State Indicators

S-43 Federal R&D Obligations per Individual in Science and Engineering Occupation

Description

This indicator represents the relationship between federal R&D spending in a state and the number of employees in the state who work in S&E occupations. Federal R&D dollars are attributed to the states in which the recipient organizations of federal obligations are located. Data on federal obligations for R&D come from the National Center for Science and Engineering Statistics' Survey of Federal Funds for Research and Development, which is the primary source of information about federal funding for R&D in the United States. The survey is an annual census completed by the federal agencies that conduct R&D programs. The Department of Defense (DOD) disburses the most funding, approximately 50% of the total. The geographic distribution of DOD R&D funding to industry, mostly for development, reflects the location of prime contractors only, not the numerous subcontractors who perform much of the R&D.

S&E occupations are defined by standard occupational codes. Occupations include engineers; computer, mathematical, life, physical, and social scientists; and postsecondary teachers in these fields. Managers, technicians, elementary and secondary schoolteachers, and medical personnel are not included. Data on individuals in S&E occupations come from the Bureau of Labor Statistics (BLS) Occupational Employment Statistics Survey, a survey of workplaces that assigns workers to a state based on where they work. Estimates are developed by BLS from data provided by state workforce agencies and do not include self-employed persons.

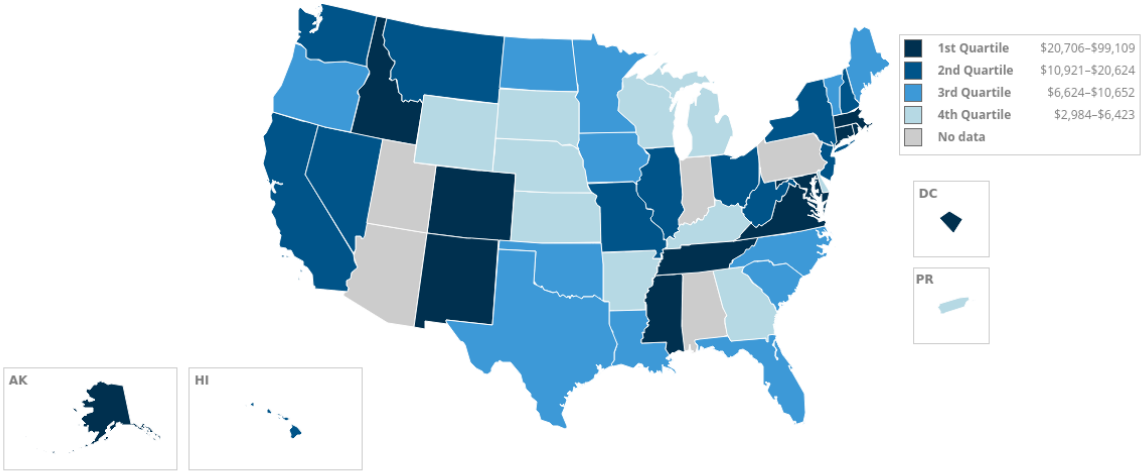
The distribution of values for this indicator is often strongly skewed, with high values reported in the District of Columbia and adjoining states and in states where federal facilities or major defense contractors are located. Estimates for states with smaller populations are generally less precise than estimates for states with larger populations. Whereas this indicator shows the distribution of federal R&D obligations compared with the distribution of S&E occupations, many persons in S&E occupations do not receive federal money for R&D.

Data sources: National Center for Science and Engineering Statistics, National Science Foundation, Federal Funds for Research and Development; U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics Survey.

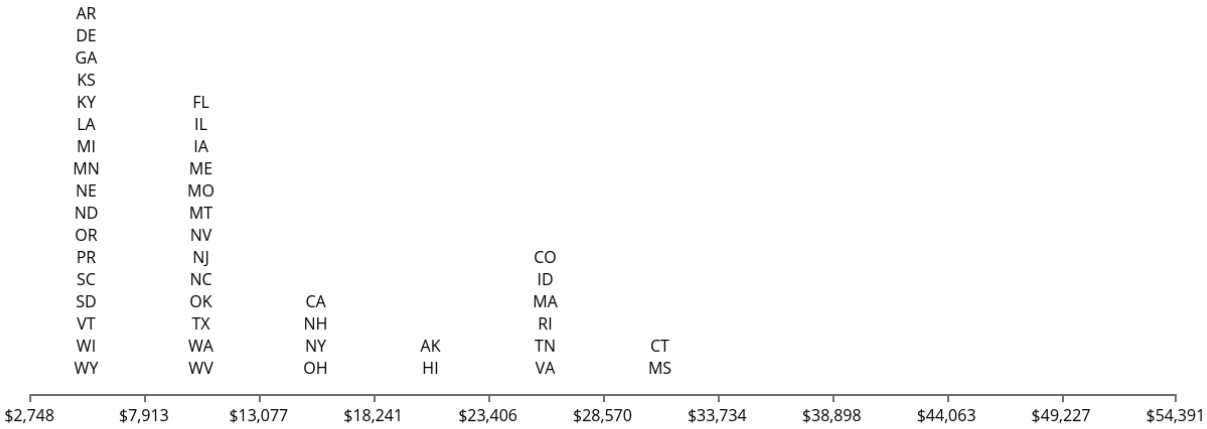
State Indicators

S-43 Federal R&D Obligations per Individual in Science and Engineering Occupation

2018



Distribution of states across indicator values, 2018



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

Federal R&D Obligations per Individual in Science and Engineering Occupation

(Dollars)

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
United States	20,430	21,207	22,277	22,061	22,336	21,637	24,020	24,893	22,915	22,787
Alabama	56,967	50,693	49,501	33,256	32,270	40,569	44,027	50,795	74,009	70,789
Alaska	37,679	42,439	44,091	19,790	22,018	16,754	16,733	15,267	12,529	9,782
Arizona	25,895	26,867	30,690	25,070	23,660	23,988	30,554	33,300	25,293	20,570
Arkansas	6,812	6,069	6,690	6,509	6,244	4,956	5,447	6,225	6,087	6,225
California	29,829	27,386	27,862	NA	35,812	25,183	33,938	35,880	28,446	21,948
Colorado	13,977	16,477	17,960	16,367	20,128	18,150	26,081	30,363	26,360	25,129
Connecticut	25,411	25,317	28,590	24,523	26,368	22,611	29,870	29,250	31,691	28,440
Delaware	5,492	4,872	5,228	5,228	5,900	6,463	10,143	6,171	5,115	4,639
District of Columbia	54,391	54,172	65,633	65,397	67,739	276,787	69,436	64,976	48,094	52,505
Florida	12,910	13,884	10,747	13,593	16,704	9,228	15,115	13,115	10,131	9,488
Georgia	14,795	13,693	15,859	12,829	12,319	9,404	NA	10,467	9,619	7,615
Hawaii	25,727	27,692	34,379	20,079	20,236	18,468	20,373	19,972	20,078	18,276
Idaho	9,834	12,518	12,155	NA	11,816	15,247	16,496	19,851	16,578	17,693
Illinois	9,159	8,583	9,601	9,006	9,526	9,665	12,414	13,349	14,079	10,898
Indiana	7,317	6,878	7,093	7,280	7,182	7,398	12,223	10,899	9,643	8,860
Iowa	13,384	13,437	12,101	12,564	14,581	13,747	14,512	20,596	14,211	12,037
Kansas	5,170	5,460	6,930	6,057	6,351	5,536	8,260	7,097	7,137	4,547
Kentucky	5,454	5,756	6,654	5,372	4,531	NA	6,233	5,891	4,654	5,944
Louisiana	10,821	10,506	10,814	8,030	10,908	9,718	9,295	7,484	13,969	6,833
Maine	11,101	14,036	18,847	14,370	23,735	9,883	10,845	9,336	10,290	13,833
Maryland	53,784	79,625	78,072	79,931	73,249	79,683	94,199	95,255	91,033	86,872
Massachusetts	29,734	31,230	34,123	34,609	36,617	31,674	41,559	42,023	35,158	27,401

State Indicators

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Michigan	9,255	5,927	6,125	8,154	8,140	9,136	12,928	14,214	11,431	11,109
Minnesota	7,396	7,010	6,353	9,859	10,681	10,362	11,566	8,494	7,283	7,298
Mississippi	53,222	69,600	18,665	22,276	17,002	15,959	14,828	17,737	25,089	22,953
Missouri	16,036	33,313	45,541	13,644	11,947	10,545	12,315	11,252	11,159	10,240
Montana	11,460	16,218	15,247	11,632	49,368	NA	12,069	9,523	12,143	12,382
Nebraska	5,469	6,627	6,123	5,481	7,323	6,429	6,927	7,753	7,757	7,544
Nevada	18,761	22,708	24,314	16,198	11,926	11,451	20,254	14,151	16,852	17,842
New Hampshire	21,850	16,477	19,144	14,466	11,948	10,096	15,004	12,002	13,876	16,951
New Jersey	12,933	13,220	14,488	12,313	11,777	11,071	12,735	15,391	14,174	11,940
New Mexico	91,967	105,099	110,463	107,631	104,008	101,357	100,015	92,387	97,303	95,684
New York	16,086	15,911	18,408	17,497	16,643	14,245	19,786	NA	16,238	14,705
North Carolina	12,212	12,340	13,449	12,763	12,789	11,534	12,722	13,876	12,727	11,449
North Dakota	12,723	12,834	13,001	12,591	11,985	10,405	10,187	10,822	9,752	6,712
Ohio	16,754	15,422	16,371	14,709	18,641	12,507	21,447	20,929	17,078	NA
Oklahoma	12,855	10,762	8,642	5,340	4,924	5,332	8,090	9,722	9,822	8,921
Oregon	8,398	7,788	10,480	7,906	7,459	8,293	9,123	NA	NA	8,341
Pennsylvania	21,499	19,084	18,003	15,354	15,350	14,436	NA	NA	NA	NA
Rhode Island	30,181	33,216	49,158	34,469	34,118	35,584	37,497	36,784	31,369	27,622
South Carolina	9,315	7,559	9,765	7,023	7,792	7,841	11,532	11,777	8,140	8,792
South Dakota	5,988	7,349	7,398	7,503	5,361	6,435	6,855	6,723	5,181	5,264
Tennessee	17,754	21,025	21,479	22,212	26,941	23,226	30,179	29,295	24,457	26,455
Texas	14,823	14,318	13,315	14,472	15,162	10,843	12,832	15,278	11,673	11,376
Utah	17,630	26,159	23,458	17,022	19,308	13,314	22,792	33,620	34,205	17,769
Vermont	17,614	33,341	20,564	8,259	8,493	9,788	11,844	11,227	9,500	8,032
Virginia	32,058	31,244	36,960	35,732	35,681	35,800	35,523	35,620	30,966	29,641
Washington	16,256	14,742	16,409	23,793	25,835	NA	21,116	21,027	25,063	NA

State Indicators

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
West Virginia	23,637	19,743	50,345	17,575	13,231	13,210	16,062	18,323	13,104	13,230
Wisconsin	7,056	6,889	6,965	6,563	6,756	6,500	8,783	8,017	7,254	7,127
Wyoming	7,011	6,839	5,107	4,734	4,511	5,351	7,304	4,446	4,407	8,678
Puerto Rico	5,628	4,898	4,842	4,142	3,633	3,697	4,222	4,547	4,638	3,280

NA = not available

Note(s):
Eleven agencies are required to report federal R&D obligations: the Departments of Agriculture, Commerce, Defense, Energy, Health and Human Services, Homeland Security, the Interior, and Transportation; the Environmental Protection Agency; the National Aeronautics and Space Administration; and the National Science Foundation. Obligations of these 11 agencies represented over 97% of total federal R&D obligations in FY 2018. Federal R&D obligations are reported in current dollars. United States total includes obligations for U.S. territories and for which the location of performance cannot be determined. Occupational Employment Statistics (OES) estimates for 2004 and earlier are based on November data; estimates for the remaining years are based on May data. The total for the United States includes states with suppressed data and does not include territories.

Source(s):
National Center for Science and Engineering Statistics, National Science Foundation, Survey of Federal Funds for Research and Development (various years), data as of May 2020; Bureau of Labor Statistics, special tabulations of the Occupational Employment Statistics Survey (various years), data as of May 2020.

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Last updated: November 30, 2020

Science and Engineering Indicators

State Indicators

Federal R&D Obligations per Individual in Science and Engineering Occupation

(Dollars)

State	2013	2014	2015	2016	2017	2018
United States	20,033	20,246	19,252	16,749	16,767	17,750
Alabama	61,532	60,200	62,002	60,076	118,002	NA
Alaska	12,194	9,176	13,897	14,774	18,903	20,706
Arizona	19,198	12,571	12,299	11,182	8,544	NA
Arkansas	5,458	5,956	3,166	9,269	4,764	5,809
California	19,047	17,936	NA	16,906	16,781	17,419
Colorado	22,036	22,473	20,946	23,853	18,795	26,286
Connecticut	31,916	28,949	28,843	29,452	28,318	30,537
Delaware	5,096	5,698	4,752	5,888	6,370	6,188
District of Columbia	59,849	57,834	60,414	55,674	63,627	83,179
Florida	9,116	9,507	10,788	9,793	9,799	10,433
Georgia	7,026	7,374	NA	6,627	6,404	6,406
Hawaii	16,460	15,620	14,501	13,045	12,755	20,624
Idaho	14,732	22,597	18,807	19,568	23,217	27,265
Illinois	10,260	10,063	10,120	15,076	9,860	11,030
Indiana	6,866	7,416	6,504	6,769	6,337	NA
Iowa	10,688	9,584	10,740	9,261	9,446	9,024
Kansas	4,572	3,734	3,610	3,288	3,640	4,033
Kentucky	5,691	5,460	5,280	4,926	5,059	5,126
Louisiana	5,946	5,792	5,237	5,955	8,822	6,945
Maine	9,017	6,754	6,915	6,681	7,690	8,709
Maryland	83,552	88,860	86,428	83,260	76,582	86,156
Massachusetts	24,984	27,198	26,140	22,771	21,285	24,202

State Indicators

State	2013	2014	2015	2016	2017	2018
Michigan	8,788	8,436	7,886	7,542	6,003	6,423
Minnesota	7,035	6,758	5,692	5,752	6,563	6,667
Mississippi	23,344	23,713	19,222	17,729	17,254	31,208
Missouri	9,991	9,709	11,761	10,788	13,428	11,877
Montana	8,639	10,974	9,326	10,701	8,843	10,921
Nebraska	5,497	6,462	5,703	5,149	5,027	5,007
Nevada	21,772	18,964	13,980	9,714	10,735	12,243
New Hampshire	10,408	11,862	11,678	12,287	10,914	13,582
New Jersey	9,349	10,457	8,436	8,219	9,655	11,206
New Mexico	98,036	102,660	94,453	95,318	91,393	99,109
New York	13,800	13,135	12,379	12,530	12,621	13,362
North Carolina	10,113	10,388	10,106	9,564	9,677	10,652
North Dakota	7,150	6,206	6,327	7,387	5,340	7,505
Ohio	11,126	11,165	11,297	10,414	10,233	16,718
Oklahoma	5,055	5,987	8,161	6,418	6,629	8,595
Oregon	6,692	7,475	6,457	6,105	6,170	6,624
Pennsylvania	13,514	14,855	14,541	15,177	14,167	NA
Rhode Island	23,454	26,180	24,101	28,513	26,726	28,415
South Carolina	6,102	7,078	6,531	6,474	6,917	7,411
South Dakota	4,433	5,204	5,247	4,874	5,415	5,465
Tennessee	NA	23,339	26,036	27,474	26,694	26,693
Texas	10,175	8,647	9,894	9,354	9,380	8,044
Utah	15,844	19,453	17,684	13,663	14,424	NA
Vermont	7,969	8,709	5,954	6,156	6,133	7,531
Virginia	23,486	28,089	27,629	26,815	22,313	24,833
Washington	16,372	17,089	10,778	9,143	11,161	11,315

State Indicators

State	2013	2014	2015	2016	2017	2018
West Virginia	8,797	10,344	11,686	22,211	6,790	12,885
Wisconsin	6,158	6,229	5,952	5,828	5,808	5,884
Wyoming	NA	5,065	5,956	5,161	5,751	5,757
Puerto Rico	3,623	3,046	2,873	2,968	2,748	2,984

NA = not available

Note(s):
Eleven agencies are required to report federal R&D obligations: the Departments of Agriculture, Commerce, Defense, Energy, Health and Human Services, Homeland Security, the Interior, and Transportation; the Environmental Protection Agency; the National Aeronautics and Space Administration; and the National Science Foundation. Obligations of these 11 agencies represented over 97% of total federal R&D obligations in FY 2018. Federal R&D obligations are reported in current dollars. United States total includes obligations for U.S. territories and for which the location of performance cannot be determined. Occupational Employment Statistics (OES) estimates for 2004 and earlier are based on November data; estimates for the remaining years are based on May data. The total for the United States includes states with suppressed data and does not include territories.

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Last updated: November 30, 2020

Science and Engineering Indicators

State Indicators

Federal R&D obligations

State	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
United States	62,105,164	59,865,395	64,089,709	65,743,825	65,820,093	66,700,114	66,292,393	68,510,176	70,710,427	73,798,199
Alabama	1,805,418	1,863,182	2,151,670	2,149,352	1,819,210	1,931,323	2,178,776	2,213,683	2,013,282	1,806,956
Alaska	90,744	102,740	92,966	92,692	157,317	96,924	93,334	99,928	107,231	115,015
Arizona	591,743	516,763	638,209	535,274	800,199	902,338	706,673	732,065	993,463	1,116,946
Arkansas	85,720	85,866	68,848	79,185	88,868	97,702	148,166	95,296	97,448	106,422
California	16,249,348	14,488,289	15,999,143	14,883,737	11,250,614	12,600,156	12,658,120	13,730,886	12,222,581	15,600,123
Colorado	1,888,344	2,694,164	1,479,238	1,343,392	1,356,420	1,049,208	1,277,553	1,340,231	1,336,289	1,438,682
Connecticut	509,770	672,726	578,332	522,181	733,512	900,719	798,866	846,458	699,372	655,191
Delaware	28,294	41,782	43,065	56,160	50,441	57,746	64,865	48,964	45,214	52,255
District of Columbia	1,593,071	1,943,712	2,185,196	2,488,783	2,483,607	2,755,369	2,574,139	2,232,284	2,229,794	2,451,606
Florida	2,343,430	2,181,144	2,832,290	2,775,255	2,906,709	2,391,836	2,957,866	3,326,418	2,754,904	2,284,405
Georgia	364,102	466,521	2,512,567	3,035,313	5,546,365	4,366,021	4,137,785	3,919,868	3,443,943	2,023,240
Hawaii	99,980	112,594	150,654	113,005	140,305	139,291	147,574	150,722	164,525	198,808
Idaho	326,071	279,091	299,457	303,689	227,773	210,964	244,579	205,660	212,747	200,672
Illinois	957,190	959,374	921,924	963,774	1,088,601	1,107,430	1,094,284	1,140,163	1,160,119	1,316,085
Indiana	363,620	378,703	367,003	513,647	403,611	426,330	439,766	410,398	377,735	413,864
Iowa	186,744	209,833	194,674	215,777	223,823	212,096	213,370	228,180	235,818	264,060
Kansas	116,394	83,647	91,235	87,858	84,823	120,388	212,035	255,490	154,775	191,603
Kentucky	96,494	122,406	71,706	86,668	90,125	73,079	78,597	91,291	216,657	146,845
Louisiana	121,184	163,562	169,580	152,635	210,534	170,087	228,730	211,036	223,555	219,218
Maine	39,730	57,093	60,568	65,239	82,113	53,075	56,711	68,683	105,733	150,569
Maryland	5,332,073	5,570,728	5,779,695	7,238,474	6,659,458	7,343,723	6,730,700	7,328,787	7,966,775	8,094,369
Massachusetts	2,982,785	3,146,435	3,227,932	3,551,660	3,201,828	3,337,816	3,192,130	3,437,516	3,113,843	3,129,401
Michigan	810,799	772,631	876,267	877,983	771,000	683,187	707,914	735,059	755,864	839,757

State Indicators

State	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Minnesota	529,763	455,713	456,392	445,536	475,059	570,248	679,503	609,395	806,083	885,141
Mississippi	471,653	230,551	255,695	259,827	255,878	209,714	250,633	289,791	280,366	351,571
Missouri	1,064,308	587,882	733,542	726,344	2,272,589	1,606,215	1,267,840	1,130,148	933,679	928,681
Montana	30,933	45,792	71,548	69,050	57,041	63,810	63,042	79,347	81,146	95,446
Nebraska	76,445	76,143	71,143	78,477	86,496	84,680	88,454	82,981	85,042	94,089
Nevada	484,725	495,981	465,781	406,159	347,665	368,914	253,235	295,042	294,697	279,129
New Hampshire	145,144	196,262	156,135	237,604	218,891	213,243	268,476	278,697	269,466	291,723
New Jersey	1,601,600	1,698,150	1,646,784	1,422,848	1,385,692	1,297,664	1,272,576	1,318,793	1,459,570	2,661,153
New Mexico	2,311,310	2,018,739	2,211,251	2,309,611	1,894,083	1,959,948	1,954,981	1,933,123	1,892,068	2,068,291
New York	2,960,839	3,086,307	3,058,737	2,538,016	2,678,717	2,585,904	2,504,851	2,471,013	2,560,514	2,689,016
North Carolina	618,646	673,840	700,671	719,115	734,323	831,620	821,457	900,344	922,731	1,007,518
North Dakota	53,061	43,733	54,230	50,329	49,610	47,359	46,178	53,015	52,088	59,947
Ohio	2,088,529	1,729,901	1,863,371	1,921,720	1,736,435	1,809,958	1,681,723	1,879,784	5,563,023	3,687,855
Oklahoma	162,639	131,536	126,054	117,908	142,117	158,691	138,258	160,356	176,173	165,818
Oregon	175,584	216,459	226,514	229,375	279,164	283,411	308,179	319,587	348,626	408,099
Pennsylvania	2,074,560	2,125,645	1,794,428	2,566,507	1,983,386	2,394,246	1,921,246	1,893,723	1,886,497	1,907,139
Rhode Island	391,133	433,843	386,339	495,591	433,825	514,632	583,158	403,844	385,759	391,717
South Carolina	230,851	250,369	172,130	173,173	198,537	173,217	186,659	166,607	188,704	215,941
South Dakota	15,730	22,516	23,886	26,896	26,481	26,501	35,041	41,955	46,003	38,951
Tennessee	824,964	732,230	666,025	674,420	671,291	582,499	558,572	566,242	621,184	684,712
Texas	3,496,785	2,321,396	2,872,956	2,546,214	3,654,279	4,068,928	3,493,457	3,640,162	4,112,458	3,853,339
Utah	437,693	429,097	313,996	298,829	324,888	368,829	351,719	319,851	393,350	305,019
Vermont	42,471	56,096	51,314	62,143	48,465	52,950	47,089	49,885	57,656	61,707
Virginia	2,733,490	2,908,999	3,231,339	3,402,556	3,726,871	3,392,184	4,576,317	4,849,753	4,671,236	5,750,372
Washington	1,566,979	1,241,102	900,492	878,074	963,816	1,131,625	1,152,903	1,226,154	1,246,867	1,306,757
West Virginia	116,585	177,928	166,380	206,208	212,864	287,939	254,384	193,061	243,344	227,023

State Indicators

State	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Wisconsin	271,713	294,511	307,651	350,775	358,252	338,475	331,373	332,214	332,956	377,801
Wyoming	57,363	29,763	41,369	48,234	36,753	35,403	37,477	28,368	33,549	35,219
Puerto Rico	NA	NA	NA	NA	50,502	46,695	51,614	58,943	65,733	72,709

NA = not available

Science and Engineering Indicators

State Indicators

Federal R&D obligations

State	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
United States	74,301,273	82,618,013	91,815,955	101,366,433	109,732,927	116,585,521	119,302,170	124,900,312	125,091,757	138,975,461
Alabama	1,670,058	2,456,769	2,734,837	3,211,827	3,035,516	3,108,183	2,198,241	2,247,589	2,782,193	3,023,301
Alaska	155,155	254,444	299,873	399,401	461,308	495,147	212,144	263,999	222,163	247,310
Arizona	1,151,925	1,881,000	2,279,229	2,385,404	2,643,735	2,958,775	2,459,645	2,422,351	2,449,176	3,141,545
Arkansas	116,333	183,867	141,267	145,361	146,682	164,975	161,824	177,694	145,265	171,160
California	14,819,382	13,001,687	19,198,496	20,169,641	19,259,424	19,964,268	26,897,630	26,987,180	19,938,653	26,988,821
Colorado	1,398,887	1,450,603	1,728,445	1,735,047	2,068,038	2,264,933	2,188,732	2,797,532	2,668,121	3,862,299
Connecticut	806,228	1,377,388	2,816,662	2,067,969	2,122,540	2,399,563	1,946,644	2,116,827	1,815,401	2,364,526
Delaware	69,867	83,546	80,561	95,399	89,747	94,151	112,658	130,615	144,314	225,170
District of Columbia	2,443,108	2,775,973	3,145,586	2,985,543	3,329,397	4,161,778	4,193,242	4,277,707	17,537,244	4,265,483
Florida	2,286,464	2,774,006	2,542,044	2,854,088	3,265,014	2,590,033	3,346,486	4,078,193	2,290,401	3,734,400
Georgia	2,654,039	3,438,270	2,228,988	2,133,046	1,906,523	2,181,847	1,750,782	1,686,209	1,386,021	1,957,570
Hawaii	234,291	435,685	428,262	413,945	488,209	600,260	380,297	379,219	347,753	387,488
Idaho	217,349	209,344	235,469	217,820	288,538	290,256	300,045	287,474	355,408	387,978
Illinois	1,496,751	1,825,057	1,728,600	1,934,661	1,880,072	2,127,824	2,003,465	2,145,050	2,168,530	2,745,521
Indiana	512,847	568,761	537,582	573,693	556,743	566,818	583,214	596,645	672,029	1,109,218
Iowa	275,560	361,455	463,444	499,484	538,270	487,663	548,687	662,401	634,853	683,222
Kansas	224,013	306,656	290,516	268,669	287,446	357,797	294,492	317,801	300,406	464,230
Kentucky	253,526	370,384	321,535	246,664	251,763	296,308	240,041	222,172	252,464	319,129
Louisiana	249,045	275,788	432,707	453,420	446,722	443,708	322,644	419,401	406,131	405,553
Maine	249,812	450,735	255,596	166,733	210,258	292,125	229,196	378,810	168,009	194,231
Maryland	8,778,541	9,473,728	7,419,965	8,027,300	12,608,595	12,500,835	12,746,621	11,905,814	13,312,685	15,970,508
Massachusetts	4,552,289	4,499,835	4,920,704	5,491,660	5,963,595	6,591,926	6,875,787	7,528,907	6,883,096	9,047,013
Michigan	1,005,043	1,196,424	1,254,129	1,693,104	1,117,762	1,177,007	1,700,258	1,726,084	1,866,491	2,427,422

State Indicators

State	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Minnesota	797,334	900,936	1,152,784	866,231	831,259	768,269	1,241,556	1,386,789	1,393,037	1,550,573
Mississippi	413,820	415,671	627,696	1,181,001	1,598,715	438,243	554,898	433,902	435,207	384,647
Missouri	905,875	927,045	1,241,082	1,349,450	3,058,821	4,201,656	1,315,557	1,220,627	1,111,285	1,284,600
Montana	105,359	136,825	113,684	131,213	188,774	182,053	151,336	653,627	159,461	171,494
Nebraska	104,079	145,189	153,805	167,955	210,458	193,069	178,121	230,075	204,579	220,221
Nevada	273,344	360,215	342,532	418,931	554,983	593,264	436,217	321,050	312,624	558,210
New Hampshire	357,828	474,423	312,305	511,948	422,144	513,830	400,408	339,923	294,312	458,369
New Jersey	1,979,346	1,673,959	2,109,112	2,087,600	2,273,723	2,524,843	2,172,700	2,191,960	2,192,726	2,492,168
New Mexico	2,210,494	2,890,565	2,877,019	3,090,089	3,363,175	3,593,366	3,315,034	3,478,018	3,502,888	3,695,553
New York	2,989,719	3,528,344	3,820,559	4,382,460	4,505,321	5,320,079	5,368,152	5,367,562	4,651,187	6,242,013
North Carolina	1,062,536	1,400,937	1,392,981	1,617,325	1,683,581	1,806,115	1,771,359	1,828,443	1,772,567	2,021,757
North Dakota	64,051	77,903	104,707	107,257	108,573	117,921	117,851	115,779	98,326	101,155
Ohio	2,164,645	3,051,142	2,380,350	2,967,071	2,794,181	2,961,450	2,723,931	3,660,876	2,580,353	4,459,527
Oklahoma	232,217	324,002	276,126	570,249	498,478	400,746	271,137	253,227	260,753	369,962
Oregon	468,167	522,640	504,034	514,212	504,810	650,069	510,101	506,417	581,074	635,230
Pennsylvania	2,396,146	2,772,116	3,244,975	3,989,278	3,731,084	3,677,377	3,299,694	3,359,930	3,279,378	4,297,552
Rhode Island	418,037	437,455	501,504	565,592	642,064	888,779	622,502	627,776	643,721	679,453
South Carolina	249,938	314,287	371,006	454,018	384,307	492,735	373,812	421,688	453,003	661,614
South Dakota	38,803	54,941	58,679	54,788	70,036	69,982	75,926	61,925	76,379	79,313
Tennessee	824,300	1,039,488	1,157,221	1,130,563	1,381,987	1,425,989	1,489,072	1,907,931	1,689,925	2,081,442
Texas	3,021,013	3,189,399	3,553,852	5,414,373	5,506,721	5,187,008	5,914,690	6,692,848	5,029,588	6,031,095
Utah	305,980	421,569	457,925	803,382	1,183,694	1,058,179	845,844	991,251	699,929	1,168,540
Vermont	72,030	112,704	136,374	201,149	417,091	262,601	105,544	108,366	120,985	151,369
Virginia	4,961,535	4,995,665	6,175,919	6,709,197	7,298,269	8,746,472	8,994,337	9,088,208	9,282,197	9,381,331
Washington	1,345,649	1,725,258	2,023,273	2,442,177	2,311,260	2,641,154	4,087,134	4,751,106	4,339,544	4,156,709
West Virginia	235,677	376,105	254,239	383,400	315,693	807,540	301,416	219,100	224,575	262,617

State Indicators

State	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Wisconsin	420,839	487,948	595,516	658,448	645,875	651,821	635,675	671,413	660,915	885,729
Wyoming	35,059	36,986	39,585	42,979	47,596	37,538	36,169	36,583	47,358	65,152
Puerto Rico	81,016	90,790	135,294	112,225	100,904	101,433	98,790	85,850	84,929	96,101

Science and Engineering Indicators

State Indicators

Federal R&D obligations

State	2010	2011	2012	2013	2014	2015	2016	2017	2018
United States	138,156,480	132,793,598	135,995,441	122,985,240	127,927,192	125,846,297	113,002,034	115,507,567	125,737,333
Alabama	3,476,887	5,202,092	5,159,117	4,716,401	4,483,709	4,537,952	4,354,283	8,662,528	5,173,700
Alaska	235,562	196,455	159,056	185,468	136,904	208,044	211,854	279,953	299,823
Arizona	3,425,571	2,917,048	2,405,217	2,369,256	1,606,032	1,643,746	1,549,439	1,198,750	1,736,998
Arkansas	181,783	178,642	183,827	167,348	190,883	105,596	307,530	170,025	206,209
California	27,226,903	22,768,911	18,036,282	16,180,810	15,798,681	15,280,643	15,756,460	15,886,663	17,236,903
Colorado	4,348,333	3,815,539	3,744,745	3,394,037	3,611,357	3,506,388	4,183,078	3,395,584	4,916,763
Connecticut	2,193,459	2,425,968	2,231,082	2,516,608	2,286,990	2,292,751	2,365,917	2,349,256	2,568,162
Delaware	129,091	114,728	108,746	112,268	130,091	108,103	142,028	168,622	161,633
District of Columbia	3,890,121	3,013,539	3,339,296	3,908,128	3,980,138	4,221,723	4,204,465	4,867,431	6,157,720
Florida	3,142,237	2,481,827	2,355,839	2,282,029	2,447,584	2,932,696	2,781,525	2,879,539	3,178,524
Georgia	1,519,954	1,421,812	1,133,314	1,129,956	1,253,097	1,182,450	1,301,266	1,284,743	1,349,811
Hawaii	389,447	403,574	382,508	347,961	326,464	305,382	283,849	275,389	441,343
Idaho	478,995	430,212	446,936	380,814	597,925	532,627	568,444	679,105	824,214
Illinois	2,631,274	2,878,085	2,399,463	2,327,486	2,368,558	2,482,733	3,922,076	2,552,936	2,911,110
Indiana	988,688	903,000	838,297	692,598	771,216	678,315	719,113	689,832	781,336
Iowa	909,096	695,339	613,269	560,471	512,177	566,975	496,212	519,991	525,011
Kansas	347,529	367,780	231,602	234,254	187,149	193,687	187,927	211,646	232,808
Kentucky	287,437	241,959	308,087	306,846	296,742	296,707	272,594	289,451	302,846
Louisiana	330,803	597,294	313,774	277,976	284,516	253,683	278,529	397,183	321,128
Maine	163,103	179,969	247,753	169,887	131,091	138,030	137,487	158,035	188,371
Maryland	15,879,006	15,750,593	15,597,818	15,605,883	16,890,454	16,750,635	16,640,272	15,416,755	17,779,202
Massachusetts	8,747,479	7,758,388	6,279,278	5,690,763	6,268,540	6,055,001	5,532,560	5,238,401	6,035,959
Michigan	2,509,681	2,153,449	2,206,422	1,826,143	1,852,691	1,798,999	1,795,895	1,491,405	1,630,467

State Indicators

State	2010	2011	2012	2013	2014	2015	2016	2017	2018
Minnesota	1,062,556	949,293	961,092	939,742	947,366	817,426	859,102	985,781	1,030,980
Mississippi	421,613	588,083	542,610	567,723	589,505	489,008	448,193	449,462	819,832
Missouri	1,151,046	1,193,266	1,122,803	1,056,305	1,038,637	1,296,254	1,258,593	1,603,792	1,492,039
Montana	139,222	181,657	190,191	134,505	170,536	152,192	169,507	150,958	194,718
Nebraska	239,814	262,173	261,912	200,523	234,061	216,437	204,819	210,591	211,275
Nevada	379,814	478,099	481,734	584,582	509,952	394,231	286,183	338,354	400,238
New Hampshire	350,471	406,012	490,721	296,213	335,944	342,053	373,518	351,119	472,387
New Jersey	2,852,962	2,582,709	2,166,953	1,726,856	1,968,461	1,631,866	1,676,599	1,962,558	2,367,256
New Mexico	3,337,955	3,456,208	3,378,591	3,421,466	3,714,234	3,542,923	3,662,106	3,383,366	3,630,348
New York	5,602,222	5,042,120	4,727,247	4,605,210	4,580,635	4,566,943	4,743,813	4,954,529	5,366,091
North Carolina	2,151,161	2,060,306	1,922,260	1,759,196	1,880,503	1,892,033	1,906,189	2,005,368	2,270,078
North Dakota	119,582	117,703	88,065	89,515	80,498	82,000	103,568	74,817	110,693
Ohio	4,098,787	3,554,656	3,436,331	2,425,734	2,454,493	2,638,536	2,497,352	2,549,793	4,206,814
Oklahoma	429,597	462,536	449,813	262,352	316,784	450,232	349,014	367,626	480,648
Oregon	675,292	711,081	632,076	528,961	601,516	557,536	543,834	572,522	626,844
Pennsylvania	4,963,404	4,512,982	3,724,886	3,295,421	3,695,262	3,710,488	3,980,624	3,787,544	4,147,620
Rhode Island	669,846	610,133	557,413	486,437	555,287	519,380	627,277	614,958	662,360
South Carolina	662,206	496,684	555,367	397,477	476,363	446,599	460,869	504,736	561,412
South Dakota	74,962	61,087	63,168	56,607	68,795	72,781	69,022	77,221	80,830
Tennessee	2,104,843	1,898,595	2,111,931	2,118,645	2,023,052	2,312,540	2,479,277	2,491,078	2,564,154
Texas	6,896,125	5,475,367	5,619,673	5,234,156	4,678,423	5,574,480	5,296,463	5,318,934	4,677,250
Utah	1,708,887	1,756,403	972,325	918,647	1,221,844	1,143,613	937,676	1,057,535	1,109,737
Vermont	142,251	124,444	103,372	102,954	115,659	81,625	82,431	80,709	97,069
Virginia	9,111,678	8,287,063	8,129,999	6,487,535	7,651,664	7,487,099	7,383,556	6,310,864	7,187,180
Washington	3,915,467	4,931,381	2,757,414	3,433,474	3,565,308	2,361,715	2,083,802	2,623,651	2,745,986
West Virginia	312,779	239,807	263,276	171,449	208,017	239,451	455,545	141,427	280,505

State Indicators

State	2010	2011	2012	2013	2014	2015	2016	2017	2018
Wisconsin	795,573	742,243	734,288	654,033	701,052	700,689	722,664	729,545	759,428
Wyoming	36,720	37,193	75,589	41,207	45,840	53,488	43,660	45,780	48,593
Puerto Rico	94,795	97,351	71,336	82,563	71,037	65,870	71,796	67,638	74,707

Science and Engineering Indicators

State Indicators

Individuals in S&E occupations

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
United States	4,961,540	5,174,260	5,233,520	5,407,710	5,591,990	5,781,460	5,785,710	5,549,980	5,794,980	5,968,240
Alabama	56,380	59,880	62,790	66,100	69,650	68,580	68,670	68,450	70,290	72,880
Alaska	10,600	10,870	11,230	10,720	11,990	13,260	14,780	15,430	15,680	16,260
Arizona	92,120	98,400	96,410	98,110	102,380	102,100	102,820	102,870	115,330	116,930
Arkansas	21,340	24,170	24,660	24,860	28,460	29,310	31,420	29,200	29,350	29,530
California	676,180	703,250	716,530	NA	753,570	791,750	795,240	758,830	800,430	821,780
Colorado	124,140	125,510	126,110	133,730	138,990	147,000	148,090	143,210	144,750	149,020
Connecticut	81,380	83,840	83,930	79,380	80,280	80,290	79,160	74,990	76,550	78,450
Delaware	17,370	18,420	18,010	21,550	22,140	22,330	22,200	20,920	22,430	23,440
District of Columbia	54,890	61,460	63,410	64,120	63,150	63,360	61,430	59,870	62,660	63,600
Florida	221,070	235,170	241,000	246,190	244,140	248,200	247,070	239,600	244,970	248,300
Georgia	144,170	139,230	137,580	136,470	136,880	147,380	NA	145,220	147,820	148,830
Hawaii	16,090	17,630	17,460	18,940	18,740	18,830	19,020	19,500	20,100	20,930
Idaho	22,150	23,050	23,880	NA	24,330	23,310	23,520	24,130	25,950	25,260
Illinois	211,230	219,040	221,630	222,470	225,180	224,370	221,170	197,120	204,420	220,170
Indiana	78,410	80,950	79,910	80,110	83,080	90,840	90,750	90,710	93,640	94,620
Iowa	37,320	40,060	40,300	43,670	45,430	46,180	47,080	44,140	48,930	50,950
Kansas	51,970	52,650	51,630	48,620	50,040	54,260	56,200	48,970	51,530	50,930
Kentucky	45,230	43,740	44,530	44,680	49,030	NA	51,200	48,790	51,990	51,830
Louisiana	41,900	42,520	41,030	40,180	38,450	41,790	43,630	44,200	42,760	45,920
Maine	15,020	14,980	15,500	15,950	15,960	17,000	17,910	17,470	17,490	17,910
Maryland	149,250	158,350	160,120	159,470	162,540	167,070	169,540	166,700	173,020	179,550
Massachusetts	184,690	190,960	193,180	198,670	205,610	217,310	217,690	208,160	220,670	229,160
Michigan	182,940	188,580	192,150	208,520	212,040	204,290	187,760	176,570	188,380	198,610

State Indicators

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Minnesota	117,120	118,590	120,930	125,930	129,840	134,440	134,060	125,100	130,340	131,690
Mississippi	22,190	22,970	23,480	24,910	25,520	27,270	25,940	23,770	23,440	23,640
Missouri	84,150	91,820	92,260	96,420	102,170	105,390	104,310	102,300	106,930	109,650
Montana	11,450	11,640	11,940	13,010	13,240	NA	14,210	14,620	14,960	15,360
Nebraska	30,710	31,760	31,530	32,500	31,420	31,820	31,790	30,930	33,800	34,720
Nevada	22,330	24,440	24,400	26,930	26,920	27,300	27,560	26,840	28,370	27,000
New Hampshire	23,430	25,620	26,840	27,680	28,450	29,150	30,550	29,200	29,260	28,950
New Jersey	161,420	171,990	174,270	176,460	186,120	198,060	195,690	185,360	182,210	181,480
New Mexico	33,600	32,000	32,530	30,800	33,440	34,560	36,950	36,130	35,520	35,310
New York	272,440	283,150	289,010	306,810	322,520	326,510	315,480	NA	310,510	321,480
North Carolina	132,440	136,430	134,290	138,790	142,970	153,680	158,920	155,030	161,880	167,900
North Dakota	8,430	8,460	9,070	9,360	9,660	9,450	9,930	11,050	12,070	13,120
Ohio	177,100	181,180	180,900	185,190	196,390	206,320	207,930	195,840	208,140	NA
Oklahoma	44,360	46,320	46,370	50,770	51,430	48,900	45,730	44,190	47,090	50,420
Oregon	61,230	64,820	62,030	64,520	67,890	70,070	69,630	NA	NA	75,780
Pennsylvania	185,560	195,510	204,270	214,910	218,890	227,170	NA	NA	NA	NA
Rhode Island	18,740	19,330	18,080	18,060	18,400	18,090	18,120	18,210	19,450	20,180
South Carolina	48,740	50,840	50,460	53,230	54,120	57,770	57,370	56,230	61,020	63,170
South Dakota	9,150	9,530	9,460	10,120	11,550	11,870	11,570	11,150	11,790	12,000
Tennessee	63,680	65,730	66,390	67,040	70,820	72,760	68,970	71,850	77,630	79,830
Texas	365,270	384,600	389,550	408,710	441,410	463,850	470,010	451,390	469,080	493,980
Utah	45,570	45,250	45,110	49,690	51,340	52,570	51,270	50,830	51,350	54,720
Vermont	11,420	12,510	12,770	12,780	12,760	12,360	12,780	12,670	13,100	12,870
Virginia	209,280	233,590	236,650	251,720	254,710	259,280	264,090	255,800	267,620	274,280
Washington	150,230	156,780	160,960	171,780	183,900	NA	196,850	186,210	196,760	NA
West Virginia	16,220	15,990	16,040	17,150	16,560	17,000	16,350	17,070	18,300	19,900

State Indicators

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Wisconsin	93,320	93,760	93,590	96,860	99,380	101,680	100,850	99,240	102,320	103,030
Wyoming	6,130	6,960	7,350	7,640	8,110	8,850	8,920	8,260	8,440	8,710
Puerto Rico	19,940	20,600	20,950	23,850	23,630	22,970	22,760	20,850	20,990	21,750

NA = not available

Science and Engineering Indicators

State Indicators

Individuals in S&E occupations

State	2013	2014	2015	2016	2017	2018	2019
United States	6,139,220	6,318,580	6,536,860	6,746,600	6,889,020	7,083,690	7,317,290
Alabama	76,650	74,480	73,190	72,480	73,410	NA	81,730
Alaska	15,210	14,920	14,970	14,340	14,810	14,480	14,550
Arizona	123,410	127,760	133,650	138,560	140,300	NA	146,410
Arkansas	30,660	32,050	33,350	33,180	35,690	35,500	36,180
California	849,510	880,850	NA	932,020	946,680	989,560	1,023,530
Colorado	154,020	160,700	167,400	175,370	180,660	187,050	194,490
Connecticut	78,850	79,000	79,490	80,330	82,960	84,100	85,950
Delaware	22,030	22,830	22,750	24,120	26,470	26,120	24,650
District of Columbia	65,300	68,820	69,880	75,520	76,500	74,030	77,110
Florida	250,330	257,450	271,840	284,030	293,850	304,650	317,650
Georgia	160,820	169,940	NA	196,370	200,620	210,710	219,770
Hawaii	21,140	20,900	21,060	21,760	21,590	21,400	22,040
Idaho	25,850	26,460	28,320	29,050	29,250	30,230	31,840
Illinois	226,850	235,380	245,330	260,160	258,920	263,930	270,460
Indiana	100,870	104,000	104,290	106,230	108,850	NA	118,010
Iowa	52,440	53,440	52,790	53,580	55,050	58,180	61,540
Kansas	51,240	50,120	53,660	57,150	58,140	57,720	59,290
Kentucky	53,920	54,350	56,190	55,340	57,210	59,080	61,030
Louisiana	46,750	49,120	48,440	46,770	45,020	46,240	45,540
Maine	18,840	19,410	19,960	20,580	20,550	21,630	22,180
Maryland	186,780	190,080	193,810	199,860	201,310	206,360	210,700
Massachusetts	227,780	230,480	231,640	242,960	246,110	249,400	256,800
Michigan	207,800	219,630	228,140	238,120	248,460	253,850	253,380

State Indicators

State	2013	2014	2015	2016	2017	2018	2019
Minnesota	133,580	140,190	143,620	149,360	150,210	154,630	155,230
Mississippi	24,320	24,860	25,440	25,280	26,050	26,270	28,890
Missouri	105,730	106,980	110,220	116,670	119,440	125,620	129,050
Montana	15,570	15,540	16,320	15,840	17,070	17,830	18,170
Nebraska	36,480	36,220	37,950	39,780	41,890	42,200	43,000
Nevada	26,850	26,890	28,200	29,460	31,520	32,690	35,180
New Hampshire	28,460	28,320	29,290	30,400	32,170	34,780	36,280
New Jersey	184,720	188,240	193,440	204,000	203,270	211,240	212,670
New Mexico	34,900	36,180	37,510	38,420	37,020	36,630	37,550
New York	333,710	348,740	368,920	378,600	392,570	401,580	408,360
North Carolina	173,960	181,030	187,210	199,300	207,220	213,120	225,140
North Dakota	12,520	12,970	12,960	14,020	14,010	14,750	13,990
Ohio	218,030	219,830	233,570	239,800	249,180	251,630	255,870
Oklahoma	51,900	52,910	55,170	54,380	55,460	55,920	60,210
Oregon	79,040	80,470	86,350	89,080	92,790	94,630	97,730
Pennsylvania	243,850	248,750	255,170	262,280	267,350	NA	275,350
Rhode Island	20,740	21,210	21,550	22,000	23,010	23,310	24,740
South Carolina	65,140	67,300	68,380	71,190	72,970	75,750	79,510
South Dakota	12,770	13,220	13,870	14,160	14,260	14,790	15,330
Tennessee	NA	86,680	88,820	90,240	93,320	96,060	98,650
Texas	514,400	541,060	563,410	566,230	567,040	581,440	610,010
Utah	57,980	62,810	64,670	68,630	73,320	NA	84,710
Vermont	12,920	13,280	13,710	13,390	13,160	12,890	12,560
Virginia	276,230	272,410	270,990	275,350	282,830	289,420	298,440
Washington	209,710	208,630	219,130	227,910	235,070	242,680	257,820
West Virginia	19,490	20,110	20,490	20,510	20,830	21,770	22,720

State Indicators

State	2013	2014	2015	2016	2017	2018	2019
Wisconsin	106,210	112,540	117,720	124,000	125,610	129,060	136,260
Wyoming	NA	9,050	8,980	8,460	7,960	8,440	9,010
Puerto Rico	22,790	23,320	22,930	24,190	24,610	25,040	26,410

NA = not available

Science and Engineering Indicators