Markov Transition Probabilities and Robust Spatial-temporal Covariance Estimation

Dayton M. Lambert*, Christopher N Boyer, Lixia L He

University of Tennessee Institute of Agriculture, Department of Agricultural & Resource Economics, Knoxville, TN

*Corresponding author: dlamber1@utk.edu

Selected Paper prepared for presentation at the

SAEA annual meetings to be held February 6-9, 2016, in San Antonio, TX

Abstract

A spatial-temporal autocorrelation consistent covariance matrix estimator is suggested for estimating the standard errors of a discrete choice, first-order Markov process. An empirical example examines transition probabilities simulated with the robust covariance estimator with a Monte Carlo analysis.

A version of this paper has been accepted for publication and can be viewed at:

Lambert, DM, CN Boyer, L He. Spatial-temporal Heteroskedastic Robust Covariance Estimation for Markov Transition Probabilities: An Application Examining Land Use Change. In Press. Letters in Spatial and Regional Science. Accepted for publication, November 2015, doi:10.1007/s12076-015-0164-0.