International Academy of Science,
Engineering and Technology

IASET   Connecting Researchers; Nurturing Innovations

ESTIMATION OF POPULATION PROPORTION USING TWO PHASE SAMPLING SCHEME IN THE PRESENCE OF NON-RESPONSE

B. B. KHARE[1], P. S. JHA[2] & S. KHARE[3]

[1,3]Department of Statistics, Banaras Hindu University, Varanasi, India

[2]Department of Molecular & Human Genetics, Banaras Hindu University, Varanasi, India

ABSTRACT

In this paper we have proposed two classes of two phase sampling estimators for population proportion using auxiliary character in the presence of non-response on the study character. Some members of the proposed classes of estimators are given. The expressions for bias and mean square error of the proposed classes of estimators are obtained in case of fixed sample size. Also we obtained the optimum value of sample size and sampling fraction for fixed cost and fixed precision. An empirical study has been made with the support of the proposed class of estimators.

KEYWORDS: Non-Response, Mean Square Error, Relative Bias, Auxiliary Characters, Attribute, Two Phase Sampling