



Options for the 2004 MFF

Final Report

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1. Introduction

In 1996 IER was commissioned to review the procedures used by the Department of Health to assess the impact of labour market factors on NHS staffing costs. The results of IER research were published in Wilson *et al.* (1996). The methodology developed in this review has subsequently formed the basis of annual estimates of the staff Market Forces Factor (MFF) used by the NHS in allocating funds to Health Authorities (HAs). In 2001, the Department of Health decided that it was opportune to reflect further upon the approach used. The results of this review are contained in Wilson *et al.* (2002). Refinements suggested in this review have been incorporated into subsequent annual estimates of the MFF. Values for the MFF are based upon estimates of Standardised Spatial Wage Differentials (SSWDs) from the New Earnings Survey Panel Data Set (NESPD).

The Department of Health is proposing to review the staff component of the Market Forces Factor for two main reasons. Firstly, the availability of more detailed geographical identifiers within the NES raises the possibility of producing estimates for more detailed geographical areas or for providing estimates that more closely align with the administrative areas used for the organisation of the NHS. Secondly, the introduction of Payment by Results is accompanied by the introduction of a national tariff that is paid for each procedure. These national tariffs are adjusted by the MFF to give a local price that is payable to each trust. It is therefore important to ensure that the MFF is as fair as possible to Trusts in order to ensure they are not at undue risk of being in deficit.

This report presents results from a programme of work that presents different options for estimates of SSWDs based upon the NESPD. The analysis utilises individual level data from the 2003 vintage of the New Earnings Survey Panel Data Set (NESPD03). This data was accessed on site at the Office for National Statistics. This does not imply ONS' acceptance of the validity of the methods used to obtain these figures, or of any analysis of the results. All statistical results remain Crown Copyright.

2. Methodological Approach

The estimation of SSWDs as advocated by the General Labour Market Approach is generally accepted as the preferred methodological approach to estimating the size of Area Cost Adjustments. The present research does therefore not consider the relative merits of this approach compared to other alternative methodologies, namely the Specific Cost Approach (SCA).

The methodology used in the estimation of SSWDs for the staff market forces factors is outlined in Wilson *et al* (2002). The earnings equations used to estimate the SSWDs have now been re-estimated utilising the 2003 vintage of the NESPD. The analysis is conducted only upon full time employees in the private sector whose pay was unaffected by absence during the reference week of the survey. Annual estimates of SSWDs have been produced for the period 2001 to 2003. To limit the degree to which sampling variability may affect the stability of annual estimates, estimates of SSWDs are presented in terms of three-year averages.

A smoothing mechanism has been applied to the SSWDs to overcome the problems associated with cliff edges. The SSWDs have been smoothed using the methodology outlined in Wilson *et al.* (2002). Six variants were estimated, with results presented both unweighted and weighted by population. The six variants are:

- Mean of neighbouring areas;
- Mean of neighbouring areas weighted by length of common boundary;
- Mean of neighbouring areas, weighted by distance between population-weighted centroids of neighbouring areas;
- Mean of neighbouring areas, weighted by the square of distance between population-weighted centroids of neighbouring areas;
- Mean of neighbouring areas, weighted by the square root of distance between population-weighted centroids of neighbouring areas;

- Mean weighted by distance between population-weighted centroids not restricted to neighbouring areas.

Although the results are not presented in this report, areas of Wales and Scotland have been incorporated into the analysis. The smoothed estimates therefore take into account the effects of adjacent areas separated by national boundaries. Extending the coverage of the analysis to Great Britain, the full set of NES areas available increases to 173, with Wales consisting of 22 NES Areas and Scotland consisting of 32 NES Areas. The numbers of geographical areas within Wales and Scotland however have been reduced to 14 and 20 respectively due to sample size considerations.

Presentation of Results

Four sets of results are presented graphically within the main body of the report. The first set of results in each section relates to the 'unadjusted' SSWDs derived from the regression results. The second set of results relate the currently preferred approach of weighted averaging of own and neighbouring areas' compensating differentials, the weights depending upon population size and distance between areas. Population weighting ensures that more populous areas exert greater influence than areas of small populations. Distance weighting ensures that greater weight is given to nearby areas and allows for a greater deterrence effect of distance on commuting to job opportunities.

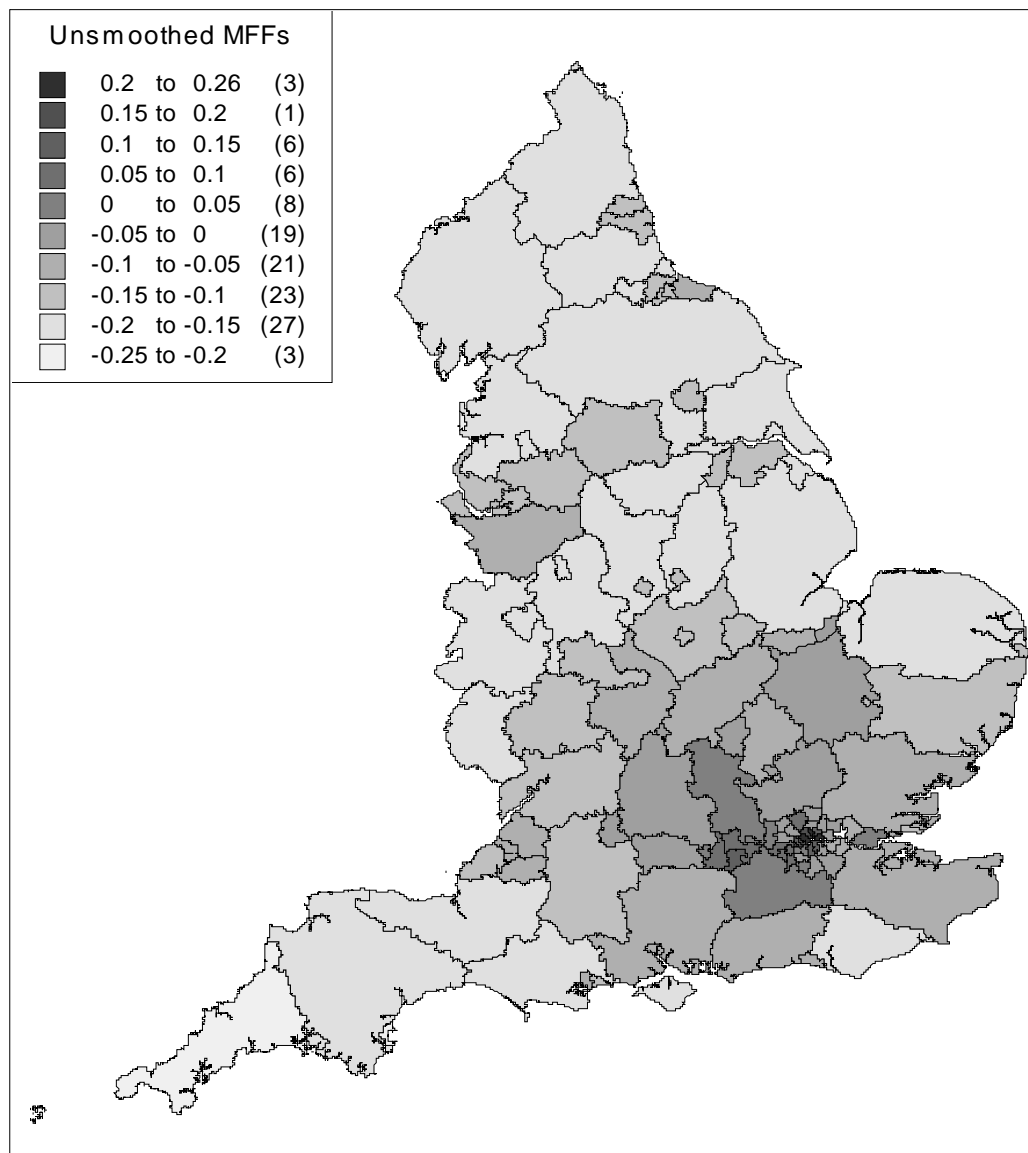
The third and fourth options then present results based upon more 'aggressive' smoothing options. The third option presents smoothed results, where the weights depend upon population size and the square root of distance of neighbouring areas. The fourth option presents smoothed results where the weights depend upon population size and distance, but does not restrict the smoothing process to neighbouring areas. The results based upon the other smoothing methodologies are presented in the technical annexes at the end of the report. To ensure compliance with the access agreement for the NESPD, full regression results are not presented.

The remainder of this report is structured as follows. Section 1 provides SSWDs based upon the 118 NES Areas. Section 2 presents SSWDs for each of the 303 Primary Care Organisations (PCOS). Section 3 presents SSWDs for merged health geographies. Finally, Section 4 provides SSWDs for specific Trust sites based on interpolated SSWD values generated by a contouring process.

Section 1: Updating the Existing Methodology

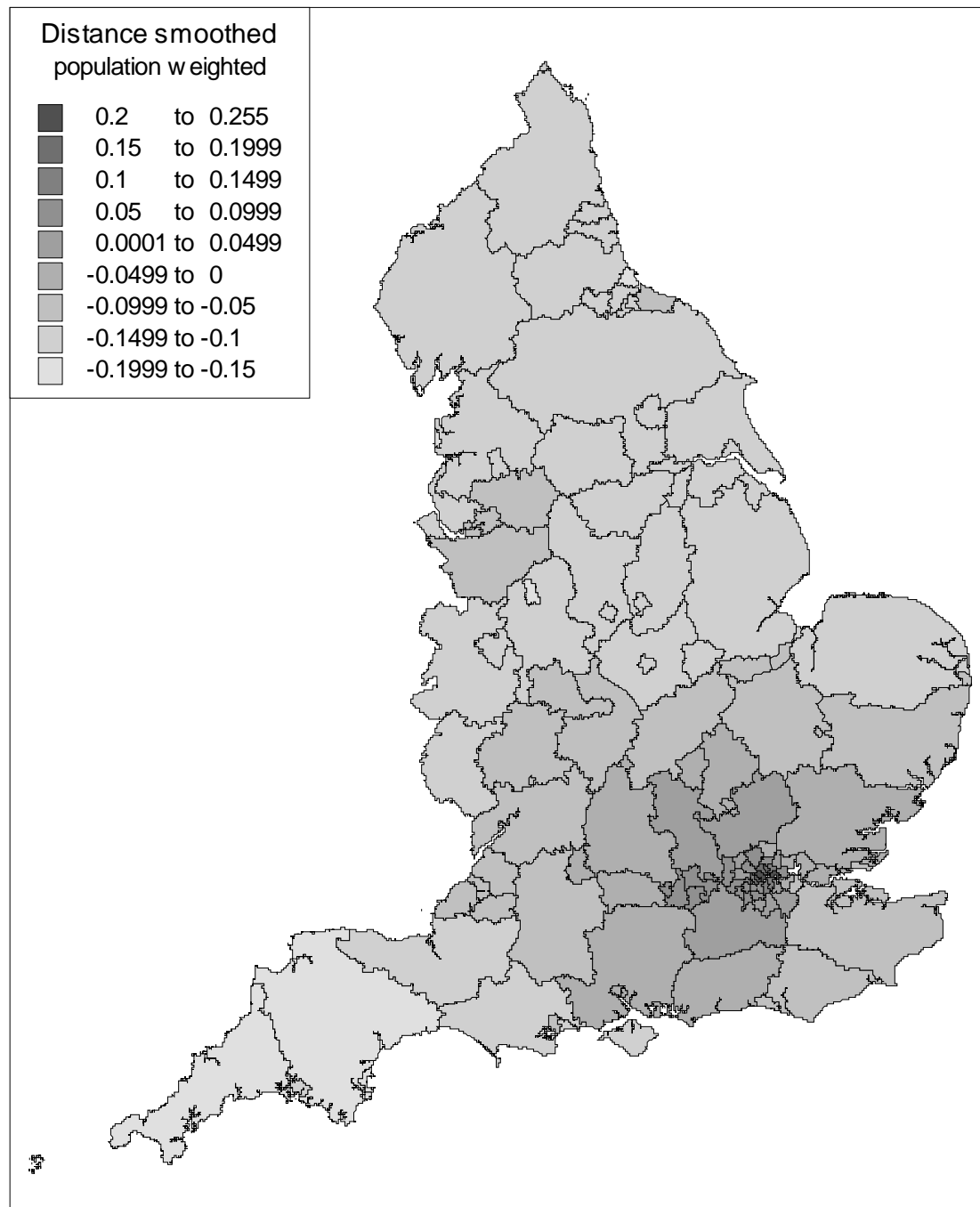
This section describes revised econometric estimates of the Standardised Spatial Wage Differentials (SSWDs) based upon the 2003 vintage of the New Earnings Survey Panel Data Set (NESPD03). Area definitions currently utilised within the New Earnings Survey in the estimation of SSWDs are based upon the 1998 definitions of counties and unitary authorities. The results will be based upon the NES Areas for England only (117). Estimates are based upon 3 year averages derived from the regression analysis of 2001, 2002 and 2003 NES data. Full results are presented in Table A1.

Figure 1.1: SSWDs for NES Areas – unsmoothed



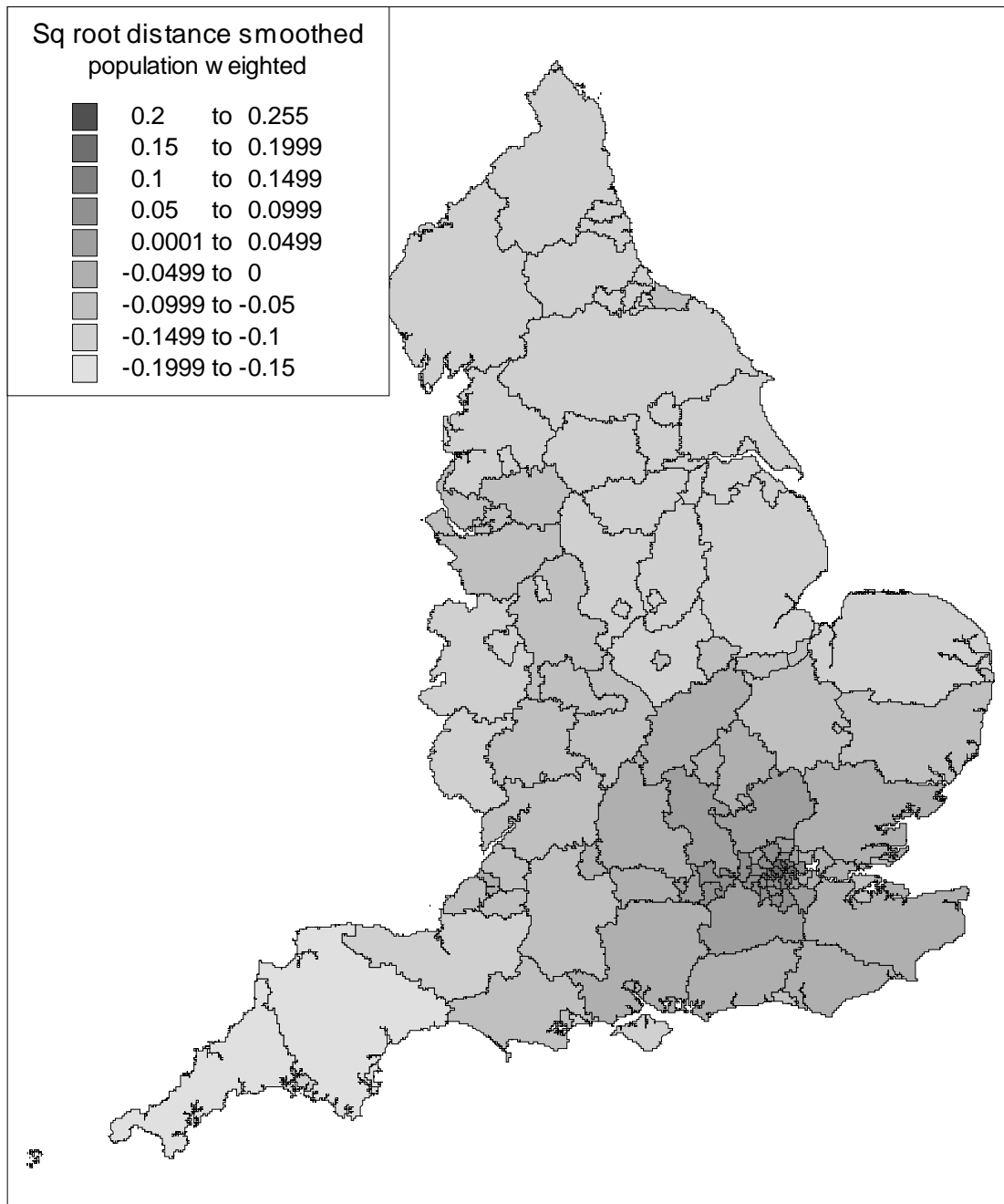
Source: ONS

Figure 1.2: SSWDs for NES Areas – distance smoothed and population weighted



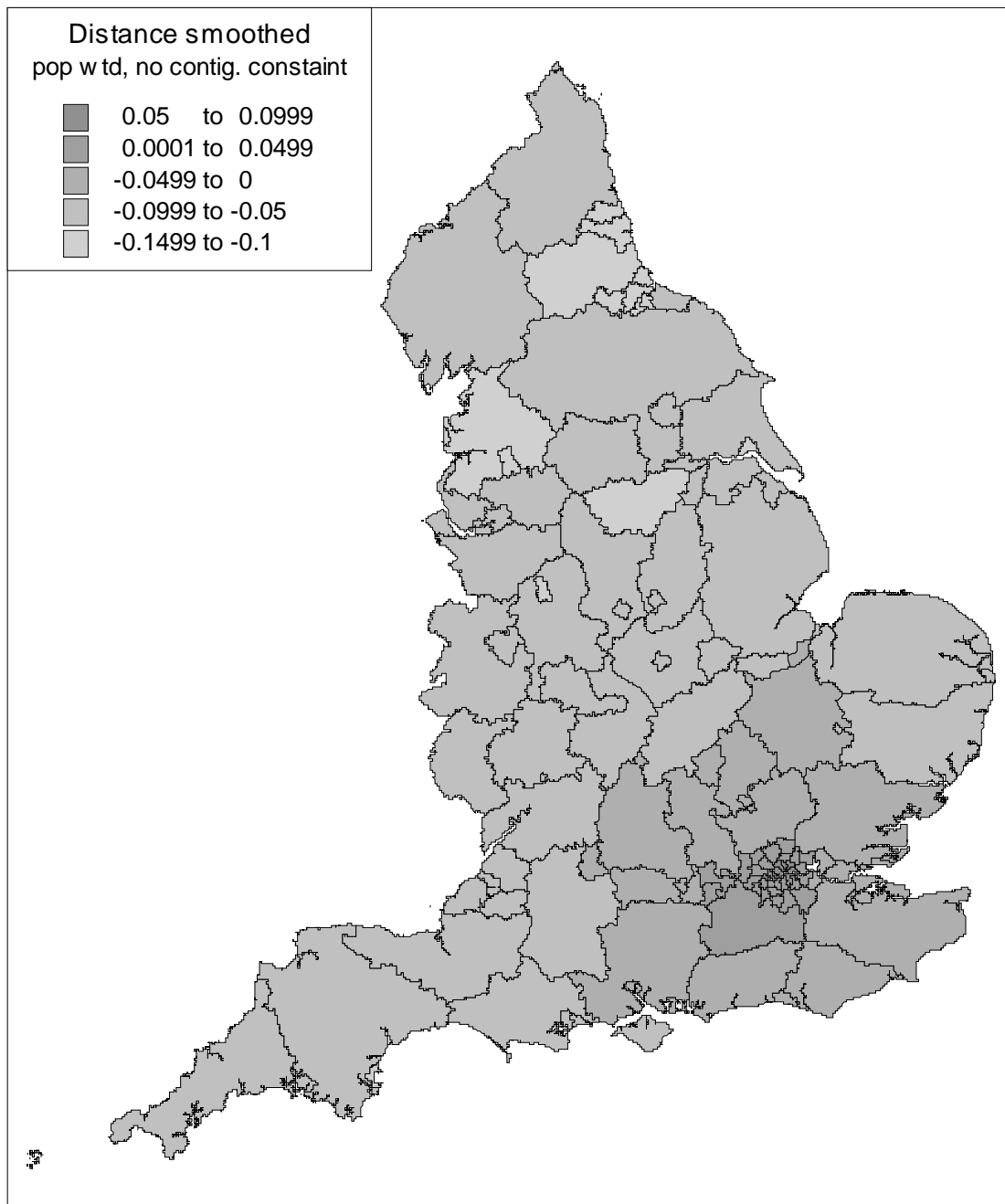
Source: ONS

Figure 1.3: SSWDs for NES Areas – square root of distance smoothed and population weighted



Source: ONS

Figure 1.4: SSWDs for NES Areas – distance smoothed and population weighted plus removing the contiguity constraint



Source: ONS

Table 1.1: Comparison of Unsmoothed Results with Previous Estimates

NES Area	Title	Previous Results			New Results
		1998/2000	1999/2001	2000/2002	2001/3
1	Tyne and Wear MC	-12.77	-12.83	-13.42	-14.83
2	Darlington	-17.62	-17.78	-18.16	-16.15
3	Durham	-16.38	-17.59	-17.66	-17.96
4	Hartlepool	-17.84	-18.86	-19.95	-19.93
5	Middlesbrough	-13.18	-13.94	-14.06	-14.54
6	Northumberland	-17.19	-17.33	-17.35	-18.17
7	Redcar and Cleveland	-3.93	-1.72	-2.48	-7.64
8	Stockton-on-Tees	-10.50	-10.88	-11.21	-12.76
9	Greater Manchester MC	-10.81	-11.11	-11.31	-11.85
10	Halton	-10.19	-10.80	-11.28	-12.47
11	Warrington	-11.48	-11.29	-10.75	-10.67
12	Cheshire	-9.90	-9.73	-9.30	-8.90
13	Cumbria	-15.07	-15.18	-15.06	-15.77
14	Blackburn with Darwen	-16.57	-17.10	-17.80	-17.62
15	Blackpool	-16.46	-16.57	-18.35	-20.06
16	Lancashire	-14.44	-15.17	-15.75	-16.95
17	Merseyside	-11.22	-11.50	-11.59	-12.91
18	South Yorkshire MC	-15.12	-15.43	-15.50	-16.06
19	West Yorkshire MC	-12.07	-11.98	-11.77	-12.37
20	East Riding of Yorkshire	-15.86	-15.94	-15.52	-16.12
21	Kingston upon Hull	-16.02	-16.10	-16.37	-17.31
22	North East Lincolnshire	-12.98	-14.31	-15.50	-17.16
23	North Lincolnshire	-10.51	-11.62	-12.39	-12.53
24	York	-7.19	-8.30	-7.81	-10.46
25	North Yorkshire	-16.02	-15.40	-14.94	-15.54
26	Derby	-9.98	-9.53	-10.04	-11.92
27	Derbyshire	-16.56	-15.67	-16.18	-17.19
28	Leicester	-13.14	-14.23	-13.83	-14.18
30	Leicestershire (including Rutland)	-11.61	-12.52	-12.30	-12.02
31	Lincolnshire	-18.72	-18.66	-17.67	-18.23
32	Northamptonshire	-8.11	-8.13	-8.48	-9.51
33	Nottingham	-12.00	-10.97	-11.73	-12.68
34	Nottinghamshire	-15.77	-15.54	-14.95	-15.61
35	West Midlands MC	-10.40	-9.93	-9.86	-10.44
36	Herefordshire	-17.50	-17.52	-17.33	-19.80
37	Worcestershire	-13.43	-13.17	-13.43	-14.68
38	Telford and Wrekin	-15.69	-15.97	-15.33	-16.15
39	Shropshire	-17.41	-17.05	-16.71	-17.97
40	Stoke-on-Trent	-18.91	-18.80	-18.14	-19.68
41	Staffordshire	-14.34	-14.37	-14.63	-15.27
42	Warwickshire	-8.76	-8.52	-7.94	-9.40
43	Bath and North East Somerset	-10.40	-9.43	-8.19	-7.81
44	Bristol, City of	-7.04	-7.24	-7.45	-7.87
45	North Somerset	-13.21	-11.94	-11.64	-11.10
46	South Gloucestershire	-8.40	-7.13	-7.15	-6.08
47	Cornwall	-21.44	-22.68	-22.72	-22.48
48	Plymouth	-16.50	-15.86	-14.87	-15.39
49	Torbay	-22.27	-23.97	-23.52	-22.95

50	Devon	-18.96	-18.75	-18.50	-18.90
51	Bournemouth	-13.32	-13.87	-13.09	-14.51
52	Poole	-8.76	-9.56	-8.97	-6.45
53	Dorset	-16.16	-16.10	-15.69	-16.34
54	Gloucestershire	-10.73	-10.50	-10.27	-10.99
55	Somerset	-15.57	-15.46	-15.38	-16.20
56	Swindon	-2.54	-1.86	-2.22	-2.20
57	Wiltshire	-11.13	-11.16	-9.93	-10.60
58	Luton	-3.30	-6.00	-5.83	-4.69
59	Bedfordshire	-7.57	-8.42	-7.92	-7.18
60	Peterborough	-10.09	-10.53	-9.71	-9.20
61	Cambridgeshire	-5.75	-5.91	-5.26	-4.67
62	Southend-on-Sea	-13.59	-13.24	-12.17	-12.74
63	Thurrock	1.21	0.98	1.46	0.52
64	Essex	-9.23	-8.38	-7.81	-8.11
65	Hertfordshire	-0.12	-0.53	-1.00	-2.10
66	Norfolk	-15.63	-15.65	-15.43	-16.27
67	Suffolk	-14.30	-13.52	-12.45	-12.44
69	Barking and Dagenham				
70	Barnet	-0.02	1.39	5.03	7.51
71	Bexley	-7.27	-7.66	-8.10	-8.66
72	Brent	-2.87	-1.67	-1.24	-2.33
73	Bromley	-3.12	-3.69	-4.01	-4.41
74	Camden	18.51	19.11	19.24	18.71
75	Croydon	-2.92	-1.93	-0.91	-1.31
76	Ealing	3.11	2.35	2.46	-0.61
77	Enfield	-4.33	-4.60	-3.09	-5.02
78	Greenwich	-3.28	-1.84	-3.25	-5.33
79	Hackney	17.45	17.69	17.53	12.35
80	Hammersmith and Fulham	13.47	11.42	11.20	11.24
81	Haringey	-2.80	-4.19	-3.70	-4.20
82	Harrow	-1.63	-1.97	-1.24	-0.54
83	Havering	-6.44	-8.27	-8.26	-9.91
84	Hillingdon	6.47	5.13	4.68	4.67
85	Hounslow	7.77	9.46	10.93	8.48
86	Islington	16.37	18.88	19.12	22.31
87	Kensington and Chelsea	16.93	16.42	17.69	13.40
88	Kingston upon Thames	1.81	3.35	5.76	6.68
89	Lambeth	15.72	14.71	13.14	11.65
90	Lewisham	-1.72	-0.81	-0.57	-0.56
91	Merton	-1.68	-3.43	-0.02	-1.15
92	Newham	-1.28	-1.30	-0.07	-0.38
93	Redbridge	-3.88	-2.40	-3.27	-4.37
94	Richmond upon Thames	6.81	7.03	7.06	5.13
95	Southwark	13.13	12.60	12.73	13.35
96	Sutton	-2.05	-0.20	0.77	1.72
97	Tower Hamlets	28.15	28.41	27.53	25.61
98	Waltham Forest	-4.28	-3.05	-3.31	-3.10
99	Wandsworth	4.06	3.89	5.44	4.07
100	City of Westminster	27.60	27.09	27.28	25.21
101	Bracknell Forest	13.20	11.69	11.20	12.86
102	Newbury	-1.18	-0.71	-0.43	-0.94
103	Reading	6.26	5.31	4.70	3.09
104	Slough	6.49	5.83	6.09	2.21
105	Windsor and Maidenhead	6.07	8.86	9.20	8.82
106	Wokingham	-0.04	0.53	3.78	6.34

107	Brighton and Hove	-10.44	-9.33	-7.85	-6.51
108	East Sussex	-14.85	-14.68	-15.52	-15.27
109	Milton Keynes	-4.29	-4.80	-4.15	-4.16
110	Buckinghamshire	0.45	0.33	-0.02	0.64
111	Portsmouth	-6.18	-7.24	-6.89	-8.08
112	Southampton	-7.11	-7.36	-7.00	-6.73
113	Hampshire	-6.77	-6.06	-5.28	-5.40
114	Isle of Wight	-15.29	-13.98	-14.00	-17.21
115	Medway Towns	-9.51	-10.09	-9.14	-9.49
116	Kent	-9.15	-8.84	-8.96	-9.86
117	Oxfordshire	-3.22	-2.64	-1.77	-3.20
118	Surrey	3.47	3.49	3.99	3.68
119	West Sussex	-6.84	-7.04	-6.85	-8.20

Source: ONS

Section 2: SSWDs for Health Geographies

This section provides estimates of SSWDs based upon health service geographies. The availability of postcodes within the NES has enabled us to present estimates of SSWDs that align with the administrative geographies used in the organisation of the National Health Service. Specifically, this report provides estimates of SSWDs for Primary Care Organisations. At the time of writing, there were 303 such organisations including 300 Primary Care Trusts (PCTs) and 3 Care Trusts (CTs) based on the PCT model.

In order to undertake this analysis, IER was supplied with an extract from the NHS postcode directory which provided a map directly from postcodes to PCT geographies. This file was then merged onto the NES file held by ONS, with matching of observations being undertaken on the basis of postcode. Note that the postcodes on the NES relate to an individual's place of work. This matching process generated an additional geographical identifier on the NES data, relating to the PCT areas.

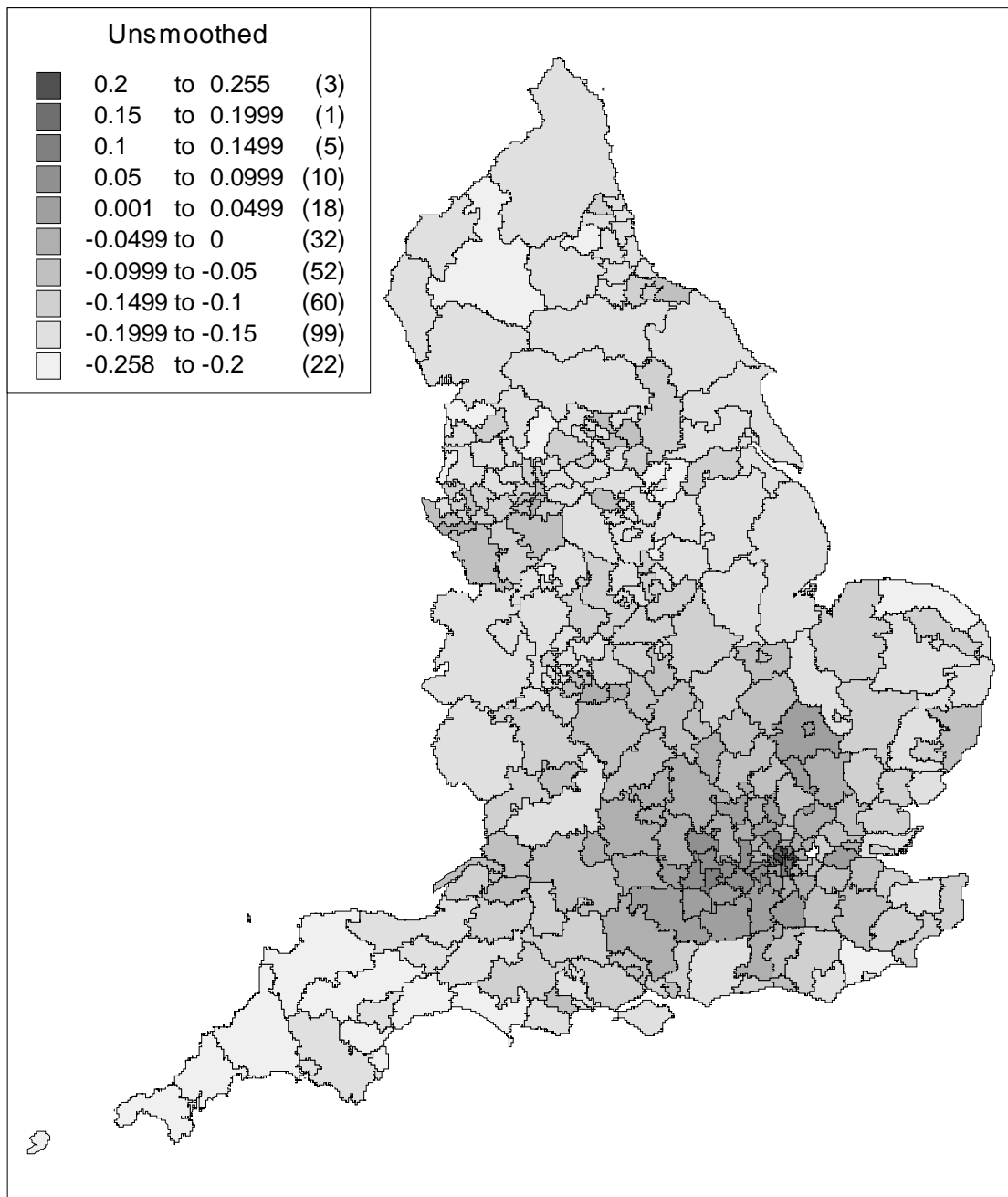
It should be noted that there are a couple of caveats in terms of linking postal geographies to other geographical units. Firstly, postcode boundaries are not necessarily contiguous with other geographic boundaries. In this respect we were guided by the contents of the NHS postcode directory. Secondly, postcode boundaries are subject to change due to new addresses, single addresses acquiring large user postcodes as mail volume increases, and the need to restrict the number of addresses per unit to less than 100. These issues are further complicated due to the fact that whole areas can also be re-coded, with old codes being able to re-used in a different place after two years. A fuller discussion of these issues can be found on the ONS website at http://www.statistics.gov.uk/geography/postal_geog.asp.

In the present context, a small but significant number of observations that were potentially available within the NES were not included in the analyses presented in this report. This occurred for those cases where the postcode on the NES did match a postcode contained within the NHS Directory. Therefore,

if health based geographies are going to be used in the future production of SSWDs, close monitoring of post codes used in the NES and within the NHS postcode directory will be required to avoid the misallocation of individuals in the NES to incorrect PCTs.

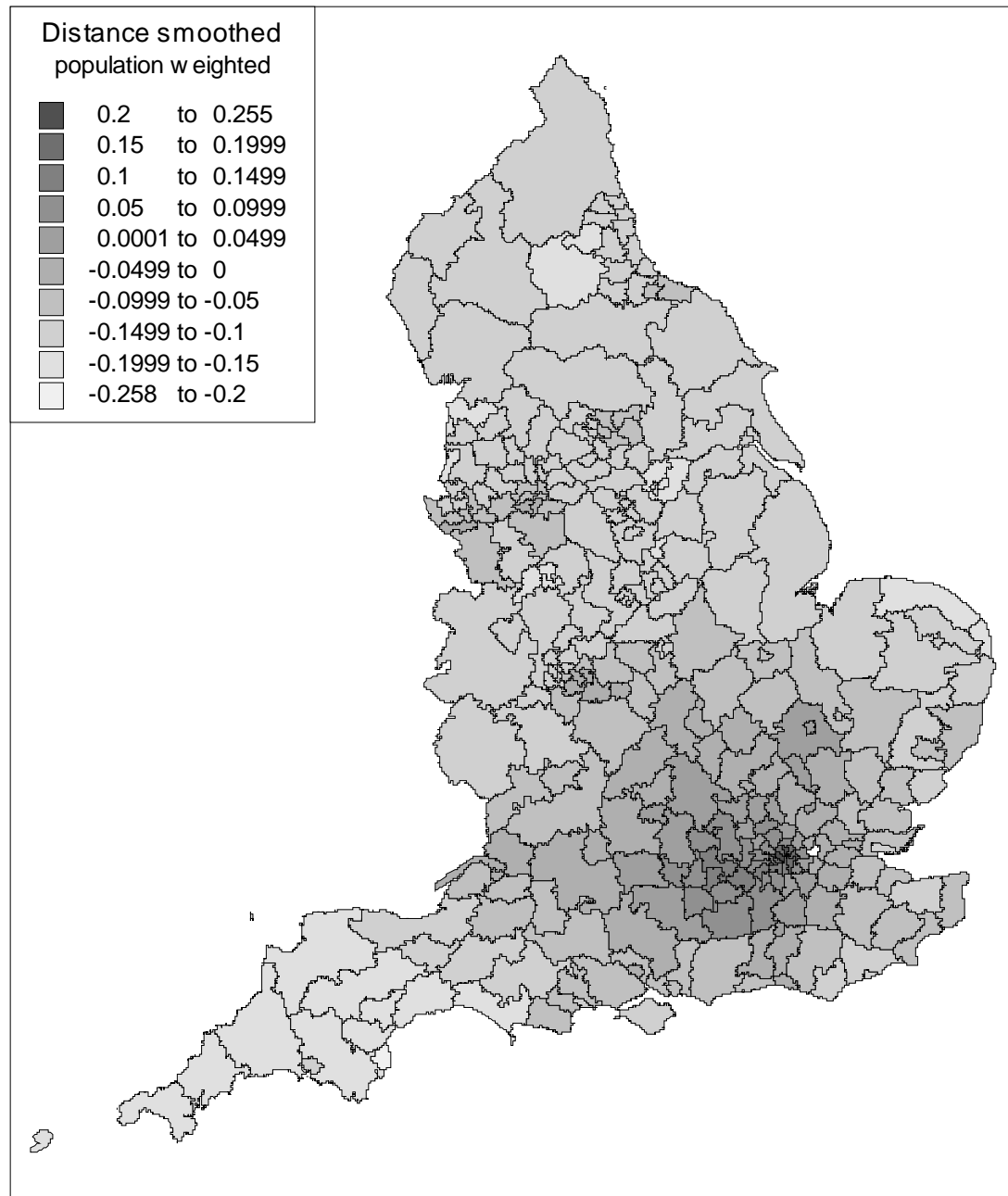
Estimates of SSWDs are presented in terms of a percentage differential relative to a reference area. The choice of this reference category is entirely arbitrary. In producing standard updates of SSWDs based upon the 117 NES Areas, Barking and Dagenham has traditionally been chosen to act as the reference category. In presenting estimates of SSWDs based upon NHS administrative geographies, it is also necessary to select one area to act as a reference category. For the presentation of SSWDs based upon PCT boundaries, we are assisted in that the NES area of Barking and Dagenham is also a PCT. To achieve consistency with estimates based upon NES areas, Barking and Dagenham PCT is chosen to act as the reference area. Full results are presented in Table A2.

Figure 2.1: SSWDs for PCT Areas – Unsmoothed



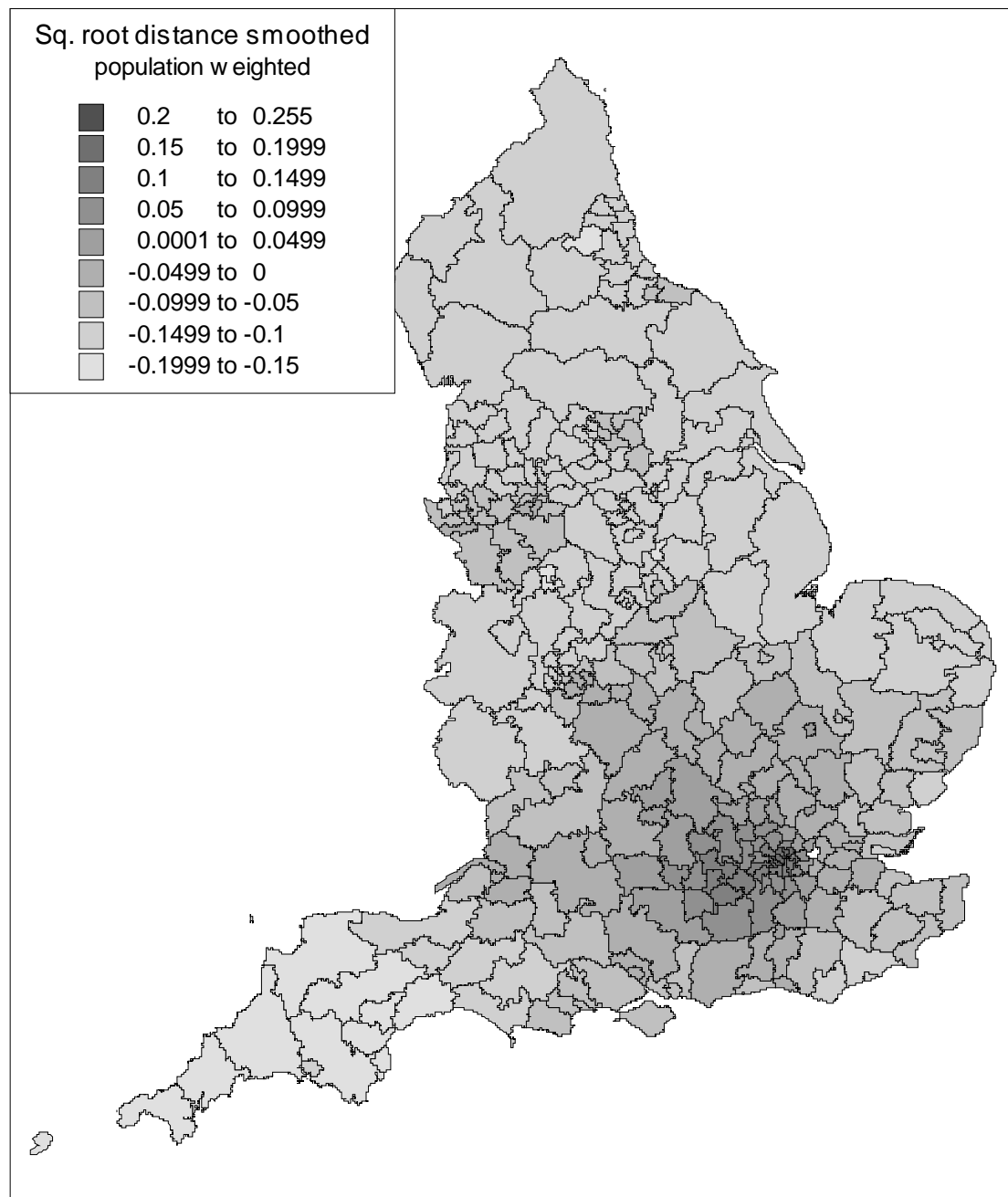
Source: ONS

Figure 2.2: SSWDs for PCT Areas – distance smoothed and population weighted



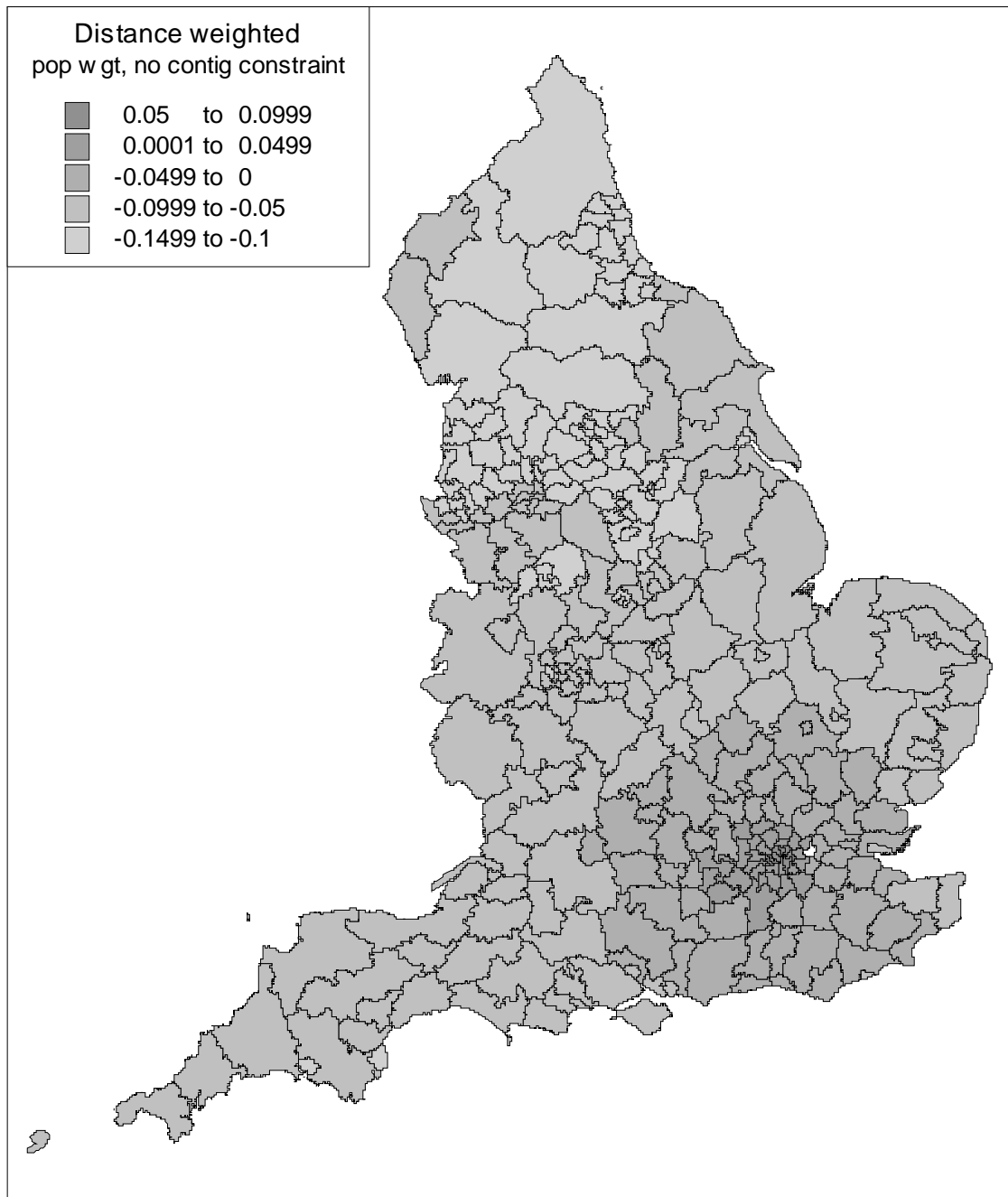
Source: ONS

Figure 2.3: SSWDs for PCT Areas – square root of distance smoothed and population weighted



Source: ONS

Figure 2.4: SSWDs for PCT Areas – distance and population weighted plus removing the contiguity constraint



Source: ONS

Section 3: Merged Health Geographies

In Section 2 we have presented econometric estimates of the Standardised Spatial Wage Differentials (SSWDs) that are based upon health service geographies; specifically 303 Primary Care Organisations (PCOs). The utilisation of PCOs represents a significant increase in the level of geographical detail in the estimation of SSWDs for the Market Forces Factor (MFF) as presented in Section 1.

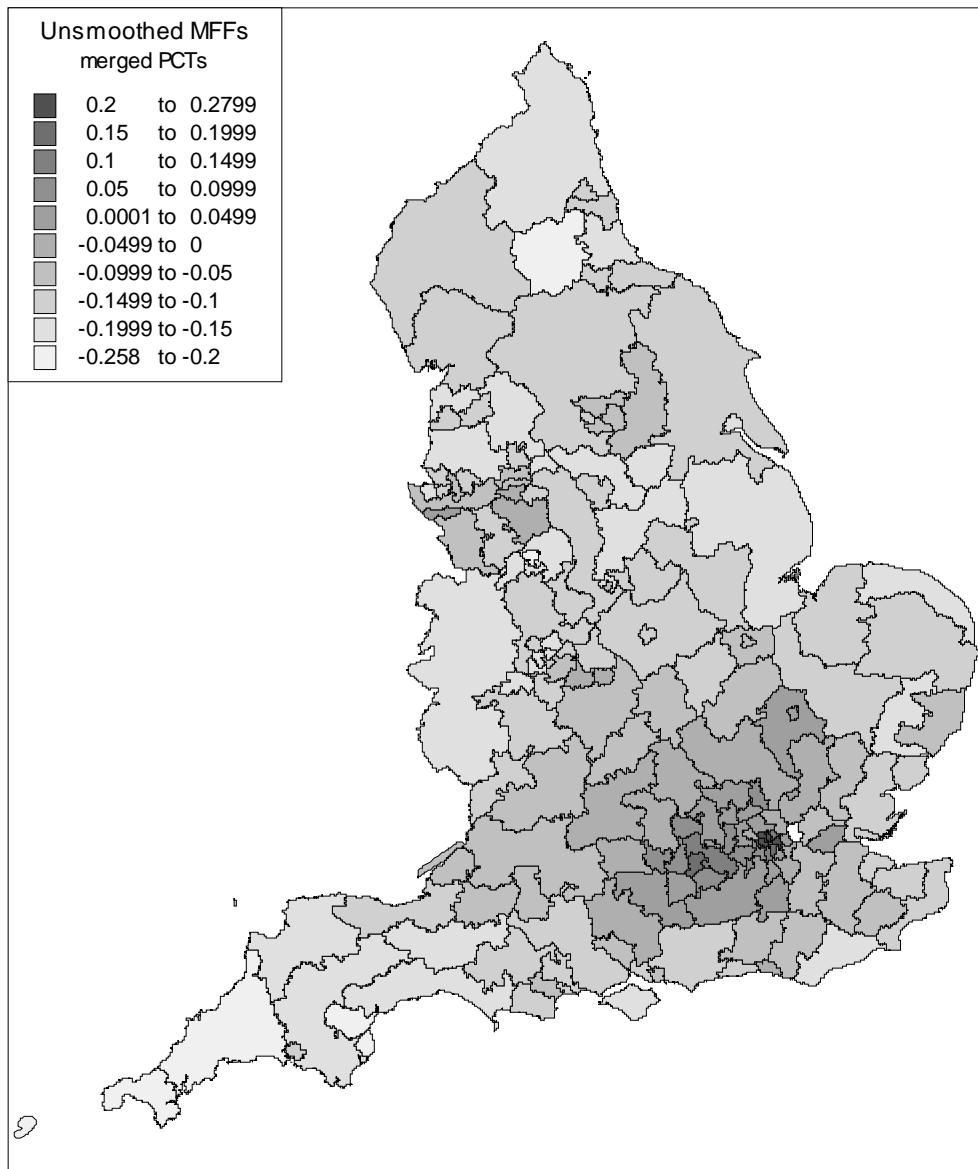
The estimation of SSWDs based upon more detailed geographical areas, as in the case of PCOs, will lead to problems associated with 'cliff edges'. This refers to a situation where neighbouring geographical areas that are perceived to have similar local labour market pressures are estimated to have different SSWDs. While smoothing mechanisms have been employed to reduce the size of cliff edges, the emergence of any new 'cliff edge', regardless of size, can undermine the credibility of Area Cost Adjustments.

In this section we therefore present a proposed alternative geographical schema based upon combinations of Health Service Geographies. Neighbouring PCTs have been merged if the estimated SSWDs revealed that there was little or no variation in the size of compensating differentials between these areas; thereby reducing the number of cliff edges that exist between PCTs. **Adjacent areas were merged where estimates of smoothed SSWDs varied by less than 1 percentage point.**

Consideration was also given to the available sample sizes within the New Earnings Survey upon which PCT estimates are based. There is no strict definition of what may constitute a 'small' sample. To improve the robustness of the econometric estimates, those PCTs that were observed to have less than 100 usable observations within **each** year have been merged with at least one neighbouring area. It is noted that some areas have been merged only on the basis of sample size; i.e. they would not have met the '1%' criteria. The above process has yielded a geographical schema based upon groups of PCTs and individual PCTs. Overall, 174 aggregate areas have been defined. These areas are presented in Table A3.1. Full results are presented in Table A3.2.

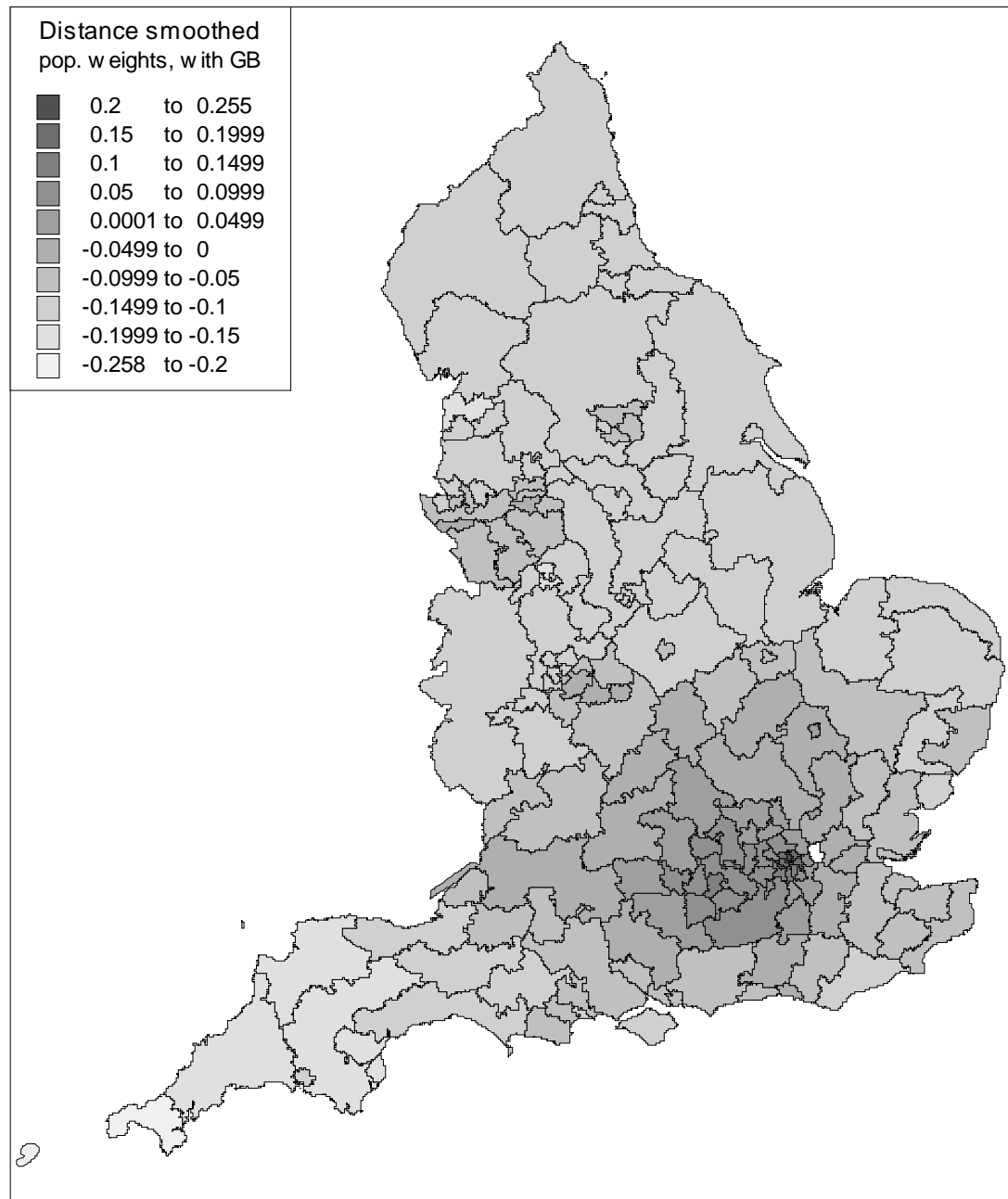
In Table A3.3 we also present the specification of a geographical schema created by merging adjacent areas where smoothed SSWDs varied by **less than 2 percentage points**. As above, consideration has also been given to sample size constraints. This process yielded 131 aggregated areas based upon groups of PCTs and individual PCTs. Unsmoothed regression results for this geographical schema are presented graphically in Figure A3.1.

Figure 3.1: SSWDs for merged PCT areas - unsmoothed



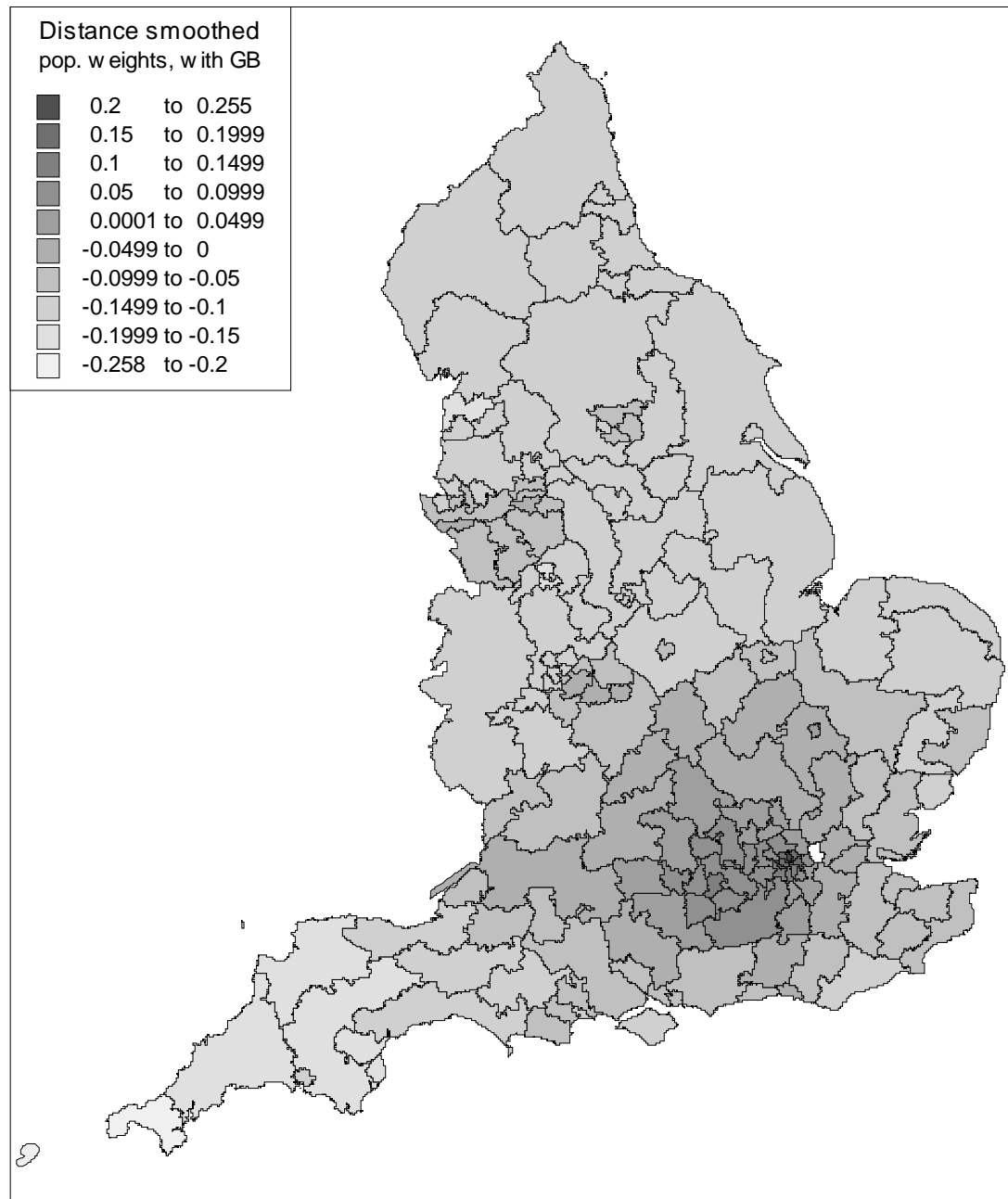
Source: ONS

Figure 3.2: SSWDs for merged PCT areas – distance smoothed and population weighted



Source: ONS

Figure 3.3: SSWDs for merged PCT areas – square root of distance smoothed and population weighted



Source: ONS

Section 4: Interpolating MFFs for Trust Sites

The existing approach to smoothing addresses cliff-edges between MFF zones as a whole. Therefore, even after smoothing techniques have been used, individual Trusts that are located on the edge of an MFF zone take the average value allocated to the whole MFF zone. Whichever way zone boundaries are drawn and whatever smoothing techniques are being used, some Trusts will be close to the border of a zone, with higher or lower factors applying to Trusts just on the other side of the border.

This stage of the analysis therefore explores an approach to the MFF that takes account of where each Trust is located. It is proposed that estimates of SSWDs could be used to produce a smooth contour map of SSWDs for England. The benefit of this approach is that SSWDs would therefore be allowed to vary across space. From such a contour map, it is possible to extract an SSWD for any given location by looking up its value on the grid of interpolated SSWD values generated by the contouring process.

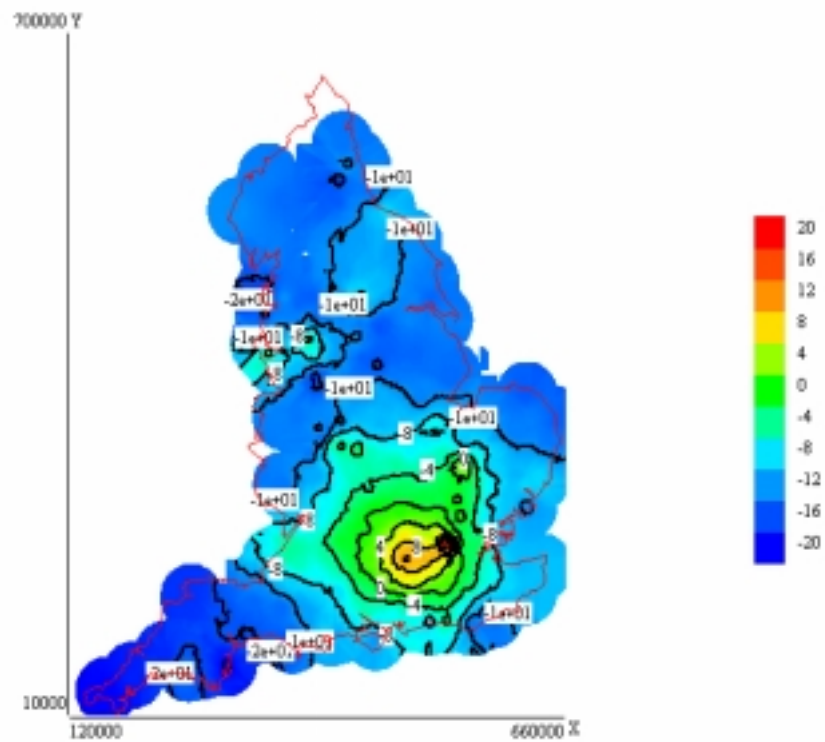
This approach would yield smaller 'cliff edge's around each location, than those that occur around existing edges. For example, it is possible to extract an MFF specific to the unit postcode for each Trust. Therefore, two trusts that were in close proximity to each other, but which were located in different PCTs, would receive similar MFFs even if the average MFF estimated for the 2 PCTs were quite different. This approach would therefore provide different MFFs for each location at which the Trust operates; and hence different values for a major teaching hospital and the laboratories or main offices of the Trust where these were in different locations. Alternatively, each PCT could be allocated a single MFF that reflected the geographical concentration of Health Service employment, e.g. the location of a large hospital within a PCT, where this accounted for the bulk of PCT employment.

Contour Maps of Spatially Smoothed MFF

Figures 4.1 and 4.2 depict the contour “surface” estimated from the spatial pattern of smoothed MFF values. These contour maps are derived from the MFFs for the 303 individual PCTs, plus MFFs for (merged) health areas in Wales and Scotland. The effects of Wales and Scotland are incorporated in the spatial smoothing. The input data to the contour program is the smoothed MFF value for each PCT area and the x and y co-ordinates of the population-weighted centroid of the area; the population “centre of gravity” for the area. The contouring program fits a surface to these values, generating a set of estimated MFF values at each intersection point of a 1 km square grid covering the whole of England. The dimensions of this grid are 540 km (x dimension) by 640 km (y dimension).

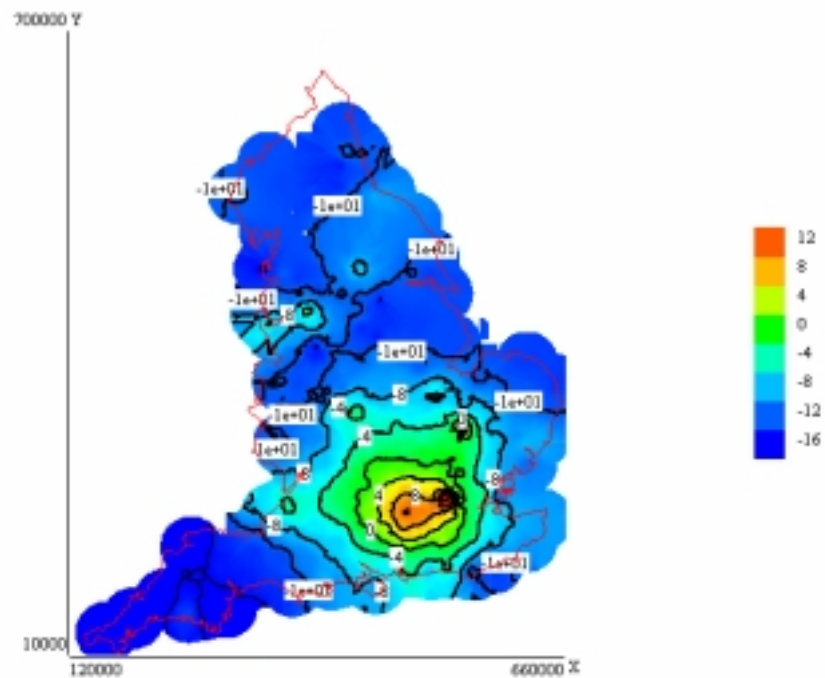
The contour map presented in Figure 4.1 utilises MFF values that have been smoothed on the basis of distance weighted by population. This map clearly demonstrates how MFF values are highest in central London, with secondary peaks in the M3/M4 and M11 corridors. Most of the commuting hinterland of London experiences MFF values close to zero, but MFF values decline steadily with distance away, with higher values around the cities of northern England. The contour map presented in Figure 4.2 utilises MFF values that have been smoothed using the square root of distance, weighted by population. Table 4.1 presents estimates for the points represented by each postcode, “read off” from the contour maps presented in Figures 4.1 and 4.2. Site specific values based on a contour map that utilises unsmoothed values of MFFs are also shown for completeness. The interpolated values are compared to PCT based estimates for the PCT in which each site is located. The PCT based estimates are based upon the currently preferred methodology of mean of neighbouring areas, weighted by distance between population-weighted centroids.

Figure 4.1: MFFs, smoothed using distance weighted by population



Source: ONS

Figure 4.2: MFFs smoothed using the square root of distance, weighted by population



Source: ONS

Interpolation to Trust Sites

In order to estimate an MFF value for an individual trust, the first step is to take the unit postcode for the trust and identify its Ordnance Survey National Grid reference, using the ONS All Fields Postcode Directory (and the multimap web site for those postcodes which have been created more recently than the directory). This 1 metre grid reference is used to identify the 1 km grid square within which the trust is located. The mean of the MFF values at the four intersection points of the grid nearest this point is then calculated, yielding the individual MFF value for that trust. The Department supplied a list of 252 Trust sites to the research team. The interpolated values for trust sites are presented in Table 4.1.

Table 4.1: MFFs interpolated to individual trusts

Trust code	Site code	Site name	postcode	PCT Smoothed MFF	Smoothed MFF, weighted by population	
					distance	Sq root distance
RA2	RA299	Royal Surrey County Hospital NHS Trust	GU2 7XX	5.57	6.4	7.12
RA3	RA301	Weston General Hospital	BS234TQ	-7.28	-8.92	-7.98
RA4	RA430	Yeovil District Hospital	BA214AT	-14.38	-14.27	-13.08
RA7	RA707	ST MICHAELS HOSPITAL (RA7)	BS2 8EG	-4.55	-4.36	-3.65
RA7	RA701	BRISTOL ROYAL INFIRMARY	BS2 8HW	-4.55	-4.36	-3.65
RA9	RA901	Torbay District General Hospital	TQ2 7AA	-20.14	-19.91	-18.75
RAE	RAE05	St Lukes Hospital (RAE)	BD5 0NA	-11.94	-11.66	-10.84
RAE	RAE01	Bradford Royal Infirmary	BD9 6RJ	-11.94	-11.69	-10.84
RAJ	RAJ01	Southend Hospital	SS0 0RY	-11.15	-10.98	-10.8
RAL	RAL99	ROYAL FREE HAMPSTEAD NHS TRUST	NW3 2QG	18.85	18.07	16.82
RAN	RAN99	Royal National Orthopaedic Hospital NHS Trust	HA7 4LP	4.55	5.23	6.32
RAP	RAP99	North Middlesex University Hospital NHS Trust	N18 1QX	0.68	4.1	5.74
RAS	RAS01	The Hillingdon Hospital	UB8 3NN	6.94	6.88	7.65
RAX	RAX01	Kingston Hospital	KT2 7QB	8.06	8.5	9.05
RBA	RBA11	Musgrove Park Hospital	TA1 5DA	-14.58	-14.58	-14.27
RBB	RBB01	Royal National Hospital for Rheumatic Diseases	BA1 1RL	-5.15	-5.21	-4.64
RBD	RBD01	DORSET COUNTY HOSPITAL	DT1 2JY	-15.98	-15.41	-14.17
RBF	RBF03	NUFFIELD ORTHOPAEDIC CENTRE	OX3 7LD	1.18	1.18	1.62
RBK	RBK02	Manor Hospital	WS2 9PS	-13.88	-13.68	-12.39
RBL	RBL20	CLATTERBRIDGE HOSPITAL	CH634JY	-8.61	-8.48	-7.89
RBL	RBL14	ARROWE PARK HOSPITAL	CH495PE	-12.41	-9.93	-8.9
RBN	RBN02	St Helens Hospital (Excluding Pleasley Cross)	WA9 3DA	-10.79	-10.79	-9.91
RBN	RBN01	Whiston Hospital	L35 5DR	-9.52	-9.47	-8.89
RBQ	RBQ07	The Cardiothoracic Centre	L14 3PE	-10.07	-9.91	-9.06
RBS	RBS25	Alder Hey Hospital	L12 2AP	-10.07	-10.06	-9.24
RBT	RBT20	LEIGHTON HOSPITAL	CW1 4QJ	-10.02	-10.3	-9.51
RBV	RBV99	Christie Hospital NHS Trust	M20 4BX	-3.69	-4.87	-4.59
RBZ	RBZ12	North Devon District Hospital	EX314JB	-17.61	-17.6	-16.87
RC1	RC110	Bedford Hospital South Wing	MK429DJ	-4.56	-4.56	-3.7
RC3	RC399	Ealing Hospital NHS Trust	UB1 3HW	5.29	6.94	8.24
RC9	RC971	Luton and Dunstable Hospital	LU4 0DZ	-1.64	-1.64	-1.21
RCB	RCB55	York District Hospital	YO318HE	-10.32	-10.26	-10.34
RCC	RCC27	Bridlington Hospital	YO164QP	-13.32	-13.11	-11.73
RCC	RCC25	Scarborough Hospital	YO126QL	-12.54	-12.43	-10.78
RCD	RCD35	Harrogate District Hospital.	HG2 7SX	-11.66	-10.52	-9.85
RCF	RCF22	Airedale General Hospital (RCF)	BD206TD	-12.01	-12.12	-11.13
RCS	RCSLB	Nottingham City Hospital	NG5 1PB	-10.34	-10.86	-10.07
RCU	RCUEF	MAIN SITE WESTERN BANK & ADJOINING PROPERTIES RCUEF	S10 2TH	-11.68	-12.16	-11.87
RCX	RCX70	The Queen Elizabeth Hospital	PE304ET	-12.41	-12.41	-12.12
RD1	RD130	Royal United Hospital	BA1 3NG	-5.15	-5.13	-4.57
RD3	RD304	Poole Hospital	BH152JB	-8.16	-8.27	-8.14
RD7	RD752	Heatherwood Hospital	SL5 8AA	10.28	10.97	11.28
RD7	RD750	Wexham Park Hospital	SL2 4HL	7.73	7.83	9.31
RD8	RD899	Milton Keynes General NHS Trust	MK6 5LD	-2.45	-2.45	-2.36
RDD	RDDH0	Basildon Hospital	SS165NL	-1.86	-1.97	-2.47
RDE	RDEE4	Colchester General Hospital	CO4 5JL	-9.45	-9.45	-9.08
RDU	RDU01	Frimley Park	GU165UJ	8.98	8.74	9.57

RDZ	RDZ05	Christchurch Hospital	BH232JX	-9.73	-10.84	-9.37
RDZ	RDZ20	Royal Bournemouth Hospital	BH7 7DW	-11.15	-10.9	-9.45
RE9	RE9GA	South Tyneside District Hospital	NE340PL	-12.82	-12.83	-11.82
REF	REF12	Royal Cornwall Hospital	TR1 3LJ	-18.78	-18.97	-18.73
REM	REM21	UNIVERSITY HOSPITAL AINTREE	L9 7AL	-12.49	-12.05	-10.42
REN	REN20	CLATTERBRIDGE CENTRE FOR ONCOLOGY	CH634JY	-8.61	-8.48	-7.89
REP	REP01	LIVERPOOL WOMENS HOSPITAL	L8 7SS	-10.07	-10.21	-9.33
RET	RET20	Walton Centre for Neurology & Neurosurgery	L9 7LJ	-12.49	-12.05	-10.42
RF4	RF4HA	Harold Wood Hospital	RM3 0BE	-3.18	-2.94	-1.6
RF4	RF4DG	King George Hospital	IG3 8YB	-0.04	0.03	0.7
RF4	RF4OC	Oldchurch Hospital	RM7 0BE	-3.18	-2.74	-1.37
RFF	RFF99	Barnsley District General Hospital NHS Trust	S75 2EP	-13.66	-13.6	-12.36
RFK	RFKRA	QUEENS MEDICAL CENTRE	NG7 2UH	-10.34	-10.65	-10.03
RFR	RFRPA	ROTHERHAM DISTRICT GENERAL HOSPITAL	S60 2UD	-13.98	-13.76	-13.27
RFS	RFSDA	Chesterfield and North Derbyshire Royal Hospital	S44 5BL	-14.96	-14.97	-14.39
RFW	RFW99	West Middlesex University Hospital NHS Trust	TW7 6AF	9.68	9.42	10.33
RG2	RG222	Queen Elizabeth Hospital	SE184QH	1.77	1.83	3.82
RG3	RG303	PRINCESS ROYAL UNIV. HOSPITAL	BR6 8ND	2.11	1.66	3.13
RGC	RGCKH	Whipps Cross University Hospital	E11 1NR	1.50	3	4.03
RGM	RGM21	Papworth Hospital	CB3 8RE	-5.18	-3.96	-3.6
RGN	RGN66	Edith Cavell Hospital	PE3 9GZ	-6.30	-6.91	-6.5
RGN	RGN42	Peterborough District Hospital	PE3 6DA	-6.30	-7.69	-7.94
RGP	RGP75	James Paget Hospital	NR316LA	-15.03	-14.83	-13.71
RGQ	RGQ01	THE IPSWICH HOSPITAL NHS TRUST	IP4 5PD	-8.45	-8.51	-8.11
RGR	RGR01	West Suffolk Hospitals	IP332QZ	-8.78	-8.78	-8.01
RGT	RGT01	ADDENBROOKE'S HOSPITAL SITE	CB2 2QQ	3.89	2.21	2.17
RGZ	RGZ01	Queen Mary's Hospital (RGZ)	DA146LT	-3.22	0.44	2.04
RH8	RH801	ROYAL DEVON & EXETER HOSPITAL (WONFORD)	EX2 5DW	-15.19	-15.19	-15.38
RHM	RHM01	Southampton General Hospital	SO166YD	-4.58	-4.82	-4.44
RHQ	RHQHH	Royal Hallamshire Hospital	S10 2JF	-11.68	-12.32	-11.95
RHQ	RHQNG	Northern General Hospital	S5 7AU	-11.82	-12	-11.74
RHU	RHU02	St Mary's Hospital	PO3 6AD	-5.85	-5.85	-5.69
RHU	RHU03	Queen Alexandra Hospital	PO3 6AD	-5.85	-5.85	-5.69
RHW	RHW02	Battle Hospital	RG301AG	6.74	6.74	7.12
RHW	RHW01	Royal Berkshire Hospital	RG1 5AN	6.74	7.39	7.77
RJ1	RJ121	Guy's Hospital	SE1 9RT	15.04	16.48	15.38
RJ1	RJ122	St Thomas' Hospital	SE1 7EH	12.55	16.83	15.66
RJ2	RJ201	The Lewisham Hospital NHS Trust	SE136LH	6.57	6.68	8.62
RJ5	RJ599	St Marys NHS Trust (RJ5)	W2 1NY	20.05	19.4	17.73
RJ6	RJ611	Mayday University Hospital	CR7 7YE	3.87	5.4	6.79
RJ7	RJ701	St George's Hospital	SW170QT	11.49	10.24	11.44
RJC	RJC02	WARWICK HOSPITAL	CV345BW	-5.40	-5.2	-4.71
RJD	RJD13	CANNOCK CHASE HOSPITAL	WS112XY	-12.63	-12.65	-11.67
RJD	RJD01	STAFFORDSHIRE GENERAL HOSPITAL	ST163SA	-12.90	-13.08	-12.35
RJE	RJE01	Royal Infirmary	ST4 7LN	-16.22	-16.02	-14.82
RJE	RJE02	City General	ST4 6QG	-16.22	-15.79	-14.58
RJF	RJF01	BURTON HOSPITALS	DE130RB	-10.86	-11.06	-10.84
RJH	RJH99	Good Hope Hospital NHS Trust	B75 7RR	-9.19	-9.13	-7.86
RJL	RJL32	Scunthorpe General Hospital	DN157BH	-12.93	-12.93	-12.78
RJL	RJL30	Diana, Princess of Wales Hospital	DN332BA	-13.12	-13.12	-12.97
RJN	RJN71	Macclesfield District General Hospital	SK103BL	-6.67	-6.72	-6.5
RJR	RJR05	COUNTESS OF CHESTER HOSPITAL NHS TRUST	CH2 1UL	-7.37	-6.32	-6.46

RJZ	RJZ01	Kings College Hospital	SE5 9RS	12.55	14.22	13.87
RK5	RK5BC	Kings Mill Hospital	NG174JL	-14.34	-15.28	-14.33
RK9	RK950	DERRIFORD HOSPITAL	PL6 8DH	-13.26	-13.26	-13.64
RKB	RKB01	Walsgrave Hospital	CV2 2DX	-2.59	-3.34	-3.08
RKE	RKEQ4	THE WHITTINGTON HOSPITAL	N19 5NF	20.31	16.95	16.21
RL1	RL111	Robert Jones & Agnes Hunt Orthopaedic and District Hospital NH	SY107AG	-13.14	-10.81	-10.1
RL4	RL410	The Royal Wolverhampton Hospitals NHS Trust	WV100QP	-11.56	-11.7	-11.76
RLN	RLNGL	Sunderland Royal Hospital	SR4 7TP	-13.03	-13.02	-12.27
RLQ	RLQ01	County Hospital	HR1 2ER	-13.62	-13.62	-12.24
RLT	RLT99	George Eliot Hospital NHS Trust	CV107DJ	-7.01	-6.77	-5.82
RLU	RLU01	Birmingham Womens	B15 2TG	-4.49	-5.45	-5
RM1	RM102	NORFOLK & NORWICH UNIVERSITY HOSPITAL	NR4 7UY	-13.25	-13.29	-12.45
RM2	RM202	Wythenshawe Hospital	M23 9LT	-3.69	-3.85	-3.5
RM3	RM301	Hope Hospital	M6 8HD	-8.78	-8.38	-8.07
RM4	RM401	TRAFFORD GENERAL HOSPITAL	M41 5SL	-5.61	-5.93	-5.41
RMC	RMC00	Royal Bolton Hospital	BL4 0JR	-13.52	-12.91	-11.72
RMP	RMP01	TAMESIDE GENERAL HOSPITAL (RMP)	OL6 9RW	-11.29	-11.21	-10.38
RN1	RN101	Royal Hampshire County Hospital	SO225DG	-2.98	-3.17	-2.84
RN3	RN325	Great Western Hospital	SN3 6BB	-1.11	-1.23	-1.87
RN5	RN599	North Hampshire Hospitals	RG249NA	3.29	3.4	3.54
RN7	RN707	Darent Valley	DA2 8DA	-2.82	-2.77	-2.15
RNA	RNA03	Wordsley Hospital	DY8 5QX	-12.42	-12.83	-11.26
RNA	RNA01	Russells Hall Hospital	DY1 2HQ	-14.06	-13.73	-12.23
RNH	RNHB1	Newham General Hospital	E13 8SL	5.69	5.78	7.01
RNJ	RNJM0	St. Bartholomew's Hospital	EC1A7BE	15.42	17.53	16.25
RNJ	RNJ12	The Royal London Hospital, Whitechapel	E1 1BB	17.66	17.11	15.04
RNL	RNLBX	WEST CUMBERLAND HOSPITAL	CA288JG	-12.47	-12.47	-11.96
RNL	RNLAY	CUMBERLAND INFIRMARY	CA2 7HY	-13.34	-13.34	-12.78
RNQ	RNQ01	Kettering General Hospital (NHS) Trust	NN168UZ	-6.97	-6.74	-5.65
RNS	RNS01	Northampton General Hospital	NN1 5BD	-4.30	-4.3	-3.81
RNZ	RNZ00	Salisbury Health Care NHS Trust	SP2 8BJ	-7.95	-7.94	-6.96
RP4	RP401	Main Hospital Site	WC1N3JH	18.85	18.47	17.13
RP5	RP5BA	Bassetlaw District General Hospital	S81 0BD	-14.88	-14.97	-14.23
RP5	RP5DR	Doncaster Royal Infirmary	DN2 5LT	-15.84	-15.6	-15.23
RP6	RP602	Moorfields Eye Hospital NHS Trust	EC1V2PD	20.31	17.44	16.33
RPA	RPA02	Medway Maritime Hospital	ME7 5NY	-5.86	-5.86	-4.92
RPC	RPC04	Queen Victoria Hospital (RPC)	RH193DZ	-2.97	-0.34	0.61
RPL	RPL03	Southlands	BN436TQ	-8.42	-5.44	-4.7
RPL	RPL04	Worthing Hospital	BN159EY	-8.42	-7.33	-6.11
RPR	RPR01	St Richards Hospital	PO19 6SE	-6.32	-6.34	-3.28
RPY	RPY02	Royal Marsden Hospital, Sutton	SM2 5PT	6.08	5.99	7.1
RPY	RPY01	Royal Marsden Hospital, Chelsea	SW3 6JJ	17.17	16.32	15.46
RQ3	RQ301	BIRMINGHAM CHILDRENS HOSPITAL	B4 6NH	-4.97	-4.97	-4.86
RQ6	RQ601	Broadgreen site	L14 3LB	-10.07	-9.91	-9.06
RQ6	RQ617	Royal Liverpool site	L7 8XP	-10.07	-10.71	-9.67
RQ8	RQ8LH	St. John's Hospital	CM1 7BG	-8.05	-6.99	-6.3
RQ8	RQ8L0	Broomfield Hospital	CM1 7ET	-8.05	-6.99	-6.3
RQM	RQM22	CHELSEA AND WESTMINSTER HEALTHCARE NHS TRUST	SW109NH	17.17	15.04	14.48
RQN	RQN02	Hammersmith Hospital	W12 0HS	12.00	12.64	12.64
RQN	RQN01	Charing Cross Hospital	W6 8RF	12.00	12.38	11.51
RQQ	RQQ31	Hinchingbrooke Hospital	PE296NT	-5.18	-5.18	-4.48
RQW	RQWG0	Princess Alexandra Hospital	CM201QX	1.23	1.18	0.28
RQX	RQX01	HOMERTON UNIVERSITY HOSPITAL NHS	E9 6SR	15.42	14.18	14.6

		TRUST				
RR1	RR109	SOLIHULL	B91 2JL	-3.74	-3.78	-3.76
RR1	RR101	BIRMINGHAM HEARTLANDS HOSPITAL	B9 5SS	-4.97	-4.72	-3.91
RR2	RR201	St.Mary's Hospital (RR2)	PO305TG	-11.76	-11.29	-8.76
RR7	RR7EN	QUEEN ELIZABETH HOSPITAL (RR7)	NE9 6SX	-12.33	-12.37	-11.98
RR8	RR813	St James's University Hospital	LS9 7TF	-8.55	-8.57	-7.92
RR8	RR801	Leeds General Infirmary	LS1 3EX	-8.57	-8.98	-8.34
RRF	RRF53	Wrightington hospital	WN6 9EP	-12.97	-12.88	-11.88
RRF	RRF02	Royal Albert Edward Infirmary	WN1 2NN	-12.62	-12.52	-11.49
RRJ	RRJ05	The Royal Orthopaedic Hospital	B31 2AP	-4.49	-5.33	-4.89
RRK	RRK03	Selly Oak Hospital	B29 6JD	-4.49	-4.79	-4.47
RRK	RRK02	Queen Elizabeth Hospital	B15 2PR	-4.97	-6.86	-6.22
RRV	RRVNQ	NATIONAL HOSPITAL NEUROLOGY/NEUROSURGERY	WC1N3BG	18.85	18.47	17.13
RRV	RRV10	UNIVERSITY COLLEGE LONDON HOSPITAL	WC1E6AU	18.85	18.69	17.32
RRV	RRV20	MIDDLESEX HOSPITAL	W1N 8AA	20.05	18.45	17.12
RT3	RT301	Harefield Hospital	UB9 6JH	6.94	5.57	6.59
RT3	RT302	Royal Brompton Hospital	SW3 6NP	17.17	16.53	15.62
RTD	RTD01	FREEMAN HOSPITAL	NE7 7DN	-11.22	-12.01	-11.7
RTD	RTD02	ROYAL VICTORIA INFIRMARY	NE1 4LP	-11.22	-11.6	-11.56
RTE	RTE01	Cheltenham General Hospital	GL537AN	-6.65	-6.65	-7.36
RTE	RTE03	Gloucester Royal Hospital	GL1 3NN	-9.37	-8.29	-7.77
RTF	RTFED	Wansbeck General Hospital	NE639JJ	-13.83	-13.38	-12.79
RTF	RTFFS	North Tyneside General Hospital	NE298NH	-13.67	-13.53	-12.33
RTG	RTGFG	Derby City General Hospital	DE223NE	-13.26	-12.06	-11.55
RTG	RTGFA	Derbyshire Royal Infirmary	DE2 1QY	-11.54	-12.98	-12.2
RTH	RTH02	The Churchill Hospital	OX3 7LJ	1.18	1.18	1.62
RTH	RTH05	The Horton Hospital	OX169AL	-4.11	-4.11	-3.42
RTH	RTH08	The John Radcliffe Hospital	OX3 9DU	1.18	1.18	1.62
RTK	RTK02	Ashford Hospital	TW153AA	10.12	9.42	10.01
RTK	RTK01	St Peter's Hospital	KT160PZ	10.12	9.58	10.14
RTP	RTP02	Crawley Hospital	RH117DH	2.14	2.14	3.28
RTP	RTP04	East Surrey Hospital	RH1 5RH	1.99	2.22	2.43
RTR	RTR45	Friarage Hospital	DL6 1JG	-11.49	-11.53	-10.73
RTR	RTRAT	James Cook University Hospital	TS4 3BW	-9.76	-9.76	-8.69
RTX	RTXBU	FURNESS GENERAL HOSPITAL	LA144LF	-13.30	-13.94	-13.14
RTX	RTX02	ROYAL LANCASTER INFIRMARY (RTX)	LA1 4RP	-13.30	-13.99	-13.15
RV8	RV831	CENTRAL MIDDLESEX HOSPITAL	NW107NS	8.09	9.59	10.88
RV8	RV820	NORTHWICK PARK & ST MARK'S HOSPITALS	HA1 3UJ	8.09	5.5	7.07
RVJ	RVJ20	FRENCHAY HOSPITAL	BS161LE	-4.52	-4.43	-4.13
RVJ	RVJ01	SOUTHMEAD HOSPITAL	BS105NB	-4.19	-4.21	-3.57
RVL	RVL01	Barnet General Hospital	EN5 3DJ	7.37	5.3	5.97
RVL	RVLC7	Chase Farm Hospital	EN2 8JL	0.68	1.6	2.93
RVR	RVR50	Epsom General Hospital	KT187EG	6.01	6.09	6.26
RVR	RVR05	St Helier Hospital	SM5 1AA	6.08	6.08	7.69
RVV	RVVKC	KENT AND CANTERBURY HOSPITAL	CT1 3NG	-10.19	-10	-8.57
RVV	RVV09	QUEEN ELIZABETH THE QUEEN MOTHER HOSPITAL	CT9 4AN	-9.67	-9.75	-9.04
RVV	RVV01	WILLIAM HARVEY HOSPITAL	TN240LZ	-8.50	-8.78	-8.32
RVW	RVWAA	University Hospital of Hartlepool	TS249AH	-13.68	-13.68	-11.45
RVW	RVWAE	University Hospital of North Tees	TS198PE	-10.62	-10.69	-10.04
RVY	RVY02	Ormskirk and District General Hospital	L39 2AZ	-12.97	-13.1	-11.91
RVY	RVY01	Southport and Formby District General Hospital	PR8 6PN	-16.28	-16.17	-14.35
RW3	RW301	Island Site	M13 9WL	-5.88	-6.04	-5.77

RW6	RW601	Fairfield General Hospital	BL9 7TD	-11.19	-12.01	-11.54
RW6	RW603	The Royal Oldham Hospital	OL1 2JH	-12.84	-12.76	-11.51
RW6	RW602	North Manchester	M8 5RB	-8.03	-8.75	-8.88
RWA	RWA16	CASTLE HILL HOSPITAL	HU165JQ	-12.85	-13.74	-12.81
RWA	RWA01	HULL ROYAL INFIRMARY	HU3 2JZ	-14.13	-14.2	-13.26
RWD	RWDLA	Pilgrim Hospital	PE219QS	-14.39	-14.34	-13.07
RWD	RWDDA	Lincoln County Hospital	LN2 5QY	-14.57	-14.57	-13.54
RWE	RWEAE	Glenfield Hospital	LE3 9QP	-10.40	-10.32	-8.99
RWE	RWEAK	Leicester General Hospital	LE5 4PW	-10.28	-10.21	-8.99
RWE	RWEAA	Leicester Royal Infirmary	LE1 5WW	-10.28	-10.3	-8.97
RWF	RWF01	Pembury Hospital	TN2 4QJ	-6.00	-4.04	-3.07
RWF	RWF02	Kent & Sussex Hospital	TN4 8AT	-2.94	-3.77	-2.77
RWF	RWF03	Maidstone General Hospital	ME169QQ	-6.00	-5.9	-5.55
RWG	RWG08	HEMEL HEMPSTEAD GENERAL HOSPITAL	HP2 4AD	2.45	2.57	2.82
RWG	RWG02	WATFORD GENERAL HOSPITAL	WD180HB	4.04	4.12	5.31
RWH	RWH20	QEII Hospital	AL7 4HQ	1.28	1.28	0.88
RWH	RWH01	Lister Hospital	SG1 4AB	-1.93	-1.93	-0.38
RWJ	RWJ09	Stepping Hill Hospital	SK2 7JE	-7.80	-7.77	-6.93
RWP	RWP01	The Alexandra Hospital	B98 7UB	-7.76	-7.41	-6.61
RWP	RWP50	Worcestershire Royal Hospital	WR5 1DD	-10.95	-10.95	-10.18
RWR	RWR35	MENTAL HEALTH UNIT - QE2	AL7 4HQ	1.28	1.28	0.88
RWR	RWR34	MENTAL HEALTH UNIT - LISTER	SG1 4AB	-1.93	-1.93	-0.38
RWR	RWR96	HARPERBURY	WD7 9HQ	2.03	3.6	4.24
RWW	RWWHG	HALTON GEN HOSPITAL	WA7 2DA	-8.65	-8.48	-7.48
RWW	RWWWH	WARRINGTON GEN HOSPITAL	WA5 1QG	-8.78	-8.87	-8.07
RWY	RWY01	HUDDERSFIELD ROYAL INFIRMARY	HD3 3EA	-11.61	-11.66	-10.86
RWY	RWY02	CALDERDALE ROYAL HOSPITAL	HX3 0PW	-12.04	-11.96	-11.91
RXC	RXC01	Conquest Hospital	TN377RD	-14.25	-13.97	-13.58
RXC	RXC02	Eastbourne District General Hospital	BN212UD	-13.44	-13.44	-12.38
RXF	RXF10	Dewsbury & District Hospital	WF134HS	-12.15	-12.06	-10.67
RXF	RXF03	Pontefract General Infirmary	WF8 1PL	-10.21	-10.18	-9.93
RXF	RXF05	Pinderfields General Hospital	WF1 4EE	-11.46	-10.99	-10.02
RXH	RXH09	The Princess Royal Hospital	RH164EX	-2.97	-3.16	-1.79
RXH	RXH01	The Royal Sussex County Hospital	BN2 5BE	-3.90	-3.9	-3.94
RXK	RXK01	SANDWELL GENERAL HOSPITAL	B71 4HJ	-12.43	-12.29	-10.89
RXK	RXK02	CITY HOSPITAL	B18 7QH	-4.97	-7.19	-6.49
RXL	RXL01	Blackpool Victoria Hospital	FY3 8NR	-17.19	-17.06	-16.23
RXN	RXN01	Chorley and South Ribble District General Hospital	PR7 1PP	-13.39	-13.44	-12.77
RXN	RXN02	Royal Preston Hospital	PR2 9HT	-12.31	-12.31	-12.24
RXP	RXPBA	BISHOP AUCKLAND GENERAL HOSPITAL	DL146AD	-15.17	-14.36	-13.59
RXP	RXPDA	DARLINGTON MEMORIAL HOSPITAL (RXP)	DL3 6HX	-12.68	-12.68	-11.74
RXP	RXPCP	UNIVERSITY HOSPITAL NORTH DURHAM	DH1 5TW	-13.99	-14.02	-13.41
RXQ	RXQ50	Wycombe Hospital	HP7 0JD	5.72	5.65	6.67
RXQ	RXQ02	Stoke Mandeville Hospital	HP218AL	0.58	0.72	1.56
RXR	RXR02	Blackburn Royal Infirmary	BB2 3LR	-14.71	-14.71	-13.89
RXR	RXR01	Queens Park Hospital	BB2 3HH	-14.71	-14.71	-13.89
RXR	RXR51	BURNLEY GENERAL HOSPITAL	BB102PQ	-14.96	-14.96	-13.31
RXW	RXWAT	Princess Royal Hospital	TF1 6TF	-13.67	-13.64	-12.97
RXW	RXWAS	Royal Shrewsbury Hospital	SY3 8XQ	-13.14	-13.14	-11.97

Source: ONS

Table A1: NES area results with additional smoothing options – weighted by population (Source: ONS)

PCT code	Primary Care Trust 2003	Unsmoothed MFF	Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
1	Tyne and Wear MC	85.29	83.93	84.42	84.76	85.13	84.40	87.05
2	Darlington UA	83.94	84.00	83.80	84.13	84.11	84.06	87.88
3	Durham	82.18	84.17	83.36	83.96	83.60	84.09	87.58
4	Hartlepool UA	80.50	83.20	82.72	82.35	81.05	82.97	87.50
5	Middlesbrough UA	85.65	86.37	86.81	86.78	86.08	86.87	87.90
6	Northumberland	81.95	83.99	83.31	84.03	83.98	84.02	88.03
7	Redcar and Cleveland UA	93.33	86.16	86.73	89.80	92.05	87.89	88.74
8	Stockton-on-Tees UA	87.38	83.94	85.13	85.27	86.51	84.48	87.99
9	Greater Manchester MC	88.22	87.01	87.63	87.66	88.05	87.34	88.46
10	Halton UA	87.59	88.49	88.31	88.23	87.83	88.39	88.62
11	Warrington UA	89.32	88.35	88.41	88.54	88.92	88.42	88.69
12	Cheshire	91.08	87.08	88.57	88.16	89.30	87.60	89.01
13	Cumbria	84.23	83.31	83.64	83.60	83.97	83.42	88.54
14	Blackburn with Darwen UA	82.53	86.48	85.48	84.99	83.46	85.80	87.36
15	Blackpool UA	79.96	82.80	82.80	81.02	80.06	82.08	86.70
16	Lancashire	83.15	86.52	85.11	85.68	84.49	86.19	87.77
17	Merseyside	87.17	87.36	86.68	87.33	87.23	87.36	88.30
18	South Yorkshire MC	84.21	85.47	84.95	85.05	84.57	85.30	87.96
19	West Yorkshire MC	87.72	86.07	86.94	86.82	87.38	86.44	88.31
20	East Riding of Yorkshire UA	83.95	84.69	84.34	84.32	83.76	84.57	88.54
21	Kingston upon Hull UA	82.73	83.42	83.42	82.99	82.79	83.18	87.44
22	North East Lincolnshire UA	82.86	83.03	82.20	83.06	82.90	83.12	88.69
23	North Lincolnshire UA	88.22	83.91	84.01	84.76	86.60	84.20	88.87
24	York UA	89.58	85.22	85.78	87.19	88.86	86.09	88.60
25	North Yorkshire	84.53	85.36	85.55	85.87	86.22	85.63	88.51
26	Derby UA	88.15	84.24	84.24	86.79	87.96	85.48	88.99
27	Derbyshire	83.06	86.81	84.65	85.80	84.69	86.34	88.51
28	Leicester UA & Rutland	86.09	87.44	87.44	87.10	86.75	87.28	89.40

Table A1: NES area results with additional smoothing options – weighted by population (continued)

PCT code	Primary Care Trust 2003	Unsmoothed MFF	Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
30	Leicestershire (inc Rut)	88.07	85.96	87.27	86.62	86.57	86.35	89.85
31	Lincolnshire	81.84	87.00	83.55	85.48	83.71	86.33	89.71
32	Northamptonshire	90.60	91.89	91.77	91.78	91.28	91.92	92.16
33	Nottingham UA	87.41	85.29	85.29	86.42	87.15	85.83	88.70
34	Nottinghamshire	84.53	84.59	84.49	84.71	84.91	84.63	88.73
35	West Midlands MC	89.80	88.48	89.27	89.33	89.67	88.97	90.04
36	Herefordshire UA	80.44	85.65	83.85	84.60	82.70	85.28	90.37
37	Worcestershire	85.49	87.96	87.27	87.96	87.41	88.03	90.31
38	Telford and Wrekin UA	84.11	84.16	83.41	83.90	83.94	84.00	89.06
39	Shropshire	82.11	85.95	84.09	85.02	83.88	85.55	89.35
40	Stoke-on-Trent UA	80.35	83.84	83.84	81.55	80.52	82.72	87.70
41	Staffordshire	84.89	87.51	86.25	87.00	86.26	87.29	89.13
42	Warwickshire	90.77	89.45	90.04	89.59	89.94	89.49	90.87
43	Bath and North East Somerset UA	92.26	89.33	89.11	90.96	91.96	90.18	91.77
44	Bristol, City of UA	92.22	92.03	92.28	92.33	92.31	92.24	91.75
45	North Somerset UA	88.87	88.35	88.17	89.00	89.08	88.74	90.98
46	South Gloucestershire UA	93.99	90.85	91.60	92.22	92.97	91.57	91.80
47	Cornwall	77.49	79.64	79.64	78.20	77.63	78.84	88.53
48	Plymouth UA	84.62	82.05	82.05	84.17	84.60	83.24	88.13
49	Torbay UA	77.03	80.52	80.52	78.16	77.13	79.46	87.33
50	Devon	81.17	81.49	81.24	81.36	81.18	81.45	89.57
51	Bournemouth UA	85.48	86.11	85.64	86.59	85.94	86.64	90.93
52	Poole UA	93.58	86.11	87.00	89.79	92.34	87.86	91.85
53	Dorset	83.74	88.23	87.30	87.31	86.07	87.88	91.39
54	Gloucestershire	89.20	90.68	89.35	90.06	89.55	90.38	91.44
55	Somerset	83.87	85.06	83.70	84.96	84.57	85.06	90.68
56	Swindon UA	97.83	92.78	93.78	94.94	97.23	93.57	93.21
57	Wiltshire	89.47	91.79	91.12	91.51	90.89	91.69	92.38
58	Luton UA	95.41	96.47	94.96	95.92	95.50	96.24	95.35

Table A1: NES area results with additional smoothing options – weighted by population (continued)

PCT code	Primary Care Trust 2003	Unsmoothed MFF	Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
59	Bedfordshire	92.95	95.79	95.20	95.18	94.32	95.53	94.14
60	Peterborough UA	90.88	89.12	88.86	90.29	90.86	89.70	91.56
61	Cambridgeshire	95.45	90.60	92.21	92.12	93.91	91.28	93.00
62	Southend-on-Sea UA	87.28	91.50	91.50	89.13	87.51	90.57	93.26
63	Thurrock UA	100.61	92.49	93.16	95.10	98.72	93.42	96.09
64	Essex	92.01	93.66	92.61	92.99	92.41	93.34	94.40
65	Hertfordshire	97.95	96.74	96.72	97.86	98.26	97.38	96.69
66	Norfolk	83.79	86.71	86.19	85.61	84.59	86.21	90.97
67	Suffolk	87.67	89.74	88.77	88.76	88.04	89.25	92.19
69	Barking and Dagenham	100.00	96.18	95.99	97.37	98.77	96.69	97.79
70	Barnet	107.58	100.43	102.04	102.84	105.29	101.53	100.23
71	Bexley	91.34	91.59	91.46	92.47	91.96	92.26	97.08
72	Brent	97.80	107.76	101.34	104.47	100.80	106.30	100.15
73	Bromley	95.49	97.33	94.83	97.77	96.87	97.82	98.09
74	Camden	118.86	109.75	116.34	115.02	118.20	112.43	104.16
75	Croydon	98.71	102.37	101.34	100.68	99.44	101.55	98.91
76	Ealing	99.47	102.87	101.49	101.69	100.52	102.32	99.88
77	Enfield	95.02	96.11	96.44	97.03	96.10	96.89	98.44
78	Greenwich	94.81	95.44	95.17	95.15	94.93	95.30	98.42
79	Hackney	112.41	107.85	112.00	110.85	112.44	109.44	102.85
80	Hammersmith and Fulham	111.30	104.62	107.76	108.83	111.10	106.69	103.01
81	Haringey	95.90	106.04	100.77	103.69	100.08	105.13	100.19
82	Harrow	99.56	100.24	99.73	100.47	100.00	100.48	99.07
83	Havering	90.06	93.44	92.47	93.48	92.21	93.67	96.45
84	Hillingdon	104.66	101.39	101.66	102.41	103.58	101.82	99.11
85	Hounslow	108.56	104.44	104.95	105.36	106.65	104.81	100.40
86	Islington	122.31	111.71	116.62	115.98	119.50	113.82	104.35
87	Kensington and Chelsea	113.46	110.41	115.71	114.11	114.50	112.82	104.20
88	Kingston upon Thames	106.72	103.55	104.23	104.25	105.64	103.76	100.08
89	Lambeth	111.78	105.36	109.30	108.63	110.68	107.06	102.52

Table A1: NES area results with additional smoothing options – weighted by population (cont)

PCT code	Primary Care Trust 2003	Unsmoothe d MFF	Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
90	Lewisham	99.52	100.73	100.24	100.84	100.32	100.90	99.97
91	Merton	98.99	103.58	101.55	102.43	100.84	103.11	100.09
92	Newham	99.73	104.57	101.28	103.05	101.27	103.92	99.47
93	Redbridge	95.68	93.98	94.35	96.03	96.29	95.20	98.08
94	Richmond upon Thames	105.24	104.76	105.11	105.71	106.03	105.26	100.49
95	Southwark	113.47	104.72	109.55	109.36	111.97	107.22	102.80
96	Sutton	101.73	102.46	102.31	101.54	101.36	101.94	99.39
97	Tower Hamlets	125.55	111.61	116.89	118.48	123.14	115.04	103.76
98	Waltham Forest	97.00	95.58	95.74	98.02	97.88	97.20	99.17
99	Wandsworth	104.20	105.74	104.98	105.27	104.76	105.53	101.56
100	City of Westminster	125.27	112.32	118.85	118.23	121.53	115.59	104.71
101	Bracknell Forest UA	112.90	100.40	104.43	105.47	110.67	102.57	97.82
102	West Berkshire UA	99.15	95.73	95.71	97.31	98.83	96.45	94.80
103	Reading UA	103.12	99.52	100.07	102.67	103.23	101.30	96.89
104	Slough UA	102.33	102.44	101.72	103.15	102.65	103.05	98.32
105	Windsor and Maidenhead UA	108.92	104.00	104.92	105.31	106.89	104.56	97.82
106	Wokingham UA	106.58	98.63	100.39	102.76	105.79	100.46	97.07
107	Brighton and Hove UA	93.66	89.86	90.47	92.31	93.47	91.06	94.25
108	East Sussex	84.83	93.79	88.91	90.51	87.08	92.33	93.62
109	Milton Keynes UA	95.92	94.62	94.23	94.75	95.42	94.57	93.84
110	Buckinghamshire	100.66	98.91	98.67	99.71	100.35	99.31	96.03
111	Portsmouth UA	91.95	94.37	94.37	92.85	92.05	93.73	93.37
112	Southampton UA	93.33	94.52	94.52	93.86	93.41	94.24	93.46
113	Hampshire	94.73	95.68	94.63	95.31	94.86	95.54	94.11
114	Isle of Wight UA	82.88	82.88	82.88	82.88	82.88	82.88	92.71
115	Medway Towns UA	90.63	90.31	90.31	90.42	90.55	90.36	94.28
116	Kent	90.25	93.97	90.44	91.57	90.62	92.58	93.93
117	Oxfordshire	97.00	94.31	96.09	95.92	96.87	95.15	93.92
118	Surrey	103.78	96.83	100.22	100.59	102.93	98.77	97.99
119	West Sussex	91.90	95.34	94.63	94.36	93.14	94.94	94.75

Table A2: PCT area results with additional smoothing options - weighted by population (Source: ONS)

PCT code	Primary Care Trust 2003	Unsmoothed MFF	Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
5A1	New Forest	87.95	88.75	87.65	89.18	89.04	89.05	92.00
5A2	Norwich	83.18	83.83	83.70	83.73	83.42	83.85	88.97
5A3	South Gloucestershire	93.95	90.44	91.81	92.16	92.96	91.40	91.39
5A4	Havering	89.83	94.54	92.80	93.45	91.98	94.10	96.14
5A5	Kingston	106.60	103.43	104.57	104.30	105.56	103.77	99.92
5A7	Bromley	95.28	99.49	95.99	98.56	97.19	99.14	97.81
5A8	Greenwich	94.73	100.12	96.77	98.23	96.26	99.26	98.15
5A9	Barnet	107.50	101.98	104.22	103.63	105.46	102.73	100.05
5AA	South Manchester	96.20	91.75	93.07	92.96	94.56	92.23	88.92
5AC	Daventry and South Northampt	90.73	91.59	91.79	91.83	91.93	91.71	91.79
5AF	North Peterborough	90.18	90.58	90.58	90.44	90.32	90.51	90.85
5AG	South Peterborough	91.02	86.08	88.47	88.69	90.10	87.33	91.03
5AH	Tendring	83.49	85.22	85.12	84.51	83.86	84.93	91.91
5AJ	Epping Forest	95.20	94.05	94.70	94.54	94.94	94.30	96.72
5AK	Southend on Sea	87.23	84.01	84.01	85.76	86.71	84.96	92.46
5AL	Central Derby	90.07	84.81	84.53	85.38	86.67	84.95	87.96
5AM	Mansfield District	77.91	81.96	80.78	80.22	78.71	81.19	87.20
5AN	North East Lincolnshire	84.46	82.63	82.93	83.86	84.38	83.25	88.32
5AP	Newark and Sherwood	84.95	83.14	83.35	83.19	83.71	83.11	88.32
5AT	Hillingdon	105.35	102.73	103.49	103.22	104.06	102.91	99.02
5AW	Airedale	83.57	85.09	84.80	84.93	84.29	85.09	87.13
5C1	Enfield	94.93	98.37	97.20	97.18	95.95	97.84	98.16
5C2	Barking and Dagenham	100.00	95.00	96.29	96.52	98.30	95.66	97.49
5C3	City and Hackney Teaching	109.78	110.80	111.53	111.40	111.37	111.12	102.41
5C4	Tower Hamlets	124.73	106.54	114.15	113.57	120.47	109.69	103.39
5C5	Newham	99.72	102.70	101.05	102.01	100.90	102.44	99.20
5C9	Haringey Teaching	95.54	105.43	100.64	103.27	99.67	104.63	99.92
5CC	Blackburn with Darwen	82.14	82.42	82.40	82.32	82.22	82.37	86.66
5CD	North Dorset	85.38	85.81	83.98	85.55	85.39	85.67	90.99
5CE	Bournemouth Teaching	84.26	87.54	86.52	85.76	84.79	86.56	89.90

Table A2: PCT area results with additional smoothing options - weighted by population (continued)

PCT code	Primary Care Trust 2003	Unsmoothe d MFF	Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
5CF	Bradford City	85.54	84.67	85.07	85.00	85.26	84.84	86.91
5CG	Bradford South and West	84.86	85.86	85.39	85.49	85.25	85.67	87.01
5CH	North Bradford	84.00	86.12	85.77	85.43	84.71	85.81	86.98
5CK	Doncaster Central	84.18	79.44	80.39	81.23	82.90	80.27	86.79
5CL	Central Manchester	91.56	89.87	91.27	90.84	91.47	90.35	88.50
5CM	Dartford, Gravesham and Swan	93.72	93.40	93.48	93.80	93.98	93.61	95.81
5CN	Herefordshire	80.07	84.29	82.96	83.37	81.91	83.95	89.80
5CP	Hertsmere	101.25	100.80	102.00	101.43	101.69	101.15	98.14
5CQ	Milton Keynes	95.86	92.70	94.77	94.16	95.31	93.40	93.49
5CR	North Manchester	93.90	86.81	89.19	88.77	91.57	87.59	88.07
5CV	South Hams and West Devon	81.16	79.39	79.76	80.60	81.49	80.00	88.68
5CW	Torbay	76.86	78.14	78.22	77.08	76.87	77.46	86.64
5CX	Trafford South	93.75	92.44	93.25	93.25	93.66	92.87	88.65
5CY	West Norfolk	86.65	83.74	84.77	84.54	85.61	84.07	90.63
5D1	Solihull	97.21	91.41	93.71	92.91	94.68	92.07	90.50
5D2	West Lincolnshire	81.25	82.89	82.02	82.46	81.89	82.71	88.38
5D3	Lincolnshire South West Teac	82.70	84.46	82.89	83.93	83.28	84.23	89.56
5D4	Carlisle and District	84.63	83.36	82.82	83.64	84.16	83.43	87.86
5D5	Eden Valley	77.33	83.23	81.78	82.65	81.22	83.04	87.74
5D6	West Cumbria	84.99	84.03	84.46	84.48	84.85	84.22	87.99
5D7	Newcastle	88.34	83.90	85.41	85.69	87.00	84.80	86.82
5D8	North Tyneside	81.58	83.89	83.40	83.33	82.37	83.76	85.97
5D9	Hartlepool	80.20	85.83	83.68	83.32	81.09	84.75	86.84
5DC	Harlow	100.64	94.44	96.29	97.71	99.96	95.94	96.12
5DD	Morecambe Bay	84.90	83.16	84.06	83.68	84.30	83.36	87.53
5DF	North Hampshire	101.18	97.82	99.31	99.70	100.78	98.84	95.04
5DG	Isle of Wight	82.63	88.99	88.99	85.17	83.27	86.97	91.91
5DH	West Wiltshire	89.66	89.74	89.46	89.96	89.92	89.89	91.53
5DJ	South Wiltshire	86.77	88.92	88.48	88.85	88.00	89.00	92.04
5DK	Newbury and Community	97.87	97.47	97.90	98.21	98.34	97.89	94.13

Table A2: PCT area results with additional smoothing options - weighted by population (continued)

PCT code	Primary Care Trust 2003	Unsmoothed MFF	Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
5DL	Reading	103.21	101.73	102.15	103.03	103.44	102.47	96.22
5DM	Slough	102.26	104.90	102.30	103.98	102.84	104.56	98.23
5DN	Wokingham	107.01	104.54	105.79	105.74	106.54	105.15	97.02
5DP	Vale of Aylesbury	96.27	96.89	96.37	97.08	96.92	97.03	94.47
5DQ	Burntwood, Lichfield and Tam	84.65	85.28	85.06	84.79	84.60	85.00	88.80
5DR	Wyre Forest	81.86	83.90	83.64	83.43	82.49	83.79	88.98
5DT	North East Oxfordshire	95.52	96.24	95.80	96.22	96.03	96.25	93.27
5DV	Cherwell Vale	92.45	92.12	91.94	92.55	92.61	92.39	92.16
5DW	Oxford City	98.55	96.79	97.59	97.66	98.27	97.21	94.05
5DX	South East Oxfordshire	95.38	100.37	98.73	99.88	98.48	100.23	94.96
5DY	South West Oxfordshire	97.01	94.00	96.03	95.86	96.89	94.99	93.48
5E1	North Tees	86.93	85.89	86.05	86.27	86.62	86.06	87.38
5E2	Selby and York	88.86	84.92	87.16	86.56	87.98	85.70	87.92
5E3	East Yorkshire	84.51	84.44	84.85	84.12	84.05	84.25	87.83
5E4	Yorkshire Wolds and Coast	82.67	84.61	83.40	83.66	83.05	84.10	88.03
5E5	Eastern Hull	81.76	83.11	82.75	82.36	81.94	82.73	86.96
5E6	West Hull	82.92	83.26	83.29	82.88	82.86	83.01	86.94
5E7	Eastern Wakefield	89.04	85.90	87.18	86.67	87.96	86.13	87.56
5E8	Wakefield West	83.42	85.92	84.82	85.46	84.59	85.76	87.16
5E9	Mid-Hampshire	96.24	92.61	95.34	93.64	94.60	93.12	93.40
5EA	Chesterfield	83.46	81.46	81.46	82.08	82.65	81.77	87.03
5EC	Gedling	80.21	85.91	83.76	85.04	83.74	85.55	87.90
5ED	Amber Valley	81.00	83.23	82.51	82.85	82.12	83.10	87.80
5EE	North Sheffield	84.95	83.89	85.48	85.11	85.50	84.54	87.11
5EF	North Lincolnshire	86.03	82.98	83.87	84.04	85.24	83.43	87.99
5EG	North Eastern Derbyshire	80.29	82.37	81.39	82.06	81.85	82.21	87.29
5EH	Melton, Rutland and Harborough	86.53	87.29	86.84	87.22	87.04	87.27	89.89
5EJ	Leicester City West	84.69	87.54	87.12	86.48	85.50	87.06	89.05
5EK	Doncaster East	78.52	84.17	80.49	82.03	80.73	83.10	87.18
5EL	Doncaster West	77.31	84.15	81.02	81.94	80.09	83.04	86.90

Table A2: PCT area results with additional smoothing options - weighted by population (continued)

PCT code	Primary Care Trust 2003	Unsmoothed MFF	Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
5EM	Nottingham City	87.31	86.19	86.84	86.54	86.88	86.35	88.04
5EN	Sheffield West	91.50	83.80	86.37	85.25	86.63	84.49	87.34
5EP	Sheffield South West	84.49	83.61	84.43	84.48	84.65	84.15	87.14
5EQ	South East Sheffield	82.11	83.99	82.69	83.49	82.72	83.83	86.74
5ER	Erewash	83.72	85.27	84.11	84.72	84.31	84.98	88.05
5ET	Bassetlaw	82.98	82.11	82.55	82.16	82.44	82.10	87.72
5EV	Broxtowe & Hucknall	87.24	85.14	86.34	85.99	86.64	85.57	88.04
5EX	Greater Derby	81.61	83.80	83.10	83.72	83.43	83.81	87.69
5EY	Eastern Leicester	86.03	87.36	86.62	86.60	86.12	87.00	89.08
5F1	Plymouth	84.43	80.68	83.21	83.72	84.34	82.61	87.52
5F2	Chorley and South Ribble	84.23	83.15	83.57	83.60	84.02	83.36	86.93
5F3	West Lancashire	80.88	84.66	82.68	84.00	82.96	84.39	87.06
5F4	Heywood and Middleton	85.83	83.75	83.72	84.99	85.53	84.48	87.18
5F5	Salford	89.01	87.09	87.45	88.05	88.78	87.55	87.85
5F6	Trafford North	91.90	90.59	91.18	91.11	91.50	90.86	88.37
5F7	Stockport	87.90	88.88	88.49	88.99	88.66	89.03	88.07
5F8	Bebington and West Wirral	93.23	87.91	89.28	88.21	89.40	87.93	88.01
5F9	Southport and Formby	79.42	82.94	81.01	80.81	79.73	81.85	86.63
5FA	Ashfield	85.01	82.33	82.88	82.68	83.77	82.39	87.63
5FC	Rushcliffe	88.30	86.15	87.16	86.27	86.58	86.18	88.61
5FD	East Hampshire	89.05	91.71	90.74	90.05	89.44	90.74	92.99
5FE	Portsmouth City Teaching	91.79	89.53	90.09	90.87	91.56	90.22	92.49
5FF	South West Kent	92.98	93.94	93.08	93.68	93.30	93.84	95.29
5FH	Bexhill and Rother	77.93	87.12	84.24	84.24	82.30	85.74	92.78
5FJ	Hastings and St Leonards	84.15	81.00	81.00	82.77	83.70	81.97	91.68
5FK	Mid-Sussex	91.08	94.53	92.08	93.65	92.62	94.13	94.85
5FL	Bath and North East Somerset	92.14	90.99	91.19	91.55	91.93	91.28	91.33
5FM	West of Cornwall	76.61	78.15	78.15	77.27	76.81	77.67	88.06
5FN	South and East Dorset	84.60	86.24	86.11	87.13	86.97	86.88	90.81
5FP	South West Dorset	79.98	82.02	81.54	81.10	80.32	81.61	90.23

Table A2: PCT area results with additional smoothing options - weighted by population (continued)

PCT code	Primary Care Trust 2003	Unsmootherd MFF	Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
5FQ	North Devon	79.74	79.57	79.25	79.52	79.63	79.51	89.24
5FR	Exeter	84.32	80.09	81.73	81.86	83.29	80.95	88.71
5FT	East Devon	79.82	81.21	80.67	81.02	80.52	81.17	89.17
5FV	Mid Devon	78.55	81.12	80.05	80.98	80.81	81.05	89.13
5FW	Somerset Coast	84.37	83.65	84.15	84.28	84.41	84.04	90.05
5FX	Mendip	88.26	87.31	86.78	87.94	88.34	87.63	90.91
5FY	Teignbridge	76.53	79.62	79.04	78.38	77.33	79.03	88.11
5G1	Southern Norfolk	83.05	84.08	83.89	83.73	83.43	83.90	90.57
5G2	Bracknell Forest	113.02	106.54	109.40	108.51	110.92	107.39	97.81
5G3	Windsor, Ascot and Maidenhead	108.88	105.94	107.83	106.44	107.09	106.16	97.82
5G4	Chiltern and South Bucks	98.56	102.28	100.53	102.04	101.16	102.26	96.99
5G5	Wycombe	106.55	102.19	103.09	103.53	105.00	102.78	96.67
5G6	Blackwater Valley and Hart	102.32	104.03	102.70	103.75	103.17	103.95	96.61
5G7	Hyndburn and Ribble Valley	82.42	82.90	82.66	82.17	81.80	82.51	86.78
5G8	Burnley, Pendle and Rossendale	79.40	83.67	81.40	82.08	80.62	82.93	86.66
5G9	North Liverpool	78.99	86.99	85.13	84.46	81.55	85.88	86.61
5GC	Luton	95.48	93.93	94.54	94.94	95.37	94.47	95.01
5GD	Bedford	91.37	92.01	91.68	92.12	91.86	92.12	93.03
5GE	Bedfordshire Heartlands	94.02	95.39	94.32	94.91	94.58	95.14	94.23
5GF	Huntingdonshire	91.69	91.24	91.91	91.52	91.72	91.37	92.27
5GG	Welwyn Hatfield	103.55	95.63	97.44	97.76	100.72	96.50	96.61
5GH	North Hertfordshire and Stevenage	92.21	95.84	93.50	94.66	93.37	95.30	94.71
5GJ	South East Hertfordshire	91.04	95.58	93.40	95.01	93.94	95.37	96.13
5GK	Royston, Buntingford and Bishop Cleeve	101.27	95.08	96.51	96.68	99.31	95.64	94.78
5GL	Maldon and South Chelmsford	89.16	86.82	87.86	87.15	87.86	86.93	93.42
5GM	Colchester	88.66	86.69	87.35	87.40	88.18	86.97	92.51
5GN	Uttlesford	96.67	92.56	95.31	93.75	95.33	93.07	94.18
5GP	Billericay, Brentwood and Witham	93.12	91.83	92.71	92.61	93.20	92.21	95.00
5GQ	Thurrock	100.41	91.64	95.32	94.08	97.12	92.71	95.73
5GR	Basildon	98.25	92.28	95.01	94.72	97.01	93.36	94.89

Table A2: PCT area results with additional smoothing options - weighted by population (continued)

PCT code	Primary Care Trust 2003	Unsmoothe d MFF	Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
5GT	Great Yarmouth	81.23	82.51	82.43	82.01	81.42	82.36	89.87
5GV	Watford and Three Rivers	99.65	100.80	100.46	100.42	99.99	100.64	97.64
5GW	Dacorum	100.95	97.51	98.59	98.88	100.11	98.16	96.27
5GX	St. Albans and Harpenden	97.85	97.55	98.56	98.48	98.52	98.11	96.56
5H1	Hammersmith and Fulham	111.58	104.53	107.92	108.10	110.87	106.14	102.88
5H2	Birkenhead and Wallasey	80.72	86.68	85.24	84.54	82.50	85.71	86.94
5H3	Cheshire West	90.21	87.57	87.69	89.41	90.38	88.59	88.31
5H4	Central Cheshire	86.15	86.56	87.73	86.85	86.56	86.81	88.02
5H5	Eastern Cheshire	93.21	88.88	89.86	90.08	91.30	89.46	88.20
5H6	Ellesmere Port and Neston	98.69	90.72	93.72	93.62	96.80	91.95	88.68
5H7	Derbyshire Dales and South D	86.67	84.64	85.84	85.29	85.85	84.97	88.49
5H8	Rotherham	83.81	82.41	82.80	83.03	83.47	82.73	87.05
5H9	East Lincolnshire	81.04	83.58	81.82	82.63	81.76	83.12	89.41
5HA	Central Liverpool	88.15	86.47	86.66	86.80	87.37	86.58	87.54
5HC	South Liverpool	85.85	90.15	88.56	88.48	86.93	89.37	87.67
5HD	Preston	86.47	83.23	84.22	84.64	85.67	83.95	87.03
5HE	Fylde	84.26	82.41	82.01	82.35	82.85	82.32	86.89
5HF	Wyre	77.25	83.04	82.05	80.94	79.00	82.08	86.71
5HG	Ashton, Leigh and Wigan	83.78	84.82	84.06	84.34	83.97	84.59	86.98
5HH	Leeds West	83.98	87.42	86.90	86.95	85.82	87.30	87.27
5HJ	Leeds North East	83.09	88.16	86.34	87.81	86.44	88.15	87.55
5HK	East Leeds	91.93	88.77	89.94	89.41	90.29	89.04	87.85
5HL	South Leeds	90.96	87.30	88.77	88.25	89.50	87.71	87.66
5HM	Leeds North West	91.49	87.14	88.51	88.27	89.44	87.67	87.68
5HN	High Peak and Dales	82.17	85.63	84.43	85.30	84.38	85.53	87.77
5HP	Blackpool	79.85	80.00	80.20	79.93	79.88	79.97	85.84
5HQ	Bolton	81.30	84.40	82.90	83.47	82.35	84.02	86.69
5HR	Staffordshire Moorlands	81.52	84.95	83.84	82.70	80.76	83.90	87.54
5HT	Dudley South	83.22	86.24	84.10	84.53	83.43	85.44	88.14
5HV	Dudley Beacon and Castle	81.18	84.24	83.04	82.95	81.82	83.65	87.69

Table A2: PCT area results with additional smoothing options - weighted by population (continued)

PCT code	Primary Care Trust 2003	Unsmoothe d MFF	Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
5HW	Newcastle-under-Lyme	82.64	82.68	83.04	81.80	81.46	82.23	87.50
5HX	Ealing	99.29	102.90	101.37	101.63	100.39	102.31	99.73
5HY	Hounslow	108.29	105.63	105.97	105.86	106.67	105.64	100.28
5J1	Halton	87.48	88.52	87.94	88.17	87.70	88.39	87.85
5J2	Warrington	89.08	88.08	88.22	88.05	88.45	88.00	87.84
5J3	St Helens	85.16	86.15	85.86	86.11	85.76	86.18	87.38
5J4	Knowsley	91.12	86.09	88.32	87.33	88.80	86.65	87.73
5J5	Oldham	81.83	85.19	82.97	84.13	83.19	84.66	86.98
5J6	Calderdale	88.99	83.25	85.95	84.90	86.57	84.03	87.27
5J7	North Kirklees	82.74	85.86	84.52	84.79	83.62	85.40	86.92
5J8	Durham Dales	81.06	81.68	81.18	81.88	81.93	81.79	87.19
5J9	Darlington	83.61	84.51	84.26	84.28	83.91	84.43	87.20
5JA	Hinckley and Bosworth	85.03	88.32	87.25	87.58	86.61	88.00	89.68
5JC	Charnwood and North West Lei	87.52	86.65	87.12	86.86	87.12	86.75	89.12
5JD	South Leicestershire	91.18	87.81	89.37	87.75	88.10	87.71	89.80
5JE	Barnsley	81.04	84.08	82.62	83.34	82.30	83.79	87.00
5JF	Bristol North	92.53	91.88	92.08	92.48	92.55	92.29	91.46
5JG	Bristol South and West	91.92	91.92	91.61	92.13	92.03	92.09	91.35
5JH	Cambridge City	100.13	100.34	100.34	100.27	100.22	100.30	94.14
5JJ	South Cambridgeshire	100.50	93.13	96.87	96.73	99.46	94.70	93.56
5JK	East Cambridgeshire and Fenl	83.97	87.87	86.84	87.57	85.96	87.95	91.44
5JL	Broadland	85.83	82.51	83.55	83.42	83.92	82.98	89.80
5JM	North Norfolk	77.66	83.38	82.17	81.73	79.79	82.66	89.96
5JN	Chelmsford	90.30	89.52	90.59	89.71	90.07	89.57	94.16
5JP	Castle Point and Rochford	80.88	90.75	85.25	87.75	84.78	89.39	93.15
5JQ	Ipswich	89.48	87.63	87.48	88.36	88.98	87.97	91.65
5JR	Suffolk Coastal	90.49	86.45	87.17	88.25	89.44	87.40	91.71
5JT	Central Suffolk	82.11	86.13	85.67	86.40	86.07	86.34	91.71
5JV	Waveney	83.18	83.85	83.52	83.29	83.10	83.55	90.50
5JW	Suffolk West	88.19	87.93	87.00	88.05	88.11	88.00	92.13

Table A2: PCT area results with additional smoothing options - weighted by population (continued)

PCT code	Primary Care Trust 2003	Unsmoothed MFF	Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
5JX	Bury	86.31	84.58	84.73	85.72	86.17	85.24	87.18
5JY	Rochdale	81.27	83.01	82.93	82.37	81.79	82.71	86.81
5K1	South Somerset	81.03	83.36	82.58	82.64	81.77	83.05	90.16
5K2	Taunton Deane	83.07	81.54	82.67	82.45	82.96	82.01	89.67
5K3	Swindon	98.01	92.55	94.80	95.45	97.34	93.93	92.82
5K4	Kennet and North Wiltshire	90.27	92.78	90.80	92.34	91.86	92.56	92.02
5K5	Brent Teaching	97.55	107.72	101.12	104.33	100.56	106.22	99.96
5K6	Harrow	99.63	101.76	100.79	100.91	100.11	101.37	98.94
5K7	Camden	118.70	109.84	116.30	114.71	117.98	112.25	103.96
5K8	Islington	124.00	111.26	116.44	116.12	120.34	113.63	104.25
5K9	Croydon	98.57	101.51	99.29	100.26	99.26	100.90	98.67
5KA	Derwentside	74.20	81.69	79.65	80.23	77.77	81.15	86.43
5KC	Durham and Chester-le-Street	83.93	82.73	83.04	83.02	83.41	82.85	86.63
5KD	Easington	82.94	83.34	83.27	83.21	83.06	83.28	86.78
5KE	Sedgefield	83.79	83.70	83.64	83.69	83.72	83.70	86.99
5KF	Gateshead	83.90	83.66	83.73	84.62	84.97	84.18	86.49
5KG	South Tyneside	84.01	84.60	83.88	84.15	83.95	84.36	86.21
5KH	Hambleton and Richmondshire	84.61	85.36	84.41	85.43	85.23	85.44	87.62
5KJ	Craven, Harrogate and Rural	84.05	84.93	84.68	85.27	85.37	85.12	87.54
5KK	Scarborough, Whitby and Ryed	81.15	86.14	83.79	84.42	82.62	85.38	88.01
5KL	Sunderland Teaching	84.02	83.86	83.94	83.94	84.00	83.90	86.32
5KM	Middlesbrough	86.59	87.49	87.70	87.10	86.74	87.35	87.45
5KN	Langbaugh	93.57	85.47	87.84	88.42	91.33	86.81	88.08
5KP	East Elmbridge and Mid Surre	104.25	100.32	103.00	102.32	103.27	101.51	98.38
5KQ	East Surrey	100.50	96.95	99.72	98.44	99.63	97.71	97.04
5KR	North and East Cornwall	74.62	80.24	77.25	78.93	77.14	79.70	88.43
5KT	Central Cornwall	79.45	77.04	77.63	78.39	79.14	77.75	88.16
5KV	Poole	92.69	87.20	89.20	88.64	89.83	87.94	91.00
5KW	Cheltenham and Tewkesbury	94.57	87.39	89.20	90.10	92.79	88.59	91.09
5KX	West Gloucestershire	86.91	87.42	85.99	87.48	87.27	87.49	90.57

Table A2: PCT area results with additional smoothing options - weighted by population (continued)

PCT code	Primary Care Trust 2003	Unsmoothed MFF	Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
5KY	Cotswold and Vale	84.95	90.98	88.08	89.96	88.52	90.55	91.17
5L1	Southampton City	92.87	90.83	91.70	92.10	92.57	91.60	92.59
5L2	Maidstone Weald	92.11	89.62	91.31	90.73	91.46	90.20	94.34
5L3	Medway	90.50	90.96	90.98	90.86	90.65	90.95	94.10
5L4	Swale	85.88	89.12	88.03	88.13	86.81	88.73	93.30
5L5	Guildford and Waverley	101.02	100.88	100.53	101.90	101.96	101.53	96.49
5L6	North Surrey	108.14	105.31	106.90	106.29	107.34	105.75	98.89
5L7	Woking Area	104.69	105.62	104.23	105.19	104.87	105.40	97.62
5L8	Adur, Arun and Worthing	87.28	89.63	88.34	88.39	87.56	89.06	93.08
5L9	Western Sussex	84.16	95.14	88.89	90.42	86.80	92.79	93.38
5LA	Kensington and Chelsea	113.59	108.86	114.76	113.09	114.33	111.32	104.05
5LC	Westminster	125.45	110.45	118.18	115.87	120.66	112.99	104.55
5LD	Lambeth	111.69	105.75	109.62	108.63	110.69	107.17	102.32
5LE	Southwark	113.49	108.07	110.96	111.04	112.63	109.70	102.56
5LF	Lewisham	99.49	104.59	100.12	102.86	101.03	103.83	99.73
5LG	Wandsworth	104.15	108.63	105.25	107.61	106.00	108.26	101.41
5LH	Tameside and Glossop	83.85	85.32	84.12	85.62	85.08	85.64	87.39
5LJ	Huddersfield Central	85.52	85.40	85.66	85.31	85.36	85.34	87.08
5LK	South Huddersfield	82.35	83.70	83.09	83.92	83.89	83.83	87.18
5LL	Ashford	89.70	87.49	89.05	88.32	89.10	87.89	93.24
5LM	Canterbury and Coastal	84.56	88.29	86.37	86.68	85.36	87.51	92.60
5LN	East Kent Coastal	87.64	86.63	86.72	87.19	87.50	86.92	92.17
5LP	Shepway	87.80	85.97	87.32	87.03	87.65	86.52	92.71
5LQ	Brighton and Hove City	93.73	91.04	92.05	92.76	93.56	91.89	93.87
5LR	Eastbourne Downs	82.97	84.08	84.55	83.55	83.18	83.82	92.79
5LT	Sussex Downs and Weald	88.77	91.00	88.89	90.14	89.45	90.56	94.05
5LV	Northamptonshire Heartlands	87.99	90.19	88.76	89.79	88.99	90.08	91.38
5LW	Northampton	93.31	91.78	91.85	92.37	92.95	92.02	92.02
5LX	Fareham and Gosport	87.68	91.14	90.06	89.28	88.21	90.17	92.06
5LY	Eastleigh and Test Valley So	91.10	90.71	92.00	91.66	91.98	91.26	92.71

Table A2: PCT area results with additional smoothing options - weighted by population (continued)

PCT code	Primary Care Trust 2003	Unsmoothed MFF	Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
5M1	South Birmingham	93.37	91.04	92.38	92.19	92.94	91.63	90.23
5M2	Shropshire County	81.80	84.50	82.71	83.84	83.14	84.21	88.60
5M3	Walsall Teaching	81.44	84.06	82.88	83.12	82.20	83.63	87.85
5M5	South Sefton	86.69	84.44	84.93	85.03	85.67	84.72	87.19
5M6	Richmond and Twickenham	105.20	106.60	106.10	106.61	106.28	106.65	100.33
5M7	Sutton and Merton	100.26	103.61	101.23	102.39	101.27	103.02	99.52
5M8	North Somerset	88.42	89.94	89.40	89.49	88.88	89.78	90.52
5M9	Rugby	92.29	90.78	91.12	91.45	92.06	91.10	90.86
5MA	Crawley	99.02	99.35	98.80	98.59	98.82	98.80	96.02
5MC	Horsham and Chanctonbury	95.84	93.55	91.28	93.84	94.73	93.60	95.02
5MD	Coventry Teaching	95.21	92.66	93.74	94.02	94.89	93.31	91.08
5ME	North Stoke	77.49	80.56	79.40	79.60	78.64	80.11	86.83
5MF	South Stoke	80.95	81.71	81.42	80.86	80.78	81.16	87.10
5MG	Oldbury and Smethwick	84.54	88.20	87.58	87.27	85.72	87.86	88.69
5MH	Rowley Regis and Tipton	80.86	83.45	82.25	82.59	81.62	83.08	87.79
5MJ	Wednesbury and West Bromwich	83.10	85.72	83.98	84.52	83.55	85.14	88.11
5MK	Telford and Wrekin	83.83	83.09	82.74	83.33	83.61	83.19	88.28
5ML	East Staffordshire	88.13	84.83	86.27	86.04	87.06	85.41	88.61
5MM	Cannock Chase	84.05	84.79	84.44	84.33	84.08	84.54	88.24
5MN	South Western Staffordshire	84.36	83.61	83.94	84.07	84.37	83.85	88.34
5MP	North Warwickshire	87.00	89.92	88.46	89.75	88.92	89.93	89.84
5MQ	South Warwickshire	90.05	90.47	90.09	91.31	91.37	90.99	90.81
5MR	Redditch and Bromsgrove	86.58	89.13	87.93	89.03	88.27	89.17	89.77
5MT	South Worcestershire	85.37	85.77	85.40	85.95	85.76	85.92	89.96
5MV	Wolverhampton City	87.61	83.69	85.64	85.36	86.83	84.43	88.27
5MW	North Birmingham	84.87	88.40	86.73	87.65	86.42	88.12	88.88
5MX	Heart of Birmingham Teaching	93.86	90.34	92.54	91.72	92.91	91.01	90.12
5MY	Eastern Birmingham	91.18	92.58	92.17	92.14	91.66	92.39	90.03
5NA	Redbridge	95.50	96.17	96.37	96.48	96.26	96.39	97.67
5NC	Waltham Forest	96.73	98.26	97.38	97.97	97.42	98.17	98.63

Table A2: PCT area results with additional smoothing options - weighted by population (continued)

PCT code	Primary Care Trust 2003	Unsmoothed MFF	Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
TAC	Northumberland	81.53	82.60	81.58	83.17	83.44	82.93	87.32
TAG	Witham, Braintree and Halstead	87.00	89.33	88.46	88.75	87.92	89.10	93.26
TAK	Bexley	91.13	94.55	92.73	93.41	92.13	94.07	96.78

**Table A3.1: Merged Health Geography: Combining PCTs with less than 1% Variation
(Source: ONS)**

Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT MFF
1	11	5AF	North Peterborough	-8.09
2	12	5AG	South Peterborough	-7.29
3	267	5LV	Northamptonshire Heartlands	-10.37
4	138	5GD	Bedford	-6.71
	140	5GF	Huntingdonshire	-6.71
5	144	5GK	Royston, Buntingford and Bishop's Stortford	2.58
	200	5JJ	South Cambridgeshire	2.58
6	199	5JH	Cambridge City	1.82
7	201	5JK	East Cambridgeshire and Fenland	-11.53
	210	5JW	Suffolk West	-11.53
8	208	5JT	Central Suffolk	-16.24
9	206	5JQ	Ipswich	-8.48
	207	5JR	Suffolk Coastal	-8.48
10	44	5CY	West Norfolk	-11.43
11	2	5A2	Norwich	-14.59
	128	5G1	Southern Norfolk	-14.59
	202	5JL	Broadland	-14.59
	209	5JV	Waveney	-14.59
12	151	5GT	Great Yarmouth	-18.87
	203	5JM	North Norfolk	-18.87
13	39	5CQ	Milton Keynes	-4.00
	137	5GC	Luton	-4.00
	139	5GE	Bedfordshire Heartlands	-4.00
	142	5GH	North Hertfordshire and Stevenage	-4.00

	143	5GJ	South East Hertfordshire	-4.00
Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT MFF
14	153	5GW	Dacorum	1.68
	154	5GX	St. Albans and Harpenden	1.68
15	141	5GG	Welwyn Hatfield	5.68
16	131	5G4	Chiltern and South Bucks	0.61
17	152	5GV	Watford and Three Rivers	1.62
18	38	5CP	Hertsmere	3.06
19	54	5DC	Harlow	2.46
20	14	5AJ	Epping Forest	-2.19
	147	5GN	Uttlesford	-2.19
21	204	5JN	Chelmsford	-9.59
	302	TAG	Witham, Braintree and Halstead	-9.59
22	145	5GL	Maldon and South Chelmsford	-11.50
	146	5GM	Colchester	-11.50
	205	5JP	Castle Point and Rochford	-11.50
23	15	5AK	Southend on Sea	-11.06
24	13	5AH	Tendring	-14.75
25	4	5A4	Havering	-7.31
	148	5GP	Billericay, Brentwood and Wickford	-7.31
26	149	5GQ	Thurrock	0.81
	150	5GR	Basildon	0.81
27	252	5LC	Westminster	27.79
28	219	5K7	Camden	20.78
29	220	5K8	Islington	26.39
30	251	5LA	Kensington and Chelsea	15.76
31	155	5H1	Hammersmith and Fulham	9.85
	256	5LG	Wandsworth	9.85

32	253	5LD	Lambeth	13.79
Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT MFF
33	182	5HX	Ealing	1.31
	218	5K6	Harrow	1.31
34	183	5HY	Hounslow	9.39
	275	5M6	Richmond and Twickenham	9.39
35	20	5AT	Hillingdon	7.42
36	22	5C1	Enfield	-2.61
	300	5NC	Waltham Forest	-2.61
37	23	5C2	Barking and Dagenham	
	299	5NA	Redbridge	
38	26	5C5	Newham	1.61
39	8	5A9	Barnet	4.81
	27	5C9	Haringey Teaching	4.81
40	217	5K5	Brent Teaching	-0.60
41	24	5C3	City and Hackney Teaching	11.81
42	25	5C4	Tower Hamlets	27.13
43	254	5LE	Southwark	15.58
44	255	5LF	Lewisham	1.36
45	6	5A7	Bromley	-2.92
	7	5A8	Greenwich	-2.92
46	5	5A5	Kingston	8.68
47	221	5K9	Croydon	0.47
48	52	5D8	North Tyneside	-16.94
	301	TAC	Northumberland	-16.94
49	226	5KF	Gateshead	-14.46
	227	5KG	South Tyneside	-14.46
	231	5KL	Sunderland Teaching	-14.46

50	51	5D7	Newcastle	-10.03
Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT MFF
51	191	5J8	Durham Dales	-20.71
	222	5KA	Derwentside	-20.71
52	53	5D9	Hartlepool	-15.61
	223	5KC	Durham and Chester-le-Street	-15.61
	224	5KD	Easington	-15.61
	225	5KE	Sedgefield	-15.61
53	192	5J9	Darlington	-14.71
54	72	5E1	North Tees	-10.61
	232	5KM	Middlesbrough	-10.61
	233	5KN	Langbaurgh	-10.61
55	73	5E2	Selby and York	-9.40
	78	5E7	Eastern Wakefield	-9.40
56	18	5AN	North East Lincolnshire	-14.50
	74	5E3	East Yorkshire	-14.50
	75	5E4	Yorkshire Wolds and Coast	-14.50
	85	5EF	North Lincolnshire	-14.50
	230	5KK	Scarborough, Whitby and Ryedale	-14.50
57	76	5E5	Eastern Hull	-15.93
	77	5E6	West Hull	-15.93
58	171	5HJ	Leeds North East	-8.37
	174	5HM	Leeds North West	-8.37
59	170	5HH	Leeds West	-14.44
60	172	5HK	East Leeds	-6.22
61	173	5HL	South Leeds	-7.34

Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT MFF
62	21	5AW	Airedale	-13.19
	31	5CF	Bradford City	-13.19
	32	5CG	Bradford South and West	-13.19
	33	5CH	North Bradford	-13.19
	79	5E8	Wakefield West	-13.19
	189	5J6	Calderdale	-13.19
	190	5J7	North Kirklees	-13.19
	228	5KH	Hambleton and Richmondshire	-13.19
	229	5KJ	Craven, Harrogate and Rural District	-13.19
	258	5LJ	Huddersfield Central	-13.19
63	48	5D4	Carlisle and District	-14.97
	49	5D5	Eden Valley	-14.97
	50	5D6	West Cumbria	-14.97
64	55	5DD	Morecambe Bay	-13.42
65	168	5HF	Wyre	-19.41
	176	5HP	Blackpool	-19.41
66	28	5CC	Blackburn with Darwen	-17.42
	134	5G7	Hyndburn and Ribble Valley	-17.42
	135	5G8	Burnley, Pendle and Rossendale	-17.42
	212	5JY	Rochdale	-17.42
67	101	5F2	Chorley and South Ribble	-15.81
	102	5F3	West Lancashire	-15.81
	108	5F9	Southport and Formby	-15.81
	169	5HG	Ashton, Leigh and Wigan	-15.81
	177	5HQ	Bolton	-15.81
68	167	5HE	Fylde	-14.23

69	166	5HD	Preston	-11.80
Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT MFF
70	103	5F4	Heywood and Middleton	-12.12
	211	5JX	Bury	-12.12
71	188	5J5	Oldham	-16.50
72	9	5AA	South Manchester	-3.15
	43	5CX	Trafford South	-3.15
73	35	5CL	Central Manchester	-6.47
	105	5F6	Trafford North	-6.47
74	40	5CR	North Manchester	-6.27
	104	5F5	Salford	-6.27
75	106	5F7	Stockport	-10.34
76	159	5H5	Eastern Cheshire	-4.81
77	136	5G9	North Liverpool	-13.85
	274	5M5	South Sefton	-13.85
78	156	5H2	Birkenhead and Wallasey	-17.68
79	164	5HA	Central Liverpool	-10.26
80	107	5F8	Bebington and West Wirral	-9.34
	165	5HC	South Liverpool	-9.34
	184	5J1	Halton	-9.34
	185	5J2	Warrington	-9.34
81	187	5J4	Knowsley	-7.24
82	186	5J3	St Helens	-13.22
83	160	5H6	Ellesmere Port and Neston	0.56
84	157	5H3	Cheshire West	-8.02
85	158	5H4	Central Cheshire	-12.05
86	68	5DV	Cherwell Vale	-5.76

Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT MFF
87	67	5DT	North East Oxfordshire	-0.75
	71	5DY	South West Oxfordshire	-0.75
	215	5K3	Swindon	-0.75
88	64	5DP	Vale of Aylesbury	-1.83
89	69	5DW	Oxford City	-0.56
	70	5DX	South East Oxfordshire	-0.56
90	60	5DK	Newbury and Community	-0.29
91	56	5DF	North Hampshire	3.06
92	61	5DL	Reading	5.16
93	63	5DN	Wokingham	8.92
94	130	5G3	Windsor, Ascot and Maidenhead	10.46
	247	5L6	North Surrey	10.46
95	129	5G2	Bracknell Forest	15.23
96	132	5G5	Wycombe	8.65
97	62	5DM	Slough	4.16
98	242	5L1	Southampton City	-6.20
	270	5LY	Eastleigh and Test Valley South	-6.20
99	1	5A1	New Forest	-10.87
	59	5DJ	South Wiltshire	-10.87
100	58	5DH	West Wiltshire	-8.52
101	269	5LX	Fareham and Gosport	-10.67
102	112	5FE	Portsmouth City Teaching	-6.40
103	111	5FD	East Hampshire	-11.98
	250	5L9	Western Sussex	-11.98
104	80	5E9	Mid-Hampshire	-1.96
105	133	5G6	Blackwater Valley and Hart	4.18

106	248	5L7	Woking Area	6.70
Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT MFF
107	57	5DG	Isle of Wight	-15.83
108	36	5CM	Dartford, Gravesham and Swanley	-5.43
	113	5FF	South West Kent	-5.43
	303	TAK	Bexley	-5.43
109	243	5L2	Maidstone Weald	-6.81
	244	5L3	Medway	-6.81
110	245	5L4	Swale	-12.58
111	261	5LM	Canterbury and Coastal	-13.88
112	260	5LL	Ashford	-8.50
113	262	5LN	East Kent Coastal	-10.67
	263	5LP	Shepway	-10.67
114	234	5KP	East Elmbridge and Mid Surrey	3.60
	246	5L5	Guildford and Waverley	3.60
	276	5M7	Sutton and Merton	3.60
115	235	5KQ	East Surrey	1.61
	279	5MA	Crawley	1.61
116	116	5FK	Mid-Sussex	-5.10
	280	5MC	Horsham and Chanctonbury	-5.10
117	264	5LQ	Brighton and Hove City	-4.62
118	266	5LT	Sussex Downs and Weald	-9.45
119	249	5L8	Adur, Arun and Worthing	-11.09
120	114	5FH	Bexhill and Rother	-16.16
	115	5FJ	Hastings and St Leonards	-16.16
	265	5LR	Eastbourne Downs	-16.16
121	277	5M8	North Somerset	-9.75
122	3	5A3	South Gloucestershire	-5.84

Aggr Code	117 PCT Number	5FL PCT Code	Bath and North East Somerset PCT Title	Merged PCT MFF
	197	5JF	Bristol North	-5.84
	198	5JG	Bristol South and West	-5.84
	216	5K4	Kennet and North Wiltshire	-5.84
123	239	5KW	Cheltenham and Tewkesbury	-8.26
	241	5KY	Cotswold and Vale	-8.26
124	240	5KX	West Gloucestershire	-11.48
125	118	5FM	West of Cornwall	-21.95
126	236	5KR	North and East Cornwall	-20.95
	237	5KT	Central Cornwall	-20.95
127	100	5F1	Plymouth	-13.86
128	41	5CV	South Hams and West Devon	-18.29
	124	5FV	Mid Devon	-18.29
129	120	5FP	South West Dorset	-15.87
	122	5FR	Exeter	-15.87
	123	5FT	East Devon	-15.87
130	127	5FY	Teignbridge	-21.90
131	42	5CW	Torbay	-21.55
132	121	5FQ	North Devon	-18.68
133	125	5FW	Somerset Coast	-13.95
134	213	5K1	South Somerset	-16.67
	214	5K2	Taunton Deane	-16.67
135	126	5FX	Mendip	-9.89
136	29	5CD	North Dorset	-13.69
	30	5CE	Bournemouth Teaching	-13.69
137	119	5FN	South and East Dorset	-13.76
138	238	5KV	Poole	-5.50

139	94	5EQ	South East Sheffield	-16.10
Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT MFF
	162	5H8	Rotherham	-16.10
	196	5JE	Barnsley	-16.10
	259	5LK	South Huddersfield	-16.10
140	84	5EE	North Sheffield	-10.99
	92	5EN	Sheffield West	-10.99
	93	5EP	Sheffield South West	-10.99
141	34	5CK	Doncaster Central	-16.95
	89	5EK	Doncaster East	-16.95
	90	5EL	Doncaster West	-16.95
142	46	5D2	West Lincolnshire	-17.25
	163	5H9	East Lincolnshire	-17.25
143	19	5AP	Newark and Sherwood	-14.71
	47	5D3	Lincolnshire South West Teaching	-14.71
144	17	5AM	Mansfield District	-16.61
	81	5EA	Chesterfield	-16.61
	83	5ED	Amber Valley	-16.61
	86	5EG	North Eastern Derbyshire	-16.61
	96	5ET	Bassetlaw	-16.61
	109	5FA	Ashfield	-16.61
145	161	5H7	Derbyshire Dales and South Derbyshire	-14.23
	175	5HN	High Peak and Dales	-14.23
	257	5LH	Tameside and Glossop	-14.23
146	98	5EX	Greater Derby	-16.82
147	95	5ER	Erewash	-14.78
148	16	5AL	Central Derby	-8.21
149	82	5EC	Gedling	-11.59

Aggr Code	91 PCT Number	5EM PCT Code	Nottingham City PCT Title	-11.59 Merged PCT MFF
	97	5EV	Broxtowe & Hucknall	-11.59
	110	5FC	Rushcliffe	-11.59
150	87	5EH	Melton, Rutland and Harborough	-10.38
	193	5JA	Hinckley and Bosworth	-10.38
	194	5JC	Charnwood and North West Leicestershire	-10.38
	195	5JD	South Leicestershire	-10.38
151	88	5EJ	Leicester City West	-12.80
	99	5EY	Eastern Leicester	-12.80
152	10	5AC	Daventry and South Northamptonshire	-5.47
	268	5LW	Northampton	-5.47
153	181	5HW	Newcastle-under-Lyme	-15.75
154	282	5ME	North Stoke	-20.87
155	283	5MF	South Stoke	-17.46
156	288	5ML	East Staffordshire	-10.29
157	178	5HR	Staffordshire Moorlands	-16.93
158	65	5DQ	Burntwood, Lichfield and Tamworth	-14.00
	289	5MM	Cannock Chase	-14.00
	290	5MN	South Western Staffordshire	-14.00
159	37	5CN	Herefordshire	-16.30
	272	5M2	Shropshire County	-16.30
	287	5MK	Telford and Wrekin	-16.30
160	271	5M1	South Birmingham	-5.01
	297	5MX	Heart of Birmingham Teaching	-5.01
	298	5MY	Eastern Birmingham	-5.01
161	45	5D1	Solihull	-1.00
162	179	5HT	Dudley South	-15.40

163	180	5HV	Dudley Beacon and Castle	-17.64
Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT MFF
	285	5MH	Rowley Regis and Tipton	-17.64
164	286	5MJ	Wednesbury and West Bromwich	-15.56
165	273	5M3	Walsall Teaching	-17.31
166	295	5MV	Wolverhampton City	-10.86
167	284	5MG	Oldbury and Smethwick	-14.17
168	296	5MW	North Birmingham	-13.71
169	294	5MT	South Worcestershire	-12.97
170	66	5DR	Wyre Forest	-16.52
171	293	5MR	Redditch and Bromsgrove	-11.88
172	278	5M9	Rugby	-7.74
	292	5MQ	South Warwickshire	-7.74
173	291	5MP	North Warwickshire	-11.48
174	281	5MD	Coventry Teaching	-3.16

Table A3.2: Aggregated PCT area results with additional smoothing options - weighted by population (Source: ONS)

Aggr code	Aggregate Health Geography 2003	Unsmoothed MFF	Smoothed and weighted					
			Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
1	North Peterborough	91.91	92.29	92.29	92.16	92.05	92.22	92.38
2	South Peterborough	92.71	87.81	89.82	90.31	91.86	88.91	92.54
3	Northamptonshire Heartlands	89.63	92.39	90.78	91.83	90.79	92.2	92.83
4	Bedford & Huntingdonshire	93.29	94.05	94.32	94.1	93.79	94.13	94.11
5	Royston, Buntingford and Bishop'	102.58	95.44	97.46	97.25	99.77	96.18	95.21
6	Cambridge City	101.82	102.31	102.31	101.98	101.85	102.13	95.29
7	East Cambridgeshire and Fenland,	88.47	89.05	88.84	89.63	89.41	89.43	93.4
8	Central Suffolk	83.76	87.42	87.63	87.61	87.24	87.55	93.17
9	Ipswich & Suffolk Coastal	91.52	86.86	88.76	89.02	90.38	87.93	93.17
10	West Norfolk	88.57	85.1	86.51	86.24	87.61	85.6	92.14
11	Norwich, Southern Norfolk, Broa	85.41	86.71	85.42	85.61	85.14	86.1	91.69
12	Great Yarmouth & North Norfolk	81.13	85.08	84.37	83.81	82.75	84.42	91.22
13	Milton Keynes, Luton, Stevenage	96	96.73	96.34	96.92	96.77	96.88	96.18
14	Dacorum, St. Albans and Harpende	101.68	98.66	99.44	99.63	100.67	99.1	97.98
15	Welwyn Hatfield	105.68	98.05	97.8	100.03	103.33	98.8	98.27
16	Chiltern and South Bucks	100.61	104.7	102.82	104.23	103.22	104.54	98.51
17	Watford and Three Rivers	101.62	102.49	102.27	102.27	101.93	102.4	99.22
18	Hertsmere	103.06	102.1	102.97	102.39	102.74	102.24	99.72
19	Harlow	102.46	96.69	97.56	99.3	100.96	97.85	97.82
20	Epping Forest & Uttlesford	97.81	95.26	96.21	96.87	99.65	95.89	97.3
21	Chelmsford, Witham, Braintree an	90.41	90.9	90.67	90.69	90.42	90.84	95.11
22	South Essex	88.5	91.08	89.28	90.3	89.37	90.77	94.54
23	Southend on Sea	88.94	88.62	88.62	88.85	88.93	88.74	94.37
24	Tendring	85.25	87.09	87.02	86.11	85.44	86.64	93.37
25	Havering, Billericay, Brentwood	92.69	93.98	94.17	94.6	94.1	94.46	97.37
26	Thurrock &Basildon	100.81	93.36	95.66	96	98.75	94.5	97.11
27	Westminster	127.79	112.82	120.27	117.62	122.42	115.01	106.6
28	Camden	120.78	111.97	116.33	116.72	119.98	114.34	106.05

Table A3.2: Aggregated PCT area results with additional smoothing options - weighted by population (continued)

Aggr code	Aggregate Health Geography 2003	Unsmoothed MFF	Smoothed and weighted					
			Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
29 Islington		126.39	112.37	117.53	118.16	122.94	115.15	106.59
30 Kensington and Chelsea		115.76	111.25	114.81	115.09	116.5	113.41	105.9
31 Hammersmith and Fulham & Wandsw		109.85	107.49	108.5	110.08	110.78	108.93	104.12
32 Lambeth		113.79	106.93	111.56	110.68	113.09	108.76	104.42
33 Ealing & Harrow		101.31	105.06	102.88	103.52	102.2	104.33	101.12
34 Hounslow & Richmond and Twickenh		109.39	106.28	107.65	107.19	108.33	106.66	101.99
35 Hillingdon		107.42	105.49	105.16	105.45	105.92	105.4	100.72
36 Enfield & Waltham Forest		97.39	100.44	99.78	101.04	99.42	101.13	100.24
37 Barking and Dagenham & Redbridge		100	96.72	97.17	98.26	99.64	97.36	99.43
38 Newham		101.61	103.75	102.08	104.6	103.29	104.52	101.39
39 Barnet & Haringey Teaching		104.81	106.15	104.27	106.47	106.12	106.41	102.09
40 Brent Teaching		99.4	108.35	102.4	105.43	102.12	107.07	101.66
41 City and Hackney Teaching		111.81	112.42	113.24	114.26	114.22	113.46	104.78
42 Tower Hamlets		127.13	106.57	114.33	114.86	122.68	110.31	105.73
43 Southwark		115.58	108.43	112.88	112.04	114.37	110.3	104.68
44 Lewisham		101.36	106.66	100.8	104.29	102.57	105.44	101.62
45 Bromley & Greenwich		97.08	103.65	97.66	102.36	100.36	103.19	99.96
46 Kingston		108.68	106.72	105.32	107.2	108.05	106.89	101.71
47 Croydon		100.47	102.62	101.54	101.9	101.03	102.34	100.43
48 North Tyneside & Northumberland		83.06	84.75	83.6	85.43	86.11	85.08	88.75
49 South Tynes & Wear		85.54	84.71	85.09	85.45	85.69	85.14	87.96
50 Newcastle		89.97	85.48	85.92	87.19	88.88	86.25	88.5
51 Durham Dales & Derwentside		79.29	85.22	84.05	84.11	82.93	84.69	88.52
52 East Durham		84.39	85.64	84.84	85.14	84.73	85.39	88.31
53 Darlington		85.29	86.32	86.43	86	85.57	86.18	88.83
54 Cleveland		89.39	86.5	87.34	87.9	89	87.06	89.21
55 Selby and York & Eastern Wakefie		90.6	86.82	87.74	88.06	89.45	87.38	89.5
56 North Lincs and East Yorks		85.5	85.93	85.89	85.52	84.88	85.78	89.35
57 Hull		84.07	85.16	85.16	84.7	84.31	84.95	88.22

Table A3.2: Aggregated PCT area results with additional smoothing options - weighted by population (continued)

Aggr code	Aggregate Health Geography 2003	Unsmoothed MFF	Smoothed and weighted					
			Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
58	Leeds NE & NW	91.63	88.72	88.26	88.91	89.47	88.76	89.18
59	Leeds West	85.56	87.89	87.46	87.56	86.93	87.76	88.63
60	East Leeds	93.78	88.86	91.64	90.18	91.94	89.43	89.61
61	South Leeds	92.66	88.33	88.2	89.44	91.05	88.8	89.4
62	Bradford/Wakefield/Calderdale/Ki	86.81	86.42	86.67	87.47	88.23	86.93	89.16
63	Carlisle and District, Eden Vall	85.03	85.21	84.89	84.99	84.96	85.08	89.24
64	Morecambe Bay	86.58	85.16	85.84	85.16	85.74	85.08	89.04
65	Wyre & Blackpool	80.59	83.83	83.11	82.55	81.31	83.34	88.17
66	East Lancs	82.58	85.12	84.63	84.48	83.69	84.84	88.45
67	Centrak and West Lancs	84.19	86.86	84.72	86.08	85.26	86.5	88.47
68	Fylde	85.77	84.04	83.55	83.9	84.35	83.93	88.5
69	Preston	88.2	83.6	84.03	84.68	86.61	84	88.64
70	Heywood and Middleton & Bury	87.88	85.4	85.35	87.04	88.08	86.2	89.07
71	Oldham	83.5	85.97	84.86	85.9	84.69	86.07	88.8
72	South Manchester & Trafford Sout	96.85	92.54	94.62	94.29	95.54	93.42	90.55
73	Central Manchester & Trafford No	93.53	91.03	93.76	93.17	93.81	92.26	90.41
74	North Manchester & Salford	93.73	87.6	89.38	90.27	92.49	88.78	89.98
75	Stockport	89.66	91.08	89.83	91.28	90.58	91.36	89.75
76	Eastern Cheshire	95.19	89.9	91.33	90.89	92.33	90.32	89.76
77	North Liverpool & South Sefton	86.15	85.69	85.57	86.52	86.55	86.19	88.72
78	Birkenhead and Wallasey	82.32	88.19	87.98	85.5	83.29	86.97	88.35
79	Central Liverpool	89.74	88.69	89.06	89.02	89.45	88.81	89.26
80	Wirral and Mersey	90.66	89.56	90.12	89.77	90.25	89.59	89.52
81	Knowsley	92.76	87.17	89.43	89.07	90.76	88.11	89.45
82	St Helens	86.78	87	86.64	87.56	87.56	87.33	88.99
83	Ellesmere Port and Neston	100.56	91.98	92.78	94.82	98.54	93.09	90.1
84	Cheshire West	91.98	88.32	88.62	90.41	91.58	89.48	89.76
85	Central Cheshire	87.95	87.89	89.55	88.64	88.41	88.42	89.56
86	Cherwell Vale	94.24	95.13	95.38	94.92	94.53	95.06	93.5

Table A3.2: Aggregated PCT area results with additional smoothing options - weighted by population (continued)

Aggr code	Aggregate Health Geography 2003	Unsmoothed MFF	Smoothed and weighted					
			Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
87	NE & SW Oxfordshire & Swindon	99.25	95.81	97.65	97.42	98.64	96.58	94.51
88	Vale of Aylesbury	98.17	98.11	97.95	98.38	98.5	98.25	95.87
89	Oxford City & South East Oxfor	99.44	101.84	100.11	100.86	100	101.37	95.62
90	Newbury and Community	99.71	97.88	98.04	99.47	100.12	98.73	95.47
91	North Hampshire	103.06	100.84	100.65	101.8	102.67	101.28	96.4
92	Reading	105.16	103.13	103.61	104.86	105.4	104.1	97.63
93	Wokingham	108.92	106.4	107.5	107.67	108.49	107.05	98.46
94	Windsor, Ascot and Maidenhead &	110.46	106.74	108.7	107.69	108.79	107.17	100.17
95	Bracknell Forest	115.23	108.86	111.1	110.5	112.96	109.5	99.33
96	Wycombe	108.65	104.72	104.98	105.66	107.07	105.08	98.13
97	Slough	104.16	106.92	105.33	105.98	104.71	106.61	99.85
98	Southampton City, Eastleigh and	93.8	92.4	93.44	93.18	93.62	92.81	94
99	New Forest & South Wiltshire	89.13	91.42	91.12	91.02	90.53	91.25	93.35
100	West Wiltshire	91.48	92.71	92.88	92.86	92.4	92.87	92.76
101	Fareham and Gosport	89.33	92.02	91.64	91	89.93	91.61	93.48
102	Portsmouth City Teaching	93.6	89.73	90.56	92.19	93.33	90.98	93.94
103	East Hampshire & Western Sussex	88.02	96.75	93.2	92.95	90.08	94.88	94.62
104	Mid-Hampshire	98.04	93.51	95.67	94.37	95.61	93.85	94.71
105	Blackwater Valley and Hart	104.18	105.18	104.45	105.55	105.14	105.46	98.05
106	Woking Area	106.7	106.2	105.5	106.75	106.91	106.51	99.21
107	Isle of Wight	84.17	91.3	91.3	87.58	85.09	89.52	93.29
108	West Kent	94.57	95.95	94.8	95.56	95.09	95.78	97.25
109	Maidstone Weald & Medway	93.19	91.13	92.82	92.59	93.16	91.96	95.89
110	Swale	87.42	90.92	90.86	89.95	88.46	90.57	94.87
111	Canterbury and Coastal	86.12	90.53	88.43	88.85	87.27	89.75	94.04
112	Ashford	91.5	89.14	90.51	89.93	90.81	89.51	94.74
113	East Kent Coastal & Shepway	89.33	87	88.57	88.55	89.07	87.92	93.72
114	Mid Surrey	103.6	104.05	103.16	105.23	105.29	104.85	99.9
115	East Surrey & Crawley	101.61	99.02	100.99	100.09	101.03	99.54	98.24

Table A3.2: Aggregated PCT area results with additional smoothing options - weighted by population (continued)

Aggr code	Aggregate Health Geography 2003	Unsmoothed MFF	Smoothed and weighted					
			Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
116	Mid-Sussex, Horsham and Chancton	94.9	96.91	94.02	96.61	95.93	96.83	96.5
117	Brighton and Hove City	95.38	92.73	94.04	94.43	95.21	93.59	95.37
118	Sussex Downs and Weald	90.55	93.24	90.4	92.5	91.63	92.9	95.56
119	Adur, Arun and Worthing	88.91	91.38	90.49	90.28	89.26	90.98	94.57
120	E Sussex coastal	83.84	89.65	86.94	86.59	84.63	88.2	94.2
121	North Somerset	90.25	92.54	93.03	91.63	90.67	92.16	91.37
122	S Gloucs, Bristol, Bath, Kennet,	94.16	93.65	93.95	93.54	93.74	93.54	92.42
123	Cheltenham and Tewkesbury, Cotsw	91.74	93.3	92.53	92.41	91.59	92.89	92.34
124	West Gloucestershire	88.52	89.48	88.53	89.94	89.5	89.85	91.79
125	West of Cornwall	78.05	78.74	78.74	78.31	78.1	78.52	89.4
126	North, central and East Cornwall	79.05	81.27	79.62	80.35	79.59	80.84	89.51
127	Plymouth	86.14	81.9	83.95	85.4	86.09	83.96	89.09
128	South Hams, Mid & West Devon	81.71	82.34	81.96	81.79	81.05	82.12	89.94
129	SW Dorset, Exeter, E. Devon	84.13	83.75	84	83.7	83.92	83.66	90.6
130	Teignbridge	78.1	81.85	81.21	80.23	79.12	81.02	89.3
131	Torbay	78.45	79.88	79.95	78.78	78.48	79.24	88.11
132	North Devon	81.32	81.28	81.24	81.37	81.36	81.34	90.25
133	Somerset Coast	86.05	85.05	85.23	85.83	86.02	85.53	90.99
134	South Somerset & Taunton Deane	83.33	85.47	84.38	84.67	83.93	85.1	91.01
135	Mendip	90.11	90.91	90.3	91.13	90.92	91.06	92.04
136	North Dorset and Bournemouth tea	86.31	86.77	86	88.43	89.04	87.74	92.36
137	South and East Dorset	86.24	87.47	87.46	89.43	90.61	88.58	92.51
138	Poole	94.5	88.89	90.32	90.29	91.59	89.58	92.36
139	SE Sheffield, Rotherham, Barnsle	83.9	85.89	85.01	85.55	85.37	85.71	88.7
140	North, west and SW Sheffield	89.01	84.94	85.91	85.89	86.94	85.37	88.78
141	Doncaster	83.05	85.15	84.69	84.46	83.62	84.87	88.91
142	Lincolnshire	82.75	85.26	84.05	84.4	83.58	84.86	90.45
143	Newark and Sherwood, Linc SW tea	85.29	86.62	85.45	86.28	85.87	86.46	90.58
144	Northern Derbyshire	83.39	85.1	84.12	84.93	84.42	85.07	89.21

Table A3.2: Aggregated PCT area results with additional smoothing options - weighted by population (continued)

Aggr code	Aggregate Health Geography 2003	Unsmoothe d MFF	Smoothed and weighted					
			Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
145	Southern Derbyshire and Peak Dis	85.77	87.26	86.05	87.3	87.16	87.29	89.35
146	Greater Derby	83.18	84.59	84.54	84.99	84.97	84.78	89.33
147	Erewash	85.22	86.54	85.91	86.46	85.95	86.55	89.68
148	Central Derby	91.79	85.68	85.86	86.77	88.32	86.03	89.6
149	Gedling, Nottingham, Broxtowe, H	88.41	86.78	87.89	87.29	87.83	86.99	89.92
150	Most of Leicestershire	89.62	88.51	89.14	88.25	87.56	88.5	90.69
151	Leicester City West & East	87.2	88.89	88.89	88.69	88.48	88.79	90.4
152	Daventry, Northampton and South	94.53	93.39	93.66	93.45	93.87	93.37	93.31
153	Newcastle-under-Lyme	84.25	84.52	84.7	83.6	83.11	84.12	89.05
154	North Stoke	79.13	82.16	81	81.22	80.26	81.72	88.43
155	South Stoke	82.54	84.12	83.71	82.68	82.39	83.26	88.68
156	East Staffordshire	89.71	86	86.61	87.12	88.6	86.45	90.15
157	Staffordshire Moorlands	83.07	86.4	85.51	84.6	82.59	85.63	89.09
158	Burntwood, Lichfield, Tamworth,	86	85.86	85.64	85.66	85.54	85.75	89.87
159	Herefordshire, Shropshire, Telfo	83.7	86.03	84.54	85.19	84.46	85.62	90.17
160	S, E and Heart of Birmingham Tea	94.99	91.73	94.34	93.46	94.37	92.69	91.73
161	Solihull	99	93.49	95.35	94.93	96.51	94.16	92.04
162	Dudley South	84.6	89.14	85.98	87.02	85.09	88.27	89.54
163	Dudley Beacon and Castle, Rowley	82.36	85.18	84.21	84.22	83.19	84.76	89.18
164	Wednesbury and West Bromwich	84.44	89.47	87.19	87.41	85.44	88.5	89.59
165	Walsall Teaching	82.69	85.34	84.72	84.54	83.59	85	89.28
166	Wolverhampton City	89.14	85.29	86.69	86.79	88.3	85.91	89.7
167	Oldbury and Smethwick	85.83	90.38	90.81	89.35	87.44	90.01	90.2
168	North Birmingham	86.29	90.3	90.45	89.66	87.99	90.15	90.36
169	South Worcestershire	87.03	87.72	86.79	87.58	87.29	87.68	91.25
170	Wyre Forest	83.48	85.28	85.1	84.89	84.1	85.16	90.28
171	Redditch and Bromsgrove	88.12	91.82	90.7	91.33	90.06	91.68	91.13
172	Rugby & S Warwickshire	92.26	91.9	92.27	92.83	93.45	92.37	92.28
173	North Warwickshire	88.52	90.69	89.63	91.22	90.68	91.06	91.35

Table A3.2: Aggregated PCT area results with additional smoothing options - weighted by population (continued)

Aggr code	Aggregate Health Geography 2003	Unsmoothe d MFF	Smoothed and weighted					
			Mean of neighbours	Contiguity	Distance	Distance squared	Square root of distance	Distance no contiguity
174	Coventry Teaching	96.84	94.29	94.93	95.54	96.46	94.86	92.53

Table A3.3: Merged Health Geography: Combining PCTs with less than 2% Variation (Source: ONS)

Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT MFF
1	11	5AF	North Peterborough	-7.80
	12	5AG	South Peterborough	-7.80
	267	5LV	Northamptonshire Heartlands	-7.80
2	138	5GD	Bedford	-5.31
	140	5GF	Huntingdonshire	-5.31
3	144	5GK	Royston, Buntingford and Bishop's Stortford	4.07
	200	5JJ	South Cambridgeshire	4.07
4	199	5JH	Cambridge City	3.34
5	201	5JK	East Cambridgeshire and Fenland	-11.22
	208	5JT	Central Suffolk	-11.22
	210	5JW	Suffolk West	-11.22
6	206	5JQ	Ipswich	-7.12
	207	5JR	Suffolk Coastal	-7.12
7	2	5A2	Norwich	-12.78
	44	5CY	West Norfolk	-12.78
	128	5G1	Southern Norfolk	-12.78
	202	5JL	Broadland	-12.78
	209	5JV	Waveney	-12.78
8	151	5GT	Great Yarmouth	-17.68
	203	5JM	North Norfolk	-17.68
9	39	5CQ	Milton Keynes	-2.60
	137	5GC	Luton	-2.60
	139	5GE	Bedfordshire Heartlands	-2.60
	142	5GH	North Hertfordshire and Stevenage	-2.60
	143	5GJ	South East Hertfordshire	-2.60
10	141	5GG	Welwyn Hatfield	4.57
	153	5GW	Dacorum	4.57

Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT MFF
	154	5GX	St. Albans and Harpenden	4.57
11	38	5CP	Hertsmere	3.13
	131	5G4	Chiltern and South Bucks	3.13
	152	5GV	Watford and Three Rivers	3.13
12	54	5DC	Harlow	3.99
13	14	5AJ	Epping Forest	-0.79
	147	5GN	Uttlesford	-0.79
14	204	5JN	Chelmsford	-8.25
	302	TAG	Witham, Braintree and Halstead	-8.25
15	145	5GL	Maldon and South Chelmsford	-10.18
	146	5GM	Colchester	-10.18
	205	5JP	Castle Point and Rochford	-10.18
16	15	5AK	Southend on Sea	-9.78
17	13	5AH	Tendring	-13.46
18	4	5A4	Havering	-5.95
	148	5GP	Billericay, Brentwood and Wickford	-5.95
19	149	5GQ	Thurrock	2.31
	150	5GR	Basildon	2.31
20	219	5K7	Camden	27.67
	220	5K8	Islington	27.67
	252	5LC	Westminster	27.67
21	251	5LA	Kensington and Chelsea	17.42
22	155	5H1	Hammersmith and Fulham	13.00
	253	5LD	Lambeth	13.00
	256	5LG	Wandsworth	13.00
23	182	5HX	Ealing	2.81
	218	5K6	Harrow	2.81
24	183	5HY	Hounslow	10.93

Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT	MFF
	275	5M6	Richmond and Twickenham		10.93
25	20	5AT	Hillingdon		8.99
26	22	5C1	Enfield	REF	
	23	5C2	Barking and Dagenham	REF	
	299	5NA	Redbridge	REF	
	300	5NC	Waltham Forest	REF	
27	26	5C5	Newham		3.10
28	8	5A9	Barnet		4.10
	27	5C9	Haringey Teaching		4.10
	217	5K5	Brent Teaching		4.10
29	24	5C3	City and Hackney Teaching		13.44
30	25	5C4	Tower Hamlets		28.94
31	254	5LE	Southwark		17.29
32	255	5LF	Lewisham		2.82
33	6	5A7	Bromley		-1.48
	7	5A8	Greenwich		-1.48
34	5	5A5	Kingston		10.27
35	221	5K9	Croydon		1.93
36	52	5D8	North Tyneside		-15.69
	301	TAC	Northumberland		-15.69
37	51	5D7	Newcastle		-11.54
	226	5KF	Gateshead		-11.54
	227	5KG	South Tyneside		-11.54
	231	5KL	Sunderland Teaching		-11.54
38	191	5J8	Durham Dales		-19.54
	222	5KA	Derwentside		-19.54
39	53	5D9	Hartlepool		-14.14
	192	5J9	Darlington		-14.14

Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT MFF
	223	5KC	Durham and Chester-le-Street	-14.14
	224	5KD	Easington	-14.14
	225	5KE	Sedgefield	-14.14
40	72	5E1	North Tees	-9.30
	232	5KM	Middlesbrough	-9.30
	233	5KN	Langbaugh	-9.30
41	73	5E2	Selby and York	-8.04
	78	5E7	Eastern Wakefield	-8.04
42	18	5AN	North East Lincolnshire	-13.23
	74	5E3	East Yorkshire	-13.23
	75	5E4	Yorkshire Wolds and Coast	-13.23
	85	5EF	North Lincolnshire	-13.23
	230	5KK	Scarborough, Whitby and Ryedale	-13.23
43	76	5E5	Eastern Hull	-14.70
	77	5E6	West Hull	-14.70
44	170	5HH	Leeds West	-7.11
	171	5HJ	Leeds North East	-7.11
	173	5HL	South Leeds	-7.11
	174	5HM	Leeds North West	-7.11
45	172	5HK	East Leeds	-4.89
46	21	5AW	Airedale	-11.90
	31	5CF	Bradford City	-11.90
	32	5CG	Bradford South and West	-11.90
	33	5CH	North Bradford	-11.90
	79	5E8	Wakefield West	-11.90
	189	5J6	Calderdale	-11.90
	190	5J7	North Kirklees	-11.90
	228	5KH	Hambleton and Richmondshire	-11.90

Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT MFF
	229	5KJ	Craven, Harrogate and Rural District	-11.90
	258	5LJ	Huddersfield Central	-11.90
47	48	5D4	Carlisle and District	-12.96
	49	5D5	Eden Valley	-12.96
	50	5D6	West Cumbria	-12.96
	55	5DD	Morecambe Bay	-12.96
48	168	5HF	Wyre	-18.22
	176	5HP	Blackpool	-18.22
49	28	5CC	Blackburn with Darwen	-16.18
	134	5G7	Hyndburn and Ribble Valley	-16.18
	135	5G8	Burnley, Pendle and Rossendale	-16.18
	212	5JY	Rochdale	-16.18
50	101	5F2	Chorley and South Ribble	-14.55
	102	5F3	West Lancashire	-14.55
	108	5F9	Southport and Formby	-14.55
	169	5HG	Ashton, Leigh and Wigan	-14.55
	177	5HQ	Bolton	-14.55
51	167	5HE	Fylde	-13.32
52	166	5HD	Preston	-10.47
53	103	5F4	Heywood and Middleton	-12.96
	188	5J5	Oldham	-12.96
	211	5JX	Bury	-12.96
54	9	5AA	South Manchester	-1.73
	43	5CX	Trafford South	-1.73
55	35	5CL	Central Manchester	-5.07
	105	5F6	Trafford North	-5.07
56	40	5CR	North Manchester	-4.90
	104	5F5	Salford	-4.90

Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT MFF
57	106	5F7	Stockport	-6.44
	159	5H5	Eastern Cheshire	-6.44
58	136	5G9	North Liverpool	-12.58
	274	5M5	South Sefton	-12.58
59	156	5H2	Birkenhead and Wallasey	-16.46
60	107	5F8	Bebington and West Wirral	-8.03
	164	5HA	Central Liverpool	-8.03
	165	5HC	South Liverpool	-8.03
	184	5J1	Halton	-8.03
	185	5J2	Warrington	-8.03
	187	5J4	Knowsley	-8.03
	186	5J3	St Helens	-11.91
61	186	5J3	St Helens	-11.91
62	160	5H6	Ellesmere Port and Neston	2.04
63	157	5H3	Cheshire West	-6.71
64	158	5H4	Central Cheshire	-10.77
65	68	5DV	Cherwell Vale	-4.36
66	67	5DT	North East Oxfordshire	0.70
	71	5DY	South West Oxfordshire	0.70
	215	5K3	Swindon	0.70
67	64	5DP	Vale of Aylesbury	-0.36
68	69	5DW	Oxford City	0.92
	70	5DX	South East Oxfordshire	0.92
69	56	5DF	North Hampshire	3.15
	60	5DK	Newbury and Community	3.15
70	61	5DL	Reading	6.70
71	63	5DN	Wokingham	10.52
72	130	5G3	Windsor, Ascot and Maidenhead	12.08
	247	5L6	North Surrey	12.08

Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT MFF
73	129	5G2	Bracknell Forest	16.97
74	132	5G5	Wycombe	10.29
75	62	5DM	Slough	5.66
76	242	5L1	Southampton City	-4.84
	270	5LY	Eastleigh and Test Valley South	-4.84
77	1	5A1	New Forest	-8.80
	58	5DH	West Wiltshire	-8.80
	59	5DJ	South Wiltshire	-8.80
78	111	5FD	East Hampshire	-8.68
	112	5FE	Portsmouth City Teaching	-8.68
	250	5L9	Western Sussex	-8.68
	269	5LX	Fareham and Gosport	-8.68
79	80	5E9	Mid-Hampshire	-0.53
80	133	5G6	Blackwater Valley and Hart	6.97
	248	5L7	Woking Area	6.97
81	57	5DG	Isle of Wight	-14.67
82	36	5CM	Dartford, Gravesham and Swanley	-4.04
	113	5FF	South West Kent	-4.04
	303	TAK	Bexley	-4.04
83	243	5L2	Maidstone Weald	-5.44
	244	5L3	Medway	-5.44
84	245	5L4	Swale	-10.62
	260	5LL	Ashford	-10.62
	261	5LM	Canterbury and Coastal	-10.62
85	262	5LN	East Kent Coastal	-9.37
	263	5LP	Shepway	-9.37
86	234	5KP	East Elmbridge and Mid Surrey	5.13
	246	5L5	Guildford and Waverley	5.13

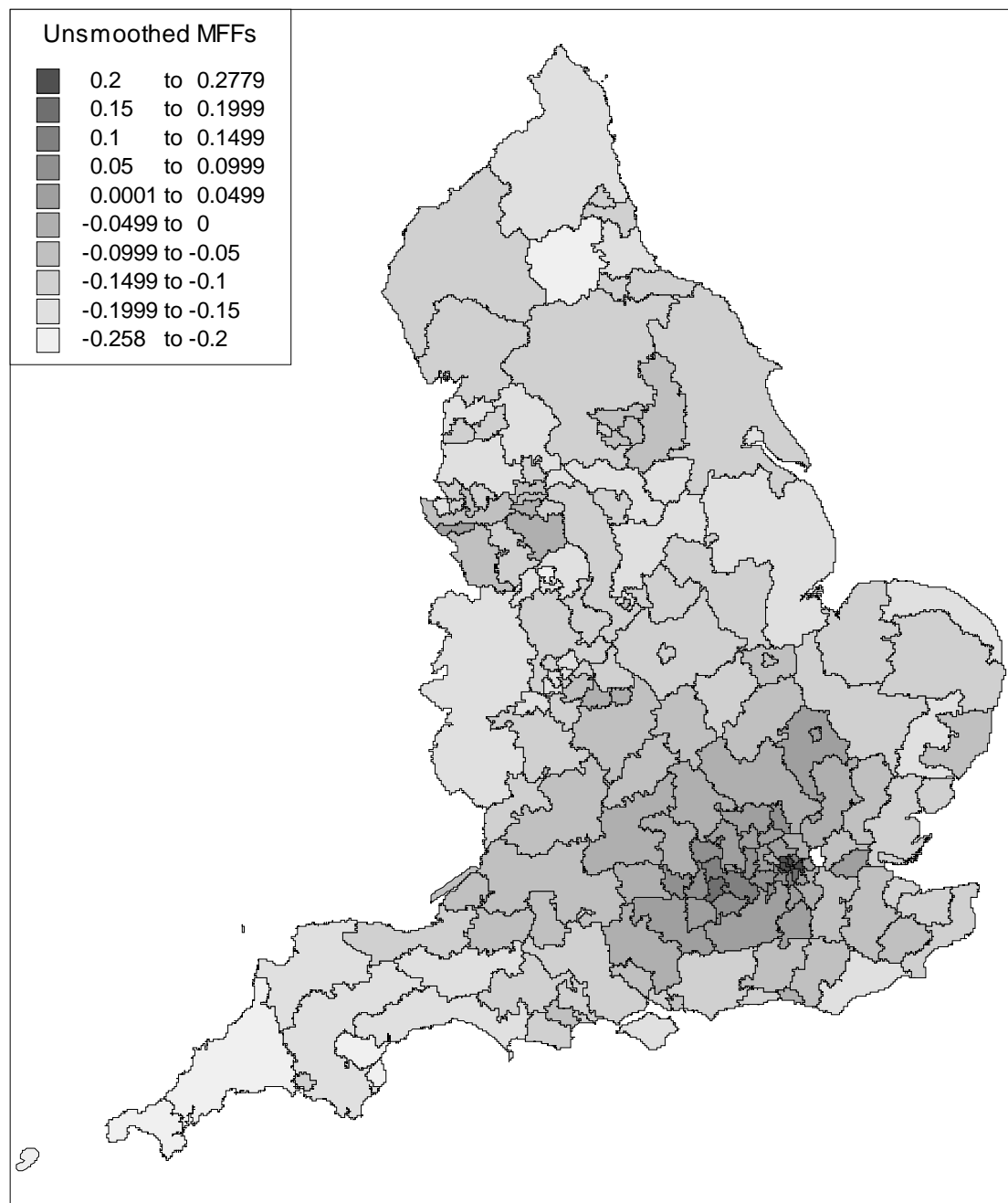
Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT MFF
	276	5M7	Sutton and Merton	5.13
87	235	5KQ	East Surrey	3.08
	279	5MA	Crawley	3.08
88	116	5FK	Mid-Sussex	-3.46
	264	5LQ	Brighton and Hove City	-3.46
	280	5MC	Horsham and Chanctonbury	-3.46
89	266	5LT	Sussex Downs and Weald	-8.06
90	249	5L8	Adur, Arun and Worthing	-9.78
91	114	5FH	Bexhill and Rother	-14.92
	115	5FJ	Hastings and St Leonards	-14.92
	265	5LR	Eastbourne Downs	-14.92
92	277	5M8	North Somerset	-8.40
93	3	5A3	South Gloucestershire	-4.47
	117	5FL	Bath and North East Somerset	-4.47
	197	5JF	Bristol North	-4.47
	198	5JG	Bristol South and West	-4.47
	216	5K4	Kennet and North Wiltshire	-4.47
94	239	5KW	Cheltenham and Tewkesbury	-6.90
	241	5KY	Cotswold and Vale	-6.90
95	240	5KX	West Gloucestershire	-10.18
96	118	5FM	West of Cornwall	-20.01
	236	5KR	North and East Cornwall	-20.01
	237	5KT	Central Cornwall	-20.01
97	100	5F1	Plymouth	-12.69
98	41	5CV	South Hams and West Devon	-15.39
	120	5FP	South West Dorset	-15.39
	122	5FR	Exeter	-15.39
	123	5FT	East Devon	-15.39

Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT MFF
	124	5FV	Mid Devon	-15.39
99	127	5FY	Teignbridge	-20.76
100	42	5CW	Torbay	-20.40
101	121	5FQ	North Devon	-17.51
102	125	5FW	Somerset Coast	-14.70
	213	5K1	South Somerset	-14.70
	214	5K2	Taunton Deane	-14.70
103	126	5FX	Mendip	-8.55
104	29	5CD	North Dorset	-12.43
	30	5CE	Bournemouth Teaching	-12.43
105	119	5FN	South and East Dorset	-7.87
	238	5KV	Poole	-7.87
106	94	5EQ	South East Sheffield	-14.83
	162	5H8	Rotherham	-14.83
	196	5JE	Barnsley	-14.83
	259	5LK	South Huddersfield	-14.83
107	84	5EE	North Sheffield	-9.67
	92	5EN	Sheffield West	-9.67
	93	5EP	Sheffield South West	-9.67
108	34	5CK	Doncaster Central	-15.71
	89	5EK	Doncaster East	-15.71
	90	5EL	Doncaster West	-15.71
109	19	5AP	Newark and Sherwood	-15.12
	46	5D2	West Lincolnshire	-15.12
	47	5D3	Lincolnshire South West Teaching	-15.12
	163	5H9	East Lincolnshire	-15.12
110	17	5AM	Mansfield District	-15.36
	81	5EA	Chesterfield	-15.36

Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT MFF
	83	5ED	Amber Valley	-15.36
	86	5EG	North Eastern Derbyshire	-15.36
	96	5ET	Bassetlaw	-15.36
	109	5FA	Ashfield	-15.36
111	16	5AL	Central Derby	-11.67
	95	5ER	Erewash	-11.67
	98	5EX	Greater Derby	-11.67
	161	5H7	Derbyshire Dales and South Derbyshire	-11.67
	175	5HN	High Peak and Dales	-11.67
	257	5LH	Tameside and Glossop	-11.67
112	82	5EC	Gedling	-10.28
	91	5EM	Nottingham City	-10.28
	97	5EV	Broxtowe & Hucknall	-10.28
	110	5FC	Rushcliffe	-10.28
113	87	5EH	Melton, Rutland and Harborough	-9.97
	88	5EJ	Leicester City West	-9.97
	99	5EY	Eastern Leicester	-9.97
	193	5JA	Hinckley and Bosworth	-9.97
	194	5JC	Charnwood and North West Leicestershire	-9.97
	195	5JD	South Leicestershire	-9.97
114	10	5AC	Daventry and South Northamptonshire	-4.07
	268	5LW	Northampton	-4.07
115	181	5HW	Newcastle-under-Lyme	-14.47
116	282	5ME	North Stoke	-17.38
	283	5MF	South Stoke	-17.38
117	288	5ML	East Staffordshire	-8.94
118	178	5HR	Staffordshire Moorlands	-15.71
119	37	5CN	Herefordshire	-14.13

Aggr Code	PCT Number	PCT Code	PCT Title	Merged PCT MFF
	65	5DQ	Burntwood, Lichfield and Tamworth	-14.13
	272	5M2	Shropshire County	-14.13
	287	5MK	Telford and Wrekin	-14.13
	289	5MM	Cannock Chase	-14.13
	290	5MN	South Western Staffordshire	-14.13
120	45	5D1	Solihull	-2.79
	271	5M1	South Birmingham	-2.79
	297	5MX	Heart of Birmingham Teaching	-2.79
	298	5MY	Eastern Birmingham	-2.79
121	179	5HT	Dudley South	-14.15
122	180	5HV	Dudley Beacon and Castle	-16.40
	285	5MH	Rowley Regis and Tipton	-16.40
123	273	5M3	Walsall Teaching	-15.46
	286	5MJ	Wednesbury and West Bromwich	-15.46
124	295	5MV	Wolverhampton City	-9.55
125	284	5MG	Oldbury and Smethwick	-12.86
126	296	5MW	North Birmingham	-12.43
127	294	5MT	South Worcestershire	-11.67
128	66	5DR	Wyre Forest	-15.28
129	293	5MR	Redditch and Bromsgrove	-10.55
130	278	5M9	Rugby	-7.55
	291	5MP	North Warwickshire	-7.55
	292	5MQ	South Warwickshire	-7.55
131	281	5MD	Coventry Teaching	-1.75

Figure A3.1: Combining PCTs with less than 2% Variation: Unsmoothed MFFs



Source: ONS

Bibliography

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