

**SMALL AREA ESTIMATION OF POVERTY STATISTICS IN EASTERN VISAYAS
USING SPATIAL EMPIRICAL BEST LINEAR AND UNBIASED PREDICTOR
(SEBLUP)**

by

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Abstract

Poverty incidences were estimated at the city/municipal level of Eastern Visayas using the 2009 Family Income and Expenditure Survey (FIES), 2007 Census on Population (PopCen), 2010 January Labor Force Survey and the centroid-to-centroid distance between municipalities. Three estimation techniques was used in the study, namely, direct estimation, spatial lag model and spatial empirical best linear unbiased predictor to provide estimates for cities and municipalities with no direct estimates as well as to present estimates with improved precision for cities and municipalities with unreliable direct estimates. The 25-km distance threshold used in the spatial modeling provides the optimum model as compared to other threshold distance matrices. Lastly, the spatial lag model using distance matrix was found to be best estimation technique as compared to direct estimation, SEBLUP and ELL since it has the most number of reliable, accurate and precise estimates.

Keywords: poverty incidence, spatial lag model, distance weight matrix, spatial empirical best linear unbiased predictor, Elber's Lanjouw and Lanjouw estimation technique