Application

Information criteria are tools used to demonstrate a distribution's flexibility and effectiveness in representing realistic data by comparing it to the performance of other distributions. Some of these criteria, such as the AIC, AIC_c, BIC, and HQIC, will be applied to a data set representing, the data represents the failure time of 50 components (10^3 hours), as it is complete data with a rightward skewed nature.

These data were utilized by Murthy DP et al.*, and are presented as follows:

0.213, 0.275, 0.099, 0.388, 0.497, 0.087, 0.073, 0.089, 0.061, 0.086, 0.089, 0.790, 0.118, 0.075, 0.297, 0.119, 0.299, 0.315, 0.403, 0.192, 0.308, 0.191, 0.909, 0.168, 0.135, 0.314, 0.117, 0.120, 0.183, 0.714, 0.143, 0.374, 0.859, 0.084, 0.089, 0.215, 0.297, 0.992, 0.330, 0.817, 0.298, 0.258, 0.123, 0.815, 0.088, 0.102, 0.203, 0.199, 0.185, 0.257.

* Murthy DNP, Xie M, Jiang R. Weibull models. John Wiley & Sons; 2004. https://doi.org/10.1002/047147326X.scard