

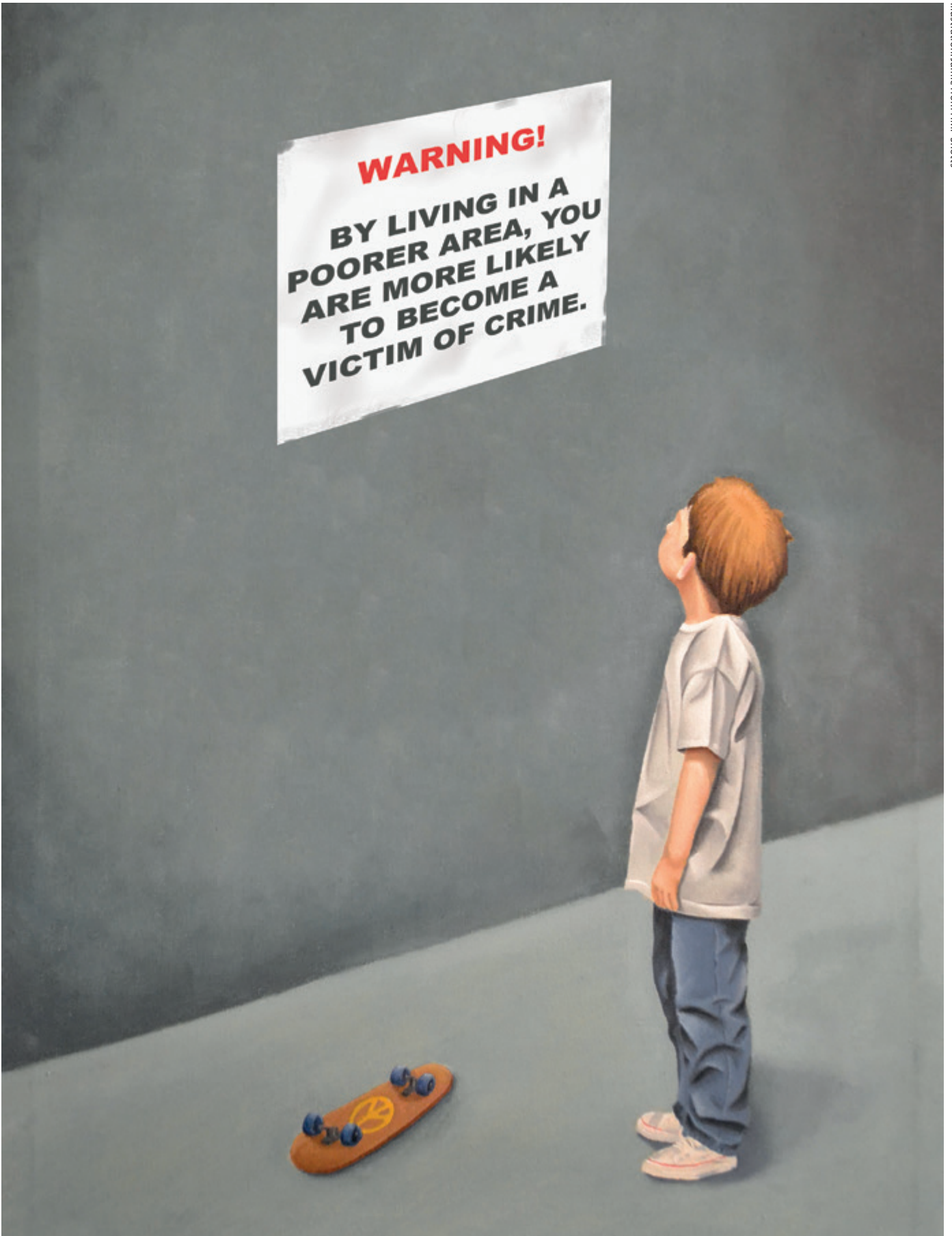
scottish justice matters

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POVERTY, INEQUALITY AND JUSTICE





DOES PLACE MATTER?

Ellie Bates explores the relationship between crime and deprivation

THE IDEA of linking deprivation, crime and place is not new. The French statisticians Quetelet and Guerry mapped crime in French regions in the 1830s, and were amongst the first to link crime with inequalities and class. More recently, Robert Sampson a Chicago based sociologist and criminologist, has noted that crime and inequality are ‘sticky’, suggesting that such social problems have a deep neighbourhood structure and that they tend to perpetuate themselves, leading to a “poverty trap’ cycle [which] can be broken only with structural interventions” (Sampson, 2012, 99). If there are poverty trap cycles, as Sampson suggests, then does the Scottish crime and deprivation data show a persistent relationship across time? This articles uses descriptive data on crime and relative deprivation to explore if this is the case.

Figure 1 presents data for three domains of the Scottish Index of Multiple Deprivation (SIMD) for 2006 and 2012, Crime, Employment and Geographic Access to Services, mapped by data zone. The SIMD Crime domain is comprised of a subset of police recorded crime rates, relevant to neighbourhood deprivation, for each area: crimes of violence (including some sexual offences), domestic housebreaking, vandalism, drugs offences and minor assault (Scottish Government 2006, 2012). Data zones are designed to represent neighbourhoods with similar characteristics, including a similar population size, used for reporting small area census and administrative data; zones tend to be geographically larger in rural areas, and smaller in urban areas. This means the extent of relative deprivation in urban areas can be lost in some map representations of data zones. To redress this, data are presented using cartograms which set each data zone in Scotland at the same size, and then distort the geography so all of them are visible on the map. This has the effect of increasing the size of the Scottish Central Belt area on the maps presented.

These maps indicate that relative deprivation does appear persistent over time as Sampson suggests, as the 20% most deprived data zones for each SIMD domain appear to stay relatively constant between the two time points. Relative deprivation for the Crime and Employment domains are more common in urban data zones, whereas rural data zones are more likely to experience relative deprivation in relation to Geographic Access to Services. There is some overlap between areas of high (and low) deprivation for Crime and Employment, which suggests that similar underlying neighbourhood factors may be influencing both. However, there is also an interesting overlap between areas with high relative deprivation for Crime and low relative deprivation in terms of Geographic Access to Services. Interestingly, mapping data for the Health and Education domains (not shown here) produces very similar patterns to the Employment domain.

Another way to examine similarity of deprivation domains is to compare the share of the most deprived data zones across domains. If there was a perfect correspondence between Crime and Employment deprivation then all of the data zones that make up the 20% most deprived in terms of crime nationally would also be the 20% most deprived in terms of Employment deprivation nationally. In fact, when we examine the 20% of data zones that are most deprived for crime then just over half (53-59%) are amongst the 20% most deprived for each of the Employment, Education and Health domains. This is true for both the SIMD in 2006 and 2012. In contrast, only 3-4% of these data zones are amongst the 20% most deprived for Geographic Access. Interestingly, about 2% of the data zones which are amongst the 20% **most** deprived for crime are also amongst the 20% **least** deprived for Employment,

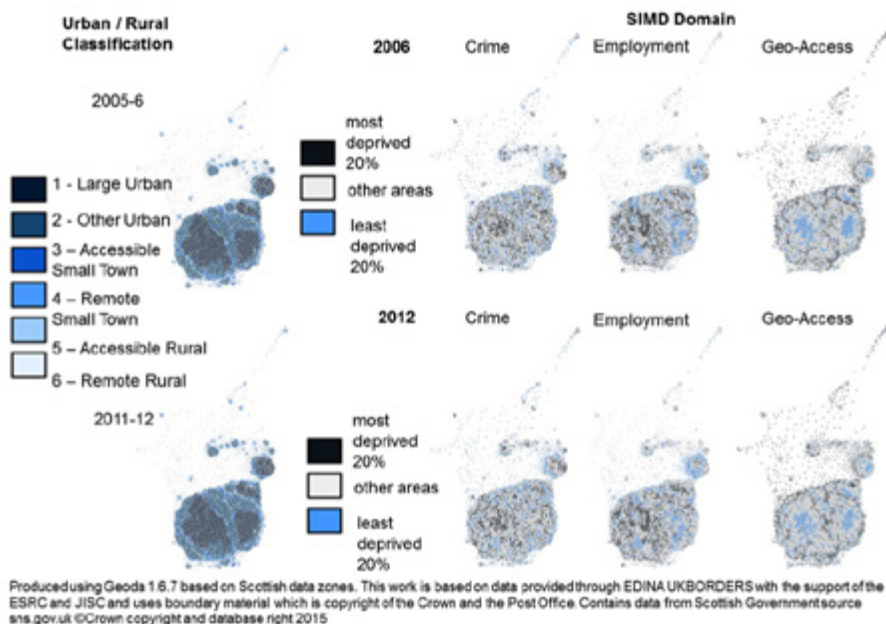


Figure 1 – Cartograms of Scotland comparing crime and relative employment and access deprivation (SIMD 2006 and 2012)

Education and Health in both the 2006 and 2012 SIMD, whereas around 40% are amongst the least deprived data zones for Geographic Access to Services. This inconsistency is reflected in the patterns observed in the maps in Figure 1.

Comparing two snap shots of relative deprivation does not necessarily suggest that high and low crime persists across time. To do this requires a longer term analysis. Unfortunately, we are limited in Scotland by availability of SIMD crime count data at only three time points; however, we can use these to conduct longitudinal analysis of crime trends. Latent class analysis allows us to cluster the 5484 Scottish data zones (for which data are available) into distinct groups which follow a similar trajectory for SIMD crime across time (based on modelling the mean of all data zones on the group for each year). The analysis assessed the probability of each data zone belonging to a particular group, and found eight distinct groups which differed in terms of both their level and trajectory of SIMD crime.

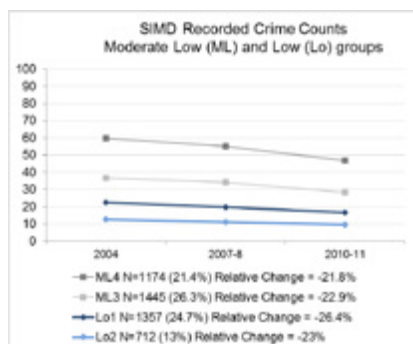
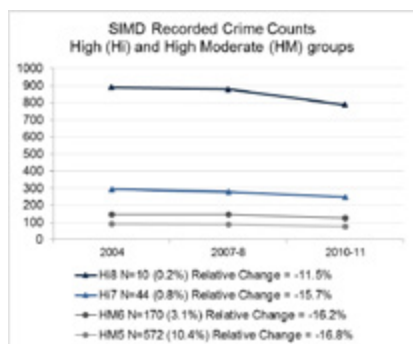


Figure 2: Group Trajectory Model of all crime – Scottish data zones – SIMD crime data at 2004, 2007-08 and 2010-11

Figure 2 shows the modelled mean count of crime for each of the eight groups. We can see that the average number of recorded SIMD Crimes fell for all eight groups over the period from 2004 to 2010/11 (although this is based on the average for the group, so in reality some data zones within each group may have seen crime increases). Fifty four Data Zones (1% of the total) were included in the two groups with the highest levels of SIMD Crime (labelled Hi7 and Hi8); while there were 712 (13%) data zones in the group with the lowest crime counts (labelled Lo2).

Examining the 54 data zones in the two High level groups more closely, a quarter of them were amongst the 20% most deprived for the SIMD Education domain; just over a third were in the 20% most deprived for the Employment domain; and around a half were in the 20% most deprived for the Health domain. This was consistent across both the 2006 and 2012 SIMD indices. The equivalent figure for Geographic Access to Services was around 2% for both SIMD indices. Interestingly, work McVie, Norris and Pillinger in this issue also suggest links between place-based health and education deprivation and certain types of victimisation. For the persistent low group, around 1% of the 712 data zones were amongst the most deprived 20% of data zones for Education, Employment and Health, whereas just over a third were amongst the most deprived 20% of areas for Geographic Access to Services. There was no clear evidence that the fall in crime over time was strongly associated with a reduction in any of the deprivation indices.

So what might explain these findings? Complex factors related to the underlying neighbourhood structure may be causing both crime and other types of relative deprivation for some areas. However, not all places that have high relative levels of deprivation also have high levels of crime, and vice versa. In addition, areas with good access to services tended to have higher rates of crime. Two criminological approaches to crime and place offer complementary explanations for both these observations.

Collective efficacy theory suggests that areas with high deprivation that otherwise might be vulnerable to high crime could be protected by having strong social cohesion and shared expectations of social

control (Sampson, 2012). Alternatively, routine activity theory would indicate that high crime in neighbourhoods occurs because these are spaces and places where the usual daily activities lead numbers of people to congregate and coincide at specific times and places based on individual's routine activities (Bottoms, 2012). However, of course, the level of perceived disorder can be influenced by both the presence of actual disorder and poverty as well as wider social contexts that reinforce social stigma within an area (Sampson, 2012). Martin Innes has argued that some crimes, including some included in the SIMD crime domain, may act as signals to a local community that it has a particular crime problem, making residents feel more at risk (Innes, 2014).

This would suggest that even if much of what leads to crime concentrations in particular neighbourhoods is primarily due to routine activity, reducing relative deprivation could benefit local residents not only by preventing crime but also by reducing people's perception of crime problems in their area. In turn, targeting routine activity and situational factors that may lead to signal crimes and disorders (in effect also reducing a number of crimes measured in the SIMD crime domain) may lead residents to feel less at risk in an area. Thus, targeting both short-term situational and long-term structural factors which affect both actual crime and perceptions of crime could be a useful complementary approach.

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Bottoms A E (2012) *Developing socio-spatial criminology*. In Maguire M, Morgan R and Reiner R (Eds.) *Oxford Handbook of Criminology*. Oxford University Press.

Innes M (2014) *Signal Crime Social Reaction to Crime Disorder and Control*, Oxford University Press

Sampson R J (2012) *Great American City Chicago and the Enduring Neighborhood Effect*, University of Chicago Press.

Scottish Government (2006) *Scottish Index of Multiple Deprivation 2006 Technical Report*; Scottish Government (2012) *The Scottish Index of Multiple Deprivation 2012* <http://www.gov.scot/Topics/Statistics/SIMD/BackgroundMethodology>

All data are sourced from Scottish Neighbourhood Statistics:- www.sns.gov.uk.



CRIME, JUSTICE AND SOCIETY IN SCOTLAND

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