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BAYESIAN PREDICTION BOUNDS OF DOUBLY TYPE-II CENSORED SAMPLES FOR A NEW BATHTUB SHAPE FAILURE RATE LIFE TIME MODEL

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ABSTRACT

This article considers the analysis of a doubly Type-II censored data, drawn from a new two-parameter lifetime distribution with bathtub shape or increasing failure rate function. Where, the one- and two-sample Bayesian prediction schemes have been used for driving prediction bounds of ordering unobserved lifetimes from the underlying distribution. For illustration purposes, some numerical examples are given. The accuracy of the resulting Bayesian prediction bounds, as well as percentage coverage, for future unobserved ordered lifetimes are investigated. This is done via extensive Monte Carlo simulation experiments based on 10,000 runs each.

KEYWORDS: Doubly Type-II Censored Sample, One-And Two-Sample Predictions, Bayesian Predic- Tion, Percentage Coverage, Monte Carlo Simulation