

Estimating The Population Mean by Using Stratified Double Extreme Ranked Set Sample

Authors : Mahmoud I. Syam, Kamarulzaman Ibrahim, Amer I. Al-Omari

Abstract : Stratified double extreme ranked set sampling (SDERSS) method is introduced and considered for estimating the population mean. The SDERSS is compared with the simple random sampling (SRS), stratified ranked set sampling (SRSS) and stratified simple set sampling (SSRS). It is shown that the SDERSS estimator is an unbiased of the population mean and more efficient than the estimators using SRS, SRSS and SSRS when the underlying distribution of the variable of interest is symmetric or asymmetric.

Keywords : double extreme ranked set sampling, extreme ranked set sampling, ranked set sampling, stratified double extreme ranked set sampling

Conference Title : ICMSS 2015 : International Conference on Mathematical Sciences and Statistics

Conference Location : Venice, Italy

Conference Dates : April 13-14, 2015