Errors of misclassification and their probability distributions when the parent populations are Gompertz

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Abstract:

Classification problems associated with univariate Gompertz populations are studied. The robustness of the linear discriminant function, the normal classificatory rule, LDF when the underlying populations are Gompertz, is investigated. The errors of misclassification corresponding to LDF are compared with that due to the likelihood ratio LR rule for Gompertz populations. The asymptotic probability distributions for the actual error rates are derived, for large sample sizes. Theoretical and experimental comparisons are performed.

Keywords:

Gompertz population; Errors of misclassification; Linear discriminant function; Likelihood ratio rule; Error rate.

Published In:

Applied Mathematics and Computation, Vol. 163 - No. 5, PP.423-442