



STATE R&D PROFILE

South Carolina



Table 1. Federal R&D to South Carolina by Agency and Performer, Fiscal Year 2000
(obligations in millions of dollars)

Performers	Agencies							TOTAL
	DOD	HHS	DOE	DOC	NSF	USDA	other	
Federal Labs	30	0	0	12	0	10	3	55
Industry	36	7	1	0	1	0	1	45
Univs. / Colleges	14	63	8	11	18	8	4	127
FFRDCs *	0	0	32	0	0	0	0	32
Nonprofits	2	3	0	0	1	0	0	5
State / Local Govts.	0	1	0	1	0	0	1	3
Total South Carolina	82	74	42	24	19	18	8	267
U.S. Total	33,010	18,577	6,872	1,237	2,930	1,830	11,295	75,751
SC % of U.S.	0.2%	0.4%	0.6%	1.9%	0.7%	1.0%	0.1%	0.4%

Source: National Science Foundation, *Federal Funds for Research and Development Fiscal Years 2000, 2001, and 2002*, 2002.

R&D data are for the 10 largest R&D supporting agencies only.

* Federally Funded Research and Development Centers. Government-owned, contractor-operated laboratories.

R&D = conduct of R&D and R&D plant (facilities and capital equipment).

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This AAAS State R&D Profile is one of a series of reports on the state and regional impacts of federal R&D, produced in cooperation with the AAAS Center for Science, Technology, and Congress from data provided by the National Science Foundation Division of Science Resources Statistics. More information on these reports, summary tables on R&D in the states, current profiles of the other states, and full-color, full-size versions of these charts are all available in the "State and Regional Reports" section of the AAAS R&D Web site (<http://www.aaas.org/spp/rd>). These profiles will be updated annually as new data become available.

AAAS State R&D Profiles - South Carolina

- South Carolina received \$267 million in federal R&D in FY 2000, 0.4 percent of the national total, which gives it a ranking of 34th among the 50 states and the District of Columbia. The state is home to 4.0 million people, or 1.4 percent of the total U.S. population (26th in rank; see Facts and Rankings).

- South Carolina ranks 45th in federal R&D per capita at \$66 per person, only one quarter of the national average of \$269. South Carolina is a participant in the Experimental Program to Stimulate Competitive Research (EPSCoR) started by NSF to help states that traditionally have been underrepresented as recipients of federal R&D funds to become more competitive in winning federal R&D dollars. The program has expanded to include funding from other federal agencies such as DOE, DOD, USDA, EPA, and NASA. South Carolina also participates in the Institutional Development Award (IDeA) program, a program administered by NIH that is designed to foster research in states that have not traditionally received significant levels of competitive funding from NIH.

- DOD and HHS account for over 58 percent of all federal R&D obligations to South Carolina in FY 2000. DOD provided \$82 million for R&D conducted at federal labs, industry and universities and colleges. HHS provided \$74 million in FY 2000, nearly all of which went to support research at South Carolina universities and colleges (see Table 1 and Chart 1).

- DOE is the third largest sponsor of federal R&D in South Carolina with obligations of \$42 million in FY 2000, followed by Commerce (\$24 million), NSF (\$19 million), and USDA (\$18 million). DOE's primary performer of federal R&D is the Savannah River Technology Center (SRTC), a federally funded research and development center (FFRDC), located at the Savannah River Site.

- Universities and colleges in South Carolina are the top performers of federal R&D and received a total of \$127 million in FY 2000, 48 percent of all federal R&D activities in the state (see Table 1 and Chart 2).

- Federal laboratories in the state are the second largest performers of federal R&D projects with obligations of \$55 million in FY 2000. The largest sponsors of R&D in labs are DOD (\$30 million), Commerce (\$12 million), and USDA (\$10 million) (see Table 1). DOD maintains a unit of the Space and Naval Warfare Systems Center in Charleston; Commerce, through NOAA, supports the Coastal Services Center in Charleston; and the USDA conducts research at a laboratory located at Clemson University as part of its Agricultural Research Service program.

- South Carolina is home to three universities that conduct the majority of research in the state, but only one is ranked among the top 100 universities and colleges that receive the most federal R&D funds (see Table 2). Despite its small share of federal R&D funds, South Carolina has made steady gains in its research capabilities mostly due to the growth of its universities' and colleges' research portfolios.

- The Medical University of South Carolina in Charleston received \$61 million in federal R&D funds and is ranked 88th among the top 100 university recipients of federal R&D nationwide. \$49 million came from HHS to support biomedical research (see Table 2).

- Clemson University had total R&D expenditures of \$115 million in FY 2000. Clemson is ranked 89th nationally among universities and colleges performing the most R&D when taking into account all funding sources. Clemson University surpasses federal sources of R&D dollars with \$44 million of its own institutional funds to support R&D projects at the university (see Table 3).

- The University of South Carolina performed \$104 million in R&D in FY 2000, 49.7 percent of it with federal funds, and ranked 94th nationally among universities and colleges performing the most R&D when taking into account all funding sources (see Table 3). The university also invests a significant portion of institutional funds to support academic research with expenditures of \$41 million in FY 2000, 39 percent of all R&D expenditures that year.

- Total R&D performance in South Carolina was \$1.1 billion in 2000, the vast majority (\$704 million) of which was self-financed industry R&D (see Table 4). Milliken & Company is one of the largest R&D industrial firms in South Carolina where it operates the world's largest textile-related research facility in Spartanburg. Other R&D industries include chemicals, paper, electronic components, information systems, optics, and tires.

**Table 2. Federal R&D to South Carolina Universities and Colleges,
Fiscal Year 2000**
(obligations in millions of dollars)

	HHS	NSF	DOD	DOC	DOE	USDA	other	TOTAL
Medical U SC (88)	49	1	1	8	2	0	0	61
U of SC (115)	12	9	10	0	2	0	1	35
Clemson U (126)	2	8	4	0	5	6	2	26
All Other	1	0	0	3	0	2	2	8
Total South Carolina	64	18	15	11	8	8	6	130
U.S. Total	10,533	2,475	1,832	144	696	564	1,285	17,529
SC % of U.S.	0.6%	0.7%	0.8%	7.7%	1.2%	1.5%	0.4%	0.7%

Source: National Science Foundation, *Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions, Fiscal Year 2000*, 2002.

Figures may differ from other tables because of differing survey methods.

Figures in parentheses denote national rank among universities and colleges in federal R&D funds received.

R&D = conduct of R&D and R&D plant (facilities and capital equipment).

**Table 3. Total R&D Expenditures at South Carolina Universities and Colleges
by Source of Funds, Fiscal Year 2000**
(expenditures in millions of dollars)

	Federal	State/ Local	Industry	Institutional Funds	All Other	TOTAL R&D	Federal / Total R&D
Clemson U (89)	31	24	10	44	5	115	27.2%
U of SC (94)	52	5	3	41	4	104	49.7%
Medical U SC (123)	41	2	3	15	3	65	63.5%
All Other	6	0	0	2	1	10	66.8%
Total South Carolina	131	32	15	103	13	294	44.5%
U.S. Total	17,493	2,204	2,178	5,924	2,262	30,062	58.2%
SC % of U.S.	0.7%	1.4%	0.7%	1.7%	0.6%	1.0%	

Source: National Science Foundation, *Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 2000*, 2002.

These data differ significantly from the federal R&D data for the following reasons:

1/ data are from performer surveys rather than funding sources; 2/ data are in expenditures rather than obligations; and 3/ R&D in this survey does not include R&D facilities.

Figures in parentheses denote national rank among universities and colleges in total R&D performed.

Table 4. Total R&D (all funding sources) in South Carolina by Funding Source and Performer, 2000
(expenditures in millions of dollars)

Performers	Funding Sources					Total
	Federal Government	Industry	Univs./ Colleges	State / Local Government	Nonprofits	
Federal Labs	46	--	--	--	--	46
Industry **	77	704	--	--	--	781
Universities / Colleges	131	15	103	32	13	294
FFRDCs*	0	--	--	--	--	0
Nonprofits	5	--	--	--	--	5
Total South Carolina	259	719	103	32	13	1,126
U.S. Total	66,208	182,622	6,210	2,257	7,320	264,617
SC % of U.S.	0.4%	0.4%	1.7%	1.4%	0.2%	0.4%

Source: National Science Foundation, 2002.

* Federally Funded Research and Development Centers. Government-owned, contractor-operated laboratories. FFRDCs operated by universities/colleges and nonprofits only. Industry FFRDCs are included under industry.

** Imputed division of industry performance by funding source based on other data.

Industry funding of nonprofit R&D is not included in state data, but is included in national totals.

Industry funding of industry R&D includes all non-federal funding of industry-performed R&D.

Nonprofit support for nonprofits is not included in state data, but is included in national totals.

Nonfederal support for FFRDCs and nonprofits are not included.

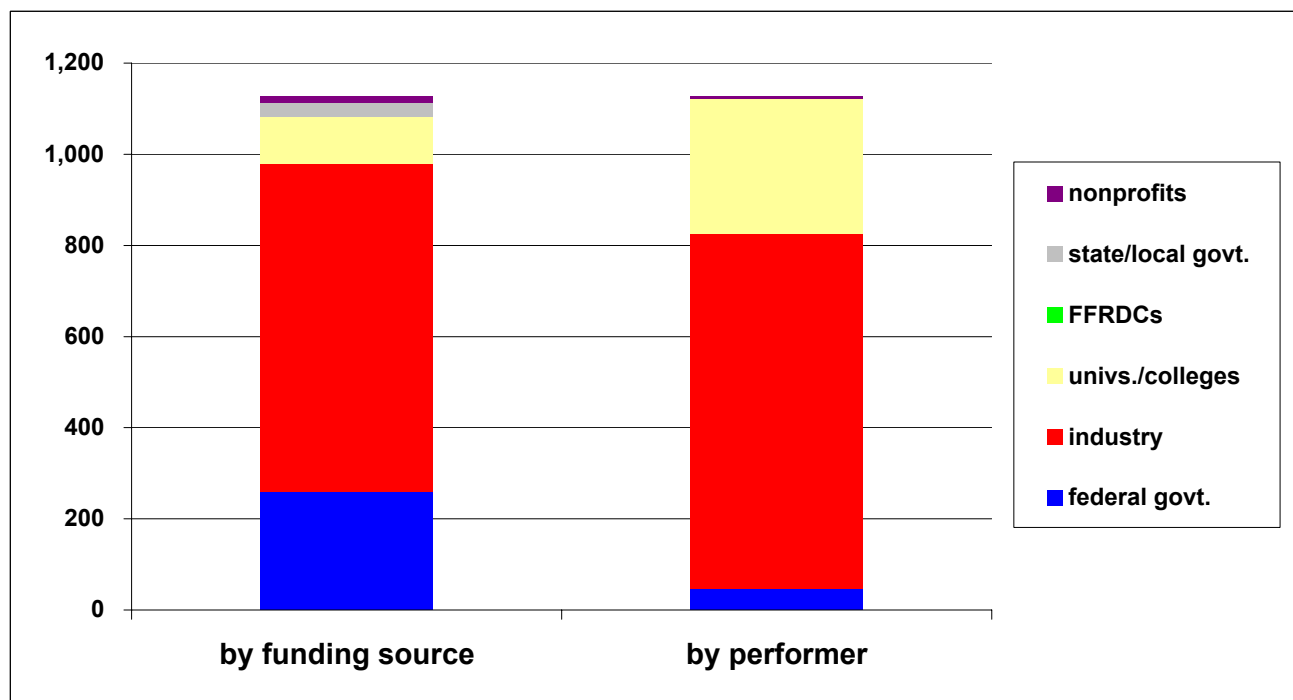
State and local government performance of R&D is not included.

Conduct of R&D only (R&D facilities and capital equipment excluded).

These data differ significantly from the federal R&D data for the following reasons:

1/ data are for calendar year 2000 rather than FY 2000; 2/ data are from performer surveys rather than funding sources; and 3/ data are in expenditures rather than obligations.

Chart. Total R&D in South Carolina by Funding Source and by Performer, 2000
expenditures in millions of dollars



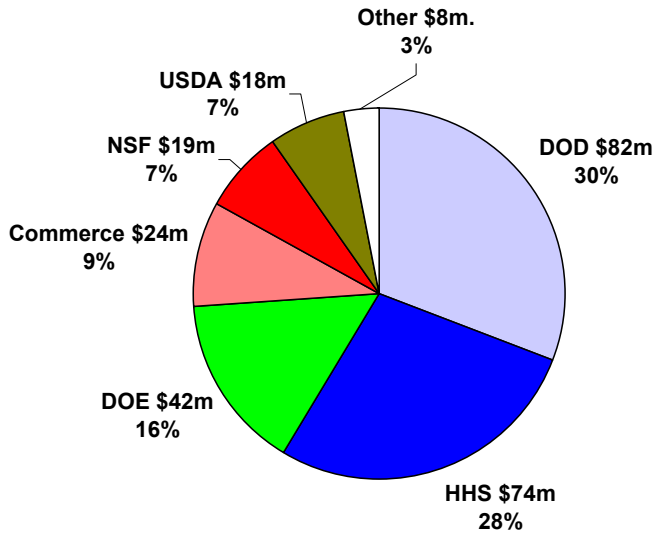
Facts and Rankings for South Carolina

	SC		U.S.	SC % of U.S.	Rank *
Total Federal R&D	267	million \$ ('00)	75,751	0.4%	34
Population	4.02	million ('00)	282.13	1.4%	26
Federal R&D Per Capita	\$ 66	('00)	\$ 269	24.5%	45
Total Federal Expenditures	22,294	million \$ ('00)	1,637,170	1.4%	27
Federal R&D / Total Federal	1.2%	('00)	4.6%		44
Total R&D (all funds)	1,126	million \$ ('00)	264,616	0.4%	33
Total R&D Per Capita	\$ 280	('00)	\$ 938	29.9%	37
Gross State Product (GSP)	113,377	million \$ ('00)	9,941,552	1.1%	28
GSP Per Capita	\$ 30,697	('00)	\$ 35,238	87.1%	34
R&D Intensity (R&D / GSP)	0.99%	('00)	2.66%	37.2%	35

Source: Federal R&D: National Science Foundation, *Federal Funds for Research and Development: Fiscal Years 2000, 2001, and 2002* and other data, 2002; Population: U.S. Bureau of the Census; Federal Expenditures: U.S. Bureau of the Census, *Federal Expenditures by State for Fiscal Year 2000, 2001*; GSP: U.S. Department of Commerce, Bureau of Economic Analysis.

* - Rank among 50 states and District of Columbia.

Federal R&D to South Carolina by Agency
 FY 2000 (obligations in millions of dollars)
 Total: \$267 million

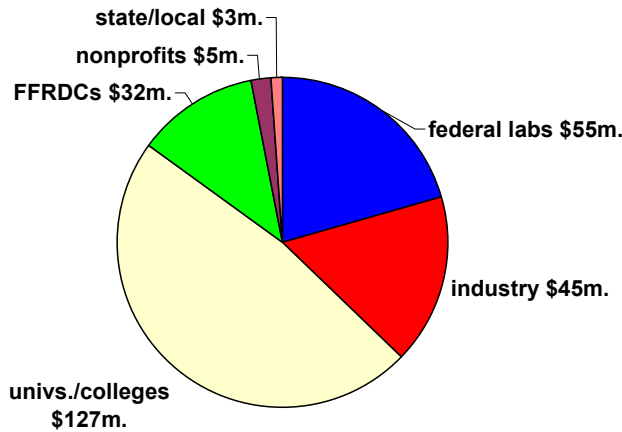


Source: National Science Foundation, Federal Funds for Research and Development, Fiscal Years 2000, 2001, and 2002, 2002.
 R&D = conduct of R&D and R&D plant.
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Chart 1.

Federal R&D to South Carolina by Performer
 FY 2000 (obligations in millions of dollars)
 Total: \$267 million



Source: National Science Foundation, Federal Funds for Research and Development, Fiscal Years 2000, 2001, and 2002, 2002.
 R&D = conduct of R&D and R&D plant.
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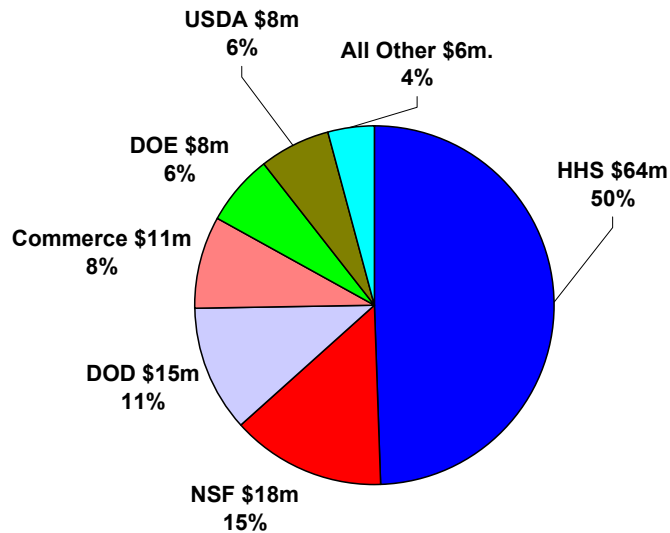


Chart 2.

Federal R&D to South Carolina Universities and Colleges

FY 2000 (obligations in millions of dollars)

Total: \$130 million



Source: National Science Foundation, *Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions, FY 2000, 2002.*
 R&D = conduct of R&D and R&D plant.
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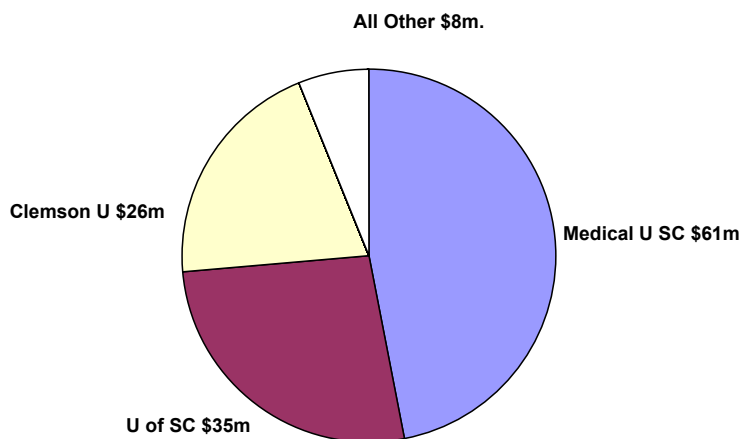


Chart 3.

Federal R&D to South Carolina Universities and Colleges

FY 2000 (obligations in millions of dollars)

Total: \$130 million

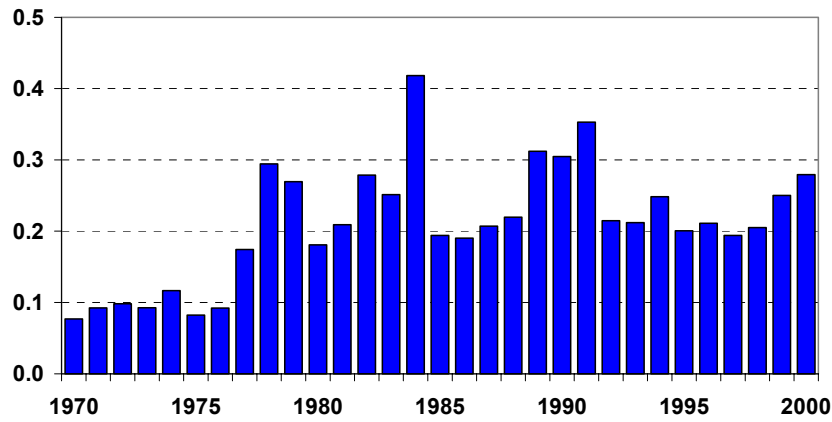


Source: National Science Foundation, *Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions, FY 2000, 2002.*
 R&D = conduct of R&D and R&D plant.
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Chart 4.

Federal R&D to South Carolina, FY 1970-2000
(billions of constant FY 2002 dollars)

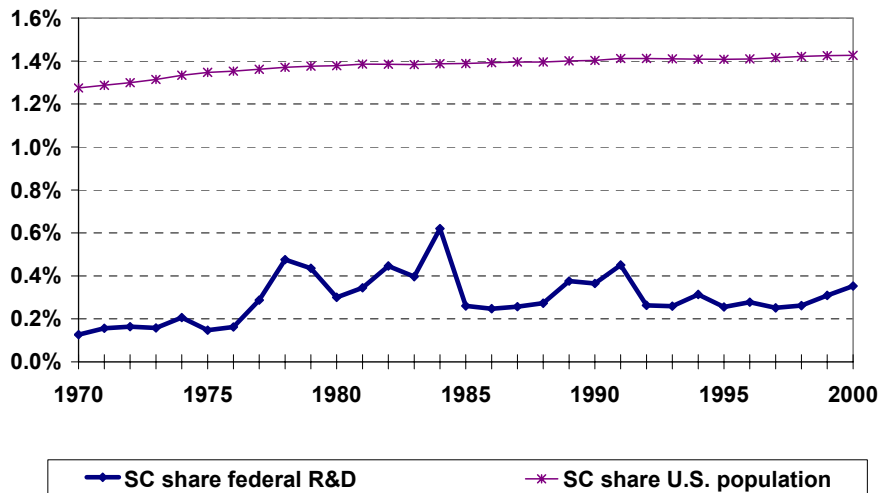


Source: National Science Foundation, Federal Funds for Research and Development Historical Tables, 2002.
R&D = conduct of R&D and R&D plan
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Chart 5.

South Carolina share of federal R&D, FY 1970-2000
(percent of total federal R&D)



Source: National Science Foundation, Federal Funds for Research and Development Historical Tables, 2002.
R&D = conduct of R&D and R&D plant.
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Chart 6.