

TABLE 9

U.S. development expenditures, by source of funds and performing sector: 1953–2020

(Millions of current and of constant 2012 dollars)

Year	All funding sources				Federal					Nonfederal government					Business					Higher education		NPOs				
	All performers	Total	Federal intramural	FFRDC	Nonfederal government	Business	Higher education	NPO	Total	FFRDC	Nonfederal government	Business	Higher education	Total	FFRDC	Business	Higher education	NPO	Higher education	Total	FFRDC	Business	Higher education	NPO		
Current \$millions																										
1953	3,412	1,762	567	48	NA	1,123	9	17	3	NA	NA	NA	3	1,637	NA	1,630	1	6	3	7	NA	NA	1	6		
1954	3,734	2,027	537	62	NA	1,405	9	15	3	NA	NA	NA	3	1,693	NA	1,685	1	7	3	8	NA	NA	1	7		
1955	4,113	2,351	543	171	NA	1,614	12	12	4	NA	NA	NA	4	1,748	NA	1,738	2	8	3	8	NA	NA	1	7		
1956	5,854	3,561	631	348	NA	2,559	14	11	4	NA	NA	NA	4	2,277	NA	2,267	2	8	4	9	NA	NA	2	7		
1957	6,681	4,477	728	429	NA	3,300	12	9	5	NA	NA	NA	5	2,185	NA	2,174	3	8	4	10	NA	NA	2	8		
1958	7,213	4,940	842	386	NA	3,691	13	9	6	NA	NA	NA	6	2,252	NA	2,241	3	8	4	11	NA	NA	2	9		
1959	8,463	5,871	940	477	NA	4,426	16	14	6	NA	NA	NA	6	2,569	NA	2,557	3	9	5	12	NA	NA	2	10		
1960	9,360	6,390	1,003	559	NA	4,799	19	10	6	NA	NA	NA	6	2,948	NA	2,935	3	10	5	12	NA	NA	2	10		
1961	9,930	6,701	1,090	670	NA	4,917	22	4	7	NA	NA	NA	7	3,201	NA	3,189	2	10	5	16	NA	NA	2	14		
1962	10,114	6,822	1,227	618	NA	4,950	23	5	8	NA	NA	NA	8	3,259	NA	3,246	2	11	6	20	NA	NA	2	18		
1963	11,539	7,955	1,465	668	NA	5,795	22	6	8	NA	NA	NA	8	3,548	NA	3,535	2	11	6	22	NA	NA	2	20		
1964	12,506	8,610	1,680	739	NA	6,156	30	6	8	NA	NA	NA	8	3,861	NA	3,848	2	11	7	21	NA	NA	3	18		
1965	13,215	8,742	1,789	674	NA	6,218	48	13	9	NA	NA	NA	9	4,433	NA	4,419	2	12	8	24	NA	NA	4	20		
1966	14,490	9,466	1,886	654	NA	6,849	61	16	9	NA	NA	NA	9	4,977	NA	4,961	2	14	10	28	NA	NA	5	23		
1967	15,332	9,521	1,943	706	NA	6,795	66	12	9	NA	NA	NA	9	5,762	NA	5,744	3	15	10	31	NA	NA	7	24		
1968	16,154	9,756	1,904	724	NA	7,044	72	13	8	NA	NA	NA	8	6,346	NA	6,326	4	16	9	35	NA	NA	9	26		
1969	17,051	9,848	2,016	792	NA	6,944	80	17	7	NA	NA	NA	7	7,150	NA	7,127	5	18	8	38	NA	NA	10	28		
1970	16,925	9,382	2,258	790	NA	6,232	84	20	6	NA	NA	NA	6	7,489	NA	7,466	5	18	7	40	NA	NA	10	30		
1971	17,399	9,561	2,473	841	NA	6,167	69	12	8	NA	NA	NA	8	7,780	NA	7,757	4	19	9	42	NA	NA	9	33		
1972	18,743	10,141	2,639	863	NA	6,533	63	44	12	NA	NA	NA	12	8,533	NA	8,510	4	19	14	44	NA	NA	9	35		
1973	20,197	10,311	2,657	860	NA	6,621	71	102	18	NA	NA	NA	18	9,798	NA	9,773	5	20	20	51	NA	NA	13	38		
1974	21,504	10,506	2,765	983	NA	6,553	75	131	20	NA	NA	NA	20	10,896	NA	10,868	7	22	25	57	NA	NA	15	42		
1975	22,706	10,993	2,890	1,103	NA	6,783	83	135	22	NA	NA	NA	22	11,600	NA	11,569	8	23	27	63	NA	NA	16	47		
1976	25,085	12,035	2,972	1,315	NA	7,522	100	128	24	NA	NA	NA	24	12,927	NA	12,890	12	25	31	68	NA	NA	16	52		
1977	27,667	13,153	3,188	1,418	NA	8,275	153	119	28	NA	NA	NA	28	14,370	NA	14,328	15	27	40	76	NA	NA	19	58		
1978	31,056	14,383	3,676	1,584	NA	8,756	254	113	32	NA	NA	NA	32	16,504	NA	16,460	15	30	49	88	NA	NA	24	64		
1979	35,445	16,064	3,944	1,753	NA	9,888	336	143	34	NA	NA	NA	34	19,193	NA	19,145	16	32	56	99	NA	NA	28	71		
1980	40,748	17,587	4,072	2,009	NA	10,957	362	187	38	NA	NA	NA	38	22,945	NA	22,891	19	35	68	110	NA	NA	31	79		
1981	46,305	20,242	4,530	2,175	NA	12,791	386	360	44	NA	NA	NA	44	25,817	NA	25,756	24	37	80	123	NA	NA	35	88		
1982	51,879	22,323	5,178	2,170	NA	14,215	397	362	46	NA	NA	NA	46	29,286	NA	29,219	27	40	88	137	NA	NA	39	98		
1983	57,771	24,859	6,106	2,385	NA	15,522	399	447	47	NA	NA	NA	47	32,617	NA	32,542	31	44	97	151	NA	NA	43	109		
1984	66,461	28,320	7,078	2,572	NA	17,640	435	594	51	NA	NA	NA	51	37,815	NA	37,731	37	47	108	167	NA	NA	47	120		

TABLE 9

U.S. development expenditures, by source of funds and performing sector: 1953–2020

(Millions of current and of constant 2012 dollars)

Year	All funding sources		Federal						Nonfederal government					Business					Higher education		NPOs				
	All performers	Total	Federal intramural	FFRDC	Nonfederal government	Business	Higher education	NPO	Total	FFRDC	Nonfederal government	Business	Higher education	Total	FFRDC	Business	Higher education	NPO	Higher education	Total	FFRDC	Business	Higher education	NPO	
1985	74,522	32,304	8,011	2,906	NA	20,258	486	644	57	NA	NA	NA	57	41,857	NA	41,762	43	51	120	183	NA	NA	49	134	
1986	75,855	33,993	8,275	3,101	NA	21,517	513	587	65	NA	NA	NA	65	41,460	NA	41,354	50	55	136	201	NA	NA	53	149	
1987	79,929	36,691	8,176	3,321	NA	24,122	599	474	73	NA	NA	NA	73	42,784	NA	42,667	57	60	155	226	NA	NA	61	165	
1988	84,567	37,285	8,864	3,596	NA	23,719	698	407	83	NA	NA	NA	83	46,765	NA	46,634	66	65	180	254	NA	NA	71	183	
1989	87,723	35,320	9,355	3,635	NA	21,049	773	507	91	NA	NA	NA	91	51,822	NA	51,676	76	70	205	285	NA	NA	81	203	
1990	94,067	33,859	9,700	3,663	NA	18,966	910	619	99	NA	NA	NA	99	59,568	NA	59,410	83	75	226	315	NA	NA	89	226	
1991	95,105	31,220	8,778	3,452	NA	17,256	1,012	722	103	NA	NA	NA	103	63,197	NA	63,030	86	82	239	345	NA	NA	94	251	
1992	99,811	31,514	9,098	3,423	NA	17,181	1,055	758	105	NA	NA	NA	105	67,567	NA	67,388	91	88	246	378	NA	NA	100	279	
1993	99,705	30,055	9,071	2,986	NA	16,083	1,127	787	109	NA	NA	NA	109	68,866	NA	68,674	97	95	259	416	NA	NA	107	309	
1994	102,938	30,208	8,823	3,147	NA	16,209	1,213	815	114	NA	NA	NA	114	71,886	NA	71,681	102	103	276	455	NA	NA	112	343	
1995	113,079	32,436	9,262	3,427	NA	17,824	1,180	744	123	NA	NA	NA	123	79,738	NA	79,518	108	111	288	495	NA	NA	113	381	
1996	121,377	31,373	9,033	3,448	NA	17,066	1,128	698	128	NA	NA	NA	128	89,032	NA	88,797	115	120	305	538	NA	NA	115	423	
1997	128,661	32,256	9,077	3,331	NA	18,121	1,041	687	120	NA	NA	NA	120	95,331	NA	95,063	113	155	306	648	NA	NA	112	536	
1998	144,669	32,684	9,214	3,314	NA	18,452	943	760	113	NA	NA	NA	113	110,865	NA	110,589	112	164	306	702	NA	NA	110	592	
1999	154,315	30,584	9,265	3,335	NA	16,571	686	727	117	NA	NA	NA	117	122,530	NA	122,236	116	178	325	759	NA	NA	118	641	
2000	169,414	27,493	9,377	3,482	NA	13,510	545	580	123	NA	NA	NA	123	140,549	NA	140,235	119	195	352	897	NA	NA	127	771	
2001	167,740	28,396	11,062	3,273	NA	12,542	646	874	136	7	NA	NA	128	137,770	46	137,410	117	197	381	1,057	71	NA	136	850	
2002	176,601	29,745	11,800	3,308	NA	13,061	639	937	149	9	NA	NA	140	145,074	40	144,727	116	191	425	1,208	81	NA	151	976	
2003	175,483	30,011	12,646	3,785	NA	11,939	897	743	166	10	NA	NA	155	143,477	43	143,121	118	195	467	1,363	78	NA	162	1,122	
2004	177,220	34,238	12,746	4,561	NA	14,419	1,211	1,300	172	11	NA	NA	161	140,978	45	140,615	120	199	481	1,350	60	NA	167	1,123	
2005	195,731	36,517	13,994	4,654	NA	15,512	1,146	1,211	169	11	NA	NA	158	157,080	50	156,696	122	212	501	1,463	65	NA	170	1,228	
2006	212,719	38,699	16,089	4,358	2	16,720	927	603	171	10	5	NA	156	171,802	58	171,392	126	226	520	1,527	67	NA	173	1,287	
2007	227,968	39,595	18,016	5,254	3	14,860	894	568	178	8	6	NA	163	185,989	47	185,569	133	240	540	1,665	56	NA	186	1,423	
2008	259,596	54,556	17,566	6,094	4	29,488	841	562	417	7	7	223	179	201,848	45	201,406	148	250	589	2,186	47	330	209	1,600	
2009	255,931	55,920	17,245	6,159	5	30,435	1,526	550	442	8	9	144	282	196,174	39	195,614	280	241	887	2,509	46	361	361	1,740	
2010	251,195	56,904	18,844	6,909	6	28,089	2,419	638	530	11	10	114	396	189,538	40	188,850	407	242	1,178	3,044	45	647	498	1,854	
2011	270,772	58,265	21,879	6,786	6	26,228	2,575	790	637	6	10	230	391	207,737	41	207,025	415	256	1,274	2,859	39	403	521	1,897	
2012	273,051	55,539	19,941	6,631	6	25,840	2,603	518	488	10	9	102	367	212,699	43	211,949	444	263	1,454	2,871	40	310	579	1,941	
2013	286,976	51,524	19,767	6,572	6	22,137	2,568	474	531	11	8	126	385	230,023	49	229,213	482	280	1,597	3,302	36	532	620	2,115	
2014	301,428	48,065	20,303	6,681	6	18,065	2,540	471	500	7	8	87	399	247,491	58	246,601	536	296	1,733	3,640	36	624	696	2,284	
2015	312,977	47,817	18,961	7,062	6	18,850	2,517	422	504	6	8	90	401	258,753	62	257,831	554	307	1,857	4,045	42	786	778	2,439	
2016	325,528	44,001	15,838	7,479	7	16,790	2,573	1,314	568	8	11	129	420	274,937	64	273,926	561	386	1,962	4,060	50	760	866	2,384	
2017	351,248	45,587	15,848	8,021	9	17,736	2,665	1,308	563	11	12	92	448	298,820	64	297,747	607	401	2,096	4,182	51	560	934	2,638	

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U.S. development expenditures, by source of funds and performing sector: 1953–2020

(Millions of current and of constant 2012 dollars)

Year	All funding sources		Federal						Nonfederal government					Business					Higher education		NPOs				
	All performers	Total	Federal intramural	FFRDC	Nonfederal government	Business	Higher education	NPO	Total	FFRDC	Nonfederal government	Business	Higher education	Total	FFRDC	Business	Higher education	NPO	Higher education	Total	FFRDC	Business	Higher education	NPO	
2018	388,957	48,860	18,856	8,567	9	17,301	2,782	1,345	598	15	12	85	486	332,750	65	331,637	624	424	2,185	4,564	54	748	914	2,848	
2019	431,981	49,758	21,253	8,962	13	15,058	3,055	1,417	636	17	16	112	492	374,777	60	373,631	631	454	2,202	4,607	56	617	877	3,057	
2020 ^a	460,545	50,300	22,064	9,331	17	13,945	3,303	1,640	636	15	20	119	482	402,715	60	401,527	654	473	2,239	4,655	56	662	881	3,054	
Constant 2012 \$millions																									
1953	23,628	12,204	3,924	329	NA	7,778	59	114	20	NA	NA	NA	20	11,338	NA	11,289	7	42	18	48	NA	NA	7	42	
1954	25,626	13,908	3,685	422	NA	9,643	58	100	24	NA	NA	NA	24	11,619	NA	11,564	7	48	21	55	NA	NA	7	48	
1955	27,756	15,863	3,661	1,151	NA	10,893	78	81	26	NA	NA	NA	26	11,792	NA	11,728	10	54	22	54	NA	NA	7	47	
1956	38,200	23,234	4,114	2,267	NA	16,696	88	69	29	NA	NA	NA	29	14,858	NA	14,793	13	52	23	55	NA	NA	10	46	
1957	42,204	28,282	4,595	2,710	NA	20,847	76	54	33	NA	NA	NA	33	13,799	NA	13,732	16	51	27	63	NA	NA	13	51	
1958	44,549	30,510	5,197	2,381	NA	22,799	77	56	35	NA	NA	NA	35	13,909	NA	13,841	19	49	27	68	NA	NA	12	56	
1959	51,555	35,768	5,726	2,903	NA	26,962	94	82	36	NA	NA	NA	36	15,650	NA	15,577	18	55	28	73	NA	NA	12	61	
1960	56,257	38,403	6,025	3,360	NA	28,844	114	60	38	NA	NA	NA	38	17,715	NA	17,640	15	60	28	72	NA	NA	12	60	
1961	59,056	39,852	6,479	3,985	NA	29,240	128	21	41	NA	NA	NA	41	19,037	NA	18,966	12	59	30	95	NA	NA	12	83	
1962	59,428	40,082	7,210	3,631	NA	29,083	132	26	45	NA	NA	NA	45	19,149	NA	19,073	12	65	34	118	NA	NA	12	106	
1963	67,026	46,209	8,509	3,880	NA	33,660	128	32	46	NA	NA	NA	46	20,608	NA	20,533	12	64	35	128	NA	NA	12	116	
1964	71,552	49,261	9,612	4,228	NA	35,221	169	31	45	NA	NA	NA	45	22,090	NA	22,016	11	63	37	117	NA	NA	14	103	
1965	74,252	49,116	10,049	3,787	NA	34,937	270	73	49	NA	NA	NA	49	24,908	NA	24,829	11	67	44	135	NA	NA	22	112	
1966	79,197	51,737	10,309	3,572	NA	37,435	333	87	51	NA	NA	NA	51	27,203	NA	27,116	11	77	53	153	NA	NA	27	126	
1967	81,432	50,570	10,320	3,747	NA	36,091	348	64	45	NA	NA	NA	45	30,602	NA	30,509	13	80	53	162	NA	NA	35	127	
1968	82,292	49,698	9,700	3,686	NA	35,885	364	64	39	NA	NA	NA	39	32,329	NA	32,227	20	82	47	178	NA	NA	46	132	
1969	82,809	47,827	9,790	3,844	NA	33,724	386	83	34	NA	NA	NA	34	34,725	NA	34,613	24	87	39	185	NA	NA	49	136	
1970	78,077	43,282	10,416	3,642	NA	28,749	385	90	30	NA	NA	NA	30	34,548	NA	34,442	23	83	32	185	NA	NA	46	138	
1971	76,386	41,974	10,855	3,690	NA	27,075	303	50	34	NA	NA	NA	34	34,157	NA	34,056	18	83	38	182	NA	NA	37	145	
1972	78,884	42,679	11,108	3,630	NA	27,495	263	183	52	NA	NA	NA	52	35,910	NA	35,816	15	80	57	185	NA	NA	38	147	
1973	80,583	41,139	10,602	3,431	NA	26,417	281	407	70	NA	NA	NA	70	39,093	NA	38,993	20	80	80	201	NA	NA	50	152	
1974	78,721	38,461	10,123	3,597	NA	23,989	273	480	73	NA	NA	NA	73	39,887	NA	39,784	24	79	90	209	NA	NA	55	155	
1975	76,069	36,829	9,682	3,695	NA	22,725	276	451	74	NA	NA	NA	74	38,864	NA	38,759	27	78	92	211	NA	NA	54	157	
1976	79,658	38,218	9,437	4,174	NA	23,886	316	405	76	NA	NA	NA	76	41,049	NA	40,932	37	80	99	216	NA	NA	51	165	
1977	82,719	39,325	9,531	4,240	NA	24,740	457	356	83	NA	NA	NA	83	42,963	NA	42,837	43	82	120	228	NA	NA	55	173	
1978	86,747	40,176	10,269	4,426	NA	24,458	709	315	89	NA	NA	NA	89	46,100	NA	45,977	41	83	137	245	NA	NA	66	179	
1979	91,425	41,434	10,172	4,521	NA	25,504	868	369	88	NA	NA	NA	88	49,503	NA	49,381	40	83	144	255	NA	NA	71	184	
1980	96,393	41,604	9,634	4,752	NA	25,920	856	442	90	NA	NA	NA	90	54,278	NA	54,151	46	82	160	260	NA	NA	73	187	
1981	100,071	43,745	9,791	4,701	NA	27,643	834	777	95	NA	NA	NA	95	55,794	NA	55,662	51	81	172	265	NA	NA	75	190	

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	All performers	Total	Federal intramural	FFRDC	Nonfederal government	Business	Higher education	NPO	Total	FFRDC	Nonfederal government	Business	Higher education	Total	FFRDC	Business	Higher education	NPO	Higher education	Total	FFRDC	Business	Higher education	NPO		
1982	105,592	45,434	10,539	4,417	NA	28,932	809	737	93	NA	NA	NA	93	59,607	NA	59,471	54	82	180	278	NA	NA	79	199		
1983	113,153	48,690	11,959	4,671	NA	30,402	782	876	92	NA	NA	NA	92	63,884	NA	63,738	61	86	191	296	NA	NA	83	213		
1984	125,640	53,537	13,381	4,863	NA	33,347	822	1,124	97	NA	NA	NA	97	71,487	NA	71,328	70	89	204	316	NA	NA	88	228		
1985	136,559	59,197	14,679	5,325	NA	37,122	891	1,180	105	NA	NA	NA	105	76,701	NA	76,528	80	94	220	335	NA	NA	90	245		
1986	136,260	61,062	14,864	5,571	NA	38,651	922	1,054	117	NA	NA	NA	117	74,474	NA	74,285	90	99	245	361	NA	NA	95	267		
1987	140,112	64,318	14,331	5,821	NA	42,285	1,049	830	128	NA	NA	NA	128	74,998	NA	74,794	100	105	272	395	NA	NA	106	289		
1988	143,192	63,133	15,009	6,089	NA	40,162	1,182	690	140	NA	NA	NA	140	79,184	NA	78,963	112	109	304	431	NA	NA	121	310		
1989	142,931	57,548	15,243	5,923	NA	34,296	1,260	826	149	NA	NA	NA	149	84,436	NA	84,198	124	114	334	464	NA	NA	132	332		
1990	147,740	53,177	15,235	5,753	NA	29,788	1,429	972	156	NA	NA	NA	156	93,556	NA	93,308	130	118	355	494	NA	NA	139	355		
1991	144,483	47,430	13,335	5,245	NA	26,215	1,537	1,097	156	NA	NA	NA	156	96,010	NA	95,755	131	124	364	524	NA	NA	143	381		
1992	148,253	46,810	13,513	5,084	NA	25,520	1,567	1,126	156	NA	NA	NA	156	100,360	NA	100,094	135	131	365	562	NA	NA	148	414		
1993	144,668	43,608	13,162	4,333	NA	23,336	1,636	1,141	158	NA	NA	NA	158	99,922	NA	99,643	141	138	376	604	NA	NA	155	449		
1994	146,236	42,914	12,535	4,471	NA	23,027	1,724	1,158	161	NA	NA	NA	161	102,123	NA	101,832	145	146	392	647	NA	NA	159	488		
1995	157,344	45,133	12,888	4,769	NA	24,801	1,641	1,035	171	NA	NA	NA	171	110,951	NA	110,646	151	155	401	688	NA	NA	158	531		
1996	165,854	42,870	12,343	4,712	NA	23,320	1,542	953	175	NA	NA	NA	175	121,657	NA	121,336	157	164	417	735	NA	NA	157	579		
1997	172,825	43,328	12,192	4,474	NA	24,341	1,399	922	162	NA	NA	NA	162	128,053	NA	127,694	152	208	411	870	NA	NA	150	721		
1998	192,167	43,414	12,239	4,402	NA	24,510	1,253	1,010	150	NA	NA	NA	150	147,264	NA	146,898	148	218	406	932	NA	NA	146	786		
1999	202,061	40,048	12,132	4,367	NA	21,698	899	952	153	NA	NA	NA	153	160,442	NA	160,057	152	233	425	993	NA	NA	154	839		
2000	217,126	35,236	12,017	4,463	NA	17,315	698	743	157	NA	NA	NA	157	180,132	NA	179,730	152	250	451	1,150	NA	NA	162	988		
2001	210,246	35,592	13,865	4,102	NA	15,720	810	1,095	170	9	NA	NA	161	172,682	58	172,230	147	247	477	1,325	89	NA	171	1,066		
2002	217,957	36,710	14,563	4,083	NA	16,120	789	1,156	184	12	NA	NA	172	179,047	49	178,618	144	236	525	1,491	100	NA	187	1,205		
2003	212,382	36,321	15,305	4,581	NA	14,449	1,086	900	201	13	NA	NA	188	173,646	52	173,216	143	236	565	1,649	95	NA	196	1,358		
2004	208,879	40,355	15,023	5,376	NA	16,995	1,428	1,533	203	13	NA	NA	190	166,163	53	165,735	141	235	567	1,591	71	NA	196	1,324		
2005	223,683	41,732	15,993	5,318	NA	17,727	1,310	1,384	194	13	NA	NA	180	179,513	58	179,073	140	242	573	1,672	74	NA	194	1,404		
2006	235,819	42,901	17,837	4,831	3	18,536	1,027	668	190	11	5	NA	173	190,458	64	190,004	139	251	576	1,693	74	NA	192	1,427		
2007	246,076	42,740	19,447	5,671	3	16,040	965	613	192	9	6	NA	176	200,763	51	200,309	144	260	583	1,797	60	NA	201	1,536		
2008	274,942	57,781	18,605	6,455	4	31,231	891	596	441	8	8	236	189	213,780	48	213,311	157	264	623	2,315	50	350	221	1,695		
2009	269,334	58,849	18,148	6,482	6	32,029	1,606	578	465	9	9	151	296	206,447	41	205,858	295	253	933	2,640	48	380	380	1,832		
2010	261,210	59,173	19,595	7,184	6	29,209	2,515	663	551	11	10	118	412	197,095	41	196,379	423	252	1,225	3,166	47	673	518	1,928		
2011	275,837	59,355	22,288	6,913	6	26,719	2,623	805	649	7	10	234	398	211,623	41	210,897	423	261	1,297	2,913	39	411	531	1,932		
2012	273,051	55,539	19,941	6,631	6	25,840	2,603	518	488	10	9	102	367	212,699	43	211,949	444	263	1,454	2,871	40	310	579	1,941		
2013	282,037	50,637	19,427	6,459	6	21,756	2,523	466	521	11	8	124	378	226,064	48	225,267	473	275	1,569	3,245	35	522	609	2,079		
2014	290,804	46,370	19,587	6,445	5	17,428	2,450	455	482	7	7	84	384	238,768	56	237,909	517	286	1,672	3,511	35	602	671	2,203		

TABLE 9

U.S. development expenditures, by source of funds and performing sector: 1953–2020

(Millions of current and of constant 2012 dollars)

Year	All funding sources		Federal						Nonfederal government					Business					Higher education		NPOs				
	All performers	Total	Federal intramural	FFRDC	Nonfederal government	Business	Higher education	NPO	Total	FFRDC	Nonfederal government	Business	Higher education	Total	FFRDC	Business	Higher education	NPO	Higher education	Total	FFRDC	Business	Higher education	NPO	
2015	298,954	45,675	18,112	6,746	5	18,005	2,404	403	481	6	8	86	383	247,160	59	246,279	529	293	1,774	3,864	40	751	743	2,330	
2016	307,858	41,612	14,978	7,073	7	15,878	2,433	1,243	537	7	10	122	397	260,013	61	259,057	531	365	1,855	3,840	47	719	819	2,255	
2017	325,995	42,310	14,709	7,445	8	16,461	2,473	1,214	522	10	11	86	415	277,336	60	276,340	563	372	1,945	3,882	47	520	866	2,448	
2018	352,568	44,289	17,092	7,765	9	15,682	2,521	1,219	542	14	11	77	440	301,620	59	300,611	566	384	1,981	4,137	49	678	828	2,582	
2019	384,687	44,311	18,926	7,980	12	13,410	2,721	1,262	566	15	14	99	438	333,746	53	332,726	562	404	1,961	4,103	50	549	781	2,722	
2020 ^a	405,241	44,260	19,415	8,211	15	12,270	2,906	1,443	560	13	18	105	424	354,356	52	353,310	576	416	1,970	4,096	50	583	775	2,688	

NA = not available.

FFRDC = federally funded R&D center; NPO = nonprofit organization.

^a The data for 2020 include estimates and are likely to be revised later.**Note(s):**

This table reaggregates the R&D performer data in table 5 according to major categories of R&D funding: federal government, nonfederal government (state and local), business, higher education, and NPOs. 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 further 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 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 the National Center for Science and Engineering Statistics' annual R&D expenditure surveys: Business Enterprise Research and Development Survey, Annual Business 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 also table 5, general notes.) The 1998–2020 data for NPO R&D performance funded by businesses and the nonprofit sector itself are estimated based on the 1996–97 Survey of Research and Development Funding and Performance by Nonprofit Organizations and the 2016 Nonprofit Research Activities Survey. Type-of-R&D data for business R&D in 1998–2007 were revised in response to data quality review considerations and are not directly comparable with the data for 1997 and earlier years. For 2008 and onward, the type-of-R&D splits for other than total, own-funded, and federally funded R&D are estimated. (See also table 2, footnote d.) Type-of-R&D data for FFRDC R&D in 1953–54 include only those of university-administered FFRDCs. Starting in 2001, type-of-R&D data distinguish federally funded from nonfederally funded FFRDC R&D. (See also table 2, footnote b.) The type-of-R&D estimation procedure for higher education R&D was revised in 1998 and again in 2010; hence, these data are not directly comparable with data reported for earlier years. Furthermore, the type-of-R&D splits for other than total and federally funded are estimated. (See also table 2, footnote e.) Type-of-R&D data for R&D by nonprofit organizations in 1998 and later years are estimated, except for those that are federally funded. (See also table 2, footnote f.) Type-of-R&D data for state intramural R&D became available in the 2016 survey. These data prior to 2016 are estimated. (See also table 2, footnote c.)

Source(s):

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