

SIMULATION MODELS FOR ARMY MANPOWER REQUIREMENTS

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The recent recruiting successes of the Army are unlikely to continue as the economy improves. The Army has been constructing a series of mathematical models to project the magnitude of future recruiting shortfalls, and to allocate new recruits to occupational specialties efficiently. A few of these models are described here.

I. THE PROBLEM

In recent years the Army has had good success in attracting high-quality recruits and meeting its enlistment goals. Recent studies [1, 2, 3, 4, 5] have shown, however, that recruiting is very likely to become more difficult in the face of an improving economy and unfavorable demographic trends. The Army therefore has a keen interest in projecting the size of future recruiting shortfalls, and in efficiently allocating new personnel into appropriate specialties. These are very complex tasks, and the Army has been using several approaches to accomplish them, including econometric models and simulation models.

II. ECONOMETRIC MODELS

Time-series models of enlistment behavior are considered in [1, 2, 3]. Cross-section models are covered in [5], while pooled data have been analyzed by [6]. These studies have produced conflicting results on the importance of pay and unemployment effects on the enlistment decision.

The oral presentation will compare the forecasting accuracy of several of these models, and discuss the implications for Army planning.

III. SIMULATION MODELS

Projected enlistment shortfalls make it very important for the Army to allocate its enlistees efficiently to appropriate occupational specialties [7]. The Enlisted Personnel Allocation System (EPAS) is shown in Figure 1. The econometric models discussed in Section II above will be used to provide input to the EPAS.

The oral presentation will describe the timetable the Army has toward completion of the EPAS system.

IV. REFERENCES

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ENLISTED PERSONNEL ALLOCATION SYSTEM

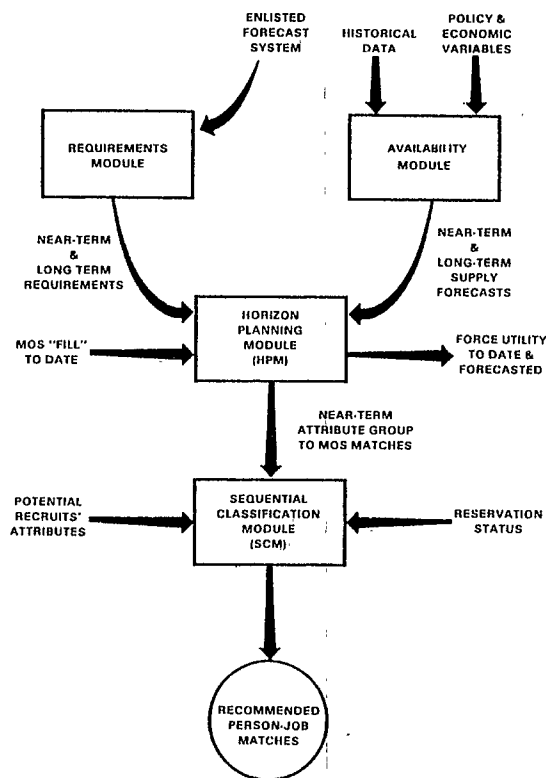


Figure 1: Overview Of The EPAS System