

Federal R&D Funding Continues to Rise

• An upward trend since 1970 in Federal R&D support is now clearly established. The Federal R&D obligation total (plant excluded) is expected to rise from \$15.5 billion in 1971 to an estimated \$16.8 billion in 1972 and to an all-time high of \$17.8 billion in 1973. These figures represent increases of 8 percent and 6 percent in 1972 and 1973, respectively, and even in constant dollars, an increase of 4 percent in 1972. Although a price deflator is not yet available for 1973, an increase will also probably be shown in constant dollars for that year. The present upward trend reverses the downward trend that prevailed from 1967 through 1970.

• Federal support for both basic research and applied research is expected to increase substantially from 1971 to 1973, whereas the increase for development is relatively more moderate. In 1973, applied research obligations are expected to total an estimated \$4.7 billion, and basic research \$2.6 billion, new highs for both these categories. Development support is expected to total \$10.5 billion in 1973.

• The Department of Defense, with an \$8.8 billion program, is expected to account for about 50 percent of total Federal R&D obligations in 1973. The National Aeronautics and Space Administration is expected to obligate \$3.3 bil-

lion, or 18 percent, compared with 25 percent in 1970. The Department of Health, Education, and Welfare will account for an estimated \$2.0 billion, or 11 percent, and the Atomic Energy Commission for \$1.4 billion, or 8 percent. In 1973, the National Science Foundation is expected to support an R&D program of \$0.5 billion, or 3 percent of the total.

• Of the major R&D support agencies, HEW and NSF show the largest relative gains in the 1971-73 period, and DOD and HEW show the largest dollar gains.

• In 1973 it is anticipated that 74 percent of the Federal R&D total, or \$13.2 billion, will be directed to extramural performers. The remainder, \$4.6 billion, will cover work by Federal personnel.

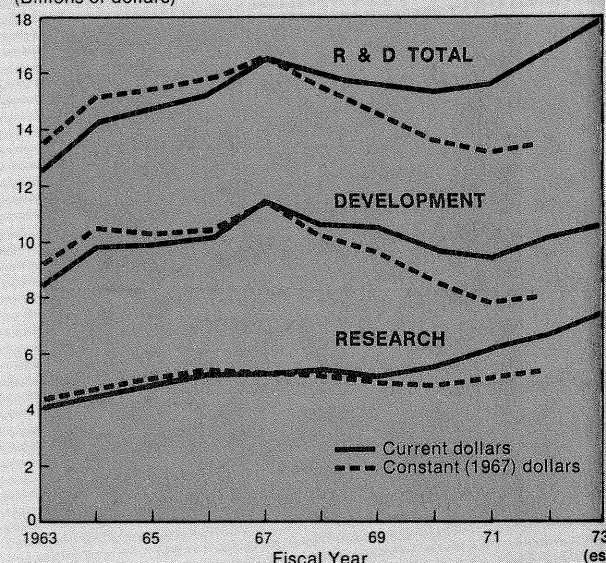
• Industry is still the principal R&D performer, although its share of the Federal R&D total has declined from 66 percent in 1963 to an expected 52 percent in 1973, or \$9.2 billion (including Federally Funded Research and Development Centers). Universities and colleges represent 12 percent of the Federal R&D total, compared with 7 percent in 1963.

• University and college support totals show an average annual growth of 14 percent between 1971 and 1973, from \$1.6 billion to \$2.1 billion. Most of this gain represents HEW and NSF programs.

• Among the fields of science, engi-

TRENDS IN FEDERAL R & D OBLIGATIONS

(Billions of dollars)



neering continues to receive the largest amount of Federal research support, \$2.3 billion, or 31 percent of the total in 1973. The life sciences are second with \$2.1 billion, or 29 percent of the total. Support for the physical sciences is an estimated \$1.2 billion and for the environmental sciences, \$0.8 billion in 1973 (17 percent and 11 percent, respectively, of total research). The level of research support in the social sciences is expected to be \$0.4 billion, or 6 percent of the total.

• California is the leading Federal R&D support State by a wide margin, but its share of the total since 1963 (the first year such data were collected), has dropped steadily and substantially, from 35 percent of the Federal total in 1963 to 22 percent in 1971. The California decline is largely the result of NASA cut-backs reflecting the phaseout of the Apollo program.

• Since 1963 the same three States have led in support, but in 1971 Maryland supplanted New York as the second largest recipient.

• The ten leading States (California, Maryland, New York, Florida, Massachusetts, New Jersey, Missouri, Texas, Washington, and Pennsylvania) together received 69 percent of all Federal R&D funds in 1971.

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The full information from which this summary is taken will be available in the report, *Federal Funds for Research, Development, and Other Scientific Activities*, Volume XXI, to be published later this year and available from the Superintendent of Documents, U.S. Government Printing Office.

Average Annual Percent Change in Federal R&D Funding

Character of work	1963-67		1967-71		1971-72		1972-73	
	Current Dollars	Constant Dollars ^a	Current Dollars	Constant Dollars	Current Dollars	Constant Dollars	Current Dollars	Constant Dollars
R&D total	7.2	5.0	-1.5	-5.9	8.2	4.3	5.8	^b
Research	6.9	4.9	3.9	-0.7	9.7	5.8	8.1	^b
Basic research	9.8	7.5	1.4	-3.1	12.3	8.3	8.7	^b
Applied research	5.3	3.1	5.4	0.7	8.4	4.5	7.8	^b
Development	7.4	5.2	-4.4	-8.7	7.2	3.3	4.2	^b

^a Based on the GNP implicit price deflator

^b Not available

Source: National Science Foundation

Federal Obligations for Research and Development by Character of Work, Fiscal Years 1971-73

(Dollars in millions)

Fiscal Year	Total	Research		
		Basic	Applied	Development
1971	\$15,550	\$2,132	\$4,018	\$ 9,399
1972 (est.)	16,821	2,395	4,354	10,071
1973 (est.)	17,791	2,604	4,693	10,494