

## **NCRM Collaborative Project**

### ***Measuring segregation: methods, tools and data***

#### **Co-Investigators**

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#### **Workshop**

This project consisted of a mounting a two-day workshop, combining presentations and discussions on how to measure and to model social and ethnic segregation, with demonstration of software available to do so. It also explored methods and techniques available to use, collate and combine new sources of administrative and other micro-data. It was hosted by the Bristol Institute of Public Affairs (Centre for Market and Public Organisation and Centre for Multilevel Modelling), and sponsored by the ESRC National Centre for Research Methods (NCRM) in conjunction with the South West Branch of the Regional Studies Association and the Quantitative Methods Research Group of the Royal Geographical Society (with IBG).

The workshop was held during 10 - 11 February, 2009 at the School of Geographical Sciences, University of Bristol and was led by an organising committee that included the co-investigators above. The workshop took place during a period of heavy snowfall that swept the country. Fortunately disruption was minimal and the event was attended by 42 people, the majority from UK Universities but with a few from continental Europe.

Professor Richard Webber (Kings College, University of London & OriginsInfo) was invited to give the key note talk entitled "Keynote paper: Innovative proxies for estimating differences in the current levels of assimilation, segregation and upward social mobility of minority communities based on administrative data."

The aim of the workshop was to develop and to disseminate knowledge in the following areas:

- Understanding the statistical properties, advantages and disadvantages of using various indices of segregation, especially in educational research.
- Looking at how indices of segregation can be decomposed, generalised and compared.
- Consideration of the advantages and disadvantages of using a model-based approach as opposed to a univariate / multivariate index of segregation.

- Looking at software for hierarchical and spatial modelling, especially multilevel modelling but perhaps also Geographically Weighted Regression, geodemographics and/or spatial econometrics using GeoDa.
- Consideration of how administrative micro-data such as PLASC can be modelled using principles of geocomputation and geographical information science to better understand the local markets within which processes of segregation operate, and to provide more spatially credible counterfactuals for understanding the consequences of segregation.
- Exploring the potential for using new sources of administrative data for social and policy research, the methodological issues associated with doing so and also the tools and techniques available for linking survey and administrative data.

The workshop benefitted from an extremely enthusiastic and engaged audience, very willing to participate in debate and discussion. It kept to the themes outlined above, though particular recognition was given to the importance of a model-based approach to measuring segregation to help accommodate the statistical problems (for example, the varying effects of sample size) that are encountered with index-based methods. Additionally, multilevel models offer a platform for integrating new sources of micro-data with more conventional data sets at a variety of geographical scales.

The content of the workshop, including some training material, is available at the CMPO website at <http://www.bristol.ac.uk/cmipo/events/2009/segregation/>