

Appendix table 4-18

## U.S. inflation-adjusted development expenditures, by source of funds and performing sector: 1953–2002

(Millions of constant 1996 dollars)

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Year	Funding sector:	Total	Federal Government							Industry				U&C	Nonprofits			Non-Federal <sup>a</sup>	
	Performing sector:	Total	Total	Federal	Industry <sup>b</sup>	Industry FFRDCs <sup>b</sup>	U&C <sup>c</sup>	U&C FFRDCs <sup>d</sup>	Non-profits <sup>b</sup>	Nonprofit FFRDCs <sup>b</sup>	Total	Industry <sup>e</sup>	U&C <sup>c</sup>	Non-profits	U&C <sup>c</sup>	Total	Non-profits	U&C <sup>c</sup>	U&C <sup>c</sup>
1953		17,722	9,153	2,943	5,834	—	44	247	86	—	8,504	8,468	5	31	14	36	31	5	15
1954		19,208	10,424	2,762	7,227	—	44	301	90	—	8,709	8,668	5	36	16	41	36	5	18
1955		21,178	12,267	2,743	9,024	—	58	349	94	—	8,835	8,787	8	40	16	40	35	5	19
1956		28,628	17,413	3,083	13,775	—	66	394	95	—	11,134	11,086	10	39	18	42	34	7	22
1957		31,619	21,188	3,443	17,113	—	57	478	97	—	10,338	10,289	12	38	20	47	38	9	25
1958		33,334	22,830	3,889	18,216	—	58	555	113	—	10,407	10,356	14	37	20	51	42	9	26
1959		38,679	26,835	4,296	21,709	—	71	612	146	—	11,741	11,686	14	41	21	55	46	9	27
1960		42,181	28,795	4,518	23,294	—	86	678	219	—	13,283	13,227	11	45	21	54	45	9	28
1961		44,249	29,860	4,855	23,828	—	96	755	325	—	14,265	14,211	9	45	23	71	62	9	31
1962		44,483	30,004	5,396	23,223	—	99	836	451	—	14,332	14,274	9	48	25	88	79	9	34
1963		50,172	34,589	6,370	26,591	—	96	950	583	—	15,426	15,370	9	48	26	96	87	9	34
1964		53,451	36,759	7,198	26,375	1,407	126	970	681	—	16,542	16,487	9	47	28	88	77	11	34
1965		55,515	36,703	7,521	26,148	1,196	202	868	767	—	18,642	18,583	8	50	33	101	84	17	36
1966		59,301	38,761	7,711	28,001	1,171	249	818	812	—	20,348	20,282	8	57	39	114	94	20	38
1967		60,797	37,749	7,707	26,954	1,180	260	825	823	—	22,854	22,785	10	60	40	121	95	26	34
1968		61,494	37,167	7,240	26,783	1,188	272	859	825	—	24,129	24,053	15	61	35	133	99	34	29
1969		61,815	35,708	7,306	25,169	1,218	288	892	835	—	25,915	25,832	18	65	29	138	101	36	26
1970		58,329	32,374	7,770	21,445	1,258	287	857	757	—	25,771	25,692	17	62	24	138	103	34	22
1971		57,025	31,344	8,101	20,206	1,299	226	875	636	—	25,491	25,416	13	62	28	136	108	28	26
1972		58,899	31,864	8,294	20,531	1,259	196	915	669	—	26,815	26,744	11	60	43	138	110	28	39
1973		60,228	30,806	7,908	19,705	1,307	210	879	796	—	29,161	29,086	15	60	59	150	113	37	52
1974		58,799	28,767	7,552	17,895	1,384	203	877	856	—	29,755	29,678	18	59	67	156	115	41	55
1975		56,870	27,610	7,219	16,945	1,485	206	931	824	—	28,979	28,901	20	58	69	157	117	40	55
1976		59,328	28,477	7,025	17,783	1,571	235	1,057	806	—	30,560	30,473	27	60	74	161	123	38	57
1977		61,499	29,260	7,081	18,381	1,543	340	1,118	797	—	31,919	31,826	32	61	89	170	128	41	62
1978		64,421	29,852	7,622	18,155	1,591	526	1,123	835	—	34,220	34,128	30	61	102	182	133	49	66
1979		67,873	30,779	7,548	18,924	1,585	644	1,155	923	—	36,732	36,641	30	61	107	189	137	53	65
1980		71,344	30,740	7,140	19,209	1,576	634	1,260	920	—	40,226	40,131	34	61	119	193	139	54	67
1981		73,844	32,056	7,264	20,508	1,539	619	1,247	880	—	41,393	41,295	38	60	128	197	141	56	70
1982		78,031	33,418	7,816	21,457	1,517	600	1,124	904	—	44,205	44,104	40	61	133	206	147	59	69
1983		83,537	35,755	8,864	22,535	1,531	580	1,207	1,038	—	47,353	47,244	45	63	141	219	158	62	69
1984		92,767	39,378	9,908	24,692	1,494	609	1,380	1,295	—	52,933	52,815	52	66	151	234	169	65	72
1985		101,002	43,712	10,871	27,491	1,510	660	1,688	1,493	—	56,801	56,673	59	69	163	248	182	67	78
1986		100,617	45,031	10,988	28,571	1,549	682	1,997	1,245	—	55,052	54,912	67	73	181	267	197	70	87
1987		102,926	47,193	10,538	31,093	1,645	772	2,152	994	—	55,148	54,997	74	77	200	291	213	78	94
1988		105,434	46,487	11,051	29,571	1,766	870	2,197	508	524	58,303	58,140	83	80	224	317	228	89	103
1989		105,352	42,420	11,235	25,278	1,713	928	2,140	609	517	62,234	62,058	91	84	246	342	244	98	110
1990		108,719	39,122	11,213	21,923	1,646	1,051	2,006	716	567	68,857	68,674	96	87	262	364	261	103	115
1991		106,069	34,817	9,790	19,246	1,539	1,128	1,714	805	594	70,486	70,299	96	91	267	385	280	105	115
1992		108,587	34,223	9,906	18,708	1,403	1,148	1,581	825	653	73,570	73,375	99	96	268	412	303	109	114

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(Millions of constant 1996 dollars)

Year	Funding sector:	Total	Federal Government							Industry				U&C	Nonprofits			Non-Federal <sup>a</sup>	
	Performing sector:	Total	Total	Federal	Industry <sup>b</sup>	Industry FFRDCs <sup>b</sup>	U&C <sup>c</sup>	U&C FFRDCs <sup>d</sup>	Non-profits <sup>b</sup>	Nonprofit FFRDCs <sup>b</sup>	Total	Industry <sup>e</sup>	U&C <sup>c</sup>	Non-profits	U&C <sup>c</sup>	Total	Non-profits	U&C <sup>c</sup>	U&C <sup>c</sup>
1993 .....		106,054	31,997	9,645	17,100	1,146	1,197	1,461	836	611	73,223	73,019	103	101	276	443	329	114	116
1994 .....		107,217	31,464	9,190	16,883	1,249	1,262	1,436	849	596	74,873	74,660	106	107	287	474	358	116	118
1995 .....		115,305	33,101	9,441	18,169	1,270	1,201	1,647	758	615	81,282	81,058	110	113	293	504	389	115	125
1996 .....		121,359	31,355	9,033	17,066	1,342	1,127	1,520	698	571	89,032	88,797	115	120	305	538	423	115	128
1997 .....		126,210	31,650	8,903	17,774	1,264	1,035	1,426	673	573	93,508	93,245	111	152	298	636	526	110	119
1998 .....		140,203	31,689	8,928	17,880	1,218	955	1,480	736	491	107,433	107,160	110	163	293	677	568	109	112
1999 .....		146,148	28,583	8,575	15,498	1,128	679	1,563	693	446	116,398	116,106	114	178	308	744	629	115	115
2000 .....		155,158	24,217	7,529	12,679	1,069	422	1,440	480	599	129,675	129,362	116	197	329	817	694	123	119
2001 preliminary .....		149,187	24,533	8,744	11,463	1,061	456	1,436	531	843	123,298	122,986	118	194	357	874	743	131	124
2002 preliminary .....		146,285	25,728	10,024	11,463	1,193	431	1,313	549	755	119,105	118,796	121	187	386	938	799	139	128

FFRDC federally funded research and development center

U&amp;C universities and colleges

<sup>a</sup>Because of limitations in survey information, data on non-Federal Government funding to other performers are not available and are consequently included in other sectors' support for their own R&D performance. For example, non-Federal Government support to nonprofits is included in nonprofits' support for their own R&D.

<sup>b</sup>Expenditures of industry FFRDCs for 1953–63 were not separated from total Federal support to the industrial sector. Thus, the figure for Federal support to industry includes support to FFRDCs for those years. The same is true for expenditures of nonprofit FFRDCs, which are included in Federal support for nonprofit institutions in 1953–87.

<sup>c</sup>Adjustments have been made to university R&D for 1998 and later years to eliminate double counting of funds passed through from one academic institution to another. The character-of-work estimation procedure for university and college R&D also was revised for 1998 and later years; hence, these data are not directly comparable with data for 1997 and earlier years.

<sup>d</sup>Includes all R&D expenditures of FFRDCs administered by academic institutions.

<sup>e</sup>Industry sources of industry R&D expenditures include all non-Federal sources of industry R&D expenditures.

NOTES: Expenditure levels for academic and Federal Government performers are also in reference to calendar years. These levels are approximations based on FY data. For Federal Government expenditures starting in 1977, the calendar-year approximation is 75 percent of the amount reported in the same FY plus 25 percent of the amount reported in the subsequent FY. Academic expenditures in all years and Federal Government expenditures prior to 1977 are 50 and 50 percent, respectively, because those FYs (for most academic institutions and the Federal Government before 1977) began on July 1 instead of October 1. Because of changes in estimation procedures, character-of-work data before 1998 for industry and for U&C are not comparable with data for later years. Technical notes explaining methodological issues of measurement will be provided in NSF, *The Methodology Underlying the Measurement of R&D Expenditures: 2002* (Arlington, VA, forthcoming). Data are based on annual reports by performers except for the nonprofit sector. Data are preliminary for 2001 and 2002. For trend comparisons, use only the historical data reported here. Do not use data published earlier.

SOURCES: Data were derived from National Science Foundation, Division of Science Resources Statistics, *National Patterns of R&D Resources*, annual series.