spatial@ucsb presents

Professor Ann Harding

National Centre for Social and Economic Modelling (NATSEM), University of Canberra

Creating Socio-Economic Household Data at the Small Area Level

An Introduction to Spatial Microsimulation

1:00-2:00 pm, Monday, 12 May 2008
5824 Ellison Hall

Many organisations require information about the socio-economic characteristics of households at the small area or local level. Such information is used by government agencies in allocating funds most equitably across different small areas; by service providers who need to know where there is an over or under-supply of services relative to need; and by private sector organisations examining their retail catchment areas or determining where best to target new customers. Because of their small sample size, national sample surveys typically cannot be used to generate reliable estimates of household characteristics at the small area level. As a result, a range of small area estimation techniques have been devised to generate synthetic small area results.

In this presentation, Professor Harding describes an alternative approach being used to create synthetic small area unit record household data within Australia and the UK, termed 'spatial microsimulation'. Microsimulation models are unique tools that allow policy makers to gain detailed estimates of the distributional impact of possible policy changes – how many families and individuals win, how many lose, and by how much. For the past five years NATSEM has been developing spatial microsimulation models, along with a small area household database suitable for quantifying such characteristics as poverty, housing affordability and income inequality at the small area level (the Statistical Local Area). In addition, this database has been linked to NATSEM's existing STINMOD model, which means that it can be used to predict the effects of income tax cuts or social security changes at a small area level. It is also being used to examine the spatial impacts of population ageing in 2020 and the implications for needs-based planning of government and other services.

In this presentation Professor Harding describes how NATSEM is 'regionalising' the national microdata sample surveys conducted by the Australian Bureau of Statistics, provides some examples of how the new data are being used for analysis of the spatial distribution of policy change, and pinpoints some of the possible uses of the new technology and data for policymakers and researchers.

About Professor Ann Harding

Ann Harding is one of Australia's best known economists and has been Professor of Applied Economics and Social Policy and the Director of the National Centre for Social and Economic Modelling (NATSEM) at the University of Canberra since 1993. During the past 14 years Ann has led the development of highly sophisticated microsimulation models and databases, so that policy makers can gain much better information about the likely distributional impact of current and proposed policies. More recently Ann has steered microsimulation modelling in Australia beyond its traditional 'tax and social security' focus to such new areas as health, aged care, housing and regional issues, with the goal of extending sophisticated quantitative decision-support tools to policy makers in these areas. This research is largely being financed through ARC and NHMRC grants. Ann has published widely on income inequality, poverty, and the distributional impact of government programs, and is a prolific contributor to public policy debate in Australia, with her work typically being cited every week in the media. In 1996 she was elected a fellow of the Academy of the Social Sciences in Australia and in 2003 was elected President of the International Microsimulation Association. In 2008 Ann was one of the 1000 Australians selected by the Prime Minister to attend the 2020 Summit.