

Kaplan, E. L.; Meier, Paul

Nonparametric estimation from incomplete observations. (English) Zbl 0089.14801

J. Am. Stat. Assoc. 53, 457-481 (1958).

Let $P(t)$ be the probability that an item from a given population will have lifetime exceeding t . For a sample of size N let the observed times either to death or to other loss be $t_1 \leq t_2 \leq t_3 \leq \dots \leq t_n$. The maximum likelihood estimate of $P(t)$ is then

$$\widehat{P}(t) = \prod_r \frac{(N - r)}{(N - r + 1)}$$

where r ranges over those integers for which $t_r \leq t$ and t_r is a time to death. The mean and variance of $\widehat{P}(t)$ are computed. Comparisons of this estimate are made with reduced sample estimates and actuarial estimates.

Reviewer: D. R. Whitney

For a scan of this review see the [web version](#).

MSC:

[62G05](#) Nonparametric estimation

[62G08](#) Nonparametric regression and quantile regression

Cited in **28** Reviews
Cited in **854** Documents

Keywords:

[statistics](#)

Full Text: [DOI](#)