On The Estimation Of The Cumulative Hazard Function

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Abstract

This paper investigates a new method of estimating the cumulative hazard function. The following distributions are examined: Exponential, Weibull, Gamma , Log-logistic, Normal, Exponential Power, Pareto, Generalized gamma, and the Beta. First, attention is devoted to the ratio of cumulative hazard functions from the same distribution, and then ratios between different distributions are considered. The problem of estimating F, an unknown CDF, was considered by Rojo and Samaniego (1993). An approach is taken to find an estimator that modifies the empirical survival function to safisfy the constraint that the cumulative hazard ratio is nondecreasing. This estimator is useful for estimating an unknown distribution F from a known distribution G.