

TABLE 7. U.S. basic research expenditures, by source of funds and performing sector: 1953–2012

Year	Funding source:	All sources	Federal							Industry				U&C	Other nonprofit			Other government ^a	
	Performer:	All performers	Total	Federal	Industry ^b	FFRDCs ^c	U&C ^d	U&C	Other nonprofit ^e	Nonprofit FFRDCs ^e	Total	Industry ^f	U&C ^d	Other nonprofit ^g	U&C ^d	Total	Other nonprofit ^g	U&C ^d	U&C ^d
	Current \$millions																		
1953		460	265	102	19	NA	82	36	27	NA	154	132	13	9	6	28	12	16	7
1954		509	291	96	23	NA	97	44	31	NA	169	143	15	11	8	31	13	18	10
1955		579	327	98	27	NA	117	50	36	NA	192	162	17	13	12	35	14	21	14
1956		718	393	114	37	NA	143	58	42	NA	251	216	20	15	15	41	17	24	19
1957		814	452	124	41	NA	167	72	49	NA	268	230	23	15	20	50	23	27	25
1958		944	538	149	43	NA	202	85	59	NA	292	252	24	16	24	59	28	31	31
1959		1,087	666	165	72	NA	263	95	72	NA	290	248	24	18	28	66	30	36	38
1960		1,286	794	184	79	NA	341	106	85	NA	343	297	25	21	33	71	30	41	45
1961		1,512	973	230	81	NA	432	126	105	NA	361	314	25	22	40	85	37	48	54
1962		1,824	1,218	252	143	NA	546	148	130	NA	394	345	25	24	48	101	46	55	64
1963		2,115	1,446	285	147	NA	689	175	150	NA	425	375	25	25	58	113	50	63	75
1964		2,396	1,693	339	123	42	824	200	166	NA	434	384	25	25	70	115	47	68	84
1965		2,664	1,900	375	157	29	944	218	179	NA	462	406	27	29	86	122	52	70	94
1966		2,930	2,075	410	142	31	1,066	239	188	NA	512	451	29	32	106	133	58	75	104
1967		3,168	2,280	434	168	34	1,188	263	194	NA	495	427	34	34	136	144	61	83	114
1968		3,376	2,399	482	145	35	1,265	276	196	NA	537	462	38	37	156	154	63	91	131
1969		3,491	2,457	545	123	37	1,288	272	192	NA	541	458	40	43	171	170	67	103	153
1970		3,594	2,501	562	122	36	1,323	265	195	NA	531	444	43	44	196	187	72	115	179
1971		3,720	2,559	581	101	33	1,385	252	207	NA	551	456	50	45	214	204	77	127	194
1972		3,850	2,656	603	91	39	1,437	270	216	NA	565	463	55	47	216	218	84	134	195
1973		4,099	2,847	652	96	36	1,489	343	232	NA	607	499	59	49	223	227	90	137	196
1974		4,511	3,146	715	114	49	1,609	415	245	NA	656	536	66	54	250	254	102	153	204
1975		4,875	3,415	760	104	53	1,768	476	255	NA	704	573	72	59	264	280	116	164	212
1976		5,373	3,793	850	116	69	1,924	556	278	NA	774	634	75	65	283	305	131	175	218
1977		6,008	4,235	943	135	75	2,114	667	301	NA	862	701	89	72	334	346	148	198	232
1978		6,959	4,950	1,044	156	94	2,399	906	351	NA	970	785	107	79	398	380	168	213	260
1979		7,836	5,558	1,112	161	104	2,719	1,050	413	NA	1,107	893	128	87	466	419	190	229	286
1980		8,745	6,145	1,212	170	120	3,061	1,167	416	NA	1,286	1,035	156	95	544	463	215	248	307
1981		9,658	6,591	1,343	164	137	3,331	1,284	324	9	1,600	1,313	183	105	615	512	243	269	338
1982		10,651	7,121	1,522	253	128	3,475	1,366	369	9	1,854	1,523	215	115	716	591	275	317	368
1983		11,880	7,853	1,733	346	117	3,689	1,536	426	8	2,146	1,760	260	127	816	668	311	358	396
1984		13,332	8,651	1,877	340	136	4,087	1,709	494	9	2,584	2,132	313	139	915	746	351	395	436
1985		14,748	9,407	1,947	358	131	4,606	1,793	560	13	2,915	2,373	389	153	1,075	837	397	440	514
1986		17,154	10,220	2,026	434	117	5,122	1,915	594	13	4,130	3,496	466	168	1,262	936	449	488	606

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	Performer:	All performers	Total	Federal	Industry ^b	Industry	U&C	Other	Nonprofit	Total	Industry ^f	U&C ^d	Other	U&C ^d	Total	Other	U&C ^d	U&C ^d	
						FFRDCs ^c	FFRDCs	nonprofit ^e	FFRDCs ^e		nonprofit ^g	nonprofit ^g							
1987		18,481	11,090	2,047	598	142	5,527	2,086	675	14	4,282	3,583	514	185	1,399	1,052	507	545	659
1988		19,787	12,097	2,116	656	337	5,937	2,272	756	24	4,275	3,507	565	203	1,530	1,180	573	607	705
1989		21,891	13,392	2,309	986	398	6,422	2,371	860	46	4,692	3,832	637	223	1,714	1,327	647	680	766
1990		23,029	14,057	2,319	869	499	6,889	2,470	947	65	4,710	3,760	705	245	1,929	1,486	730	756	847
1991		27,140	15,283	2,378	1,251	461	7,423	2,657	1,036	77	7,157	6,125	764	269	2,127	1,660	825	836	912
1992		27,604	15,710	2,419	712	474	8,058	2,867	1,114	67	6,925	5,816	814	295	2,203	1,824	931	893	941
1993		28,743	16,399	2,621	466	492	8,638	2,953	1,157	72	7,136	5,961	851	324	2,268	1,987	1,051	936	952
1994		29,651	16,770	2,547	436	503	9,139	2,934	1,137	75	7,323	6,078	890	356	2,406	2,160	1,186	974	992
1995		29,610	16,990	2,689	190	530	9,634	2,702	1,170	75	6,715	5,379	945	390	2,511	2,326	1,338	987	1,070
1996		32,799	18,063	2,680	650	708	10,092	2,606	1,248	79	8,309	6,848	1,032	428	2,740	2,539	1,510	1,028	1,149
1997		36,921	19,420	2,746	1,029	625	10,924	2,671	1,317	108	10,390	8,766	1,175	449	3,144	2,718	1,557	1,162	1,248
1998		35,372	20,847	3,003	1,002	568	11,941	2,660	1,461	213	6,643	4,851	1,315	477	3,483	3,069	1,773	1,296	1,330
1999		38,935	22,799	3,347	1,108	557	12,892	2,765	1,734	397	7,474	5,537	1,421	517	3,835	3,394	1,952	1,442	1,432
2000		42,752	24,786	3,765	925	547	13,960	2,874	2,099	616	8,181	6,115	1,499	566	4,298	3,938	2,334	1,603	1,549
2001		47,727	27,591	4,260	754	552	15,541	3,104	2,464	915	9,390	7,299	1,519	571	4,738	4,347	2,582	1,765	1,663
2002		51,902	31,130	4,511	888	534	17,930	3,714	2,575	979	8,725	6,659	1,512	554	5,287	4,947	2,984	1,963	1,812
2003		56,089	33,967	4,664	1,386	299	20,127	3,747	2,714	1,029	9,003	6,944	1,493	567	5,667	5,485	3,429	2,055	1,967
2004		57,731	35,235	4,697	1,072	175	21,702	3,730	2,788	1,070	8,887	6,763	1,545	578	5,930	5,596	3,443	2,154	2,083
2005		61,321	36,705	4,770	1,108	136	22,788	3,820	2,903	1,181	9,841	7,559	1,667	614	6,525	6,095	3,776	2,319	2,155
2006		62,996	37,558	4,716	1,444	652	23,312	3,344	2,849	1,242	9,437	6,940	1,840	656	7,233	6,483	3,948	2,535	2,285
2007		68,047	39,220	4,621	2,780	2,258	23,673	1,724	2,829	1,335	11,223	8,488	2,037	698	7,874	7,230	4,384	2,845	2,499
2008		72,105	39,156	4,957	1,475	2,423	24,149	1,672	3,073	1,407	13,833	10,893	2,218	722	8,412	8,025	4,901	3,124	2,679
2009		75,854	40,433	5,441	1,340	2,629	24,090	1,902	3,498	1,533	16,303	13,444	2,161	698	8,065	8,477	5,357	3,120	2,576
2010		77,386	41,080	5,111	1,406	2,848	24,526	2,203	3,414	1,573	17,657	14,965	1,990	702	7,656	8,595	5,576	3,019	2,397
2011		74,161	39,901	4,911	677	2,673	24,786	2,213	3,066	1,575	15,080	12,343	1,997	740	8,117	8,734	5,683	3,051	2,329
2012 (preliminary)		74,849	39,372	5,086	785	2,446	24,295	2,160	3,067	1,533	15,962	13,170	2,016	776	8,398	8,841	5,780	3,061	2,275
2005 constant \$millions																			
1953		2,841	1,638	628	117	NA	504	223	167	NA	952	816	80	56	37	173	74	99	40
1954		3,115	1,780	588	141	NA	591	270	190	NA	1,035	876	92	67	52	190	80	110	58
1955		3,488	1,970	587	163	NA	702	301	217	NA	1,157	976	102	78	70	208	84	123	84
1956		4,182	2,286	661	216	NA	830	338	242	NA	1,459	1,258	114	87	90	236	99	137	111
1957		4,585	2,545	699	231	NA	938	403	273	NA	1,508	1,296	127	85	111	282	130	152	140
1958		5,201	2,963	821	237	NA	1,114	469	322	NA	1,610	1,389	132	88	132	325	154	171	171
1959		5,922	3,626	896	392	NA	1,430	515	392	NA	1,580	1,351	131	98	155	357	163	193	205
1960		6,910	4,266	986	424	NA	1,830	570	457	NA	1,840	1,596	132	113	180	382	161	220	242
1961		8,030	5,167	1,219	430	NA	2,292	667	558	NA	1,918	1,668	133	117	211	449	197	252	285
1962		9,560	6,384	1,321	749	NA	2,859	773	681	NA	2,065	1,808	131	126	250	527	241	286	334

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	source:	sources	Federal		Industry		U&C		Other	Nonprofit		Industry		Other	U&C	Other		government ^a	
	Performer:	performers	Total	Industry ^b	FFRDCs ^c	U&C ^d	FFRDCs	nonprofit ^e	FFRDCs ^e	Total	Industry ^f	U&C ^d	Other nonprofit ^g	U&C ^d	Total	nonprofit ^g	U&C ^d	U&C ^d	
1963		10,969	7,497	1,475	762	NA	3,573	908	778	NA	2,202	1,945	127	130	299	583	259	324	389
1964		12,238	8,647	1,731	628	215	4,206	1,019	848	NA	2,217	1,961	128	128	356	587	240	347	431
1965		13,363	9,530	1,878	788	145	4,733	1,091	895	NA	2,315	2,036	133	145	432	612	261	351	474
1966		14,291	10,121	2,000	693	151	5,200	1,163	915	NA	2,497	2,200	141	156	519	649	283	366	505
1967		14,990	10,787	2,051	795	161	5,620	1,245	916	NA	2,340	2,021	159	161	642	681	289	393	539
1968		15,325	10,888	2,188	658	159	5,742	1,251	890	NA	2,435	2,097	170	168	709	699	286	413	594
1969		15,100	10,627	2,358	532	160	5,569	1,177	831	NA	2,338	1,981	171	186	740	733	290	443	661
1970		14,767	10,278	2,309	501	148	5,434	1,087	799	NA	2,182	1,824	177	181	804	766	296	470	737
1971		14,558	10,013	2,274	395	129	5,418	986	810	NA	2,154	1,784	194	176	837	796	301	495	758
1972		14,443	9,962	2,260	341	146	5,391	1,013	810	NA	2,120	1,737	206	176	811	818	315	503	733
1973		14,570	10,118	2,317	341	128	5,290	1,219	823	NA	2,156	1,773	208	174	793	805	320	485	698
1974		14,696	10,251	2,329	371	160	5,242	1,351	798	NA	2,137	1,746	215	176	815	829	332	497	664
1975		14,512	10,167	2,262	310	158	5,263	1,416	759	NA	2,095	1,706	213	177	785	832	344	488	632
1976		15,127	10,677	2,393	327	194	5,417	1,565	781	NA	2,180	1,785	211	184	798	860	368	491	613
1977		15,902	11,209	2,496	357	199	5,595	1,765	797	NA	2,281	1,855	236	190	885	915	392	523	613
1978		17,210	12,242	2,582	386	232	5,933	2,240	869	NA	2,400	1,941	263	195	985	940	415	526	642
1979		17,892	12,691	2,540	368	237	6,208	2,396	942	NA	2,528	2,039	291	198	1,064	956	433	523	653
1980		18,298	12,858	2,537	356	251	6,404	2,441	870	NA	2,691	2,166	326	199	1,138	968	449	519	642
1981		18,477	12,611	2,569	314	262	6,373	2,457	619	17	3,062	2,512	350	201	1,177	980	465	515	647
1982		19,204	12,840	2,744	456	231	6,265	2,464	666	16	3,342	2,746	389	208	1,292	1,066	495	571	664
1983		20,606	13,622	3,005	600	203	6,398	2,663	738	14	3,723	3,053	451	220	1,416	1,159	539	620	687
1984		22,287	14,463	3,137	568	227	6,832	2,857	826	15	4,320	3,564	523	233	1,529	1,247	587	660	728
1985		23,931	15,264	3,160	581	213	7,473	2,909	908	20	4,730	3,850	631	248	1,745	1,358	644	714	835
1986		27,232	16,225	3,216	689	186	8,130	3,040	942	21	6,556	5,550	739	267	2,003	1,486	712	774	962
1987		28,511	17,108	3,158	923	219	8,526	3,218	1,042	22	6,605	5,528	793	285	2,159	1,623	782	841	1,016
1988		29,512	18,043	3,156	978	503	8,854	3,388	1,128	36	6,376	5,231	842	302	2,282	1,760	854	906	1,052
1989		31,463	19,248	3,318	1,417	572	9,230	3,408	1,236	67	6,744	5,508	916	320	2,464	1,907	930	977	1,101
1990		31,869	19,453	3,209	1,203	691	9,533	3,418	1,310	89	6,518	5,203	976	338	2,670	2,057	1,011	1,046	1,172
1991		36,272	20,425	3,178	1,672	616	9,921	3,551	1,384	103	9,566	8,186	1,021	359	2,843	2,219	1,102	1,117	1,219
1992		36,037	20,510	3,158	930	619	10,520	3,743	1,455	87	9,041	7,593	1,063	385	2,876	2,382	1,215	1,166	1,229
1993		36,713	20,946	3,348	595	628	11,033	3,772	1,478	92	9,115	7,614	1,087	414	2,897	2,538	1,342	1,196	1,217
1994		37,092	20,978	3,186	545	629	11,432	3,670	1,422	93	9,161	7,603	1,113	445	3,010	2,703	1,484	1,219	1,240
1995		36,285	20,819	3,296	233	649	11,805	3,310	1,434	92	8,228	6,591	1,158	478	3,077	2,850	1,640	1,210	1,311
1996		39,441	21,721	3,222	782	851	12,136	3,133	1,501	95	9,991	8,235	1,241	515	3,295	3,053	1,816	1,237	1,382
1997		43,627	22,947	3,245	1,216	739	12,909	3,156	1,556	127	12,278	10,358	1,389	531	3,715	3,212	1,839	1,373	1,475

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	Performer:	All performers	Total	Federal	Industry ^b	FFRDCs ^c		U&C ^d	Other nonprofit ^e	Nonprofit FFRDCs ^e	Total	Industry ^f		Other nonprofit ^g	U&C ^d	Total	Other nonprofit ^g		U&C ^d
						Industry	U&C					Industry ^f	U&C ^d	Other nonprofit ^g			U&C ^d	U&C ^d	
1998		41,330	24,359	3,508	1,171	664	13,952	3,108	1,707	249	7,762	5,668	1,537	557	4,069	3,586	2,071	1,515	1,554
1999		44,834	26,254	3,854	1,275	642	14,846	3,184	1,997	457	8,607	6,376	1,636	595	4,416	3,908	2,248	1,660	1,649
2000		48,186	27,936	4,243	1,043	616	15,734	3,239	2,366	694	9,220	6,892	1,690	638	4,845	4,438	2,631	1,807	1,746
2001		52,605	30,411	4,696	831	609	17,129	3,421	2,716	1,009	10,349	8,045	1,675	630	5,222	4,791	2,846	1,945	1,832
2002		56,295	33,765	4,892	963	580	19,448	4,028	2,793	1,062	9,464	7,223	1,640	601	5,735	5,366	3,237	2,130	1,965
2003		59,584	36,083	4,955	1,472	318	21,381	3,980	2,884	1,093	9,564	7,377	1,586	602	6,020	5,826	3,643	2,184	2,090
2004		59,648	36,405	4,853	1,108	181	22,423	3,854	2,881	1,106	9,182	6,988	1,597	597	6,127	5,782	3,557	2,225	2,152
2005		61,321	36,705	4,770	1,108	136	22,788	3,820	2,903	1,181	9,841	7,559	1,667	614	6,525	6,095	3,776	2,319	2,155
2006		61,024	36,383	4,568	1,399	632	22,582	3,239	2,760	1,203	9,141	6,723	1,783	636	7,007	6,280	3,825	2,455	2,213
2007		64,058	36,921	4,350	2,617	2,126	22,285	1,623	2,663	1,257	10,565	7,990	1,918	657	7,413	6,806	4,127	2,679	2,353
2008		66,406	36,061	4,565	1,358	2,231	22,241	1,540	2,830	1,296	12,739	10,032	2,042	665	7,747	7,391	4,514	2,877	2,467
2009		69,254	36,915	4,967	1,223	2,400	21,994	1,736	3,194	1,400	14,885	12,274	1,973	638	7,363	7,739	4,891	2,849	2,352
2010		69,722	37,012	4,604	1,267	2,566	22,097	1,985	3,076	1,417	15,909	13,483	1,793	633	6,898	7,744	5,024	2,720	2,160
2011		65,422	35,199	4,332	597	2,358	21,865	1,952	2,705	1,389	13,303	10,888	1,762	653	7,161	7,704	5,013	2,692	2,054
2012 (preliminary)		64,868	34,122	4,408	680	2,120	21,055	1,872	2,658	1,328	13,834	11,414	1,747	673	7,278	7,662	5,009	2,653	1,972

NA = not available; included in data for federal support to industry and federal support to other nonprofit institutions.

FFRDC = federally funded R&D center; U&C = universities and colleges.

^a Due to survey limitations, data on R&D funded by other (nonfederal) government are separately available only for U&C; nonetheless, other government funded R&D is included in the own performance of these other sectors (e.g., other government funding to other nonprofits is included in other nonprofit funding for their own R&D).

^b Character-of-work estimates for industry were revised in 1998 and for later years; hence, the data for 1997 and earlier years are not directly comparable.

^c Character-of-work estimates for industry-administered FFRDCs in 1953–63 are not separate from the federal funding to industry; the data on federal funding to industry in those years include the funding to these FFRDCs.

^d The data for U&C R&D before 2003 covers only science and engineering (S&E) fields; in 2003 and later years, the R&D in non-S&E fields is also included. Adjustments have been made to U&C R&D for 1998 and later years to eliminate the double counting of funds passed through from one academic institution to another. The character-of-work estimation procedure for academic R&D was revised in 1998 and again in 2010; hence, these data are not directly comparable with data reported for earlier years.

^e Character-of-work estimates for nonprofit-administered FFRDCs in 1953–80 are not separate from federal funding for other nonprofit institutions; thus, the data for federal funding to other nonprofit institutions includes the funding to these FFRDCs in those years.

^f Industry sources of funding for industry R&D include all nonfederal sources of funding.

^g The 1998–2012 data for other nonprofit R&D are not based on a dedicated nonprofit survey and may later be revised.

NOTES: The R&D data for 2012 are preliminary and may later be revised. Some back-year data may have been revised, accordingly, for trend comparisons, use only the historical data reported here; do not use data published earlier. Detail may not add to total due to rounding. Constant-dollar estimates are derived from unrounded data. Data are based on annual reports by performers, except for the nonprofit sector. The R&D expenditures of FFRDCs are chiefly from federal funding, but any nonfederal funds are included in the totals. Expenditures for industry and, before 2001, for industry-administered FFRDCs are collected by calendar year. Expenditures for other performers are calendar-year approximations based on fiscal year data. In most cases, the approximation equals 75% of the amount reported in the same fiscal year plus 25% of the amount reported in the subsequent fiscal year. However, the fiscal year for academic performers generally begins 1 July, not 1 October; also, prior to 1977, the federal fiscal year began on 1 July, not 1 October. Therefore, calendar-year approximations for academic performers and federal performers before 1977 equal 50% of the amount reported in the same fiscal year plus 50% of amount reported in the subsequent fiscal year. Los Alamos National Laboratory became industry administered in June 2006—previously, it was U&C administered. Lawrence Livermore National Laboratory became industry administered in October 2007—previously, it was U&C administered.

SOURCES: National Science Foundation, National Center for Science and Engineering Statistics (NSF/NCSES), National Patterns of R&D Resources (annual series), Business R&D and Innovation Survey (annual series); Higher Education R&D Survey (annual series), Survey of Federal Funds for R&D (annual series), FFRDC R&D Survey (annual series), R&D Funding and Performance by Nonprofit Organizations (FYs 1996–97). All NSF/NCSES reports available at <http://www.nsf.gov/statistics/>.