

TABLE 7. U.S. basic research expenditures, by source of funds and performing sector: 1953–2016

Year	All funding sources	Federal							Nonfederal government					Business					Higher education	Other nonprofit organizations				
	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
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
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

TABLE 7. U.S. basic research expenditures, by source of funds and performing sector: 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
			FFRDC	Non-federal government																				
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
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	36,717	19,254	2,746	3,404	NA	1,029	10,758	1,317	1,233	NA	NA	NA	1,233	10,376	NA	8,766	1,161	449	3,150	2,704	NA	NA	1,147	1,557
1998	34,842	20,473	3,003	3,441	NA	1,002	11,567	1,461	1,292	NA	NA	NA	1,292	6,606	NA	4,851	1,278	477	3,495	2,976	NA	NA	1,259	1,717
1999	38,282	22,364	3,347	3,719	NA	1,108	12,456	1,734	1,386	NA	NA	NA	1,386	7,429	NA	5,537	1,375	517	3,848	3,255	NA	NA	1,396	1,860
2000	42,033	24,295	3,765	4,037	NA	925	13,469	2,099	1,501	NA	NA	NA	1,501	8,134	NA	6,115	1,453	566	4,314	3,790	NA	NA	1,553	2,236
2001	46,843	26,802	4,260	4,404	NA	754	14,919	2,464	1,615	10	NA	NA	1,606	9,400	62	7,299	1,467	571	4,759	4,267	95	NA	1,704	2,467
2002	50,789	30,141	4,511	5,029	NA	888	17,139	2,575	1,759	14	NA	NA	1,745	8,730	61	6,659	1,456	554	5,311	4,847	123	NA	1,891	2,833
2003	54,823	32,889	4,664	4,904	NA	1,386	19,220	2,714	1,906	13	NA	NA	1,893	9,002	55	6,944	1,436	567	5,692	5,335	102	NA	1,978	3,256
2004	56,379	34,139	4,697	4,852	NA	1,072	20,730	2,788	2,011	12	NA	NA	2,000	8,872	48	6,763	1,483	578	5,965	5,391	64	NA	2,067	3,259
2005	59,904	35,566	4,770	5,000	NA	1,108	21,786	2,903	2,080	12	NA	NA	2,068	9,828	54	7,559	1,600	614	6,568	5,861	70	NA	2,226	3,565
2006	61,566	36,374	4,716	5,080	15	1,444	22,270	2,849	2,232	12	29	NA	2,191	9,428	67	6,940	1,765	656	7,288	6,244	78	NA	2,431	3,735
2007	64,600	36,093	4,621	3,298	19	2,780	22,546	2,829	2,446	10	36	NA	2,400	11,199	57	8,488	1,956	698	7,932	6,930	68	NA	2,733	4,130
2008	68,536	35,916	4,957	3,432	25	1,475	22,954	3,073	2,641	11	45	12	2,573	13,782	65	10,864	2,131	722	8,467	7,731	68	18	3,002	4,643
2009	72,659	37,652	5,441	4,432	32	1,340	22,909	3,498	2,524	13	54	13	2,444	16,132	58	13,397	1,980	698	8,199	8,151	69	34	2,997	5,051
2010	75,907	39,855	5,111	6,475	37	1,406	23,412	3,414	2,339	18	60	10	2,251	17,416	67	14,897	1,750	702	7,882	8,415	77	58	2,910	5,370
2011	73,019	38,963	5,047	6,333	39	677	23,787	3,081	2,311	11	60	21	2,219	14,858	67	12,284	1,767	740	8,348	8,538	64	38	2,960	5,477
2012	73,284	37,904	5,489	5,530	38	644	23,111	3,092	2,256	14	56	10	2,176	15,258	61	12,611	1,828	758	9,083	8,784	57	29	3,113	5,585
2013	78,485	35,991	5,330	4,085	36	1,196	22,313	3,031	2,272	12	51	21	2,188	20,996	53	18,203	1,939	802	9,765	9,461	39	88	3,354	5,980
2014	82,061	36,770	5,705	4,077	41	2,044	21,813	3,090	2,306	6	56	17	2,228	22,710	53	19,757	2,057	844	10,220	10,055	34	119	3,562	6,341
2015 ^a	83,462	36,946	5,926	4,043	41	2,038	21,888	3,010	2,354	4	60	14	2,277	22,717	47	19,621	2,176	873	10,880	10,565	32	120	3,763	6,651
2016 ^b	86,319	37,554	6,301	4,188	37	1,866	22,060	3,102	2,405	5	55	14	2,331	23,466	47	20,230	2,296	892	11,716	11,178	37	126	4,022	6,993

TABLE 7. U.S. basic research expenditures, by source of funds and performing sector: 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
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
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
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

TABLE 7. U.S. basic research expenditures, by source of funds and performing sector: 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
				FFRDC	Higher education																				
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	47,065	24,680	3,520	4,363	NA	1,319	13,791	1,688	1,581	NA	NA	NA	1,581	13,301	NA	11,237	1,488	576	4,037	3,466	NA	NA	1,471	1,995	
1998	44,183	25,962	3,808	4,363	NA	1,271	14,668	1,852	1,639	NA	NA	NA	1,639	8,376	NA	6,151	1,620	605	4,432	3,774	NA	NA	1,597	2,177	
1999	47,814	27,932	4,180	4,645	NA	1,384	15,558	2,166	1,731	NA	NA	NA	1,731	9,279	NA	6,916	1,718	645	4,807	4,066	NA	NA	1,743	2,323	
2000	51,331	29,668	4,598	4,929	NA	1,130	16,448	2,564	1,833	NA	NA	NA	1,833	9,933	NA	7,468	1,774	691	5,268	4,628	NA	NA	1,897	2,731	
2001	55,929	32,001	5,087	5,258	NA	900	17,813	2,942	1,929	12	NA	NA	1,917	11,223	74	8,715	1,752	682	5,682	5,094	114	NA	2,035	2,946	
2002	59,724	35,444	5,304	5,914	NA	1,044	20,154	3,028	2,069	17	NA	NA	2,052	10,266	71	7,831	1,713	652	6,246	5,700	145	NA	2,224	3,331	
2003	63,208	37,918	5,378	5,654	NA	1,598	22,159	3,130	2,198	16	NA	NA	2,182	10,379	64	8,006	1,656	653	6,562	6,151	117	NA	2,280	3,754	
2004	63,262	38,307	5,270	5,444	NA	1,203	23,261	3,129	2,257	13	NA	NA	2,244	9,955	53	7,589	1,665	649	6,694	6,049	72	NA	2,320	3,657	
2005	65,122	38,664	5,186	5,435	NA	1,205	23,683	3,155	2,261	13	NA	NA	2,248	10,684	59	8,217	1,740	668	7,140	6,371	76	NA	2,420	3,875	
2006	64,933	38,364	4,974	5,358	16	1,523	23,488	3,005	2,354	13	30	NA	2,311	9,944	71	7,320	1,861	692	7,687	6,585	82	NA	2,564	3,939	
2007	66,368	37,081	4,747	3,388	20	2,856	23,163	2,907	2,513	10	37	NA	2,466	11,505	58	8,720	2,010	717	8,149	7,120	70	NA	2,808	4,243	
2008	69,057	36,188	4,994	3,458	25	1,486	23,128	3,097	2,661	11	45	12	2,593	13,886	66	10,946	2,147	728	8,532	7,790	69	18	3,024	4,678	
2009	72,659	37,652	5,441	4,432	32	1,340	22,909	3,498	2,524	13	54	13	2,444	16,132	58	13,397	1,980	698	8,199	8,151	69	34	2,997	5,051	
2010	74,991	39,374	5,049	6,397	37	1,389	23,129	3,373	2,311	18	60	10	2,223	17,206	66	14,717	1,729	694	7,786	8,313	76	58	2,874	5,305	
2011	70,679	37,715	4,885	6,130	37	655	23,025	2,982	2,237	10	58	21	2,148	14,382	65	11,890	1,710	716	8,080	8,265	62	36	2,865	5,302	
2012	69,652	36,025	5,217	5,256	36	612	21,965	2,939	2,144	13	54	9	2,068	14,502	58	11,986	1,737	721	8,633	8,348	54	28	2,959	5,308	
2013	73,410	33,664	4,986	3,821	34	1,119	20,870	2,835	2,125	11	48	20	2,046	19,638	49	17,026	1,813	750	9,134	8,849	36	82	3,137	5,593	

TABLE 7. U.S. basic research expenditures, by source of funds and performing sector: 1953–2016

Year	All funding sources		Federal					Nonfederal government					Business					Higher education		Other nonprofit organizations				
	All performers	Total	Federal intramural	FFRDC	Non-federal government	Business	Higher education	ONP	Total	FFRDC	Non-federal government	Business	Higher education	ONP	Total	FFRDC	Business	Higher education	ONP	Higher education	Total	FFRDC	Business	Higher education
2014	75,401	33,786	5,242	3,746	38	1,878	20,042	2,839	2,119	6	51	15	2,047	20,867	49	18,153	1,890	775	9,390	9,239	31	109	3,273	5,826
2015 ^a	75,866	33,584	5,387	3,675	37	1,853	19,896	2,736	2,140	4	54	12	2,069	20,649	43	17,835	1,978	793	9,890	9,603	29	109	3,420	6,046
2016 ^b	77,475	33,706	5,655	3,759	33	1,675	19,800	2,784	2,159	5	49	13	2,092	21,061	42	18,157	2,061	801	10,516	10,033	33	113	3,610	6,276

NA = not available.

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

^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 3 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 3, 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).