

SELECTION PROCEDURE FOR SAMPLE SIZE TWO USING HORVITZ THOMPSON ESTIMATOR IN CASE OF PROBABILITY PROPORTIONAL TO SIZE SAMPLING

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ABSTRACT

A selection procedure has been developed taking the second unit selection criteria from Durbin (1967a) draw by draw procedure and using a new criteria of selection for the first unit of the sample. A comparative study, using Horvitz – Thompson estimator, has been carried out using eight different selection procedures to see the performance of this new proposed procedure. It shows comparatively better performance for the populations of various natures.

Keywords: Unequal probability sampling, Probability proportional to size sampling, Horvitz – Thompson estimator, Probability of inclusion, Joint probability of inclusion