

State Indicators

S-49 Academic Science and Engineering Article Output per \$1 Million of Academic S&E R&D

Description

This indicator represents the relationship between the number of academic S&E publications and the amount of money expended for academic S&E R&D. Academic institutions include 2-year colleges, 4-year colleges or universities, medical schools, and university-affiliated research centers. This indicator is not an efficiency measure; it is affected by the highly variable costs of R&D and by publishing conventions in different fields and institutions. It may also reflect variations in field emphasis among states and institutions. Decreases in this indicator may be an effect of general price inflation as well as rising academic research costs.

Publication counts are based on the number of articles that appear in a set of journals tracked by Elsevier's Scopus database as of December 2016. The journal set consists of S&E publications (including publications on the natural sciences, the applied sciences, the medical sciences, and the social sciences but excluding the arts and humanities). Only documents published in refereed scientific journals are counted (mostly articles, reviews, and conference proceedings), as these documents were reviewed by peers prior to being accepted for publication. The peer-review process is designed to ensure that the research is of good quality and constitutes an original contribution to scientific knowledge. Fractional counting at the level of researchers is used to ensure that a single paper is not counted several times. For example, if two of three authors are in state A and the third author is in state B, then two-thirds of the publication is attributed to state A, and one-third is attributed to state B.

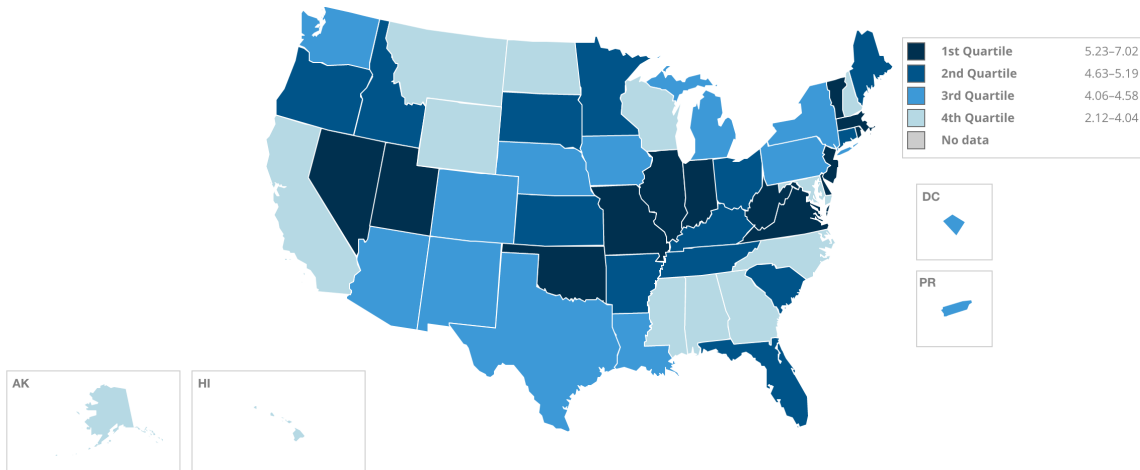
Data on academic R&D are provided by the National Center for Science and Engineering Statistics and represent R&D at U.S. colleges and universities with over \$150,000 in R&D expenditures.

Data source: Science-Metrix, special tabulations from Scopus; National Science Foundation, National Center for Science and Engineering Statistics, Higher Education Research and Development.

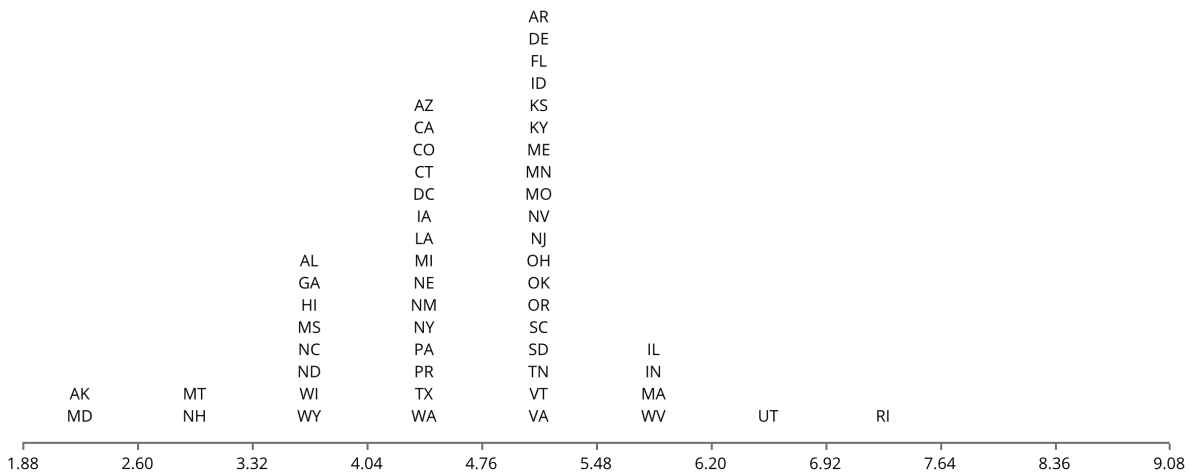
State Indicators

S-49 Academic Science and Engineering Article Output per \$1 Million of Academic S&E R&D

2017



Distribution of states across indicator values, 2017



Histograms do not display states with extreme values. Please consult the data tables for exact indicator values for each state. State positions on the histogram are based on unrounded values of the indicator and may not always match the rounded values displayed in the table.

State Indicators

Academic Science and Engineering Article Output per \$1 Million of Academic S&E R&D

(Articles)

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
United States	5.77	5.76	5.88	5.76	5.72	5.55	5.36	5.17	5.08	5.15
Alabama	5.08	5.41	5.55	5.59	5.29	4.99	4.59	4.16	4.15	4.67
Alaska	1.94	1.88	2.34	1.98	2.70	3.13	2.83	2.87	2.94	2.98
Arizona	5.85	5.82	5.79	5.50	5.67	5.37	5.22	5.27	5.13	4.94
Arkansas	5.34	6.02	5.89	5.00	5.41	5.10	5.30	5.01	5.00	4.99
California	5.28	4.96	5.13	5.08	5.03	4.89	4.78	4.73	4.68	4.66
Colorado	5.46	5.41	5.36	5.60	5.21	5.11	4.57	4.34	4.40	4.55
Connecticut	6.67	6.68	6.90	6.86	6.70	6.65	6.73	5.91	5.83	6.15
Delaware	8.45	8.45	9.08	8.41	8.47	8.33	8.09	6.43	6.29	6.48
District of Columbia	6.85	6.64	6.92	7.13	6.50	5.67	6.70	5.34	5.60	5.60
Florida	6.10	6.29	6.41	6.36	6.35	6.41	6.29	5.98	5.72	5.86
Georgia	4.97	5.29	5.47	5.34	5.43	4.93	4.94	5.01	4.99	4.92
Hawaii	4.56	3.82	3.94	3.96	4.04	4.18	3.70	3.59	3.51	3.38
Idaho	4.71	4.51	4.79	6.02	5.90	5.66	5.87	5.22	5.52	4.57
Illinois	6.53	6.63	6.82	6.81	6.84	6.55	6.21	6.32	6.06	6.12
Indiana	6.71	6.17	7.66	7.40	7.03	6.73	6.57	6.59	6.23	6.44
Iowa	5.92	5.87	6.12	5.88	5.65	6.54	6.07	4.98	4.89	5.04
Kansas	5.91	5.82	5.87	5.71	5.56	5.12	5.25	5.14	5.21	5.24
Kentucky	5.64	5.25	5.74	5.27	5.31	5.39	5.00	4.96	5.16	5.29
Louisiana	5.25	5.06	5.52	5.13	4.63	4.25	4.47	4.84	4.80	4.70
Maine	5.68	5.20	5.90	4.46	4.35	4.17	4.60	4.99	4.65	5.06
Maryland	3.60	3.51	3.63	3.37	3.51	3.20	2.93	2.93	2.87	3.00
Massachusetts	8.61	8.64	8.77	9.04	8.95	8.84	8.30	7.96	8.01	7.62

State Indicators

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Michigan	5.76	6.04	6.36	6.35	6.41	6.16	5.98	5.54	5.47	5.32
Minnesota	6.66	6.99	7.42	6.74	6.87	6.16	5.97	5.64	5.55	5.58
Mississippi	3.69	3.58	4.21	4.24	3.62	4.02	3.97	3.93	3.86	3.89
Missouri	5.53	5.60	5.74	5.84	5.80	5.89	5.61	5.93	5.81	5.61
Montana	3.51	3.21	3.16	3.80	3.58	3.41	3.52	3.21	3.65	3.65
Nebraska	4.76	5.33	5.03	4.94	4.98	4.73	4.52	4.80	5.16	4.73
Nevada	4.74	4.76	4.81	4.97	5.03	5.57	5.70	5.94	6.44	6.38
New Hampshire	3.82	3.63	3.89	3.68	3.74	3.68	3.88	4.00	3.57	3.55
New Jersey	6.62	6.35	6.42	6.57	6.59	6.49	6.36	5.65	5.48	5.71
New Mexico	4.06	4.62	4.13	3.59	3.67	3.65	3.68	3.78	3.97	4.08
New York	6.27	6.16	6.09	5.97	5.75	5.82	5.71	5.10	4.91	5.06
North Carolina	5.40	5.63	5.36	5.38	5.25	4.96	4.63	4.29	4.25	4.38
North Dakota	3.40	3.40	4.03	3.98	3.59	3.90	3.55	3.62	3.49	3.67
Ohio	6.46	6.65	6.23	5.88	5.61	5.47	5.26	5.10	5.04	5.39
Oklahoma	5.23	6.28	6.12	6.15	6.31	6.14	6.23	5.59	5.54	5.66
Oregon	5.57	5.33	5.28	5.25	5.29	5.16	4.76	4.55	4.71	4.97
Pennsylvania	6.82	6.56	6.81	6.61	6.74	6.49	6.24	5.89	5.79	5.92
Rhode Island	7.70	7.78	8.21	7.45	7.39	7.30	7.07	6.38	5.87	6.13
South Carolina	4.80	4.96	4.96	4.75	4.37	4.68	4.37	4.68	5.21	5.32
South Dakota	4.98	4.10	4.70	4.00	4.55	4.24	4.02	3.59	3.70	4.33
Tennessee	5.80	5.78	5.56	5.63	5.68	5.84	5.55	5.39	5.35	5.40
Texas	5.18	5.32	5.48	5.28	5.28	4.95	4.77	4.70	4.75	4.79
Utah	6.08	6.45	7.00	7.21	7.42	7.12	6.31	5.97	5.77	5.90
Vermont	4.98	5.17	5.37	5.48	5.91	5.77	5.38	5.23	5.10	6.18
Virginia	6.86	6.54	6.72	6.46	6.64	6.36	6.31	6.26	5.60	5.93
Washington	5.64	5.64	6.10	5.52	5.69	5.37	5.26	4.54	4.26	4.47

State Indicators

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
West Virginia	5.28	5.21	5.38	5.38	4.94	4.88	5.20	5.13	5.13	5.21
Wisconsin	4.97	4.94	4.99	4.92	5.03	4.75	4.52	4.41	4.22	4.39
Wyoming	4.90	5.45	4.30	4.19	5.29	5.48	5.15	7.96	8.71	7.52
Puerto Rico	5.00	3.90	4.14	4.88	4.63	4.81	5.09	5.16	3.25	3.53

Note(s):

Articles were fractionally allocated among regions/countries/economies based on the proportion of residences of all named authors. The publication total for the United States reported here includes Puerto Rico, as well as articles for which the location could not be determined. Academic R&D is reported for institutions with R&D over \$150,000. The national total for the United States includes U.S. territories.

Source(s):

Science-Matrix, special tabulations from Scopus, data as of January 2019; National Science Foundation, National Center for Science and Engineering Statistics, Higher Education Research and Development Survey (various years), data as of November 2018.

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Last updated: March 4, 2019

Science and Engineering Indicators 2018

State Indicators

Academic Science and Engineering Article Output per \$1 Million of Academic S&E R&D

(Articles)

State	2013	2014	2015	2016	2017
United States	5.16	5.15	5.00	4.74	4.50
Alabama	4.84	4.84	4.32	4.05	4.00
Alaska	3.41	2.54	2.59	2.14	2.12
Arizona	4.79	5.17	4.91	4.76	4.28
Arkansas	5.11	5.26	4.87	5.00	5.11
California	4.68	4.62	4.45	4.22	4.04
Colorado	4.93	5.10	4.94	4.59	4.33
Connecticut	5.51	5.83	5.51	5.07	4.63
Delaware	6.23	6.15	5.88	5.29	5.34
District of Columbia	5.57	5.41	4.66	4.54	4.06
Florida	5.98	5.55	5.45	5.10	4.91
Georgia	4.89	4.74	4.54	4.21	3.85
Hawaii	3.45	3.63	3.41	3.54	3.35
Idaho	5.40	5.59	5.11	4.95	4.78
Illinois	5.88	6.39	6.26	6.12	5.83
Indiana	6.10	6.57	6.37	6.07	5.82
Iowa	5.23	5.01	4.95	4.52	4.58
Kansas	5.01	5.00	5.17	5.30	5.01
Kentucky	5.68	5.63	5.67	5.22	4.84
Louisiana	4.86	4.78	4.83	4.47	4.38
Maine	5.93	5.13	5.69	5.76	5.02
Maryland	3.04	2.90	2.79	2.69	2.50
Massachusetts	7.19	7.43	6.85	6.46	6.16

State Indicators

State	2013	2014	2015	2016	2017
Michigan	5.37	5.36	5.12	4.82	4.47
Minnesota	5.53	5.28	5.28	4.94	4.98
Mississippi	4.43	4.45	4.09	3.99	3.61
Missouri	5.80	5.90	5.67	5.31	5.23
Montana	3.77	4.04	4.15	3.70	3.06
Nebraska	4.82	4.74	4.82	4.81	4.46
Nevada	6.41	6.32	6.62	5.75	5.34
New Hampshire	3.80	3.80	3.93	3.49	3.08
New Jersey	5.50	5.46	5.68	5.53	5.43
New Mexico	4.09	4.27	4.32	4.31	4.20
New York	5.00	4.90	4.84	4.49	4.21
North Carolina	4.35	4.27	4.14	3.94	3.84
North Dakota	3.88	3.82	3.96	3.93	3.69
Ohio	5.46	5.46	5.48	5.20	4.96
Oklahoma	6.16	5.79	5.97	5.33	5.28
Oregon	5.03	5.24	5.01	5.01	4.83
Pennsylvania	5.91	5.93	5.83	4.97	4.57
Rhode Island	6.43	5.73	5.73	6.41	7.02
South Carolina	5.51	5.61	5.67	5.32	5.19
South Dakota	5.17	5.35	5.43	5.45	5.17
Tennessee	5.62	5.08	5.30	5.30	4.81
Texas	4.75	4.65	4.48	4.33	4.19
Utah	5.41	5.40	5.13	6.72	6.86
Vermont	6.26	6.76	5.76	6.04	5.47
Virginia	5.65	6.03	5.90	5.58	5.36
Washington	4.50	4.58	4.61	4.42	4.14

State Indicators

State	2013	2014	2015	2016	2017
West Virginia	5.58	5.30	5.98	5.62	5.68
Wisconsin	4.57	4.70	4.68	4.29	3.97
Wyoming	8.43	10.88	8.53	4.61	3.80
Puerto Rico	3.74	4.46	4.17	4.05	4.27

Note(s):
 Articles were fractionally allocated among regions/countries/economies based on the proportion of residences of all named authors. The publication total for the United States reported here includes Puerto Rico, as well as articles for which the location could not be determined. Academic R&D is reported for institutions with R&D over \$150,000. The national total for the United States includes U.S. territories.

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Science and Engineering Indicators 2018

State Indicators

Academic S&E article output

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
United States	231,327	249,172	269,287	275,169	282,945	287,977	294,293	301,777	314,769	320,574
Alabama	2,798	3,094	3,273	3,365	3,464	3,533	3,499	3,445	3,647	3,763
Alaska	275	274	360	323	354	401	373	404	414	405
Arizona	3,614	3,786	4,170	4,207	4,437	4,465	4,553	4,755	4,875	4,871
Arkansas	982	1,101	1,236	1,186	1,298	1,259	1,267	1,282	1,354	1,378
California	28,299	29,825	32,119	32,954	33,896	34,343	35,385	35,880	37,106	37,767
Colorado	3,796	4,168	4,418	4,594	4,546	4,725	4,838	4,903	5,460	5,680
Connecticut	3,970	4,338	4,620	4,750	4,630	4,871	5,066	5,125	5,382	5,686
Delaware	887	972	1,053	1,026	1,067	1,108	1,084	1,041	1,119	1,147
District of Columbia	1,926	2,011	2,096	2,109	2,191	2,128	2,177	2,300	2,496	2,550
Florida	7,353	8,217	9,287	9,681	9,894	10,197	10,460	10,625	10,855	11,314
Georgia	5,847	6,460	6,963	6,952	7,549	7,498	7,730	8,069	8,279	8,425
Hawaii	843	920	946	1,019	1,108	1,166	1,111	1,130	1,143	1,108
Idaho	495	528	575	668	673	640	710	642	767	654
Illinois	10,546	11,353	12,087	12,423	12,775	12,931	13,129	13,558	13,727	13,898
Indiana	4,868	5,190	5,823	6,099	6,286	6,426	6,600	6,911	7,112	7,403
Iowa	2,953	3,122	3,356	3,368	3,316	3,452	3,418	3,436	3,451	3,500
Kansas	1,832	1,939	2,049	2,020	2,090	2,069	2,315	2,368	2,432	2,515
Kentucky	2,132	2,224	2,594	2,523	2,669	2,690	2,595	2,671	2,867	2,894
Louisiana	2,696	2,830	3,224	2,836	2,794	2,805	2,999	3,187	3,205	3,075
Maine	477	515	572	535	596	534	589	594	600	602
Maryland	7,345	7,971	8,550	8,535	8,926	8,804	8,864	9,074	9,649	9,920
Massachusetts	15,682	17,282	18,250	19,182	19,443	20,080	20,451	20,930	22,483	22,955
Michigan	8,001	8,437	9,258	9,351	9,681	9,825	10,414	10,546	11,098	11,050

State Indicators

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Minnesota	3,448	3,737	4,138	4,076	4,375	4,303	4,526	4,525	4,807	4,694
Mississippi	1,195	1,245	1,486	1,564	1,489	1,632	1,656	1,643	1,663	1,705
Missouri	4,461	4,715	5,129	5,254	5,459	5,654	5,661	5,715	5,720	5,927
Montana	495	497	541	657	641	634	640	630	665	676
Nebraska	1,434	1,732	1,812	1,774	1,819	1,780	1,782	1,839	2,029	1,980
Nevada	735	780	857	964	966	1,063	1,037	1,016	1,031	951
New Hampshire	963	1,006	1,116	1,158	1,149	1,111	1,156	1,196	1,222	1,241
New Jersey	4,991	5,114	5,561	5,635	5,704	5,698	5,812	5,781	5,982	6,051
New Mexico	1,247	1,403	1,491	1,513	1,505	1,521	1,601	1,538	1,588	1,597
New York	19,159	20,520	21,824	22,751	22,832	23,183	23,844	24,388	25,080	26,082
North Carolina	7,546	8,141	8,864	9,200	9,896	9,813	10,010	10,388	11,055	11,478
North Dakota	455	517	604	637	607	705	660	735	729	785
Ohio	8,193	8,773	9,537	9,628	9,923	9,989	9,966	10,016	10,623	10,862
Oklahoma	1,542	1,778	1,787	1,832	1,886	2,044	2,100	2,142	2,315	2,338
Oregon	2,436	2,690	2,830	2,925	3,042	3,071	3,030	3,014	3,299	3,384
Pennsylvania	13,744	14,495	16,116	16,074	16,424	16,912	16,979	17,841	18,554	18,508
Rhode Island	1,439	1,494	1,643	1,713	1,700	1,729	1,738	1,837	1,937	2,061
South Carolina	2,086	2,261	2,421	2,488	2,488	2,693	2,677	2,890	3,009	3,000
South Dakota	249	242	315	292	373	390	410	456	489	533
Tennessee	3,481	3,800	4,039	4,182	4,322	4,600	4,626	4,742	5,097	5,228
Texas	14,319	15,311	16,856	17,258	18,054	18,521	18,981	19,832	21,020	21,132
Utah	2,342	2,627	2,800	2,978	3,078	3,035	3,153	3,296	3,542	3,590
Vermont	533	600	628	679	680	675	672	695	699	742
Virginia	5,324	5,552	6,116	6,122	6,444	6,701	6,868	7,094	7,280	7,616
Washington	4,910	5,056	5,505	5,451	5,580	5,684	5,698	5,928	6,126	6,149
West Virginia	660	704	785	807	825	824	904	914	1,006	985



State Indicators

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Wisconsin	4,366	4,731	4,987	5,116	5,368	5,309	5,441	5,427	5,650	5,833
Wyoming	294	327	357	373	423	411	402	430	479	481
Puerto Rico	390	339	414	508	495	539	534	593	494	498

Science and Engineering Indicators 2018

State Indicators

Academic S&E article output

State	2013	2014	2015	2016	2017
United States	326,719	328,361	324,968	320,481	318,740
Alabama	3,905	3,799	3,746	3,715	3,816
Alaska	454	429	410	349	363
Arizona	4,862	5,103	5,058	5,106	4,882
Arkansas	1,427	1,414	1,355	1,419	1,476
California	37,694	37,559	37,106	36,111	35,912
Colorado	5,919	6,035	6,051	6,081	6,069
Connecticut	5,737	6,005	5,853	5,800	5,603
Delaware	1,172	1,150	1,082	1,006	1,047
District of Columbia	2,579	2,636	2,277	2,199	2,132
Florida	11,495	11,208	11,344	11,417	11,626
Georgia	8,751	8,778	8,704	8,538	8,390
Hawaii	1,168	1,201	1,122	1,112	994
Idaho	750	771	731	743	745
Illinois	14,165	14,294	14,306	13,857	13,817
Indiana	7,328	7,679	7,597	7,502	7,543
Iowa	3,626	3,731	3,591	3,496	3,599
Kansas	2,507	2,429	2,534	2,540	2,514
Kentucky	2,924	2,848	2,837	2,746	2,718
Louisiana	3,079	2,999	2,944	2,817	2,775
Maine	611	621	563	564	602
Maryland	10,273	10,209	10,341	10,085	9,920
Massachusetts	23,324	23,897	23,317	22,762	22,378
Michigan	11,470	11,338	11,266	11,195	11,158

State Indicators

State	2013	2014	2015	2016	2017
Minnesota	4,812	4,675	4,661	4,508	4,575
Mississippi	1,711	1,686	1,560	1,642	1,577
Missouri	5,965	5,987	5,931	5,775	5,846
Montana	660	695	713	685	661
Nebraska	2,025	2,030	2,100	2,153	2,132
Nevada	942	923	980	994	994
New Hampshire	1,277	1,284	1,323	1,263	1,272
New Jersey	6,157	5,907	5,955	5,899	5,873
New Mexico	1,598	1,707	1,633	1,540	1,520
New York	26,614	26,684	26,403	26,118	25,325
North Carolina	11,621	11,701	11,376	11,214	11,493
North Dakota	827	825	844	869	890
Ohio	11,192	11,157	11,046	10,680	10,738
Oklahoma	2,372	2,269	2,341	2,285	2,328
Oregon	3,359	3,514	3,404	3,518	3,535
Pennsylvania	19,125	19,043	18,949	18,457	18,056
Rhode Island	2,063	2,173	2,161	2,121	2,112
South Carolina	3,124	3,173	3,246	3,220	3,205
South Dakota	584	535	527	556	558
Tennessee	5,468	5,482	5,414	5,506	5,455
Texas	21,780	21,685	21,482	21,608	21,898
Utah	3,644	3,642	3,667	3,607	3,704
Vermont	751	771	686	725	667
Virginia	7,472	7,762	7,693	7,564	7,703
Washington	6,307	6,412	6,602	6,743	6,624
West Virginia	1,033	975	1,124	1,063	1,125



State Indicators

State	2013	2014	2015	2016	2017
Wisconsin	5,844	5,962	5,745	5,725	5,563
Wyoming	531	533	469	502	463
Puerto Rico	464	522	504	474	461

Science and Engineering Indicators 2018

State Indicators

Academic S&E R&D

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
United States	25,867	27,543	30,083	32,801	36,383	40,077	43,238	45,774	47,759	49,495
Alabama	442	417	428	448	503	551	572	590	602	655
Alaska	76	94	107	119	129	142	146	154	163	131
Arizona	406	439	466	501	531	618	651	720	765	783
Arkansas	117	112	132	142	141	184	183	210	237	240
California	3,392	3,665	4,068	4,429	4,888	5,358	6,013	6,265	6,490	6,734
Colorado	489	508	545	573	645	695	771	825	821	873
Connecticut	407	419	469	499	538	595	649	670	692	691
Delaware	73	76	78	80	88	105	115	116	122	126
District of Columbia	233	224	246	228	261	281	303	303	296	337
Florida	713	789	852	986	1,086	1,205	1,307	1,449	1,522	1,558
Georgia	804	841	927	989	1,077	1,177	1,222	1,274	1,303	1,389
Hawaii	148	157	161	157	173	185	241	240	257	274
Idaho	72	72	74	82	93	105	117	120	111	114
Illinois	1,031	1,102	1,171	1,281	1,441	1,614	1,713	1,771	1,824	1,867
Indiana	426	460	509	584	651	726	841	760	824	894
Iowa	359	375	418	440	486	499	532	548	573	587
Kansas	213	235	258	269	300	310	333	349	354	376
Kentucky	242	275	277	298	334	378	424	452	479	503
Louisiana	354	377	410	436	477	514	559	584	553	604
Maine	35	44	58	71	75	84	99	97	120	137
Maryland	1,330	1,387	1,508	1,654	1,895	2,041	2,268	2,357	2,530	2,542
Massachusetts	1,348	1,402	1,486	1,579	1,697	1,822	2,000	2,080	2,123	2,172
Michigan	883	922	1,008	1,109	1,234	1,390	1,397	1,456	1,473	1,510

State Indicators

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Minnesota	368	377	418	469	504	518	535	558	605	637
Mississippi	153	175	217	261	289	324	348	353	369	411
Missouri	485	550	614	678	706	807	842	893	900	941
Montana	77	84	99	108	122	141	155	171	173	179
Nebraska	186	205	208	242	267	301	325	360	359	365
Nevada	84	91	106	116	127	155	164	178	194	192
New Hampshire	117	127	151	197	220	252	277	287	315	307
New Jersey	485	521	568	628	691	754	805	866	858	865
New Mexico	229	225	244	274	293	307	304	361	421	410
New York	1,930	2,075	2,297	2,458	2,743	3,055	3,332	3,585	3,813	3,972
North Carolina	900	1,013	1,041	1,139	1,279	1,398	1,447	1,655	1,710	1,884
North Dakota	57	62	67	85	106	134	152	150	160	169
Ohio	810	831	918	996	1,116	1,268	1,320	1,532	1,638	1,768
Oklahoma	209	239	252	255	282	295	283	292	298	299
Oregon	314	328	346	366	387	437	505	536	557	575
Pennsylvania	1,349	1,391	1,553	1,694	1,914	2,015	2,208	2,368	2,431	2,438
Rhode Island	112	121	130	143	163	187	192	200	230	230
South Carolina	248	268	294	361	400	435	456	488	524	569
South Dakota	25	26	28	32	38	50	59	67	73	82
Tennessee	347	372	405	428	491	600	658	726	743	761
Texas	1,697	1,830	2,038	2,252	2,535	2,765	2,879	3,074	3,271	3,417
Utah	249	273	308	338	360	385	407	400	413	415
Vermont	59	65	65	77	90	107	116	117	124	115
Virginia	497	505	554	611	694	776	849	910	947	971
Washington	543	590	644	708	784	871	897	902	988	981
West Virginia	64	66	76	82	101	125	135	146	150	167



State Indicators

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Wisconsin	536	597	662	729	807	878	957	1,000	1,040	1,067
Wyoming	49	47	43	42	42	60	60	83	89	80
Puerto Rico	88	91	75	64	70	78	87	100	104	107

Science and Engineering Indicators 2018

State Indicators

Academic S&E R&D

State	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
United States	51,872	54,863	58,388	61,988	62,199	63,354	63,764	64,940	67,648	70,829
Alabama	708	762	829	879	805	807	785	868	917	953
Alaska	128	132	141	141	136	133	169	158	163	171
Arizona	831	873	902	951	987	1,014	987	1,031	1,073	1,140
Arkansas	247	239	256	271	276	279	269	278	284	289
California	7,026	7,407	7,580	7,927	8,103	8,056	8,123	8,335	8,564	8,894
Colorado	924	1,058	1,129	1,241	1,249	1,201	1,184	1,226	1,326	1,403
Connecticut	732	753	867	923	925	1,042	1,030	1,063	1,144	1,210
Delaware	133	134	162	178	177	188	187	184	190	196
District of Columbia	375	325	431	446	455	463	487	489	484	525
Florida	1,592	1,664	1,778	1,897	1,930	1,922	2,019	2,081	2,239	2,366
Georgia	1,521	1,566	1,611	1,658	1,712	1,789	1,850	1,918	2,030	2,177
Hawaii	279	300	315	326	328	339	331	329	314	297
Idaho	113	121	123	139	143	139	138	143	150	156
Illinois	1,973	2,113	2,146	2,264	2,270	2,407	2,238	2,284	2,265	2,370
Indiana	955	1,005	1,048	1,142	1,150	1,201	1,169	1,192	1,235	1,297
Iowa	528	563	690	706	695	693	744	726	774	786
Kansas	404	441	461	467	480	500	486	490	479	502
Kentucky	499	519	538	556	547	515	506	500	526	561
Louisiana	660	671	658	668	654	633	628	609	630	634
Maine	128	128	119	129	119	103	121	99	98	120
Maryland	2,747	3,021	3,094	3,367	3,308	3,376	3,515	3,705	3,744	3,970
Massachusetts	2,272	2,463	2,629	2,807	3,011	3,246	3,218	3,406	3,521	3,632
Michigan	1,594	1,742	1,903	2,030	2,077	2,134	2,115	2,202	2,321	2,497

State Indicators

State	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Minnesota	699	758	803	866	841	870	885	883	913	918
Mississippi	406	417	418	431	438	386	379	381	412	437
Missouri	960	1,009	964	984	1,056	1,029	1,015	1,046	1,088	1,117
Montana	186	182	196	182	185	175	172	172	185	216
Nebraska	376	394	383	393	419	420	428	436	448	478
Nevada	191	182	171	160	149	147	146	148	173	186
New Hampshire	302	298	299	342	350	336	338	337	362	413
New Jersey	878	914	1,023	1,092	1,060	1,120	1,081	1,049	1,067	1,082
New Mexico	417	435	407	400	391	391	400	378	357	362
New York	3,982	4,175	4,782	5,105	5,158	5,327	5,450	5,450	5,818	6,020
North Carolina	1,979	2,161	2,423	2,604	2,619	2,669	2,741	2,745	2,847	2,992
North Dakota	181	186	203	209	214	213	216	213	221	241
Ohio	1,827	1,895	1,964	2,108	2,017	2,048	2,044	2,017	2,055	2,164
Oklahoma	333	337	383	418	413	385	392	392	429	441
Oregon	595	637	663	701	681	668	670	680	702	732
Pennsylvania	2,604	2,722	3,027	3,202	3,126	3,238	3,210	3,249	3,710	3,949
Rhode Island	237	246	288	330	336	321	379	377	331	301
South Carolina	576	612	617	577	564	567	566	572	605	618
South Dakota	92	102	127	132	123	113	100	97	102	108
Tennessee	787	833	880	952	968	973	1,079	1,022	1,038	1,133
Texas	3,744	3,982	4,221	4,428	4,414	4,585	4,659	4,794	4,994	5,225
Utah	426	500	552	614	608	673	674	715	537	540
Vermont	117	125	133	137	120	120	114	119	120	122
Virginia	1,053	1,088	1,134	1,300	1,284	1,323	1,287	1,303	1,356	1,436
Washington	1,058	1,084	1,305	1,438	1,376	1,402	1,400	1,431	1,525	1,601
West Virginia	169	174	178	196	189	185	184	188	189	198



State Indicators

State	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Wisconsin	1,117	1,204	1,231	1,339	1,330	1,278	1,269	1,228	1,336	1,402
Wyoming	75	78	54	55	64	63	49	55	109	122
Puerto Rico	112	105	115	152	141	124	117	121	117	108

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