



Australian Population Association

12th Biennial Conference

population and society: issues, research, policy

15-17 September 2004 - Canberra, Australia

Modelling household formation via a microsimulation model

John O'Leary (john.o'leary@dse.vic.gov.au)
Victorian Department of Sustainability and Environment

Abstract

What the impact of demographic changes such as the ageing of the population, declining fertility rates, deferring of major demographic events such as leaving the parental home, partnering and having children, increased levels of divorce and migration have on the demand for housing in our major metropolitan cities is an issue facing our State Government planning agencies. For demographers working in these planning agencies one of the issues is how can we model the relationship between demographic change and housing demand in our capital cities so as to assist policy makers in the planning of our cities?

Following a review of the literature on the relationship between demographic events, housing demand and urban mobility it is decided that the features required to model this relationship should include the ability to model at the level of the decision maker even though we are interested in societal outcomes and not individual incomes, that the demographic events in people's lives should be the driver of the model and that these events should trigger a behavioural response. Although these events may trigger a response, actual behaviour should depend on individual preferences and the resources of the decision maker as well as the opportunities and constraints that come from the macro context. In addition the modelling technique should allow for the possibility of chance events in an individual's life.

Microsimulation is a modelling technique that has these required features. As a consequence, an event driven, dynamic, spatial microsimulation model incorporating these features has been built to examine the relationship between demographic events, urban mobility and housing demand in the Melbourne Statistical Division. Results from this model are presented in this paper.

Paper prepared for the 12th Biennial Conference of the Australian Population Association, 15-17 September 2004, Canberra.

