

TABLE 6

U.S. R&D expenditures, by source of funds and performing sector: 1953–2017

(Millions of current and of constant 2012 dollars)

Year	All funding sources		Federal						Nonfederal government					Business					Higher education	Other nonprofit organizations				
	All performers	Total	Federal intramural	FFRDC	Nonfederal government	Business	Higher education	ONP	Total	FFRDC	Nonfederal government	Business	Higher education	Total	FFRDC	Business	Higher education	ONP	Higher education	Total	FFRDC	Business	Higher education	ONP
Current \$millions																								
1953	5,160	2,783	1,015	131	NA	1,430	149	58	40	NA	NA	NA	40	2,247	NA	2,200	21	26	37	55	NA	NA	27	28
1954	5,621	3,102	963	165	NA	1,750	165	61	45	NA	NA	NA	45	2,375	NA	2,320	24	31	40	60	NA	NA	29	31
1955	6,185	3,507	973	319	NA	1,960	191	65	50	NA	NA	NA	50	2,522	NA	2,460	27	35	42	64	NA	NA	32	32
1956	8,501	4,979	1,131	561	NA	2,995	221	71	57	NA	NA	NA	57	3,346	NA	3,277	32	37	46	74	NA	NA	36	38
1957	9,908	6,233	1,297	688	NA	3,928	242	79	64	NA	NA	NA	64	3,470	NA	3,396	37	37	51	91	NA	NA	40	51
1958	10,915	6,974	1,507	657	NA	4,436	280	95	72	NA	NA	NA	72	3,707	NA	3,630	39	38	56	107	NA	NA	45	62
1959	12,490	8,167	1,681	789	NA	5,217	356	125	81	NA	NA	NA	81	4,065	NA	3,983	40	42	61	117	NA	NA	50	67
1960	13,711	8,915	1,801	910	NA	5,604	453	148	90	NA	NA	NA	90	4,516	NA	4,428	40	48	67	123	NA	NA	55	68
1961	14,564	9,484	1,987	1,087	NA	5,685	557	169	101	NA	NA	NA	101	4,757	NA	4,668	40	49	75	148	NA	NA	62	86
1962	15,636	10,138	2,188	1,056	NA	6,008	687	200	112	NA	NA	NA	112	5,124	NA	5,029	41	54	84	179	NA	NA	70	109
1963	17,519	11,646	2,559	1,159	NA	6,856	839	234	125	NA	NA	NA	125	5,456	NA	5,360	41	55	96	197	NA	NA	78	119
1964	19,103	12,765	2,966	1,297	NA	7,257	995	250	138	NA	NA	NA	138	5,888	NA	5,792	41	55	114	200	NA	NA	88	112
1965	20,253	13,194	3,157	1,218	NA	7,367	1,167	286	150	NA	NA	NA	150	6,549	NA	6,445	42	62	136	225	NA	NA	101	124
1966	22,072	14,165	3,308	1,217	NA	7,977	1,335	329	160	NA	NA	NA	160	7,331	NA	7,216	45	70	165	252	NA	NA	114	138
1967	23,347	14,564	3,445	1,340	NA	7,946	1,491	342	168	NA	NA	NA	168	8,146	NA	8,020	52	74	200	271	NA	NA	126	145
1968	24,667	14,965	3,498	1,372	NA	8,145	1,586	364	185	NA	NA	NA	185	9,008	NA	8,869	58	81	221	290	NA	NA	139	151
1969	25,996	15,228	3,790	1,440	NA	7,987	1,624	388	208	NA	NA	NA	208	10,011	NA	9,857	61	93	233	316	NA	NA	155	161
1970	26,271	14,984	4,154	1,430	NA	7,306	1,686	410	237	NA	NA	NA	237	10,449	NA	10,288	66	95	259	343	NA	NA	171	172
1971	26,952	15,210	4,409	1,441	NA	7,175	1,760	427	262	NA	NA	NA	262	10,824	NA	10,654	72	98	290	366	NA	NA	182	184
1972	28,740	16,039	4,676	1,533	NA	7,469	1,890	472	282	NA	NA	NA	282	11,715	NA	11,535	79	101	312	393	NA	NA	195	198
1973	30,952	16,587	4,837	1,576	NA	7,600	2,009	566	301	NA	NA	NA	301	13,299	NA	13,104	90	105	344	421	NA	NA	210	211
1974	33,359	17,287	5,132	1,784	NA	7,572	2,160	639	320	NA	NA	NA	320	14,886	NA	14,667	105	114	394	474	NA	NA	239	235
1975	35,671	18,533	5,561	2,019	NA	7,878	2,400	675	348	NA	NA	NA	348	15,824	NA	15,582	118	124	432	534	NA	NA	272	262
1976	39,435	20,292	5,890	2,401	NA	8,671	2,619	711	369	NA	NA	NA	369	17,702	NA	17,436	131	135	480	592	NA	NA	300	292
1977	43,338	22,071	6,211	2,704	NA	9,523	2,893	740	394	NA	NA	NA	394	19,642	NA	19,340	155	147	569	662	NA	NA	337	326
1978	48,719	24,414	6,962	3,186	NA	10,107	3,329	830	443	NA	NA	NA	443	22,457	NA	22,115	182	160	679	727	NA	NA	364	363
1979	55,379	27,225	7,471	3,567	NA	11,354	3,848	985	482	NA	NA	NA	482	26,097	NA	25,708	215	174	785	791	NA	NA	386	405
1980	63,224	29,986	7,831	4,052	NA	12,752	4,335	1,017	519	NA	NA	NA	519	30,929	NA	30,476	264	189	920	871	NA	NA	419	452
1981	72,292	33,739	8,605	4,393	NA	14,997	4,670	1,075	581	NA	NA	NA	581	35,948	NA	35,428	314	206	1,058	967	NA	NA	463	504
1982	80,748	37,133	9,501	4,563	NA	17,061	4,879	1,129	621	NA	NA	NA	621	40,692	NA	40,105	363	224	1,207	1,095	NA	NA	534	561
1983	89,949	41,451	10,830	5,011	NA	19,095	5,210	1,306	658	NA	NA	NA	658	45,264	NA	44,588	432	244	1,357	1,220	NA	NA	595	626
1984	102,244	46,470	11,916	5,602	NA	21,657	5,748	1,548	721	NA	NA	NA	721	52,187	NA	51,404	518	265	1,514	1,351	NA	NA	654	698
1985	114,671	52,641	13,093	6,134	NA	25,333	6,388	1,694	834	NA	NA	NA	834	57,962	NA	57,043	630	289	1,743	1,491	NA	NA	713	778
1986	120,249	54,622	13,505	6,405	NA	26,000	7,028	1,686	969	NA	NA	NA	969	60,991	NA	59,932	745	314	2,019	1,647	NA	NA	780	867

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	All performers	Total	Federal intramural	FFRDC	Nonfederal government	Business	Higher education	ONP	Total	FFRDC	Nonfederal government	Business	Higher education	Total	FFRDC	Business	Higher education	ONP	Higher education	Total	FFRDC	Business	Higher education	ONP	
1987	126,360	58,609	13,588	6,792	NA	28,757	7,768	1,704	1,065	NA	NA	NA	1,065	62,576	NA	61,403	831	342	2,262	1,849	NA	NA	882	967	
1988	133,881	60,131	14,342	7,212	NA	28,221	8,593	1,762	1,165	NA	NA	NA	1,165	67,977	NA	66,672	933	372	2,527	2,081	NA	NA	1,003	1,078	
1989	141,891	60,465	15,231	7,497	NA	26,359	9,317	2,062	1,274	NA	NA	NA	1,274	74,966	NA	73,501	1,061	405	2,852	2,333	NA	NA	1,131	1,202	
1990	151,993	61,610	15,671	7,853	NA	25,802	9,939	2,346	1,399	NA	NA	NA	1,399	83,208	NA	81,602	1,166	440	3,187	2,589	NA	NA	1,249	1,340	
1991	160,876	60,783	15,249	8,093	NA	24,095	10,667	2,679	1,483	NA	NA	NA	1,483	92,300	NA	90,580	1,242	479	3,458	2,852	NA	NA	1,358	1,494	
1992	165,350	60,915	15,853	8,360	NA	22,369	11,528	2,806	1,525	NA	NA	NA	1,525	96,229	NA	94,388	1,320	521	3,569	3,113	NA	NA	1,448	1,666	
1993	165,730	60,528	16,531	8,003	NA	20,844	12,307	2,843	1,557	NA	NA	NA	1,557	96,549	NA	94,591	1,392	567	3,709	3,388	NA	NA	1,531	1,857	
1994	169,207	60,777	16,355	8,254	NA	20,261	12,996	2,911	1,623	NA	NA	NA	1,623	99,204	NA	97,131	1,456	617	3,938	3,665	NA	NA	1,595	2,071	
1995	183,625	62,969	16,904	8,448	NA	21,178	13,592	2,847	1,751	NA	NA	NA	1,751	110,871	NA	108,652	1,548	671	4,110	3,925	NA	NA	1,617	2,308	
1996	197,346	63,394	16,585	8,464	NA	21,356	14,084	2,905	1,861	NA	NA	NA	1,861	123,417	NA	121,015	1,672	730	4,436	4,239	NA	NA	1,666	2,574	
1997	211,894	64,362	16,819	8,413	NA	21,798	14,317	3,014	1,902	NA	NA	NA	1,902	136,208	NA	133,611	1,788	809	4,852	4,571	NA	NA	1,767	2,804	
1998	225,759	65,908	17,362	8,480	NA	22,086	14,699	3,281	1,920	NA	NA	NA	1,920	147,774	NA	145,016	1,898	859	5,193	4,963	NA	NA	1,871	3,092	
1999	244,451	66,817	18,142	8,704	NA	20,496	15,714	3,761	2,036	NA	NA	NA	2,036	164,545	NA	161,594	2,020	931	5,654	5,399	NA	NA	2,050	3,349	
2000	267,950	67,238	19,247	9,269	NA	17,117	17,095	4,510	2,182	NA	NA	NA	2,182	185,975	NA	182,844	2,112	1,020	6,270	6,285	NA	NA	2,258	4,027	
2001	278,539	73,793	22,374	10,056	NA	16,899	18,976	5,488	2,341	22	NA	NA	2,319	188,408	142	185,118	2,120	1,029	6,874	7,122	218	NA	2,461	4,443	
2002	277,911	78,873	23,798	11,242	NA	16,401	21,655	5,778	2,553	32	NA	NA	2,521	180,704	135	177,467	2,103	998	7,673	8,109	275	NA	2,732	5,102	
2003	291,365	85,133	24,982	11,841	NA	17,798	24,567	5,945	2,788	32	NA	NA	2,756	186,171	134	182,926	2,090	1,020	8,286	8,988	245	NA	2,879	5,864	
2004	302,731	90,795	24,898	12,471	NA	20,266	26,624	6,537	2,926	31	NA	NA	2,896	191,346	122	188,035	2,148	1,041	8,637	9,028	165	NA	2,993	5,870	
2005	325,288	95,413	26,322	12,894	NA	21,909	27,743	6,545	2,977	32	NA	NA	2,945	207,775	139	204,250	2,279	1,107	9,353	9,771	180	NA	3,170	6,420	
2006	350,908	99,938	28,240	12,969	105	24,304	28,277	6,044	3,293	31	204	NA	3,059	227,182	171	223,365	2,464	1,182	10,176	10,320	200	NA	3,394	6,726	
2007	377,890	105,128	29,859	13,845	135	26,585	28,725	5,980	3,594	32	253	NA	3,308	246,815	180	242,682	2,697	1,257	10,933	11,420	216	NA	3,767	7,438	
2008	404,773	117,615	29,839	15,369	176	36,360	29,635	6,236	4,221	33	315	306	3,567	258,016	199	253,562	2,954	1,301	11,738	13,184	209	452	4,161	8,362	
2009	402,931	125,765	30,560	16,571	224	39,573	31,741	7,097	4,295	40	381	195	3,679	246,610	184	242,135	3,033	1,258	12,056	14,205	218	490	4,400	9,097	
2010	406,580	126,617	31,970	18,409	264	34,199	34,682	7,093	4,302	46	427	156	3,673	248,124	174	243,732	2,953	1,265	12,262	15,275	199	890	4,515	9,672	
2011	426,161	127,015	34,950	18,176	273	31,309	35,742	6,564	4,386	30	421	321	3,615	266,421	189	261,901	2,999	1,333	13,104	15,235	179	561	4,630	9,865	
2012	433,619	123,838	34,017	17,727	266	30,621	34,968	6,239	4,158	42	398	157	3,560	275,717	185	270,997	3,169	1,366	14,300	15,607	173	476	4,899	10,059	
2013	453,964	120,130	33,406	17,296	257	29,362	33,839	5,970	4,244	45	362	194	3,643	297,167	195	292,153	3,375	1,444	15,378	17,045	144	819	5,312	10,770	
2014	475,418	118,364	34,783	17,523	247	26,554	33,121	6,135	4,214	26	336	138	3,714	318,382	218	313,043	3,601	1,520	16,209	18,250	137	993	5,701	11,420	
2015	493,687	119,495	34,199	18,287	247	26,990	33,554	6,219	4,280	19	361	127	3,772	333,207	205	327,589	3,842	1,572	17,320	19,386	138	1,115	6,154	11,979	
2016 ^a	515,305	116,120	31,715	19,059	256	23,772	34,677	6,641	4,542	23	394	171	3,953	355,545	192	349,662	4,042	1,649	18,462	20,637	150	1,080	6,679	12,728	
2017 ^b	542,222	117,955	31,168	19,786	269	23,785	35,736	7,212	4,748	29	419	197	4,103	378,022	193	371,838	4,266	1,725	19,511	21,986	150	1,244	7,210	13,382	
Constant 2012 \$millions																									
1953	35,738	19,272	7,030	907	NA	9,904	1,032	398	274	NA	NA	NA	274	15,559	NA	15,237	142	180	253	381	NA	NA	187	194	
1954	38,573	21,289	6,606	1,129	NA	12,010	1,129	415	305	NA	NA	NA	305	16,296	NA	15,922	161	213	271	412	NA	NA	199	213	

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	All performers	Total	Federal intramural	FFRDC	Nonfederal government	Business	Higher education	ONP	Total	FFRDC	Nonfederal government	Business	Higher education	Total	FFRDC	Business	Higher education	ONP	Higher education	Total	FFRDC	Business	Higher education	ONP
1955	41,735	23,665	6,566	2,149	NA	13,226	1,289	435	337	NA	NA	NA	337	17,018	NA	16,600	182	236	283	432	NA	NA	216	216
1956	55,467	32,485	7,377	3,661	NA	19,543	1,442	463	369	NA	NA	NA	369	21,830	NA	21,383	206	241	300	483	NA	NA	235	248
1957	62,586	39,369	8,193	4,343	NA	24,812	1,525	496	404	NA	NA	NA	404	21,916	NA	21,451	231	234	322	575	NA	NA	253	322
1958	67,414	43,073	9,304	4,055	NA	27,398	1,729	587	445	NA	NA	NA	445	22,895	NA	22,420	241	235	343	658	NA	NA	275	383
1959	76,086	49,753	10,241	4,807	NA	31,782	2,166	758	490	NA	NA	NA	490	24,761	NA	24,264	241	256	372	710	NA	NA	302	408
1960	82,408	53,582	10,822	5,469	NA	33,682	2,720	890	541	NA	NA	NA	541	27,143	NA	26,614	240	288	403	739	NA	NA	331	409
1961	86,615	56,403	11,817	6,462	NA	33,810	3,310	1,005	598	NA	NA	NA	598	28,291	NA	27,761	238	291	443	880	NA	NA	369	511
1962	91,874	59,569	12,853	6,205	NA	35,302	4,034	1,175	658	NA	NA	NA	658	30,105	NA	29,549	238	317	494	1,049	NA	NA	408	640
1963	101,759	67,643	14,861	6,729	NA	39,823	4,870	1,359	726	NA	NA	NA	726	31,688	NA	31,133	235	319	558	1,144	NA	NA	453	691
1964	109,296	73,031	16,967	7,421	NA	41,520	5,693	1,430	787	NA	NA	NA	787	33,685	NA	33,138	232	315	649	1,144	NA	NA	503	641
1965	113,794	74,134	17,736	6,841	NA	41,393	6,557	1,607	840	NA	NA	NA	840	36,794	NA	36,213	233	348	764	1,261	NA	NA	565	697
1966	120,642	77,423	18,081	6,649	NA	43,601	7,297	1,796	875	NA	NA	NA	875	40,070	NA	39,441	246	383	899	1,375	NA	NA	620	754
1967	124,005	77,353	18,298	7,117	NA	42,204	7,917	1,816	892	NA	NA	NA	892	43,264	NA	42,597	274	393	1,060	1,437	NA	NA	667	770
1968	125,661	76,235	17,818	6,990	NA	41,494	8,080	1,854	940	NA	NA	NA	940	45,888	NA	45,182	293	413	1,123	1,475	NA	NA	706	769
1969	126,251	73,957	18,407	6,994	NA	38,790	7,885	1,882	1,010	NA	NA	NA	1,010	48,617	NA	47,872	294	452	1,132	1,535	NA	NA	753	782
1970	121,194	69,125	19,162	6,595	NA	33,704	7,775	1,889	1,093	NA	NA	NA	1,093	48,201	NA	47,460	302	438	1,193	1,582	NA	NA	789	793
1971	118,327	66,778	19,356	6,324	NA	31,501	7,725	1,872	1,150	NA	NA	NA	1,150	47,521	NA	46,775	316	430	1,271	1,607	NA	NA	799	808
1972	120,958	67,503	19,678	6,452	NA	31,434	7,954	1,984	1,187	NA	NA	NA	1,187	49,304	NA	48,547	332	425	1,311	1,652	NA	NA	819	833
1973	123,495	66,181	19,297	6,288	NA	30,323	8,014	2,258	1,201	NA	NA	NA	1,201	53,062	NA	52,284	359	419	1,373	1,680	NA	NA	838	842
1974	122,118	63,282	18,788	6,531	NA	27,719	7,907	2,337	1,170	NA	NA	NA	1,170	54,492	NA	53,691	383	418	1,440	1,734	NA	NA	873	861
1975	119,507	62,091	18,632	6,764	NA	26,393	8,041	2,261	1,166	NA	NA	NA	1,166	53,015	NA	52,203	395	416	1,446	1,790	NA	NA	911	879
1976	125,226	64,436	18,704	7,623	NA	27,535	8,317	2,258	1,172	NA	NA	NA	1,172	56,214	NA	55,368	416	429	1,524	1,880	NA	NA	951	928
1977	129,570	65,988	18,571	8,085	NA	28,472	8,648	2,213	1,178	NA	NA	NA	1,178	58,724	NA	57,822	462	440	1,700	1,981	NA	NA	1,006	975
1978	136,085	68,193	19,447	8,899	NA	28,231	9,297	2,318	1,237	NA	NA	NA	1,237	62,727	NA	61,773	507	447	1,897	2,031	NA	NA	1,015	1,015
1979	142,839	70,221	19,271	9,200	NA	29,285	9,925	2,541	1,242	NA	NA	NA	1,242	67,311	NA	66,309	553	449	2,025	2,039	NA	NA	994	1,045
1980	149,562	70,935	18,524	9,585	NA	30,166	10,254	2,406	1,227	NA	NA	NA	1,227	73,165	NA	72,094	623	448	2,175	2,060	NA	NA	991	1,069
1981	156,232	72,914	18,595	9,494	NA	32,410	10,091	2,322	1,256	NA	NA	NA	1,256	77,688	NA	76,564	679	445	2,285	2,089	NA	NA	1,001	1,088
1982	164,350	75,579	19,338	9,288	NA	34,725	9,929	2,298	1,264	NA	NA	NA	1,264	82,823	NA	81,628	739	456	2,456	2,229	NA	NA	1,086	1,143
1983	176,179	81,187	21,211	9,814	NA	37,400	10,205	2,557	1,289	NA	NA	NA	1,289	88,656	NA	87,332	846	478	2,657	2,391	NA	NA	1,164	1,226
1984	193,284	87,849	22,526	10,591	NA	40,941	10,865	2,926	1,363	NA	NA	NA	1,363	98,656	NA	97,176	978	502	2,862	2,555	NA	NA	1,235	1,319
1985	210,131	96,463	23,992	11,240	NA	46,422	11,706	3,104	1,527	NA	NA	NA	1,527	106,213	NA	104,530	1,154	529	3,194	2,732	NA	NA	1,307	1,426
1986	216,004	98,119	24,258	11,505	NA	46,704	12,624	3,028	1,741	NA	NA	NA	1,741	109,559	NA	107,657	1,338	564	3,626	2,959	NA	NA	1,401	1,558
1987	221,505	102,740	23,820	11,905	NA	50,410	13,617	2,988	1,866	NA	NA	NA	1,866	109,693	NA	107,637	1,457	599	3,965	3,241	NA	NA	1,545	1,695
1988	226,693	101,816	24,285	12,212	NA	47,785	14,550	2,984	1,973	NA	NA	NA	1,973	115,102	NA	112,892	1,580	630	4,279	3,524	NA	NA	1,698	1,826
1989	231,189	98,519	24,816	12,216	NA	42,948	15,180	3,360	2,076	NA	NA	NA	2,076	122,146	NA	119,758	1,728	659	4,647	3,801	NA	NA	1,843	1,959

TABLE 6

U.S. R&D expenditures, by source of funds and performing sector: 1953–2017

(Millions of current and of constant 2012 dollars)

Year	All funding sources		Federal						Nonfederal government					Business					Higher education	Other nonprofit organizations				
	All performers	Total	Federal intramural	FFRDC	Nonfederal government	Business	Higher education	ONP	Total	FFRDC	Nonfederal government	Business	Higher education	Total	FFRDC	Business	Higher education	ONP	Higher education	Total	FFRDC	Business	Higher education	ONP
1990	238,716	96,764	24,613	12,333	NA	40,524	15,610	3,684	2,197	NA	NA	NA	2,197	130,684	NA	128,162	1,831	691	5,005	4,067	NA	NA	1,962	2,105
1991	244,403	92,342	23,167	12,295	NA	36,605	16,205	4,070	2,252	NA	NA	NA	2,252	140,223	NA	137,609	1,886	728	5,253	4,333	NA	NA	2,063	2,270
1992	245,602	90,479	23,547	12,417	NA	33,226	17,122	4,167	2,265	NA	NA	NA	2,265	142,933	NA	140,199	1,960	774	5,300	4,624	NA	NA	2,150	2,474
1993	240,467	87,823	23,985	11,612	NA	30,244	17,857	4,125	2,259	NA	NA	NA	2,259	140,089	NA	137,247	2,019	823	5,381	4,915	NA	NA	2,221	2,695
1994	240,380	86,342	23,235	11,726	NA	28,783	18,462	4,136	2,305	NA	NA	NA	2,305	140,932	NA	137,987	2,068	876	5,594	5,207	NA	NA	2,265	2,941
1995	255,506	87,618	23,521	11,755	NA	29,468	18,913	3,962	2,436	NA	NA	NA	2,436	154,272	NA	151,184	2,153	934	5,719	5,461	NA	NA	2,249	3,212
1996	269,662	86,624	22,662	11,565	NA	29,182	19,245	3,970	2,543	NA	NA	NA	2,543	168,641	NA	165,360	2,284	998	6,061	5,792	NA	NA	2,276	3,517
1997	284,628	86,454	22,592	11,301	NA	29,280	19,232	4,049	2,555	NA	NA	NA	2,555	182,962	NA	179,474	2,402	1,086	6,517	6,140	NA	NA	2,374	3,766
1998	299,880	87,547	23,063	11,264	NA	29,337	19,525	4,358	2,551	NA	NA	NA	2,551	196,291	NA	192,628	2,522	1,141	6,898	6,593	NA	NA	2,486	4,107
1999	320,086	87,490	23,755	11,397	NA	26,838	20,576	4,924	2,667	NA	NA	NA	2,667	215,456	NA	211,592	2,646	1,219	7,403	7,070	NA	NA	2,684	4,385
2000	343,186	86,117	24,651	11,872	NA	21,923	21,895	5,776	2,795	NA	NA	NA	2,795	238,195	NA	234,184	2,705	1,306	8,030	8,050	NA	NA	2,892	5,158
2001	349,091	92,485	28,042	12,603	NA	21,179	23,783	6,878	2,934	28	NA	NA	2,906	236,131	177	232,007	2,657	1,290	8,615	8,926	273	NA	3,085	5,569
2002	342,881	97,312	29,361	13,870	NA	20,235	26,717	7,129	3,150	39	NA	NA	3,110	222,948	167	218,955	2,595	1,231	9,467	10,004	339	NA	3,371	6,294
2003	352,925	103,120	30,260	14,343	NA	21,558	29,757	7,201	3,377	39	NA	NA	3,338	225,505	162	221,575	2,532	1,236	10,036	10,887	297	NA	3,487	7,103
2004	357,079	107,095	29,367	14,709	NA	23,904	31,404	7,710	3,451	36	NA	NA	3,415	225,698	144	221,793	2,533	1,228	10,187	10,648	194	NA	3,530	6,924
2005	372,095	109,142	30,110	14,749	NA	25,062	31,735	7,486	3,405	36	NA	NA	3,369	237,673	160	233,641	2,607	1,266	10,698	11,177	206	NA	3,627	7,344
2006	389,612	110,960	31,354	14,399	117	26,985	31,396	6,710	3,657	34	226	NA	3,397	252,239	190	248,001	2,735	1,312	11,298	11,458	222	NA	3,768	7,468
2007	408,591	113,669	32,285	14,970	146	28,745	31,058	6,465	3,886	35	274	NA	3,577	266,867	195	262,398	2,916	1,359	11,821	12,348	233	NA	4,073	8,042
2008	429,311	124,745	31,648	16,300	187	38,564	31,432	6,614	4,477	35	334	325	3,783	273,657	211	268,933	3,133	1,379	12,449	13,983	221	479	4,413	8,869
2009	424,122	132,380	32,167	17,442	236	41,654	33,410	7,470	4,521	42	401	205	3,873	259,579	194	254,869	3,192	1,324	12,690	14,952	229	516	4,632	9,575
2010	423,033	131,741	33,264	19,154	275	35,583	36,085	7,380	4,476	48	444	162	3,822	258,165	181	253,595	3,073	1,316	12,758	15,893	207	926	4,697	10,063
2011	434,334	129,451	35,621	18,524	278	31,909	36,428	6,690	4,470	30	429	327	3,684	271,531	192	266,924	3,056	1,358	13,355	15,528	183	572	4,719	10,054
2012	433,619	123,838	34,017	17,727	266	30,621	34,968	6,239	4,158	42	398	157	3,560	275,717	185	270,997	3,169	1,366	14,300	15,607	173	476	4,899	10,059
2013	446,135	118,058	32,830	16,998	253	28,856	33,255	5,867	4,171	44	356	191	3,580	292,042	192	287,114	3,316	1,420	15,112	16,751	141	805	5,220	10,585
2014	458,544	114,163	33,549	16,901	239	25,612	31,945	5,917	4,064	25	324	133	3,582	307,081	210	301,932	3,473	1,466	15,634	17,602	132	958	5,498	11,014
2015	471,126	114,034	32,636	17,451	235	25,757	32,021	5,934	4,084	18	345	121	3,600	317,980	195	312,619	3,666	1,500	16,528	18,500	132	1,064	5,873	11,431
2016 ^a	486,437	109,615	29,939	17,991	242	22,440	32,734	6,269	4,287	22	372	161	3,732	335,627	181	330,074	3,816	1,556	17,428	19,481	142	1,019	6,305	12,015
2017 ^b	502,299	109,270	28,873	18,329	249	22,034	33,105	6,681	4,399	27	388	182	3,801	350,189	179	344,460	3,952	1,598	18,074	20,367	139	1,152	6,679	12,397

NA = not available.

FFRDC = federally funded research and development center; ONP = other nonprofit organization; R&D = research and development.

^a Some data for 2016 are preliminary and may later be revised.^b The data for 2017 are estimates and will later be revised.

Note(s)

TABLE 6

U.S. R&D expenditures, by source of funds and performing sector: 1953–2017

(Millions of current and of constant 2012 dollars)

This table reaggregates the R&D performer data in table 2 according to major categories of R&D funding: federal government, nonfederal government (state and local), business, higher education, and ONPs. Business sources of R&D funding in this table include the own funds of domestic R&D performing businesses, funds from other domestic businesses, and funds from foreign businesses. For interpretive detail on the R&D performers listed, see table 2, footnotes a–f. Detail may not add to total because of 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 the National Science Foundation's annual R&D expenditure surveys: Business Research and Development and Innovation Survey, Higher Education Research and Development Survey, Survey of Federal Funds for Research and Development, FFRDC Research and Development Expenditures Survey, and Survey of State Government Research and Development. R&D expenditures by business performers—and, before 2001, also industry-administered FFRDCs—are collected on a calendar year basis. Expenditures for other performers are calendar year approximations based on fiscal year data. (See table 2, general notes.) The 1998–2017 data for ONP R&D performance funded by businesses and the nonprofit sector itself are estimated, based on parameters from the 1996–97 Survey of Research and Development Funding and Performance by Nonprofit Organizations.

Source(s)

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