Double bootstrap confidence interval estimates with censored and truncated data

ABSTRACT

Traditional inferential procedures often fail with censored and truncated data, especially when sample sizes are small. In this paper we evaluate the performances of the double and single bootstrap interval estimates by comparing the double percentile (DB-p), double percentile-t (DB-t), single percentile (B-p), and percentile-t (B-t) bootstrap interval estimation methods via a coverage probability study when the data is censored using the log logistic model. We then apply the double bootstrap intervals to real right censored lifetime data on 32 women with breast cancer and failure data on 98 brake pads where all the observations were left truncated.