

TABLE 8. U.S. applied research expenditures, by source of funds and performing sectors: 1953–2016

Year	All funding sources	Federal							Nonfederal government					Business					Higher education	Other nonprofit organizations				
	All performers	Total	Federal intra-mural		Non-federal government	Business	Higher education	ONP	Total	FFRDC	Non-federal government	Business	Higher education	Total	FFRDC	Business	Higher education	ONP	Higher education	Total	FFRDC	Business	Higher education	ONP
Current \$millions																								
1953	1,289	756	347	48	NA	288	59	14	30	NA	NA	NA	30	456	NA	438	7	11	28	20	NA	NA	10	10
1954	1,378	785	330	59	NA	322	60	16	32	NA	NA	NA	32	513	NA	492	8	13	28	21	NA	NA	10	11
1955	1,502	838	333	86	NA	339	63	18	32	NA	NA	NA	32	583	NA	560	9	14	27	22	NA	NA	11	11
1956	1,929	1,026	387	125	NA	430	65	20	33	NA	NA	NA	33	818	NA	794	10	14	27	25	NA	NA	11	14
1957	2,413	1,304	446	149	NA	624	63	23	34	NA	NA	NA	34	1,018	NA	992	12	14	27	31	NA	NA	11	20
1958	2,759	1,497	516	156	NA	731	66	29	35	NA	NA	NA	35	1,163	NA	1,137	12	14	27	37	NA	NA	12	25
1959	2,940	1,630	577	179	NA	757	78	40	37	NA	NA	NA	37	1,206	NA	1,178	13	15	28	39	NA	NA	12	27
1960	3,065	1,732	615	201	NA	769	93	54	39	NA	NA	NA	39	1,226	NA	1,196	13	17	29	40	NA	NA	12	28
1961	3,123	1,811	668	240	NA	738	104	62	40	NA	NA	NA	40	1,195	NA	1,165	13	17	30	48	NA	NA	13	35
1962	3,698	2,098	709	249	NA	954	119	68	41	NA	NA	NA	41	1,471	NA	1,438	14	19	30	58	NA	NA	13	45
1963	3,864	2,244	809	275	NA	952	128	82	42	NA	NA	NA	42	1,483	NA	1,450	14	19	32	63	NA	NA	14	49
1964	4,201	2,462	947	313	NA	978	142	82	45	NA	NA	NA	45	1,593	NA	1,560	14	19	37	65	NA	NA	18	47
1965	4,374	2,553	994	294	NA	992	176	98	46	NA	NA	NA	46	1,654	NA	1,620	13	21	42	79	NA	NA	27	52
1966	4,653	2,625	1,012	290	NA	986	208	129	47	NA	NA	NA	47	1,842	NA	1,804	14	24	48	91	NA	NA	34	57
1967	4,848	2,763	1,069	334	NA	983	238	141	46	NA	NA	NA	46	1,890	NA	1,849	16	25	54	96	NA	NA	36	60
1968	5,137	2,811	1,112	334	NA	956	250	160	46	NA	NA	NA	46	2,125	NA	2,081	16	28	55	101	NA	NA	39	62
1969	5,454	2,924	1,229	336	NA	920	257	183	48	NA	NA	NA	48	2,320	NA	2,272	16	32	54	109	NA	NA	43	66
1970	5,752	3,100	1,334	336	NA	952	280	199	51	NA	NA	NA	51	2,429	NA	2,378	18	33	56	117	NA	NA	47	70
1971	5,833	3,091	1,355	312	NA	907	306	212	61	NA	NA	NA	61	2,494	NA	2,441	19	34	67	121	NA	NA	47	74
1972	6,147	3,243	1,434	358	NA	845	391	216	74	NA	NA	NA	74	2,618	NA	2,562	21	35	82	131	NA	NA	52	79
1973	6,655	3,429	1,527	334	NA	883	450	236	88	NA	NA	NA	88	2,894	NA	2,832	26	36	100	145	NA	NA	62	83
1974	7,344	3,634	1,652	335	NA	905	477	266	96	NA	NA	NA	96	3,333	NA	3,263	32	39	118	163	NA	NA	72	91
1975	8,091	4,125	1,912	384	NA	991	550	290	113	NA	NA	NA	113	3,520	NA	3,440	39	42	141	192	NA	NA	92	100
1976	8,976	4,464	2,068	457	NA	1,033	596	310	127	NA	NA	NA	127	4,001	NA	3,912	45	45	166	218	NA	NA	109	109
1977	9,662	4,683	2,081	540	NA	1,113	626	324	134	NA	NA	NA	134	4,410	NA	4,311	51	48	194	241	NA	NA	121	120
1978	10,704	5,080	2,242	597	NA	1,195	676	371	151	NA	NA	NA	151	4,982	NA	4,870	61	52	232	259	NA	NA	128	132
1979	12,097	5,602	2,415	654	NA	1,305	793	436	161	NA	NA	NA	161	5,797	NA	5,670	71	55	263	273	NA	NA	129	144
1980	13,729	6,252	2,546	749	NA	1,625	912	420	174	NA	NA	NA	174	6,698	NA	6,550	88	60	308	298	NA	NA	140	158
1981	16,329	6,905	2,731	788	NA	2,042	953	391	199	NA	NA	NA	199	8,531	NA	8,359	108	64	363	332	NA	NA	159	173
1982	18,218	7,689	2,802	890	NA	2,593	1,007	398	207	NA	NA	NA	207	9,553	NA	9,363	121	69	402	367	NA	NA	178	189
1983	20,298	8,738	2,991	965	NA	3,227	1,122	433	215	NA	NA	NA	215	10,501	NA	10,286	141	74	443	401	NA	NA	194	207

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	All performers	Total	Federal intra-mural	FFRDC	Non-federal government	Business	Higher education	ONP	Total	FFRDC	Non-federal government	Business	Higher education	Total	FFRDC	Business	Higher education	ONP	Higher education	Total	FFRDC	Business	Higher education	ONP
1984	22,451	9,499	2,961	1,176	NA	3,677	1,226	459	234	NA	NA	NA	234	11,788	NA	11,541	168	79	491	438	NA	NA	212	226
1985	25,401	10,930	3,135	1,292	NA	4,717	1,296	490	262	NA	NA	NA	262	13,191	NA	12,908	198	85	547	471	NA	NA	224	247
1986	27,240	10,409	3,204	1,258	NA	4,049	1,393	506	298	NA	NA	NA	298	15,402	NA	15,082	229	91	620	510	NA	NA	240	270
1987	27,951	10,829	3,366	1,228	NA	4,037	1,643	555	333	NA	NA	NA	333	15,511	NA	15,153	260	98	707	571	NA	NA	276	295
1988	29,528	10,749	3,362	984	NA	3,846	1,958	599	377	NA	NA	NA	377	16,938	NA	16,531	302	105	818	647	NA	NA	325	322
1989	32,277	11,753	3,566	1,047	NA	4,324	2,121	695	417	NA	NA	NA	417	18,452	NA	17,993	347	112	933	722	NA	NA	370	352
1990	34,897	13,695	3,652	1,156	NA	5,967	2,140	780	453	NA	NA	NA	453	18,930	NA	18,432	377	120	1,031	788	NA	NA	404	384
1991	38,631	14,280	4,093	1,446	NA	5,588	2,232	921	468	NA	NA	NA	468	21,946	NA	21,425	392	129	1,091	847	NA	NA	428	419
1992	37,936	13,690	4,337	1,529	NA	4,476	2,415	933	479	NA	NA	NA	479	21,736	NA	21,184	414	138	1,120	911	NA	NA	454	456
1993	37,283	14,075	4,838	1,500	NA	4,295	2,542	900	496	NA	NA	NA	496	20,547	NA	19,956	443	148	1,181	984	NA	NA	487	497
1994	36,618	13,800	4,985	1,596	NA	3,616	2,644	960	517	NA	NA	NA	517	19,995	NA	19,372	464	158	1,256	1,049	NA	NA	509	541
1995	40,936	13,543	4,952	1,714	NA	3,164	2,779	934	559	NA	NA	NA	559	24,418	NA	23,755	494	170	1,311	1,104	NA	NA	516	589
1996	43,170	13,958	4,872	1,623	NA	3,640	2,864	960	584	NA	NA	NA	584	26,076	NA	25,370	524	182	1,390	1,162	NA	NA	522	640
1997	46,516	12,852	4,997	1,679	NA	2,648	2,518	1,011	548	NA	NA	NA	548	30,502	NA	29,782	515	205	1,396	1,219	NA	NA	508	711
1998	46,247	12,751	5,146	1,725	NA	2,632	2,189	1,060	515	NA	NA	NA	515	30,303	NA	29,576	509	218	1,393	1,285	NA	NA	502	784
1999	51,853	13,869	5,530	1,651	NA	2,817	2,571	1,300	533	NA	NA	NA	533	34,586	NA	33,821	529	236	1,480	1,385	NA	NA	537	849
2000	56,503	15,450	6,105	1,750	NA	2,682	3,081	1,831	558	NA	NA	NA	558	37,293	NA	36,494	540	258	1,604	1,598	NA	NA	578	1,021
2001	63,956	18,595	7,052	2,379	NA	3,603	3,411	2,150	590	5	NA	NA	585	41,238	33	40,409	535	261	1,734	1,798	52	NA	621	1,126
2002	50,521	18,987	7,487	2,905	NA	2,452	3,877	2,267	644	8	NA	NA	636	26,899	35	26,081	531	253	1,937	2,053	71	NA	689	1,293
2003	61,059	22,234	7,672	3,152	NA	4,473	4,450	2,487	716	9	NA	NA	708	33,692	36	32,861	537	259	2,127	2,290	65	NA	739	1,486
2004	69,132	22,417	7,455	3,057	NA	4,775	4,682	2,448	742	7	NA	NA	735	41,495	30	40,657	545	264	2,190	2,287	40	NA	759	1,488
2005	69,653	23,329	7,557	3,241	NA	5,289	4,810	2,432	727	8	NA	NA	719	40,867	35	39,995	557	280	2,283	2,447	45	NA	774	1,627
2006	76,624	24,865	7,435	3,531	88	6,140	5,080	2,592	891	8	170	NA	712	45,952	47	45,033	573	300	2,368	2,549	54	NA	789	1,705
2007	85,322	29,439	7,222	5,293	113	8,945	5,284	2,583	970	14	212	NA	745	49,627	77	48,625	607	318	2,461	2,824	92	NA	848	1,885
2008	76,642	27,143	7,316	5,843	147	5,397	5,840	2,600	1,164	15	264	71	815	42,385	89	41,292	675	330	2,682	3,268	93	105	951	2,119
2009	74,236	32,150	7,874	5,979	188	7,797	7,263	3,049	1,324	19	319	38	948	34,295	88	33,124	764	319	2,942	3,526	104	96	1,021	2,305
2010	79,258	29,770	8,016	5,025	221	4,705	8,762	3,041	1,421	18	357	32	1,015	41,153	67	39,987	778	321	3,141	3,774	77	182	1,064	2,451
2011	82,147	29,696	8,024	5,057	228	4,404	9,290	2,693	1,428	13	352	70	994	43,805	81	42,591	796	338	3,416	3,802	77	122	1,104	2,500
2012	87,071	30,311	8,587	5,566	223	4,137	9,170	2,629	1,403	19	333	45	1,007	47,741	81	46,436	877	346	3,693	3,923	76	137	1,162	2,549
2013	88,336	32,532	8,309	6,639	215	6,028	8,876	2,465	1,434	22	303	47	1,063	46,133	94	44,738	935	366	3,943	4,294	69	200	1,296	2,730
2014	91,890	33,466	8,775	6,765	201	6,445	8,706	2,574	1,405	13	273	35	1,085	48,174	107	46,685	997	385	4,216	4,629	67	250	1,418	2,894
2015 ^a	97,150	34,511	9,200	7,182	202	6,102	9,094	2,731	1,419	9	294	24	1,092	51,738	96	50,137	1,107	398	4,567	4,917	64	209	1,608	3,036
2016 ^b	100,287	34,960	9,367	7,465	219	5,588	9,557	2,764	1,495	9	325	26	1,134	53,532	82	51,829	1,213	407	4,986	5,315	64	229	1,830	3,192

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Constant 2009 \$millions																								
1953	8,505	4,985	2,290	313	NA	1,900	389	92	199	NA	NA	NA	199	3,006	NA	2,890	43	73	184	132	NA	NA	66	66
1954	9,009	5,132	2,154	382	NA	2,105	389	101	206	NA	NA	NA	206	3,351	NA	3,217	49	85	183	137	NA	NA	65	72
1955	9,650	5,386	2,140	553	NA	2,176	405	112	208	NA	NA	NA	208	3,743	NA	3,599	55	90	175	138	NA	NA	67	71
1956	11,986	6,374	2,402	774	NA	2,670	404	124	206	NA	NA	NA	206	5,084	NA	4,935	62	87	167	155	NA	NA	68	87
1957	14,514	7,841	2,679	896	NA	3,751	379	135	204	NA	NA	NA	204	6,120	NA	5,966	69	84	163	186	NA	NA	66	120
1958	16,229	8,805	3,035	918	NA	4,299	385	168	208	NA	NA	NA	208	6,841	NA	6,688	71	82	160	215	NA	NA	68	147
1959	17,053	9,457	3,344	1,038	NA	4,393	450	232	214	NA	NA	NA	214	6,993	NA	6,834	73	87	163	226	NA	NA	70	157
1960	17,540	9,910	3,516	1,150	NA	4,402	532	309	221	NA	NA	NA	221	7,015	NA	6,843	74	97	165	229	NA	NA	69	160
1961	17,675	10,249	3,781	1,355	NA	4,177	586	351	226	NA	NA	NA	226	6,763	NA	6,594	74	96	167	269	NA	NA	71	198
1962	20,674	11,731	3,961	1,392	NA	5,335	663	380	227	NA	NA	NA	227	8,222	NA	8,040	75	106	170	324	NA	NA	73	252
1963	21,363	12,407	4,472	1,518	NA	5,262	705	451	233	NA	NA	NA	233	8,199	NA	8,016	77	105	179	346	NA	NA	75	271
1964	22,873	13,402	5,153	1,704	NA	5,325	773	446	246	NA	NA	NA	246	8,671	NA	8,494	74	103	203	351	NA	NA	95	256
1965	23,386	13,649	5,312	1,569	NA	5,304	938	524	248	NA	NA	NA	248	8,844	NA	8,662	70	112	225	420	NA	NA	142	278
1966	24,198	13,650	5,264	1,508	NA	5,128	1,082	668	245	NA	NA	NA	245	9,580	NA	9,383	73	125	252	471	NA	NA	174	296
1967	24,503	13,965	5,400	1,686	NA	4,968	1,200	710	231	NA	NA	NA	231	9,550	NA	9,345	78	126	272	485	NA	NA	182	303
1968	24,903	13,625	5,388	1,619	NA	4,634	1,210	773	223	NA	NA	NA	223	10,301	NA	10,088	78	136	267	487	NA	NA	187	301
1969	25,202	13,509	5,680	1,550	NA	4,251	1,185	843	222	NA	NA	NA	222	10,720	NA	10,498	74	148	249	501	NA	NA	196	305
1970	25,247	13,608	5,855	1,475	NA	4,178	1,227	873	225	NA	NA	NA	225	10,658	NA	10,437	77	145	245	511	NA	NA	204	307
1971	24,363	12,910	5,659	1,301	NA	3,788	1,278	883	253	NA	NA	NA	253	10,415	NA	10,195	77	142	280	505	NA	NA	196	309
1972	24,610	12,984	5,741	1,433	NA	3,383	1,563	863	297	NA	NA	NA	297	10,480	NA	10,257	82	140	328	522	NA	NA	206	316
1973	25,271	13,021	5,799	1,268	NA	3,353	1,707	894	333	NA	NA	NA	333	10,989	NA	10,753	99	137	379	549	NA	NA	234	315
1974	25,587	12,662	5,757	1,165	NA	3,153	1,660	927	335	NA	NA	NA	335	11,613	NA	11,368	110	135	411	566	NA	NA	249	317
1975	25,800	13,154	6,096	1,223	NA	3,160	1,752	923	362	NA	NA	NA	362	11,225	NA	10,969	123	133	448	612	NA	NA	293	318
1976	27,133	13,493	6,252	1,381	NA	3,122	1,800	937	385	NA	NA	NA	385	12,094	NA	11,825	135	135	500	660	NA	NA	329	331
1977	27,500	13,329	5,922	1,537	NA	3,168	1,780	923	383	NA	NA	NA	383	12,551	NA	12,270	145	137	552	685	NA	NA	343	342
1978	28,468	13,511	5,962	1,587	NA	3,178	1,797	987	402	NA	NA	NA	402	13,250	NA	12,951	161	137	616	689	NA	NA	339	350
1979	29,718	13,763	5,933	1,607	NA	3,206	1,947	1,070	397	NA	NA	NA	397	14,241	NA	13,929	175	136	646	671	NA	NA	317	354
1980	30,938	14,088	5,737	1,688	NA	3,662	2,055	946	391	NA	NA	NA	391	15,093	NA	14,760	199	134	694	672	NA	NA	316	356
1981	33,654	14,232	5,629	1,625	NA	4,208	1,963	806	411	NA	NA	NA	411	17,581	NA	17,227	222	132	747	683	NA	NA	327	356
1982	35,354	14,922	5,437	1,728	NA	5,032	1,953	772	403	NA	NA	NA	403	18,538	NA	18,170	235	133	780	712	NA	NA	345	367
1983	37,895	16,313	5,584	1,801	NA	6,025	2,095	808	401	NA	NA	NA	401	19,604	NA	19,203	264	138	827	749	NA	NA	362	386

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		Total	Federal intra-mural																					
1984	40,477	17,126	5,338	2,120	NA	6,629	2,211	828	422	NA	NA	NA	422	21,253	NA	20,807	303	143	886	790	NA	NA	382	408
1985	44,376	19,095	5,477	2,257	NA	8,241	2,265	855	457	NA	NA	NA	457	23,044	NA	22,551	345	148	956	824	NA	NA	391	432
1986	46,646	17,825	5,487	2,154	NA	6,934	2,385	866	510	NA	NA	NA	510	26,375	NA	25,827	392	156	1,062	873	NA	NA	411	463
1987	46,674	18,083	5,620	2,051	NA	6,741	2,743	927	556	NA	NA	NA	556	25,901	NA	25,304	434	163	1,181	954	NA	NA	461	493
1988	47,640	17,342	5,424	1,587	NA	6,205	3,159	966	608	NA	NA	NA	608	27,327	NA	26,671	487	169	1,319	1,044	NA	NA	524	520
1989	50,126	18,252	5,539	1,626	NA	6,715	3,294	1,079	647	NA	NA	NA	647	28,656	NA	27,943	539	174	1,449	1,121	NA	NA	575	546
1990	52,261	20,510	5,469	1,731	NA	8,936	3,206	1,167	678	NA	NA	NA	678	28,349	NA	27,604	565	180	1,544	1,180	NA	NA	605	575
1991	55,991	20,697	5,933	2,095	NA	8,099	3,235	1,335	678	NA	NA	NA	678	31,807	NA	31,053	568	187	1,581	1,228	NA	NA	621	607
1992	53,757	19,399	6,145	2,166	NA	6,343	3,422	1,323	678	NA	NA	NA	678	30,802	NA	30,019	587	196	1,587	1,290	NA	NA	644	646
1993	51,604	19,481	6,697	2,076	NA	5,945	3,518	1,245	686	NA	NA	NA	686	28,440	NA	27,622	613	205	1,635	1,362	NA	NA	675	688
1994	49,627	18,703	6,756	2,162	NA	4,901	3,583	1,300	701	NA	NA	NA	701	27,098	NA	26,254	629	215	1,702	1,422	NA	NA	689	733
1995	54,347	17,980	6,575	2,275	NA	4,201	3,689	1,240	742	NA	NA	NA	742	32,418	NA	31,537	656	225	1,741	1,466	NA	NA	685	781
1996	56,285	18,198	6,352	2,115	NA	4,746	3,734	1,251	761	NA	NA	NA	761	33,997	NA	33,077	683	237	1,813	1,516	NA	NA	681	834
1997	59,628	16,475	6,405	2,152	NA	3,394	3,227	1,296	703	NA	NA	NA	703	39,099	NA	38,176	660	263	1,789	1,562	NA	NA	652	911
1998	58,646	16,170	6,525	2,187	NA	3,338	2,776	1,344	653	NA	NA	NA	653	38,427	NA	37,505	646	276	1,766	1,630	NA	NA	636	994
1999	64,764	17,322	6,907	2,062	NA	3,518	3,211	1,623	666	NA	NA	NA	666	43,197	NA	42,242	661	295	1,849	1,730	NA	NA	670	1,060
2000	69,000	18,867	7,456	2,138	NA	3,275	3,763	2,236	682	NA	NA	NA	682	45,541	NA	44,566	660	316	1,958	1,952	NA	NA	705	1,246
2001	76,363	22,203	8,420	2,840	NA	4,302	4,073	2,567	705	6	NA	NA	699	49,238	40	48,247	639	311	2,070	2,147	62	NA	741	1,345
2002	59,410	22,328	8,805	3,416	NA	2,883	4,559	2,665	758	10	NA	NA	748	31,632	41	30,669	624	297	2,277	2,415	84	NA	811	1,520
2003	70,397	25,634	8,845	3,634	NA	5,157	5,130	2,867	826	10	NA	NA	816	38,845	41	37,887	619	298	2,452	2,641	75	NA	852	1,713
2004	77,572	25,154	8,365	3,430	NA	5,358	5,254	2,747	833	8	NA	NA	824	46,561	34	45,621	611	296	2,458	2,566	45	NA	852	1,669
2005	75,720	25,361	8,216	3,523	NA	5,750	5,229	2,643	791	9	NA	NA	782	44,427	38	43,479	605	305	2,482	2,660	49	NA	842	1,769
2006	80,815	26,225	7,841	3,724	93	6,476	5,358	2,734	939	9	179	NA	751	48,466	49	47,496	604	316	2,497	2,688	57	NA	833	1,798
2007	87,657	30,245	7,419	5,438	116	9,190	5,429	2,653	997	14	218	NA	765	50,985	79	49,955	624	327	2,528	2,902	94	NA	871	1,936
2008	77,224	27,349	7,372	5,887	149	5,438	5,884	2,620	1,173	15	266	71	821	42,707	90	41,605	680	332	2,702	3,293	94	105	958	2,135
2009	74,236	32,150	7,874	5,979	188	7,797	7,263	3,049	1,324	19	319	38	948	34,295	88	33,124	764	319	2,942	3,526	104	96	1,021	2,305
2010	78,302	29,410	7,919	4,964	218	4,648	8,656	3,004	1,404	18	353	32	1,002	40,656	66	39,504	769	317	3,103	3,729	76	180	1,051	2,422
2011	79,514	28,744	7,767	4,895	221	4,263	8,992	2,607	1,382	12	340	67	962	42,401	78	41,226	770	327	3,307	3,680	74	118	1,068	2,420
2012	82,755	28,808	8,161	5,290	212	3,932	8,716	2,498	1,334	18	317	43	957	45,374	77	44,135	834	329	3,510	3,729	72	130	1,104	2,423
2013	82,624	30,428	7,771	6,209	201	5,638	8,302	2,306	1,342	20	284	44	994	43,150	88	41,845	874	342	3,688	4,016	65	187	1,212	2,553

TABLE 8. U.S. applied research expenditures, by source of funds and performing sectors: 1953–2016

Year	All per- formers	Federal							Nonfederal government					Business					Higher ed- ucation	Other nonprofit organizations					
		Total	Federal intra- mural		FFRDC	Non- federal govern- ment	Busi- ness	Higher ed- ucation	ONP	Total	FFRDC	Non- federal govern- ment	Busi- ness	Higher ed- ucation	Total	FFRDC	Busi- ness	Higher ed- ucation	ONP	Higher ed- ucation	Total	FFRDC	Busi- ness	Higher ed- ucation	ONP
			All per- formers	Total																					
2014	84,433	30,751	8,063	6,216	184	5,922	7,999	2,365	1,291	12	251	32	997	44,264	98	42,897	916	354	3,873	4,254	62	230	1,303	2,659	
2015 ^a	88,309	31,370	8,363	6,528	184	5,547	8,266	2,483	1,289	8	267	22	993	47,029	87	45,574	1,006	362	4,151	4,469	59	190	1,461	2,759	
2016 ^b	90,012	31,378	8,407	6,700	197	5,016	8,577	2,481	1,342	8	292	23	1,018	48,047	74	46,518	1,089	366	4,475	4,770	58	205	1,642	2,865	

NA = not available.

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

^a Some data for 2015 are preliminary and may later be revised.

^b The data for 2016 are estimates and will later be revised.

NOTES: This table reaggregates the R&D performer data in Table 4 according to major categories of R&D funding: federal government, nonfederal government (state and local), business, higher education, and other nonprofit organizations. 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 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 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 (see Table 4, general notes). The 1998–2015 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 R&D Funding and Performance by Nonprofit Organizations. 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 includes 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 other 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 are not currently collected by the Survey of State Government R&D (see also Table 2, footnote c).

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