



Appendix Table 4-7 U.S. basic research expenditures, by source of funds and performing sector: 1953–2013

Year	All sources of funds	Federal							Nonfederal government					Business					U&C	Other nonprofit organizations				
		Total	Federal intramural	FFRDCs	Nonfederal government	Business	U&C	ONP	Total	FFRDCs	Nonfederal government	Business	U&C	Total	FFRDCs	Business	U&C	ONP		U&C	Total	FFRDCs	Business	U&C
Current \$millions																								
1953	460	265	102	36	NA	19	82	27	7	NA	NA	NA	7	154	NA	132	13	9	6	28	NA	NA	16	12
1954	509	291	96	45	NA	23	97	31	10	NA	NA	NA	10	169	NA	143	15	11	8	31	NA	NA	18	13
1955	570	318	98	62	NA	7	117	35	14	NA	NA	NA	14	192	NA	162	17	13	12	35	NA	NA	21	14
1956	718	392	114	89	NA	7	143	41	19	NA	NA	NA	19	251	NA	216	20	15	15	41	NA	NA	24	17
1957	813	451	124	110	NA	4	167	48	25	NA	NA	NA	25	268	NA	230	23	15	20	50	NA	NA	27	23
1958	943	537	149	115	NA	14	202	58	31	NA	NA	NA	31	292	NA	252	24	16	24	59	NA	NA	31	28
1959	1,087	665	165	134	NA	34	263	71	38	NA	NA	NA	38	290	NA	248	24	18	28	66	NA	NA	36	30
1960	1,286	794	184	150	NA	36	341	84	45	NA	NA	NA	45	343	NA	297	25	21	33	71	NA	NA	41	30
1961	1,511	972	230	177	NA	30	432	104	54	NA	NA	NA	54	361	NA	314	25	22	40	85	NA	NA	48	37
1962	1,824	1,218	252	189	NA	104	546	128	64	NA	NA	NA	64	394	NA	345	25	24	48	101	NA	NA	55	46
1963	2,115	1,446	285	216	NA	109	689	147	75	NA	NA	NA	75	425	NA	375	25	25	58	113	NA	NA	63	50
1964	2,396	1,693	339	245	NA	123	824	163	84	NA	NA	NA	84	434	NA	384	25	25	70	115	NA	NA	68	47
1965	2,664	1,900	375	250	NA	157	944	175	94	NA	NA	NA	94	462	NA	406	27	29	86	122	NA	NA	70	52
1966	2,930	2,075	410	273	NA	142	1,066	184	104	NA	NA	NA	104	512	NA	451	29	32	106	133	NA	NA	75	58
1967	3,168	2,280	434	301	NA	168	1,188	190	114	NA	NA	NA	114	495	NA	427	34	34	136	144	NA	NA	83	61
1968	3,376	2,399	482	315	NA	145	1,265	192	131	NA	NA	NA	131	537	NA	462	38	37	156	154	NA	NA	91	63
1969	3,491	2,457	545	313	NA	123	1,288	188	153	NA	NA	NA	153	541	NA	458	40	43	171	170	NA	NA	103	67
1970	3,594	2,501	562	304	NA	122	1,323	191	179	NA	NA	NA	179	531	NA	444	43	44	196	187	NA	NA	115	72
1971	3,720	2,559	581	289	NA	101	1,385	204	194	NA	NA	NA	194	551	NA	456	50	45	214	204	NA	NA	127	77



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	All sources of funds	Federal							Nonfederal government					Business					U&C	Other nonprofit organizations				
Year	All performers	Total	Federal intramural	FFRDCs	Nonfederal government	Business	U&C	ONP	Total	FFRDCs	Nonfederal government	Business	U&C	Total	FFRDCs	Business	U&C	ONP	U&C	Total	FFRDCs	Business	U&C	ONP
1972	3,850	2,656	603	313	NA	91	1,437	213	195	NA	NA	NA	195	565	NA	463	55	47	216	218	NA	NA	134	84
1973	4,099	2,847	652	382	NA	96	1,489	229	196	NA	NA	NA	196	607	NA	499	59	49	223	227	NA	NA	137	90
1974	4,511	3,146	715	467	NA	114	1,609	242	204	NA	NA	NA	204	656	NA	536	66	54	250	254	NA	NA	153	102
1975	4,875	3,415	760	533	NA	104	1,768	251	212	NA	NA	NA	212	704	NA	573	72	59	264	280	NA	NA	164	116
1976	5,373	3,793	850	629	NA	116	1,924	274	218	NA	NA	NA	218	774	NA	634	75	65	283	305	NA	NA	175	131
1977	6,008	4,235	943	746	NA	135	2,114	297	232	NA	NA	NA	232	862	NA	701	89	72	334	346	NA	NA	198	148
1978	6,959	4,950	1,044	1,005	NA	156	2,399	346	260	NA	NA	NA	260	970	NA	785	107	79	398	380	NA	NA	213	168
1979	7,836	5,558	1,112	1,160	NA	161	2,719	406	286	NA	NA	NA	286	1,107	NA	893	128	87	466	419	NA	NA	229	190
1980	8,747	6,147	1,212	1,294	NA	170	3,061	411	307	NA	NA	NA	307	1,286	NA	1,035	156	95	544	463	NA	NA	248	215
1981	9,658	6,591	1,343	1,430	NA	164	3,331	324	338	NA	NA	NA	338	1,600	NA	1,313	183	105	615	512	NA	NA	269	243
1982	10,651	7,121	1,522	1,503	NA	253	3,475	369	368	NA	NA	NA	368	1,854	NA	1,523	215	115	716	591	NA	NA	317	275
1983	11,880	7,853	1,733	1,661	NA	346	3,689	426	396	NA	NA	NA	396	2,146	NA	1,760	260	127	816	668	NA	NA	358	311
1984	13,332	8,651	1,877	1,854	NA	340	4,087	494	436	NA	NA	NA	436	2,584	NA	2,132	313	139	915	746	NA	NA	395	351
1985	14,748	9,407	1,947	1,936	NA	358	4,606	560	514	NA	NA	NA	514	2,915	NA	2,373	389	153	1,075	837	NA	NA	440	397
1986	17,154	10,220	2,026	2,045	NA	434	5,122	594	606	NA	NA	NA	606	4,130	NA	3,496	466	168	1,262	936	NA	NA	488	449
1987	18,481	11,090	2,047	2,242	NA	598	5,527	675	659	NA	NA	NA	659	4,282	NA	3,583	514	185	1,399	1,052	NA	NA	545	507
1988	19,787	12,097	2,116	2,633	NA	656	5,937	756	705	NA	NA	NA	705	4,275	NA	3,507	565	203	1,530	1,180	NA	NA	607	573
1989	21,891	13,392	2,309	2,815	NA	986	6,422	860	766	NA	NA	NA	766	4,692	NA	3,832	637	223	1,714	1,327	NA	NA	680	647
1990	23,029	14,057	2,319	3,033	NA	869	6,889	947	847	NA	NA	NA	847	4,710	NA	3,760	705	245	1,929	1,486	NA	NA	756	730
1991	27,140	15,283	2,378	3,195	NA	1,251	7,423	1,036	912	NA	NA	NA	912	7,157	NA	6,125	764	269	2,127	1,660	NA	NA	836	825
1992	27,604	15,710	2,419	3,408	NA	712	8,058	1,114	941	NA	NA	NA	941	6,925	NA	5,816	814	295	2,203	1,824	NA	NA	893	931
1993	28,743	16,399	2,621	3,517	NA	466	8,638	1,157	952	NA	NA	NA	952	7,136	NA	5,961	851	324	2,268	1,987	NA	NA	936	1,051
1994	29,651	16,770	2,547	3,512	NA	436	9,139	1,137	992	NA	NA	NA	992	7,323	NA	6,078	890	356	2,406	2,160	NA	NA	974	1,186



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	All sources of funds	Federal							Nonfederal government					Business					U&C	Other nonprofit organizations				
Year	All performers	Total	Federal intramural	FFRDCs	Nonfederal government	Business	U&C	ONP	Total	FFRDCs	Nonfederal government	Business	U&C	Total	FFRDCs	Business	U&C	ONP	U&C	Total	FFRDCs	Business	U&C	ONP
1995	29,610	16,990	2,689	3,307	NA	190	9,634	1,170	1,070	NA	NA	NA	1,070	6,715	NA	5,379	945	390	2,511	2,326	NA	NA	987	1,338
1996	32,799	18,063	2,680	3,393	NA	650	10,092	1,248	1,149	NA	NA	NA	1,149	8,309	NA	6,848	1,032	428	2,740	2,539	NA	NA	1,028	1,510
1997	36,913	19,420	2,746	3,404	NA	1,029	10,924	1,317	1,247	NA	NA	NA	1,247	10,389	NA	8,766	1,174	449	3,141	2,717	NA	NA	1,160	1,557
1998	35,355	20,847	3,003	3,441	NA	1,002	11,941	1,461	1,327	NA	NA	NA	1,327	6,640	NA	4,851	1,312	477	3,474	3,066	NA	NA	1,293	1,773
1999	38,914	22,800	3,347	3,719	NA	1,108	12,892	1,734	1,428	NA	NA	NA	1,428	7,471	NA	5,537	1,417	517	3,825	3,390	NA	NA	1,438	1,952
2000	42,729	24,786	3,765	4,037	NA	925	13,960	2,099	1,545	NA	NA	NA	1,545	8,177	NA	6,115	1,495	566	4,287	3,934	NA	NA	1,599	2,334
2001	47,703	27,424	4,260	4,571	NA	754	15,541	2,464	1,668	10	NA	NA	1,658	9,448	62	7,299	1,515	571	4,726	4,438	95	NA	1,760	2,582
2002	51,873	30,933	4,511	5,227	NA	888	17,930	2,575	1,821	14	NA	NA	1,807	8,781	61	6,659	1,508	554	5,273	5,065	123	NA	1,958	2,984
2003	56,057	33,796	4,664	5,075	NA	1,386	20,127	2,714	1,975	13	NA	NA	1,962	9,054	55	6,944	1,488	567	5,651	5,580	102	NA	2,050	3,429
2004	57,699	35,111	4,697	4,976	NA	1,072	21,702	2,788	2,089	12	NA	NA	2,077	8,930	48	6,763	1,541	578	5,914	5,655	64	NA	2,147	3,443
2005	61,286	36,569	4,770	5,136	NA	1,108	22,788	2,902	2,161	12	NA	NA	2,149	9,890	54	7,559	1,663	614	6,507	6,159	70	NA	2,313	3,776
2006	63,041	37,427	4,716	5,238	NA	1,444	23,312	2,849	2,342	12	NA	NA	2,279	9,500	67	6,940	1,836	656	7,216	6,555	78	NA	2,529	3,948
2007	66,217	37,231	4,621	3,432	NA	2,780	23,673	2,829	2,559	10	NA	NA	2,495	11,276	57	8,488	2,033	698	7,859	7,292	68	NA	2,840	4,384
2008	70,236	37,119	4,957	3,576	NA	1,475	24,149	3,073	2,750	11	NA	12	2,674	13,865	65	10,864	2,214	722	8,397	8,106	68	18	3,119	4,901
2009	73,772	38,294	5,441	3,993	NA	1,340	24,113	3,498	2,640	12	NA	13	2,554	16,291	54	13,397	2,143	698	7,997	8,550	66	34	3,093	5,357
2010	75,070	38,799	5,111	4,369	NA	1,406	24,581	3,414	2,456	13	NA	10	2,358	17,607	50	14,897	1,958	702	7,536	8,671	66	58	2,971	5,576
2011	72,197	38,013	5,047	4,400	NA	677	24,863	3,081	2,391	7	NA	21	2,289	15,033	47	12,284	1,962	740	7,982	8,779	52	38	3,006	5,684
2012	73,082	37,586	5,489	4,234	NA	644	24,183	3,092	2,318	10	NA	10	2,230	15,469	45	12,611	2,055	758	8,679	9,030	51	29	3,164	5,786
2013 ^a	80,460	37,826	5,355	4,176	NA	1,196	24,148	3,021	2,317	14	NA	21	2,213	21,213	52	18,203	2,156	802	9,384	9,720	52	88	3,373	6,207
Constant 2009 \$millions																								
1953	3,032	1,749	670	238	NA	125	538	178	43	NA	NA	NA	43	1,016	NA	871	86	59	40	185	NA	NA	106	79
1954	3,324	1,899	628	291	NA	150	631	199	62	NA	NA	NA	62	1,105	NA	935	98	72	55	203	NA	NA	118	85



National Science Board | **Science & Engineering Indicators 2016**

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Year	All performers	Total	Federal intramural	FFRDCs	Nonfederal government	Business	U&C	ONP	Total	FFRDCs	Nonfederal government	Business	U&C	Total	FFRDCs	Business	U&C	ONP	U&C	Total	FFRDCs	Business	U&C	ONP
1955	3,663	2,044	627	398	NA	45	749	225	89	NA	NA	NA	89	1,234	NA	1,041	109	84	75	222	NA	NA	132	90
1956	4,461	2,438	705	553	NA	42	886	252	118	NA	NA	NA	118	1,557	NA	1,342	121	93	96	252	NA	NA	146	106
1957	4,893	2,715	746	659	NA	24	1,001	286	149	NA	NA	NA	149	1,609	NA	1,383	135	90	119	301	NA	NA	162	138
1958	5,548	3,159	876	676	NA	80	1,188	338	183	NA	NA	NA	183	1,718	NA	1,482	141	94	141	347	NA	NA	182	165
1959	6,305	3,860	954	774	NA	197	1,523	412	218	NA	NA	NA	218	1,682	NA	1,439	139	104	165	380	NA	NA	206	174
1960	7,356	4,541	1,050	858	NA	204	1,948	481	258	NA	NA	NA	258	1,960	NA	1,699	140	120	192	406	NA	NA	235	172
1961	8,552	5,501	1,299	1,002	NA	173	2,442	586	304	NA	NA	NA	304	2,043	NA	1,777	141	125	225	478	NA	NA	269	209
1962	10,199	6,811	1,409	1,057	NA	583	3,050	713	356	NA	NA	NA	356	2,203	NA	1,929	140	134	267	562	NA	NA	305	257
1963	11,694	7,993	1,573	1,194	NA	604	3,809	813	414	NA	NA	NA	414	2,347	NA	2,073	135	138	318	622	NA	NA	346	276
1964	13,046	9,218	1,846	1,334	NA	670	4,484	885	459	NA	NA	NA	459	2,363	NA	2,091	136	136	379	626	NA	NA	370	256
1965	14,245	10,160	2,003	1,337	NA	840	5,045	936	505	NA	NA	NA	505	2,468	NA	2,171	142	155	460	652	NA	NA	374	278
1966	15,239	10,792	2,132	1,420	NA	739	5,544	957	539	NA	NA	NA	539	2,663	NA	2,346	151	166	554	692	NA	NA	390	302
1967	16,009	11,521	2,191	1,521	NA	849	6,002	958	575	NA	NA	NA	575	2,499	NA	2,158	169	172	686	728	NA	NA	419	308
1968	16,366	11,627	2,337	1,525	NA	703	6,132	931	634	NA	NA	NA	634	2,601	NA	2,240	182	179	757	747	NA	NA	441	305
1969	16,129	11,351	2,519	1,446	NA	568	5,949	869	706	NA	NA	NA	706	2,497	NA	2,116	183	199	791	783	NA	NA	474	310
1970	15,773	10,979	2,466	1,334	NA	535	5,804	838	787	NA	NA	NA	787	2,330	NA	1,949	189	193	859	819	NA	NA	503	316
1971	15,538	10,687	2,427	1,205	NA	422	5,783	850	809	NA	NA	NA	809	2,299	NA	1,905	207	188	893	850	NA	NA	528	322
1972	15,414	10,632	2,412	1,251	NA	364	5,753	851	782	NA	NA	NA	782	2,262	NA	1,854	220	188	865	873	NA	NA	536	336
1973	15,566	10,810	2,476	1,450	NA	365	5,652	868	746	NA	NA	NA	746	2,303	NA	1,895	222	186	847	860	NA	NA	518	342
1974	15,715	10,961	2,490	1,627	NA	397	5,606	841	710	NA	NA	NA	710	2,285	NA	1,867	230	188	871	887	NA	NA	531	355
1975	15,544	10,890	2,423	1,698	NA	332	5,638	800	677	NA	NA	NA	677	2,244	NA	1,827	228	189	840	891	NA	NA	523	368
1976	16,241	11,464	2,569	1,901	NA	351	5,816	827	658	NA	NA	NA	658	2,340	NA	1,916	227	197	856	923	NA	NA	527	395
1977	17,100	12,053	2,684	2,123	NA	384	6,017	845	660	NA	NA	NA	660	2,453	NA	1,995	253	204	951	984	NA	NA	562	422



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Year	All performers	Total	Federal intramural	FFRDCs	Nonfederal government	Business	U&C	ONP	Total	FFRDCs	Nonfederal government	Business	U&C	Total	FFRDCs	Business	U&C	ONP	U&C	Total	FFRDCs	Business	U&C	ONP
1978	18,506	13,165	2,777	2,673	NA	415	6,380	920	691	NA	NA	NA	691	2,581	NA	2,088	283	210	1,059	1,011	NA	NA	565	446
1979	19,252	13,655	2,733	2,849	NA	396	6,680	998	702	NA	NA	NA	702	2,720	NA	2,194	313	213	1,145	1,029	NA	NA	563	466
1980	19,710	13,852	2,732	2,916	NA	383	6,897	925	691	NA	NA	NA	691	2,898	NA	2,332	351	215	1,226	1,043	NA	NA	559	484
1981	19,904	13,585	2,767	2,947	NA	338	6,865	667	697	NA	NA	NA	697	3,299	NA	2,706	377	216	1,268	1,056	NA	NA	555	501
1982	20,668	13,819	2,953	2,917	NA	491	6,743	716	714	NA	NA	NA	714	3,597	NA	2,956	418	224	1,390	1,148	NA	NA	615	533
1983	22,179	14,661	3,235	3,100	NA	646	6,886	795	739	NA	NA	NA	739	4,007	NA	3,286	485	236	1,524	1,248	NA	NA	668	580
1984	24,036	15,598	3,383	3,343	NA	613	7,368	891	785	NA	NA	NA	785	4,659	NA	3,844	564	251	1,649	1,345	NA	NA	712	633
1985	25,766	16,434	3,402	3,383	NA	625	8,046	978	899	NA	NA	NA	899	5,092	NA	4,146	679	267	1,879	1,462	NA	NA	768	693
1986	29,375	17,501	3,469	3,503	NA	743	8,770	1,016	1,037	NA	NA	NA	1,037	7,072	NA	5,987	798	288	2,161	1,603	NA	NA	835	768
1987	30,861	18,518	3,419	3,745	NA	999	9,229	1,128	1,100	NA	NA	NA	1,100	7,150	NA	5,983	858	308	2,337	1,757	NA	NA	910	846
1988	31,924	19,518	3,414	4,247	NA	1,058	9,578	1,220	1,138	NA	NA	NA	1,138	6,896	NA	5,658	911	327	2,468	1,903	NA	NA	980	924
1989	33,996	20,798	3,585	4,372	NA	1,531	9,973	1,336	1,189	NA	NA	NA	1,189	7,287	NA	5,951	990	346	2,662	2,060	NA	NA	1,056	1,004
1990	34,488	21,051	3,473	4,543	NA	1,301	10,316	1,418	1,268	NA	NA	NA	1,268	7,054	NA	5,631	1,056	366	2,889	2,226	NA	NA	1,132	1,094
1991	39,336	22,151	3,447	4,631	NA	1,813	10,759	1,501	1,322	NA	NA	NA	1,322	10,374	NA	8,877	1,107	389	3,083	2,406	NA	NA	1,211	1,195
1992	39,116	22,263	3,427	4,829	NA	1,009	11,419	1,579	1,334	NA	NA	NA	1,334	9,813	NA	8,242	1,154	418	3,121	2,585	NA	NA	1,266	1,319
1993	39,783	22,698	3,628	4,868	NA	645	11,956	1,601	1,318	NA	NA	NA	1,318	9,877	NA	8,251	1,178	448	3,140	2,750	NA	NA	1,296	1,455
1994	40,185	22,727	3,452	4,759	NA	591	12,385	1,541	1,344	NA	NA	NA	1,344	9,925	NA	8,237	1,206	482	3,261	2,928	NA	NA	1,320	1,607
1995	39,311	22,555	3,570	4,390	NA	252	12,789	1,553	1,420	NA	NA	NA	1,420	8,914	NA	7,141	1,255	518	3,333	3,088	NA	NA	1,311	1,777
1996	42,763	23,550	3,494	4,424	NA	847	13,158	1,628	1,498	NA	NA	NA	1,498	10,833	NA	8,928	1,346	559	3,572	3,310	NA	NA	1,341	1,969
1997	47,317	24,893	3,520	4,363	NA	1,319	14,003	1,688	1,598	NA	NA	NA	1,598	13,317	NA	11,237	1,505	576	4,026	3,483	NA	NA	1,487	1,995
1998	44,833	26,436	3,808	4,363	NA	1,271	15,142	1,852	1,683	NA	NA	NA	1,683	8,420	NA	6,151	1,664	605	4,406	3,888	NA	NA	1,640	2,248
1999	48,602	28,476	4,180	4,645	NA	1,384	16,102	2,166	1,784	NA	NA	NA	1,784	9,331	NA	6,916	1,770	645	4,778	4,234	NA	NA	1,796	2,438
2000	52,180	30,268	4,598	4,929	NA	1,130	17,048	2,564	1,887	NA	NA	NA	1,887	9,985	NA	7,468	1,826	691	5,236	4,804	NA	NA	1,953	2,851



	All sources of funds	Federal							Nonfederal government					Business					U&C	Other nonprofit organizations				
Year	All performers	Total	Federal intramural	FFRDCs	Nonfederal government	Business	U&C	ONP	Total	FFRDCs	Nonfederal government	Business	U&C	Total	FFRDCs	Business	U&C	ONP	U&C	Total	FFRDCs	Business	U&C	ONP
2001	56,957	32,743	5,087	5,458	NA	900	18,556	2,942	1,992	12	NA	NA	1,980	11,281	74	8,715	1,809	682	5,643	5,298	114	NA	2,102	3,083
2002	60,999	36,375	5,304	6,147	NA	1,044	21,085	3,028	2,141	17	NA	NA	2,125	10,326	71	7,831	1,773	652	6,200	5,956	145	NA	2,302	3,509
2003	64,630	38,965	5,378	5,851	NA	1,598	23,205	3,130	2,277	16	NA	NA	2,262	10,439	64	8,006	1,716	653	6,515	6,434	117	NA	2,363	3,954
2004	64,743	39,398	5,270	5,583	NA	1,203	24,352	3,129	2,344	13	NA	NA	2,331	10,020	53	7,589	1,729	649	6,636	6,345	72	NA	2,410	3,863
2005	66,624	39,754	5,186	5,584	NA	1,205	24,773	3,155	2,349	13	NA	NA	2,336	10,752	59	8,217	1,808	668	7,073	6,695	76	NA	2,515	4,105
2006	66,489	39,475	4,974	5,524	NA	1,523	24,587	3,005	2,470	13	NA	NA	2,404	10,019	71	7,320	1,936	692	7,611	6,914	82	NA	2,667	4,164
2007	68,029	38,249	4,747	3,526	NA	2,856	24,320	2,907	2,629	10	NA	NA	2,563	11,584	58	8,720	2,089	717	8,074	7,491	70	NA	2,918	4,504
2008	70,770	37,401	4,994	3,603	NA	1,486	24,333	3,097	2,771	11	NA	12	2,694	13,970	66	10,946	2,231	728	8,461	8,168	69	18	3,143	4,938
2009	73,772	38,294	5,441	3,993	NA	1,340	24,113	3,498	2,640	12	NA	13	2,554	16,291	54	13,397	2,143	698	7,997	8,550	66	34	3,093	5,357
2010	74,164	38,331	5,049	4,316	NA	1,389	24,284	3,373	2,426	13	NA	10	2,330	17,394	50	14,717	1,934	694	7,445	8,567	65	58	2,935	5,509
2011	69,883	36,794	4,885	4,259	NA	655	24,066	2,982	2,314	7	NA	21	2,216	14,551	45	11,890	1,900	716	7,726	8,497	50	36	2,909	5,502
2012	69,492	35,740	5,219	4,026	NA	612	22,995	2,940	2,204	10	NA	9	2,121	14,709	42	11,992	1,954	721	8,253	8,586	48	28	3,008	5,502
2013 ^a	75,384	35,440	5,017	3,913	NA	1,121	22,625	2,830	2,171	14	NA	20	2,074	19,875	48	17,055	2,020	751	8,792	9,106	49	83	3,160	5,815

NA = not available.

FFRDC = federally funded R&D center; ONP = other nonprofit organizations; U&C = universities and colleges.

^a Some components of the 2013 data are estimates and may later be revised.

NOTES:

This table reaggregates the R&D performer data in appendix table 4-3 according to major categories of R&D funding: federal government, nonfederal government (state and local), business, U&C, and ONP. For interpretive detail on the R&D performers listed, see notes a–f in appendix table 4-2. 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, as 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: the Business R&D and Innovation Survey, the Higher Education Research and Development Survey, the Survey of Federal Funds for Research and Development, the FFRDC R&D Expenditures Survey, and the Survey of State Government Research and Development. R&D expenditures by business performers—and, 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 notes in appendix table 4-3). The 1998–2013 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. Character-of-work 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 character-of-work splits for other than total, own-funded, and federally funded R&D are estimated (see also note d in appendix table 4-2). Character-of-work data for FFRDC R&D in 1953–54 include only that of U&C-administered FFRDCs. Starting in 2001, character-of-work data distinguish federally funded from nonfederally funded FFRDC R&D (see also note b in appendix table 4-2). The character-of-work estimation procedure for academic 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 character-of-work splits for other than total and federally funded R&D are estimated (see also note e in appendix table 4-2). Character-of-work data for R&D by ONP in 1998 and later years are estimated, except for those that are federally funded (see also note f in appendix table 4-2). Character-of-work data for state internal R&D are not currently collected by the Survey of State Government Research and Development (see also note c in appendix table 4-2).



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