A Spatial Kuhn-Tucker Model: An Application to Recreation Demand[1]

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Abstract

This paper extends the spatial econometric approach to the Kuhn-Tucker (KT) model. The proposed approach models spatial heterogeneity in preferences for recreational behavior using a single structural utility theoretical framework to simultaneously model participation and site selection decisions. In the empirical section, the proposed and standard KT models were applied to a recreation dataset for the parks in Hokkaido, Japan, and the model results were compared. The empirical analysis showed that both spatial heterogeneity across sites and non-spatial heterogeneity across individuals exist. The estimated compensating variation suggests that it is important to account for spatial heterogeneity in the welfare analysis of park management.

Keywords:

Environmental Valuation, Travel Cost Method, Spatial Econometrics, National Park

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