Abstract

The topic of estimating the parameters of the Gompertz distribution using an adaptive Type-II progressively censored data is described in this paper. The unknown parameters and the reliability and hazard functions are estimated using maximum likelihood and Bayesian estimation methods. The approximate confidence intervals of them are then determined. Furthermore, the Markov chain Monte Carlo approach is used to perform a Bayesian estimate procedure and compute the credible intervals. Finally, a Monte Carlo simulation study is done to assess the performance of the two estimating methods, and a numerical example with real data is shown to demonstrate the procedures' utility.