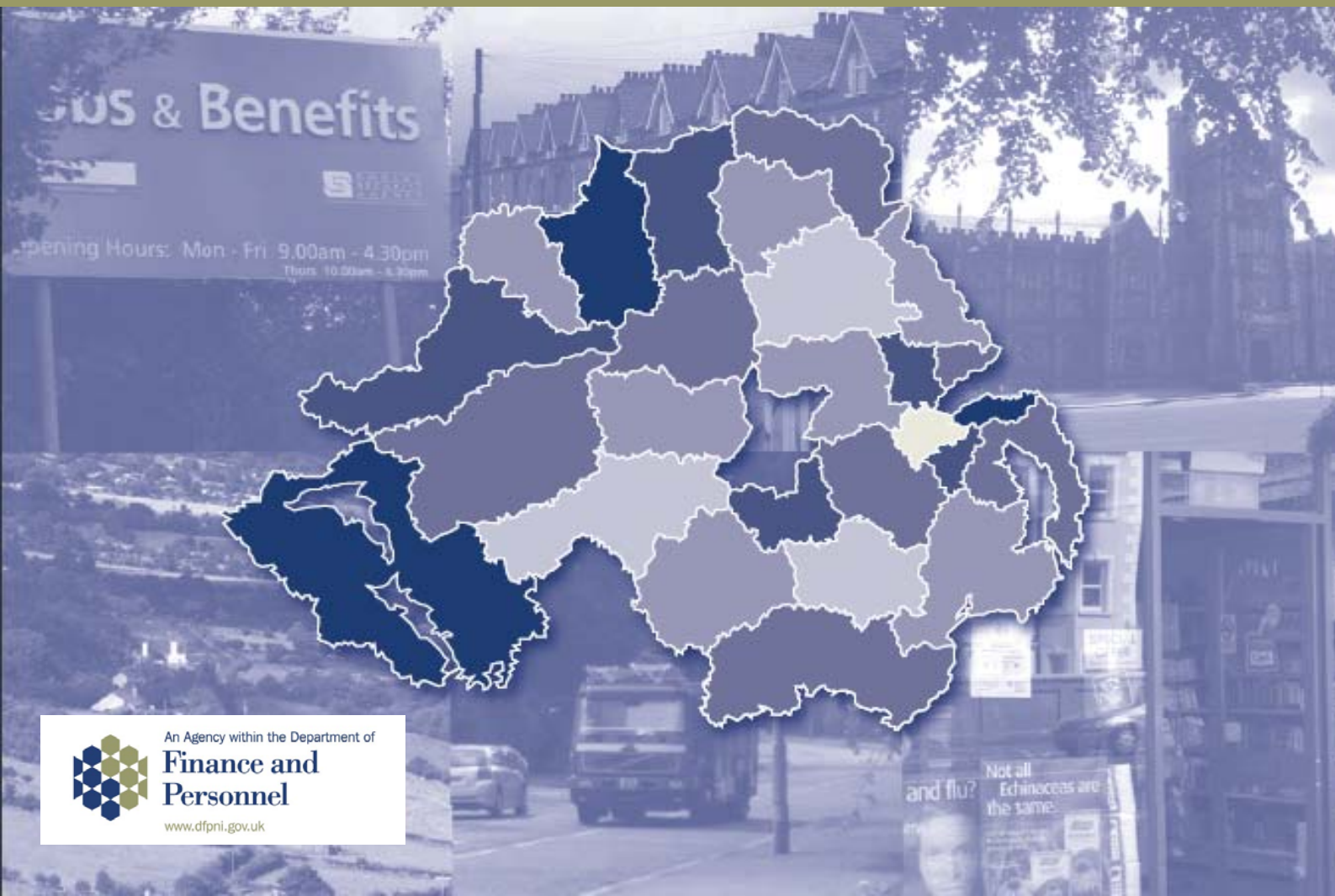


Northern Ireland Multiple Deprivation Measure 2010 Domain Weights



Domain Weights within the Multiple Deprivation Measure

Three recent measures of small area deprivation in Northern Ireland have been based on a 'domain' methodology where information is combined on separate forms or 'domains' of deprivation to construct an overall measure of multiple deprivation; Northern Ireland Multiple Deprivation Measure (NIMDM) 2001, NIMDM 2005 and NIMDM 2010. An explicit weight is given to each of the domains when combining to form the overall multiple deprivation measure based on a number of considerations.

There are at least five options for selecting the weights.

These are:

1. Driven by theoretical considerations
2. Empirically driven
3. Determined by policy relevance
4. Determined by consensus
5. Other grounds

Weights driven by theoretical considerations

In the theoretical approach, account is taken of the available research evidence which informs the theoretical model of multiple deprivation and weights are selected which reflect this theory.

Empirical approaches to weighting

There are two sorts of approaches that might be applicable here. First a commissioned survey or re-analysis of an existing survey might generate weights. Here one might generate a proxy for multiple deprivation of exclusion - perhaps in terms of 'socially perceived necessities' and use multivariate predictive modelling to derive weights. Second one might apply a technique such as Factor Analysis to extract some latent 'factor' called 'multiple deprivation' assuming, that is, that the analysis permitted a single factor solution.

Weights determined by policy relevance

It might be that only the individual domain scores could be released and weighted for combination in accordance and (proportion) to the focus of particular policy initiatives or weighted in accordance with public expenditure on particular areas of policy.

Weights determined by consensus

Policy makers and other 'customers' or experts could simply be trawled for their views and the results examined for consensus.

Weights chosen on other grounds

Simply choosing weights without reference to the above or deciding to use equal weights in the absence of empirical evidence would come into this category.

NIMDM 2001, 2005 and 2010 Weights

NIMDM 2001

In the NIMDM 2001 theoretical considerations prevailed. Reviews of the relevant literature indicated that low income and dislocation from the labour market are key drivers of other deprivations such as poor health outcomes (see for example Mitchell et al, 2000; Gallie et al, 1994), and poor educational attainment (see for example Halsey, Heath and Ridge, 1980; Smith and Noble, 1997; DWP, 2002; Sparkes, 1999) and should therefore be up-weighted in any measures of multiple deprivation.

In addition in the NIMDM 2001 this overriding criterion was modified such that domains supported by the most robust data were weighted more than those where the data were less robust but still sufficiently robust for inclusion. The Income Deprivation and Employment Deprivation domains were regarded as the most important contributors to the concept of multiple deprivation and the indicators comprising the domains were very robust. It was therefore decided that they should carry more weight than the other domains. As such weights of 25%, 25%, 15%, 15%, 10%, 5% and 5% were assigned to the Income deprivation, Employment deprivation, Health deprivation and disability, Education, skills and training deprivation, Geographical access to services, Social environment, and Housing stress domains respectively. The resulting weightings of the domains were supported by the research team's work and the consultation process.

NIMDM 2005

Two sets of weights were proposed by the research team in the consultation associated with the creation of the NIMDM 2005. One suggested set was identical to the weighting structure used in NIMDM 2001. The second suggested set gave a 25% weight each to the Income and Employment domains and 10% weight each to the remaining five domains. (The Social Environment domain and the Housing Stress domain were also replaced by the Crime and Disorder domain and the Living Environment domain.) The consultation responses, research team's work and available wider academic literature supported a continued use of the weights employed in 2001; 25%, 25%, 15%, 15%, 10%, 5% and 5% assigned to the Income deprivation, Employment deprivation, Health Deprivation and Disability, Education, Skills and Training deprivation, Proximity to Services, Crime and Disorder, and Living Environment domains respectively.

NIMDM 2010

The NIMDM 2010 was intended as an update to the NIMDM 2005. The scope of the update was broadly limited to a temporal update of the indicators and domains as used in the NIMDM 2005. Indicators were revised only where explicitly recommended in the 2005 research, where indicators were no longer available or where data sources had been significantly enhanced. As such a revision of the domain weights was outside the remit of the update, and the domain weights remained as per the NIMDM 2005.

Future Measures of Deprivation

It is likely that measures of small area deprivation will be created after publication of the small area results of the Census 2011. A fuller methodological review, including an examination of domain weights, will take place at this point.

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