

Edinburgh Regeneration Outcome Agreement

SUPPLEMENTARY REPORT

Scottish Index of Multiple Deprivation 2006- Changes in Edinburgh



1. INTRODUCTION

In October the Scottish Executive published the Scottish Index of Multiple Deprivation (SIMD) 2006. This followed broadly the same methodology as the SIMD for 2004 – essentially aiming to measure overall deprivation levels in an area by measuring a range of particular circumstances or factors which are identified as contributing to, and reflecting, overall deprivation. There were however some key differences in what was measured and how.

Both the 2004 and 2006 SIMD examine deprivation at the level of data zones (DZ). Each DZ contains between 500 - 1000 residents and in total there are 6,505 data zones in Scotland.

The 2004 SIMD was important to Edinburgh's ROA in that it was the basis for the official designation of Edinburgh's 'most deprived' Community Regeneration Areas. It also established eligibility for and determined both the share of the national Community Regeneration Fund (CRF) which came to Edinburgh and how this would be distributed within the city. No change to these allocations is planned either at national or local level as a result of SIMD 2006, the existing designations remain.

More importantly in the longer term the index formally identifies those areas most in need of special programmes and targeted assistance from mainstream services.

This paper gives some background to the changes shown in the 2006 SIMD.

Section 2 below (and the appendix) considers methodology i.e how the SIMD for 2006 has been put together and explains the limitations this puts on the use of the index.

Section 3 examines what has happened in Edinburgh and in particular what has happened in terms of the focus areas for the ROA.

2. METHODOLOGY

2.1 General caution on data comparisons

It is important to note that the results in 2006 cannot, for the most part, be directly compared with the 2004 results in a way which gives a reliable direct comparison. The incidence of crime, for example, wasn't part of the index in 2004 and it is included in 2006 and it has a significant effect on individual placement of DZs and overall deprivation scores.

Similarly the way in which some of the deprivation categories are measured in 2006 has changed from 2004– only employment and housing have stayed the same with every other domain (the name given to the group of related indicators that make up the index) having seen some degree of change. Even where the measures are comparable the results are relative (to each other) and therefore not always reliable as measures of actual change over time.

2.2 Particular limitations of the index

The whole methodology hinges on relative measures of deprivation. So all areas may be improving, but some are improving faster than others, so places in the ranking may well change. Edinburgh's overall placement in the latest index is in part a residual effect of improvements in (and additional resources being directed towards) Glasgow, North Lanarkshire etc.

Factors within the index have changed between 2004 and 2006. As a result the index as a whole should not be used for temporal comparison. For instance and as noted above in 2004 there was no domain on crime, in 2006 there is.

The measurement methods for most of the domains have also changed so comparisons of health deprivation in 2006 with that produced in 2004 is not recommended. The only constants are the employment and housing domains which are based on exactly the same data set now as it was in 2004.

Each domain is built up from a range of different data sets that have been identified as reflecting deprivation. Although the index was constructed and published in 2006 some of these data sets used are much earlier than this. So, for example, out of the seven factors considered in constructing the Health Domain, only one is based on information collected in 2005 the others predate that. A detailed review of these issues is presented at Appendix One.

3 THE SITUATION IN EDINBURGH

Edinburgh as a whole has 549 data zones and 63 of them are in the most deprived 15% data zones in Scotland. In percentage terms there has been very little change- in 2004 11.1% of the city's data zones were ranked within the worst 15% and in 2006 this had increased slightly to 11.5%.

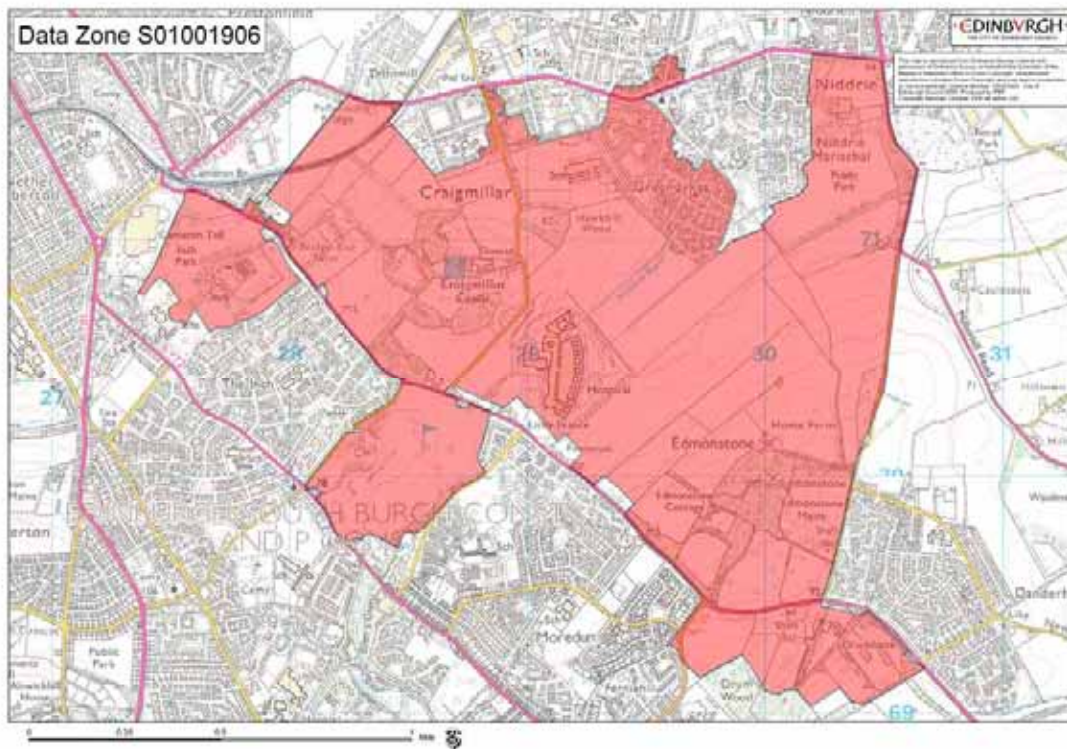
The percentage of the working age population who are employment deprived has remained much the same (was 9.7% in 2004 and is 9.6% in 2006) although the actual number has increased slightly from 28,823 in 2004 to 29,296 in 2006.

The most deprived data zone in Edinburgh is in Craigmillar and is ranked 4th most deprived overall in Scotland. In the 2004 index it was ranked 19th most deprived. The 2006 SIMD estimates that there were 321 people employment deprived and 598 people income deprived in this data zone.

This data zone contains the Thistle Foundation, a community of people with disabilities with around 100 housing units. This means a high proportion are out of work and with health conditions. All factors that are reflected heavily in the health and employment domains. Large area of this data zone have also recently been cleared for redevelopment, raising further the impact of the Thistle Foundation.

The data zone is highlighted in the figure below. The only populated area is to the north of the zone and it contains the Thistle Foundation and the redevelopment area of Greendykes

Data Zone S01001906- Greendykes and ERI



3.1 Datazones showing Increased deprivation

The table below highlights the 6 Edinburgh data zones that have moved into the 15% most deprived in Scotland. Those that have moved into the worst 15% were generally well outside before. For instance;

- S01001820 (Gracemount) was ranked 1172 most deprived in 2004, in 2006 it was 859th a fall of 313;
- S0100843 (Oxgangs) was ranked 1230 in 2004 and this had fallen to 818th a fall of 412;
- S01001955 (Saughton) had fallen from 1356th to 788th a fall of 568.
- The most change is S01002273 (Leith Links) which has fallen from 1751st in 2004 to 529th in 2006- a fall of 1222 places in the ranking.

Table 1: Edinburgh Data Zones Moving In to the 15% Most Deprived in Scotland

Data Zone code		S01001820	S01001843	S01001926	S01001955	S01001971	S01002273
Local ROA Name	SIMD	Gracemount	Oxgangs	Sighthill	Saughton	Stenhouse	Leith Links
Overall Rank	2004	1172	1230	1061	1356	1032	1751
	2006	859	818	815	788	929	529
Income Rank	2004	1040	829	1343	1230	1371	2067
	2006	606	737	1187	668	1008	814
Employment Rank	2004	2227	1177	1784	1815	867	2316
	2006	1291	778	846	855	742	418
Education Rank	2004	290	1087	288	938	2054	1697
	2006	648	636	461	1041	920	809
Health Rank	2004	1487	3021	829	1216	734	773
	2006	885	1494	1054	656	980	337
Access Rank	2004	5626	6219	3794	4670	1972	6254
	2006	4744	4407	5592	3875	3480	6402
Housing Rank	2004	651	860	1197	1096	1232	419
	2006	651	860	1197	1096	1232	419
Crime Rank	2004	~	~	~	~	~	~
	2006	1688	1339	156	2148	3031	373

Factors in the construction of the SIMD may be responsible for these movements. For instance crime was not recorded in 2004 and is now. Some of these data zones have scored highly in respect of these new or differently measured indicators.

For some it is clear that there have to be local factors at work which reflect either real and dramatic change or are a result of other changes or redefinitions (as in the case of the Craigmillar DZ discussed above). Most of these areas were in previously recognised regeneration areas. Gracemount was part of the South Edinburgh SIP, and Sighthill, Leith and Oxgangs were part of the strategic programme SIP. It was really only as a result of the SIMD 2004 that the focus had moved away from these areas. It may be that the 2006 SIMD better reflects what was already recognised in the city, albeit in a less formal statistical exercise.

3.1 Datazones showing decreased deprivation

Those that have moved out (of the 'worst' 15%) have, on the whole, moved up the ranking a relatively modest amount – for instance S01002247 has moved from 827 to 984 – an improvement of 142 places in the ranking- to put this in context remember that there are 6,505 data zones in Scotland as a whole. The data zones that moved out of the 15% most deprived are highlighted in the table below.

Edinburgh Data Zones Moving Out of the 15% Most Deprived in Scotland

Data zone code		S01002247	S01002289	S01002306	S01002318
Local ROA Name	SIMD	North Edinburgh	Leith	Leith	Leith
Overall Rank	2004	842	933	909	873
	2006	984	1056	979	1284
Income Rank	2004	853	807	432	909
	2006	944	813	506	1365
Employment Rank	2004	1503	947	1382	1455
	2006	1243	1158	1644	1912
Education Rank	2004	352	2611	1745	488
	2006	470	1794	1113	468
Health Rank	2004	816	479	923	632
	2006	1088	768	1150	1172
Access Rank	2004	3725	6298	6245	5562
	2006	3903	6434	6376	5785
Housing Rank	2004	833	478	627	472
	2006	833	478	627	472
Crime Rank	2004	~	~	~	~
	2006	2569	966	447	1197

4. CONCLUSIONS

The SIMD is a dynamic and fluid approach to measuring deprivation. It has developed and employed different data sets and statistical approaches in 2006 from those used in 2004, and this is partly responsible for changes in ranking.

Another key factor is the relative nature of the index. It ranks data zones relative to one another, so there will always be some that are in the worst 15%, even if the underlying data on which it is based improved universally throughout Scotland. The index requires that there are always 975 data zones which are the 15% most deprived. Changes don't happen uniformly and a relative improvement in some areas will free up 'places' in the 15% most deprived that will have to be taken by other areas.

Finally the data that makes up the SIMD does reflect actual changes in what is happening but these are combined to give overall figures either for domains (such as health) or for the overall rank as a result there could be some degree of positive movements in one domain (employment for example) being cancelled out by less positive movements in another domain (health for example). Even within a domain positive changes in one indicator may be cancelled by negative changes in another.

The implications for Edinburgh overall are limited, the picture presented is, over the piece, a relatively stable one. Specific action will be at the very local level in first understanding any of the local changes described in SIMD and working through what can and should be done to counter this. There is little that was not already apparent in some way already. The Jobs Strategy Group, for example, has already identified as an issue the 'levelling off' of improvements in employment and economic activity rates in Craigmillar and North Edinburgh and will bring specific actions forward to deal with the local issues. Where other, very local, changes are verified these will be addressed mainly at local level.

APPENDIX ONE – DETAIL ON METHODOLOGY AND DATA LIMITATIONS

Looking at each of the 'domains' in turn gives some idea of what data is actually being used to construct the index and how this fits together to give a score which then ranks the data zones.

Income Domain

There are 5 indicators that made up this domain in 2004 that no longer feature in the 2006 SIMD. These changes have been carried out because of significant changes to the benefit system that have been introduced since 2003. The Chief Statistician says that *“Due to the changes to the indicators used, absolute counts of income deprived people from the SIMD 2004 and SIMD 2006 cannot be fairly compared and only change in rank between the SIMD 2004 and SIMD 2006 income domains, which measure relative change should be examined.”* Pg 13

Number of adults 16-59 receiving income support (DWP April 2005)
Number of adults (aged 60plus) receiving guaranteed pension credit (DWP May 2005)
Number of children (aged 0-15) dependent on a recipient of income support (DWP April 2005)
Number of children (aged 0-15) dependent on a recipient of income support (DWP April 2005)

Employment Domain

There have been no changes in the indicators used for this domain since the 2004 SIMD so absolute numbers can be compared as well as ranks.

Working age unemployment claimant count averaged over 12 months (NOMIS 2005)
Working age incapacity benefit recipients, men aged under 65 and women aged under 60 (DWP August 2005)
Working age severe disablement allowance (DWP August 2005)
Working age compulsory new deal participants – new deal for the under 25s and new deal for 25+ not included in the unemployment claimant count (DWP August 2005)

Health Domain

The list of indicators remains the same as those used for the 2004 SIMD however improvements in data and methodology means that comparison between the two isn't possible. This is also the one that is based on some of the most historical data.

Standardised Mortality Ratio (ISD 2001-2004)
Hospital episodes related to alcohol use (ISD 2001-2004)
Hospital episodes related to drug use (ISD 2001-2004)
Comparative Illness Factor (DWP 2005)
Emergency Admissions to Hospital (ISD 2001-2004)
Proportion of the population being prescribed drugs for anxiety depression or psychosis (ISD 2004)
Proportion of live singleton births of low birth weight (ISD 2001-2004)

Education Skills and Training Domain

Once again there have been improvements made to the data and the methodology and as a result the SIMD 2004 and SIMD 2006 education domains are not comparable.

School pupil absences (2003/04 – 2004/05)
Pupil performance on SQA at stage 4 (2002/03- 2004/05)
Working age people with no qualifications (2001 census)
17-21 year olds enrolling into higher education (HESA 2002/03- 2004/05)
People aged 16-18 not in full time education (DWP 2005, HESA 2004/05)

Geographic Access Domain

The 2004 domain was different as it didn't include any of the public transport times. As well as this substantial difference there have also been improvements to the data and the methodology and as a result the 2004 and 2006 access domains and indicators are nor comparable. This is really one that only becomes an issue in rural areas. Almost unheard of for data zones in urban areas to score highly on these.

Drive time to a GP
Drive time to a petrol station
Drive time to a post office
Drive time to shopping facilities
Drive time to a primary school
Drive time to a secondary school
Public transport time to a GP
Public transport time to a post office
Public transport time to shopping facilities

Housing Domain

This has remained unchanged between 2004 and 2006 primarily because they have had to stick with the 2001 census as alternative data sets are unavailable as a result this domain is using the oldest data.

Persons in households that are overcrowded (2001 Census)
Persons in households without central heating (2001 Census)

Crime Domain

This is a new domain as the data wasn't available in 2004.

Recorded crimes of violence
Recorded domestic housebreaking
Recorded vandalism
Recorded drugs offences
Recorded minor assault

Overall the index is developed by giving each indicator within each domain a weighting and then each domain is given another weighting to arrive at the final figure for a specific data zone. The weightings are based on the robustness of the data, the time lag between data collection and the production of the SIMD and the relative importance of the domain in

measuring multiple deprivation. The weightings given, both to individual indicators and to domains, have changed between 2004 and 2006, creating further difficulties with comparisons. One thing that stands out is that with the inclusion of Crime as a domain, the importance (weighting) given to the other domains has had to reduce. The table below gives the weightings given to the SIMD in 2004 and 2006 and we can see that in both indices Current Income and Employment were the main domains in constructing the overall index.

Domain	2004 Weight	% of overall weight	2006 Weight	% of overall weight
Current Income	6	29	12	28
Employment	6	29	12	28
Health	3	14	6	14
Education	3	14	6	14
Geographic Access	2	10	4	9
Housing	1	5	1	2
SIMD Crime	n/a	n/a	2	5

