

# **Exploring changing voting patterns through panel data: a multi-level approach**

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Multi-level modelling strategies are increasingly used to investigate voting patterns, including their geography; most such studies look at cross-sectional data only, however, and include only a selection of the relevant levels. In this paper we report on initial analyses of BHPS panel data over ten waves (1991-2000) which allows us to track the voting behaviour and intentions of a large number of individuals, nested within households. The analyses also use data on two geographical scales – the local authority area (SAR) in which the individual respondent lives and the socio-economic characteristics of a bespoke neighbourhood around each respondent's home (e.g. the area containing the nearest 1000 persons to that location and/or the people in the area within 1000m of the location). These are nested within years, and within them we nest individuals within households and incorporate a number of variables representing the individual respondent's personal characteristics. Models of individual by home by neighbourhood by area by year voting patterns are reported, using computer-intensive Markov-Chain, Monte-Carlo Bayesian estimation strategies.