

TABLE 32. Trends in company and other nonfederal 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	2000 dollars	dollars	2000 dollars	dollars	2000 dollars
1953 ^a	2,200	12,060	132	724	438	2,401	1,630	8,936
1954 ^a	2,320	12,596	143	776	492	2,671	1,685	9,149
1955 ^a	2,460	13,125	162	864	560	2,988	1,738	9,273
1956	3,277	16,898	216	1,114	794	4,094	2,267	11,690
1957	3,396	16,949	230	1,148	992	4,951	2,174	10,850
1958	3,630	17,709	252	1,229	1,137	5,547	2,241	10,933
1959	3,983	19,195	248	1,195	1,178	5,677	2,557	12,323
1960	4,428	21,046	297	1,412	1,196	5,684	2,935	13,950
1961	4,668	21,939	314	1,476	1,165	5,475	3,189	14,988
1962	5,029	23,317	345	1,600	1,438	6,667	3,246	15,050
1963	5,360	24,589	375	1,720	1,450	6,652	3,535	16,217
1964	5,792	26,171	384	1,735	1,560	7,049	3,848	17,387
1965	6,445	28,599	406	1,802	1,620	7,189	4,419	19,609
1966	7,216	31,134	451	1,946	1,804	7,784	4,961	21,405
1967	8,020	33,566	427	1,787	1,849	7,739	5,744	24,041
1968	8,869	35,602	462	1,855	2,081	8,354	6,326	25,394
1969	9,857	37,696	458	1,752	2,272	8,689	7,127	27,256
1970	10,288	37,365	444	1,613	2,378	8,637	7,466	27,116
1971	10,654	36,852	456	1,577	2,441	8,443	7,757	26,832
1972	11,535	38,238	463	1,535	2,562	8,493	8,510	28,210
1973	13,104	41,143	499	1,567	2,832	8,892	9,773	30,685
1974	14,667	42,237	536	1,544	3,263	9,397	10,868	31,297
1975	15,582	41,004	573	1,508	3,440	9,052	11,569	30,444
1976	17,436	43,377	634	1,577	3,912	9,732	12,890	32,068
1977	19,340	45,238	701	1,640	4,311	10,084	14,328	33,515
1978 ^a	22,115	48,332	785	1,716	4,870	10,643	16,460	35,973
1979	25,708	51,886	893	1,802	5,670	11,444	19,145	38,640
1980 ^a	30,476	56,392	1,035	1,915	6,550	12,120	22,891	42,357
1981	35,428	59,926	1,313	2,221	8,359	14,139	25,756	43,566
1982 ^a	40,105	63,936	1,523	2,428	9,363	14,927	29,219	46,582
1983	44,588	68,379	1,760	2,699	10,286	15,774	32,542	49,906
1984	51,404	75,980	2,132	3,151	11,541	17,059	37,731	55,770
1985	57,043	81,825	2,373	3,404	12,908	18,516	41,762	59,906
1986 ^b	59,932	84,115	3,496	4,907	15,082	21,168	41,354	58,041
1987	61,403	83,889	3,583	4,895	15,153	20,702	42,667	58,291
1988 ^c	66,672	88,082	3,507	4,633	16,531	21,839	46,634	61,609
1989 ^c	73,501	93,564	3,832	4,878	17,993	22,905	51,676	65,782
1990 ^c	81,602	100,015	3,760	4,608	18,432	22,591	59,410	72,816
1991 ^c	90,580	107,267	6,125	7,253	21,425	25,372	63,030	74,642
1992 ^d	94,388	109,263	5,816	6,733	21,184	24,523	67,385	78,005
1993 ^d	94,591	107,027	5,961	6,745	19,956	22,580	68,678	77,707
1994 ^d	97,131	107,614	6,078	6,734	19,372	21,463	71,683	79,419
1995 ^d	108,652	117,965	5,379	5,840	23,755	25,791	79,516	86,331
1996 ^d	121,015	128,943	6,848	7,297	25,370	27,032	88,798	94,615
1997 ^d	133,611	140,033	8,766	9,187	29,782	31,214	95,064	99,634
1998 ^{d,e}	145,016	150,320	4,851	5,028	29,576	30,658	110,590	114,635
1999 ^{d,e}	160,176	163,666	5,362	5,479	33,309	34,035	121,505	124,152

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	dollars	dollars	dollars	dollars	dollars	dollars	dollars	dollars
2000 ^{d,e}	180,421	180,421	6,017	6,017	36,130	36,130	138,274	138,274
2001 ^{d,e}	181,606	177,397	7,157	6,991	39,883	38,959	134,566	131,447
2002 ^{d,e}	174,408	167,789	6,536	6,288	25,620	24,648	142,252	136,853

^a 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).

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

^c 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.

^d 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.

^e 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.

NOTES: The R&D in this table is the industrial R&D performed within company facilities funded from all sources except the federal government. The funds predominantly are the company's own, but also include funds from outside organizations such as other companies, research institutions, universities and colleges, nonprofit organizations, and state governments. Excluded from this table are company-funded R&D not performed within the company (e.g., R&D contracted out to other organizations) and company-funded R&D not performed within the 50 U.S. states or DC (e.g., R&D not performed on U.S. soil by foreign subsidiaries or other foreign organizations). Gross domestic product (GDP) implicit price deflators were used to convert current dollars to constant (2000) dollars. For information on sampling for 1999–2002, see appendix A, Technical Notes.

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