

# On efficient use of estimators for finite population mean

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## **Abstract**

Koyuncu and Kadilar (2009) introduced a family of estimators and found that their estimators are more efficient than Khoshnevisan et al. (2007) family of estimators under certain conditions. Shabbir and Gupta (2010) introduced the exponential ratio type estimator for population mean. Recently Koyuncu and Kadilar (2010) suggested an improved ratio type estimator for estimating the population mean. In this paper we propose a difference type estimator and exact bias and mean square error (MSE) are computed for any sample size. The proposed estimator is more efficient than the mean per unit estimator, traditional ratio and regression estimators as well as Shabbir and Gupta (2010), Koyuncu and Kadilar (2009, 2010) estimators. Some real data sets are used to observe the performances of the estimators.

## **Keywords**

Ratio estimator, Regression estimator, MSE, Efficiency.