Abstract

This paper presents a comprehensive multi-dimensional multivariate binary probit model system capable of simultaneously representing multiple aspects of individual work arrangement decisions, while also accounting for interactions among household members in individual employment related choices. The model system is estimated on a survey sample drawn from the San Francisco Bay Area where a rich set of accessibility measures is available to account for built environment influences on work related decisions. Model results show that a host of demographic, socio-economic, built environment, and attitudinal variables influence individual choices regarding work arrangements; more importantly, the model shows that there is considerable interaction among household members in matters related to employment. The model system can be used to predict employment choices of individuals within larger microsimulation model systems of activity-travel demand.