
Deprivation in SE Wales Communities

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Introduction

The Wales Index of Multiple Deprivation 2005 was published on Friday 30th September 2005. The Index replaces the first one published in September 2000. The two indices are not comparable with one another, nor with indices produced for England in recent years. Deprivation is well recognised as the one of the strongest predictors of health and health service need at the population level along with population size and population age distribution. The close relationship between health and deprivation is summarised in the second document in this set (Deprivation and Health) and was also previously covered in Monaghan 1998¹.

The Background

The Index was developed by a Project Board made up of officers from the National Assembly's statistical Directorate and the Wales Local Government Data Unit (LGDU). Each domain of deprivation was developed by 'Domain Methodology Groups'. There was also an Advisory Group including input from the NHS via the NPHS.

WIMD 2005 contains seven separate domains (or kinds) of deprivation, these are listed below with their relative weightings in the Overall Domain:

- Employment (25%)
- Education, Skills & Training (15%)
- Geographical Access to Services (10%)
- Health (15%)
- Housing (5%)
- Income (25%)
- Physical Environment (5%)

Each domain is based upon a range of different indicators – see appendix A. The Income and Employment Domains were classed as the most important factors, and they were given the greatest weighting when the composite overall index score was calculated. The health domain was developed in partnership with the NPHS.

The reporting level for the WIMD 2005 is the Lower Tier Super Output Area (LTSOA). Wales has 1,896 of these geographies in total. These geographical units were produced by the ONS following the conduct of the 2001 Census of population. This means that unlike the WIMD 2000, the WIMD 2005 is

¹ Monaghan. S. 1998. An Atlas of Health Inequalities between Welsh Unitary Authorities: A Report for the Welsh Local Government Association. Local Government Association / Faculty of Public Health Medicine. Cardiff.

reporting at a geographical level below that of Electoral Divisions (Wards). This is an important improvement on the previous WIMD, particularly from a SE Wales perspective where some Electoral Divisions in urban areas contain very large populations, in some cases more than 15,000 residents, whereas much of Wales has EDiv population totals lower than 2,000 residents. Each of Wales LTSOA had a population of between 1,100 and 1,800 persons enumerated by the 2001 Census. The Wales average population total for LTSOAs is 1,500 persons. In parts of SE Wales² it should be remembered that significant numbers of people were not enumerated by the Census and consequently 'real' population totals may have been outside the upper range of 1,800 persons at the time.

The Extent of Multiple Deprivation In SE Wales

The WIMD 2005 has identified that almost 176,000 SE Wales residents live in communities whose Multiple Deprivation levels are in the worst 10% in Wales. Cardiff has more people living in multiple deprivation than any other Unitary Authority in Wales followed by Rhondda Cynon Taff (RCT). See Table 1.

Unitary Authority	Population living in Wales Worst 10% Most Deprived Communities [B]	% of Wales Total [C]
Cardiff	50,000	17.8
Rhondda Cynon Taff	43,000	15.7
Swansea	31,000	11.3
Neath-Port Talbot	25,000	9.1
Merthyr Tydfil	21,000	7.6
Blaenau Gwent	18,000	6.3
Caerphilly	17,000	6.2
Bridgend	14,000	5.0
Newport	13,000	4.8
Carmarthenshire	10,000	3.8
Wrexham	9,000	3.2
Denbighshire	5,000	1.8
Conwy	4,000	1.6
Gwynedd	4,000	1.4

² Documented extensively within Cardiff in particular.

Torfaen	3,000	1.2
Pembrokeshire	3,000	1.1
The Vale of Glamorgan	3,000	1.1
Flintshire	3,000	1.0
Ceredigion	0	0.0
Isle of Anglesey	0	0.0
Monmouth	0	0.0
Powys	0	0.0
Total	276,000	100.0

Source: Derived from the Wales Index of Multiple Deprivation 2005 by CRC using 2001 Census population denominators. All figures in column B rounded to the nearest 1,000 residents. All percentages in column C based on un-rounded raw population totals.

Cardiff's share of the most deprived populations in the South East Wales region reaches more than 27% followed by RCT with almost 24%, as can be seen in Table 2. Cardiff's actual share of total population in South-East Wales according to the Census was 21.9%, RCT's almost 17%.

South East Wales UAs	Population living in Wales 10% Most Deprived Communities [B]	Percentage Share of all Wales Total [C]	Percentage Share of South East Wales 10% Most Deprived Populations [D]	% of South East Wales Total Population [E]
Cardiff	50,000	17.8	27.1	21.9
Rhondda Cynon Taff	43,000	15.7	23.8	16.6
Merthyr Tydfil	21,000	7.6	11.5	4.0
Blaenau Gwent	18,000	6.3	9.6	5.0
Caerphilly	17,000	6.2	9.4	12.2
Bridgend	14,000	5.0	7.7	9.2
Newport	13,000	4.8	7.3	9.8
Torfaen	3,000	1.2	1.8	6.5
The Vale of Glamorgan	3,000	1.1	1.6	8.6
Monmouth	0	0.0	0.0	6.1
Total	182,000	65.7	100.0	100.0

Source: Derived from the Wales Index of Multiple Deprivation 2005 by CRC using 2001 Census population denominators. All figures in column B rounded to the nearest 1,000 residents. All percentages in columns C, D & E based on un-rounded raw population totals.

SE Wales LTSOAs are distributed throughout the range of multiple deprivation. The most deprived area being Butetown 2 in Cardiff, which

includes Loudoun Square. This LTSOA has the highest ranking in terms of multiple deprivation in all Wales.

Chart 1 overleaf compares the 3 largest LHB areas (by population) in SE Wales in terms of share and distribution of population living in each of the 10 deciles of overall deprivation (1st Decile is most deprived, 10th Decile is the least deprived):

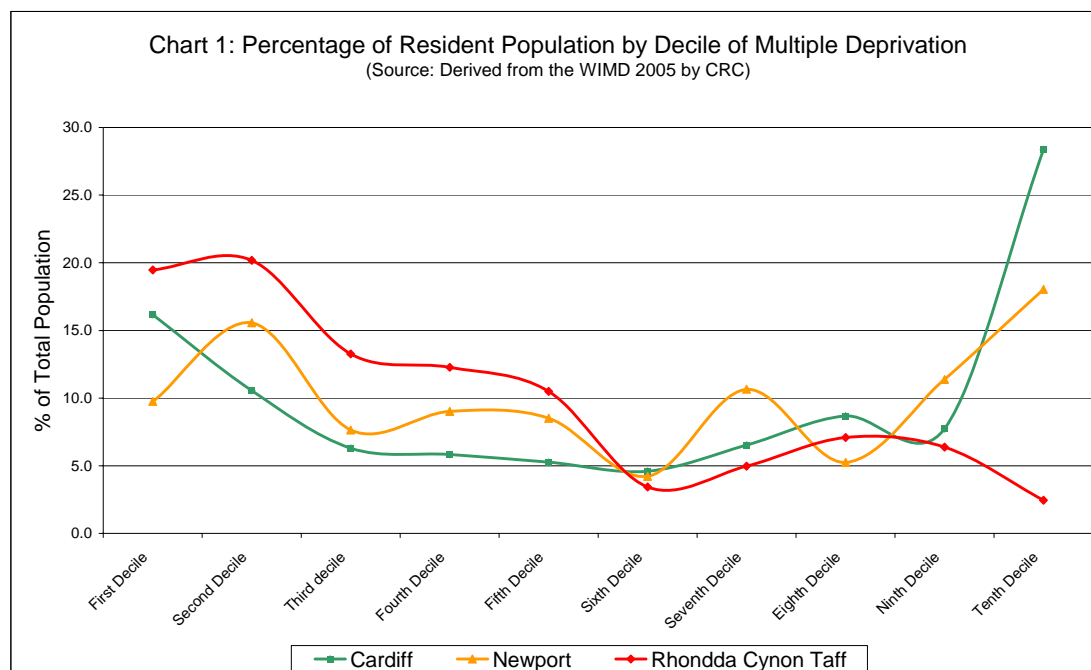
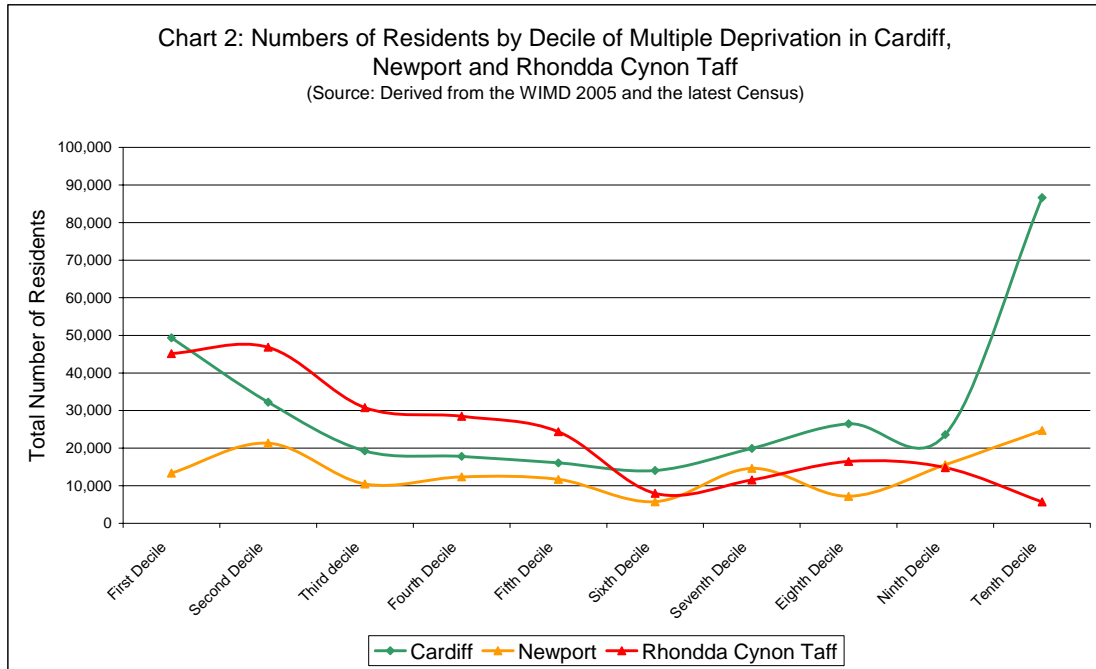


Chart 1 clearly shows that Cardiff has a significantly higher proportion of residents in the 1st Decile (most deprived) of multiple deprivation than Newport, but less than Rhondda Cynon Taff. At the other extreme Cardiff has a far higher proportion of it's resident population in the 10th Decile (least deprived) than either Newport or Rhondda Cynon Taff.

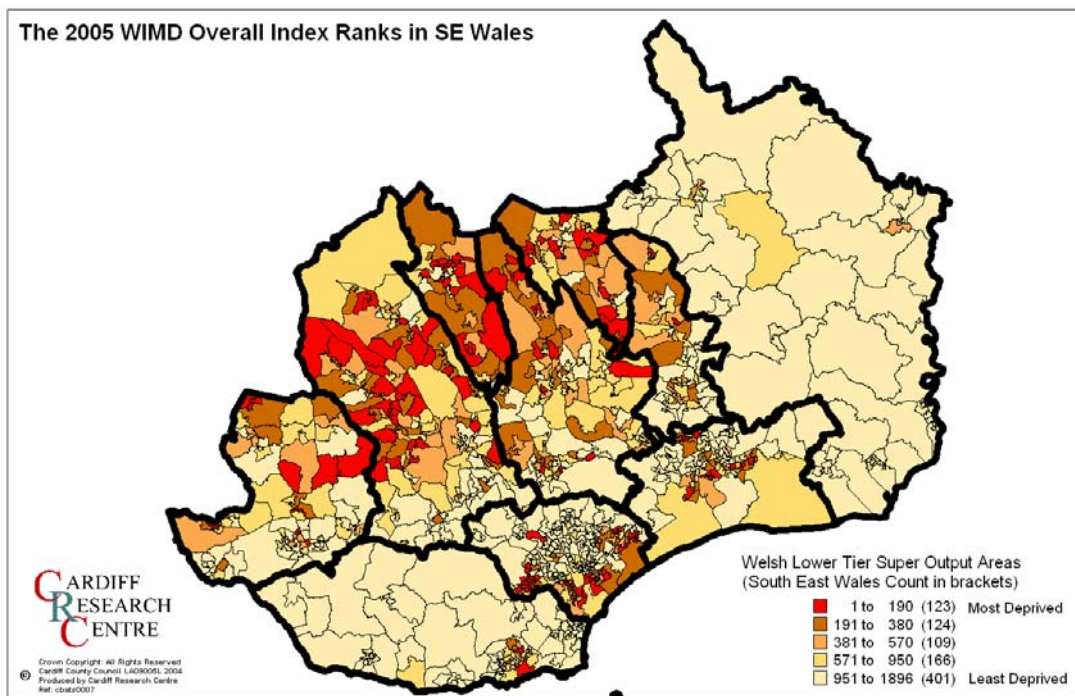
Cardiff has a lower proportion of population living in communities placed in the 2nd, 3rd, 4th and 5th decile than either Newport or Rhondda Cynon Taff. However this population percentage based analysis masks the actual numbers of residents present in the communities for any decile in each Local Authority area. For example, Chart 2, overleaf, shows that Cardiff has significantly more residents in the most deprived deciles than Newport, but less than Rhondda Cynon Taff in the 2nd, 3rd, 4th and 5th deciles. This change from the picture in Chart 1 is due to the different population totals in each of the three authorities, Cardiff having the highest and Newport the lowest resident populations of the three authorities included in this analysis.

Charts 1 and 2 both highlight one stark fact, the levels of deprivation experienced by Cardiff residents is one of extremes, with the worst and best deciles representing the greatest percentages and numbers of Cardiff's total population when expressed with the 10 deciles of Wales 1,896 LTSOAs. This can be referred to as an 'abnormal' distribution curve.



Map 1, highlights the spatial variation of the Overall Deprivation Index scores for SE Wales by LTSOA. The most deprived 10% of LTSOAs are shown in red. As with all standard map based geographical representations this tends to overemphasise larger more sparsely populated areas such as those in Monmouthshire or the Vale of Glamorgan and even in Valleys areas compared to those in Cardiff or Newport.

Map 1



Income Deprivation

One of the most robust domains within the index is that of income deprivation. Table 3, below, highlights each Welsh Local Authority's number and share of population in the worst 10% of Income deprived communities as defined by the LTSOAs.

Table 3: Number of Residents Living in Wales Most Deprived 10% for Income Deprivation		
Unitary Authority	Number of Persons Resident in Most Deprived Income Decile	Percentage Share of all Wales Total
Cardiff	56,000	19.5
Swansea	42,000	14.7
Rhondda Cynon Taff	34,000	11.7
Newport	24,000	8.3
Neath-Port Talbot	19,000	6.7
Caerphilly	17,000	5.9
Blaenau Gwent	13,000	4.6
Merthyr Tydfil	10,000	3.6
The Vale of Glamorgan	9,000	3.2
Bridgend	9,000	3.2
Denbighshire	9,000	3.1
Wrexham	9,000	3.1
Carmarthenshire	7,000	2.6
Conwy	6,000	2.1
Pembroke	5,000	1.7
Gwynedd	5,000	1.6
Flintshire	4,000	1.5
Isle of Anglesey	3,000	1.0
Torfaen	3,000	1.0
Ceredigion	2,000	0.8
Monmouth	0	0.0
Powys	0	0.0
Total	286,000	100.0

Source: Derived from the Wales Index of Multiple Deprivation 2005 by CRC using 2001 Census population denominators. All figures in column B rounded to the nearest 1,000 residents. All percentages in column C based on un-rounded raw population totals.

Table 3, above, clearly highlights that Cardiff contains some 56,000 residents living in areas ranked within the worst 10% of Wales most income deprived communities. RCT contains 34,000 and Newport 24,000. These equate to a 20% share of the Wales total 10% most deprived residents for Cardiff, 12% for RCT and 8% for Newport.

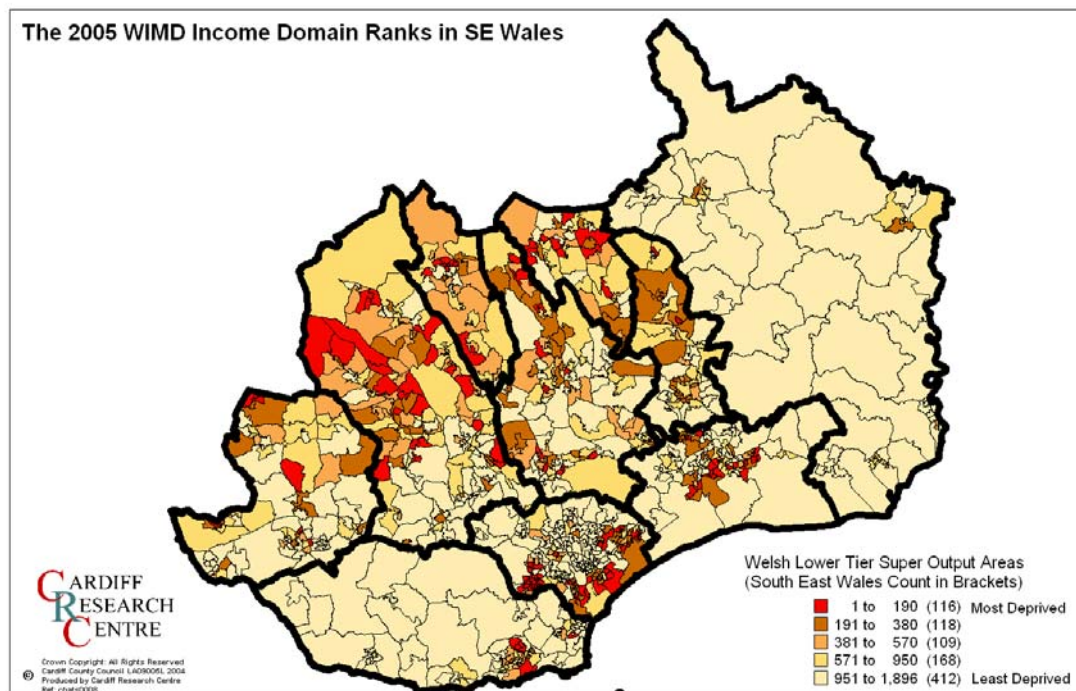
Table 4, below, highlights that Cardiff's share of the South East Wales total residents living in the 10% most income deprived communities rises to 32%, compared with a 22% share of total population. The figures for RCT are 12% and 17% respectively and those for Newport 8.3% and 9.8%.

Table 4: Shares of Wales 10% Most Income Deprived Populations By Unitary Authority in South East Wales				
South East Wales UAs	Population living in Wales 10% Most Deprived Communities [B]	Percentage Share of all Wales Total [C]	Percentage Share of South East Wales 10% Most Income Deprived Populations [D]	Percentage Share of South East Wales Total Population [E]
Cardiff	56,000	19.5	32.0	21.9
Rhondda Cynon Taff	34,000	11.7	19.1	16.6
Newport	24,000	8.3	13.6	9.8
Caerphilly	17,000	5.9	9.7	12.2
Blaenau Gwent	13,000	4.6	7.5	5.0
Merthyr Tydfil	10,000	3.6	5.9	4.0
The Vale of Glamorgan	9,000	3.2	5.3	8.6
Bridgend	9,000	3.2	5.3	9.2
Torfaen	3,000	1.0	1.6	6.5
Monmouth	0	0.0	0.0	6.1
Total	175,000	61.0	100.0	99.9

Source: Derived from the Wales Index of Multiple Deprivation 2005 by CRC using 2001 Census population denominators. All figures in column B rounded to the nearest 1,000 residents. All percentages in columns C, D & E based on un-rounded raw population totals.

Map 2, overleaf, highlights the spatial variation in income deprivation across SE Wales, with those communities in Wales' worst 10% highlighted in red.

Map 2



Conclusions

Initial analysis of the WIMD 2005 has highlighted some significant issues for policy planners in SE Wales and across Wales. One alarming message is that those areas long recognised as the most deprived in Wales – such as SE Cardiff and the former mining Valleys, are still the most deprived in Wales according to this Index of deprivation.

In 2003 the Office of the Deputy Prime Minister's *'Review for the Neighbourhood Renewal Unit of blueprint for the Index of Multiple Deprivation at a small area level'* concluded that the spatial variation in income explains 93% of the spatial variation in multiple deprivation according to the English Index of Multiple Deprivation in use at that time.

The WIMD 2005 contains an Income Domain that is claimed to be the most robust domain within the Index.

The overwhelming picture that emerges from the WIMD 2005 is one that confirms the findings of previous studies showing large inequalities. In particular Cardiff is very much a city of extremes with some of the most and least deprived communities and populations in Wales. What is important is that the numbers of persons living in those communities classified as most deprived is significant. The numbers of persons in Cardiff within the 10% most deprived is twice the totals living in the combined areas of Merthyr Tydfil and Blaenau Gwent.

There remain a number of question marks about the WIMD 2005 in terms of how the student populations of Cardiff and other parts of Wales have been dealt with within each domain of deprivation. This has particular relevance for the Income, Employment, Health and Housing Domains, further investigation of this issue alone is recommended. Ongoing further analysis and investigation of the results for South East Wales is being undertaken.

POSTSCRIPT (November 2005): It has just been recognised that those who produced the Welsh Index of Multiple deprivation had left out a variable from the Employment Domain. This also therefore affects the Overall Index. The variable was "Job Seekers Allowance". The LGDU and Statistical Directorate of the Assembly have decided to recalculate the Employment Domain and this will also effect the final transformed scores for the overall index. However this is not thought likely to have a major impact upon the overall patterns and the advice from the Assembly is that the published Index can still be used as it is until the amendments are published. The Income Domain (and all other domains) will remain entirely unaffected and can stand alone regardless as the strongest (most robust) domain.

Appendix A

Overall Index 20 Most Deprived LTSOAs in South East Wales					
LTSOA Name	SE Wales Rank	All Wales Rank	UA Rank	Overall index score	Unitary Authority
Butetown 2	1	1	CAR 1	78.1	Cardiff
Penrhiwceiber 1	2	3	RCT 1	75.9	Rhondda Cynon Taf
Penydarren 1	3	4	MT 1	75.8	Merthyr Tydfil
Twyn Carno 1	4	5	CAE 1	74.8	Caerphilly
Bargoed 4	5	11	CAE 2	68.5	Caerphilly
Pen-y-waun 2	6	12	RCT 2	68.4	Rhondda Cynon Taf
Riverside 2	7	13	CAR 2	68.2	Cardiff
Butetown 1	8	15	CAR 3	67.9	Cardiff
Merthyr Vale 2	9	17	MT 2	67.2	Merthyr Tydfil
Tylorstown 1	10	19	RCT 3	66.5	Rhondda Cynon Taf
St. James 3	11	20	CAE 3	66.3	Caerphilly
Gurnos 2	12	21	MT 3	66.3	Merthyr Tydfil
Hengoed (Caerphilly) 2	13	23	CAE 4	64.7	Caerphilly
Pillgwenlly 3	14	25	NEW 1	64.5	Newport
Gurnos 1	15	26	MT 4	64.2	Merthyr Tydfil
Cyfarthfa 2	16	27	MT 5	64.1	Merthyr Tydfil
Trealaw 2	17	31	RCT 4	63.4	Rhondda Cynon Taf
Abercynon 2	18	32	RCT 5	63.3	Rhondda Cynon Taf
Rhydfelen Central/Ilan 2	19	33	RCT 6	63.2	Rhondda Cynon Taf
Sirhowy 2	20	34	BG 1	63.1	Blaenau Gwent

Income Domain 20 Most Deprived LTSOAs in South East Wales					
LTSOA Name	SE Wales Rank	All Wales Rank	UA Rank	Income Domain score	Unitary Authority
Pillgwenlly 3	1	1	NEW 1	100.0	Newport
Trowbridge 8	2	3	CAR 1	98.2	Cardiff
Butetown 1	3	4	CAR 2	97.4	Cardiff
Penydarren 1	4	6	MT 1	95.8	Merthyr Tydfil
Pillgwenlly 1	5	12	NEW 2	91.6	Newport
St. James 3	6	14	CAE 1	90.3	Caerphilly
Twyn Carno 1	7	16	CAE 2	89.1	Caerphilly
Bedwas, Trethomas and Machen 6	8	19	CAE 3	87.5	Caerphilly
Pen-y-waun 2	9	20	RCT 1	86.9	Rhondda Cynon Taf
Ely 3	10	23	CAR 3	85.4	Cardiff
Penrhiwceiber 1	11	24	RCT 2	84.9	Rhondda Cynon Taf
Ely 5	12	26	CAR 4	84.0	Cardiff
Ely 6	13	28	CAR 5	83.1	Cardiff
Rhydfelen Central/Ilan 2	14	29	RCT 3	82.6	Rhondda Cynon Taf
Butetown 2	15	30	CAR 6	82.2	Cardiff
Ely 1	16	31	CAR 7	81.8	Cardiff
Trowbridge 4	17	32	CAR 8	81.4	Cardiff
Riverside 2	18	33	CAR 9	81.0	Cardiff
Tylorstown 1	19	34	RCT 4	80.6	Rhondda Cynon Taf
Alway 2	20	35	NEW 3	80.2	Newport

Indicators:

- Income Support claimants (and their children and partners)
- Income-based Jobseeker's Allowance
- Working Families' Tax Credit
- Disabled Person's Tax Credit

Employment Domain 20 Most Deprived LTSOAs in South East Wales					
LTSOA Name	SE Wales Rank	All Wales Rank	UA Rank	Employment Domain score	Unitary Authority
Twyn Carno 1	1	3	Cae 1	98.2	Caerphilly
Bargoed 4	2	4	Cae 2	97.4	Caerphilly
Whitchurch and Tongwynlais 9	3	7	Car 1	95.0	Cardiff
Butetown 2	4	8	Car 2	94.3	Cardiff
St. James 3	5	12	Cae 3	91.6	Caerphilly
Tylorstown 1	6	13	RCT 1	90.9	Rhondda Cynon Taf
Maerdy 2	7	14	RCT 2	90.3	Rhondda Cynon Taf
Abercynon 2	8	15	RCT 3	89.7	Rhondda Cynon Taf
Trealaw 2	9	16	RCT 4	89.1	Rhondda Cynon Taf
Caerau (Bridgend) 2	10	19	Br 1	87.5	Bridgend
Merthyr Vale 2	11	20	MT 1	86.9	Merthyr Tydfil
Penydarren 1	12	21	MT 2	86.4	Merthyr Tydfil
Pen-y-waun 2	13	23	RCT 5	85.4	Rhondda Cynon Taf
Penrhiwceiber 1	14	24	RCT 6	84.9	Rhondda Cynon Taf
Sirhowy 2	15	29	BG 1	82.6	Blaenau Gwent
Cwmbach 2	16	31	RCT 7	81.8	Rhondda Cynon Taf
Cyfarthfa 2	17	32	MT 3	81.4	Merthyr Tydfil
Gurnos 2	18	33	MT 4	81.0	Merthyr Tydfil
New Tredegar 3	19	34	Cae 4	80.6	Caerphilly
Riverside 2	20	36	Car 3	79.8	Cardiff

Indicators:

- Claimants of Incapacity Benefit
- Severe Disablement Allowance (for women under 60 and men under 65)
- Participants on New Deal for Young People and Intensity Activity Period (for New Deal 25+)

Health Domain 20 Most Deprived LTSOAs in South East Wales					
LTSOA Name	SE Wales Rank	All Wales Rank	UA Rank	Health Domain score	Unitary Authority
Aberdare East 4	1	1	RCT 1	100.0	Rhondda Cynon Taf
Hengoed (Caerphilly) 2	2	3	Cae 1	98.2	Caerphilly
Penrhiwceiber 1	3	5	RCT 2	96.6	Rhondda Cynon Taf
Plasnewydd 4	4	7	Car 1	95.0	Cardiff
Treharris 4	5	8	MT 1	94.3	Merthyr Tydfil
Pentre 4	6	9	RCT 3	93.6	Rhondda Cynon Taf
Cathays 6	7	10	Car 2	92.9	Cardiff
Plasnewydd 7	8	11	Car 3	92.2	Cardiff
Cwmbach 2	9	12	RCT 4	91.6	Rhondda Cynon Taf
Gurnos 1	10	13	MT 2	90.9	Merthyr Tydfil
Merthyr Vale 2	11	15	MT 3	89.7	Merthyr Tydfil
Twyn Carno 1	12	16	Cae 2	89.1	Caerphilly
Butetown 2	13	17	Car 4	88.6	Cardiff
Adamsdown 5	14	18	Car 5	88.0	Cardiff
Riverside 7	15	19	Car 6	87.5	Cardiff
Cathays 3	16	22	Car 7	85.9	Cardiff
Upper Cwmbran 1	17	24	Tor 1	84.9	Torfaen
Llwyn-y-pia 2	18	25	RCT 5	84.5	Rhondda Cynon Taf
Ynysddu 1	19	26	Cae 3	84.0	Caerphilly
Ringland 4	20	27	New 1	83.5	Newport

Indicators:

- Limiting Long-term illness
- Deaths
- Cancer incidence

Education, Skills and Training Domain 20 Most Deprived LTSOAs in South East Wales					
LTSOA Name	SE Wales Rank	All Wales Rank	UA Rank	Education, Skills & Training Domain score	Unitary Authority
Ely 3	1	3	Car 1	98.2	Cardiff
Penydarren 1	2	4	MT 1	97.4	Merthyr Tydfil
Caerau (Bridgend) 1	3	6	Br 1	95.8	Bridgend
Ely 2	4	7	Car 2	95.0	Cardiff
Penrhiwceiber 1	5	8	RCT 1	94.3	Rhondda Cynon Taf
Tredegar Park 2	6	11	NEW 1	92.2	Newport
Gurnos 1	7	12	MT 2	91.6	Merthyr Tydfil
Ely 5	8	14	Car 3	90.3	Cardiff
Tylorstown 1	9	15	RCT 2	89.7	Rhondda Cynon Taf
Ely 1	10	17	Car 4	88.6	Cardiff
Ely 10	11	19	Car 5	87.5	Cardiff
Pen-y-waun 2	12	22	RCT 3	85.9	Rhondda Cynon Taf
Bettws (Newport) 1	13	23	New 2	85.4	Newport
Glyncoch 1	14	25	RCT 4	84.5	Rhondda Cynon Taf
Butetown 1	15	28	Car 6	83.1	Cardiff
Ely 4	16	29	Car 7	82.6	Cardiff
Bettws (Newport) 4	17	30	New 3	82.2	Newport
Ringland 5	18	31	New 4	81.8	Newport
Ely 8	19	34	Car 8	80.6	Cardiff
Penrhiwceiber 2	20	35	RCT 5	80.2	Rhondda Cynon Taf

Indicators:

- Key Stage 2, average point scores
- Key Stage 3, average point scores
- Key Stage 4, average point scores
- Proportion of adults with low or no qualifications
- Secondary school absence rates
- Proportion of 17 and 18 year olds not entering further or higher education.

Geographical Access to Services Domain 20 Most Deprived LTSOAs in South East Wales					
LTSOA Name	SE Wales Rank	All Wales Rank	UA Rank	Geo' Access to Services Domain score	Unitary Authority
Llantilio Crossenny	1	1	Mon 1	100.0	Monmouthshire
Llanover 1	2	5	Mon 2	96.6	Monmouthshire
Langstone 2	3	17	New 1	88.6	Newport
Devauden	4	23	Mon 3	85.4	Monmouthshire
Trellech United 2	5	25	Mon 4	84.5	Monmouthshire
Caerwent	6	41	Mon 5	77.9	Monmouthshire
Llangybi Fawr	7	47	Mon 6	75.9	Monmouthshire
Trellech United 1	8	58	Mon 7	72.6	Monmouthshire
Crucorney	9	63	Mon 8	71.2	Monmouthshire
Newton (Bridgend) 1	10	81	Br 1	66.9	Bridgend
Mitchel Troy	11	84	Mon 9	66.2	Monmouthshire
St. Bride's Major 1	12	91	VG 1	64.8	The Vale of Glamorgan
Llanover 2	13	96	Mon 10	63.8	Monmouthshire
Llanbadoc	14	100	Mon 11	63.1	Monmouthshire
Rhose 3	15	109	VG 2	61.4	The Vale of Glamorgan
Llanwern 1	16	120	New 2	59.6	Newport
Peterston-super-Ely	17	131	VG 3	57.9	The Vale of Glamorgan
St. Arvans	18	133	Mon 12	57.6	Monmouthshire
Llandow/Ewenny	19	143	VG 4	56.2	The Vale of Glamorgan
Cowbridge 4	20	146	VG 5	55.8	The Vale of Glamorgan

Indicators:

- Access to food shop (10 minutes walk)
- Access to GP surgery (15 minute walk)
- Access to primary school (15 minutes walk)
- Access to Post Officer (15 minutes walk)
- Access to public library (15 minute walk)
- Access to leisure centre (20 minute walk)
- Access to NHS Dentist (20 Minute walk)
- Access to secondary school (30 minute walk)

Housing Domain 20 Most Deprived LTSOAs in South East Wales					
LTSOA Name	SE Wales Rank	All Wales Rank	UA Rank	Housing Domain score	Unitary Authority
Plasnewydd 2	1	16	Car 1	89.1	Cardiff
Grangetown 8	2	17	Car 2	88.6	Cardiff
Cathays 6	3	22	Car 3	85.9	Cardiff
Riverside 8	4	24	Car 4	84.9	Cardiff
Plasnewydd 4	5	25	Car 5	84.5	Cardiff
Adamsdown 2	6	27	Car 6	83.5	Cardiff
Riverside 2	7	33	Car 7	81.0	Cardiff
Adamsdown 5	8	35	Car 8	80.2	Cardiff
Splott 6	9	41	Car 9	77.9	Cardiff
Butetown 2	10	43	Car 10	77.2	Cardiff
Ely 6	11	46	Car 11	76.2	Cardiff
Plasnewydd 7	12	50	Car 12	74.9	Cardiff
Grangetown 6	13	51	Car 13	74.6	Cardiff
Ely 3	14	52	Car 14	74.3	Cardiff
Victoria 4	15	66	New 1	70.4	Newport
Penylan 4	16	68	Car 15	69.9	Cardiff
Cathays 8	17	69	Car 16	69.7	Cardiff
Ely 8	18	71	Car 17	69.2	Cardiff
Caerau (Cardiff) 2	19	73	Car 18	68.7	Cardiff
Riverside 1	20	74	Car 19	68.5	Cardiff

Indicators:

- Lack of central heating
- Overcrowded (excluding student households)

Physical Environment Domain 20 Most Deprived LTSOAs in South East Wales					
LTSOA Name	SE Wales Rank	All Wales Rank	UA Rank	Physical Environment Domain score	Unitary Authority
Splott 3	1	1	CAR 1	100.0	Cardiff
Grangetown 3	2	2	CAR 2	99.1	Cardiff
Grangetown 10	3	3	CAR 3	98.2	Cardiff
Grangetown 4	4	4	CAR 4	97.4	Cardiff
Grangetown 2	5	5	CAR 5	96.6	Cardiff
Grangetown 9	6	6	CAR 6	95.8	Cardiff
Splott 5	7	7	CAR 7	95.0	Cardiff
Splott 8	8	8	CAR 8	94.3	Cardiff
Splott 7	9	9	CAR 9	93.6	Cardiff
Grangetown 1	10	10	CAR 10	92.9	Cardiff
Cadoc 5	11	11	VG 1	92.2	The Vale of Glamorgan
Grangetown 5	12	12	CAR 11	91.6	Cardiff
Liswerry 6	13	13	NEW 1	90.9	Newport
Butetown 3	14	14	CAR 12	90.3	Cardiff
Butetown 2	15	15	CAR 13	89.7	Cardiff
Liswerry 2	16	16	NEW 2	89.1	Newport
Grangetown 7	17	18	CAR 14	88.0	Cardiff
Liswerry 7	18	19	NEW 3	87.5	Newport
Liswerry 3	19	20	NEW 4	86.9	Newport
Tredegar Park 1	20	21	NEW 5	86.4	Newport

Indicators:

- Air quality
- Air emissions
- Living within 1KM of a waste disposal site
- Proportion of people living within 1KM of an Environment Agency regulated industrial source
- Proportion of people living in an area with a significant risk of flooding

Appendix B

Uses of the Index

The index can be used for:

- Giving an overall deprivation score for each of the 1,896 LTSOAs in Wales;
- Giving scores for the seven separate domains for each LTSOA;
- Comparing the deprivation scores for each of the LTSOAs;
- Ranking the scores for all 1,896 LTSOAs or for a group of them (Like those in a local Authority), so that the LTSOAs can be put in order from the most deprived to the least;
- Comparing two or more local authorities (or groups of aggregated LTSOAs) by looking at the proportion of the LTSOAs in the local authority within the most deprived (say worst 10%) in all Wales.

For the Income and Employment Domains it is possible to get the numbers of people classed as deprived living in an area (as well as a deprivation score). For the other five deprivation domains only the scores are available, because they are calculated using a range of indicators rather than just numbers of people. The data on which the index is based can be used in future to check for changes over time.

Limitations of the Index

There are several ways in which it is tempting to use the index, but which are not appropriate and will lead to unreliable results and misinterpretations:

- You can not say how much more deprived one LTSOA is than another. If area A has a score of 40 and Area B a score of 20, it does not follow that A is twice as deprived as B. Or if A were ranked as the 100th most deprived area and B the 300th, it does not follow that A is three times more deprived than B.
 - It is an index of deprivation, not affluence. If one area is much lower down the ranked list than another then you can say that it is less deprived but you cannot say it is necessarily more affluent. Every area
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has people who are deprived and people who are affluent, but the index counts only those classed as deprived. It makes no difference whether the rest are nearly deprived but not quite, fairly well off, or very rich.

- The deprivation scores can not be compared with the 2000 WIMD. The areas upon which the indices are based are different and were worked out in different ways and there are a slightly different set of individual domains.

The deprivation scores cannot be compared with those from the deprivation indexes of other UK countries. To be able to compare an area in Wales with one in (say) England would require having to design a joint England and Wales Index, having two separate indexes would not work.