

Case study: Devon police

Mosaic: a key tool in the allocation of police resources for combating serious crime



Client

Researchers from the University of Portsmouth and University College London have shown how the use of Experian's postcode-based consumer segmentation system, Mosaic, can measure how a person's fear and risk of crime is affected by the type of neighbourhood in which they live. The ground-breaking research - which has now been put into practice in two police forces - demonstrates how it is possible for a police authority to identify, right down to street level, the type of concern, such as drugs, noise, graffiti, race attacks, that are likely to be most common among local residents and how best to deal with the offenders and victims.

Mosaic is now being piloted in Devon and Durham with considerable success. Using other information such as Crime Survey Data and local incident reports, the pilot is providing local officers with likely numbers of crime victims for each street within their command area. This information will then be used as a basis for allocating resources to different areas within their territory and for benchmarking the effectiveness of their current policing strategies at a neighbourhood level.

The Devon trial - which began over six months ago and was the first major application across the UK's 43 Police forces has already proved extremely successful and has been welcomed by both the Devon Police force and the Institute of Criminal Justice Studies.

The area covered by the Mosaic trial includes Exeter, Barnstaple, Tiverton and Exmouth.

According to DCI Kevin Harris, who has pioneered the approach in North Devon: 'Mosaic has been identified as a key policing tool which has fundamentally changed the approach to resource allocation and the treatment of both victims and offenders across the command area. It has helped to empower, focus and inform beat managers in their approach to dealing with crime at local neighbourhood level.'

Mosaic has also been identified as a vital tool in helping to apply the National Intelligence Model (a Home Office initiative) and fulfils the criteria to deliver more effective strategy evaluation across the range of key measures such as reduction of crime, investigation, promoting public safety and providing assistance.

Devon Police wanted to take advantage of the types of targeting method that they knew were

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successfully employed in the commercial sector by banks, retailers and utilities. Their view was that it is equally appropriate for the police to tailor their policies to the very different needs of the different types of community that they serve as it is for a financial organisation or retail multiple.

To achieve their aim, Devon Police first examined the National Crime Survey results which asked 23,000 households about all aspects of crime - their concerns, both for themselves and their neighbourhoods, the incidents to which they had been victim, where these occurred, their contact with the police and their satisfaction with the police response. Each one of the households was analysed according to the type of neighbourhood in which it lived, identifying for example households who lived in remote upland farming areas, wealthy retirement areas, areas of student accommodation and rental flats, edge of city council estates subject to low incomes and high unemployment, for example. All 52 Mosaic classifications were used.

By comparing the crime concerns and experiences of these respondents by type of neighbourhood, it became evident not only that the levels of crime varied by as much as ten to one between the most crime prone and least crime prone types of neighbourhood, but that neighbourhoods vary very considerably according to the criminal and anti-social activities that most concern local people.

Neighbourhoods, therefore, could be shown to be very different across a wealth of factors, not just their level and type of crime, their concerns and attitudes towards their neighbours. Whilst it is evident

that better off neighbourhoods, on average, have lower incident rates than poorer areas, the factors that contribute to crime levels are as much to do with the strength of local community support networks as with incomes and deprivation. The survey consistently showed these networks to be a characteristic of small towns and the countryside, in places where there are especially few young people, few subdivided houses and low levels of population turnover. There was no stronger single predictor of the level of crime in a neighbourhood than the extent to which neighbours 'helped each other' rather than 'go their own way'.

To evaluate how these patterns might best be applied to operational police management, more detailed analysis was then undertaken of the operational records for two police authorities, Durham Constabulary and the North and East Devon area of the Devon and Cornwall constabulary.

The analysis of incidents in these two very different regions of the country confirmed the ranking of neighbourhoods evident from the national survey, that inner city areas of older terraces and subdivided flats experienced amongst the highest levels of victimisation as did council flats. Likewise, the mix of crime types could be seen to be quite consistent between the two areas.

Both forces have now decided to introduce technology for mapping at full postcode the types of neighbourhood shown by the British Crime Survey to have a particularly high likelihood of different attitudes, and use this to target crime prevention and detection strategies. Examples include the identification of neighbourhoods for which postcode marking systems are

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appropriate, areas where landlords should be targeted with campaigns to improve the security of rented flats, target areas for cautioning the elderly against allowing unauthorised entrants to their homes and areas where specific efforts should be made to protect victims from harassment in the event of an offender prosecution.

The initial research has been well received by Devon Police and Mosaic is now being seriously considered by the Home Office as a best practice tool for the UK's 43 police forces.

'The application of Mosaic neighbourhood classifications to police data is simple and straight forward and yet it produces a richer mixture of patterns than I have seen produced before, which indicates precisely where police effort should be directed. Segmenting policing in this way will help the service to be more effective and in the future it could prove to have been a real step change in how we do business.'

Dr Tom Williamson, Senior Research Fellow at the Institute of Criminal Justice Studies, Portsmouth University and formerly Deputy Chief Constable of Nottinghamshire Police.

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