

TABLE 3. U.S. basic research expenditures, by performing sector and source of funds: 1953–2012

Year	All performers		Industry					U&C				Other nonprofit			Nonprofit				
	Performer:	All	Federal	Industry ^a		FFRDCs ^b	U&C ^c			FFRDCs	Other nonprofit		FFRDCs ^d						
	Funding	All	Federal	Total	Federal ^b	Industry ^e	Total	Federal	Other	U&C	Other	Total	Total	Federal ^d	Industry ^g	Other	Total		
	source:	sources	Federal	Total	Federal ^b	Industry ^e	Total	Federal	government ^f	Industry	U&C	nonprofit	Total	Total	Federal ^d	Industry ^g	nonprofit ^g	Total	
Current \$millions																			
1953		460	102	151	19	132	NA	123	82	7	13	6	16	36	48	27	9	12	NA
1954		509	96	166	23	143	NA	148	97	10	15	8	18	44	55	31	11	13	NA
1955		579	98	189	27	162	NA	180	117	14	17	12	21	50	63	36	13	14	NA
1956		718	114	253	37	216	NA	220	143	19	20	15	24	58	74	42	15	17	NA
1957		814	124	271	41	230	NA	261	167	25	23	20	27	72	87	49	15	23	NA
1958		944	149	295	43	252	NA	312	202	31	24	24	31	85	103	59	16	28	NA
1959		1,087	165	320	72	248	NA	388	263	38	24	28	36	95	120	72	18	30	NA
1960		1,286	184	376	79	297	NA	485	341	45	25	33	41	106	136	85	21	30	NA
1961		1,512	230	395	81	314	NA	598	432	54	25	40	48	126	164	105	22	37	NA
1962		1,824	252	488	143	345	NA	737	546	64	25	48	55	148	200	130	24	46	NA
1963		2,115	285	522	147	375	NA	909	689	75	25	58	63	175	225	150	25	50	NA
1964		2,396	339	507	123	384	42	1,071	824	84	25	70	68	200	238	166	25	47	NA
1965		2,664	375	563	157	406	29	1,221	944	94	27	86	70	218	260	179	29	52	NA
1966		2,930	410	593	142	451	31	1,380	1,066	104	29	106	75	239	278	188	32	58	NA
1967		3,168	434	595	168	427	34	1,554	1,188	114	34	136	83	263	289	194	34	61	NA
1968		3,376	482	607	145	462	35	1,681	1,265	131	38	156	91	276	296	196	37	63	NA
1969		3,491	545	581	123	458	37	1,754	1,288	153	40	171	103	272	302	192	43	67	NA
1970		3,594	562	566	122	444	36	1,855	1,323	179	43	196	115	265	311	195	44	72	NA
1971		3,720	581	557	101	456	33	1,968	1,385	194	50	214	127	252	329	207	45	77	NA
1972		3,850	603	554	91	463	39	2,038	1,437	195	55	216	134	270	347	216	47	84	NA
1973		4,099	652	595	96	499	36	2,103	1,489	196	59	223	137	343	371	232	49	90	NA
1974		4,511	715	650	114	536	49	2,282	1,609	204	66	250	153	415	401	245	54	102	NA
1975		4,875	760	677	104	573	53	2,480	1,768	212	72	264	164	476	430	255	59	116	NA
1976		5,373	850	750	116	634	69	2,675	1,924	218	75	283	175	556	474	278	65	131	NA
1977		6,008	943	836	135	701	75	2,967	2,114	232	89	334	198	667	521	301	72	148	NA
1978		6,959	1,044	941	156	785	94	3,376	2,399	260	107	398	213	906	598	351	79	168	NA
1979		7,836	1,112	1,054	161	893	104	3,828	2,719	286	128	466	229	1,050	689	413	87	190	NA
1980		8,745	1,212	1,205	170	1,035	120	4,315	3,061	307	156	544	248	1,167	726	416	95	215	NA
1981		9,658	1,343	1,477	164	1,313	137	4,737	3,331	338	183	615	269	1,284	671	324	105	243	9
1982		10,651	1,522	1,776	253	1,523	128	5,091	3,475	368	215	716	317	1,366	759	369	115	275	9
1983		11,880	1,733	2,106	346	1,760	117	5,518	3,689	396	260	816	358	1,536	863	426	127	311	8
1984		13,332	1,877	2,472	340	2,132	136	6,145	4,087	436	313	915	395	1,709	984	494	139	351	9
1985		14,748	1,947	2,731	358	2,373	131	7,024	4,606	514	389	1,075	440	1,793	1,110	560	153	397	13
1986		17,154	2,026	3,930	434	3,496	117	7,943	5,122	606	466	1,262	488	1,915	1,210	594	168	449	13

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	Performer:	Federal	Industry ^a		FFRDCs ^b	U&C ^c		FFRDCs	Other nonprofit		FFRDCs ^d								
	Funding source:	All sources	Total	Federal ^b	Industry ^e	Total	Federal	Other government ^f	Industry	U&C	Other nonprofit	Total	Total	Federal ^d	Industry ^g	Other nonprofit ^g	Total		
			Federal	Total	Federal ^b	Industry ^e	Total	Federal	Other government ^f	Industry	U&C	Other nonprofit	Total	Total	Federal ^d	Industry ^g	Other nonprofit ^g	Total	
1987		18,481	2,047	4,181	598	3,583	142	8,644	5,527	659	514	1,399	545	2,086	1,367	675	185	507	14
1988		19,787	2,116	4,163	656	3,507	337	9,344	5,937	705	565	1,530	607	2,272	1,531	756	203	573	24
1989		21,891	2,309	4,818	986	3,832	398	10,219	6,422	766	637	1,714	680	2,371	1,730	860	223	647	46
1990		23,029	2,319	4,629	869	3,760	499	11,126	6,889	847	705	1,929	756	2,470	1,922	947	245	730	65
1991		27,140	2,378	7,376	1,251	6,125	461	12,062	7,423	912	764	2,127	836	2,657	2,129	1,036	269	825	77
1992		27,604	2,419	6,528	712	5,816	474	12,910	8,058	941	814	2,203	893	2,867	2,340	1,114	295	931	67
1993		28,743	2,621	6,427	466	5,961	492	13,646	8,638	952	851	2,268	936	2,953	2,532	1,157	324	1,051	72
1994		29,651	2,547	6,514	436	6,078	503	14,401	9,139	992	890	2,406	974	2,934	2,678	1,137	356	1,186	75
1995		29,610	2,689	5,569	190	5,379	530	15,147	9,634	1,070	945	2,511	987	2,702	2,899	1,170	390	1,338	75
1996		32,799	2,680	7,498	650	6,848	708	16,042	10,092	1,149	1,032	2,740	1,028	2,606	3,187	1,248	428	1,510	79
1997		36,921	2,746	9,795	1,029	8,766	625	17,654	10,924	1,248	1,175	3,144	1,162	2,671	3,322	1,317	449	1,557	108
1998		35,372	3,003	5,853	1,002	4,851	568	19,365	11,941	1,330	1,315	3,483	1,296	2,660	3,710	1,461	477	1,773	213
1999		38,935	3,347	6,645	1,108	5,537	557	21,022	12,892	1,432	1,421	3,835	1,442	2,765	4,203	1,734	517	1,952	397
2000		42,752	3,765	7,040	925	6,115	547	22,910	13,960	1,549	1,499	4,298	1,603	2,874	5,000	2,099	566	2,334	616
2001		47,727	4,260	8,053	754	7,299	552	25,225	15,541	1,663	1,519	4,738	1,765	3,104	5,617	2,464	571	2,582	915
2002		51,902	4,511	7,547	888	6,659	534	28,505	17,930	1,812	1,512	5,287	1,963	3,714	6,113	2,575	554	2,984	979
2003		56,089	4,664	8,330	1,386	6,944	299	31,310	20,127	1,967	1,493	5,667	2,055	3,747	6,710	2,714	567	3,429	1,029
2004		57,731	4,697	7,835	1,072	6,763	175	33,415	21,702	2,083	1,545	5,930	2,154	3,730	6,809	2,788	578	3,443	1,070
2005		61,321	4,770	8,667	1,108	7,559	136	35,454	22,788	2,155	1,667	6,525	2,319	3,820	7,293	2,903	614	3,776	1,181
2006		62,996	4,716	8,384	1,444	6,940	652	37,205	23,312	2,285	1,840	7,233	2,535	3,344	7,454	2,849	656	3,948	1,242
2007		68,047	4,621	11,268	2,780	8,488	2,258	38,929	23,673	2,499	2,037	7,874	2,845	1,724	7,911	2,829	698	4,384	1,335
2008		72,105	4,957	12,368	1,475	10,893	2,423	40,582	24,149	2,679	2,218	8,412	3,124	1,672	8,697	3,073	722	4,901	1,407
2009		75,854	5,441	14,784	1,340	13,444	2,629	40,012	24,090	2,576	2,161	8,065	3,120	1,902	9,553	3,498	698	5,357	1,533
2010		77,386	5,111	16,371	1,406	14,965	2,848	39,588	24,526	2,397	1,990	7,656	3,019	2,203	9,693	3,414	702	5,576	1,573
2011		74,161	4,911	13,020	677	12,343	2,673	40,281	24,786	2,329	1,997	8,117	3,051	2,213	9,489	3,066	740	5,683	1,575
2012 (preliminary)		74,849	5,086	13,955	785	13,170	2,446	40,045	24,295	2,275	2,016	8,398	3,061	2,160	9,624	3,067	776	5,780	1,533
2005 constant \$millions																			
1953		2,841	628	934	117	816	NA	761	504	40	80	37	99	223	297	167	56	74	NA
1954		3,115	588	1,017	141	876	NA	904	591	58	92	52	110	270	337	190	67	80	NA
1955		3,488	587	1,139	163	976	NA	1,081	702	84	102	70	123	301	380	217	78	84	NA
1956		4,182	661	1,474	216	1,258	NA	1,281	830	111	114	90	137	338	428	242	87	99	NA
1957		4,585	699	1,527	231	1,296	NA	1,468	938	140	127	111	152	403	488	273	85	130	NA
1958		5,201	821	1,626	237	1,389	NA	1,720	1,114	171	132	132	171	469	565	322	88	154	NA
1959		5,922	896	1,743	392	1,351	NA	2,114	1,430	205	131	155	193	515	654	392	98	163	NA
1960		6,910	986	2,020	424	1,596	NA	2,603	1,830	242	132	180	220	570	731	457	113	161	NA
1961		8,030	1,219	2,099	430	1,668	NA	3,174	2,292	285	133	211	252	667	871	558	117	197	NA
1962		9,560	1,321	2,558	749	1,808	NA	3,860	2,859	334	131	250	286	773	1,048	681	126	241	NA

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	Funding	All		Total	Federal ^b	Industry ^e	Total	Federal	Other	U&C	Other	Total	Total	Federal ^d	Industry ^g	Other	Total		
	source:	sources	Federal	Total	Federal ^b	Industry ^e	Total	Federal	government ^f	Industry	U&C	nonprofit	Total	Total	Federal ^d	Industry ^g	nonprofit ^g	Total	
1963		10,969	1,475	2,707	762	1,945	NA	4,712	3,573	389	127	299	324	908	1,167	778	130	259	NA
1964		12,238	1,731	2,590	628	1,961	215	5,468	4,206	431	128	356	347	1,019	1,216	848	128	240	NA
1965		13,363	1,878	2,824	788	2,036	145	6,122	4,733	474	133	432	351	1,091	1,302	895	145	261	NA
1966		14,291	2,000	2,892	693	2,200	151	6,731	5,200	505	141	519	366	1,163	1,354	915	156	283	NA
1967		14,990	2,051	2,816	795	2,021	161	7,352	5,620	539	159	642	393	1,245	1,365	916	161	289	NA
1968		15,325	2,188	2,755	658	2,097	159	7,628	5,742	594	170	709	413	1,251	1,344	890	168	286	NA
1969		15,100	2,358	2,513	532	1,981	160	7,585	5,569	661	171	740	443	1,177	1,306	831	186	290	NA
1970		14,767	2,309	2,326	501	1,824	148	7,622	5,434	737	177	804	470	1,087	1,276	799	181	296	NA
1971		14,558	2,274	2,180	395	1,784	129	7,701	5,418	758	194	837	495	986	1,287	810	176	301	NA
1972		14,443	2,260	2,078	341	1,737	146	7,643	5,391	733	206	811	503	1,013	1,302	810	176	315	NA
1973		14,570	2,317	2,115	341	1,773	128	7,474	5,290	698	208	793	485	1,219	1,317	823	174	320	NA
1974		14,696	2,329	2,118	371	1,746	160	7,434	5,242	664	215	815	497	1,351	1,306	798	176	332	NA
1975		14,512	2,262	2,015	310	1,706	158	7,381	5,263	632	213	785	488	1,416	1,280	759	177	344	NA
1976		15,127	2,393	2,112	327	1,785	194	7,530	5,417	613	211	798	491	1,565	1,333	781	184	368	NA
1977		15,902	2,496	2,213	357	1,855	199	7,851	5,595	613	236	885	523	1,765	1,379	797	190	392	NA
1978		17,210	2,582	2,327	386	1,941	232	8,349	5,933	642	263	985	526	2,240	1,478	869	195	415	NA
1979		17,892	2,540	2,407	368	2,039	237	8,739	6,208	653	291	1,064	523	2,396	1,573	942	198	433	NA
1980		18,298	2,537	2,521	356	2,166	251	9,029	6,404	642	326	1,138	519	2,441	1,519	870	199	449	NA
1981		18,477	2,569	2,826	314	2,512	262	9,062	6,373	647	350	1,177	515	2,457	1,285	619	201	465	17
1982		19,204	2,744	3,202	456	2,746	231	9,180	6,265	664	389	1,292	571	2,464	1,369	666	208	495	16
1983		20,606	3,005	3,653	600	3,053	203	9,571	6,398	687	451	1,416	620	2,663	1,497	738	220	539	14
1984		22,287	3,137	4,133	568	3,564	227	10,272	6,832	728	523	1,529	660	2,857	1,646	826	233	587	15
1985		23,931	3,160	4,431	581	3,850	213	11,397	7,473	835	631	1,745	714	2,909	1,801	908	248	644	20
1986		27,232	3,216	6,239	689	5,550	186	12,609	8,130	962	739	2,003	774	3,040	1,921	942	267	712	21
1987		28,511	3,158	6,450	923	5,528	219	13,335	8,526	1,016	793	2,159	841	3,218	2,109	1,042	285	782	22
1988		29,512	3,156	6,209	978	5,231	503	13,936	8,854	1,052	842	2,282	906	3,388	2,284	1,128	302	854	36
1989		31,463	3,318	6,925	1,417	5,508	572	14,687	9,230	1,101	916	2,464	977	3,408	2,486	1,236	320	930	67
1990		31,869	3,209	6,406	1,203	5,203	691	15,397	9,533	1,172	976	2,670	1,046	3,418	2,660	1,310	338	1,011	89
1991		36,272	3,178	9,858	1,672	8,186	616	16,120	9,921	1,219	1,021	2,843	1,117	3,551	2,846	1,384	359	1,102	103
1992		36,037	3,158	8,522	930	7,593	619	16,854	10,520	1,229	1,063	2,876	1,166	3,743	3,055	1,455	385	1,215	87
1993		36,713	3,348	8,209	595	7,614	628	17,430	11,033	1,217	1,087	2,897	1,196	3,772	3,234	1,478	414	1,342	92
1994		37,092	3,186	8,149	545	7,603	629	18,014	11,432	1,240	1,113	3,010	1,219	3,670	3,350	1,422	445	1,484	93
1995		36,285	3,296	6,824	233	6,591	649	18,561	11,805	1,311	1,158	3,077	1,210	3,310	3,552	1,434	478	1,640	92
1996		39,441	3,222	9,016	782	8,235	851	19,290	12,136	1,382	1,241	3,295	1,237	3,133	3,832	1,501	515	1,816	95
1997		43,627	3,245	11,574	1,216	10,358	739	20,860	12,909	1,475	1,389	3,715	1,373	3,156	3,926	1,556	531	1,839	127

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	Funding	All		Total	Federal ^b	Industry ^e	Total	Federal	Other	U&C	Other	Total	Federal ^d	Industry ^g	Other	Total			
	source:	sources	Federal	Total	Federal ^b	Industry ^e	Total	Federal	government ^f	Industry	U&C	nonprofit	Total	Total	Federal ^d	Industry ^g	nonprofit ^g	Total	
1998		41,330	3,508	6,839	1,171	5,668	664	22,627	13,952	1,554	1,537	4,069	1,515	3,108	4,335	1,707	557	2,071	249
1999		44,834	3,854	7,651	1,275	6,376	642	24,207	14,846	1,649	1,636	4,416	1,660	3,184	4,839	1,997	595	2,248	457
2000		48,186	4,243	7,935	1,043	6,892	616	25,823	15,734	1,746	1,690	4,845	1,807	3,239	5,636	2,366	638	2,631	694
2001		52,605	4,696	8,876	831	8,045	609	27,803	17,129	1,832	1,675	5,222	1,945	3,421	6,192	2,716	630	2,846	1,009
2002		56,295	4,892	8,186	963	7,223	580	30,917	19,448	1,965	1,640	5,735	2,130	4,028	6,630	2,793	601	3,237	1,062
2003		59,584	4,955	8,849	1,472	7,377	318	33,260	21,381	2,090	1,586	6,020	2,184	3,980	7,128	2,884	602	3,643	1,093
2004		59,648	4,853	8,095	1,108	6,988	181	34,524	22,423	2,152	1,597	6,127	2,225	3,854	7,035	2,881	597	3,557	1,106
2005		61,321	4,770	8,667	1,108	7,559	136	35,454	22,788	2,155	1,667	6,525	2,319	3,820	7,293	2,903	614	3,776	1,181
2006		61,024	4,568	8,122	1,399	6,723	632	36,040	22,582	2,213	1,783	7,007	2,455	3,239	7,220	2,760	636	3,825	1,203
2007		64,058	4,350	10,608	2,617	7,990	2,126	36,647	22,285	2,353	1,918	7,413	2,679	1,623	7,447	2,663	657	4,127	1,257
2008		66,406	4,565	11,390	1,358	10,032	2,231	37,374	22,241	2,467	2,042	7,747	2,877	1,540	8,009	2,830	665	4,514	1,296
2009		69,254	4,967	13,498	1,223	12,274	2,400	36,531	21,994	2,352	1,973	7,363	2,849	1,736	8,722	3,194	638	4,891	1,400
2010		69,722	4,604	14,750	1,267	13,483	2,566	35,667	22,097	2,160	1,793	6,898	2,720	1,985	8,733	3,076	633	5,024	1,417
2011		65,422	4,332	11,486	597	10,888	2,358	35,534	21,865	2,054	1,762	7,161	2,692	1,952	8,370	2,705	653	5,013	1,389
2012 (preliminary)		64,868	4,408	12,094	680	11,414	2,120	34,705	21,055	1,972	1,747	7,278	2,653	1,872	8,340	2,658	673	5,009	1,328

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 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.

^b 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.

^c 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.

^d 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.

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

^f 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).

^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/>.