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Spatial Discrete Choice Models CREATES, June 1, 2012 William Greene

Abstract

With the creation of spatially oriented data sets, for example as used in agricultural economics research, methods of analysis that can accommodate correlation across space, rather than time, have become of interest. Techniques for modeling spatial correlation in linear regression contexts have been well developed, for example in Luc Anselin's seminal work in the 1970s and 1980s. However, techniques and modeling frameworks for spatial correlation in nonlinear models and nonregression settings are much less well developed. The research is of much more recent vintage, and is at an early stage. This discussion will survey some recent applications of spatial methods to discrete choice models. We will describe some of the background theory for models of binary choice, ordered choice, multinomial choice and models for counts, then examine some specific applications in transport, environmental economics, health economics, land use, urban development and resource economics.