

ESTIMATION OF WEIBULL PARAMETERS
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The two-parameter Weibull distribution has been widely used in reliability and related studies.

(A location parameter can be meaningfully added in some cases).

The non-availability of maximum likelihood estimates in closed forms has motivated many investigators to derive alternative estimates, particularly of the more important shape parameter, either explicitly or numerically. Considering a complete sample of failure times, several estimators based on

- (1) properties of the distribution including characterizations
- (2) percentiles or quantiles of suitably chosen orders
- (3) fractional moments and
- (4) log-linear relation between failure-time and failure rate

often using non-parametric estimates of survival and failure rate functions have been discussed in this presentation.

Some of these alternative estimates have been proposed by the author and his associates.