



An introduction to geographical referencing for social scientists



**Southampton Statistical Sciences Research Institute, University of Southampton
Thursday 23rd November 2006**

A workshop for social science researchers who need to work with geographically-referenced data

Q. Do you have data which you want to map or link to other data which have some form of geographical referencing but are not sure how to go about it? For example:

- Postcoded survey data which you wish to link to census data
- Addresses which you wish to map relative to roads, rivers and administrative areas
- GPS data which you wish to link to aerial photographs




Q. Are you a social scientist, but not a geographer?

... If so, the Geo-Refer workshop may be a valuable learning opportunity for you.

Aims

The primary aim of the workshop is to provide social science researchers with the principles and methodological understanding to enable them to carry out the specific geo-referencing task(s) that they need to undertake. For example, researchers sometimes wish to attach geographical references to their data or to link datasets which contain different types of locational information. This geo-referencing is often necessary to enable them to produce maps of their data or so that they can conduct specific geographical data analyses such as multi-level modelling, point pattern analysis or geographically weighted regression. Participants will be asked to provide a brief summary of their research project when they register for the workshop and to bring a sample of their data for the practical sessions. Based on participants' profiles, the project team will customise the workshop programme, comprising a morning session focused on principles, methods and key datasets and a hands-on afternoon workshop in which participants can apply the lessons learned to their own data.

Learning objectives:

-  To obtain a conceptual understanding of the issues involved in geographical referencing of social science datasets
-  To gain practical skills and familiarity with key methods and reference datasets which can be applied to participants' own research needs
-  To have the opportunity to share geographical referencing questions with an expert team and a group of users with similar research challenges and experiences

Who is this workshop aimed at?

This workshop is aimed at social science researchers, who are not geographers, but who have a specific research problem which requires that they use geographically referenced data. No previous experience of geo-referencing data is necessary. Participants should be prepared to contribute a very brief presentation of their research project at the start of the workshop. We are also seeking to be able to use participants' research profiles as case study examples as part of the collection of online learning resources that we are creating as part of the Geo-Refer project (see below).

Geo-Refer Workshop Programme

10:30	Arrival and coffee
11:00	Welcome and introductions
11:15	Geo-referencing concepts
11:45* <i>revised</i>	Geo-referencing methods
12:40* <i>revised</i>	Really useful datasets
13:00	Lunch
14.00	Hands-on workshop using participants' datasets
15.30	Presentation of results
16.00	Evaluation, tea and close

Workshop instructors

The instructors for this workshop will be the Geo-Refer project team, who have extensive experience of advising and assisting researchers from many social science disciplines in dealing with the geographical aspects of their data:

David Martin, a Professor of Geography at the University of Southampton has research interests based on 20 years working with social science applications of geographical information systems. He developed the system for output area design used in the 2001 Census in England and Wales, is director of the ESRC/JISC Census Programme and a co-director of the ESRC National Centre for Research Methods.

Samantha Cockings, a lecturer in Geography at the University of Southampton has extensive experience in teaching geographical information systems and in research particularly with geographically referenced health data.

Samuel Leung, a learning technologist with expertise in the development of online learning resources in geography is a surveyor by background and has most recently worked on the JISC/NSF funded DialogPLUS project (<http://www.dialogplus.soton.ac.uk>).

The Geo-Refer project

The Geo-Refer project (<http://www.geog.soton.ac.uk/geo-refer>) is part of the ESRC Researcher Development Initiative (<http://www.rdi.ac.uk>). Its primary aim is the creation and deployment of online learning resources targeted at social scientists whose research requires them to use and link geographically referenced data, but whose main discipline is not geography. The online learning resources will be highly modular and organized into four levels dealing with principles, methodology, data and exemplar applications. These will be designed to be reusable, updatable, and will conform to the main educational technology interoperability standards. They will be delivered through the project's learning site in such a way that users can profile their own learning needs to obtain customised tutorial sequences through the principles, methods and datasets relevant to their own work, accompanied by relevant case study examples. As part of the project we are offering a series of practical workshops, of which this is the first. The workshops will allow us to better understand and profile the needs of social science researchers and to add to the pool of real-world example case studies that can be used in the online resources.

The training resources accompanying the workshop will be available shortly after the workshop to all delegates at the workshop website <http://www.geog.soton.ac.uk/geo-refer/workshop1.html>.