

Bayesian Sample Selection Models for Life Course Analysis

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Sample selection models are used in the demographic literature in order to assess the impact of a certain set of covariates on an outcome when unobserved factors influence both the outcome and the selection in the sample. A well-known example is the analysis of the (causal) impact of pre-marital cohabitation on subsequent rates of dissolution by Lillard et al. (1995), based on a sample selection probit and hazard model. Models used so far (including those implemented in the widely used aML software package) are based on the assumption that unobserved heterogeneity is normally distributed.

We propose a bayesian approach to such type of models. Besides being embedded in the bayesian framework, this approach has the advantage of providing the opportunity to overcome the normality assumption without renouncing to computational feasibility. An application is presented (comparing the results of various approaches) on the impact of pre-marital cohabitation on subsequent marital dissolution.