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Geographic Distribution of R&D Funds

One sometimes hears complaints that this or that state or region receives too much or too little federal research and development money. The detailed analysis of federal R&D expenditures* that the NSF has prepared for congressional use may provide some ammunition for arguments about geographic distribution, but the 23 pages of text and charts and 606 pages of statistical tables probably tell more than most people want to know about the topic. What they demonstrate most clearly is that the geographic distribution differs greatly for different agencies, purposes, and kinds of recipients.

Of eight geographic regions, the Pacific Coast receives the most federal R&D dollars, with the Middle and South Atlantic regions next. The leading states, in order, are California, New York, Maryland, Texas, Massachusetts, and Pennsylvania. But on a per capita basis, Nevada and New Mexico receive more than any of the states that lead in total dollars.

Some of the differences among the states are accounted for by large government installations, such as the AEC facilities in Nevada, the facilities of NASA in Florida and Alabama, or the agricultural and medical laboratories in Maryland. If the large government installations are omitted from the calculations, the order of the states changes significantly. It changes again if one analyzes R&D contracts to industry, and still again if one considers only grants to educational institutions. Educational institutions in New York received the most in 1964, with California, Massachusetts, Illinois, and Pennsylvania following. But states are not equivalent educational units; per Ph.D. conferred in one year, New Mexico, Alabama, Maryland, Massachusetts, California, Washington, and several other states received more than did New York.

Each federal agency must try to use its funds where it can best accomplish its primary objectives. This requirement leads to different distributions. NASA and the Department of Defense spend more of their R&D money in the Pacific states than in any of the other eight regions. The AEC spends the highest percentage in the Mountain states; the Department of Health, Education, and Welfare, in the Middle Atlantic states; and the NSF, in the South Atlantic states. The Agricultural Research Service spends little in Connecticut, and Kansas expects little from the Coast and Geodetic Survey.

Federal R&D expenditures of 15 or more billions a year make important differences to the regions in which the money is spent, and regional leaders can be expected to continue to seek for more. The claimants must remember, however, that each of the agencies has national responsibilities: for defense, atomic energy, space, health, or something else. The agencies cannot be unmindful of regional claims, but neither can they let those claims outweigh their primary purposes. Nor can there be any simple and single criterion of what is proper geographic distribution. Claims for more are most likely to be successful if directed to specific kinds of activity and if supported by strong evidence of capacity to produce.—DAEL WOLFLE

* *Obligations for Research and Development, and R&D Plant, by Geographic Divisions and States, by Selected Federal Agencies, Fiscal Years 1961-1964* (House of Representatives Committee on Science and Astronautics, 1964)