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**Census Programme Workshop
University of Leeds, 10th June 2010**

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I attended a one day Census programme workshop on spatial and social classification on 10th June 2010. This was an ESRC Programme organised at the School of Geography, University of Leeds. I found it very interesting and informative as it provided an introduction to the Census data resources and projects using the Census data. It was also a unique opportunity to network with researchers involved in this area of research. I shall summarise here, two out of the five talks that stood out for me during the workshop:

The National Output Area Classifications

Dan Vickers, University of Sheffield.

The National Statistics Area Classifications are powerful summarisers that simplify the census data into small number of groupings to aid the understanding and analysis of social patterns. The talk focussed on examples of the use of geographical classifications, how they are produced from data and how the classifications can be used to both inform and compliment research. During the course of the talk the speaker presented a dataset that included 223,060 national output areas; 41 variables covering demographic attributes; household composition; housing characteristics; socio-economic traits; employment

attributes); and 45,460 data points, taken from the 2001 UK Census data. Further information about the output area classification user group can be found on the following web-link for those interested: www.areaclassification.org.uk.

Additionally, the 7 generalised steps in a cluster analysis used in the process of creating the classifications were presented (adapted from Milligan (1996)):

1. Clustering Elements
2. Clustering Variables
3. Variable Standardisation
4. Measure of Association
5. Clustering Methods
6. Number of Clusters: when choosing the number of clusters to have in a classification there are 3 main issues, listed below, which need to be considered:-
 - Analysis of average distance from cluster centre
 - Analysis of cluster homogeneity
 - The number of clusters produced should be close to the perceived ideal as possible.
7. Interpretation, Testing and Replication



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More information can be found at:
http://areaclassification.group.shef.ac.uk/Vickers&%20Rees%20Creating_OAC.pdf

Identifying change over time in small area socio-demographic deprivation

Paul Norman, University of Leeds

The speaker provided a description of his research project. More information presented here can be found at:
<http://www.springerlink.com/content/n8p6894123200143/fulltext.pdf>.

The geodemographic classifications and deprivation indexes aim to reduce multidimensional attributes to a summary description or score which captures the characteristics of each area in UK. The presentation demonstrated the processes and challenges of how the 1991 and 2001

Censuses have been harmonised in terms of variable detail and how the 1991 data was converted to the 2001 Census ward geography. He demonstrated how the Townsend Index (Townsend deprivation scores), which is a time specific composite score comprising four census ward-level input variables: percentages of unemployment, no access to a car, non-home ownership and of household overcrowding, was standardised in relation to national levels using z scores. Once standardised the resulting Townsend scores how they became comparable so that if an area changed from a relatively deprived score of +6 in 1991 to +4 in 2001 then, according to the composite of the input variables, the area became less deprived over time by 2 Townsend scores.

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