

Insight, Performance
and Intelligence



Deprivation Deciles

Guidance on the calculation
and use of deprivation deciles

Briefing Note

October 2019



1. Introduction

1.1 Deprivation deciles are used to examine the experience of individuals, families or communities in terms of the level of deprivation of the area in which they live. Deprivation deciles are commonly used to:

- i. Identify areas of highest deprivation
- ii. Measure inequalities
- iii. Explore whether different levels of deprivation are associated with differential life outcomes
- iv. Benchmark an areas deprivation relative to other areas of the country

2. Deprivation indices

2.1 The Ministry for Housing, Communities and Local Government (MHCLG) [Index of Multiple Deprivation 2019](#) is the official measure of relative deprivation for small areas (or neighbourhoods) in England. The Index of Multiple Deprivation ranks every small area in England from 1 (most deprived area) to 32,844 (least deprived area).

2.2 Deprivation indices can be analysed in two different ways:

a) Bristol local deprivation deciles

Ranking all 2011 Lower Super Output Areas (LSOAs) in the Bristol local authority from the most deprived (rank 1) to least deprived (rank 263) and then dividing into ten categories (deciles) with approximately equal numbers of LSOAs in each.

b) National deprivation deciles

Ranking all LSOAs in England from the most deprived (rank 1) to least deprived (rank 32,844) and then dividing into ten categories (deciles) across the whole of England.

2.3 National deprivation deciles are the default ranking provided by the MHCLG. This briefing note is primarily to support those situations where we need 'Bristol local deprivation deciles'.

¹ Lower Super Output Areas (LSOAs) were created by the Office for National Statistics (ONS) for the reporting of small area statistics. They are designed to follow local authority boundaries, be of similar size across the country and be socially homogeneous.



3. Use of deprivation deciles

3.1 Deprivation deciles are used in two main ways – to measure inequality *within* Bristol, and to benchmark levels of deprivation in Bristol relative to other parts of the country.

3.2 When making comparisons of areas within Bristol, the approach taken by the Bristol City Council Insight, Performance and Intelligence service is to use the Bristol local deprivation deciles. This is also the formal approach used by Public Health England when making comparisons between the most and least deprived areas in Bristol.

Use of Bristol local deciles - Measure inequalities

3.3 Local categories can be used to provide a measure of inequality *within* Bristol. They are also best for trend analysis as this approach is less influenced by unconnected changes in other parts of the country.

3.4 There are different ways that inequalities shown by local deprivation deciles can be presented:

- a) **Most deprived areas** - this is the outcome measure for the 10% most deprived areas within Bristol, which can be used as a proxy to highlight inequalities. For example, this approach is taken within the annual [BCC Business Plan](#)
- b) **Comparison gap with city average** – this takes the outcome measure for the 10% most deprived areas and compares it with the outcome measure for the city average (ie the Bristol overall figure). For example, this approach is taken for the Deprivation Gap in the [Bristol Quality of Life survey](#)
- c) **Gap between most and least deprived deciles** – this takes the outcome measure for the 10% *most* deprived areas and compares it with the outcome measure for the 10% *least* deprived areas. For example, this approach is taken for the Public Health Life Expectancy gap² – see section 2.3 in the [JSNA Data Profile](#)

Use of national deciles – Benchmark

3.5 National deciles enable the comparison of deprivation in Bristol relative to deprivation in other areas in England. National deciles are best used for benchmarking against other areas, as well as for bidding for national funding or resources.

² [Public Health Outcomes Framework – Overarching Indicators Technical User Guide](#)



Quintiles and other categories

3.6 Whilst most analysis is done using the ten deciles of deprivation, it is also possible to aggregate these into a smaller number of categories such as quintiles (where the city is divided into 5 categories, not 10). If quintiles etc are used, the same approaches as above could be applied.

Referencing

3.7 When using deprivation deciles, it is important to make clear whether local deprivation deciles are being used or national deprivation deciles.

4. Bristol Local Authority Deprivation Deciles

4.1 Bristol has 263 LSOAs which are divided into the following deciles based on the local deprivation rank from most deprived (rank 1) to least deprived (rank 263):

Bristol Decile	Rank out of 263 LSOAs	
1	1	27
2	28	53
3	54	79
4	80	106
5	107	132
6	133	158
7	159	185
8	186	211
9	212	237
10	238	263

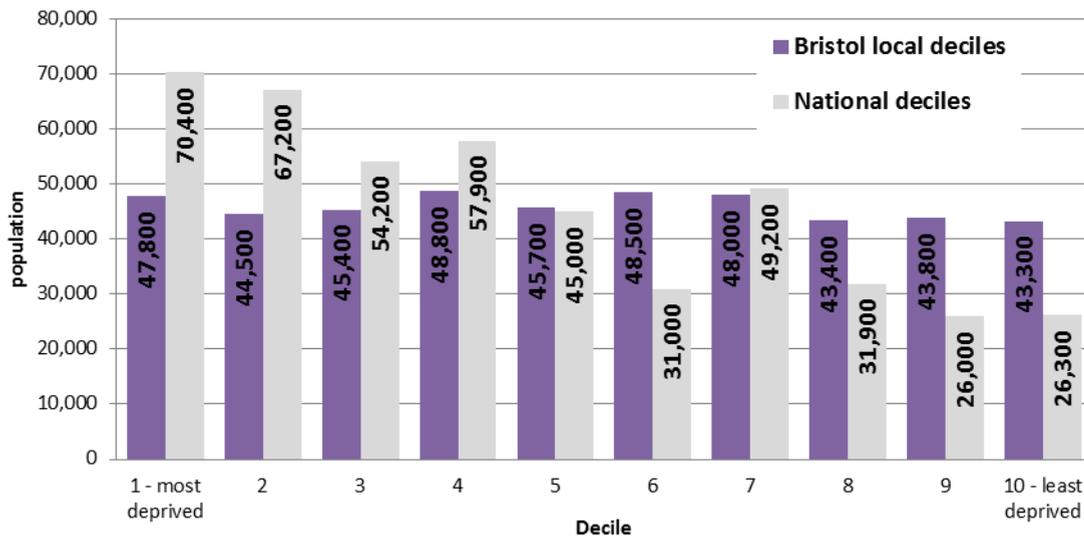
4.2 A look-up file is available on the [Bristol City Council deprivation web page](#) which allocates each individual LSOA11 to its Bristol deprivation decile based on Public Health England guidance³. The look-up file can be used to assign LSOA data - eg population estimates, equalities statistics, quality of life survey results - to local deprivation deciles, in order to be able to show inequalities.

³ [Public Health Outcomes Framework – Overarching Indicators Technical User Guide](#)



5. Comparison of Bristol local deprivation deciles and national deprivation deciles

Figure 1. Number of people (mid-2017) living in Bristol local deprivation deciles compared to number of people living in national deciles



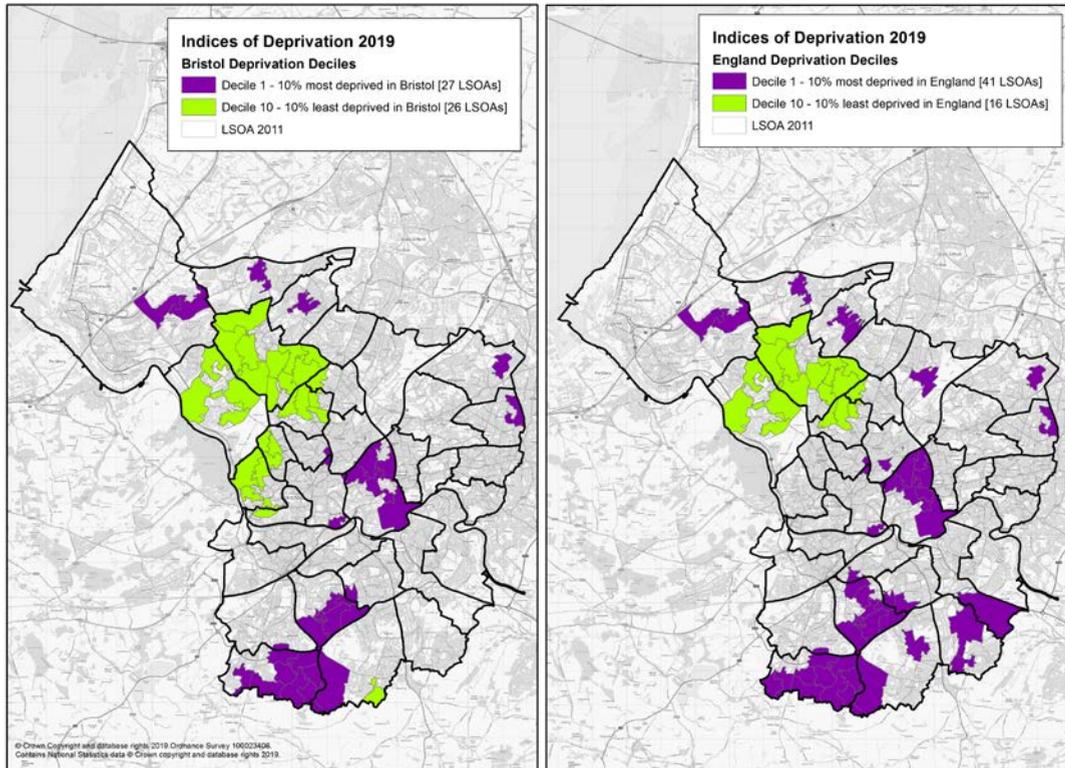
5.1 By definition, Bristol local deprivation deciles divide Bristol into 10 categories with more or less equal numbers of LSOAs and population. In the most deprived Bristol decile there are 27 LSOAs and in the least deprived decile there are 26 LSOAs. If Bristol LSOAs are allocated to deciles based on the national rank, then this gives a different picture. In this case there are 41 LSOAs in the most deprived national decile and 16 LSOAs in the least deprived national decile. This is illustrated in the two maps in figure 2 and the chart in figure 1.

5.2 There are fewer LSOAs in the most deprived Bristol local deprivation decile, than in the most deprived national decile. The 27 LSOAs in the most deprived Bristol decile are equal to those LSOAs that fall within the most deprived 6% of LSOAs in England. Conversely, there are more LSOAs in the least deprived Bristol local deprivation decile, than in the least deprived national decile. The 26 LSOAs in the least deprived Bristol decile are equal to those LSOAs that fall within the most deprived 17% of LSOAs in England.

³ [Public Health Outcomes Framework – Overarching Indicators Technical User Guide](#)



Figure 2. LSOAs by 2019 Bristol deprivation decile and 2019 England deprivation decile



	Bristol LA deprivation deciles	National deprivation deciles
Bristol LSOAs in the most deprived 10%	27 LSOAs	41 LSOAs
Bristol LSOAs in the least deprived 10%	26 LSOAs	16 LSOAs

6. Further information

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