



THIRD CLASS
Bulk Rate

State Agency R&D Almost Quadrupled from 1964 to 1973

Expenditures for research, development, and R&D plant by State government agencies rose from \$242 million in fiscal year 1972 to \$273 million in fiscal year 1973.* The expenditures reported in 1973 represent an almost fourfold increase over the \$77 million reported in 1964, and even in constant dollars the rise is about threefold.

Despite this growth trend, R&D programs on the State level are not yet established on a widespread basis as an instrument of State agency operations and State planning and policy. Furthermore, during the whole 1964-73 period the R&D and R&D plant share of State government general expenditures remained at less than one-half of 1 percent.

In 1973 New York accounted for 23 percent and California for 13 percent of total State agency R&D expenditures. Collectively, the first 15 States accounted for three-fourths of total State R&D expenditures. Most of these States are characterized by concentrations of population, considerable Federal agency R&D program support, and relatively large State budgets.

State agency R&D expenditures were chiefly directed to work in health and

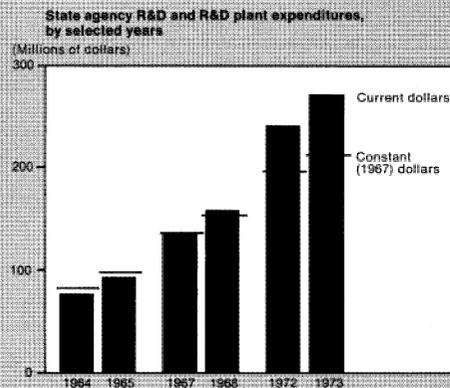
natural resources, which made up 35 percent and 22 percent, respectively, of the R&D expenditure total in 1973. Other functional areas receiving support were education, 15 percent; transportation and communications, 12 percent; income security and social services, 8 percent; and environment, 5 percent.

On a nationwide basis a few States often determined the leading position of certain functional areas. In the case of health, the funds expended by New York and California alone established the leadership of this function in 1973 in State R&D expenditures. In the case of natural resources, funding was more dispersed. For education, however, California's R&D support was significant in placing this function in third place among all State-supported functions. Transportation and communications also showed fairly widespread R&D activity, but for the next function in overall State support—income security and social services—Washington, Indiana, and Colorado contributed almost three-fifths of the R&D funding.

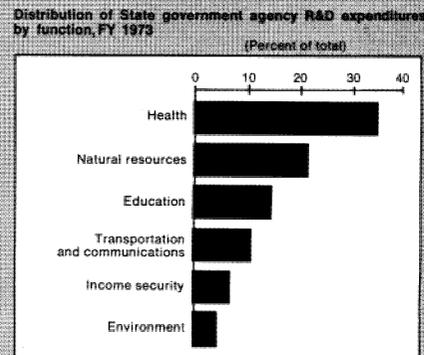
In both 1972 and 1973 the Federal Government provided slightly more than 50 percent of the funds expended by State government agencies for R&D programs, and the States provided approximately 48 percent. The remaining 2 percent was provided by nongovernment sources, e.g., foundations and private industry.

State government agencies perform the largest share of their R&D work intramurally, with their own personnel. In 1973 intramural performance accounted for 68 percent of the total State agency R&D effort. Universities and colleges accounted for 12 percent, and other performers, such as private industry, nonprofit institutions, and local governments, for 20 percent.

State agencies employed approximately 11,500 full-time equivalent personnel in 1973 in the performance and support of R&D activities. Scientists and engineers made up 43 percent of the total, while technicians made up 29 percent, and administrative support personnel comprised another 29 percent.



* Based on GNP implicit price deflator.
SOURCE: National Science Foundation



Source: National Science Foundation

*Data are taken from *Research and Development in State Government Agencies, Fiscal Years 1972 and 1973*, to be published later in 1975. The NSF survey on which this report is based was the third to gather data on R&D expenditures of State government agencies (exclusive of State universities and colleges). The earlier surveys covered fiscal years 1964, 1965, 1967, and 1968. Data on R&D expenditures of State universities and colleges are collected in another recurring NSF survey; if these expenditures are added to State agency R&D expenditures, the 1973 total for all State public expenditures for research and development (exclusive of R&D plant) becomes \$1,990 million.