

TABLE 2. U.S. research and development expenditures, by performing sector and source of funds: 1953–2015

Year	All performers	All federal	Federal intramural ^a	FFRDCs ^b		Nonfederal government ^c		Business ^d					Higher education ^e				Other nonprofit organizations ^f					
	All funding sources	Total	Federal	Total	Federal	Total	Total	Own domestic	Foreign	Other	Total	Federal	Nonfederal government	Business	Higher education	ONP	Total	Federal	Business	ONP		
Current \$millions																						
1953	5,160	1,146	1,015	131	131	NA	3,630	2,200	1,430	NA	NA	NA	273	149	40	21	37	27	112	58	26	28
1954	5,621	1,127	963	165	165	NA	4,070	2,320	1,750	NA	NA	NA	301	165	45	24	40	29	123	61	31	31
1955	6,185	1,292	973	319	319	NA	4,420	2,460	1,960	NA	NA	NA	342	191	50	27	42	32	132	65	35	32
1956	8,501	1,692	1,131	561	561	NA	6,272	3,277	2,995	NA	NA	NA	391	221	57	32	46	36	146	71	37	38
1957	9,908	1,985	1,297	688	688	NA	7,324	3,396	3,928	NA	NA	NA	433	242	64	37	51	40	167	79	37	51
1958	10,915	2,163	1,507	657	657	NA	8,066	3,630	4,436	NA	NA	NA	491	280	72	39	56	45	195	95	38	62
1959	12,490	2,470	1,681	789	789	NA	9,200	3,983	5,217	NA	NA	NA	586	356	81	40	61	50	234	125	42	67
1960	13,711	2,711	1,801	910	910	NA	10,032	4,428	5,604	NA	NA	NA	705	453	90	40	67	55	264	148	48	68
1961	14,564	3,074	1,987	1,087	1,087	NA	10,353	4,668	5,685	NA	NA	NA	834	557	101	40	75	62	304	169	49	86
1962	15,636	3,244	2,188	1,056	1,056	NA	11,037	5,029	6,008	NA	NA	NA	993	687	112	41	84	70	363	200	54	109
1963	17,519	3,717	2,559	1,159	1,159	NA	12,216	5,360	6,856	NA	NA	NA	1,178	839	125	41	96	78	408	234	55	119
1964	19,103	4,263	2,966	1,297	1,297	NA	13,049	5,792	7,257	NA	NA	NA	1,375	995	138	41	114	88	417	250	55	112
1965	20,253	4,374	3,157	1,218	1,218	NA	13,812	6,445	7,367	NA	NA	NA	1,595	1,167	150	42	136	101	472	286	62	124
1966	22,072	4,525	3,308	1,217	1,217	NA	15,193	7,216	7,977	NA	NA	NA	1,818	1,335	160	45	165	114	537	329	70	138
1967	23,347	4,785	3,445	1,340	1,340	NA	15,966	8,020	7,946	NA	NA	NA	2,035	1,491	168	52	200	126	561	342	74	145
1968	24,667	4,870	3,498	1,372	1,372	NA	17,014	8,869	8,145	NA	NA	NA	2,187	1,586	185	58	221	139	596	364	81	151
1969	25,996	5,230	3,790	1,440	1,440	NA	17,844	9,857	7,987	NA	NA	NA	2,280	1,624	208	61	233	155	642	388	93	161
1970	26,271	5,583	4,154	1,430	1,430	NA	17,594	10,288	7,306	NA	NA	NA	2,418	1,686	237	66	259	171	677	410	95	172
1971	26,952	5,849	4,409	1,441	1,441	NA	17,829	10,654	7,175	NA	NA	NA	2,565	1,760	262	72	290	182	709	427	98	184
1972	28,740	6,209	4,676	1,533	1,533	NA	19,004	11,535	7,469	NA	NA	NA	2,757	1,890	282	79	312	195	771	472	101	198
1973	30,952	6,413	4,837	1,576	1,576	NA	20,704	13,104	7,600	NA	NA	NA	2,954	2,009	301	90	344	210	882	566	105	211
1974	33,359	6,916	5,132	1,784	1,784	NA	22,239	14,667	7,572	NA	NA	NA	3,216	2,160	320	105	394	239	988	639	114	235
1975	35,671	7,580	5,561	2,019	2,019	NA	23,460	15,582	7,878	NA	NA	NA	3,570	2,400	348	118	432	272	1,062	675	124	262
1976	39,435	8,291	5,890	2,401	2,401	NA	26,107	17,436	8,671	NA	NA	NA	3,899	2,619	369	131	480	300	1,139	711	135	292
1977	43,338	8,916	6,211	2,704	2,704	NA	28,863	19,340	9,523	NA	NA	NA	4,346	2,893	394	155	569	337	1,213	740	147	326
1978	48,719	10,148	6,962	3,186	3,186	NA	32,222	22,115	10,107	NA	NA	NA	4,996	3,329	443	182	679	364	1,353	830	160	363
1979	55,379	11,038	7,471	3,567	3,567	NA	37,062	25,708	11,354	NA	NA	NA	5,715	3,848	482	215	785	386	1,564	985	174	405
1980	63,224	11,882	7,831	4,052	4,052	NA	43,228	30,476	12,752	NA	NA	NA	6,455	4,335	519	264	920	419	1,658	1,017	189	452
1981	72,292	12,998	8,605	4,393	4,393	NA	50,425	35,428	14,997	NA	NA	NA	7,085	4,670	581	314	1,058	463	1,784	1,075	206	504
1982	80,748	14,065	9,501	4,563	4,563	NA	57,166	40,105	17,061	NA	NA	NA	7,603	4,879	621	363	1,207	534	1,915	1,129	224	561
1983	89,949	15,840	10,830	5,011	5,011	NA	63,683	44,588	19,095	NA	NA	NA	8,251	5,210	658	432	1,357	595	2,175	1,306	244	626

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	All funding sources	Total	Federal	Total	Federal	Total	Own			Other domestic business		Foreign business	Other	Total	Federal	Nonfederal govern- ment	Busi- ness	Higher ed- ucation	ONP	Total	Federal	Busi- ness	ONP	
							Total	domestic	Federal	Other	business													business
1984	102,244	17,518	11,916	5,602	5,602	NA	73,061	51,404	21,657	NA	NA	NA	9,154	5,748	721	518	1,514	654	2,511	1,548	265	698		
1985	114,671	19,227	13,093	6,134	6,134	NA	82,376	57,043	25,333	NA	NA	NA	10,308	6,388	834	630	1,743	713	2,761	1,694	289	778		
1986	120,249	19,909	13,505	6,405	6,405	NA	85,932	59,932	26,000	NA	NA	NA	11,540	7,028	969	745	2,019	780	2,867	1,686	314	867		
1987	126,360	20,380	13,588	6,792	6,792	NA	90,160	61,403	28,757	NA	NA	NA	12,807	7,768	1,065	831	2,262	882	3,013	1,704	342	967		
1988	133,881	21,555	14,342	7,212	7,212	NA	94,893	66,672	28,221	NA	NA	NA	14,221	8,593	1,165	933	2,527	1,003	3,212	1,762	372	1,078		
1989	141,891	22,728	15,231	7,497	7,497	NA	99,860	73,501	26,359	NA	NA	NA	15,634	9,317	1,274	1,061	2,852	1,131	3,669	2,062	405	1,202		
1990	151,993	23,524	15,671	7,853	7,853	NA	107,404	81,602	25,802	NA	NA	NA	16,939	9,939	1,399	1,166	3,187	1,249	4,126	2,346	440	1,340		
1991	160,876	23,343	15,249	8,093	8,093	NA	114,675	90,580	24,095	NA	NA	NA	18,206	10,667	1,483	1,242	3,458	1,358	4,652	2,679	479	1,494		
1992	165,350	24,212	15,853	8,360	8,360	NA	116,757	94,388	22,369	NA	NA	NA	19,388	11,528	1,525	1,320	3,569	1,448	4,993	2,806	521	1,666		
1993	165,730	24,534	16,531	8,003	8,003	NA	115,435	94,591	20,844	NA	NA	NA	20,495	12,307	1,557	1,392	3,709	1,531	5,267	2,843	567	1,857		
1994	169,207	24,610	16,355	8,254	8,254	NA	117,392	97,131	20,261	NA	NA	NA	21,607	12,996	1,623	1,456	3,938	1,595	5,599	2,911	617	2,071		
1995	183,625	25,352	16,904	8,448	8,448	NA	129,830	108,652	21,178	NA	NA	NA	22,617	13,592	1,751	1,548	4,110	1,617	5,827	2,847	671	2,308		
1996	197,346	25,049	16,585	8,464	8,464	NA	142,371	121,015	21,356	NA	NA	NA	23,718	14,084	1,861	1,672	4,436	1,666	6,209	2,906	730	2,574		
1997	212,152	25,232	16,819	8,413	8,413	NA	155,409	133,611	21,798	NA	NA	NA	24,884	14,530	1,922	1,808	4,838	1,786	6,626	3,014	809	2,804		
1998	226,457	25,843	17,362	8,480	8,480	NA	167,102	145,016	22,086	NA	NA	NA	26,181	15,174	1,972	1,950	5,163	1,922	7,332	3,281	859	3,192		
1999	245,319	26,846	18,142	8,704	8,704	NA	182,090	161,594	20,496	NA	NA	NA	28,176	16,264	2,098	2,082	5,619	2,112	8,207	3,761	931	3,516		
2000	268,904	28,516	19,247	9,269	9,269	NA	199,961	182,844	17,117	NA	NA	NA	30,693	17,719	2,246	2,174	6,231	2,324	9,734	4,510	1,020	4,204		
2001	279,716	32,812	22,374	10,438	10,056	NA	202,017	185,118	16,899	NA	NA	NA	33,720	19,767	2,395	2,189	6,826	2,542	11,167	5,488	1,029	4,650		
2002	279,387	35,482	23,798	11,684	11,242	NA	193,868	177,467	16,401	NA	NA	NA	37,888	22,654	2,610	2,178	7,617	2,828	12,150	5,778	998	5,374		
2003	293,060	37,235	24,982	12,253	11,841	NA	200,724	182,926	17,798	NA	NA	NA	41,959	25,727	2,856	2,166	8,226	2,984	13,141	5,945	1,020	6,176		
2004	304,547	37,685	24,898	12,788	12,471	NA	208,301	188,035	20,266	NA	NA	NA	44,782	27,872	3,008	2,231	8,562	3,109	13,779	6,537	1,041	6,201		
2005	327,184	39,568	26,322	13,246	12,894	NA	226,159	204,250	21,909	NA	NA	NA	47,006	29,019	3,060	2,368	9,265	3,294	14,452	6,545	1,107	6,800		
2006	352,875	41,610	28,240	13,370	12,969	309	247,669	223,365	24,304	NA	NA	NA	48,951	29,600	3,182	2,563	10,076	3,530	14,336	6,044	1,182	7,111		
2007	380,019	44,132	29,859	14,273	13,845	339	269,267	242,682	26,585	NA	NA	NA	51,149	30,160	3,438	2,803	10,833	3,915	15,132	5,980	1,257	7,896		
2008	406,952	45,649	29,839	15,810	15,369	343	290,680	225,848	36,360	12,181	15,533	758	53,917	31,178	3,706	3,069	11,640	4,324	16,363	6,236	1,301	8,827		
2009	405,343	47,572	30,560	17,013	16,571	405	282,393	221,104	39,573	9,567	11,464	685	56,971	33,433	3,808	3,193	11,916	4,621	18,002	7,097	1,258	9,647		
2010	409,037	50,798	31,970	18,828	18,409	490	278,977	218,187	34,199	11,013	14,532	1,046	60,369	36,563	3,787	3,144	12,103	4,772	18,403	7,093	1,265	10,045		
2011	428,675	53,524	34,950	18,574	18,176	493	294,092	235,426	31,309	11,124	15,351	882	62,435	37,717	3,712	3,182	12,949	4,875	18,132	6,564	1,333	10,234		
2012	436,151	52,144	34,017	18,128	17,727	468	302,251	242,674	30,621	11,624	16,699	633	63,264	36,998	3,631	3,349	14,140	5,146	18,024	6,239	1,366	10,420		
2013	456,584	51,086	33,406	17,680	17,296	470	322,528	259,908	29,362	13,450	18,795	1,013	63,928	35,845	3,719	3,575	15,197	5,592	18,573	5,970	1,444	11,158		
2014 ^g	477,708	52,299	34,396	17,903	17,523	480	340,728	277,272	26,554	13,227	22,544	1,131	64,704	35,051	3,788	3,817	16,040	6,006	19,498	6,111	1,520	11,867		
2015 ^h	499,299	52,655	33,966	18,689	18,323	485	359,652	304,844	19,512	12,334	21,907	1,055	66,373	35,015	3,752	4,069	17,109	6,428	20,134	6,105	1,611	12,418		

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	All funding sources	Total	Federal	Total	Federal	Total	Total	Own domestic	Foreign	Other	Total	Federal	Nonfederal government	Business	Higher education	ONP	Total	Federal	Business	ONP		
Constant 2009 \$millions																						
1953	34,048	7,562	6,697	864	864	NA	23,952	14,516	9,436	NA	NA	NA	1,798	983	261	135	241	178	736	379	172	185
1954	36,745	7,368	6,293	1,075	1,075	NA	26,608	15,167	11,441	NA	NA	NA	1,968	1,075	291	154	258	190	801	396	203	203
1955	39,748	8,300	6,253	2,047	2,047	NA	28,405	15,809	12,596	NA	NA	NA	2,198	1,227	321	174	270	206	845	415	225	206
1956	52,831	10,513	7,026	3,487	3,487	NA	38,981	20,367	18,614	NA	NA	NA	2,430	1,374	351	196	286	224	907	441	230	236
1957	59,592	11,936	7,801	4,135	4,135	NA	44,050	20,425	23,625	NA	NA	NA	2,604	1,453	385	220	307	241	1,001	472	223	307
1958	64,206	12,724	8,862	3,862	3,862	NA	47,447	21,353	26,094	NA	NA	NA	2,888	1,647	424	229	326	262	1,147	559	224	365
1959	72,451	14,328	9,751	4,577	4,577	NA	53,369	23,105	30,264	NA	NA	NA	3,399	2,062	467	229	354	287	1,355	722	244	389
1960	78,453	15,509	10,302	5,207	5,207	NA	57,402	25,337	32,065	NA	NA	NA	4,031	2,589	515	229	383	315	1,511	847	275	389
1961	82,428	17,395	11,246	6,149	6,149	NA	58,595	26,419	32,175	NA	NA	NA	4,717	3,150	569	226	422	351	1,721	956	277	487
1962	87,421	18,134	12,230	5,904	5,904	NA	61,708	28,117	33,591	NA	NA	NA	5,549	3,838	626	226	470	389	2,030	1,118	302	609
1963	96,851	20,549	14,144	6,405	6,405	NA	67,534	29,632	37,902	NA	NA	NA	6,512	4,636	691	224	531	431	2,256	1,294	304	658
1964	104,011	23,208	16,146	7,062	7,062	NA	71,048	31,536	39,512	NA	NA	NA	7,484	5,418	749	221	618	479	2,270	1,361	299	610
1965	108,294	23,389	16,878	6,510	6,510	NA	73,855	34,463	39,393	NA	NA	NA	8,526	6,240	799	222	727	537	2,524	1,529	332	663
1966	114,799	23,532	17,205	6,327	6,327	NA	79,020	37,531	41,489	NA	NA	NA	9,456	6,943	832	234	856	590	2,790	1,709	364	718
1967	118,000	24,184	17,412	6,773	6,773	NA	80,695	40,535	40,161	NA	NA	NA	10,285	7,533	849	260	1,008	634	2,835	1,729	374	733
1968	119,577	23,606	16,955	6,651	6,651	NA	82,480	42,995	39,485	NA	NA	NA	10,602	7,689	894	279	1,069	671	2,889	1,765	393	732
1969	120,114	24,166	17,513	6,654	6,654	NA	82,449	45,545	36,904	NA	NA	NA	10,535	7,501	961	280	1,077	716	2,964	1,790	430	744
1970	115,302	24,504	18,231	6,274	6,274	NA	77,218	45,153	32,065	NA	NA	NA	10,610	7,397	1,040	287	1,135	750	2,969	1,797	417	755
1971	112,571	24,431	18,414	6,017	6,017	NA	74,467	44,499	29,968	NA	NA	NA	10,713	7,349	1,094	301	1,209	760	2,959	1,781	409	769
1972	115,066	24,857	18,720	6,138	6,138	NA	76,086	46,182	29,903	NA	NA	NA	11,038	7,567	1,129	316	1,247	779	3,085	1,888	404	793
1973	117,527	24,349	18,365	5,984	5,984	NA	78,614	49,757	28,858	NA	NA	NA	11,215	7,626	1,143	342	1,306	797	3,349	2,149	399	801
1974	116,224	24,097	17,881	6,215	6,215	NA	77,480	51,100	26,381	NA	NA	NA	11,205	7,525	1,113	364	1,371	831	3,442	2,225	398	820
1975	113,745	24,171	17,733	6,438	6,438	NA	74,807	49,686	25,121	NA	NA	NA	11,382	7,653	1,110	376	1,376	867	3,385	2,152	396	836
1976	119,199	25,060	17,804	7,256	7,256	NA	78,913	52,704	26,210	NA	NA	NA	11,784	7,916	1,115	396	1,451	905	3,442	2,149	409	884
1977	123,345	25,375	17,678	7,697	7,697	NA	82,147	55,044	27,104	NA	NA	NA	12,369	8,232	1,121	440	1,618	958	3,453	2,107	419	928
1978	129,565	26,988	18,515	8,473	8,473	NA	85,692	58,813	26,879	NA	NA	NA	13,285	8,852	1,178	483	1,806	967	3,600	2,207	426	967
1979	136,047	27,117	18,354	8,762	8,762	NA	91,049	63,156	27,893	NA	NA	NA	14,039	9,453	1,183	527	1,928	947	3,843	2,420	428	995
1980	142,470	26,776	17,646	9,130	9,130	NA	97,411	68,675	28,736	NA	NA	NA	14,546	9,767	1,168	594	2,072	944	3,737	2,292	427	1,018
1981	148,990	26,788	17,733	9,054	9,054	NA	103,923	73,015	30,908	NA	NA	NA	14,602	9,624	1,197	647	2,179	954	3,677	2,214	425	1,038
1982	156,699	27,294	18,438	8,855	8,855	NA	110,936	77,828	33,109	NA	NA	NA	14,753	9,467	1,205	704	2,341	1,035	3,716	2,191	435	1,090
1983	167,927	29,572	20,218	9,354	9,354	NA	118,890	83,242	35,649	NA	NA	NA	15,404	9,727	1,228	807	2,532	1,110	4,061	2,437	456	1,169

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	All funding sources	Total	Federal	Total	Federal	Total	Total	Own domestic	Federal	Other domestic business	Foreign business	Other	Total	Federal	Nonfederal govern- ment	Busi- ness	Higher ed- ucation	ONP	Total	Federal	Busi- ness	ONP	
																							Total
1984	184,335	31,583	21,483	10,101	10,101	NA	131,722	92,677	39,046	NA	NA	NA	16,503	10,362	1,300	933	2,730	1,178	4,527	2,790	479	1,258	
1985	200,332	33,589	22,873	10,716	10,716	NA	143,913	99,656	44,257	NA	NA	NA	18,007	11,160	1,456	1,101	3,045	1,246	4,823	2,959	505	1,359	
1986	205,920	34,094	23,126	10,968	10,968	NA	147,154	102,631	44,524	NA	NA	NA	19,762	12,034	1,659	1,276	3,457	1,336	4,910	2,887	538	1,485	
1987	211,005	34,032	22,691	11,341	11,341	NA	150,555	102,535	48,020	NA	NA	NA	21,386	12,972	1,778	1,388	3,777	1,472	5,032	2,846	571	1,615	
1988	216,002	34,776	23,139	11,637	11,637	NA	153,100	107,568	45,532	NA	NA	NA	22,944	13,864	1,880	1,505	4,077	1,618	5,183	2,843	600	1,740	
1989	220,356	35,297	23,653	11,643	11,643	NA	155,082	114,147	40,935	NA	NA	NA	24,280	14,469	1,979	1,647	4,429	1,756	5,698	3,202	628	1,867	
1990	227,623	35,229	23,469	11,760	11,760	NA	160,847	122,206	38,641	NA	NA	NA	25,368	14,885	2,095	1,745	4,772	1,870	6,179	3,513	659	2,007	
1991	233,168	33,832	22,102	11,730	11,730	NA	166,206	131,284	34,923	NA	NA	NA	26,387	15,460	2,149	1,799	5,011	1,968	6,743	3,883	694	2,166	
1992	234,312	34,311	22,465	11,846	11,846	NA	165,452	133,754	31,698	NA	NA	NA	27,474	16,335	2,161	1,870	5,057	2,051	7,075	3,976	738	2,361	
1993	229,392	33,958	22,880	11,077	11,077	NA	159,777	130,926	28,851	NA	NA	NA	28,367	17,034	2,155	1,926	5,133	2,118	7,291	3,935	785	2,571	
1994	229,321	33,353	22,166	11,187	11,187	NA	159,098	131,639	27,459	NA	NA	NA	29,283	17,612	2,199	1,973	5,337	2,161	7,588	3,945	836	2,806	
1995	243,780	33,657	22,441	11,215	11,215	NA	172,361	144,246	28,116	NA	NA	NA	30,026	18,045	2,325	2,054	5,456	2,146	7,736	3,780	891	3,065	
1996	257,299	32,658	21,623	11,035	11,035	NA	185,623	157,779	27,844	NA	NA	NA	30,923	18,363	2,426	2,179	5,783	2,171	8,096	3,788	952	3,355	
1997	271,949	32,344	21,560	10,785	10,785	NA	199,213	171,271	27,942	NA	NA	NA	31,898	18,625	2,464	2,317	6,202	2,290	8,494	3,864	1,037	3,594	
1998	287,168	32,771	22,017	10,754	10,754	NA	211,900	183,893	28,007	NA	NA	NA	33,199	19,242	2,501	2,472	6,547	2,437	9,298	4,160	1,089	4,048	
1999	306,398	33,530	22,659	10,871	10,871	NA	227,427	201,828	25,599	NA	NA	NA	35,191	20,313	2,621	2,600	7,019	2,638	10,250	4,697	1,162	4,391	
2000	328,383	34,823	23,504	11,319	11,319	NA	244,190	223,287	20,903	NA	NA	NA	37,483	21,638	2,743	2,654	7,609	2,838	11,887	5,508	1,245	5,134	
2001	333,975	39,177	26,715	12,462	12,006	NA	241,204	221,027	20,177	NA	NA	NA	40,261	23,601	2,860	2,614	8,150	3,035	13,333	6,552	1,229	5,552	
2002	328,541	41,724	27,984	13,740	13,219	NA	227,976	208,689	19,286	NA	NA	NA	44,553	26,640	3,069	2,561	8,957	3,326	14,288	6,794	1,174	6,320	
2003	337,879	42,930	28,803	14,127	13,652	NA	231,422	210,902	20,520	NA	NA	NA	48,376	29,662	3,293	2,498	9,484	3,440	15,151	6,854	1,176	7,121	
2004	341,728	42,286	27,937	14,349	13,993	NA	233,732	210,992	22,740	NA	NA	NA	50,249	31,275	3,375	2,503	9,607	3,488	15,461	7,335	1,168	6,958	
2005	355,683	43,014	28,615	14,399	14,017	NA	245,858	222,041	23,817	NA	NA	NA	51,100	31,546	3,327	2,574	10,072	3,581	15,711	7,115	1,203	7,393	
2006	372,177	43,886	29,784	14,101	13,678	325	261,216	235,583	25,633	NA	NA	NA	51,629	31,219	3,357	2,703	10,627	3,724	15,121	6,374	1,247	7,500	
2007	390,416	45,339	30,676	14,663	14,224	348	276,634	249,322	27,312	NA	NA	NA	52,549	30,986	3,532	2,879	11,130	4,022	15,546	6,143	1,291	8,112	
2008	410,043	45,995	30,066	15,930	15,485	345	292,888	227,564	36,636	12,274	15,651	764	54,327	31,415	3,735	3,093	11,728	4,357	16,487	6,283	1,310	8,894	
2009	405,343	47,572	30,560	17,013	16,571	405	282,393	221,104	39,573	9,567	11,464	685	56,971	33,433	3,808	3,193	11,916	4,621	18,002	7,097	1,258	9,647	
2010	404,100	50,185	31,584	18,601	18,187	484	275,610	215,554	33,786	10,880	14,357	1,033	59,640	36,121	3,741	3,106	11,957	4,714	18,181	7,008	1,250	9,924	
2011	414,938	51,809	33,830	17,978	17,593	477	284,667	227,881	30,306	10,768	14,859	854	60,434	36,508	3,593	3,080	12,534	4,718	17,550	6,354	1,290	9,907	
2012	414,534	49,560	32,331	17,229	16,849	444	287,271	230,646	29,103	11,048	15,871	602	60,128	35,164	3,451	3,183	13,440	4,891	17,131	5,930	1,298	9,903	

TABLE 2. U.S. research and development expenditures, by performing sector and source of funds: 1953–2015

Year	All performers	All federal	Federal intramural ^a	FFRDCs ^b		Nonfederal government ^c		Business ^d					Higher education ^e				Other nonprofit organizations ^f					
	All funding sources	Total	Federal	Total	Federal	Total	Total	Own domestic	Federal	Other domestic business	Foreign business	Other	Total	Federal	Nonfederal government	Business	Higher education	ONP	Total	Federal	Business	ONP
2013	426,994	47,776	31,241	16,534	16,175	439	301,626	243,064	27,459	12,578	17,577	947	59,785	33,522	3,478	3,343	14,212	5,230	17,369	5,583	1,351	10,435
2014 ^g	439,531	48,119	31,647	16,473	16,122	442	313,498	255,113	24,432	12,170	20,742	1,041	59,533	32,250	3,486	3,512	14,759	5,526	17,939	5,622	1,398	10,919
2015 ^h	454,875	47,970	30,944	17,026	16,692	442	327,652	277,721	17,776	11,237	19,958	961	60,468	31,900	3,418	3,707	15,587	5,856	18,343	5,561	1,468	11,313

NA = not available.

FFRDC = federally funded R&D center; HE = higher education; ONP = other nonprofit organization.

^a Includes expenditures for federal intramural R&D as well as costs associated with administering extramural R&D.

^b The R&D expenditures of FFRDCs are chiefly federally funded; the small remainder (\$381 million of the \$17.9 billion total in 2014) reflects funding from state or local government, businesses, other nonprofit organizations, and other sources (see table 6 for further detail on this nonfederal funding). Prior to 2001, the data did not distinguish federal and nonfederal funding for FFRDC R&D and are reported as all federal funding. In 1953–54, federal funding for business R&D did not separate out industry-administered FFRDCs, and the data for federal funding to business for these years include the funding to these FFRDCs. Also in 1953–54, federal funding for other nonprofit organizations did not separate out nonprofit-administered FFRDCs, and the data for federal funding to other nonprofit organizations for these years include the funding to these FFRDCs.

^c State intramural R&D performance includes state agency and department employees and also services performed by others in support of internal R&D projects; also includes funding from both federal and nonfederal government sources (see table 6 for further detail). Data on state government intramural R&D became available starting in 2006.

^d R&D performed in the domestic United States by all companies with 5 employees or more, publicly or privately held. In 2008 and later years, the data on business R&D come from the National Science Foundation's (NSF's) annual Business R&D and Innovation Survey (BRDIS). BRDIS distinguishes R&D performed and paid for by the company from R&D performed by the company but paid for by one or more others (i.e., the federal government, state or local government, domestic companies, foreign companies, foreign governments, other organizations inside or outside the United States). Prior to 2008, the data distinguished only federally and nonfederally funded business R&D; for these years, the own domestic funding data column includes all nonfederal sources of funding. Business R&D performance in the United States paid for by foreign business includes funding from parent or unaffiliated businesses outside the United States (\$17.2 billion in 2014) and funding from U.S. businesses' foreign subsidiaries (\$5.3 billion in 2014). Business R&D performance funded by other sources includes U.S. state government, foreign government, and all other sources in the United States and abroad.

^e Before 2003, higher education R&D covered only science and engineering (S&E) fields; in 2003 and later years, R&D in non-S&E fields is also included. (Non-S&E R&D was \$1.4 billion in 2003 and \$3.4 billion in 2014.) In 1998 and later years, the higher education R&D data have been adjusted to eliminate double counting of R&D funds passed through from one academic institution to another. (In FY 1998, the total of pass-through funds reported was \$479 million, \$421 million of which were federal dollars. In FY 2014, total pass-through was \$3.169 billion, with \$2.835 billion federal.) The nonfederal government funding category includes support from state and local government. The other nonprofit funding category includes support from nonprofit organizations and other sources not elsewhere classified. (In 2014, \$4.063 billion was from nonprofit organizations, and \$1.944 billion was from these unclassified other sources.)

^f The data on other nonprofit R&D funded by the federal government come from NSF's annual Federal Funds for R&D Survey. That funded by nonfederal government is included in the ONP category. The 1998–2015 data for other components funded by businesses and by the nonprofit sector itself are estimated, based on parameters from the 1996–97 Survey of R&D Funding and Performance by Nonprofit Organizations.

^g Some data for 2014 are preliminary and may later be revised.

^h The data for 2015 are estimates and will later be revised.

NOTES: Detail may not add to total due to rounding. Constant-dollar estimates are derived from unrounded data. For trend comparisons, use only the historical data reported in this table because some back-year data may have been revised. Except for the nonprofit sector, data are based on annual reports by performers in NSF's annual R&D expenditure surveys: Business R&D and Innovation Survey, Higher Education R&D Survey, Survey of Federal Funds for R&D, FFRDC R&D Expenditures Survey, and Survey of State Government R&D. R&D expenditures by business performers—and also, before 2001, industry-administered FFRDCs—are collected on a calendar year basis. Expenditures for other performers are calendar year approximations based on fiscal year data. For federal performers in 1977 and afterward, the approximation equals 75% of the amount reported in the same fiscal year plus 25% of the amount reported in the subsequent fiscal year. Prior to 1977, the federal fiscal year began on 1 July, not 1 October, and the approximation is 50% of the amount reported in the same fiscal year plus 50% of the amount reported in the subsequent fiscal year. The fiscal year for higher education performers and state government performers generally begins 1 July, and the calendar year approximation is 50% of the amount reported in the same fiscal year plus 50% of the amount reported in the subsequent fiscal year.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, National Patterns of R&D Resources (annual series).