

## Chapter 8. State Indicators

### 8-39 R&D as a Percentage of Gross Domestic Product

#### Description

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This indicator represents the extent to which R&D plays a role in a state's economy. A high value indicates that a state has a high intensity of R&D activity or a major federal R&D facility, which may support future growth in knowledge-based industries. Industries that have a high percentage of R&D activity include pharmaceuticals, chemicals, computer equipment and services, electronic components, aerospace, and motor vehicles.

R&D performed refers to R&D activities conducted or funded by federal and state agencies, businesses, universities, and nonprofit organizations. In 2012, business performed 71% of the total R&D at the national level, and colleges and universities performed 14%, followed by government facilities (11%), including federally funded R&D centers, and other nonprofit institutions (4%).

The methodology for assigning industry R&D activity at the state level was modified in 2001, and 1998–2000 data were recalculated using the new methodology. Data for Puerto Rico was reported starting in 2011. Data for other locations were reported separately starting in 2008.

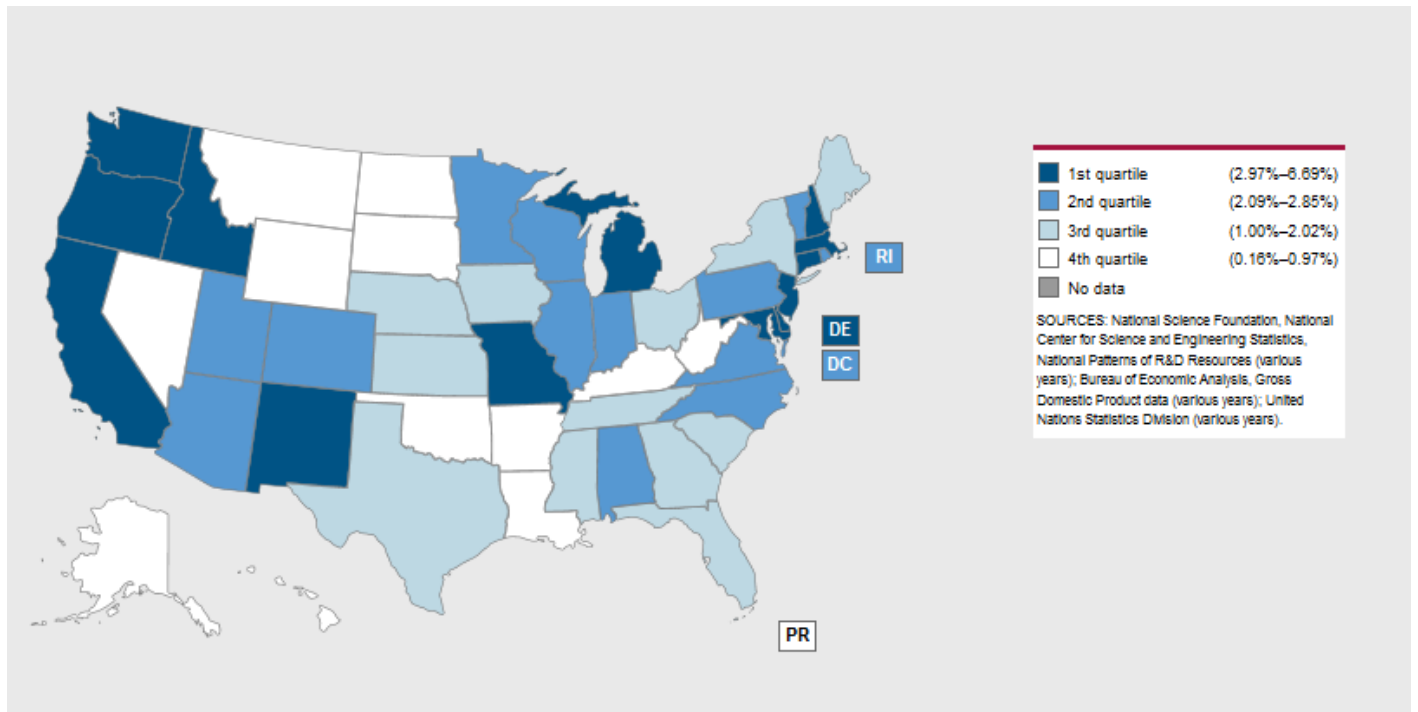
#### Findings

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- The national value of R&D performed as a share of gross domestic product (GDP) increased slightly between 2002 and 2012, from 2.56% to 2.71%.
- In 2012, state values ranged from 0.26% to 6.69%, indicating large differences in the geographic concentration of R&D activity.
- New Mexico has a relatively large amount of federal R&D activities, likely due to the presence of two national laboratories, and a relatively small GDP, resulting in the highest value.
- States with high rankings also tended to rank high on employed science, engineering, and health doctorate holders as a share of the workforce (see indicator 8-32).

## 8-39 R&D as a Percentage of Gross Domestic Product

Year: 2012

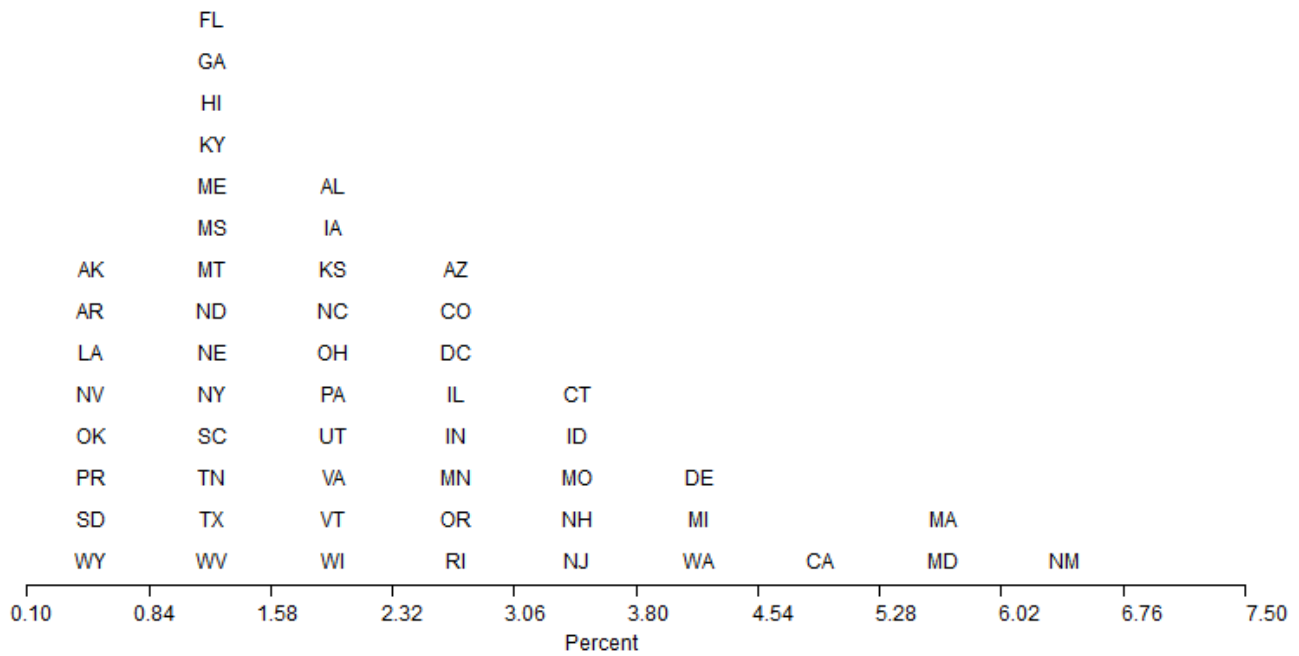


## 8-39 R&D as a Percentage of Gross Domestic Product

Year: 2012

### 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 8-39 R&D as a Percentage of Gross Domestic Product**

State	R&D performed/state GDP (Percent)												
	1991	1993	1995	1997	1998	1999	2000	2002	2003	2004	2005	2006	2007
United States	2.75	2.56	2.52	2.48	2.51	2.55	2.63	2.56	2.56	2.49	2.51	2.56	2.64
Alabama	1.99	2.33	1.75	1.57	1.75	1.52	1.44	1.78	1.87	1.86	1.78	2.00	1.93
Alaska	0.66	0.55	0.64	0.53	NA	0.61	0.73	1.03	1.00	0.76	0.66	0.65	0.63
Arizona	1.91	1.80	1.78	1.81	1.61	3.26	1.87	2.28	1.86	1.73	1.82	1.92	1.91
Arkansas	0.48	0.63	0.60	0.45	0.45	0.56	0.66	0.58	0.65	0.60	0.59	0.60	0.63
California	3.59	4.08	3.95	3.85	3.79	3.81	4.00	3.55	3.89	3.63	3.63	3.82	3.98
Colorado	NA	2.99	2.40	2.35	3.06	2.59	2.37	2.23	2.56	2.68	2.61	2.64	2.78
Connecticut	1.89	2.61	3.50	2.46	2.41	2.88	2.93	3.87	3.60	3.96	4.32	4.09	4.35
Delaware	NA	5.31	4.14	3.21	7.11	3.44	3.68	3.06	3.07	2.34	3.09	2.84	2.81
District of Columbia	4.19	5.61	6.64	5.36	4.84	4.32	3.80	3.89	3.64	3.00	3.98	4.25	4.12
Florida	1.38	1.16	1.51	1.19	1.11	0.93	0.95	1.00	0.88	0.85	0.89	0.85	0.92
Georgia	1.00	0.92	1.04	0.94	0.94	1.03	0.92	1.22	1.17	1.04	1.03	1.13	1.08
Hawaii	0.42	1.03	0.45	0.73	0.64	0.69	0.71	1.01	0.90	0.92	0.88	0.84	0.91
Idaho	NA	2.07	3.29	4.28	3.62	3.81	3.73	3.50	2.94	2.26	2.15	1.79	2.02
Illinois	2.22	2.12	2.05	1.90	1.99	2.09	2.59	1.98	2.08	2.01	2.13	2.18	2.20
Indiana	2.05	1.94	2.10	1.82	1.65	1.41	1.58	2.01	1.99	2.13	2.21	2.24	2.20
Iowa	1.34	1.42	1.90	1.17	1.23	1.13	1.07	1.34	1.36	1.37	1.35	1.34	1.37
Kansas	NA	0.79	1.17	1.80	1.92	1.88	1.62	2.01	2.07	2.14	2.21	2.15	1.39
Kentucky	0.44	0.53	0.65	0.50	0.59	0.83	0.75	0.91	0.79	0.74	0.79	0.88	0.90
Louisiana	0.47	0.49	0.37	0.47	0.45	0.49	0.47	0.61	0.61	0.56	0.48	0.47	0.51
Maine	NA	0.45	1.23	0.48	0.49	0.66	0.87	1.07	0.89	0.86	1.14	0.93	0.98
Maryland	4.97	6.00	4.94	4.59	4.68	4.44	4.48	4.13	4.42	5.80	5.34	5.21	4.87
Massachusetts	5.33	5.47	5.08	4.67	5.37	4.60	4.49	4.73	4.96	4.85	5.16	5.73	6.50
Michigan	4.48	4.76	5.17	4.64	4.33	5.55	5.37	4.13	4.47	4.36	4.64	4.58	4.32

State	R&D performed/state GDP (Percent)												
	1991	1993	1995	1997	1998	1999	2000	2002	2003	2004	2005	2006	2007
Minnesota	2.10	2.48	2.28	2.29	2.27	2.21	2.23	2.55	2.68	2.58	2.92	2.85	2.90
Mississippi	0.74	0.68	0.57	0.63	0.60	0.74	0.78	1.00	2.05	0.83	0.94	0.87	0.91
Missouri	NA	1.50	1.78	1.12	1.10	1.13	1.38	1.26	1.33	1.41	1.61	1.56	1.55
Montana	NA	0.56	0.68	1.04	0.94	0.81	0.78	0.99	0.96	1.05	1.05	0.94	2.41
Nebraska	0.59	0.75	0.74	0.54	0.60	0.77	0.76	1.06	1.05	1.04	1.08	1.07	1.09
Nevada	0.80	0.55	0.90	0.87	0.89	0.65	0.50	0.62	0.64	0.60	0.53	0.63	0.60
New Hampshire	NA	1.60	1.88	2.10	3.34	3.05	1.76	3.02	3.31	3.13	3.16	3.63	3.58
New Jersey	3.96	3.82	3.46	3.91	3.54	3.13	3.64	3.36	3.16	2.94	3.35	3.49	4.06
New Mexico	8.55	7.46	7.82	5.77	6.00	6.16	5.55	7.97	7.83	7.29	7.11	7.47	7.03
New York	2.07	2.04	1.88	1.72	1.86	1.80	1.64	1.52	1.45	1.37	1.38	1.33	1.41
North Carolina	1.34	1.63	1.65	2.00	1.87	2.00	1.82	1.70	2.02	1.95	2.05	2.00	2.33
North Dakota	NA	0.71	0.66	0.73	0.71	0.99	0.81	1.45	1.71	2.39	1.15	1.19	1.14
Ohio	2.55	2.46	1.79	2.09	1.93	2.16	1.96	2.02	2.01	1.73	1.77	1.96	2.03
Oklahoma	1.01	0.81	0.75	0.81	0.63	0.78	0.72	0.80	0.91	0.71	0.65	0.65	0.64
Oregon	1.01	1.11	1.34	1.50	1.81	1.83	1.79	2.37	2.79	2.57	2.66	2.52	2.54
Pennsylvania	2.99	2.94	2.21	2.31	2.35	2.74	2.40	2.22	2.17	2.24	2.36	2.44	2.44
Rhode Island	2.23	2.05	3.51	3.60	5.49	5.13	4.36	4.29	4.32	4.23	4.40	4.20	2.25
South Carolina	0.87	0.94	1.14	1.06	0.94	0.88	0.96	1.32	1.22	1.17	1.46	1.42	1.42
South Dakota	0.23	0.37	0.30	0.37	0.29	0.28	0.37	0.41	0.52	0.48	0.50	0.59	0.68
Tennessee	1.13	1.01	1.02	1.01	1.50	1.30	1.13	1.30	1.45	1.44	1.32	1.36	1.50
Texas	1.69	1.57	1.65	1.55	1.65	1.80	1.54	1.78	1.75	1.55	1.59	1.56	1.51
Utah	1.98	1.94	2.45	2.42	2.43	2.25	1.93	2.05	1.88	1.85	1.99	1.83	2.01
Vermont	NA	2.63	2.22	2.02	1.09	2.27	2.55	1.98	2.32	2.42	2.10	2.03	2.15
Virginia	1.84	1.75	2.09	1.89	2.11	2.03	1.88	2.02	2.45	2.22	2.39	2.61	2.41
Washington	3.09	3.80	3.38	3.87	4.00	3.61	4.38	4.21	4.41	4.03	4.00	4.30	4.38
West Virginia	NA	0.88	1.31	1.11	1.06	1.05	1.08	1.20	1.16	1.06	1.06	0.94	1.11
Wisconsin	1.50	1.54	1.65	1.45	1.52	1.48	1.48	1.83	1.78	1.70	1.68	1.75	1.87
Wyoming	0.32	0.46	0.60	0.59	0.44	0.42	0.35	0.42	0.53	0.41	0.44	0.39	0.35



R&D performed/state GDP (Percent)

State	1991	1993	1995	1997	1998	1999	2000	2002	2003	2004	2005	2006	2007
Puerto Rico	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NA = not available. GDP = gross domestic product.

NOTES: R&D includes R&D performed by federal agencies, businesses, universities, other nonprofit organizations, federally funded research and development centers, and state agencies. U.S. total R&D for the 50 States and D.C. is calculated as the U.S. Total - Puerto Rico - Other for years 2008-2012 and U.S. Total - Puerto Rico for years 1990-2007.

SOURCES: National Science Foundation, National Center for Science and Engineering Statistics, National Patterns of R&D Resources (various years); Bureau of Economic Analysis, Gross Domestic Product data (various years); United Nations Statistics Division (various years).

*Science and Engineering Indicators 2016*

State	R&D performed (\$millions)												
	1991	1993	1995	1997	1998	1999	2000	2002	2003	2004	2005	2006	2007
United States	160,876	165,730	183,625	212,152	226,457	245,319	268,904	279,387	293,060	304,547	327,184	352,875	380,019
Alabama	1,511	1,968	1,681	1,637	1,926	1,761	1,730	2,323	2,543	2,760	2,804	3,300	3,289
Alaska	146	129	163	136	NA	152	196	308	321	271	266	291	311
Arizona	1,399	1,607	1,957	2,410	2,318	5,091	3,107	4,096	3,578	3,544	4,139	4,760	5,006
Arkansas	198	301	330	272	283	378	454	427	509	514	528	572	632
California	28,346	33,721	36,036	41,670	43,919	47,965	55,093	51,388	59,664	59,607	63,874	71,335	77,608
Colorado	NA	2,864	2,701	3,205	4,565	4,209	4,230	4,218	5,012	5,497	5,807	6,153	6,828
Connecticut	1,917	2,809	4,311	3,454	3,559	4,436	4,888	6,774	6,548	7,881	8,987	9,049	10,228
Delaware	NA	1,249	1,149	1,089	2,556	1,343	1,532	1,319	1,414	1,182	1,635	1,588	1,607
District of Columbia	1,737	2,543	3,128	2,768	2,606	2,510	2,296	2,706	2,686	2,383	3,342	3,762	3,862
Florida	3,700	3,525	5,223	4,784	4,773	4,265	4,663	5,498	5,172	5,409	6,224	6,339	7,158
Georgia	1,479	1,577	2,112	2,272	2,492	2,960	2,796	3,935	3,923	3,655	3,867	4,440	4,425
Hawaii	145	380	169	275	242	270	291	456	438	490	513	518	592
Idaho	NA	478	914	1,270	1,127	1,309	1,434	1,370	1,209	1,006	1,030	927	1,115
Illinois	6,413	6,777	7,483	8,034	8,830	9,719	12,767	10,190	11,045	11,300	12,519	13,609	14,287
Indiana	2,347	2,560	3,162	3,149	3,089	2,763	3,252	4,326	4,487	5,130	5,455	5,784	5,980
Iowa	777	902	1,391	980	1,054	1,003	1,017	1,346	1,451	1,625	1,669	1,715	1,882
Kansas	NA	464	764	1,351	1,518	1,556	1,420	1,865	2,024	2,169	2,366	2,441	1,697
Kentucky	317	429	594	526	645	968	866	1,128	1,014	1,006	1,136	1,342	1,406
Louisiana	453	470	423	554	542	626	627	858	954	972	966	972	1,073
Maine	NA	114	345	149	159	225	319	429	372	384	524	450	485
Maryland	5,736	7,530	6,865	7,395	8,019	8,087	8,634	9,030	10,162	14,341	14,136	14,493	14,130
Massachusetts	8,565	9,498	9,970	11,097	13,382	12,190	13,004	14,316	15,638	15,987	17,757	20,577	24,557
Michigan	8,851	10,778	13,275	13,991	13,655	18,799	18,892	15,082	16,884	16,722	18,372	18,189	17,402
Minnesota	2,228	2,922	3,087	3,605	3,818	3,905	4,299	5,247	5,842	5,992	7,137	7,149	7,533
Mississippi	302	324	315	370	366	476	513	691	1,519	651	777	758	838
Missouri	NA	1,789	2,498	1,826	1,868	2,009	2,583	2,478	2,731	3,038	3,627	3,650	3,754
Montana	NA	90	119	199	191	169	170	236	247	295	318	307	859





R&D performed (\$millions)

State	1991	1993	1995	1997	1998	1999	2000	2002	2003	2004	2005	2006	2007
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NA = not available. GDP = gross domestic product.

NOTES: R&D includes R&D performed by federal agencies, businesses, universities, other nonprofit organizations, federally funded research and development centers, and state agencies. U.S. total R&D for the 50 States and D.C. is calculated as the U.S. Total – Puerto Rico – Other for years 2008–2012 and U.S. Total – Puerto Rico for years 1990–2007.

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*Science and Engineering Indicators 2016*



State	State GDP (\$millions)												
	1991	1993	1995	1997	1998	1999	2000	2002	2003	2004	2005	2006	2007
United States	5,842,665	6,467,698	7,299,372	8,549,209	9,030,651	9,602,088	10,225,879	10,916,911	11,446,549	12,206,995	13,022,458	13,781,347	14,399,635
Alabama	76,043	84,563	95,819	104,309	109,776	115,704	120,428	130,180	136,270	148,769	157,914	165,131	170,431
Alaska	22,283	23,284	25,449	25,763	24,067	24,727	26,932	29,808	32,125	35,510	40,277	44,867	49,365
Arizona	73,358	89,300	109,906	132,795	143,542	156,118	166,108	179,892	192,663	204,659	227,047	248,075	262,280
Arkansas	41,572	47,566	54,612	60,248	62,695	67,087	69,111	74,243	78,882	85,315	90,112	95,727	99,641
California	790,046	826,447	911,577	1,082,051	1,158,822	1,258,697	1,377,014	1,449,536	1,535,202	1,643,908	1,760,508	1,868,969	1,952,229
Colorado	79,766	95,659	112,708	136,296	149,057	162,273	178,331	189,464	195,704	205,347	222,415	233,142	245,312
Connecticut	101,475	107,680	123,212	140,127	147,616	153,781	166,995	174,856	181,750	198,921	208,154	220,994	235,143
Delaware	21,746	23,509	27,721	33,911	35,955	39,053	41,677	43,046	46,092	50,618	52,901	55,826	57,132
District of Columbia	41,430	45,356	47,094	51,682	53,891	58,088	60,458	69,608	73,846	79,564	83,968	88,502	93,813
Florida	267,669	304,403	346,951	403,677	431,374	459,431	490,538	550,486	585,729	637,113	700,222	748,021	773,992
Georgia	147,760	171,659	203,397	242,669	264,225	287,670	304,942	323,644	335,367	353,025	376,626	393,920	411,469
Hawaii	34,357	36,732	37,763	37,915	37,627	39,177	41,247	45,185	48,559	53,306	58,123	61,684	64,967
Idaho	18,852	23,100	27,762	29,686	31,152	34,390	38,416	39,185	41,125	44,445	47,990	51,821	55,092
Illinois	288,473	320,079	364,451	422,741	443,392	465,795	492,922	514,227	531,957	561,117	588,847	623,535	648,221
Indiana	114,637	132,108	150,404	172,949	187,005	195,668	205,807	214,788	225,933	240,428	247,048	258,525	271,497
Iowa	57,944	63,386	73,137	83,743	85,833	88,936	95,021	100,359	106,935	118,710	124,021	128,346	137,266
Kansas	53,981	58,953	65,282	75,239	79,114	82,944	87,446	92,953	97,651	101,343	106,864	113,738	122,349
Kentucky	71,679	81,618	91,915	105,103	109,859	115,931	115,126	123,928	128,804	135,994	144,174	152,394	155,593
Louisiana	96,043	95,866	112,876	118,073	121,548	127,230	134,251	141,797	157,562	172,623	200,436	207,944	209,774
Maine	23,379	25,202	28,153	30,675	32,177	34,350	36,684	40,050	41,858	44,617	46,052	48,175	49,345
Maryland	115,428	125,515	139,070	160,965	171,402	181,987	192,934	218,525	229,840	247,461	264,729	278,216	290,381
Massachusetts	160,728	173,527	196,409	237,390	249,401	264,906	289,554	302,972	315,339	329,640	344,145	359,256	377,939
Michigan	197,717	226,368	256,615	301,805	315,171	338,889	351,996	365,288	377,462	383,545	396,268	397,295	402,425
Minnesota	106,102	117,947	135,124	157,206	167,915	176,966	192,948	206,098	218,061	231,904	244,800	251,221	259,388
Mississippi	40,862	47,340	54,984	58,657	61,220	64,142	66,171	69,443	73,982	78,169	82,274	87,302	91,975
Missouri	109,162	118,906	140,060	163,749	169,799	177,924	187,707	196,807	205,338	215,895	225,268	234,124	241,716
Montana	13,875	16,054	17,519	19,196	20,208	20,834	21,884	23,941	25,788	27,979	30,425	32,635	35,683



State	State GDP (\$millions)												
	1991	1993	1995	1997	1998	1999	2000	2002	2003	2004	2005	2006	2007
Nebraska	35,613	39,353	45,111	50,719	52,548	54,427	57,551	62,305	67,656	71,322	74,415	78,581	82,890
Nevada	32,786	40,039	49,249	59,468	63,934	70,376	75,777	84,643	90,419	103,446	116,764	125,387	131,544
New Hampshire	24,763	27,362	31,876	37,992	40,169	41,229	44,135	47,510	50,276	53,148	56,123	58,492	59,990
New Jersey	221,915	240,389	263,468	308,631	320,905	336,975	360,703	388,030	404,905	423,953	444,973	466,524	482,149
New Mexico	30,295	36,876	42,146	52,460	50,519	53,210	55,597	58,845	63,576	70,121	74,063	77,536	80,525
New York	497,336	537,504	582,656	714,244	739,583	785,301	824,386	879,623	898,559	954,249	1,024,329	1,083,194	1,128,484
North Carolina	146,367	168,006	193,467	232,815	244,146	263,633	276,963	301,781	313,917	332,598	357,711	386,354	395,593
North Dakota	11,691	13,049	14,842	15,815	16,858	17,042	17,991	20,322	22,295	23,396	24,709	26,491	28,696
Ohio	233,975	259,612	297,538	342,183	360,273	374,613	391,503	411,997	426,295	450,842	468,197	482,227	494,307
Oklahoma	59,632	65,552	70,859	79,527	81,533	85,368	92,083	99,532	106,105	114,160	125,106	136,804	144,254
Oregon	59,441	69,409	81,554	101,039	105,525	107,980	118,086	121,998	128,009	142,516	147,583	163,033	170,516
Pennsylvania	255,163	281,704	312,989	355,574	372,396	389,766	409,473	440,514	458,434	481,879	505,091	529,969	553,126
Rhode Island	21,738	23,566	25,550	28,890	30,529	32,194	34,405	38,231	40,672	43,513	45,250	47,659	47,958
South Carolina	68,000	76,158	87,248	98,354	104,676	111,539	116,812	126,044	132,485	136,875	144,754	152,802	161,106
South Dakota	13,736	16,105	18,054	19,233	20,445	21,488	23,267	27,334	28,733	30,789	31,552	32,455	35,275
Tennessee	101,208	119,568	137,061	154,693	167,243	176,549	182,844	197,724	206,546	220,543	228,730	239,425	243,410
Texas	393,574	443,775	507,725	613,463	653,512	691,405	752,007	801,155	844,435	922,770	999,641	1,094,064	1,179,068
Utah	33,501	38,631	46,746	57,159	61,503	65,525	70,550	76,711	80,130	86,495	94,876	106,308	116,138
Vermont	11,733	13,027	13,891	15,529	16,119	17,141	18,265	20,073	21,232	22,538	23,483	24,251	24,792
Virginia	151,093	167,688	186,236	218,905	233,908	251,671	269,194	292,387	309,648	330,412	358,730	378,445	392,659
Washington	125,895	142,500	155,069	194,856	211,448	230,725	239,942	249,942	260,027	271,676	296,731	315,723	343,482
West Virginia	29,092	31,881	36,149	38,677	39,793	41,720	42,497	45,086	46,471	49,409	53,331	56,748	58,579
Wisconsin	104,774	120,024	135,311	155,603	164,337	173,789	181,874	195,546	204,649	216,716	226,963	236,444	243,935
Wyoming	12,977	13,791	14,608	14,760	14,909	15,721	17,324	19,268	21,251	23,705	27,748	33,049	36,739
Puerto Rico	35,117	40,249	45,978	54,846	58,654	62,569	70,181	75,879	80,322	83,915	87,276	89,524	93,639



State GDP (\$millions)

State	1991	1993	1995	1997	1998	1999	2000	2002	2003	2004	2005	2006	2007
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NA = not available. GDP = gross domestic product.

NOTES: R&D includes R&D performed by federal agencies, businesses, universities, other nonprofit organizations, federally funded research and development centers, and state agencies. U.S. total R&D for the 50 States and D.C. is calculated as the U.S. Total – Puerto Rico – Other for years 2008–2012 and U.S. Total – Puerto Rico for years 1990–2007.

SOURCES: National Science Foundation, National Center for Science and Engineering Statistics, National Patterns of R&D Resources (various years); Bureau of Economic Analysis, Gross Domestic Product data (various years); United Nations Statistics Division (various years).

*Science and Engineering Indicators 2016*

State	R&D performed/state GDP (Percent)				
	2008	2009	2010	2011	2012
United States	2.78	2.83	2.74	2.77	2.71
Alabama	2.80	2.32	2.13	2.71	2.10
Alaska	0.49	0.60	0.67	0.67	0.50
Arizona	2.70	2.68	2.21	2.51	2.43
Arkansas	0.72	0.98	0.56	0.61	0.56
California	4.08	4.16	4.12	4.49	4.59
Colorado	2.27	2.43	2.39	2.57	2.33
Connecticut	4.89	5.04	3.21	3.73	3.62
Delaware	2.91	3.99	4.05	3.87	4.42
District of Columbia	6.02	4.23	3.43	3.16	2.85
Florida	0.86	0.98	1.09	1.23	1.08
Georgia	1.27	1.46	1.32	1.36	1.36
Hawaii	0.99	1.03	1.02	1.06	0.93
Idaho	2.45	2.88	3.20	3.15	3.17
Illinois	1.85	1.95	2.42	2.35	2.36
Indiana	2.22	2.45	2.24	2.60	2.51
Iowa	1.56	1.90	1.94	2.09	1.63
Kansas	1.61	1.73	1.57	1.52	1.87
Kentucky	0.92	0.99	0.90	1.10	0.96
Louisiana	0.55	0.56	0.52	0.63	0.44
Maine	1.03	1.50	0.95	1.03	1.00
Maryland	5.56	6.06	5.86	5.95	5.55
Massachusetts	5.22	5.31	5.19	5.34	5.63
Michigan	4.00	3.80	3.80	4.10	4.30
Minnesota	2.52	3.05	2.71	2.59	2.50
Mississippi	0.85	0.91	0.90	0.96	1.11
Missouri	1.56	1.77	3.61	NA	3.09
Montana	1.09	1.02	1.05	1.02	0.87
Nebraska	1.15	1.19	1.02	1.13	1.07

State	R&D performed/state GDP (Percent)				
	2008	2009	2010	2011	2012
Nevada	0.71	0.71	0.79	0.73	0.68
New Hampshire	4.16	1.99	3.43	3.85	3.53
New Jersey	4.19	4.17	3.62	3.15	3.37
New Mexico	7.01	7.17	7.41	7.00	6.69
New York	1.49	1.44	1.44	1.50	1.40
North Carolina	2.12	1.98	2.08	2.16	2.10
North Dakota	1.60	1.39	1.33	1.24	0.97
Ohio	2.06	2.11	2.03	1.99	2.02
Oklahoma	0.65	0.70	0.68	0.74	0.62
Oregon	2.67	2.69	2.75	2.75	2.97
Pennsylvania	2.31	2.38	2.23	2.27	2.13
Rhode Island	2.60	2.41	2.92	2.80	2.51
South Carolina	1.28	1.41	1.46	1.39	1.51
South Dakota	0.68	0.71	0.70	0.69	0.62
Tennessee	1.55	1.58	1.56	1.60	1.54
Texas	1.64	1.71	1.56	1.53	1.43
Utah	2.16	2.40	2.71	2.63	2.27
Vermont	2.15	2.18	1.71	1.88	2.09
Virginia	2.87	2.79	2.56	2.58	2.27
Washington	4.72	5.50	4.61	4.83	4.53
West Virginia	1.25	1.04	0.89	0.85	0.91
Wisconsin	2.02	2.00	2.10	2.12	2.09
Wyoming	0.35	0.37	0.27	0.27	0.26
Puerto Rico	NA	NA	NA	0.19	0.16



State	R&D performed/state GDP (Percent)				
	2008	2009	2010	2011	2012

NA = not available. GDP = gross domestic product.

NOTES: R&D includes R&D performed by federal agencies, businesses, universities, other nonprofit organizations, federally funded research and development centers, and state agencies. U.S. total R&D for the 50 States and D.C. is calculated as the U.S. Total – Puerto Rico – Other for years 2008–2012 and U.S. Total – Puerto Rico for years 1990–2007.

SOURCES: National Science Foundation, National Center for Science and Engineering Statistics, National Patterns of R&D Resources (various years); Bureau of Economic Analysis, Gross Domestic Product data (various years); United Nations Statistics Division (various years).

*Science and Engineering Indicators 2016*

State	R&D performed (\$millions)				
	2008	2009	2010	2011	2012
United States	406,850	404,972	407,970	427,583	435,029
Alabama	4,870	3,936	3,748	4,946	3,924
Alaska	269	300	355	381	292
Arizona	7,010	6,511	5,481	6,453	6,510
Arkansas	747	986	596	678	636
California	81,323	79,671	81,035	91,420	97,531
Colorado	5,810	6,087	6,171	6,862	6,455
Connecticut	11,322	11,447	7,458	8,736	8,681
Delaware	1,594	2,244	2,329	2,296	2,614
District of Columbia	5,946	4,200	3,568	3,418	3,133
Florida	6,515	7,098	8,002	9,073	8,289
Georgia	5,232	5,918	5,454	5,779	5,952
Hawaii	663	671	691	746	676
Idaho	1,375	1,563	1,783	1,795	1,850
Illinois	11,961	12,491	15,822	15,974	16,736
Indiana	6,111	6,457	6,340	7,579	7,541
Iowa	2,136	2,608	2,766	3,144	2,605
Kansas	2,029	2,108	2,004	2,081	2,629
Kentucky	1,463	1,552	1,499	1,895	1,708
Louisiana	1,193	1,175	1,206	1,523	1,112
Maine	516	757	489	535	532
Maryland	16,605	18,388	18,431	19,219	18,354
Massachusetts	20,090	20,254	20,658	22,022	24,129
Michigan	15,507	13,916	14,704	16,372	17,844
Minnesota	6,697	7,928	7,394	7,394	7,381
Mississippi	808	841	856	941	1,143
Missouri	3,884	4,416	9,261	NA	8,235
Montana	401	363	392	408	366
Nebraska	988	1,034	936	1,115	1,105



State	R&D performed (\$millions)				
	2008	2009	2010	2011	2012
Nevada	913	842	940	889	845
New Hampshire	2,496	1,210	2,159	2,471	2,345
New Jersey	20,713	20,222	17,880	15,705	17,630
New Mexico	5,906	5,817	6,225	6,070	5,905
New York	16,486	16,491	17,243	18,566	18,249
North Carolina	8,612	8,111	8,765	9,356	9,382
North Dakota	511	445	469	504	480
Ohio	10,164	10,093	10,050	10,359	10,928
Oklahoma	1,030	1,003	1,029	1,207	1,044
Oregon	4,802	4,864	5,264	5,515	6,031
Pennsylvania	13,068	13,479	13,079	13,651	13,210
Rhode Island	1,233	1,152	1,439	1,396	1,291
South Carolina	2,086	2,276	2,417	2,389	2,660
South Dakota	254	263	271	293	266
Tennessee	3,871	3,925	3,955	4,218	4,328
Texas	20,316	20,027	19,506	20,623	20,673
Utah	2,522	2,733	3,207	3,276	2,912
Vermont	546	551	453	519	592
Virginia	11,472	11,449	10,845	11,166	10,101
Washington	16,696	19,313	16,695	17,979	17,678
West Virginia	778	658	591	597	627
Wisconsin	4,967	4,930	5,351	5,605	5,698
Wyoming	154	141	108	115	106
Puerto Rico	NA	NA	NA	188	164



R&D performed (\$millions)

State	2008	2009	2010	2011	2012
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NA = not available. GDP = gross domestic product.

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*Science and Engineering Indicators 2016*

State	State GDP (\$millions)				
	2008	2009	2010	2011	2012
United States	14,635,348	14,329,566	14,869,544	15,416,873	16,060,678
Alabama	173,712	169,385	176,355	182,395	186,960
Alaska	54,853	49,655	52,673	56,939	57,941
Arizona	259,238	243,300	248,542	256,972	267,493
Arkansas	103,228	101,003	106,043	110,850	114,090
California	1,994,484	1,915,684	1,966,587	2,033,990	2,125,135
Colorado	256,091	250,285	258,237	266,627	276,816
Connecticut	231,745	227,003	232,470	233,960	239,878
Delaware	54,719	56,236	57,539	59,275	59,104
District of Columbia	98,849	99,255	104,172	108,217	109,937
Florida	754,780	722,825	730,896	736,890	766,259
Georgia	412,155	406,139	412,194	424,494	438,801
Hawaii	66,728	65,275	67,740	70,058	72,653
Idaho	56,220	54,199	55,658	57,050	58,353
Illinois	647,589	641,880	655,006	680,395	710,348
Indiana	275,278	263,430	282,954	291,357	300,304
Iowa	136,943	137,571	142,344	150,289	159,660
Kansas	126,152	122,029	127,947	136,613	140,441
Kentucky	159,429	156,514	166,181	172,869	178,682
Louisiana	218,847	210,791	233,155	241,845	250,689
Maine	50,166	50,487	51,681	52,007	53,180
Maryland	298,430	303,674	314,354	323,148	330,518
Massachusetts	384,595	381,628	398,147	412,653	428,350
Michigan	387,517	366,387	386,586	398,912	415,145
Minnesota	265,497	259,935	272,995	285,452	295,716
Mississippi	94,968	92,442	95,539	97,760	103,414
Missouri	249,633	249,783	256,212	257,985	266,672
Montana	36,648	35,442	37,343	40,193	41,941
Nebraska	85,744	87,172	91,837	98,997	102,823

State	State GDP (\$millions)				
	2008	2009	2010	2011	2012
Nevada	128,760	119,087	119,529	122,420	124,938
New Hampshire	60,004	60,654	62,868	64,246	66,490
New Jersey	494,007	484,804	494,148	498,918	523,275
New Mexico	84,193	81,129	83,968	86,737	88,212
New York	1,109,714	1,142,957	1,199,367	1,234,073	1,302,527
North Carolina	407,119	410,488	422,107	433,311	445,720
North Dakota	31,913	31,994	35,305	40,482	49,308
Ohio	493,679	477,591	494,395	520,398	542,097
Oklahoma	157,524	143,500	152,122	162,118	169,346
Oregon	180,094	180,612	191,521	200,854	203,352
Pennsylvania	565,988	566,495	585,650	602,686	619,417
Rhode Island	47,450	47,854	49,337	49,932	51,346
South Carolina	163,211	161,565	165,353	171,550	176,320
South Dakota	37,494	36,890	38,718	42,362	43,177
Tennessee	250,519	248,024	253,671	264,052	280,169
Texas	1,242,323	1,168,881	1,247,572	1,350,773	1,449,330
Utah	116,706	113,943	118,491	124,737	128,050
Vermont	25,348	25,302	26,469	27,622	28,348
Virginia	399,994	410,342	424,232	432,206	444,617
Washington	353,744	350,996	362,521	372,444	390,643
West Virginia	62,165	63,053	66,230	69,892	68,722
Wisconsin	245,513	246,106	254,348	263,800	273,091
Wyoming	43,647	37,889	40,237	43,067	40,877
Puerto Rico	96,386	98,381	100,352	101,081	103,135



State GDP (\$millions)

State	2008	2009	2010	2011	2012
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NA = not available. GDP = gross domestic product.

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*Science and Engineering Indicators 2016*