

DEMAND, SUPPLY, AND A SIMPLE MODEL OF THE MARKET FOR MILITARY PERSONNEL

The manpower needs of the Department of Defense (DOD) are described by force strength objectives—the number of men in the active duty forces or the stock demand for labor. A more meaningful concept of demand is, however, provided by the gross flow demand for new accessions A_t to replace losses during the year L_t and to achieve prescribed changes in force strength $(F_t - F_{t-1})$.²

$$(1.1) \quad A_t = L_t + (F_t - F_{t-1}).$$

The losses L_t are determined by personnel turnover and the size of the force F_{t-1} . Changes in strength objectives $(F_t - F_{t-1})$ also account for variations in the gross flow demand. The demand A_t is tacitly assumed to be completely inelastic; that is, the price or cost of military service has no effect on the number of men demanded.

Military service can surely be regarded as one of the occupational pursuits available to qualified youths. The motives which prompt individuals to enter particular occupations are varied, but an important factor is the pay of an occupation in relation to the pay in competing jobs.³ The supply of new recruits would surely be larger, the higher the level of first term military pay M . Other things equal, the relation between the supply of recruits and first term pay M can be described by a supply curve S as in Fig 1. The demand for new accessions in year 0 is indicated by the vertical line at A_0 . At the current low level of first term pay M_0 (estimated to be around \$2,500 for the first 3.5 years of service), the supply of regular enlistments B falls short of requirements A_0 . The gap BA_0 is filled by inducting that number of draftees. A higher demand meaning a rightward shift of A_0 would thus entail a larger gap to be supplied with involuntary inductions.

The supply curve of recruits S depends on four factors: (1) the population base of qualified youths, (2) alternative civilian pay C , (3) the unemployment rate U , and (4) draft pressure. As the population base of qualified youths grows, the entire supply curve is shifted to the right.⁴ Such a shift moves the point B to the right thereby reducing the deficit BA_0 .

The financial attractiveness of military service vis-à-vis civilian employment is measured by the relative pay of the two, namely M/C . A rise in civilian wages tends, therefore, to shift the supply curve to the left. The availability of jobs as well as the civilian pay C which is received if a job were available, is an equally important factor. The unemployment rate U provides a measure of job availability. According to DOD projections, if civilian unemployment rates were to fall from 5.5 to 4.0 per cent, voluntary enlistments are expected to fall by 16 per cent.

Finally, the coercive threat of a draft affects the supply curve in two ways. Spokesmen for the Selective Service System have testified before Congress that the uncertainty created by a draft liability accounts for substantial numbers of volunteers. College graduates volunteer for officers' commissions because they might be drafted into the Army enlisted ranks. Other youths enlist as regular

² Losses from the active duty strength arise because of failure to reenlist upon termination of obligated tours; discharges for medical/unsuitability reasons; retirement; and death. Voluntary separation at the end of the first term of service account for the largest part of these losses.

³ In the Hearings before the House Armed Services Committee in June 1966 (hereafter referred to as *House Hearings*), the Department of Defense presented data from a survey of civilian males in the draftable ages. According to the DOD survey (confer *House Hearings*, p. 10047), only 8.6 per cent of the surveyed youths indicated that pay was "the most important factor" in choosing a career. The research staff of DOD seems to place considerable weight on these responses when they conclude that pay hikes would not elicit sufficient flows of new recruits. I most heartily disagree with the DOD staff. Survey questionnaires on monetary matters are highly unreliable because people are embarrassed to admit to acquisitive traits. Most teachers would, in all probability, insist that "higher" motives rather than pay attracted them into the teaching profession. Interestingly enough, when the pay of elementary and secondary teachers was sharply advanced in the early 1950's, the supply of new teachers rose dramatically. As I shall argue later, available evidence suggests that the supply of recruits is responsive to pay changes. DOD is, however, reluctant even to give higher entry-level pay a try.

⁴ Over the last fifteen years, the Armed Forces have varied the mental fitness standards requisite to qualify for military service. When supplies of enlistment applicants were large in relation to demands (meaning that draft calls were small), mental standards were raised to ration the available billets to the more highly qualified males. An upgrading of mental standards operates to reduce the supply by denying enlistment to men with low mental-test scores. I shall, in this paper, assume that the Armed Services will maintain constant qualification standards in the years ahead.