

Modelling using Progressive Type-II Censoring for Reciprocal Exponential Distribution

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Abstract

Estimation related to the parameters of reciprocal exponential distribution is discussed for progressively type-II censored samples. A maximum likelihood estimator for the parameters is developed. A simulation study is considered for different pattern of censoring. The researcher has used the simulation algorithm given by Aggarwala (2001) to generate samples. The percentages of removing units from the surviving units at five stages are increasing in pattern R_1 while decreasing in pattern R_2 . In pattern R_3 , a conventional type- II censoring scheme is employed. Using the likelihood level r , the likelihood inequality can be solved in order to construct a likelihood interval for θ .

Keywords: Reciprocal exponential distribution, progressive type-II censoring, maximum likelihood estimation, confidence interval.

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