

EXTENDED CHAPTER

CHAPTER TWO: COMPARING THE 2004 AND 2007 INDICES OF DEPRIVATION

2.1 Introduction

The English Indices of Deprivation 2007, which were published in December 2007, allow for the first time a comparison to be made between ID 2004 and ID 2007.

In light of the Guidance Paper 'Using the English Indices of Deprivation 2007'¹, which states that "Index scores from 2004 cannot be compared with those from 2007", this chapter will only look at changes in national rank as a means of comparison and not scores.

The chapter is divided into three sections and aims to primarily describe the change in the ranks of Indices of Deprivation, and only in Section Three does it describe areas of deprivation.

It is important to note that since the Indices are relative to other Lower Super Output Areas (LSOAs) in England, an area which has seen a change in rank (for better or for worse) does not necessarily mean it is getting more or less deprived.

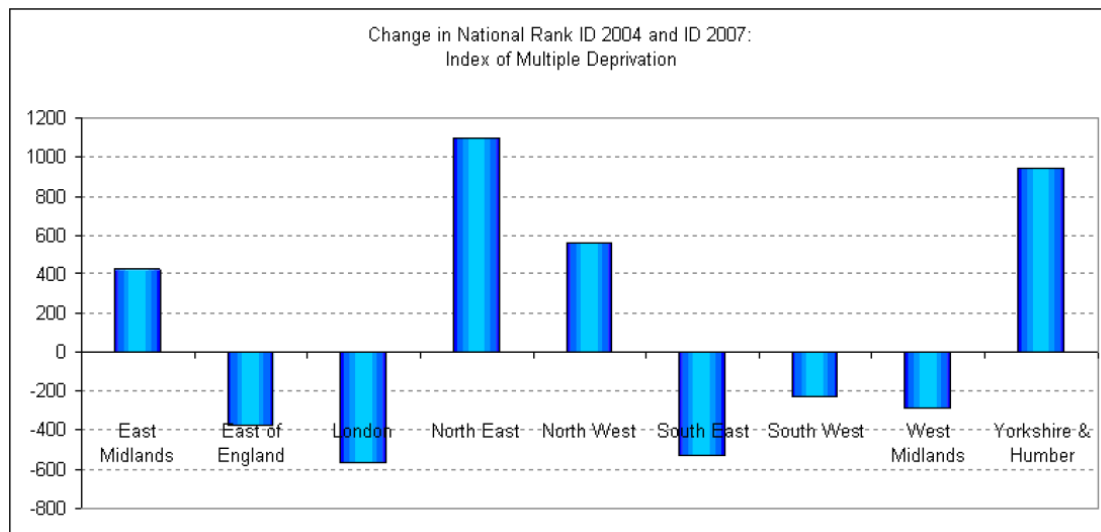
Section One: focuses on national rank positions (where 1 is the most deprived) and the change experienced in average rank, showing regional comparisons in England before looking at change specifically within the West Midlands. This analysis covers all domains (see extended chapter on accompanying CD-ROM).

Section Two: provides further analysis within the region by specifically looking at PCT-level (based on 2006 boundaries), and their respective changes in terms of a population-weighted average rank change. (Note: due to the calculation of population-weighted average ranks, the ranks for this measure have been inverted: i.e. 1 is now the least deprived.)

Section Three: shows the most deprived LSOAs within the region, containing 10% of the region's population (based on 2001 census population for the 2004 indices and mid-2005 population estimates for the 2007 indices). This measure can help identify regional 'hotspots' of deprivation and describes how these have changed between the 2004 and 2007 Indices. These results have also been summarised according to PCT (using 2006 boundaries).

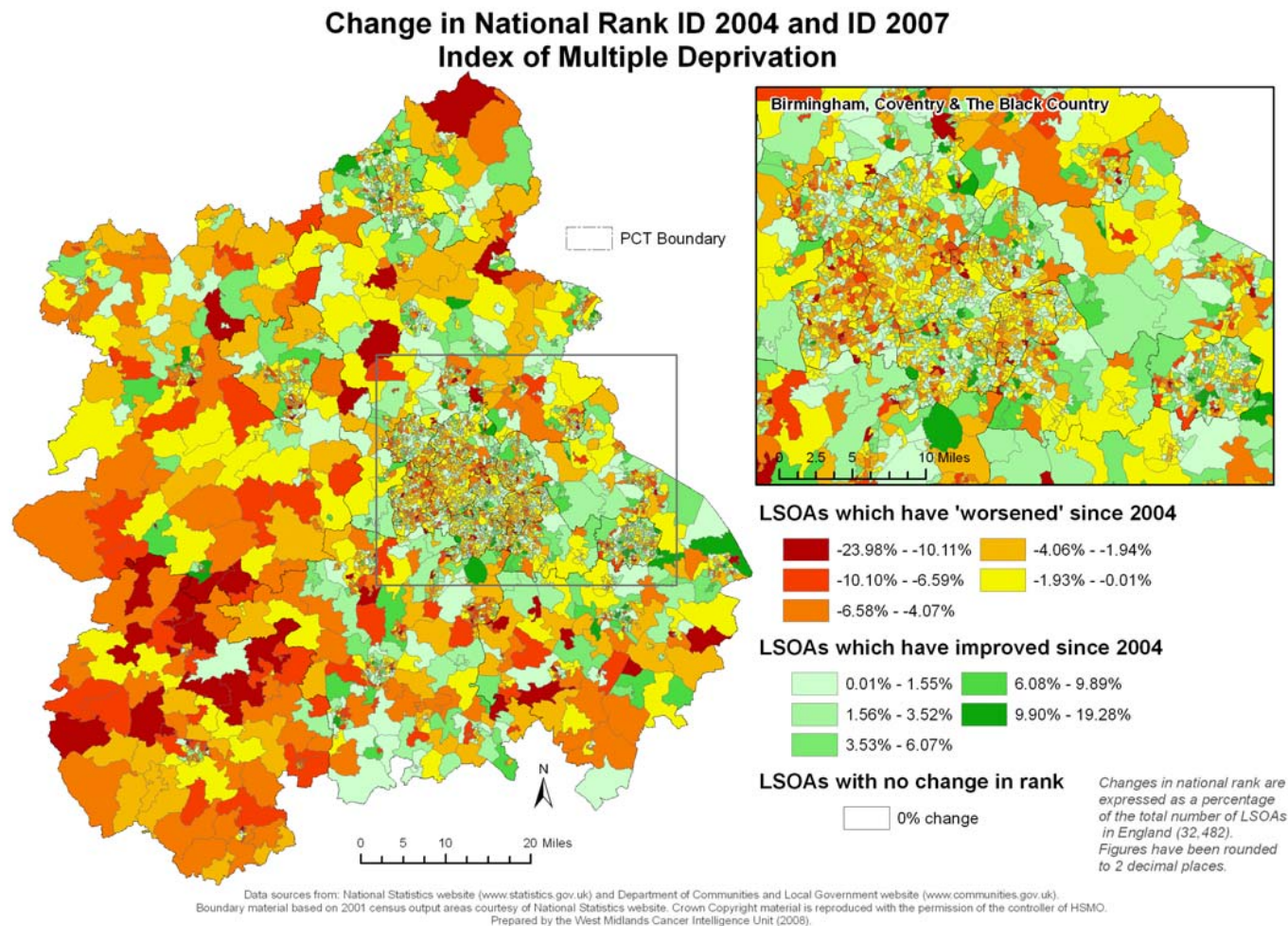
2.2 Index of Multiple Deprivation

Figure 2.1: Average change in rank per LSOA for Index of Multiple Deprivation by Government Office Region



The average rank change, per LSOA, for the West Midlands has seen a decrease (i.e. 'worsening') in rank of 286.5, a change which is comparable to that of the South West. The West Midlands is one of five regions to have shown an average decrease. In comparison the Yorkshire & Humber and North East regions have seen the greatest improvement in terms of average rank per LSOA.

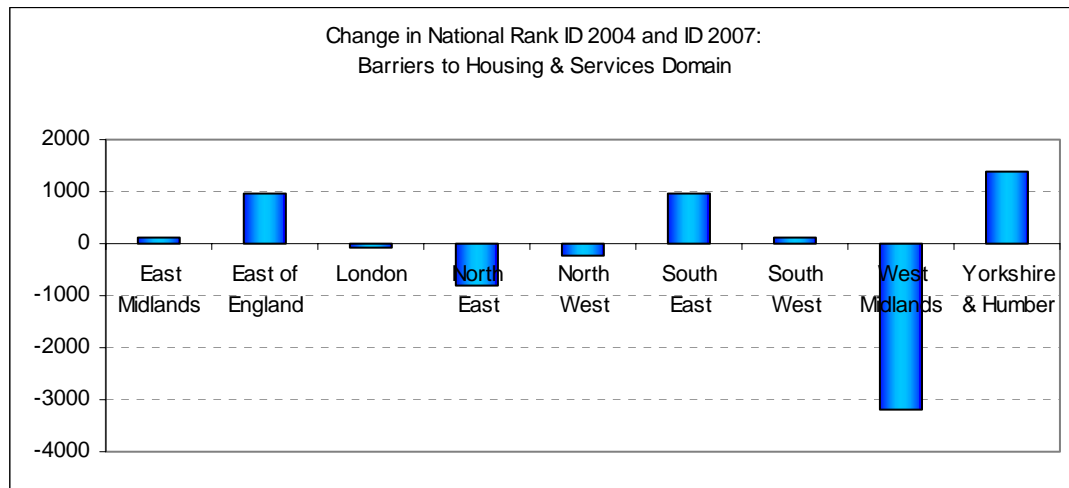
Map 2.1: Changes in National Rank ID 2004 and 2007: Index of Multiple Deprivation



Of all the LSOAs in the West Midlands (3,482) 61.1% have decreased in rank 38.8% have improved in rank and three LSOAs have remained at exactly the same rank. The areas which have seen the biggest declines in rank are mainly located in the West, and in the more rural areas of the region, in particular Herefordshire.

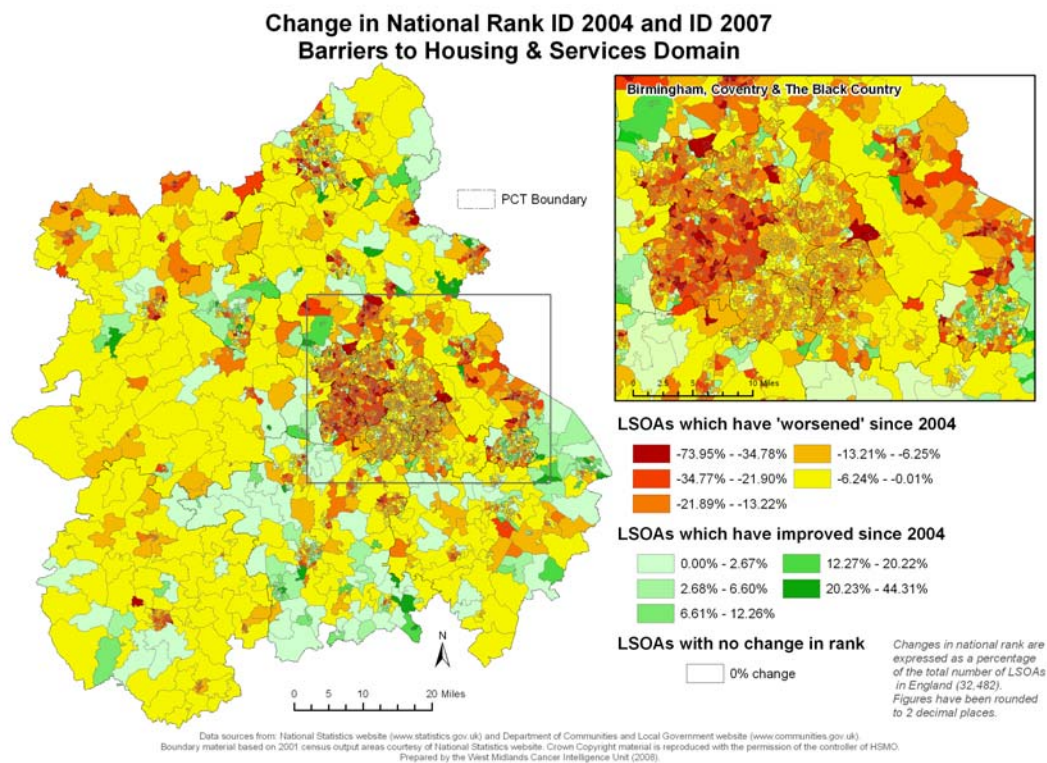
2.3 Barriers to Housing & Services Domain

Figure 2.2: Average change in rank per LSOA for Barriers to Housing & Services Domain by Government Office Region



The West Midlands is one of three regions to have experienced a decrease in average rank per LSOA. However the decrease experienced by the West Midlands (over 3,000) is four times that of the decrease experience by the North East.

Map 2.2: Changes in National Rank ID 2004 and 2007: Barriers to Housing & Services Domain



A large majority (85%) of LSOAs in the region have decreased in rank since 2004, as highlighted below. The change is particularly apparent in the Birmingham & Black Country region where just over 96% of its LSOAs have decreased in rank.

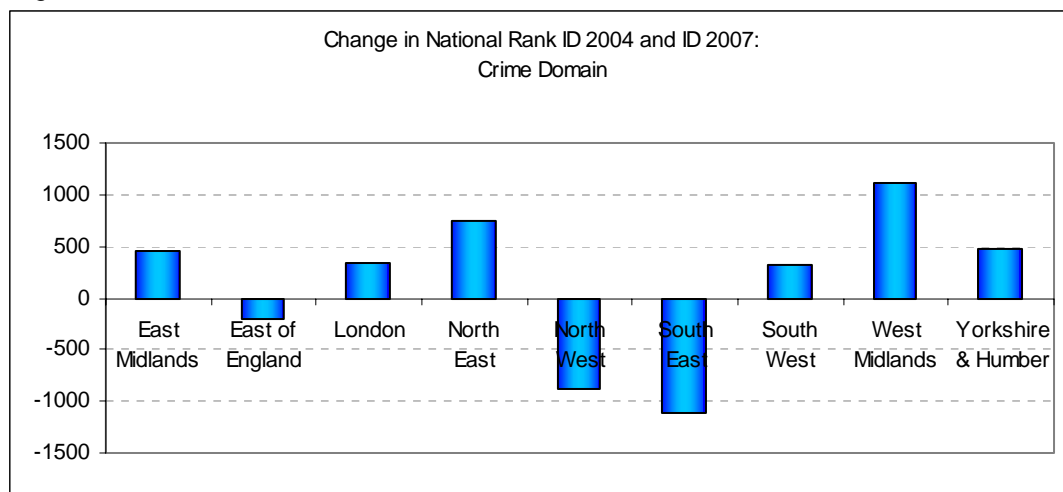
Across the region there are 15 LSOAs which have changed rank by 50% or more, with the biggest change occurring in the ward of Essington in South Staffordshire which has seen its rank fall by 24,020 places.

The areas which appear to have shown the greatest improvement in rank are in Telford & Wrekin, Worcestershire and Warwickshire.

The Barriers to Housing & Services Domain has easily shown the most change experienced in the Region compared to any of the other domains.

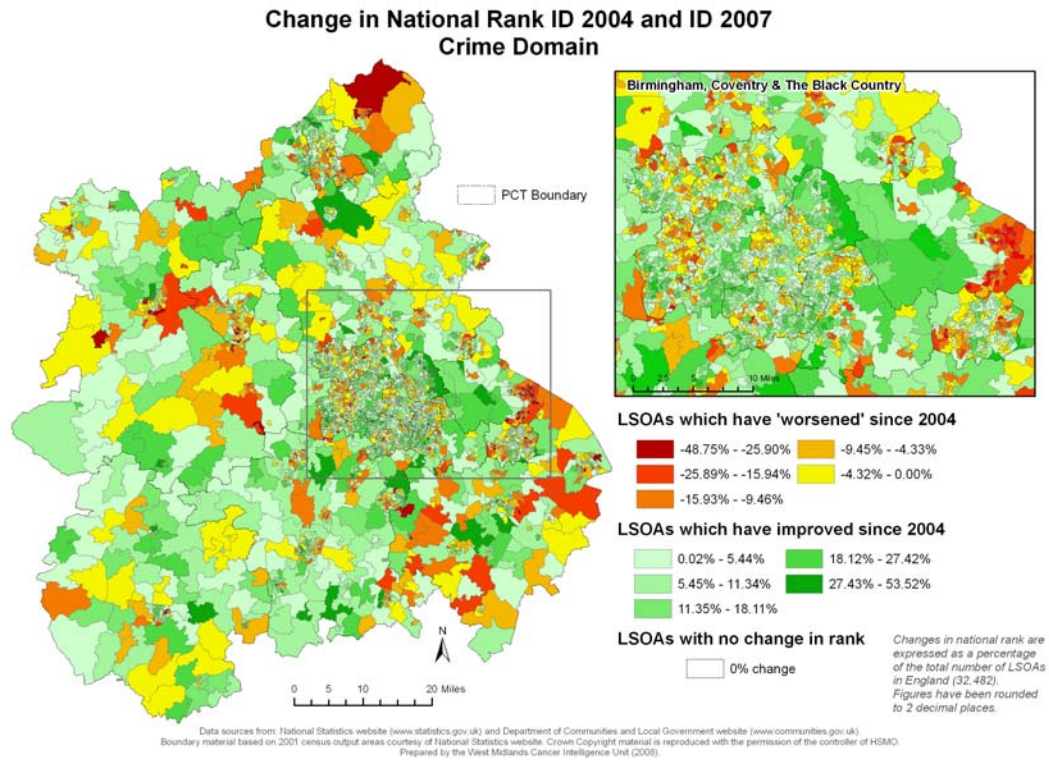
2.4 Crime Domain

Figure 2.3: Average change in rank per LSOA for Crime Domain by Government Office Region



The West Midlands is one of six regions to have shown improvement for the in average rank change per LSOA within the country for the crime domain. The West Midlands has, however, shown the greatest improvement in the country.

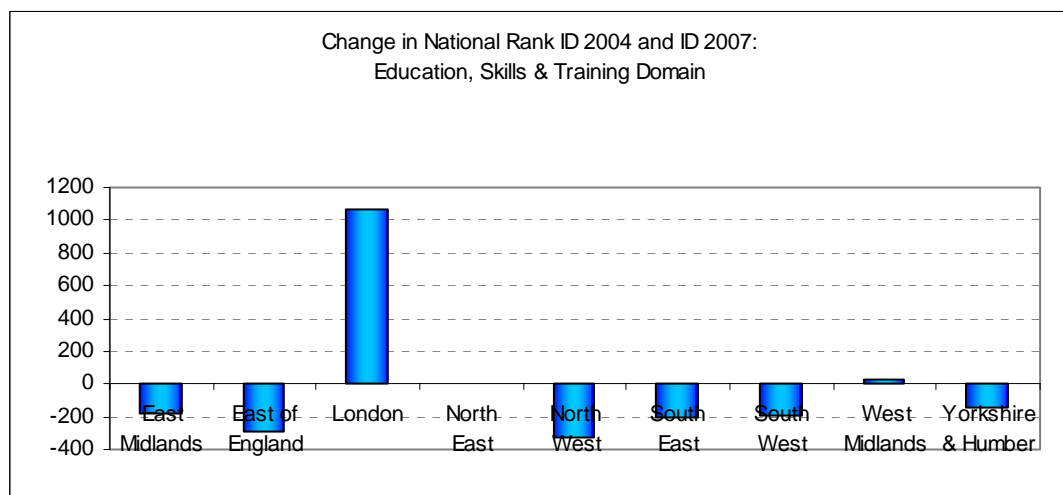
Map 2.3: Changes in National Rank ID 2004 and 2007: Crime Domain



The majority of the region has seen its LSOAs improve in rank, as shown above: 63% of LSOAs have shown an improvement in rank. In the Birmingham & Black Country region some 72% of LSOAs have shown an improvement in rank.

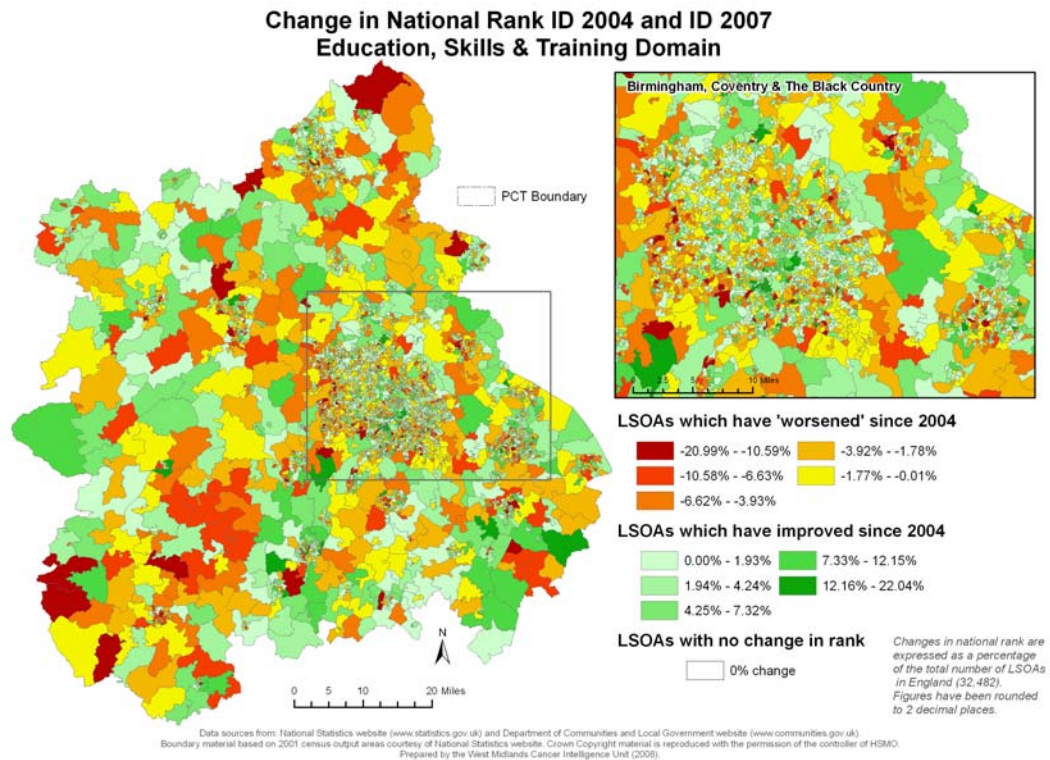
2.5 Education, Skills and Training Domain

Figure 2. 4: Average change in rank per LSOA for Education, Skills & Training Domain by Government Office Region



The West Midlands is one of only two regions – along with London – to have shown an improvement in this domain. However, the West Midlands' increase in rank of 26.08 is dwarfed by that of London.

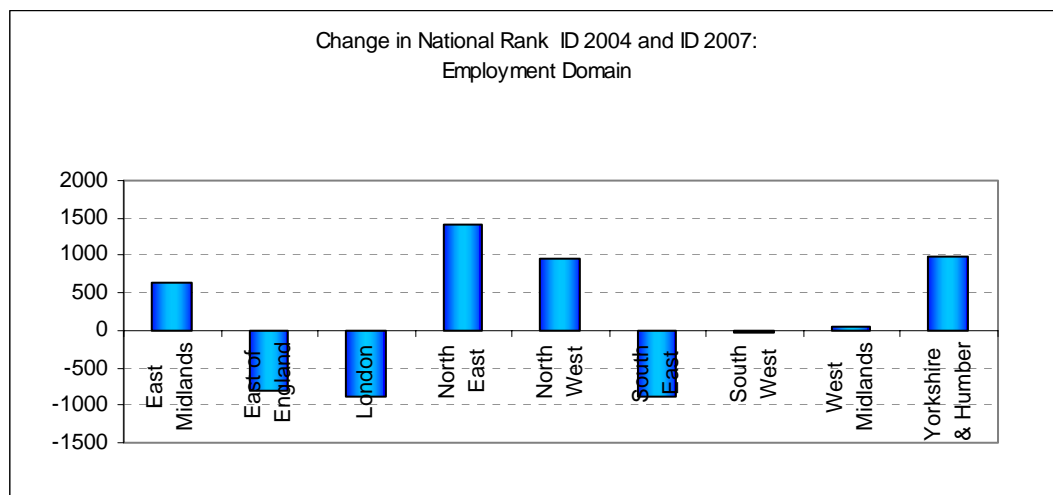
Map 2.4: Changes in National Rank ID 2004 and 2007: Education, Skills & Training Domain



The pattern across the region is fairly even with approximately half of its LSOAs experiencing an improvement and half which have seen a decrease in rank; this pattern is also reflected within the Birmingham & Black Country conurbation.

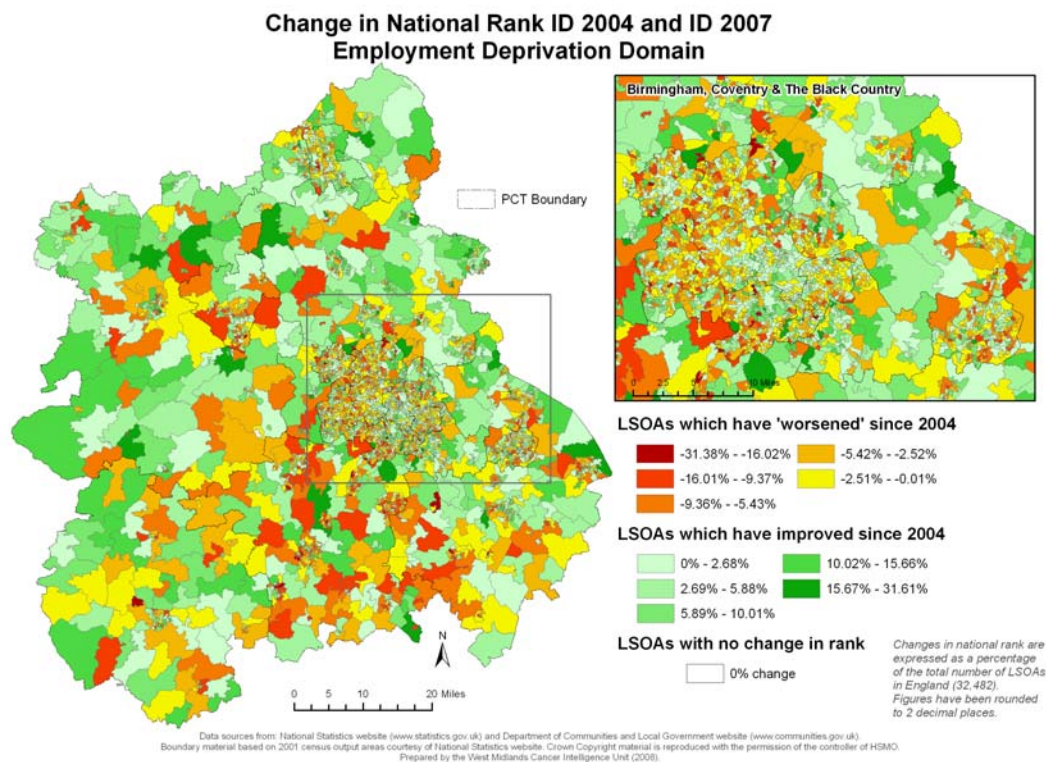
2.6 Employment Domain

Figure 2.5: Average change in rank per LSOA for Employment Deprivation Domain by Government Office Region



The West Midlands is one of five regions to have seen an improvement in rank, albeit a relatively small increase (51.86) compared to that of Yorkshire & Humber, the North West, North East and East Midlands.

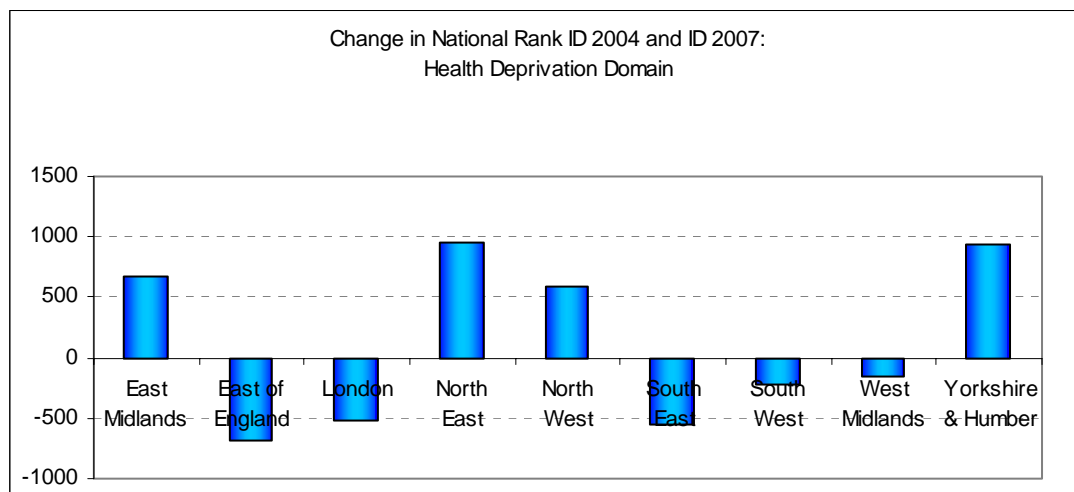
Map 2.5: Changes in National Rank ID 2004 and 2007: Employment Domain



The distribution of LSOAs which have changed within the region appears to be fairly even with 49% of LSOAs having improved and 50.9% which have decreased in rank since 2004. A similar pattern is also observed within Birmingham & The Black Country.

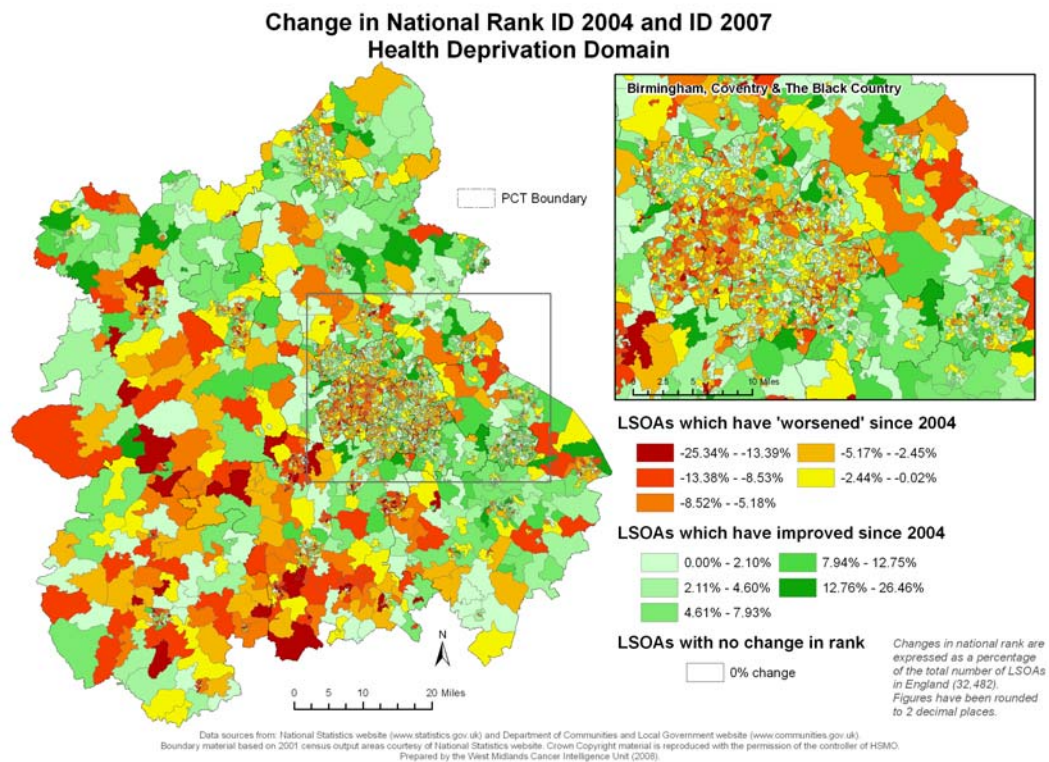
2.7 Health Deprivation & Disability Domain

Figure 2.6: Average change in rank per LSOA for Health Deprivation Domain by Government Office Region



In the Health domain the West Midlands has shown an average decrease in rank per LSOA, although of the five regions which have shown a decrease the West Midlands has experienced the least decline.

Map 2.6: Changes in National Rank ID 2004 and 2007: Health Deprivation Domain

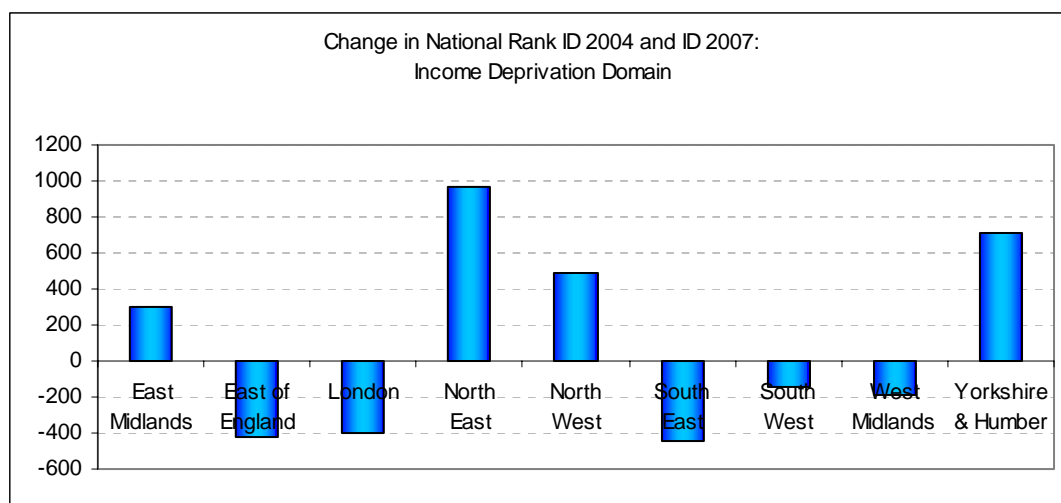


A small majority (53%) of LSOAs across the region have decreased since 2004 for the Health Domain; in the Birmingham and Black Country conurbation this is increased to just over 60%.

Some of the region's rural areas, in particular Warwickshire and South Staffordshire, appear to have shown the most improvement by LSOA.

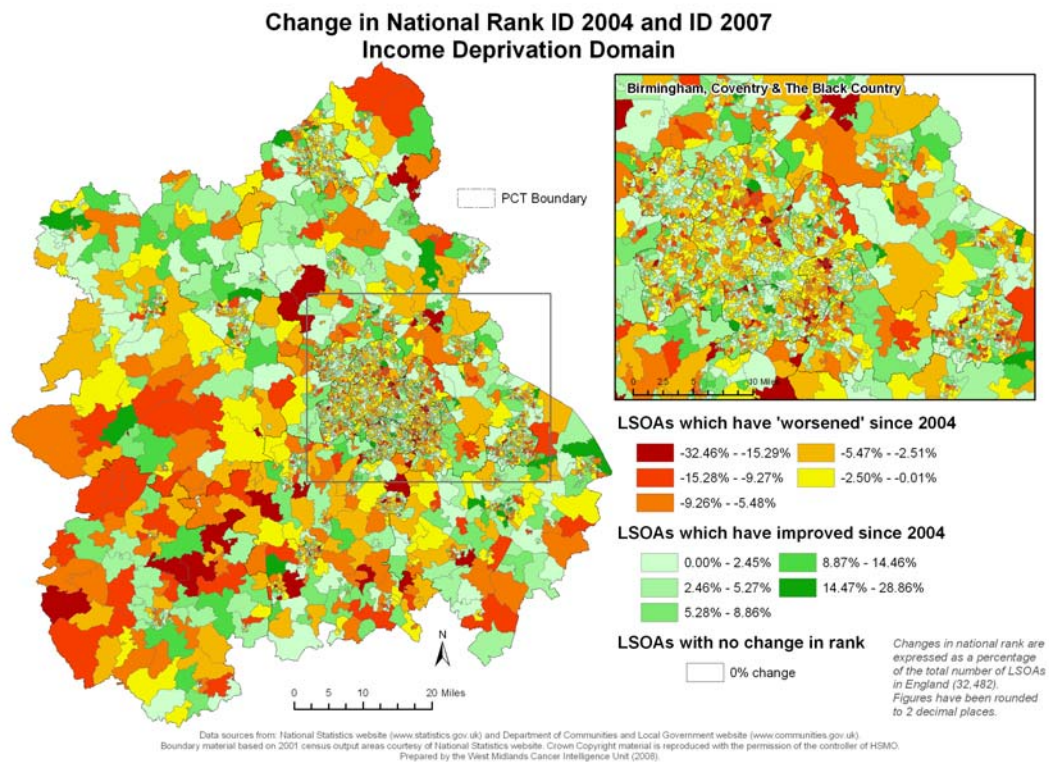
2.8 Income Deprivation Domain

Figure 2.7: Average change in rank per LSOA for Income Deprivation Domain by Government Office Region



The average rank change, per LSOA, for the West Midlands has seen a decrease of 187.2, and the West Midlands is one of five regions to have shown a decrease. The North East and Yorkshire & Humber have shown the greatest improvement on average per LSOA.

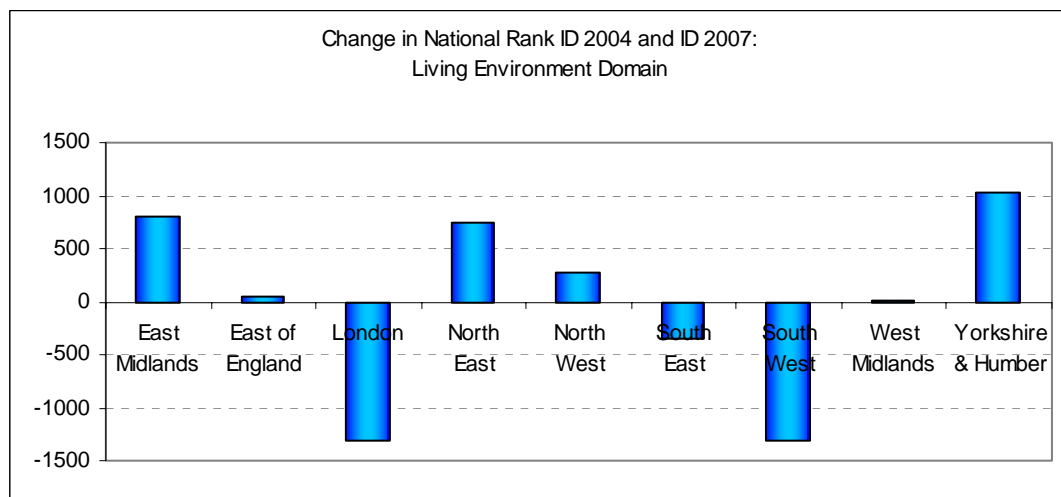
Map 2.7: Changes in National Rank ID 2004 and 2007: Income Deprivation Domain



Once again the pattern across the region appears to be fairly even with just over half (55%) of all LSOAs in the West Midlands having seen a decrease in rank, whilst 44.9% have seen an improvement in rank.

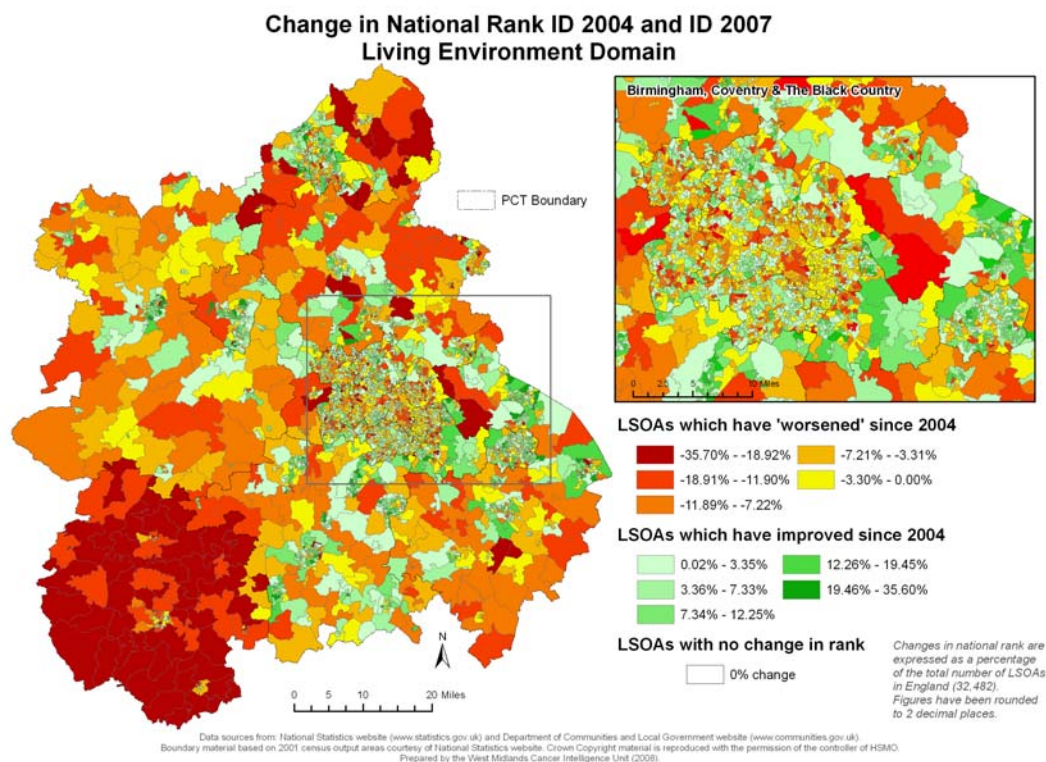
2.9 Living Environment Domain

Figure 2. 8: Average change in rank per LSOA for Living Environment Domain by Government Office Region



The West Midlands is one of five regions, in terms of overall change in rank per LSOA, to have shown some improvement, although this is a relatively small increase. The South West and London have both shown the steepest decline.

Map 2.8: Changes in National Rank ID 2004 and 2007: Living Environment Domain



The distribution of LSOAs and their respective changes in rank across the region is dominated by those in Herefordshire where 95% of its LSOAs are amongst those to have shown the steepest decline in rank. North Staffordshire has also shown a notable decline in rank.

Despite this the distribution throughout the region is actually quite even – with 50.7% of LSOAs decreasing in rank and 49.25% which have improved.

The more rural areas appear to have worsened the most, with urban areas and their respective suburban areas showing the most improvement. This is apparent in areas such as Stoke, Coventry and Solihull.

2.10 Summary of average LSOA change in rank by GOR

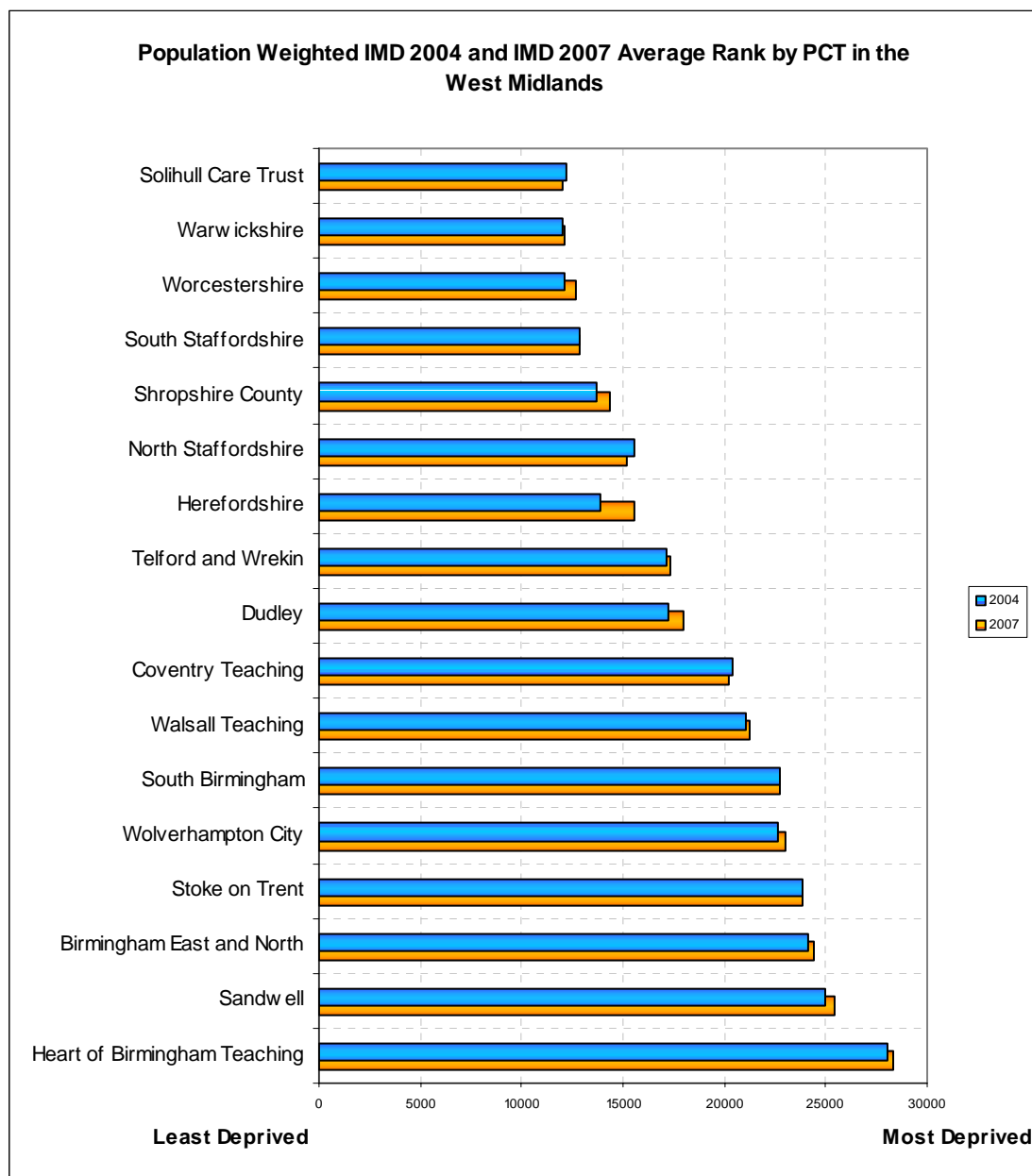
The table below summarises the findings in terms of average rank change per LSOA by Government Office Region:

Table 2.1: Summary table showing average change in rank per LSOA for all domains, by Government Office Region

	Overall IMD	Barriers to Housing & Services	Crime	Education, Skills & Training	Employment	Health Deprivation	Income	Living Environment
East Midlands	422.85	132.7218	459.61	-177.24	647.54	670.369	295.5769	808.74
East of England	-374.167	956.66	-201.526	-291.29	-794.19	-689.96	-426.859	52.415
London	-564.501	-90.73	343.01	1068.57	-873.459	-521.18	-405.293	-1308.04
North East	1099.77	-803.31	754.215	-2.87	1414.74	954.69	966.1123	736.98
North West	560.128	-238.84	-888.957	-322.1	953.145	591.69	486.4458	267.3445
South East	-531.368	979.62	-1110.91	-208.6	-892.198	-560.485	-444.777	-346.357
South West	-228.167	131.67	325.809	-196.6	-23.69	-221.195	-144.373	-1311.15
West Midlands	-286.458	-3209.61	1109.139	26.08	51.86	-151.179	-187.196	8.46
Yorkshire & Humber	942.58	1399.739	466.447	-145.8	990.225	942.37	714.6696	1022.327

Section Two – A Comparison of the Indices at PCT-Level within the West Midlands

Figure 2.9: Population-weighted average rank per LSOA for Index of Multiple Deprivation by PCT



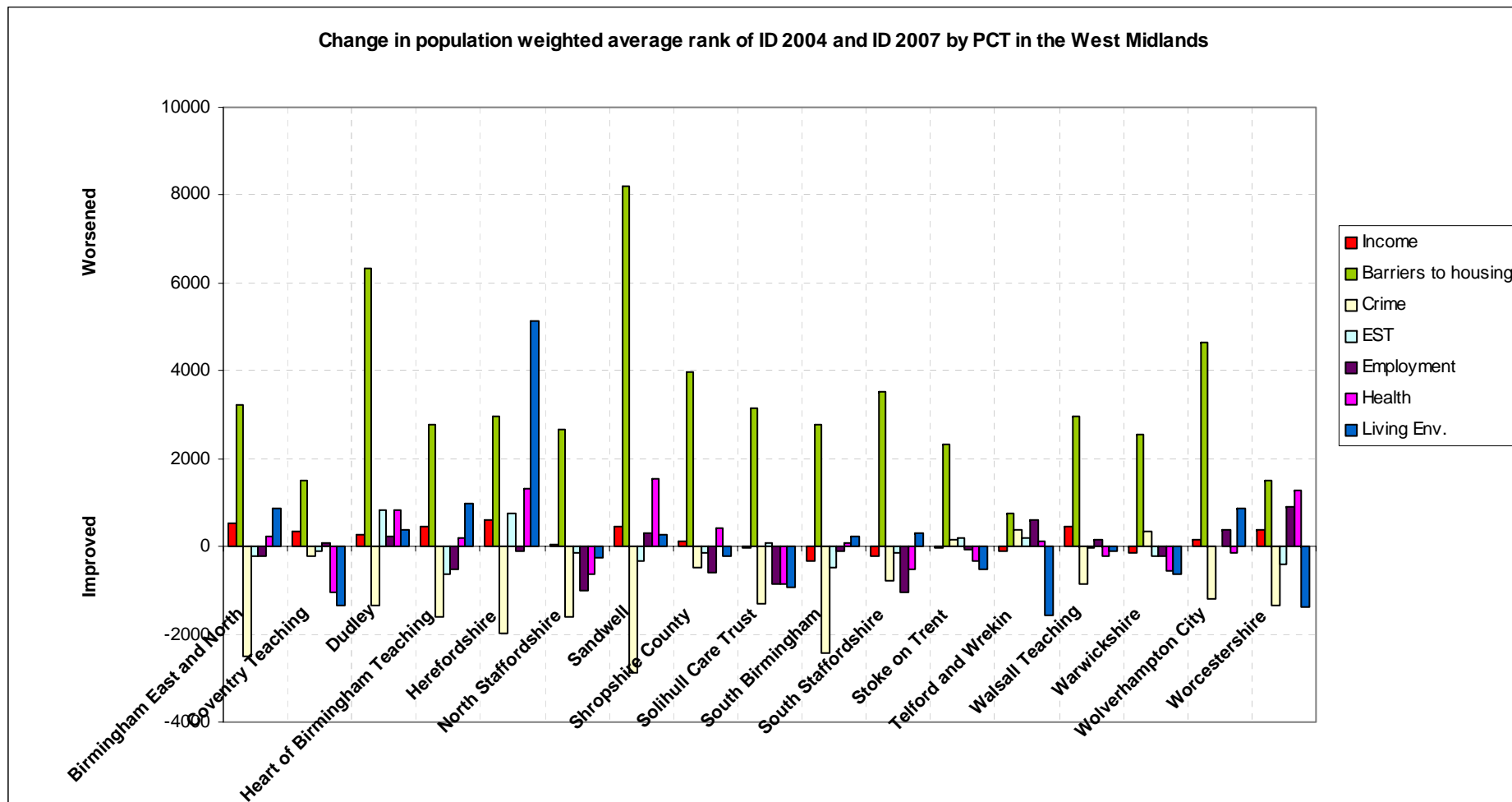
Herefordshire PCT has experienced the greatest change and indeed seen its average rank worsen the most.

Only four PCTs (South Birmingham, Solihull Care Trust, North Staffordshire and Coventry) have seen their average rank improve.

The top three most 'deprived' PCTs – Heart of Birmingham, Sandwell, and Birmingham East & North – have remained so for both 2004 and 2007 indices.

The figure below shows the rank change for each PCT per domain:

Figure 2.10: Change in population-weighted average rank per LSOA for all domains by PCT



The West Midlands' overall poor performance in the Barriers to Housing domain (Figure 2.10) is reflected by each PCT, which have all shown high levels of decline – most notably in Sandwell and Dudley. Even those PCTs which have shown good overall improvement (such as Solihull and North Staffordshire) have still shown to be deteriorating greatly in this domain.

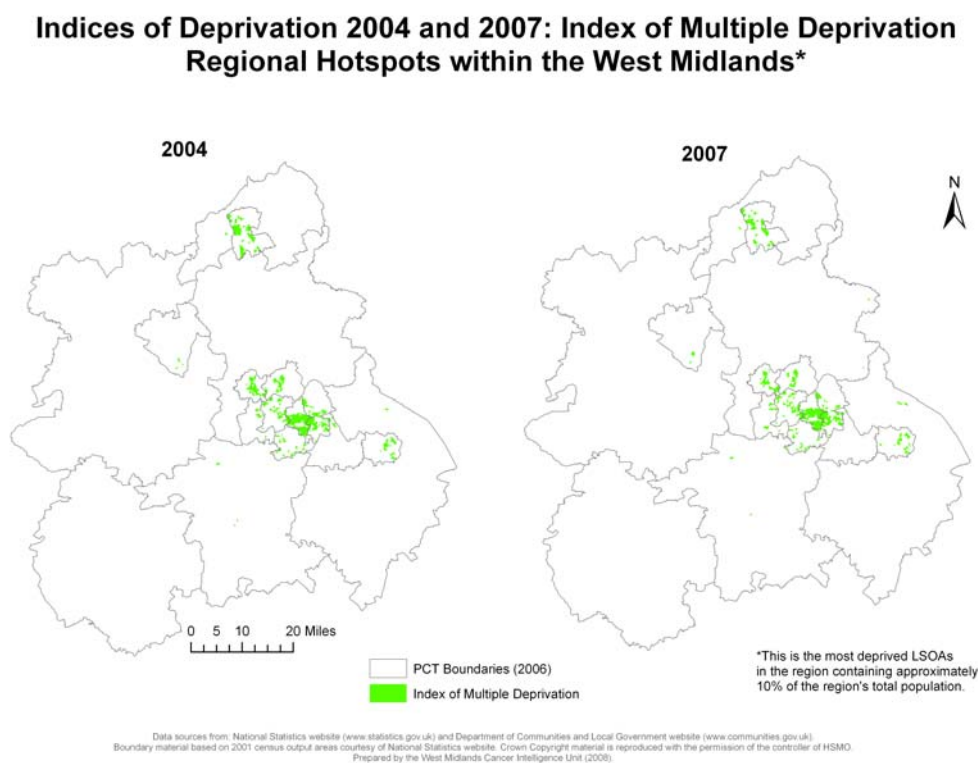
Hereford's overall poor performance can perhaps be attributed to its extremely poor performance, in the Living Environment domain - in which it has declined in rank by some 5,000. This is in stark contrast to the performance of the other PCTs in this domain.

The region's good performance in the Crime domain (Figure 2.8) is reflected by the fact that all but three PCTs have shown levels of improvement in this domain.

Section Three – Regional Hotspots

2.11 Index of Multiple Deprivation

Map 2.9: Indices of Deprivation 2004 and 2007: Index of Multiple Deprivation Regional Hotspots within the West Midlands



The 'hotspots' of deprivation in the region, for the overall IMD measure, have seen little change and are generally located in the Region's main urban areas (Birmingham and the Black Country, Coventry, Stoke).

Results are summarised below, where it is evident that Birmingham East & North has seen the biggest increase.

Solihull, Stoke-on-Trent, and Wolverhampton have shown the biggest decrease in percentage of 'hotspots' although the latter two remain in the top five.

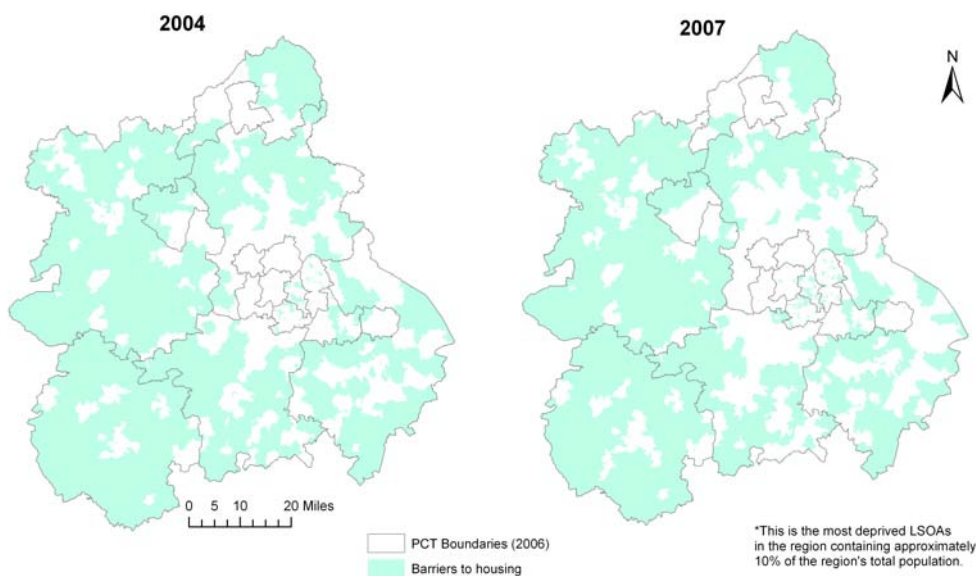
Table 2.2: Index of Multiple Deprivation 'hotspots' by PCT

PCT	% of LSOAs as 'hotspots' in 2004	% of LSOAs as 'hotspots' in 2007	% Increase/Decrease
Heart of Birmingham Teaching	55.15	53.33	-1.82
Birmingham East and North	27.95	32.28	4.33
Stoke on Trent	23.03	19.39	-3.64
Sandwell	14.97	17.65	2.67
Wolverhampton City	16.46	13.29	-3.16
Coventry Teaching	12.18	11.68	-0.51
Walsall Teaching	11.24	11.24	0.00
South Birmingham	10.36	10.36	0.00
Dudley	3.47	4.46	0.99
Telford and Wrekin	2.78	2.78	0.00
Warwickshire	0.30	0.90	0.60
Solihull Care Trust	3.76	0.75	-3.01
North Staffordshire	0.74	0.74	0.00
Worcestershire	0.83	0.55	-0.28
South Staffordshire	0.00	0.52	0.52
Herefordshire	0.00	0.00	0.00
Shropshire County	0.00	0.00	0.00

2.12 Barriers to Housing Domain

Map 2.10: Indices of Deprivation 2004 and 2007: Barriers to Housing Domain Regional Hotspots within the West Midlands

Indices of Deprivation 2004 and 2007: Barriers to Housing Domain Regional Hotspots within the West Midlands*



Data sources from: National Statistics website (www.statistics.gov.uk) and Department of Communities and Local Government website (www.communities.gov.uk).
 Boundary material based on 2001 census output areas courtesy of National Statistics website. Crown Copyright material is reproduced with the permission of the controller of HMSO.
 Prepared by the West Midlands Cancer Intelligence Unit (2008).

In stark contrast to the other Indices domains, the Barriers to Housing Domain's 'hot-spots' of deprivation are mainly located in the regions' more rural areas (especially Herefordshire and Shropshire)

Similarly to the other domains the Crime domain's hotspots are again mainly located within the Region's urban areas.

Proportionately, Stoke-on-Trent contains the most hotspots – as well as experiencing the biggest increase – whilst there are notable hotspots in Birmingham, Coventry, Telford, Wolverhampton and Solihull.

For both 2004 and 2007 small pockets are fully distributed throughout the region, with all PCTs containing at least one LSOA identified as a hotspot. This trend is only apparent for the Crime Domain.

The most noticeable change has occurred in Sandwell which has seen the by far the largest reduction in the number of crime hotspots.

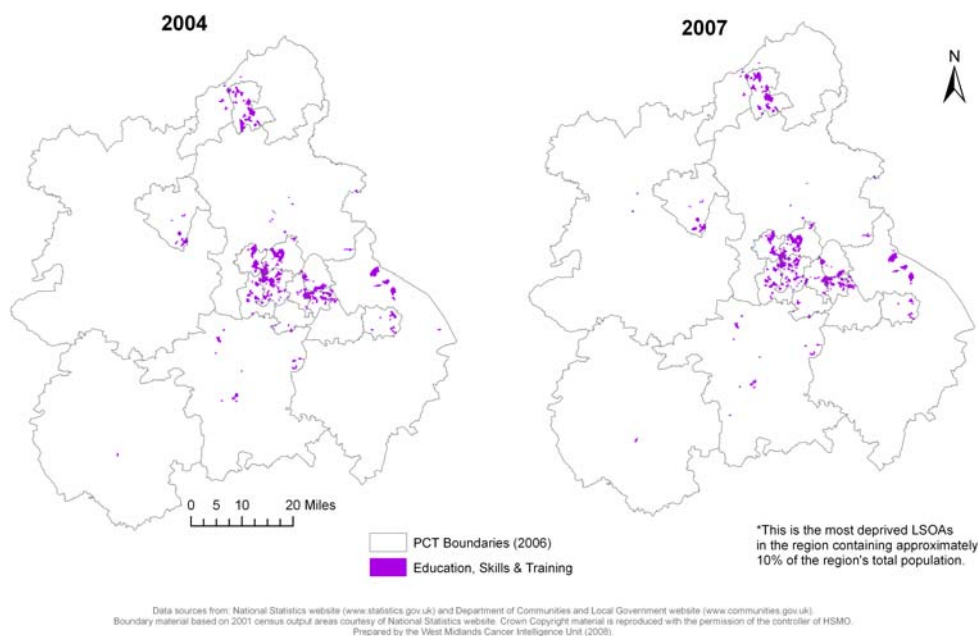
Table 2.4: Crime domain 'hotspots' by PCT

PCT	% of LSOAs as 'hotspots' in 2004	% of LSOAs as 'hotspots' in 2007	% Increase/Decrease
Stoke on Trent	20.00	26.06	6.06
Birmingham East and North	27.56	25.98	-1.57
Coventry Teaching	21.32	24.87	3.55
Telford and Wrekin	13.89	19.44	5.56
Wolverhampton City	18.99	17.09	-1.90
Heart of Birmingham Teaching	20.00	15.76	-4.24
Solihull Care Trust	12.03	15.04	3.01
South Birmingham	8.56	9.01	0.45
Sandwell	18.18	8.02	-10.16
Warwickshire	1.80	6.31	4.50
Worcestershire	4.99	4.43	-0.55
Walsall Teaching	6.51	4.14	-2.37
Dudley	1.98	2.97	0.99
South Staffordshire	2.86	2.60	-0.26
North Staffordshire	3.70	2.22	-1.48
Herefordshire	3.45	1.72	-1.72
Shropshire County	0.52	1.04	0.52

2.14 Education, Skills & Training Domain

Map 2.12 - Indices of Deprivation 2004 and 2007: Education, Skills & Training Domain
Regional Hotspots within the West Midlands

Indices of Deprivation 2004 and 2007: Education, Skills & Training Domain Regional Hotspots within the West Midlands*



There has been little noticeable change in the regional hotspots for this domain with main hotspot areas being Sandwell, Walsall, Stoke and parts of Birmingham. Smaller pockets are distributed throughout the region and –unlike 2004 – all PCTs now contain at least some LSOAs identified as hotspots.

Walsall has seen the biggest increase in terms of hotspots, whilst Coventry has seen the biggest decrease.

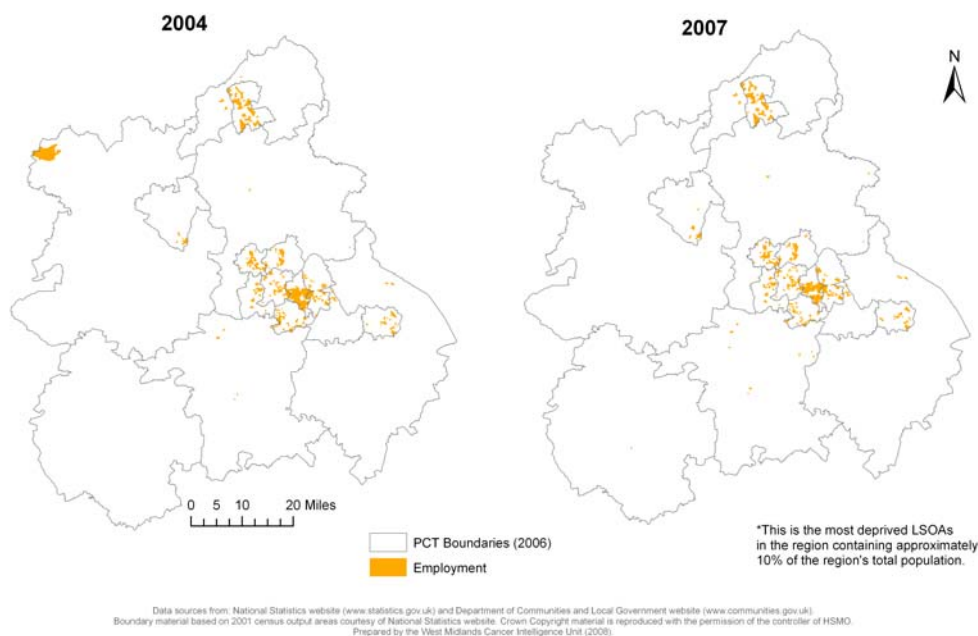
Table 2.5: 'Education, Skills & Training domain 'hotspots' by PCT

PCT	% of LSOAs as 'hotspots' in 2004	% of LSOAs as 'hotspots' in 2007	% Increase/Decrease
Sandwell	26.20	27.27	1.07
Walsall Teaching	20.71	24.85	4.14
Stoke on Trent	21.82	22.42	0.61
Birmingham East and North	22.83	22.05	-0.79
Wolverhampton City	20.25	18.35	-1.90
Telford and Wrekin	10.19	12.96	2.78
Solihull Care Trust	11.28	12.78	1.50
Heart of Birmingham Teaching	11.52	10.91	-0.61
Dudley	8.42	9.41	0.99
Worcestershire	5.54	5.54	0.00
Coventry Teaching	7.61	5.08	-2.54
North Staffordshire	3.70	3.70	0.00
Warwickshire	3.60	3.30	-0.30
South Staffordshire	3.38	2.86	-0.52
South Birmingham	3.15	2.70	-0.45
Herefordshire	1.72	2.59	0.86
Shropshire County	0.00	1.04	1.04

2.15 Employment Deprivation Domain

Map 2.13: Indices of Deprivation 2004 and 2007: Employment Deprivation Domain Regional Hotspots within the West Midlands

Indices of Deprivation 2004 and 2007: Employment Deprivation Domain Regional Hotspots within the West Midlands*



The 'hot-spots' for the Employment domain are again mainly located in the region's main urban areas – most notably in Birmingham whilst there is a large proportion also located in Stoke.

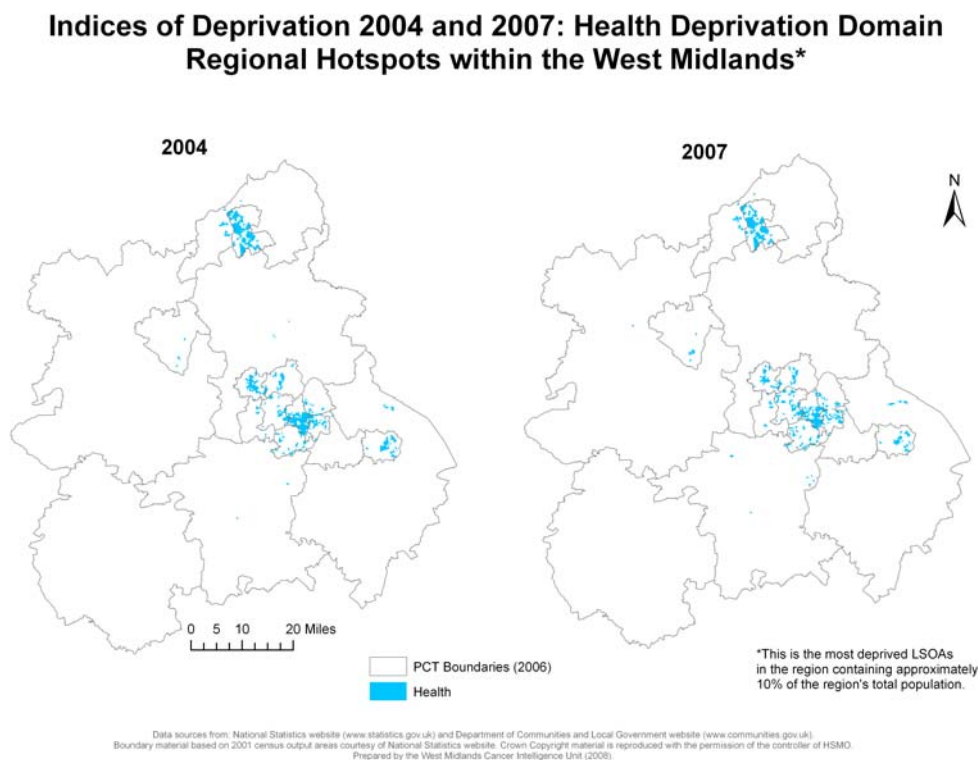
Despite seeing the largest decrease, Heart of Birmingham Teaching still contains the largest proportion of hotspots.

Table 2.6: Employment domain 'hotspots' by PCT

PCT	% of LSOAs as 'hotspots' in 2004	% of LSOAs as 'hotspots' in 2007	% Increase/Decrease
Heart of Birmingham Teaching	49.70	40.00	-9.70
Stoke on Trent	30.91	30.30	-0.61
Birmingham East and North	19.69	20.08	0.39
Wolverhampton City	16.46	18.35	1.90
South Birmingham	17.12	16.22	-0.90
Sandwell	12.83	13.90	1.07
Walsall Teaching	11.83	13.61	1.78
Coventry Teaching	11.68	11.17	-0.51
Dudley	6.44	6.93	0.50
Telford and Wrekin	3.70	5.56	1.85
Solihull Care Trust	4.51	4.51	0.00
Worcestershire	1.11	2.49	1.39
North Staffordshire	2.96	2.22	-0.74
Warwickshire	0.60	0.90	0.30
Herefordshire	0.00	0.86	0.86
South Staffordshire	0.52	0.78	0.26
Shropshire County	0.52	0.00	-0.52

2.16 Health Deprivation Domain

Map 2.14: Indices of Deprivation 2004 and 2007: Health Deprivation Domain Regional Hotspots within the West Midlands



The biggest proportions of hotspot areas for the Health Domain are clearly evident in Stoke and Heart of Birmingham Teaching, whilst there are other hotspots located in the Black Country (most notably Sandwell, Wolverhampton and Walsall) as well as smaller pockets in Telford and North Staffordshire.

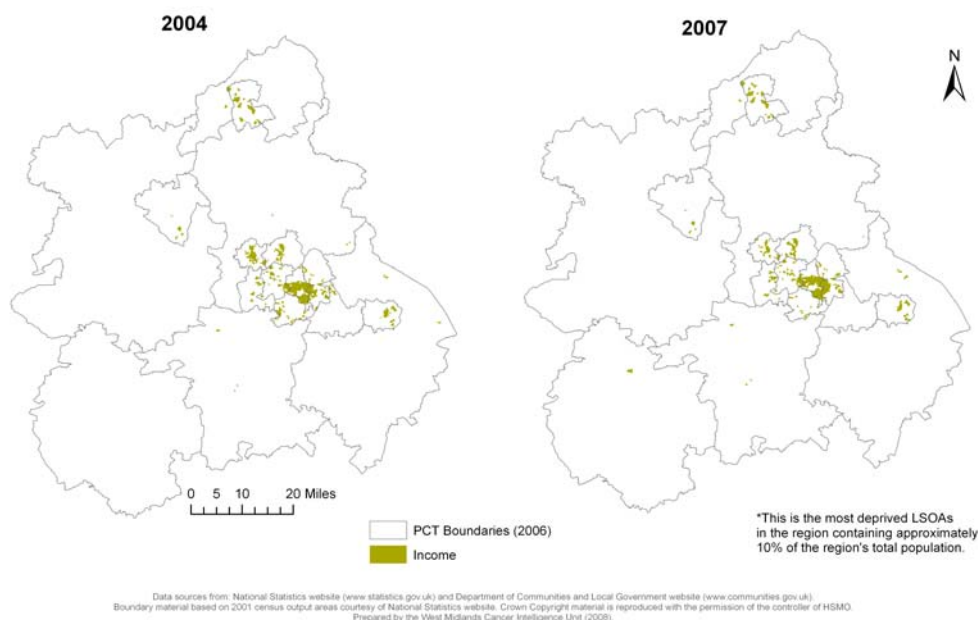
Table 2.7: Health deprivation domain 'hotspots' by PCT

PCT	% of LSOAs as 'hotspots' in 2004	% of LSOAs as 'hotspots' in 2007	% Increase/Decrease
Stoke on Trent	44.85	40.61	-4.24
Heart of Birmingham Teaching	44.24	38.18	-6.06
Birmingham East and North	19.29	20.08	0.79
Sandwell	8.02	18.72	10.70
South Birmingham	13.51	16.67	3.15
Coventry Teaching	18.27	13.71	-4.57
Wolverhampton City	18.99	12.66	-6.33
Walsall Teaching	9.47	9.47	0.00
North Staffordshire	6.67	6.67	0.00
Telford and Wrekin	2.78	4.63	1.85
Dudley	1.98	2.48	0.50
Worcestershire	0.55	1.66	1.11
Solihull Care Trust	0.75	1.50	0.75
Warwickshire	1.20	1.20	0.00
Shropshire County	0.00	0.52	0.52
Herefordshire	0.00	0.00	0.00
South Staffordshire	0.52	0.00	-0.52

2.17 Income Deprivation Domain

Map 2.15: Indices of Deprivation 2004 and 2007: Income Deprivation Domain Regional Hotspots within the West Midlands

Indices of Deprivation 2004 and 2007: Income Deprivation Domain Regional Hotspots within the West Midlands*



The main concentration of the Income Deprivation Domain's hotspots are located in Birmingham, especially in Heart of Birmingham Teaching in which well over half of its LSOAs have been identified as hotspots. Other smaller pockets are located in the Black Country, Coventry, Stoke-on-Trent and Telford.

The biggest change has occurred in Solihull in which there are now no hotspots.

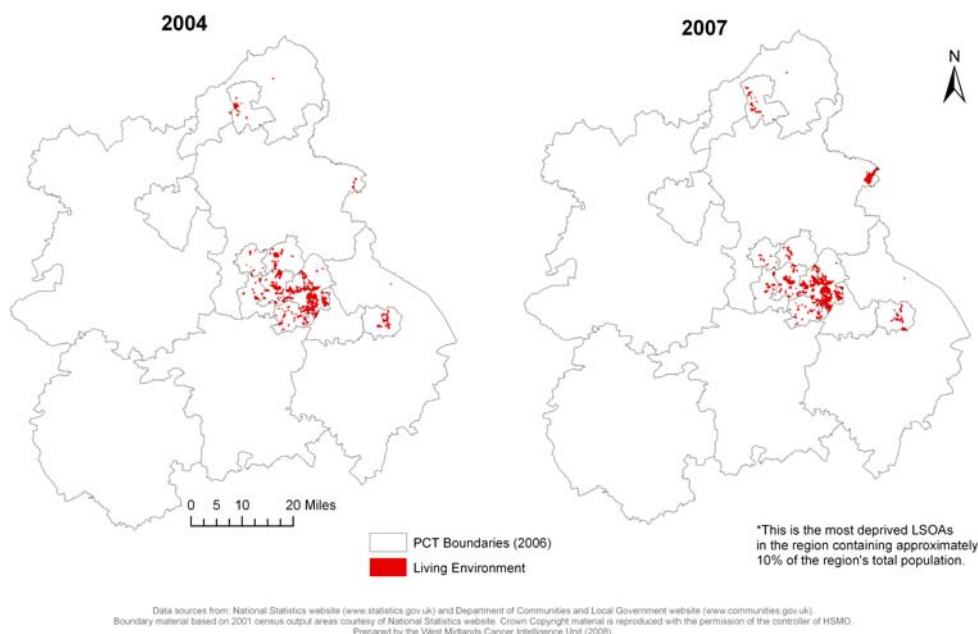
Table 2.8: Income deprivation domain 'hotspots' by PCT

PCT	% of LSOAs as 'hotspots' in 2004	% of LSOAs as 'hotspots' in 2007	% Increase/Decrease
Heart of Birmingham Teaching	57.58	60.61	3.03
Birmingham East and North	25.20	27.17	1.97
Wolverhampton City	18.99	15.82	-3.16
Sandwell	13.90	15.51	1.60
Walsall Teaching	13.02	14.79	1.78
Stoke on Trent	13.33	14.55	1.21
Coventry Teaching	13.20	11.68	-1.52
South Birmingham	11.26	8.11	-3.15
Dudley	4.95	5.94	0.99
Telford and Wrekin	6.48	5.56	-0.93
Warwickshire	0.90	0.90	0.00
Herefordshire	0.00	0.86	0.86
Worcestershire	0.83	0.83	0.00
North Staffordshire	1.48	0.74	-0.74
South Staffordshire	0.78	0.26	-0.52
Shropshire County	0.00	0.00	0.00
Solihull Care Trust	6.02	0.00	-6.02

2.18 Living Environment Domain

Map 2.16: Indices of Deprivation 2004 and 2007: Living Environment Domain Regional Hotspots within the West Midlands

Indices of Deprivation 2004 and 2007: Living Environment Domain Regional Hotspots within the West Midlands*



The biggest hotspots for the Living Domain are mainly concentrated in Birmingham (HoB and East & North PCTs) with other pockets to be found in the Black Country, Stoke-on-Trent, and in Staffordshire (notably in Burton which has seen an increase).

Sandwell has seen the biggest decrease yet still contains the third highest proportion of hotspots.

Table 2.9: Living environment domain 'hotspots' by PCT

PCT	% of LSOAs as 'hotspots' in 2004	% of LSOAs as 'hotspots' in 2007	% Increase/Decrease
Heart of Birmingham Teaching	44.85	48.48	3.64
Birmingham East and North	40.94	45.28	4.33
Sandwell	24.60	16.58	-8.02
South Birmingham	18.02	13.51	-4.50
Stoke on Trent	4.85	10.91	6.06
Coventry Teaching	11.68	9.64	-2.03
Wolverhampton City	4.43	5.70	1.27
Dudley	4.95	5.45	0.50
Walsall Teaching	10.65	5.33	-5.33
South Staffordshire	2.08	3.38	1.30
North Staffordshire	1.48	0.74	-0.74
Warwickshire	0.30	0.30	0.00
Herefordshire	0.00	0.00	0.00
Shropshire County	0.00	0.00	0.00
Solihull Care Trust	0.00	0.00	0.00
Telford and Wrekin	0.00	0.00	0.00
Worcestershire	0.00	0.00	0.00

References and further reading

The English Indices of Deprivation 2007

Data and publications available from:

<http://www.communities.gov.uk/communities/neighbourhoodrenewal/deprivation/deprivation07/>

The English Indices of Deprivation 2004

Data and publications available from: <http://www.communities.gov.uk/archived/general-Content/communities/indicesofdeprivation/216309/>