Arnold, Barry C.; **Beaver, Robert J.**

Multivariate survival models incorporating hidden truncation. (English) Zbl 1137.62382

Cuadras, Carles M. (ed.) et al., Distributions with given marginals and statistical modelling. Papers presented at the meeting, Barcelona, Spain, July 17–20, 2000. Dordrecht: Kluwer Academic Publishers (ISBN 1-4020-0914-3/hbk). 9-19 (2002).

Summary: Consider (X, Y), an $n+1$ dimensional random vector with non-negative coordinates. Consider the conditional distribution of X given $\lambda' X < Y$. The X_i's are viewed as survival times of k components in a system. The random variable Y is a concomitant variable reflecting, perhaps, operating conditions. The resulting conditional distribution of X is called a hidden truncation distribution since it is assumed that Y is hidden (i.e., not observable). The present paper investigates the distributional structure of such models.

For the entire collection see [Zbl 1054.62002].

MSC:

62N99 Survival analysis and censored data

62H10 Multivariate distribution of statistics