



Triple-goal estimation of unemployment rates for U.S. states using the U.S. Current Population Survey data

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In this paper, we first develop a triple-goal small area estimation methodology for simultaneous estimation of unemployment rates for U.S. states using the Current Population Survey (CPS) data and a two-level random sampling variance normal model. The main goal of this paper is to illustrate the utility of the triple-goal methodology in producing a single series of unemployment rate estimates for three separate purposes: in producing estimates for individual small area means, empirical distribution function (EDF) of true small area means, and ranking of the small areas by true small area means. We achieve our goal using a Monte Carlo simulation experiment and a real data analysis.

Keywords: Complex survey data; empirical distribution function; rank; small area estimation.