

Appendix table 4-10

## U.S. inflation-adjusted basic research 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		2,387	1,377	527	99	—	423	187	140	—	800	686	68	47	31	145	62	83	34
1954		2,616	1,494	494	118	—	496	226	159	—	869	736	77	57	43	159	67	93	49
1955		2,927	1,653	493	137	—	589	253	182	—	971	819	86	66	59	174	71	104	70
1956		3,511	1,919	555	181	—	697	284	203	—	1,225	1,056	95	73	76	198	83	115	93
1957		3,850	2,137	587	194	—	788	338	230	—	1,266	1,088	106	71	93	237	109	128	117
1958		4,360	2,484	689	199	—	933	393	270	—	1,349	1,165	111	74	111	273	129	143	144
1959		4,968	3,042	752	329	—	1,200	432	329	—	1,325	1,133	110	82	130	299	137	162	172
1960		5,795	3,578	827	356	—	1,534	478	383	—	1,543	1,338	110	95	151	320	135	185	203
1961		6,736	4,334	1,023	361	—	1,923	559	468	—	1,609	1,399	111	98	177	377	165	212	239
1962		8,021	5,356	1,108	629	—	2,399	649	572	—	1,733	1,517	110	106	210	442	202	240	280
1963		9,196	6,285	1,237	639	—	2,996	761	652	—	1,846	1,630	107	109	250	489	217	272	326
1964		10,238	7,226	1,452	527	152	3,528	855	711	—	1,859	1,645	107	107	298	493	201	291	361
1965		11,207	7,994	1,575	660	126	3,968	915	751	—	1,941	1,707	111	122	362	513	219	294	397
1966		11,985	8,489	1,676	581	133	4,358	975	767	—	2,093	1,844	119	131	435	544	237	307	423
1967		12,566	9,044	1,720	666	137	4,710	1,043	768	—	1,962	1,694	133	135	538	571	242	329	452
1968		12,840	9,124	1,833	551	137	4,810	1,048	745	—	2,040	1,757	143	141	594	586	240	346	497
1969		12,650	8,903	1,976	446	132	4,667	986	696	—	1,959	1,660	143	156	620	614	243	372	554
1970		12,362	8,603	1,934	420	119	4,551	910	669	—	1,827	1,528	148	151	673	642	248	394	617
1971		12,199	8,393	1,904	331	118	4,536	826	678	—	1,804	1,494	162	147	701	667	252	414	635
1972		12,095	8,341	1,894	286	118	4,516	849	679	—	1,776	1,455	173	148	679	685	264	421	614
1973		12,220	8,493	1,940	286	126	4,430	1,021	689	—	1,805	1,485	174	146	664	674	268	406	584
1974		12,323	8,597	1,952	311	139	4,394	1,132	669	—	1,791	1,464	180	147	683	695	278	416	557
1975		12,197	8,552	1,898	260	152	4,417	1,188	637	—	1,758	1,431	179	148	658	698	289	410	531
1976		12,709	8,973	2,010	274	170	4,548	1,314	656	—	1,830	1,499	177	154	670	722	309	413	515
1977		13,356	9,417	2,094	300	177	4,696	1,481	669	—	1,914	1,557	198	159	742	768	329	439	515
1978		14,434	10,269	2,165	323	200	4,974	1,878	728	—	2,012	1,628	221	164	826	788	348	441	539
1979		15,006	10,646	2,129	308	207	5,204	2,009	789	—	2,119	1,709	244	166	892	801	363	438	547
1980		15,418	10,860	2,125	298	218	5,366	2,045	809	—	2,255	1,815	273	167	954	811	376	435	538
1981		15,757	10,841	2,153	263	216	5,341	2,059	810	—	2,566	2,105	293	168	987	821	389	432	542
1982		16,334	11,007	2,297	382	189	5,245	2,062	832	—	2,798	2,299	325	174	1,081	893	415	478	556
1983		17,514	11,668	2,515	502	177	5,355	2,229	889	—	3,116	2,555	377	184	1,185	970	451	519	575
1984		18,873	12,322	2,627	476	189	5,720	2,392	919	—	3,617	2,984	438	195	1,281	1,044	492	553	610
1985		20,157	12,909	2,643	486	173	6,250	2,433	924	—	3,955	3,220	528	207	1,459	1,135	539	597	698
1986		22,910	13,703	2,690	576	164	6,801	2,543	929	—	5,484	4,642	618	223	1,676	1,243	596	647	804
1987		23,907	14,380	2,639	771	246	7,124	2,689	912	—	5,519	4,618	663	238	1,804	1,356	653	703	849
1988		24,687	15,101	2,638	818	439	7,401	2,832	943	30	5,329	4,372	704	253	1,907	1,471	714	757	879
1989		26,317	16,113	2,773	1,184	508	7,712	2,847	1,033	56	5,635	4,602	765	267	2,058	1,593	777	816	919
1990		26,607	16,236	2,680	1,005	566	7,962	2,855	1,095	75	5,444	4,346	815	283	2,230	1,718	844	874	979
1991		30,273	17,049	2,652	1,395	518	8,278	2,963	1,155	86	7,983	6,831	852	300	2,372	1,852	920	932	1,017
1992		30,061	17,111	2,634	775	521	8,774	3,121	1,213	73	7,541	6,333	887	321	2,398	1,987	1,014	973	1,025

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(Millions of constant 1996 dollars)

Year	Funding sector:	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 .....		30,560	17,438	2,787	495	526	9,183	3,140	1,230	77	7,587	6,338	905	344	2,411	2,112	1,117	995	1,012
1994 .....		30,883	17,470	2,653	454	531	9,515	3,056	1,184	78	7,627	6,331	926	370	2,505	2,249	1,235	1,014	1,032
1995 .....		30,221	17,359	2,741	194	586	9,815	2,754	1,193	77	6,844	5,483	963	398	2,558	2,370	1,364	1,006	1,089
1996 .....		32,770	18,037	2,680	650	687	10,087	2,606	1,248	79	8,308	6,848	1,032	428	2,738	2,538	1,510	1,028	1,148
1997 .....		36,198	19,023	2,693	1,009	599	10,704	2,620	1,291	106	10,193	8,598	1,155	440	3,088	2,667	1,527	1,140	1,226
1998 .....		34,158	20,133	2,910	971	546	11,507	2,578	1,415	206	6,448	4,701	1,274	474	3,383	2,905	1,649	1,256	1,289
1999 .....		36,990	21,759	3,198	1,155	522	12,206	2,642	1,657	379	6,995	5,124	1,354	517	3,670	3,200	1,825	1,376	1,366
2000 .....		39,637	23,120	3,522	882	495	12,992	2,688	1,964	576	7,599	5,629	1,397	573	3,976	3,505	2,014	1,491	1,437
2001 preliminary .....		42,702	24,742	3,945	689	491	13,825	2,662	2,303	827	8,514	6,541	1,410	563	4,249	3,718	2,156	1,562	1,480
2002 preliminary .....		44,810	26,414	4,174	689	552	14,902	2,678	2,580	839	8,305	6,318	1,443	544	4,595	3,973	2,319	1,655	1,523

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.

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