

skill level of the labor force is very high. The Battelle Memorial Institute has shown, for example, that engineers and technical workers constitute only 11 percent of the work force of electronics manufacturers producing consumer products. The corresponding figure for military and space products is 33 percent. In contrast, semi-skilled and unskilled labor make up 63 percent of the work force in the consumer products sector of the electronics industry, while the figure for the military and space sector is only 27 percent. For these reasons, the defense products manufacturers tend to locate in areas where the labor force has diverse and above-average skills. But it is in just these areas that the labor force is most mobile and most able to change jobs if shifts in Government spending bring about an abrupt change in employment requirements. These high-skill areas differ substantially from the textile communities in New England. As of 1960, for example, the median number of years of schooling of the adult male population in New Bedford and Fall River was 8.6, compared to a statewide average of 11.3 in Massachusetts.

All in all, I conclude that most of our large metropolitan areas would undergo relatively minor disruptions if there were a cutback of only 20 percent in defense spending. The smaller metropolitan areas or isolated rural communities which are linked to military spending in various ways present a different case, however, and I will now turn to them.

For some of these smaller metropolitan areas and towns, there might be serious problems. For example, the National Planning Association examined New London, Conn., in their 1965 study of the potential impact of disarmament. The N.P.A. found that 71.5 percent of the civilian employment was defense-related. Furthermore, military personnel accounted for 16 percent of total employment. In addition, defense purchases were concentrated in one giant firm which entirely dominated the area's employment situation. For these reasons the N.P.A. concluded that New London is almost totally dependent on military spending for highly specialized shipbuilding and would be seriously affected by defense cutbacks. And I am sure that at least a few other communities in this country are equally vulnerable.

I should point out, however, that defense spending in small metropolitan areas and rural communities is more likely to be related to defense bases than to military procurement. As you know, there are important differences between these two types of military spending. Contracts for military procurement are usually given to private manufacturers who hire civilian employees. These employers in turn subcontract work to other manufacturers. The prime contractors, the subcontractors, and their employees also buy a great variety of services, supplies, and materials in their metropolitan area. The final result of an increase of, say, 100 persons in the employ of a prime contractor is an increase of another 100 or 200 in the employ of subcontractors, service establishments, and government agencies. In the parlance of economists, the employment multiplier is in the range of two to three.

In recent years the Federal Reserve Bank of Boston has supported a number of studies on the impact of various New England military installations on employment and economic activity in nearby towns and small metropolitan areas. The results were consistent in each case.