

TABLE 31. Trends in total (federal plus company and other) 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	3,630	19,899	151	828	726	3,980	2,753	15,092
1954 ^a	4,070	22,098	166	901	814	4,420	3,090	16,777
1955 ^a	4,640	24,756	189	1,008	928	4,951	3,523	18,796
1956	6,605	34,060	253	1,305	1,268	6,539	5,084	26,216
1957	7,731	38,583	271	1,352	1,670	8,335	5,790	28,896
1958	8,389	40,925	295	1,439	1,911	9,323	6,183	30,163
1959	9,618	46,351	320	1,542	1,991	9,595	7,307	35,214
1960	10,509	49,948	376	1,787	2,029	9,644	8,104	38,517
1961	10,908	51,266	395	1,856	1,977	9,292	8,536	40,118
1962	11,464	53,152	488	2,263	2,449	11,355	8,527	39,535
1963	12,630	57,941	522	2,395	2,457	11,272	9,651	44,274
1964	13,512	61,054	549	2,481	2,600	11,748	10,363	46,825
1965	14,185	62,945	592	2,627	2,658	11,795	10,935	48,523
1966	15,548	67,084	624	2,692	2,843	12,267	12,081	52,125
1967	16,385	68,577	629	2,633	2,915	12,200	12,841	53,744
1968	17,429	69,963	642	2,577	3,124	12,540	13,663	54,846
1969	18,308	70,015	618	2,363	3,287	12,570	14,403	55,081
1970	18,067	65,618	602	2,186	3,427	12,447	14,038	50,985
1971	18,320	63,369	590	2,041	3,415	11,813	14,315	49,516
1972	19,552	64,814	593	1,966	3,514	11,649	15,445	51,199
1973	21,249	66,716	631	1,981	3,825	12,010	16,793	52,726
1974	22,887	65,908	699	2,013	4,288	12,348	17,900	51,547
1975	24,187	63,648	730	1,921	4,570	12,026	18,887	49,701
1976	26,997	67,163	819	2,038	5,112	12,718	21,066	52,408
1977	29,825	69,764	911	2,131	5,636	13,183	23,278	54,450
1978 ^a	33,304	72,785	1,035	2,262	6,300	13,769	25,969	56,755
1979	38,226	77,151	1,158	2,337	7,225	14,582	29,843	60,231
1980 ^a	44,505	82,351	1,325	2,452	8,450	15,636	34,730	64,264
1981	51,810	87,636	1,614	2,730	10,699	18,097	39,497	66,809
1982 ^a	58,650	93,501	1,904	3,035	12,323	19,646	44,423	70,820
1983	65,268	100,093	2,223	3,409	13,927	21,358	49,118	75,326
1984	74,800	110,561	2,608	3,855	15,765	23,302	56,427	83,404
1985	84,239	120,837	2,862	4,105	18,255	26,186	63,122	90,546
1986 ^b	87,823	123,261	4,047	5,680	19,759	27,732	64,017	89,849
1987	92,155	125,902	4,324	5,907	19,813	27,068	68,018	92,926
1988 ^c	97,015	128,168	4,500	5,945	20,748	27,411	71,767	94,813
1989 ^c	102,055	129,913	5,216	6,640	22,691	28,885	74,148	94,388
1990 ^c	109,727	134,487	5,128	6,285	24,785	30,378	79,814	97,824
1991 ^c	116,952	138,497	7,837	9,281	27,446	32,502	81,669	96,714
1992 ^d	119,110	137,882	7,002	8,106	26,168	30,292	85,940	99,484
1993 ^d	117,400	132,835	6,919	7,829	24,686	27,931	85,796	97,076
1994 ^d	119,595	132,502	7,017	7,774	23,490	26,025	89,088	98,703
1995 ^d	132,103	143,426	6,099	6,622	27,454	29,807	98,552	106,999
1996 ^d	144,667	154,144	8,207	8,745	29,241	31,157	107,218	114,242
1997 ^d	157,539	165,112	10,419	10,920	32,642	34,211	114,478	119,981
1998 ^{d,e}	169,180	175,367	6,421	6,656	32,438	33,624	130,320	135,086
1999 ^{d,e}	182,711	186,692	7,117	7,272	36,692	37,491	138,902	141,928

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	dollars	dollars	dollars	dollars	dollars	dollars	dollars	dollars
2000 ^{d, e}	199,539	199,539	7,490	7,490	39,082	39,082	152,967	152,967
2001 ^{d, e, f}	198,505	193,904	7,911	7,728	43,486	42,478	147,108	143,699
2002 ^{d, e, f}	190,809	183,567	7,424	7,142	28,072	27,007	155,313	149,418

^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 were revised after they were originally published and are not directly comparable with earlier years. These statistics now better reflect R&D performance among firms in 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.

^f 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 1999–2002, see appendix A, Technical Notes.

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