

Application of the Spatial Empirical Best Linear Unbiased Prediction Method for Estimating per Capita Expenditure in Lampung Province

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Abstract

Spatial Empirical Best Linear Unbiased Prediction (SEBLUP) is one of the methods in small area estimation. This method is the development of EBLUP by observing the influence of random spatial correlated areas. One application of this method is the estimation of per capita expenditure in each district/city in Lampung Province. This estimation is based on the existence of additional information on the number of births of the population from each district/city. In this study, the SEBLUP method was applied to the two-level model Normal-Normal and weighting matrix determination based on the type of queen contiguity. Based on the monthly household expenditure data in the Province of Lampung in 2017, Bandarlampung and Metro are areas with high per capita income levels.

Keywords: Spatial Empirical Best Linear Unbiased Prediction, Model Normal-Normal, Queen Contiguity.