR is a directly age and sex standardised morbidity/disability rate. It is derived from a count of individuals receiving any of the following benefits: Disability Living Allowance (DLA), Attendance Allowance (AA), Incapacity Benefit (IB), Severe Disablement Allowance (SDA), and the disability premium of Income Support.

Hospital episodes that begin as an emergency admission are used to construct a measure of acute health problems. All emergency admissions, greater than one day in length are included and the resulting measure is expressed as a directly age and sex standardised ratio.

Prescription data, deaths due to suicide, hospital episode data and health benefits data are used as the sources of information to estimate the number of people suffering from anxiety and depression.



The hospital episode, mortality and health benefits data are directly attributed to LSOAs. However, prescription data can only be used to create rates at a practice level and are therefore assigned indirectly to LSOAs through the practice list. None of these datasets is a perfect measure of anxiety and depression and so they are used in combination. The potential indicator is therefore a weighted combination of all three sources of data (See **Annex F** for more details). The weights are generated using Factor Analysis (See **Annex E**).

## Combining the Indicators

Factor analysis (maximum likelihood) is used to generate weights for the combination of indicators within this domain.

## Changes from the ID 2004

No changes.

## Section 5: Education, Skills and Training Deprivation Domain

### Purpose of the Domain

The Education, Skills and Training Deprivation Domain measures deprivation in educational attainment, skills and training for children, young people and the working age population in a local area.

### The Indicators

#### Sub Domain: Children / Young People

- Average test score of pupils at Key Stage 2 (2 year weighted average, 2004–2005), Source: Pupil Level Annual School Census (PLASC), National Pupil Database (NPD)
- Average test score of pupils at Key Stage 3 (2 year weighted average, 2004–2005), Source: PLASC, NPD
- 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: PLASC, NPD
- Proportion of young people not staying on in school or non-advanced education above the age of 16 (2005), Source: HMRC Child Benefit (CB) data
- Secondary school absence rate (2 year average 2004–2005), Source: DCSF absence data, PLASC
- Proportion of those aged under 21 not entering higher education (4 year average, 2002–2005), Source: Universities and Colleges Admission Service (UCAS), Higher Education Statistics Agency (HESA)

#### Sub Domain: Skills

- Proportion of working age adults with no or low qualifications (2001) Source: Census 2001

### Issues

#### Indicators in the Children / Young People Sub Domain

Key Stage test score indicators are a direct measure of children's attainment at ages 11, 14 and 16. Although the definition of the indicator remains the same as in the ID 2004, the availability of a time-series of the Pupil Level Annual School Census (PLASC) and the National Pupil Database (NPD) data has made it possible to reduce volatility in results caused by small numbers of cases by combining several years of data. In addition, the Key Stage 2 and 3 indicators are based on the actual test scores rather than level achieved (as in ID 2004) and thus allow finer differentiation between areas.

Staying on rates are calculated using Child Benefit (CB) counts as CB can only be claimed after 16 if the child remains in full-time education. In the ID 2004 this indicator was defined as the proportion of children receiving CB aged 17, 18 and 19 divided by the proportion aged 13, 14 and 15. Rather than comparing different age cohorts from the same year, this indicator now uses CB counts from the same age cohort from different years. For example, those aged 17 in 2006 will have been 15 in 2004 so the indicator will include 17 year olds in 2006 in the numerator and 15 year olds in 2004 in the denominator. This method is now possible because a time series of CB is available and is preferable as it reduces the occurrence of staying on rates over 100%.

The secondary absence rate and rate of not entering higher education maintain the same data sources and methodology used in the ID 2004. The secondary absence rate is derived from school level data and each pupil is assigned their school's average absence rate. The proportion not entering higher education indicator is produced using UCAS data on successful admissions as a numerator and a population denominator drawn from the 2001 Census.

### Indicators in the Skills Sub Domain

The Skills Sub Domain contains only a single indicator which measures the proportion of working age adults with no or low qualifications. The English Indices 2004 included an indicator of adults with no or low qualifications taken from the 2001 Census. As an update to the census data is not available two possible ways of producing a similar indicator for the 2007 update were considered. These were either to use the 2001 Census data or create a modelled indicator from a combined dataset of the Labour Force Survey and the Annual Population Survey (APS).

The consultation overwhelmingly supported retention of the Census indicator as used in the ID 2004 and the Skill Sub Domain is thus identical to that in the ID 2004.

## Combining the indicators

As for the ID 2004 shrinkage techniques are applied to all indicators. In the Children / Young People Sub Domain Maximum Likelihood Factor Analysis (see **Annex E**) is used to generate weights to combine the indicators. The Skills Sub Domain comprises just one indicator. The final domain was constructed by combining the two sub domain scores with equal weights after they had been standardised and exponentially transformed.

## Changes from the ID 2004

The change to the Key Stage test score indicators is described above. The methodology used to produce the Key Stage indicators has been improved due to a longer time series of data being available.

## Section 6: Barriers to Housing and Services Domain

### Purpose of the Domain

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 includes issues relating to access to housing such as affordability.

### The Indicators

#### Sub Domain: Wider Barriers

- Household overcrowding (Source: 2001 Census)
- District level rate of acceptances under the homelessness provisions of the 1996 Housing Act, 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 Health Service Information Authority, 2005)
- Road distance to a general store or supermarket (Source: MapInfo Ltd, 2005)
- Road distance to a primary school (Source: DfES, 2004–05)
- Road distance to a Post Office or sub post office (Source: Post Office Ltd, 2005)

### Issues

#### Indicators in the Wider Barriers Sub Domain

In the ID 2004 the Wider Barriers Sub Domain consisted of three indicators related to access to housing. These three indicators are retained in the ID 2007.

The two indicators relating to district level homelessness and difficulty of accessing owner-occupation are retained and updated.

A direct update will not, however, be possible for the overcrowding indicator and, as in the ID 2004, this indicator is based on data from the 2001 Census.

### **Indicators in the Geographical Barriers Sub Domain**

The four indicators included in the Geographical Barriers Sub Domain of the ID 2004 represent distance to access points for four key services. These four indicators are updated and included in the ID 2007.

## Combining the indicators

The relevant indicators within each of the sub-domains are standardised and combined using equal weights. The shrinkage technique is applied to the overcrowding indicator. The two sub-domains are standardised, exponentially transformed and combined with equal weights to create the overall Domain score.

## Changes from the ID 2004

No changes.

## Section 7: Crime Domain

### Purpose of the Domain

The purpose of this domain is to measure the rate of recorded crime for four major volume crime types – burglary, theft, criminal damage and violence – representing the risk of personal and material victimisation at a small area level.

### The Indicators

- 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, Police Force data for April 2004-March 2005, constrained to CDRP level).

### Issues

The Crime Domain of the ID 2007 is a direct update of the domain in the ID 2004, consisting of four broad composite indicators representing the risk of victimisation of four key volume crime types that have major effects on individuals and communities.

The data used within the Crime Domain of the updated index is subjected to the same processing steps as applied within the ID 2004. First the four composite indicators are created by summing the constituent notifiable offence types to LSOA level. The aggregation method involves an element of geographical 'smoothing' of crimes to account for variations in police geocoding practice. To ensure all data are controlled to a common base, LSOA level counts are then constrained to Home Office totals for Crime and Disorder Reduction Partnership (CDRP) areas. Each composite indicator is then constructed as a rate using the appropriate denominator.

The denominator for the burglary composite indicator is total dwellings from the 2001 Census plus total business addresses from Ordnance Survey's Address Point. For the violence, theft and criminal damage composite indicators, the denominator is the total resident population (including communal establishment population but excluding prison population) plus total non-resident workplace population (as in the ID 2004). While the resident population has been updated to relate to mid 2005, the workplace population is again taken directly from the 2001 Census as no subsequent updates have been produced at small area level. The purpose of the 'inflated' population denominator for the violence, theft and criminal damage composite indicators is to take into account the large 'at risk' non-resident population in town

and city centres. It was not possible to take into account other potential victims such as 'passers by'.

## Combining the indicators

As in the ID 2004 the four composite indicators are standardised and combined using weights generated by maximum likelihood factor analysis (see **Annex E**).

## Changes from the ID 2004

No changes.

## Section 8: The Living Environment Domain

### Purpose of the Domain

The Living Environment domain aims to identify deprivation in the quality of the local environment both within and beyond the home. The domain consists of two sub-domains which focus, respectively, on deprivations in the 'indoors' and the 'outdoors' living environment.

### The Indicators

#### 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 (2001, Source: ONS, Census)

#### Sub-Domain: The 'outdoors' living environment

- Air quality (2005, Source: Geography Department at Staffordshire University and NAEI modelled at LSOA level)
- Road traffic accidents involving injury to pedestrians and cyclists (2004–2006 average, Source: DfT, STATS19 (Road Accident Data) smoothed to LSOA level)

### Issues

#### Deprivation in the 'indoors' living environment

The indicator of social and private housing in poor condition looks at deprivation in a key area of life – the home. Housing in poor condition is modelled by the Building Research Establishment (BRE) for all tenures to postcode level using the English House Condition Survey (EHCS) to give an up-to-date set of stock profiles at the national level. The resulting model is applied to details of the housing stock at small area level using a range of data sources including RESIDATA. The most recent data is used which relates to 2005.

The indicator of the percentage of houses without central heating identifies those areas where residents are deprived of this core household amenity, and a lack of central heating suggests a strong likelihood of difficulty in heating one's home. The Census 2001 provides the only suitable data source for this indicator and thus the indicator is used in the ID 2007. Given the slow rate of change which could be expected of this indicator at small area level, it remains a useful indicator of deprivation of this key household amenity.



## Deprivation in the 'outdoors' living environment

The indicator of air quality provides a valuable measure of environmental pollution at small area level. The National Atmospheric Emissions Inventory (NAEI) maintains estimates of emissions for small areas (modelled to one kilometre grid squares) in the UK. The Department for the Environment, Food and Rural Affairs and the World Health Authority have defined guidelines or standard values which represent 'safe' maximum concentrations. Members of the Geography Department at the University of Staffordshire have allocated emissions data to LSOA level for which there are reliable small area levels and clearly defined standard values, namely benzene, sulphur dioxide, nitrogen dioxide and particulates (PM10). The level of each pollutant in an LSOA is divided by the standard value for that pollutant and then all four values are summed to create an overall air quality score for the LSOA.

The indicator of road traffic accidents involving injury to pedestrians or cyclists is a measure of the risk of injury for non-motorised road users in the living environment. This data is available through the Department for Transport's STATS19 (Road Accident) database which records details of all reported traffic accidents involving death or personal injury. Each incident is plotted according to a ten-digit grid reference which plots its location accurate to ten metres. Where an incident occurs within ten metres of an LSOA boundary the incident has been applied equally to both LSOAs. The denominator for this indicator is the total resident population, the communal establishment population and the non-resident workplace population and excludes the prison population. STATS19 distinguishes between three severity types – slight, serious and fatal – and these are weighted 1, 2, and 3 respectively as was the case in the ID 2004.

## Combining the Indicators

The indicators within each sub-domain are standardised by ranking the rates and then transforming to a normal distribution and combined with equal weights. The two sub-domains are then ranked and transformed to an exponential distribution. The two sub-domains are weighted according to patterns of 'indoors' and 'outdoors' time use within the UK 2000 Time Use Survey so that the 'indoors' living environment sub-domain is given two thirds of the domain's weight and the 'outdoors' living environment is given one third of the domain's weight.

## Changes from the ID 2004

No changes.

## Chapter 3: Combining the Domains into an Index of Multiple Deprivation

In the conceptual model presented, domains are conceived as independent dimensions of multiple deprivation, each with their own additive impact on multiple deprivation. As in the ID 2004, to allow for this type of combination, the following method was used:

- Rank the Domain scores and then transform the ranks to an exponential distribution.
- Construct weights with which to combine these new scores.

### Standardising and Transforming the Domain Indices

Having obtained a set of Domain Indices these needed to be combined into an overall Index of Multiple Deprivation. In order to combine Domain Indices which are each based on very different units of measurement there needed to be some way to standardise the scores before any combination could take place. A form of standardisation and transformation is required that met the following criteria. First, it must ensure that each Domain has a common distribution; second, it must not be scale dependent (i.e. conflate size with level of deprivation); third, it must have an appropriate degree of cancellation built into it (discussed below); and fourth, it must facilitate the identification of the most deprived LSOAs. The exponential transformation of the ranks best met these criteria and was used in the ID 2007.

A more extensive account of the rationale and properties of the exponential transformation procedure is set out in the ID 2004 Report (Noble et al., 2004).

**Annex H** sets out the formula for the transformation.

### Weighting the domains

In the ID 2004 the overall IMD was constructed by combining the individual domain indices into an overall IMD using explicit weights. There has been continued support for this approach.

In the ID2004 Report five possible approaches to weighting were identified and considered, and the overall conclusion was that the weights selected should be driven by theoretical considerations (Noble et al. 2004 pp. 45–46).

The independent peer review of the ID 2004 proposals indicated that there was a strong case to undertake research to determine empirically driven weights. This

research was subsequently commissioned and undertaken by the University of St Andrews.

The report of that research is available from the Communities and Local Government website. ([www.communities.gov.uk/documents/communities/pdf/323211](http://www.communities.gov.uk/documents/communities/pdf/323211)) Although the research did suggest a small adjustment in weights – the swapping of the weights for the Employment and Health Domains – the sensitivity testing undertaken suggested that “the likely impact of this change on the overall position of Local Authority Districts is slight”.

In the light of this, and in the context that the ID 2007 was to be constructed in such a way as to *replicate* (with updated indicators) the ID 2004, weights adopted for the ID 2007 are the same as those used in the ID 2004.

	Domain Weight
Income deprivation	22.5 %
Employment deprivation	22.5%
Health deprivation and disability	13.5%
Education, skills and training deprivation	13.5%
Barriers to housing and services	9.3%
Crime	9.3%
Living Environment deprivation	9.3%

This approach to weighting was overwhelmingly supported in the responses to the formal consultation.

# Chapter 4: Presentation of results and interpretation

## Lower layer Super Output Area (LSOA) Level Results

At the Lower layer Super Output Area (LSOA) level there are ten Indices for each LSOA in England:

- seven Domain Indices (which are combined to make the overall Index of Multiple Deprivation);
- an overall Index of Multiple Deprivation;
- a supplementary Income Deprivation Affecting Children Index; and
- a supplementary Income Deprivation Affecting Older People Index.

These ten Indices are each assigned a national rank. There are 32,482 LSOAs in England. The most deprived LSOA for each Index is given a rank of 1 and the least deprived LSOA is given a rank of 32,482, for presentation. The ranks show how an LSOA compares to all other LSOAs in the country and are easily interpretable. However, the scores indicate the distances between each rank position, as these will vary. It should be noted that the Indices comprising the ID 2007 are measures of *deprivation* and are designed to be more discriminating of deprivation than of 'non-deprivation'.

The LSOA level Indices and their ranks can be obtained from the Communities and Local Government website.

### The seven Domain Indices and Ranks

Each Domain Index consists of a score which is then ranked. These Domain Indices can be used to describe each type of deprivation in an area. This is important as it allows users of the Index to focus on particular types of deprivation and to compare this across LSOAs. There may be great variation within a district or larger area and the LSOA level Domain Indices allow for a sophisticated analysis of deprivation information.

The scores for the Income Deprivation Domain and the Employment Deprivation Domain are rates. So, for example, if an LSOA scores 0.72 in the Income Deprivation Domain, this means that 72% of the LSOA's population is Income deprived. The same applies to the Employment Deprivation Domain. The scores for the remaining

five domains are not rates. Within a domain, the higher the score the more deprived an LSOA is. However, the scores should not be compared between domains as they have different minimum and maximum values and ranges. To compare between domains only the ranks should be used.

## The Overall Index of Multiple Deprivation 2007 (IMD 2007)

The overall IMD 2007 describes the LSOA by combining information from all seven Domains: Income Deprivation, Employment Deprivation, Health Deprivation and Disability, Education Skills and Training Deprivation, Barriers to Housing and Services, Living Environment Deprivation, and Crime. These were combined in two stages; first each Domain rank was transformed to a standard distribution – the exponential distribution. Then the Domains were combined using the explicit Domain weights chosen. The overall LSOA level IMD 2007 is then ranked in the same way as the Domain Indices.

The IMD 2007 score is the combined sum of the weighted, exponentially transformed domain rank of the domain score. Again, the bigger the IMD 2007 score, the more deprived the LSOA. However, because of the exponential distribution, it is not possible to say, for example, that an LSOA with a score of 40 is twice as deprived as an LSOA with a score of 20. In order to make comparisons between LSOAs it is recommended that ranks should be used. The IMD 2007 is ranked in the same way as the Domain Indices, that is, a rank of 1 is assigned to the most deprived LSOA and a rank of 32,482 is assigned to the least deprived LSOA, for presentation.

## The supplementary Income Deprivation Affecting Children Index

The supplementary 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.e. in receipt of IS, JSA-IB, PC or CTC below a given threshold). The IDACI is not combined with the other domains into the overall IMD as the children are already captured in the Income Deprivation Domain. An IDAC Index score of e.g. 0.246 means that 24.6% of children aged less than 16 in that LSOA are living in families that are income deprived. As with other measures in the IMD, a rank of 1 is assigned to the most deprived LSOA and a rank of 32,482 is assigned to the least deprived LSOA, for presentation.

## The supplementary Income Deprivation Affecting Older People Index

The supplementary Income Deprivation Affecting Older People Index (IDAOPI) is a subset of the Income Deprivation Domain. This comprises the percentage of an

LSOA's population aged 60 and over who are IS, JSA-IB, PC or CTC claimants aged 60 and over and their partners (if also aged 60 or over). The IDAOP Index is not combined with the other domains into the overall IMD as these income deprived older people are already captured in the Income Deprivation Domain. As with the IDACI, a rank of 1 is assigned to the most deprived LSOA and a rank of 32482 is assigned to the least deprived LSOA, for presentation.

## District Level Presentations

Six summary measures of the overall IMD 2007 have been produced at district level to describe differences between districts. The following section describes the creation of the district level summaries of the IMD 2007.

The district level summaries of the IMD 2007 can be obtained from the Communities and Local Government website.

The summary measures at district level focus on different aspects of multiple deprivation in the area. No single summary measure is favoured over another, as there is no single best way of describing or comparing districts.

Districts are complex to describe as a whole or to compare for several reasons. First, districts can vary enormously in population size. Further, some districts may have a more 'mixed' population, containing more variation in deprivation and in some places deprivation may be concentrated in severe pockets rather than being more evenly spread. This makes an 'overall picture' more difficult to establish.

Six measures have been devised which take account of these issues and which describe the district in different ways: looking at the most deprived populations, the most deprived LSOAs, as well as the average of the LSOAs, to get six meaningful descriptions of deprivation at district level. More subtle descriptions of deprivation across a district can be established by a close analysis of the LSOAs within that district, as the LSOA level Index contains the most detailed account of local deprivation. At the LSOA level much more information is retained than with the district level summaries.

These measures are discussed individually below. For each measure each district is given a rank and score (with the exception of Extent, as explained below). For presentation, a rank of 1 indicates that the district is the most deprived according to the measure and 354 is the least deprived. The meaning of the scores for each of the measures is detailed as follows.

## Average of LSOA ranks

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. For the purpose of calculating this score the LSOAs are ranked such that the most deprived LSOA is given the rank of 32,482. The LSOA ranks are population weighted within a district to take account of the fact that LSOA size can vary.

## Average of LSOA scores

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 LSOA by retaining the fact that the more deprived LSOA 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.

## Local Concentration

Local Concentration is the population weighted average of the ranks of a district's 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 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 always a whole number of LSOAs. For the purpose of calculating this score the LSOAs are ranked such that the most deprived LSOA is given the rank of 32,482. However, when the districts are ranked on this measure the standard presentational method of assigning rank 1 to the most deprived district is used.

## Extent

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

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 makes the cut-off point less abrupt for this measure than that adopted in the ID 2000.

The aim of this measure is to portray how widespread high levels of deprivation are in a district. It only includes districts which contain 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 309.

## Scale (two measures)

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 this deprivation. The Employment Scale score is a count of individuals experiencing this deprivation. It is useful to present both measures as they are real counts of the individuals experiencing these deprivations.

## County Council Level Presentations

In addition to creating six district level summaries of the IMD 2004, these six summaries have also been produced for County Councils. The methodologies used were identical to those described for the districts above. The County level summaries of the IMD 2007 can be obtained from the Communities and Local Government website.



# Chapter 5: The geography of deprivation

## Introduction

This chapter presents some key findings detailing the geography of deprivation across England.

- **Section 1** presents the maps of the IMD 2007 for each Region, with an overview of multiple deprivation in England.
- **Section 2** consists of a breakdown of the most deprived and least deprived 20% of LSOAs on the IMD 2007.
- **Section 3** presents key findings about each of the Domains, focusing in detail on the Income and Employment Domains and the supplementary Income Deprivation Affecting Children Index (IDACI) and Income Deprivation Affecting Older People Index (IDAOPI).
- **Section 4** examines the district level summary measures of the IMD 2007 and includes maps of each of the measures.
- **Section 5** indicates the reasons for changes in the geography of deprivation between the ID 2004 and the ID 2007.

The patterns of deprivation across England are complex. The most deprived LSOAs are spread throughout all the regions of England. Moreover, every region also contains LSOAs which fall within the *least* deprived ten percent of LSOAs in England. Furthermore, even the least deprived LSOAs may contain deprived people within them and the most deprived LSOAs may contain less deprived people. Identifying LSOAs as being among the least deprived does not however mean that these LSOAs necessarily contain large numbers of, for example, very rich people.

## Section 1: An overview of the patterns of multiple deprivation in England and Regional maps of LSOA level IMD 2007

As previously indicated, the IMD is made up of seven domain Indices. The most highly deprived LSOAs score as deprived on several of the domains. In fact, if one takes LSOAs that are ranked overall in the most deprived 10% of the IMD, the following can be said:

- 99.2% of these LSOAs score in the most deprived 10% on two or more domains
- 88.4% are in the most deprived 10% on three or more domains
- 182 LSOAs feature in the most deprived 10% on six of the seven domains. No LSOA is ranked within the most deprived 10% on all seven of the domains.
- 25 LSOAs (0.8%) score in the most deprived 10% on only one domain. Each of the LSOAs in the most deprived 10% on the IMD 2007 scored in the most deprived 10% on one or more of the seven component domains.

The following maps show the LSOA level IMD 2007 for each Government Office Region (GORs) in England. The LSOAs have been divided into ten equal groups ('deciles'). LSOAs shaded dark blue are the most deprived 10% of LSOAs in England, and LSOAs shaded bright yellow are the least deprived 10% of LSOAs in England. Maps showing the district boundaries and district names are also included for each Region.

**Annex K** lists the most deprived 100 LSOAs on the IMD 2007.

As was the case for the ID 2000 and ID 2004, most urban centres contain areas with high levels of multiple deprivation. The conurbations of Manchester, Liverpool and Newcastle together with neighbouring metropolitan areas contain many highly deprived LSOAs and demonstrate a degree of uniformity in the deprivation. The same is the case for the large metropolitan areas in Yorkshire and the Humber and the West Midlands.

The north east quarter of London remains particularly deprived with Newham, Hackney and Tower Hamlets continuing to exhibit very high levels of deprivation. There are almost no LSOAs in these districts which fall among the 50% least deprived, showing a high overall level of deprivation in these areas.

The four local authorities of Liverpool, Hackney, Tower Hamlets and Manchester, all located in either the North West or London GORs, each have over half of their LSOAs in the most deprived 10% nationally.

Areas such as Easington, Middlesbrough and Hartlepool in the North East Region have very high levels of multiple deprivation. This pattern of multiple deprivation applies in the former coalfield areas and former tin mining areas such as Penwith in

Cornwall. Seaside resort towns such as Blackpool, Great Yarmouth, Margate, and Hastings continue to show high levels of deprivation as do the ports of Kingston upon Hull and Barrow-in-Furness.

Many of the very deprived LSOAs are in close proximity to less deprived LSOAs – leading to heterogeneous districts with a wide range of multiple deprivation within them. The South East, however, remains more uniformly less deprived than any other Region, despite having some pockets of deprivation, principally in the larger urban areas such as Southampton and Portsmouth but also including some former resort towns such as Margate and Hastings. The pattern of multiple deprivation in the South West remains as with the ID 2000 and ID 2004. There is only one LSOA in Cornwall in the least deprived decile of LSOAs in England. In both the North East and London GORs, less than 10% of LSOAs fall into the least deprived 20% of LSOAs nationally.

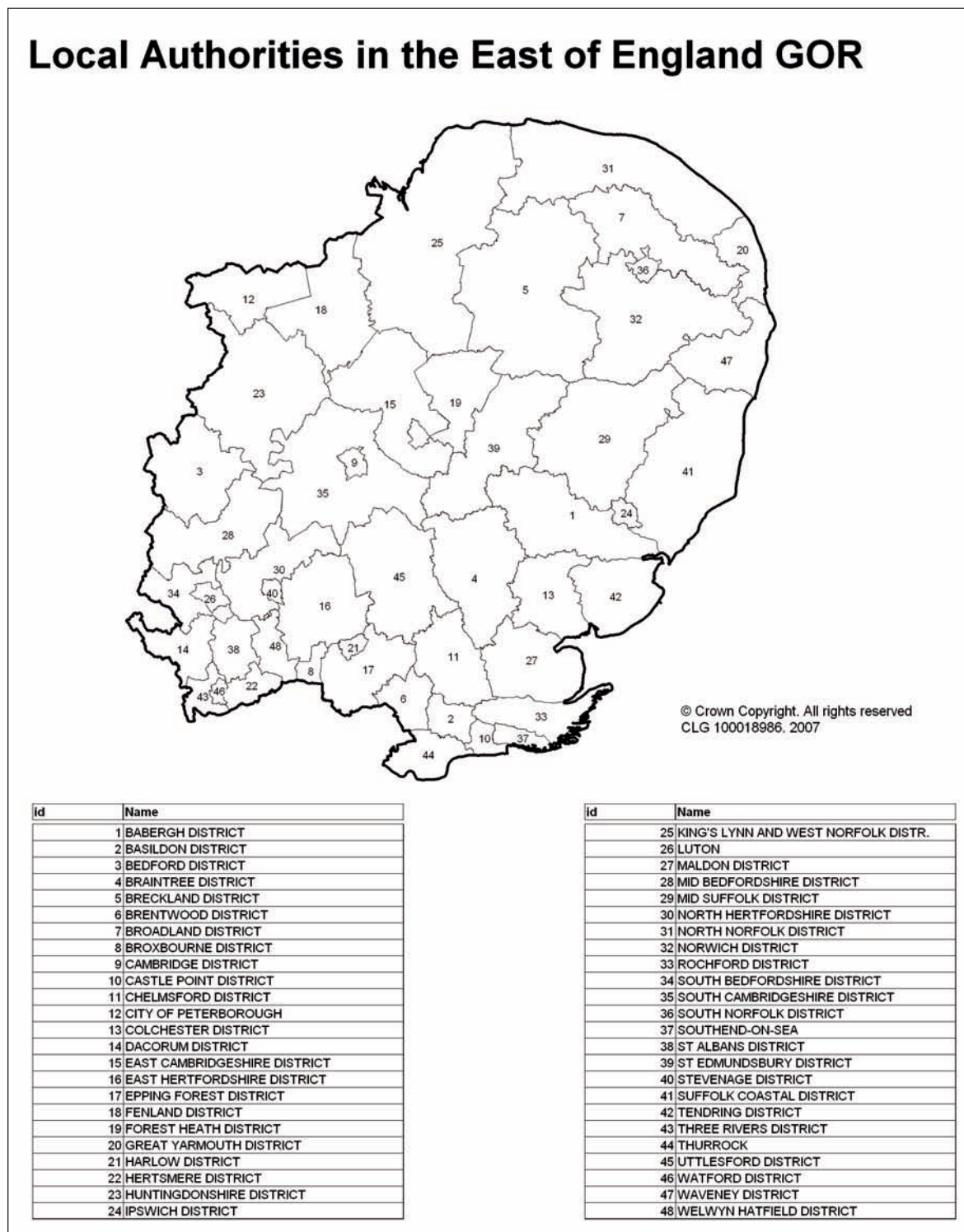
A total of 180 local authorities in England have one or more LSOA in the most deprived 10% of LSOAs nationally. This compares to 263 local authorities that have one or more LSOA in the 10% least deprived of LSOAs nationally, indicating that the more deprived neighbourhoods are more geographically concentrated within local authorities than the least deprived.

Some cities experience extremes of high and low levels of deprivation. For example:

- Solihull contains 133 LSOAs. Of these, ten LSOAs are in the most deprived 10% of LSOAs and 36 LSOAs are in the least deprived 10% of LSOAs in England.
- In Bradford, almost 30% of the LSOAs are amongst the 10% most deprived while over 6% of LSOAs in Bradford are among the 10% least deprived in England.
- In Sheffield there are 81 LSOAs which are among the 10% most deprived and 20 LSOAs that are among the 10% least deprived in England.

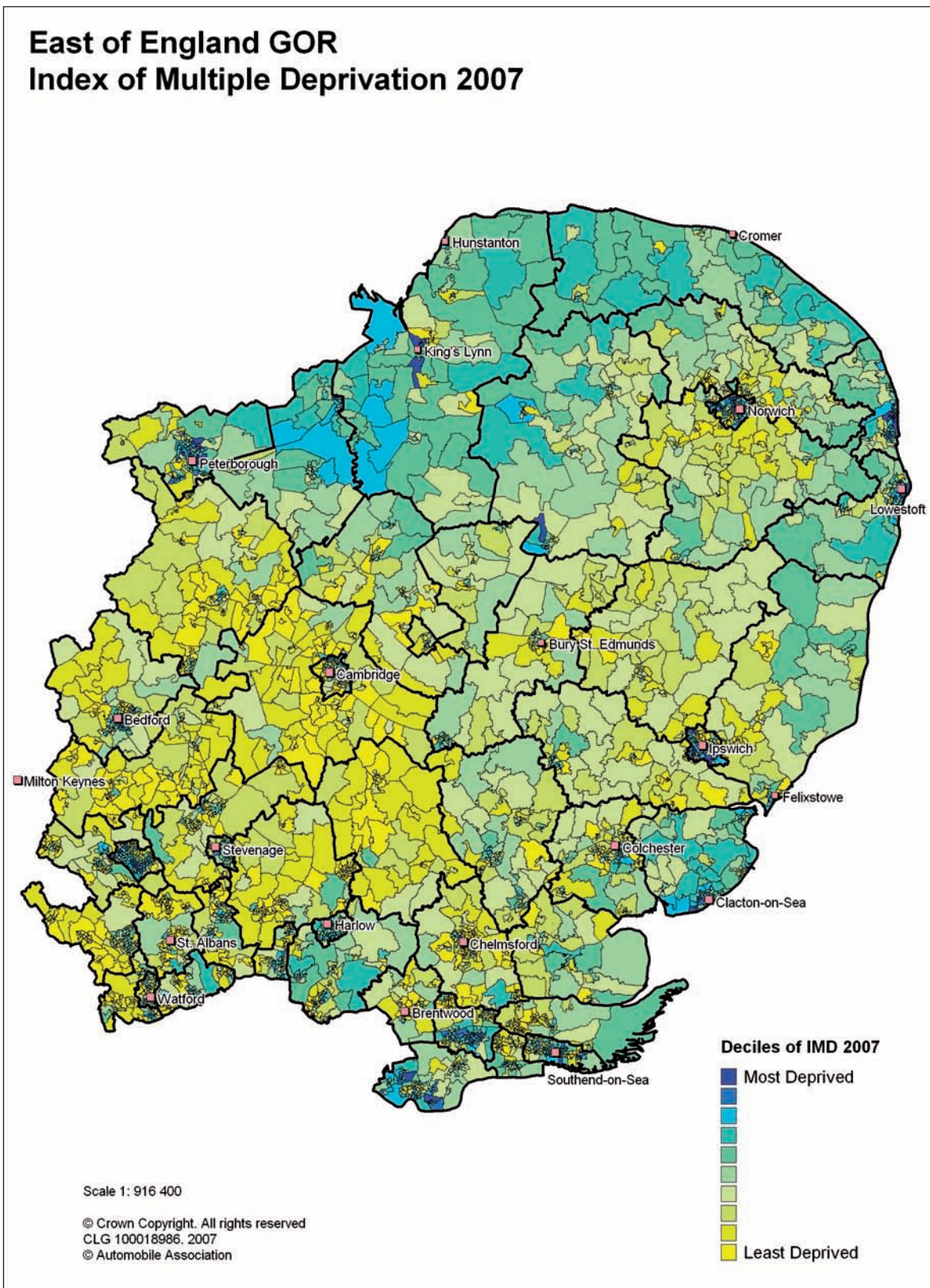
## Regional maps of LSOA level Multiple Deprivation

### East Region



The East Region has in total 3550 LSOAs of which just 83 LSOAs are within the 10% most deprived on the IMD 2007. The East Region has approximately two thirds of all its LSOAs in the 50% least deprived on the IMD 2007.

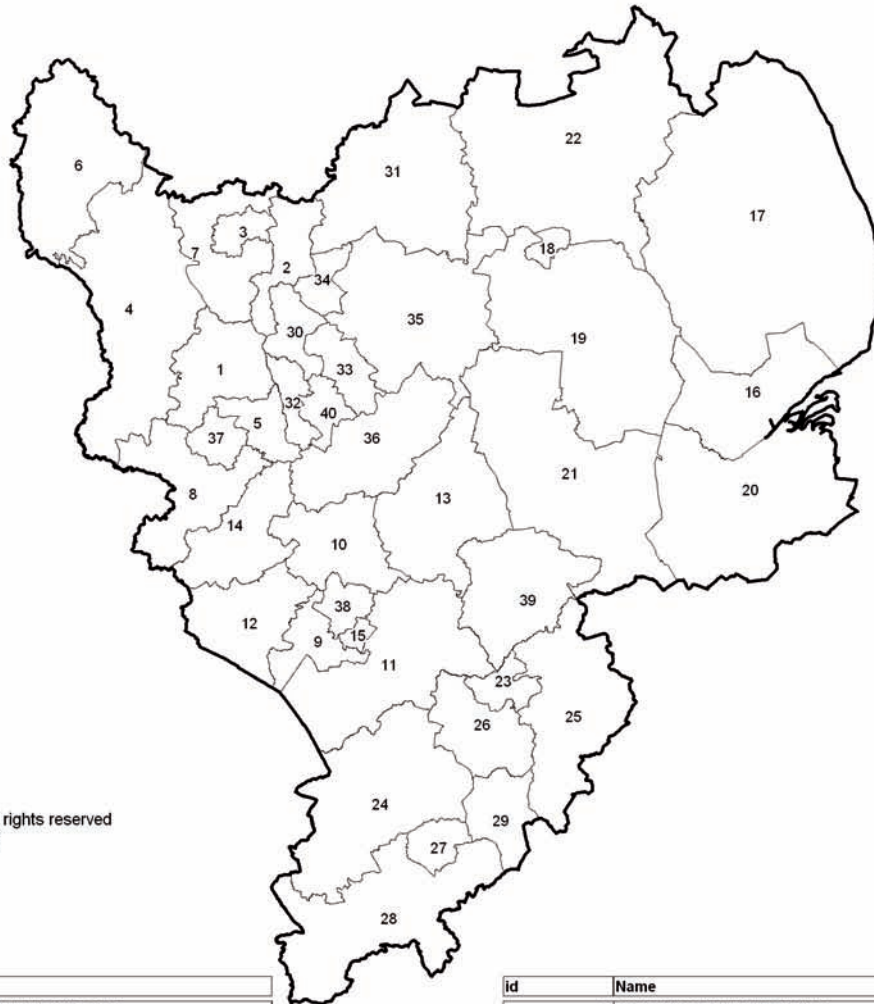




The largest concentrations of deprived LSOAs within the East Region are within the larger urban areas of Luton, Norwich and Ipswich and some of the smaller urban areas, primarily located on or close to the coast, such as Kings Lynn, Great Yarmouth, Lowestoft, Clacton-on-Sea and Southend-on-Sea.

## East Midlands

### Local Authorities in the East Midlands GOR



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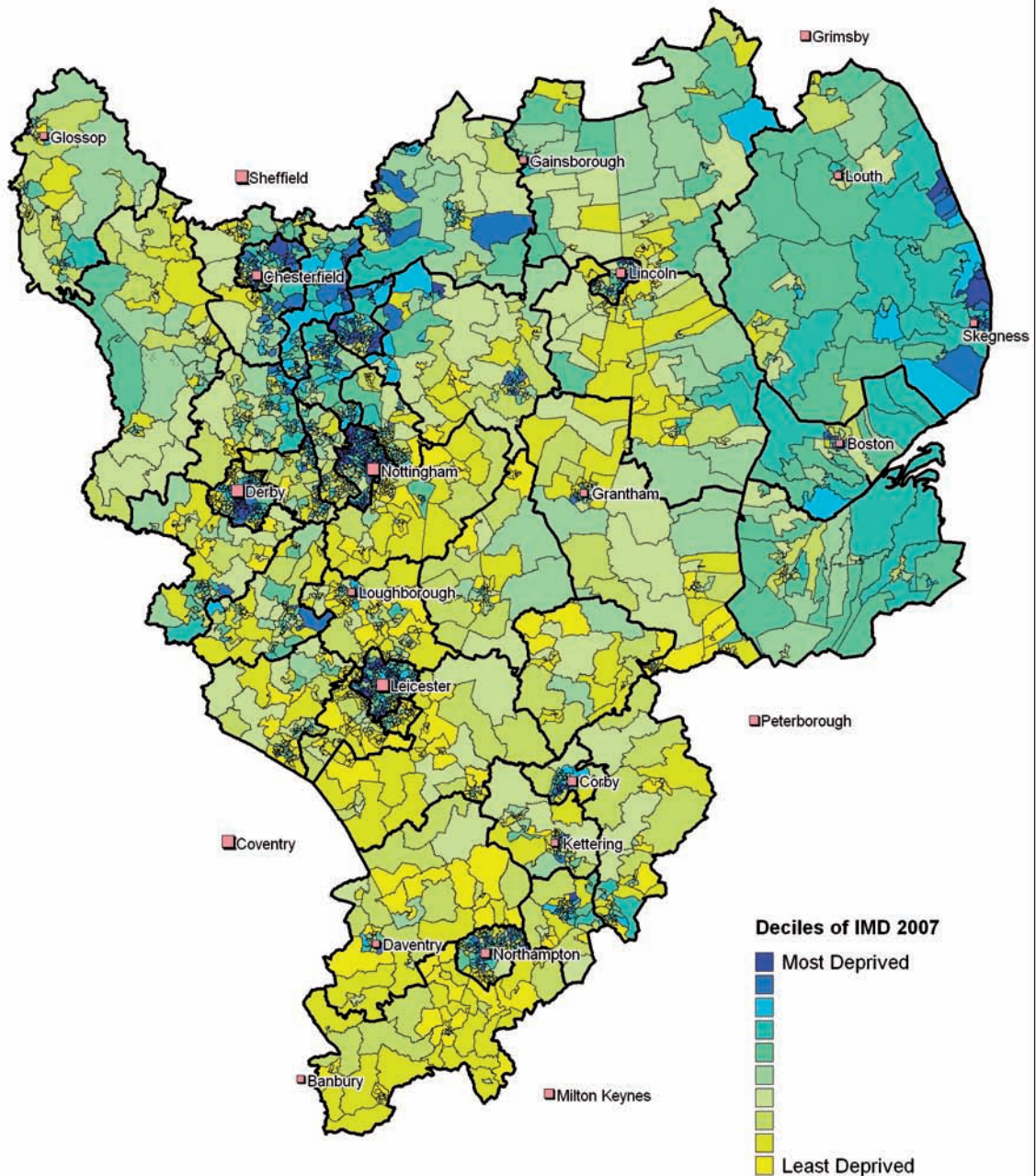
id	Name
1	AMBER VALLEY DISTRICT
2	BOLSOVER DISTRICT
3	CHESTERFIELD DISTRICT
4	DERBYSHIRE DALES DISTRICT
5	EREWASH DISTRICT
6	HIGH PEAK DISTRICT
7	NORTH EAST DERBYSHIRE DISTRICT
8	SOUTH DERBYSHIRE DISTRICT
9	BLABY DISTRICT
10	CHARNWOOD DISTRICT
11	HARBOROUGH DISTRICT
12	HINCKLEY AND BOSWORTH DISTRICT
13	MELTON DISTRICT
14	NORTH WEST LEICESTERSHIRE DISTRICT
15	OADBY AND WIGSTON DISTRICT
16	BOSTON DISTRICT
17	EAST LINDSEY DISTRICT
18	LINCOLN DISTRICT
19	NORTH KESTEVEN DISTRICT
20	SOUTH HOLLAND DISTRICT

id	Name
21	SOUTH KESTEVEN DISTRICT
22	WEST LINDSEY DISTRICT
23	CORBYS DISTRICT
24	DAVENTRY DISTRICT
25	EAST NORTHAMPTONSHIRE DISTRICT
26	KETTERING DISTRICT
27	NORTHAMPTON DISTRICT
28	SOUTH NORTHAMPTONSHIRE DISTRICT
29	WELLINGBOROUGH DISTRICT
30	ASHFIELD DISTRICT
31	BASSETLAW DISTRICT
32	BROXTOWE DISTRICT
33	GEDLING DISTRICT
34	MANSFIELD DISTRICT
35	NEWARK AND SHERWOOD DISTRICT
36	RUSHCLIFFE DISTRICT
37	CITY OF DERBY
38	CITY OF LEICESTER
39	RUTLAND
40	CITY OF NOTTINGHAM

The East Midlands has 198 of the 10% most deprived LSOAs in England. There are 2732 LSOAs in total so just over 7% of all its LSOAs are within these 10% most deprived LSOAs on the IMD 2007.



## East Midlands GOR Index of Multiple Deprivation 2007



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Scale 1: 906 300

The deprived LSOAs of the East Midlands are concentrated around the population centres of Leicester, Derby, and Nottingham. The former Nottinghamshire and Derbyshire coal field districts of Mansfield, Ashfield, Bassetlaw, Chesterfield and Bolsover all contain concentrations of LSOAs suffering severe deprivation.

## London

## Local Authorities in the London GOR



id	Name
1	CITY AND COUNTY OF THE CITY OF LONDON
2	BARKING AND DAGENHAM LONDON BORO
3	BARNET LONDON BORO
4	BEXLEY LONDON BORO
5	BRENT LONDON BORO
6	BROMLEY LONDON BORO
7	CAMDEN LONDON BORO
8	CROYDON LONDON BORO
9	EALING LONDON BORO
10	ENFIELD LONDON BORO
11	GREENWICH LONDON BORO
12	HACKNEY LONDON BORO
13	HAMMERSMITH AND FULHAM LONDON BORO
14	HARINGEY LONDON BORO
15	HARROW LONDON BORO
16	HAVERING LONDON BORO
17	HILLINGDON LONDON BORO

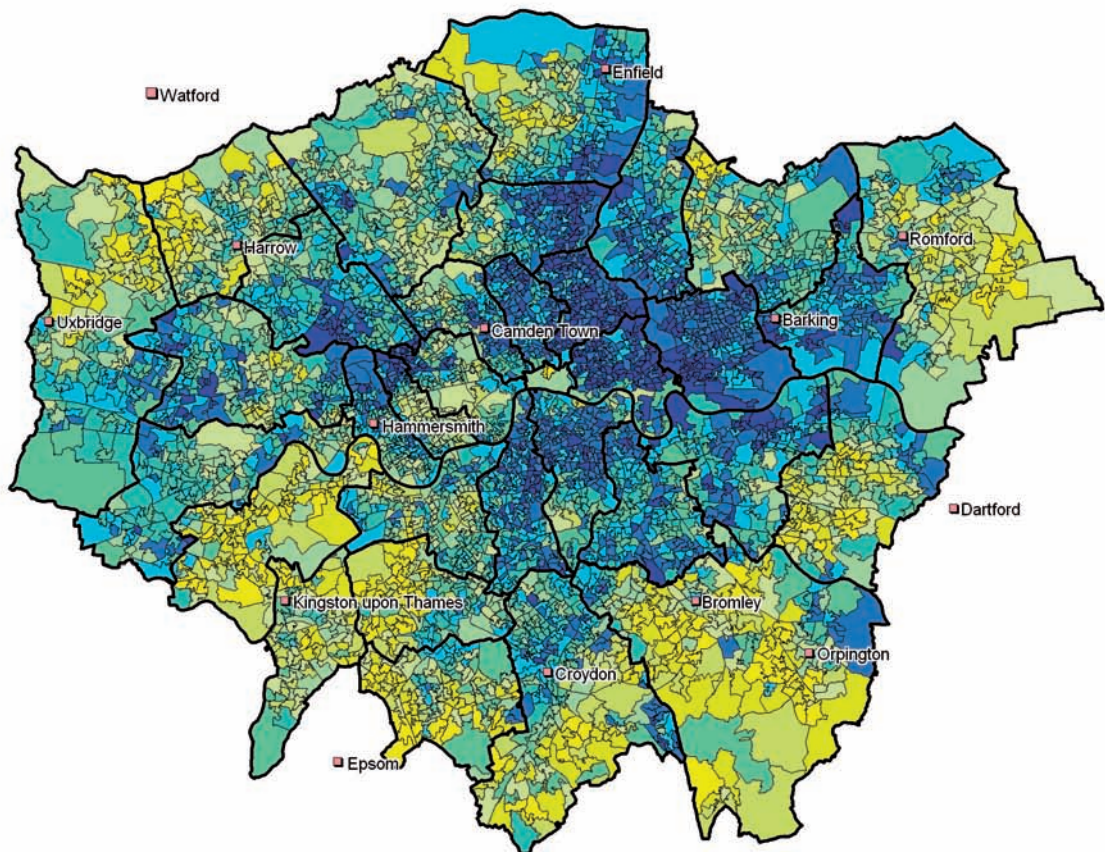
id	Name
18	HOUNSLOW LONDON BORO
19	ISLINGTON LONDON BORO
20	KENSINGTON AND CHELSEA LONDON BORO
21	KINGSTON UPON THAMES LONDON BORO
22	LAMBETH LONDON BORO
23	LEWISHAM LONDON BORO
24	MERTON LONDON BORO
25	NEWHAM LONDON BORO
26	REDBRIDGE LONDON BORO
27	RICHMOND UPON THAMES LONDON BORO
28	SOUTHWARK LONDON BORO
29	SUTTON LONDON BORO
30	TOWER HAMLETS LONDON BORO
31	WALTHAM FOREST LONDON BORO
32	WANDSWORTH LONDON BORO
33	CITY OF WESTMINSTER LONDON BORO

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London contains 482 of the 10% most deprived LSOAs in England. London has 4765 LSOAs in total so just over 10% of all its LSOAs are in the 10% most deprived nationally. It also has 416 LSOAs (8.7%) that fall among the least deprived 20% of LSOAs in England.



## London GOR Index of Multiple Deprivation 2007



### Deciles of IMD 2007

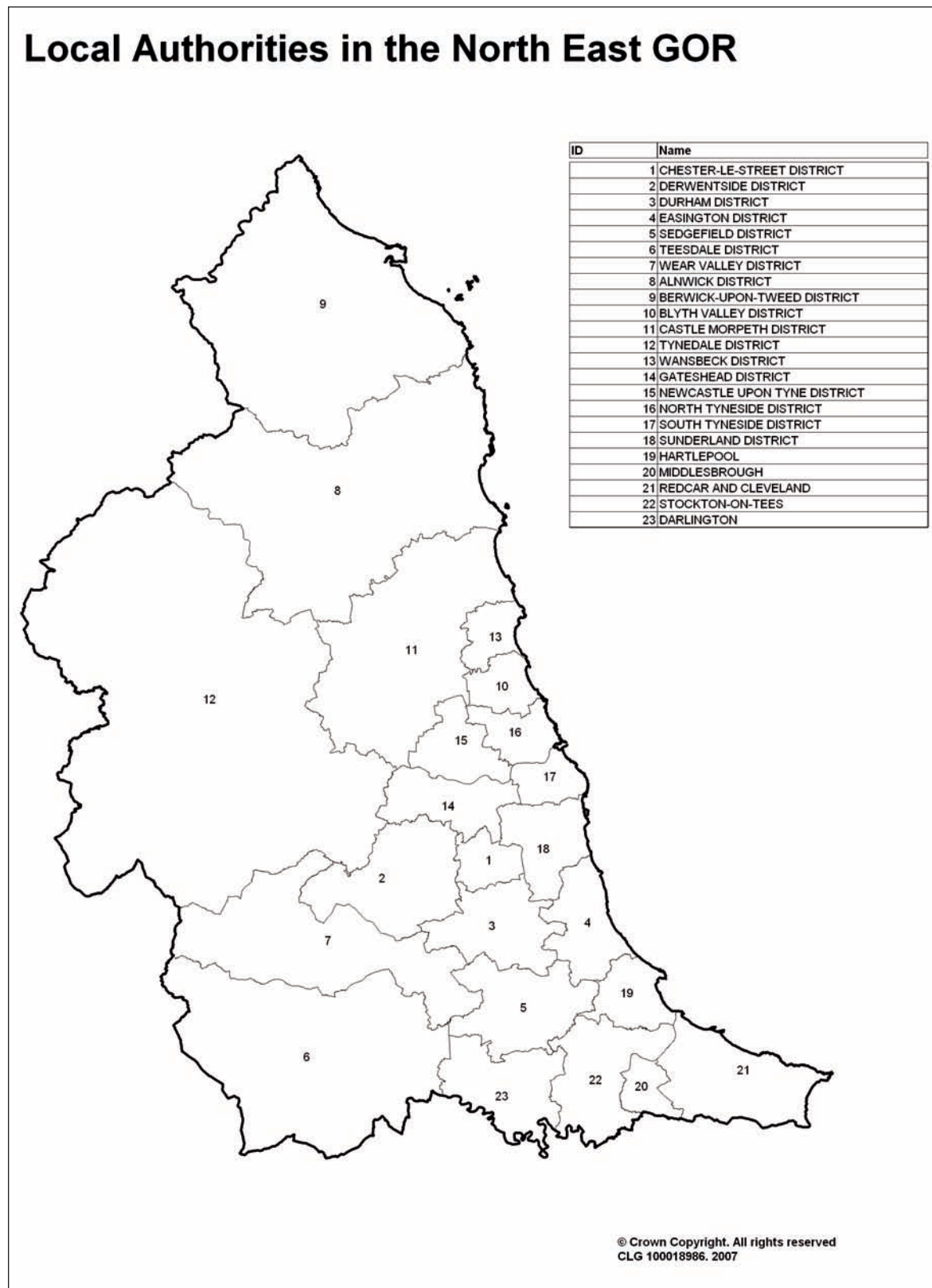


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Scale 1:1 245 000

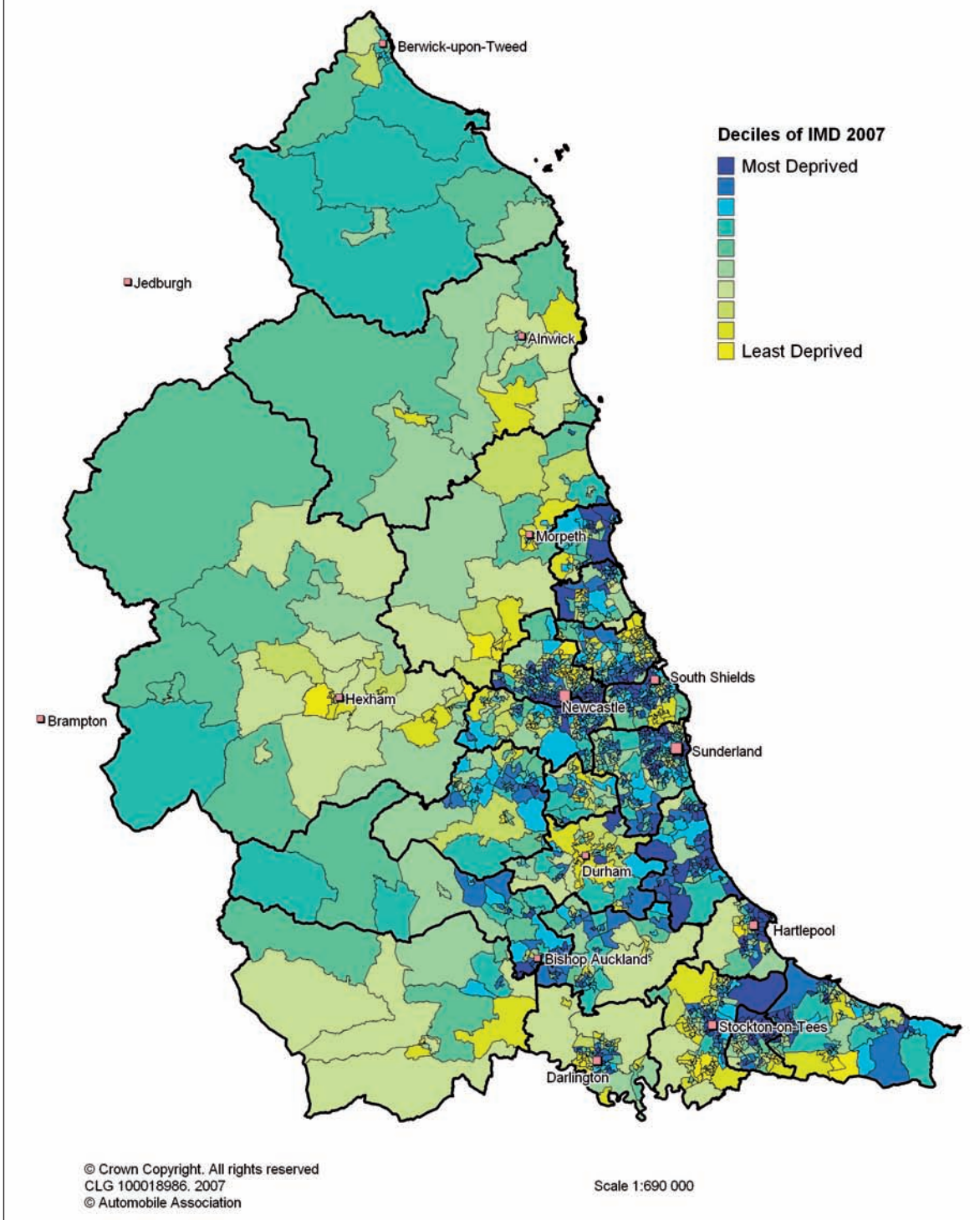
As has been indicated, London's share of the 10% most deprived LSOAs are concentrated in inner London Boroughs particularly (though not exclusively) to the 'inner' north east, such as Tower Hamlets, Newham and Hackney.

## North East



294 of the 10% most deprived LSOAs on the IMD in England are located in this Region. The North East has 1656 LSOAs in total so nearly 18% of all its LSOAs are amongst the 10% most deprived in England. Just under half of all its LSOAs (784) are in the 30% most deprived LSOAs in England and there are only 53 LSOAs in this Region which are within the least deprived 10%.

## North East GOR Index of Multiple Deprivation 2007

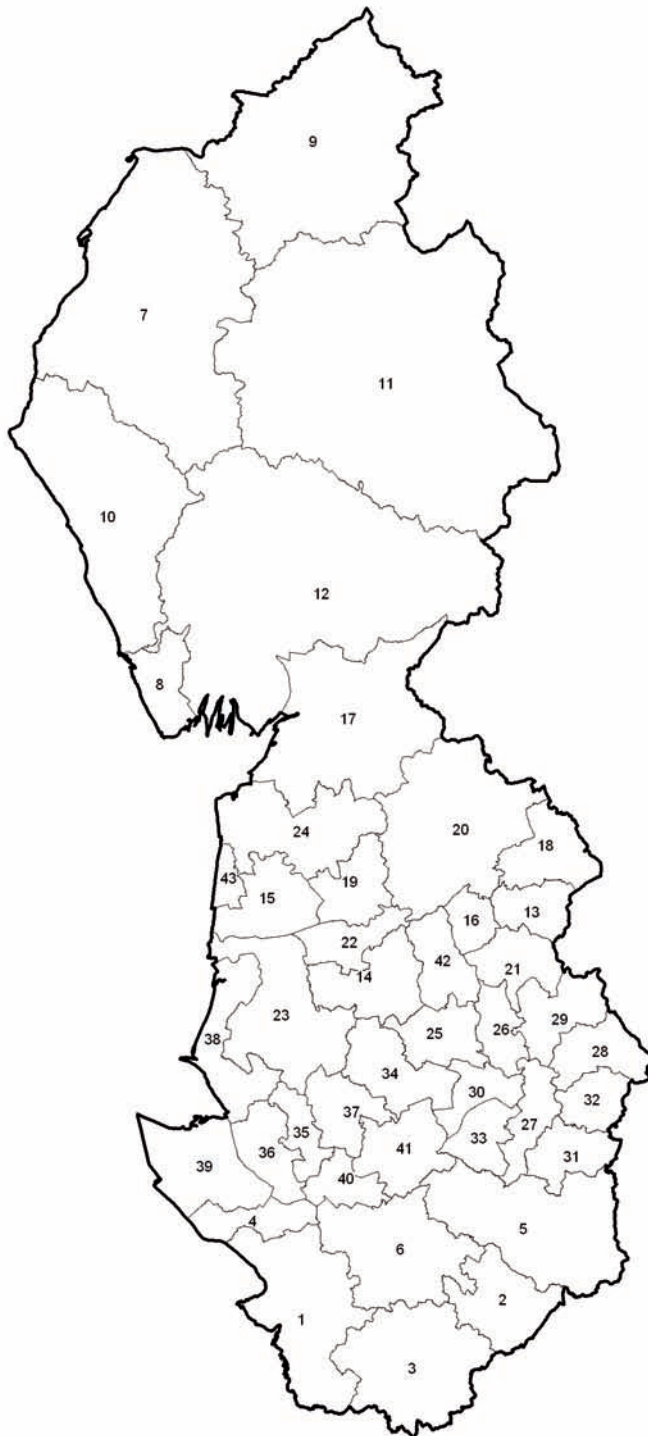


The pattern of severe multiple deprivation remains similar to the ID 2000 and ID 2004, with the former steel, shipbuilding and mining areas such as Easington, Middlesbrough, Hartlepool, Redcar and Cleveland, and Stockton-on-Tees containing many of the most deprived LSOAs. There are also concentrations of very deprived LSOAs in Newcastle-upon-Tyne, South Tyneside, Sunderland and Gateshead.



## North West

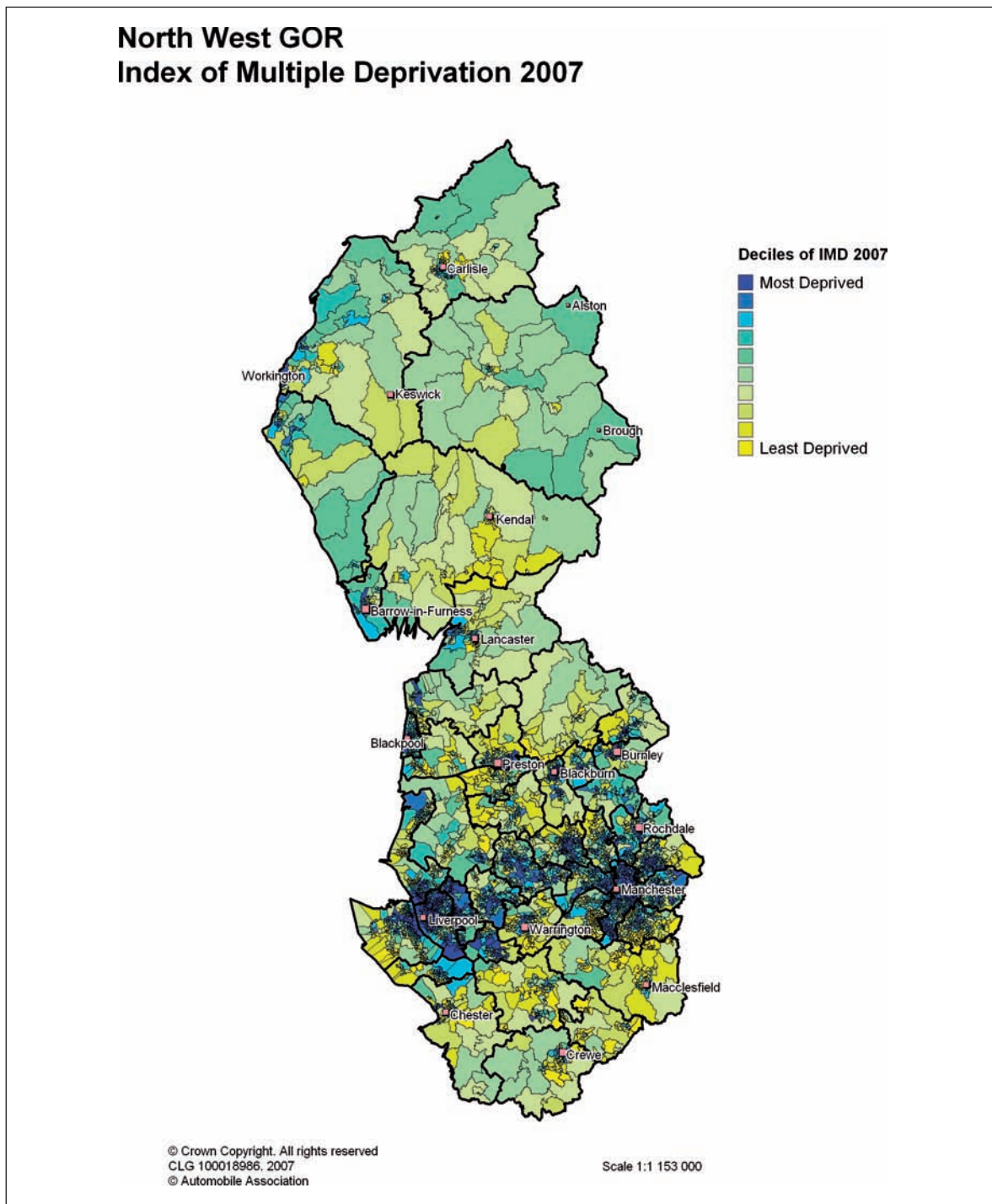
## Local Authorities in the North West GOR



Id	Name
1	CHESTER DISTRICT
2	CONGLETON DISTRICT
3	CREWE AND NANTWICH DISTRICT
4	ELLESMERE PORT AND NESTON DISTRICT
5	MACCLESFIELD DISTRICT
6	VALE ROYAL DISTRICT
7	ALLERDALE DISTRICT
8	BARROW-IN-FURNESS DISTRICT
9	CARLISLE DISTRICT
10	COPELAND DISTRICT
11	EDEN DISTRICT
12	SOUTH LAKELAND DISTRICT
13	BURNLEY DISTRICT
14	CHORLEY DISTRICT
15	FYLDE DISTRICT
16	HYNDBURN DISTRICT
17	LANCASTER DISTRICT
18	PENDLE DISTRICT
19	PRESTON DISTRICT
20	RIBBLE VALLEY DISTRICT
21	ROSSENDALE DISTRICT
22	SOUTH RIBBLE DISTRICT
23	WEST LANCASHIRE DISTRICT
24	WYRE DISTRICT
25	BOLTON DISTRICT
26	BURY DISTRICT
27	MANCHESTER DISTRICT
28	OLDHAM DISTRICT
29	ROCHDALE DISTRICT
30	SALFORD DISTRICT
31	STOCKPORT DISTRICT
32	TAMESIDE DISTRICT
33	TRAFFORD DISTRICT
34	WIGAN DISTRICT
35	KNOWSLEY DISTRICT
36	LIVERPOOL DISTRICT
37	ST HELENS DISTRICT
38	SEFTON DISTRICT
39	WIRRAL DISTRICT
40	HALTON
41	WARRINGTON
42	BLACKBURN
43	BLACKPOOL

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The North West has 911 of the 10% most deprived LSOAs in England. There are 4459 LSOAs in total in the North West, therefore over a fifth (20.4%) of all its LSOAs are in the 10% most deprived. The North West has a greater proportion of its LSOAs in the most deprived 10% than any other Region.



Severe deprivation is evident in most of the districts across the North West. Concentrations of LSOAs showing deprivation in the most deprived decile are found in the urban areas in and around Liverpool and Manchester. As with the ID 2000 and ID 2004 the Merseyside districts of Liverpool, Sefton, Knowsley, and St Helens, along with the area of Birkenhead on the Wirral stand out as containing large concentrations of LSOAs with high levels of deprivation, as do many of the local authorities in Greater Manchester including Manchester, Wigan, Bolton, Salford and Oldham.

Further concentrations of deprived areas can be seen in the coastal resort town of Blackpool and also in the series of towns running from the head of the Ribble Valley at Preston through Blackburn, Hyndburn, Burnley and Pendle.

## Local Authorities in the South East GOR



id	Name
1	AYLESBURY VALE DISTRICT
2	CHILTERN DISTRICT
3	SOUTH BUCKS DISTRICT
4	WYCOMBE DISTRICT
5	EASTBOURNE DISTRICT
6	HASTINGS DISTRICT
7	LEWES DISTRICT
8	ROTHER DISTRICT
9	WEALDEN DISTRICT
10	BASINGSTOKE AND DEANE DISTRICT
11	EAST HAMPSHIRE DISTRICT
12	EASTLEIGH DISTRICT
13	FAREHAM DISTRICT
14	GOSPORT DISTRICT
15	HART DISTRICT
16	HAVANT DISTRICT
17	NEW FOREST DISTRICT
18	RUSHMOOR DISTRICT
19	TEST VALLEY DISTRICT
20	WINCHESTER DISTRICT
21	ASHFORD DISTRICT
22	CANTERBURY DISTRICT
23	DARTFORD DISTRICT
24	DOVER DISTRICT
25	GRAVESHAM DISTRICT
26	MAIDSTONE DISTRICT
27	SEVENOAKS DISTRICT
28	SHEPWAY DISTRICT
29	SWALE DISTRICT
30	THANET DISTRICT
31	TONBRIDGE AND MALLING DISTRICT
32	TUNBRIDGE WELLS DISTRICT
33	CHERWELL DISTRICT
34	OXFORD DISTRICT
35	SOUTH OXFORDSHIRE DISTRICT

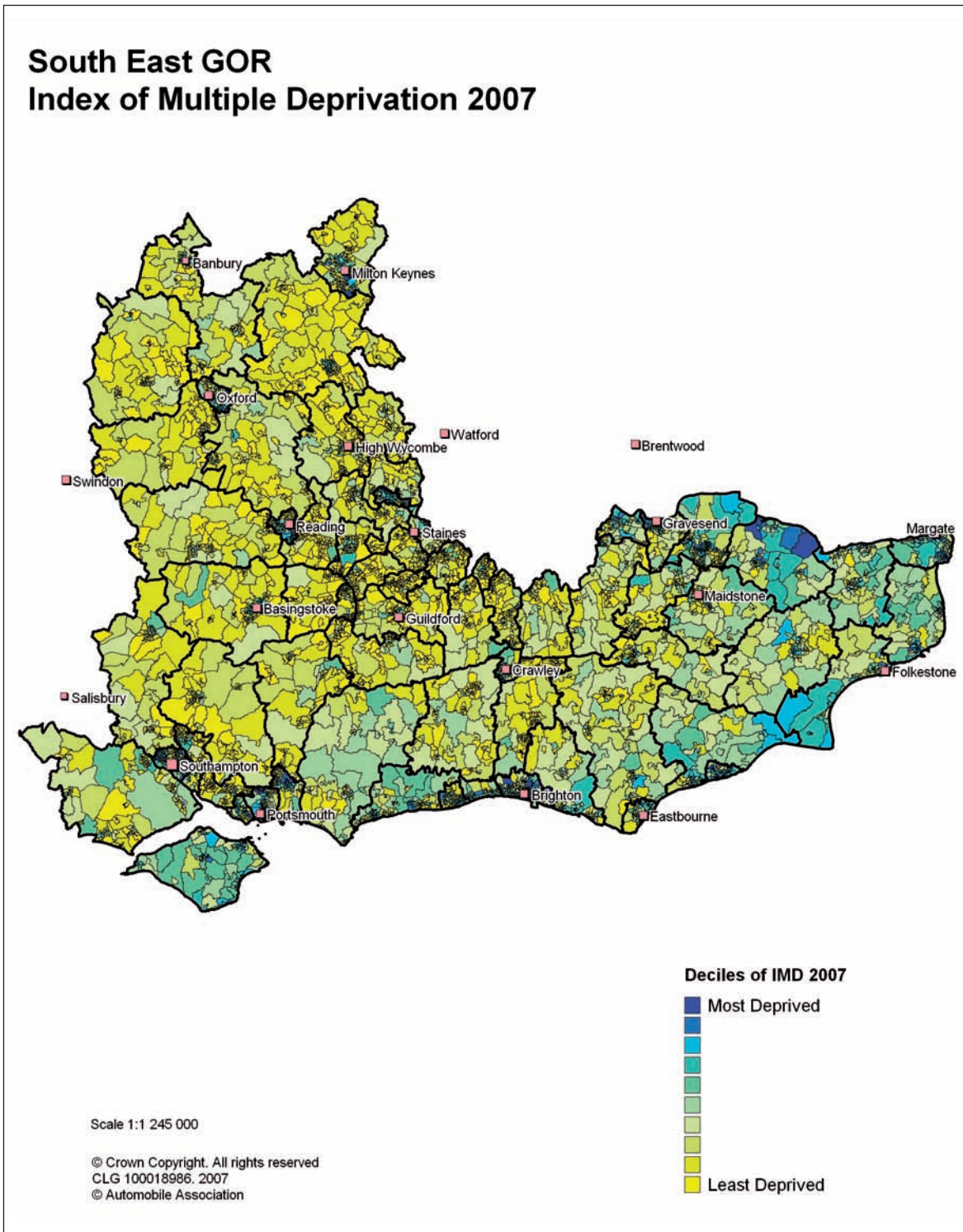
id	Name
36	VALE OF WHITE HORSE DISTRICT
37	WEST OXFORDSHIRE DISTRICT
38	ELMBRIDGE DISTRICT
39	EPSOM AND EWELL DISTRICT
40	GUILDFORD DISTRICT
41	MOLE VALLEY DISTRICT
42	REIGATE AND BANSTEAD DISTRICT
43	RUNNYMEDE DISTRICT
44	SPELTHORNE DISTRICT
45	SURREY HEATH DISTRICT
46	TANDRIDGE DISTRICT
47	WAVERLEY DISTRICT
48	WOKING DISTRICT
49	ADUR DISTRICT
50	ARUN DISTRICT
51	CHICHESTER DISTRICT
52	CRAWLEY DISTRICT
53	HORSHAM DISTRICT
54	MID SUSSEX DISTRICT
55	WORTHING DISTRICT
56	WEST BERKSHIRE
57	MEDWAY TOWNS
58	BRACKNELL FOREST
59	READING
60	SLOUGH
61	WINDSOR AND MAIDENHEAD
62	WOKINGHAM
63	MILTON KEYNES
64	BRIGHTON AND HOVE
65	CITY OF PORTSMOUTH
66	CITY OF SOUTHAMPTON
67	ISLE OF WIGHT

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### South East

The South East has 95 of the 10% most deprived LSOAs in England. The South East has 5319 LSOAs in total so under 2% of all its LSOAs are within the 10% most deprived. Over a fifth (1252) of the South East LSOAs are in the 10% least deprived group.

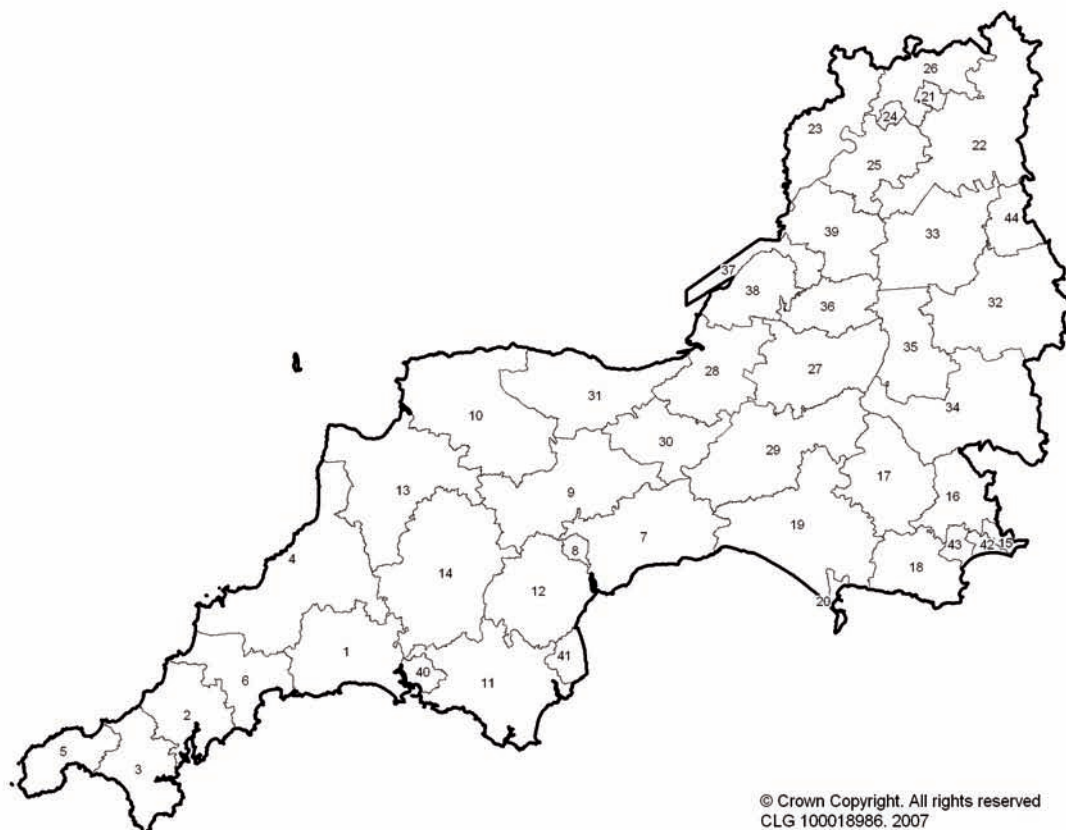




The most deprived LSOAs are concentrated in some of the coastal resorts of the South East, such as Brighton and Hove, Thanet and Hastings. Elsewhere there are isolated LSOAs within the 10% most deprived LSOAs in England.

## South West

### Local Authorities in the South West GOR



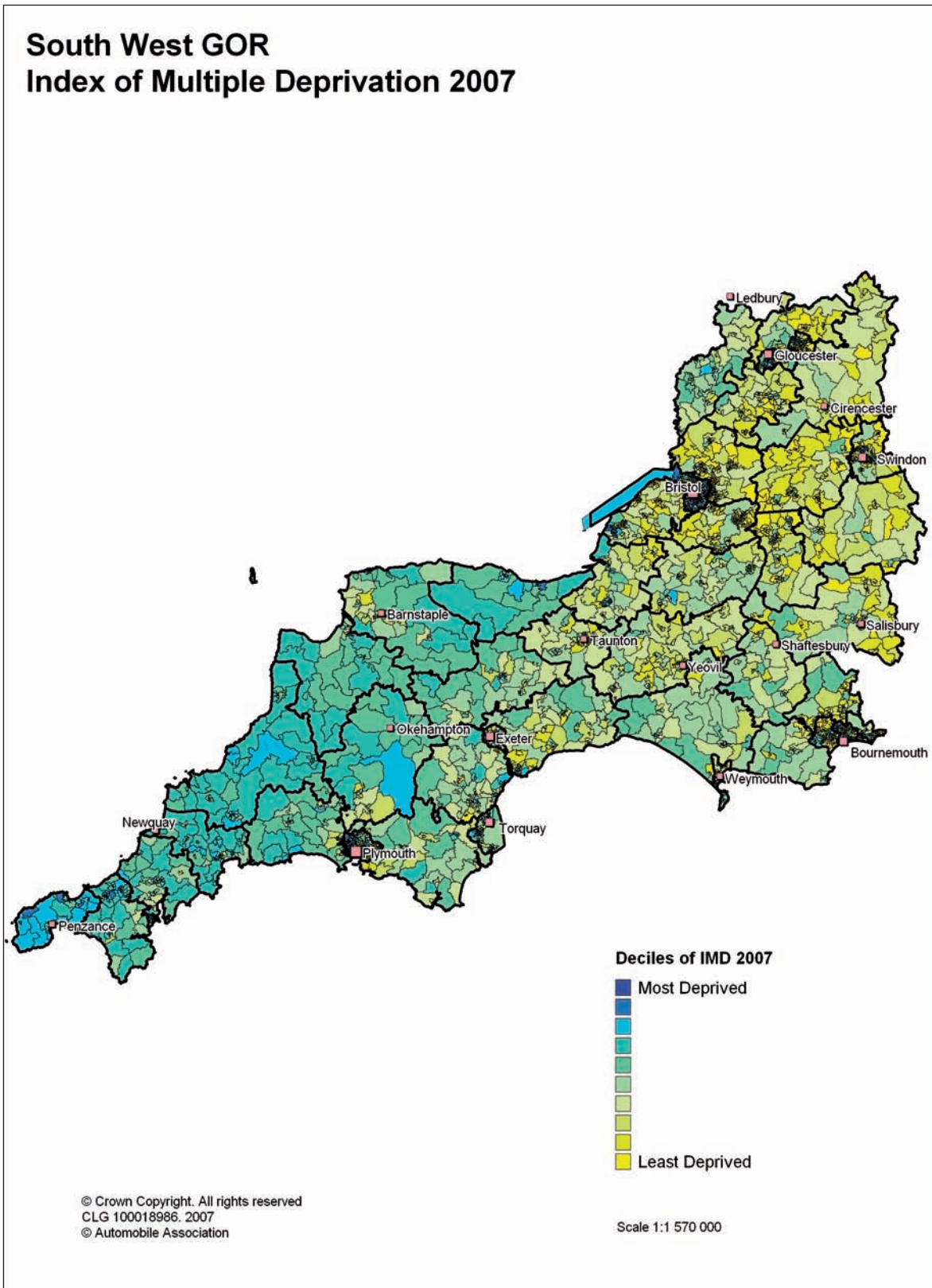
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id	Name
1	CARADON DISTRICT
2	CARRICK DISTRICT
3	KERRIER DISTRICT
4	NORTH CORNWALL DISTRICT
5	PENWITH DISTRICT
6	RESTORMEL DISTRICT
7	EAST DEVON DISTRICT
8	EXETER DISTRICT
9	MID DEVON DISTRICT
10	NORTH DEVON DISTRICT
11	SOUTH HAMS DISTRICT
12	TEIGNBRIDGE DISTRICT
13	TORRIDGE DISTRICT
14	WEST DEVON DISTRICT
15	CHRISTCHURCH DISTRICT
16	EAST DORSET DISTRICT
17	NORTH DORSET DISTRICT
18	PURBECK DISTRICT
19	WEST DORSET DISTRICT
20	WEYMOUTH AND PORTLAND DISTRICT
21	CHELTENHAM DISTRICT
22	COTSWOLD DISTRICT

id	Name
23	FOREST OF DEAN DISTRICT
24	GLOUCESTER DISTRICT
25	STROUD DISTRICT
26	TEWKESBURY DISTRICT
27	MENDIP DISTRICT
28	SEDGEMOOR DISTRICT
29	SOUTH SOMERSET DISTRICT
30	TAUNTON DEANE DISTRICT
31	WEST SOMERSET DISTRICT
32	KENNET DISTRICT
33	NORTH WILTSHIRE DISTRICT
34	SALISBURY DISTRICT
35	WEST WILTSHIRE DISTRICT
36	BATH AND NORTH EAST SOMERSET
37	CITY OF BRISTOL
38	NORTH SOMERSET
39	SOUTH GLOUCESTERSHIRE
40	CITY OF PLYMOUTH
41	TORBAY
42	BOURNEMOUTH
43	POOLE
44	SWINDON

The South West has 113 LSOAs which are amongst the 10% most deprived LSOAs in England. In total this Region has 3226 LSOAs, so 3.5% of all its LSOAs are within the 10% most deprived. The South West has over twice as many LSOAs in the 20% least deprived decile than it does in the 20% most deprived decile. A total of 659 (20.4%) of its LSOAs are in the 20% least deprived whereas 300 (9.3%) are in the 20% most deprived.

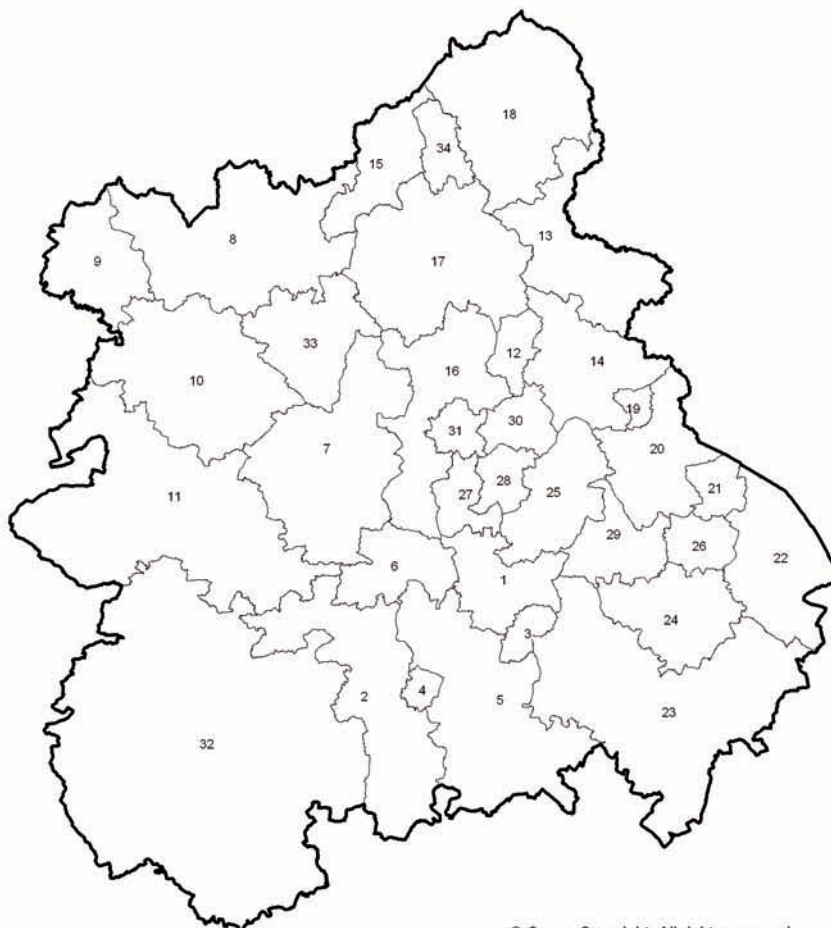




Severe deprivation is concentrated in the urban areas of Plymouth and the City of Bristol as well as in parts of Cornwall especially in Penwith.

## West Midlands

### Local Authorities in the West Midlands GOR

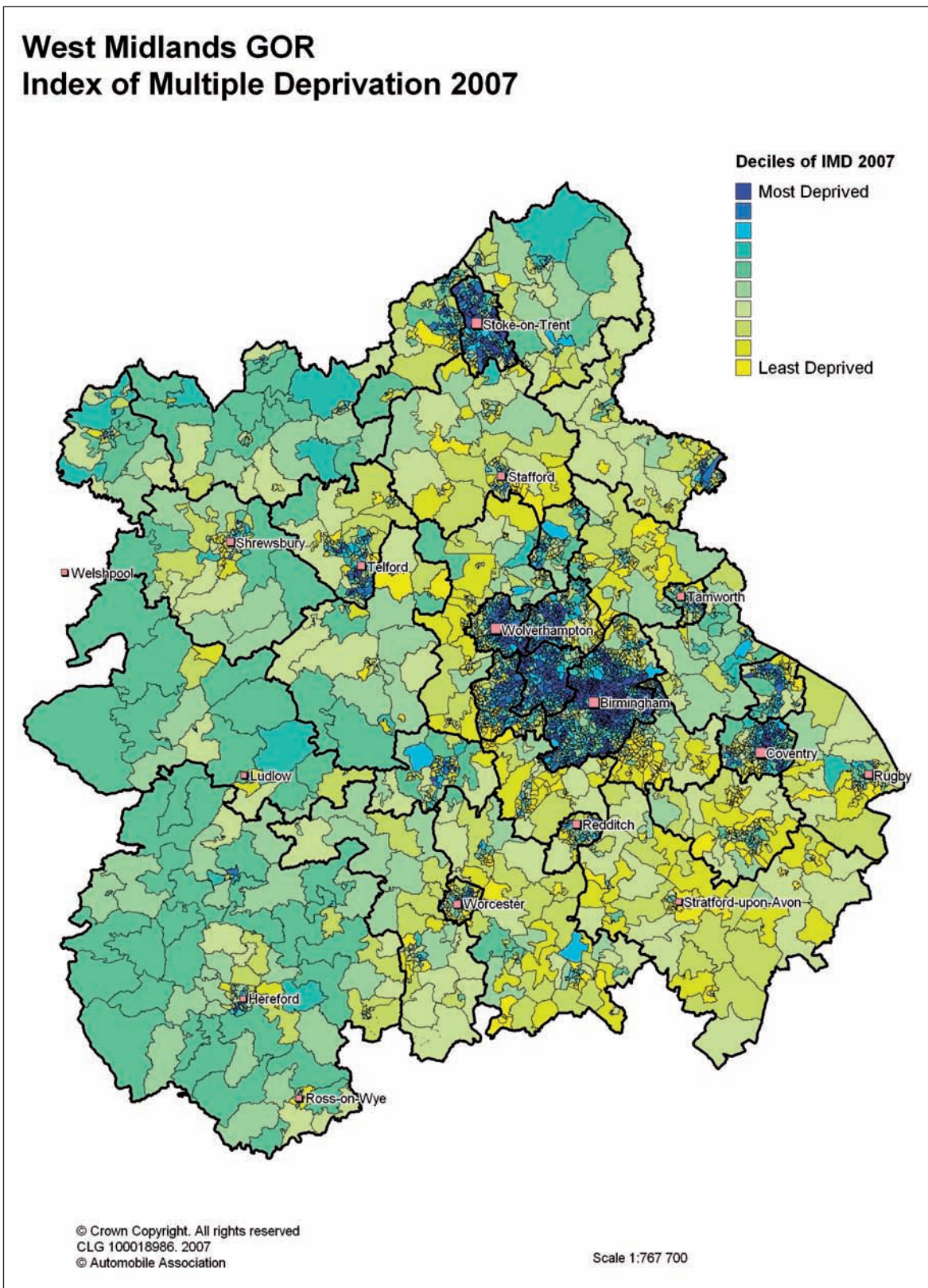


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id	Name
1	BROMSGROVE DISTRICT
2	MALVERN HILLS DISTRICT
3	REDDITCH DISTRICT
4	WORCESTER DISTRICT
5	WYCHAVON DISTRICT
6	WYRE FOREST DISTRICT
7	BRIDGNORTH DISTRICT
8	NORTH SHROPSHIRE DISTRICT
9	OSWESTRY DISTRICT
10	SHREWSBURY AND ATCHAM DISTRICT
11	SOUTH SHROPSHIRE DISTRICT
12	CANNOCK CHASE DISTRICT
13	EAST STAFFORDSHIRE DISTRICT
14	LICHFIELD DISTRICT
15	NEWCASTLE-UNDER-LYME DISTRICT
16	SOUTH STAFFORDSHIRE DISTRICT
17	STAFFORD DISTRICT

id	Name
18	STAFFORDSHIRE MOORLANDS DISTRICT
19	TAMWORTH DISTRICT
20	NORTH WARWICKSHIRE DISTRICT
21	NUNEATON AND BEDWORTH DISTRICT
22	RUGBY DISTRICT
23	STRATFORD-ON-AVON DISTRICT
24	WARWICK DISTRICT
25	BIRMINGHAM DISTRICT
26	COVENTRY DISTRICT
27	DUDLEY DISTRICT
28	SANDWELL DISTRICT
29	SOLIHULL DISTRICT
30	WALSALL DISTRICT
31	WOLVERHAMPTON DISTRICT
32	COUNTY OF HEREFORDSHIRE
33	THE WREKIN
34	CITY OF STOKE-ON-TRENT

The West Midlands has 521 LSOAs in the 10% most deprived LSOAs. The Region has 3482 LSOAs in total so this represents 15% of all its LSOAs being in the 10% most deprived.



The metropolitan area of Birmingham has very high levels of severe multiple deprivation. The districts of Wolverhampton, Walsall and Sandwell all have severely deprived LSOAs. Further concentrations of these severely deprived LSOAs are to be found in Coventry and Stoke-on-Trent.



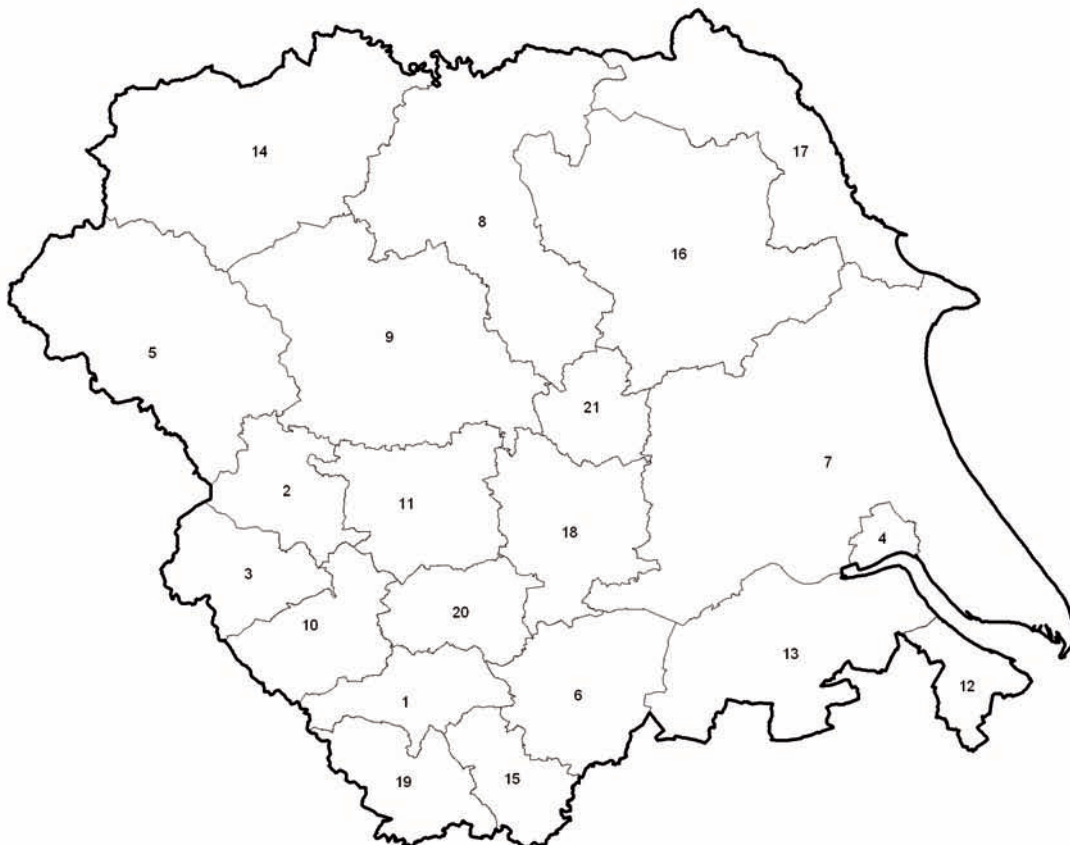
## Yorkshire and the Humber

### Local Authorities in the Yorkshire and the Humber GOR

id	Name
1	BARNSELY DISTRICT
2	BRADFORD DISTRICT
3	CALDERDALE DISTRICT
4	CITY OF KINGSTON UPON HULL
5	CRAVEN DISTRICT
6	DONCASTER DISTRICT
7	EAST RIDING OF YORKSHIRE
8	HAMBLETON DISTRICT
9	HARROGATE DISTRICT
10	KIRKLEES DISTRICT
11	LEEDS DISTRICT

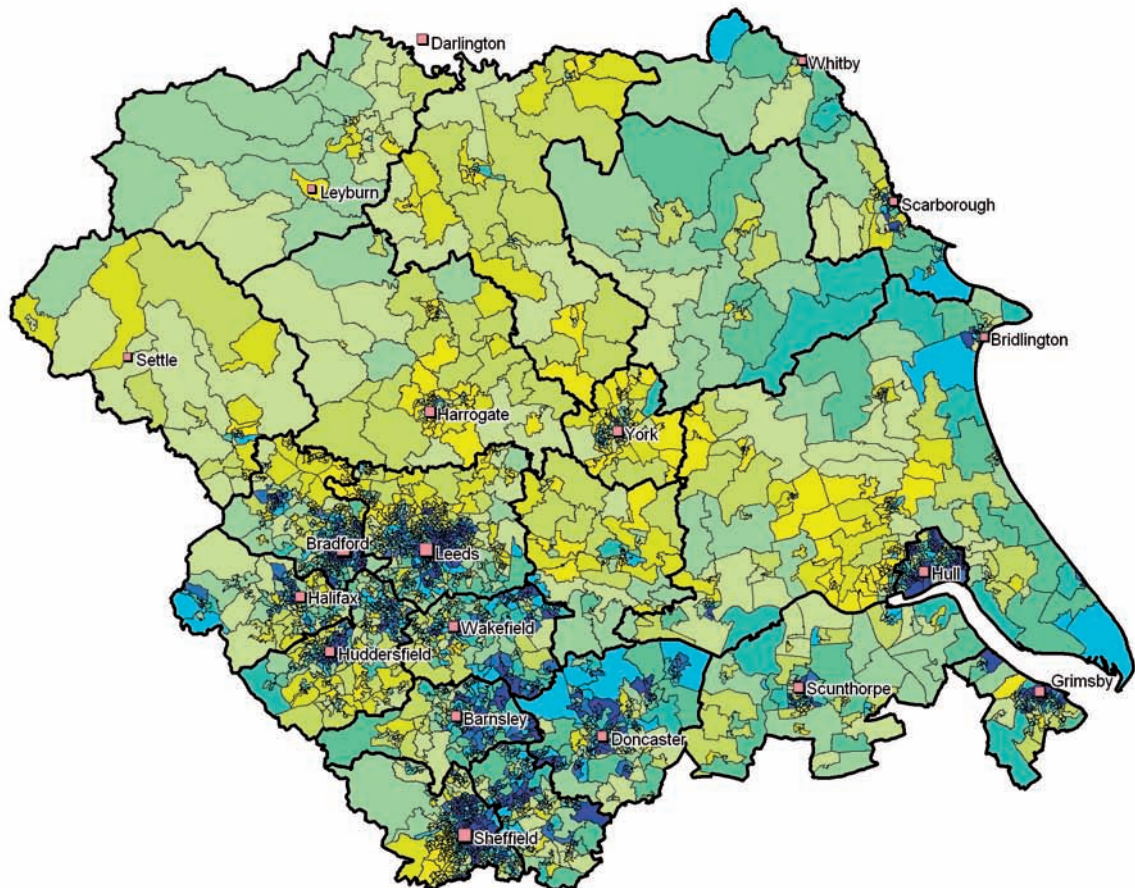
id	Name
12	NORTH EAST LINCOLNSHIRE
13	NORTH LINCOLNSHIRE
14	RICHMONDSHIRE DISTRICT
15	ROTHERHAM DISTRICT
16	RYEDALE DISTRICT
17	SCARBOROUGH DISTRICT
18	SELBY DISTRICT
19	SHEFFIELD DISTRICT
20	WAKEFIELD DISTRICT
21	YORK

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Yorkshire and the Humber contains 551 of the 10% most deprived LSOAs in England. Yorkshire and the Humber has 3293 LSOAs in total, so almost 17% of all its LSOAs are in the 10% most deprived in England.

## Yorkshire and the Humber GOR Index of Multiple Deprivation 2007



### Deciles of IMD 2007



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Scale 1:966 800

Much of Yorkshire and the Humber's severe deprivation is concentrated within towns and cities such as Kingston upon Hull, Sheffield, Leeds, Bradford, Kirklees (Huddersfield, Dewsbury) and Rotherham. Severe deprivation is also to be found around the former coalfields of the Region, in the districts of Doncaster, Wakefield and Barnsley.

## Section 2: The most deprived and the least deprived 20% of LSOAs in England on the IMD 2007

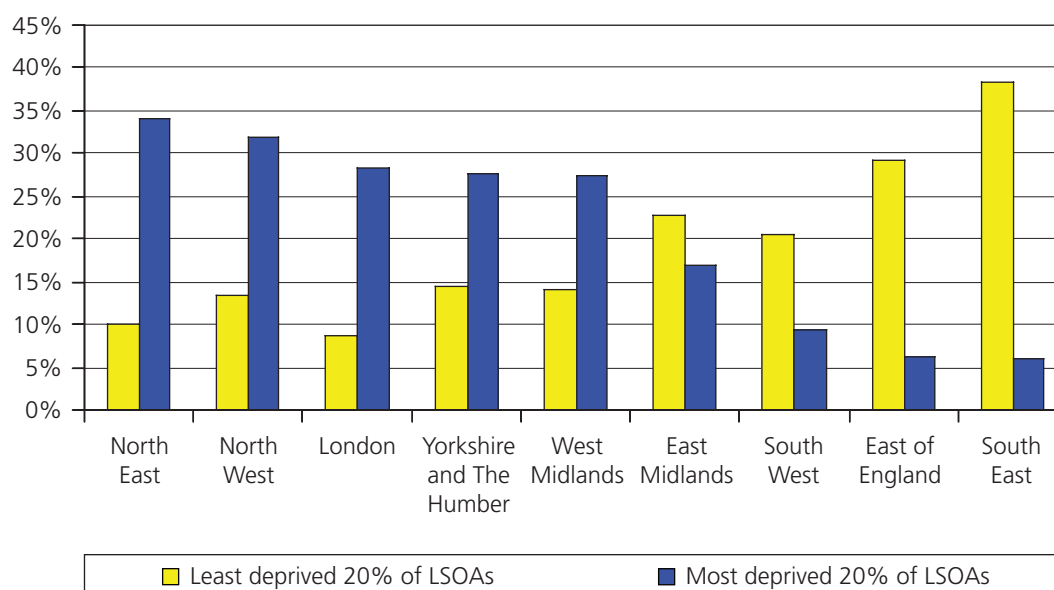
### The most deprived 20% of LSOAs in England on the IMD 2007

- There are 6496 LSOAs that are amongst the 20% most deprived in England
- These LSOAs are concentrated in cities, 'one-industry' towns and coalmining areas
- Over 10 million people live in these LSOAs – this represents almost exactly 20% of the population of England. However, it is important to remember that not all people living in these LSOAs will be deprived
- On average, just over a third (35.4%) of people living in these LSOAs are Income Deprived
- One in five (20.3%) of the relevant adult age group (women aged 18 to 59 and men aged 18–64) in these LSOAs are employment deprived
- Just under half (48.8%) of children in these LSOAs live in families that are income deprived
- Over 37% of older people in these LSOAs are income deprived

### The Regional picture

Chart 5.1 shows the percentage of LSOAs in a Region that fall within the most deprived 20% of LSOAs in England on the IMD 2007, and the percentage of LSOAs which fall within the least deprived 20%.

Chart 5.1 Percentage of LSOAs in the Most and Least Deprived 20% of LSOAs in England on the IMD 2007 by Region

**Chart 5.1 Percentage of LSOAs in the most deprived and least deprived 20% on the IMD 2007 by Region**

- The most deprived 20% of LSOAs are clustered in the North East, the North West, Yorkshire and the Humber, London and the West Midlands.

**Table 5.1 Number of LSOAs in the Most Deprived 20% of LSOAs in England on the IMD 2007 by Region**

	Number of LSOAs in most deprived 20% of LSOAs in England	Number of LSOAs in the Region	% of LSOAs in each Region falling in most deprived 20% of LSOAs in England
East	223	3550	6.3
East Midlands	460	2732	16.8
London	1351	4765	28.4
North East	566	1656	34.2
North West	1420	4459	31.8
South East (excluding London)	318	5319	6.0
South West	300	3226	9.3
West Midlands	951	3482	27.3
Yorkshire & the Humber	907	3293	27.5
Total	6,496	32,482	20.0

- The North East has the greatest percentage of its LSOAs in the most deprived 20% (34.2%). The North West is the Region with the next highest percentage of LSOAs in the most deprived 20% (31.8%). The North West has the greatest number of LSOAs in the most deprived 20% (1420), followed by London with 1351.
- However, it is also significant to note that less deprived Regions – the South East, South West and East Regions each have between 6% and 9% of their LSOAs falling in the 20% most deprived in England

**Table 5.2 People Living in the Most Deprived 20% of LSOAs in England on the IMD 2007 by Region**

	Population in most deprived 20% of LSOAs in England (thousands)	Regional Population (thousands)	% of Regional population living in most deprived 20% of LSOAs in England	% of England population living in most deprived 20% of LSOAs in England	Proportion of people living in the most deprived 20% of LSOAs in England, by Region
East Midlands	717	4,322	16.6	1.4	7.2
East of England	345	5,559	6.2	0.7	3.4
London	2,128	7,455	28.5	4.2	21.2
North East	858	2,547	33.7	1.7	8.6
North West	2,170	6,834	31.8	4.3	21.6
South East	485	8,178	5.9	1.0	4.8
South West	468	5,083	9.2	0.9	4.7
West Midlands	1,464	5,347	27.4	2.9	14.6
Yorkshire and The Humber	1,389	5,103	27.2	2.8	13.9
Total	10,023	50,428	–	19.9	100.0

- The North East has the largest percentage of its population (33.7%) living in the most deprived 20% of LSOAs in England.
- The North West has the largest number of people living in one of the 20% most deprived LSOAs (2.17 million), followed by London which has 2.13 million people living in one of these LSOAs.
- 4.3% of people in England live in LSOAs in the North West which fall in the most deprived 20% of LSOAs in England. This is followed by London which has 4.2% of the England population which live in the most deprived 20% of LSOAs in England.
- Of those who live in the 20% most deprived LSOAs in England, over a fifth (21.6%) live in the North West, and over a fifth (21.2%) live in London.
- The most deprived 20% of LSOAs in England are spread across 255 local authority districts, though 38 of these districts only have a single LSOA in this grouping.



## The least deprived 20% of LSOAs in England on the IMD 2007

The 20% least deprived LSOAs in England have the following characteristics:

- 10.19 million people live in these LSOAs – this is 20.2% of the population of England
- Over one-third of these least deprived LSOAs are in the South East
- 4.5% of people in these LSOAs are income deprived
- 3.8% of the relevant adult age group (women aged 18 to 59 and men aged 18–64) are employment deprived
- On average 4.9% of children live in families that are income deprived
- On average 7.4% of older people are income deprived

**Table 5.3 LSOAs in the Least Deprived 20% of LSOAs in England on the IMD 2007 by Region**

	No. of LSOAs in least deprived 20%	No. of LSOAs in the Region	% of least deprived LSOAs by Region
East Midlands	619	2,732	22.7
East of England	1,039	3,550	29.3
London	416	4,765	8.7
North East	165	1,656	10.0
North West	600	4,459	13.5
South East	2,037	5,319	38.3
South West	659	3,226	20.4
West Midlands	486	3,482	14.0
Yorkshire and The Humber	475	3,293	14.4
Total	6,496	32,482	20.0

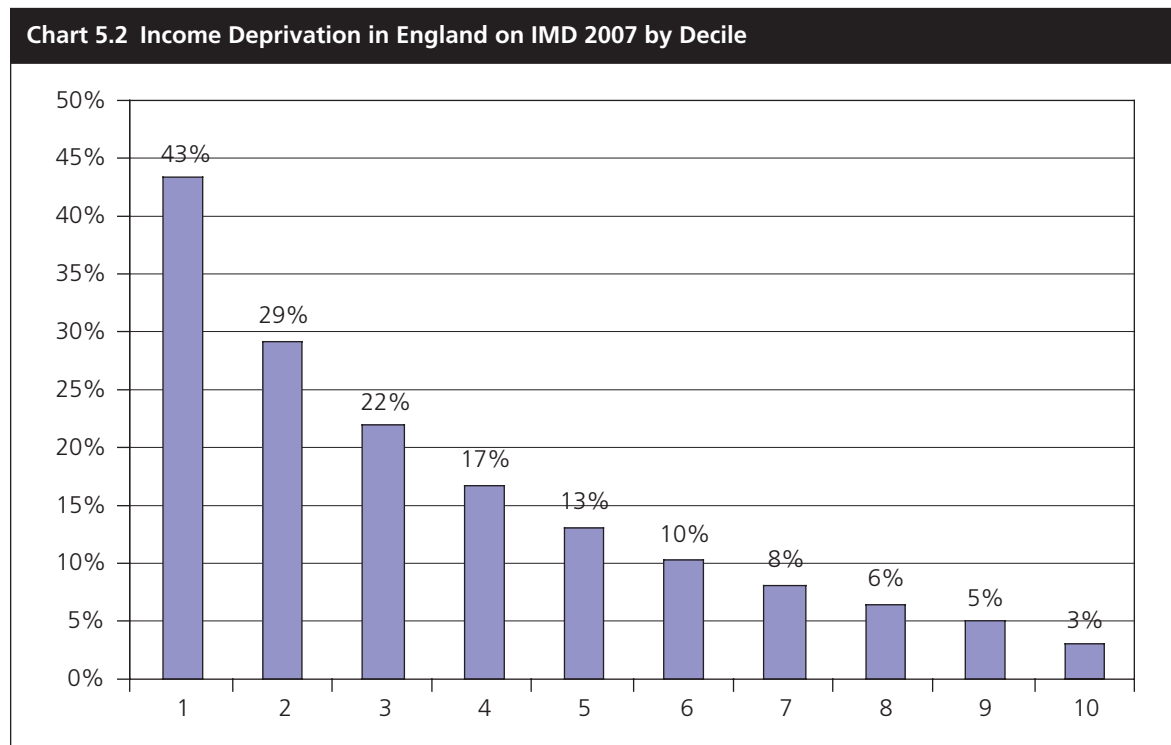
- The South East has the largest number of LSOAs (2037) falling in the least deprived 20% of LSOAs in England. It also has the highest percentage of its LSOAs falling in this category (38.3%). The percentage for this Region is far greater than for the other regions, and also the number of LSOAs is just over double the number of LSOAs in the East Region (the Region closest to the South East in this category).
- In contrast, London and the North East each have 10% or less of their LSOAs falling in the least deprived 20% of LSOAs in England.

## Section 3: The Domain Indices, the Income Deprivation Affecting Children Index, the Income Deprivation Affecting Older People Index and the IMD 2007

In this section an analysis of the Domain Indices, the Income Deprivation Affecting Children Index (IDACI), the Income Deprivation Affecting Older People Index (IDAOPI), and the IMD are presented. Throughout the analysis, a rank of 1 is assigned to the most deprived LSOA and the rank of 32,482 is assigned to the least deprived LSOA.

### Income Domain

**Chart 5.2** shows the range of Income Deprivation for deciles of LSOAs according to this measure. In the most income deprived 10% of LSOAs in England, an average 43% of the population are income deprived.



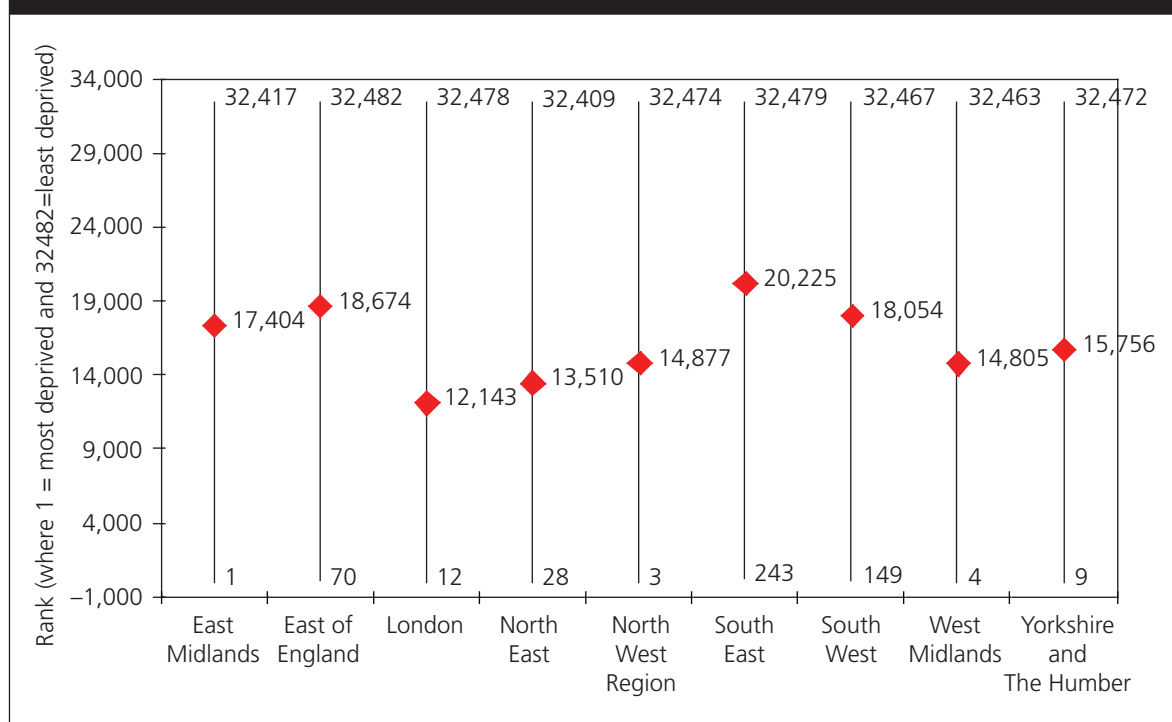
- There are 548 LSOAs in England where more than half of all people live in income deprivation
- And 3,382 LSOAs where more than one third of people live in income deprivation

At the other end of the spectrum:

- there are 5,006 LSOAs where less than one in 20 people live in income deprivation
- 14,314 LSOAs where fewer than one in 10 live in income deprivation

**Chart 5.3** shows the minimum, maximum and population weighted mean rank of LSOAs in each GOR for the Income Domain. It shows that all Regions contain LSOAs that are highly income deprived and that are not highly income deprived. However, the mean ranks of LSOAs in each Region differ and show substantial variation within England. London has on average the most income deprivation, with a mean LSOA rank of 12,143, whilst the South East Region is the least Income deprived with a population weighted mean rank of 20,225.

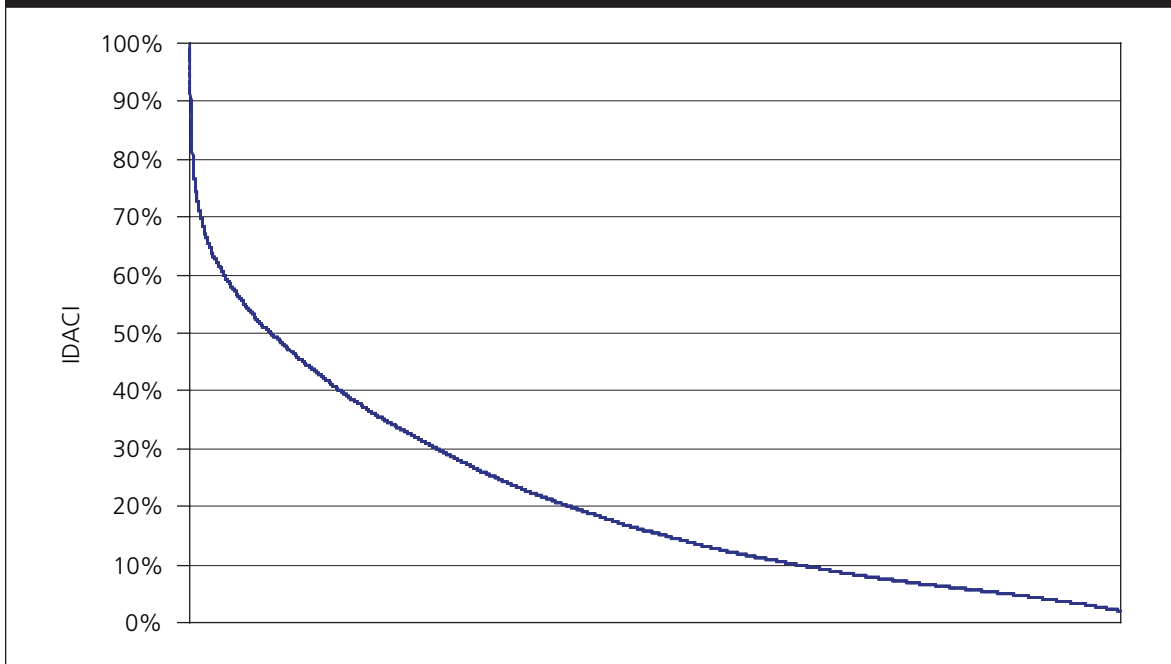
**Chart 5.3 Range of Income Domain Ranks by Region**



### Income Deprivation Affecting Children (supplementary Index)

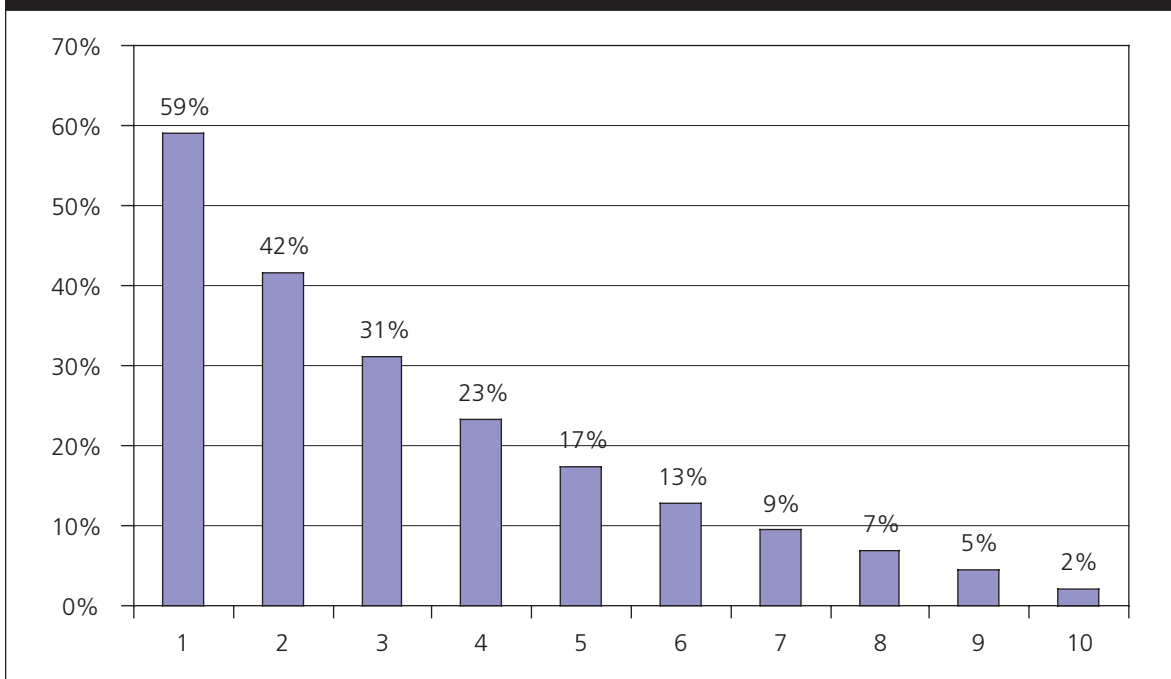
Chart 5.4 shows the range of the IDAC rates for every LSOA in England. This goes from a high of over 99% of children aged under 16 living in income deprived households down to 0% of children in the least deprived LSOA on this measure.

**Chart 5.4 Rates of the Income Deprivation Affecting Children Index for all LSOAs in England**



**Chart 5.5** shows that the most deprived decile of LSOAs on the IDACI have on average 59% of children aged less than 16 living in income deprived households. Within this decile the range is from over 99% to 48%, showing the extreme rates of deprivation that exist in the most deprived LSOAs. The least deprived decile of LSOAs in terms of IDACI have on average only 2% of children aged less than 16 living in income deprived households.

**Chart 5.5 Rates of the Income Deprivation Affecting Children Index by Decile**



In England there are:

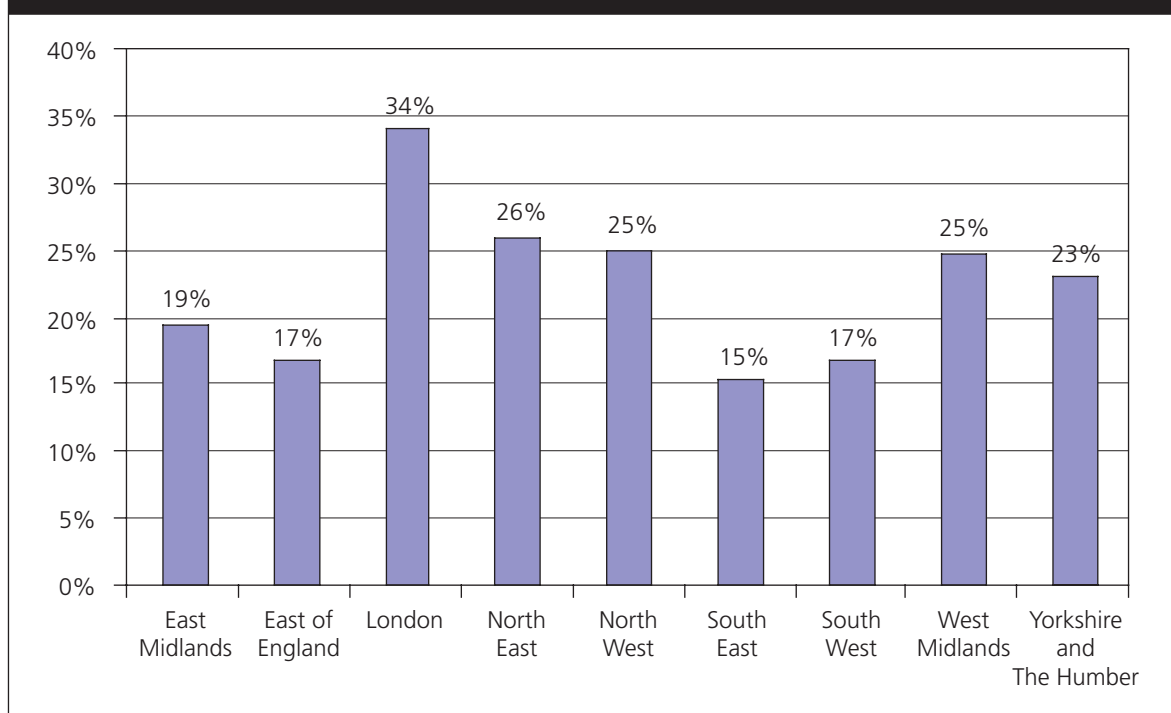
- 557 LSOAs where more than two thirds of children live in income deprived households;
- 2,787 LSOAs where more than half of all children are in this situation; and
- 7,272 LSOAs where more than one third of children live in income deprived households.

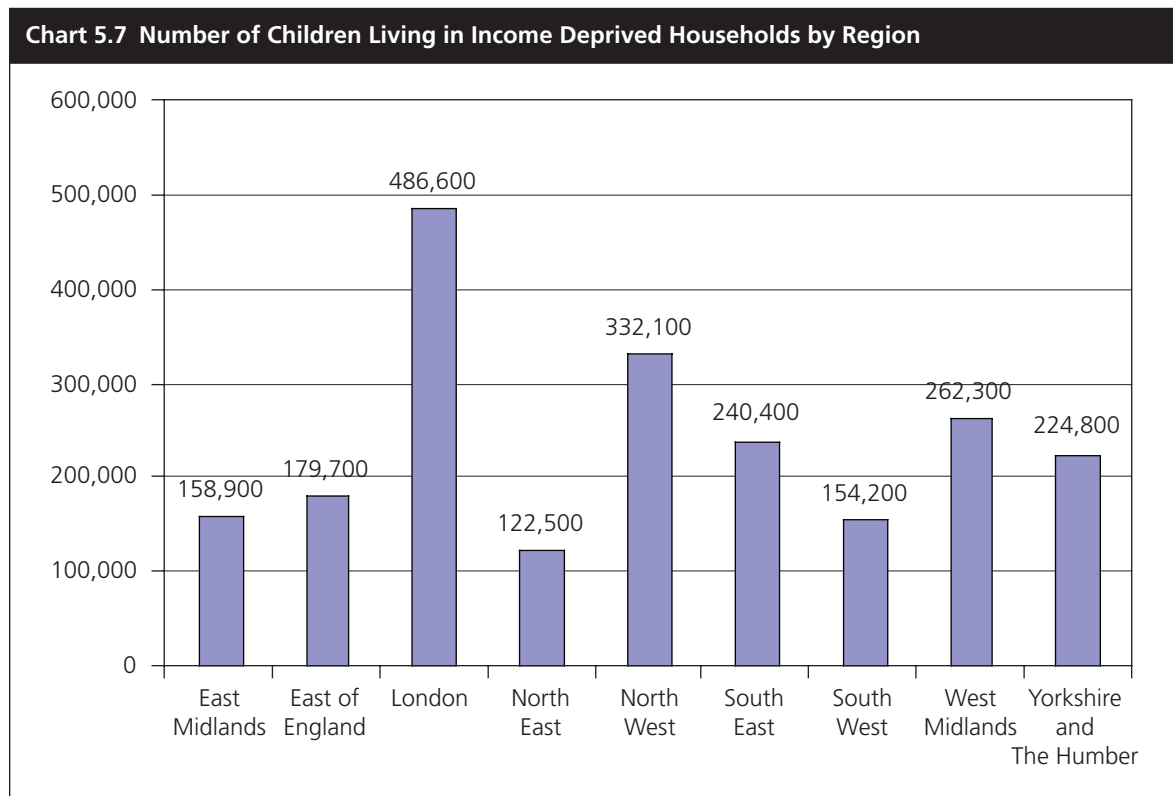
On the other hand there are:

- 4,535 LSOAs where fewer than 5% of children live in income deprived households; and
- 11,561 LSOAs where fewer than one in 10 children live in income deprived households.

**Chart 5.6** shows the percentage of children in each Region who are living in income deprived households. **Chart 5.7** shows the numbers of children in these households.

**Chart 5.6 Percentage of Children Living in Income Deprived Households by Region**

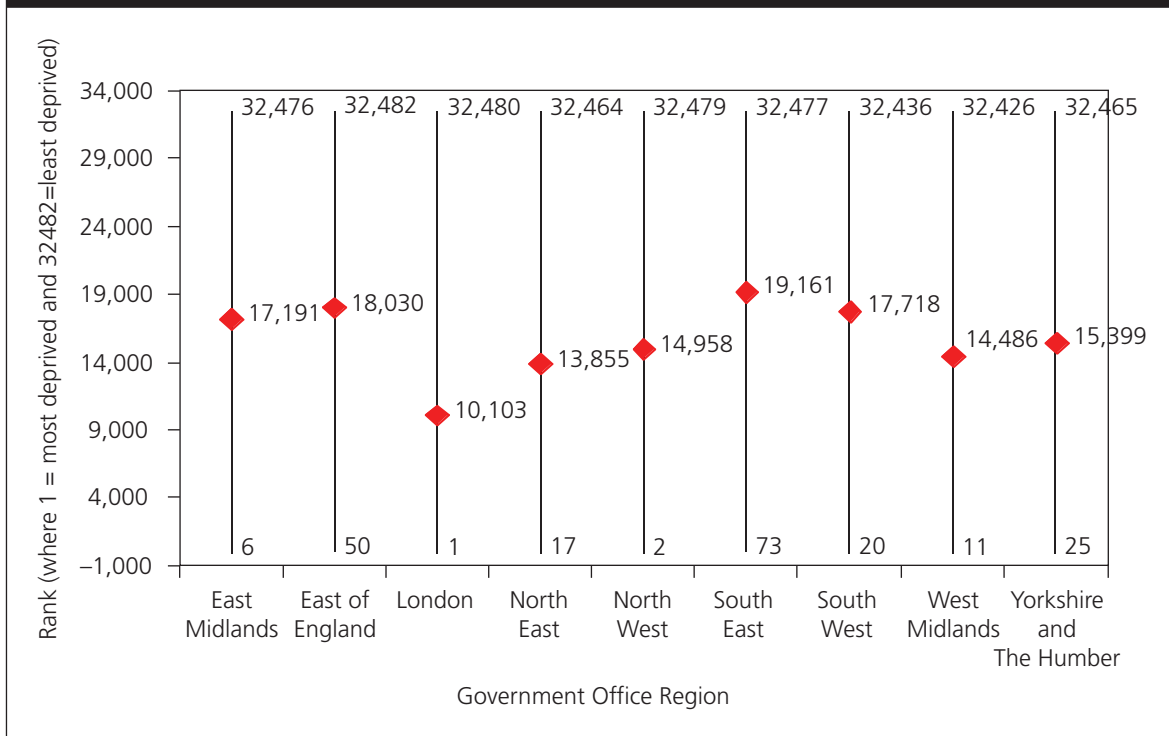




The region with the highest percentage and numbers of children in income deprived households is London. The North East has the lowest number of children living in income deprived households but it has the second highest percentage. The South East has the lowest percentage of children living in income deprived households, followed by the South West and East of England Regions.

**Chart 5.8** shows the minimum, maximum and population weighted mean rank of LSOAs in each GOR for the IDACI. As with all the Domain Indices and the IMD, a rank of 1 is assigned to the most deprived LSOA and 32,482 to the least deprived LSOA. For example, East Region's most deprived LSOA has a rank of 50; its least deprived LSOA has a rank of 32,482, and the mean of the LSOA ranks is 18,030. This chart shows that in all Regions there is a wide range of LSOA ranks. London has the highest levels of children living in households affected by income deprivation compared with other Regions, with a mean LSOA rank of 10,103 and also has the highest ranked LSOA overall. The South East Region has on average the lowest levels of children in households affected by income deprivation, with a mean LSOA rank of 19,161.

**Chart 5.8 Range of the Income Deprivation Affecting Children Index Ranks by Region**

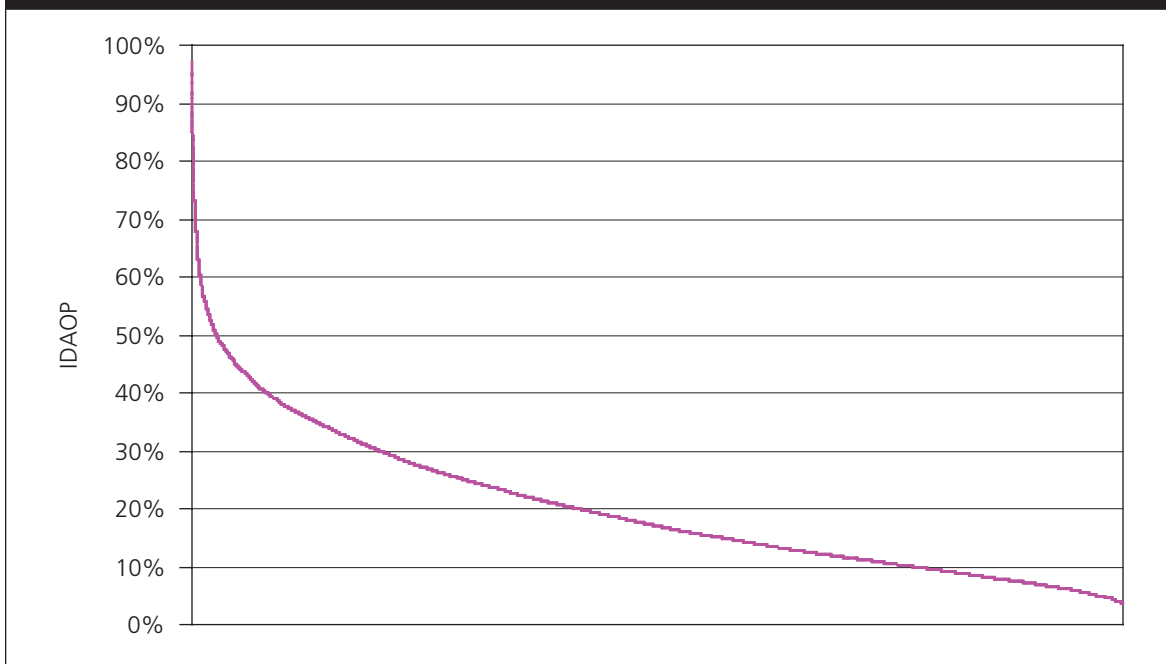


**Income Deprivation Affecting Older People (supplementary Index)**

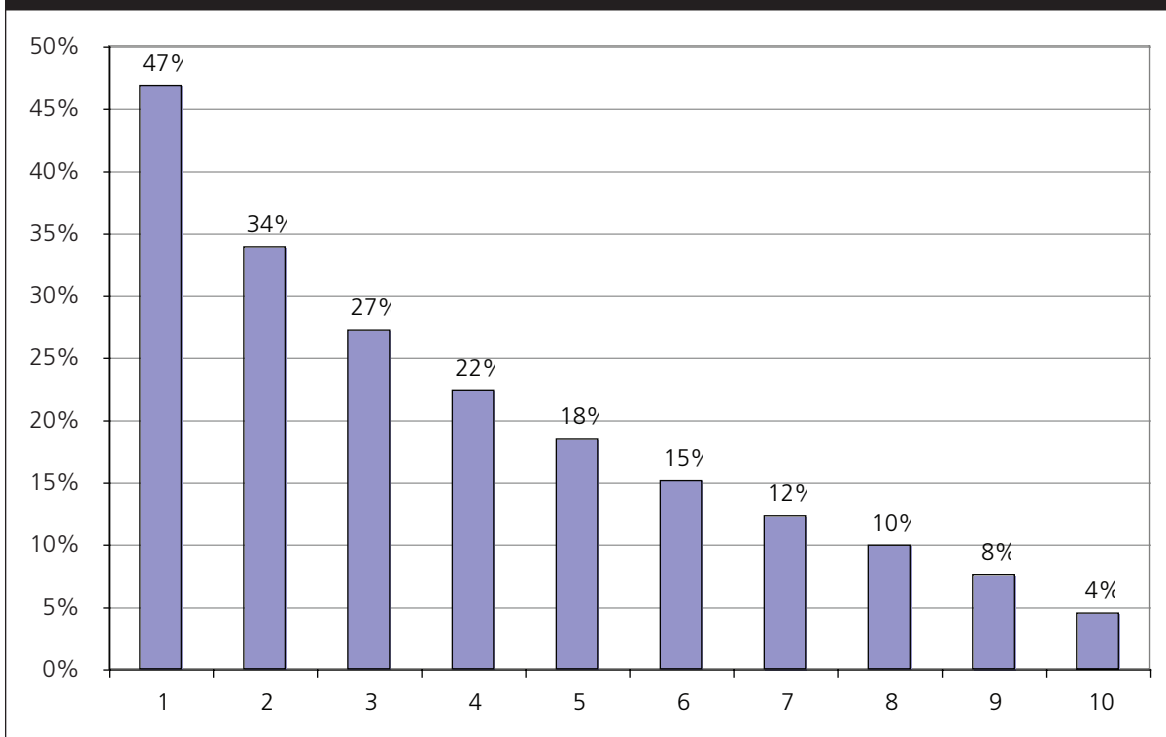
**Chart 5.9** shows the range of the IDAOP rates for every LSOA in England. This goes from a high of 97% of older people affected by income deprivation down to just 1% of older people, in the least deprived LSOA on this measure.

**Chart 5.10** shows that the most deprived decile of LSOAs on the IDAOP has on average 47% of older people affected by income deprivation. Within this decile, the range is from 97% to 38%, again showing the extreme rates of deprivation that exist in the most deprived LSOAs. The least deprived decile of LSOAs in terms of IDAOP have on average only 4% of older people affected by income deprivation.

**Chart 5.9 Rates of the Income Deprivation Affecting Older People Index for all LSOAs in England**



**Chart 5.10 Rates of the Income Deprivation Affecting Older People Index by Decile**



In England there are:

- 168 LSOAs where more than two thirds of older people are affected by income deprivation;
- 850 LSOAs where more than half of all older people are in this situation; and
- 4,940 LSOAs where more than one third of older people are affected by income deprivation.



On the other hand there are:

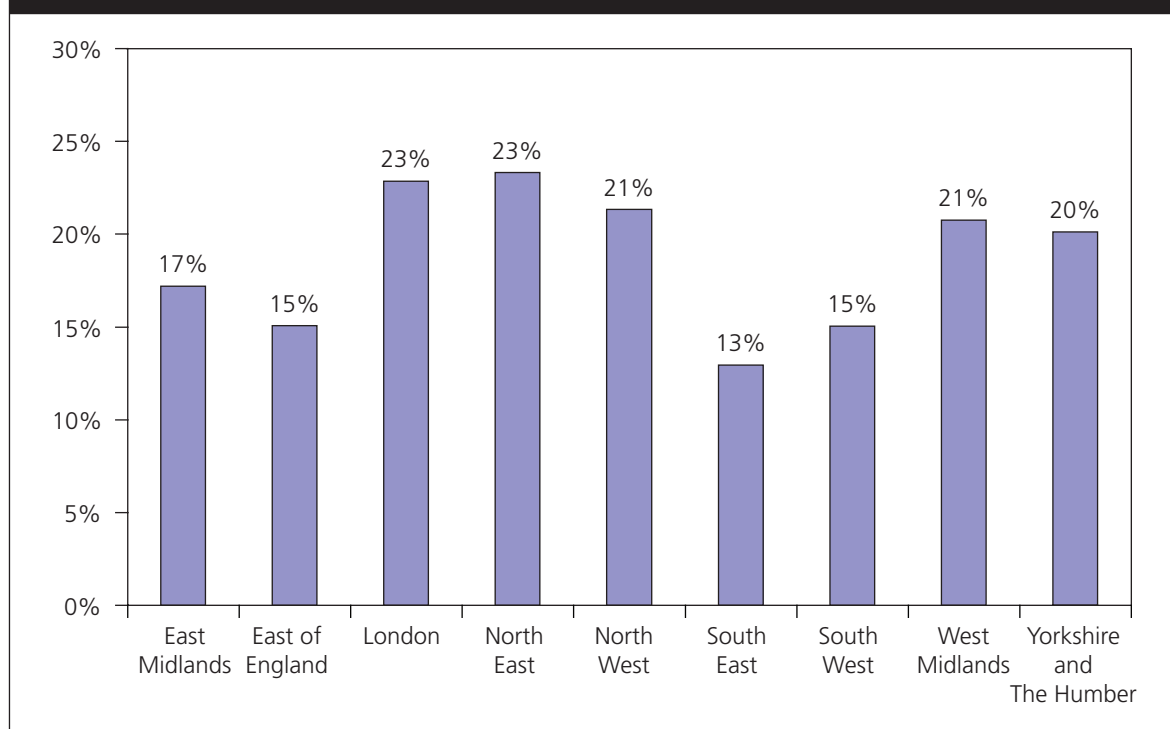
- 1,310 LSOAs where fewer than 5% of older people are affected by income deprivation; and
- 7,703 LSOAs where fewer than one in 10 older people are affected by income deprivation.

**Chart 5.11** shows the percentage of older people in each Region who are affected by income deprivation. **Chart 5.12** shows the numbers of older people affected by income deprivation.

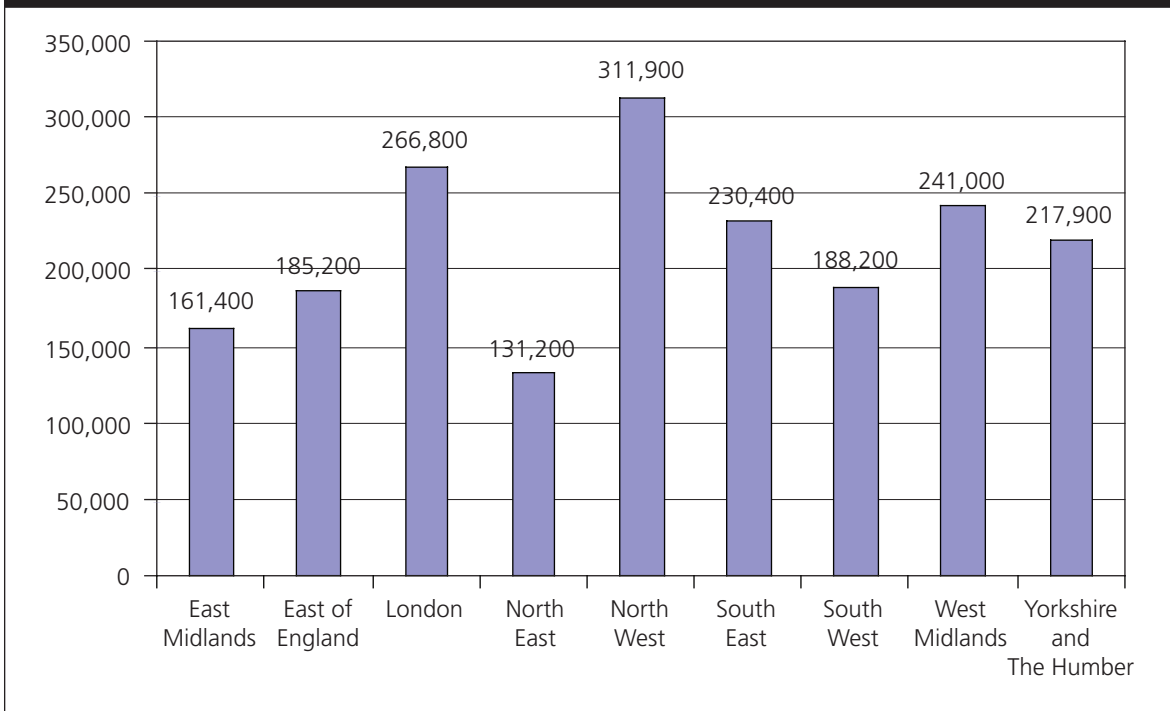
The North East has the highest percentage of older people affected by income deprivation and the North West has highest number. The North East has the lowest number of older people affected by income deprivation but it has the highest percentage. The South East has the lowest percentage of older people affected by income deprivation.

**Chart 5.13** shows the minimum, maximum and population weighted mean rank of LSOAs in each GOR for the IDAOP. A rank of 1 is assigned to the most deprived LSOA and 32,482 to the least deprived LSOA. This chart also shows that in all regions there is a wide range of LSOA ranks. The North East has the highest levels of older people affected by income deprivation compared with other Regions, with a mean LSOA rank of 13,288, while the South East Region has on average the lowest levels of older people affected by income deprivation, with a mean LSOA rank of 21,794. Every Region contains at least one LSOA that falls within the 2% most deprived LSOAs in England on this measure and at least one LSOA that falls within the 1% least deprived LSOAs in England on this measure.

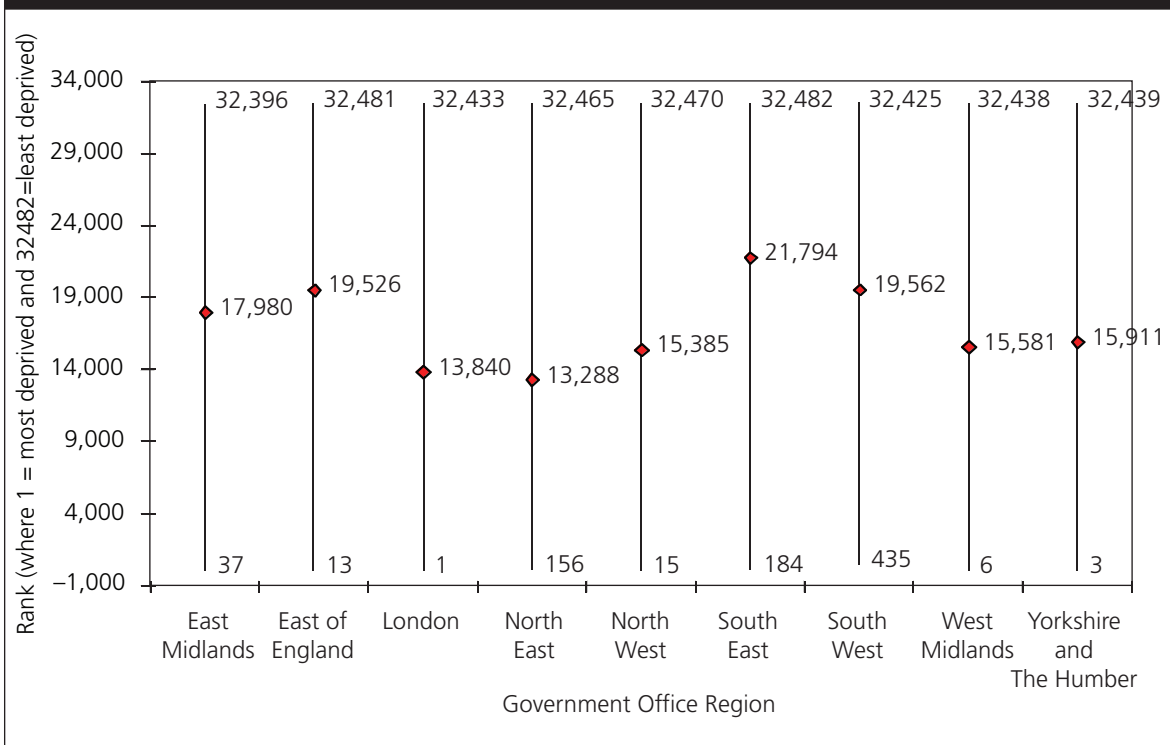
**Chart 5.11 Percentage of Older People Living in Income Deprived Households by Region**



**Chart 5.12 Number of Older People Living in Income Deprived Households by Region**



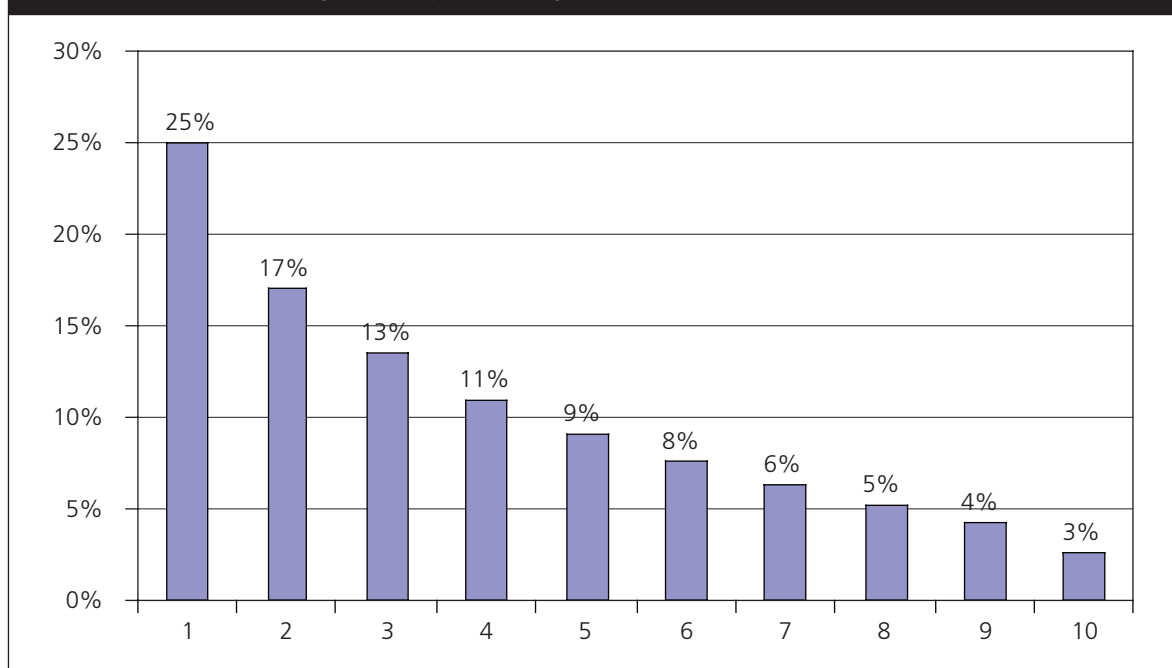
**Chart 5.13 Range of the Income Deprivation Affecting Older People Index Ranks by Region**



## Employment Domain

**Chart 5.14** shows employment deprivation in England by decile. In the most employment deprived decile of LSOAs, an average of about 25% of the relevant group of adults (women aged 18 to 59 and men aged 18–64) are employment deprived. This compares with approximately 3% in the least employment deprived decile of LSOAs in England.

**Chart 5.14 Rates of Employment Deprivation by Decile**



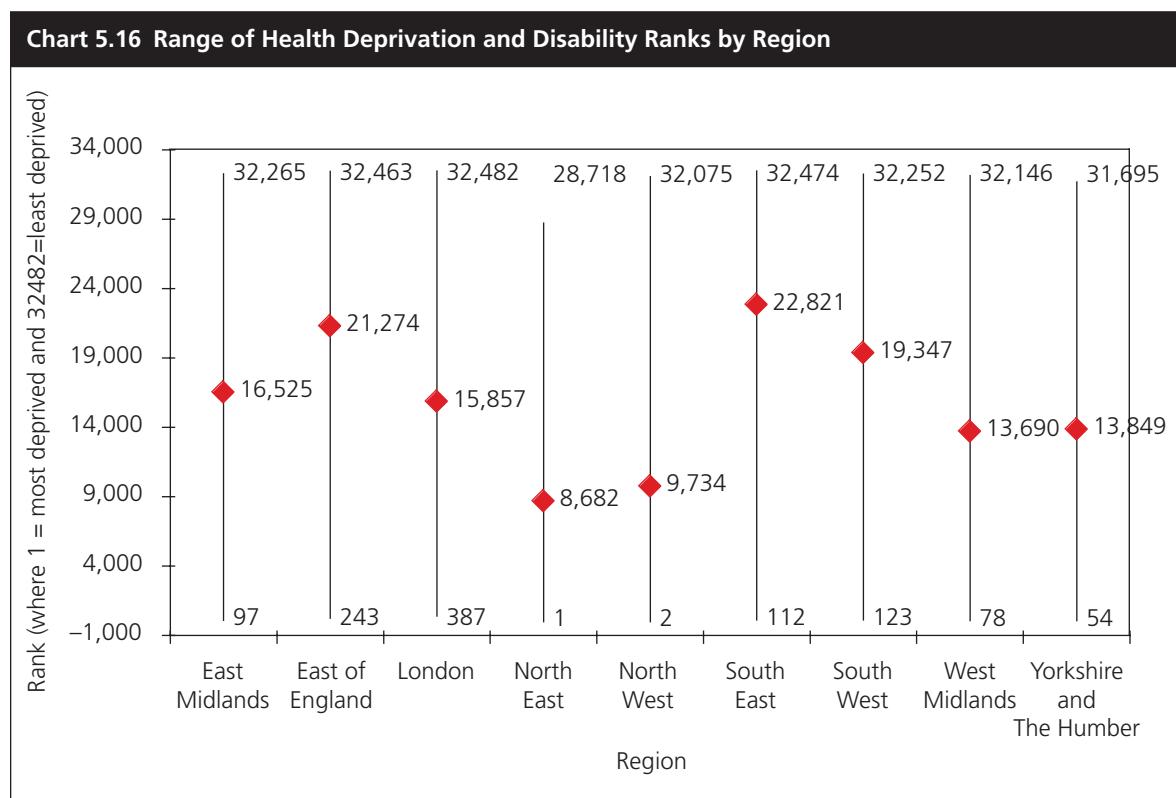
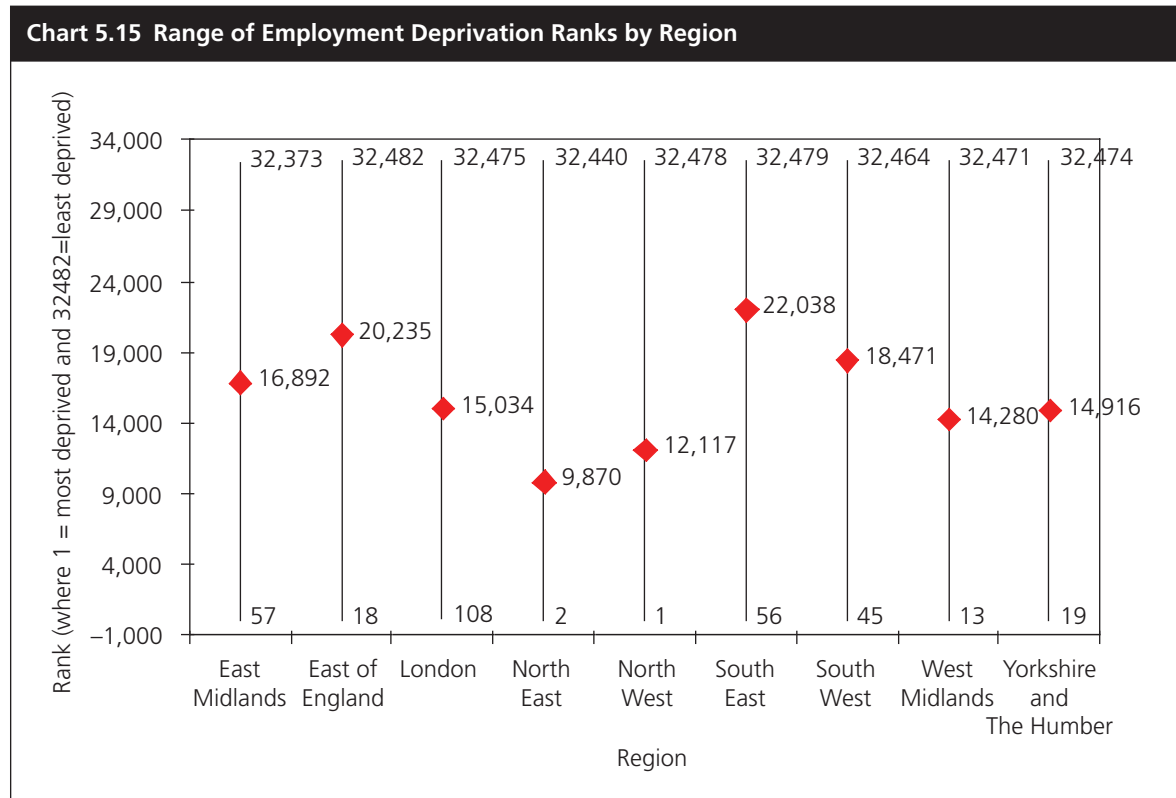
In England there are 1,198 LSOAs where more than one quarter of adults experience employment deprivation. There are also 6,906 LSOAs where less than 5% of all adults are employment deprived and 20 LSOAs where less than 1% of adults are employment deprived.

**Chart 5.15** shows the minimum, maximum and population weighted mean rank of LSOAs in each GOR for the Employment Domain. The North East Region is on average the most employment deprived Region with a mean LSOA rank of 9,870. This is significantly more deprived compared with the other regions. The South East Region is the least deprived Region on average on the Employment Domain with a mean LSOA rank of 22,038, followed by the East Region with a population weighted mean rank for LSOAs of 20,235.

## Health Deprivation and Disability Domain

**Chart 5.16** shows the minimum, maximum and population weighted mean rank of LSOAs in each GOR for the Health Domain. A rank of 1 is assigned to the most deprived LSOA, and 32,482 to the least deprived LSOA. The North East and the North West Regions show much higher average levels of health deprivation, compared with other regions, with respective mean ranks of 8,682 and 9,734. The North East has a

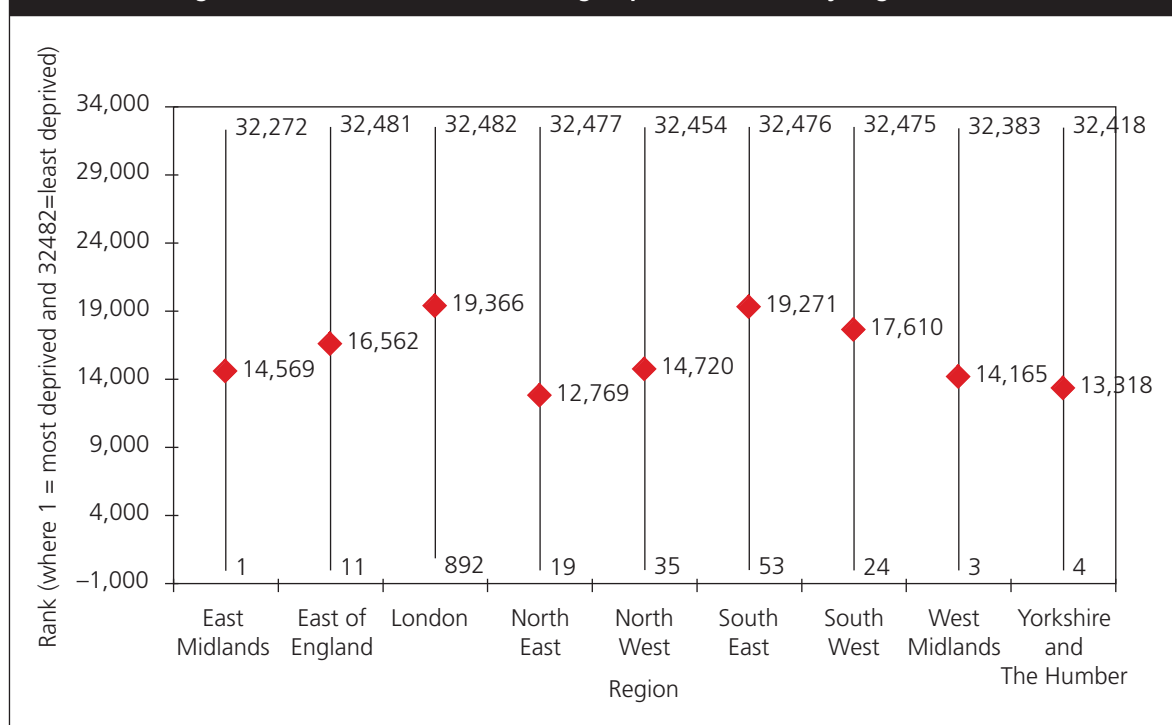
smaller range of LSOA ranks than other regions, with no LSOA ranked over 28,718, i.e. no LSOA at the 'least deprived' end of the deprivation scale. On average, the least health deprived region is the South East with a population weighted mean rank of 22,821, followed by the East Region with a mean LSOA rank of 21,274.



## Education Skills and Training Domain

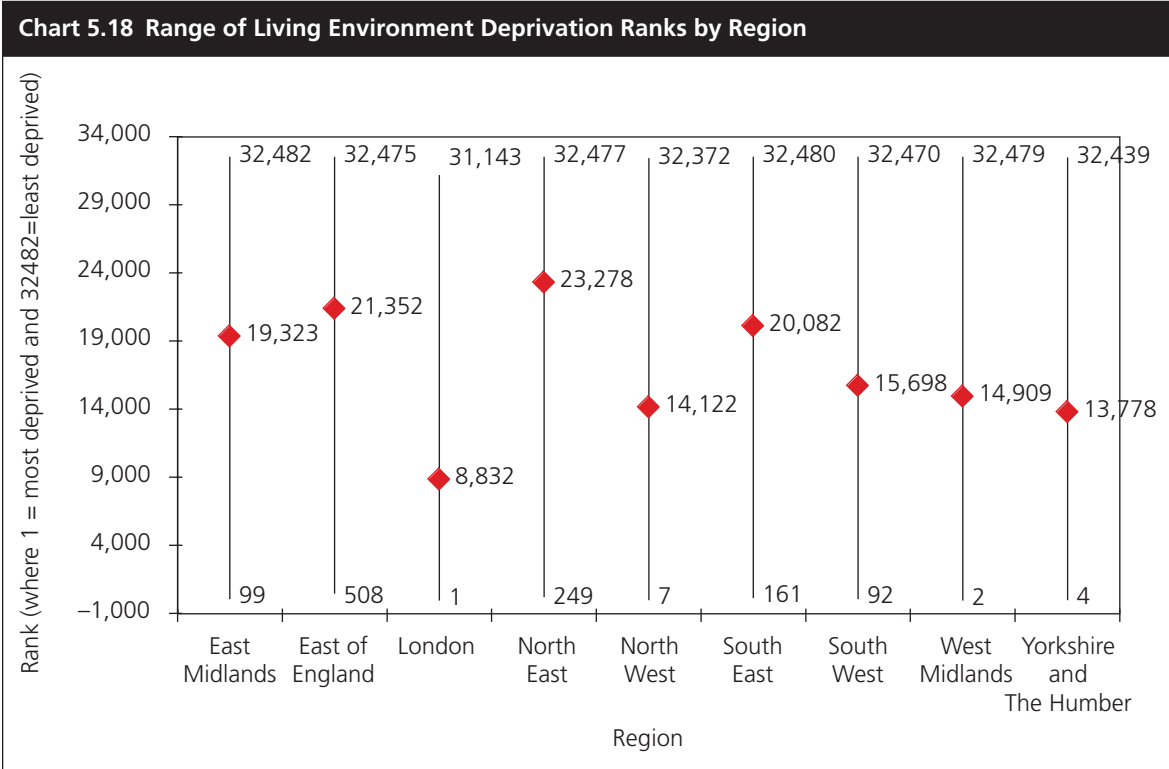
**Chart 5.17** shows the minimum, maximum and population weighted mean rank of LSOAs in each GOR for the Education Domain. This chart shows that in all Regions there is a wide range of LSOA ranks but there is a more evenly distributed pattern of average education deprivation across the regions. The most education deprived regions are the North East and Yorkshire and the Humber, with mean ranks of 12,769 and 13,318 respectively. The least education deprived Regions on average are the South East, with a population weighted mean rank of 19,271, and London with a population weighted mean rank of 19,366.

**Chart 5.17** Range of Education, Skills and Training Deprivation Ranks by Region



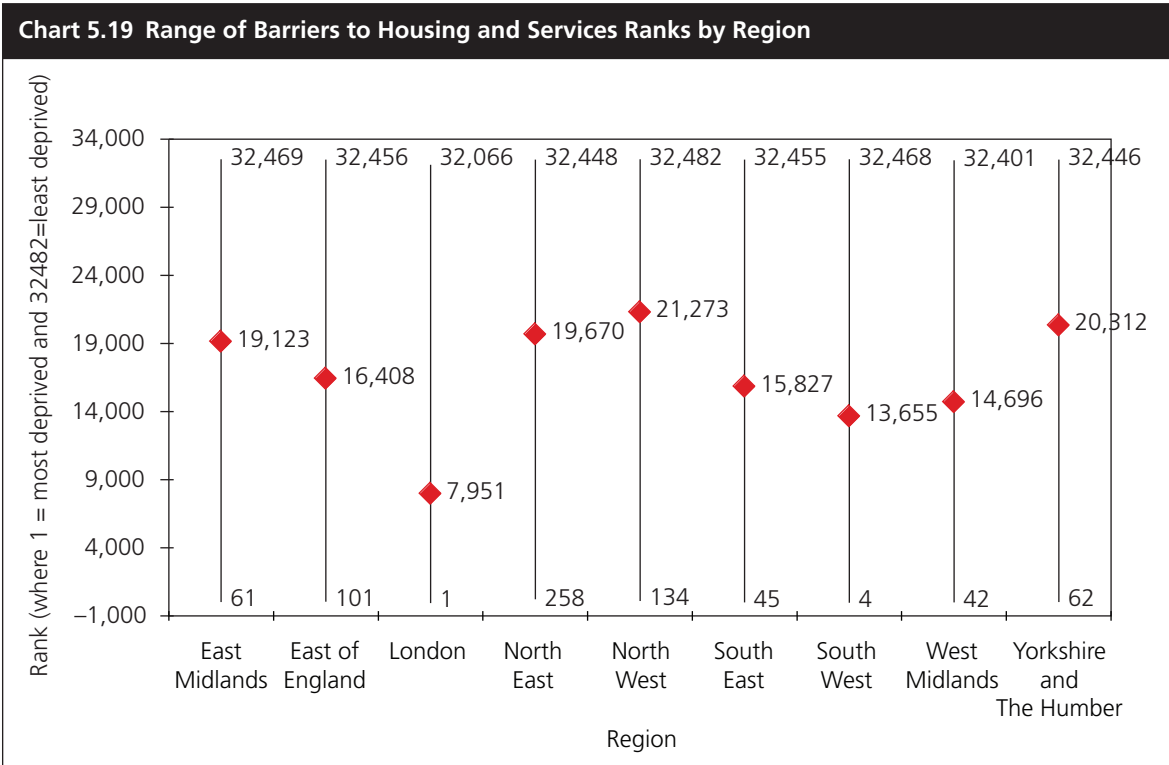
## Living Environment Domain

**Chart 5.18** shows the minimum, maximum and population weighted mean rank of LSOAs in each GOR for the Living Environment Domain. This chart shows that in all regions there is a wide range of LSOA ranks but that the North East Region is considerably less deprived on the Living Environment Domain, compared with the other regions with an average LSOA rank of 23,278. The most deprived region on average on the Living Environment Domain is London, with a mean rank of 8,832.



## Barriers to Housing and Services Domain

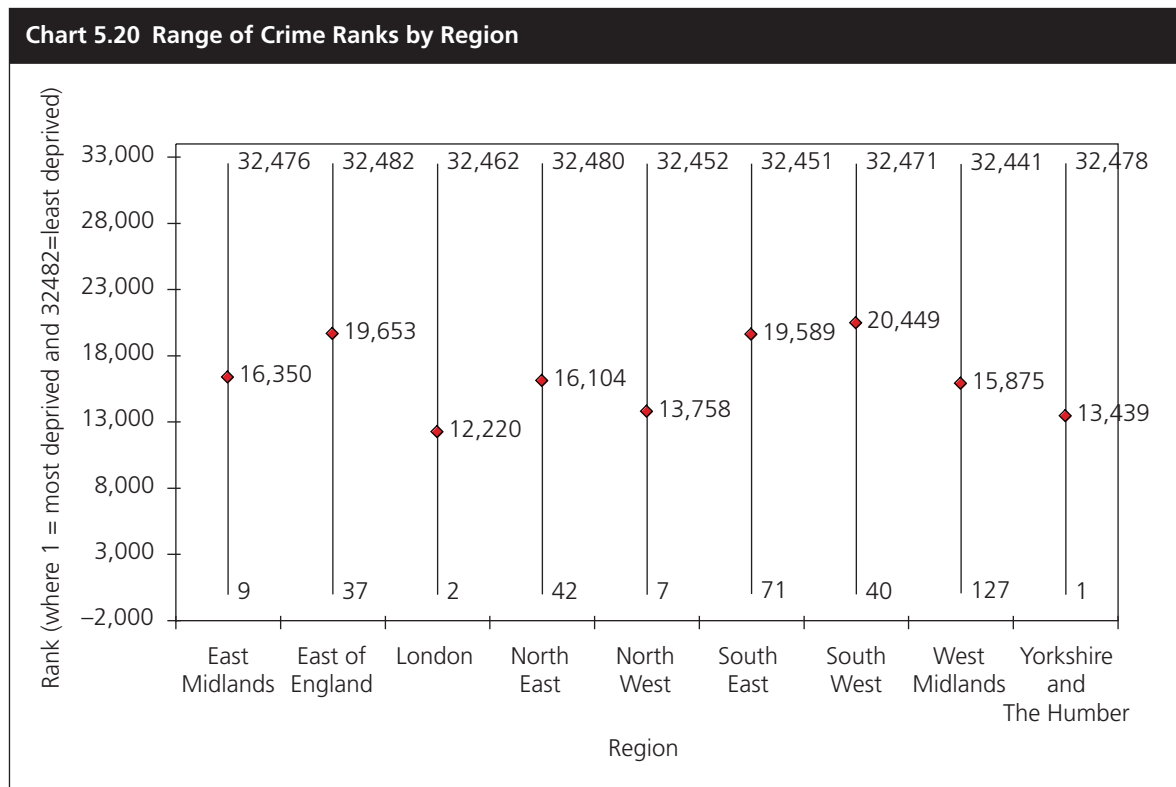
**Chart 5.19** shows the minimum, maximum and population weighted mean rank of LSOAs in each GO Region for the Housing and Services Domain. The London Region is the most deprived with a mean LSOA rank of 7,951. The North West Region is the least barriers deprived on average, with a mean LSOA rank of 21,273.





## Crime Domain

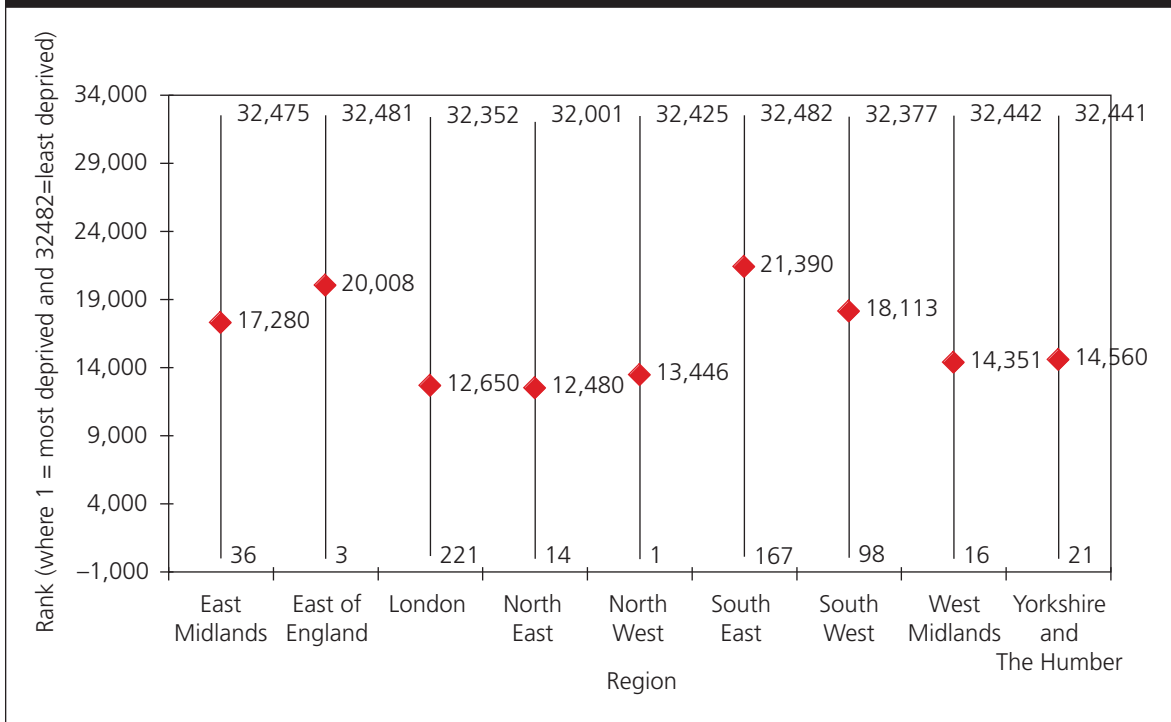
**Chart 5.20** shows the minimum, maximum and population weighted mean rank of LSOAs in each GO Region, for the Crime Domain. The London Region is the most deprived region in terms of crime with a mean LSOA rank of 12,220. The South West Region is the least crime deprived on average, with a mean LSOA rank of 20,449.



## Index of Multiple Deprivation 2007

**Chart 5.21** shows the minimum, maximum and population weighted mean rank of LSOAs in each GO Region, for the Index of Multiple Deprivation 2007. A rank of 1 is assigned to the most deprived LSOA and 32482 to the least deprived LSOA. This chart shows that in all regions there is a wide range of LSOA ranks. The region with LSOAs with the highest levels of multiple deprivation on average is the North East Region with a mean LSOA rank of 12,480, followed by London with a mean LSOA rank of 12,650 and the North West with a mean rank of 13,446. The least multiply deprived regions are the South East, with a mean LSOA rank of 21,390, followed by the East Region with a mean LSOA rank of 20,008.

Chart 5.21 Range of IMD 2007 Ranks by Region

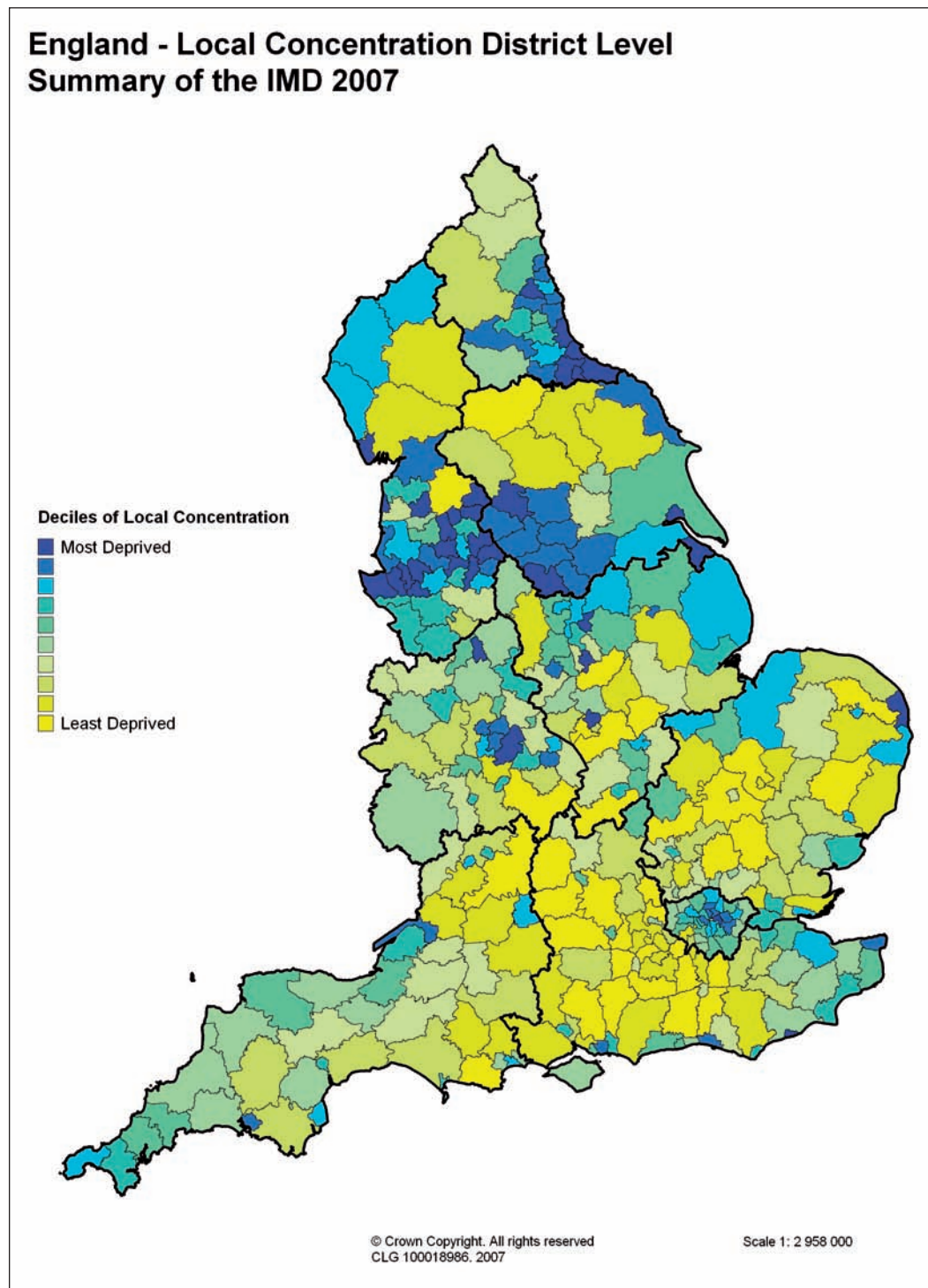


## Section 4: District level summary measures

The LSOA level IMD is summarised at district level using six different measures. For an explanation of these district level summaries please see **Chapter 4**. This allows local authority districts to be ranked according to how deprived they are relative to other districts. The maps in this section present the six district level summaries. In the maps, the districts have been divided into ten equal groups, and dark blue is used for the 10% most deprived districts for each measure.

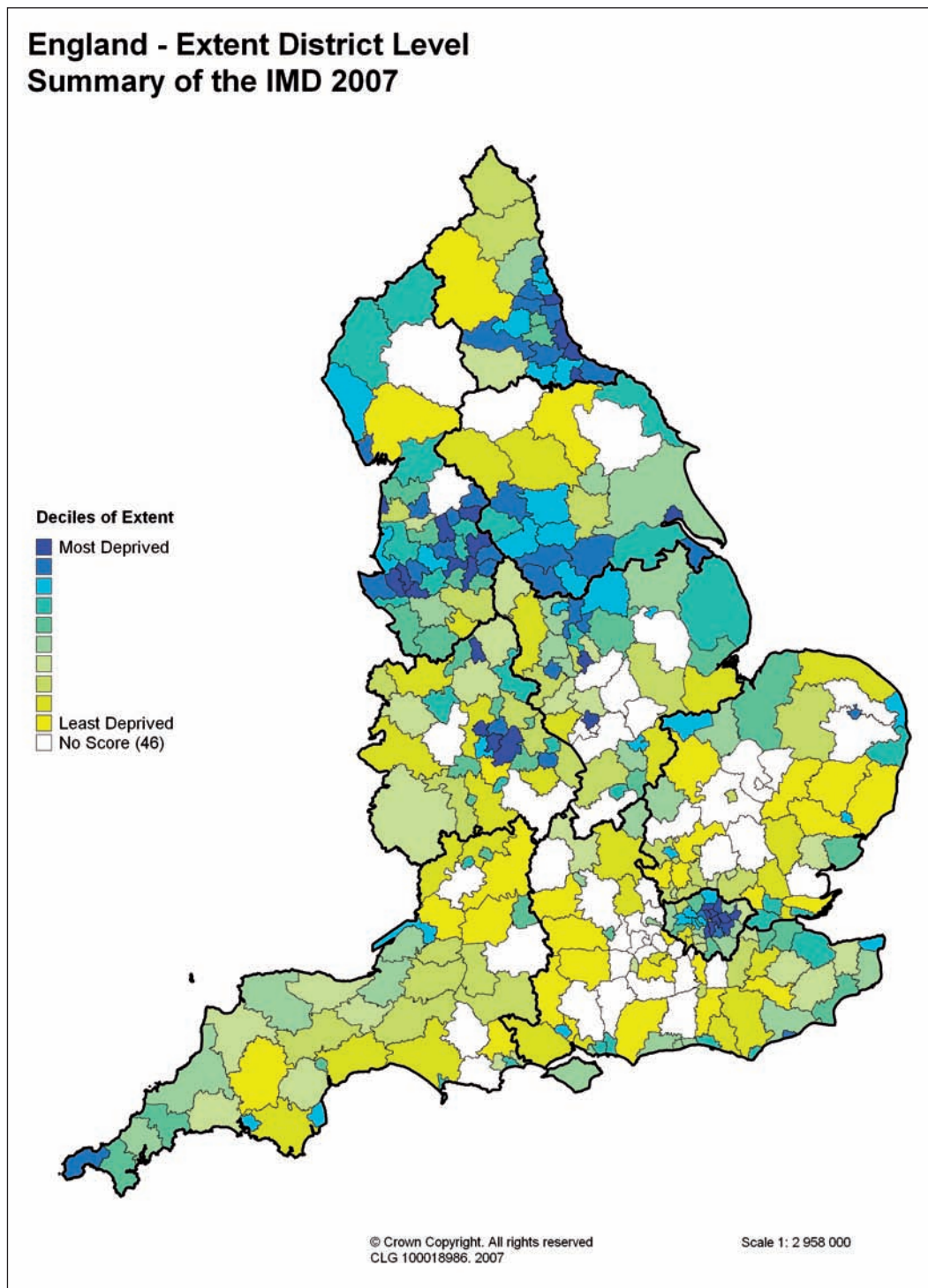
- **The local concentration** measure shows the severity of multiple deprivation in each authority, measuring 'hot spots' of deprivation
- **The extent** measure is the proportion of a district's population that lives in the most deprived LSOAs in England
- **The 'average scores'** and **'average ranks'** measures are two ways of depicting the average level of deprivation across the entire district.
- **The income scale** and **employment scale** measures show the number of people experiencing income and employment deprivation respectively.

## Local Concentration



Districts in the most deprived 10% of districts on this measure are concentrated in the North East – 26% of its districts (6 districts) and the North West – 40% (17 districts) of its districts. On the other hand, none of the districts in London or the North East are in the least deprived decile. The South East has no districts in the most deprived decile on this measure.

## Extent

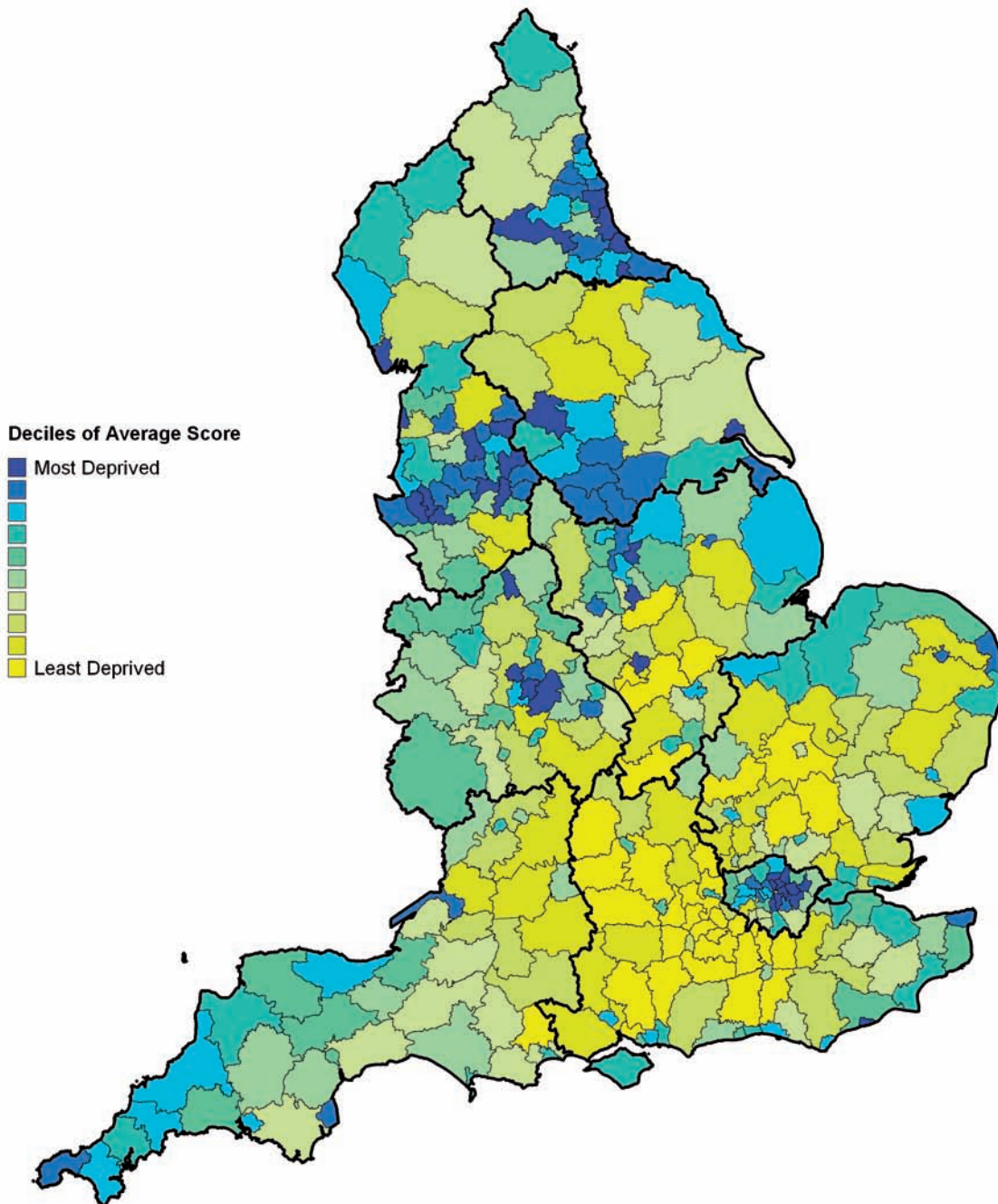


Because this measure captures only districts with people living in the most deprived LSOAs, there will be some districts with no score on this measure. London (10 districts – 30% of its districts) and the North West (10 Districts – 23% of its districts) are the Regions which have the highest numbers of districts in the top decile on this measure. As with local concentration, none of the districts in London or the North East are in the least deprived decile on this measure. The East Region, the South East and the South West do not have any districts in the most deprived decile on this measure.



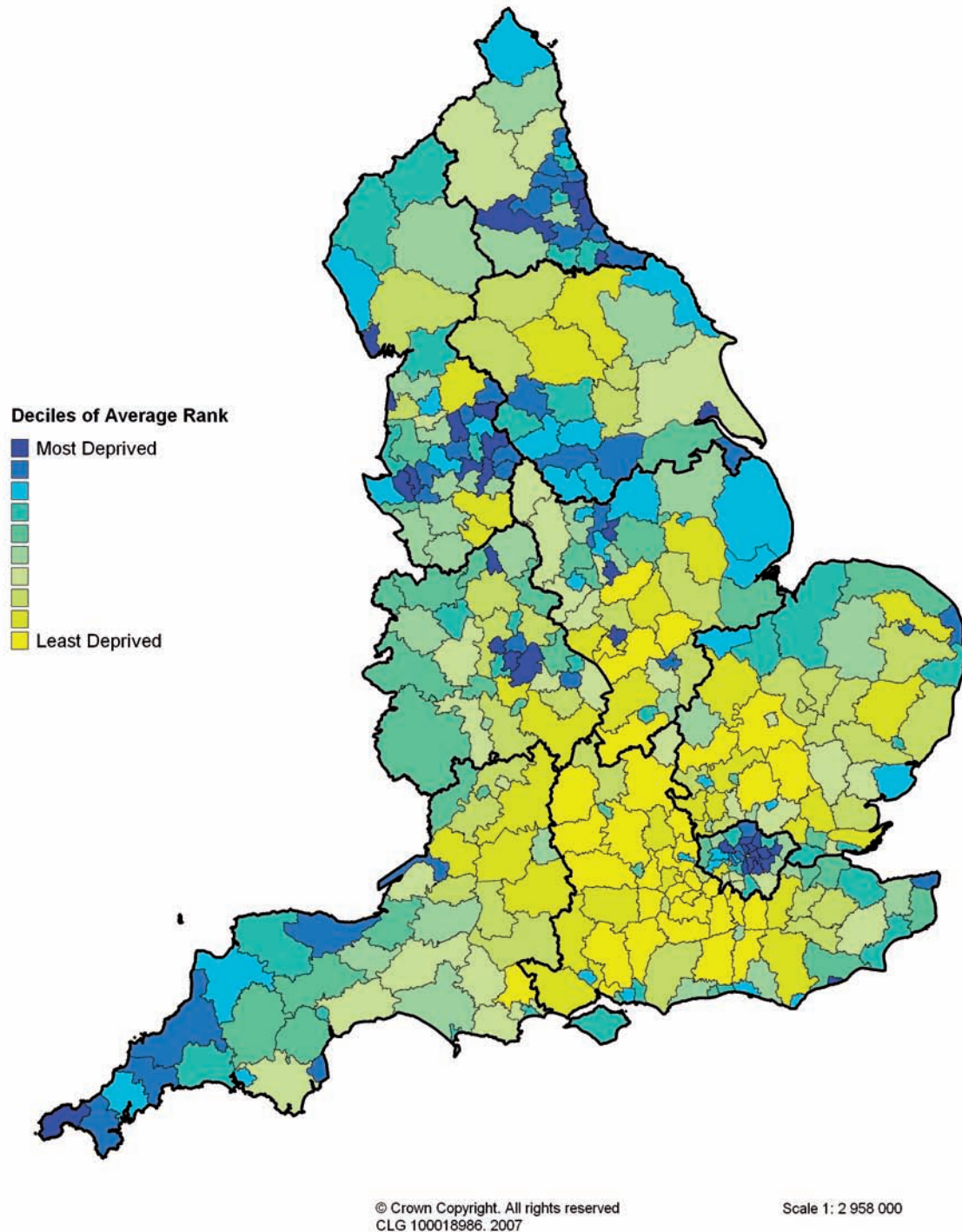
## Average Score and Average Rank

### England - Average Score District Level Summary of the IMD 2007



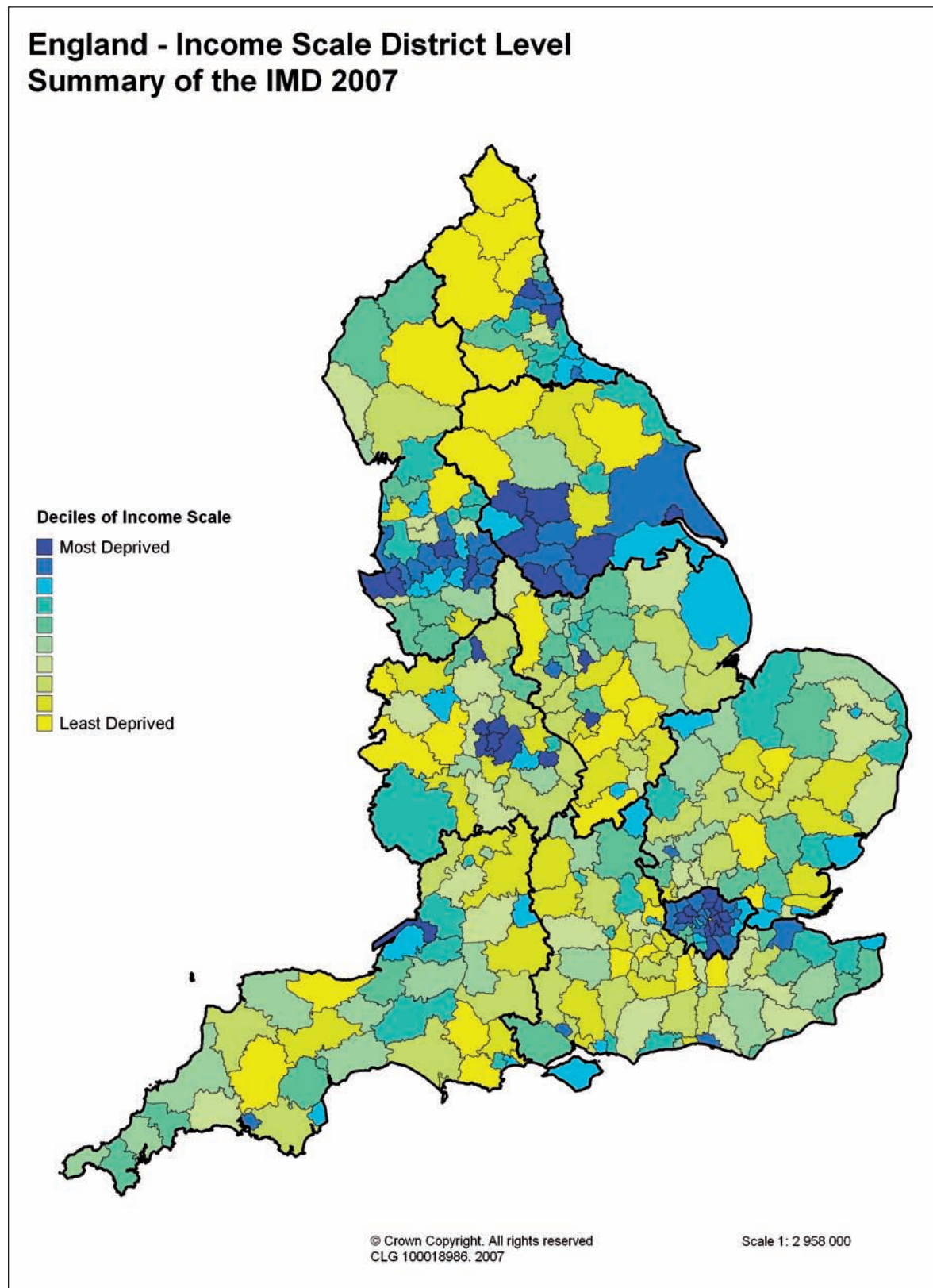


## England - Average Rank District Level Summary of the IMD 2007



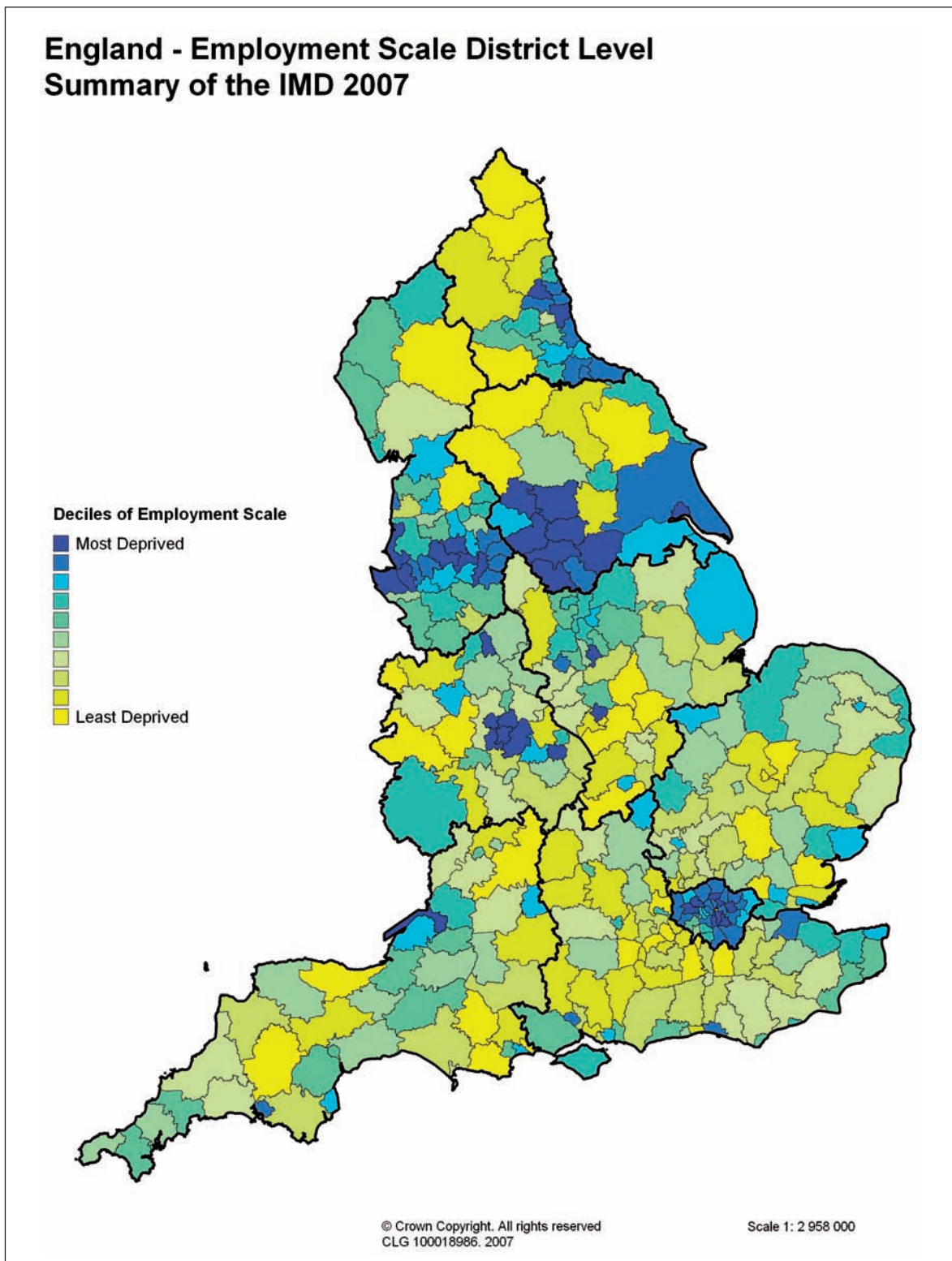
London, the North East and North West have the largest numbers (and percentages) of their districts in the most deprived decile on Average Score. The picture is similar for average rank except that here London stands out with over a third of its districts (12) in the worst decile. The East and South West Regions have no district in the most deprived decile for average score and the East Region has no district in the most deprived decile for average rank.

## Income Scale



London (with 13 or 39% of its districts) followed by Yorkshire and the Humber (with 6 or 29% of its districts) have the highest percentages of districts in the top decile on this measure. Only the East and South East Regions have no districts in the most deprived decile.

## Employment Scale



Yorkshire and the Humber (with 8 or 38% of its districts) is the Region with the largest proportion of its districts in the most deprived decile of districts on this measure. This is followed by London (with 8 or 24% of its districts) and the West Midlands (with 7 or 21% of its districts). As with Income Scale only the East and South East Regions have no districts in the most deprived decile.



The following table summarises the districts which are the 50 most deprived on each of the six district level measures. The district level summaries for all local authority districts can be found in **Annex L**.

Table 5.4 The 50 most deprived districts, for each of the district level summaries of the IMD 2007						
Rank	Local Concentration	Extent	Average Score	Average Rank	Income Scale	Employment Scale
1	Liverpool	Hackney	Liverpool	Hackney	Birmingham	Birmingham
2	Knowsley	Newham	Hackney	Newham	Manchester	Liverpool
3	Blackpool	Tower Hamlets	Tower Hamlets	Tower Hamlets	Liverpool	Manchester
4	Manchester	Liverpool	Manchester	Manchester	Bradford	Leeds
5	Burnley	Manchester	Knowsley	Liverpool	Leeds	Sheffield
6	Middlesbrough	Islington	Newham	Islington	Sheffield	Bradford
7	Salford	Easington	Easington	Easington	Newham	Sunderland
8	Kingston upon Hull, City of	Knowsley	Islington	Knowsley	Tower Hamlets	Wirral
9	Blackburn with Darwen	Middlesbrough	Middlesbrough	Lambeth	Leicester	Wigan
10	Rochdale	Sandwell	Birmingham	Sandwell	Hackney	Bristol, City of
11	Bradford	Nottingham	Kingston upon Hull, City of	Barking and Dagenham	Sandwell	Wakefield
12	Redcar and Cleveland	Birmingham	Blackpool	Nottingham	Kirklees	Nottingham
13	Newcastle upon Tyne	Haringey	Nottingham	Haringey	Nottingham	Leicester
14	Wirral	Kingston upon Hull, City of	Sandwell	Birmingham	Haringey	Sandwell
15	Birmingham	Blackburn with Darwen	Salford	Waltham Forest	Bristol, City of	Kirklees
16	Hyndburn	Stoke-on-Trent	Stoke-on-Trent	Kingston upon Hull, City of	Lambeth	Lambeth
17	Barrow-in-Furness	Lambeth	Blackburn with Darwen	Greenwich	Enfield	Stoke-on-Trent
18	Hartlepool	Southwark	Haringey	Blackpool	Southwark	Newcastle upon Tyne
19	Leicester	Hartlepool	Lambeth	Southwark	Brent	Doncaster
20	Preston	Salford	Leicester	Stoke-on-Trent	Kingston upon Hull, City of	Kingston upon Hull, City of
21	Tower Hamlets	Barking and Dagenham	Burnley	Penwith	Wirral	Coventry
22	Stoke-on-Trent	Wolverhampton	Barking and Dagenham	Lewisham	Ealing	Southwark
23	Oldham	Leicester	Hartlepool	Leicester	Coventry	Sefton
24	Bolton	Blackpool	Greenwich	Salford	Sunderland	Hackney

*continued*

**Table 5.4 The 50 most deprived districts, for each of the district level summaries of the IMD 2007**

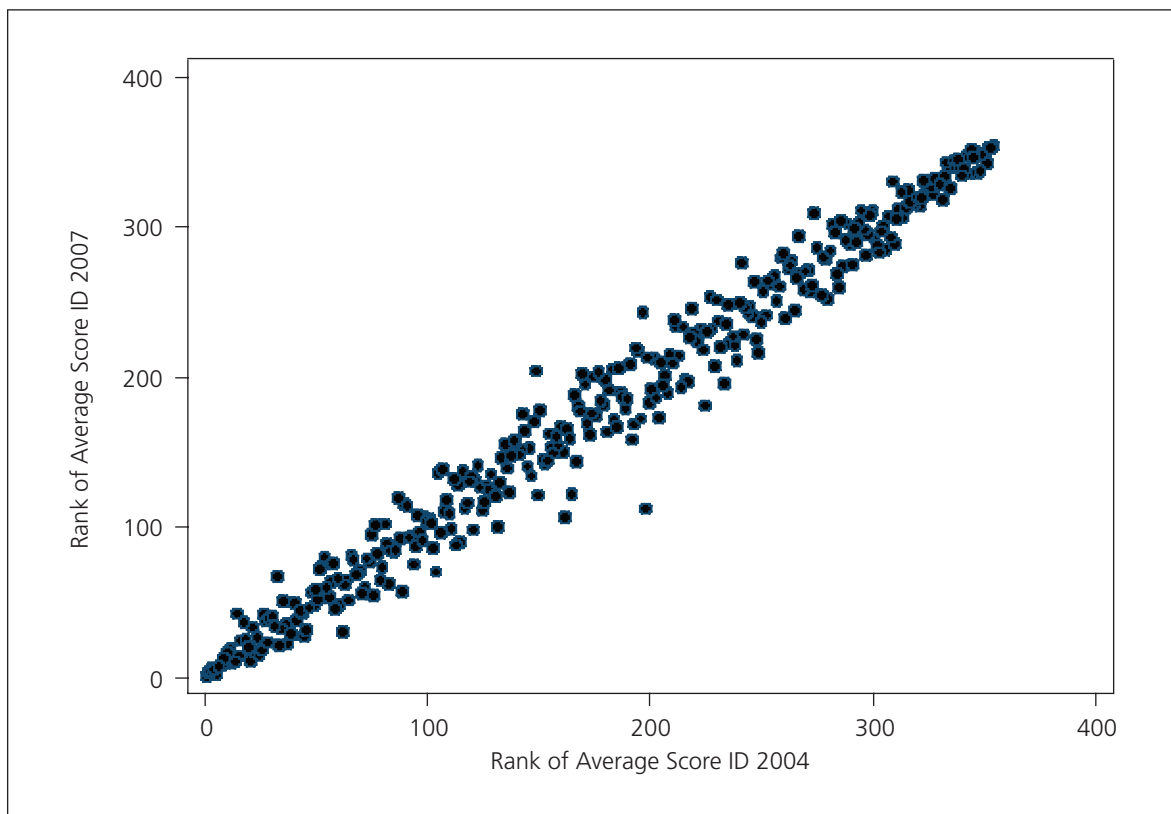
25	North East Lincolnshire	Halton	Rochdale	Middlesbrough	Croydon	Barnsley
26	Nottingham	Greenwich	Southwark	Wear Valley	Newcastle upon Tyne	Newham
27	Halton	Burnley	Waltham Forest	Blackburn with Darwen	Walsall	Bolton
28	Mansfield	Rochdale	Wolverhampton	Wolverhampton	Lewisham	Salford
29	Pendle	South Tyneside	Barrow-in-Furness	Hastings	Wolverhampton	Haringey
30	Sheffield	Waltham Forest	Halton	Brent	Waltham Forest	Wolverhampton
31	Hastings	Bradford	Hastings	Burnley	Bolton	Lewisham
32	Great Yarmouth	Walsall	Bradford	Barrow-in-Furness	Doncaster	Brent
33	Stockton-on-Tees	Sunderland	Wear Valley	Sunderland	Greenwich	Dudley
34	St. Helens	Oldham	Mansfield	Mansfield	Stoke-on-Trent	Walsall
35	Easington	Mansfield	Sunderland	Rochdale	Dudley	Ealing
36	Gateshead	Barrow-in-Furness	Penwith	Hartlepool	Islington	Tower Hamlets
37	Thanet	Newcastle upon Tyne	Newcastle upon Tyne	South Tyneside	Wakefield	Enfield
38	Bristol, City of	Hastings	South Tyneside	Hammersmith and Fulham	Barnet	Rotherham
39	Hackney	Preston	Lewisham	Halton	Oldham	Islington
40	Coventry	Pendle	Hyndburn	Bolsover	Salford	Rochdale
41	Barnsley	Doncaster	Doncaster	Barnsley	Wigan	Croydon
42	Wear Valley	Bolton	Oldham	Camden	Camden	Plymouth
43	Sunderland	Hyndburn	Barnsley	Doncaster	Sefton	Camden
44	Wolverhampton	North East Lincolnshire	Pendle	Sedgefield	Rochdale	Tameside
45	Doncaster	Wansbeck	Walsall	Hyndburn	Rotherham	Knowsley
46	Sefton	Barnsley	Wansbeck	Wansbeck	Redbridge	Brighton and Hove
47	Sandwell	Lewisham	St. Helens	Tameside	Barking and Dagenham	Gateshead
48	Leeds	Gateshead	Preston	Walsall	Derby	Greenwich
49	Derby	Norwich	North East Lincolnshire	St. Helens	Wandsworth	Oldham
50	Wansbeck	Wear Valley	Redcar and Cleveland	Gateshead	Knowsley	Waltham Forest

## Changes in district level summaries between ID 2004 and the ID 2007

If we compare local authorities on the various district level summaries on the ID 2007 with the ID 2004 we find that changes have been relatively modest. The following table shows the correlations between the various measures for the ID 2004 and ID 2007 (Spearman's Rho,  $p < .001$ )

Average Score	0.990
Average Rank	0.988
Extent	0.990
Local Concentration	0.992
Employment Scale	0.994
Income Scale	0.996

The following scatter plot illustrates the high level of correlation for the average score measure.



Comparing the top 50 Local authorities on these measures on the ID 2007 with the equivalent measures on the ID 2004 the following picture emerges. On the ID 2007 82 local authorities are in the top 50 on one of the six district level summaries while on the ID 2004 80 were so placed. Six authorities join the top 50 on any measure in the ID 2007: the London Borough of Redbridge, the London Borough of



Wandsworth, Thanet, Hyndburn and Pendle; while 3 authorities Westminster, North Tyneside and Derwentside are no longer in the top 50.

A more detailed analysis of change between 1999 and 2005 at LSOA level is currently being undertaken and a report and supporting data will be released by summer 2008.

## **Section 5: The reasons for changes in the geography of deprivation between the ID 2004 and the ID 2007**

As has been indicated, the ID 2007 was designed to be as similar as possible to the ID 2004 in terms of geographical scale, domains, indicators and methodology. This was to maximise backwards comparability and help identify 'real' relative change. This has, to a large extent, been achieved and each section of Chapter 2 indicates where this has not been possible.

The domain where consistency has been most difficult to achieve has been the income domain where substantial changes to the benefits system occurred between April 2001 (the time point for the ID 2004) and mid-2005 (the time point for the ID 2007). Though steps were taken to make the income domain as comparable as possible, a small amount of change will be a product of this shift in indicators.

One other factor will have had a small impact. This relates to denominators. In 2007 ONS revised their population estimates for the years 2001 – 2005 and this adjustment could not have been foreseen in 2001 but will have made a small difference.

# Annex A: Consultation

Communities and Local Government published a public consultation document – ‘Updating the English Indices of Deprivation 2004: Stage Two ‘Blueprint’ Consultation Report’. One hundred and three responses were received as part of the consultation which ran from 22nd May 2006 to 17th August 2006. The responses represent the views of local and central government, voluntary organisations and other interested parties and are summarised in the report ‘Updating the English Indices of Deprivation 2004 Stage Two ‘Blueprint Consultation Report’ Summary of Responses available on the Communities and Local Government website.

In addition a peer review was undertaken during Spring 2006 by Professor Peter Alcock of the University of Birmingham: ‘Updating the English Indices of Deprivation 2004 – Stage Two ‘Blueprint’ Peer Review’ also available on the Communities and Local Government website. Professor Alcock gave overall support to the proposal to update the ID 2004 and gave general approval to the approach adopted.

# Annex B: Indicator Details

This Annex provides further numerator and denominator details for each of the 38 indicators that were used in the Indices of Deprivation 2007.

**1. Adults and children in Income Support households (LSOA level)**

Numerator: IS August 2005

Denominator (for summed Income Domain indicators): Total resident population plus communal establishments minus prison establishment population (resident non-staff) from ONS supplied LSOA population estimates 2005.

**2. Adults and children in Income Based Job Seekers Allowance households (LSOA level)**

Numerator: JSA-IB August 2005

Denominator (for summed Income Domain indicators): Total resident population plus communal establishments minus prison establishment population (resident non-staff) from ONS supplied LSOA population estimates 2005.

**3. Adults and children in Pension Credit (Guarantee) households (LSOA level)**

Numerator: Pension Credit (Guarantee) August 2005

Denominator (for summed Income Domain indicators): Total resident population plus communal establishments minus prison establishment population (resident non-staff) from ONS supplied LSOA population estimates 2005.

**4. Adults and children in Working Families Tax Credit households where there are children in receipt of Child Tax Credit whose equivalised income (excluding housing benefits) is below 60% of median before housing costs (LSOA level)**

Numerator: Certain WTC cases for August 2005 as described

Denominator (for summed Income Domain indicators): Total resident population plus communal establishments minus prison establishment population (resident non-staff) from ONS supplied LSOA population estimates 2005.

**5. 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% of median before housing costs (LSOA level)**

Numerator: Certain CTC cases for August 2005 as described

Denominator (for summed Income Domain indicators): Total resident population plus communal establishments minus prison establishment population (resident non-staff) from ONS supplied LSOA population estimates 2005.

**6. Adults and children in households in receipt of National Asylum Support Service (NASS) vouchers (LSOA level)**

Numerator: NASS supported asylum seekers in England in receipt of subsistence only and accommodation support for end September 2005

Denominator (for summed Income Domain indicators): Total resident population plus communal establishments minus prison establishment population (resident non-staff) from ONS supplied LSOA population estimates 2005.

**7. Job Seekers Allowance Claimants (both contributory and income based) of women aged 18–59 and men aged 18–64 averaged over 4 quarters (LSOA level)**

Numerator: as described, for February 2005, May 2005, August 2005 and November 2005

Denominator (for summed Employment Domain indicators): Resident population plus communal establishments minus prison establishment population (resident non-staff) for women aged 18–59 and men aged 18–64 derived from ONS supplied LSOA population estimates 2005.

**8. Incapacity Benefit claimants women aged 18–59 and men aged 18–64 averaged over 4 quarters (LSOA level)**

Numerator: Numerator: as described, for February 2005, May 2005, August 2005 and November 2005

Denominator (for summed Employment Domain indicators): Resident population plus communal establishments minus prison establishment population (resident non-staff) for women aged 18–59 and men aged 18–64 derived from ONS supplied LSOA population estimates 2005.

**9. Severe Disablement Allowance claimants women aged 18–59 and men aged 18–64 averaged over 4 quarters (LSOA level)**

Numerator: Numerator: as described, for February 2005, May 2005, August 2005 and November 2005

Denominator (for summed Employment Domain indicators): Resident population plus communal establishments minus prison establishment population (resident non-staff) for women aged 18–59 and men aged 18–64 derived from ONS supplied LSOA population estimates 2005.

**10. Participants in New Deal for the 18–24s who are not in receipt of JSA averaged over 4 quarters (LSOA level)**

Numerator: Numerator: as described, for February 2005, May 2005, August 2005 and November 2005

Denominator (for summed Employment Domain indicators): Resident population plus communal establishments minus prison establishment population (resident non-staff) for women aged 18–59 and men aged 18–64 derived from ONS supplied LSOA population estimates 2005.

**11. Participants in New Deal for 25+ who are not in receipt of JSA averaged over 4 quarters (LSOA level)**

Numerator: Numerator: as described, for February 2005, May 2005, August 2005 and November 2005

Denominator (for summed Employment Domain indicators): Resident population plus communal establishments minus prison establishment population (resident non-staff) for women aged 18–59 and men aged 18–64 derived from ONS supplied LSOA population estimates 2005.

**12. Participants in New Deal for Lone Parents aged 18 and over averaged over 4 quarters (LSOA level)**

Numerator: Numerator: as described, for February 2005, May 2005, August 2005 and November 2005

Denominator (for summed Employment Domain indicators): Resident population plus communal establishments minus prison establishment population (resident non-staff) for women aged 18–59 and men aged 18–64 derived from ONS supplied LSOA population estimates 2005.

**13. Years of Potential Life Lost (YPLL) (LSOA level)**

Numerator: Mortality data in five year age sex bands, for 2001–2005

Denominator: Total resident population plus communal establishments minus prison establishment population (resident non-staff) from ONS supplied LSOA population estimates 2005, in five year age sex bands.

Method: Blane and Drever (1998) (with shrinkage applied to age-sex rates and an upper age of 75).

**14. Comparative Illness and Disability Ratio (CIDR) (LSOA level)**

Numerator: Non-overlapping counts of people in receipt of IS Disability Premium, AA, DLA, SDA, IB, for mid 2005 in five year age sex bands.

Denominator: Total resident population plus communal establishments minus prison establishment population (resident non-staff) from ONS supplied LSOA population estimates 2005, in five year age sex bands.

Method: Directly age sex standardised ratio (shrinkage applied to age-sex rates).

**15. Measures of emergency admissions to hospital, derived from Hospital Episode Statistics (LSOA level)**

Numerator: Hospital spells starting with admission in an emergency in five year age sex bands, for April 2003 to March 2005.

Denominator: Total resident population plus communal establishments minus prison establishment population (resident non-staff) from ONS supplied LSOA population estimates 2005, in five year age sex bands.

Method: Directly age sex standardised ratio (shrinkage applied to age-sex rates).



- 16. Measure of adults under 60 suffering from mood or anxiety disorders (LSOA level)**
- Modelled measure of adults under 60 suffering from mood (affective), neurotic, stress-related and somatoform disorders (i.e. International Classification of Disease 10<sup>th</sup> revision ICD-10, F3 and F4). Based on prescribing (2005, Source: Prescribing Pricing Authority), hospital episode (2004/2005, Source: Department of Health), deaths attributed to suicide (2001 to 2005, Source: ONS) and health benefits data (2005, Source: IB and SDA from DWP).
- 17. Average points score of children at Key Stage 2 (end of primary) (LSOA level)**
- Numerator: Total score of pupils taking KS2 in 2004 and 2005 in maintained schools from the NPD.
- Denominator: Total population in KS2 age group in maintained schools from PLASC, for 2004 and 2005.
- 18. Average points score of children at Key Stage 3 (LSOA level)**
- Numerator: Total score of pupils taking KS3 in 2004 and 2005 in maintained schools from the NPD.
- Denominator: Total population in KS3 age group in maintained schools from PLASC, for 2004 and 2005.
- 19. Average points score of children at Key Stage 4 (GCSE/GNVQ – best of eight results) (LSOA level)**
- Numerator: Total score of pupils taking KS4 in 2004 and 2005 in maintained schools from the NPD.
- Denominator: All pupils in their final year of compulsory schooling in maintained schools for 2004 and 2005 from PLASC.
- 20. Proportion of young people not staying on in school or school level education above 16 (LSOA level)**
- Numerator: Those aged 17 still receiving Child Benefit in 2006
- Denominator: Those aged 15 receiving Child Benefit in 2004.
- The indicator is subtracted from 1 to produce the proportion *not* staying in education.
- 21. Proportion of those aged under 21 not entering Higher Education (LSOA level)**
- Numerator: Successful entrants under 21 in UCAS data, for 2002–2005
- Denominator: Census population 14–17.
- The indicator is subtracted from 1 to produce the proportion *not* entering higher education.
- 22. Secondary school absence rate (LSOA level)**
- Numerator: Average number of authorised and unauthorised absences from secondary school for 2004 and 2005, from the school level survey of authorised and unauthorised absences.

Denominator: total number of possible sessions.

Method: The rates were attributed to all children in a school and assigned to LSOAs using the pupil's home postcode from PLASC.

**23. Proportions of working age adults (aged 25–54) in the area with no or low qualifications (LSOA level)**

Numerator: Adults aged 25–54 in the area with no qualifications or with qualifications below NVQ Level 2, for 2001.

Denominator: All adults aged 25–54.

**24. Household overcrowding (LSOA level)**

Numerator: Overcrowded households (as defined in *Census 2001 Classifications* page 15), for April 2001.

Denominator: Number of households from the 2001 Census, for April 2001.

**25. Percentage of households for whom a decision on their application for assistance under the homeless provisions of housing legislation has been made (LA level)**

Numerator: as described, for 2005/6.

Denominator: ODPM Household estimates, for 2004.

**26. Difficulty of Access to owner-occupation (LA level)**

Numerator: modelled proportion of households (under 35s) unable to afford to enter owner occupation on the basis of their income. Denominator: n/a

**27. Road distance to GP premises (LSOA level)**

Numerator: Population weighted mean of OA road distance score. OA score is the road distance from the population weighted OA centroid to nearest GP premises, for 2005.

Denominator: n/a

**28. Road distance to a supermarket or convenience store (LSOA level)**

Numerator: Population weighted mean of OA road distance score. OA score is the road distance from the populated weighted OA centroid to nearest supermarket or convenience store, for 2005.

Denominator: n/a

**29. Road distance to a primary school (LSOA level)**

Numerator: Population weighted mean of OA road distance score. OA score is the road distance from the populated weighted OA centroid to nearest primary school, for 2005.

Denominator: n/a

**30. Road distance to a Post Office (LSOA level)**

Numerator: Population weighted mean of OA road distance score. OA score is the road distance from the populated weighted OA centroid to nearest open post office, for 2005.

Denominator: n/a

**31. Burglary (LSOA level)**

Numerator: (4 recorded crime offence types, Police Force data for April 2004-March 2005, constrained to Crime and Disorder Reduction Partnership (CDRP) level).

Denominator: total dwellings from the Census plus business addresses from Address Point

**32. Theft (LSOA level)**

Numerator: (5 recorded crime offence types, Police Force data for April 2004-March 2005, constrained to CDRP level).

Denominator: resident population plus non-resident working population

**33. Criminal damage (LSOA level)**

Numerator: (10 recorded crime offence types, Police Force data for April 2004-March 2005, constrained to CDRP level).

Denominator: resident population plus non-resident working population

**34. Violence (LSOA level)**

Numerator: (14 recorded crime offence types, Police Force data for April 2004-March 2005, constrained to CDRP level).

Denominator: resident population plus non-resident working population

**35. Social and private housing in poor condition (LSOA level)**

Numerator: Estimate of the probability that any given dwelling in the SOA fails to meet the decent standard. Modelled primarily from the EHCS by BRE, for 2005.

Denominator: n/a

**36. Houses without central heating (LSOA level)**

Numerator: as described, for 2001.

Denominator: Number of households from the 2001 Census, for April 2001

**37. Air quality (LSOA level)**

Numerator: Modelled measure of the concentration of four pollutants (Nitrogen Dioxide, Benzene, Sulphur Dioxide and Particulates), by the Geography Department at Staffordshire University and NAEI, for 2005.

Denominator: n/a

**38. Road traffic accidents (LSOA level)**

Numerator: Injuries to pedestrians and cyclists caused by road traffic accidents from STATS19 (Road Accident Data) smoothed to SOA level, for 2004–2006.

Denominator: Total resident population, communal establishments population and non-resident workplace population minus prison establishment population (resident non-staff) , mid-2005 estimates provided by ONS

# Annex C: Data Sources

## **2001 Census, Small Area Statistics Package Version 7 (October 2003 release)**

Working age adults (aged 25–59) with no or low qualifications (Education, Skills and Training Deprivation Domain).

Household overcrowding (Barriers to Housing and Services Domain)

Houses without central heating (Living Environment Deprivation Domain)

Census populations and residential dwellings (denominators)

## **Department for Children, Schools and Families**

Pupil Level Annual School Census (PLASC) (Education, Skills and Training Deprivation Domain)

National Pupil Database (NPD) (Education, Skills and Training Deprivation Domain)

School level survey of authorised and unauthorised absences (Education, Skills and Training Deprivation Domain)

Location of primary schools (Barriers to Housing and Services Domain)

## **Department for Transport**

Road Accident Data STATS19

## **Department for Work and Pensions**

Income Support recipients and their partners and children (Income Deprivation Domain)

Income Based Job Seekers Allowance recipients and their partners and children (Income Deprivation Domain)

Incapacity Benefit claimants women aged 18–59 and men aged 18–64 (Employment Deprivation Domain)

Severe Disablement Allowance claimants women aged 18–59 and men aged 18–64 (Employment Deprivation Domain)

Participants in New Deal for the 18–24s who are not receiving JSA (Employment Deprivation Domain)

Participants in New Deal for 25+ who are not receiving JSA (Employment Deprivation Domain)

Participants in New Deal for Lone Parents aged 18 and over (Employment Deprivation Domain)

Recipients of IS Disability Premium, AA, DLA, SDA and IB (Health Deprivation and Disability Domain, CIDR)

Recipients of IB and SDA (Health Deprivation and Disability Domain, 'adults under 60 suffering from mood or anxiety disorders')

**Department of Health**

Hospital Episode Statistics (Health Deprivation and Disability Domain, 'emergency admissions to hospital' and 'adults under 60 suffering from mood or anxiety disorders')

**Heriot-Watt University**

Difficulty of Access to owner-occupation indicator (Barriers to Housing and Services Domain)

**Home Office**

Crime and Disorder Reduction Partnership (CDRP) level recorded crime data (Crime Domain)

Police force and CDRP boundary files (Crime Domain)

**Home Office and National Asylum Support Service**

NASS supported asylum seekers in England in receipt of subsistence and accommodation support (Income Deprivation Domain)

**HM Revenue and Customs**

Adults and children in Working Tax Credit and Child Tax Credit households (Income Deprivation Domain)

Child Benefit data (Education, Skills and Training Deprivation Domain, 'not staying on in school')

**MapInfo Ltd**

Location of general stores or supermarkets (Barriers to Housing and Services Domain)

**National Health Service Information Authority**

Location of GP premises (Barriers to Housing and Services Domain)

**Communities and Local Government**

LA level number of households for whom a decision on their application for assistance under the homeless provisions of housing legislation has been made (Barriers to Housing and Services Domain)

LA level household estimates (Barriers to Housing and Services Domain)

Social and private housing in poor condition, modelled primarily from the English House Condition Survey by the Building Research Establishment and ODPM (Living Environment Deprivation Domain)

**Office of National Statistics**

Mortality data (Health Deprivation and Disability Domain)

LSOA and mid-year population estimates 2005.

**Post Office Ltd**

Location of open post offices (Barriers to Housing and Services Domain)

**Prescription Pricing Authority**

Prescribing data (Health Deprivation and Disability Domain, 'adults under 60 suffering from mood or anxiety disorders')

**Staffordshire University**

Air quality indicator (Living Environment Deprivation Domain)

**Universities and Colleges Admissions Service**

University Admissions data (Education, Skills and Training Deprivation Domain)

**39 Regional Police Forces in England**

Recorded crime data (Crime Domain)



## Annex D: The Shrinkage Technique<sup>2</sup>

The 'shrunk' estimate of a LSOA-level proportion (or ratio) is a weighted average of the two 'raw' proportions for the LSOA and for the corresponding District.<sup>3</sup> The weights used are determined by the relative magnitudes of within-LSOA and between-LSOA variability.

If the rate for a particular indicator in LSOA  $j$  is  $r_j$  events out of a population of  $n_j$ , the empirical logit for each LSOA is:

$$m_j = \log \left[ \frac{(r_j + 0.5)}{(n_j - r_j + 0.5)} \right] \quad [1]$$

whose estimated standard error ( $s_j$ ) is the square root of:

$$s_j^2 = \frac{(n_j + 1)(n_j + 2)}{n_j(r_j + 1)(n_j - r_j + 1)} \quad [2]$$

The corresponding counts  $r$  out of  $n$  for the district, LSOA  $j$  lies within gives the district-level logit:

$$M = \log \left[ \frac{(r + 0.5)}{(n - r + 0.5)} \right] \quad [3]$$

The 'shrunk' LSOA-level logit is then the weighted average:

$$m_j^* = w_j m_j + (1 - w_j) M \quad [4]$$

where  $w_j$  is the weight given to the 'raw' LSOA –  $j$  data and  $(1 - w_j)$  the weight given to the overall rate for the district. The formula used to determine  $w_j$  is:

$$w_j = \frac{1/s_j^2}{1/s_j^2 + 1/t^2} \quad [5]$$

where  $t^2$  is the inter-LSOA variance for the  $k$  LSOAs in the district, calculated as:

$$t^2 = \frac{1}{k - 1} \sum_{j=1}^k (m_j - M)^2 \quad [6]$$

<sup>2</sup> See Noble et al. 2004 Annex D for a full account of the Shrinkage Estimation technique applied.

<sup>3</sup> Where appropriate the weighted average is calculated on the logit scale, for technical reasons, principally because the logit of a proportion is more nearly normally distributed than the proportion itself.

Thus large LSOAs, where precision  $1/s_j^2$  is relatively large, have weight  $w_j$  close to 1 and so shrinkage has little effect. The shrinkage effect is greatest for small LSOAs in relatively homogeneous districts.

The final step is to back-transform the shrunken logit  $m_j^*$  using the 'anti-logit', to obtain the shrunken LSOA level proportion:

$$z_j = \frac{\exp(m_j^*)}{1 + \exp(m_j^*)} \quad [7]$$

for each LSOA.

# Annex E: Factor Analysis

In a number of the domains, factor analysis is used as a method for combining indicators. Factor analysis is used to find appropriate weights for combining indicators into a single score based on the inter-correlations between all the indicators<sup>4</sup>. This technique was applied to the following domains: Education, Skills and Training; Health Deprivation and Disability, and Crime.

Factor Analysis is only used in domains where 'latent variables' are hypothesised to exist and where the indicator variables are 'effect indicators'.

## Method

The combination process comprises the following stages:

1. All variables were converted to the standard normal distribution based on their ranks.
2. These new standardised scores were factor analysed (using the Maximum Likelihood method), deriving a set of weights.

The variables were then combined using these weights.

<sup>4</sup> See Noble et. al. 2004 Annex F for a full account of the Factor Analysis technique applied.

# Annex F: The 'Adults under 60 suffering from mood or anxiety disorders' indicator

## Introduction

Mental ill health is a condition that can severely impact on the quality of life of those suffering from it and those immediately around them. It may also lead to other forms of deprivation such as unemployment or homelessness; potentially individuals may find themselves in a downward spiral that may be difficult to break out of. This makes it an important component of overall health which should be included in a small area measure of health deprivation.

Creating a small area measure of mental health is not straightforward. There are no standard small area measures covering England that are ready to use. Survey approaches, using standard measures, would require very large sample sizes and do not yet exist. This suggests an approach using information that is already collected in support of administrative processes. However there are problems with the use of administrative records. These datasets are likely to lead to definitions of mental illness which are particular to the administrative process they are drawn from. These will not necessarily fit exactly what is required for an index of deprivation. From Hospital records, for example, it is possible to identify individuals whose in patient spell is related to mental ill health. However this represents people who have probably reached a fairly critical state. It might be of greater interest to also take into account individuals who are in a less acute more chronic state and being treated, if at all, within primary care.

A further problem when using administrative data to measure mental health is the way the organisation of local services and different practices within and between organisations affect the type of treatment an individual receives. This may lead to groups of individuals, identical in terms of their mental health, coming in contact with some services in some areas and not in others. Some General Practitioners, for example, may be less eager to use drugs in the treatment of depression than others. A count therefore of those receiving a prescription for the treatment of depression may differ between areas with identical numbers of people suffering from depression.

The biases that result from the problems discussed above can be reduced through a careful choice of methodology.

## Methodology

Given the problems outlined above it is clear that single mental health indicators that are derived from administrative data should be used with caution: each indicator is likely to vary around what might be thought of as the 'true' state of mental health in a small area. There is however a fairly simple method to reduce this bias. This is achieved by combining a number of indicators that are believed to measure the same underlying 'true' state. As the number of indicators is increased, the influence of under or over-recording bias should be reduced. This will be true as long as the bias does not result from an area effect that influences all the different administrative systems, leading to biases in the same direction. By choosing indicators from independent administrative data sources this problem should be minimised. The bias in the overall indicator, therefore, should be lower than that in any single indicator.

Although it would be possible to simply combine the different measures after standardising them with equal weights, more sophisticated methods are available. These take into account the extent to which individual indicators are more or less precise in their measure of the underlying 'true' rate over the whole population. The most suitable method in this instance is Factor Analysis.

The datasets that were used are from prescribing data; secondary care data; and health related benefit administrative data. Because each of the datasets covers a slightly different group of psychiatric conditions, it was only possible to produce an estimate for a sub-group of these conditions. The sub-group chosen was people aged under 60 suffering mood (affective) disorders and neurotic, stress-related, and somatoform disorders. Together these represent a large proportion of all those suffering mental ill health.

## Prescription data

This indicator uses information on drug prescribing to estimate levels of mental health. Because information on the conditions for which various types of drugs are prescribed as well as the typical dosages are known, it is possible to estimate the number of patients within a particular General Practitioner's (GP) practice who are suffering from mental health problems. The mental health problems examined here are depression and anxiety<sup>5</sup>. Unfortunately prescription data is not held at individual level and therefore a two-stage methodology must be adopted to calculate area rates. This method assumes that those with mental ill health take the national Average Daily Quantity (Prescribing Support Unit) of a specific drug on everyday of the year. While these assumptions may not fit very well in individual cases, they are more likely to hold across the 'average' for the practice population. The practice rates are then distributed to geographical areas through knowledge of practice population distribution. This process will tend to 'spatially smooth' the area rates where practice populations are heterogeneous. In effect the small area rate will move towards a larger area 'moving average'. However although this does mean high or low rates will tend to move towards the local average, it also reduces the impact of individual GP prescribing behaviour that might be introducing bias because the small area rate will be a combination of a number of different practices.

<sup>5</sup> This is measured using all drugs with the British National Formulary codes 4.1.2 (anxiolytics) and 4.3 (anti-depressant drugs).

## Secondary care data

This indicator uses hospital inpatient data to estimate the proportion of the population suffering severe mental health problems relating to depression and anxiety. A count is made of all those who have had at least one in-stay spell in any one year coded within International Classification of Disease version 10 (ICD-10) chapter 'F' (the coding for mental ill health): the precise grouping of disorders included can be seen in table 1. The indicator is therefore an annual count of those suffering at least one severe mental health episode in a year, an "annual incidence of hospitalisation"<sup>6</sup>. These individuals are then geocoded to their residential address and a standardised rate is calculated using the residential population in the small area as a denominator.

**Table 1: ICD-10 mental health coding**

ICD10	Categories of disorder
F30–F39	Mood (affective) disorders
F40–F48	Neurotic, stress-related and somatoform disorders

There are two significant issues with this indicator as a measure of an underlying rate of mental health. Firstly, the admission of an individual into hospital may be influenced not only by the severity of their condition but also by factors arising from an interaction between primary, social and secondary care. If for example there has been a failure of adequate primary care in an area, individuals who might have remained within primary care in another area, may be admitted into secondary care. The second problem with this indicator is small numbers. This means that the estimate of the underlying risk of admission in some small areas has low precision. Combining a number of years together can reduce the small number problem. In this case 2 years of data were combined. The problem of organisational bias can be reduced through combining different indicators of mental health as outlined above.

## Health related benefits

The rate of sickness and disability in an area can be measured using information on receipt of particular benefits. Incapacity Benefit (IB) and Severe Disablement Allowance (SDA) are benefits paid to individuals of working age who are unable to work because of ill health. IB is a non means-tested benefit paid to people who are incapable of work due to ill health and who have paid sufficient National Insurance contributions. SDA is a non means-tested benefit paid to people who are incapable of work through illness and have not paid sufficient National Insurance contributions to qualify for IB. Both of these benefit datasets are coded for medical conditions. This coding can be converted to an ICD-10 classification and then a count of individuals with a condition within chapter 'F' made: the precise ICD-10 codes used were F3 and F4 as for the hospital data. Using the working age population as a denominator,

<sup>6</sup> Where an individual spent the whole year in hospital they will be counted as one in the 'annual incidence of hospitalisation' measure and they will be attributed to the ward they were resident in when first admitted.



a standardised rate of mental ill health amongst those aged 16 to 59 can then be calculated.

## Suicide

Although suicide is not a direct measure of mental ill health, it is highly associated with depression where it is implicated in a majority of cases. Unlike the other measures it is more independent of organisational practices; therefore it may suffer less from biases relating to local practice. However numbers are small and so the precision of the measure may be poor. The actual measure used was deaths that occurred between 2001 and 2005 which had ICD-10 codes X60-X84 and Y10-Y34 excluding Y33.9 where the Coroner's verdict was pending.

## Combining the data to create a composite indicator

The three indicators were combined using weights derived from Maximum Likelihood Factor Analysis. The use of Factor Analysis here is based on the proposition that in any small area there is an unmeasured 'true' rate of mental health (a latent factor) that manifests itself through various mental health related administrative processes and events as a set of indicators. The variance in these administrative indicators will be either related to the 'true' rate of mental health or to some other factors unique to them and unrelated to the other indicators. The covariance between the indicators is therefore 'caused' by the 'true' rate of mental health. Indicators that have a lower correlation with all the other indicators are therefore a poorer measure of the 'true' rate than those with a high overall correlation and are given a lower weight to be combined with. The combined indicators should be a more precise measure of the underlying 'true' rate of mental health than any single indicator on its own.

# Annex G: Categories of Recorded Crime Included in the Crime Domain

The Crime Domain consists of 33 categories of recorded crime (notifiable offences) which have been grouped to form four composite indicators: violence; burglary; theft; and criminal damage.

Home Office offence code	Offence name
<b>Violence</b>	
1	Murder
4.1	Manslaughter
4.2	Infanticide
2	Attempted murder
37.1	Causing death by aggravated vehicle taking
5	Wounding or other act endangering life
8A	Other wounding
8C	Harassment
8D	Racially-aggravated other wounding
8E	Racially-aggravated harassment
105A	Common assault
105B	Racially-aggravated common assault
34A	Robbery of business property
34B	Robbery of personal property
<b>Burglary</b>	
28	Burglary in a dwelling
29	Aggravated burglary in a dwelling
30	Burglary in a building other than a dwelling
31	Aggravated burglary in a building other than a dwelling
<b>Theft</b>	
37.2	Aggravated vehicle taking
39	Theft from the person of another
45	Theft from a vehicle
48	Theft or unauthorised taking of motor vehicle
126	Vehicle interference and tampering
<b>Criminal damage</b>	
56	Arson
58A	Criminal damage to a dwelling
58B	Criminal damage to a building other than a dwelling
58C	Criminal damage to a vehicle
58D	Other criminal damage
58E	Racially-aggravated criminal damage to a dwelling
58F	Racially aggravated criminal damage to a building other than a dwelling
58G	Racially-aggravated criminal damage to a vehicle
58H	Racially-aggravated other criminal damage
59	Threat etc. to commit criminal damage

Within the four composite indicators, each notifiable offence type has been assigned equal weight. Therefore, the numerator for the 'violence' rate is the sum of the fourteen notifiable offence categories listed above. In order to account for variability in recording practices between police forces, the SOA-level counts of crime have been constrained to Crime & Disorder Reduction Partnership (CDRP) totals provided by the Home Office.

The denominator for the 'burglary' indicator is the number of dwellings from the 2001 Census plus the number of business addresses from Ordnance Survey's Address Point, while the denominator for the 'violence', 'theft' and 'criminal damage' indicators is total resident population plus non-resident workplace population, also from the 2001 Census.

As an example, the 'theft' indicator can be formulated as follows:

$$\text{Theft} = \frac{(\text{Aggravated vehicle taking} + \text{Theft from the person of another} + \text{Theft from a vehicle} + \text{Theft or unauthorised taking of motor vehicle} + \text{Vehicle interference and tampering})}{(\text{Resident population} + \text{Non-resident workplace population})}$$

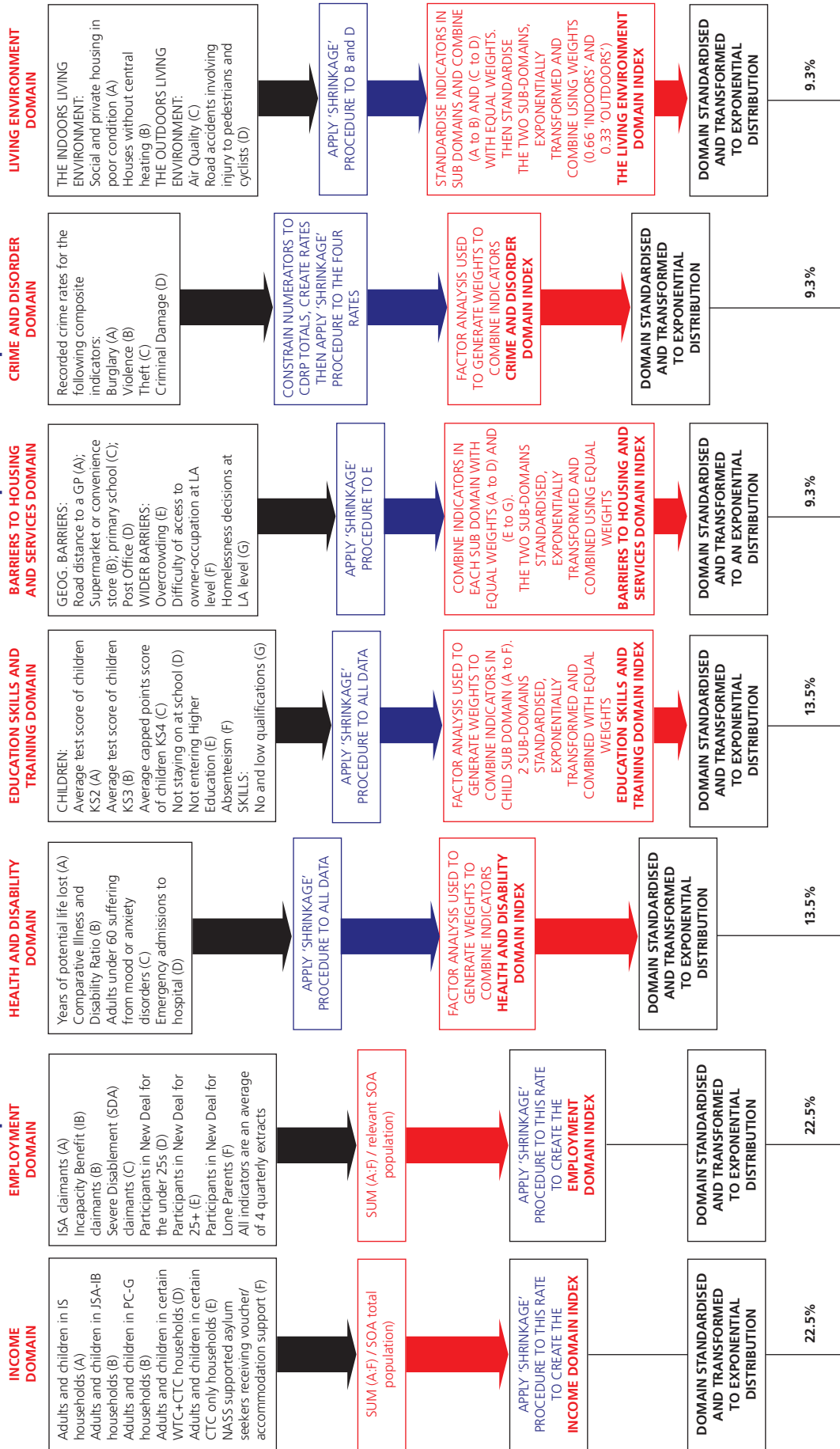
## Annex H: Exponential Transformation

The transformation used is as follows. For any SOA, denote its rank on the Domain, scaled to the range [0,1], by R (with  $R=1/N$  for the least deprived, and  $R=N/N$ , i.e.  $R=1$ , for the most deprived, where  $N$ =the number of SOAs in England).

The transformed Domain, X say, is  $X = -23 \cdot \log\{1 - R \cdot [1 - \exp(-100/23)]\}$

where log denotes natural logarithm and exp the exponential or antilog transformation.

# Annex I: Components of the Index of Multiple Deprivation 2007



INDIVIDUAL DOMAIN EXPONENTIAL SCORES WEIGHTED AS SHOWN AND COMBINED TO PRODUCE INDEX OF MULTIPLE DEPRIVATION 2004 (IMD 2004) WHICH CAN THEN BE RANKED

# Annex J: The 100 most deprived SOAs on the Index of Multiple Deprivation 2007

SOA	LA CODE	LA NAME	GOR CODE	GOR NAME	IMD SCORE	RANK OF IMD (where 1 is most deprived)
E01006755	00BY	Liverpool	B	North West	85.46	1
E01005204	00BN	Manchester	B	North West	84.02	2
E01021988	22UN	Tendring	G	East of England	82.58	3
E01012721	00EY	Blackpool	B	North West	82.50	4
E01006778	00BY	Liverpool	B	North West	82.26	5
E01006467	00BX	Knowsley	B	North West	82.16	6
E01006559	00BY	Liverpool	B	North West	81.78	7
E01006561	00BY	Liverpool	B	North West	81.33	8
E01006468	00BX	Knowsley	B	North West	81.22	9
E01012673	00EY	Blackpool	B	North West	80.91	10
E01005484	00BQ	Rochdale	B	North West	80.86	11
E01006676	00BY	Liverpool	B	North West	80.72	12
E01024858	30UD	Burnley	B	North West	80.69	13
E01008836	00CM	Sunderland	A	North East	80.62	14
E01005482	00BQ	Rochdale	B	North West	80.58	15
E01009585	00CQ	Coventry	F	West Midlands	80.34	16
E01005466	00BQ	Rochdale	B	North West	79.76	17
E01009365	00CN	Birmingham	F	West Midlands	79.68	18
E01006647	00BY	Liverpool	B	North West	79.57	19
E01006469	00BX	Knowsley	B	North West	79.21	20
E01013137	00FC	North East Lincolnshire	D	Yorkshire and The Humber	79.19	21
E01007532	00CE	Doncaster	D	Yorkshire and The Humber	79.14	22
E01012070	00EC	Middlesbrough	A	North East	79.05	23
E01006599	00BY	Liverpool	B	North West	78.95	24
E01006703	00BY	Liverpool	B	North West	78.91	25
E01007122	00CB	Wirral	B	North West	78.89	26
E01006740	00BY	Liverpool	B	North West	78.86	27
E01008380	00CJ	Newcastle upon Tyne	A	North East	78.85	28
E01006646	00BY	Liverpool	B	North West	78.69	29
E01012720	00EY	Blackpool	B	North West	78.58	30
E01012041	00EC	Middlesbrough	A	North East	78.53	31
E01006699	00BY	Liverpool	B	North West	78.52	32
E01006563	00BY	Liverpool	B	North West	78.46	33
E01006560	00BY	Liverpool	B	North West	78.44	34
E01012655	00EX	Blackburn with Darwen	B	North West	78.39	35
E01013818	00FY	Nottingham	E	East Midlands	78.37	36
E01006756	00BY	Liverpool	B	North West	78.17	37
E01010606	00CX	Bradford	D	Yorkshire and The Humber	78.17	38
E01005067	00BN	Manchester	B	North West	78.14	39
E01005658	00BR	Salford	B	North West	78.02	40



SOA	LA CODE	LA NAME	GOR CODE	GOR NAME	IMD SCORE	RANK OF IMD (where 1 is most deprived)
E01012875	00FA	Kingston upon Hull, City of	D	Yorkshire and The Humber	77.74	41
E01006442	00BX	Knowsley	B	North West	77.67	42
E01007127	00CB	Wirral	B	North West	77.64	43
E01012678	00EY	Blackpool	B	North West	77.52	44
E01006674	00BY	Liverpool	B	North West	77.50	45
E01006630	00BY	Liverpool	B	North West	77.40	46
E01005568	00BQ	Rochdale	B	North West	77.38	47
E01024908	30UD	Burnley	B	North West	77.35	48
E01006777	00BY	Liverpool	B	North West	77.34	49
E01005256	00BN	Manchester	B	North West	77.32	50
E01006732	00BY	Liverpool	B	North West	77.20	51
E01005655	00BR	Salford	B	North West	77.18	52
E01006679	00BY	Liverpool	B	North West	77.17	53
E01028276	37UF	Mansfield	E	East Midlands	77.12	54
E01006704	00BY	Liverpool	B	North West	77.06	55
E01005350	00BP	Oldham	B	North West	76.99	56
E01005196	00BN	Manchester	B	North West	76.94	57
E01006540	00BY	Liverpool	B	North West	76.93	58
E01013139	00FC	North East Lincolnshire	D	Yorkshire and The Humber	76.84	59
E01010485	00CW	Wolverhampton	F	West Midlands	76.80	60
E01013136	00FC	North East Lincolnshire	D	Yorkshire and The Humber	76.75	61
E01024877	30UD	Burnley	B	North West	76.72	62
E01005228	00BN	Manchester	B	North West	76.66	63
E01006515	00BY	Liverpool	B	North West	76.66	64
E01010617	00CX	Bradford	D	Yorkshire and The Humber	76.35	65
E01009488	00CN	Birmingham	F	West Midlands	76.18	66
E01025041	30UG	Hyndburn	B	North West	76.10	67
E01008291	00CJ	Newcastle upon Tyne	A	North East	76.07	68
E01012266	00EF	Stockton-on-Tees	A	North East	75.95	69
E01020909	20UJ	Wear Valley	A	North East	75.89	70
E01012069	00EC	Middlesbrough	A	North East	75.74	71
E01010823	00CX	Bradford	D	Yorkshire and The Humber	75.71	72
E01012114	00EE	Redcar and Cleveland	A	North East	75.68	73
E01005096	00BN	Manchester	B	North West	75.57	74
E01009358	00CN	Birmingham	F	West Midlands	75.57	75
E01006779	00BY	Liverpool	B	North West	75.55	76
E01006677	00BY	Liverpool	B	North West	75.51	77
E01009476	00CN	Birmingham	F	West Midlands	75.45	78
E01006558	00BY	Liverpool	B	North West	75.34	79
E01012897	00FA	Kingston upon Hull, City of	D	Yorkshire and The Humber	75.32	80
E01008011	00CG	Sheffield	D	Yorkshire and The Humber	75.31	81
E01006598	00BY	Liverpool	B	North West	75.28	82
E01005099	00BN	Manchester	B	North West	75.22	83
E01005203	00BN	Manchester	B	North West	75.18	84
E01006760	00BY	Liverpool	B	North West	75.11	85
E01009379	00CN	Birmingham	F	West Midlands	75.08	86
E01025286	30UK	Preston	B	North West	75.04	87
E01006417	00BX	Knowsley	B	North West	75.01	88
E01005667	00BR	Salford	B	North West	74.99	89
E01005612	00BR	Salford	B	North West	74.97	90

SOA	LA CODE	LA NAME	GOR CODE	GOR NAME	IMD SCORE	RANK OF IMD (where 1 is most deprived)
E01007132	00CB	Wirral	B	North West	74.65	91
E01008214	00CH	Gateshead	A	North East	74.63	92
E01015842	00KF	Southend-on-Sea	G	East of England	74.59	93
E01005205	00BN	Manchester	B	North West	74.57	94
E01007133	00CB	Wirral	B	North West	74.56	95
E01006470	00BX	Knowsley	B	North West	74.52	96
E01007128	00CB	Wirral	B	North West	74.32	97
E01015155	00HG	Plymouth	K	South West	74.29	98
E01006746	00BY	Liverpool	B	North West	74.22	99
E01005613	00BR	Salford	B	North West	74.11	100

# Annex K: District level summaries of the LSOA level Index of Multiple Deprivation

LA CODE	LA NAME	Average Score	Rank of Average Score	Average Rank	Rank of Average Rank	Extent	Rank of Extent	Local Concentration	Rank of Local Concentration	Income Scale	Rank of Income Scale	Employment Scale	Rank of Employment Scale
45UB	Adur	20.55	138	17520.60	122	0.11	156	26643.52	180	7372	300	2594.75	309
16UB	Allerdale	21.63	119	17011.62	132	0.17	116	30532.75	76	13487	171	6256.50	147
35UB	Alnwick	15.57	206	13753.48	191	0.03	221	24442.12	221	3741	347	1676.50	342
17UB	Amber Valley	18.12	159	15290.74	164	0.09	170	27304.55	171	14794	154	6593.50	137
45UC	Arun	16.64	187	14078.33	186	0.07	181	26824.11	177	17063	134	6070.50	153
37UB	Ashfield	25.26	81	20192.07	72	0.22	97	29619.83	115	17925	124	8360.75	111
29UB	Ashford	14.37	227	12191.70	227	0.05	195	25784.01	194	12880	184	4377.50	220
11UB	Aylesbury Vale	8.76	319	6604.62	325	0.01	273	21986.76	267	13306	177	4745.75	206
42UB	Babergh	11.30	277	9656.41	271	0.00	301	21354.72	282	7919	287	2779.25	305
00AB	Barking and Dagenham	34.49	22	25388.65	11	0.48	21	30564.03	74	44806	47	13085.25	64
00AC	Barnet	21.16	128	17960.16	112	0.12	146	28268.82	149	51407	38	16068.25	53
00CC	Barnsley	30.48	43	22090.43	41	0.37	46	31544.77	41	41091	52	21650.75	25
16UC	Barrow-in-Furness	32.69	29	22647.17	32	0.40	36	32021.80	17	13183	179	7460.75	124
22UB	Basilidon	20.58	136	16050.90	151	0.17	114	28973.10	134	27179	87	9219.50	100
24UB	Basingstoke and Deane	9.84	304	7916.06	306	0.00	308	21428.78	278	12575	188	4773.50	204
37UC	Bassetlaw	24.11	94	18715.40	101	0.22	90	30525.75	77	15723	146	7887.00	114
00HA	Bath and North East Somerset	11.47	272	9357.59	279	0.03	230	23274.23	242	16650	136	6209.25	149
09UD	Bedford	16.87	183	13558.58	198	0.10	157	28243.89	150	21071	107	7583.50	122
35UC	Berwick-upon-Tweed	20.79	133	18658.15	104	0.02	232	24169.84	227	3723	348	1521.25	347
00AD	Bexley	16.21	194	13482.18	199	0.07	177	26723.04	178	27351	86	9728.75	92
00CN	Birmingham	38.67	10	24907.94	14	0.55	12	32053.06	15	287890	1	89139.50	1
31UB	Blaby	8.41	326	6613.16	324	0.00	309	14808.89	345	6444	314	2949.50	295
00EX	Blackburn with Darwen	35.83	17	23048.41	27	0.52	15	32194.02	9	38543	60	12422.25	73
00EY	Blackpool	37.66	12	24609.06	18	0.46	24	32384.54	3	32997	72	14368.00	61

LA CODE	LA NAME	Average Score	Rank of Average Score	Average Rank	Rank of Average Rank	Average Rank	Rank of Average Rank	Extent	Rank of Extent	Local Concentration	Rank of Local Concentration	Income Scale	Rank of Income Scale	Employment Scale	Rank of Employment Scale
35UD	Blyth Valley	25.36	80	18934.11	93	0.27	73	31042.45	63	13614	168	6986.25	133		
17UC	Bolsover	28.93	55	22115.83	40	0.32	58	30325.46	82	12945	183	6465.00	142		
00BL	Bolton	29.67	51	20413.22	65	0.37	42	31902.90	24	53365	31	20971.50	27		
32UB	Boston	22.75	109	18825.00	96	0.15	128	28531.67	141	9074	266	3539.75	266		
00HN	Bournemouth	22.99	108	18320.01	108	0.18	111	30118.13	91	24957	91	10881.00	81		
00MA	Bracknell Forest	8.75	320	7010.21	316	0.00	309	18878.49	315	8669	273	3432.25	274		
00CX	Bradford	32.00	32	21029.26	52	0.42	31	32122.55	11	118426	4	35256.00	6		
22UC	Braintree	13.61	239	11974.84	232	0.01	265	22580.12	252	14753	156	5470.25	179		
33UB	Breckland	15.30	213	13438.54	201	0.03	225	24513.64	218	14455	159	5482.25	178		
00AE	Brent	29.22	53	22753.28	30	0.27	74	30624.17	72	63767	19	20175.75	32		
22UD	Brentwood	9.18	315	7326.36	312	0.00	295	20590.63	293	5721	320	2225.75	321		
39UB	Bridgnorth	13.32	243	11836.68	236	0.00	309	21293.73	283	4892	332	1923.50	334		
00ML	Brighton and Hove	25.56	79	19933.03	77	0.22	95	30761.45	70	41180	51	17761.50	46		
00HB	Bristol, City of	27.76	64	20310.98	68	0.30	64	31581.27	38	67656	15	26520.50	10		
33UC	Broadland	10.09	301	8572.81	295	0.00	309	16824.91	334	10204	237	4462.00	214		
00AF	Bromley	14.36	228	11555.61	241	0.07	179	27132.38	173	34511	66	12602.00	70		
47UB	Bromsgrove	10.20	299	8441.66	299	0.01	288	20881.35	287	7108	303	3347.25	279		
26UB	Broxbourne	16.22	193	13853.44	189	0.06	190	25744.69	196	10876	220	3731.75	254		
37UD	Broxtowe	14.41	226	12461.43	219	0.03	219	24455.60	220	11006	217	5272.00	183		
30UD	Burnley	34.61	21	22712.28	31	0.43	27	32308.13	5	19891	113	8012.00	113		
00BM	Bury	21.42	122	16722.66	136	0.17	113	30160.02	88	27479	84	12081.00	75		
00CY	Calderdale	23.01	107	17618.98	119	0.22	98	30745.37	71	32674	73	12347.00	74		
12UB	Cambridge	13.87	236	11951.46	234	0.02	245	23862.49	231	11373	210	4671.00	207		
00AG	Camden	28.62	57	22069.20	42	0.33	57	29711.51	108	48865	42	17819.50	43		
41UB	Cannock Chase	20.64	135	17211.04	129	0.12	143	27309.39	170	13135	180	5839.75	164		
29UC	Canterbury	16.17	198	14053.01	187	0.05	197	25683.01	199	17679	125	6537.25	141		
15UB	Caradon	18.76	156	16600.09	139	0.04	206	25346.74	205	10401	231	4063.50	232		
16UD	Carlisle	22.70	110	17931.51	113	0.19	106	29760.18	105	13392	175	6552.50	139		
15UC	Carrick	21.61	120	18732.69	100	0.09	171	27644.65	160	12073	199	4847.75	198		
35UE	Castle Morpeth	14.61	223	11769.41	238	0.08	173	27412.59	169	4863	333	2831.75	302		
22UE	Castle Point	12.90	249	11166.14	246	0.01	263	22247.94	261	9828	244	3604.50	261		
31UC	Charnwood	11.95	264	9627.63	272	0.04	210	24913.12	209	15374	148	5860.75	163		
22UF	Chelmsford	9.26	312	7265.32	314	0.01	270	21474.18	276	13911	163	5298.50	182		

LA CODE	LA NAME	Average Score	Rank of Average Score	Average Rank	Rank of Average Rank	Extent	Rank of Extent	Local Concentration	Rank of Local Concentration	Income Scale	Rank of Income Scale	Employment Scale	Rank of Employment Scale
23UB	Cheltenham	15.92	202	12398.06	221	0.11	151	28587.84	140	12516	189	5178.75	186
38UB	Cherwell	11.30	276	9083.14	284	0.03	213	24616.64	215	11203	213	4156.50	227
13UB	Chester	16.86	184	13102.13	210	0.11	150	29199.89	129	14186	160	6286.25	146
17UD	Chesterfield	25.75	77	19650.24	81	0.28	68	30181.65	85	17467	128	8386.50	109
20UB	Chester-le-Street	20.44	140	16530.37	141	0.13	132	28202.17	151	7455	297	3953.75	238
45UD	Chichester	12.08	259	10662.78	254	0.00	290	20006.51	302	9885	241	3327.25	280
11UC	Chiltern	7.02	345	5207.86	342	0.00	309	18116.48	324	6286	317	2370.50	316
30UE	Chorley	16.56	188	13227.35	208	0.11	153	28280.61	147	11150	214	5680.75	170
19UC	Christchurch	14.68	220	12736.57	216	0.05	201	25510.35	202	5198	329	1868.75	337
00AA	City of London	12.84	252	10691.91	253	0.04	209	24321.00	223	687	353	323.75	353
22UG	Colchester	14.59	224	12337.15	224	0.05	202	25652.71	200	17948	122	7179.00	130
13UC	Congleton	9.86	303	7773.83	307	0.01	255	22462.02	255	7703	290	3747.50	251
16UE	Copeland	25.73	78	19880.68	79	0.24	88	30488.07	78	11033	216	5648.75	171
34UB	Corby	26.16	75	20403.29	66	0.25	83	30159.43	89	8504	279	3861.50	243
23UC	Cotswold	10.22	298	8739.32	289	0.00	302	16486.80	338	6427	315	2230.75	320
00CQ	Coventry	27.85	61	20200.31	71	0.31	61	31562.67	40	59718	23	22244.25	21
36UB	Craven	11.59	270	9842.93	267	0.02	248	22285.30	260	4381	342	1914.25	336
45UE	Crawley	15.55	207	13683.70	194	0.02	244	23829.04	232	11810	204	4188.25	225
13UD	Crewe and Nantwich	17.45	174	13741.11	192	0.13	137	29031.51	133	13464	172	5785.50	165
00AH	Croydon	21.31	125	17449.64	123	0.15	129	28358.35	144	58450	25	18428.75	41
26UC	Dacorum	10.73	288	8906.19	287	0.00	299	21481.37	275	13600	169	4962.00	192
00EH	Darlington	24.10	95	17639.46	118	0.25	82	31329.63	52	17130	133	7484.50	123
29UD	Dartford	16.65	186	14152.42	180	0.06	188	26192.78	189	9843	242	3866.75	242
34UC	Daventry	10.61	292	8464.62	298	0.02	234	23181.71	245	6315	316	2370.00	317
00FK	Derby	26.64	69	18926.39	94	0.31	60	31421.47	49	44015	48	16102.25	52
17UF	Derbyshire Dales	12.53	254	11055.72	247	0.01	258	19987.31	303	5551	322	2404.50	313
20UD	Derwentside	26.19	73	20740.85	58	0.25	81	29308.43	126	16182	140	7803.50	115
00CE	Doncaster	30.84	41	22002.18	43	0.38	41	31511.74	45	53348	32	23464.75	19
29UE	Dover	19.12	153	16374.06	148	0.09	166	26931.95	176	15107	151	6370.25	144
00CR	Dudley	23.68	100	17968.59	111	0.24	87	30355.67	81	52513	35	19638.75	33
20UE	Durham	17.12	180	13434.55	203	0.12	145	28699.29	138	10430	229	5964.75	159
00AJ	Ealing	25.10	84	20068.05	75	0.22	91	29601.13	116	60225	22	19527.75	35
20UF	Easington	39.46	7	26336.30	7	0.62	7	31630.05	35	20972	108	12673.50	68

LA CODE	LA NAME	Average Score	Rank of Average Score	Average Rank	Rank of Average Rank	Extent	Rank of Extent	Local Concentration	Rank of Local Concentration	Income Scale	Rank of Income Scale	Employment Scale	Rank of Employment Scale
12UC	East Cambridgeshire	10.84	285	9369.93	278	0.00	309	17948.06	326	6858	306	2396.75	314
18UB	East Devon	13.69	238	12172.75	228	0.01	266	21994.58	266	12797	185	4763.75	205
19UD	East Dorset	8.46	325	6545.06	327	0.00	305	19094.89	314	6700	309	2373.00	315
24UC	East Hampshire	8.06	332	6187.91	332	0.00	309	16832.07	333	8412	283	3008.00	292
26UD	East Hertfordshire	7.41	336	5478.45	336	0.00	309	17600.57	327	9070	267	3485.75	269
32UC	East Lindsey	24.61	88	19635.21	82	0.20	103	29943.87	102	21844	104	9501.00	97
34UD	East Northamptonshire	11.78	266	9744.29	269	0.01	268	23241.53	244	7875	288	3025.50	291
00FB	East Riding of Yorkshire	14.17	232	11361.49	245	0.07	180	27421.96	168	35490	63	15142.00	56
41UC	East Staffordshire	18.44	158	14454.65	176	0.16	120	28815.24	136	13792	165	4937.00	194
21UC	Eastbourne	23.36	104	19248.40	88	0.16	121	28620.93	139	14736	158	5486.25	176
24UD	Eastleigh	9.24	313	7272.58	313	0.01	289	21769.49	273	9181	262	3738.00	253
16UF	Eden	14.64	221	13460.32	200	0.00	309	20136.96	299	3926	345	1809.75	338
13UE	Ellesmere Port & Neston	19.92	147	14901.41	167	0.21	99	29193.45	130	10649	226	4850.25	197
43UB	Elmbridge	7.12	343	5107.63	345	0.00	309	18072.04	325	8971	270	2934.50	297
00AK	Enfield	26.19	74	20267.50	70	0.26	76	29967.28	100	66630	17	19354.50	37
22UH	Epping Forest	14.33	229	12451.49	220	0.02	247	23119.58	246	13452	173	4575.75	211
43UC	Epsom and Ewell	7.43	335	5385.25	338	0.00	309	19478.93	311	4629	339	2014.00	330
17UG	Erewash	17.98	164	14712.78	170	0.10	158	27455.71	167	13509	170	5894.50	161
18UC	Exeter	20.27	145	16687.58	137	0.13	133	28762.42	137	13661	166	5965.50	158
24UE	Fareham	7.28	338	5198.83	343	0.01	276	18602.05	317	7237	302	3094.25	288
12UD	Fenland	20.50	139	17441.57	125	0.10	163	27793.51	159	13021	182	4817.50	199
42UC	Forest Heath	11.90	265	10529.23	256	0.00	309	19205.27	313	4835	334	1698.75	340
23UD	Forest of Dean	16.00	201	14594.09	174	0.01	264	23099.27	247	9376	254	3895.25	241
30UF	Fylde	12.86	251	10828.55	249	0.03	227	23695.78	236	7460	296	3609.75	260
00CH	Gateshead	29.52	52	21085.90	50	0.36	48	31612.06	36	39485	58	17720.50	47
37UE	Gedling	15.54	208	13339.82	205	0.03	216	24690.87	214	12250	194	5535.25	175
23UE	Gloucester	21.64	118	16373.67	149	0.22	96	30018.01	99	16097	142	6399.25	143
24UF	Gosport	17.80	167	14895.85	168	0.09	168	27537.56	165	9240	260	3294.00	283
29UG	Gravesham	20.37	142	16421.64	143	0.15	125	29087.37	132	13402	174	5142.25	188
33UD	Great Yarmouth	28.35	58	20862.23	55	0.28	66	31698.66	32	18998	119	7773.50	116
00AL	Greenwich	33.94	24	24613.26	17	0.44	26	31050.05	61	53224	33	17437.50	48

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43UD	Guildford	8.20	329	6288.95	331	0.00	292	19948.72	304	8941	271	3579.25	263
00AM	Hackney	46.10	2	28960.78	1	0.84	1	31566.72	39	76242	10	21765.25	24
00ET	Halton	32.61	30	22126.72	39	0.46	25	31815.38	27	24830	92	11537.25	77
36UC	Hambleton	9.84	305	8147.09	304	0.00	306	19841.45	306	6500	313	2819.00	303
00AN	Hammersmith and Fulham	28.07	59	22177.95	38	0.28	72	29631.20	113	34512	65	12572.50	72
31UD	Harborough	7.08	344	5169.47	344	0.00	309	14776.87	346	5242	326	2109.75	325
00AP	Haringey	35.73	18	24932.79	13	0.53	13	31237.87	57	68291	14	20885.50	29
22UJ	Harlow	21.44	121	18606.31	105	0.06	186	25205.25	207	12252	193	4333.75	222
36UD	Harrogate	9.49	310	7707.51	309	0.01	262	19608.51	309	11445	209	5010.00	190
00AQ	Harrow	15.59	205	13647.84	196	0.03	218	24709.26	211	33675	69	10358.25	85
24UG	Hart	4.13	354	2153.76	354	0.00	309	9590.48	354	4068	344	1631.50	344
00EB	Hartlepool	34.10	23	22484.62	36	0.48	19	32018.88	18	21869	102	9956.75	90
21UD	Hastings	32.21	31	22917.71	29	0.39	38	31702.21	31	18610	121	7367.25	127
24UH	Havant	21.28	126	16515.27	142	0.22	93	29132.39	131	17170	132	5765.75	167
00AR	Havering	16.07	200	13578.55	197	0.06	187	26255.82	186	28169	79	10446.75	83
00GA	Herefordshire, County of	17.58	171	15565.66	158	0.05	198	25945.02	192	20680	109	7689.50	117
26UE	Hertsmere	12.86	250	10817.04	250	0.02	242	23733.96	234	9762	247	3512.75	267
17UH	High Peak	15.34	211	12906.60	214	0.05	193	26253.20	187	9782	246	4436.75	216
00AS	Hillingdon	18.56	157	15916.43	153	0.07	183	26252.18	188	38574	59	12592.75	71
31UE	Hinckley and Bosworth	10.90	283	9071.96	286	0.01	269	21467.00	277	8606	277	3793.50	248
45UF	Horsham	7.38	337	5636.64	334	0.00	309	14445.08	348	8575	278	3263.00	284
00AT	Hounslow	23.20	105	19567.05	83	0.13	136	28012.47	155	41050	53	12621.00	69
12UE	Huntingdonshire	9.31	311	7417.00	311	0.01	281	20258.48	296	12605	187	5002.00	191
30UG	Hyndburn	30.91	40	21517.05	45	0.37	43	32038.43	16	17244	130	6897.50	135
42UD	Ipswich	23.75	99	18270.48	109	0.24	84	30050.97	97	19670	114	7135.75	132
00MW	Isle of Wight	20.67	134	18002.35	110	0.07	178	26345.30	184	21468	105	8369.50	110
15UH	Isles of Scilly	19.72	149	18360.00	106	0.00	309	18360.00	320	144	354	36.00	354
00AU	Islington	38.96	8	26885.05	6	0.62	6	31263.30	56	52467	36	19129.75	39
46UB	Kennet	10.27	296	8664.92	291	0.00	309	18634.43	316	6507	312	2242.50	319
00AW	Kensington and Chelsea	23.51	101	18776.37	98	0.22	94	29665.13	110	23665	95	9236.50	99



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15UD	Kerrier	25.05	86	20622.95	61	0.15	127	29445.75	119	16051	143	6211.25	148		
34UE	Kettering	15.09	214	12223.99	226	0.08	175	27224.47	172	9469	253	3914.25	240		
33UE	King's Lynn and West Norfolk	20.58	137	16900.49	134	0.11	152	29960.93	101	19501	116	7670.50	119		
00FA	Kingston upon Hull, City of	38.31	11	24629.41	16	0.52	14	32218.24	8	62603	20	23183.00	20		
00AX	Kingston upon Thames	13.10	245	11442.01	244	0.01	261	22542.17	254	14773	155	5235.25	184		
00CZ	Kirklees	25.23	82	18666.58	102	0.27	75	31143.79	59	70714	12	24369.50	15		
00BX	Knowsley	43.20	5	26109.76	8	0.59	8	32401.63	2	42673	50	17774.25	45		
00AY	Lambeth	34.94	19	25558.07	9	0.50	17	30113.35	93	66903	16	24294.50	16		
30UH	Lancaster	21.94	117	16787.92	135	0.18	109	31046.89	62	19670	114	8762.75	103		
00DA	Leeds	25.07	85	17879.46	114	0.28	67	31468.75	48	113962	5	45232.25	4		
00FN	Leicester	34.68	20	23944.37	23	0.46	23	31979.49	19	78758	9	24891.75	13		
21UF	Lewes	14.79	218	13008.87	211	0.02	249	23701.62	235	10416	230	3805.75	246		
00AZ	Lewisham	31.04	39	23978.26	22	0.36	47	29359.82	122	58128	28	20401.75	31		
41UD	Lichfield	12.12	258	10259.31	260	0.02	241	23346.99	241	9288	258	3957.50	237		
32UD	Lincoln	26.56	70	19922.13	78	0.28	69	31191.58	58	15937	144	6184.25	150		
00BY	Liverpool	46.97	1	27055.41	5	0.67	4	32434.42	1	127365	3	56926.50	2		
00KA	Luton	24.73	87	19438.92	86	0.24	85	29421.42	120	40375	55	11492.75	78		
13UG	Macclesfield	10.67	290	8405.77	301	0.03	217	24560.98	216	12301	191	5636.50	172		
29UH	Maidstone	12.99	248	10633.45	255	0.05	203	25684.77	198	14742	157	5396.25	181		
22UK	Maldon	12.26	255	10736.04	252	0.00	309	21178.98	284	6178	318	2186.00	322		
47UC	Malvern Hills	13.59	240	11893.33	235	0.03	228	23650.00	237	7478	295	2883.00	300		
00BN	Manchester	44.50	4	27146.21	4	0.66	5	32329.78	4	132867	2	48398.25	3		
37UF	Mansfield	31.80	34	22528.50	34	0.40	35	31805.75	28	17943	123	8627.25	105		
00LC	Medway	19.55	150	16066.15	150	0.11	154	28040.78	154	37230	61	13031.25	65		
31UG	Melton	10.43	294	8705.71	290	0.00	309	20279.30	295	3807	346	1361.75	350		
40UB	Mendip	14.83	217	13142.63	209	0.02	233	23773.06	233	11879	203	4535.50	212		
00BA	Merton	14.62	222	12340.37	223	0.03	215	24692.94	213	25651	89	8400.75	108		
09UC	Mid Bedfordshire	7.23	340	5237.43	341	0.00	309	16193.14	339	9339	256	3497.00	268		
18UD	Mid Devon	17.34	177	15447.42	162	0.03	226	24413.15	222	8206	285	2977.50	293		
42UE	Mid Suffolk	9.79	306	8217.20	303	0.00	304	15517.33	341	7242	301	2651.00	308		
45UG	Mid Sussex	6.94	346	5035.93	346	0.00	307	17037.17	331	8616	276	3357.50	278		

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00EC	Middlesbrough	38.94	9	23638.11	25	0.56	9	32296.66	6	36603	62	14790.25	58
00MG	Milton Keynes	15.32	212	12109.92	229	0.10	162	28352.01	145	29144	78	10391.00	84
43UE	Mole Valley	7.25	339	5448.58	337	0.00	309	16740.40	336	5076	331	1938.75	333
24UJ	New Forest	10.16	300	8280.95	302	0.01	267	20829.07	289	15796	145	5685.50	169
37UG	Newark and Sherwood	18.03	163	14575.38	175	0.12	144	28439.04	143	13874	164	6022.00	155
00CJ	Newcastle upon Tyne	31.36	37	20810.21	56	0.40	37	32102.57	13	58433	26	24001.50	18
41UE	Newcastle-under-Lyme	19.27	152	15683.61	157	0.13	138	28351.87	146	15350	149	7671.75	118
00BB	Newham	42.95	6	28285.86	2	0.79	2	31337.84	51	88945	7	21025.50	26
15UE	North Cornwall	24.07	96	20877.01	54	0.06	185	26112.73	190	12134	197	4413.75	219
18UE	North Devon	19.97	146	16974.55	133	0.10	164	28174.87	152	13063	181	4787.50	202
19UE	North Dorset	13.02	247	11767.87	239	0.00	309	19565.91	310	5557	321	1996.00	331
17UJ	North East Derbyshire	17.37	176	14311.56	178	0.09	169	27556.41	163	12435	190	5886.75	162
00FC	North East Lincolnshire	29.73	49	20309.70	69	0.37	44	31857.47	25	31804	74	11084.50	80
26UF	North Hertfordshire	10.69	289	8844.96	288	0.01	280	21854.31	271	11347	211	3983.25	236
32UE	North Kesteven	10.26	297	8599.00	294	0.00	309	19627.79	308	9139	265	3780.50	249
00FD	North Lincolnshire	20.88	132	16418.68	146	0.16	119	30461.50	79	23382	96	9029.50	101
33UF	North Norfolk	18.06	160	16420.06	145	0.01	272	22734.96	250	12759	186	4958.50	193
39UC	North Shropshire	17.43	175	15788.54	154	0.01	252	23258.17	243	6720	308	2534.00	312
00HC	North Somerset	15.01	215	11542.21	242	0.09	167	29358.66	123	21902	101	9250.50	98
00CK	North Tyneside	23.51	102	17833.10	115	0.24	86	30159.33	90	33233	70	15048.00	57
44UB	North Warwickshire	16.18	197	14356.77	177	0.03	223	24495.88	219	6668	310	2971.00	294
31UH	North West Leicestershire	14.73	219	12610.03	217	0.04	208	25143.93	208	9274	259	4040.75	233
46UC	North Wiltshire	8.82	318	6931.67	319	0.00	300	20064.47	301	10708	222	3840.75	245
34UF	Northampton	21.15	129	16553.87	140	0.18	112	29527.37	118	27967	82	10286.00	86
33UG	Norwich	27.84	62	20729.13	59	0.36	49	30054.00	96	24239	94	9539.25	96
00FY	Nottingham	37.46	13	25184.19	12	0.56	11	31845.38	26	68470	13	24899.75	12
44UC	Nuneaton and Bedworth	22.41	112	17720.68	117	0.18	110	29795.84	103	17216	131	7347.25	128
31UJ	Oadby and Wigston	10.51	293	8479.47	297	0.00	309	21376.59	281	5225	327	2025.00	329
00BP	Oldham	30.82	42	20996.83	53	0.40	34	31904.08	23	50682	39	17216.00	49
39UD	Oswestry	17.48	173	15556.07	160	0.03	231	24297.14	224	4788	337	2098.00	326
38UC	Oxford	18.80	155	15763.63	155	0.11	155	27592.70	162	17401	129	6075.75	152

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30UJ	Pendle	30.24	44	21036.96	51	0.38	40	31786.15	29	19005	118	6931.75	134
15UF	Penwith	31.61	36	24240.66	21	0.35	53	30095.91	94	12102	198	4592.75	209
00JA	Peterborough	24.49	90	18741.09	99	0.26	78	30055.81	95	30136	76	9740.25	91
00HG	Plymouth	26.11	76	19539.71	84	0.28	70	30921.14	65	40643	54	18189.50	42
00HP	Poole	14.93	216	12532.42	218	0.05	196	25854.49	193	16203	139	5774.75	166
00MR	Portsmouth	24.21	93	18953.15	92	0.20	105	30911.43	66	29616	77	10457.25	82
30UK	Preston	29.78	48	20181.32	73	0.39	39	31979.03	20	25328	90	10150.25	89
19UG	Purbeck	13.49	241	12385.76	222	0.00	309	18237.56	321	4403	341	1516.75	348
00MC	Reading	19.30	151	15924.32	152	0.12	142	27643.46	161	19339	117	6733.25	136
00BC	Redbridge	20.36	143	17541.50	121	0.08	172	26960.05	175	46236	46	13507.50	63
00EE	Redcar and Cleveland	29.69	50	20513.16	63	0.33	55	32115.96	12	27866	83	12686.75	67
47UD	Redditch	21.05	131	16421.43	144	0.21	100	28868.87	135	11532	208	4590.00	210
43UF	Reigate and Banstead	8.59	322	6632.77	323	0.00	293	20382.37	294	9739	248	3746.50	252
15UG	Restormel	24.51	89	20711.43	60	0.13	135	27979.27	156	14955	153	6028.25	154
30UL	Ribble Valley	10.07	302	8524.88	296	0.00	309	16990.16	332	3635	349	2158.50	323
00BD	Richmond upon Thames	9.55	309	7585.08	310	0.01	271	20755.55	291	15269	150	5764.75	168
36UE	Richmondshire	10.94	282	9407.63	276	0.00	309	18218.94	322	3593	350	1578.75	346
00BQ	Rochdale	33.89	25	22524.40	35	0.43	28	32177.92	10	48122	44	18475.75	40
22UL	Rochford	9.22	314	7250.35	315	0.01	285	19879.50	305	7078	304	2678.75	306
30UM	Rossendale	24.23	92	19492.57	85	0.20	104	29357.65	124	10526	228	4811.75	200
21UG	Rother	17.85	166	15409.20	163	0.07	184	26471.63	182	10880	219	3934.00	239
00CF	Rotherham	26.71	68	20007.43	76	0.29	65	31084.82	60	46488	45	19322.75	38
44UD	Rugby	13.08	246	11000.58	248	0.03	229	24261.43	225	9038	268	3558.75	264
43UG	Runnymede	8.33	328	6495.35	328	0.00	309	18384.19	319	5738	319	2050.75	328
37UJ	Rushcliffe	8.13	331	6301.40	330	0.00	309	18122.32	323	7448	298	3315.75	281
24UL	Rushmoor	11.62	268	9452.41	275	0.04	211	23908.88	230	8501	280	3049.75	290
00FP	Rutland	7.49	334	5596.63	335	0.00	309	13134.66	351	2175	352	810.50	352
36UF	Ryedale	14.49	225	13270.33	207	0.00	309	19784.17	307	5211	328	1693.25	341
00BR	Salford	36.51	15	23830.96	24	0.48	20	32248.59	7	50545	40	20901.75	28
46UD	Salisbury	11.32	275	9477.64	274	0.02	243	22020.47	265	9684	251	3592.75	262
00CS	Sandwell	37.03	14	25478.69	10	0.56	10	31470.23	47	74920	11	24766.50	14
36UG	Scarborough	24.06	97	18659.59	103	0.20	101	30906.08	67	17544	126	7298.00	129

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20UG	Sedgefield	29.05	54	21890.41	44	0.35	52	30045.62	98	16887	135	8609.00	106
40UC	Sedgemoor	17.76	169	14771.41	169	0.10	160	27552.70	164	13938	162	5609.25	174
00CA	Sefton	25.13	83	18335.77	107	0.25	80	31506.26	46	48123	43	22028.00	23
36UH	Selby	12.17	257	10159.06	263	0.02	238	23934.59	229	6745	307	3245.00	285
29UK	Sevenoaks	10.34	295	8416.03	300	0.02	246	22287.05	259	9829	243	3305.00	282
00CG	Sheffield	27.84	63	19229.66	89	0.34	54	31763.75	30	96205	6	36459.25	5
29UL	Shepway	21.35	123	17375.19	126	0.13	140	29280.32	128	15677	147	6308.00	145
39UE	Shrewsbury and Atcham	16.46	190	14147.94	183	0.05	192	26355.19	183	10660	225	4457.75	215
00MD	Slough	22.31	115	19094.64	90	0.10	161	26499.29	181	21863	103	6552.25	140
00CT	Solihull	16.16	199	12030.92	231	0.15	124	29663.08	111	23375	97	9552.75	95
09UE	South Bedfordshire	11.95	263	9889.80	265	0.02	235	24077.40	228	11966	202	4419.00	218
11UE	South Bucks	8.35	327	6671.96	321	0.00	309	15472.55	342	4189	343	1502.75	349
12UG	South Cambridgeshire	6.55	350	4704.58	350	0.00	309	13654.91	350	8618	275	3421.50	276
17UK	South Derbyshire	13.93	235	11952.09	233	0.03	224	24525.38	217	8649	274	4069.50	231
00HD	South Gloucestershire	9.58	308	7768.17	308	0.01	286	20198.60	298	20528	111	8322.25	112
18UG	South Hams	14.31	230	12819.20	215	0.01	275	21746.61	274	9366	255	3438.75	273
32UF	South Holland	16.21	195	14699.80	172	0.01	277	22092.61	263	9330	257	3665.25	257
32UG	South Kesteven	11.49	271	9381.26	277	0.03	220	23622.90	238	12271	192	4781.75	203
16UG	South Lakeland	11.67	267	10183.01	262	0.00	297	20222.63	297	8265	284	3846.00	244
33UH	South Norfolk	10.84	286	9352.37	280	0.00	309	18502.57	318	10388	232	4157.25	226
34UG	South Northamptonshire	6.46	351	4450.02	351	0.00	309	11859.18	353	4796	336	1942.50	332
38UD	South Oxfordshire	7.75	333	5850.56	333	0.00	309	17067.50	329	8472	282	3091.00	289
30UN	South Ribble	14.10	233	11804.85	237	0.04	207	25249.01	206	9985	240	5176.50	187
39UF	South Shropshire	16.50	189	14961.08	166	0.01	260	22230.91	262	4553	340	1644.00	343
40UD	South Somerset	13.86	237	12048.24	230	0.03	222	24176.23	226	16242	138	5943.25	160
41UF	South Staffordshire	11.62	269	9869.63	266	0.01	278	22353.92	258	10336	233	4100.50	229
00CL	South Tyneside	31.16	38	22435.26	37	0.43	29	30997.06	64	34062	68	15254.50	55
00MS	Southampton	24.31	91	19336.65	87	0.22	92	29622.83	114	35415	64	13024.00	66
00KF	Southend-on-Sea	22.47	111	17445.49	124	0.19	107	30293.89	83	28036	81	10170.25	88
00BE	Southwark	33.33	26	24569.19	19	0.48	18	29766.51	104	65034	18	22177.75	22
43UH	Spelthorne	12.18	256	10416.15	259	0.01	284	22451.11	256	7969	286	2904.25	299

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26UG	St Albans	8.88	317	6981.34	318	0.00	291	20871.63	288	10165	238	3764.75	250		
42UF	St. Edmundsbury	12.06	260	10433.51	258	0.00	303	21408.49	279	9143	264	3545.25	265		
00BZ	St. Helens	29.82	47	21207.01	49	0.36	51	31686.05	34	33192	71	16273.50	51		
41UG	Stafford	12.71	253	10524.43	257	0.04	204	25542.46	201	11061	215	5467.00	180		
41UH	Staffordshire Moorlands	16.36	192	14144.73	184	0.05	194	26044.88	191	9176	263	5189.50	185		
26UH	Stevenage	16.42	191	14711.74	171	0.02	237	22642.54	251	11244	212	3683.50	256		
00BS	Stockport	18.06	161	13804.45	190	0.13	141	30207.26	84	34177	67	14775.50	59		
00EF	Stockton-on-Tees	23.80	98	16641.31	138	0.26	77	31698.47	33	31630	75	14077.50	62		
00GL	Stoke-on-Trent	36.03	16	24285.51	20	0.51	16	31932.91	22	53082	34	24155.50	17		
44UE	Stratford-on-Avon	9.63	307	8026.87	305	0.00	309	17041.02	330	9184	261	3484.00	270		
23UF	Stroud	11.14	280	9532.01	273	0.00	309	20781.19	290	10231	235	4109.50	228		
42UG	Suffolk Coastal	11.33	274	9663.96	270	0.01	283	20743.38	292	10902	218	3800.00	247		
00CM	Sunderland	31.79	35	22638.75	33	0.41	33	31524.87	43	59628	24	27844.75	7		
43UJ	Surrey Heath	5.75	352	3862.34	352	0.00	309	16738.21	337	4825	335	1720.25	339		
00BF	Sutton	13.98	234	11683.94	240	0.05	199	25722.50	197	20650	110	7410.75	126		
29UM	Swale	22.10	116	17549.83	120	0.18	108	30172.37	87	19948	112	7164.50	131		
00HX	Swindon	16.94	182	12980.64	212	0.14	131	29759.11	106	22571	98	9005.75	102		
00BT	Tameside	28.78	56	21294.65	47	0.33	56	31322.74	54	39905	56	17794.75	44		
41UK	Tamworth	19.76	148	16390.59	147	0.11	148	27912.35	157	10229	236	4202.75	224		
43UK	Tandridge	8.49	324	6777.92	320	0.00	309	14723.89	347	5333	325	2126.00	324		
40UE	Taunton Deane	15.65	204	13310.66	206	0.06	189	26286.85	185	11998	201	4868.75	195		
20UH	Teesdale	15.52	209	13680.15	195	0.03	214	24826.50	210	2802	351	1324.50	351		
18UH	Teignbridge	17.29	179	15152.79	165	0.05	200	25767.91	195	15022	152	5625.00	173		
00GF	Telford and Wrekin	22.35	113	17372.14	127	0.20	102	29637.37	112	27425	85	10201.50	87		
22UN	Tendring	23.45	103	18983.26	91	0.15	126	29677.20	109	22496	99	8697.50	104		
24UN	Test Valley	8.88	316	6990.43	317	0.01	287	20136.35	300	8483	281	3130.25	287		
23UG	Tewkesbury	11.23	279	9329.90	281	0.01	254	21974.34	268	7071	305	2582.50	310		
29UN	Thanet	27.61	65	20520.94	62	0.28	71	31582.30	37	25905	88	9726.25	93		
26UJ	Three Rivers	10.74	287	8611.00	293	0.02	236	22928.10	248	7388	299	2538.00	311		
00KG	Thurrock	21.31	124	17014.84	131	0.15	123	29742.54	107	21441	106	8422.25	107		
29UP	Tonbridge and Malling	10.95	281	9158.22	283	0.01	274	21392.20	280	9719	250	3463.25	271		
00HH	Torbay	26.42	71	20764.24	57	0.23	89	30559.54	75	24387	93	9663.50	94		

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18UK	Torridge	21.13	130	18789.44	97	0.04	205	25464.20	204	8752	272	3366.25	277
00BG	Tower Hamlets	44.64	3	27770.27	3	0.75	3	31933.09	21	86022	8	19439.75	36
00BU	Trafford	17.33	178	13415.18	204	0.13	134	29307.57	127	28112	80	12062.25	76
29UQ	Tunbridge Wells	11.45	273	9749.93	268	0.01	279	21966.79	269	10529	227	3445.00	272
35UF	Tynedale	13.13	244	11541.94	243	0.01	282	22039.30	264	5450	324	2806.75	304
22UQ	Uttlesford	6.94	347	4984.24	347	0.00	309	11999.67	352	4662	338	1586.00	345
38UE	Vale of White Horse	7.23	341	5299.09	339	0.00	294	14920.27	344	7789	289	2871.50	301
13UH	Vale Royal	16.18	196	12925.29	213	0.10	165	28449.99	142	14037	161	6583.75	138
00DB	Wakefield	27.07	66	20157.98	74	0.30	62	30866.56	68	51675	37	25352.00	11
00CU	Walsall	30.14	45	21220.49	48	0.41	32	31276.60	55	58327	27	19553.50	34
00BH	Waltham Forest	33.19	27	24706.47	15	0.42	30	30582.32	73	55713	30	16603.50	50
00BJ	Wandsworth	20.34	144	17276.67	128	0.10	159	27534.08	166	43071	49	15727.00	54
35UG	Wansbeck	29.89	46	21445.70	46	0.37	45	31380.75	50	11637	205	6155.50	151
00EU	Warrington	17.89	165	13434.78	202	0.15	122	30114.82	92	22205	100	11088.75	79
44UF	Warwick	11.97	262	10115.22	264	0.01	256	22555.00	253	11602	206	4804.00	201
26UK	Watford	15.81	203	13732.03	193	0.03	212	24706.19	212	9637	252	3424.50	275
42UH	Waveney	22.32	114	17809.36	116	0.16	118	30179.41	86	18876	120	7591.25	121
43UL	Waverley	6.86	348	4981.59	348	0.00	309	15886.12	340	7697	291	2911.50	298
21UH	Wealden	10.86	284	9078.73	285	0.01	257	21082.37	285	12205	195	4249.00	223
20UJ	Wear Valley	31.85	33	23059.45	26	0.36	50	31542.11	42	13311	176	6021.00	156
34UH	Wellingborough	17.79	168	14311.41	179	0.11	149	28080.27	153	9788	245	3639.50	258
26UL	Welwyn Hatfield	14.18	231	12319.19	225	0.02	239	23592.86	239	10695	223	3984.25	235
00MB	West Berkshire	8.19	330	6344.10	329	0.00	298	17139.94	328	10796	221	4036.75	234
18UL	West Devon	17.08	181	15557.44	159	0.00	296	21923.41	270	5520	323	2093.75	327
19UH	West Dorset	15.51	210	14149.52	181	0.01	253	22383.79	257	9736	249	3628.00	259
30UP	West Lancashire	20.40	141	15715.05	156	0.16	117	30389.21	80	16180	141	7452.25	125
32UH	West Lindsey	16.75	185	13911.35	188	0.08	176	27900.52	158	10128	239	4420.50	217
38UF	West Oxfordshire	6.67	349	4711.77	349	0.00	309	14045.85	349	6520	311	2250.00	318
40UF	West Somerset	23.16	106	20421.79	64	0.05	191	25493.74	203	5181	330	1916.00	335
46UF	West Wiltshire	11.24	278	9179.56	282	0.02	240	23542.68	240	12177	196	4465.25	213
00BK	Westminster	26.30	72	20349.68	67	0.26	79	30765.52	69	39703	57	14743.25	60
19UJ	Weymouth and Portland	21.19	127	17089.75	130	0.17	115	29309.92	125	9027	269	4093.25	230

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00BW	Wigan	26.91	67	19870.36	80	0.30	63	31323.19	53	48880	41	27295.75	9
24UP	Winchester	7.16	342	5292.87	340	0.00	309	16786.62	335	7564	293	2936.00	296
00ME	Windsor and Maidenhead	8.51	323	6651.45	322	0.00	309	19476.82	312	10263	234	3721.00	255
00CB	Wirral	27.90	60	18899.92	95	0.32	59	32088.94	14	60481	21	27359.25	8
43UM	Woking	8.70	321	6577.86	326	0.02	250	21047.45	286	7533	294	2673.00	307
00MF	Wokingham	5.36	353	3385.03	353	0.00	309	15139.78	343	7676	292	3241.75	286
00CW	Wolverhampton	33.02	28	23007.18	28	0.47	22	31514.19	44	57550	29	20747.50	30
47UE	Worcester	18.03	162	14079.68	185	0.14	130	29374.08	121	12061	200	4861.25	196
45UH	Worthing	17.48	172	14683.96	173	0.08	174	27037.80	174	11577	207	4666.50	208
47UF	Wycharon	11.99	261	10234.70	261	0.01	259	21830.71	272	10692	224	4366.75	221
11UF	Wycombe	10.65	291	8656.70	292	0.01	251	22838.29	249	16526	137	5105.75	189
30UQ	Wyre	17.70	170	14149.00	182	0.13	139	29598.48	117	13633	167	5973.50	157
47UG	Wyre Forest	19.09	154	15481.01	161	0.12	147	28275.13	148	13215	178	5483.50	177
00FF	York	13.40	242	10758.70	251	0.07	182	26679.74	179	17485	127	7661.25	120



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