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## National R&D Spending to Exceed \$57 Billion in 1980

Total U.S. R&D spending is projected to reach a current dollar level of \$57.3 billion in 1980, an increase of 9 percent over the 1979 expected level and more than double the amount spent on these activities ten years earlier. In constant dollars, national R&D spending is expected to increase by 2 percent between 1979 and 1980. Constant dollar gains in the national R&D effort occurred each year since 1975, after nearly ten years of no growth. That growth, however, resulted in large part from increased emphasis on finding alternative energy sources. Between 1975 and 1978, the last year for which survey data are available, energy accounted for nearly one-third of the R&D spending increase while, at the same time, amounting to less than 10 percent of the national R&D effort.

The Federal Government is expected to furnish nearly \$28 billion for research and development in 1980, an increase of 8 percent over 1979. In constant dollars, the 1980 Federal increase will be 1 percent over 1979 and 10 percent over 1975. For 1979 and 1980, more than half of the Federal increase is scheduled for defense with greater emphasis on research and technology related to longer range military needs.

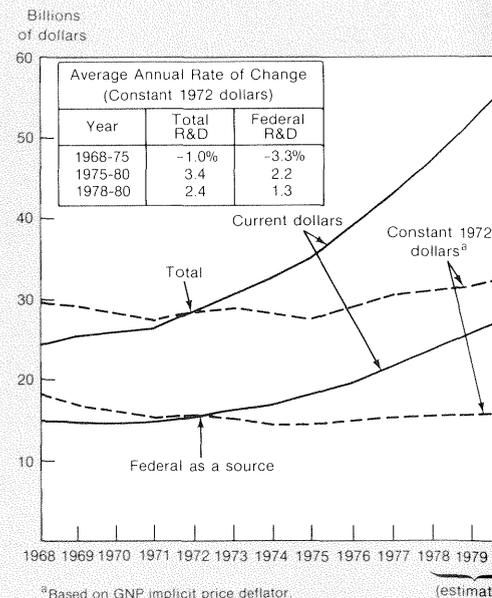
Non-Federal R&D support has continued to increase at a faster rate than Federal R&D

spending since the mid-sixties. This trend is expected to continue into 1980, with non-Federal R&D spending reaching a level of over \$29 billion, 11 percent above the 1979 level. Over 90 percent of these non-Federal R&D funds are provided each year by industry, whose R&D growth has kept pace with sales.

About 35 percent of the overall R&D effort each year is devoted to research. In 1980 this is expected to amount to \$20.3 billion. The remaining \$37 billion will be spent on development activities. Since 1975 both research and development funding have increased at the same rate. Within the research total, however, there has been a general tendency to allocate proportionately more funds to basic research. In 1980 national basic research spending is estimated at \$7.4 billion.

In 1977 more scientists and engineers were employed on a full-time-equivalent basis than in any previous year. Based on the increases expected in constant dollar R&D spending between 1977 and 1980, further increases in the employment of R&D scientists and engineers should result. By 1980 this number could approach 625,000, 3 percent above the 1979 level and nearly 10 percent higher than in 1977.

National R&D Expenditures: 1968-80



<sup>a</sup>Based on GNP implicit price deflator.  
SOURCE: National Science Foundation

Funds for research and development: 1975-80  
(Dollars in millions)

Year	Total	Government	Industry <sup>1</sup>	Academic sector		Other nonprofit institutions <sup>1</sup>
				Universities and Colleges	Associated FFRDC's <sup>2</sup>	
By performer						
1975	\$35,200	\$ 5,397	\$24,164	\$3,409	\$ 987	\$1,243
1976	38,848	5,710	26,938	3,730	1,147	1,323
1977	42,914	6,142	29,907	4,064	1,384	1,417
1978 (est)	47,430	6,450	33,500	4,585	1,375	1,520
1979 (est)	52,440	6,800	37,700	4,965	1,425	1,550
1980 (est)	57,270	7,300	41,350	5,450	1,500	1,670
By source						
1975	\$35,200	\$18,152	\$15,787	\$ 750	—	\$ 511
1976	38,848	19,844	17,620	821	—	563
1977	42,914	21,775	19,625	893	—	621
1978 (est)	47,430	23,650	22,080	1,000	—	700
1979 (est)	52,440	25,900	24,675	1,100	—	755
1980 (est)	57,270	27,900	27,325	1,205	—	820

<sup>1</sup>Expenditures for federally funded research and development centers (FFRDC's) administered by this sector are included.  
<sup>2</sup>FFRDC's administered by individual universities and colleges and by university consortia.

Source: National Science Foundation.