



## National Patterns of R&D Resources: 2007 Data Update

Detailed Statistical Tables | NSF 08-318 | November 2008

Mark Boroush,  
Project Officer  
Research and Development Statistics Program  
(703) 292-8726

### Introduction

*National Patterns of R&D Resources* describes and analyzes the current patterns of research and development (R&D) in the United States, with comparison to the historical record and the reported R&D levels of other industrialized countries. The data tables are a statistical supplement to the Division of Science Resources Statistics' recent InfoBrief (August 2008) that discusses the *National Patterns* findings for 2007 (<http://www.nsf.gov/statistics/infbrief/nsf08317>). The tables encompass the numerous national R&D resources variables tracked by the *National Patterns* statistical effort.

Tables 1–10 present NSF's most current information on R&D expenditures in the United States. The statistics on expenditure levels over time (1953–2007) are broken out by:

- **R&D performer:** the federal government, industry, academia, nonprofit organizations, and federally funded research and development centers (FFRDCs)
- **Source of funds:** the federal government, nonfederal government, industry, academia, and nonprofit organizations
- **Character of work:** basic research, applied research, and development
- **Monetary unit:** current dollars and constant (inflation-adjusted) year 2000 dollars
- **Geographic location:** each of the 50 states and the District of Columbia

**Please note:** For trend comparisons, use only the historical data reported here. These tables incorporate the latest revisions to prior-year data, including recently revised estimates of R&D performance by nonprofit organizations. Do not use data published earlier.

Table 11 reports R&D expenditures and administrative information for the 37 U.S. federally funded research and development centers (FFRDCs) (for fiscal year 2006 only).

Table 12 describes the trends in federal and nonfederal R&D expenditures as a share of total R&D.

Table 13 describes the trends in year-to-year growth of U.S. gross domestic product and support for R&D.

Table 14 compares R&D expenditures, in total and as a share of gross domestic product, across the industrialized Group of Eight countries (United States, Japan, Germany, France, United Kingdom, Italy, Canada, and Russian Federation).

Explanations of the methodology and technical issues involved in obtaining and compiling these R&D statistics can be found in *National Patterns of R&D Resources: 2006 Methodology Report* (the most recent edition). The R&D expenditures data presented here

derive chiefly from information obtained from NSF/SRS surveys: the Survey of Industrial Research and Development, 2006; Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 2006; Survey of Federal Funds for Research and Development: Fiscal Years 2005–07. Information from the Survey of Research and Development Funding and Performance by Nonprofit Organizations, 1996–97, is an input to the current-year estimates for this sector.

It should be noted that federal funding for R&D as reported here is based on surveys of organizations that conduct R&D—such as companies, universities, and FFRDCs. Figures for federal R&D funding as reported by the federal agencies that provide these funds differ. These disparities appear to be concentrated in Department of Defense funding for industry. See *National Patterns of R&D Resources: 2003* for detailed documentation and discussion.

## **Updates to Methodology**

Prior to fiscal year 2001, R&D data for all FFRDCs were collected through three separate surveys: the Survey of R&D Expenditures at Universities and Colleges (for university-administered FFRDCs), the Survey of Industrial R&D (for industry-administered FFRDCs), and the Survey of Federal Funds for R&D (for nonprofit-administered FFRDCs). Starting in fiscal year 2001, data for all FFRDCs have been collected through the Survey of R&D Expenditures at Universities and Colleges.

Several adjustments have been made to expenditure figures reported for R&D performed at universities and colleges (but not including FFRDCs). In 1998 and later years, university R&D figures have been adjusted to eliminate double counting of funds passed through from one academic institution to another. For example, in fiscal year 1998, \$479 million in pass-through funds were reported. The comparable pass-through figure for FY 2007 is \$1,713 million. Additionally, the procedure for estimating character of work in university and college R&D has been revised for 1998 and later years. Respondent corrections and this revised estimation procedure resulted in an increase of approximately 5 percentage points in the share of academic R&D characterized as basic research. These changes make the data for 1998 and later years not directly comparable with the data for 1997 and earlier years.

For industry R&D, the character of work estimates have also been revised for 1998 and later years. These revisions resulted in a net decrease in the proportion of industry R&D classified as basic research. Again, as a result of these revisions, the data for 1998 and later years are not directly comparable with data for 1997 and earlier years.

## **Notes on How to Read the Tables**

Tables 1 through 8 are arranged to exhibit R&D data from two differing perspectives: (1) by type of performer, with subsequent breakouts by source of funds, and (2) by source of funds, with subsequent breakouts by type of performer. The first case describes the distribution of total R&D performance among the various performers and then for each performer the sources of funding. The second case describes the distribution of total R&D funding among the various source organizations and then how each source's funding is distributed to performers.

For example, the upper left-hand corners of table 1 and table 5 are displayed below, which represent the above cases 1 and 2, respectively. In table 1, the first row column for industry as a performer breaks out in the second row to the two main sources of industrial R&D funding: the federal government and industry's own funds. For the federal government as a performer, federal is repeated in the second row because the federal government is the only source of funds for federal intramural research.

TABLE 1. U.S. research and development expenditures, by performing sector and source of funds: 1953–2007

Year	Performer:	All	Federal	Industry			Industry	U&C <sup>b</sup>		
	Funding source:	performers		Total	Federal <sup>a</sup>	Industry <sup>d</sup>	FFRDCs <sup>a</sup>	Total	Federal	Other government <sup>e</sup>
Current \$millions										
1953		5,160	1,015	3,630	1,430	2,200	NA	273	149	40
1954		5,617	963	4,070	1,750	2,320	NA	301	165	45

In table 5, the federal government as a source of funding (first row) subdivides to a set of columns in the second row, reflecting the various performers receiving federal funds for R&D (such as industry, universities and colleges, the federal government itself).

TABLE 5. U.S. research and development expenditures, by source of funds and performing sector: 1953–2007

Year	Funding source:	All	Federal							
	Performer:	performers	Total	Federal	Industry <sup>d</sup>	Industry FFRDCs <sup>b</sup>	U&C <sup>c</sup>	U&C FFRDCs	Other nonprofit <sup>d</sup>	Nonprofit FFRDCs <sup>d</sup>
Current \$mil										
1953		5,160	2,783	1,015	1,430	NA	149	131	58	NA
1954		5,617	3,098	963	1,750	NA	165	161	61	NA

Tables 1–4 are structured the same, and tables 5–8 are structured the same. However, tables 2–4 and 6–8 focus separately, in turn, on basic research, applied research, and development, rather than on total R&D expenditures (which is the sum of these three components).

## Data Tables

---

Table	<b>National Patterns of R&amp;D Resources: 2007</b>
	U.S. R&D Expenditures
	by performing sector and source of funds: 1953–2007
1	total R&D
2	basic research
3	applied research
4	development
	by source of funds and performing sector: 1953–2007
5	total R&D
6	basic research
7	applied research
8	development
	by state, sector, and source of funds
9	2005
10	2004
	by FFRDC
11	FY 2006
	federal and nonfederal
12	% of total R&D: 1953–2007
	Gross domestic product and R&D: 1953–2007
13	federal, nonfederal, and total R&D
	International R&D expenditures and R&D: 1981–2006
	by selected countries
14	% of gross domestic product

TABLE 1. U.S. research and development expenditures, by performing sector and source of funds: 1953–2007

Year	All performers		Federal	Industry		Industry FFRDCs <sup>a</sup>		U&C <sup>b</sup>					U&C FFRDCs		Other nonprofit			Nonprofit FFRDCs <sup>c</sup>	
	Performer: Funding source:	All sources		Total	Federal <sup>a</sup>	Industry <sup>d</sup>	Total	Federal	Other government <sup>e</sup>	Industry	U&C	Other nonprofit	Total	Total	Federal <sup>c</sup>	Industry	Other nonprofit	Total	
	Current \$millions																		
1953		5,160	1,015	3,630	1,430	2,200	NA	273	149	40	21	37	27	131	112	58	26	28	NA
1954		5,617	963	4,070	1,750	2,320	NA	301	165	45	24	40	29	161	123	61	31	31	NA
1955		6,281	973	4,517	2,057	2,460	123	342	191	50	27	42	32	187	131	64	35	32	9
1956		8,500	1,130	6,272	2,995	3,277	333	391	221	57	32	46	36	217	146	71	37	38	11
1957		9,908	1,297	7,324	3,928	3,396	407	433	242	64	37	51	40	267	167	79	37	51	14
1958		10,915	1,507	8,066	4,436	3,630	323	491	280	72	39	56	45	316	195	95	38	62	18
1959		12,490	1,681	9,200	5,217	3,983	418	586	356	81	40	61	50	349	234	125	42	67	22
1960		13,711	1,801	10,032	5,604	4,428	477	705	453	90	40	67	55	385	264	148	48	68	48
1961		14,564	1,987	10,353	5,685	4,668	555	834	557	101	40	75	62	440	304	169	49	86	92
1962		15,636	2,188	11,037	6,008	5,029	426	993	687	112	41	84	70	500	363	200	54	109	130
1963		17,519	2,558	12,216	6,856	5,360	414	1,178	839	125	41	96	78	580	408	234	55	119	165
1964		19,103	2,965	13,049	7,257	5,792	463	1,375	995	138	41	114	88	629	417	250	55	112	205
1965		20,252	3,156	13,812	7,367	6,445	373	1,595	1,167	150	42	136	101	630	472	286	62	124	215
1966		22,072	3,308	15,193	7,977	7,216	355	1,818	1,335	160	45	165	114	652	537	329	70	138	210
1967		23,346	3,444	15,966	7,946	8,020	419	2,035	1,491	168	52	200	126	696	561	342	74	145	225
1968		24,666	3,497	17,014	8,145	8,869	415	2,187	1,586	185	58	221	139	722	596	364	81	151	235
1969		25,996	3,790	17,844	7,987	9,857	464	2,280	1,624	208	61	233	155	731	642	388	93	161	245
1970		26,271	4,154	17,594	7,306	10,288	473	2,418	1,686	237	66	259	171	727	677	410	95	172	230
1971		26,952	4,409	17,829	7,175	10,654	491	2,565	1,760	262	72	290	182	735	709	427	98	184	215
1972		28,740	4,676	19,004	7,469	11,535	548	2,757	1,890	282	79	312	195	785	771	472	101	198	200
1973		30,952	4,837	20,704	7,600	13,104	545	2,953	2,009	302	90	343	211	841	882	566	105	211	190
1974		33,359	5,132	22,239	7,572	14,667	648	3,216	2,160	320	104	393	239	926	988	639	114	235	210
1975		35,671	5,561	23,460	7,878	15,582	727	3,570	2,400	348	118	432	272	1,067	1,062	675	124	262	225
1976		39,435	5,890	26,107	8,671	17,436	890	3,899	2,619	369	131	480	300	1,266	1,139	711	135	292	245
1977		43,338	6,211	28,863	9,523	19,340	962	4,346	2,893	394	155	569	337	1,467	1,213	740	147	326	275
1978		48,719	6,962	32,222	10,107	22,115	1,082	4,996	3,329	443	182	679	364	1,772	1,353	830	160	363	333
1979		55,379	7,471	37,062	11,354	25,708	1,164	5,715	3,848	482	215	785	386	2,013	1,564	985	174	405	390
1980		63,224	7,831	43,228	12,752	30,476	1,277	6,455	4,335	519	264	920	419	2,306	1,658	1,017	189	452	469
1981		72,292	8,605	50,425	14,997	35,428	1,385	7,085	4,670	581	314	1,058	463	2,484	1,784	1,075	206	504	524
1982		80,748	9,501	57,166	17,061	40,105	1,484	7,603	4,879	621	363	1,207	534	2,544	1,915	1,129	224	561	536
1983		89,950	10,830	63,683	19,095	44,588	1,585	8,251	5,210	658	432	1,357	595	2,840	2,176	1,306	244	626	585
1984		102,244	11,916	73,061	21,657	51,404	1,739	9,154	5,748	721	518	1,514	654	3,243	2,511	1,548	265	698	620
1985		114,671	13,093	82,376	25,333	57,043	1,863	10,308	6,388	834	630	1,743	713	3,616	2,761	1,694	289	778	655
1986		120,249	13,504	85,932	26,000	59,932	1,891	11,540	7,028	969	745	2,019	780	3,973	2,867	1,686	314	867	541

TABLE 1. U.S. research and development expenditures, by performing sector and source of funds: 1953–2007

Year	Performer:	All	Federal	Industry				U&C						Other nonprofit				Nonprofit	
	Funding	performers		Industry	FFRDCs <sup>a</sup>			U&C <sup>b</sup>			FFRDCs		Other nonprofit		FFRDCs <sup>c</sup>				
	source:	All		Total	Federal <sup>a</sup>	Industry <sup>d</sup>	Total	Total	Federal	Other government <sup>e</sup>	Industry	U&C	Other nonprofit	Total	Total	Federal <sup>c</sup>	Industry	Other nonprofit	Total
1987		126,360	13,588	90,160	28,757	61,403	1,995	12,807	7,768	1,065	831	2,262	882	4,287	3,013	1,704	342	967	509
1988		133,880	14,342	94,893	28,221	66,672	2,122	14,220	8,592	1,165	933	2,527	1,003	4,581	3,213	1,762	372	1,078	510
1989		141,889	15,231	99,860	26,359	73,501	2,195	15,632	9,315	1,274	1,061	2,852	1,131	4,756	3,669	2,062	405	1,202	547
1990		151,990	15,671	107,404	25,802	81,602	2,323	16,936	9,936	1,399	1,166	3,187	1,249	4,894	4,126	2,346	440	1,340	636
1991		160,872	15,249	114,675	24,095	90,580	2,277	18,203	10,664	1,483	1,242	3,457	1,358	5,120	4,652	2,679	479	1,494	696
1992		165,347	15,853	116,757	22,369	94,388	2,353	19,385	11,525	1,525	1,320	3,568	1,448	5,259	4,993	2,806	521	1,666	748
1993		165,726	16,531	115,435	20,844	94,591	1,965	20,491	12,304	1,557	1,391	3,709	1,531	5,289	5,267	2,843	567	1,857	749
1994		169,202	16,355	117,392	20,261	97,131	2,202	21,602	12,992	1,623	1,456	3,938	1,595	5,294	5,599	2,911	617	2,071	758
1995		183,620	16,904	129,830	21,178	108,652	2,273	22,612	13,588	1,751	1,547	4,110	1,617	5,367	5,827	2,847	671	2,308	808
1996		197,340	16,585	142,371	21,356	121,015	2,297	23,711	14,079	1,861	1,671	4,435	1,666	5,395	6,209	2,906	730	2,574	772
1997		212,144	16,819	155,409	21,798	133,611	2,130	24,876	14,524	1,922	1,807	4,837	1,786	5,463	6,626	3,014	809	2,804	821
1998		226,456	17,362	167,102	22,086	145,016	2,078	26,171	15,167	1,972	1,949	5,162	1,921	5,559	7,341	3,281	880	3,180	843
1999		245,041	17,851	182,090	20,496	161,594	2,039	28,165	16,254	2,098	2,082	5,618	2,112	5,652	8,252	3,761	984	3,507	993
2000		267,562	17,917	199,961	17,117	182,844	2,001	30,693	17,717	2,247	2,174	6,231	2,325	5,742	9,782	4,447	1,118	4,217	1,465
2001		277,745	20,426	202,017	16,899	185,118	2,020	33,731	19,774	2,397	2,190	6,826	2,545	6,225	11,133	5,289	1,132	4,712	2,192
2002		276,602	21,499	193,868	16,401	177,467	2,263	37,202	22,384	2,557	2,160	7,343	2,758	7,102	12,349	5,731	1,084	5,534	2,319
2003		289,038	22,752	200,724	17,798	182,926	2,458	40,470	25,116	2,742	2,129	7,649	2,833	7,301	12,839	5,686	1,118	6,035	2,494
2004		299,905	22,844	208,301	20,266	188,035	2,485	43,111	27,157	2,884	2,191	7,933	2,946	7,658	12,862	5,695	1,151	6,016	2,644
2005		323,005	24,459	226,159	21,909	204,250	2,601	45,191	28,203	2,950	2,338	8,575	3,126	7,812	13,954	5,922	1,253	6,779	2,828
2006		347,871	25,327	247,669	24,304	223,365	2,562	46,987	28,784	3,071	2,536	9,282	3,314	7,866	14,507	5,905	1,374	7,228	2,953
2007 preliminary		368,098	24,744	265,193	24,450	240,743	4,589	48,913	29,468	3,226	2,799	9,866	3,553	6,076	15,346	5,767	1,485	8,094	3,236
2000 constant \$millions																			
1953		28,289	5,565	19,901	7,840	12,061	NA	1,494	817	217	112	200	148	718	611	315	143	154	NA
1954		30,468	5,221	22,079	9,493	12,585	NA	1,633	892	241	127	214	157	871	665	328	168	168	NA
1955		33,573	5,199	24,143	10,995	13,149	657	1,828	1,021	267	144	224	171	1,000	700	342	187	171	45
1956		43,905	5,839	32,397	15,470	16,927	1,720	2,020	1,142	292	163	238	186	1,121	752	364	191	196	57
1957		49,445	6,474	36,549	19,602	16,947	2,031	2,161	1,205	319	182	255	200	1,330	831	392	185	255	70
1958		53,213	7,345	39,323	21,626	17,697	1,575	2,394	1,365	351	190	271	217	1,538	951	463	185	302	88
1959		60,179	8,100	44,329	25,137	19,191	2,014	2,824	1,713	388	190	294	239	1,682	1,125	600	202	323	106
1960		65,155	8,557	47,672	26,630	21,042	2,267	3,348	2,150	428	190	318	261	1,830	1,255	703	228	323	228
1961		68,438	9,338	48,649	26,714	21,935	2,608	3,917	2,615	472	188	350	291	2,068	1,429	794	230	404	430
1962		72,484	10,141	51,164	27,851	23,313	1,975	4,601	3,182	519	188	389	322	2,318	1,683	927	250	505	603
1963		80,359	11,736	56,034	31,448	24,586	1,899	5,403	3,846	573	186	440	358	2,658	1,871	1,073	252	546	757
1964		86,305	13,397	58,955	32,787	26,168	2,092	6,210	4,495	621	183	513	398	2,842	1,884	1,129	248	506	926
1965		89,858	14,004	61,283	32,687	28,596	1,655	7,075	5,178	663	184	603	446	2,793	2,094	1,269	275	550	954

TABLE 1. U.S. research and development expenditures, by performing sector and source of funds: 1953–2007

Year	All performers		Federal	Industry			Industry FFRDCs <sup>a</sup>		U&C <sup>b</sup>				U&C FFRDCs		Other nonprofit			Nonprofit FFRDCs <sup>c</sup>	
	Performer: Funding source:	All sources		Total	Federal <sup>a</sup>	Industry <sup>d</sup>	Total	Federal	Other		U&C		Total	Total	Federal <sup>c</sup>	Industry	Other	Total	
									government <sup>e</sup>	Industry	U&C	nonprofit							
1966		95,219	14,270	65,544	34,413	31,130	1,531	7,843	5,759	690	194	710	490	2,811	2,314	1,417	302	595	906
1967		97,696	14,414	66,812	33,251	33,561	1,753	8,516	6,237	703	216	835	525	2,912	2,348	1,431	310	607	942
1968		98,997	14,036	68,285	32,690	35,596	1,666	8,777	6,365	740	231	885	556	2,898	2,392	1,461	325	606	943
1969		99,399	14,493	68,229	30,540	37,690	1,774	8,718	6,208	795	231	891	593	2,795	2,453	1,482	356	616	937
1970		95,400	15,084	63,890	26,531	37,359	1,718	8,779	6,121	861	238	939	621	2,638	2,457	1,487	345	625	835
1971		93,207	15,247	61,658	24,813	36,845	1,698	8,871	6,085	906	249	1,001	629	2,540	2,450	1,475	339	636	744
1972		95,258	15,497	62,988	24,756	38,232	1,816	9,138	6,264	935	262	1,032	645	2,602	2,554	1,563	335	656	663
1973		97,167	15,183	64,997	23,859	41,138	1,711	9,270	6,305	947	281	1,077	661	2,640	2,769	1,777	330	662	596
1974		96,077	14,782	64,051	21,808	42,242	1,866	9,261	6,221	922	300	1,130	688	2,667	2,845	1,839	329	678	605
1975		93,855	14,632	61,725	20,728	40,998	1,913	9,392	6,315	916	310	1,135	716	2,807	2,793	1,776	327	690	592
1976		98,092	14,652	64,940	21,569	43,371	2,214	9,697	6,515	918	326	1,194	745	3,148	2,832	1,769	336	727	609
1977		101,356	14,527	67,503	22,272	45,231	2,250	10,164	6,765	921	361	1,330	787	3,432	2,838	1,731	344	762	643
1978		106,462	15,214	70,412	22,086	48,326	2,364	10,916	7,274	968	397	1,484	794	3,871	2,958	1,814	350	794	727
1979		111,757	15,077	74,793	22,913	51,880	2,349	11,532	7,765	972	433	1,584	778	4,062	3,157	1,988	351	818	787
1980		116,947	14,485	79,960	23,588	56,372	2,362	11,940	8,018	959	487	1,701	775	4,265	3,068	1,882	350	836	867
1981		122,264	14,552	85,281	25,364	59,917	2,342	11,982	7,897	983	531	1,788	783	4,201	3,018	1,817	349	852	886
1982		128,707	15,144	91,119	27,194	63,925	2,365	12,118	7,776	990	579	1,923	850	4,054	3,052	1,800	357	895	854
1983		137,930	16,606	97,652	29,281	68,372	2,430	12,652	7,989	1,009	662	2,080	912	4,355	3,336	2,002	374	960	897
1984		151,105	17,610	107,976	32,007	75,969	2,570	13,528	8,494	1,066	765	2,238	966	4,793	3,711	2,287	392	1,031	916
1985		164,464	18,778	118,146	36,333	81,813	2,672	14,783	9,162	1,195	904	2,500	1,023	5,186	3,959	2,429	414	1,116	939
1986		168,725	18,949	120,574	36,481	84,093	2,653	16,192	9,861	1,360	1,045	2,832	1,094	5,574	4,023	2,365	441	1,217	759
1987		172,614	18,562	123,163	39,283	83,879	2,725	17,495	10,611	1,454	1,135	3,090	1,204	5,857	4,116	2,328	467	1,321	696
1988		176,842	18,944	125,344	37,277	88,067	2,803	18,783	11,349	1,539	1,232	3,338	1,325	6,051	4,243	2,328	491	1,424	673
1989		180,591	19,385	127,098	33,549	93,550	2,794	19,896	11,855	1,622	1,350	3,630	1,439	6,053	4,669	2,624	515	1,530	696
1990		186,230	19,202	131,600	31,615	99,985	2,846	20,751	12,174	1,714	1,428	3,904	1,530	5,996	5,055	2,874	539	1,642	779
1991		190,478	18,056	135,779	28,529	107,250	2,696	21,552	12,626	1,755	1,470	4,093	1,608	6,063	5,508	3,172	567	1,769	824
1992		191,370	18,348	135,132	25,889	109,243	2,723	22,436	13,339	1,765	1,527	4,130	1,675	6,087	5,778	3,247	603	1,928	865
1993		187,494	18,702	130,597	23,582	107,015	2,223	23,182	13,920	1,762	1,574	4,196	1,732	5,984	5,959	3,217	641	2,101	847
1994		187,450	18,119	130,053	22,446	107,606	2,439	23,932	14,393	1,797	1,612	4,363	1,766	5,865	6,202	3,225	683	2,294	840
1995		199,338	18,351	140,943	22,991	117,953	2,468	24,547	14,751	1,901	1,679	4,461	1,755	5,827	6,326	3,091	729	2,506	877
1996		210,251	17,670	151,686	22,753	128,933	2,447	25,262	15,000	1,983	1,780	4,725	1,774	5,748	6,616	3,096	778	2,742	822
1997		222,338	17,627	162,877	22,845	140,031	2,232	26,072	15,222	2,014	1,894	5,069	1,872	5,725	6,945	3,159	848	2,938	860
1998		234,731	17,997	173,208	22,893	150,315	2,154	27,127	15,721	2,044	2,020	5,351	1,992	5,762	7,609	3,401	912	3,297	874
1999		250,379	18,240	186,056	20,942	165,114	2,084	28,778	16,609	2,144	2,127	5,741	2,158	5,775	8,432	3,843	1,006	3,584	1,014
2000		267,562	17,917	199,961	17,117	182,844	2,001	30,693	17,717	2,247	2,174	6,231	2,325	5,742	9,782	4,447	1,118	4,217	1,465

TABLE 1. U.S. research and development expenditures, by performing sector and source of funds: 1953–2007

Year	All performers		Federal	Industry				U&C					Other nonprofit			Nonprofit FFRDCs <sup>c</sup>			
	Performer: Funding source:	All sources		Total	Federal <sup>a</sup>	Industry <sup>d</sup>	Total	Total	Federal	U&C <sup>b</sup>		Other	Total	Total	Federal <sup>c</sup>		Industry	Other	
									Other government <sup>e</sup>	Industry	U&C	Other nonprofit							Total
2001		271,230	19,947	197,278	16,503	180,776	1,973	32,940	19,310	2,341	2,138	6,666	2,485	6,079	10,872	5,165	1,106	4,601	2,140
2002		265,470	20,634	186,066	15,741	170,325	2,172	35,705	21,484	2,454	2,073	7,047	2,647	6,816	11,852	5,500	1,040	5,311	2,226
2003		271,629	21,382	188,634	16,726	171,908	2,310	38,032	23,604	2,577	2,001	7,189	2,662	6,861	12,066	5,344	1,051	5,671	2,344
2004		273,980	20,869	190,295	18,514	171,781	2,270	39,384	24,810	2,635	2,002	7,247	2,691	6,996	11,750	5,203	1,051	5,496	2,415
2005		285,832	21,645	200,132	19,388	180,744	2,302	39,991	24,957	2,610	2,069	7,588	2,766	6,913	12,348	5,240	1,109	5,999	2,502
2006		298,427	21,727	212,467	20,850	191,618	2,197	40,309	24,693	2,634	2,176	7,963	2,843	6,748	12,445	5,066	1,179	6,200	2,533
2007 preliminary		307,553	20,675	221,574	20,428	201,145	3,834	40,868	24,621	2,696	2,339	8,243	2,969	5,077	12,822	4,819	1,241	6,763	2,704

NA = not available, included in figures for federal support to industry and federal support to nonprofit institutions; FFRCD = federally funded research and development center; U&C = universities and colleges.

<sup>a</sup> Federal support for industry in 1953–54 did not separate federal support for industry and for industry FFRDCs; thus, figures for federal support to industry includes support to FFRDCs for those years.

<sup>b</sup> Adjustments have been made to U&C R&D for 1998 and later years to eliminate double counting of funds passed through from one academic institution to another. Data for 1998 and later years are not directly comparable with data for 1997 and earlier years. For FY 1998, \$479 million in total passed-through funds and \$421 million in federal passed-through funds were reported. For FY 2007, \$1,713 million in total passed-through funds and \$1,524 million in federal passed-through funds are estimated.

<sup>c</sup> Federal support for nonprofit FFRDCs in 1953–54 did not separate federal support for other nonprofits and for nonprofit FFRDCs; thus, the figure for federal support to other nonprofit institutions includes support to FFRDCs for those years.

<sup>d</sup> Industry sources of funding for industry R&D expenditures include all nonfederal sources of funding for industry R&D expenditures.

<sup>e</sup> Because of limitations in survey information, data on other government funding to performers other than universities and colleges are not available and consequently are included in other sectors' support for their own R&D performance, e.g., other government support to other nonprofits is included in other nonprofit support for their own R&D.

NOTES: Technical notes explaining methodological issues of measurement are available on request. Data are based on annual reports by performers, except for the nonprofit sector. The R&D expenditures of FFRDCs are chiefly federal funds, but any nonfederal funds are also included in the totals. For trend comparisons, use only the historical data reported here; do not use data published earlier. Expenditures for industry and, prior to 2001, for industry-administered FFRDCs are collected by calendar year. Expenditures for other performers are calendar-year approximations based on fiscal year data. In most cases, the approximation equals 75% of the amount reported in the same fiscal year plus 25% of amount reported in the subsequent fiscal year. However, the fiscal year for academic performers generally begins July 1, not October 1; also, prior to 1977, the federal fiscal year began on July 1, not October 1. Therefore, calendar-year approximations for academic performers and for federal performers prior to 1977 equal 50% of the amount reported in the same fiscal year plus 50% of the amount reported in the subsequent fiscal year. Detail may not add to total because of rounding. Constant dollar estimates are derived from unrounded data.

SOURCES: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), *Research and Development in Industry 2006* (forthcoming); NSF/SRS, *Academic Research and Development Expenditures: FY 2006* (forthcoming); NSF/SRS, *Federal Funds for Research and Development: FY 2005–07* (forthcoming); NSF/SRS, *Research and Development Funding and Performance by Nonprofit Organizations: FY 1996–97* (NSF 02-303). All NSF/SRS reports are available at <http://www.nsf.gov/statistics/>.



TABLE 2. U.S. basic research expenditures, by performing sector and source of funds: 1953–2007

Year	All performers		Federal	Industry <sup>a</sup>			Industry FFRDCs <sup>b</sup>		U&C <sup>c</sup>				U&C FFRDCs		Other nonprofit			Nonprofit FFRDCs <sup>d</sup>	
	Performer:	All		Total	Federal <sup>b</sup>	Industry <sup>e</sup>	Total	Total	Federal	Other		Other	Total	Total	Federal <sup>d</sup>	Industry	Other	Total	
	Funding source:	sources	Federal						government <sup>f</sup>	Industry	U&C	nonprofit							
	Current \$millions																		
1953		460	102	151	19	132	NA	123	82	7	13	6	16	36	48	27	9	12	NA
1954		509	96	166	23	143	NA	148	97	10	15	8	18	44	55	31	11	13	NA
1955		579	98	189	27	162	NA	180	117	14	17	12	21	50	63	36	13	14	NA
1956		718	114	253	37	216	NA	220	143	19	20	15	24	58	74	42	15	17	NA
1957		814	124	271	41	230	NA	261	167	25	23	20	27	72	87	49	15	23	NA
1958		944	149	295	43	252	NA	312	202	31	24	24	31	85	103	59	16	28	NA
1959		1,087	165	320	72	248	NA	388	263	38	24	28	36	95	120	72	18	30	NA
1960		1,286	184	376	79	297	NA	485	341	45	25	33	41	106	136	85	21	30	NA
1961		1,512	230	395	81	314	NA	598	432	54	25	40	48	126	164	105	22	37	NA
1962		1,824	252	488	143	345	NA	737	546	64	25	48	55	148	200	130	24	46	NA
1963		2,115	285	522	147	375	NA	909	689	75	25	58	63	175	225	150	25	50	NA
1964		2,396	339	507	123	384	42	1,071	824	84	25	70	68	200	238	166	25	47	NA
1965		2,664	375	563	157	406	29	1,221	944	94	27	86	70	218	260	179	29	52	NA
1966		2,930	410	593	142	451	31	1,380	1,066	104	29	106	75	239	278	188	32	58	NA
1967		3,168	434	595	168	427	34	1,554	1,188	114	34	136	83	263	289	194	34	61	NA
1968		3,376	482	607	145	462	35	1,681	1,265	131	38	156	91	276	296	196	37	63	NA
1969		3,491	545	581	123	458	37	1,754	1,288	153	40	171	103	272	302	192	43	67	NA
1970		3,594	562	566	122	444	36	1,855	1,323	179	43	196	115	265	311	195	44	72	NA
1971		3,720	581	557	101	456	33	1,968	1,385	194	50	214	127	252	329	207	45	77	NA
1972		3,850	603	554	91	463	39	2,038	1,437	195	55	216	134	270	347	216	47	84	NA
1973		4,099	652	595	96	499	36	2,103	1,489	196	59	223	137	343	371	232	49	90	NA
1974		4,511	715	650	114	536	49	2,282	1,609	204	66	250	153	415	401	245	54	102	NA
1975		4,875	760	677	104	573	53	2,480	1,768	212	72	264	164	476	430	255	59	116	NA
1976		5,373	850	750	116	634	69	2,675	1,924	218	75	283	175	556	474	278	65	131	NA
1977		6,008	943	836	135	701	75	2,967	2,114	232	89	334	198	667	521	301	72	148	NA
1978		6,959	1,044	941	156	785	94	3,376	2,399	260	107	398	213	906	598	351	79	168	NA
1979		7,836	1,112	1,054	161	893	104	3,828	2,719	286	128	466	229	1,050	689	413	87	190	NA
1980		8,745	1,212	1,205	170	1,035	120	4,315	3,061	307	156	544	248	1,167	726	416	95	215	NA
1981		9,658	1,343	1,477	164	1,313	137	4,737	3,331	338	183	615	269	1,284	671	324	105	243	9
1982		10,651	1,522	1,776	253	1,523	128	5,091	3,475	368	215	716	317	1,366	759	369	115	275	9
1983		11,880	1,733	2,106	346	1,760	117	5,518	3,689	396	260	816	358	1,536	863	426	127	311	8
1984		13,332	1,877	2,472	340	2,132	136	6,145	4,087	436	313	915	395	1,709	984	494	139	351	9
1985		14,748	1,947	2,731	358	2,373	131	7,024	4,606	514	389	1,075	440	1,793	1,110	560	153	397	13
1986		17,154	2,026	3,930	434	3,496	117	7,943	5,122	606	466	1,262	488	1,915	1,210	594	168	449	13

TABLE 2. U.S. basic research expenditures, by performing sector and source of funds: 1953–2007

Year	All performers		Federal	Industry <sup>a</sup>			Industry FFRDCs <sup>b</sup>		U&C <sup>c</sup>				U&C FFRDCs		Other nonprofit			Nonprofit FFRDCs <sup>d</sup>	
	Performer: Funding source:	All sources		Total	Federal <sup>b</sup>	Industry <sup>e</sup>	Total	Total	Federal	Other government <sup>f</sup>	Industry	U&C	Other nonprofit	Total	Total	Federal <sup>d</sup>	Industry	Other nonprofit	Total
	1987		18,481	2,047	4,181	598	3,583	142	8,644	5,527	659	514	1,399	545	2,086	1,367	675	185	507
1988		19,786	2,116	4,163	656	3,507	337	9,343	5,937	705	565	1,529	607	2,272	1,531	756	203	573	24
1989		21,889	2,309	4,818	986	3,832	398	10,218	6,422	766	637	1,714	680	2,371	1,730	860	223	647	46
1990		23,028	2,319	4,629	869	3,760	499	11,125	6,888	847	705	1,929	756	2,470	1,922	947	245	730	65
1991		27,139	2,378	7,376	1,251	6,125	461	12,061	7,423	912	764	2,127	836	2,657	2,129	1,036	269	825	77
1992		27,604	2,419	6,528	712	5,816	474	12,910	8,058	941	814	2,202	893	2,867	2,340	1,114	295	931	67
1993		28,743	2,621	6,427	466	5,961	492	13,646	8,638	952	851	2,268	936	2,953	2,532	1,157	324	1,051	72
1994		29,651	2,547	6,514	436	6,078	503	14,400	9,139	991	889	2,406	974	2,934	2,678	1,137	356	1,186	75
1995		29,610	2,689	5,569	190	5,379	530	15,146	9,634	1,070	945	2,510	988	2,702	2,899	1,170	390	1,338	75
1996		32,799	2,680	7,498	650	6,848	708	16,042	10,092	1,149	1,032	2,740	1,029	2,606	3,187	1,248	428	1,510	79
1997		36,917	2,746	9,795	1,029	8,766	625	17,650	10,921	1,248	1,175	3,144	1,162	2,671	3,322	1,317	449	1,557	108
1998		35,333	3,003	5,853	1,002	4,851	568	19,322	11,896	1,330	1,315	3,484	1,297	2,660	3,715	1,461	489	1,766	213
1999		38,875	3,347	6,645	1,108	5,537	557	20,937	12,804	1,433	1,422	3,837	1,442	2,765	4,228	1,734	546	1,947	397
2000		42,767	3,765	7,040	925	6,115	547	22,864	13,915	1,549	1,499	4,297	1,603	2,874	5,062	2,099	621	2,341	616
2001		47,792	4,260	8,053	754	7,299	552	25,198	15,520	1,662	1,518	4,733	1,765	3,104	5,709	2,464	629	2,616	915
2002		51,410	4,511	7,547	888	6,659	534	27,876	17,642	1,766	1,493	5,071	1,905	3,714	6,249	2,575	602	3,073	979
2003		54,839	4,664	8,330	1,386	6,944	299	30,084	19,600	1,872	1,454	5,223	1,935	3,747	6,686	2,714	621	3,351	1,029
2004		56,378	4,697	7,835	1,072	6,763	175	32,105	21,143	1,981	1,506	5,450	2,024	3,729	6,768	2,788	639	3,341	1,070
2005		60,003	4,826	8,667	1,108	7,559	136	34,009	22,159	2,057	1,631	5,982	2,180	3,814	7,370	2,910	696	3,764	1,181
2006		61,721	4,952	8,384	1,444	6,940	131	35,413	22,661	2,151	1,777	6,502	2,322	3,907	7,680	2,904	763	4,013	1,254
2007 preliminary		64,417	4,869	8,933	1,453	7,480	2,180	36,801	23,199	2,257	1,958	6,901	2,485	1,997	8,260	2,941	824	4,494	1,379
2000 constant \$millions																			
1953		2,519	556	828	104	724	NA	674	447	36	71	33	88	197	263	148	49	66	NA
1954		2,758	521	901	125	776	NA	800	523	52	81	46	98	239	298	168	60	71	NA
1955		3,095	521	1,010	144	866	NA	959	623	74	91	62	110	267	337	192	69	75	NA
1956		3,709	586	1,307	191	1,116	NA	1,136	736	98	101	80	121	300	380	214	77	88	NA
1957		4,060	619	1,352	205	1,148	NA	1,300	831	124	112	98	135	357	432	242	75	115	NA
1958		4,600	726	1,438	210	1,229	NA	1,521	985	151	117	117	151	414	500	285	78	137	NA
1959		5,238	793	1,542	347	1,195	NA	1,870	1,265	181	116	137	171	455	578	347	87	145	NA
1960		6,111	872	1,787	375	1,411	NA	2,302	1,618	214	116	159	195	504	646	404	100	143	NA
1961		7,103	1,078	1,856	381	1,475	NA	2,808	2,028	252	117	187	223	590	771	493	103	174	NA
1962		8,455	1,168	2,262	663	1,599	NA	3,414	2,529	295	116	222	253	684	927	603	111	213	NA
1963		9,701	1,305	2,394	674	1,720	NA	4,167	3,160	344	112	264	287	803	1,032	688	115	229	NA
1964		10,825	1,532	2,291	556	1,735	190	4,836	3,721	381	113	315	307	901	1,075	750	113	212	NA
1965		11,820	1,662	2,498	697	1,801	129	5,415	4,186	419	118	382	311	965	1,151	792	129	231	NA

TABLE 2. U.S. basic research expenditures, by performing sector and source of funds: 1953–2007

Year	All performers		Federal	Industry <sup>a</sup>			Industry FFRDCs <sup>b</sup>			U&C <sup>c</sup>				U&C FFRDCs		Other nonprofit			Nonprofit FFRDCs <sup>d</sup>
	Performer:	All		Total	Federal <sup>b</sup>	Industry <sup>e</sup>	Total	Total	Federal	Other government <sup>f</sup>	Industry	U&C	Other nonprofit	Total	Total	Federal <sup>d</sup>	Industry	Other nonprofit	Total
	Funding source:	sources	Federal	Federal	Industry <sup>e</sup>	Total	Total	Federal	Other government <sup>f</sup>	Industry	U&C	Other nonprofit	Total	Total	Federal <sup>d</sup>	Industry	Other nonprofit	Total	
1966		12,640	1,769	2,558	613	1,946	134	5,953	4,599	447	125	459	324	1,029	1,197	809	138	250	NA
1967		13,255	1,814	2,490	703	1,787	142	6,501	4,969	476	140	568	347	1,101	1,207	810	142	255	NA
1968		13,550	1,934	2,436	582	1,854	140	6,745	5,077	525	151	627	365	1,106	1,188	787	148	253	NA
1969		13,347	2,085	2,222	470	1,751	141	6,705	4,923	584	151	654	392	1,040	1,155	734	164	256	NA
1970		13,051	2,041	2,055	443	1,612	131	6,736	4,802	651	156	710	416	960	1,128	706	160	261	NA
1971		12,866	2,010	1,926	349	1,577	114	6,806	4,788	670	171	740	437	871	1,138	716	156	266	NA
1972		12,761	1,997	1,836	302	1,535	129	6,753	4,763	648	182	716	444	895	1,150	716	156	278	NA
1973		12,870	2,047	1,868	301	1,567	113	6,602	4,673	616	184	701	429	1,077	1,163	727	154	283	NA
1974		12,991	2,058	1,872	328	1,544	141	6,571	4,634	587	190	720	439	1,194	1,155	706	155	294	NA
1975		12,825	1,999	1,781	274	1,508	139	6,524	4,652	559	188	693	431	1,251	1,131	671	156	304	NA
1976		13,365	2,114	1,866	289	1,577	172	6,653	4,786	542	187	705	434	1,383	1,178	690	162	325	NA
1977		14,052	2,205	1,955	316	1,639	175	6,938	4,944	542	208	782	462	1,559	1,219	705	168	346	NA
1978		15,206	2,282	2,056	341	1,715	205	7,377	5,242	568	233	870	464	1,979	1,306	768	172	366	NA
1979		15,814	2,245	2,127	325	1,802	210	7,724	5,487	577	257	941	462	2,118	1,390	832	175	383	NA
1980		16,175	2,242	2,229	314	1,914	222	7,982	5,661	568	288	1,006	459	2,158	1,343	769	176	397	NA
1981		16,333	2,271	2,498	277	2,221	232	8,011	5,634	572	309	1,041	456	2,172	1,136	547	177	411	15
1982		16,976	2,425	2,831	403	2,428	204	8,115	5,538	587	343	1,142	505	2,178	1,210	588	184	438	14
1983		18,217	2,657	3,229	531	2,699	179	8,461	5,656	607	398	1,251	549	2,355	1,323	653	194	476	12
1984		19,703	2,773	3,653	502	3,151	201	9,081	6,039	644	462	1,352	584	2,525	1,455	730	206	519	14
1985		21,152	2,793	3,917	513	3,403	188	10,074	6,605	738	558	1,542	631	2,571	1,592	803	219	569	18
1986		24,069	2,842	5,514	609	4,905	164	11,144	7,186	850	653	1,771	684	2,687	1,698	833	236	629	18
1987		25,246	2,797	5,711	817	4,895	194	11,807	7,549	900	702	1,912	745	2,850	1,867	923	252	692	20
1988		26,135	2,795	5,499	867	4,632	445	12,341	7,842	932	746	2,020	802	3,001	2,023	999	268	756	31
1989		27,860	2,938	6,132	1,255	4,877	507	13,004	8,173	974	811	2,181	865	3,018	2,201	1,095	283	823	59
1990		28,215	2,841	5,672	1,065	4,607	611	13,631	8,439	1,038	864	2,363	926	3,026	2,355	1,160	300	895	79
1991		32,134	2,816	8,733	1,481	7,252	546	14,281	8,788	1,080	904	2,518	989	3,146	2,521	1,227	318	976	91
1992		31,948	2,799	7,555	824	6,731	549	14,941	9,326	1,089	943	2,549	1,034	3,318	2,708	1,289	341	1,078	77
1993		32,518	2,965	7,271	527	6,744	557	15,438	9,773	1,078	963	2,566	1,059	3,341	2,864	1,309	366	1,189	82
1994		32,849	2,821	7,217	483	6,734	557	15,953	10,124	1,098	985	2,666	1,079	3,250	2,967	1,259	394	1,314	83
1995		32,144	2,920	6,046	206	5,839	575	16,442	10,458	1,161	1,026	2,725	1,072	2,933	3,147	1,270	424	1,453	82
1996		34,945	2,855	7,989	693	7,296	754	17,091	10,752	1,225	1,100	2,919	1,096	2,776	3,395	1,330	456	1,609	84
1997		38,691	2,878	10,266	1,078	9,187	655	18,498	11,446	1,308	1,232	3,295	1,217	2,800	3,482	1,380	471	1,631	113
1998		36,624	3,112	6,067	1,039	5,028	589	20,028	12,330	1,379	1,363	3,611	1,344	2,757	3,851	1,514	507	1,830	221
1999		39,722	3,420	6,789	1,132	5,658	570	21,393	13,083	1,464	1,452	3,921	1,474	2,825	4,320	1,772	558	1,990	405
2000		42,767	3,765	7,040	925	6,115	547	22,864	13,915	1,549	1,499	4,297	1,603	2,874	5,062	2,099	621	2,341	616

TABLE 2. U.S. basic research expenditures, by performing sector and source of funds: 1953–2007

Year	Performer:	All	Federal	Industry <sup>a</sup>				U&C <sup>c</sup>				Other nonprofit				Nonprofit			
	Funding	performers		Industry <sup>a</sup>		FFRDCs <sup>b</sup>		U&C <sup>c</sup>		FFRDCs		Other nonprofit		FFRDCs <sup>d</sup>					
	source:	All	Federal	Total	Federal <sup>b</sup>	Industry <sup>e</sup>	Total	Total	Federal	Other government <sup>f</sup>	Industry	U&C	Other nonprofit	Total	Total	Federal <sup>d</sup>	Industry	Other nonprofit	Total
2001		46,671	4,160	7,864	736	7,128	539	24,607	15,156	1,623	1,483	4,622	1,723	3,031	5,575	2,406	614	2,555	894
2002		49,341	4,329	7,243	852	6,391	513	26,755	16,932	1,695	1,432	4,867	1,828	3,564	5,998	2,471	578	2,949	940
2003		51,536	4,384	7,828	1,303	6,526	281	28,272	18,419	1,759	1,366	4,909	1,818	3,521	6,283	2,551	584	3,149	967
2004		51,505	4,291	7,158	979	6,178	160	29,330	19,316	1,810	1,376	4,979	1,849	3,406	6,183	2,547	584	3,052	978
2005		53,097	4,271	7,670	980	6,689	120	30,095	19,609	1,820	1,443	5,293	1,929	3,375	6,522	2,575	616	3,331	1,045
2006		52,948	4,249	7,192	1,239	5,954	112	30,380	19,440	1,846	1,524	5,578	1,992	3,351	6,589	2,491	655	3,443	1,075
2007 preliminary		53,822	4,068	7,463	1,214	6,250	1,822	30,748	19,383	1,886	1,636	5,766	2,076	1,668	6,901	2,457	689	3,755	1,152

NA = not available, included in figures for federal support to industry and federal support to nonprofit institutions; FFRCD = federally funded research and development center; U&C = universities and colleges.

<sup>a</sup> Character-of-work estimates for industry have been revised for 1998 and later years; data are not directly comparable with data for 1997 and earlier years.

<sup>b</sup> Character-of-work estimates for industry FFRDCs for 1953–63 were not separated from federal support for industry; thus, the figure for federal support to industry includes support to FFRDCs for those years.

<sup>c</sup> For 1998 and later years, the character-of-work estimation procedure has been revised; also, adjustments have been made to U&C research and development (R&D) to eliminate double counting of funds passed through from one academic institution to another. Data for 1998 and later years are not directly comparable with data for 1997 and earlier years.

<sup>d</sup> Character-of-work estimates for nonprofit FFRDCs for 1953–80 were not separated from federal support for other nonprofits; thus, the figure for federal support to other nonprofit institutions includes support to FFRDCs for those years.

<sup>e</sup> Industry sources of funds for industry R&D expenditures include all nonfederal sources of industry funds for R&D expenditures.

<sup>f</sup> Because of limitations in survey information, data on other government funding to performers other than universities and colleges are not available and consequently are included in other sectors' support for their own R&D performance, e.g., other government support to other nonprofits is included in other nonprofit support for their own R&D.

NOTES: Technical notes explaining methodological issues of measurement are available on request. Data are based on annual reports by performers, except for the nonprofit sector. The R&D expenditures of FFRDCs are chiefly federal funds, but any nonfederal funds are also included in the totals. For trend comparisons, use only the historical data reported here; do not use data published earlier. Expenditures for industry and, prior to 2001, for industry-administered FFRDCs are collected by calendar year. Expenditures for other performers are calendar-year approximations based on fiscal year data. In most cases, the approximation equals 75% of the amount reported in the same fiscal year plus 25% of amount reported in the subsequent fiscal year. However, the fiscal year for academic performers generally begins July 1, not October 1; also, prior to 1977, the federal fiscal year began on July 1, not October 1. Therefore, calendar-year approximations for academic performers and for federal performers prior to 1977 equal 50% of the amount reported in the same fiscal year plus 50% of the amount reported in the subsequent fiscal year. Detail may not add to total because of rounding. Constant dollar estimates are derived from unrounded data.

SOURCES: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), *Research and Development in Industry 2006* (forthcoming); NSF/SRS, *Academic Research and Development Expenditures: FY 2006* (forthcoming); NSF/SRS, *Federal Funds for Research and Development: FY 2005–07* (forthcoming); NSF/SRS, *Research and Development Funding and Performance by Nonprofit Organizations: FY 1996–97* (NSF 02-303). All NSF/SRS reports are available at <http://www.nsf.gov/statistics/>.

TABLE 3. U.S. applied research expenditures, by performing sector and source of funds: 1953–2007

Year	All performers		Industry					U&C <sup>c</sup>					Other nonprofit			Nonprofit			
	Performer:	Funding	Federal	Industry <sup>a</sup>		Industry	U&C <sup>c</sup>			Other nonprofit		Nonprofit	FFRDCs <sup>d</sup>						
	source:	source:	Federal	Total	Federal <sup>b</sup>	Industry <sup>e</sup>	Total	Total	Federal	Other government <sup>f</sup>	Industry	U&C	Other nonprofit	Total	Total	Federal <sup>d</sup>	Industry	Other nonprofit	Total
Current \$millions																			
1953		1,289	347	726	288	438	NA	134	59	30	7	28	10	48	35	14	11	10	NA
1954		1,378	330	814	322	492	NA	137	60	32	8	28	10	58	40	16	13	11	NA
1955		1,514	333	928	368	560	NA	142	63	32	9	27	11	68	43	18	14	11	NA
1956		1,928	387	1,268	474	794	NA	146	65	33	10	27	11	79	49	21	14	14	NA
1957		2,414	446	1,670	678	992	NA	147	63	34	12	27	11	94	58	24	14	20	NA
1958		2,758	516	1,911	774	1,137	NA	152	66	35	12	27	12	111	69	30	14	25	NA
1959		2,940	577	1,991	813	1,178	NA	167	78	37	13	28	12	121	85	43	15	27	NA
1960		3,065	615	2,029	833	1,196	NA	186	93	39	13	29	12	129	108	63	17	28	NA
1961		3,123	668	1,977	812	1,165	NA	199	104	40	13	30	13	145	135	83	17	35	NA
1962		3,698	709	2,449	1,011	1,438	NA	216	119	41	14	30	13	163	162	98	19	45	NA
1963		3,865	809	2,457	1,007	1,450	NA	230	128	42	14	32	14	186	183	115	19	49	NA
1964		4,201	947	2,538	978	1,560	62	256	142	45	14	37	18	203	196	130	19	47	NA
1965		4,374	994	2,612	992	1,620	46	304	176	46	13	42	27	206	213	140	21	52	NA
1966		4,653	1,012	2,790	986	1,804	53	351	208	47	14	48	34	213	234	153	24	57	NA
1967		4,848	1,069	2,832	983	1,849	83	389	238	46	16	54	36	225	251	166	25	60	NA
1968		5,137	1,112	3,037	956	2,081	87	405	250	46	16	55	39	221	276	186	28	62	NA
1969		5,454	1,229	3,192	920	2,272	95	417	257	48	16	54	43	213	308	210	32	66	NA
1970		5,752	1,334	3,330	952	2,378	97	451	280	51	18	56	47	213	328	225	33	70	NA
1971		5,833	1,355	3,348	907	2,441	67	499	306	61	19	67	47	216	349	241	34	74	NA
1972		6,147	1,434	3,407	845	2,562	107	619	391	74	21	82	52	224	357	243	35	79	NA
1973		6,655	1,527	3,715	883	2,832	110	725	450	88	26	100	62	203	376	257	36	83	NA
1974		7,344	1,652	4,168	905	3,263	120	794	477	96	32	118	72	191	420	290	39	91	NA
1975		8,091	1,912	4,431	991	3,440	139	934	550	113	39	141	92	219	456	315	42	100	NA
1976		8,976	2,068	4,945	1,033	3,912	167	1,042	596	127	45	166	109	263	492	338	45	109	NA
1977		9,662	2,081	5,424	1,113	4,311	212	1,126	626	134	51	194	121	297	523	355	48	120	NA
1978		10,704	2,242	6,065	1,195	4,870	235	1,247	676	151	61	232	128	324	592	409	52	132	NA
1979		12,097	2,415	6,975	1,305	5,670	250	1,418	793	161	71	263	129	360	680	480	55	144	NA
1980		13,714	2,546	8,175	1,625	6,550	275	1,622	912	174	88	308	140	421	675	458	60	158	NA
1981		16,329	2,731	10,401	2,042	8,359	298	1,781	953	199	108	363	159	422	628	391	64	173	68
1982		18,218	2,802	11,956	2,593	9,363	367	1,915	1,007	207	121	402	178	433	655	398	69	189	91
1983		20,298	2,991	13,513	3,227	10,286	414	2,116	1,122	215	141	443	194	473	713	433	74	207	78
1984		22,451	2,961	15,218	3,677	11,541	547	2,332	1,226	234	168	491	212	548	764	459	79	226	80
1985		25,401	3,135	17,625	4,717	12,908	630	2,527	1,296	262	198	547	224	580	822	490	85	247	82
1986		27,240	3,204	19,131	4,049	15,082	629	2,780	1,393	298	229	620	240	554	867	506	91	270	75

TABLE 3. U.S. applied research expenditures, by performing sector and source of funds: 1953–2007

Year	Performer:	All	Industry					U&C						Other nonprofit			Nonprofit		
	Funding	performers	Federal	Industry <sup>a</sup>		FFRDCs <sup>b</sup>	U&C <sup>c</sup>			FFRDCs	Other nonprofit		FFRDCs <sup>d</sup>						
	source:	All sources	Federal	Total	Federal <sup>b</sup>	Industry <sup>e</sup>	Total	Total	Federal	Other government <sup>f</sup>	Industry	U&C	Other nonprofit	Total	Total	Federal <sup>d</sup>	Industry	Other nonprofit	Total
1987		27,951	3,366	19,190	4,037	15,153	623	3,219	1,643	333	260	707	276	532	948	555	98	295	74
1988		29,528	3,362	20,377	3,846	16,531	371	3,779	1,957	377	302	818	325	547	1,026	599	105	322	66
1989		32,277	3,566	22,317	4,324	17,993	374	4,188	2,120	417	347	933	370	603	1,159	695	112	352	70
1990		34,896	3,652	24,399	5,967	18,432	386	4,405	2,139	453	377	1,031	404	689	1,284	780	120	384	81
1991		38,629	4,093	27,013	5,588	21,425	433	4,608	2,230	468	392	1,091	428	927	1,468	921	129	419	86
1992		37,933	4,337	25,660	4,476	21,184	507	4,880	2,413	479	414	1,120	454	940	1,528	933	138	456	81
1993		37,280	4,838	24,251	4,295	19,956	435	5,146	2,539	496	443	1,181	487	962	1,544	900	148	497	103
1994		36,615	4,985	22,988	3,616	19,372	503	5,387	2,641	517	464	1,256	509	982	1,659	960	158	541	111
1995		40,933	4,952	26,919	3,164	23,755	535	5,655	2,776	559	494	1,311	516	1,050	1,692	934	170	589	129
1996		43,165	4,872	29,010	3,640	25,370	231	5,880	2,860	584	524	1,390	522	1,270	1,781	960	182	640	122
1997		46,551	4,997	32,430	2,648	29,782	213	5,519	2,549	552	518	1,388	512	1,337	1,926	1,011	205	711	128
1998		46,388	5,146	32,208	2,632	29,576	230	5,220	2,286	526	520	1,376	512	1,372	2,089	1,060	223	806	123
1999		52,097	5,530	36,638	2,817	33,821	274	5,837	2,740	546	541	1,461	549	1,251	2,438	1,300	249	889	130
2000		56,932	6,105	39,176	2,682	36,494	269	6,653	3,350	572	553	1,586	592	1,329	3,183	1,831	283	1,069	217
2001		64,708	7,052	44,012	3,603	40,409	935	7,261	3,753	602	551	1,716	640	1,485	3,631	2,150	287	1,194	332
2002		51,035	7,487	28,533	2,452	26,081	1,103	7,973	4,215	648	548	1,863	699	1,685	3,944	2,267	275	1,402	309
2003		61,690	7,672	37,334	4,473	32,861	1,434	8,832	4,838	713	554	1,989	737	1,756	4,300	2,487	283	1,529	363
2004		70,172	7,455	45,432	4,775	40,657	1,509	9,230	5,136	740	562	2,035	756	1,920	4,264	2,448	292	1,525	362
2005		70,355	7,594	45,284	5,289	39,995	1,487	9,284	5,070	732	580	2,126	775	1,858	4,439	2,403	318	1,718	408
2006		76,788	7,692	51,173	6,140	45,033	1,446	9,623	5,153	754	623	2,279	814	1,779	4,635	2,455	348	1,832	441
2007 preliminary		81,211	7,839	54,713	6,177	48,537	1,414	10,102	5,310	795	690	2,431	875	1,844	4,844	2,417	376	2,051	454
2000 constant \$millions																			
1953		7,067	1,902	3,980	1,579	2,401	NA	732	323	165	36	153	55	260	192	77	60	55	NA
1954		7,475	1,787	4,416	1,747	2,669	NA	740	323	171	41	152	54	315	217	87	71	60	NA
1955		8,090	1,780	4,960	1,967	2,993	NA	756	337	173	45	145	56	363	230	96	75	59	NA
1956		9,956	1,996	6,550	2,448	4,101	NA	754	336	171	52	139	57	405	251	106	72	72	NA
1957		12,044	2,223	8,334	3,383	4,950	NA	731	314	169	57	135	55	469	287	117	70	100	NA
1958		13,446	2,516	9,316	3,773	5,543	NA	739	319	172	59	133	56	539	336	146	68	122	NA
1959		14,164	2,778	9,593	3,917	5,676	NA	805	373	178	60	135	58	581	407	205	72	130	NA
1960		14,565	2,920	9,642	3,958	5,683	NA	881	442	184	62	137	57	611	511	297	81	133	NA
1961		14,675	3,139	9,290	3,816	5,474	NA	933	486	188	61	139	59	681	632	388	80	164	NA
1962		17,140	3,284	11,353	4,687	6,666	NA	1,001	549	188	63	141	60	753	749	452	88	209	NA
1963		17,726	3,711	11,270	4,619	6,651	NA	1,053	585	193	64	148	62	853	839	527	87	225	NA
1964		18,980	4,276	11,467	4,419	7,048	280	1,154	642	204	61	169	79	917	886	587	86	212	NA
1965		19,405	4,408	11,589	4,401	7,188	204	1,347	779	206	58	187	118	912	945	621	93	231	NA

TABLE 3. U.S. applied research expenditures, by performing sector and source of funds: 1953–2007

Year	Performer:	All	Industry					U&C						Other nonprofit			Nonprofit		
	Funding	performers	Federal	Industry <sup>a</sup>		FFRDCs <sup>b</sup>	U&C <sup>c</sup>			FFRDCs	Other nonprofit		FFRDCs <sup>d</sup>						
	source:	All sources	Federal	Total	Federal <sup>b</sup>	Industry <sup>e</sup>	Total	Federal	Other government <sup>f</sup>	Industry	U&C	Other nonprofit	Total	Federal <sup>d</sup>	Industry	Other nonprofit	Total		
1966		20,071	4,366	12,036	4,254	7,783	229	1,514	897	203	60	209	145	919	1,007	658	104	246	NA
1967		20,287	4,471	11,851	4,113	7,737	347	1,626	994	191	65	225	151	942	1,050	695	105	251	NA
1968		20,617	4,461	12,189	3,837	8,352	349	1,625	1,001	185	64	221	155	885	1,108	747	112	249	NA
1969		20,855	4,700	12,205	3,518	8,687	363	1,594	981	184	61	206	163	814	1,178	803	122	252	NA
1970		20,889	4,844	12,092	3,457	8,635	352	1,636	1,015	186	64	203	169	773	1,191	817	120	254	NA
1971		20,172	4,686	11,578	3,137	8,442	232	1,726	1,058	209	64	232	163	745	1,205	832	118	256	NA
1972		20,374	4,753	11,292	2,801	8,492	355	2,050	1,294	246	68	271	171	742	1,182	804	116	262	NA
1973		20,893	4,795	11,663	2,772	8,891	345	2,274	1,411	275	82	314	193	636	1,180	807	113	261	NA
1974		21,152	4,759	12,004	2,606	9,398	346	2,285	1,372	277	91	340	206	549	1,209	835	111	262	NA
1975		21,288	5,030	11,658	2,607	9,051	366	2,457	1,446	298	101	370	242	576	1,201	829	109	263	NA
1976		22,328	5,145	12,300	2,570	9,731	415	2,592	1,481	317	111	412	271	653	1,223	840	111	272	NA
1977		22,598	4,866	12,685	2,603	10,082	496	2,632	1,463	314	119	454	282	695	1,223	830	112	281	NA
1978		23,391	4,899	13,253	2,611	10,642	514	2,724	1,477	330	132	506	279	708	1,293	893	113	287	NA
1979		24,412	4,874	14,076	2,634	11,442	505	2,861	1,600	326	144	531	260	726	1,371	969	112	291	NA
1980		25,368	4,709	15,122	3,006	12,116	509	3,001	1,687	321	163	570	259	779	1,249	847	110	292	NA
1981		27,617	4,620	17,591	3,454	14,137	504	3,012	1,611	337	182	613	268	714	1,062	661	108	292	115
1982		29,038	4,466	19,057	4,133	14,924	585	3,052	1,604	331	193	641	283	690	1,045	634	109	301	145
1983		31,125	4,587	20,721	4,948	15,773	635	3,244	1,721	330	217	679	298	726	1,094	664	113	317	119
1984		33,180	4,376	22,491	5,434	17,056	808	3,446	1,812	346	248	726	313	811	1,130	678	117	334	119
1985		36,430	4,496	25,278	6,765	18,513	904	3,625	1,859	375	284	785	321	831	1,179	702	122	355	118
1986		38,221	4,496	26,843	5,681	21,162	883	3,900	1,954	418	321	871	336	777	1,216	709	128	379	106
1987		38,182	4,598	26,214	5,515	20,700	851	4,397	2,244	455	355	966	377	726	1,295	758	133	403	101
1988		39,003	4,441	26,916	5,080	21,836	490	4,992	2,586	498	399	1,080	429	722	1,355	791	138	426	87
1989		41,081	4,539	28,404	5,503	22,901	476	5,330	2,698	531	442	1,188	471	767	1,475	884	143	448	89
1990		42,757	4,475	29,896	7,311	22,584	473	5,397	2,621	555	462	1,264	495	844	1,573	955	147	470	100
1991		45,738	4,847	31,984	6,616	25,368	513	5,456	2,640	554	464	1,291	507	1,097	1,739	1,090	153	496	102
1992		43,903	5,019	29,698	5,180	24,518	587	5,648	2,793	554	479	1,296	526	1,088	1,768	1,080	160	528	94
1993		42,176	5,474	27,436	4,859	22,577	492	5,822	2,873	561	501	1,336	551	1,089	1,747	1,018	167	562	116
1994		40,564	5,523	25,467	4,006	21,461	557	5,968	2,926	573	514	1,391	563	1,087	1,838	1,063	176	599	123
1995		44,436	5,376	29,223	3,435	25,788	581	6,139	3,013	607	536	1,424	560	1,140	1,837	1,014	184	639	140
1996		45,990	5,191	30,908	3,878	27,030	246	6,264	3,048	622	558	1,481	556	1,353	1,898	1,022	193	682	130
1997		48,788	5,237	33,988	2,775	31,213	223	5,784	2,671	579	543	1,455	537	1,402	2,019	1,059	215	745	135
1998		48,082	5,334	33,385	2,728	30,657	238	5,411	2,370	545	539	1,427	531	1,422	2,165	1,099	231	835	128
1999		53,232	5,650	37,436	2,878	34,558	280	5,964	2,800	557	553	1,493	561	1,278	2,491	1,328	255	908	132
2000		56,932	6,105	39,176	2,682	36,494	269	6,653	3,350	572	553	1,586	592	1,329	3,183	1,831	283	1,069	217

TABLE 3. U.S. applied research expenditures, by performing sector and source of funds: 1953–2007

Year	All performers		Industry					U&C				Other nonprofit			Nonprofit				
	Performer:	All	Federal	Industry <sup>a</sup>		FFRDCs <sup>b</sup>	U&C <sup>c</sup>			FFRDCs	Other nonprofit		FFRDCs <sup>d</sup>						
	Funding source:	sources	Federal	Total	Federal <sup>b</sup>	Industry <sup>e</sup>	Total	Total	Federal	Other government <sup>f</sup>	Industry	U&C	Other nonprofit	Total	Federal <sup>d</sup>	Industry	Other nonprofit	Total	
2001		63,190	6,887	42,980	3,518	39,461	913	7,091	3,665	588	538	1,676	625	1,450	3,546	2,100	280	1,166	324
2002		48,981	7,186	27,385	2,353	25,031	1,059	7,652	4,045	622	526	1,788	671	1,618	3,785	2,175	264	1,346	296
2003		57,975	7,209	35,085	4,204	30,882	1,348	8,300	4,547	670	520	1,870	692	1,651	4,041	2,337	266	1,437	341
2004		64,107	6,810	41,505	4,362	37,143	1,379	8,432	4,692	676	514	1,860	690	1,754	3,896	2,237	266	1,393	331
2005		62,258	6,720	40,073	4,680	35,392	1,316	8,216	4,487	648	513	1,882	686	1,644	3,928	2,127	281	1,520	361
2006		65,874	6,598	43,900	5,267	38,632	1,240	8,255	4,421	647	534	1,955	698	1,526	3,976	2,106	299	1,571	378
2007 preliminary		67,853	6,549	45,714	5,161	40,553	1,182	8,440	4,437	664	576	2,031	731	1,541	4,047	2,019	314	1,714	380

NA = not available, included in figures for federal support to industry and federal support to nonprofit institutions; FFRCD = federally funded research and development center; U&C = universities and colleges.

<sup>a</sup> Character-of-work estimates for industry have been revised for 1998 and later years; data are not directly comparable with data for 1997 and earlier years.

<sup>b</sup> Character-of-work estimates for industry FFRDCs for 1953–63 were not separated from federal support for industry; thus, figures for federal support to industry includes support to FFRDCs for those years.

<sup>c</sup> For 1998 and later years, character-of-work estimation procedure has been revised, and adjustments have been made to U&C R&D to eliminate double counting of funds passed through from one academic institution to another. Data for 1998 and later years are not directly comparable with data for 1997 and earlier years.

<sup>d</sup> Character-of-work estimates for nonprofit FFRDCs for 1953–80 were not separated from federal support for other nonprofits; thus, figure for federal support to other nonprofit institutions includes support to FFRDCs for those years.

<sup>e</sup> Industry sources of funds for industry R&D expenditures include all nonfederal sources of industry funds for R&D expenditures.

<sup>f</sup> Because of limitations in survey information, data on other government funding to performers other than universities and colleges are not available and consequently are included in other sectors' support for their own R&D performance, e.g., other government support to other nonprofits is included in other nonprofit support for their own R&D.

NOTES: Technical notes explaining methodological issues of measurement are available on request. Data are based on annual reports by performers, except for the nonprofit sector. The R&D expenditures of FFRDCs are chiefly federal funds, but any nonfederal funds are also included in the totals. For trend comparisons, use only the historical data reported here; do not use data published earlier. Expenditures for industry and, prior to 2001, for industry-administered FFRDCs are collected by calendar year. Expenditures for other performers are calendar-year approximations based on fiscal year data. In most cases, the approximation equals 75% of the amount reported in the same fiscal year plus 25% of amount reported in the subsequent fiscal year. However, the fiscal year for academic performers generally begins July 1, not October 1; also, prior to 1977, the federal fiscal year began on July 1, not October 1. Therefore, calendar-year approximations for academic performers and for federal performers prior to 1977 equal 50% of the amount reported in the same fiscal year plus 50% of the amount reported in the subsequent fiscal year. Detail may not add to total because of rounding. Constant dollar estimates are derived from unrounded data.

SOURCES: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), *Research and Development in Industry 2006* (forthcoming); NSF/SRS, *Academic Research and Development Expenditures: FY 2006* (forthcoming); NSF/SRS, *Federal Funds for Research and Development: FY 2005–07* (forthcoming); NSF/SRS, *Research and Development Funding and Performance by Nonprofit Organizations: FY 1996–97* (NSF 02-303). All NSF/SRS reports are available at <http://www.nsf.gov/statistics/>.



TABLE 4. U.S. development expenditures, by performing sector and source of funds: 1953–2007

Year	All performers		Federal	Industry <sup>a</sup>			Industry FFRDCs <sup>b</sup>		U&C <sup>c</sup>				U&C FFRDCs		Other nonprofit			Nonprofit FFRDCs <sup>d</sup>	
	Performer:	All		Total	Federal <sup>b</sup>	Industry <sup>e</sup>	Total	Total	Federal	Other			Other	Total	Total	Federal <sup>d</sup>	Industry	Other	Total
	Funding source:	sources	Other government <sup>f</sup>							Industry	U&C	Other nonprofit							
	Current \$millions																		
1953		3,412	567	2,753	1,123	1,630	NA	16	9	3	1	3	1	48	29	17	6	6	NA
1954		3,734	537	3,090	1,405	1,685	NA	17	9	3	1	3	1	59	32	18	7	7	NA
1955		4,189	543	3,523	1,785	1,738	NA	21	12	4	2	3	1	69	34	19	8	7	NA
1956		5,855	631	5,084	2,817	2,267	NA	25	14	4	2	4	2	81	35	20	8	7	NA
1957		6,681	728	5,790	3,616	2,174	NA	26	12	5	3	4	2	101	37	21	8	8	NA
1958		7,214	842	6,183	3,942	2,241	NA	28	13	6	3	4	2	120	42	25	8	9	NA
1959		8,463	940	7,307	4,750	2,557	NA	31	16	6	3	5	2	134	51	32	9	10	NA
1960		9,360	1,003	8,104	5,169	2,935	NA	35	19	6	3	5	2	151	69	49	10	10	NA
1961		9,930	1,090	8,536	5,347	3,189	NA	38	22	7	2	5	2	170	97	73	10	14	NA
1962		10,115	1,227	8,526	5,280	3,246	NA	40	23	8	2	6	2	190	132	103	11	18	NA
1963		11,540	1,465	9,651	6,116	3,535	NA	40	22	8	2	6	2	219	165	134	11	20	NA
1964		12,506	1,680	10,004	6,156	3,848	359	49	30	8	2	7	3	227	188	159	11	18	NA
1965		13,215	1,789	10,637	6,218	4,419	298	71	48	9	2	8	4	207	215	183	12	20	NA
1966		14,490	1,886	11,810	6,849	4,961	271	87	61	9	2	10	5	200	236	199	14	23	NA
1967		15,332	1,943	12,539	6,795	5,744	302	93	66	9	3	10	7	208	247	208	15	24	NA
1968		16,154	1,904	13,370	7,044	6,326	293	102	72	8	4	9	9	226	259	217	16	26	NA
1969		17,051	2,016	14,071	6,944	7,127	332	110	80	7	5	8	10	246	277	231	18	28	NA
1970		16,925	2,258	13,698	6,232	7,466	340	112	84	6	5	7	10	249	268	220	18	30	NA
1971		17,399	2,473	13,924	6,167	7,757	391	98	69	8	4	9	9	267	246	194	19	33	NA
1972		18,743	2,639	15,043	6,533	8,510	402	101	63	12	4	14	9	291	267	213	19	35	NA
1973		20,197	2,657	16,394	6,621	9,773	399	126	71	18	5	20	13	296	326	268	20	38	NA
1974		21,504	2,765	17,421	6,553	10,868	479	141	75	20	7	25	15	321	377	314	22	42	NA
1975		22,706	2,890	18,352	6,783	11,569	535	156	83	22	8	27	16	373	400	330	23	47	NA
1976		25,085	2,972	20,412	7,522	12,890	654	182	100	24	12	31	16	447	418	341	25	52	NA
1977		27,667	3,188	22,603	8,275	14,328	675	254	153	28	15	40	19	503	444	359	27	58	NA
1978		31,056	3,676	25,216	8,756	16,460	753	373	254	32	15	49	24	542	496	403	30	64	NA
1979		35,445	3,944	29,033	9,888	19,145	810	469	336	34	16	56	28	603	586	483	32	71	NA
1980		40,765	4,072	33,848	10,957	22,891	882	518	362	38	19	68	31	719	726	612	35	79	NA
1981		46,305	4,530	38,547	12,791	25,756	950	568	386	44	24	80	35	778	485	360	37	88	447
1982		51,879	5,178	43,434	14,215	29,219	989	597	397	46	27	88	39	745	500	362	40	98	436
1983		57,771	6,106	48,064	15,522	32,542	1,054	617	399	47	31	97	43	832	599	447	44	109	500
1984		66,461	7,078	55,371	17,640	37,731	1,056	677	435	51	37	108	47	986	762	594	47	120	530
1985		74,522	8,011	62,020	20,258	41,762	1,102	756	486	57	43	120	49	1,244	829	644	51	134	560
1986		75,855	8,275	62,871	21,517	41,354	1,145	818	513	65	50	136	53	1,504	790	587	55	149	453

TABLE 4. U.S. development expenditures, by performing sector and source of funds: 1953–2007

Year	Performer:	All	Federal	Industry <sup>a</sup>				U&C <sup>c</sup>				Other nonprofit			Nonprofit				
	Funding	performers		Industry <sup>a</sup>	FFRDCs <sup>b</sup>	U&C <sup>c</sup>			FFRDCs	Other nonprofit		FFRDCs <sup>d</sup>							
	source:	All sources	Federal	Total	Federal <sup>b</sup>	Industry <sup>e</sup>	Total	Total	Federal	Other government <sup>f</sup>	Industry	U&C	Other nonprofit	Total	Total	Federal <sup>d</sup>	Industry	Other nonprofit	Total
1987		79,929	8,176	66,789	24,122	42,667	1,230	945	599	73	57	155	61	1,670	698	474	60	165	421
1988		84,566	8,864	70,353	23,719	46,634	1,414	1,098	698	83	66	180	71	1,762	655	407	65	183	420
1989		87,723	9,355	72,725	21,049	51,676	1,423	1,227	773	92	76	205	81	1,782	780	507	70	203	430
1990		94,067	9,700	78,376	18,966	59,410	1,438	1,407	909	99	83	226	89	1,735	920	619	75	226	490
1991		95,104	8,778	80,286	17,256	63,030	1,383	1,533	1,011	103	86	239	94	1,537	1,054	722	82	251	533
1992		99,810	9,098	84,569	17,181	67,388	1,372	1,595	1,054	105	91	246	100	1,452	1,125	758	88	279	599
1993		99,704	9,071	84,757	16,083	68,674	1,038	1,698	1,126	109	97	259	107	1,374	1,191	787	95	309	574
1994		102,936	8,823	87,890	16,209	71,681	1,196	1,815	1,212	114	102	276	112	1,378	1,261	815	103	343	573
1995		113,077	9,262	97,342	17,824	79,518	1,208	1,810	1,178	123	108	288	113	1,616	1,236	744	111	381	603
1996		121,375	9,033	105,863	17,066	88,797	1,358	1,790	1,127	128	115	305	115	1,520	1,241	698	120	423	571
1997		128,676	9,077	113,184	18,121	95,063	1,292	1,707	1,055	121	114	305	112	1,454	1,378	687	155	536	585
1998		144,735	9,214	129,041	18,452	110,589	1,280	1,629	985	115	114	302	112	1,527	1,537	760	168	609	507
1999		154,069	8,974	138,807	16,571	122,236	1,208	1,391	711	120	119	321	120	1,636	1,586	727	188	671	467
2000		167,863	8,047	153,745	13,510	140,235	1,185	1,177	452	126	121	348	130	1,539	1,537	517	214	807	632
2001		165,245	9,114	149,952	12,542	137,410	534	1,272	502	132	121	377	140	1,637	1,793	675	217	902	945
2002		174,157	9,501	157,788	13,061	144,727	625	1,353	528	142	120	409	154	1,703	2,156	890	207	1,059	1,031
2003		172,509	10,416	155,060	11,939	143,121	725	1,555	678	157	122	437	162	1,798	1,853	485	214	1,155	1,102
2004		173,354	10,692	155,034	14,419	140,615	801	1,776	878	163	123	447	166	2,008	1,830	459	220	1,151	1,212
2005		192,647	12,039	172,208	15,512	156,696	979	1,899	974	161	127	467	170	2,140	2,145	609	240	1,297	1,238
2006		209,362	12,682	188,112	16,720	171,392	985	1,951	970	166	137	500	179	2,180	2,192	546	263	1,383	1,259
2007 preliminary		222,470	12,037	201,547	16,820	184,726	995	2,010	958	175	151	534	192	2,236	2,242	409	284	1,549	1,403
2000 constant \$millions																			
1953		18,703	3,106	15,093	6,157	8,936	NA	88	47	16	5	14	5	260	156	90	33	33	NA
1954		20,256	2,913	16,763	7,622	9,141	NA	92	46	19	5	17	5	317	171	95	38	38	NA
1955		22,390	2,900	18,831	9,541	9,290	NA	112	61	20	8	17	5	369	179	99	43	37	NA
1956		30,240	3,257	26,260	14,551	11,710	NA	129	70	23	10	19	8	416	178	101	41	36	NA
1957		33,340	3,630	28,894	18,045	10,849	NA	130	60	26	12	21	10	504	182	102	40	40	NA
1958		35,167	4,102	30,143	19,218	10,925	NA	134	61	28	15	21	10	585	202	119	39	44	NA
1959		40,778	4,529	35,208	22,887	12,321	NA	149	75	29	14	22	10	646	246	154	43	48	NA
1960		44,478	4,764	38,510	24,563	13,947	NA	164	90	30	12	22	10	715	326	230	48	48	NA
1961		46,659	5,120	40,111	25,126	14,985	NA	176	101	32	9	24	9	796	456	343	47	66	NA
1962		46,887	5,688	39,523	24,476	15,047	NA	185	104	36	9	27	9	881	610	475	51	83	NA
1963		52,931	6,720	44,269	28,054	16,215	NA	183	101	36	9	28	9	1,002	757	615	50	92	NA
1964		56,501	7,590	45,197	27,812	17,385	1,622	219	133	36	9	30	11	1,023	849	718	50	81	NA
1965		58,634	7,935	47,196	27,589	19,607	1,322	313	213	38	9	35	18	916	952	810	53	89	NA

TABLE 4. U.S. development expenditures, by performing sector and source of funds: 1953–2007

Year	Performer:	All	Federal	Industry <sup>a</sup>			Industry	U&C <sup>c</sup>			U&C	Other nonprofit			Nonprofit				
	Funding	performers		Industry <sup>a</sup>		FFRDCs <sup>b</sup>	U&C <sup>c</sup>		FFRDCs	Other nonprofit		FFRDCs <sup>d</sup>							
	source:	All	Federal	Total	Federal <sup>b</sup>	Industry <sup>e</sup>	Total	Total	Federal	Other	Industry	U&C	Other	Total	Total	Federal <sup>d</sup>	Industry	Other	Total
1966		62,509	8,136	50,949	29,547	21,402	1,169	375	263	40	9	42	22	863	1,016	856	60	99	NA
1967		64,157	8,131	52,471	28,435	24,036	1,264	389	274	36	10	42	27	870	1,032	868	63	100	NA
1968		64,832	7,642	53,660	28,271	25,389	1,176	407	287	31	16	37	36	907	1,039	871	64	104	NA
1969		65,196	7,707	53,803	26,551	27,251	1,269	419	304	27	19	30	38	941	1,057	881	69	107	NA
1970		61,460	8,199	49,742	22,631	27,112	1,235	407	303	23	18	26	36	904	973	799	65	109	NA
1971		60,169	8,551	48,153	21,327	26,826	1,352	339	239	27	14	30	29	923	851	671	66	114	NA
1972		62,123	8,748	49,859	21,653	28,206	1,332	335	207	41	12	45	30	965	885	706	63	116	NA
1973		63,404	8,342	51,466	20,785	30,681	1,253	394	221	55	16	63	39	928	1,022	840	63	119	NA
1974		61,935	7,965	50,174	18,873	31,301	1,380	405	215	58	19	71	43	925	1,087	903	62	122	NA
1975		59,741	7,604	48,286	17,847	30,439	1,408	411	217	58	21	72	42	980	1,053	868	62	123	NA
1976		62,398	7,392	50,774	18,711	32,063	1,627	453	248	60	29	77	40	1,112	1,041	848	63	130	NA
1977		64,707	7,456	52,863	19,353	33,510	1,579	594	358	65	34	94	43	1,177	1,039	840	64	135	NA
1978		67,864	8,034	55,102	19,134	35,969	1,645	815	555	70	32	107	51	1,184	1,085	880	65	140	NA
1979		71,530	7,959	58,590	19,954	38,635	1,635	947	679	69	31	113	56	1,218	1,182	974	65	144	NA
1980		75,404	7,533	62,610	20,267	42,342	1,631	958	669	70	36	125	57	1,329	1,343	1,132	64	147	NA
1981		78,314	7,662	65,192	21,633	43,560	1,607	960	653	74	40	135	59	1,316	820	608	63	149	756
1982		82,692	8,253	69,231	22,658	46,573	1,576	951	634	73	42	141	62	1,187	798	577	64	156	696
1983		88,588	9,362	73,702	23,802	49,900	1,616	947	612	72	48	149	65	1,275	919	686	67	166	766
1984		98,222	10,461	81,832	26,070	55,762	1,561	1,001	643	76	54	159	69	1,457	1,127	879	70	178	784
1985		106,881	11,489	88,951	29,055	59,896	1,581	1,085	697	82	62	172	71	1,784	1,189	924	73	192	803
1986		106,435	11,611	88,216	30,191	58,025	1,607	1,147	720	92	71	191	74	2,110	1,109	823	78	208	635
1987		109,186	11,168	91,237	32,952	58,285	1,680	1,290	818	100	78	212	83	2,281	954	647	82	225	575
1988		111,704	11,709	92,929	31,330	61,599	1,868	1,450	922	109	88	237	94	2,328	865	538	85	242	555
1989		111,651	11,907	92,562	26,790	65,771	1,811	1,561	984	116	97	261	103	2,268	993	645	89	259	548
1990		115,258	11,886	96,033	23,239	72,794	1,762	1,724	1,114	122	101	277	109	2,126	1,128	758	92	277	601
1991		112,606	10,393	95,061	20,432	74,630	1,638	1,815	1,197	122	102	283	111	1,819	1,249	855	97	297	631
1992		115,518	10,529	97,879	19,885	77,994	1,588	1,847	1,220	122	105	284	115	1,680	1,302	877	102	322	693
1993		112,800	10,263	95,890	18,195	77,694	1,174	1,922	1,274	123	110	293	121	1,554	1,348	890	108	350	650
1994		114,038	9,775	97,369	17,957	79,412	1,325	2,011	1,343	126	113	305	124	1,527	1,397	903	114	381	634
1995		122,757	10,055	105,674	19,350	86,325	1,311	1,965	1,279	133	118	312	123	1,754	1,342	807	121	414	655
1996		129,317	9,624	112,789	18,183	94,607	1,447	1,907	1,201	136	123	325	122	1,619	1,322	743	128	451	608
1997		134,859	9,513	118,623	18,992	99,631	1,354	1,789	1,105	127	119	319	118	1,524	1,444	720	162	562	613
1998		150,024	9,551	133,756	19,126	114,630	1,327	1,689	1,021	120	118	313	117	1,583	1,593	788	175	631	526
1999		157,425	9,170	141,831	16,932	124,899	1,234	1,421	727	122	121	328	123	1,672	1,621	743	192	686	477
2000		167,863	8,047	153,745	13,510	140,235	1,185	1,177	452	126	121	348	130	1,539	1,537	517	214	807	632

TABLE 4. U.S. development expenditures, by performing sector and source of funds: 1953–2007

Year	Performer:	All	Federal	Industry <sup>a</sup>				U&C <sup>c</sup>				Other nonprofit			Nonprofit				
	Funding	performers		Industry <sup>a</sup>		FFRDCs <sup>b</sup>		U&C <sup>c</sup>		FFRDCs		Other nonprofit		FFRDCs <sup>d</sup>					
	source:	All	Federal	Total	Federal <sup>b</sup>	Industry <sup>e</sup>	Total	Total	Federal	Other government <sup>f</sup>	Industry	U&C	Other nonprofit	Total	Total	Federal <sup>d</sup>	Industry	Other nonprofit	Total
2001		161,369	8,900	146,435	12,248	134,187	521	1,242	490	129	118	368	137	1,598	1,751	659	212	880	923
2002		167,148	9,119	151,438	12,535	138,903	600	1,298	506	137	115	392	147	1,635	2,069	854	199	1,016	989
2003		162,119	9,789	145,721	11,220	134,501	681	1,461	637	147	114	410	152	1,690	1,742	455	201	1,085	1,036
2004		158,369	9,768	141,633	13,173	128,460	732	1,623	802	148	113	408	152	1,835	1,672	419	201	1,052	1,107
2005		170,477	10,653	152,390	13,727	138,663	866	1,680	862	142	113	413	151	1,894	1,898	538	212	1,148	1,096
2006		179,605	10,880	161,375	14,344	147,032	845	1,674	832	142	117	429	153	1,870	1,881	469	226	1,186	1,080
2007 preliminary		185,878	10,058	168,396	14,054	154,342	831	1,680	801	146	127	446	161	1,868	1,873	342	237	1,294	1,173

NA = not available, included in figures for federal support to industry and federal support to nonprofit institutions; FFRCD = federally funded research and development center; U&C = universities and colleges.

<sup>a</sup> Character-of-work estimates for industry have been revised for 1998 and later years; the data are not directly comparable with data for 1997 and earlier years.

<sup>b</sup> Character-of-work estimates for industry FFRDCs for 1953–63 were not separated from federal support for industry; thus, figures for federal support to industry includes support to FFRDCs for those years.

<sup>c</sup> For 1998 and later years, character-of-work estimation procedure has been revised, and adjustments have been made to U&C R&D to eliminate double counting of funds passed through from one academic institution to another. Data for 1998 and later years are not directly comparable with data for 1997 and earlier years.

<sup>d</sup> Character-of-work estimates for nonprofit FFRDCs for 1953–80 were not separated from federal support for other nonprofits; thus, figure for federal support to other nonprofit institutions includes support to FFRDCs for those years.

<sup>e</sup> Industry sources of funds for industry R&D expenditures include all nonfederal sources of industry funds for R&D expenditures.

<sup>f</sup> Because of limitations in survey information, data on other government funding to performers other than universities and colleges are not available and consequently are included in other sectors' support for their own R&D performance, e.g., other government support to other nonprofits is included in other nonprofit support for their own R&D.

NOTES: Technical notes explaining methodological issues of measurement are available on request. Data are based on annual reports by performers, except for the nonprofit sector. The R&D expenditures of FFRDCs are chiefly federal funds, but any nonfederal funds are also included in the totals. For trend comparisons, use only the historical data reported here; do not use data published earlier. Expenditures for industry and, prior to 2001, for industry-administered FFRDCs are collected by calendar year. Expenditures for other performers are calendar-year approximations based on fiscal year data. In most cases, the approximation equals 75% of the amount reported in the same fiscal year plus 25% of amount reported in the subsequent fiscal year. However, the fiscal year for academic performers generally begins July 1, not October 1; also, prior to 1977, the federal fiscal year began on July 1, not October 1. Therefore, calendar-year approximations for academic performers and for federal performers prior to 1977 equal 50% of the amount reported in the same fiscal year plus 50% of the amount reported in the subsequent fiscal year. Detail may not add to total because of rounding. Constant dollar estimates are derived from unrounded data.

SOURCES: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), *Research and Development in Industry 2006* (forthcoming); NSF/SRS, *Academic Research and Development Expenditures: FY 2006* (forthcoming); NSF/SRS, *Federal Funds for Research and Development: FY 2005–07* (forthcoming); NSF/SRS, *Research and Development Funding and Performance by Nonprofit Organizations: FY 1996–97* (NSF 02-303). All NSF/SRS reports are available at <http://www.nsf.gov/statistics/>.

TABLE 5. U.S. research and development expenditures, by source of funds and performing sector: 1953–2007

Year	Funding source:		Federal								Industry				U&C	Other nonprofit		Other government <sup>a</sup>	
	Performer:	All sources	Total	Federal	Industry <sup>b</sup>	FFRDCs <sup>b</sup>	U&C <sup>c</sup>	U&C	Other nonprofit <sup>d</sup>	Nonprofit	Total	Industry <sup>e</sup>	U&C <sup>c</sup>	Other	U&C <sup>c</sup>	Total nonprofit	U&C <sup>c</sup>	U&C <sup>c</sup>	
	performers	All performers																	
Current \$millions																			
1953		5,160	2,783	1,015	1,430	NA	149	131	58	NA	2,247	2,200	21	26	37	55	28	27	40
1954		5,617	3,098	963	1,750	NA	165	161	61	NA	2,375	2,320	24	31	40	60	31	29	45
1955		6,281	3,603	973	2,057	123	191	187	64	9	2,522	2,460	27	35	42	64	32	32	50
1956		8,500	4,978	1,130	2,995	333	221	217	71	11	3,346	3,277	32	37	46	74	38	36	57
1957		9,908	6,233	1,297	3,928	407	242	267	79	14	3,470	3,396	37	37	51	91	51	40	64
1958		10,915	6,974	1,507	4,436	323	280	316	95	18	3,707	3,630	39	38	56	107	62	45	72
1959		12,490	8,167	1,681	5,217	418	356	349	125	22	4,065	3,983	40	42	61	117	67	50	81
1960		13,711	8,915	1,801	5,604	477	453	385	148	48	4,516	4,428	40	48	67	123	68	55	90
1961		14,564	9,484	1,987	5,685	555	557	440	169	92	4,757	4,668	40	49	75	148	86	62	101
1962		15,636	10,138	2,188	6,008	426	687	500	200	130	5,124	5,029	41	54	84	179	109	70	112
1963		17,519	11,645	2,558	6,856	414	839	580	234	165	5,456	5,360	41	55	96	197	119	78	125
1964		19,103	12,764	2,965	7,257	463	995	629	250	205	5,888	5,792	41	55	114	200	112	88	138
1965		20,252	13,194	3,156	7,367	373	1,167	630	286	215	6,549	6,445	42	62	136	225	124	101	150
1966		22,072	14,165	3,308	7,977	355	1,335	652	329	210	7,331	7,216	45	70	165	252	138	114	160
1967		23,346	14,563	3,444	7,946	419	1,491	696	342	225	8,146	8,020	52	74	200	271	145	126	168
1968		24,666	14,964	3,497	8,145	415	1,586	722	364	235	9,008	8,869	58	81	221	290	151	139	185
1969		25,996	15,228	3,790	7,987	464	1,624	731	388	245	10,011	9,857	61	93	233	316	161	155	208
1970		26,271	14,984	4,154	7,306	473	1,686	727	410	230	10,449	10,288	66	95	259	343	172	171	237
1971		26,952	15,210	4,409	7,175	491	1,760	735	427	215	10,824	10,654	72	98	290	366	184	182	262
1972		28,740	16,039	4,676	7,469	548	1,890	785	472	200	11,715	11,535	79	101	312	393	198	195	282
1973		30,952	16,587	4,837	7,600	545	2,009	841	566	190	13,299	13,104	90	105	343	422	211	211	302
1974		33,359	17,287	5,132	7,572	648	2,160	926	639	210	14,885	14,667	104	114	393	474	235	239	320
1975		35,671	18,533	5,561	7,878	727	2,400	1,067	675	225	15,824	15,582	118	124	432	534	262	272	348
1976		39,435	20,292	5,890	8,671	890	2,619	1,266	711	245	17,702	17,436	131	135	480	592	292	300	369
1977		43,338	22,071	6,211	9,523	962	2,893	1,467	740	275	19,642	19,340	155	147	569	662	326	337	394
1978		48,719	24,414	6,962	10,107	1,082	3,329	1,772	830	333	22,457	22,115	182	160	679	727	363	364	443
1979		55,379	27,225	7,471	11,354	1,164	3,848	2,013	985	390	26,097	25,708	215	174	785	791	405	386	482
1980		63,224	29,986	7,831	12,752	1,277	4,335	2,306	1,017	469	30,929	30,476	264	189	920	871	452	419	519
1981		72,292	33,739	8,605	14,997	1,385	4,670	2,484	1,075	524	35,948	35,428	314	206	1,058	967	504	463	581
1982		80,748	37,133	9,501	17,061	1,484	4,879	2,544	1,129	536	40,692	40,105	363	224	1,207	1,095	561	534	621
1983		89,950	41,451	10,830	19,095	1,585	5,210	2,840	1,306	585	45,264	44,588	432	244	1,357	1,220	626	595	658
1984		102,244	46,470	11,916	21,657	1,739	5,748	3,243	1,548	620	52,187	51,404	518	265	1,514	1,351	698	654	721
1985		114,671	52,641	13,093	25,333	1,863	6,388	3,616	1,694	655	57,962	57,043	630	289	1,743	1,491	778	713	834
1986		120,249	54,622	13,504	26,000	1,891	7,028	3,973	1,686	541	60,991	59,932	745	314	2,019	1,647	867	780	969

TABLE 5. U.S. research and development expenditures, by source of funds and performing sector: 1953–2007

Year	Funding source:	All sources	Federal								Industry				U&C	Other nonprofit			Other government <sup>a</sup>
	Performer:	All performers	Total	Federal	Industry <sup>b</sup>	FFRDCs <sup>b</sup>	U&C <sup>c</sup>	U&C	Other nonprofit <sup>d</sup>	Nonprofit FFRDCs <sup>d</sup>	Total	Industry <sup>e</sup>	U&C <sup>c</sup>	nonprofit	U&C <sup>c</sup>	Total	nonprofit	U&C <sup>c</sup>	U&C <sup>c</sup>
	1987		126,360	58,609	13,588	28,757	1,995	7,768	4,287	1,704	509	62,576	61,403	831	342	2,262	1,849	967	882
1988		133,880	60,130	14,342	28,221	2,122	8,592	4,581	1,762	510	67,977	66,672	933	372	2,527	2,081	1,078	1,003	1,165
1989		141,889	60,464	15,231	26,359	2,195	9,315	4,756	2,062	547	74,966	73,501	1,061	405	2,852	2,333	1,202	1,131	1,274
1990		151,990	61,607	15,671	25,802	2,323	9,936	4,894	2,346	636	83,208	81,602	1,166	440	3,187	2,589	1,340	1,249	1,399
1991		160,872	60,780	15,249	24,095	2,277	10,664	5,120	2,679	696	92,300	90,580	1,242	479	3,457	2,852	1,494	1,358	1,483
1992		165,347	60,912	15,853	22,369	2,353	11,525	5,259	2,806	748	96,229	94,388	1,320	521	3,568	3,113	1,666	1,448	1,525
1993		165,726	60,524	16,531	20,844	1,965	12,304	5,289	2,843	749	96,549	94,591	1,391	567	3,709	3,388	1,857	1,531	1,557
1994		169,202	60,773	16,355	20,261	2,202	12,992	5,294	2,911	758	99,203	97,131	1,456	617	3,938	3,665	2,071	1,595	1,623
1995		183,620	62,964	16,904	21,178	2,273	13,588	5,367	2,847	808	110,870	108,652	1,547	671	4,110	3,925	2,308	1,617	1,751
1996		197,340	63,389	16,585	21,356	2,297	14,079	5,395	2,906	772	123,416	121,015	1,671	730	4,435	4,239	2,574	1,666	1,861
1997		212,144	64,568	16,819	21,798	2,130	14,524	5,463	3,014	821	136,227	133,611	1,807	809	4,837	4,590	2,804	1,786	1,922
1998		226,456	66,376	17,362	22,086	2,078	15,167	5,559	3,281	843	147,845	145,016	1,949	880	5,162	5,102	3,180	1,921	1,972
1999		245,041	67,046	17,851	20,496	2,039	16,254	5,652	3,761	993	164,660	161,594	2,082	984	5,618	5,619	3,507	2,112	2,098
2000		267,562	66,406	17,917	17,117	2,001	17,717	5,742	4,447	1,465	186,136	182,844	2,174	1,118	6,231	6,542	4,217	2,325	2,247
2001		277,745	72,826	20,426	16,899	2,020	19,774	6,225	5,289	2,192	188,440	185,118	2,190	1,132	6,826	7,257	4,712	2,545	2,397
2002		276,602	77,699	21,499	16,401	2,263	22,384	7,102	5,731	2,319	180,711	177,467	2,160	1,084	7,343	8,292	5,534	2,758	2,557
2003		289,038	83,606	22,752	17,798	2,458	25,116	7,301	5,686	2,494	186,174	182,926	2,129	1,118	7,649	8,868	6,035	2,833	2,742
2004		299,905	88,749	22,844	20,266	2,485	27,157	7,658	5,695	2,644	191,377	188,035	2,191	1,151	7,933	8,962	6,016	2,946	2,884
2005		323,005	93,734	24,459	21,909	2,601	28,203	7,812	5,922	2,828	207,841	204,250	2,338	1,253	8,575	9,905	6,779	3,126	2,950
2006		347,871	97,701	25,327	24,304	2,562	28,784	7,866	5,905	2,953	227,276	223,365	2,536	1,374	9,282	10,542	7,228	3,314	3,071
2007 preliminary		368,098	98,331	24,744	24,450	4,589	29,468	6,076	5,767	3,236	245,027	240,743	2,799	1,485	9,866	11,647	8,094	3,553	3,226
2000 constant \$millions																			
1953		28,289	15,255	5,565	7,840	NA	817	718	315	0	12,316	12,061	112	143	200	302	154	148	217
1954		30,468	16,806	5,221	9,493	NA	892	871	328	0	12,881	12,585	127	168	214	325	168	157	241
1955		33,573	19,259	5,199	10,995	657	1,021	1,000	342	45	13,480	13,149	144	187	224	342	171	171	267
1956		43,905	25,713	5,839	15,470	1,720	1,142	1,121	364	57	17,280	16,927	163	191	238	382	196	186	292
1957		49,445	31,103	6,474	19,602	2,031	1,205	1,330	392	70	17,314	16,947	182	185	255	454	255	200	319
1958		53,213	34,000	7,345	21,626	1,575	1,365	1,538	463	88	18,072	17,697	190	185	271	519	302	217	351
1959		60,179	39,352	8,100	25,137	2,014	1,713	1,682	600	106	19,584	19,191	190	202	294	561	323	239	388
1960		65,155	42,364	8,557	26,630	2,267	2,150	1,830	703	228	21,460	21,042	190	228	318	584	323	261	428
1961		68,438	44,567	9,338	26,714	2,608	2,615	2,068	794	430	22,353	21,935	188	230	350	695	404	291	472
1962		72,484	46,997	10,141	27,851	1,975	3,182	2,318	927	603	23,751	23,313	188	250	389	827	505	322	519
1963		80,359	53,417	11,736	31,448	1,899	3,846	2,658	1,073	757	25,024	24,586	186	252	440	904	546	358	573
1964		86,305	57,668	13,397	32,787	2,092	4,495	2,842	1,129	926	26,599	26,168	183	248	513	904	506	398	621
1965		89,858	58,540	14,004	32,687	1,655	5,178	2,793	1,269	954	29,055	28,596	184	275	603	996	550	446	663

TABLE 5. U.S. research and development expenditures, by source of funds and performing sector: 1953–2007

Year	Funding source:		All sources								Industry				U&C	Other nonprofit		Other government <sup>a</sup>	
	Performer:	performers	Total	Federal			U&C		Other nonprofit <sup>d</sup>	Nonprofit FFRDCs <sup>d</sup>	Total	Industry		Other nonprofit	U&C <sup>c</sup>	Total	nonprofit	U&C <sup>c</sup>	U&C <sup>c</sup>
				Federal	Industry <sup>b</sup>	FFRDCs <sup>b</sup>	U&C <sup>c</sup>	Other nonprofit <sup>d</sup>				Industry <sup>e</sup>	U&C <sup>c</sup>						
1966		95,219	61,107	14,270	34,413	1,531	5,759	2,811	1,417	906	31,626	31,130	194	302	710	1,085	595	490	690
1967		97,696	60,940	14,414	33,251	1,753	6,237	2,912	1,431	942	34,086	33,561	216	310	835	1,132	607	525	703
1968		98,997	60,058	14,036	32,690	1,666	6,365	2,898	1,461	943	36,151	35,596	231	325	885	1,162	606	556	740
1969		99,399	58,228	14,493	30,540	1,774	6,208	2,795	1,482	937	38,277	37,690	231	356	891	1,208	616	593	795
1970		95,400	54,413	15,084	26,531	1,718	6,121	2,638	1,487	835	37,942	37,359	238	345	939	1,246	625	621	861
1971		93,207	52,601	15,247	24,813	1,698	6,085	2,540	1,475	744	37,433	36,845	249	339	1,001	1,266	636	629	906
1972		95,258	53,161	15,497	24,756	1,816	6,264	2,602	1,563	663	38,829	38,232	262	335	1,032	1,301	656	645	935
1973		97,167	52,072	15,183	23,859	1,711	6,305	2,640	1,777	596	41,748	41,138	281	330	1,077	1,323	662	661	947
1974		96,077	49,788	14,782	21,808	1,866	6,221	2,667	1,839	605	42,871	42,242	300	329	1,130	1,366	678	688	922
1975		93,855	48,763	14,632	20,728	1,913	6,315	2,807	1,776	592	41,635	40,998	310	327	1,135	1,406	690	716	916
1976		98,092	50,474	14,652	21,569	2,214	6,515	3,148	1,769	609	44,033	43,371	326	336	1,194	1,472	727	745	918
1977		101,356	51,619	14,527	22,272	2,250	6,765	3,432	1,731	643	45,937	45,231	361	344	1,330	1,549	762	787	921
1978		106,462	53,349	15,214	22,086	2,364	7,274	3,871	1,814	727	49,073	48,326	397	350	1,484	1,589	794	794	968
1979		111,757	54,941	15,077	22,913	2,349	7,765	4,062	1,988	787	52,664	51,880	433	351	1,584	1,596	818	778	972
1980		116,947	55,466	14,485	23,588	2,362	8,018	4,265	1,882	867	57,210	56,372	487	350	1,701	1,611	836	775	959
1981		122,264	57,061	14,552	25,364	2,342	7,897	4,201	1,817	886	60,797	59,917	531	349	1,788	1,635	852	783	983
1982		128,707	59,188	15,144	27,194	2,365	7,776	4,054	1,800	854	64,861	63,925	579	357	1,923	1,745	895	850	990
1983		137,930	63,561	16,606	29,281	2,430	7,989	4,355	2,002	897	69,408	68,372	662	374	2,080	1,872	960	912	1,009
1984		151,105	68,678	17,610	32,007	2,570	8,494	4,793	2,287	916	77,127	75,969	765	392	2,238	1,997	1,031	966	1,066
1985		164,464	75,499	18,778	36,333	2,672	9,162	5,186	2,429	939	83,130	81,813	904	414	2,500	2,139	1,116	1,023	1,195
1986		168,725	76,642	18,949	36,481	2,653	9,861	5,574	2,365	759	85,579	84,093	1,045	441	2,832	2,312	1,217	1,094	1,360
1987		172,614	80,063	18,562	39,283	2,725	10,611	5,857	2,328	696	85,481	83,879	1,135	467	3,090	2,525	1,321	1,204	1,454
1988		176,842	79,426	18,944	37,277	2,803	11,349	6,051	2,328	673	89,791	88,067	1,232	491	3,338	2,749	1,424	1,325	1,539
1989		180,591	76,956	19,385	33,549	2,794	11,855	6,053	2,624	696	95,414	93,550	1,350	515	3,630	2,969	1,530	1,439	1,622
1990		186,230	75,486	19,202	31,615	2,846	12,174	5,996	2,874	779	101,953	99,985	1,428	539	3,904	3,172	1,642	1,530	1,714
1991		190,478	71,966	18,056	28,529	2,696	12,626	6,063	3,172	824	109,287	107,250	1,470	567	4,093	3,377	1,769	1,608	1,755
1992		191,370	70,499	18,348	25,889	2,723	13,339	6,087	3,247	865	111,373	109,243	1,527	603	4,130	3,603	1,928	1,675	1,765
1993		187,494	68,474	18,702	23,582	2,223	13,920	5,984	3,217	847	109,231	107,015	1,574	641	4,196	3,833	2,101	1,732	1,762
1994		187,450	67,328	18,119	22,446	2,439	14,393	5,865	3,225	840	109,902	107,606	1,612	683	4,363	4,060	2,294	1,766	1,797
1995		199,338	68,354	18,351	22,991	2,468	14,751	5,827	3,091	877	120,361	117,953	1,679	729	4,461	4,261	2,506	1,755	1,901
1996		210,251	67,536	17,670	22,753	2,447	15,000	5,748	3,096	822	131,491	128,933	1,780	778	4,725	4,516	2,742	1,774	1,983
1997		222,338	67,671	17,627	22,845	2,232	15,222	5,725	3,159	860	142,773	140,031	1,894	848	5,069	4,810	2,938	1,872	2,014
1998		234,731	68,801	17,997	22,893	2,154	15,721	5,762	3,401	874	153,247	150,315	2,020	912	5,351	5,288	3,297	1,992	2,044
1999		250,379	68,506	18,240	20,942	2,084	16,609	5,775	3,843	1,014	168,247	165,114	2,127	1,006	5,741	5,741	3,584	2,158	2,144
2000		267,562	66,406	17,917	17,117	2,001	17,717	5,742	4,447	1,465	186,136	182,844	2,174	1,118	6,231	6,542	4,217	2,325	2,247

TABLE 5. U.S. research and development expenditures, by source of funds and performing sector: 1953–2007

Year	Performer:	Funding source:	All sources										Other government <sup>a</sup>						
		All performers	Total	Federal	Industry <sup>b</sup>	FFRDCs <sup>b</sup>	U&C <sup>c</sup>	Other nonprofit <sup>d</sup>	Nonprofit FFRDCs <sup>d</sup>	Total	Industry <sup>e</sup>	U&C <sup>c</sup>	Other nonprofit	U&C <sup>c</sup>	U&C <sup>c</sup>				
2001		271,230	71,117	19,947	16,503	1,973	19,310	6,079	5,165	2,140	184,020	180,776	2,138	1,106	6,666	7,086	4,601	2,485	2,341
2002		265,470	74,573	20,634	15,741	2,172	21,484	6,816	5,500	2,226	173,439	170,325	2,073	1,040	7,047	7,958	5,311	2,647	2,454
2003		271,629	78,570	21,382	16,726	2,310	23,604	6,861	5,344	2,344	174,960	171,908	2,001	1,051	7,189	8,334	5,671	2,662	2,577
2004		273,980	81,077	20,869	18,514	2,270	24,810	6,996	5,203	2,415	174,834	171,781	2,002	1,051	7,247	8,187	5,496	2,691	2,635
2005		285,832	82,947	21,645	19,388	2,302	24,957	6,913	5,240	2,502	183,922	180,744	2,069	1,109	7,588	8,765	5,999	2,766	2,610
2006		298,427	83,814	21,727	20,850	2,197	24,693	6,748	5,066	2,533	194,973	191,618	2,176	1,179	7,963	9,043	6,200	2,843	2,634
2007 preliminary		307,553	82,158	20,675	20,428	3,834	24,621	5,077	4,819	2,704	204,725	201,145	2,339	1,241	8,243	9,731	6,763	2,969	2,696

NA = not available, included in figures for federal support to industry and federal support to nonprofit institutions; FFRCD = federally funded research and development center; U&C = universities and colleges.

<sup>a</sup> Because of limitations in survey information, data on other government funding to performers other than universities and colleges are not available and consequently are included in other sectors' support for their own R&D performance, e.g., other government support to other nonprofits is included in other nonprofit support for their own R&D.

<sup>b</sup> Federal support for industry in 1953–54 did not separate federal support for industry and for industry FFRDCs; thus, figures for federal support to industry includes support to FFRDCs for those years.

<sup>c</sup> Adjustments have been made to U&C R&D for 1998 and later years to eliminate double counting of funds passed through from one academic institution to another. Data for 1998 and later years are not directly comparable with data for 1997 and earlier years. For FY 1998, \$479 million in total passed-through funds and \$421 million in federal passed-through funds were reported. For FY 2007, \$1,713 million in total passed-through funds and \$1,524 million in federal passed-through funds are estimated.

<sup>d</sup> Federal support for nonprofit FFRDCs in 1953–54 did not separate federal support for other nonprofits and for nonprofit FFRDCs; thus, figures for federal support to other nonprofit institutions include support to FFRDCs for those years.

<sup>e</sup> Industry sources of funding for industry R&D expenditures include all nonfederal sources of funding for industry R&D expenditures.

NOTES: Technical notes explaining methodological issues of measurement are available on request. Data are based on annual reports by performers, except for the nonprofit sector. The R&D expenditures of FFRDCs are chiefly federal funds, but any nonfederal funds are also included in the totals. For trend comparisons, use only the historical data reported here; do not use data published earlier. Expenditures for industry and, prior to 2001, for industry-administered FFRDCs are collected by calendar year. Expenditures for other performers are calendar-year approximations based on fiscal year data. In most cases, the approximation equals 75% of the amount reported in the same fiscal year plus 25% of amount reported in the subsequent fiscal year. However, the fiscal year for academic performers generally begins July 1, not October 1; also, prior to 1977, the federal fiscal year began on July 1, not October 1. Therefore, calendar-year approximations for academic performers and for federal performers prior to 1977 equal 50% of the amount reported in the same fiscal year plus 50% of the amount reported in the subsequent fiscal year. Detail may not add to total because of rounding. Constant dollar estimates are derived from unrounded data.

SOURCES: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), *Research and Development in Industry 2006* (forthcoming); NSF/SRS, *Academic Research and Development Expenditures: FY 2006* (forthcoming); NSF/SRS, *Federal Funds for Research and Development: FY 2005–07* (forthcoming); NSF/SRS, *Research and Development Funding and Performance by Nonprofit Organizations: FY 1996–97* (NSF 02-303). All NSF/SRS reports are available at <http://www.nsf.gov/statistics/>.



TABLE 6. U.S. basic research expenditures, by source of funds and performing sector: 1953–2007

Year	Funding source:		All sources								Industry				U&C	Other nonprofit		Other government <sup>a</sup>	
	Performer:	performers	Total	Federal	Industry <sup>d</sup>	Federal		U&C		Other nonprofit <sup>e</sup>	Total	Industry		Other nonprofit	U&C <sup>d</sup>	Other		U&C <sup>d</sup>	
						Industry <sup>c</sup>	U&C <sup>d</sup>	Industry <sup>f</sup>	U&C <sup>d</sup>			Total nonprofit	U&C <sup>d</sup>						
Current \$millions																			
1953		460	265	102	19	NA	82	36	27	NA	154	132	13	9	6	28	12	16	7
1954		509	291	96	23	NA	97	44	31	NA	169	143	15	11	8	31	13	18	10
1955		579	327	98	27	NA	117	50	36	NA	192	162	17	13	12	35	14	21	14
1956		718	393	114	37	NA	143	58	42	NA	251	216	20	15	15	41	17	24	19
1957		814	452	124	41	NA	167	72	49	NA	268	230	23	15	20	50	23	27	25
1958		944	538	149	43	NA	202	85	59	NA	292	252	24	16	24	59	28	31	31
1959		1,087	666	165	72	NA	263	95	72	NA	290	248	24	18	28	66	30	36	38
1960		1,286	794	184	79	NA	341	106	85	NA	343	297	25	21	33	71	30	41	45
1961		1,512	973	230	81	NA	432	126	105	NA	361	314	25	22	40	85	37	48	54
1962		1,824	1,218	252	143	NA	546	148	130	NA	394	345	25	24	48	101	46	55	64
1963		2,115	1,446	285	147	NA	689	175	150	NA	425	375	25	25	58	113	50	63	75
1964		2,396	1,693	339	123	42	824	200	166	NA	434	384	25	25	70	115	47	68	84
1965		2,664	1,900	375	157	29	944	218	179	NA	462	406	27	29	86	122	52	70	94
1966		2,930	2,075	410	142	31	1,066	239	188	NA	512	451	29	32	106	133	58	75	104
1967		3,168	2,280	434	168	34	1,188	263	194	NA	495	427	34	34	136	144	61	83	114
1968		3,376	2,399	482	145	35	1,265	276	196	NA	537	462	38	37	156	154	63	91	131
1969		3,491	2,457	545	123	37	1,288	272	192	NA	541	458	40	43	171	170	67	103	153
1970		3,594	2,501	562	122	36	1,323	265	195	NA	531	444	43	44	196	187	72	115	179
1971		3,720	2,559	581	101	33	1,385	252	207	NA	551	456	50	45	214	204	77	127	194
1972		3,850	2,656	603	91	39	1,437	270	216	NA	565	463	55	47	216	218	84	134	195
1973		4,099	2,847	652	96	36	1,489	343	232	NA	607	499	59	49	223	227	90	137	196
1974		4,511	3,146	715	114	49	1,609	415	245	NA	656	536	66	54	250	254	102	153	204
1975		4,875	3,415	760	104	53	1,768	476	255	NA	704	573	72	59	264	280	116	164	212
1976		5,373	3,793	850	116	69	1,924	556	278	NA	774	634	75	65	283	305	131	175	218
1977		6,008	4,235	943	135	75	2,114	667	301	NA	862	701	89	72	334	346	148	198	232
1978		6,959	4,950	1,044	156	94	2,399	906	351	NA	970	785	107	79	398	380	168	213	260
1979		7,836	5,558	1,112	161	104	2,719	1,050	413	NA	1,107	893	128	87	466	419	190	229	286
1980		8,745	6,145	1,212	170	120	3,061	1,167	416	NA	1,286	1,035	156	95	544	463	215	248	307
1981		9,658	6,591	1,343	164	137	3,331	1,284	324	9	1,600	1,313	183	105	615	512	243	269	338
1982		10,651	7,121	1,522	253	128	3,475	1,366	369	9	1,854	1,523	215	115	716	591	275	317	368
1983		11,880	7,853	1,733	346	117	3,689	1,536	426	8	2,146	1,760	260	127	816	668	311	358	396
1984		13,332	8,651	1,877	340	136	4,087	1,709	494	9	2,584	2,132	313	139	915	746	351	395	436
1985		14,748	9,407	1,947	358	131	4,606	1,793	560	13	2,915	2,373	389	153	1,075	837	397	440	514
1986		17,154	10,220	2,026	434	117	5,122	1,915	594	13	4,130	3,496	466	168	1,262	936	449	488	606

TABLE 6. U.S. basic research expenditures, by source of funds and performing sector: 1953–2007

Year	Funding source:		All sources								Industry				U&C	Other nonprofit		Other government <sup>a</sup>	
	Performer:	performers	Total	Federal		Industry	U&C	Other	Nonprofit	Total	Industry <sup>f</sup>	U&C <sup>d</sup>	nonprofit	U&C <sup>d</sup>	Other		U&C <sup>d</sup>		
				Industry <sup>o</sup>	FFRDCs <sup>c</sup>	U&C <sup>d</sup>	FFRDCs	nonprofit <sup>e</sup>	FFRDCs <sup>e</sup>						Total nonprofit	U&C <sup>d</sup>			
1987		18,481	11,090	2,047	598	142	5,527	2,086	675	14	4,282	3,583	514	185	1,399	1,052	507	545	659
1988		19,786	12,097	2,116	656	337	5,937	2,272	756	24	4,274	3,507	565	203	1,529	1,180	573	607	705
1989		21,889	13,392	2,309	986	398	6,422	2,371	860	46	4,692	3,832	637	223	1,714	1,326	647	680	766
1990		23,028	14,056	2,319	869	499	6,888	2,470	947	65	4,710	3,760	705	245	1,929	1,486	730	756	847
1991		27,139	15,283	2,378	1,251	461	7,423	2,657	1,036	77	7,157	6,125	764	269	2,127	1,660	825	836	912
1992		27,604	15,710	2,419	712	474	8,058	2,867	1,114	67	6,925	5,816	814	295	2,202	1,824	931	893	941
1993		28,743	16,399	2,621	466	492	8,638	2,953	1,157	72	7,136	5,961	851	324	2,268	1,987	1,051	936	952
1994		29,651	16,770	2,547	436	503	9,139	2,934	1,137	75	7,323	6,078	889	356	2,406	2,160	1,186	974	991
1995		29,610	16,990	2,689	190	530	9,634	2,702	1,170	75	6,714	5,379	945	390	2,510	2,326	1,338	988	1,070
1996		32,799	18,062	2,680	650	708	10,092	2,606	1,248	79	8,309	6,848	1,032	428	2,740	2,539	1,510	1,029	1,149
1997		36,917	19,416	2,746	1,029	625	10,921	2,671	1,317	108	10,390	8,766	1,175	449	3,144	2,718	1,557	1,162	1,248
1998		35,333	20,802	3,003	1,002	568	11,896	2,660	1,461	213	6,655	4,851	1,315	489	3,484	3,063	1,766	1,297	1,330
1999		38,875	22,711	3,347	1,108	557	12,804	2,765	1,734	397	7,505	5,537	1,422	546	3,837	3,390	1,947	1,442	1,433
2000		42,767	24,741	3,765	925	547	13,915	2,874	2,099	616	8,235	6,115	1,499	621	4,297	3,945	2,341	1,603	1,549
2001		47,792	27,570	4,260	754	552	15,520	3,104	2,464	915	9,446	7,299	1,518	629	4,733	4,381	2,616	1,765	1,662
2002		51,410	30,842	4,511	888	534	17,642	3,714	2,575	979	8,753	6,659	1,493	602	5,071	4,977	3,073	1,905	1,766
2003		54,839	33,440	4,664	1,386	299	19,600	3,747	2,714	1,029	9,019	6,944	1,454	621	5,223	5,285	3,351	1,935	1,872
2004		56,378	34,675	4,697	1,072	175	21,143	3,729	2,788	1,070	8,908	6,763	1,506	639	5,450	5,365	3,341	2,024	1,981
2005		60,003	36,134	4,826	1,108	136	22,159	3,814	2,910	1,181	9,885	7,559	1,631	696	5,982	5,944	3,764	2,180	2,057
2006		61,721	37,253	4,952	1,444	131	22,661	3,907	2,904	1,254	9,480	6,940	1,777	763	6,502	6,335	4,013	2,322	2,151
2007 preliminary		64,417	38,017	4,869	1,453	2,180	23,199	1,997	2,941	1,379	10,263	7,480	1,958	824	6,901	6,980	4,494	2,485	2,257
2000 constant \$millions																			
1953		2,519	1,453	556	104	NA	447	197	148	NA	844	724	71	49	33	154	66	88	36
1954		2,758	1,576	521	125	NA	523	239	168	NA	917	776	81	60	46	168	71	98	52
1955		3,095	1,748	521	144	NA	623	267	192	NA	1,026	866	91	69	62	184	75	110	74
1956		3,709	2,027	586	191	NA	736	300	214	NA	1,294	1,116	101	77	80	209	88	121	98
1957		4,060	2,253	619	205	NA	831	357	242	NA	1,335	1,148	112	75	98	250	115	135	124
1958		4,600	2,620	726	210	NA	985	414	285	NA	1,424	1,229	117	78	117	288	137	151	151
1959		5,238	3,207	793	347	NA	1,265	455	347	NA	1,397	1,195	116	87	137	316	145	171	181
1960		6,111	3,773	872	375	NA	1,618	504	404	NA	1,628	1,411	116	100	159	337	143	195	214
1961		7,103	4,570	1,078	381	NA	2,028	590	493	NA	1,696	1,475	117	103	187	397	174	223	252
1962		8,455	5,646	1,168	663	NA	2,529	684	603	NA	1,826	1,599	116	111	222	466	213	253	295
1963		9,701	6,630	1,305	674	NA	3,160	803	688	NA	1,947	1,720	112	115	264	516	229	287	344
1964		10,825	7,649	1,532	556	190	3,721	901	750	NA	1,961	1,735	113	113	315	520	212	307	381
1965		11,820	8,430	1,662	697	129	4,186	965	792	NA	2,048	1,801	118	129	382	541	231	311	419

TABLE 6. U.S. basic research expenditures, by source of funds and performing sector: 1953–2007

Year	Funding source:		All sources								Industry				U&C	Other nonprofit		Other government <sup>a</sup>	
	Performer:	performers	Total	Federal		Industry	U&C	Other	Nonprofit	Total	Industry		Other	U&C <sup>d</sup>	Other		U&C <sup>d</sup>		
				Federal	Industry <sup>o</sup>	FFRDCs <sup>c</sup>	U&C <sup>d</sup>	FFRDCs	nonprofit <sup>e</sup>		FFRDCs <sup>e</sup>	Industry <sup>f</sup>	U&C <sup>d</sup>		nonprofit	Total nonprofit		U&C <sup>d</sup>	
1966		12,640	8,952	1,769	613	134	4,599	1,029	809	NA	2,209	1,946	125	138	459	574	250	324	447
1967		13,255	9,539	1,814	703	142	4,969	1,101	810	NA	2,069	1,787	140	142	568	603	255	347	476
1968		13,550	9,626	1,934	582	140	5,077	1,106	787	NA	2,153	1,854	151	148	627	618	253	365	525
1969		13,347	9,394	2,085	470	141	4,923	1,040	734	NA	2,067	1,751	151	164	654	648	256	392	584
1970		13,051	9,084	2,041	443	131	4,802	960	706	NA	1,928	1,612	156	160	710	677	261	416	651
1971		12,866	8,849	2,010	349	114	4,788	871	716	NA	1,904	1,577	171	156	740	704	266	437	670
1972		12,761	8,802	1,997	302	129	4,763	895	716	NA	1,873	1,535	182	156	716	723	278	444	648
1973		12,870	8,938	2,047	301	113	4,673	1,077	727	NA	1,904	1,567	184	154	701	711	283	429	616
1974		12,991	9,061	2,058	328	141	4,634	1,194	706	NA	1,889	1,544	190	155	720	733	294	439	587
1975		12,825	8,986	1,999	274	139	4,652	1,251	671	NA	1,852	1,508	188	156	693	735	304	431	559
1976		13,365	9,434	2,114	289	172	4,786	1,383	690	NA	1,926	1,577	187	162	705	759	325	434	542
1977		14,052	9,904	2,205	316	175	4,944	1,559	705	NA	2,015	1,639	208	168	782	808	346	462	542
1978		15,206	10,817	2,282	341	205	5,242	1,979	768	NA	2,120	1,715	233	172	870	831	366	464	568
1979		15,814	11,217	2,245	325	210	5,487	2,118	832	NA	2,235	1,802	257	175	941	845	383	462	577
1980		16,175	11,367	2,242	314	222	5,661	2,158	769	NA	2,379	1,914	288	176	1,006	856	397	459	568
1981		16,333	11,148	2,271	277	232	5,634	2,172	547	15	2,707	2,221	309	177	1,041	866	411	456	572
1982		16,976	11,351	2,425	403	204	5,538	2,178	588	14	2,955	2,428	343	184	1,142	943	438	505	587
1983		18,217	12,042	2,657	531	179	5,656	2,355	653	12	3,291	2,699	398	194	1,251	1,025	476	549	607
1984		19,703	12,786	2,773	502	201	6,039	2,525	730	14	3,819	3,151	462	206	1,352	1,103	519	584	644
1985		21,152	13,492	2,793	513	188	6,605	2,571	803	18	4,180	3,403	558	219	1,542	1,200	569	631	738
1986		24,069	14,340	2,842	609	164	7,186	2,687	833	18	5,795	4,905	653	236	1,771	1,314	629	684	850
1987		25,246	15,149	2,797	817	194	7,549	2,850	923	20	5,849	4,895	702	252	1,912	1,437	692	745	900
1988		26,135	15,979	2,795	867	445	7,842	3,001	999	31	5,646	4,632	746	268	2,020	1,558	756	802	932
1989		27,860	17,045	2,938	1,255	507	8,173	3,018	1,095	59	5,972	4,877	811	283	2,181	1,688	823	865	974
1990		28,215	17,222	2,841	1,065	611	8,439	3,026	1,160	79	5,771	4,607	864	300	2,363	1,821	895	926	1,038
1991		32,134	18,095	2,816	1,481	546	8,788	3,146	1,227	91	8,475	7,252	904	318	2,518	1,966	976	989	1,080
1992		31,948	18,183	2,799	824	549	9,326	3,318	1,289	77	8,015	6,731	943	341	2,549	2,112	1,078	1,034	1,089
1993		32,518	18,553	2,965	527	557	9,773	3,341	1,309	82	8,073	6,744	963	366	2,566	2,248	1,189	1,059	1,078
1994		32,849	18,578	2,821	483	557	10,124	3,250	1,259	83	8,113	6,734	985	394	2,666	2,393	1,314	1,079	1,098
1995		32,144	18,444	2,920	206	575	10,458	2,933	1,270	82	7,289	5,839	1,026	424	2,725	2,525	1,453	1,072	1,161
1996		34,945	19,244	2,855	693	754	10,752	2,776	1,330	84	8,852	7,296	1,100	456	2,919	2,705	1,609	1,096	1,225
1997		38,691	20,349	2,878	1,078	655	11,446	2,800	1,380	113	10,890	9,187	1,232	471	3,295	2,849	1,631	1,217	1,308
1998		36,624	21,562	3,112	1,039	589	12,330	2,757	1,514	221	6,898	5,028	1,363	507	3,611	3,174	1,830	1,344	1,379
1999		39,722	23,205	3,420	1,132	570	13,083	2,825	1,772	405	7,668	5,658	1,452	558	3,921	3,463	1,990	1,474	1,464
2000		42,767	24,741	3,765	925	547	13,915	2,874	2,099	616	8,235	6,115	1,499	621	4,297	3,945	2,341	1,603	1,549

TABLE 6. U.S. basic research expenditures, by source of funds and performing sector: 1953–2007

Year	Funding source:	All sources										Industry		U&C	Other nonprofit		Other government <sup>a</sup>		
		Performer:	All performers	Total	Federal	Industry <sup>d</sup>	Industry FFRDCs <sup>c</sup>	U&C <sup>d</sup>	U&C	Other nonprofit <sup>e</sup>	Nonprofit FFRDCs <sup>e</sup>	Total	Industry <sup>f</sup>	U&C <sup>d</sup>	Other nonprofit	U&C <sup>d</sup>	U&C <sup>d</sup>		
2001		46,671	26,923	4,160	736	539	15,156	3,031	2,406	894	9,224	7,128	1,483	614	4,622	4,278	2,555	1,723	1,623
2002		49,341	29,601	4,329	852	513	16,932	3,564	2,471	940	8,401	6,391	1,432	578	4,867	4,777	2,949	1,828	1,695
2003		51,536	31,425	4,384	1,303	281	18,419	3,521	2,551	967	8,476	6,526	1,366	584	4,909	4,967	3,149	1,818	1,759
2004		51,505	31,677	4,291	979	160	19,316	3,406	2,547	978	8,138	6,178	1,376	584	4,979	4,901	3,052	1,849	1,810
2005		53,097	31,975	4,271	980	120	19,609	3,375	2,575	1,045	8,748	6,689	1,443	616	5,293	5,260	3,331	1,929	1,820
2006		52,948	31,958	4,249	1,239	112	19,440	3,351	2,491	1,075	8,132	5,954	1,524	655	5,578	5,434	3,443	1,992	1,846
2007 preliminary		53,822	31,764	4,068	1,214	1,822	19,383	1,668	2,457	1,152	8,575	6,250	1,636	689	5,766	5,832	3,755	2,076	1,886

NA = not available, included in figures for federal support to industry and federal support to nonprofit institutions; FFRDC = federally funded research and development center; U&C = universities and colleges.

<sup>a</sup> Because of limitations in survey information, data on other government funding to performers other than universities and colleges are not available and consequently are included in other sectors' support for their own R&D performance, e.g., other government support to other nonprofits is included in other nonprofit support for their own R&D.

<sup>b</sup> Character-of-work estimates for industry have been revised for 1998 and later years; data are not directly comparable with data for 1997 and earlier years. Character-of-work estimates for industry FFRDCs for 1953–63 were not separated from federal support for industry; thus, figures for federal support to industry includes support to FFRDCs for those years.

<sup>c</sup> Character-of-work estimates for industry FFRDCs for 1953–63 were not separated from federal support for industry; thus, figures for federal support to industry includes support to FFRDCs for those years.

<sup>d</sup> For 1998 and later years, character-of-work estimation procedure has been revised, and adjustments have been made to U&C R&D to eliminate double counting of funds passed through from one academic institution to another. Data for 1998 and later years are not directly comparable with data for 1997 and earlier years.

<sup>e</sup> Character-of-work estimates for nonprofit FFRDCs for 1953–80 were not separated from federal support for other nonprofits; thus, figures for federal support to other nonprofit institutions includes support to FFRDCs for those years.

<sup>f</sup> Industry sources of funds for industry R&D expenditures include all nonfederal sources of funds for industry R&D expenditures. Character-of-work estimates for industry have been revised for 1998 and later years; data are not directly comparable with data for 1997 and earlier years.

NOTES: Technical notes explaining methodological issues of measurement are available on request. Data are based on annual reports by performers, except for the nonprofit sector. The R&D expenditures of FFRDCs are chiefly federal funds, but any nonfederal funds are also included in the totals. For trend comparisons, use only the historical data reported here; do not use data published earlier. Expenditures for industry and, prior to 2001, for industry-administered FFRDCs are collected by calendar year. Expenditures for other performers are calendar-year approximations based on fiscal year data. In most cases, the approximation equals 75% of the amount reported in the same fiscal year plus 25% of amount reported in the subsequent fiscal year. However, the fiscal year for academic performers generally begins July 1, not October 1; also, prior to 1977, the federal fiscal year began on July 1, not October 1. Therefore, calendar-year approximations for academic performers and for federal performers prior to 1977 equal 50% of the amount reported in the same fiscal year plus 50% of the amount reported in the subsequent fiscal year. Detail may not add to total because of rounding. Constant dollar estimates are derived from unrounded data.

SOURCES: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), *Research and Development in Industry 2006* (forthcoming); NSF/SRS, *Academic Research and Development Expenditures: FY 2006* (forthcoming); NSF/SRS, *Federal Funds for Research and Development: FY 2005–07* (forthcoming); NSF/SRS, *Research and Development Funding and Performance by Nonprofit Organizations: FY 1996–97* (NSF 02-303). All NSF/SRS reports are available at <http://www.nsf.gov/statistics/>.

TABLE 7. U.S. applied research expenditures, by source of funds and performing sectors: 1953–2007

Year	Funding source:	All sources	Federal								Industry				U&C	Other nonprofit		Other government <sup>a</sup>	
	Performer:	All performers	Total	Federal	Industry <sup>b</sup>	Industry FFRDCs <sup>c</sup>	U&C <sup>d</sup>	U&C FFRDCs	Other nonprofit <sup>e</sup>	Nonprofit FFRDCs <sup>e</sup>	Total	Industry <sup>f</sup>	U&C <sup>d</sup>	Other nonprofit	U&C <sup>d</sup>	Total nonprofit	Other nonprofit	U&C <sup>d</sup>	
Current \$millions																			
1953		1,289	756	347	288	NA	59	48	14	NA	456	438	7	11	28	20	10	10	30
1954		1,378	785	330	322	NA	60	58	16	NA	513	492	8	13	28	21	11	10	32
1955		1,514	850	333	368	NA	63	68	18	NA	583	560	9	14	27	22	11	11	32
1956		1,928	1,025	387	474	NA	65	79	21	NA	818	794	10	14	27	25	14	11	33
1957		2,414	1,304	446	678	NA	63	94	24	NA	1,018	992	12	14	27	31	20	11	34
1958		2,758	1,496	516	774	NA	66	111	30	NA	1,163	1,137	12	14	27	37	25	12	35
1959		2,940	1,630	577	813	NA	78	121	43	NA	1,206	1,178	13	15	28	39	27	12	37
1960		3,065	1,732	615	833	NA	93	129	63	NA	1,226	1,196	13	17	29	40	28	12	39
1961		3,123	1,811	668	812	NA	104	145	83	NA	1,195	1,165	13	17	30	48	35	13	40
1962		3,698	2,098	709	1,011	NA	119	163	98	NA	1,471	1,438	14	19	30	58	45	13	41
1963		3,865	2,245	809	1,007	NA	128	186	115	NA	1,483	1,450	14	19	32	63	49	14	42
1964		4,201	2,462	947	978	62	142	203	130	NA	1,593	1,560	14	19	37	65	47	18	45
1965		4,374	2,553	994	992	46	176	206	140	NA	1,654	1,620	13	21	42	79	52	27	46
1966		4,653	2,625	1,012	986	53	208	213	153	NA	1,842	1,804	14	24	48	91	57	34	47
1967		4,848	2,763	1,069	983	83	238	225	166	NA	1,890	1,849	16	25	54	96	60	36	46
1968		5,137	2,811	1,112	956	87	250	221	186	NA	2,125	2,081	16	28	55	101	62	39	46
1969		5,454	2,924	1,229	920	95	257	213	210	NA	2,320	2,272	16	32	54	109	66	43	48
1970		5,752	3,100	1,334	952	97	280	213	225	NA	2,429	2,378	18	33	56	117	70	47	51
1971		5,833	3,091	1,355	907	67	306	216	241	NA	2,494	2,441	19	34	67	121	74	47	61
1972		6,147	3,243	1,434	845	107	391	224	243	NA	2,618	2,562	21	35	82	131	79	52	74
1973		6,655	3,429	1,527	883	110	450	203	257	NA	2,894	2,832	26	36	100	145	83	62	88
1974		7,344	3,634	1,652	905	120	477	191	290	NA	3,333	3,263	32	39	118	163	91	72	96
1975		8,091	4,125	1,912	991	139	550	219	315	NA	3,520	3,440	39	42	141	192	100	92	113
1976		8,976	4,464	2,068	1,033	167	596	263	338	NA	4,001	3,912	45	45	166	218	109	109	127
1977		9,662	4,683	2,081	1,113	212	626	297	355	NA	4,410	4,311	51	48	194	241	120	121	134
1978		10,704	5,080	2,242	1,195	235	676	324	409	NA	4,982	4,870	61	52	232	259	132	128	151
1979		12,097	5,602	2,415	1,305	250	793	360	480	NA	5,797	5,670	71	55	263	273	144	129	161
1980		13,714	6,237	2,546	1,625	275	912	421	458	NA	6,698	6,550	88	60	308	298	158	140	174
1981		16,329	6,905	2,731	2,042	298	953	422	391	68	8,531	8,359	108	64	363	332	173	159	199
1982		18,218	7,689	2,802	2,593	367	1,007	433	398	91	9,553	9,363	121	69	402	367	189	178	207
1983		20,298	8,738	2,991	3,227	414	1,122	473	433	78	10,501	10,286	141	74	443	401	207	194	215
1984		22,451	9,499	2,961	3,677	547	1,226	548	459	80	11,788	11,541	168	79	491	438	226	212	234
1985		25,401	10,930	3,135	4,717	630	1,296	580	490	82	13,191	12,908	198	85	547	471	247	224	262
1986		27,240	10,409	3,204	4,049	629	1,393	554	506	75	15,402	15,082	229	91	620	510	270	240	298

TABLE 7. U.S. applied research expenditures, by source of funds and performing sectors: 1953–2007

Year	Funding source:	All sources	Federal								Industry				U&C	Other nonprofit			Other government <sup>a</sup>
	Performer:	All performers	Total	Federal	Industry <sup>b</sup>	Industry FFRDCs <sup>c</sup>	U&C <sup>d</sup>	U&C	Other nonprofit <sup>e</sup>	Nonprofit FFRDCs <sup>e</sup>	Total	Industry <sup>f</sup>	U&C <sup>d</sup>	Other	U&C <sup>d</sup>	Total	Other nonprofit	U&C <sup>d</sup>	U&C <sup>d</sup>
	1987		27,951	10,829	3,366	4,037	623	1,643	532	555	74	15,511	15,153	260	98	707	571	295	276
1988		29,528	10,748	3,362	3,846	371	1,957	547	599	66	16,938	16,531	302	105	818	647	322	325	377
1989		32,277	11,752	3,566	4,324	374	2,120	603	695	70	18,452	17,993	347	112	933	722	352	370	417
1990		34,896	13,694	3,652	5,967	386	2,139	689	780	81	18,930	18,432	377	120	1,031	788	384	404	453
1991		38,629	14,278	4,093	5,588	433	2,230	927	921	86	21,946	21,425	392	129	1,091	847	419	428	468
1992		37,933	13,688	4,337	4,476	507	2,413	940	933	81	21,736	21,184	414	138	1,120	911	456	454	479
1993		37,280	14,072	4,838	4,295	435	2,539	962	900	103	20,547	19,956	443	148	1,181	984	497	487	496
1994		36,615	13,797	4,985	3,616	503	2,641	982	960	111	19,995	19,372	464	158	1,256	1,050	541	509	517
1995		40,933	13,540	4,952	3,164	535	2,776	1,050	934	129	24,418	23,755	494	170	1,311	1,104	589	516	559
1996		43,165	13,955	4,872	3,640	231	2,860	1,270	960	122	26,075	25,370	524	182	1,390	1,162	640	522	584
1997		46,551	12,883	4,997	2,648	213	2,549	1,337	1,011	128	30,505	29,782	518	205	1,388	1,223	711	512	552
1998		46,388	12,849	5,146	2,632	230	2,286	1,372	1,060	123	30,319	29,576	520	223	1,376	1,318	806	512	526
1999		52,097	14,041	5,530	2,817	274	2,740	1,251	1,300	130	34,612	33,821	541	249	1,461	1,438	889	549	546
2000		56,932	15,783	6,105	2,682	269	3,350	1,329	1,831	217	37,331	36,494	553	283	1,586	1,661	1,069	592	572
2001		64,708	19,309	7,052	3,603	935	3,753	1,485	2,150	332	41,247	40,409	551	287	1,716	1,834	1,194	640	602
2002		51,035	19,519	7,487	2,452	1,103	4,215	1,685	2,267	309	26,903	26,081	548	275	1,863	2,102	1,402	699	648
2003		61,690	23,023	7,672	4,473	1,434	4,838	1,756	2,487	363	33,698	32,861	554	283	1,989	2,266	1,529	737	713
2004		70,172	23,605	7,455	4,775	1,509	5,136	1,920	2,448	362	41,511	40,657	562	292	2,035	2,280	1,525	756	740
2005		70,355	24,111	7,594	5,289	1,487	5,070	1,858	2,403	408	40,892	39,995	580	318	2,126	2,494	1,718	775	732
2006		76,788	25,105	7,692	6,140	1,446	5,153	1,779	2,455	441	46,004	45,033	623	348	2,279	2,645	1,832	814	754
2007 preliminary		81,211	25,455	7,839	6,177	1,414	5,310	1,844	2,417	454	49,603	48,537	690	376	2,431	2,927	2,051	875	795

  

2000 constant \$millions																			
1953		7,067	4,142	1,902	1,579	NA	323	260	77	NA	2,497	2,401	36	60	153	110	55	55	165
1954		7,475	4,258	1,787	1,747	NA	323	315	87	NA	2,780	2,669	41	71	152	114	60	54	171
1955		8,090	4,543	1,780	1,967	NA	337	363	96	NA	3,113	2,993	45	75	145	115	59	56	173
1956		9,956	5,292	1,996	2,448	NA	336	405	106	NA	4,225	4,101	52	72	139	129	72	57	171
1957		12,044	6,507	2,223	3,383	NA	314	469	117	NA	5,078	4,950	57	70	135	155	100	55	169
1958		13,446	7,293	2,516	3,773	NA	319	539	146	NA	5,670	5,543	59	68	133	178	122	56	172
1959		14,164	7,854	2,778	3,917	NA	373	581	205	NA	5,809	5,676	60	72	135	188	130	58	178
1960		14,565	8,228	2,920	3,958	NA	442	611	297	NA	5,826	5,683	62	81	137	190	133	57	184
1961		14,675	8,510	3,139	3,816	NA	486	681	388	NA	5,615	5,474	61	80	139	223	164	59	188
1962		17,140	9,726	3,284	4,687	NA	549	753	452	NA	6,817	6,666	63	88	141	269	209	60	188
1963		17,726	10,295	3,711	4,619	NA	585	853	527	NA	6,802	6,651	64	87	148	287	225	62	193
1964		18,980	11,121	4,276	4,419	280	642	917	587	NA	7,195	7,048	61	86	169	291	212	79	204
1965		19,405	11,325	4,408	4,401	204	779	912	621	NA	7,339	7,188	58	93	187	348	231	118	206

TABLE 7. U.S. applied research expenditures, by source of funds and performing sectors: 1953–2007

Year	Funding	All	Federal								Industry				U&C	Other nonprofit			Other
	source:	sources	Federal		Industry		U&C		Other nonprofit		Industry		Other	U&C	Other		government <sup>a</sup>		
	Performer:	All performers	Total	Industry <sup>b</sup>	FFRDCs <sup>c</sup>	U&C <sup>d</sup>	FFRDCs	U&C	Other nonprofit <sup>e</sup>	FFRDCs <sup>e</sup>	Total	Industry <sup>f</sup>	U&C <sup>d</sup>	Other	U&C <sup>d</sup>	Total	Other nonprofit	U&C <sup>d</sup>	U&C <sup>d</sup>
1966		20,071	11,322	4,366	4,254	229	897	919	658	NA	7,947	7,783	60	104	209	390	246	145	203
1967		20,287	11,562	4,471	4,113	347	994	942	695	NA	7,907	7,737	65	105	225	402	251	151	191
1968		20,617	11,280	4,461	3,837	349	1,001	885	747	NA	8,529	8,352	64	112	221	403	249	155	185
1969		20,855	11,179	4,700	3,518	363	981	814	803	NA	8,871	8,687	61	122	206	415	252	163	184
1970		20,889	11,259	4,844	3,457	352	1,015	773	817	NA	8,819	8,635	64	120	203	423	254	169	186
1971		20,172	10,690	4,686	3,137	232	1,058	745	832	NA	8,623	8,442	64	118	232	418	256	163	209
1972		20,374	10,748	4,753	2,801	355	1,294	742	804	NA	8,676	8,492	68	116	271	433	262	171	246
1973		20,893	10,766	4,795	2,772	345	1,411	636	807	NA	9,085	8,891	82	113	314	454	261	193	275
1974		21,152	10,467	4,759	2,606	346	1,372	549	835	NA	9,600	9,398	91	111	340	468	262	206	277
1975		21,288	10,854	5,030	2,607	366	1,446	576	829	NA	9,262	9,051	101	109	370	505	263	242	298
1976		22,328	11,104	5,145	2,570	415	1,481	653	840	NA	9,953	9,731	111	111	412	544	272	271	317
1977		22,598	10,953	4,866	2,603	496	1,463	695	830	NA	10,314	10,082	119	112	454	563	281	282	314
1978		23,391	11,101	4,899	2,611	514	1,477	708	893	NA	10,887	10,642	132	113	506	566	287	279	330
1979		24,412	11,306	4,874	2,634	505	1,600	726	969	NA	11,698	11,442	144	112	531	551	291	260	326
1980		25,368	11,537	4,709	3,006	509	1,687	779	847	NA	12,389	12,116	163	110	570	551	292	259	321
1981		27,617	11,679	4,620	3,454	504	1,611	714	661	115	14,427	14,137	182	108	613	561	292	268	337
1982		29,038	12,256	4,466	4,133	585	1,604	690	634	145	15,226	14,924	193	109	641	585	301	283	331
1983		31,125	13,399	4,587	4,948	635	1,721	726	664	119	16,102	15,773	217	113	679	615	317	298	330
1984		33,180	14,039	4,376	5,434	808	1,812	811	678	119	17,421	17,056	248	117	726	648	334	313	346
1985		36,430	15,676	4,496	6,765	904	1,859	831	702	118	18,918	18,513	284	122	785	676	355	321	375
1986		38,221	14,606	4,496	5,681	883	1,954	777	709	106	21,611	21,162	321	128	871	716	379	336	418
1987		38,182	14,793	4,598	5,515	851	2,244	726	758	101	21,188	20,700	355	133	966	780	403	377	455
1988		39,003	14,197	4,441	5,080	490	2,586	722	791	87	22,373	21,836	399	138	1,080	855	426	429	498
1989		41,081	14,958	4,539	5,503	476	2,698	767	884	89	23,485	22,901	442	143	1,188	919	448	471	531
1990		42,757	16,779	4,475	7,311	473	2,621	844	955	100	23,194	22,584	462	147	1,264	966	470	495	555
1991		45,738	16,906	4,847	6,616	513	2,640	1,097	1,090	102	25,984	25,368	464	153	1,291	1,003	496	507	554
1992		43,903	15,842	5,019	5,180	587	2,793	1,088	1,080	94	25,157	24,518	479	160	1,296	1,054	528	526	554
1993		42,176	15,920	5,474	4,859	492	2,873	1,089	1,018	116	23,246	22,577	501	167	1,336	1,114	562	551	561
1994		40,564	15,285	5,523	4,006	557	2,926	1,087	1,063	123	22,151	21,461	514	176	1,391	1,163	599	563	573
1995		44,436	14,699	5,376	3,435	581	3,013	1,140	1,014	140	26,508	25,788	536	184	1,424	1,199	639	560	607
1996		45,990	14,868	5,191	3,878	246	3,048	1,353	1,022	130	27,781	27,030	558	193	1,481	1,238	682	556	622
1997		48,788	13,502	5,237	2,775	223	2,671	1,402	1,059	135	31,971	31,213	543	215	1,455	1,281	745	537	579
1998		48,082	13,318	5,334	2,728	238	2,370	1,422	1,099	128	31,427	30,657	539	231	1,427	1,366	835	531	545
1999		53,232	14,347	5,650	2,878	280	2,800	1,278	1,328	132	35,366	34,558	553	255	1,493	1,469	908	561	557
2000		56,932	15,783	6,105	2,682	269	3,350	1,329	1,831	217	37,331	36,494	553	283	1,586	1,661	1,069	592	572

TABLE 7. U.S. applied research expenditures, by source of funds and performing sectors: 1953–2007

Year	Funding source:	All sources	Federal								Industry			U&C	Other nonprofit		Other government <sup>a</sup>		
	Performer:	All performers	Total	Federal	Industry <sup>b</sup>	Industry FFRDCs <sup>c</sup>	U&C <sup>d</sup>	U&C	Other nonprofit <sup>e</sup>	Nonprofit FFRDCs <sup>e</sup>	Total	Industry <sup>f</sup>	U&C <sup>d</sup>	Other nonprofit	U&C <sup>d</sup>	Total nonprofit	U&C <sup>d</sup>	U&C <sup>d</sup>	
2001		63,190	18,856	6,887	3,518	913	3,665	1,450	2,100	324	40,279	39,461	538	280	1,676	1,791	1,166	625	588
2002		48,981	18,733	7,186	2,353	1,059	4,045	1,618	2,175	296	25,821	25,031	526	264	1,788	2,017	1,346	671	622
2003		57,975	21,637	7,209	4,204	1,348	4,547	1,651	2,337	341	31,669	30,882	520	266	1,870	2,130	1,437	692	670
2004		64,107	21,565	6,810	4,362	1,379	4,692	1,754	2,237	331	37,923	37,143	514	266	1,860	2,083	1,393	690	676
2005		62,258	21,336	6,720	4,680	1,316	4,487	1,644	2,127	361	36,186	35,392	513	281	1,882	2,207	1,520	686	648
2006		65,874	21,537	6,598	5,267	1,240	4,421	1,526	2,106	378	39,465	38,632	534	299	1,955	2,269	1,571	698	647
2007 preliminary		67,853	21,268	6,549	5,161	1,182	4,437	1,541	2,019	380	41,444	40,553	576	314	2,031	2,445	1,714	731	664

NA = not available, included in figures for federal support to industry and federal support to nonprofit institutions; FFRCD = federally funded research and development center; U&C = universities and colleges.

<sup>a</sup> Because of limitations in survey information, data on other government funding to performers other than universities and colleges are not available and consequently are included in other sectors' support for their own R&D performance, e.g., other government support to other nonprofits is included in other nonprofit support for their own R&D.

<sup>b</sup> Character-of-work estimates for industry have been revised for 1998 and later years; data are not directly comparable with data for 1997 and earlier years. Character-of-work estimates for industry FFRDCs for 1953–63 were not separated from federal support for industry; thus, figures for federal support to industry includes support to FFRDCs for those years.

<sup>c</sup> Character-of-work estimates for industry FFRDCs for 1953–63 were not separated from federal support for industry; thus, figures for federal support to industry includes support to FFRDCs for those years.

<sup>d</sup> For 1998 and later years, character-of-work estimation procedure has been revised, and adjustments have been made to U&C R&D to eliminate double counting of funds passed through from one academic institution to another. Data for 1998 and later years are not directly comparable with data for 1997 and earlier years.

<sup>e</sup> Character-of-work estimates for nonprofit FFRDCs for 1953–80 were not separated from federal support for other nonprofits; thus, figures for federal support to other nonprofit institutions includes support to FFRDCs for those years.

<sup>f</sup> Industry sources of funds for industry R&D expenditures include all nonfederal sources of funds for industry R&D expenditures. Character-of-work estimates for industry have been revised for 1998 and later years; data are not directly comparable with data for 1997 and earlier years.

NOTES: Technical notes explaining methodological issues of measurement are available on request. Data are based on annual reports by performers, except for the nonprofit sector. The R&D expenditures of FFRDCs are chiefly federal funds, but any nonfederal funds are also included in the totals. For trend comparisons, use only the historical data reported here; do not use data published earlier. Expenditures for industry and, prior to 2001, for industry-administered FFRDCs are collected by calendar year. Expenditures for other performers are calendar-year approximations based on fiscal year data. In most cases, the approximation equals 75% of the amount reported in the same fiscal year plus 25% of amount reported in the subsequent fiscal year. However, the fiscal year for academic performers generally begins July 1, not October 1; also, prior to 1977, the federal fiscal year began on July 1, not October 1. Therefore, calendar-year approximations for academic performers and for federal performers prior to 1977 equal 50% of the amount reported in the same fiscal year plus 50% of the amount reported in the subsequent fiscal year. Detail may not add to total because of rounding. Constant dollar estimates are derived from unrounded data.

SOURCES: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), *Research and Development in Industry 2006* (forthcoming); NSF/SRS, *Academic Research and Development Expenditures: FY 2006* (forthcoming); NSF/SRS, *Federal Funds for Research and Development: FY 2005–07* (forthcoming); NSF/SRS, *Research and Development Funding and Performance by Nonprofit Organizations: FY 1996–97* (NSF 02-303). All NSF/SRS reports are available at <http://www.nsf.gov/statistics/>.



TABLE 8. U.S. development expenditures, by source of funds and performing sector: 1953–2007

Year	Funding source:	All sources	Federal							Industry				U&C	Other nonprofit		Other government <sup>a</sup>		
	Performer:	All performers	Total	Federal	Industry <sup>d</sup>	Industry FFRDCs <sup>c</sup>	U&C <sup>d</sup>	U&C FFRDCs	Other nonprofit <sup>e</sup>	Nonprofit FFRDCs <sup>e</sup>	Total	Industry <sup>f</sup>	U&C <sup>d</sup>	Other nonprofit	U&C <sup>d</sup>	Total nonprofit	U&C <sup>d</sup>	U&C <sup>d</sup>	
	Current \$millions																		
1953		3,412	1,762	567	1,123	NA	9	48	17	NA	1,637	1,630	1	6	3	7	6	1	3
1954		3,734	2,027	537	1,405	NA	9	59	18	NA	1,693	1,685	1	7	3	8	7	1	3
1955		4,189	2,427	543	1,785	NA	12	69	19	NA	1,748	1,738	2	8	3	8	7	1	4
1956		5,855	3,561	631	2,817	NA	14	81	20	NA	2,277	2,267	2	8	4	9	7	2	4
1957		6,681	4,477	728	3,616	NA	12	101	21	NA	2,185	2,174	3	8	4	10	8	2	5
1958		7,214	4,941	842	3,942	NA	13	120	25	NA	2,252	2,241	3	8	4	11	9	2	6
1959		8,463	5,872	940	4,750	NA	16	134	32	NA	2,569	2,557	3	9	5	12	10	2	6
1960		9,360	6,390	1,003	5,169	NA	19	151	49	NA	2,948	2,935	3	10	5	12	10	2	6
1961		9,930	6,701	1,090	5,347	NA	22	170	73	NA	3,201	3,189	2	10	5	16	14	2	7
1962		10,115	6,822	1,227	5,280	NA	23	190	103	NA	3,259	3,246	2	11	6	20	18	2	8
1963		11,540	7,956	1,465	6,116	NA	22	219	134	NA	3,548	3,535	2	11	6	22	20	2	8
1964		12,506	8,610	1,680	6,156	359	30	227	159	NA	3,861	3,848	2	11	7	21	18	3	8
1965		13,215	8,742	1,789	6,218	298	48	207	183	NA	4,433	4,419	2	12	8	24	20	4	9
1966		14,490	9,466	1,886	6,849	271	61	200	199	NA	4,977	4,961	2	14	10	28	23	5	9
1967		15,332	9,521	1,943	6,795	302	66	208	208	NA	5,762	5,744	3	15	10	31	24	7	9
1968		16,154	9,756	1,904	7,044	293	72	226	217	NA	6,346	6,326	4	16	9	35	26	9	8
1969		17,051	9,848	2,016	6,944	332	80	246	231	NA	7,150	7,127	5	18	8	38	28	10	7
1970		16,925	9,382	2,258	6,232	340	84	249	220	NA	7,489	7,466	5	18	7	40	30	10	6
1971		17,399	9,561	2,473	6,167	391	69	267	194	NA	7,780	7,757	4	19	9	42	33	9	8
1972		18,743	10,141	2,639	6,533	402	63	291	213	NA	8,533	8,510	4	19	14	44	35	9	12
1973		20,197	10,311	2,657	6,621	399	71	296	268	NA	9,798	9,773	5	20	20	51	38	13	18
1974		21,504	10,506	2,765	6,553	479	75	321	314	NA	10,896	10,868	7	22	25	57	42	15	20
1975		22,706	10,993	2,890	6,783	535	83	373	330	NA	11,600	11,569	8	23	27	63	47	16	22
1976		25,085	12,035	2,972	7,522	654	100	447	341	NA	12,927	12,890	12	25	31	68	52	16	24
1977		27,667	13,153	3,188	8,275	675	153	503	359	NA	14,370	14,328	15	27	40	76	58	19	28
1978		31,056	14,383	3,676	8,756	753	254	542	403	NA	16,504	16,460	15	30	49	88	64	24	32
1979		35,445	16,064	3,944	9,888	810	336	603	483	NA	19,193	19,145	16	32	56	99	71	28	34
1980		40,765	17,604	4,072	10,957	882	362	719	612	NA	22,945	22,891	19	35	68	110	79	31	38
1981		46,305	20,242	4,530	12,791	950	386	778	360	447	25,817	25,756	24	37	80	123	88	35	44
1982		51,879	22,323	5,178	14,215	989	397	745	362	436	29,286	29,219	27	40	88	137	98	39	46
1983		57,771	24,859	6,106	15,522	1,054	399	832	447	500	32,617	32,542	31	44	97	151	109	43	47
1984		66,461	28,320	7,078	17,640	1,056	435	986	594	530	37,815	37,731	37	47	108	167	120	47	51
1985		74,522	32,304	8,011	20,258	1,102	486	1,244	644	560	41,857	41,762	43	51	120	183	134	49	57
1986		75,855	33,993	8,275	21,517	1,145	513	1,504	587	453	41,460	41,354	50	55	136	201	149	53	65

TABLE 8. U.S. development expenditures, by source of funds and performing sector: 1953–2007

Year	Funding source:	All sources	Federal								Industry				U&C	Other nonprofit			Other government <sup>a</sup>
	Performer:	All performers	Total	Federal	Industry <sup>d</sup>	Industry FFRDCs <sup>c</sup>	U&C <sup>d</sup>	U&C FFRDCs	Other nonprofit <sup>e</sup>	Nonprofit FFRDCs <sup>e</sup>	Total	Industry <sup>f</sup>	U&C <sup>d</sup>	Other nonprofit	U&C <sup>d</sup>	Other nonprofit		U&C <sup>d</sup>	
																Total	U&C <sup>d</sup>		
1987		79,929	36,691	8,176	24,122	1,230	599	1,670	474	421	42,784	42,667	57	60	155	226	165	61	73
1988		84,566	37,285	8,864	23,719	1,414	698	1,762	407	420	46,765	46,634	66	65	180	255	183	71	83
1989		87,723	35,320	9,355	21,049	1,423	773	1,782	507	430	51,822	51,676	76	70	205	285	203	81	92
1990		94,067	33,858	9,700	18,966	1,438	909	1,735	619	490	59,568	59,410	83	75	226	315	226	89	99
1991		95,104	31,219	8,778	17,256	1,383	1,011	1,537	722	533	63,197	63,030	86	82	239	345	251	94	103
1992		99,810	31,514	9,098	17,181	1,372	1,054	1,452	758	599	67,567	67,388	91	88	246	378	279	100	105
1993		99,704	30,053	9,071	16,083	1,038	1,126	1,374	787	574	68,866	68,674	97	95	259	416	309	107	109
1994		102,936	30,206	8,823	16,209	1,196	1,212	1,378	815	573	71,886	71,681	102	103	276	455	343	112	114
1995		113,077	32,435	9,262	17,824	1,208	1,178	1,616	744	603	79,738	79,518	108	111	288	495	381	113	123
1996		121,375	31,372	9,033	17,066	1,358	1,127	1,520	698	571	89,032	88,797	115	120	305	538	423	115	128
1997		128,676	32,269	9,077	18,121	1,292	1,055	1,454	687	585	95,332	95,063	114	155	305	649	536	112	121
1998		144,735	32,725	9,214	18,452	1,280	985	1,527	760	507	110,871	110,589	114	168	302	721	609	112	115
1999		154,069	30,294	8,974	16,571	1,208	711	1,636	727	467	122,543	122,236	119	188	321	791	671	120	120
2000		167,863	25,882	8,047	13,510	1,185	452	1,539	517	632	140,570	140,235	121	214	348	937	807	130	126
2001		165,245	25,947	9,114	12,542	534	502	1,637	675	945	137,748	137,410	121	217	377	1,042	902	140	132
2002		174,157	27,339	9,501	13,061	625	528	1,703	890	1,031	145,055	144,727	120	207	409	1,212	1,059	154	142
2003		172,509	27,143	10,416	11,939	725	678	1,798	485	1,102	143,457	143,121	122	214	437	1,316	1,155	162	157
2004		173,354	30,469	10,692	14,419	801	878	2,008	459	1,212	140,959	140,615	123	220	447	1,317	1,151	166	163
2005		192,647	33,489	12,039	15,512	979	974	2,140	609	1,238	157,063	156,696	127	240	467	1,467	1,297	170	161
2006		209,362	35,343	12,682	16,720	985	970	2,180	546	1,259	171,792	171,392	137	263	500	1,561	1,383	179	166
2007 preliminary		222,470	34,859	12,037	16,820	995	958	2,236	409	1,403	185,162	184,726	151	284	534	1,741	1,549	192	175
2000 constant \$millions																			
1953		18,703	9,660	3,106	6,157	NA	47	260	90	NA	8,975	8,936	5	33	14	38	33	5	16
1954		20,256	10,993	2,913	7,622	NA	46	317	95	NA	9,184	9,141	5	38	17	43	38	5	19
1955		22,390	12,970	2,900	9,541	NA	61	369	99	NA	9,340	9,290	8	43	17	43	37	5	20
1956		30,240	18,394	3,257	14,551	NA	70	416	101	NA	11,761	11,710	10	41	19	44	36	8	23
1957		33,340	22,341	3,630	18,045	NA	60	504	102	NA	10,901	10,849	12	40	21	50	40	10	26
1958		35,167	24,086	4,102	19,218	NA	61	585	119	NA	10,979	10,925	15	39	21	54	44	10	28
1959		40,778	28,291	4,529	22,887	NA	75	646	154	NA	12,378	12,321	14	43	22	58	48	10	29
1960		44,478	30,363	4,764	24,563	NA	90	715	230	NA	14,006	13,947	12	48	22	57	48	10	30
1961		46,659	31,486	5,120	25,126	NA	101	796	343	NA	15,042	14,985	9	47	24	75	66	9	32
1962		46,887	31,624	5,688	24,476	NA	104	881	475	NA	15,108	15,047	9	51	27	93	83	9	36
1963		52,931	36,491	6,720	28,054	NA	101	1,002	615	NA	16,274	16,215	9	50	28	101	92	9	36
1964		56,501	38,899	7,590	27,812	1,622	133	1,023	718	NA	17,444	17,385	9	50	30	93	81	11	36
1965		58,634	38,786	7,935	27,589	1,322	213	916	810	NA	19,669	19,607	9	53	35	106	89	18	38

TABLE 8. U.S. development expenditures, by source of funds and performing sector: 1953–2007

Year	Funding source:	All sources	Federal								Industry				U&C	Other nonprofit		Other government <sup>a</sup>			
	Performer:	All performers	Total	Federal	Industry <sup>d</sup>	Industry FFRDCs <sup>c</sup>	U&C <sup>d</sup>	U&C FFRDCs	Other nonprofit <sup>e</sup>	Nonprofit FFRDCs <sup>e</sup>	Total	Industry <sup>f</sup>	U&C <sup>d</sup>	Other nonprofit	U&C <sup>d</sup>	Other nonprofit		Other government <sup>a</sup>			
																Total	U&C <sup>d</sup>	Total	U&C <sup>d</sup>	Total	U&C <sup>d</sup>
1966		62,509	40,835	8,136	29,547	1,169	263	863	856	NA	21,471	21,402	9	60	42	121	99	22	40		
1967		64,157	39,842	8,131	28,435	1,264	274	870	868	NA	24,110	24,036	10	63	42	128	100	27	36		
1968		64,832	39,154	7,642	28,271	1,176	287	907	871	NA	25,470	25,389	16	64	37	140	104	36	31		
1969		65,196	37,654	7,707	26,551	1,269	304	941	881	NA	27,339	27,251	19	69	30	145	107	38	27		
1970		61,460	34,071	8,199	22,631	1,235	303	904	799	NA	27,195	27,112	18	65	26	145	109	36	23		
1971		60,169	33,063	8,551	21,327	1,352	239	923	671	NA	26,906	26,826	14	66	30	144	114	29	27		
1972		62,123	33,611	8,748	21,653	1,332	207	965	706	NA	28,280	28,206	12	63	45	146	116	30	41		
1973		63,404	32,369	8,342	20,785	1,253	221	928	840	NA	30,759	30,681	16	63	63	159	119	39	55		
1974		61,935	30,260	7,965	18,873	1,380	215	925	903	NA	31,382	31,301	19	62	71	165	122	43	58		
1975		59,741	28,923	7,604	17,847	1,408	217	980	868	NA	30,522	30,439	21	62	72	165	123	42	58		
1976		62,398	29,937	7,392	18,711	1,627	248	1,112	848	NA	32,155	32,063	29	63	77	169	130	40	60		
1977		64,707	30,762	7,456	19,353	1,579	358	1,177	840	NA	33,607	33,510	34	64	94	179	135	43	65		
1978		67,864	31,430	8,034	19,134	1,645	555	1,184	880	NA	36,065	35,969	32	65	107	192	140	51	70		
1979		71,530	32,418	7,959	19,954	1,635	679	1,218	974	NA	38,731	38,635	31	65	113	200	144	56	69		
1980		75,404	32,563	7,533	20,267	1,631	669	1,329	1,132	NA	42,442	42,342	36	64	125	203	147	57	70		
1981		78,314	34,234	7,662	21,633	1,607	653	1,316	608	756	43,663	43,560	40	63	135	208	149	59	74		
1982		82,692	35,581	8,253	22,658	1,576	634	1,187	577	696	46,680	46,573	42	64	141	218	156	62	73		
1983		88,588	38,119	9,362	23,802	1,616	612	1,275	686	766	50,015	49,900	48	67	149	232	166	65	72		
1984		98,222	41,854	10,461	26,070	1,561	643	1,457	879	784	55,887	55,762	54	70	159	247	178	69	76		
1985		106,881	46,332	11,489	29,055	1,581	697	1,784	924	803	60,032	59,896	62	73	172	262	192	71	82		
1986		106,435	47,697	11,611	30,191	1,607	720	2,110	823	635	58,173	58,025	71	78	191	282	208	74	92		
1987		109,186	50,121	11,168	32,952	1,680	818	2,281	647	575	58,445	58,285	78	82	212	308	225	83	100		
1988		111,704	49,249	11,709	31,330	1,868	922	2,328	538	555	61,772	61,599	88	85	237	336	242	94	109		
1989		111,651	44,954	11,907	26,790	1,811	984	2,268	645	548	65,957	65,771	97	89	261	362	259	103	116		
1990		115,258	41,485	11,886	23,239	1,762	1,114	2,126	758	601	72,988	72,794	101	92	277	386	277	109	122		
1991		112,606	36,965	10,393	20,432	1,638	1,197	1,819	855	631	74,828	74,630	102	97	283	408	297	111	122		
1992		115,518	36,473	10,529	19,885	1,588	1,220	1,680	877	693	78,201	77,994	105	102	284	438	322	115	122		
1993		112,800	34,001	10,263	18,195	1,174	1,274	1,554	890	650	77,912	77,694	110	108	293	471	350	121	123		
1994		114,038	33,464	9,775	17,957	1,325	1,343	1,527	903	634	79,639	79,412	113	114	305	504	381	124	126		
1995		122,757	35,211	10,055	19,350	1,311	1,279	1,754	807	655	86,563	86,325	118	121	312	537	414	123	133		
1996		129,317	33,425	9,624	18,183	1,447	1,201	1,619	743	608	94,857	94,607	123	128	325	573	451	122	136		
1997		134,859	33,820	9,513	18,992	1,354	1,105	1,524	720	613	99,912	99,631	119	162	319	680	562	118	127		
1998		150,024	33,921	9,551	19,126	1,327	1,021	1,583	788	526	114,922	114,630	118	175	313	747	631	117	120		
1999		157,425	30,954	9,170	16,932	1,234	727	1,672	743	477	125,213	124,899	121	192	328	809	686	123	122		
2000		167,863	25,882	8,047	13,510	1,185	452	1,539	517	632	140,570	140,235	121	214	348	937	807	130	126		

TABLE 8. U.S. development expenditures, by source of funds and performing sector: 1953–2007

Year	Funding source:	All sources	Federal								Industry			U&C	Other nonprofit		Other government <sup>a</sup>		
	Performer:	All performers	Total	Federal	Industry <sup>d</sup>	Industry FFRDCs <sup>c</sup>	U&C <sup>d</sup>	U&C	Other nonprofit <sup>e</sup>	Nonprofit FFRDCs <sup>e</sup>	Total	Industry <sup>f</sup>	U&C <sup>d</sup>	Other nonprofit	U&C <sup>d</sup>	Total nonprofit	Other U&C <sup>d</sup>		
	2001		161,369	25,338	8,900	12,248	521	490	1,598	659	923	134,516	134,187	118	212	368	1,017	880	137
2002		167,148	26,239	9,119	12,535	600	506	1,635	854	989	139,217	138,903	115	199	392	1,164	1,016	147	137
2003		162,119	25,508	9,789	11,220	681	637	1,690	455	1,036	134,816	134,501	114	201	410	1,237	1,085	152	147
2004		158,369	27,835	9,768	13,173	732	802	1,835	419	1,107	128,774	128,460	113	201	408	1,203	1,052	152	148
2005		170,477	29,635	10,653	13,727	866	862	1,894	538	1,096	138,988	138,663	113	212	413	1,298	1,148	151	142
2006		179,605	30,320	10,880	14,344	845	832	1,870	469	1,080	147,375	147,032	117	226	429	1,340	1,186	153	142
2007 preliminary		185,878	29,126	10,058	14,054	831	801	1,868	342	1,173	154,706	154,342	127	237	446	1,454	1,294	161	146

NA = not available, included in figures for federal support to industry and federal support to nonprofit institutions; FFRCD = federally funded research and development center; U&C = universities and colleges.

<sup>a</sup> Because of limitations in survey information, data on other government funding to performers other than universities and colleges are not available and consequently are included in other sectors' support for their own R&D performance, e.g., other government support to other nonprofits is included in other nonprofit support for their own R&D.

<sup>b</sup> Character-of-work estimates for industry have been revised for 1998 and later years; data are not directly comparable with data for 1997 and earlier years. Character-of-work estimates for industry FFRDCs for 1953–63 were not separated from federal support for industry; thus, figures for federal support to industry includes support to FFRDCs for those years.

<sup>c</sup> Character-of-work estimates for industry FFRDCs for 1953–63 were not separated from federal support for industry; thus, figures for federal support to industry includes support to FFRDCs for those years.

<sup>d</sup> For 1998 and later years, character-of-work estimation procedure has been revised, and adjustments have been made to U&C R&D to eliminate double counting of funds passed through from one academic institution to another. Data for 1998 and later years are not directly comparable with data for 1997 and earlier years.

<sup>e</sup> Character-of-work estimates for nonprofit FFRDCs for 1953–80 were not separated from federal support for other nonprofits; thus, figures for federal support to other nonprofit institutions includes support to FFRDCs for those years.

<sup>f</sup> Industry sources of funds for industry R&D expenditures include all nonfederal sources of funds for industry R&D expenditures. Character-of-work estimates for industry have been revised for 1998 and later years; data are not directly comparable with data for 1997 and earlier years.

NOTES: Technical notes explaining methodological issues of measurement are available on request. Data are based on annual reports by performers, except for the nonprofit sector. The R&D expenditures of FFRDCs are chiefly federal funds, but any nonfederal funds are also included in the totals. For trend comparisons, use only the historical data reported here; do not use data published earlier. Expenditures for industry and, prior to 2001, for industry-administered FFRDCs are collected by calendar year. Expenditures for other performers are calendar-year approximations based on fiscal year data. In most cases, the approximation equals 75% of the amount reported in the same fiscal year plus 25% of amount reported in the subsequent fiscal year. However, the fiscal year for academic performers generally begins July 1, not October 1; also, prior to 1977, the federal fiscal year began on July 1, not October 1. Therefore, calendar-year approximations for academic performers and for federal performers prior to 1977 equal 50% of the amount reported in the same fiscal year plus 50% of the amount reported in the subsequent fiscal year. Detail may not add to total because of rounding. Constant dollar estimates are derived from unrounded data.

SOURCES: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), *Research and Development in Industry 2006* (forthcoming); NSF/SRS, *Academic Research and Development Expenditures: FY 2006* (forthcoming); NSF/SRS, *Federal Funds for Research and Development: FY 2005–07* (forthcoming); NSF/SRS, *Research and Development Funding and Performance by Nonprofit Organizations: FY 1996–97* (NSF 02-303). All NSF/SRS reports are available at <http://www.nsf.gov/statistics/>.

TABLE 9. Research and development expenditures, by state, performing sector, and source of funds: 2005

(Millions of current dollars)

State	Performer:			Federal			FFRDCs			Industry			U&C <sup>a</sup>				Other nonprofit institutions		R&D intensity <sup>b</sup>		
	Funding source:	All R&D	R&D rank	Federal	Total		Non-federal <sup>c</sup>	Total		Industry <sup>d</sup>	Total		Other government	Industry	U&C	Non-profit	Federal <sup>e</sup>	GDP	GDP		
					Federal	Total		Federal	Total		Federal	Industry							Percent	Rank	
U.S. total <sup>f</sup>		323,005	na	24,459	13,241	NA	NA	226,159	21,909	204,250	45,191	28,203	2,950	2,338	8,575	3,126	5,922	12,433,900	na	2.60	na
State total <sup>g</sup>		310,194	na	23,299	13,236	12,880	356	222,428	21,813	200,614	45,624	29,070	2,932	2,287	8,245	3,091	5,608	12,372,847	na	2.51	na
Alabama		2,804	27	760	0	0	0	1,417	719	698	590	447	9	19	96	20	37	151,342	25	1.85	27
Alaska		266	49	70	0	0	0	32	2	30	154	97	3	11	40	2	11	39,394	46	0.67	45
Arizona		4,139	20	365	48	48	0	2,980	269	2,711	720	402	25	42	221	30	26	212,312	22	1.95	25
Arkansas		528	43	43	0	0	0	271	8	262	210	103	47	11	34	14	5	87,004	34	0.61	47
California		63,874	1	2,036	3,873	3,776	97	50,683	5,065	45,618	6,273	3,970	257	269	1,133	644	1,009	1,616,351	1	3.95	9
Colorado		5,807	17	271	347	337	10	4,299	131	4,168	826	646	21	34	78	47	64	214,337	21	2.71	15
Connecticut		8,987	11	393	0	0	0	7,885	1,443	6,442	669	477	8	29	85	71	40	193,496	23	4.64	5
Delaware		1,635	34	4	0	0	0	1,511	21	1,490	116	80	5	4	23	4	4	56,731	39	2.88	13
District of Columbia		3,342	25	2,617	5	5	0	166	73	93	303	242	4	13	17	27	250	82,628	35	4.04	8
Florida		6,224	16	547	0	0	0	4,164	1,190	2,974	1,449	792	156	105	331	65	65	666,639	4	0.93	43
Georgia		3,867	22	285	0	0	0	2,282	56	2,226	1,274	745	78	69	343	40	26	358,365	10	1.08	38
Hawaii		513	45	80	0	0	0	168	46	122	240	199	7	12	21	1	25	54,773	40	0.94	42
Idaho		1,030	36	32	232	217	15	642	7	635	120	68	25	4	12	11	4	45,891	43	2.24	21
Illinois		12,519	8	150	805	755	51	9,712	205	9,506	1,771	1,123	67	54	421	107	81	555,599	5	2.25	19
Indiana		5,455	18	83	0	0	0	4,610	283	4,327	759	380	61	63	206	49	3	236,357	16	2.31	18
Iowa		1,669	33	46	29	29	0	1,039	10	1,029	548	317	49	29	138	16	7	117,635	30	1.42	33
Kansas		2,366	28	22	0	0	0	1,993	D	D	349	180	50	10	96	13	3	105,228	32	2.25	20
Kentucky		1,136	35	21	0	0	0	660	11	650	452	222	53	11	128	39	2	138,616	28	0.82	44
Louisiana		966	37	77	0	0	0	300	22	278	580	260	117	22	126	54	10	180,336	24	0.54	49
Maine		524	44	7	0	0	0	350	20	331	82	32	8	4	33	5	85	44,906	44	1.17	35
Maryland		14,136	6	7,486	334	334	0	3,706	1,254	2,452	2,357	1,767	68	95	289	138	252	244,447	15	5.78	2
Massachusetts		17,757	3	446	627	623	4	13,342	2,554	10,788	2,080	1,631	45	129	118	156	1,262	320,050	13	5.55	3
Michigan		18,372	2	114	0	0	0	16,752	204	16,548	1,456	880	75	65	362	74	50	372,148	9	4.94	4
Minnesota		7,137	15	51	0	0	0	6,340	287	6,053	560	326	51	27	77	78	186	231,437	17	3.08	12
Mississippi		777	40	223	0	0	0	194	47	147	353	224	37	11	76	6	7	79,786	36	0.97	41
Missouri		3,627	24	113	0	0	0	2,602	79	2,523	893	593	42	23	190	46	19	215,073	20	1.69	29
Montana		318	47	58	0	0	0	77	6	71	171	113	21	4	31	2	12	29,915	48	1.06	40
Nebraska		800	39	27	0	0	0	407	7	400	360	142	13	21	166	18	6	72,242	37	1.11	37
Nevada		614	41	50	0	0	0	382	17	365	179	125	4	4	41	4	4	110,158	31	0.56	48
New Hampshire		1,776	32	51	0	0	0	1,435	D	D	288	201	6	10	52	19	3	54,119	41	3.28	11
New Jersey		14,900	5	710	82	81	1	13,214	311	12,902	867	464	57	38	237	71	27	427,654	8	3.48	10
New Mexico		5,265	19	425	4,048	3,980	67	405	128	278	346	236	15	17	71	6	42	69,692	38	7.55	1
New York		14,103	7	166	483	464	19	9,474	654	8,819	3,604	2,402	221	143	551	288	376	961,385	3	1.47	32
North Carolina		7,329	14	426	0	0	0	5,158	107	5,051	1,652	1,011	148	200	231	63	93	350,700	11	2.09	24
North Dakota		285	48	30	0	0	0	104	D	D	150	78	31	7	30	3	1	24,935	50	1.14	36
Ohio		8,267	13	595	0	0	0	5,900	455	5,445	1,531	892	168	128	232	111	241	442,243	7	1.87	26

TABLE 9. Research and development expenditures, by state, performing sector, and source of funds: 2005

(Millions of current dollars)

State	Performer: Funding source:	All R&D	R&D rank	Federal			FFRDCs			Industry			U&C <sup>a</sup>			Other nonprofit institutions		R&D intensity <sup>b</sup>			
				Federal	Total	Federal	Total	Federal	Total	Federal	Total	Other government	Industry	U&C	Non-profit	Federal <sup>e</sup>	GDP				
																	GDP	rank	Percent	Rank	
Oklahoma		814	38	69	0	0	0	422	20	401	292	139	37	16	87	14	31	121,558	29	0.67	46
Oregon		3,920	21	91	0	0	0	3,252	30	3,223	536	392	42	16	64	22	41	141,831	26	2.76	14
Pennsylvania		11,916	9	203	62	60	3	8,846	205	8,640	2,354	1,671	116	160	269	137	452	486,139	6	2.45	16
Rhode Island		1,990	30	336	0	0	0	1,387	D	D	200	134	9	6	47	4	67	43,623	45	4.56	6
South Carolina		2,108	29	80	99	99	0	1,402	38	1,364	486	239	33	22	181	12	41	140,088	27	1.51	31
South Dakota		157	50	17	0	0	0	68	2	66	67	43	13	1	5	6	5	30,541	47	0.51	50
Tennessee		3,009	26	70	897	870	27	1,246	96	1,150	726	472	63	25	129	37	70	224,995	18	1.34	34
Texas		15,867	4	212	17	16	1	12,438	858	11,579	3,074	1,759	355	164	478	317	127	989,333	2	1.60	30
Utah		1,886	31	246	0	0	0	1,234	197	1,036	400	278	20	12	60	30	6	88,364	33	2.13	23
Vermont		493	46	10	0	0	0	360	22	338	117	81	5	7	18	6	6	23,056	51	2.14	22
Virginia		8,568	12	2,761	415	377	38	4,379	1,696	2,683	914	575	97	43	153	46	99	350,692	12	2.44	17
Washington		11,864	10	158	780	756	23	9,736	181	9,555	901	692	43	49	82	35	289	271,381	14	4.37	7
West Virginia		567	42	113	52	51	1	242	D	D	145	88	4	4	47	3	15	53,091	42	1.07	39
Wisconsin		3,802	23	50	0	0	0	2,729	69	2,660	998	611	45	22	241	80	25	216,985	19	1.75	28
Wyoming		122	51	8	0	0	0	30	1	29	83	29	2	2	47	3	0	27,246	49	0.45	51
Other and unknown <sup>1</sup>		12,847	na	0	0	0	0	3,731	96	3,636	0	0	0	0	0	0	0	na	na	na	na
Puerto Rico <sup>9</sup>		NA	na	9	14	12	2	NA	NA	307	100	76	5	3	14	2	1	12,492	na	NA	na

na=not applicable; NA=not available; D=data withheld to avoid disclosing operations of individual companies; FFRDC=federally funded research and development center; GDP=gross domestic product; R&D=research and development; U&C=universities and colleges

<sup>a</sup> State-level university R&D data have not been adjusted to eliminate double counting of funds passed through from one academic institution to another. At the national level, funds passed through to educational subrecipients account for 3.3% of total R&D expenditures reported by universities and colleges in FY2005.

<sup>b</sup> R&D intensity is ratio of total R&D performed in a state to its GDP.

<sup>c</sup> Nonfederal sources of R&D expenditures reported by FFRDCs in FY2005 included state and local governments (\$32 million), industry (\$129 million), FFRDC institutional funds (\$60 million), and other sources (\$136 million).

<sup>d</sup> Industry sources of industry R&D expenditures include all nonfederal sources of industry R&D expenditures.

<sup>e</sup> Other sources of support for nonprofit institutions were unavailable by state. For 2005, total nonprofit performance is estimated at \$13.8 billion. Industry provided an estimated \$1.3 billion to nonprofit sector, and nonprofit institutions provided an estimated \$6.8 billion.

<sup>f</sup> Sum of state totals differ from U.S. sector totals for four reasons: some R&D expenditures cannot be allocated to 1 of 50 states or District of Columbia; nonfederal sources of other nonprofit R&D expenditures could not be allocated by state; state-level U&C data have not been adjusted to eliminate double counting of funds passed through from one academic institution to another; and state-level R&D data are not converted from fiscal years to calendar years.

<sup>9</sup> Industry R&D performance totals for Puerto Rico are not collected. Industry total shown here represents R&D funded by US companies for performance in Puerto Rico.

NOTES: Industry R&D data refer to calendar years; other R&D data refer to fiscal years but may serve as approximations to calendar-year data. "Other and unknown" category reflects reported data that could not be assigned to 1 of the 50 states or the District of Columbia.

SOURCES: Data were derived from National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Survey of Industrial Research and Development, 2005; NSF/SRS, Survey of Research and Development Expenditures at Universities and Colleges: FY 2005; and NSF/SRS, Survey of Federal Funds for Research and Development: FY 2005-2007. GDP data are from the U.S. Bureau of Economic Analysis, web site at <http://www.bea.gov/regional/gsp> accessed January 15, 2008.

TABLE 10. Research and development expenditures, by state, performing sector, and source of funds: 2004

(Millions of current dollars)

State	Performer:		Federal		FFRDCs			Industry			U&C <sup>a</sup>			Other nonprofit institutions		GDP			R&D intensity <sup>b</sup>		
	Funding source:	All R&D	R&D rank	Federal	Total	Federal	Non-federal <sup>c</sup>	Total	Federal	Industry <sup>d</sup>	Other		Non-profit	Federal <sup>e</sup>	GDP	rank	Percent	Rank			
											government	Industry							U&C		
U.S. total		299,905	na	22,844	12,787	NA	NA	208,301	20,266	188,035	43,111	27,157	2,884	2,191	7,933	2,946	5,695	11,685,900	na	2.57	na
State total <sup>f</sup>		283,439	na	21,438	12,704	12,351	353	201,131	NA	NA	42,832	27,294	2,836	2,103	7,760	2,839	5,335	11,655,335	na	2.43	na
Alabama		2,760	26	911	0	0	0	1,227	583	644	571	417	9	16	107	22	51	141,366	25	1.95	25
Alaska		271	49	81	0	0	0	35	8	28	147	83	3	17	41	3	9	35,988	46	0.75	45
Arizona		3,544	23	263	43	43	0	2,570	245	2,325	651	377	25	39	187	24	17	194,246	22	1.82	28
Arkansas		514	45	41	0	0	0	287	27	259	183	94	45	10	25	8	4	82,712	33	0.62	48
California		59,607	1	2,572	3,759	3,660	99	46,614	3,980	42,634	5,714	3,561	269	243	1,049	593	948	1,519,202	1	3.92	8
Colorado		5,497	16	277	381	374	7	4,008	118	3,890	772	605	24	36	71	36	58	201,392	21	2.73	12
Connecticut		7,881	11	30	0	0	0	7,177	1,717	5,460	650	469	7	25	82	67	25	182,468	23	4.32	6
Delaware		1,182	34	3	0	0	0	1,059	14	1,045	114	81	4	3	23	4	5	52,298	39	2.26	19
District of Columbia		2,383	27	1,641	4	4	0	182	68	114	303	240	4	8	17	35	253	77,510	35	3.07	10
Florida		5,409	17	554	0	0	0	3,486	1,270	2,216	1,307	747	200	72	237	51	62	609,372	4	0.89	41
Georgia		3,655	22	251	0	0	0	2,160	58	2,102	1,221	699	84	68	335	36	22	339,730	10	1.08	37
Hawaii		490	46	80	0	0	0	131	52	78	241	191	9	21	20	0	38	50,238	41	0.98	40
Idaho		1,006	35	27	180	168	13	681	11	670	117	65	21	5	24	2	1	43,509	43	2.31	18
Illinois		11,300	8	120	839	792	47	8,554	267	8,286	1,708	1,066	72	53	417	100	79	533,735	5	2.12	23
Indiana		5,130	18	77	0	0	0	4,208	232	3,976	841	365	54	55	311	56	5	229,449	16	2.24	21
Iowa		1,625	31	47	27	27	0	963	7	956	532	306	51	30	131	15	56	110,210	30	1.47	32
Kansas		2,169	28	31	0	0	0	1,804	D	D	333	171	46	9	93	14	2	98,927	32	2.19	22
Kentucky		1,006	36	11	0	0	0	565	11	554	424	195	53	10	126	40	6	133,003	27	0.76	44
Louisiana		972	37	90	0	0	0	311	19	293	568	239	114	29	135	50	4	160,186	24	0.61	49
Maine		384	47	11	0	0	0	213	D	D	87	39	11	4	31	3	74	43,258	44	0.89	41
Maryland		14,341	4	7,692	335	335	0	3,826	1,286	2,540	2,269	1,710	61	94	286	118	218	230,698	15	6.22	2
Massachusetts		15,987	3	368	595	589	6	11,819	2,331	9,488	2,000	1,581	42	122	107	149	1,205	312,700	13	5.11	3
Michigan		16,722	2	110	0	0	0	15,170	204	14,966	1,397	821	84	61	353	78	45	366,601	9	4.56	4
Minnesota		5,992	15	51	0	0	0	5,199	261	4,938	524	314	53	22	74	61	218	224,620	17	2.67	14
Mississippi		651	40	138	0	0	0	160	D	D	348	211	53	10	69	6	6	77,107	36	0.84	43
Missouri		3,038	25	32	0	0	0	2,151	84	2,067	842	543	37	29	191	42	14	205,847	20	1.48	31
Montana		295	48	62	0	0	0	70	3	67	155	97	21	6	29	1	9	27,583	48	1.07	38
Nebraska		740	39	27	0	0	0	383	6	377	325	130	12	21	142	20	6	67,989	37	1.09	36
Nevada		623	41	36	0	0	0	417	23	394	164	105	12	7	37	3	6	99,143	31	0.63	47
New Hampshire		1,665	30	55	0	0	0	1,330	D	D	277	191	7	11	48	20	3	52,084	40	3.20	9
New Jersey		12,460	7	563	75	75	1	10,993	294	10,699	806	420	59	35	219	74	24	410,306	8	3.04	11
New Mexico		5,114	19	417	3,927	3,867	61	450	176	275	304	204	13	14	64	9	17	63,645	38	8.04	1
New York		13,113	6	150	450	432	18	8,793	721	8,071	3,366	2,225	197	146	529	269	354	906,783	2	1.45	34
North Carolina		6,491	14	394	0	0	0	4,565	87	4,478	1,443	933	124	152	191	43	90	323,962	12	2.00	24
North Dakota		558	42	26	0	0	0	379	2	377	152	82	29	6	31	5	1	22,692	50	2.46	16
Ohio		7,816	12	751	0	0	0	5,516	395	5,121	1,318	848	109	73	230	59	231	425,173	7	1.84	27

TABLE 10. Research and development expenditures, by state, performing sector, and source of funds: 2004

(Millions of current dollars)

State	Performer: Funding source:	All R&D	R&D rank	Federal			FFRDCs			Industry			U&C <sup>a</sup>			Other nonprofit institutions		R&D intensity <sup>b</sup>			
				Federal	Total	Federal	Total	Federal	Total	Federal	Total	U&C	Non-profit	Federal <sup>e</sup>	GDP	rank	Percent	Rank			
																			Non-federal <sup>c</sup>	Non-federal <sup>c</sup>	Non-federal <sup>c</sup>
Oklahoma		814	38	89	0	0	0	410	22	387	283	141	34	15	78	16	31	111,838	29	0.73	46
Oregon		3,664	21	65	0	0	0	3,057	20	3,036	505	371	37	14	61	21	37	134,615	26	2.72	13
Pennsylvania		10,813	10	171	58	56	2	8,005	160	7,845	2,206	1,595	99	155	227	130	373	463,752	6	2.33	17
Rhode Island		1,840	29	260	0	0	0	1,320	D	D	192	133	7	4	43	5	68	41,844	45	4.40	5
South Carolina		1,599	33	54	94	94	0	961	37	924	456	245	19	23	155	13	34	131,492	28	1.22	35
South Dakota		149	50	16	0	0	0	72	3	69	57	38	11	1	6	2	4	29,699	47	0.50	50
Tennessee		3,180	24	50	776	750	26	1,630	322	1,308	658	436	54	20	112	36	67	216,769	18	1.47	32
Texas		14,266	5	260	17	15	1	10,992	610	10,382	2,881	1,647	355	162	411	305	117	903,208	3	1.58	30
Utah		1,602	32	95	0	0	0	1,089	174	915	414	286	25	10	67	27	4	82,546	34	1.94	26
Vermont		546	43	4	0	0	0	423	34	389	116	80	5	7	16	7	4	21,992	51	2.48	15
Virginia		7,345	13	1,976	406	398	9	4,006	1,499	2,507	849	527	85	51	138	48	109	327,032	11	2.25	20
Washington		10,936	9	222	693	629	64	8,840	146	8,694	897	706	41	50	71	29	285	253,085	14	4.32	6
West Virginia		523	44	131	42	42	0	202	D	D	130	80	5	4	39	3	18	49,903	42	1.05	39
Wisconsin		3,675	20	56	0	0	0	2,645	47	2,598	956	563	41	22	247	82	18	207,739	19	1.77	29
Wyoming		98	51	8	0	0	0	23	3	21	60	23	2	3	29	3	6	24,092	49	0.40	51
Other and unknown		16,621	na	0	0	0	0	7,169	44	7,125	0	0	0	0	0	0	0	na	na	na	na

na=not applicable; NA=not available; D=data withheld to avoid disclosing operations of individual companies; FFRDC=federally funded research and development center; GDP=gross domestic product; R&D=research and development; U&C=universities and colleges

<sup>a</sup> State-level university R&D data have not been adjusted to eliminate double counting of funds passed through from one academic institution to another. At the national level, funds passed through to educational subrecipients account for 2.9% of total R&D expenditures reported by universities and colleges in FY2004.

<sup>b</sup> R&D intensity is ratio of total R&D performed in a state to its GDP.

<sup>c</sup> Nonfederal sources of R&D expenditures reported by FFRDCs in FY2004 included state and local governments (\$37 million), industry (\$134 million), FFRDC institutional funds (\$34 million), and other sources (\$149 million).

<sup>d</sup> Industry sources of industry R&D expenditures include all nonfederal sources of industry R&D expenditures.

<sup>e</sup> Other sources of support for nonprofit institutions were unavailable by state. For 2004, total nonprofit performance is estimated at \$12.8 billion. Industry provided an estimated \$1.2 billion to nonprofit sector, and nonprofit institutions provided an estimated \$6.0 billion.

<sup>f</sup> Sum of state totals differ from U.S. sector for four reasons: some R&D expenditures cannot be allocated to 1 of the 50 states or the District of Columbia; nonfederal sources of nonprofit R&D expenditures could not be allocated by state; state-level U&C data have not been adjusted to eliminate double counting of funds passed through from one academic institution to another; and state-level R&D data are not converted from fiscal years to calendar years.

NOTES: Industry R&D data refer to calendar years; other R&D data refer to fiscal years but may serve as approximations to calendar-year data. "Other and unknown" category reflects reported data that could not be assigned to 1 of the 50 states or the District of Columbia.

SOURCES: Data were derived from National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Survey of Industrial Research and Development, 2004; NSF/SRS, Survey of Research and Development Expenditures at Universities and Colleges: FY 2004; and NSF/SRS, Survey of Federal Funds for Research and Development: FY 2004. GDP data are from the U.S. Bureau of Economic Analysis, <http://www.bea.gov/bea/regional/gsp.htm>, 2006.



TABLE 11. Federally funded research and development centers' research and development expenditures: FY 2006  
(Thousands of current dollars)

FFRDC	Total	Federal	Sponsoring agency	Location
All FFRDCs	13,212,313	12,824,552	na	
University-administered FFRDCs	7,783,953	7,600,335	na	
Ames Laboratory	26,460	26,460	Department of Energy	Ames, IA
Argonne National Laboratory	472,961	423,867	Department of Energy	Argonne, IL
AUI National Radio Astronomy Observatory	40,771	39,780	NSF	Green Bank, WV
Fermi National Accelerator Laboratory	330,980	330,980	Department of Energy	Batavia, IL
Jet Propulsion Laboratory	1,548,019	1,548,019	NASA	Pasadena, CA
Lawrence Berkeley National Laboratory	485,626	419,455	Department of Energy	Berkeley, CA
Lawrence Livermore National Laboratory	1,431,019	1,401,931	Department of Energy	Livermore, CA
Los Alamos National Laboratory	2,145,200	2,128,787	Department of Energy	Los Alamos, NM
MA Institute of Technology Lincoln Laboratory	622,993	618,011	DOD, Department of the Air Force	Lexington, MA
National Astronomy and Ionosphere Center	14,108	13,043	NSF	Arecibo, PR
National Center for Atmospheric Research	153,343	147,319	NSF	Boulder, CO
National Optical Astronomy Observatory	48,432	48,432	NSF	Tucson, AZ
Princeton Plasma Physics Laboratory	78,151	77,679	Department of Energy	Princeton, NJ
Software Engineering Institute	75,636	67,400	DOD, Office of the Secretary of Defense	Pittsburgh, PA
Stanford Linear Accel Center	214,026	214,026	Department of Energy	Stanford, CA
Thomas Jefferson National Accelerator Facility	96,228	95,146	Department of Energy	Newport News, VA
Industry-administered FFRDCs	2,568,609	2,495,206		
Idaho National Engineering and Environmental Laboratory	163,074	153,041	Department of Energy	Idaho Falls, ID
National Cancer Institute at Frederick	334,500	334,500	NIH	Frederick, MD
Sandia National Laboratory	1,968,488	1,905,118	Department of Energy	Albuquerque, NM
Savannah River Technology Center	102,547	102,547	Department of Energy	Aiken, SC
Nonprofit-administered FFRDCs	2,859,751	2,729,011		
Aerospace Corporation	34,200	14,700	DOD, Department of the Air Force	El Segundo, CA
Arroyo Center	24,518	24,518	DOD, Department of the Army	Santa Monica, CA
Brookhaven National Laboratory	490,686	461,747	Department of Energy	Upton, NY
C3I FFRDC	37,073	37,073	DOD, Office of the Secretary of Defense	Bedford, MA/McLean, VA
Center for Advanced Aviation System Development	6,601	6,601	FAA	McLean, VA
Center for Naval Analyses	87,499	80,474	DOD, Department of the Navy	Alexandria, VA
Center for Nuclear Waste Regulatory Analyses	16,397	15,842	Nuclear Regulatory Commission	San Antonio, TX
Homeland Security Institute	20,521	20,521	Department of Homeland Security	Arlington, VA
Institute for Defense Analyses Communications and Computing	51,500	51,500	National Security Agency	Alexandria, VA
Institute for Defense Analysis Studies	130,400	130,400	DOD, Office of the Secretary of Defense	Alexandria, VA
Internal Revenue Service FFRDC	6,342	6,342	IRS	McLean, VA
National Defense Research Institute	34,203	34,203	DOD, Office of the Secretary of Defense	Santa Monica, CA
National Renewable Energy Laboratory	196,449	189,167	Department of Energy	Golden, CO
Oak Ridge National Laboratory	928,090	889,530	Department of Energy	Oak Ridge, TN
Pacific Northwest National Laboratory	749,365	720,486	Department of Energy	Richland, WA
Project Air Force	39,107	39,107	DOD, Department of the Air Force	Santa Monica, CA
Science and Technology Policy Institute	6,800	6,800	NSF	Washington, DC

na=not applicable.

DOD=Department of Defense; FAA=Federal Aviation Administration; FFRDC=federally funded research and development center; IRS=Internal Revenue Service; NASA=National Air and Space Administration; NIH=National Institutes of Health; NSF=National Science Foundation.

NOTES: Totals differ from those reported in Table 1 for FFRDCs because data in Table 1 have been adjusted from a fiscal year basis to a calendar year basis. More information about the 36 FFRDCs can be found on NSF website, <http://www.nsf.gov/statistics/ffrdcl/>.

SOURCE: National Science Foundation, Division of Science Resources Statistics, *Academic Research and Development Expenditures: Fiscal Year 2006* (2008).

TABLE 12. Trends in federal and nonfederal research and development expenditures as percentage of total research and development: 1953–2007 (Percent)

Year	Federal			Civilian related	Nonfederal
	Total	Defense related	Space related		
1953	53.9	48.0	1.0	4.9	46.1
1954	55.2	49.0	1.0	5.2	44.8
1955	57.4	48.7	1.0	7.7	42.6
1956	58.6	49.6	0.9	8.1	41.4
1957	62.9	52.8	1.0	9.1	37.1
1958	63.9	53.1	1.8	9.0	36.1
1959	65.4	53.6	2.9	8.9	34.6
1960	65.0	51.4	4.4	9.2	35.0
1961	65.1	48.1	7.3	9.7	34.9
1962	64.8	49.1	6.6	9.1	35.2
1963	66.5	41.9	13.6	11.0	33.5
1964	66.8	37.0	19.0	10.8	33.2
1965	65.1	33.2	20.9	11.0	34.9
1966	64.2	32.4	19.6	12.2	35.8
1967	62.4	35.3	14.4	12.7	37.6
1968	60.7	34.7	13.6	12.4	39.3
1969	58.6	34.7	11.5	12.4	41.4
1970	57.0	33.4	10.3	13.3	43.0
1971	56.4	32.7	9.6	14.1	43.6
1972	55.8	33.0	7.9	14.9	44.2
1973	53.6	32.0	6.7	14.9	46.4
1974	51.8	29.3	6.9	15.6	48.2
1975	52.0	27.6	7.5	16.9	48.0
1976	51.5	26.9	7.7	16.9	48.5
1977	50.9	27.1	6.6	17.2	49.1
1978	50.1	25.9	6.2	18.0	49.9
1979	49.2	24.8	5.6	18.8	50.8
1980	47.4	24.3	5.3	17.8	52.6
1981	46.7	24.4	5.2	17.1	53.3
1982	46.0	26.1	4.9	15.0	54.0
1983	46.1	27.7	4.2	14.2	53.9
1984	45.5	28.7	3.0	13.8	54.5
1985	45.9	29.9	3.1	12.9	54.1
1986	45.4	31.4	3.0	11.0	54.6
1987	46.4	31.7	3.2	11.5	53.6
1988	44.9	30.2	3.5	11.2	55.1
1989	42.6	27.6	3.9	11.1	57.4
1990	40.5	25.1	4.3	11.1	59.5
1991	37.8	22.4	4.5	10.9	62.2
1992	36.8	21.6	4.3	10.9	63.2
1993	36.5	21.2	4.4	10.9	63.5
1994	35.9	19.7	4.5	11.7	64.1
1995	34.3	18.6	4.5	11.2	65.7
1996	32.1	17.6	4.1	10.4	67.9
1997	30.4	16.7	4.1	9.6	69.6
1998	29.3	15.8	3.8	9.7	70.7
1999	27.4	14.6	3.2	9.6	72.6
2000	24.8	13.3	2.3	9.2	75.2
2001	26.2	13.9	2.4	9.9	73.8
2002	28.1	15.4	2.4	10.3	71.9
2003	28.9	16.3	2.2	10.4	71.1
2004	29.6	17.0	2.1	10.5	70.4
2005	29.0	17.0	2.0	10.0	71.0
2006	28.1	16.7	1.9	9.5	71.9
2007 preliminary	26.7	15.9	1.9	8.9	73.3

NOTE: Details may not sum to totals because of rounding.

SOURCE: National Science Foundation, Division of Science Resources Statistics, special tabulations (Arlington, VA, 2008).

TABLE 13. Gross domestic product and research and development (federally funded, nonfederal, and total): 1953–2007

Year	GDP			R&D				R&D/GDP (%)		
	Current \$billions	Implicit price deflator (2000 = 1.00)	2000 constant \$billions	Current \$millions	2000 constant \$millions	Federal support (2000 constant \$millions)	Nonfederal support (2000 constant \$millions)	Total	Federal support	Nonfederal support
1953	379.4	0.18240	2,079.5	5,160	28,289	15,255	13,035	1.36	0.73	0.63
1954	380.4	0.18434	2,065.4	5,617	30,468	16,806	13,662	1.48	0.81	0.66
1955	414.8	0.18709	2,212.8	6,281	33,573	19,259	14,314	1.51	0.87	0.65
1956	437.5	0.19360	2,255.8	8,500	43,905	25,713	18,192	1.94	1.14	0.81
1957	461.1	0.20039	2,301.1	9,908	49,445	31,103	18,342	2.15	1.35	0.80
1958	467.2	0.20512	2,279.2	10,915	53,213	34,000	19,213	2.34	1.49	0.84
1959	506.6	0.20754	2,441.3	12,490	60,179	39,352	20,827	2.47	1.61	0.85
1960	526.4	0.21044	2,501.8	13,711	65,155	42,364	22,790	2.60	1.69	0.91
1961	544.7	0.21281	2,560.0	14,564	68,438	44,567	23,871	2.67	1.74	0.93
1962	585.6	0.21572	2,715.2	15,636	72,484	46,997	25,487	2.67	1.73	0.94
1963	617.7	0.21801	2,834.0	17,519	80,359	53,417	26,941	2.84	1.89	0.95
1964	663.6	0.22134	2,998.6	19,103	86,305	57,668	28,637	2.88	1.92	0.96
1965	719.1	0.22538	3,191.1	20,252	89,858	58,540	31,318	2.82	1.83	0.98
1966	787.8	0.23180	3,399.1	22,072	95,219	61,107	34,111	2.80	1.80	1.00
1967	832.6	0.23897	3,484.6	23,346	97,696	60,940	36,756	2.80	1.75	1.05
1968	910.0	0.24916	3,652.7	24,666	98,997	60,058	38,939	2.71	1.64	1.07
1969	984.6	0.26153	3,765.4	25,996	99,399	58,228	41,171	2.64	1.55	1.09
1970	1,038.5	0.27538	3,771.9	26,271	95,400	54,413	40,987	2.53	1.44	1.09
1971	1,127.1	0.28916	3,898.6	26,952	93,207	52,601	40,606	2.39	1.35	1.04
1972	1,238.3	0.30171	4,105.0	28,740	95,258	53,161	42,097	2.32	1.30	1.03
1973	1,382.7	0.31854	4,341.5	30,952	97,167	52,072	45,095	2.24	1.20	1.04
1974	1,500.0	0.34721	4,319.6	33,359	96,077	49,788	46,289	2.22	1.15	1.07
1975	1,638.3	0.38007	4,311.2	35,671	93,855	48,763	45,092	2.18	1.13	1.05
1976	1,825.3	0.40202	4,540.9	39,435	98,092	50,474	47,617	2.16	1.11	1.05
1977	2,030.9	0.42758	4,750.5	43,338	101,356	51,619	49,737	2.13	1.09	1.05
1978	2,294.7	0.45762	5,015.0	48,719	106,462	53,349	53,113	2.12	1.06	1.06
1979	2,563.3	0.49553	5,173.4	55,379	111,757	54,941	56,816	2.16	1.06	1.10
1980	2,789.5	0.54062	5,161.7	63,224	116,947	55,466	61,481	2.27	1.07	1.19
1981	3,128.4	0.59128	5,291.7	72,292	122,264	57,061	65,203	2.31	1.08	1.23
1982	3,255.0	0.62738	5,189.3	80,748	128,707	59,188	69,519	2.48	1.14	1.34
1983	3,536.7	0.65214	5,423.8	89,950	137,930	63,561	74,369	2.54	1.17	1.37
1984	3,933.2	0.67664	5,813.6	102,244	151,105	68,678	82,427	2.60	1.18	1.42
1985	4,220.3	0.69724	6,053.7	114,671	164,464	75,499	88,964	2.72	1.25	1.47
1986	4,462.8	0.71269	6,263.6	120,249	168,725	76,642	92,082	2.69	1.22	1.47
1987	4,739.5	0.73204	6,475.1	126,360	172,614	80,063	92,551	2.67	1.24	1.43
1988	5,103.8	0.75706	6,742.7	133,880	176,842	79,426	97,417	2.62	1.18	1.45
1989	5,484.4	0.78569	6,981.4	141,889	180,591	76,956	103,635	2.59	1.10	1.48
1990	5,803.1	0.81614	7,112.5	151,990	186,230	75,486	110,744	2.62	1.06	1.56
1991	5,995.9	0.84457	7,100.5	160,872	190,478	71,966	118,513	2.68	1.01	1.67
1992	6,337.7	0.86402	7,336.6	165,347	191,370	70,499	120,871	2.61	0.96	1.65
1993	6,657.4	0.88390	7,532.7	165,726	187,494	68,474	119,020	2.49	0.91	1.58
1994	7,072.2	0.90265	7,835.5	169,202	187,450	67,328	120,123	2.39	0.86	1.53

TABLE 13. Gross domestic product and research and development (federally funded, nonfederal, and total): 1953–2007

Year	GDP			R&D				R&D/GDP (%)		
	Current \$billions	Implicit price deflator (2000 = 1.00)	2000 constant \$billions	Current \$millions	2000 constant \$millions	Federal support (2000 constant \$millions)	Nonfederal support (2000 constant \$millions)	Total	Federal support	Nonfederal support
1995	7,397.7	0.92115	8,031.7	183,620	199,338	68,354	130,984	2.48	0.85	1.63
1996	7,816.9	0.93859	8,328.9	197,340	210,251	67,536	142,715	2.52	0.81	1.71
1997	8,304.3	0.95415	8,703.5	212,144	222,338	67,671	154,667	2.55	0.78	1.78
1998	8,747.0	0.96475	9,066.9	226,456	234,731	68,801	165,930	2.59	0.76	1.83
1999	9,268.4	0.97868	9,470.3	245,041	250,379	68,506	181,873	2.64	0.72	1.92
2000	9,817.0	1.00000	9,817.0	267,562	267,562	66,406	201,155	2.73	0.68	2.05
2001	10,128.0	1.02402	9,890.7	277,745	271,230	71,117	200,112	2.74	0.72	2.02
2002	10,469.6	1.04193	10,048.8	276,602	265,470	74,573	190,898	2.64	0.74	1.90
2003	10,960.8	1.06409	10,301.0	289,038	271,629	78,570	193,059	2.64	0.76	1.87
2004	11,685.9	1.09462	10,675.8	299,905	273,980	81,077	192,903	2.57	0.76	1.81
2005	12,433.9	1.13005	11,003.4	323,005	285,832	82,947	202,886	2.60	0.75	1.84
2006	13,194.7	1.16568	11,319.4	347,871	298,427	83,814	214,613	2.64	0.74	1.90
2007 preliminary	13,843.8	1.19686	11,567.2	368,098	307,553	82,158	225,395	2.66	0.71	1.95

GDP=gross domestic product; R&D=research and development.

SOURCES: Department of Commerce, Bureau of Economic Analysis, 2008; National Science Foundation, Division of Science Resources Statistics, special tabulations, 2008.

TABLE 14. International comparisons of research and development expenditures and research and development as percentage of gross domestic product in United States and selected other countries: 1981–2006

Year	United States <sup>a</sup>	Japan <sup>b</sup>	Germany <sup>c</sup>	France	United		Canada	Russian	Total OECD
					Kingdom	Italy		Federation	
2000 constant US\$ billions <sup>d</sup>									
1981	123.2	42.9	29.6	19.6	21.5	8.6	6.3	NA	276.2
1982	129.5	45.9	30.3	21.0	NA	8.9	6.8	NA	289.2
1983	138.8	49.4	30.9	21.7	20.9	9.5	6.9	NA	304.9
1984	152.2	52.8	31.7	22.9	NA	10.4	7.5	NA	328.1
1985	165.4	58.4	34.8	23.9	22.6	11.8	8.1	NA	356.7
1986	169.3	59.5	36.0	24.3	23.7	12.3	8.5	NA	367.8
1987	173.1	63.5	38.1	25.3	24.1	13.3	8.5	NA	381.8
1988	177.3	68.3	39.3	26.5	24.7	14.2	8.8	NA	396.4
1989	181.0	74.4	40.6	28.2	25.3	14.9	9.5	NA	412.9
1990	186.7	80.6	41.0	30.0	25.5	15.8	9.9	32.6	431.5
1991	191.1	82.4	44.2	30.4	24.2	15.2	10.1	23.5	451.0
1992	191.9	81.5	43.1	30.9	23.7	14.8	10.5	9.2	453.0
1993	188.0	79.5	41.5	31.2	24.6	14.0	11.1	8.7	448.9
1994	187.9	78.7	40.8	31.1	25.1	13.3	12.0	8.3	452.3
1995	199.9	83.8	41.6	31.3	25.1	13.1	12.1	8.0	478.8
1996	210.8	89.2	42.2	31.4	24.8	13.3	12.0	8.8	500.1
1997	222.9	92.7	43.8	31.0	24.6	14.2	12.5	9.7	523.0
1998	236.4	95.0	45.3	31.4	25.3	14.6	13.8	8.4	544.4
1999	250.8	95.3	48.8	32.7	27.1	14.5	14.9	9.3	572.2
2000	267.8	98.8	51.6	33.8	28.0	15.4	16.7	10.8	606.9
2001	271.7	101.6	52.4	35.2	28.3	16.3	18.6	12.7	625.7
2002	265.9	103.2	53.7	35.1	28.7	16.8	18.7	14.1	627.3
2003	272.2	105.8	54.2	34.6	28.8	16.5	18.9	15.5	640.5
2004	275.0	107.6	54.1	35.1	28.5	16.6	19.7	14.9	652.7
2005	287.1	115.1	54.4	35.3	29.9	16.6	19.9	14.7	682.7
2006	294.9	120.4	57.1	35.8	31.1	NA	19.7	16.0	707.2
Percent of GDP									
1981	2.34	2.14	2.35	1.90	2.38	0.86	1.22	NA	1.91
1982	2.51	2.23	2.42	1.99	NA	0.88	1.37	NA	2.00
1983	2.58	2.36	2.43	2.03	2.20	0.93	1.34	NA	2.05
1984	2.64	2.44	2.43	2.12	NA	0.99	1.38	NA	2.11
1985	2.75	2.58	2.60	2.17	2.24	1.10	1.42	NA	2.21
1986	2.72	2.55	2.63	2.15	2.26	1.11	1.46	NA	2.22
1987	2.69	2.62	2.74	2.19	2.19	1.16	1.41	NA	2.23
1988	2.65	2.64	2.73	2.19	2.14	1.19	1.38	NA	2.21
1989	2.61	2.73	2.71	2.23	2.15	1.21	1.45	NA	2.22
1990	2.65	2.81	2.61	2.32	2.15	1.25	1.51	2.03	2.26
1991	2.71	2.78	2.47	2.32	2.07	1.19	1.57	1.43	2.19
1992	2.64	2.72	2.35	2.33	2.02	1.15	1.62	0.74	2.15
1993	2.52	2.65	2.28	2.38	2.05	1.10	1.68	0.77	2.11
1994	2.42	2.60	2.18	2.32	2.01	1.02	1.73	0.84	2.06
1995	2.51	2.71	2.19	2.29	1.95	0.97	1.70	0.85	2.07
1996	2.55	2.81	2.19	2.27	1.87	0.99	1.65	0.97	2.10
1997	2.58	2.87	2.24	2.19	1.81	1.03	1.66	1.04	2.12
1998	2.62	3.00	2.27	2.14	1.80	1.05	1.76	0.95	2.15
1999	2.66	3.02	2.40	2.16	1.87	1.02	1.80	1.00	2.18
2000	2.74	3.04	2.45	2.15	1.86	1.05	1.92	1.05	2.22

TABLE 14. International comparisons of research and development expenditures and research and development as percentage of gross domestic product in United States and selected other countries: 1981–2006

Year	United States <sup>a</sup>	Japan <sup>b</sup>	Germany <sup>c</sup>	France	United			Russian		Total OECD
					Kingdom	Italy	Canada	Federation		
2001	2.76	3.12	2.46	2.20	1.83	1.09	2.09	1.18	2.27	
2002	2.66	3.17	2.49	2.23	1.82	1.13	2.04	1.25	2.24	
2003	2.66	3.20	2.52	2.17	1.78	1.11	2.03	1.28	2.24	
2004	2.59	3.17	2.49	2.15	1.71	1.10	2.05	1.15	2.21	
2005	2.62	3.32	2.48	2.13	1.76	1.09	2.01	1.07	2.25	
2006	2.62	3.39	2.53	2.11	1.78	NA	1.94	1.08	2.26	

OECD=Organisation for Economic Co-operation and Development; GDP=gross domestic product; NA=not available.

<sup>a</sup>Based on data provided to the OECD by NSF and other U.S. statistical agencies. OECD statistical guidelines for tallying national R&D expenditures differ slightly from those used by the U.S.

<sup>b</sup>Data on Japanese research and development in 1996 and later years may not be consistent with data in earlier years because of changes in methodology.

<sup>c</sup>Data for 1981–90 are for West Germany.

<sup>d</sup>Conversions of foreign currencies to U.S. dollars are calculated by the OECD based on each country's GDP implicit price deflator and purchasing power parity exchange rates.

SOURCE: Organization for Economic Cooperation and Development, *Main Science and Technology Indicators, Volume 2008/1* (Paris, 2008).

## Suggested Citation

---

National Science Foundation, Division of Science Resources Statistics. 2008. *National Patterns of R&D Resources: 2007 Data Update*. NSF 08-318. Arlington, VA. Available at <http://www.nsf.gov/statistics/nsf08318/>.

### Division of Science Resources Statistics

Lynda T. Carlson  
*Division Director*

Mary J. Frase  
*Deputy Director*

Stephen Cohen  
*Chief Statistician*

John E. Jankowski  
*Program Director, Research and Development Statistics*



### Division of Science Resources Statistics (SRS)

The National Science Foundation, 4201 Wilson Boulevard, Arlington, Virginia 22230, USA  
Tel: (703) 292-8780, FIRS: (800) 877-8339 | TDD: (800) 281-8749