

TABLE 6. U.S. research and development 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 ^b	U&C ^c	FFRDCs	Other nonprofit ^d	Nonprofit FFRDCs ^d	Total	Industry ^e	U&C ^c	Other nonprofit ^f	U&C ^c	Total nonprofit ^f	U&C ^c	U&C ^c	
	Current \$millions																		
1953		5,160	2,783	1,015	1,430	NA	149	131	58	NA	2,247	2,200	21	26	37	55	28	27	40
1954		5,617	3,098	963	1,750	NA	165	161	61	NA	2,375	2,320	24	31	40	60	31	29	45
1955		6,281	3,603	973	2,057	123	191	187	64	9	2,522	2,460	27	35	42	64	32	32	50
1956		8,500	4,978	1,130	2,995	333	221	217	71	11	3,346	3,277	32	37	46	74	38	36	57
1957		9,908	6,233	1,297	3,928	407	242	267	79	14	3,470	3,396	37	37	51	91	51	40	64
1958		10,915	6,974	1,507	4,436	323	280	316	95	18	3,707	3,630	39	38	56	107	62	45	72
1959		12,490	8,167	1,681	5,217	418	356	349	125	22	4,065	3,983	40	42	61	117	67	50	81
1960		13,711	8,915	1,801	5,604	477	453	385	148	48	4,516	4,428	40	48	67	123	68	55	90
1961		14,564	9,484	1,987	5,685	555	557	440	169	92	4,757	4,668	40	49	75	148	86	62	101
1962		15,636	10,138	2,188	6,008	426	687	500	200	130	5,124	5,029	41	54	84	179	109	70	112
1963		17,519	11,645	2,558	6,856	414	839	580	234	165	5,456	5,360	41	55	96	197	119	78	125
1964		19,103	12,764	2,965	7,257	463	995	629	250	205	5,888	5,792	41	55	114	200	112	88	138
1965		20,252	13,194	3,156	7,367	373	1,167	630	286	215	6,549	6,445	42	62	136	225	124	101	150
1966		22,072	14,165	3,308	7,977	355	1,335	652	329	210	7,331	7,216	45	70	165	252	138	114	160
1967		23,346	14,563	3,444	7,946	419	1,491	696	342	225	8,146	8,020	52	74	200	271	145	126	168
1968		24,666	14,964	3,497	8,145	415	1,586	722	364	235	9,008	8,869	58	81	221	290	151	139	185
1969		25,996	15,228	3,790	7,987	464	1,624	731	388	245	10,011	9,857	61	93	233	316	161	155	208
1970		26,271	14,984	4,154	7,306	473	1,686	727	410	230	10,449	10,288	66	95	259	343	172	171	237
1971		26,952	15,210	4,409	7,175	491	1,760	735	427	215	10,824	10,654	72	98	290	366	184	182	262
1972		28,740	16,039	4,676	7,469	548	1,890	785	472	200	11,715	11,535	79	101	312	393	198	195	282
1973		30,952	16,587	4,837	7,600	545	2,009	841	566	190	13,299	13,104	90	105	343	422	211	211	302
1974		33,359	17,287	5,132	7,572	648	2,160	926	639	210	14,885	14,667	104	114	393	474	235	239	320
1975		35,671	18,533	5,561	7,878	727	2,400	1,067	675	225	15,824	15,582	118	124	432	534	262	272	348
1976		39,435	20,292	5,890	8,671	890	2,619	1,266	711	245	17,702	17,436	131	135	480	592	292	300	369
1977		43,338	22,071	6,211	9,523	962	2,893	1,467	740	275	19,642	19,340	155	147	569	662	326	337	394
1978		48,719	24,414	6,962	10,107	1,082	3,329	1,772	830	333	22,457	22,115	182	160	679	727	363	364	443
1979		55,379	27,225	7,471	11,354	1,164	3,848	2,013	985	390	26,097	25,708	215	174	785	791	405	386	482
1980		63,224	29,986	7,831	12,752	1,277	4,335	2,306	1,017	469	30,929	30,476	264	189	920	871	452	419	519
1981		72,292	33,739	8,605	14,997	1,385	4,670	2,484	1,075	524	35,948	35,428	314	206	1,058	967	504	463	581
1982		80,748	37,133	9,501	17,061	1,484	4,879	2,544	1,129	536	40,692	40,105	363	224	1,207	1,095	561	534	621
1983		89,950	41,451	10,830	19,095	1,585	5,210	2,840	1,306	585	45,264	44,588	432	244	1,357	1,220	626	595	658
1984		102,244	46,470	11,916	21,657	1,739	5,748	3,243	1,548	620	52,187	51,404	518	265	1,514	1,351	698	654	721
1985		114,671	52,641	13,093	25,333	1,863	6,388	3,616	1,694	655	57,962	57,043	630	289	1,743	1,491	778	713	834
1986		120,249	54,622	13,504	26,000	1,891	7,028	3,973	1,686	541	60,991	59,932	745	314	2,019	1,647	867	780	969

TABLE 6. U.S. research and development expenditures, by source of funds and performing sector: 1953–2012

Year	Funding	All	Federal										Industry				U&C	Other nonprofit			Other
	source:	sources	Federal								Industry		U&C	Other nonprofit			government ^a				
	Performer:	All performers	Total	Federal	Industry ^b	FFRDCs ^b	U&C ^c	FFRDCs	nonprofit ^d	FFRDCs ^d	Total	Industry ^e	U&C ^c	Other nonprofit ^f	U&C ^c	Total	nonprofit ^f	U&C ^c	U&C ^c		
1987		126,360	58,609	13,588	28,757	1,995	7,768	4,287	1,704	509	62,576	61,403	831	342	2,262	1,849	967	882	1,065		
1988		133,881	60,131	14,342	28,221	2,122	8,593	4,581	1,762	510	67,977	66,672	933	372	2,527	2,081	1,078	1,003	1,165		
1989		141,891	60,466	15,231	26,359	2,195	9,317	4,756	2,062	547	74,966	73,501	1,061	405	2,852	2,333	1,202	1,131	1,274		
1990		151,993	61,610	15,671	25,802	2,323	9,939	4,894	2,346	636	83,208	81,602	1,166	440	3,187	2,589	1,340	1,249	1,399		
1991		160,876	60,783	15,249	24,095	2,277	10,667	5,120	2,679	696	92,300	90,580	1,242	479	3,458	2,852	1,494	1,358	1,483		
1992		165,350	60,915	15,853	22,369	2,353	11,528	5,259	2,806	748	96,229	94,388	1,320	521	3,569	3,113	1,666	1,448	1,525		
1993		165,730	60,528	16,531	20,844	1,965	12,307	5,289	2,843	749	96,549	94,591	1,392	567	3,709	3,388	1,857	1,531	1,557		
1994		169,207	60,777	16,355	20,261	2,202	12,996	5,294	2,911	758	99,204	97,131	1,456	617	3,938	3,665	2,071	1,595	1,623		
1995		183,625	62,969	16,904	21,178	2,273	13,592	5,367	2,847	808	110,871	108,652	1,548	671	4,110	3,925	2,308	1,617	1,751		
1996		197,346	63,394	16,585	21,356	2,297	14,084	5,395	2,906	772	123,417	121,015	1,672	730	4,436	4,239	2,574	1,666	1,861		
1997		212,152	64,574	16,819	21,798	2,130	14,530	5,463	3,014	821	136,228	133,611	1,808	809	4,838	4,590	2,804	1,786	1,922		
1998		226,457	66,383	17,362	22,086	2,078	15,174	5,559	3,281	843	147,825	145,016	1,950	859	5,163	5,114	3,192	1,922	1,972		
1999		245,318	67,366	18,142	20,496	2,039	16,264	5,652	3,761	1,013	164,606	161,594	2,082	931	5,619	5,628	3,516	2,112	2,098		
2000		268,905	67,862	19,247	17,117	2,001	17,719	5,742	4,510	1,526	186,037	182,844	2,174	1,020	6,231	6,528	4,204	2,324	2,246		
2001		279,716	74,966	22,374	16,899	2,020	19,767	6,225	5,488	2,192	188,336	185,118	2,189	1,029	6,826	7,192	4,650	2,542	2,395		
2002		279,387	80,315	23,798	16,401	2,263	22,654	7,102	5,778	2,319	180,643	177,467	2,178	998	7,617	8,203	5,374	2,828	2,610		
2003		293,060	86,705	24,982	17,798	2,458	25,727	7,301	5,945	2,494	186,113	182,926	2,166	1,020	8,226	9,160	6,176	2,984	2,856		
2004		304,547	92,360	24,898	20,266	2,485	27,872	7,659	6,537	2,644	191,307	188,035	2,231	1,041	8,562	9,310	6,201	3,109	3,008		
2005		327,185	97,041	26,322	21,909	2,601	29,019	7,817	6,545	2,828	207,725	204,250	2,368	1,107	9,265	10,095	6,800	3,294	3,060		
2006		352,567	101,558	28,240	24,304	3,122	29,600	7,306	6,044	2,943	227,110	223,365	2,563	1,182	10,076	10,641	7,111	3,530	3,182		
2007		379,681	106,858	29,859	26,585	5,165	30,160	5,567	5,980	3,543	246,741	242,682	2,803	1,257	10,833	11,810	7,896	3,915	3,438		
2008		406,610	119,423	29,839	36,360	6,346	31,178	4,766	6,236	4,698	258,691	254,321	3,069	1,301	11,640	13,151	8,827	4,324	3,706		
2009		404,731	127,467	30,560	39,573	6,646	33,434	5,052	7,097	5,106	247,270	242,820	3,193	1,258	11,917	14,268	9,647	4,620	3,809		
2010		407,703	127,813	31,970	34,199	7,214	36,565	5,315	7,093	5,457	249,188	244,778	3,145	1,265	12,100	14,814	10,043	4,771	3,788		
2011		428,163	129,068	35,775	31,309	6,956	37,714	5,246	6,553	5,516	267,306	262,784	3,189	1,333	12,965	15,106	10,234	4,872	3,718		
2012 (preliminary)		452,556	135,018	37,574	36,300	6,808	37,393	5,174	6,305	5,464	285,040	280,400	3,242	1,398	13,506	15,333	10,410	4,923	3,659		
2005 constant \$millions																					
1953		31,904	17,204	6,276	8,842	NA	921	810	356	0	13,890	13,603	127	161	226	340	173	167	244		
1954		34,408	18,979	5,896	10,721	NA	1,008	983	371	0	14,547	14,213	144	190	242	368	190	178	273		
1955		37,839	21,706	5,860	12,392	741	1,151	1,127	386	51	15,193	14,819	163	211	253	386	193	193	301		
1956		49,507	28,994	6,584	17,444	1,940	1,287	1,264	411	64	19,486	19,087	183	216	268	431	221	210	329		
1957		55,844	35,128	7,311	22,139	2,294	1,361	1,502	442	79	19,554	19,140	206	209	287	513	287	225	361		
1958		60,168	38,444	8,305	24,453	1,781	1,543	1,739	524	99	20,435	20,010	215	209	306	587	342	245	397		
1959		68,047	44,497	9,159	28,424	2,277	1,937	1,901	678	120	22,145	21,701	215	229	332	635	365	270	439		
1960		73,674	47,904	9,675	30,112	2,563	2,431	2,069	795	258	24,266	23,793	215	258	360	661	365	296	484		
1961		77,377	50,388	10,558	30,203	2,949	2,957	2,338	898	486	25,273	24,800	213	260	396	786	457	329	534		
1962		81,953	53,137	11,466	31,489	2,233	3,598	2,621	1,048	681	26,854	26,358	212	283	440	936	571	364	587		
1963		90,856	60,395	13,269	35,556	2,147	4,349	3,005	1,214	856	28,293	27,798	210	285	498	1,022	617	405	648		
1964		97,569	65,195	15,146	37,066	2,365	5,082	3,213	1,277	1,047	30,071	29,583	207	281	580	1,022	572	449	702		
1965		101,585	66,179	15,831	36,953	1,871	5,854	3,158	1,435	1,078	32,847	32,328	208	311	682	1,126	622	504	750		

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Year	Funding	All	Federal										Industry				U&C	Other nonprofit			Other
	source:	sources	Federal		Industry		U&C	Other	Nonprofit	Industry		Other	U&C	Other nonprofit		Other					
	Performer:	performers	Total	Industry ^b	FFRDCs ^b	U&C ^c	FFRDCs	nonprofit ^d	FFRDCs ^d	Total	Industry ^e	U&C ^c	nonprofit ^f	U&C ^c	Total	nonprofit ^f	U&C ^c	U&C ^c			
1966		107,657	69,090	16,134	38,909	1,732	6,512	3,178	1,602	1,024	35,758	35,197	219	341	802	1,227	673	554	780		
1967		110,483	68,917	16,300	37,603	1,983	7,054	3,294	1,618	1,065	38,547	37,953	244	350	944	1,280	686	594	795		
1968		111,968	67,928	15,875	36,973	1,884	7,199	3,277	1,652	1,067	40,888	40,259	261	368	1,001	1,314	685	629	838		
1969		112,449	65,873	16,395	34,549	2,007	7,023	3,162	1,676	1,060	43,302	42,638	262	402	1,008	1,367	696	670	900		
1970		107,947	61,569	17,068	30,020	1,944	6,926	2,985	1,683	945	42,932	42,273	269	390	1,062	1,409	707	703	974		
1971		105,470	59,522	17,253	28,078	1,921	6,885	2,874	1,669	841	42,357	41,692	282	384	1,133	1,432	720	712	1,025		
1972		107,815	60,169	17,540	28,019	2,056	7,090	2,945	1,769	750	43,947	43,272	296	379	1,169	1,472	743	730	1,058		
1973		110,004	58,952	17,189	27,011	1,937	7,138	2,989	2,012	675	47,264	46,573	318	373	1,219	1,498	750	748	1,072		
1974		108,691	56,325	16,723	24,671	2,111	7,038	3,017	2,080	684	48,499	47,788	339	372	1,279	1,545	766	779	1,043		
1975		106,193	55,173	16,556	23,453	2,164	7,145	3,176	2,009	670	47,109	46,387	351	370	1,285	1,590	781	810	1,036		
1976		111,023	57,128	16,583	24,412	2,506	7,373	3,563	2,002	690	49,838	49,089	369	381	1,351	1,666	823	843	1,039		
1977		114,703	58,417	16,440	25,205	2,546	7,656	3,883	1,959	728	51,986	51,188	409	389	1,505	1,753	863	891	1,043		
1978		120,488	60,378	17,218	24,996	2,676	8,232	4,381	2,053	822	55,537	54,693	449	396	1,679	1,798	899	899	1,096		
1979		126,443	62,161	17,059	25,924	2,658	8,786	4,596	2,249	890	59,585	58,697	490	398	1,792	1,805	925	880	1,099		
1980		132,294	62,745	16,385	26,683	2,672	9,070	4,825	2,128	981	64,718	63,770	551	396	1,924	1,822	945	877	1,085		
1981		138,307	64,548	16,462	28,692	2,650	8,934	4,753	2,056	1,003	68,775	67,780	601	394	2,023	1,849	964	886	1,112		
1982		145,598	66,956	17,132	30,763	2,676	8,797	4,586	2,036	966	73,373	72,314	655	404	2,175	1,974	1,012	962	1,120		
1983		156,021	71,898	18,784	33,121	2,749	9,037	4,927	2,264	1,015	78,512	77,340	749	423	2,353	2,117	1,086	1,031	1,141		
1984		170,926	77,687	19,920	36,205	2,907	9,608	5,422	2,587	1,037	87,244	85,935	865	444	2,531	2,259	1,167	1,092	1,205		
1985		186,067	85,417	21,245	41,106	3,023	10,365	5,867	2,748	1,062	94,050	92,559	1,022	469	2,828	2,419	1,263	1,157	1,352		
1986		190,897	86,714	21,439	41,276	3,002	11,156	6,307	2,676	859	96,825	95,143	1,183	499	3,204	2,615	1,377	1,238	1,538		
1987		194,940	90,419	20,963	44,364	3,078	11,984	6,614	2,629	786	96,538	94,728	1,282	527	3,490	2,852	1,492	1,360	1,642		
1988		199,688	89,687	21,392	42,092	3,165	12,817	6,832	2,629	760	101,390	99,443	1,392	555	3,769	3,104	1,608	1,496	1,738		
1989		203,934	86,905	21,890	37,885	3,155	13,390	6,835	2,964	786	107,746	105,640	1,524	582	4,099	3,353	1,728	1,626	1,831		
1990		210,337	85,260	21,687	35,706	3,215	13,754	6,772	3,246	880	115,148	112,926	1,613	609	4,410	3,583	1,855	1,728	1,936		
1991		215,006	81,235	20,380	32,202	3,043	14,256	6,843	3,580	930	123,357	121,058	1,659	640	4,621	3,812	1,997	1,815	1,981		
1992		215,868	79,525	20,696	29,203	3,072	15,049	6,866	3,663	976	125,628	123,225	1,723	680	4,659	4,064	2,175	1,890	1,991		
1993		211,686	77,311	21,114	26,624	2,510	15,720	6,756	3,632	957	123,322	120,820	1,777	724	4,737	4,327	2,372	1,955	1,989		
1994		211,666	76,028	20,459	25,345	2,755	16,256	6,622	3,642	949	124,097	121,504	1,821	772	4,926	4,585	2,590	1,995	2,030		
1995		225,015	77,162	20,714	25,952	2,785	16,656	6,577	3,489	990	135,861	133,143	1,896	822	5,036	4,810	2,829	1,981	2,146		
1996		237,309	76,231	19,943	25,681	2,762	16,936	6,487	3,494	928	148,409	145,521	2,010	878	5,334	5,097	3,095	2,003	2,238		
1997		250,687	76,303	19,874	25,757	2,517	17,169	6,455	3,561	970	160,972	157,880	2,136	956	5,717	5,424	3,313	2,111	2,271		
1998		264,602	77,565	20,287	25,806	2,428	17,730	6,496	3,833	985	172,725	169,443	2,278	1,004	6,033	5,976	3,730	2,246	2,304		
1999		282,488	77,574	20,891	23,601	2,348	18,728	6,508	4,330	1,167	189,547	186,078	2,397	1,072	6,471	6,480	4,048	2,432	2,416		
2000		303,084	76,487	21,693	19,293	2,255	19,971	6,472	5,083	1,720	209,684	206,085	2,450	1,149	7,023	7,358	4,739	2,620	2,532		

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2001		308,304	82,628	24,661	18,626	2,227	21,787	6,862	6,049	2,416	207,585	204,038	2,413	1,134	7,523	7,927	5,125	2,802	2,640
2002		303,036	87,113	25,812	17,789	2,455	24,572	7,703	6,267	2,515	195,933	192,488	2,362	1,083	8,262	8,897	5,829	3,068	2,831
2003		311,319	92,107	26,539	18,907	2,611	27,330	7,756	6,315	2,649	197,708	194,323	2,301	1,084	8,739	9,730	6,561	3,169	3,034
2004		314,660	95,427	25,724	20,939	2,568	28,798	7,913	6,754	2,732	197,660	194,279	2,305	1,076	8,846	9,619	6,407	3,212	3,108
2005		327,185	97,041	26,322	21,909	2,601	29,019	7,817	6,545	2,828	207,725	204,250	2,368	1,107	9,265	10,095	6,800	3,294	3,060
2006		341,532	98,379	27,356	23,543	3,024	28,673	7,078	5,854	2,851	220,002	216,374	2,483	1,145	9,760	10,308	6,888	3,420	3,083
2007		357,426	100,595	28,109	25,027	4,862	28,393	5,241	5,629	3,335	232,278	228,457	2,638	1,183	10,198	11,118	7,433	3,685	3,237
2008		374,472	109,984	27,480	33,486	5,844	28,714	4,389	5,743	4,327	238,244	234,219	2,827	1,198	10,720	12,111	8,129	3,982	3,413
2009		369,517	116,377	27,901	36,130	6,068	30,525	4,612	6,480	4,662	225,756	221,693	2,915	1,148	10,880	13,026	8,808	4,218	3,477
2010		367,326	115,155	28,804	30,812	6,499	32,944	4,788	6,391	4,916	224,510	220,536	2,833	1,140	10,901	13,347	9,048	4,299	3,413
2011		377,706	113,858	31,559	27,619	6,136	33,269	4,628	5,781	4,866	235,805	231,816	2,813	1,176	11,437	13,326	9,028	4,298	3,280
2012 (preliminary)		392,206	117,013	32,563	31,459	5,900	32,407	4,484	5,464	4,735	247,029	243,008	2,809	1,212	11,705	13,288	9,022	4,266	3,171

NA = not available; included in data for federal funding to industry and federal funding 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 Federal funding for industry in 1953–54 did not separate out industry-administered FFRDCs, and the data for federal funding to industry for these years include the funding to these FFRDCs.

^c The data for U&C R&D before 2003 cover only science and engineering (S&E) fields; in 2003 and later years, the R&D in non-S&E fields is also included. Non-S&E R&D was \$1.4 billion in 2003 and \$3.5 billion in 2012. Adjustments have also been made to U&C R&D for 1998 and later years to eliminate double counting of (since 1998) S&E R&D and (since 2010) non-S&E funds passed through from one academic institution to another. For FY 1998, \$479 million in total pass-through funds and \$421 million in federal pass-through funds were reported. For FY 2012, total pass-through funds were an estimated \$3.069 billion and federal pass-through funds were an estimated \$2.747 billion.

^d Federal funding for other nonprofit institutions in 1953–54 did not separate out nonprofit-administered FFRDCs, and the data for federal funding to other nonprofit institutions these years include the funding to these FFRDCs.

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

^f 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 (some \$2 billion in annual R&D expenditures in recent years) became industry administered in June 2006—previously, it was U&C administered. Lawrence Livermore National Laboratory (more than \$1 billion in annual R&D expenditures in recent years) became industry administered in October 2007—previously, it was U&C administered. The distribution of R&D expenditures from 2006 to 2008 for both industry- and U&C-administered FFRDCs reflect these shifts.

SOURCES: National Science Foundation, National Center for Science and Engineering Statistics (NSF/NCSSES), 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/NCSSES reports available at <http://www.nsf.gov/statistics/>.