

A STOCHASTIC MODEL FOR ESTIMATION OF VARIANCE OF TIME TO RECRUITMENT FOR A SINGLE GRADE MANPOWER SYSTEM WITH DIFFERENT EPOCHS FOR DECISIONS AND EXITS

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ABSTRACT

In this paper, the problem of time to recruitment is studied using a univariate policy of recruitment for a single grade manpower system in which attrition takes places due to policy decisions. Assuming that the policy decisions and exits occur at different epochs, a stochastic model is constructed and the variance of the time to recruitment is obtained when the inter-policy decision times form a geometric process and inter-exit times form an ordinary renewal process. The analytical results are numerical illustrated and the effect of the nodal parameters on the performance measures is studied.

KEYWORDS: Single Grade Manpower System, Decision and Exit Epochs, Geometric Process, Ordinary Renewal Process, Univariate Policy of Recruitment and Variance of Time to Recruitment