



**ESTIMATION OF POPULATION MEAN IN POST-STRATIFIED SAMPLING USING KNOWN VALUE OF SOME POPULATION PARAMETER(S)**

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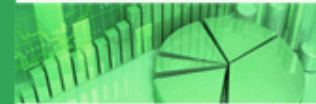
**Abstract**

Following M. Khoshnevisan, R. Singh, P. Chauhan, N. Sawan and F. Smarandache [A general family of estimators for estimating population mean using known value of some population parameter(s), Far East Journal of Theoretical Statistics 22 (2007), 181-191] and N. Koyuncu and C. Kadilar [Ratio and product estimators in stratified random sampling, Journal of Statistical Planning and Inference 139 (8) (2009), 2552-2558], this paper develops a general family of combined estimators of the population mean in post-stratified sampling (PSS) scheme, using known values of some population parameters of an auxiliary variable. Properties of the proposed family of estimators are obtained up to first order approximations. The proposed family of estimators, under optimum conditions, is found to be more efficient than the usual post-stratified estimator,  $\bar{y}_{ps}$ , in terms of having a smaller mean squared error. The results are illustrated empirically.

**Keywords and phrases:** auxiliary information, general family of estimators, post-stratified sampling, mean squared errors.

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