

FIGURE A2.1 Two-parameter Weibull functions.

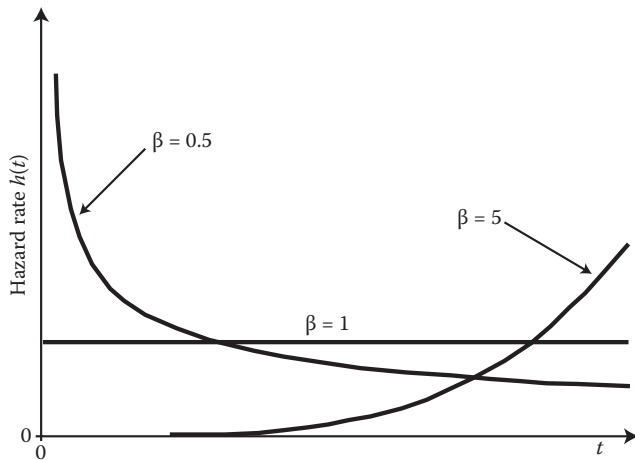


FIGURE A2.2 Hazard rate of Weibull distribution.

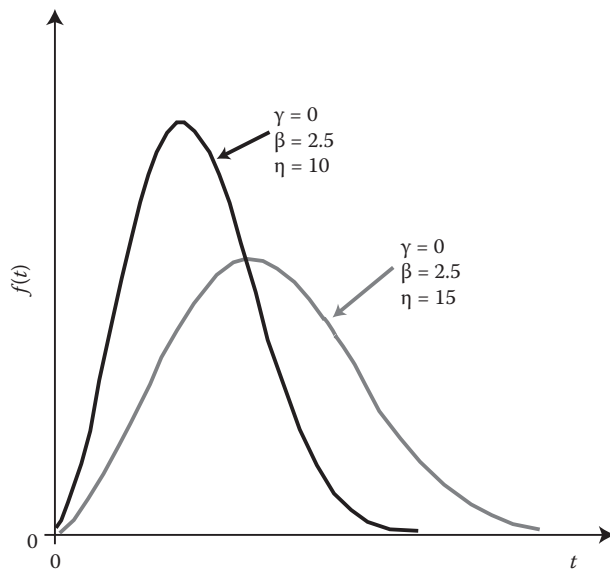


FIGURE A2.3 Two Weibull distributions with identical location and shape parameters but different scale parameters.

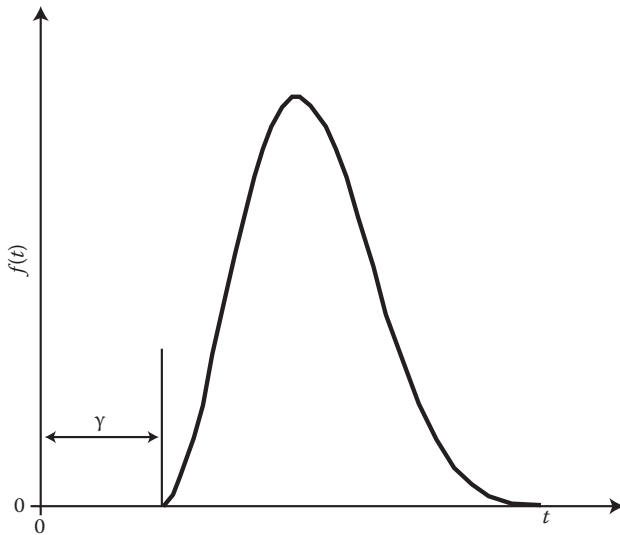
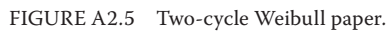


FIGURE A2.4 A Weibull distribution with  $\gamma > 0$ .



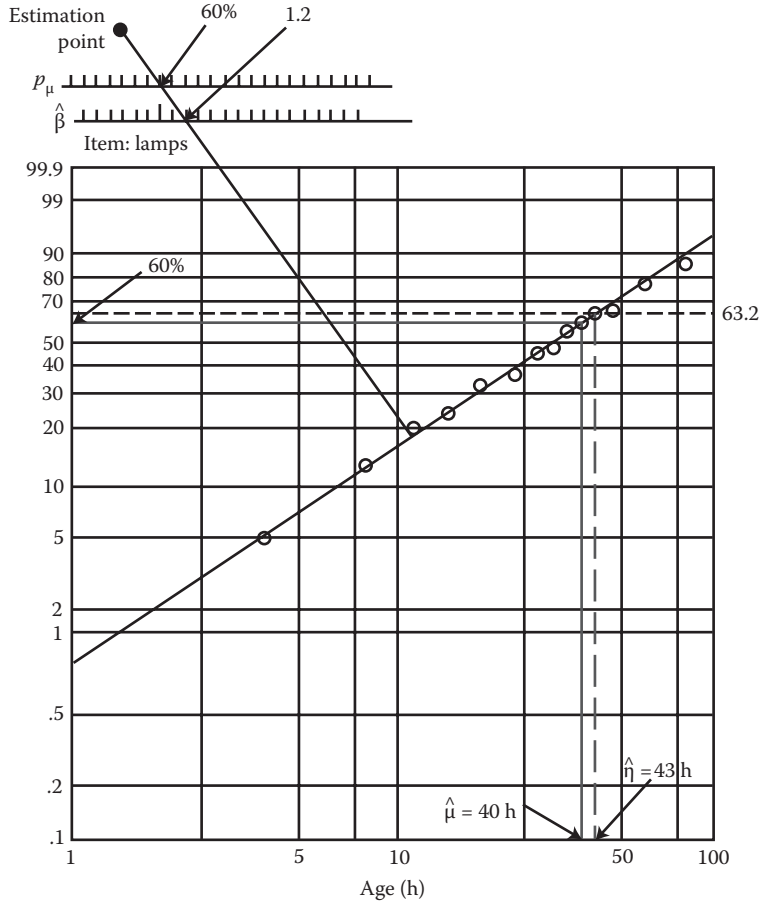


FIGURE A2.6 Weibull plot of lamp failure data.

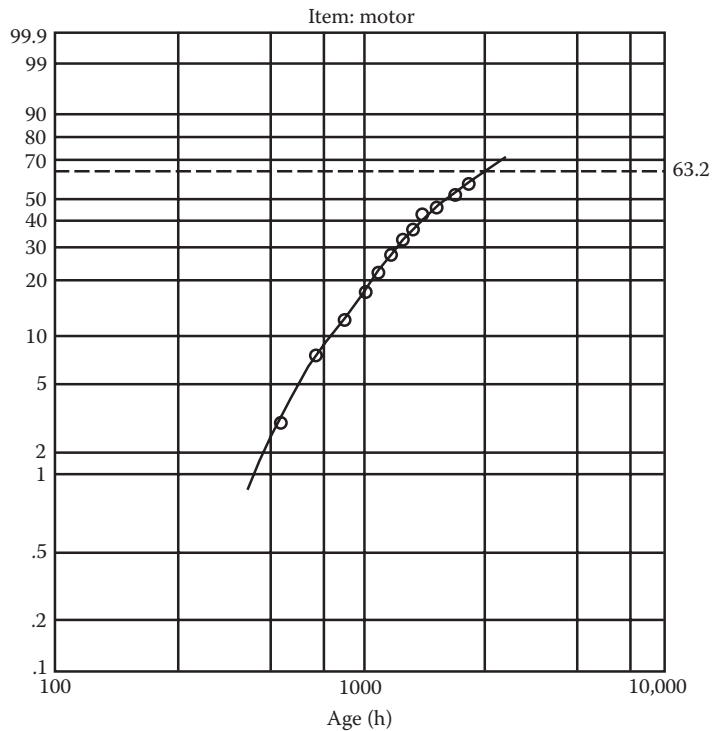


FIGURE A2.7 Weibull plot of motor failure data.

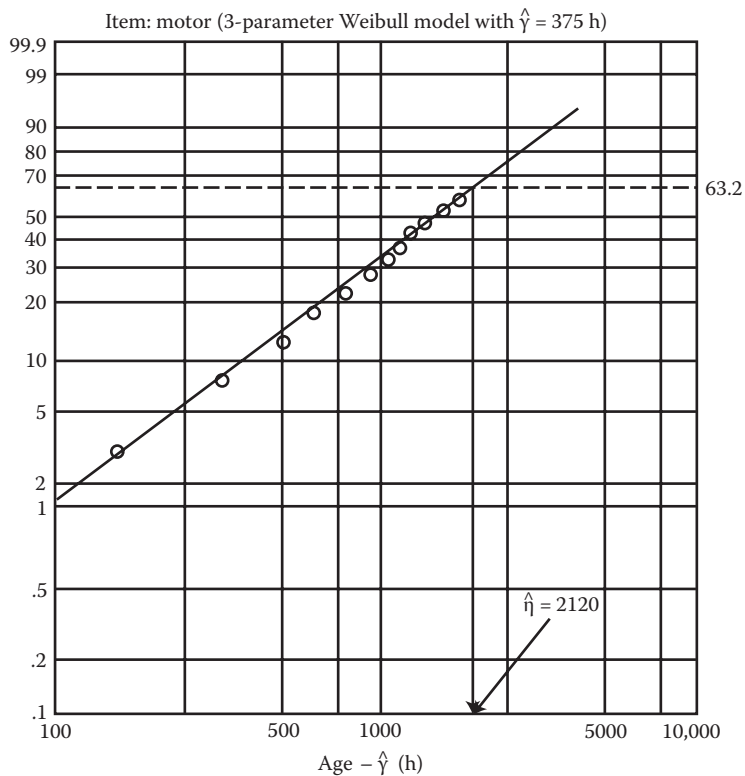


FIGURE A2.8 Weibull plot of adjusted motor failure data.



$$f(t) = \frac{1.32}{2120} \left( \frac{t-375}{2120} \right)^{0.32} \exp \left( - \left( \frac{t-375}{2120} \right)^{1.32} \right) \quad \text{for } t \geq 375$$

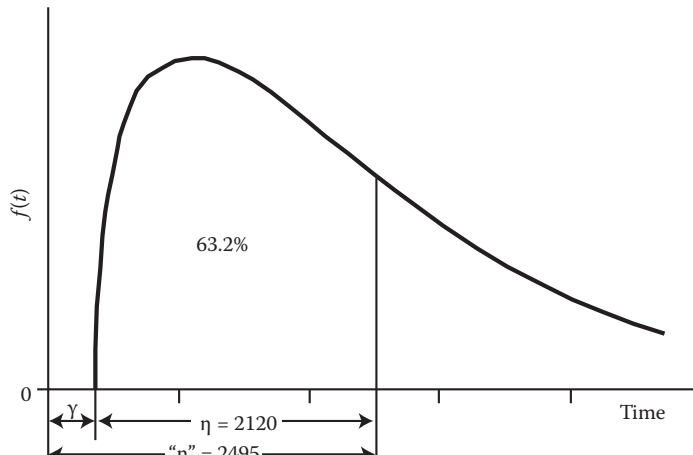


FIGURE A2.9 Probability density function of motor failure time.

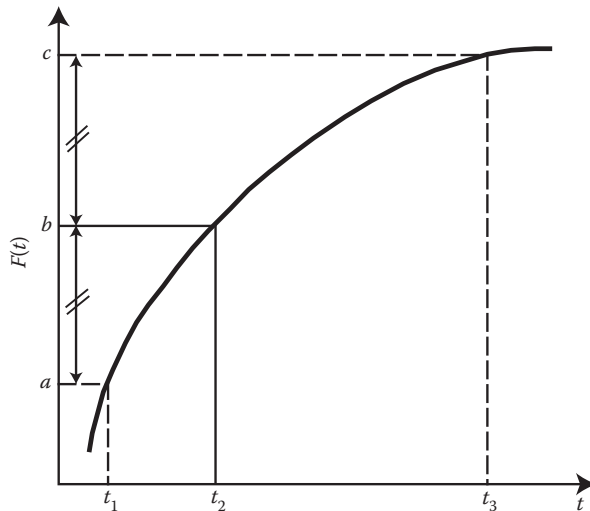


FIGURE A2.10 A nonlinear Weibull plot.

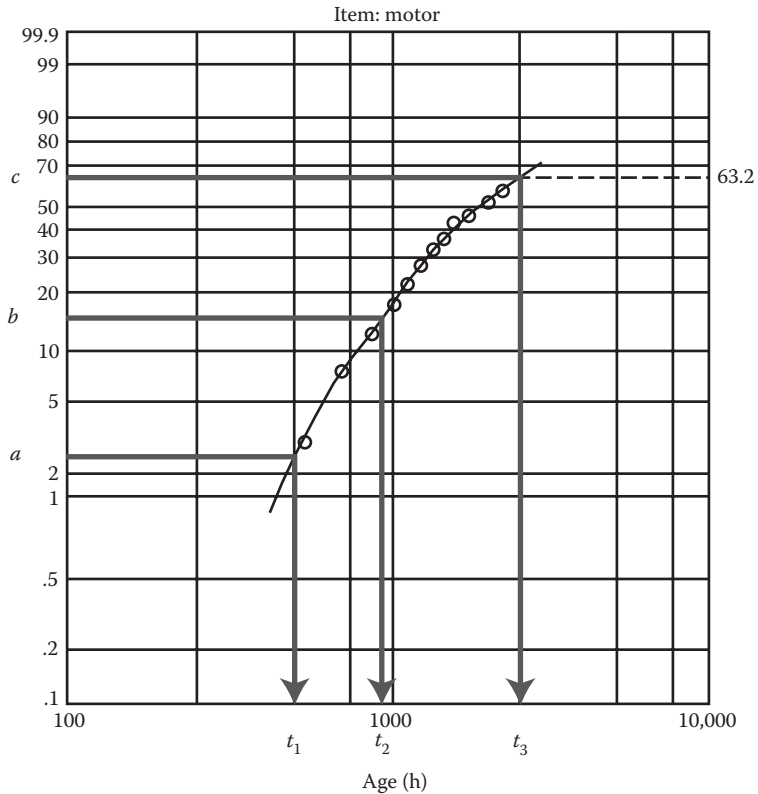


FIGURE A2.11 Weibull plot of motor failure time: estimation of  $\gamma$ .

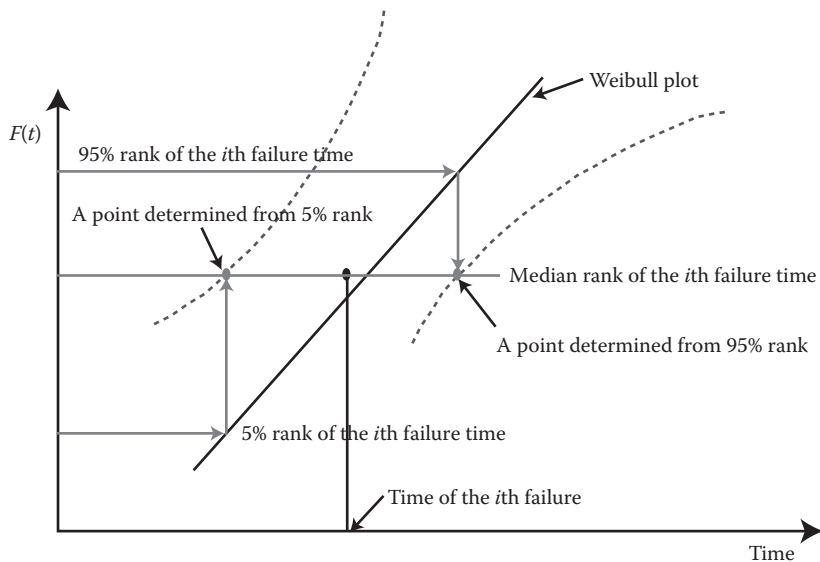


FIGURE A2.12 Determining confidence interval of a Weibull plot: method 1.

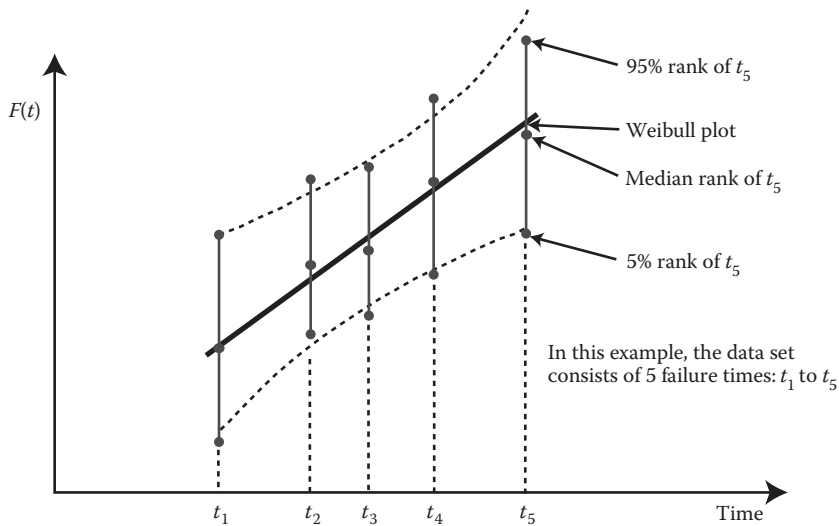


FIGURE A2.13 Determining confidence interval of a Weibull plot: method 2.

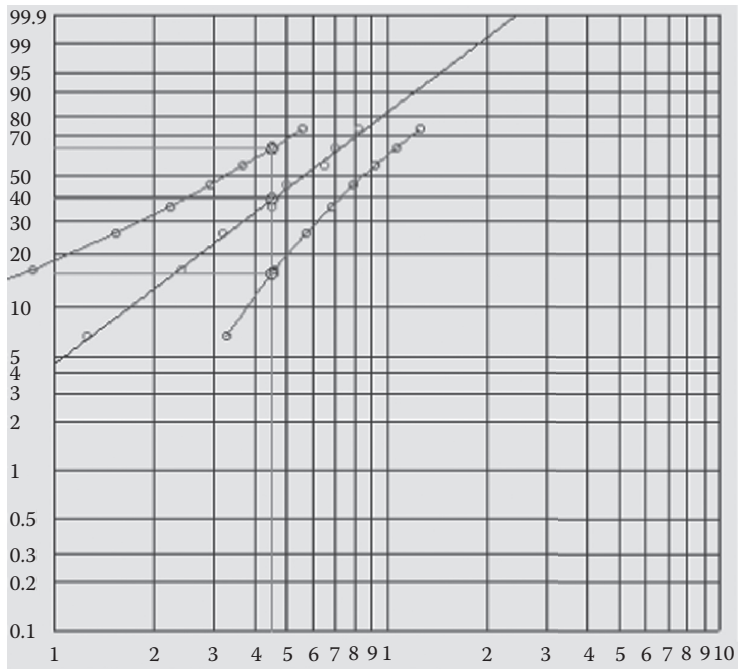


FIGURE A2.14 Weibull plot of battery failure time: 90% confidence interval of  $F(t)$ .

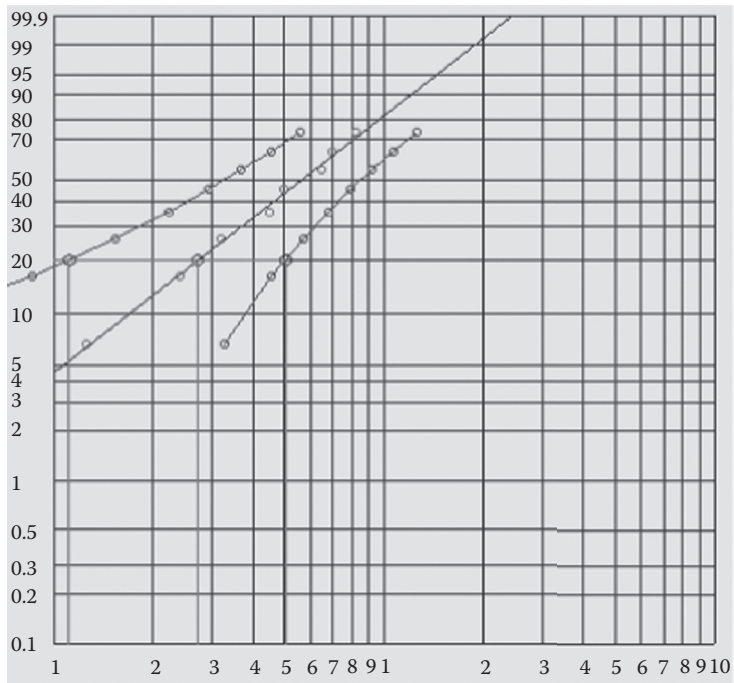


FIGURE A2.15 Weibull plot of battery failure time: 90% confidence interval of  $B_{20}$ .

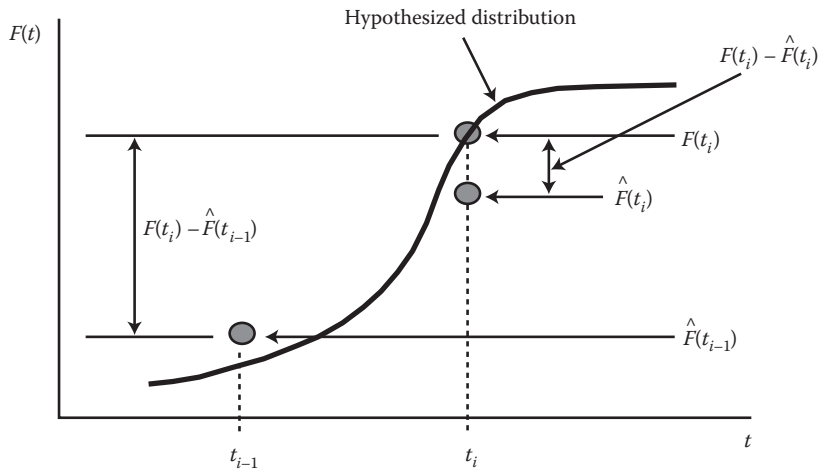


FIGURE A2.16 K-S goodness-of-fit test.



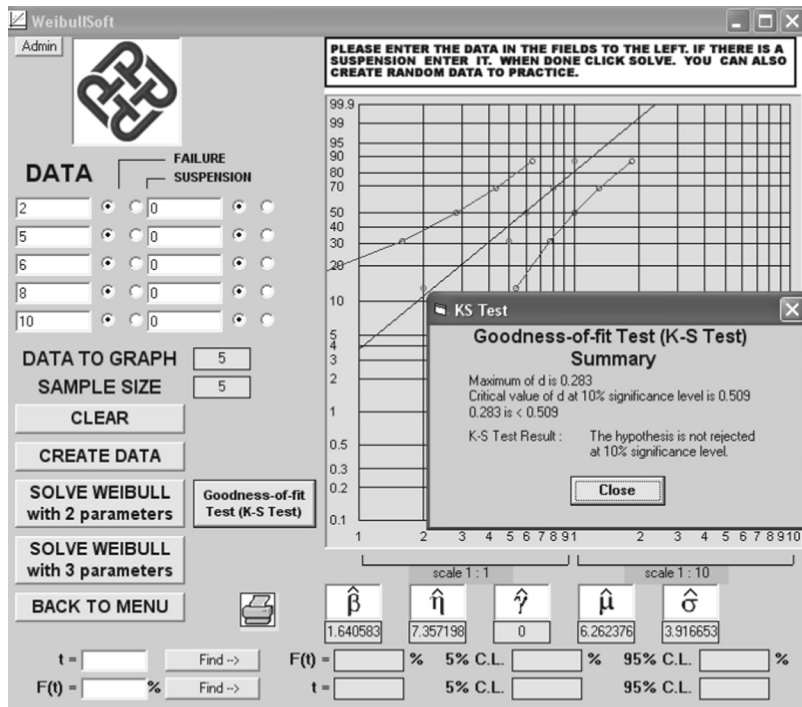


FIGURE A2.17 Screen dump of WeibullSoft.

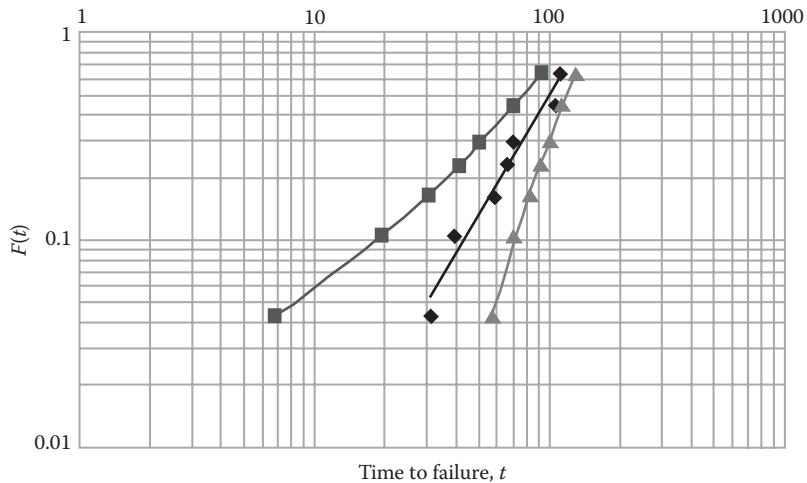


FIGURE A2.18 Weibull plot of the failure data given in Table A2.11.

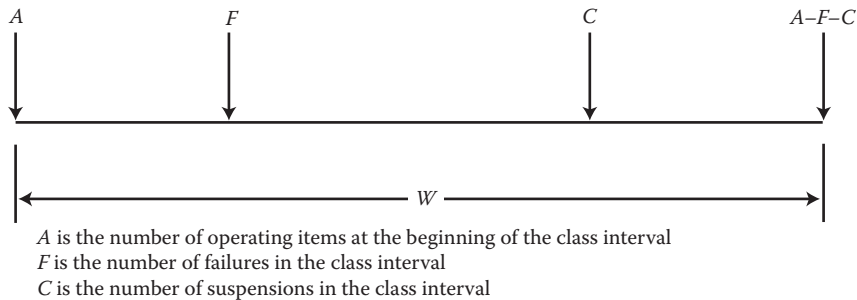


FIGURE A2.19 Data in a class interval.

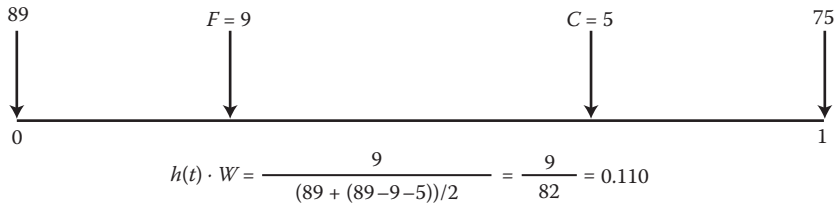


FIGURE A2.20 Data in the first class interval.

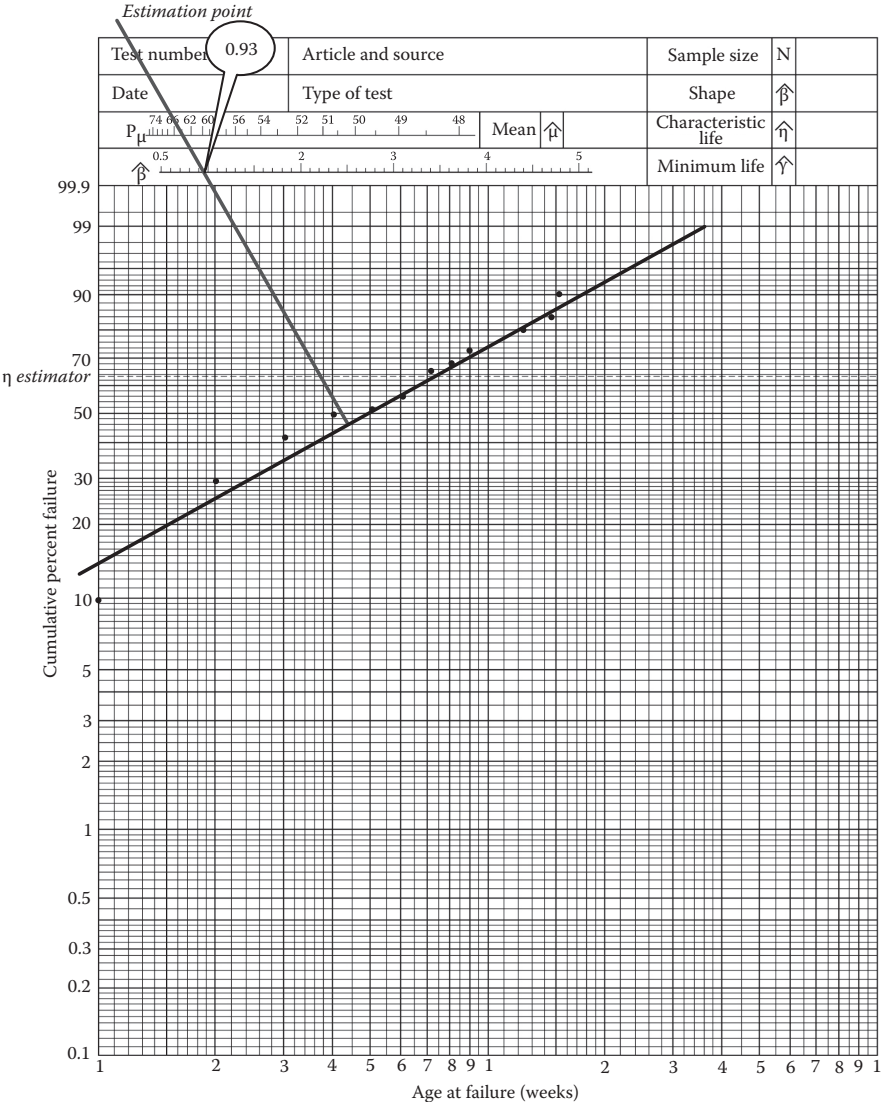


FIGURE A2.21 Weibull plot of the sugar feeder failure data.

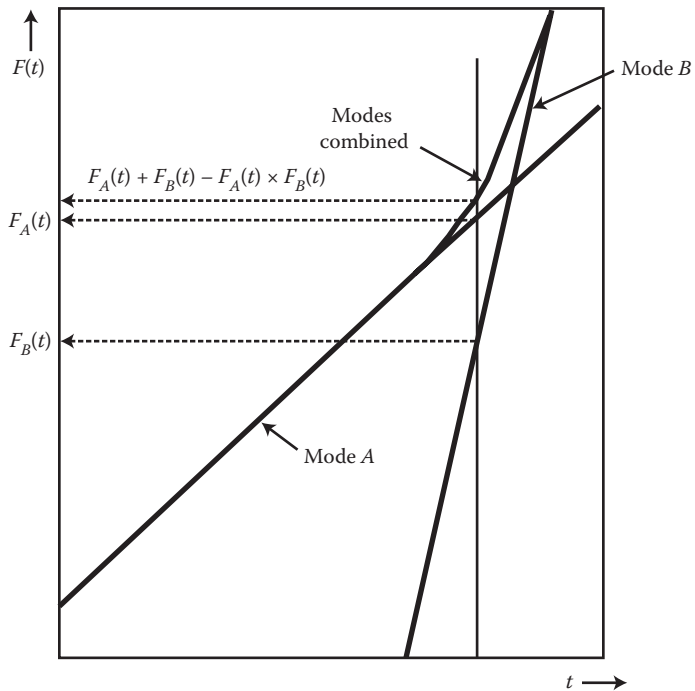


FIGURE A2.22 Weibull plots of competing failure mode data.

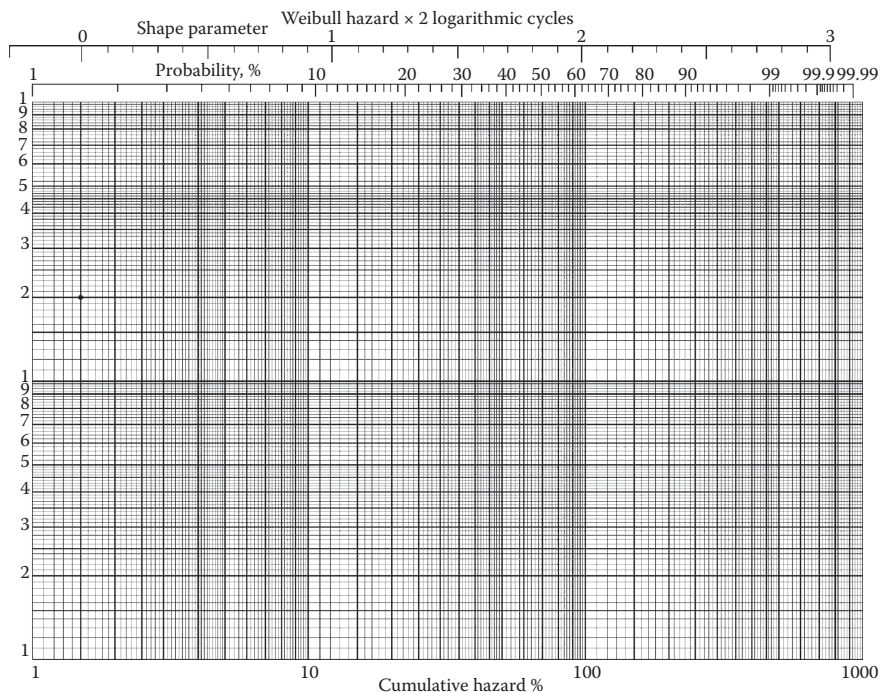


FIGURE A2.23 Two-cycle hazard paper for Weibull distributions.

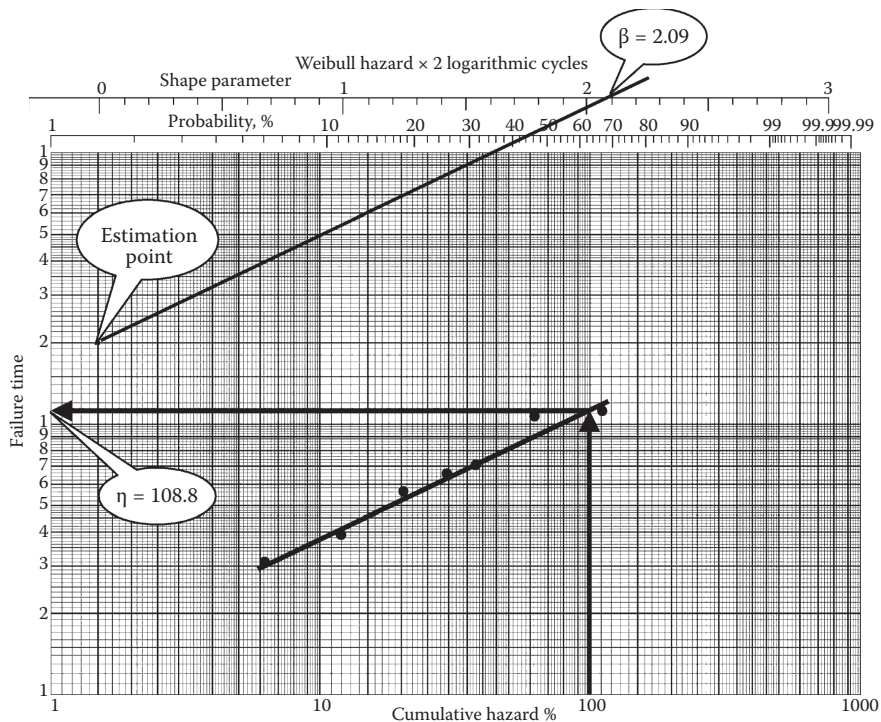


FIGURE A2.24 Hazard plot of data shown in Table A2.13.



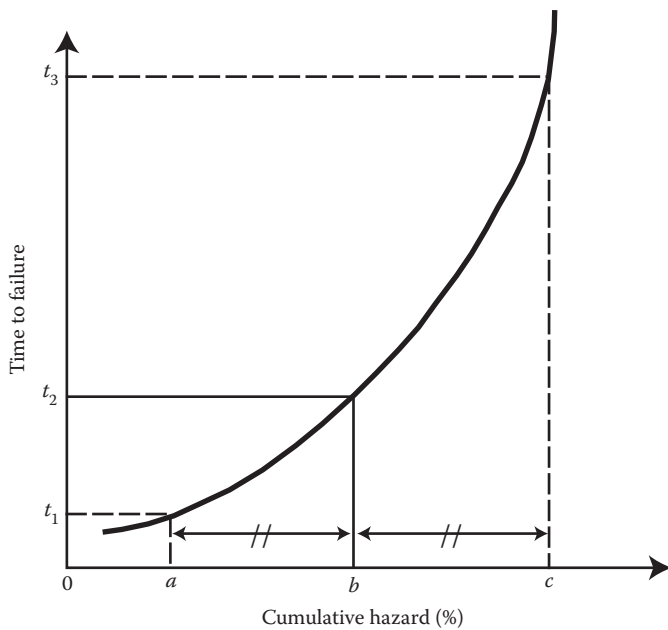


FIGURE A2.25 Nonlinear hazard plot.

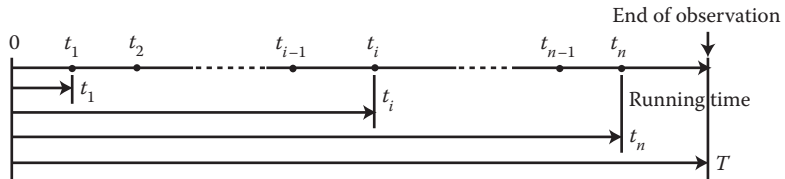


FIGURE A2.26 Time-terminated test data.

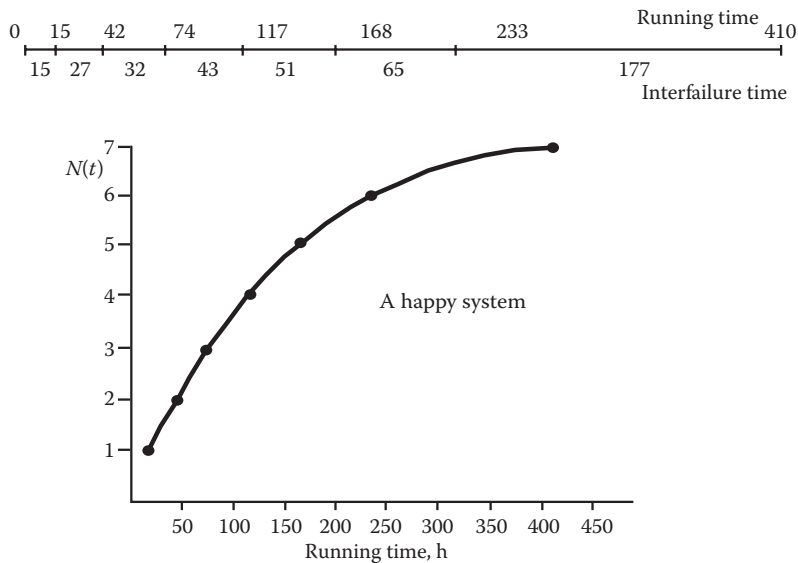


FIGURE A2.27 Failure data of machine H.

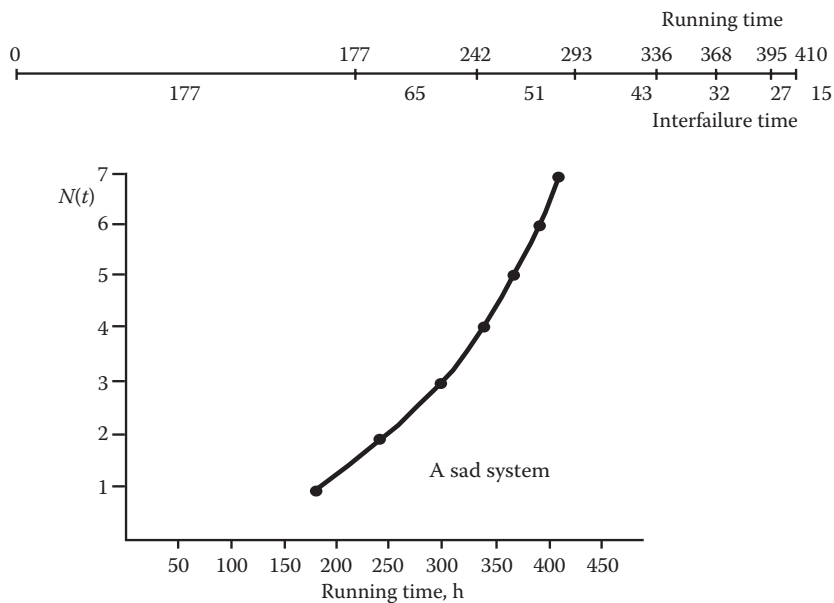


FIGURE A2.28 Failure data of machine S.

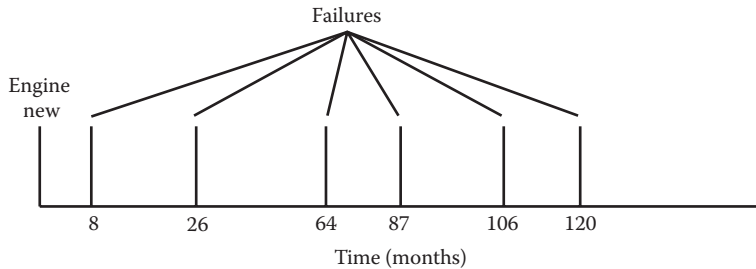


FIGURE A2.29 Engine failure pattern.