

Direct Calibration Estimator Using Auxiliary Character

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ABSTRACT

Sample Surveys are use to estimation of population parameters, but we are seldom use to estimation of sub-population (domain), due to small sampling units in the domain. If number of sampling units in the domains are sufficient domain estimation is obtain at desire level of accuracy. In this paper, we proposed generalized direct calibration estimator for domain mean using auxiliary character also studied its properties in different sampling procedures. An empirical and comparative study has shown that the proposed estimator of variance for domain mean ($\hat{Y}_{YG,2,a}$) is more efficient than the ratio direct calibration estimator of variance for domain mean ($\hat{Y}_{YG,1,a}$) under SRSWOR sampling procedure.