

# Estimation of Poverty Transition Matrices with Noisy Data

Nayoung Lee, Geert Ridder and John Strauss\*

University of Southern California

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## Abstract

Poverty transition matrices have been regarded as powerful tools to estimate economic mobility and poverty dynamics. Very few researchers, however, have investigated potential measurement error bias in these transition matrices constructed by survey data, although the presence of measurement error in survey data has been widely acknowledged. This study uses data from the Korean Labor and Income Panel Study (KLIPS) to examine whether the measurement error in reported income and consumption has the potential to generate biases for poverty transition matrices, an empirical measurement of poverty dynamics. We simulate income and consumption transition matrices first assuming that no time-varying measurement error exists and then allowing for it. Our study suggests that poverty transition matrices based on income or consumption survey data are biased due to the existence of measurement error.

JEL Classifications: C81, I32, O15

Keywords: measurement error, poverty transition matrix

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\***Corresponding Author/Address:** Nayoung Lee, Department of Economics, University of Southern California; KAP 300, University Park Campus, Los Angeles, CA 90089-0253; Email: nayoungl@usc.edu.