

## Investigating the Efficiency of Stratified Double Median Ranked Set Sample for Estimating the Population Mean

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**Abstract :** Stratified double median ranked set sampling (SDMRSS) method is suggested for estimating the population mean. The SDMRSS is compared with the simple random sampling (SRS), stratified simple random sampling (SSRS), and stratified ranked set sampling (SRSS). It is shown that SDMRSS estimator is an unbiased of the population mean and more efficient than SRS, SSRS, and SRSS. Also, by SDMRSS, we can increase the efficiency of mean estimator for specific value of the sample size. SDMRSS is applied on real life examples, and the results of the example agreed the theoretical results.

**Keywords :** efficiency, double ranked set sampling, median ranked set sampling, ranked set sampling, stratified

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