



National Patterns of R&D Resources: 2006 Data Update

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Introduction

National Patterns of R&D Resources describes and analyzes current patterns of research and development (R&D) in the United States, in relation to the historical record and the reported R&D levels of other industrialized countries. In years when the full report is not published, the Division of Science Resources Statistics makes available "data update tables" (like those provided below) to provide public access to the most current data.

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.

Tables 1-10 contain NSF's most current information to date regarding R&D expenditures in the United States. The expenditure levels reported are broken out by:

- **R&D performer:** Federal government, industry, academia, nonprofit institutions, and federally funded research and development centers
- **Source of funds:** Federal government, nonfederal government, industry, academia, and nonprofit institutions
- **Character of work:** Basic research, applied research, and development
- **Monetary unit:** Current dollars or constant 2000 dollars
- **Geographic location:** Each of the 50 states and the District of Columbia

Table 11 provides the research and development expenditures as well as administrative information for the 36 U.S. federally funded research and development centers (FFRDCs) in fiscal year 2004.

Table 12 shows trends in federal and nonfederal R&D expenditures as a percent of total R&D.

Table 13 gives the relationship between gross domestic product and R&D support.

Table 14 supplies international R&D data pertaining to the major industrialized "group of seven" countries (the United States, Japan, Germany, France, the United Kingdom, Italy, and Canada). These data include total R&D in constant 2000 dollars (by purchasing power parity) and as a percent of national gross domestic product.

Researchers may wish to examine the previous report, *National Patterns of R&D Resources: 2003*, and forthcoming *National Patterns* reports for more extensive and updated analyses of historical R&D trends and for more detailed breakdowns of R&D expenditure (such as by academic fields of study or sector of private industry). Explanations of methodological and technical aspects of how the R&D statistics have been obtained and compiled can be found in *The Methodology Underlying the Measurement of R&D Expenditures: 2000* and the forthcoming methodology report for 2003. As explained in the technical notes of these reports, the data presented here on R&D expenditures derive from information obtained from four NSF/SRS surveys: Research and Development in Industry: 2004; Academic Research and Development Expenditures: Fiscal Year 2005; Federal Funds for Research and Development: Fiscal Years 2004-06; and Survey of R&D Funding & Performance by Nonprofit Organizations: Fiscal Years 1996 and 1997.

Note that R&D expenditure levels from federal sources, presented here based on performer-reported surveys, differ from the federal R&D funding totals reported by the federal agencies that provide those funds. The difference in the federal R&D totals appears to be concentrated in the funding of industry by the Department of Defense. See *National Patterns of R&D Resources: 2003* and forthcoming *National Patterns* reports for detailed discussion and documentation of these differences.

Updates to Methodology

Prior to fiscal year 2001, R&D data for all federally funded research and development centers (FFRDCs) were collected on three different 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). Beginning in fiscal year 2001, data for all 36 FFRDCs were collected on the Survey of R&D Expenditures at Universities and Colleges.

Two adjustments have been made to the presentation of R&D performed at universities and colleges (not including FFRDCs). For 1998 and later years, adjustments have been made to university R&D figures to eliminate double counting of funds passed through from one academic institution to another. In fiscal year 1998, \$479 million in passthrough funds were reported. For FY 2006, \$1,657 million in passed-through funds are estimated. The character of work estimation procedure for university and college R&D also was revised for 1998 and later years. Respondent corrections and the 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 data for 1998 and later years not directly comparable with data for 1997 and earlier years. Character-of-work estimates for industry have also been revised for 1998 and later years; hence these data are not directly comparable with data for 1997 and earlier years. Revisions to industry data resulted in a net decrease in the proportion of industry R&D classified as basic research.

Notes on How to Read the Tables

Tables 1 through 8 are arranged to allow for direct comparisons of R&D data organized in two ways: (1) by performer first and then by source of funds, or (2) by source of funds first and then by performer. The first case addresses the question, what type of organization performs the R&D, and for each performer, from what kinds of organizations does it receive its funding? The second case addresses the

question, What type of organization provides funding for R&D, and to which kinds of performers does each provide those funds?

For example, the upper left-hand corners of table 1 and table 5 are displayed below, which represent cases 1 and 2, respectively. In table 1, the column for the federal government as a performer, as defined in the first row, is not subdivided because the federal government is the only source of funds for federal intramural research. Industry performance, in contrast, is subdivided by the two main sources of industrial performance: the federal government and industry's own funds.

TABLE 1. U.S. research and development expenditures, by performing sector and source of funds: 1953–2006

Year	Performing sector:	Total	Federal	Industry			Industry FFRDCs ^a		
				Total	Federal ^a	Industry ^d	Total	Total	Federal
1953		5,160	1,015	3,630	1,430	2,200	NA	273	149
1954		5,617	963	4,070	1,750	2,320	NA	301	165

TABLE 5. U.S. research and development expenditures, by source of funds and performing sector: 1953–2006

Year	Performing sector:	Total	Federal							
			Total	Total	Federal	Industry ^b	FFRDCs ^b	U&C ^c	U&C FFRDCs	Other nonprofit ^d
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

In table 5, on the other hand, the federal government as a source defines a column in the first row, which is subdivided into several columns in the second row for the performers that receive those funds, such as the federal government itself and industry.

Tables 1-4 are structured the same, and tables 5-8 are structured the same; but tables 2-4 and 6-8 present data on basic research, applied research, and development expenditures, rather than total R&D expenditures (the sum of those three components).

Data Tables

Table	National Patterns of R&D Resources: 2006
	U.S. R&D Expenditures
	by performing sector and source of funds: 1953–2006
1	total R&D
2	basic research
3	applied research
4	development
	by source of funds and performing sector: 1953–2006
5	total R&D
6	basic research
7	applied research
8	development
	by state, sector, and source of funds
9	2003
10	2004
	by FFRDC
11	FY 2004
	federal and nonfederal
12	% of total R&D: 1953–2006
	Gross domestic product and R&D: 1953–2006
13	federal, nonfederal, and total R&D
	International R&D expenditures and R&D: 1981–2006
	by selected country and OECD total
14	% of gross domestic product

TABLE 1. U.S. research and development expenditures, by performing sector and source of funds: 1953–2006

Year	Performing sector: Source of funds:	Total	Federal	Industry					U&C ^b					U&C		Other nonprofit			Nonprofit		
				Total		Federal ^a		Industry ^d	FFRDCs ^a		Other		U&C		FFRDCs		Total		Other		FFRDCs ^c
				Total	Federal	Total	Federal ^a	Industry ^d	Total	Federal	Other government ^e	Industry	U&C	Other nonprofit	Total	Federal ^c	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		
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		

TABLE 1. U.S. research and development expenditures, by performing sector and source of funds: 1953–2006

Year	Performing sector: Source of funds:	Total	Federal	Industry					U&C					Other nonprofit			Nonprofit FFRDCs ^c		
				Total	Federal ^a	Industry ^d	Industry FFRDCs ^a		U&C ^b			U&C FFRDCs		Total	Federal ^c	Industry		Other nonprofit	
							Total	Federal	Other government ^e	Industry	U&C	Other nonprofit	Total						Federal ^c
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	20,490	12,304	1,557	1,391	3,709	1,531	5,289	5,267	2,843	567	1,857	749
1994		169,201	16,355	117,392	20,261	97,131	2,202	21,601	12,992	1,622	1,456	3,938	1,594	5,294	5,599	2,911	617	2,071	758
1995		183,618	16,904	129,830	21,178	108,652	2,273	22,610	13,587	1,751	1,547	4,110	1,616	5,367	5,827	2,847	671	2,308	808
1996		197,338	16,585	142,371	21,356	121,015	2,297	23,709	14,078	1,860	1,671	4,435	1,666	5,395	6,209	2,906	730	2,574	772
1997		212,142	16,819	155,409	21,798	133,611	2,130	24,875	14,523	1,921	1,807	4,837	1,786	5,463	6,626	3,014	809	2,804	821
1998		226,455	17,362	167,102	22,086	145,016	2,078	26,169	15,166	1,971	1,949	5,162	1,921	5,559	7,341	3,281	880	3,180	843
1999		245,036	17,851	182,090	20,496	161,594	2,039	28,163	16,253	2,098	2,082	5,618	2,111	5,652	8,249	3,761	984	3,504	993
2000		267,557	17,917	199,961	17,117	182,844	2,001	30,688	17,714	2,246	2,174	6,230	2,325	5,742	9,782	4,447	1,118	4,217	1,465
2001		277,736	20,426	202,017	16,899	185,118	2,020	33,723	19,769	2,396	2,189	6,824	2,545	6,225	11,133	5,289	1,132	4,712	2,192
2002		276,591	21,499	193,868	16,401	177,467	2,263	37,191	22,376	2,556	2,160	7,341	2,758	7,102	12,348	5,731	1,084	5,534	2,319
2003		289,025	22,752	200,724	17,798	182,926	2,458	40,457	25,106	2,740	2,129	7,648	2,833	7,301	12,839	5,686	1,118	6,035	2,494
2004		300,060	23,044	208,301	20,266	188,035	2,485	43,090	27,140	2,882	2,190	7,932	2,946	7,658	12,838	5,671	1,151	6,016	2,644
2005 preliminary		323,546	24,744	225,983	21,990	203,994	2,565	45,831	28,944	2,993	2,311	8,413	3,170	7,786	13,822	5,791	1,251	6,779	2,815
2006 preliminary		342,886	24,408	241,809	22,516	219,293	2,426	49,090	31,223	3,164	2,400	8,909	3,395	7,720	14,599	5,721	1,349	7,530	2,834
2000 constant \$millions																			
1953		28,282	5,563	19,896	7,838	12,058	NA	1,494	817	217	112	200	148	718	611	315	143	153	NA
1954		30,495	5,226	22,098	9,502	12,597	NA	1,634	893	242	128	214	157	871	665	328	168	168	NA
1955		33,508	5,189	24,096	10,973	13,123	656	1,824	1,019	267	144	224	171	998	699	341	187	171	45
1956		43,827	5,829	32,339	15,443	16,897	1,717	2,016	1,140	291	162	237	186	1,119	750	364	191	196	57
1957		49,447	6,474	36,550	19,603	16,948	2,031	2,161	1,205	319	182	255	200	1,330	831	392	185	255	70
1958		53,248	7,350	39,349	21,641	17,709	1,576	2,395	1,366	351	190	271	217	1,539	951	463	185	302	88
1959		60,187	8,101	44,335	25,141	19,194	2,014	2,824	1,713	388	190	294	239	1,682	1,125	600	202	323	106
1960		65,164	8,558	47,679	26,634	21,045	2,267	3,348	2,151	428	190	318	261	1,830	1,255	703	228	323	228
1961		68,450	9,340	48,657	26,719	21,939	2,608	3,917	2,615	472	188	350	291	2,068	1,429	794	230	404	430
1962		72,499	10,143	51,174	27,857	23,318	1,975	4,602	3,183	519	188	389	322	2,318	1,683	927	250	505	603
1963		80,377	11,738	56,047	31,455	24,592	1,899	5,405	3,847	573	186	440	358	2,659	1,872	1,074	252	546	757
1964		86,320	13,399	58,964	32,792	26,172	2,092	6,211	4,496	621	183	513	398	2,842	1,884	1,130	249	506	926
1965		89,872	14,006	61,293	32,692	28,601	1,655	7,076	5,179	663	184	604	446	2,793	2,095	1,269	275	550	954
1966		95,232	14,272	65,553	34,418	31,135	1,532	7,844	5,760	690	194	710	490	2,811	2,315	1,417	302	595	906
1967		97,709	14,416	66,821	33,256	33,565	1,754	8,517	6,238	703	216	835	525	2,913	2,348	1,431	310	607	942
1968		99,009	14,037	68,293	32,694	35,600	1,666	8,779	6,366	741	231	885	556	2,898	2,392	1,461	325	606	943
1969		99,415	14,495	68,241	30,545	37,696	1,774	8,719	6,209	795	231	891	593	2,796	2,453	1,482	356	616	937
1970		95,419	15,087	63,903	26,536	37,367	1,718	8,781	6,122	861	238	939	621	2,639	2,457	1,487	345	625	835

TABLE 1. U.S. research and development expenditures, by performing sector and source of funds: 1953–2006

Year	Performing sector: Source of funds:	Total	Federal	Industry			Industry FFRDCs ^a		U&C ^b				U&C FFRDCs		Other nonprofit			Nonprofit FFRDCs ^c		
				Total	Federal ^a	Industry ^d	Total	Federal	Total	Federal	Other		Other		Total	Total	Federal ^c	Industry	Other	Total
											government ^e	Industry	U&C	nonprofit						
1971		93,225	15,250	61,670	24,818	36,852	1,698	8,872	6,086	906	249	1,001	630	2,541	2,451	1,475	339	636	744	
1972		95,275	15,500	62,999	24,760	38,239	1,817	9,140	6,265	935	262	1,033	645	2,602	2,554	1,563	335	656	663	
1973		97,184	15,186	65,008	23,863	41,145	1,711	9,272	6,306	947	281	1,077	661	2,641	2,769	1,777	330	663	597	
1974		96,065	14,780	64,042	21,805	42,237	1,866	9,260	6,220	922	299	1,130	688	2,667	2,845	1,839	329	677	605	
1975		93,870	14,635	61,735	20,731	41,004	1,913	9,393	6,316	916	311	1,135	716	2,808	2,793	1,776	327	690	592	
1976		98,104	14,653	64,948	21,571	43,377	2,214	9,699	6,515	918	326	1,194	745	3,148	2,833	1,769	336	727	610	
1977		101,372	14,529	67,514	22,275	45,238	2,250	10,166	6,766	922	361	1,330	787	3,432	2,838	1,732	344	763	643	
1978		106,474	15,216	70,420	22,089	48,332	2,365	10,918	7,274	968	397	1,484	794	3,872	2,958	1,814	350	794	727	
1979		111,769	15,079	74,801	22,915	51,885	2,349	11,533	7,766	972	433	1,584	778	4,062	3,157	1,988	351	818	787	
1980		116,990	14,490	79,989	23,596	56,393	2,363	11,944	8,021	959	488	1,701	775	4,267	3,069	1,882	351	836	867	
1981		122,282	14,555	85,294	25,367	59,927	2,343	11,984	7,898	983	531	1,789	783	4,202	3,018	1,818	349	852	886	
1982		128,733	15,147	91,137	27,200	63,938	2,366	12,120	7,778	990	579	1,923	851	4,055	3,053	1,800	358	895	854	
1983		137,944	16,608	97,663	29,284	68,379	2,431	12,654	7,990	1,009	663	2,080	912	4,356	3,336	2,002	374	960	898	
1984		151,125	17,612	107,990	32,011	75,979	2,570	13,530	8,495	1,066	765	2,238	966	4,794	3,712	2,288	392	1,032	917	
1985		164,486	18,781	118,162	36,338	81,824	2,672	14,785	9,163	1,196	904	2,500	1,023	5,187	3,960	2,429	414	1,116	939	
1986		168,770	18,954	120,607	36,491	84,115	2,654	16,197	9,863	1,360	1,046	2,833	1,095	5,576	4,024	2,366	441	1,218	759	
1987		172,633	18,565	123,176	39,288	83,889	2,726	17,497	10,613	1,454	1,135	3,090	1,204	5,857	4,117	2,328	467	1,321	696	
1988		176,871	18,948	125,364	37,283	88,081	2,803	18,786	11,351	1,539	1,233	3,338	1,325	6,052	4,244	2,328	491	1,424	673	
1989		180,618	19,388	127,117	33,554	93,564	2,794	19,899	11,857	1,622	1,350	3,630	1,440	6,054	4,670	2,625	515	1,530	696	
1990		186,284	19,207	131,638	31,624	100,015	2,847	20,757	12,178	1,715	1,428	3,905	1,531	5,998	5,057	2,875	540	1,643	780	
1991		190,509	18,059	135,801	28,534	107,267	2,696	21,556	12,628	1,756	1,470	4,094	1,608	6,064	5,509	3,172	567	1,769	824	
1992		191,408	18,352	135,159	25,895	109,265	2,724	22,440	13,341	1,765	1,527	4,130	1,676	6,088	5,780	3,248	603	1,928	865	
1993		187,515	18,704	130,612	23,585	107,028	2,223	23,182	13,921	1,761	1,574	4,196	1,732	5,984	5,960	3,217	642	2,101	848	
1994		187,463	18,120	130,062	22,448	107,614	2,440	23,929	14,394	1,797	1,613	4,363	1,766	5,865	6,203	3,225	683	2,294	840	
1995		199,355	18,352	140,957	22,993	117,964	2,468	24,545	14,751	1,901	1,680	4,462	1,754	5,827	6,326	3,091	729	2,506	877	
1996		210,263	17,671	151,696	22,755	128,941	2,447	25,262	15,000	1,982	1,780	4,725	1,775	5,748	6,616	3,096	778	2,742	822	
1997		222,340	17,628	162,880	22,846	140,034	2,232	26,070	15,221	2,014	1,894	5,070	1,872	5,725	6,945	3,159	848	2,938	860	
1998		234,737	17,997	173,213	22,894	150,320	2,154	27,126	15,721	2,043	2,020	5,351	1,991	5,763	7,610	3,401	912	3,297	874	
1999		250,374	18,240	186,056	20,942	165,114	2,084	28,776	16,608	2,143	2,127	5,741	2,157	5,775	8,429	3,843	1,006	3,581	1,014	
2000		267,557	17,917	199,961	17,117	182,844	2,001	30,688	17,714	2,246	2,174	6,230	2,325	5,742	9,782	4,447	1,118	4,217	1,465	
2001		271,229	19,948	197,284	16,503	180,781	1,973	32,933	19,305	2,340	2,138	6,664	2,485	6,080	10,872	5,165	1,106	4,601	2,140	
2002		265,474	20,635	186,076	15,742	170,334	2,172	35,696	21,477	2,453	2,073	7,046	2,647	6,816	11,852	5,501	1,040	5,311	2,226	
2003		271,885	21,403	188,821	16,743	172,078	2,313	38,058	23,618	2,578	2,003	7,194	2,665	6,868	12,078	5,349	1,052	5,677	2,346	
2004		275,036	21,123	190,929	18,576	172,354	2,278	39,496	24,876	2,642	2,008	7,271	2,700	7,019	11,767	5,198	1,055	5,515	2,423	

TABLE 1. U.S. research and development expenditures, by performing sector and source of funds: 1953–2006

Year	Performing sector: Source of funds:	Total	Federal	Industry				U&C ^b				Other nonprofit			Nonprofit FFRDCs ^c				
				Total	Federal ^a	Industry ^d	FFRDCs ^a	Total	Federal	Other government ^e	Industry	U&C	Other nonprofit	Total		Federal ^c	Industry	Other	
2005 preliminary		288,754	22,083	201,682	19,625	182,057	2,289	40,902	25,831	2,671	2,063	7,508	2,829	6,949	12,336	5,168	1,117	6,050	2,513
2006 preliminary		298,862	21,274	210,763	19,625	191,138	2,114	42,787	27,214	2,758	2,092	7,765	2,959	6,728	12,725	4,987	1,175	6,563	2,470

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.

^a 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.

^b 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 2006, \$1,657 million in total passed-through funds and \$1,475 million in federal passed-through funds are estimated.

^c 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.

^d Industry sources of funding for industry R&D expenditures include all nonfederal sources of funding for industry R&D expenditures.

^e Because of limitations in survey information, data on other government funding to other performers are not available and are consequently 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 nonprofit sector. For trend comparisons, use only 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. Approximation equals 75% of amount reported in same fiscal year plus 25% of amount reported in subsequent fiscal year with the following exceptions. The fiscal year for academic performers generally begins July 1, not October 1, and prior to 1977 the federal fiscal year began on July 1, not October 1; thus calendar-year approximations for academic performers and for federal performers prior to 1977 equals 50% of amount reported in same fiscal year plus 50% of amount reported in subsequent fiscal year. Detail may not add to total because of rounding. Constant dollar estimates derived from unrounded data.

SOURCES: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), *Research and Development in Industry 2004* (forthcoming); NSF/SRS, *Academic Research and Development Expenditures: FY 2005* (NSF 07-318); NSF/SRS, *Federal Funds for Research and Development: FY 2004–06* (NSF 07-323); 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: 1953–2006

Year	Performing sector:		Industry					U&C ^c					Other nonprofit			Nonprofit			
	Total	Federal	Industry ^a		FFRDCs ^b	U&C ^c			FFRDCs	Other nonprofit		FFRDCs ^d							
	Source of funds:	Total	Federal	Total	Federal ^b	Industry ^e	Total	Total	Federal	Other government ^f	Industry	U&C	Other nonprofit	Total	Total	Federal ^d	Industry	Other nonprofit	Total
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
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	14
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

TABLE 2. U.S. basic research expenditures, by performing sector and source of funds: 1953–2006

Year	Performing sector: Source of funds:	Total	Federal	Industry					U&C ^c					U&C			Other nonprofit			Nonprofit
				Industry ^a		FFRDCs ^b	U&C ^c			FFRDCs	Other nonprofit		FFRDCs ^d							
				Total	Federal ^b		Total	Total	Federal		Other government ^f	Industry		U&C	Total	Total	Federal ^d	Industry	Other nonprofit	Total
1993		28,742	2,621	6,427	466	5,961	492	13,645	8,638	952	851	2,268	936	2,953	2,532	1,157	324	1,051	72	
1994		29,649	2,547	6,514	436	6,078	503	14,399	9,139	991	889	2,406	974	2,934	2,678	1,137	356	1,186	75	
1995		29,609	2,689	5,569	190	5,379	530	15,145	9,634	1,069	945	2,510	987	2,702	2,899	1,170	390	1,338	75	
1996		32,797	2,680	7,498	650	6,848	708	16,040	10,092	1,149	1,032	2,739	1,028	2,606	3,187	1,248	428	1,510	79	
1997		36,915	2,746	9,795	1,029	8,766	625	17,648	10,920	1,248	1,175	3,144	1,161	2,671	3,322	1,317	449	1,557	108	
1998		35,331	3,003	5,853	1,002	4,851	568	19,320	11,895	1,330	1,315	3,483	1,296	2,660	3,715	1,461	489	1,766	213	
1999		38,872	3,347	6,645	1,108	5,537	557	20,935	12,802	1,433	1,422	3,837	1,442	2,765	4,226	1,734	546	1,946	397	
2000		42,763	3,765	7,040	925	6,115	547	22,860	13,912	1,549	1,499	4,296	1,603	2,874	5,061	2,099	621	2,341	616	
2001		47,785	4,260	8,053	754	7,299	552	25,192	15,515	1,661	1,518	4,733	1,765	3,104	5,709	2,464	629	2,616	915	
2002		51,400	4,511	7,547	888	6,659	534	27,867	17,635	1,765	1,492	5,070	1,905	3,714	6,249	2,575	602	3,072	979	
2003		55,109	4,664	8,330	1,386	6,944	299	30,354	19,823	1,880	1,461	5,246	1,943	3,747	6,686	2,714	621	3,351	1,029	
2004		56,670	4,734	7,835	1,072	6,763	175	32,397	21,380	1,991	1,513	5,479	2,035	3,729	6,728	2,749	639	3,340	1,071	
2005 preliminary		60,157	4,921	8,500	1,163	7,337	135	34,437	22,734	2,074	1,602	5,830	2,197	3,780	7,215	2,756	695	3,764	1,169	
2006 preliminary		63,648	4,938	9,078	1,191	7,887	128	36,887	24,524	2,189	1,661	6,164	2,349	3,746	7,697	2,768	749	4,181	1,173	
2000 constant \$millions																				
1953		2,519	556	828	104	723	NA	674	447	36	71	33	88	197	263	148	49	66	NA	
1954		2,761	521	901	125	776	NA	801	524	52	81	46	98	239	299	168	60	71	NA	
1955		3,089	520	1,008	144	864	NA	958	621	74	91	62	109	267	336	192	69	75	NA	
1956		3,702	585	1,304	191	1,114	NA	1,134	735	98	101	80	121	299	379	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		4,603	727	1,439	210	1,229	NA	1,522	985	152	117	117	151	415	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		6,112	872	1,787	375	1,412	NA	2,303	1,618	214	116	159	195	504	646	404	100	143	NA	
1961		7,104	1,079	1,856	381	1,476	NA	2,808	2,028	252	117	187	223	590	771	493	103	174	NA	
1962		8,457	1,168	2,263	663	1,600	NA	3,415	2,529	295	116	222	253	684	927	603	111	213	NA	
1963		9,704	1,305	2,395	674	1,720	NA	4,168	3,161	344	112	264	287	803	1,032	688	115	229	NA	
1964		10,827	1,532	2,291	556	1,735	190	4,837	3,721	381	113	315	307	901	1,075	750	113	212	NA	
1965		11,822	1,662	2,498	697	1,802	129	5,416	4,187	419	118	382	311	965	1,152	792	129	231	NA	
1966		12,642	1,769	2,559	613	1,946	134	5,954	4,599	447	125	459	324	1,029	1,197	809	138	250	NA	
1967		13,257	1,814	2,490	703	1,787	142	6,502	4,970	477	140	568	347	1,101	1,207	810	142	255	NA	
1968		13,551	1,935	2,436	582	1,854	140	6,745	5,078	525	151	627	365	1,106	1,188	787	149	253	NA	
1969		13,350	2,085	2,222	470	1,752	141	6,706	4,924	585	151	655	392	1,040	1,155	734	164	256	NA	
1970		13,053	2,041	2,056	443	1,613	131	6,737	4,803	651	156	711	416	961	1,128	706	160	262	NA	
1971		12,868	2,010	1,927	349	1,577	114	6,807	4,789	670	171	740	438	872	1,138	716	156	266	NA	
1972		12,763	1,997	1,837	302	1,535	129	6,754	4,764	648	182	716	444	895	1,150	716	156	278	NA	
1973		12,872	2,047	1,868	301	1,567	113	6,603	4,674	617	184	701	429	1,077	1,163	727	154	283	NA	
1974		12,989	2,058	1,872	328	1,544	141	6,570	4,633	587	190	720	439	1,194	1,154	706	155	294	NA	
1975		12,828	1,999	1,782	274	1,508	139	6,525	4,653	559	188	694	432	1,251	1,131	671	156	304	NA	
1976		13,367	2,115	1,866	289	1,577	172	6,654	4,786	542	187	705	434	1,383	1,178	690	162	325	NA	
1977		14,054	2,205	1,955	316	1,640	175	6,939	4,945	542	208	782	462	1,560	1,219	705	168	346	NA	

TABLE 2. U.S. basic research expenditures, by performing sector and source of funds: 1953–2006

Year	Performing sector: Source of funds:	Total	Federal	Industry						U&C ^c				U&C FFRDCs			Other nonprofit			Nonprofit FFRDCs ^d
				Industry ^a		FFRDCs ^b		U&C ^c		Other		FFRDCs		Other nonprofit			Total			
				Total	Federal ^b	Total	Federal ^b	Total	Federal	Other government ^f	Industry	U&C	Other nonprofit	Total	Total	Federal ^d	Industry	Other nonprofit	Total	
1978		15,208	2,282	2,057	341	1,716	205	7,378	5,243	568	233	870	464	1,979	1,306	768	172	366	NA	
1979		15,816	2,245	2,127	325	1,802	210	7,725	5,488	577	257	941	462	2,118	1,391	833	175	383	NA	
1980		16,181	2,243	2,230	315	1,915	222	7,984	5,663	568	288	1,006	459	2,158	1,343	769	176	397	NA	
1981		16,336	2,271	2,498	277	2,221	232	8,012	5,634	572	309	1,041	456	2,172	1,136	548	177	411	15	
1982		16,980	2,426	2,831	403	2,428	204	8,116	5,539	587	344	1,142	505	2,178	1,210	588	184	438	14	
1983		18,219	2,657	3,230	531	2,699	179	8,462	5,657	607	398	1,252	549	2,355	1,323	653	194	476	12	
1984		19,705	2,774	3,654	503	3,151	201	9,082	6,040	644	462	1,352	584	2,526	1,455	730	206	519	14	
1985		21,155	2,793	3,917	514	3,404	188	10,075	6,606	738	558	1,543	631	2,572	1,592	803	219	569	18	
1986		24,075	2,843	5,516	609	4,907	164	11,147	7,188	850	654	1,771	684	2,688	1,698	833	236	630	18	
1987		25,249	2,797	5,712	817	4,895	194	11,809	7,550	900	702	1,912	745	2,850	1,867	923	252	692	20	
1988		26,140	2,796	5,500	867	4,633	445	12,343	7,843	932	746	2,021	802	3,001	2,023	999	268	756	31	
1989		27,864	2,939	6,133	1,255	4,878	507	13,006	8,174	974	811	2,181	865	3,018	2,202	1,095	283	823	59	
1990		28,223	2,842	5,673	1,065	4,608	612	13,635	8,442	1,038	865	2,364	927	3,027	2,356	1,161	300	895	79	
1991		32,139	2,816	8,735	1,481	7,253	546	14,283	8,790	1,080	905	2,519	990	3,146	2,521	1,227	318	977	91	
1992		31,955	2,800	7,557	824	6,733	549	14,944	9,328	1,090	943	2,550	1,034	3,319	2,709	1,290	341	1,078	78	
1993		32,520	2,965	7,272	527	6,745	557	15,439	9,774	1,077	963	2,566	1,059	3,341	2,865	1,309	366	1,189	82	
1994		32,849	2,822	7,217	483	6,734	557	15,953	10,125	1,098	985	2,666	1,079	3,251	2,967	1,259	394	1,314	83	
1995		32,146	2,920	6,046	206	5,840	575	16,443	10,459	1,161	1,026	2,725	1,072	2,933	3,147	1,270	424	1,453	82	
1996		34,946	2,855	7,989	693	7,297	754	17,091	10,752	1,224	1,100	2,919	1,096	2,776	3,396	1,330	457	1,609	84	
1997		38,690	2,878	10,266	1,078	9,187	655	18,497	11,445	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	20,026	12,330	1,379	1,363	3,611	1,344	2,757	3,851	1,514	507	1,831	221	
1999		39,718	3,420	6,789	1,132	5,658	570	21,391	13,081	1,464	1,453	3,921	1,473	2,825	4,318	1,772	558	1,988	405	
2000		42,763	3,765	7,040	925	6,115	547	22,860	13,912	1,549	1,499	4,296	1,603	2,874	5,061	2,099	621	2,341	616	
2001		46,666	4,161	7,864	736	7,128	539	24,601	15,151	1,623	1,482	4,622	1,724	3,031	5,575	2,406	614	2,555	894	
2002		49,335	4,329	7,244	852	6,391	513	26,747	16,926	1,694	1,432	4,866	1,828	3,564	5,998	2,471	578	2,949	940	
2003		51,841	4,388	7,836	1,304	6,532	281	28,554	18,648	1,768	1,374	4,935	1,828	3,524	6,290	2,553	584	3,152	968	
2004		51,944	4,340	7,182	983	6,199	161	29,695	19,597	1,825	1,387	5,022	1,865	3,418	6,167	2,519	586	3,062	982	

TABLE 2. U.S. basic research expenditures, by performing sector and source of funds: 1953–2006

Year	Performing sector: Source of funds:	Total	Federal	Industry			U&C ^c			U&C FFRDCs			Other nonprofit			Nonprofit FFRDCs ^d			
				Total	Federal ^b	Industry ^e	Total	Total	Federal	Other government ^f	Industry	U&C	Total	Total	Federal ^d		Industry	Other nonprofit	
2005 preliminary		53,688	4,392	7,586	1,038	6,548	120	30,734	20,289	1,851	1,430	5,203	1,961	3,373	6,439	2,460	620	3,359	1,044
2006 preliminary		55,476	4,304	7,913	1,038	6,875	111	32,151	21,375	1,908	1,448	5,373	2,048	3,265	6,709	2,412	653	3,644	1,022

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.

^a 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.

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

^c 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.

^d 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.

^e Industry sources of funds for industry R&D expenditures include all nonfederal sources of industry funds for R&D expenditures.

^f Because of limitations in survey information, data on other government funding to other performers are not available and are consequently 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 nonprofit sector. For trend comparisons, use only 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. Approximation equals 75% of amount reported in same fiscal year plus 25% of amount reported in subsequent fiscal year with the following exceptions. The fiscal year for academic performers generally begins July 1, not October 1, and prior to 1977 the federal fiscal year began on July 1, not October 1; thus calendar-year approximations for academic performers and for federal performers prior to 1977 equals 50% of amount reported in same fiscal year plus 50% of amount reported in subsequent fiscal year. Detail may not add to total because of rounding. Constant dollar estimates derived from unrounded data.

SOURCES: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), *Research and Development in Industry 2004* (forthcoming); NSF/SRS, *Academic Research and Development Expenditures: FY 2005* (NSF 07-318); NSF/SRS, *Federal Funds for Research and Development: FY 2004–06* (NSF 07-323); 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: 1953–2006

Year	Performing sector: Source of funds:	Total	Federal	Industry					U&C ^c					U&C FFRDCs			Other nonprofit			Nonprofit FFRDCs ^d Total
				Industry ^a		Industry ^e	FFRDCs ^b	Total	Total	Federal	Other		U&C	Other nonprofit	Total	Other		Total		
				Total	Federal ^b						government ^f	Industry				Federal ^d	Industry		nonprofit	
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	
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	

TABLE 3. U.S. applied research expenditures, by performing sector and source of funds: 1953–2006

Year	Performing sector: Source of funds:	Total	Federal	Industry					U&C ^c					U&C FFRDCs			Other nonprofit			Nonprofit FFRDCs ^d Total
				Industry ^a		Industry ^e	FFRDCs ^b	U&C ^c			Other nonprofit	Total	Other nonprofit		Other nonprofit					
				Total	Federal ^b			Total	Total	Federal			Other government ^f	Industry		U&C	Total	Federal ^d	Industry	
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	5,388	2,641	517	464	1,256	509	982	1,659	960	158	541	111	
1995		40,932	4,952	26,919	3,164	23,755	535	5,655	2,775	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	5,879	2,860	583	524	1,390	522	1,270	1,781	960	182	640	122	
1997		46,551	4,997	32,430	2,648	29,782	213	5,520	2,548	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		52,096	5,530	36,638	2,817	33,821	274	5,836	2,740	545	541	1,461	549	1,251	2,437	1,300	249	888	130	
2000		56,932	6,105	39,176	2,682	36,494	269	6,652	3,350	572	553	1,586	592	1,329	3,183	1,831	283	1,069	217	
2001		64,706	7,052	44,012	3,603	40,409	935	7,260	3,752	602	550	1,715	639	1,485	3,631	2,150	287	1,194	332	
2002		51,033	7,487	28,533	2,452	26,081	1,103	7,972	4,214	648	548	1,862	700	1,685	3,944	2,267	275	1,402	309	
2003		61,448	7,672	37,334	4,473	32,861	1,434	8,589	4,637	705	548	1,969	729	1,756	4,300	2,487	283	1,529	363	
2004		70,093	7,532	45,432	4,775	40,657	1,521	8,997	4,951	731	556	2,012	747	1,935	4,312	2,496	292	1,525	364	
2005 preliminary		75,252	7,870	49,289	5,181	44,108	1,532	9,625	5,374	753	582	2,118	798	1,918	4,611	2,576	317	1,718	407	
2006 preliminary		79,291	7,750	52,721	5,305	47,416	1,482	10,325	5,812	799	606	2,250	857	1,805	4,809	2,559	342	1,908	399	
2000 constant \$millions																				
1953		7,065	1,902	3,979	1,579	2,401	NA	732	323	165	36	153	55	260	192	77	60	55	NA	
1954		7,482	1,789	4,420	1,748	2,671	NA	741	323	171	41	152	54	315	217	87	71	60	NA	
1955		8,074	1,776	4,951	1,963	2,987	NA	755	336	172	45	145	56	363	229	96	75	59	NA	
1956		9,938	1,993	6,538	2,444	4,094	NA	753	335	171	52	139	57	405	250	106	72	72	NA	
1957		12,044	2,223	8,334	3,384	4,951	NA	731	314	169	57	135	55	469	287	117	70	100	NA	
1958		13,455	2,517	9,323	3,776	5,547	NA	739	320	172	59	133	56	539	337	146	68	122	NA	
1959		14,165	2,778	9,595	3,918	5,677	NA	805	373	178	60	135	58	581	407	205	72	130	NA	
1960		14,567	2,921	9,643	3,959	5,684	NA	882	442	184	62	137	57	611	511	297	81	133	NA	
1961		14,678	3,139	9,292	3,816	5,475	NA	933	486	188	61	139	59	681	632	388	80	164	NA	
1962		17,144	3,285	11,355	4,688	6,667	NA	1,002	549	188	63	141	60	753	749	452	88	209	NA	
1963		17,730	3,712	11,273	4,620	6,653	NA	1,053	585	193	64	148	62	853	840	528	87	225	NA	
1964		18,983	4,277	11,468	4,419	7,049	280	1,155	642	204	61	169	79	917	886	587	86	212	NA	
1965		19,408	4,409	11,591	4,402	7,189	204	1,347	779	206	58	187	118	912	945	621	93	231	NA	
1966		20,074	4,366	12,038	4,254	7,784	229	1,514	897	203	60	209	145	919	1,007	658	104	246	NA	
1967		20,290	4,472	11,852	4,114	7,738	347	1,626	994	191	65	225	151	942	1,050	695	105	251	NA	
1968		20,620	4,462	12,190	3,837	8,353	349	1,626	1,001	185	64	221	155	885	1,108	747	112	249	NA	
1969		20,859	4,701	12,207	3,518	8,689	363	1,595	981	184	61	206	163	815	1,178	803	122	252	NA	
1970		20,893	4,845	12,095	3,458	8,637	352	1,636	1,015	186	64	203	169	774	1,191	817	120	254	NA	

TABLE 3. U.S. applied research expenditures, by performing sector and source of funds: 1953–2006

Year	Performing sector: Source of funds:	Total	Federal	Industry						U&C				Other nonprofit			Nonprofit FFRDCs ^d		
				Industry ^a			FFRDCs ^b	U&C ^c			FFRDCs	Other nonprofit							
				Total	Federal ^b	Industry ^e		Total	Other government ^f	Industry		U&C	Total	Federal ^d	Industry	Other nonprofit			
1971		20,176	4,687	11,581	3,137	8,443	232	1,726	1,058	209	64	232	163	745	1,205	832	118	256	NA
1972		20,377	4,754	11,294	2,801	8,493	355	2,050	1,295	246	68	271	171	743	1,182	804	116	262	NA
1973		20,897	4,796	11,665	2,773	8,892	345	2,275	1,411	275	82	314	193	636	1,181	807	113	261	NA
1974		21,149	4,758	12,003	2,606	9,397	346	2,285	1,372	277	91	339	206	549	1,209	835	111	262	NA
1975		21,292	5,031	11,660	2,608	9,052	366	2,458	1,446	298	101	370	242	576	1,201	829	109	263	NA
1976		22,331	5,146	12,302	2,570	9,732	415	2,592	1,481	317	111	412	271	653	1,223	840	111	272	NA
1977		22,601	4,867	12,687	2,603	10,084	496	2,633	1,463	315	119	454	282	695	1,223	830	112	281	NA
1978		23,394	4,899	13,255	2,612	10,643	514	2,725	1,477	330	132	507	279	708	1,294	893	113	287	NA
1979		24,415	4,874	14,077	2,634	11,444	505	2,861	1,600	326	144	531	260	726	1,371	969	112	291	NA
1980		25,377	4,711	15,127	3,007	12,120	509	3,002	1,688	321	163	570	260	779	1,250	848	110	292	NA
1981		27,621	4,620	17,593	3,454	14,139	504	3,012	1,611	337	182	613	269	714	1,062	661	108	292	115
1982		29,044	4,466	19,061	4,134	14,927	585	3,052	1,605	331	193	641	283	690	1,045	634	109	301	145
1983		31,129	4,587	20,723	4,949	15,774	635	3,245	1,721	330	217	680	298	726	1,094	664	113	317	119
1984		33,184	4,376	22,493	5,435	17,059	809	3,446	1,812	346	248	726	313	811	1,130	679	117	334	119
1985		36,435	4,497	25,282	6,766	18,516	904	3,625	1,860	375	284	785	321	831	1,179	702	122	355	118
1986		38,231	4,497	26,851	5,683	21,168	883	3,901	1,955	418	321	871	337	777	1,217	710	128	379	106
1987		38,186	4,598	26,217	5,515	20,702	851	4,398	2,244	455	355	966	377	726	1,295	758	133	403	101
1988		39,009	4,442	26,920	5,081	21,839	490	4,993	2,586	498	399	1,081	429	722	1,355	791	138	426	87
1989		41,087	4,540	28,409	5,504	22,904	476	5,331	2,699	531	442	1,188	471	767	1,475	884	143	448	89
1990		42,769	4,476	29,904	7,313	22,591	473	5,399	2,622	555	462	1,264	495	844	1,573	955	147	470	100
1991		45,746	4,848	31,989	6,617	25,372	513	5,457	2,641	554	464	1,292	507	1,097	1,739	1,091	153	496	102
1992		43,912	5,020	29,704	5,181	24,523	587	5,649	2,793	554	479	1,296	526	1,089	1,769	1,081	160	528	94
1993		42,182	5,474	27,439	4,860	22,580	492	5,823	2,873	561	501	1,336	552	1,089	1,748	1,018	167	562	116
1994		40,567	5,523	25,469	4,006	21,463	557	5,969	2,926	573	514	1,392	563	1,087	1,838	1,063	176	599	123
1995		44,440	5,377	29,226	3,435	25,791	581	6,140	3,013	607	536	1,424	560	1,140	1,837	1,014	184	639	140
1996		45,992	5,191	30,910	3,878	27,032	246	6,264	3,047	622	558	1,481	557	1,353	1,898	1,022	193	682	130
1997		48,789	5,237	33,989	2,775	31,214	223	5,785	2,671	579	543	1,455	537	1,402	2,019	1,059	215	745	135
1998		48,084	5,334	33,386	2,728	30,658	238	5,411	2,370	545	539	1,427	531	1,422	2,165	1,099	231	836	128
1999		53,231	5,650	37,436	2,878	34,558	280	5,964	2,800	557	553	1,492	561	1,278	2,490	1,328	255	907	132
2000		56,932	6,105	39,176	2,682	36,494	269	6,652	3,350	572	553	1,586	592	1,329	3,183	1,831	283	1,069	217
2001		63,190	6,887	42,981	3,519	39,462	913	7,090	3,664	588	538	1,675	624	1,450	3,546	2,100	280	1,166	324
2002		48,982	7,186	27,386	2,353	25,033	1,059	7,651	4,045	622	526	1,787	671	1,618	3,785	2,175	264	1,346	296
2003		57,804	7,217	35,120	4,208	30,912	1,349	8,080	4,362	664	516	1,852	686	1,652	4,045	2,339	267	1,439	341
2004		64,248	6,904	41,643	4,377	37,266	1,394	8,247	4,539	670	509	1,844	685	1,774	3,953	2,288	267	1,398	334

TABLE 3. U.S. applied research expenditures, by performing sector and source of funds: 1953–2006

Year	Performing sector: Source of funds:	Total	Federal	Industry ^a			Industry FFRDCs ^b		U&C ^c			U&C FFRDCs		Other nonprofit			Nonprofit FFRDCs ^d		
				Total	Federal ^b	Industry ^e	Total	Total	Federal	Other government ^f	Industry	U&C	Other nonprofit	Total	Total	Federal ^d	Industry	Other nonprofit	Total
2005 preliminary		67,160	7,024	43,989	4,624	39,365	1,367	8,590	4,796	672	519	1,890	712	1,712	4,115	2,299	283	1,533	363
2006 preliminary		69,111	6,755	45,952	4,624	41,328	1,292	9,000	5,066	697	528	1,961	747	1,573	4,191	2,230	298	1,663	348

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.

^a 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.

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

^c 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.

^d 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.

^e Industry sources of funds for industry R&D expenditures include all nonfederal sources of industry funds for R&D expenditures.

^f Because of limitations in survey information, data on other government funding to other performers are not available and are consequently 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 nonprofit sector. For trend comparisons, use only 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. Approximation equals 75% of amount reported in same fiscal year plus 25% of amount reported in subsequent fiscal year with the following exceptions. The fiscal year for academic performers generally begins July 1, not October 1, and prior to 1977 the federal fiscal year began on July 1, not October 1; thus calendar-year approximations for academic performers and for federal performers prior to 1977 equals 50% of amount reported in same fiscal year plus 50% of amount reported in subsequent fiscal year. Detail may not add to total because of rounding. Constant dollar estimates derived from unrounded data.

SOURCES: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), *Research and Development in Industry 2004* (forthcoming); NSF/SRS, *Academic Research and Development Expenditures: FY 2005* (NSF 07-318); NSF/SRS, *Federal Funds for Research and Development: FY 2004–06* (NSF 07-323); 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: 1953–2006

Year	Performing sector: Source of funds:	Total	Federal	Industry			Industry FFRDCs ^b	U&C ^c				U&C FFRDCs	Other nonprofit			Nonprofit FFRDCs ^d			
				Industry ^a		Other government ^f		Industry	U&C	Other nonprofit	Total		Federal ^d	Industry	Other nonprofit				
				Total	Federal ^b												Total	Federal	Total
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
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

TABLE 4. U.S. development expenditures, by performing sector and source of funds: 1953–2006

Year	Performing sector: Source of funds:	Total	Federal	Industry					U&C					Other nonprofit					Nonprofit FFRDCs ^d
				Industry ^a		Industry ^e	FFRDCs ^b	U&C ^c	FFRDCs	Other nonprofit			FFRDCs	Other nonprofit					
				Total	Federal ^b					Total	Total	Federal		Other government ^f	Industry	U&C	Total	Total	
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	1,699	1,126	109	97	259	107	1,374	1,191	787	95	309	574
1994		102,937	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		144,736	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		154,068	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		167,862	8,047	153,745	13,510	140,235	1,185	1,177	452	125	121	348	130	1,539	1,537	517	214	807	632
2001		165,245	9,114	149,952	12,542	137,410	534	1,271	501	132	121	377	140	1,637	1,793	675	217	901	945
2002		174,157	9,501	157,788	13,061	144,727	625	1,352	528	142	120	409	154	1,703	2,156	890	207	1,059	1,031
2003		172,468	10,416	155,060	11,939	143,121	725	1,514	646	155	120	432	160	1,798	1,853	485	214	1,155	1,102
2004		173,297	10,778	155,034	14,419	140,615	789	1,696	808	161	122	442	164	1,993	1,798	426	220	1,151	1,209
2005 preliminary		188,138	11,952	168,195	15,645	152,549	899	1,769	836	165	128	465	175	2,088	1,996	460	239	1,297	1,239
2006 preliminary		199,947	11,720	180,010	16,020	163,990	816	1,877	887	175	133	494	188	2,168	2,094	395	258	1,441	1,262
2000 constant \$millions																			
1953		18,699	3,105	15,089	6,155	8,934	NA	88	47	16	5	14	5	260	156	90	33	33	NA
1954		20,274	2,916	16,777	7,629	9,149	NA	92	46	19	5	17	5	318	171	95	38	38	NA
1955		22,347	2,894	18,794	9,522	9,272	NA	112	61	20	8	17	5	368	179	99	43	37	NA
1956		30,186	3,251	26,214	14,525	11,689	NA	129	70	23	10	19	8	415	178	101	41	36	NA
1957		33,341	3,631	28,895	18,045	10,849	NA	130	60	26	12	21	10	504	182	102	40	40	NA
1958		35,191	4,105	30,163	19,231	10,933	NA	134	61	28	15	21	10	585	202	120	39	44	NA
1959		40,783	4,530	35,212	22,890	12,322	NA	149	75	29	14	22	10	646	246	154	43	48	NA
1960		44,485	4,765	38,516	24,566	13,949	NA	164	90	30	12	22	10	715	326	231	48	48	NA
1961		46,667	5,120	40,118	25,130	14,988	NA	176	101	32	9	24	9	797	456	343	47	66	NA
1962		46,897	5,689	39,532	24,481	15,050	NA	185	104	36	9	27	9	881	610	475	51	83	NA
1963		52,943	6,721	44,279	28,060	16,219	NA	184	101	36	9	28	9	1,002	757	615	50	92	NA
1964		56,511	7,591	45,205	27,817	17,388	1,622	219	133	36	9	30	11	1,023	850	718	50	81	NA
1965		58,643	7,937	47,203	27,593	19,610	1,322	313	213	38	9	35	18	916	952	810	53	89	NA
1966		62,517	8,137	50,956	29,551	21,405	1,169	375	263	40	9	42	22	863	1,016	856	60	99	NA
1967		64,165	8,132	52,478	28,438	24,040	1,264	389	274	36	10	42	27	871	1,032	868	63	100	NA
1968		64,839	7,643	53,667	28,274	25,392	1,176	407	287	31	16	37	36	907	1,040	871	64	104	NA
1969		65,207	7,709	53,812	26,556	27,256	1,270	419	304	27	19	30	38	941	1,057	881	69	107	NA
1970		61,472	8,201	49,752	22,635	27,117	1,235	407	303	23	18	26	36	904	973	799	65	109	NA

TABLE 4. U.S. development expenditures, by performing sector and source of funds: 1953–2006

Year	Performing sector: Source of funds:	Total	Federal	Industry					U&C					Other nonprofit				Nonprofit FFRDCs ^d	
				Industry ^a			FFRDCs ^b	U&C ^c			FFRDCs	Other nonprofit			Other				
				Total	Federal ^b	Industry ^e		Total	Federal	Other government ^f		Industry	U&C	Total		Total	Federal ^d		Industry
1971		60,181	8,553	48,163	21,331	26,831	1,352	339	239	27	14	30	29	924	851	671	66	114	NA
1972		62,134	8,749	49,868	21,657	28,211	1,333	335	207	41	12	45	30	965	885	706	63	116	NA
1973		63,415	8,343	51,475	20,789	30,686	1,253	394	221	55	16	63	39	928	1,022	840	63	119	NA
1974		61,927	7,964	50,168	18,871	31,297	1,379	405	215	58	19	71	43	924	1,087	903	62	122	NA
1975		59,750	7,605	48,293	17,850	30,444	1,408	411	217	58	21	72	42	980	1,053	868	62	123	NA
1976		62,406	7,393	50,780	18,713	32,067	1,627	453	248	60	29	77	40	1,112	1,041	848	63	130	NA
1977		64,717	7,457	52,871	19,356	33,515	1,579	594	358	65	34	94	43	1,177	1,039	840	64	135	NA
1978		67,872	8,034	55,109	19,136	35,973	1,646	815	555	70	32	107	51	1,184	1,085	880	65	140	NA
1979		71,538	7,959	58,596	19,957	38,640	1,635	948	679	69	31	113	56	1,218	1,182	974	65	144	NA
1980		75,431	7,536	62,632	20,275	42,358	1,632	958	670	71	36	125	57	1,330	1,343	1,133	64	147	NA
1981		78,325	7,663	65,202	21,636	43,566	1,607	960	653	74	40	135	59	1,316	821	608	63	149	756
1982		82,709	8,255	69,245	22,662	46,583	1,577	952	634	73	42	141	62	1,187	798	578	64	156	696
1983		88,597	9,363	73,710	23,804	49,906	1,616	947	612	72	48	149	65	1,275	919	686	67	166	766
1984		98,235	10,462	81,843	26,073	55,770	1,561	1,001	643	76	54	159	69	1,458	1,127	879	70	178	784
1985		106,896	11,491	88,963	29,059	59,904	1,581	1,085	697	82	62	172	71	1,784	1,189	924	73	192	803
1986		106,464	11,614	88,240	30,199	58,041	1,607	1,148	720	92	71	191	74	2,111	1,109	823	78	209	635
1987		109,198	11,169	91,247	32,955	58,292	1,680	1,291	818	100	78	212	83	2,281	954	647	82	225	576
1988		111,722	11,710	92,944	31,335	61,609	1,868	1,450	922	109	88	237	94	2,328	866	538	85	242	555
1989		111,667	11,909	92,576	26,794	65,781	1,811	1,562	984	117	97	261	103	2,268	993	645	89	259	548
1990		115,292	11,889	96,061	23,245	72,815	1,762	1,724	1,115	122	102	277	109	2,127	1,128	759	92	277	601
1991		112,624	10,395	95,077	20,435	74,642	1,638	1,816	1,197	122	102	284	111	1,820	1,249	855	97	297	631
1992		115,541	10,531	97,898	19,889	78,009	1,588	1,847	1,220	122	105	285	115	1,681	1,302	878	102	322	694
1993		112,813	10,264	95,901	18,198	77,703	1,174	1,922	1,274	123	110	293	121	1,554	1,348	890	108	350	650
1994		114,046	9,776	97,376	17,958	79,418	1,325	2,011	1,343	126	113	306	124	1,527	1,397	903	114	381	634
1995		122,768	10,056	105,684	19,352	86,333	1,312	1,965	1,279	133	118	313	123	1,754	1,342	807	121	414	655
1996		129,325	9,625	112,797	18,184	94,613	1,447	1,907	1,201	136	123	325	122	1,619	1,322	743	128	451	608
1997		134,861	9,513	118,625	18,992	99,633	1,354	1,789	1,105	127	119	319	118	1,524	1,444	720	162	562	613
1998		150,029	9,551	133,760	19,127	114,634	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	1,620	743	192	685	477
2000		167,862	8,047	153,745	13,510	140,235	1,185	1,177	452	125	121	348	130	1,539	1,537	517	214	807	632
2001		161,373	8,900	146,439	12,248	134,190	521	1,242	490	129	118	368	137	1,598	1,751	659	212	880	923
2002		167,157	9,119	151,446	12,536	138,910	600	1,298	506	137	115	392	147	1,635	2,069	854	199	1,016	989
2003		162,240	9,798	145,865	11,231	134,634	682	1,424	608	146	113	407	151	1,691	1,743	456	201	1,086	1,037
2004		158,844	9,879	142,105	13,217	128,888	723	1,554	740	147	112	405	150	1,827	1,648	391	202	1,055	1,108

TABLE 4. U.S. development expenditures, by performing sector and source of funds: 1953–2006

Year	Performing sector: Source of funds:	Total	Federal	Industry				U&C				Other nonprofit				Nonprofit FFRDCs ^d			
				Industry ^a		FFRDCs ^b		U&C ^c		FFRDCs		Other nonprofit		Other					
				Total	Federal ^b	Total	Federal ^b	Total	Federal	Other government ^f	Industry	U&C	Other nonprofit	Total	Total		Federal ^d	Industry	Other nonprofit
2005 preliminary		167,906	10,667	150,108	13,963	136,145	802	1,579	746	148	114	415	156	1,863	1,782	410	214	1,158	1,106
2006 preliminary		174,275	10,215	156,898	13,963	142,935	711	1,636	773	153	116	431	164	1,890	1,825	344	225	1,256	1,100

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.

^a 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.

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

^c 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.

^d 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.

^e Industry sources of funds for industry R&D expenditures include all nonfederal sources of industry funds for R&D expenditures.

^f Because of limitations in survey information, data on other government funding to other performers are not available and are consequently 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 nonprofit sector. For trend comparisons, use only 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. Approximation equals 75% of amount reported in same fiscal year plus 25% of amount reported in subsequent fiscal year with the following exceptions. The fiscal year for academic performers generally begins July 1, not October 1, and prior to 1977 the federal fiscal year began on July 1, not October 1; thus calendar-year approximations for academic performers and for federal performers prior to 1977 equals 50% of amount reported in same fiscal year plus 50% of amount reported in subsequent fiscal year. Detail may not add to total because of rounding. Constant dollar estimates derived from unrounded data.

SOURCES: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), *Research and Development in Industry 2004* (forthcoming); NSF/SRS, *Academic Research and Development Expenditures: FY 2005* (NSF 07-318); NSF/SRS, *Federal Funds for Research and Development: FY 2004–06* (NSF 07-323); 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: 1953–2006

Year	Source of funds:		Federal								Industry				U&C	Other nonprofit			Other government ^a
	Performing sector:	Total	Total	Federal	Industry ^b	Industry FFRDCs ^b	U&C ^c	U&C FFRDCs	Other nonprofit ^d	Nonprofit FFRDCs ^d	Total	Industry ^e	U&C ^c	Other nonprofit	U&C ^c	Total	Other nonprofit	U&C ^c	U&C ^c
	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
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	1,065
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

TABLE 5. U.S. research and development expenditures, by source of funds and performing sector: 1953–2006

Year	Source of funds:		Federal								Industry				U&C	Other nonprofit			Other government ^a
	Performing sector:	Total	Total	Federal	Industry ^b	Industry FFRDCs ^b	U&C ^c	U&C FFRDCs	Other nonprofit ^d	Nonprofit FFRDCs ^d	Total	Industry ^e	U&C ^c	Other nonprofit	U&C ^c	Other			U&C ^c
		Total														Total	nonprofit	Total	
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		169,201	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	1,594	1,622
1995		183,618	62,964	16,904	21,178	2,273	13,587	5,367	2,847	808	110,870	108,652	1,547	671	4,110	3,924	2,308	1,616	1,751
1996		197,338	63,388	16,585	21,356	2,297	14,078	5,395	2,906	772	123,416	121,015	1,671	730	4,435	4,239	2,574	1,666	1,860
1997		212,142	64,567	16,819	21,798	2,130	14,523	5,463	3,014	821	136,227	133,611	1,807	809	4,837	4,590	2,804	1,786	1,921
1998		226,455	66,375	17,362	22,086	2,078	15,166	5,559	3,281	843	147,845	145,016	1,949	880	5,162	5,101	3,180	1,921	1,971
1999		245,036	67,045	17,851	20,496	2,039	16,253	5,652	3,761	993	164,660	161,594	2,082	984	5,618	5,616	3,504	2,111	2,098
2000		267,557	66,403	17,917	17,117	2,001	17,714	5,742	4,447	1,465	186,135	182,844	2,174	1,118	6,230	6,542	4,217	2,325	2,246
2001		277,736	72,820	20,426	16,899	2,020	19,769	6,225	5,289	2,192	188,439	185,118	2,189	1,132	6,824	7,256	4,712	2,545	2,396
2002		276,591	77,691	21,499	16,401	2,263	22,376	7,102	5,731	2,319	180,711	177,467	2,160	1,084	7,341	8,291	5,534	2,758	2,556
2003		289,025	83,596	22,752	17,798	2,458	25,106	7,301	5,686	2,494	186,174	182,926	2,129	1,118	7,648	8,868	6,035	2,833	2,740
2004		300,060	88,908	23,044	20,266	2,485	27,140	7,658	5,671	2,644	191,376	188,035	2,190	1,151	7,932	8,962	6,016	2,946	2,882
2005 preliminary		323,546	94,635	24,744	21,990	2,565	28,944	7,786	5,791	2,815	207,556	203,994	2,311	1,251	8,413	9,949	6,779	3,170	2,993
2006 preliminary		342,886	96,847	24,408	22,516	2,426	31,223	7,720	5,721	2,834	223,042	219,293	2,400	1,349	8,909	10,924	7,530	3,395	3,164
2000 constant \$millions																			
1953		28,282	15,251	5,563	7,838	NA	817	718	315	NA	12,313	12,058	112	143	200	301	153	148	217
1954		30,495	16,821	5,226	9,502	NA	893	871	328	NA	12,892	12,597	128	168	214	326	168	157	242
1955		33,508	19,222	5,189	10,973	656	1,019	998	341	45	13,454	13,123	144	187	224	341	171	171	267
1956		43,827	25,667	5,829	15,443	1,717	1,140	1,119	364	57	17,250	16,897	162	191	237	382	196	186	291
1957		49,447	31,104	6,474	19,603	2,031	1,205	1,330	392	70	17,314	16,948	182	185	255	454	255	200	319
1958		53,248	34,023	7,350	21,641	1,576	1,366	1,539	463	88	18,084	17,709	190	185	271	520	302	217	351
1959		60,187	39,357	8,101	25,141	2,014	1,713	1,682	600	106	19,587	19,194	190	202	294	561	323	239	388
1960		65,164	42,371	8,558	26,634	2,267	2,151	1,830	703	228	21,463	21,045	190	228	318	585	323	261	428
1961		68,450	44,575	9,340	26,719	2,608	2,615	2,068	794	430	22,357	21,939	188	230	350	696	404	291	472
1962		72,499	47,007	10,143	27,857	1,975	3,183	2,318	927	603	23,756	23,318	188	250	389	828	505	322	519
1963		80,377	53,429	11,738	31,455	1,899	3,847	2,659	1,074	757	25,030	24,592	186	252	440	904	546	358	573
1964		86,320	57,678	13,399	32,792	2,092	4,496	2,842	1,130	926	26,604	26,172	183	249	513	904	506	398	621
1965		89,872	58,549	14,006	32,692	1,655	5,179	2,793	1,269	954	29,060	28,601	184	275	604	996	550	446	663
1966		95,232	61,116	14,272	34,418	1,532	5,760	2,811	1,417	906	31,631	31,135	194	302	710	1,085	595	490	690
1967		97,709	60,949	14,416	33,256	1,754	6,238	2,913	1,431	942	34,091	33,565	216	310	835	1,132	607	525	703
1968		99,009	60,066	14,037	32,694	1,666	6,366	2,898	1,461	943	36,156	35,600	231	325	885	1,162	606	556	741
1969		99,415	58,237	14,495	30,545	1,774	6,209	2,796	1,482	937	38,283	37,696	231	356	891	1,208	616	593	795
1970		95,419	54,424	15,087	26,536	1,718	6,122	2,639	1,487	835	37,950	37,367	238	345	939	1,246	625	621	861
1971		93,225	52,612	15,250	24,818	1,698	6,086	2,541	1,475	744	37,440	36,852	249	339	1,001	1,266	636	630	906
1972		95,275	53,170	15,500	24,760	1,817	6,265	2,602	1,563	663	38,836	38,239	262	335	1,033	1,301	656	645	935

TABLE 5. U.S. research and development expenditures, by source of funds and performing sector: 1953–2006

Year	Source of funds:		Federal										Industry				U&C	Other nonprofit			Other government ^a
	Performing sector:	Total	Industry					U&C					Other		U&C ^c	Other			U&C ^c		
		Total	Total	Federal	Industry ^b	FFRDCs ^b	U&C ^c	FFRDCs ^b	U&C	Other nonprofit ^d	Nonprofit	Total	Industry ^e	U&C ^c		nonprofit	Total	nonprofit		U&C ^c	
1973		97,184	52,081	15,186	23,863	1,711	6,306	2,641	1,777	597	41,756	41,145	281	330	1,077	1,323	663	661	947		
1974		96,065	49,782	14,780	21,805	1,866	6,220	2,667	1,839	605	42,866	42,237	299	329	1,130	1,366	677	688	922		
1975		93,870	48,771	14,635	20,731	1,913	6,316	2,808	1,776	592	41,642	41,004	311	327	1,135	1,406	690	716	916		
1976		98,104	50,481	14,653	21,571	2,214	6,515	3,148	1,769	610	44,039	43,377	326	336	1,194	1,472	727	745	918		
1977		101,372	51,627	14,529	22,275	2,250	6,766	3,432	1,732	643	45,944	45,238	361	344	1,330	1,550	763	787	922		
1978		106,474	53,355	15,216	22,089	2,365	7,274	3,872	1,814	727	49,078	48,332	397	350	1,484	1,589	794	794	968		
1979		111,769	54,947	15,079	22,915	2,349	7,766	4,062	1,988	787	52,670	51,885	433	351	1,584	1,596	818	778	972		
1980		116,990	55,487	14,490	23,596	2,363	8,021	4,267	1,882	867	57,231	56,393	488	351	1,701	1,611	836	775	959		
1981		122,282	57,069	14,555	25,367	2,343	7,898	4,202	1,818	886	60,806	59,927	531	349	1,789	1,635	852	783	983		
1982		128,733	59,200	15,147	27,200	2,366	7,778	4,055	1,800	854	64,874	63,938	579	358	1,923	1,746	895	851	990		
1983		137,944	63,568	16,608	29,284	2,431	7,990	4,356	2,002	898	69,416	68,379	663	374	2,080	1,872	960	912	1,009		
1984		151,125	68,687	17,612	32,011	2,570	8,495	4,794	2,288	917	77,137	75,979	765	392	2,238	1,997	1,032	966	1,066		
1985		164,486	75,510	18,781	36,338	2,672	9,163	5,187	2,429	939	83,142	81,824	904	414	2,500	2,139	1,116	1,023	1,196		
1986		168,770	76,663	18,954	36,491	2,654	9,863	5,576	2,366	759	85,602	84,115	1,046	441	2,833	2,312	1,218	1,095	1,360		
1987		172,633	80,072	18,565	39,288	2,726	10,613	5,857	2,328	696	85,491	83,889	1,135	467	3,090	2,526	1,321	1,204	1,454		
1988		176,871	79,438	18,948	37,283	2,803	11,351	6,052	2,328	673	89,805	88,081	1,233	491	3,338	2,750	1,424	1,325	1,539		
1989		180,618	76,967	19,388	33,554	2,794	11,857	6,054	2,625	696	95,429	93,564	1,350	515	3,630	2,970	1,530	1,440	1,622		
1990		186,284	75,508	19,207	31,624	2,847	12,178	5,998	2,875	780	101,983	100,015	1,428	540	3,905	3,173	1,643	1,531	1,715		
1991		190,509	71,977	18,059	28,534	2,696	12,628	6,064	3,172	824	109,305	107,267	1,470	567	4,094	3,378	1,769	1,608	1,756		
1992		191,408	70,513	18,352	25,895	2,724	13,341	6,088	3,248	865	111,395	109,265	1,527	603	4,130	3,604	1,928	1,676	1,765		
1993		187,515	68,482	18,704	23,585	2,223	13,921	5,984	3,217	848	109,243	107,028	1,574	642	4,196	3,833	2,101	1,732	1,761		
1994		187,463	67,332	18,120	22,448	2,440	14,394	5,865	3,225	840	109,910	107,614	1,613	683	4,363	4,060	2,294	1,766	1,797		
1995		199,355	68,360	18,352	22,993	2,468	14,751	5,827	3,091	877	120,372	117,964	1,680	729	4,462	4,261	2,506	1,754	1,901		
1996		210,263	67,540	17,671	22,755	2,447	15,000	5,748	3,096	822	131,500	128,941	1,780	778	4,725	4,517	2,742	1,775	1,982		
1997		222,340	67,671	17,628	22,846	2,232	15,221	5,725	3,159	860	142,776	140,034	1,894	848	5,070	4,810	2,938	1,872	2,014		
1998		234,737	68,803	17,997	22,894	2,154	15,721	5,763	3,401	874	153,252	150,320	2,020	912	5,351	5,288	3,297	1,991	2,043		
1999		250,374	68,505	18,240	20,942	2,084	16,608	5,775	3,843	1,014	168,247	165,114	2,127	1,006	5,741	5,738	3,581	2,157	2,143		
2000		267,557	66,403	17,917	17,117	2,001	17,714	5,742	4,447	1,465	186,135	182,844	2,174	1,118	6,230	6,542	4,217	2,325	2,246		
2001		271,229	71,114	19,948	16,503	1,973	19,305	6,080	5,165	2,140	184,024	180,781	2,138	1,106	6,664	7,086	4,601	2,485	2,340		
2002		265,474	74,569	20,635	15,742	2,172	21,477	6,816	5,501	2,226	173,448	170,334	2,073	1,040	7,046	7,958	5,311	2,647	2,453		
2003		271,885	78,638	21,403	16,743	2,313	23,618	6,868	5,349	2,346	175,133	172,078	2,003	1,052	7,194	8,342	5,677	2,665	2,578		
2004		275,036	81,493	21,123	18,576	2,278	24,876	7,019	5,198	2,423	175,416	172,354	2,008	1,055	7,271	8,214	5,515	2,700	2,642		

TABLE 5. U.S. research and development expenditures, by source of funds and performing sector: 1953–2006

Year	Performing sector:	Source of funds: Total	Federal								Industry				U&C	Other nonprofit			Other government ^a
			Total	Federal	Industry ^b	FFRDCs ^b	U&C ^c	FFRDCs	Other nonprofit ^d	FFRDCs ^d	Total	Industry ^e	U&C ^c	Other nonprofit	U&C ^c	Total	Other nonprofit	U&C ^c	U&C ^c
2005 preliminary		288,754	84,458	22,083	19,625	2,289	25,831	6,949	5,168	2,513	185,237	182,057	2,063	1,117	7,508	8,879	6,050	2,829	2,671
2006 preliminary		298,862	84,412	21,274	19,625	2,114	27,214	6,728	4,987	2,470	194,405	191,138	2,092	1,175	7,765	9,522	6,563	2,959	2,758

NA=not available.

FFRDC=federally funded research and development center.

U&C=universities and colleges.

^a Because of limitations in survey information, data on other government funding to other performers are not available and are consequently 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.

^b 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.

^c 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 2006, \$1,657 million in total passed-through funds and \$1,475 million in federal passed-through funds are estimated.

^d 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.

^e 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 nonprofit sector. For trend comparisons, use only 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. Approximation equals 75% of amount reported in same fiscal year plus 25% of amount reported in subsequent fiscal year with the following exceptions. The fiscal year for academic performers generally begins July 1, not October 1, and prior to 1977 the federal fiscal year began on July 1, not October 1; thus calendar-year approximations for academic performers and for federal performers prior to 1977 equals 50% of amount reported in same fiscal year plus 50% of amount reported in subsequent fiscal year. Detail may not add to total because of rounding. Constant dollar estimates derived from unrounded data.

SOURCES: Data were derived from National Science Foundation, Division of Science Resources Statistics (NSF/SRS), *Research and Development in Industry 2004* (Arlington, VA, forthcoming); NSF/SRS, *Academic Research and Development Expenditures: Fiscal Year 2005* (Arlington, VA, forthcoming); NSF/SRS, *Federal Funds for Research and Development: Fiscal Years 2004, 2005, and 2006* (Arlington, VA, forthcoming); and NSF/SRS, *Survey of Research and Development Funding and Performance by Nonprofit Organizations: FY 1996–97*.

TABLE 6. U.S. basic research expenditures, by source of funds and performing sector: 1953–2006

Year	Source of funds:	Total	Federal								Industry				U&C	Other nonprofit			Other government ^a
	Performing sector:	Total	Total	Federal	Industry ^b	Industry FFRDCs ^c	U&C ^d	U&C FFRDCs	Other nonprofit ^e	Nonprofit FFRDCs ^e	Total	Industry ^f	U&C ^d	Other nonprofit	U&C ^d	Total	Other nonprofit	U&C ^d	U&C ^d
		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	6,583	1,343	164	137	3,331	1,284	324	9	1,600	1,313	183	105	615	512	243	269	338
1982		10,651	7,112	1,522	253	128	3,475	1,366	369	9	1,854	1,523	215	115	716	591	275	317	368
1983		11,880	7,845	1,733	346	117	3,689	1,536	426	8	2,146	1,760	260	127	816	668	311	358	396
1984		13,332	8,642	1,877	340	136	4,087	1,709	494	9	2,584	2,132	313	139	915	746	351	395	436
1985		14,748	9,394	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	10,207	2,026	434	117	5,122	1,915	594	13	4,130	3,496	466	168	1,262	936	449	488	606
1987		18,481	11,075	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

TABLE 6. U.S. basic research expenditures, by source of funds and performing sector: 1953–2006

Year	Source of funds:	Total	Federal								Industry				U&C	Other nonprofit			Other government ^a
	Performing sector:	Total	Total	Federal	Industry ^b		U&C	Other	Nonprofit	Total	Industry ^f	U&C ^d	Other	U&C ^d	Other			U&C ^d	
					FFRDCs ^c	U&C ^d	FFRDCs	nonprofit ^e	FFRDCs ^e						Total	nonprofit	U&C ^d		
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		28,742	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		29,649	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		29,609	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	987	1,069
1996		32,797	18,062	2,680	650	708	10,092	2,606	1,248	79	8,308	6,848	1,032	428	2,739	2,539	1,510	1,028	1,149
1997		36,915	19,416	2,746	1,029	625	10,920	2,671	1,317	108	10,390	8,766	1,175	449	3,144	2,718	1,557	1,161	1,248
1998		35,331	20,801	3,003	1,002	568	11,895	2,660	1,461	213	6,655	4,851	1,315	489	3,483	3,062	1,766	1,296	1,330
1999		38,872	22,709	3,347	1,108	557	12,802	2,765	1,734	397	7,505	5,537	1,422	546	3,837	3,388	1,946	1,442	1,433
2000		42,763	24,738	3,765	925	547	13,912	2,874	2,099	616	8,235	6,115	1,499	621	4,296	3,945	2,341	1,603	1,549
2001		47,785	27,565	4,260	754	552	15,515	3,104	2,464	915	9,446	7,299	1,518	629	4,733	4,381	2,616	1,765	1,661
2002		51,400	30,835	4,511	888	534	17,635	3,714	2,575	979	8,753	6,659	1,492	602	5,070	4,977	3,072	1,905	1,765
2003		55,109	33,663	4,664	1,386	299	19,823	3,747	2,714	1,029	9,026	6,944	1,461	621	5,246	5,294	3,351	1,943	1,880
2004		56,670	34,911	4,734	1,072	175	21,380	3,729	2,749	1,071	8,915	6,763	1,513	639	5,479	5,375	3,340	2,035	1,991
2005 preliminary		60,157	36,658	4,921	1,163	135	22,734	3,780	2,756	1,169	9,634	7,337	1,602	695	5,830	5,961	3,764	2,197	2,074
2006 preliminary		63,648	38,467	4,938	1,191	128	24,524	3,746	2,768	1,173	10,297	7,887	1,661	749	6,164	6,530	4,181	2,349	2,189
2000 constant \$millions																			
1953		2,519	1,452	556	104	NA	447	197	148	NA	844	723	71	49	33	153	66	88	36
1954		2,761	1,577	521	125	NA	524	239	168	NA	918	776	81	60	46	168	71	98	52
1955		3,089	1,744	520	144	NA	621	267	192	NA	1,024	864	91	69	62	184	75	109	74
1956		3,702	2,024	585	191	NA	735	299	214	NA	1,292	1,114	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		4,603	2,622	727	210	NA	985	415	285	NA	1,425	1,229	117	78	117	288	137	151	152
1959		5,238	3,207	793	347	NA	1,265	455	347	NA	1,398	1,195	116	87	137	316	145	171	181
1960		6,112	3,774	872	375	NA	1,618	504	404	NA	1,628	1,412	116	100	159	337	143	195	214
1961		7,104	4,571	1,079	381	NA	2,028	590	493	NA	1,697	1,476	117	103	187	397	174	223	252
1962		8,457	5,647	1,168	663	NA	2,529	684	603	NA	1,827	1,600	116	111	222	466	213	253	295
1963		9,704	6,632	1,305	674	NA	3,161	803	688	NA	1,948	1,720	112	115	264	516	229	287	344
1964		10,827	7,650	1,532	556	190	3,721	901	750	NA	1,961	1,735	113	113	315	520	212	307	381
1965		11,822	8,431	1,662	697	129	4,187	965	792	NA	2,048	1,802	118	129	382	541	231	311	419
1966		12,642	8,953	1,769	613	134	4,599	1,029	809	NA	2,209	1,946	125	138	459	574	250	324	447
1967		13,257	9,540	1,814	703	142	4,970	1,101	810	NA	2,070	1,787	140	142	568	603	255	347	477
1968		13,551	9,627	1,935	582	140	5,078	1,106	787	NA	2,153	1,854	151	149	627	618	253	365	525
1969		13,350	9,395	2,085	470	141	4,924	1,040	734	NA	2,067	1,752	151	164	655	648	256	392	585
1970		13,053	9,085	2,041	443	131	4,803	961	706	NA	1,929	1,613	156	160	711	677	262	416	651
1971		12,868	8,850	2,010	349	114	4,789	872	716	NA	1,904	1,577	171	156	740	704	266	438	670
1972		12,763	8,803	1,997	302	129	4,764	895	716	NA	1,873	1,535	182	156	716	723	278	444	648

TABLE 6. U.S. basic research expenditures, by source of funds and performing sector: 1953–2006

Year	Source of funds:		Federal									Industry				U&C	Other nonprofit			Other government ^a
	Performing sector:	Total	Industry			U&C			Other			Total	Other		U&C ^d	U&C ^d				
		Total	Total	Federal	Industry ^b	FFRDCs ^c	U&C ^d	FFRDCs	nonprofit ^e	FFRDCs ^e	Industry ^f		U&C ^d	nonprofit			Total	nonprofit	U&C ^d	
1973		12,872	8,939	2,047	301	113	4,674	1,077	727	NA	1,904	1,567	184	154	701	711	283	429	617	
1974		12,989	9,060	2,058	328	141	4,633	1,194	706	NA	1,889	1,544	190	155	720	733	294	439	587	
1975		12,828	8,987	1,999	274	139	4,653	1,251	671	NA	1,852	1,508	188	156	694	736	304	432	559	
1976		13,367	9,435	2,115	289	172	4,786	1,383	690	NA	1,926	1,577	187	162	705	760	325	434	542	
1977		14,054	9,906	2,205	316	175	4,945	1,560	705	NA	2,016	1,640	208	168	782	808	346	462	542	
1978		15,208	10,819	2,282	341	205	5,243	1,979	768	NA	2,121	1,716	233	172	870	831	366	464	568	
1979		15,816	11,218	2,245	325	210	5,488	2,118	833	NA	2,235	1,802	257	175	941	845	383	462	577	
1980		16,181	11,371	2,243	315	222	5,663	2,158	769	NA	2,380	1,915	288	176	1,006	856	397	459	568	
1981		16,336	11,135	2,271	277	232	5,634	2,172	548	15	2,707	2,221	309	177	1,041	867	411	456	572	
1982		16,980	11,339	2,426	403	204	5,539	2,178	588	14	2,955	2,428	344	184	1,142	943	438	505	587	
1983		18,219	12,031	2,657	531	179	5,657	2,355	653	12	3,292	2,699	398	194	1,252	1,025	476	549	607	
1984		19,705	12,774	2,774	503	201	6,040	2,526	730	14	3,819	3,151	462	206	1,352	1,103	519	584	644	
1985		21,155	13,476	2,793	514	188	6,606	2,572	803	18	4,181	3,404	558	219	1,543	1,200	569	631	738	
1986		24,075	14,326	2,843	609	164	7,188	2,688	833	18	5,796	4,907	654	236	1,771	1,314	630	684	850	
1987		25,249	15,131	2,797	817	194	7,550	2,850	923	20	5,849	4,895	702	252	1,912	1,437	692	745	900	
1988		26,140	15,982	2,796	867	445	7,843	3,001	999	31	5,647	4,633	746	268	2,021	1,558	756	802	932	
1989		27,864	17,047	2,939	1,255	507	8,174	3,018	1,095	59	5,973	4,878	811	283	2,181	1,688	823	865	974	
1990		28,223	17,227	2,842	1,065	612	8,442	3,027	1,161	79	5,773	4,608	865	300	2,364	1,822	895	927	1,038	
1991		32,139	18,098	2,816	1,481	546	8,790	3,146	1,227	91	8,476	7,253	905	318	2,519	1,966	977	990	1,080	
1992		31,955	18,187	2,800	824	549	9,328	3,319	1,290	78	8,017	6,733	943	341	2,550	2,112	1,078	1,034	1,090	
1993		32,520	18,555	2,965	527	557	9,774	3,341	1,309	82	8,074	6,745	963	366	2,566	2,248	1,189	1,059	1,077	
1994		32,849	18,580	2,822	483	557	10,125	3,251	1,259	83	8,113	6,734	985	394	2,666	2,393	1,314	1,079	1,098	
1995		32,146	18,446	2,920	206	575	10,459	2,933	1,270	82	7,290	5,840	1,026	424	2,725	2,525	1,453	1,072	1,161	
1996		34,946	19,245	2,855	693	754	10,752	2,776	1,330	84	8,853	7,297	1,100	457	2,919	2,705	1,609	1,096	1,224	
1997		38,690	20,349	2,878	1,078	655	11,445	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	1,831	1,344	1,379	
1999		39,718	23,204	3,420	1,132	570	13,081	2,825	1,772	405	7,668	5,658	1,453	558	3,921	3,462	1,988	1,473	1,464	
2000		42,763	24,738	3,765	925	547	13,912	2,874	2,099	616	8,235	6,115	1,499	621	4,296	3,945	2,341	1,603	1,549	
2001		46,666	26,919	4,161	736	539	15,151	3,031	2,406	894	9,224	7,128	1,482	614	4,622	4,278	2,555	1,724	1,623	
2002		49,335	29,596	4,329	852	513	16,926	3,564	2,471	940	8,401	6,391	1,432	578	4,866	4,777	2,949	1,828	1,694	
2003		51,841	31,667	4,388	1,304	281	18,648	3,524	2,553	968	8,490	6,532	1,374	584	4,935	4,980	3,152	1,828	1,768	
2004		51,944	31,999	4,340	983	161	19,597	3,418	2,519	982	8,171	6,199	1,387	586	5,022	4,927	3,062	1,865	1,825	

TABLE 6. U.S. basic research expenditures, by source of funds and performing sector: 1953–2006

Year	Performing sector:	Source of funds:		Federal							Industry			U&C	Other nonprofit			Other government ^a	
		Total	Total	Federal	Industry		U&C	Other	Nonprofit	Total	Industry ^f	U&C ^d	Other	Total	Other	U&C ^d	U&C ^d		
		Total	Total	Federal	Industry ^b	FFRDCs ^c	U&C ^d	FFRDCs	nonprofit ^e	FFRDCs ^e	Total	Industry ^f	U&C ^d	nonprofit	U&C ^d	Total	nonprofit	U&C ^d	U&C ^d
2005 preliminary		53,688	32,716	4,392	1,038	120	20,289	3,373	2,460	1,044	8,598	6,548	1,430	620	5,203	5,320	3,359	1,961	1,851
2006 preliminary		55,476	33,528	4,304	1,038	111	21,375	3,265	2,412	1,022	8,975	6,875	1,448	653	5,373	5,691	3,644	2,048	1,908

NA=not available.

FFRDC=federally funded research and development center.

U&C=universities and colleges.

^a Because of limitations in survey information, data on other government funding to other performers are not available and are consequently 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.

^b 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, figure for federal support to industry includes support to FFRDCs for those years.

^c Character-of-work estimates for industry FFRDCs for 1953–63 were not separated from federal support for industry; thus, figure for federal support to industry includes support to FFRDCs for those years.

^d 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.

^e 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.

^f 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 nonprofit sector. For trend comparisons, use only 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. Approximation equals 75% of amount reported in same fiscal year plus 25% of amount reported in subsequent fiscal year with the following exceptions. The fiscal year for academic performers generally begins July 1, not October 1, and prior to 1977 the federal fiscal year began on July 1, not October 1; thus calendar-year approximations for academic performers and for federal performers prior to 1977 equals 50% of amount reported in same fiscal year plus 50% of amount reported in subsequent fiscal year. Detail may not add to total because of rounding. Constant dollar estimates derived from unrounded data.

SOURCES: Data were derived from National Science Foundation, Division of Science Resources Statistics (NSF/SRS), *Research and Development in Industry 2004* (Arlington, VA, forthcoming); NSF/SRS, *Academic Research and Development Expenditures: Fiscal Year 2005* (Arlington, VA, forthcoming); NSF/SRS, *Federal Funds for Research and Development: Fiscal Years 2004, 2005, and 2006* (Arlington, VA, forthcoming); and NSF/SRS, *Survey of Research and Development Funding and Performance by Nonprofit Organizations: FY 1996–97*.

TABLE 7. U.S. applied research expenditures, by source of funds and performing sectors: 1953–2006

Year	Source of funds:	Total	Federal								Industry				U&C	Other nonprofit			Other government ^a
	Performing sector:	Total	Total	Federal	Industry ^b	Industry FFRDCs ^c	U&C ^d	U&C FFRDCs	Other nonprofit ^e	Nonprofit FFRDCs ^e	Total	Industry ^f	U&C ^d	Other nonprofit	U&C ^d	Total	Other nonprofit	U&C ^d	U&C ^d
		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	6,837	2,731	2,042	298	953	422	391	68	8,531	8,359	108	64	363	332	173	159	199
1982		18,218	7,599	2,802	2,593	367	1,007	433	398	91	9,553	9,363	121	69	402	367	189	178	207
1983		20,298	8,660	2,991	3,227	414	1,122	473	433	78	10,501	10,286	141	74	443	401	207	194	215
1984		22,451	9,419	2,961	3,677	547	1,226	548	459	80	11,788	11,541	168	79	491	438	226	212	234
1985		25,401	10,848	3,135	4,717	630	1,296	580	490	82	13,191	12,908	198	85	547	471	247	224	262
1986		27,240	10,334	3,204	4,049	629	1,393	554	506	75	15,402	15,082	229	91	620	510	270	240	298
1987		27,951	10,755	3,366	4,037	623	1,643	532	555	74	15,511	15,153	260	98	707	571	295	276	333
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

TABLE 7. U.S. applied research expenditures, by source of funds and performing sectors: 1953–2006

Year	Source of funds:	Total	Federal								Industry				U&C	Other nonprofit			Other government ^a
	Performing sector:	Total	Total	Federal	Industry ^b	Industry FFRDCs ^c	U&C ^d	U&C FFRDCs	Other nonprofit ^e	Nonprofit FFRDCs ^e	Total	Industry ^f	U&C ^d	Other nonprofit	U&C ^d	Other			U&C ^d
																Total	nonprofit	U&C ^d	
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		40,932	13,540	4,952	3,164	535	2,775	1,050	934	129	24,418	23,755	494	170	1,311	1,104	589	516	559
1996		43,165	13,954	4,872	3,640	231	2,860	1,270	960	122	26,076	25,370	524	182	1,390	1,162	640	522	583
1997		46,551	12,882	4,997	2,648	213	2,548	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		52,096	14,042	5,530	2,817	274	2,740	1,251	1,300	130	34,612	33,821	541	249	1,461	1,437	888	549	545
2000		56,932	15,783	6,105	2,682	269	3,350	1,329	1,831	217	37,330	36,494	553	283	1,586	1,660	1,069	592	572
2001		64,706	19,309	7,052	3,603	935	3,752	1,485	2,150	332	41,246	40,409	550	287	1,715	1,834	1,194	639	602
2002		51,033	19,518	7,487	2,452	1,103	4,214	1,685	2,267	309	26,903	26,081	548	275	1,862	2,102	1,402	700	648
2003		61,448	22,822	7,672	4,473	1,434	4,637	1,756	2,487	363	33,693	32,861	548	283	1,969	2,259	1,529	729	705
2004		70,093	23,575	7,532	4,775	1,521	4,951	1,935	2,496	364	41,504	40,657	556	292	2,012	2,272	1,525	747	731
2005 preliminary		75,252	24,858	7,870	5,181	1,532	5,374	1,918	2,576	407	45,007	44,108	582	317	2,118	2,516	1,718	798	753
2006 preliminary		79,291	25,113	7,750	5,305	1,482	5,812	1,805	2,559	399	48,364	47,416	606	342	2,250	2,766	1,908	857	799
2000 constant \$millions																			
1953		7,065	4,141	1,902	1,579	NA	323	260	77	NA	2,497	2,401	36	60	153	110	55	55	165
1954		7,482	4,262	1,789	1,748	NA	323	315	87	NA	2,783	2,671	41	71	152	114	60	54	171
1955		8,074	4,534	1,776	1,963	NA	336	363	96	NA	3,107	2,987	45	75	145	115	59	56	172
1956		9,938	5,282	1,993	2,444	NA	335	405	106	NA	4,218	4,094	52	72	139	129	72	57	171
1957		12,044	6,508	2,223	3,384	NA	314	469	117	NA	5,078	4,951	57	70	135	155	100	55	169
1958		13,455	7,298	2,517	3,776	NA	320	539	146	NA	5,674	5,547	59	68	133	178	122	56	172
1959		14,165	7,855	2,778	3,918	NA	373	581	205	NA	5,809	5,677	60	72	135	188	130	58	178
1960		14,567	8,229	2,921	3,959	NA	442	611	297	NA	5,827	5,684	62	81	137	190	133	57	184
1961		14,678	8,511	3,139	3,816	NA	486	681	388	NA	5,616	5,475	61	80	139	223	164	59	188
1962		17,144	9,728	3,285	4,688	NA	549	753	452	NA	6,818	6,667	63	88	141	269	209	60	188
1963		17,730	10,298	3,712	4,620	NA	585	853	528	NA	6,804	6,653	64	87	148	287	225	62	193
1964		18,983	11,123	4,277	4,419	280	642	917	587	NA	7,196	7,049	61	86	169	291	212	79	204
1965		19,408	11,327	4,409	4,402	204	779	912	621	NA	7,340	7,189	58	93	187	348	231	118	206
1966		20,074	11,324	4,366	4,254	229	897	919	658	NA	7,948	7,784	60	104	209	390	246	145	203
1967		20,290	11,564	4,472	4,114	347	994	942	695	NA	7,908	7,738	65	105	225	402	251	151	191
1968		20,620	11,281	4,462	3,837	349	1,001	885	747	NA	8,530	8,353	64	112	221	403	249	155	185
1969		20,859	11,181	4,701	3,518	363	981	815	803	NA	8,872	8,689	61	122	206	415	252	163	184
1970		20,893	11,261	4,845	3,458	352	1,015	774	817	NA	8,820	8,637	64	120	203	423	254	169	186
1971		20,176	10,692	4,687	3,137	232	1,058	745	832	NA	8,625	8,443	64	118	232	419	256	163	209
1972		20,377	10,750	4,754	2,801	355	1,295	743	804	NA	8,677	8,493	68	116	271	433	262	171	246

TABLE 7. U.S. applied research expenditures, by source of funds and performing sectors: 1953–2006

Year	Source of funds:		Federal								Industry				U&C	Other nonprofit			Other government ^a
	Performing sector:	Total	Industry ^b		U&C		Other nonprofit ^e		Other		Total	Industry ^f	U&C ^d	nonprofit	U&C ^d	Other		U&C ^d	
		Total	Federal	FFRDCs ^c	U&C ^d	FFRDCs ^c	U&C	Other	Nonprofit	FFRDCs ^e						U&C ^d	Total		nonprofit
1973		20,897	10,768	4,796	2,773	345	1,411	636	807	NA	9,087	8,892	82	113	314	454	261	193	275
1974		21,149	10,466	4,758	2,606	346	1,372	549	835	NA	9,599	9,397	91	111	339	468	262	206	277
1975		21,292	10,856	5,031	2,608	366	1,446	576	829	NA	9,263	9,052	101	109	370	505	263	242	298
1976		22,331	11,105	5,146	2,570	415	1,481	653	840	NA	9,954	9,732	111	111	412	544	272	271	317
1977		22,601	10,955	4,867	2,603	496	1,463	695	830	NA	10,316	10,084	119	112	454	563	281	282	315
1978		23,394	11,103	4,899	2,612	514	1,477	708	893	NA	10,888	10,643	132	113	507	566	287	279	330
1979		24,415	11,307	4,874	2,634	505	1,600	726	969	NA	11,699	11,444	144	112	531	551	291	260	326
1980		25,377	11,541	4,711	3,007	509	1,688	779	848	NA	12,394	12,120	163	110	570	552	292	260	321
1981		27,621	11,565	4,620	3,454	504	1,611	714	661	115	14,430	14,139	182	108	613	561	292	269	337
1982		29,044	12,114	4,466	4,134	585	1,605	690	634	145	15,229	14,927	193	109	641	585	301	283	331
1983		31,129	13,281	4,587	4,949	635	1,721	726	664	119	16,104	15,774	217	113	680	615	317	298	330
1984		33,184	13,921	4,376	5,435	809	1,812	811	679	119	17,424	17,059	248	117	726	648	334	313	346
1985		36,435	15,560	4,497	6,766	904	1,860	831	702	118	18,921	18,516	284	122	785	676	355	321	375
1986		38,231	14,504	4,497	5,683	883	1,955	777	710	106	21,617	21,168	321	128	871	716	379	337	418
1987		38,186	14,694	4,598	5,515	851	2,244	726	758	101	21,190	20,702	355	133	966	780	403	377	455
1988		39,009	14,199	4,442	5,081	490	2,586	722	791	87	22,377	21,839	399	138	1,081	855	426	429	498
1989		41,087	14,960	4,540	5,504	476	2,699	767	884	89	23,489	22,904	442	143	1,188	919	448	471	531
1990		42,769	16,784	4,476	7,313	473	2,622	844	955	100	23,201	22,591	462	147	1,264	966	470	495	555
1991		45,746	16,909	4,848	6,617	513	2,641	1,097	1,091	102	25,989	25,372	464	153	1,292	1,003	496	507	554
1992		43,912	15,846	5,020	5,181	587	2,793	1,089	1,081	94	25,162	24,523	479	160	1,296	1,054	528	526	554
1993		42,182	15,922	5,474	4,860	492	2,873	1,089	1,018	116	23,248	22,580	501	167	1,336	1,114	562	552	561
1994		40,567	15,286	5,523	4,006	557	2,926	1,087	1,063	123	22,153	21,463	514	176	1,392	1,163	599	563	573
1995		44,440	14,700	5,377	3,435	581	3,013	1,140	1,014	140	26,511	25,791	536	184	1,424	1,199	639	560	607
1996		45,992	14,868	5,191	3,878	246	3,047	1,353	1,022	130	27,783	27,032	558	193	1,481	1,239	682	557	622
1997		48,789	13,502	5,237	2,775	223	2,671	1,402	1,059	135	31,972	31,214	543	215	1,455	1,282	745	537	579
1998		48,084	13,319	5,334	2,728	238	2,370	1,422	1,099	128	31,428	30,658	539	231	1,427	1,366	836	531	545
1999		53,231	14,347	5,650	2,878	280	2,800	1,278	1,328	132	35,366	34,558	553	255	1,492	1,468	907	561	557
2000		56,932	15,783	6,105	2,682	269	3,350	1,329	1,831	217	37,330	36,494	553	283	1,586	1,660	1,069	592	572
2001		63,190	18,856	6,887	3,519	913	3,664	1,450	2,100	324	40,280	39,462	538	280	1,675	1,791	1,166	624	588
2002		48,982	18,733	7,186	2,353	1,059	4,045	1,618	2,175	296	25,822	25,033	526	264	1,787	2,017	1,346	671	622
2003		57,804	21,468	7,217	4,208	1,349	4,362	1,652	2,339	341	31,695	30,912	516	267	1,852	2,125	1,439	686	664
2004		64,248	21,609	6,904	4,377	1,394	4,539	1,774	2,288	334	38,043	37,266	509	267	1,844	2,082	1,398	685	670

TABLE 7. U.S. applied research expenditures, by source of funds and performing sectors: 1953–2006

Year	Performing sector:	Source of funds:		Federal							Industry				U&C	Other nonprofit			Other government ^a
		Total	Total	Federal	Industry ^b	Industry FFRDCs ^c	U&C ^d	U&C	Other	Nonprofit	Total	Industry ^f	U&C ^d	Other	U&C ^d	Total	Other	U&C ^d	U&C ^d
		Total	Total	Federal	Industry ^b	FFRDCs ^c	U&C ^d	FFRDCs	nonprofit ^e	FFRDCs ^e	Total	Industry ^f	U&C ^d	nonprofit	U&C ^d	Total	nonprofit	U&C ^d	U&C ^d
2005 preliminary		67,160	22,185	7,024	4,624	1,367	4,796	1,712	2,299	363	40,167	39,365	519	283	1,890	2,245	1,533	712	672
2006 preliminary		69,111	21,888	6,755	4,624	1,292	5,066	1,573	2,230	348	42,154	41,328	528	298	1,961	2,411	1,663	747	697

NA=not available.

FFRDC=federally funded research and development center.

U&C=universities and colleges.

^a Because of limitations in survey information, data on other government funding to other performers are not available and are consequently 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.

^b 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, figure for federal support to industry includes support to FFRDCs for those years.

^c Character-of-work estimates for industry FFRDCs for 1953–63 were not separated from federal support for industry; thus, figure for federal support to industry includes support to FFRDCs for those years.

^d 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.

^e 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.

^f 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 nonprofit sector. For trend comparisons, use only 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. Approximation equals 75% of amount reported in same fiscal year plus 25% of amount reported in subsequent fiscal year with the following exceptions. The fiscal year for academic performers generally begins 1 July, not 1 October, and prior to 1977 the federal fiscal year began on 1 July, not 1 October; thus calendar-year approximations for academic performers and for federal performers prior to 1977 equals 50% of amount reported in same fiscal year plus 50% of amount reported in subsequent fiscal year.

SOURCES: Data were derived from National Science Foundation, Division of Science Resources Statistics (NSF/SRS), *Research and Development in Industry 2004* (Arlington, VA, forthcoming); NSF/SRS, *Academic Research and Development Expenditures: Fiscal Year 2005* (Arlington, VA, forthcoming); NSF/SRS, *Federal Funds for Research and Development: Fiscal Years 2004, 2005, and 2006* (Arlington, VA, forthcoming); and NSF/SRS, *Survey of Research and Development Funding and Performance by Nonprofit Organizations: FY 1996–97*.

TABLE 8. U.S. development expenditures, by source of funds and performing sector: 1953–2006

Year	Source of funds:	Total	Federal							Industry				U&C	Other nonprofit			Other government ^a	
	Performing sector:	Total	Total	Federal	Industry ^b	Industry FFRDCs ^c	U&C ^d	U&C FFRDCs	Other nonprofit ^e	Nonprofit FFRDCs ^e	Total	Industry ^f	U&C ^d	Other nonprofit	U&C ^d	Total	Other nonprofit	U&C ^d	U&C ^d
		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	19,795	4,530	12,791	950	386	778	360	447	25,817	25,756	24	37	80	123	88	35	44
1982		51,879	21,886	5,178	14,215	989	397	745	362	436	29,286	29,219	27	40	88	137	98	39	46
1983		57,771	24,360	6,106	15,522	1,054	399	832	447	500	32,617	32,542	31	44	97	151	109	43	47
1984		66,461	27,789	7,078	17,640	1,056	435	986	594	530	37,815	37,731	37	47	108	167	120	47	51
1985		74,522	31,745	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	33,540	8,275	21,517	1,145	513	1,504	587	453	41,460	41,354	50	55	136	201	149	53	65
1987		79,929	36,270	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

TABLE 8. U.S. development expenditures, by source of funds and performing sector: 1953–2006

Year	Source of funds:	Total	Federal								Industry				U&C	Other nonprofit			Other government ^a
	Performing sector:	Total	Total	Federal	Industry ^b	Industry FFRDCs ^c	U&C ^d	U&C FFRDCs	Other nonprofit ^e	Nonprofit FFRDCs ^e	Total	Industry ^f	U&C ^d	Other nonprofit	U&C ^d	Total	Other nonprofit	U&C ^d	U&C ^d
		Total	Total	Federal	Industry ^b	Industry FFRDCs ^c	U&C ^d	U&C FFRDCs	Other nonprofit ^e	Nonprofit FFRDCs ^e	Total	Industry ^f	U&C ^d	Other nonprofit	U&C ^d	Total	Other nonprofit	U&C ^d	U&C ^d
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		102,937	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		144,736	32,726	9,214	18,452	1,280	985	1,527	760	507	110,871	110,589	114	168	302	721	609	112	115
1999		154,068	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		167,862	25,882	8,047	13,510	1,185	452	1,539	517	632	140,570	140,235	121	214	348	937	807	130	125
2001		165,245	25,947	9,114	12,542	534	501	1,637	675	945	137,747	137,410	121	217	377	1,042	901	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		172,468	27,111	10,416	11,939	725	646	1,798	485	1,102	143,455	143,121	120	214	432	1,315	1,155	160	155
2004		173,297	30,422	10,778	14,419	789	808	1,993	426	1,209	140,957	140,615	122	220	442	1,315	1,151	164	161
2005 preliminary		188,138	33,119	11,952	15,645	899	836	2,088	460	1,239	152,916	152,549	128	239	465	1,472	1,297	175	165
2006 preliminary		199,947	33,267	11,720	16,020	816	887	2,168	395	1,262	164,381	163,990	133	258	494	1,629	1,441	188	175
2000 constant \$millions																			
1953		18,699	9,658	3,105	6,155	NA	47	260	90	NA	8,972	8,934	5	33	14	38	33	5	16
1954		20,274	11,003	2,916	7,629	NA	46	318	95	NA	9,192	9,149	5	38	17	43	38	5	19
1955		22,347	12,944	2,894	9,522	NA	61	368	99	NA	9,322	9,272	8	43	17	43	37	5	20
1956		30,186	18,361	3,251	14,525	NA	70	415	101	NA	11,740	11,689	10	41	19	44	36	8	23
1957		33,341	22,342	3,631	18,045	NA	60	504	102	NA	10,902	10,849	12	40	21	50	40	10	26
1958		35,191	24,102	4,105	19,231	NA	61	585	120	NA	10,986	10,933	15	39	21	54	44	10	28
1959		40,783	28,295	4,530	22,890	NA	75	646	154	NA	12,380	12,322	14	43	22	58	48	10	29
1960		44,485	30,367	4,765	24,566	NA	90	715	231	NA	14,008	13,949	12	48	22	57	48	10	30
1961		46,667	31,491	5,120	25,130	NA	101	797	343	NA	15,044	14,988	9	47	24	75	66	9	32
1962		46,897	31,631	5,689	24,481	NA	104	881	475	NA	15,111	15,050	9	51	27	93	83	9	36
1963		52,943	36,500	6,721	28,060	NA	101	1,002	615	NA	16,278	16,219	9	50	28	101	92	9	36
1964		56,511	38,906	7,591	27,817	1,622	133	1,023	718	NA	17,447	17,388	9	50	30	93	81	11	36
1965		58,643	38,792	7,937	27,593	1,322	213	916	810	NA	19,672	19,610	9	53	35	107	89	18	38
1966		62,517	40,841	8,137	29,551	1,169	263	863	856	NA	21,474	21,405	9	60	42	121	99	22	40
1967		64,165	39,847	8,132	28,438	1,264	274	871	868	NA	24,113	24,040	10	63	42	128	100	27	36
1968		64,839	39,158	7,643	28,274	1,176	287	907	871	NA	25,473	25,392	16	64	37	140	104	36	31
1969		65,207	37,661	7,709	26,556	1,270	304	941	881	NA	27,344	27,256	19	69	30	145	107	38	27
1970		61,472	34,077	8,201	22,635	1,235	303	904	799	NA	27,201	27,117	18	65	26	145	109	36	23
1971		60,181	33,070	8,553	21,331	1,352	239	924	671	NA	26,911	26,831	14	66	30	144	114	29	27
1972		62,134	33,617	8,749	21,657	1,333	207	965	706	NA	28,285	28,211	12	63	45	146	116	30	41

TABLE 8. U.S. development expenditures, by source of funds and performing sector: 1953–2006

Year	Source of funds:		Federal								Industry				U&C	Other nonprofit			Other government ^a
	Performing sector:	Total	Total		Industry ^b	Industry FFRDCs ^c	U&C ^d	U&C FFRDCs	Other nonprofit ^e	Nonprofit FFRDCs ^e	Total	Industry ^f	U&C ^d	Other nonprofit	U&C ^d	Total	Other nonprofit	U&C ^d	U&C ^d
		Total	Total	Federal	Industry ^b	Industry FFRDCs ^c	U&C ^d	U&C FFRDCs	Other nonprofit ^e	Nonprofit FFRDCs ^e	Total	Industry ^f	U&C ^d	Other nonprofit	U&C ^d	Total	Other nonprofit	U&C ^d	U&C ^d
1973		63,415	32,374	8,343	20,789	1,253	221	928	840	NA	30,764	30,686	16	63	63	159	119	39	55
1974		61,927	30,256	7,964	18,871	1,379	215	924	903	NA	31,378	31,297	19	62	71	165	122	43	58
1975		59,750	28,928	7,605	17,850	1,408	217	980	868	NA	30,527	30,444	21	62	72	165	123	42	58
1976		62,406	29,941	7,393	18,713	1,627	248	1,112	848	NA	32,159	32,067	29	63	77	169	130	40	60
1977		64,717	30,767	7,457	19,356	1,579	358	1,177	840	NA	33,613	33,515	34	64	94	179	135	43	65
1978		67,872	31,434	8,034	19,136	1,646	555	1,184	880	NA	36,069	35,973	32	65	107	192	140	51	70
1979		71,538	32,421	7,959	19,957	1,635	679	1,218	974	NA	38,735	38,640	31	65	113	200	144	56	69
1980		75,431	32,575	7,536	20,275	1,632	670	1,330	1,133	NA	42,457	42,358	36	64	125	204	147	57	71
1981		78,325	33,483	7,663	21,636	1,607	653	1,316	608	756	43,670	43,566	40	63	135	208	149	59	74
1982		82,709	34,892	8,255	22,662	1,577	634	1,187	578	696	46,689	46,583	42	64	141	218	156	62	73
1983		88,597	37,357	9,363	23,804	1,616	612	1,275	686	766	50,020	49,906	48	67	149	232	166	65	72
1984		98,235	41,075	10,462	26,073	1,561	643	1,458	879	784	55,894	55,770	54	70	159	247	178	69	76
1985		106,896	45,535	11,491	29,059	1,581	697	1,784	924	803	60,040	59,904	62	73	172	262	192	71	82
1986		106,464	47,074	11,614	30,199	1,607	720	2,111	823	635	58,189	58,041	71	78	191	282	209	74	92
1987		109,198	49,551	11,169	32,955	1,680	818	2,281	647	576	58,451	58,292	78	82	212	308	225	83	100
1988		111,722	49,257	11,710	31,335	1,868	922	2,328	538	555	61,782	61,609	88	85	237	336	242	94	109
1989		111,667	44,960	11,909	26,794	1,811	984	2,268	645	548	65,967	65,781	97	89	261	362	259	103	117
1990		115,292	41,498	11,889	23,245	1,762	1,115	2,127	759	601	73,009	72,815	102	92	277	386	277	109	122
1991		112,624	36,971	10,395	20,435	1,638	1,197	1,820	855	631	74,840	74,642	102	97	284	408	297	111	122
1992		115,541	36,480	10,531	19,889	1,588	1,220	1,681	878	694	78,216	78,009	105	102	285	438	322	115	122
1993		112,813	34,005	10,264	18,198	1,174	1,274	1,554	890	650	77,921	77,703	110	108	293	471	350	121	123
1994		114,046	33,466	9,776	17,958	1,325	1,343	1,527	903	634	79,644	79,418	113	114	306	504	381	124	126
1995		122,768	35,214	10,056	19,352	1,312	1,279	1,754	807	655	86,571	86,333	118	121	313	537	414	123	133
1996		129,325	33,427	9,625	18,184	1,447	1,201	1,619	743	608	94,864	94,613	123	128	325	573	451	122	136
1997		134,861	33,821	9,513	18,992	1,354	1,105	1,524	720	613	99,914	99,633	119	162	319	680	562	118	127
1998		150,029	33,922	9,551	19,127	1,327	1,021	1,583	788	526	114,926	114,634	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	808	685	123	122
2000		167,862	25,882	8,047	13,510	1,185	452	1,539	517	632	140,570	140,235	121	214	348	937	807	130	125
2001		161,373	25,339	8,900	12,248	521	490	1,598	659	923	134,520	134,190	118	212	368	1,017	880	137	129
2002		167,157	26,240	9,119	12,536	600	506	1,635	854	989	139,224	138,910	115	199	392	1,164	1,016	147	137
2003		162,240	25,503	9,798	11,231	682	608	1,691	456	1,037	134,948	134,634	113	201	407	1,237	1,086	151	146
2004		158,844	27,885	9,879	13,217	723	740	1,827	391	1,108	129,202	128,888	112	202	405	1,205	1,055	150	147

TABLE 8. U.S. development expenditures, by source of funds and performing sector: 1953–2006

Year	Performing sector:	Source of funds:		Federal							Industry			U&C	Other nonprofit			Other government ^a	
		Total	Total	Industry		U&C		Other	Nonprofit	Total	Industry ^f	U&C ^d	Other	Other		U&C ^d			
		Total	Total	Federal	Industry ^b	FFRDCs ^c	U&C ^d	FFRDCs	nonprofit ^e	FFRDCs ^e	Total	Industry ^f	U&C ^d	nonprofit	U&C ^d	Total	nonprofit	U&C ^d	U&C ^d
2005 preliminary		167,906	29,558	10,667	13,963	802	746	1,863	410	1,106	136,473	136,145	114	214	415	1,314	1,158	156	148
2006 preliminary		174,275	28,996	10,215	13,963	711	773	1,890	344	1,100	143,276	142,935	116	225	431	1,420	1,256	164	153

NA=not available.

FFRDC=federally funded research and development center

U&C=universities and colleges.

^a Because of limitations in survey information, data on other government funding to other performers are not available and are consequently 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.

^b 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, figure for federal support to industry includes support to FFRDCs for those years.

^c Character-of-work estimates for industry FFRDCs for 1953–63 were not separated from federal support for industry; thus, figure for federal support to industry includes support to FFRDCs for those years.

^d 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.

^e 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.

^f 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 nonprofit sector. For trend comparisons, use only 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. Approximation equals 75% of amount reported in same fiscal year plus 25% of amount reported in subsequent fiscal year with the following exceptions. The fiscal year for academic performers generally begins July 1, not October 1, and prior to 1977 the federal fiscal year began on July 1, not October 1; thus calendar-year approximations for academic performers and for federal performers prior to 1977 equals 50% of amount reported in same fiscal year plus 50% of amount reported in subsequent fiscal year. Detail may not add to total because of rounding. Constant dollar estimates derived from unrounded data.

SOURCES: Data were derived from National Science Foundation, Division of Science Resources Statistics (NSF/SRS), *Research and Development in Industry 2004* (Arlington, VA, forthcoming); NSF/SRS, *Academic Research and Development Expenditures: Fiscal Year 2005* (Arlington, VA, forthcoming); NSF/SRS, *Federal Funds for Research and Development: Fiscal Years 2004, 2005, and 2006* (Arlington, VA, forthcoming); and NSF/SRS, *Survey of Research and Development Funding and Performance by Nonprofit Organizations: FY 1996–97*.

TABLE 9. Research and development expenditures, by state, performing sector, and source of funds: 2003

(Millions of current dollars)

State	Performing sector:										Other nonprofit								R&D intensity ^b		
	Source of funds:	All R&D	R&D rank	Federal		FFRDCs		Industry			U&C ^a				Other		Federal ^e	GSP	rank	GSP	
				Federal	Total	Federal	Non-federal ^c	Total	Federal	Industry ^d	Total	Other		Other nonprofit	GSP						
												government	Industry		U&C	Percent				Rank	
State total ^f	277,577	na	21,863	12,115	11,671	445	198,244	20,595	177,647	39,976	24,662	2,645	2,157	7,670	2,843	5,379	10,923,849	na	2.54	na	
Alabama	2,543	27	937	0	0	0	999	461	539	558	410	7	15	105	21	49	130,792	25	1.94	28	
Alaska	321	48	131	0	0	0	36	5	31	141	77	5	23	33	3	13	31,704	46	1.01	40	
Arizona	3,578	22	291	44	44	0	2,605	574	2,031	618	342	40	40	172	25	19	183,272	22	1.95	27	
Arkansas	509	43	53	0	0	0	270	7	263	183	82	55	10	27	9	3	74,540	34	0.68	47	
California	59,664	1	2,834	3,404	3,297	107	47,142	4,497	42,644	5,363	3,184	283	251	1,080	564	920	1,438,134	1	4.15	7	
Colorado	5,012	17	350	362	357	5	3,544	95	3,449	695	535	31	37	71	21	61	188,397	21	2.66	16	
Connecticut	6,548	13	96	0	0	0	5,834	852	4,982	595	418	9	28	71	68	24	174,085	23	3.76	9	
Delaware	1,414	35	9	0	0	0	1,298	12	1,285	105	73	4	3	20	5	2	50,486	39	2.80	14	
District of Columbia	2,686	26	1,960	7	7	0	235	95	140	263	215	4	11	14	20	221	70,668	36	3.80	8	
Florida	5,172	16	721	0	0	0	3,181	1,031	2,150	1,205	668	119	69	285	65	65	553,709	4	0.93	44	
Georgia	3,923	20	614	0	0	0	2,108	57	2,051	1,176	638	85	74	322	56	25	321,199	10	1.22	37	
Hawaii	438	45	87	0	0	0	133	53	80	185	149	12	7	17	0	33	46,671	42	0.94	43	
Idaho	1,209	36	27	330	318	12	745	9	736	105	56	19	6	23	2	2	40,358	44	2.99	12	
Illinois	11,045	8	223	804	769	35	8,319	190	8,129	1,614	964	94	49	400	108	86	499,731	5	2.21	20	
Indiana	4,487	19	96	0	0	0	3,658	256	3,401	726	328	51	51	237	59	7	213,342	15	2.10	24	
Iowa	1,451	34	87	25	25	0	833	7	826	499	284	51	36	115	13	7	102,400	29	1.42	34	
Kansas	2,024	28	35	0	0	0	1,675	D	D	310	156	42	8	87	17	4	93,263	31	2.17	21	
Kentucky	1,014	37	33	0	0	0	601	21	580	378	173	51	9	113	33	3	128,315	26	0.79	46	
Louisiana	954	39	128	0	0	0	295	24	271	524	224	106	31	126	38	7	144,321	24	0.66	48	
Maine	372	47	24	0	0	0	200	30	169	75	31	12	3	25	4	73	40,829	43	0.91	45	
Maryland	10,162	9	3,538	296	296	0	3,998	1,745	2,253	2,031	1,504	63	99	257	108	299	213,073	16	4.77	3	
Massachusetts	15,638	3	899	523	516	7	11,094	2,153	8,941	1,822	1,379	43	129	98	172	1,301	297,113	13	5.26	2	
Michigan	16,884	2	243	0	0	0	15,241	213	15,028	1,388	793	94	69	347	86	11	359,440	9	4.70	4	
Minnesota	5,842	15	141	0	0	0	5,003	236	4,767	517	298	60	25	73	62	181	210,184	17	2.78	15	
Mississippi	1,519	32	163	0	0	0	1,021	D	D	324	208	37	10	63	7	11	71,872	35	2.11	23	
Missouri	2,731	25	158	0	0	0	1,742	80	1,662	807	520	34	27	183	45	24	193,828	20	1.41	35	
Montana	247	49	29	0	0	0	65	2	63	141	85	22	7	26	1	12	25,584	48	0.97	41	
Nebraska	710	40	41	0	0	0	363	7	356	301	106	12	22	140	20	5	65,399	37	1.09	39	
Nevada	579	41	37	0	0	0	383	31	352	155	104	8	6	33	4	5	89,711	32	0.65	49	
New Hampshire	1,664	30	55	0	0	0	1,349	D	D	252	166	8	11	49	19	7	48,202	40	3.45	10	
New Jersey	12,795	6	559	67	66	1	11,401	215	11,185	748	361	68	37	212	70	20	394,040	8	3.25	11	
New Mexico	4,977	18	455	3,849	3,687	162	349	165	184	307	200	15	15	69	8	17	57,078	38	8.72	1	
New York	13,031	5	572	453	437	16	8,556	598	7,958	3,090	2,015	161	133	524	258	359	838,035	2	1.55	32	
North Carolina	6,343	14	413	0	0	0	4,424	108	4,315	1,395	838	117	184	207	48	112	315,456	11	2.01	25	
North Dakota	382	46	30	0	0	0	216	2	214	134	66	4	7	51	6	2	21,597	50	1.77	31	
Ohio	8,583	11	800	0	0	0	6,260	425	5,835	1,269	743	39	74	317	96	254	398,918	7	2.15	22	
Oklahoma	968	38	68	0	0	0	577	33	545	295	127	41	17	94	16	28	101,168	30	0.96	42	
Oregon	3,572	23	124	0	0	0	2,973	39	2,934	437	318	38	11	47	24	37	119,973	28	2.98	13	
Pennsylvania	9,944	10	453	45	44	2	7,091	166	6,925	2,014	1,444	94	141	212	122	342	443,709	6	2.24	19	

TABLE 9. Research and development expenditures, by state, performing sector, and source of funds: 2003

(Millions of current dollars)

State	Performing sector:		Source of funds:										Other nonprofit		R&D intensity ^b						
	Source of funds:	All R&D	Federal		FFRDCs			Industry			U&C ^a		Other		Federal ^e	GSP	GSP				
			R&D rank	Federal	Total	Federal	Non-federal ^c	Total	Federal	Industry ^d	Total	Federal	Other government	Industry			U&C	Other nonprofit	rank	Percent	Rank
Rhode Island		1,757	29	301	0	0	0	1,203	D	D	187	134	7	3	37	7	66	39,363	45	4.46	6
South Carolina		1,616	31	79	94	94	0	976	36	940	435	226	22	23	152	12	31	127,963	27	1.26	36
South Dakota		149	50	20	0	0	0	75	2	73	50	28	10	1	5	6	4	27,337	47	0.55	50
Tennessee		2,998	24	140	691	664	26	1,507	206	1,302	600	383	55	22	105	36	61	203,071	18	1.48	33
Texas		14,785	4	830	18	17	1	11,057	638	10,419	2,766	1,552	339	174	417	284	115	821,943	3	1.80	30
Utah		1,506	33	116	0	0	0	996	135	861	385	264	23	9	57	32	8	76,674	33	1.96	26
Vermont		492	44	24	0	0	0	360	10	349	107	72	3	8	17	7	1	20,544	51	2.39	18
Virginia		7,582	12	2,166	381	373	8	4,152	1,846	2,306	776	483	77	57	116	44	107	304,116	12	2.49	17
Washington		11,469	7	412	679	615	64	9,222	103	9,119	870	642	20	52	129	27	286	245,143	14	4.68	5
West Virginia		538	42	125	43	43	0	219	21	198	121	74	3	2	39	3	30	46,726	41	1.15	38
Wisconsin		3,642	21	126	0	0	0	2,623	34	2,589	881	504	50	20	222	84	12	198,096	19	1.84	29
Wyoming		113	51	9	0	0	0	37	2	35	60	23	2	3	29	3	7	22,279	49	0.51	51
Other and unknown		5,762	na	0	0	0	0	5,762	104	5,658	0	0	0	0	0	0	0	na	na	na	na

na=not applicable; D=data withheld to avoid disclosing operations of individual companies; FFRDC=federally funded research and development center; GSP=gross state product;

R&D=research and development; U&C=universities and colleges.

^aState-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 2.8% of total R&D expenditures reported by universities and colleges in FY2003.

^bR&D intensity is ratio of total R&D performed in a state to GSP.

^cNonfederal sources of funds for R&D expenditures reported by FFRDCs in FY2003 included state and local governments (\$31 million), industry (\$141 million), FFRDC institutional funds (\$140 million), and other sources (\$133 million).

^dIndustry sources of funds for industry R&D expenditures include all nonfederal sources of funds of industry R&D expenditures.

^eOther sources of funds for other nonprofit institutions were unavailable by state. For 2003, total other nonprofit performance is estimated at \$12.0 billion. Industry provided an estimated \$1.1 billion to other nonprofit sector, and other nonprofit institutions provided an estimated \$5.1 billion.

^fState totals differ from U.S. totals reported elsewhere 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.

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. Detail may not add to total because of rounding.

SOURCES: Data were derived from National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Survey of Industrial Research and Development, 2003; NSF/SRS, Survey of Research and Development Expenditures at Universities and Colleges: FY 2003; and NSF/SRS, Survey of Federal Funds for Research and Development: FY 2003. GSP data are from the U.S. Bureau of Economic Analysis, <http://www.bea.gov/bea/regional/gsp.htm>.

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

(Millions of current dollars)

State	Performing sector: Source of funds:	All R&D	R&D rank	Performing sector:														Other nonprofit		R&D intensity ^b		
				Federal		FFRDCs			Industry			U&C ^a				Other nonprofit	Federal ^e	GDP	rank	Percent Rank		
				Federal	Total	Federal	Total	Federal	Industry ^d	Total	Federal	Other government	Industry	U&C	Other nonprofit					Percent	Rank	
State total ^f		283,439	na	21,438	12,704	12,351	353	201,131	20,655	176,180	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	
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	

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

(Millions of current dollars)

State	Performing sector: Source of funds:	All R&D	R&D rank	Federal		FFRDCs			Industry			U&C ^a				Other nonprofit		GDP	R&D intensity ^b			
				Federal	Total	Federal	Non-federal ^c	Total	Federal	Industry ^d	Total	Federal	Other government	Industry	U&C	Other nonprofit	Federal ^e		GDP	rank	Percent	Rank
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		7,169	na	0	0	0	0	7,169	44	7,125	0	0	0	0	0	0	0	na	na	na	na	

na=not applicable; 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.

^aState-level U&C 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.

^bR&D intensity is ratio of total R&D performed in a state to its GDP.

^cNonfederal sources of funds for 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).

^dIndustry sources of funds for industry R&D expenditures include all nonfederal sources of funds for industry R&D expenditures.

^eOther sources of funds for other nonprofit institutions were unavailable by state. For 2004, total other nonprofit performance is estimated at \$12.8 billion. Industry provided an estimated \$1.2 billion to other nonprofit sector, and other nonprofit institutions provided an estimated \$6.0 billion.

^fState totals differ from U.S. totals reported elsewhere 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.

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. Detail may not add to total because of rounding.

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/beat/regional/gsp.htm>.

TABLE 11. Federally funded research and development centers' R&D expenditures: FY 2004
(Thousands of current dollars)

FFRDC	Total	Federal	Sponsoring agency	Location
All FFRDCs	12,716,055	12,362,279		
University-administered FFRDCs	7,578,865	7,424,037		
Ames Laboratory	27,227	27,227	Department of Energy	Ames, IA
Argonne National Laboratory	520,881	473,824	Department of Energy	Argonne, IL
AUI National Radio Astronomy Observatory	42,215	41,874	NSF	Green Bank, WV
Fermi National Accelerator Laboratory	318,435	318,395	Department of Energy	Batavia, IL
Jet Propulsion Laboratory	1,551,171	1,551,171	NASA	Pasadena, CA
Lawrence Berkeley National Laboratory	482,159	421,712	Department of Energy	Berkeley, CA
Lawrence Livermore National Laboratory	1,425,840	1,405,250	Department of Energy	Livermore, CA
Los Alamos National Laboratory	1,986,235	1,973,000	Department of Energy	Los Alamos, NM
MA Institute of Technology Lincoln Laboratory	594,822	589,022	DOD, Department of the Air Force	Lexington, MA
National Astronomy and Ionosphere Center	12,285	11,148	NSF	Arecibo, PR
National Center for Atmospheric Research	154,714	151,326	NSF	Boulder, CO
National Optical Astronomy Observatory	43,020	43,020	NSF	Tucson, AZ
Princeton Plasma Physics Laboratory	75,255	74,637	Department of Energy	Princeton, NJ
Software Engineering Institute	57,920	56,387	DOD, Office of the Secretary of Defense	Pittsburgh, PA
Stanford Linear Accel Center	182,027	182,027	Department of Energy	Stanford, CA
Thomas Jefferson National Accelerator Facility	104,659	104,017	Department of Energy	Newport News, VA
Industry-administered FFRDCs	2,550,796	2,490,735		
Idaho National Engineering and Environmental Laboratory	180,306	167,583	Department of Energy	Idaho Falls, ID
National Cancer Institute at Frederick	335,000	335,000	NIH	Frederick, MD
Sandia National Laboratory	1,941,164	1,893,826	Department of Energy	Albuquerque, NM
Savannah River Technology Center	94,326	94,326	Department of Energy	Aiken, SC
Nonprofit-administered FFRDCs	2,586,394	2,447,507		
Aerospace Corporation	32,529	14,312	DOD, Department of the Air Force	El Segundo, CA
Arroyo Center	26,101	26,101	DOD, Department of the Army	Santa Monica, CA
Brookhaven National Laboratory	450,342	432,180	Department of Energy	Upton, NY
C3I FFRDC	35,932	35,932	DOD, Office of the Secretary of Defense	Bedford, MA/McLean, VA
Center for Advanced Aviation System Development	6,462	3,180	FAA	McLean, VA
Center for Naval Analyses	79,087	74,438	DOD, Department of the Navy	Alexandria, VA
Center for Nuclear Waste Regulatory Analyses	16,847	15,447	Nuclear Regulatory Commission	San Antonio, TX
Institute for Defense Analyses Communications and Computing	50,238	50,238	National Security Agency	Alexandria, VA
Institute for Defense Analysis Studies	126,226	126,226	DOD, Office of the Secretary of Defense	Alexandria, VA
Internal Revenue Service FFRDC	3,687	3,687	IRS	McLean, VA
National Defense Research Institute	26,550	26,550	DOD, Office of the Secretary of Defense	Santa Monica, CA
National Renewable Energy Laboratory	226,460	222,977	Department of Energy	Golden, CO
Oak Ridge National Laboratory	776,203	750,209	Department of Energy	Oak Ridge, TN
Pacific Northwest National Laboratory	693,000	629,300	Department of Energy	Richland, WA
Project Air Force	33,049	33,049	DOD, Department of the Air Force	Santa Monica, CA
Science and Technology Policy Institute	3,681	3,681	NSF	Washington, DC

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 2004* (2006).

TABLE 12. Trends in federal and nonfederal research and development expenditures as percentage of total research and development: 1953–2006 (Percent)

Year	Federal				Nonfederal
	Total	Defense related	Space related	Civilian 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	8.0	41.4
1957	62.9	52.8	1.0	9.2	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	10.9	33.2
1965	65.1	33.2	20.9	11.1	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	14.8	46.4
1974	51.8	29.3	6.9	15.6	48.2
1975	52.0	27.6	7.5	16.8	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	17.9	52.6
1981	46.7	24.4	5.2	17.0	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	13.7	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	11.4	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	9.5	72.6
2000	24.8	13.3	2.3	9.1	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 preliminary	29.1	17.1	2.0	10.0	70.9
2006 preliminary	27.7	16.5	1.9	9.4	72.3

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

SOURCE: National Science Foundation, Division of Science Resources Statistics, unpublished tabulations (Arlington, VA, 2007).

TABLE 13. Gross domestic product and research and development (federally funded, nonfederal, and total): 1953–2006

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	0.1824	2,080	5,160	28,282	15,251	13,031	1.36	0.73	0.63
1954	380	0.1842	2,065	5,617	30,495	16,821	13,674	1.48	0.81	0.66
1955	415	0.1875	2,213	6,281	33,508	19,222	14,286	1.51	0.87	0.65
1956	438	0.1939	2,256	8,500	43,827	25,667	18,160	1.94	1.14	0.81
1957	461	0.2004	2,301	9,908	49,447	31,104	18,342	2.15	1.35	0.80
1958	467	0.2050	2,279	10,915	53,248	34,023	19,226	2.34	1.49	0.84
1959	507	0.2075	2,441	12,490	60,187	39,357	20,830	2.47	1.61	0.85
1960	526	0.2104	2,502	13,711	65,164	42,371	22,794	2.60	1.69	0.91
1961	545	0.2128	2,560	14,564	68,450	44,575	23,875	2.67	1.74	0.93
1962	586	0.2157	2,715	15,636	72,499	47,007	25,492	2.67	1.73	0.94
1963	618	0.2180	2,834	17,519	80,377	53,429	26,948	2.84	1.89	0.95
1964	664	0.2213	2,999	19,103	86,320	57,678	28,642	2.88	1.92	0.96
1965	719	0.2253	3,191	20,252	89,872	58,549	31,323	2.82	1.83	0.98
1966	788	0.2318	3,399	22,072	95,232	61,116	34,116	2.80	1.80	1.00
1967	833	0.2389	3,485	23,346	97,709	60,949	36,761	2.80	1.75	1.05
1968	910	0.2491	3,653	24,666	99,009	60,066	38,943	2.71	1.64	1.07
1969	985	0.2615	3,765	25,996	99,415	58,237	41,178	2.64	1.55	1.09
1970	1,039	0.2753	3,772	26,271	95,419	54,424	40,995	2.53	1.44	1.09
1971	1,127	0.2891	3,899	26,952	93,225	52,612	40,613	2.39	1.35	1.04
1972	1,238	0.3017	4,105	28,740	95,275	53,170	42,104	2.32	1.30	1.03
1973	1,383	0.3185	4,342	30,952	97,184	52,081	45,103	2.24	1.20	1.04
1974	1,500	0.3473	4,320	33,359	96,065	49,782	46,283	2.22	1.15	1.07
1975	1,638	0.3800	4,311	35,671	93,870	48,771	45,099	2.18	1.13	1.05
1976	1,825	0.4020	4,541	39,435	98,104	50,481	47,623	2.16	1.11	1.05
1977	2,031	0.4275	4,751	43,338	101,372	51,627	49,745	2.13	1.09	1.05
1978	2,295	0.4576	5,015	48,719	106,474	53,355	53,119	2.12	1.06	1.06
1979	2,563	0.4955	5,173	55,379	111,769	54,947	56,822	2.16	1.06	1.10
1980	2,790	0.5404	5,162	63,224	116,990	55,487	61,503	2.27	1.08	1.19
1981	3,128	0.5912	5,292	72,292	122,282	57,069	65,213	2.31	1.08	1.23
1982	3,255	0.6273	5,189	80,748	128,733	59,200	69,533	2.48	1.14	1.34
1983	3,537	0.6521	5,424	89,950	137,944	63,568	74,377	2.54	1.17	1.37
1984	3,933	0.6766	5,814	102,244	151,125	68,687	82,438	2.60	1.18	1.42
1985	4,220	0.6971	6,054	114,671	164,486	75,510	88,976	2.72	1.25	1.47
1986	4,463	0.7125	6,264	120,249	168,770	76,663	92,107	2.69	1.22	1.47
1987	4,740	0.7320	6,475	126,360	172,633	80,072	92,561	2.67	1.24	1.43
1988	5,104	0.7569	6,743	133,880	176,871	79,438	97,432	2.62	1.18	1.45
1989	5,484	0.7856	6,981	141,889	180,618	76,967	103,651	2.59	1.10	1.48
1990	5,803	0.8159	7,113	151,990	186,284	75,508	110,776	2.62	1.06	1.56
1991	5,996	0.8444	7,101	160,872	190,509	71,977	118,532	2.68	1.01	1.67
1992	6,338	0.8638	7,337	165,347	191,408	70,513	120,895	2.61	0.96	1.65
1993	6,657	0.8838	7,533	165,726	187,515	68,482	119,033	2.49	0.91	1.58
1994	7,072	0.9026	7,836	169,201	187,463	67,332	120,130	2.39	0.86	1.53
1995	7,398	0.9211	8,032	183,618	199,355	68,360	130,995	2.48	0.85	1.63

TABLE 13. Gross domestic product and research and development (federally funded, nonfederal, and total): 1953–2006

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
1996	7,817	0.9385	8,329	197,338	210,263	67,540	142,723	2.52	0.81	1.71
1997	8,304	0.9541	8,704	212,142	222,340	67,671	154,669	2.55	0.78	1.78
1998	8,747	0.9647	9,067	226,455	234,737	68,803	165,934	2.59	0.76	1.83
1999	9,268	0.9787	9,470	245,036	250,374	68,505	181,869	2.64	0.72	1.92
2000	9,817	1.0000	9,817	267,557	267,557	66,403	201,154	2.73	0.68	2.05
2001	10,128	1.0240	9,891	277,736	271,229	71,114	200,115	2.74	0.72	2.02
2002	10,470	1.0419	10,049	276,591	265,474	74,569	190,905	2.64	0.74	1.90
2003	10,971	1.0630	10,321	289,025	271,885	78,638	193,247	2.63	0.76	1.87
2004	11,734	1.0910	10,756	300,060	275,036	81,493	193,543	2.56	0.76	1.80
2005 preliminary	12,482	1.1205	11,139	323,546	288,754	84,458	204,296	2.59	0.76	1.83
2006 preliminary	13,210	1.1473	11,514	342,886	298,862	84,412	214,449	2.60	0.73	1.86

GDP=gross domestic product.

R&D=research and development.

SOURCES: Department of Commerce, Bureau of Economic Analysis, special tabulations, 2004; Office of Management and Budget, special tabulations, 2004; and National Science Foundation, Division of Science Resources Statistics, special tabulations, 2007.

TABLE 14. International research and development expenditures and research and development as percentage of gross domestic product, by selected country and for all Organisation for Economic Co-operation and Development countries: 1981–2006

Year	United States	Japan ^a	Germany ^b	France	United		Canada	Russian	Total OECD
					Kingdom	Italy		Federation	
2000 constant US\$billions ^c									
1981	122.3	42.8	29.6	19.3	21.5	8.6	6.3	NA	276.1
1982	128.7	45.8	30.3	20.6	NA	8.9	6.8	NA	288.7
1983	137.9	49.3	30.9	21.4	20.9	9.4	6.9	NA	304.5
1984	151.1	52.6	31.7	22.6	NA	10.4	7.5	NA	327.6
1985	164.5	58.3	34.8	23.7	22.6	11.8	8.1	NA	356.3
1986	168.8	59.3	36.0	24.1	23.7	12.3	8.5	NA	367.4
1987	172.6	63.3	38.1	25.2	24.1	13.3	8.5	NA	381.5
1988	176.9	68.1	39.3	26.3	24.7	14.2	8.8	NA	396.1
1989	180.6	74.2	40.6	28.0	25.3	14.9	9.5	NA	412.6
1990	186.3	80.4	41.0	30.0	25.5	15.8	9.9	33.0	431.2
1991	190.5	82.2	44.2	30.5	24.2	15.2	10.1	23.8	450.8
1992	191.4	81.3	43.1	31.0	23.7	14.8	10.5	9.3	452.8
1993	187.5	79.3	41.4	31.2	24.6	14.0	11.1	8.8	448.7
1994	187.5	78.5	40.8	31.1	25.1	13.3	12.0	8.4	452.0
1995	199.4	83.5	41.6	31.3	25.1	13.1	12.1	8.1	478.5
1996	210.3	89.0	42.1	31.4	24.8	13.3	12.0	8.9	499.8
1997	222.3	92.6	43.7	31.0	24.6	14.2	12.5	9.8	522.8
1998	234.7	95.0	45.3	31.3	25.3	14.6	13.8	8.5	544.2
1999	250.4	95.4	48.7	32.7	27.1	14.5	14.9	9.4	572.1
2000	267.6	98.8	51.5	33.8	28.0	15.4	16.7	10.9	606.8
2001	271.2	101.6	52.3	35.2	28.2	16.3	18.6	12.8	625.3
2002	265.5	103.3	52.9	36.1	28.8	17.0	18.7	14.2	626.4
2003	271.9	105.8	53.5	35.5	28.8	16.6	18.7	15.7	642.4
2004	275.0	107.7	53.8	35.9	28.8	16.7	19.4	15.2	663.2
2005	288.8	NA	54.5	36.1	NA	NA	19.6	14.9	NA
2006	298.9	NA	NA	NA	NA	NA	19.9	NA	NA
Percent of GDP									
1981	2.31	2.33	2.35	1.90	2.38	0.86	1.22	NA	1.91
1982	2.48	2.42	2.42	1.98	NA	0.88	1.37	NA	2.00
1983	2.54	2.56	2.43	2.01	2.20	0.93	1.34	NA	2.05
1984	2.60	2.64	2.43	2.10	NA	0.99	1.38	NA	2.11
1985	2.72	2.58	2.60	2.15	2.24	1.10	1.42	NA	2.22
1986	2.69	2.55	2.63	2.14	2.26	1.11	1.46	NA	2.22
1987	2.67	2.62	2.74	2.18	2.19	1.16	1.41	NA	2.23
1988	2.62	2.64	2.73	2.18	2.14	1.19	1.38	NA	2.22
1989	2.59	2.73	2.71	2.23	2.15	1.21	1.45	NA	2.22
1990	2.62	2.81	2.61	2.33	2.15	1.25	1.51	2.03	2.26
1991	2.68	2.78	2.47	2.33	2.07	1.19	1.57	1.43	2.19
1992	2.61	2.73	2.35	2.33	2.02	1.15	1.62	0.74	2.16
1993	2.49	2.65	2.28	2.37	2.05	1.10	1.68	0.77	2.11
1994	2.39	2.60	2.18	2.32	2.01	1.02	1.73	0.84	2.06
1995	2.48	2.71	2.19	2.29	1.95	0.97	1.70	0.85	2.07
1996	2.52	2.82	2.19	2.27	1.87	0.99	1.65	0.97	2.10
1997	2.55	2.89	2.24	2.19	1.81	1.03	1.66	1.04	2.12
1998	2.59	3.02	2.27	2.14	1.80	1.05	1.76	0.95	2.15
1999	2.64	3.04	2.40	2.16	1.87	1.02	1.80	1.00	2.19
2000	2.73	3.05	2.45	2.15	1.86	1.05	1.92	1.05	2.23
2001	2.74	3.13	2.46	2.20	1.83	1.09	2.09	1.18	2.27
2002	2.64	3.18	2.49	2.23	1.83	1.13	2.04	1.25	2.24
2003	2.63	3.20	2.52	2.17	1.79	1.11	2.01	1.28	2.25
2004	2.56	3.18	2.50	2.14	1.73	1.1	2.01	1.16	2.25
2005	2.59	NA	2.51	2.13	NA	NA	1.98	1.07	NA
2006	2.60	NA	NA	NA	NA	NA	1.95	NA	NA

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

^a 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.

^b Data for 1981–90 are for West Germany.

^c Conversions of foreign currencies to U.S. dollars are calculated with each country's GDP implicit price deflator and OECD purchasing power parity exchange rates.

SOURCE: National Science Foundation, Division of Science Resources Statistics, *National Patterns of R&D Resources* (annual series); OECD, *Main Science and Technology Indicators* (Paris, 2006).

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