

States contributed heavily to the production of wheeled vehicles, weapons, ammunition, and equipment items which then bulked heavily in defense procurement, but which now form a relatively smaller share of requirements.¹⁷ [Italic supplied.]

A significant fact to be noted here is that the Defense Department itself recognizes that its buying program may have caused recurrent unemployment problems.

In connection with the concentration of research and development contracts, the report states:

This is of major importance, because any company which has conducted or managed the research, design, development, and test work on a new weapon system or a major component and has assembled the engineering talent and experience for this purpose, is obviously in an exceptionally strong position to compete for the follow-on production contracts, and for new developmental contracts, as well. It is logical, then, that production contracts for the newer sophisticated items, which will figure heavily in future procurement, may tend to be placed in areas where R.D.T. & E. effort has been centered.

The point is reinforced by the fact that development and test work represents a much larger share of some types of procurement than of others. The value and percentage of total prime contract awards to business firms in fiscal year 1961 classified as R.D.T. & E. was as follows:

	R.D.T. & E. share of pro- gram (percent)	R.D.T. & E. awards (millions)
Missiles.....	57.9	\$3,409
Electronics and communications.....	24.9	786
Miscellaneous and hardgoods.....	22.1	196
Ships.....	20.3	278
Ammunition.....	18.5	102
Weapons.....	16.0	23
Aircraft.....	10.1	500
Tank-auto.....	2.5	15

The ordnance items which characterize much of the contract defense production in the midwestern area have a relatively low R. & D. emphasis at this time. Obsolescence, and consequent replacement, is less likely to affect military items outside the mainstream of the research effort. It should be noted, of course, that considerable in-house R. & D. occurs in these categories.

A region that gains a long headstart in a new and expanding field of procurement is bound to enjoy an enduring advantage, especially when R. & D. is a primary element. Factors influencing the location of awards, strictly on merit, include availability of highly specialized scientific, engineering, and technical manpower, specialized facilities, labor skills, production experience and know-how, together with competence and determination in presentation of bid proposals. All these tend to be associated with R. & D. capability, and their presence fosters the climate in which long-scale R. & D. may flourish.

In summary, successful research and design, or development and testing effort, often leads to follow-on production contracts; and, in turn, engineering work on highly complex new weapon systems creates new R. & D. capability. The process is circular, and it regenerates itself.¹⁸

The need for study of the geographical location of these contract awards seems obvious. The Defense Department has as much as admitted that many contracts of the type that go to institutions of learning have not been distributed entirely on the basis of qualification. This startling admission may be inferred from the following statement contained in the above-cited document:

It must be recognized that the Midwest, with its great university resources, and with its heavy annual production of Ph. D.'s and other professionals, did not in fiscal year 1961 obtain a share of defense prime contract awards, either for

¹⁷ Hearings, app. III, p. 169.

¹⁸ Hearings, pp. 171-172.