

TABLE 33. Trends in federal funds for performance of industrial basic research, applied research, and development in the United States: 1953–2002

(Millions of dollars)

Year	All R&D		Basic research		Applied research		Development	
	Current	Constant	Current	Constant	Current	Constant	Current	Constant
	dollars	2000 dollars	dollars	dollars	dollars	dollars	dollars	dollars
1953 <sup>a</sup>	1,430	7,839	19	104	288	1,579	1,123	6,156
1954 <sup>a</sup>	1,750	9,501	23	125	322	1,748	1,405	7,628
1955 <sup>a</sup>	2,180	11,631	27	144	368	1,963	1,785	9,523
1956	3,328	17,161	37	191	474	2,444	2,817	14,526
1957	4,335	21,635	41	205	678	3,384	3,616	18,046
1958	4,759	23,216	43	210	774	3,776	3,942	19,231
1959	5,635	27,156	72	347	813	3,918	4,750	22,891
1960	6,081	28,902	79	375	833	3,959	5,169	24,567
1961	6,240	29,327	81	381	812	3,816	5,347	25,130
1962	6,434	29,831	143	663	1,011	4,687	5,281	24,485
1963	7,270	33,351	147	674	1,007	4,620	6,116	28,057
1964	7,720	34,883	165	746	1,040	4,699	6,515	29,438
1965	7,740	34,346	186	825	1,038	4,606	6,516	28,914
1966	8,332	35,950	173	746	1,039	4,483	7,120	30,720
1967	8,365	35,010	202	845	1,066	4,462	7,097	29,703
1968	8,560	34,361	180	723	1,043	4,187	7,337	29,452
1969	8,451	32,319	160	612	1,015	3,882	7,276	27,826
1970	7,779	28,253	158	574	1,049	3,810	6,572	23,869
1971	7,666	26,517	134	464	974	3,369	6,558	22,684
1972	8,017	26,576	130	431	952	3,156	6,935	22,989
1973	8,145	25,573	132	414	993	3,118	7,020	22,041
1974	8,220	23,671	163	469	1,025	2,952	7,032	20,250
1975	8,605	22,644	157	413	1,130	2,974	7,318	19,257
1976	9,561	23,786	185	460	1,200	2,985	8,176	20,340
1977	10,485	24,526	210	491	1,325	3,099	8,950	20,935
1978 <sup>a</sup>	11,189	24,453	250	546	1,430	3,125	9,509	20,782
1979	12,518	25,265	265	535	1,555	3,138	10,698	21,592
1980 <sup>a</sup>	14,029	25,959	290	537	1,900	3,516	11,839	21,907
1981	16,382	27,710	301	509	2,340	3,958	13,741	23,243
1982 <sup>a</sup>	18,545	29,565	381	607	2,960	4,719	15,204	24,239
1983	20,680	31,714	463	710	3,641	5,584	16,576	25,421
1984	23,396	34,581	476	704	4,224	6,243	18,696	27,634
1985	27,196	39,011	489	701	5,347	7,670	21,360	30,640
1986 <sup>b</sup>	27,891	39,145	551	773	4,678	6,566	22,662	31,806
1987	30,752	42,013	740	1,011	4,660	6,366	25,352	34,636
1988 <sup>c</sup>	30,343	40,087	993	1,312	4,217	5,571	25,133	33,204
1989 <sup>c</sup>	28,554	36,348	1,384	1,762	4,698	5,980	22,472	28,606
1990 <sup>c</sup>	28,125	34,471	1,368	1,677	6,353	7,787	20,404	25,008
1991 <sup>c</sup>	26,372	31,230	1,712	2,027	6,021	7,130	18,639	22,073
1992 <sup>d</sup>	24,722	28,618	1,186	1,373	4,983	5,768	18,555	21,479
1993 <sup>d</sup>	22,809	25,808	958	1,084	4,730	5,352	17,118	19,369
1994 <sup>d</sup>	22,463	24,887	939	1,040	4,119	4,564	17,405	19,283
1995 <sup>d</sup>	23,451	25,461	720	782	3,699	4,016	19,031	20,662
1996 <sup>d</sup>	23,653	25,202	1,358	1,447	3,871	4,125	18,423 (S)	19,630
1997 <sup>d</sup>	23,928	25,078	1,654	1,734	2,861	2,999	19,412	20,345
1998 <sup>d,e</sup>	24,164	25,048	1,570	1,627	2,862	2,967	19,730	20,452
1999 <sup>d,e</sup>	22,535	23,026	1,755	1,793	3,383	3,457	17,397	17,776

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	dollars	dollars	dollars	dollars	dollars	dollars	dollars	dollars
2000 <sup>d, 5</sup>	19,118	19,118	1,472	1,472	2,951	2,951	14,695	14,695
2001 <sup>d, e, f</sup>	16,899	16,507	754	737	3,603	3,519	12,542	12,251
2002 <sup>d, e, f</sup>	16,401	15,779	888	854	2,452	2,359	13,061 (S)	12,565

(S) = indicates imputation of more than 50 percent.

<sup>a</sup> Character-of-work estimates were made by the National Science Foundation. See National Science Foundation, *National Patterns of R&D Resources: 1998* (NSF 99-335).

<sup>b</sup> The character-of-work estimation procedure was revised for 1986 and later years and resulting statistics are not directly comparable with earlier years.

<sup>c</sup> As a result of a new sample design, statistics for 1988–91 have been revised since originally published. These statistics now better reflect R&D performance among firms in the nonmanufacturing industries and small firms in all industries.

<sup>d</sup> As a result of annual sampling, implemented to produce statistics that better reflect R&D performance among firms in nonmanufacturing industries and small firms in all industries, statistics for 1992 and later years are not directly comparable with statistics for earlier years.

<sup>e</sup> Using data collected during recent cycles of the survey, NSF investigated a potential reporting anomaly for basic research and found that several large companies, known to develop and manufacture products, reported all R&D as basic research. This phenomenon prompted a renewed effort to strengthen character-of-work estimates produced from the survey. Consequently, improved edit checks were applied during statistical processing to produce the basic research, applied research, and development estimates beginning in 2001. Also, estimates for 1998, 1999, and 2000 were recalculated.

<sup>f</sup> Beginning with 2001, statistics for total and federally funded industrial R&D exclude data for federally funded research and development centers.

NOTES: Gross domestic product (GDP) implicit price deflators were used to convert current dollars to constant (2000) dollars. For information on sampling for 2002, see appendix A, Technical Notes.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Industrial Research and Development: 2002.