On Estimating the Headcount Index by Using the Logistic Regression Estimator

Authors : Encarnación Álvarez, Rosa M. García-Fernández, Juan F. Muñoz, Francisco J. Blanco-Encomienda

Abstract : The problem of estimating a proportion has important applications in the field of economics, and in general, in many areas such as social sciences. A common application in economics is the estimation of the headcount index. In this paper, we define the general headcount index as a proportion. Furthermore, we introduce a new quantitative method for estimating the headcount index. In particular, we suggest to use the logistic regression estimator for the problem of estimating the headcount index. Assuming a real data set, results derived from Monte Carlo simulation studies indicate that the logistic regression estimator can be more accurate than the traditional estimator of the headcount index.