

## Chapter 8. State Indicators

### 8-44 Academic Science and Engineering R&D per \$1,000 of Gross Domestic Product

#### Description

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This indicator represents the ratio of S&E R&D expenditures at a state's colleges and universities to the size of the state's economy. Academic R&D performers account for slightly more than half of basic research, about one-third of total research (basic plus applied), and roughly 15% of all R&D conducted in the United States. Academic R&D can be a valuable basis for future economic development.

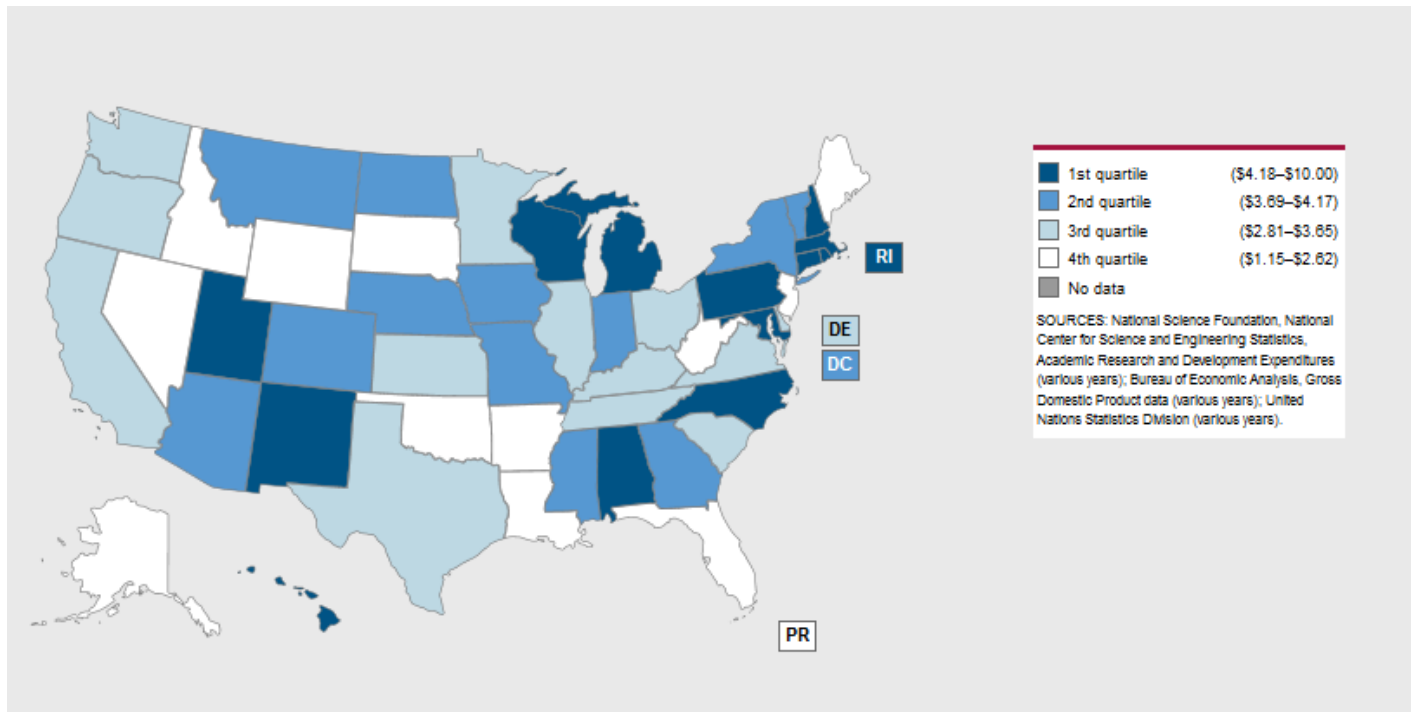
Data on academic R&D are provided by the National Center for Science and Engineering Statistics and represent S&E R&D at U.S. colleges and universities with over \$150,000 in R&D expenditures.

#### Findings

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- Expenditures for science and engineering research performed in academic institution increased by 58% between 2003 and 2013, rising from \$40.0 billion to \$63.2 billion in current dollars.
- In the United States, growth in academic research increased more rapidly than gross domestic product (GDP), resulting in an increase of 9% in the amount of academic R&D dollars expended per \$1,000 GDP (from 3.49 in 2003 to 3.79 in 2013).
- In 2013, the values ranged from \$1.15 to \$10.00 per \$1,000 of GDP across states.

### 8-44 Academic Science and Engineering R&D per \$1,000 of Gross Domestic Product Year: 2013

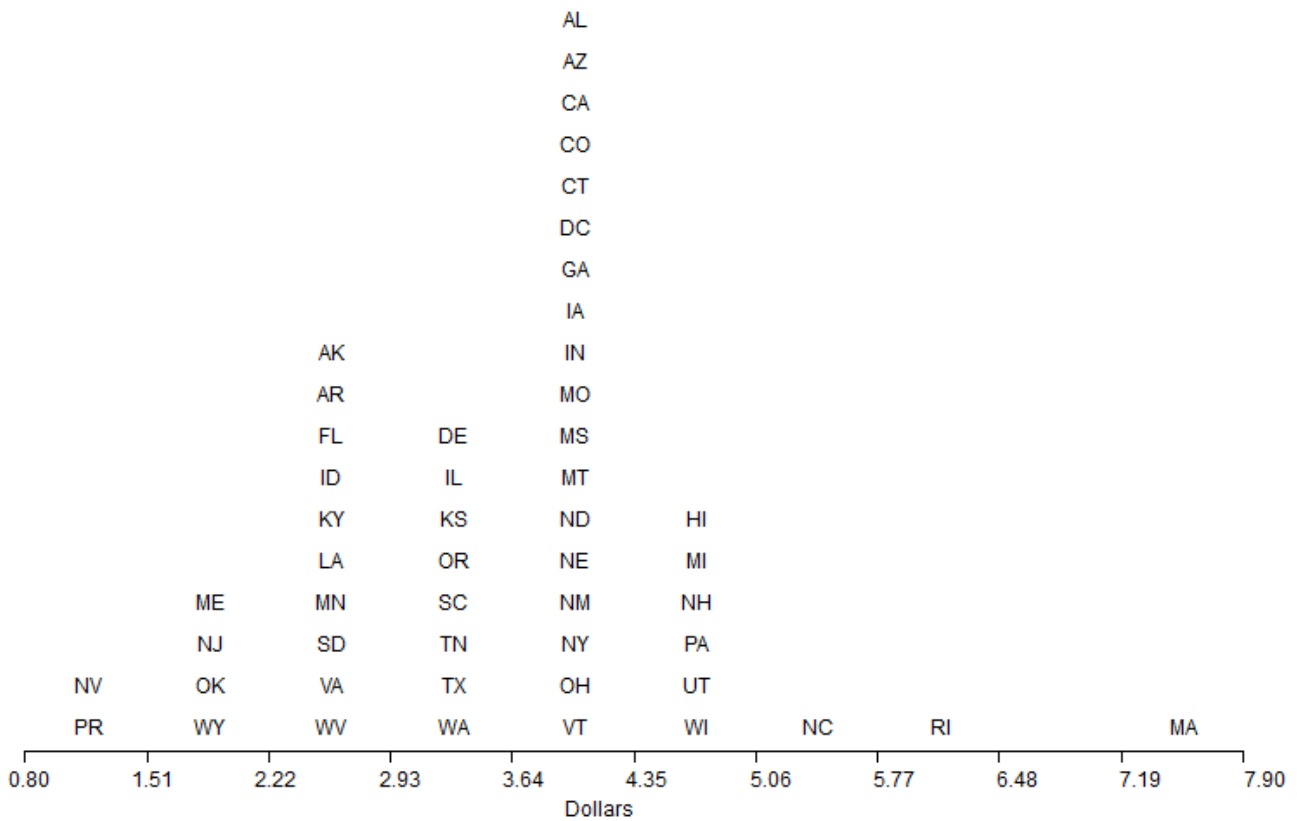


## 8-44 Academic Science and Engineering R&D per \$1,000 of Gross Domestic Product

Year: 2013

### Distribution of states across indicator values

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Histograms do not display states with extreme values. Please consult the data tables for exact indicator values for each state.

## Chapter 8. State Indicators


**Table 8-44 Academic Science and Engineering R&D per \$1,000 of Gross Domestic Product**

State	Academic S&E R&D/\$1,000 GDP (Dollars)												
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
United States	2.85	2.86	2.93	3.10	3.32	3.49	3.53	3.51	3.46	3.43	3.53	3.82	3.91
Alabama	4.03	3.60	3.56	3.59	3.87	4.04	3.85	3.74	3.64	3.84	4.07	4.50	4.70
Alaska	3.17	3.81	4.01	4.12	4.32	4.43	4.12	3.82	3.63	2.65	2.34	2.65	2.68
Arizona	2.83	2.81	2.80	2.90	2.95	3.21	3.18	3.17	3.09	2.98	3.21	3.59	3.63
Arkansas	1.87	1.68	1.91	2.00	1.90	2.33	2.14	2.33	2.48	2.41	2.39	2.37	2.41
California	2.93	2.91	2.95	3.18	3.37	3.49	3.66	3.56	3.47	3.45	3.52	3.87	3.85
Colorado	3.28	3.13	3.05	3.09	3.41	3.55	3.76	3.71	3.52	3.56	3.61	4.23	4.37
Connecticut	2.75	2.73	2.81	2.90	3.08	3.27	3.26	3.22	3.13	2.94	3.16	3.32	3.73
Delaware	2.02	1.95	1.87	1.85	2.05	2.27	2.27	2.19	2.19	2.20	2.43	2.38	2.81
District of Columbia	4.32	3.85	4.07	3.49	3.75	3.80	3.81	3.61	3.35	3.59	3.80	3.28	4.14
Florida	1.65	1.72	1.74	1.90	1.97	2.06	2.05	2.07	2.03	2.01	2.11	2.30	2.43
Georgia	3.04	2.92	3.04	3.13	3.33	3.51	3.46	3.38	3.31	3.38	3.69	3.85	3.91
Hawaii	3.93	4.00	3.91	3.67	3.82	3.80	4.53	4.13	4.17	4.22	4.18	4.60	4.64
Idaho	2.32	2.08	1.92	2.18	2.38	2.55	2.63	2.50	2.15	2.07	2.02	2.23	2.21
Illinois	2.33	2.36	2.38	2.54	2.80	3.03	3.05	3.01	2.93	2.88	3.05	3.29	3.28
Indiana	2.28	2.35	2.47	2.82	3.03	3.21	3.50	3.07	3.19	3.29	3.47	3.82	3.70
Iowa	4.18	4.22	4.40	4.58	4.84	4.66	4.48	4.42	4.46	4.27	3.85	4.09	4.85
Kansas	2.70	2.83	2.96	2.98	3.23	3.18	3.28	3.26	3.12	3.07	3.20	3.62	3.60
Kentucky	2.20	2.37	2.41	2.51	2.70	2.93	3.12	3.14	3.15	3.23	3.13	3.32	3.24
Louisiana	2.91	2.96	3.05	3.11	3.36	3.26	3.24	2.92	2.66	2.88	3.02	3.18	2.82
Maine	1.10	1.29	1.57	1.85	1.87	2.01	2.22	2.10	2.49	2.78	2.55	2.54	2.30
Maryland	7.76	7.62	7.81	8.02	8.67	8.88	9.17	8.90	9.09	8.76	9.20	9.95	9.84
Massachusetts	5.41	5.29	5.13	5.33	5.60	5.78	6.07	6.04	5.91	5.75	5.91	6.45	6.60
Michigan	2.80	2.72	2.86	3.16	3.38	3.68	3.64	3.67	3.71	3.75	4.11	4.75	4.92



State	Academic S&E R&D/\$1,000 GDP (Dollars)												
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Minnesota	2.19	2.13	2.17	2.37	2.45	2.38	2.31	2.28	2.41	2.46	2.63	2.92	2.94
Mississippi	2.49	2.73	3.28	3.86	4.17	4.38	4.45	4.29	4.23	4.46	4.28	4.51	4.38
Missouri	2.85	3.09	3.27	3.54	3.59	3.93	3.90	3.96	3.84	3.89	3.85	4.04	3.76
Montana	3.79	4.05	4.53	4.67	5.11	5.48	5.53	5.61	5.29	5.02	5.07	5.13	5.24
Nebraska	3.55	3.78	3.62	4.01	4.28	4.44	4.56	4.84	4.57	4.40	4.39	4.52	3.84
Nevada	1.31	1.30	1.40	1.45	1.50	1.71	1.58	1.53	1.55	1.46	1.48	1.53	1.43
New Hampshire	2.92	3.08	3.42	4.36	4.63	5.02	5.22	5.12	5.39	5.12	5.03	4.92	4.75
New Jersey	1.51	1.55	1.57	1.68	1.78	1.86	1.90	1.95	1.84	1.79	1.78	1.89	2.07
New Mexico	4.53	4.22	4.39	4.82	4.97	4.82	4.33	4.88	5.44	5.10	4.95	5.37	4.85
New York	2.61	2.64	2.79	2.84	3.12	3.40	3.49	3.50	3.52	3.52	3.59	3.65	3.99
North Carolina	3.68	3.84	3.76	3.91	4.24	4.45	4.35	4.63	4.43	4.76	4.86	5.26	5.74
North Dakota	3.38	3.62	3.75	4.45	5.22	5.99	6.48	6.07	6.04	5.91	5.66	5.80	5.74
Ohio	2.25	2.22	2.35	2.51	2.71	2.98	2.93	3.27	3.40	3.58	3.70	3.97	3.97
Oklahoma	2.56	2.80	2.74	2.61	2.83	2.78	2.48	2.33	2.18	2.07	2.12	2.35	2.52
Oregon	2.98	3.04	2.93	3.12	3.17	3.41	3.54	3.63	3.42	3.37	3.30	3.52	3.46
Pennsylvania	3.62	3.57	3.79	3.96	4.34	4.40	4.58	4.69	4.59	4.41	4.60	4.81	5.17
Rhode Island	3.67	3.75	3.77	3.95	4.26	4.60	4.42	4.41	4.83	4.80	4.99	5.15	5.83
South Carolina	2.37	2.40	2.52	2.98	3.17	3.29	3.33	3.37	3.43	3.53	3.53	3.79	3.73
South Dakota	1.25	1.20	1.19	1.33	1.41	1.74	1.90	2.12	2.24	2.31	2.45	2.77	3.27
Tennessee	2.07	2.11	2.22	2.27	2.48	2.90	2.98	3.17	3.10	3.13	3.14	3.36	3.47
Texas	2.60	2.65	2.71	2.86	3.16	3.27	3.12	3.07	2.99	2.90	3.01	3.41	3.38
Utah	4.05	4.17	4.37	4.56	4.69	4.81	4.71	4.22	3.88	3.57	3.65	4.39	4.66
Vermont	3.63	3.78	3.55	4.01	4.49	5.02	5.14	5.00	5.10	4.64	4.62	4.94	5.01
Virginia	2.13	2.01	2.06	2.15	2.37	2.51	2.57	2.54	2.50	2.47	2.63	2.65	2.67
Washington	2.57	2.56	2.68	2.94	3.14	3.35	3.30	3.04	3.13	2.86	2.99	3.09	3.60
West Virginia	1.61	1.58	1.78	1.87	2.24	2.70	2.73	2.75	2.65	2.85	2.72	2.77	2.69
Wisconsin	3.26	3.44	3.64	3.88	4.12	4.29	4.41	4.41	4.40	4.37	4.55	4.89	4.84
Wyoming	3.25	3.00	2.49	2.21	2.16	2.83	2.53	3.01	2.71	2.17	1.71	2.05	1.34



## Academic S&amp;E R&amp;D/\$1,000 GDP (Dollars)

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Puerto Rico	1.49	1.45	1.06	0.88	0.93	0.98	1.03	1.15	1.16	1.14	1.16	1.07	1.15

GDP = gross domestic product.

NOTE: Academic R&D is reported for institutions with R&D over \$150,000.

SOURCES: National Science Foundation, National Center for Science and Engineering Statistics, Academic Research and Development Expenditures (various years); Bureau of Economic Analysis, Gross Domestic Product data (various years); United Nations Statistics Division (various years).

*Science and Engineering Indicators 2016*



State	Academic S&E R&D (\$thousands)												
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
United States	25,772,000	27,447,220	30,002,180	32,724,348	36,293,780	39,976,208	43,123,948	45,648,448	47,629,524	49,363,160	51,735,856	54,729,816	58,208,248
Alabama	442,088	416,594	428,122	448,294	503,470	550,756	572,279	589,860	601,881	655,245	707,801	761,982	829,363
Alaska	76,358	94,280	108,099	119,199	128,875	142,413	146,465	153,721	163,034	130,637	128,242	131,753	141,190
Arizona	405,999	439,286	465,777	500,548	531,106	617,978	650,961	720,184	765,434	782,671	831,192	873,063	901,697
Arkansas	117,108	112,379	131,868	142,310	140,813	183,908	182,958	209,518	237,233	239,994	246,621	239,407	255,537
California	3,392,094	3,665,157	4,067,820	4,428,903	4,887,918	5,357,900	6,012,871	6,264,908	6,490,107	6,733,546	7,026,354	7,406,686	7,579,847
Colorado	489,419	507,673	544,584	572,950	645,291	694,862	771,359	825,048	820,565	872,576	924,088	1,058,283	1,128,649
Connecticut	406,618	419,421	468,708	499,095	538,488	594,507	649,245	669,923	691,998	691,408	731,711	752,793	866,600
Delaware	72,779	76,286	78,126	79,985	88,319	104,650	114,663	115,751	122,001	125,663	133,231	133,810	161,927
District of Columbia	232,922	223,786	245,828	228,110	260,819	280,874	303,049	302,921	296,155	336,618	375,459	325,155	430,944
Florida	712,704	788,743	851,932	985,628	1,085,764	1,204,592	1,306,810	1,448,634	1,522,099	1,557,504	1,591,774	1,663,542	1,778,300
Georgia	804,151	840,953	926,749	989,024	1,076,706	1,176,523	1,222,150	1,274,410	1,302,570	1,388,976	1,521,486	1,565,574	1,611,447
Hawaii	148,007	156,810	161,300	156,976	172,664	184,602	241,346	240,247	257,478	274,373	278,751	300,302	314,652
Idaho	72,395	71,674	73,726	82,496	93,323	105,039	116,757	119,871	111,465	114,224	113,482	120,721	122,754
Illinois	1,030,955	1,101,602	1,170,905	1,281,256	1,441,156	1,614,270	1,713,282	1,771,107	1,824,223	1,867,003	1,972,752	2,113,124	2,146,061
Indiana	426,328	460,418	509,141	584,418	650,718	725,752	841,141	759,622	823,501	893,808	954,621	1,005,216	1,048,218
Iowa	358,613	375,300	418,263	439,810	485,756	498,669	531,770	548,301	572,623	586,786	527,769	562,569	689,831
Kansas	213,250	234,636	258,452	268,897	299,806	310,111	332,547	348,751	354,376	375,960	403,512	441,321	460,629
Kentucky	241,520	274,927	276,986	298,268	334,208	377,635	424,013	452,265	479,282	503,293	498,742	518,874	538,189
Louisiana	354,011	376,886	409,537	436,483	476,785	514,403	559,372	584,336	552,931	604,007	660,262	671,131	657,569
Maine	35,265	44,437	57,753	70,969	75,063	83,935	99,108	96,569	120,038	137,425	128,090	128,434	118,832
Maryland	1,330,288	1,387,381	1,507,669	1,653,757	1,895,382	2,040,747	2,268,304	2,356,905	2,529,998	2,542,336	2,747,001	3,021,052	3,094,055
Massachusetts	1,348,220	1,401,851	1,486,174	1,578,977	1,697,182	1,821,924	2,000,120	2,079,548	2,122,756	2,171,596	2,271,757	2,463,395	2,628,804
Michigan	882,700	921,560	1,007,910	1,108,622	1,233,887	1,390,083	1,397,435	1,456,218	1,473,199	1,509,953	1,593,654	1,742,051	1,903,476
Minnesota	367,779	377,393	418,029	469,370	504,398	517,912	535,469	558,259	605,201	636,920	698,920	758,084	802,840
Mississippi	152,683	175,118	217,064	260,991	289,412	324,236	347,563	353,078	369,143	410,637	406,459	416,806	418,235
Missouri	484,502	549,876	614,028	678,202	705,593	807,075	841,779	893,013	900,202	941,445	960,171	1,008,901	964,192
Montana	76,655	84,460	99,069	107,744	122,375	141,220	154,726	170,791	172,622	179,137	185,791	181,649	195,619



State	Academic S&E R&D (\$thousands)												
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Nebraska	186,320	205,495	208,480	241,638	266,930	300,540	325,001	360,148	358,858	364,842	376,092	393,611	352,419
Nevada	83,888	91,485	106,154	115,934	126,713	154,515	163,764	178,492	194,459	192,081	190,893	182,016	170,989
New Hampshire	117,323	127,135	150,982	196,975	220,061	252,210	277,201	287,472	315,394	307,074	302,008	298,298	298,650
New Jersey	484,942	521,304	567,666	628,040	690,642	754,426	805,135	865,641	858,413	864,725	878,330	913,904	1,022,690
New Mexico	228,740	224,500	243,822	274,209	292,691	306,636	303,922	361,466	421,428	410,375	416,991	435,375	407,429
New York	1,929,694	2,074,847	2,297,109	2,458,396	2,742,882	3,055,139	3,331,821	3,585,293	3,812,856	3,971,652	3,982,048	4,174,906	4,784,822
North Carolina	899,507	1,012,865	1,040,943	1,139,099	1,279,377	1,397,859	1,446,874	1,655,327	1,709,877	1,884,244	1,979,164	2,160,505	2,422,947
North Dakota	56,945	61,695	67,406	84,574	106,078	133,615	151,710	149,994	160,095	169,468	180,764	185,708	202,626
Ohio	810,225	831,288	918,241	996,069	1,116,116	1,268,397	1,319,680	1,531,614	1,637,546	1,767,903	1,827,042	1,895,074	1,963,559
Oklahoma	208,873	238,799	252,419	255,217	282,062	295,098	283,021	291,697	298,175	298,663	333,230	336,904	383,110
Oregon	314,355	327,932	346,149	366,023	386,666	436,958	504,802	536,228	557,405	574,521	594,945	636,617	663,378
Pennsylvania	1,348,936	1,391,298	1,553,216	1,693,793	1,913,687	2,014,842	2,208,100	2,367,837	2,431,403	2,438,312	2,604,118	2,722,278	3,027,286
Rhode Island	111,979	120,868	129,697	142,625	163,052	187,131	192,326	199,709	230,104	230,281	236,627	246,322	287,708
South Carolina	248,474	267,881	294,274	361,404	399,982	435,328	455,964	487,776	524,034	569,347	576,219	611,539	616,972
South Dakota	25,474	25,849	27,589	32,498	38,449	49,977	58,583	67,012	72,790	81,544	91,797	102,299	126,562
Tennessee	346,742	371,716	405,291	428,259	491,274	600,004	658,247	726,078	742,923	761,388	787,122	832,991	879,994
Texas	1,697,344	1,829,986	2,037,681	2,251,839	2,535,237	2,764,769	2,879,129	3,073,724	3,270,728	3,417,082	3,744,182	3,982,142	4,220,820
Utah	249,147	273,192	308,059	338,127	359,556	385,158	407,327	400,276	412,811	414,690	425,683	500,421	551,607
Vermont	58,585	64,791	64,762	76,882	90,189	106,581	115,767	117,400	123,608	115,025	117,210	125,023	132,519
Virginia	497,209	505,374	553,924	610,904	693,668	776,067	849,038	910,163	946,886	971,377	1,052,601	1,088,367	1,134,387
Washington	543,239	589,719	643,998	707,761	784,186	871,113	897,326	901,558	988,252	981,229	1,058,170	1,083,799	1,304,992
West Virginia	64,150	65,744	75,524	81,880	100,830	125,417	134,961	146,489	150,420	167,208	169,054	174,486	178,435
Wisconsin	535,997	597,372	662,080	729,288	806,543	877,800	956,652	999,847	1,039,530	1,066,688	1,117,152	1,203,919	1,230,932
Wyoming	48,500	47,197	43,094	41,632	41,632	60,054	60,054	83,449	89,414	79,700	74,720	77,633	53,957
Puerto Rico	87,592	90,543	74,529	63,755	70,286	78,410	86,514	100,235	104,077	106,852	111,744	105,330	114,982





Academic S&E R&D (\$thousands)

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
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GDP = gross domestic product.

NOTE: Academic R&D is reported for institutions with R&D over \$150,000.

SOURCES: National Science Foundation, National Center for Science and Engineering Statistics, Academic Research and Development Expenditures (various years); Bureau of Economic Analysis, Gross Domestic Product data (various years); United Nations Statistics Division (various years).

*Science and Engineering Indicators 2016*



State	State GDP (\$millions)												
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
United States	9,030,651	9,602,088	10,225,879	10,562,041	10,916,911	11,446,549	12,206,995	13,022,458	13,781,347	14,399,635	14,635,348	14,329,566	14,869,544
Alabama	109,776	115,704	120,428	124,885	130,180	136,270	148,769	157,914	165,131	170,431	173,712	169,385	176,355
Alaska	24,067	24,727	26,932	28,942	29,808	32,125	35,510	40,277	44,867	49,365	54,853	49,655	52,673
Arizona	143,542	156,118	166,108	172,634	179,892	192,663	204,659	227,047	248,075	262,280	259,238	243,300	248,542
Arkansas	62,695	67,087	69,111	71,128	74,243	78,882	85,315	90,112	95,727	99,641	103,228	101,003	106,043
California	1,158,822	1,258,697	1,377,014	1,394,863	1,449,536	1,535,202	1,643,908	1,760,508	1,868,969	1,952,229	1,994,484	1,915,684	1,966,587
Colorado	149,057	162,273	178,331	185,264	189,464	195,704	205,347	222,415	233,142	245,312	256,091	250,285	258,237
Connecticut	147,616	153,781	166,995	172,336	174,856	181,750	198,921	208,154	220,994	235,143	231,745	227,003	232,470
Delaware	35,955	39,053	41,677	43,314	43,046	46,092	50,618	52,901	55,826	57,132	54,719	56,236	57,539
District of Columbia	53,891	58,088	60,458	65,400	69,608	73,846	79,564	83,968	88,502	93,813	98,849	99,255	104,172
Florida	431,374	459,431	490,538	519,024	550,486	585,729	637,113	700,222	748,021	773,992	754,780	722,825	730,896
Georgia	264,225	287,670	304,942	316,351	323,644	335,367	353,025	376,626	393,920	411,469	412,155	406,139	412,194
Hawaii	37,627	39,177	41,247	42,789	45,185	48,559	53,306	58,123	61,684	64,967	66,728	65,275	67,740
Idaho	31,152	34,390	38,416	37,812	39,185	41,125	44,445	47,990	51,821	55,092	56,220	54,199	55,658
Illinois	443,392	465,795	492,922	503,969	514,227	531,957	561,117	588,847	623,535	648,221	647,589	641,880	655,006
Indiana	187,005	195,668	205,807	207,104	214,788	225,933	240,428	247,048	258,525	271,497	275,278	263,430	282,954
Iowa	85,833	88,936	95,021	96,093	100,359	106,935	118,710	124,021	128,346	137,266	136,943	137,571	142,344
Kansas	79,114	82,944	87,446	90,269	92,953	97,651	101,343	106,864	113,738	122,349	126,152	122,029	127,947
Kentucky	109,859	115,931	115,126	118,975	123,928	128,804	135,994	144,174	152,394	155,593	159,429	156,514	166,181
Louisiana	121,548	127,230	134,251	140,264	141,797	157,562	172,623	200,436	207,944	209,774	218,847	210,791	233,155
Maine	32,177	34,350	36,684	38,317	40,050	41,858	44,617	46,052	48,175	49,345	50,166	50,487	51,681
Maryland	171,402	181,987	192,934	206,296	218,525	229,840	247,461	264,729	278,216	290,381	298,430	303,674	314,354
Massachusetts	249,401	264,906	289,554	296,348	302,972	315,339	329,640	344,145	359,256	377,939	384,595	381,628	398,147
Michigan	315,171	338,889	351,996	351,014	365,288	377,462	383,545	396,268	397,295	402,425	387,517	366,387	386,586
Minnesota	167,915	176,966	192,948	198,343	206,098	218,061	231,904	244,800	251,221	259,388	265,497	259,935	272,995
Mississippi	61,220	64,142	66,171	67,662	69,443	73,982	78,169	82,274	87,302	91,975	94,968	92,442	95,539
Missouri	169,799	177,924	187,707	191,750	196,807	205,338	215,895	225,268	234,124	241,716	249,633	249,783	256,212
Montana	20,208	20,834	21,884	23,063	23,941	25,788	27,979	30,425	32,635	35,683	36,648	35,442	37,343



State	State GDP (\$millions)												
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Nebraska	52,548	54,427	57,551	60,217	62,305	67,656	71,322	74,415	78,581	82,890	85,744	87,172	91,837
Nevada	63,934	70,376	75,777	80,134	84,643	90,419	103,446	116,764	125,387	131,544	128,760	119,087	119,529
New Hampshire	40,169	41,229	44,135	45,163	47,510	50,276	53,148	56,123	58,492	59,990	60,004	60,654	62,868
New Jersey	320,905	336,975	360,703	373,205	388,030	404,905	423,953	444,973	466,524	482,149	494,007	484,804	494,148
New Mexico	50,519	53,210	55,597	56,889	58,845	63,576	70,121	74,063	77,536	80,525	84,193	81,129	83,968
New York	739,583	785,301	824,386	864,377	879,623	898,559	954,249	1,024,329	1,083,194	1,128,484	1,109,714	1,142,957	1,199,367
North Carolina	244,146	263,633	276,963	291,540	301,781	313,917	332,598	357,711	386,354	395,593	407,119	410,488	422,107
North Dakota	16,858	17,042	17,991	19,002	20,322	22,295	23,396	24,709	26,491	28,696	31,913	31,994	35,305
Ohio	360,273	374,613	391,503	396,626	411,997	426,295	450,842	468,197	482,227	494,307	493,679	477,591	494,395
Oklahoma	81,533	85,368	92,083	97,682	99,532	106,105	114,160	125,106	136,804	144,254	157,524	143,500	152,122
Oregon	105,525	107,980	118,086	117,362	121,998	128,009	142,516	147,583	163,033	170,516	180,094	180,612	191,521
Pennsylvania	372,396	389,766	409,473	428,099	440,514	458,434	481,879	505,091	529,969	553,126	565,988	566,495	585,650
Rhode Island	30,529	32,194	34,405	36,117	38,231	40,672	43,513	45,250	47,659	47,958	47,450	47,854	49,337
South Carolina	104,676	111,539	116,812	121,361	126,044	132,485	136,875	144,754	152,802	161,106	163,211	161,565	165,353
South Dakota	20,445	21,488	23,267	24,399	27,334	28,733	30,789	31,552	32,455	35,275	37,494	36,890	38,718
Tennessee	167,243	176,549	182,844	188,482	197,724	206,546	220,543	228,730	239,425	243,410	250,519	248,024	253,671
Texas	653,512	691,405	752,007	787,653	801,155	844,435	922,770	999,641	1,094,064	1,179,068	1,242,323	1,168,881	1,247,572
Utah	61,503	65,525	70,550	74,191	76,711	80,130	86,495	94,876	106,308	116,138	116,706	113,943	118,491
Vermont	16,119	17,141	18,265	19,172	20,073	21,232	22,538	23,483	24,251	24,792	25,348	25,302	26,469
Virginia	233,908	251,671	269,194	284,595	292,387	309,648	330,412	358,730	378,445	392,659	399,994	410,342	424,232
Washington	211,448	230,725	239,942	240,894	249,942	260,027	271,676	296,731	315,723	343,482	353,744	350,996	362,521
West Virginia	39,793	41,720	42,497	43,700	45,086	46,471	49,409	53,331	56,748	58,579	62,165	63,053	66,230
Wisconsin	164,337	173,789	181,874	188,164	195,546	204,649	216,716	226,963	236,444	243,935	245,513	246,106	254,348
Wyoming	14,909	15,721	17,324	18,809	19,268	21,251	23,705	27,748	33,049	36,739	43,647	37,889	40,237
Puerto Rico	58,654	62,569	70,181	72,631	75,879	80,322	83,915	87,276	89,524	93,639	96,386	98,381	100,352



State GDP (\$millions)

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
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GDP = gross domestic product.

NOTE: Academic R&D is reported for institutions with R&D over \$150,000.

SOURCES: National Science Foundation, National Center for Science and Engineering Statistics, Academic Research and Development Expenditures (various years); Bureau of Economic Analysis, Gross Domestic Product data (various years); United Nations Statistics Division (various years).

*Science and Engineering Indicators 2016*

State	Academic S&E R&D/\$1,000 GDP (Dollars)		
	2011	2012	2013
United States	4.01	3.86	3.79
Alabama	4.83	4.32	4.18
Alaska	2.47	2.34	2.33
Arizona	3.70	3.69	3.69
Arkansas	2.44	2.41	2.35
California	3.90	3.81	3.64
Colorado	4.65	4.51	4.16
Connecticut	3.94	3.85	4.22
Delaware	3.01	2.99	3.09
District of Columbia	4.13	4.14	4.15
Florida	2.57	2.52	2.40
Georgia	3.91	3.90	3.92
Hawaii	4.65	4.52	4.51
Idaho	2.44	2.45	2.28
Illinois	3.33	3.20	3.32
Indiana	3.92	3.83	3.86
Iowa	4.70	4.36	4.16
Kansas	3.42	3.42	3.51
Kentucky	3.21	3.06	2.81
Louisiana	2.76	2.61	2.56
Maine	2.48	2.23	1.89
Maryland	10.42	10.03	10.00
Massachusetts	6.80	7.03	7.35
Michigan	5.09	5.00	4.91
Minnesota	3.03	2.84	2.83
Mississippi	4.41	4.23	3.71
Missouri	3.82	3.96	3.71
Montana	4.54	4.41	4.07
Nebraska	3.97	4.08	3.84



State	Academic S&E R&D/\$1,000 GDP (Dollars)		
	2011	2012	2013
Nevada	1.31	1.20	1.15
New Hampshire	5.32	5.26	4.88
New Jersey	2.19	2.03	2.09
New Mexico	4.61	4.43	4.30
New York	4.14	3.97	3.97
North Carolina	6.01	5.88	5.72
North Dakota	5.17	4.33	4.17
Ohio	4.05	3.72	3.65
Oklahoma	2.58	2.44	2.18
Oregon	3.49	3.35	3.26
Pennsylvania	5.31	5.05	5.04
Rhode Island	6.61	6.54	6.02
South Carolina	3.36	3.20	3.13
South Dakota	3.12	2.86	2.54
Tennessee	3.61	3.46	3.38
Texas	3.28	3.05	2.94
Utah	4.92	4.75	4.99
Vermont	4.95	4.23	4.17
Virginia	3.01	2.89	2.91
Washington	3.86	3.52	3.44
West Virginia	2.80	2.75	2.62
Wisconsin	5.08	4.87	4.49
Wyoming	1.28	1.56	1.51
Puerto Rico	1.51	1.37	1.22



Academic S&E R&D/\$1,000 GDP (Dollars)

State

2011

2012

2013

GDP = gross domestic product.

NOTE: Academic R&D is reported for institutions with R&D over \$150,000.

SOURCES: National Science Foundation, National Center for Science and Engineering Statistics, Academic Research and Development Expenditures (various years); Bureau of Economic Analysis, Gross Domestic Product data (various years); United Nations Statistics Division (various years).

*Science and Engineering Indicators 2016*

State	Academic S&E R&D (\$thousands)		
	2011	2012	2013
United States	61,821,872	62,049,900	63,241,616
Alabama	881,652	808,220	812,776
Alaska	140,736	135,751	133,170
Arizona	951,223	987,123	1,013,898
Arkansas	270,576	275,503	278,640
California	7,929,264	8,103,323	8,064,364
Colorado	1,240,906	1,249,413	1,200,521
Connecticut	922,694	924,357	1,042,379
Delaware	178,496	176,743	187,730
District of Columbia	446,448	455,063	463,042
Florida	1,896,576	1,930,189	1,921,895
Georgia	1,657,919	1,711,596	1,789,065
Hawaii	325,915	328,168	338,992
Idaho	139,392	142,976	139,444
Illinois	2,264,226	2,269,727	2,407,183
Indiana	1,141,830	1,150,327	1,200,697
Iowa	705,684	695,465	693,052
Kansas	466,851	479,721	499,788
Kentucky	555,579	546,893	515,406
Louisiana	667,523	653,885	632,537
Maine	129,236	118,589	103,373
Maryland	3,366,663	3,316,156	3,393,945
Massachusetts	2,806,845	3,010,696	3,246,125
Michigan	2,029,656	2,076,947	2,134,096
Minnesota	866,304	840,731	869,824
Mississippi	431,365	437,775	385,916
Missouri	984,357	1,055,398	1,027,959
Montana	182,326	184,754	175,054
Nebraska	393,395	419,163	419,564



State	Academic S&E R&D (\$thousands)		
	2011	2012	2013
Nevada	160,254	149,323	147,079
New Hampshire	341,848	349,891	335,518
New Jersey	1,091,890	1,060,469	1,121,926
New Mexico	400,121	390,548	390,745
New York	5,111,149	5,166,092	5,329,080
North Carolina	2,604,219	2,619,095	2,669,947
North Dakota	209,430	213,666	212,705
Ohio	2,108,503	2,017,681	2,052,506
Oklahoma	418,373	412,978	384,729
Oregon	701,228	680,956	667,974
Pennsylvania	3,202,025	3,127,830	3,224,185
Rhode Island	330,272	335,957	320,878
South Carolina	576,881	563,599	570,056
South Dakota	132,295	123,383	113,284
Tennessee	952,398	968,317	980,450
Texas	4,427,560	4,413,601	4,585,482
Utah	614,316	608,199	673,095
Vermont	136,623	119,802	120,177
Virginia	1,300,258	1,283,852	1,323,095
Washington	1,438,349	1,376,467	1,402,118
West Virginia	195,952	189,225	184,992
Wisconsin	1,338,969	1,330,504	1,278,009
Wyoming	55,320	63,812	63,149
Puerto Rico	152,435	141,188	128,786



Academic S&E R&D (\$thousands)

State	2011	2012	2013
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GDP = gross domestic product.

NOTE: Academic R&D is reported for institutions with R&D over \$150,000.

SOURCES: National Science Foundation, National Center for Science and Engineering Statistics, Academic Research and Development Expenditures (various years); Bureau of Economic Analysis, Gross Domestic Product data (various years); United Nations Statistics Division (various years).

*Science and Engineering Indicators 2016*

State	State GDP (\$millions)		
	2011	2012	2013
United States	15,416,873	16,060,678	16,665,215
Alabama	182,395	186,960	194,671
Alaska	56,939	57,941	57,276
Arizona	256,972	267,493	274,734
Arkansas	110,850	114,090	118,553
California	2,033,990	2,125,135	2,212,991
Colorado	266,627	276,816	288,338
Connecticut	233,960	239,878	246,897
Delaware	59,275	59,104	60,816
District of Columbia	108,217	109,937	111,695
Florida	736,890	766,259	800,697
Georgia	424,494	438,801	456,483
Hawaii	70,058	72,653	75,095
Idaho	57,050	58,353	61,117
Illinois	680,395	710,348	724,795
Indiana	291,357	300,304	311,188
Iowa	150,289	159,660	166,787
Kansas	136,613	140,441	142,449
Kentucky	172,869	178,682	183,582
Louisiana	241,845	250,689	246,660
Maine	52,007	53,180	54,609
Maryland	323,148	330,518	339,409
Massachusetts	412,653	428,350	441,467
Michigan	398,912	415,145	434,674
Minnesota	285,452	295,716	307,270
Mississippi	97,760	103,414	104,095
Missouri	257,985	266,672	276,715
Montana	40,193	41,941	43,006
Nebraska	98,997	102,823	109,364

State	State GDP (\$millions)		
	2011	2012	2013
Nevada	122,420	124,938	127,989
New Hampshire	64,246	66,490	68,701
New Jersey	498,918	523,275	537,396
New Mexico	86,737	88,212	90,828
New York	1,234,073	1,302,527	1,341,591
North Carolina	433,311	445,720	467,075
North Dakota	40,482	49,308	51,048
Ohio	520,398	542,097	562,845
Oklahoma	162,118	169,346	176,398
Oregon	200,854	203,352	204,867
Pennsylvania	602,686	619,417	640,294
Rhode Island	49,932	51,346	53,300
South Carolina	171,550	176,320	182,400
South Dakota	42,362	43,177	44,673
Tennessee	264,052	280,169	290,125
Texas	1,350,773	1,449,330	1,557,193
Utah	124,737	128,050	134,974
Vermont	27,622	28,348	28,838
Virginia	432,206	444,617	454,984
Washington	372,444	390,643	407,160
West Virginia	69,892	68,722	70,595
Wisconsin	263,800	273,091	284,728
Wyoming	43,067	40,877	41,782
Puerto Rico	101,081	103,135	105,149



State GDP (\$millions)

State

2011

2012

2013

GDP = gross domestic product.

NOTE: Academic R&D is reported for institutions with R&D over \$150,000.

SOURCES: National Science Foundation, National Center for Science and Engineering Statistics, Academic Research and Development Expenditures (various years); Bureau of Economic Analysis, Gross Domestic Product data (various years); United Nations Statistics Division (various years).

*Science and Engineering Indicators 2016*