

**Title:** Bayesian Inference Based on Multiply Type-II Censored Samples of Sequential Order Statistics from the Pareto Distribution

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## **Abstract**

In this article, Bayesian estimation and prediction are discussed based on multiply Type-II censored samples of sequential order statistics from the Pareto distribution. The posterior distributions are derived, and then the Bayesian estimators, with respect to the squared error loss function, are obtained for the two unknown parameters. Also, the reliability and hazard rate functions are estimated. Next, the Bayesian predictive and survival functions for a future sequential order statistic from the observed samples as well as that from a future unobserved sample from the same population are derived, and then the point and interval predictions are developed. Finally, some numerical results are pointed out for illustrating all the inferential methods developed here.