



## Ratio type estimators for estimating proportions in a dual frame approach

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Dual frame surveys use two overlapping frames to simultaneously cover target populations, and independent samples are drawn from each frame. Several types of surveys have been used dual frame designs successfully. When auxiliary information is available from at least one of the frames, it is reasonable to take advantage of them for deriving ratio type estimators. In this paper we investigate how the availability of auxiliary information can be used for building ratio type estimators for the populational proportion. The statistical properties of the proposed estimators are numerically investigated and a comparison of their statistical performances provided using the Monte Carlo simulation method.

**Keywords:** Dual frame surveys; auxiliary information.