

National Science Board Science and Engineering Indicators 2008

Indicators	Most Recent Year	South Carolina	US Average
<i>Elementary/Secondary Education</i>			
Fourth Grade Mathematics Performance ¹ (Score)	2005	238	237
Fourth Grade Mathematics Proficiency ¹ (Percent)	2005	36	35
Fourth Grade Science Performance ² (Score)	2005	148	149
Fourth Grade Science Proficiency ² (Percent)	2005	25	27
Eighth Grade Mathematics Performance ³ (Score)	2005	281	278
Eighth Grade Mathematics Proficiency ³ (Percent)	2005	30	29
Eighth Grade Science Performance ⁴ (Score)	2005	145	147
Eighth Grade Science Proficiency ⁴ (Percent)	2005	23	27
Public School Teacher Salaries ⁵ (Dollars)	2005	42,207	47,750
Elementary and Secondary Public School Current Expenditures as Share of Gross Domestic Product ⁶ (Percent)	2005	3.79	3.43
Current Expenditures per Pupil for Elementary and Secondary Public Schools ⁷ (Dollars)	2005	7,549	8,701
Share of Public High School Students Taking Advanced Placement Exams ⁸ (Percent)	2006	22.0	24.2
Share of Public High School Students Scoring 3 or Higher on at Least One Advanced Placement Exam ⁸ (Percent)	2006	12.5	14.8
High School Graduates or Higher Among Individuals 25–44 Years Old (Percent)	2005	85.3	84.8
<i>Higher Education</i>			
Bachelor's Degrees Conferred per 1,000 Individuals 18–24 Years Old	2005	45.8	48.4
Bachelor's Degrees in Natural Sciences and Engineering Conferred per 1,000 Individuals 18–24 Years Old	2005	7.3	7.9
S&E Degrees as Share of Higher Education Degrees Conferred ⁹ (Percent)	2005	27.6	29.9
S&E Graduate Students per 1,000 Individuals 25–34 Years Old	2005	5.7	11.7
Advanced S&E Degrees as Share of S&E Degrees Conferred ¹⁰ (Percent)	2005	16.1	24.2
Average Undergraduate Charge at Public 4-Year Institutions ¹¹ (Dollars)	2006	13,145	12,108
Average Undergraduate Charge at Public 4-Year Institutions as a Share of Disposable Personal Income ¹² (Percent)	2006	49.8	38.2

Indicators	Most Recent Year	South Carolina	US Average
State Expenditures on Student Aid per Full-Time Undergraduate Student ¹³ (<i>Dollars</i>)	2006	2,449	802
Associate's Degree Holders or Higher Among Individuals 25–44 Years Old (<i>Percent</i>)	2005	33.2	37.4
Bachelor's Degree Holders or Higher Among Individuals 25–44 Years Old (<i>Percent</i>)	2005	24.2	29.0

Workforce

Bachelor's Degree Holders Potentially in the Workforce ¹⁴ (<i>Percent</i>)	2005	27.6	31.7
Individuals in S&E Occupations as Share of Workforce ¹⁵ (<i>Percent</i>)	2006	2.68	3.72
Employed S&E Doctorate Holders as Share of Workforce ¹⁶ (<i>Percent</i>)	2006	0.30	0.43
Engineers as Share of Workforce ¹⁵ (<i>Percent</i>)	2006	1.13	1.06
Life and Physical Scientists as Share of Workforce ¹⁵ (<i>Percent</i>)	2006	0.29	0.40
Computer Specialists as Share of Workforce ¹⁷ (<i>Percent</i>)	2006	1.16	2.05

Financial Research and Development Inputs

R&D as Share of Gross Domestic Product ¹⁸ (<i>Percent</i>)	2004	1.21	2.44
Federal R&D Obligations per Civilian Worker ¹⁹ (<i>Dollars</i>)	2005	211	753
Federal R&D Obligations per Individual in S&E Occupation ²⁰ (<i>Dollars</i>)	2005	8,094	20,396

R&D Outputs

Industry-Performed R&D as Share of Private-Industry Output ²¹ (<i>Percent</i>)	2005	1.19	2.04
Academic R&D per \$1,000 of Gross Domestic Product ²²	2005	3.47	3.63
S&E Doctorates Conferred per 1,000 S&E Doctorate Holders ²³	2005 and 2006	32.8	39.4
Academic Article Output per 1,000 S&E Doctorate Holders in Academia ²³	2005 and 2006	410	568
Academic Article Output per \$1 Million of Academic R&D ²⁴	2005	3.14	4.26
Academic Patents Awarded per 1,000 S&E Doctorate Holders in Academia ²³	2005 and 2006	4.8	9.2
Patents Awarded per 1,000 Individuals in S&E Occupations ²⁵	2006	10.8	16.7

Indicators	Most Recent Year	South Carolina	US Average
<i>Science and Technology in the Economy</i>			
High-Technology Share of All Business Establishments (<i>Percent</i>)	2004	5.99	8.19
Net High-Technology Business Formations as Share of All Business Establishments (<i>Percent</i>)	2004	0.17	0.16
Employment in High-Technology Establishments as Share of All Employment (<i>Percent</i>)	2004	10.51	11.61
Average Annual Federal SBIR Funding per \$1 Million of Gross Domestic Product ²⁶	2003-05	59	161
Venture Capital Disbursed per \$1,000 of Gross Domestic Product ²⁷	2006	0.07	1.98
Venture Capital Deals as Share of High-Technology Business Establishments (<i>Percent</i>)	2004	0.08	0.50
Venture Capital Disbursed per Venture Capital Deal (<i>\$Millions</i>)	2006	2.50	7.41

Footnotes

1: National average for United States is reported value in National Assessment of Educational Progress (NAEP) reports. NAEP grade 4 mathematics scores for public schools only.

2: National average for United States is reported value in National Assessment of Educational Progress (NAEP) reports. NAEP grade 4 science scores for public schools only. In 2000, California, Georgia, Hawaii, Kentucky, Maryland, South Carolina, Tennessee, Texas, and Virginia significantly different from 2005 when only one jurisdiction or the nation is examined. In 2005, Alaska, District of Columbia, Iowa, Kansas, Nebraska, New York, and Pennsylvania did not participate.

3: National average for United States is reported value in National Assessment of Educational Progress (NAEP) reports. NAEP grade 8 mathematics scores for public schools only.

4: National average for United States is reported value in National Assessment of Educational Progress (NAEP) reports. NAEP grade 8 science scores for public schools only. In 2000, Alaska, Colorado, Delaware, District of Columbia, Florida, Iowa, Kansas, New Hampshire, New Jersey, Pennsylvania, South Dakota, Washington, and Wisconsin did not participate or did not meet reporting standards. In 2000, Alabama, Arizona, California, Hawaii, Indiana, Kentucky, Louisiana, Massachusetts, Nevada, North Dakota, South Carolina, Vermont, Virginia, and Wyoming significantly different from 2005 when only one jurisdiction or the nation is examined. In 2005, Alaska, District of Columbia, Iowa, Kansas, Nebraska, New York, and Pennsylvania did not participate.

5: National average for United States is reported value in Digest of Education Statistics. Average salaries reported in current dollars.

6: Public school expenditures for Missouri, Tennessee, and Washington for 2005 affected by redistribution of reported values to correct for missing data items. GDP reported in current dollars.

7: Public school expenditures for Missouri, Tennessee, and Washington for 2005 affected by redistribution of reported values to correct for missing data items. Public school expenditures reported in current dollars. 2005 prekindergarten student membership for California was imputed, affecting the total student count and per pupil expenditures calculation.

8: National average for United States is reported value in Advanced Placement Report to the Nation.

9: S&E degrees include bachelor's, master's, and doctorate. S&E degrees include physical, computer, agricultural, biological, earth, atmospheric, ocean, and social sciences; psychology; mathematics; and engineering. All higher education degrees include bachelor's, master's, and doctorate.

10: All degrees include bachelor's, master's, and doctorate; advanced degrees include only master's and doctorate. S&E degrees include physical, computer, agricultural, biological, earth, atmospheric, ocean, and social sciences; psychology; mathematics; and engineering.

11: National average for United States from Digest of Education Statistics data tables. Average charges for entire academic year. Tuition and fees weighted by number of full-time-equivalent undergraduates but not adjusted to reflect student residency. Room and board based on full-time students.

12: National average undergraduate charge for United States from Digest of Education Statistics data tables. Average charges for entire academic year. Tuition and fees weighted by number of full-time-equivalent undergraduates but not adjusted to reflect student residency. Room and board based on full-time students. National value for disposable personal income is value reported by Bureau of Economic Analysis.

13: 2001 and 2006 enrollment data for 4-year degree-granting institutions participating in Title IV federal financial aid programs.

14: Bachelor's degree holders include those completing a bachelor's or higher degree. Workforce represents employed component of civilian labor force and reported as annual data not seasonally adjusted.

15: Workforce represents employed component of civilian labor force and reported as annual data not seasonally adjusted.

16: Data on S&E doctorate holders classified by employer location, and workforce data based on respondents' residence. Data on 2006 employed S&E doctorate holders are preliminary. Workforce represents employed component of civilian labor force and reported as annual data not seasonally adjusted.

17: For a small number of states, data for selected computer occupations suppressed by state or Bureau of Labor Statistics (BLS) and not reported at state level. Workforce represents employed component of civilian labor force and reported as annual data not seasonally adjusted.

18: R&D includes R&D performed by federal agencies, industry, universities, and other nonprofit organizations. R&D and GDP reported in current dollars.

19: Only 11 agencies required to report federal R&D obligations: Departments of Agriculture, Commerce, Defense, Energy, Health and Human Services, Homeland Security (not established in 1995 and 2000), Interior, and Transportation; Environmental Protection Agency; National Aeronautics and Space Administration; and National Science Foundation. These obligations represent approximately 98% of total federal R&D obligations in FY 1995, 2000, and 2005. Civilian workers represent employed component of civilian labor force and reported as annual data not seasonally adjusted.

20: Only 11 agencies required to report federal R&D obligations: Departments of Agriculture, Commerce, Defense, Energy, Health and Human Services, Homeland Security (2005 only), Interior, and Transportation; Environmental Protection Agency; National Aeronautics and Space Administration; and National Science Foundation. These obligations represent approximately 98% of total federal R&D obligations in FY 2003 and 2005.

21: In 1998, >50% of industrial R&D value imputed because of raking of state data for Alaska, Arkansas, Hawaii, Louisiana, Mississippi, Nebraska, North Dakota, South Dakota, and Wyoming. In 1998, >50% of industrial R&D value imputed for Delaware, District of Columbia, Idaho, Kansas, New Mexico, Rhode Island, and Washington. In 2002, >50% of industrial R&D value imputed because of raking of state data for Alaska, Arkansas, Louisiana, and Wisconsin. In 2002, >50% of industrial R&D value imputed for Kansas, Maine, Oregon, and Vermont. In 2005, >50% of industrial R&D value imputed because of raking of state data for Alaska. In 2005, >50% of industrial R&D value imputed for Indiana, Kansas, Montana, and Rhode Island. Private-industry output reported in current dollars. SOURCES: National Science Foundation, Division of Science Resources Statistics, Survey of Industrial Research and Development (various years); and Bureau of Economic Analysis, Gross Domestic Product data.

22: In 2000 and 2005, academic R&D reported for all institutions; in 1995, reported for doctorate-granting institutions only. For Maryland, academic R&D excludes R&D performed by Applied Physics Laboratory at Johns Hopkins University. GDP reported in current dollars.

23: Data on U.S. S&E doctorate holders classified by employer location. Data on 2006 S&E doctorate holders are preliminary.

24: In 2000 and 2005, academic R&D reported for all institutions. In 1995, academic R&D reported for doctorate-granting institutions only.

25: Origin of utility patent determined by residence of first-named inventor.

26: GDP reported in current dollars.

27: GDP reported in current dollars. Preliminary Puerto Rico 2006 GDP.