

Table 7A. State distribution of expenditures for R&D, by performing sector and source of funding: 1999

Performing sector:	Total R&D		Federal Government	Industry			Universities & colleges ¹					U&C FFRDCs	Other nonprofit institutions	Nonprofit FFRDCs	Gross state product	R&D intensity ⁶			
	Funding sector:	Total R&D	Federal Government	Total ²	Federal Government ²	Industry ³	Total	Federal Government	Nonfederal government	Industry	U&C	Nonprofits	Federal Government ⁴	Federal Government ⁵		Federal Government ⁴	Rank	Percent	Rank
State	Rank	Thousands of current dollars															Rank	Percent	Rank
United States, total		243,562,075	17,850,975	182,711,000	22,535,000	160,176,000	28,156,692	16,215,498	2,101,275	2,094,315	5,627,922	2,117,681	5,659,500	3,760,675	992,775	9,279,697,000		2.62	
Alabama	27	1,761,474	771,923	556,000	190,000	365,000	416,594	261,752	8,923	22,287	79,251	44,381	0	16,957	0	115,350,000	25	1.53	29
Alaska	49	151,979	53,287	D	D	3,000	93,687	37,241	4,109	19,720	32,299	318	0	2,005	0	25,444,000	46	0.60	47
Arizona	14	5,090,944	170,099	4,434,000	224,000	4,210,000	439,286	239,142	11,753	22,242	150,366	15,783	37,308	10,251	0	144,440,000	23	3.52	11
Arkansas	44	378,033	46,122	216,000	3,000	213,000	111,999	45,587	32,543	10,286	16,437	7,146	0	3,912	0	65,067,000	33	0.58	48
California	1	47,965,435	1,749,647	39,047,000	4,042,000	35,006,000	3,658,622	2,179,077	185,716	249,043	729,128	315,658	2,800,035	577,895	132,236	1,223,474,000	1	3.92	8
Colorado	17	4,209,085	238,003	3,136,000	D	D	507,673	361,598	24,992	27,226	60,743	33,114	132,587	61,389	133,433	152,202,000	21	2.77	16
Connecticut	15	4,436,224	17,883	3,984,000	207,000	3,777,000	418,122	273,787	10,827	26,026	66,997	40,485	0	16,219	0	149,483,000	22	2.97	13
Delaware	31	1,342,913	2,747	1,261,000	9,000	1,252,000	76,286	36,683	5,401	4,246	19,715	10,241	0	2,880	0	34,983,000	42	3.84	10
District of Columbia	23	2,509,737	1,912,131	171,000	52,000	119,000	223,786	173,466	3,117	14,349	13,110	19,744	0	202,661	159	55,447,000	36	4.53	6
Florida	16	4,265,345	763,344	2,697,000	706,000	1,991,000	788,743	396,395	91,371	63,637	198,479	38,861	0	16,258	0	441,107,000	5	0.97	37
Georgia	20	2,959,809	278,552	1,827,000	178,000	1,649,000	839,715	380,202	74,085	90,747	258,402	36,279	0	14,542	0	276,487,000	10	1.07	35
Hawaii	45	270,239	64,534	27,000	1,000	26,000	156,810	93,418	35,111	13,021	15,260	0	0	21,895	0	40,486,000	41	0.67	44
Idaho	32	1,309,401	27,448	1,210,000	D	D	71,674	28,116	15,718	3,962	16,877	7,001	0	279	0	34,104,000	44	3.84	9
Illinois	8	9,719,210	77,055	7,715,000	41,000	7,674,000	1,101,056	626,648	62,687	56,748	272,193	82,780	758,090	68,009	0	442,297,000	4	2.20	21
Indiana	21	2,763,351	54,903	2,246,000	D	D	460,418	224,035	27,877	41,727	149,209	17,570	0	2,030	0	183,818,000	15	1.50	30
Iowa	34	1,002,839	39,213	559,000	6,000	553,000	375,300	177,847	53,415	35,940	91,684	16,414	25,438	3,888	0	85,158,000	30	1.18	33
Kansas	29	1,555,578	35,743	1,284,000	D	D	234,501	88,728	50,445	19,525	58,212	17,591	0	1,334	0	80,701,000	31	1.93	24
Kentucky	36	967,676	9,146	684,000	1,000	683,000	273,903	92,572	42,066	21,714	108,568	8,983	0	627	0	112,379,000	26	0.86	39
Louisiana	38	626,132	58,976	187,000	53,000	134,000	376,098	154,341	79,834	32,879	89,100	19,944	0	4,058	0	127,992,000	24	0.49	49
Maine	46	224,584	4,975	140,000	52,000	88,000	44,437	20,137	1,964	2,476	17,293	2,567	0	35,172	0	34,196,000	43	0.66	46
Maryland	10	8,087,315	4,814,517	1,700,000	455,000	1,246,000	1,387,262	1,058,128	76,138	33,777	151,053	68,166	0	184,657	879	174,161,000	16	4.64	5
Massachusetts	5	12,189,891	240,059	9,314,000	2,374,000	6,940,000	1,402,522	1,018,574	32,905	125,874	88,441	136,728	353,321	804,838	75,151	261,307,000	11	4.66	4
Michigan	2	18,798,557	149,473	17,714,000	134,000	17,580,000	919,390	508,080	58,472	60,451	229,644	62,743	0	15,694	0	311,304,000	9	6.04	2
Minnesota	18	3,904,779	37,878	3,379,000	242,000	3,137,000	375,919	210,235	49,447	24,323	62,310	29,604	0	111,982	0	171,846,000	17	2.27	18
Mississippi	39	476,292	196,245	114,000	43,000	71,000	160,287	85,128	31,138	9,570	33,732	719	0	5,760	0	64,779,000	34	0.74	43
Missouri	25	2,009,472	48,097	1,387,000	21,000	1,367,000	549,876	321,115	25,591	30,380	127,617	45,173	0	24,499	0	169,699,000	19	1.18	32
Montana	47	168,611	42,816	33,000	D	D	84,460	43,872	14,639	8,967	15,566	1,416	0	8,335	0	20,564,000	48	0.82	40
Nebraska	42	417,342	28,769	178,000	6,000	172,000	205,363	61,226	10,648	17,231	102,726	13,532	0	5,210	0	53,747,000	37	0.78	41
Nevada	40	457,765	27,843	337,000	D	D	91,485	51,387	5,442	5,196	25,484	3,976	0	1,437	0	69,458,000	32	0.66	45
New Hampshire	33	1,256,206	28,353	1,099,000	D	D	127,135	77,327	8,961	8,939	18,102	13,806	0	1,718	0	43,616,000	39	2.88	14
New Jersey	7	10,535,662	486,722	9,453,000	126,000	9,327,000	520,957	239,880	45,013	30,402	162,468	43,194	53,693	15,666	5,624	332,964,000	8	3.16	12
New Mexico	19	3,278,714	409,886	1,342,000	D	D	224,500	155,218	12,302	12,866	39,260	4,854	1,278,901	23,427	0	49,853,000	38	6.58	1
New York	3	14,110,375	132,848	11,388,000	2,105,000	9,284,000	2,065,882	1,334,210	84,437	101,656	322,852	222,727	0	274,887	248,758	749,421,000	2	1.88	25
North Carolina	12	5,268,108	230,780	3,953,000	19,000	3,934,000	1,012,576	538,102	121,787	179,830	145,060	27,797	0	71,752	0	260,572,000	12	2.02	23
North Dakota	48	168,176	30,561	75,000	0	75,000	61,695	25,923	1,965	3,608	27,782	2,417	0	920	0	16,988,000	51	0.99	36
Ohio	11	8,082,147	604,957	6,514,000	1,148,000	5,366,000	830,701	475,054	68,051	80,705	149,023	57,868	0	132,489	0	356,523,000	7	2.27	19
Oklahoma	37	664,408	45,912	365,000	2,000	363,000	238,799	88,507	41,736	14,802	76,192	17,562	0	14,697	0	85,834,000	29	0.77	42
Oregon	26	1,974,067	89,369	1,540,000	3,000	1,537,000	319,700	210,667	33,975	10,473	48,269	16,316	0	24,998	0	109,850,000	27	1.80	27
Pennsylvania	6	10,695,077	168,382	8,932,000	441,000	8,491,000	1,400,286	905,775	52,510	154,203	202,126	85,672	31,821	162,588	0	382,510,000	6	2.80	15
Rhode Island	28	1,651,139	232,701	1,264,000	D	D	120,868	81,512	4,485	2,901	28,474	3,496	0	33,570	0	32,154,000	45	5.14	3
South Carolina	35	979,065	45,050	665,000	D	D	267,549	111,092	26,670	12,826	101,890	15,071	0	1,461	5	107,219,000	28	0.91	38
South Dakota	51	59,601	20,709	13,000	0	13,000	25,522	12,759	7,798	306	2,397	2,262	0	370	0	21,709,000	47	0.27	51

Table 7A. State distribution of expenditures for R&D, by performing sector and source of funding: 1999

Performing sector:	Total R&D		Federal Government	Industry			Universities & colleges ¹						U&C FFRDCs	Other nonprofit institutions	Nonprofit FFRDCs	Gross state product	R&D intensity ⁶		
	Funding sector:	Total R&D	Federal Government	Total ²	Federal Government ²	Industry ³	Total	Federal Government	Nonfederal government	Industry	U&C	Nonprofits	Federal Government ⁴	Federal Government ⁵	Federal Government ⁴		Rank	Percent	Rank
State	Rank	Thousands of current dollars															Rank	Percent	Rank
Tennessee	24	2,290,201	64,783	1,768,000	D	D	371,439	217,970	39,045	21,530	59,489	33,405	51,943	34,036	0	170,402,000	18	1.34	31
Texas	4	12,429,172	584,149	9,935,000	118,000	9,817,000	1,829,967	975,753	183,149	160,032	301,326	209,707	0	77,689	2,367	684,936,000	3	1.81	26
Utah	30	1,474,191	74,129	1,123,000	D	D	273,192	177,563	19,852	15,730	46,220	13,827	0	3,870	0	62,780,000	35	2.35	17
Vermont	43	388,598	4,065	318,000	D	D	64,791	36,773	2,718	7,112	11,896	6,292	0	1,742	0	17,206,000	50	2.26	20
Virginia	13	5,100,161	1,793,639	2,488,000	1,096,000	1,391,000	531,286	303,018	55,121	49,589	90,982	32,576	74,604	54,641	157,991	240,688,000	13	2.12	22
Washington	9	8,336,432	191,104	7,231,000	D	D	588,075	417,330	16,340	54,656	78,902	20,847	0	175,105	151,148	209,338,000	14	3.98	7
West Virginia	41	438,558	116,330	216,000	D	D	64,340	26,589	3,204	5,532	24,752	4,263	37,162	4,726	0	40,626,000	40	1.08	34
Wisconsin	22	2,565,541	41,110	1,949,000	72,000	1,877,000	560,648	313,140	44,989	19,771	116,601	66,147	0	14,783	0	165,570,000	20	1.55	28
Wyoming	50	65,923	15,508	D	0	D	47,197	19,109	2,730	3,206	20,648	1,504	0	3,218	0	17,457,000	49	0.38	50
Other unknown	NA	5,712,586	74,061	5,537,000	1,077,000	4,460,000	90,543	50,810	23,933	3,381	11,577	842	10,950	32	0	NA	NA	NA	NA
Adjustment	NA	6,017,955	404,439	0	NA	NA	673,770	172,900	74,130	46,689	261,738	118,312	13,647	407,617	85,024	NA	NA	NA	NA

¹ Adjustments have been made to university R&D for 1998 and later years to eliminate double counting of funds passed through from one academic institution to another at the national level. State-level university R&D data have not been adjusted to correct for this double counting.

² Includes performance at industry FFRDCs.

³ Industry sources of industry R&D expenditures include all non-Federal sources of industry R&D expenditures.

⁴ Includes all R&D expenditures of the FFRDCs, over 95 percent of these expenditures are Federally funded nationally.

⁵ Other sources of support for nonprofit institutions were unavailable by state. For 1999 total nonprofit performance is estimated at \$8,191 million. Industry provided an estimated \$975 million to the nonprofit sector, and nonprofit institutions provided an estimated \$3,455 million. These non-Federal-support amounts are included in the total R&D column for the rows "United States, Total" and "other unknown". This is why, for these two columns, the amounts under "total R&D" are greater than the sum of the components to the right, because those components do not include nonfederal support to nonprofit organizations.

⁶ R&D intensity is the ratio of total R&D performed in a state to the GSP of the state.

KEY: FFRDCs = federally funded research and development centers

U&C = universities and colleges

NA = Not available

D = Data withheld to avoid disclosing operations of individual companies

NOTES: Industry R&D data by state are in reference to calendar years; other R&D data by state are in reference to fiscal years but may serve as approximations to calendar year data.

The "other unknown" category reflects reported data that could not be assigned to a geographic location. The "adjustment" category reflects the difference in state totals (and other unknown) when reported on a fiscal year basis and the U.S.

Totals that have been adjusted to calendar year estimates. To protect confidentiality, Total R&D for Alaska exclude Federal support to industry and Total R&D for Wyoming exclude industry support to industry. Therefore, Total R&D amounts are lower-bound estimates for these two states.

SOURCES: National Science Foundation/Division of Science Resources Statistics. These data were derived from four NSF surveys: Survey of Industrial R&D; Survey of R&D Expenditures at Universities and Colleges, Survey of Federal Funds for R&D, and Survey of R&D Funding and Performance by Nonprofit Organizations. Gross State Product data are from the U.S. Bureau of Economic Analysis.