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*Semiparametric Efficient and Robust Estimation of the Center of an Unknown Symmetric Population under Arbitrary Sample Selection Bias*

We propose semiparametric estimation methods of the center of a symmetric population when a representative sample of the population is unavailable due to an arbitrary selection bias. We do not impose any parametric form on the population distribution. Under this general framework, we construct a family of consistent estimators that is robust to population model misspecification, and we identify the efficient member that reaches the minimum possible estimation variance. The asymptotic properties and finite sample performance of the estimation and inference procedures are illustrated through theoretical analysis and simulations. A data example illustrates the usefulness of the methods in practice.