



STATE R&D PROFILE

Rhode Island



**Federal R&D to Rhode Island by Agency and Performer,
Fiscal Year 2000**
(obligations in millions of dollars)

Performers	Agencies							TOTAL
	DOD	HHS	NSF	EPA	DOC	NASA	other	
Federal Labs	232	0	0	7	1	0	1	241
Industry	51	3	1	1	1	0	0	56
Univs. / Colleges	13	38	19	0	2	3	6	83
FFRDCs *	0	0	0	0	0	0	0	0
Nonprofits	0	39	1	0	0	1	0	40
State / Local Govts.	0	0	0	0	0	0	0	1
Total Rhode Island	297	80	21	9	4	4	7	421
U.S. Total	33,010	18,577	2,930	522	1,237	9,714	9,760	75,751
RI % of U.S.	0.9%	0.4%	0.7%	1.7%	0.3%	0.0%	0.1%	0.6%

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 - Rhode Island

- Rhode Island received \$421 million in federal R&D in FY 2000, 0.6 percent of the national total, which gives it a ranking of 28th among the 50 states and the District of Columbia. The state is home to 1.0 million people, or 0.4 percent of the total U.S. population (43rd in rank; see Facts and Rankings).

- Rhode Island ranks 8th in federal R&D per capita at \$401 per person in FY 2000, well above the national average of \$269.

- Of the federal R&D agencies in Rhode Island, DOD is by far the largest. In FY 2000, DOD's R&D obligations to the state totaled \$297 million, amounting to 71 percent of all federal funding (see Table 1 and Chart 2). HHS was a distant second with \$80 million.

- Most of the DOD funding went to federal labs in the state, a total of \$232 million in FY 2000, the majority of all federal R&D funds to the state (see Chart 2). The largest federal lab is the Newport division of the Naval Undersea Warfare Center (NUWC). NUWC's research focuses on developing undersea warfare technology, such as submarines, autonomous underwater systems, and other technologies of importance to naval defense. DOD also funds a large portion of the industrial R&D in Rhode Island. One major recipient is Textron of Providence, which develops and manufactures helicopters and other aircraft and propulsion systems for military and commercial use.

- Brown University is the state's leading research university, ranking 90th out of the top 100 university recipients of federal R&D with \$60 million in FY 2000. The majority of Brown's support comes from HHS (\$33 million), followed by NSF with \$13 million (see Table 2 and Chart 4).

- The University of Rhode Island received \$29 million in federal R&D funds in FY 2000, led by NSF at \$7 million. The university received 80 percent of its R&D funds from the federal government in FY 2000, compared to the national average of 58 percent (see Table 3).

- Rhode Island has several nonprofit hospitals which receive significant amounts of federal R&D funds. In FY 2000, the state's nonprofits received \$39 million in research funds from HHS, and \$1 million from other agencies (see Table 1 and Chart 2).

- Industrial firms are the largest supporters of R&D in Rhode Island. In 2000, two-thirds (\$1.0 billion) of all R&D performed in the state was funded by industry, similar to the national ratio. Of the \$1.5 billion total state R&D portfolio, industry performed \$1.1 billion, mostly with its own funds.

- Federal R&D funding to Rhode Island has come down in recent years from the highs reached during the height of the Cold War in the 1980s, when DOD R&D funds dominated the state's funding profile and from other upticks in DOD spending in several years of the 1990s. DOD cut back its R&D spending in the 1990s as the Cold War ended except for occasional one-year boosts for discrete projects (see Chart 5). Because of DOD cutbacks, the state's share of the total federal R&D portfolio has fallen from nearly 0.8 percent at the height of the Cold War down to just below 0.6 percent in FY 2000, though this is still above the state's 0.4 percent share of the U.S. population (see Chart 6).

Click on the charts to view or download full-size color PDF versions of these charts.

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

	HHS	NSF	DOD	other	TOTAL
Brown U (90)	33	13	9	5	60
U of RI (124)	5	7	4	13	29
All Other	0	0	0	0	0
Total Rhode Island	38	19	13	18	89
U.S. Total	10,533	2,475	1,832	2,689	17,529
RI % of U.S.	0.4%	0.8%	0.7%	0.7%	0.5%

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 Rhode Island 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
Brown U (111)	50	0	2	27	3	81	61.3%
U of RI (136)	39	4	1	4	0	48	80.1%
All Other	0	0	0	0	0	0	33.7%
Total Rhode Island	89	5	3	30	4	130	68.2%
U.S. Total	17,493	2,204	2,178	5,924	2,262	30,062	58.2%
RI % of U.S.	0.5%	0.2%	0.1%	0.5%	0.2%	0.4%	

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 Rhode Island 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	241	--	--	--	--	241
Industry **	56	1,034	--	--	--	1,090
Universities / Colleges	89	3	30	5	4	130
FFRDCs*	0	--	--	--	--	0
Nonprofits	40	--	--	--	--	40
Total Rhode Island	426	1,037	30	5	4	1,501
U.S. Total	66,208	182,622	6,210	2,257	7,320	264,617
RI % of U.S.	0.6%	0.6%	0.5%	0.2%	0.0%	0.6%

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.

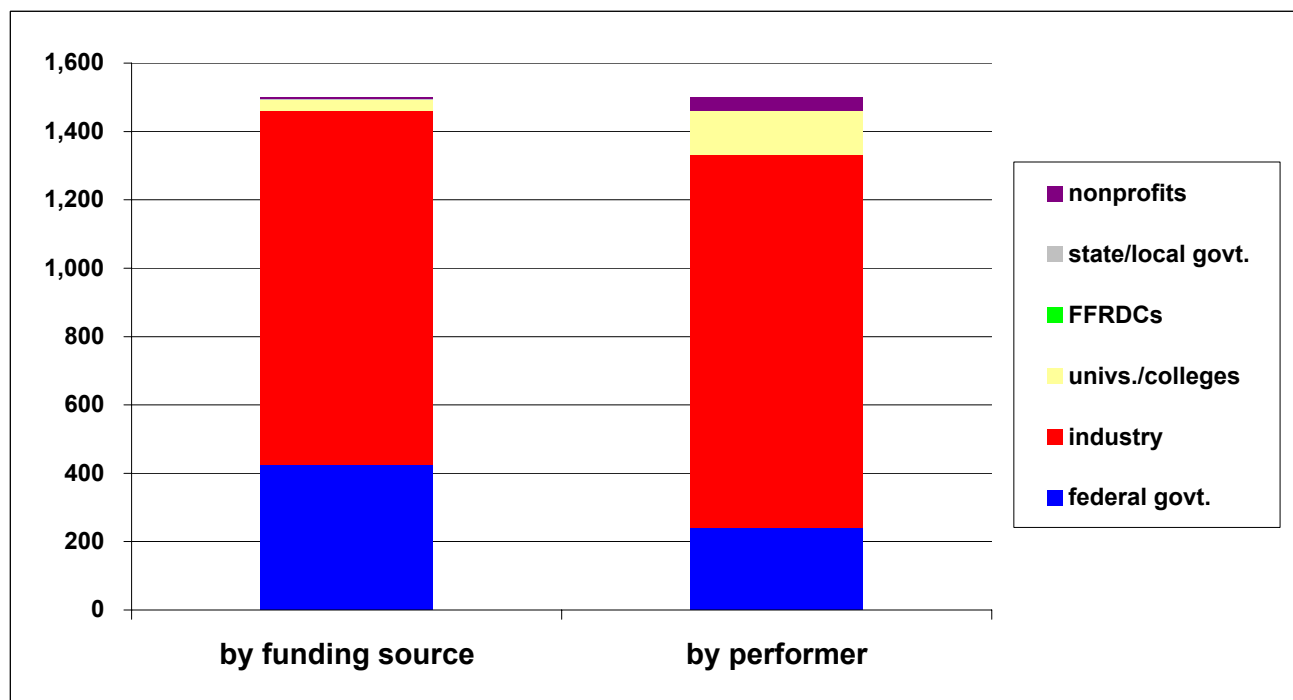
State and local government performance of R&D is not included.

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 Rhode Island by Funding Source and by Performer, 2000
expenditures in millions of dollars



Facts and Rankings for Rhode Island

	RI	U.S.	RI % of U.S.	Rank *
Total Federal R&D	421 million \$ ('00)	75,751	0.6%	28
Population	1.05 million ('00)	282.13	0.4%	43
Federal R&D Per Capita	\$ 401 ('00)	\$ 269	149.1%	8
Total Federal Expenditures	6,876 million \$ ('00)	1,637,170	0.4%	44
Federal R&D / Total Federal	6.1% ('00)	4.6%		11
Total R&D (all funds)	1,501 million \$ ('00)	264,616	0.6%	29
Total R&D Per Capita	\$ 1,429 ('00)	\$ 938	152.3%	11
Gross State Product (GSP)	36,453 million \$ ('00)	9,941,552	0.4%	43
GSP Per Capita	\$ 34,709 ('00)	\$ 35,238	98.5%	22
R&D Intensity (R&D / GSP)	4.12% ('00)	2.66%	154.9%	7

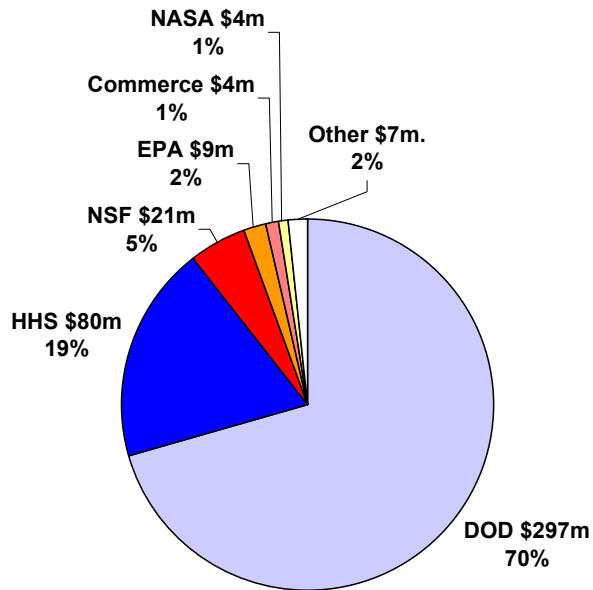
Source: Federal R&D: National Science Foundation, *Federal Funds for Research and Development: Fiscal Years 2000, 2001, and 2002* and other data, 2002; Population: U.S. Bureau of the Census; Federal Expenditures: U.S. Bureau of the Census, *Federal Expenditures by State for Fiscal Year 2000, 2001*; GSP: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

* - Rank among 50 states and District of Columbia.

Federal R&D to Rhode Island by Agency

FY 2000 (obligations in millions of dollars)

Total: \$421 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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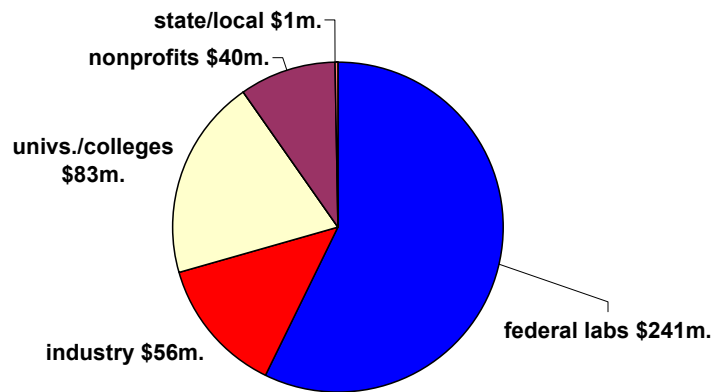


Chart 1.

Federal R&D to Rhode Island by Performer

FY 2000 (obligations in millions of dollars)

Total: \$421 million

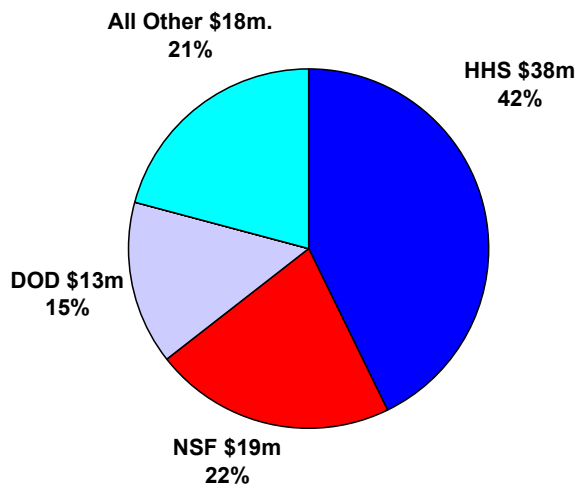


Source: National Science Foundation, Federal Funds for Research and Development, Fiscal Years 2000, 2001, and 2002, 2002.
 R&D = conduct of R&D and R&D plant.
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Chart 2.

Federal R&D to Rhode Island Universities and Colleges
 FY 2000 (obligations in millions of dollars)
 Total: \$89 million

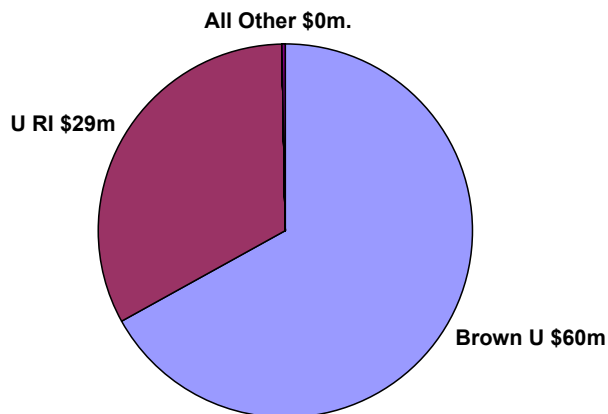


Source: National Science Foundation, *Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions, FY 2000, 2002.*
 R&D = conduct of R&D and R&D plant.
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Chart 3.

Federal R&D to Rhode Island Universities and Colleges
 FY 2000 (obligations in millions of dollars)
 Total: \$89 million

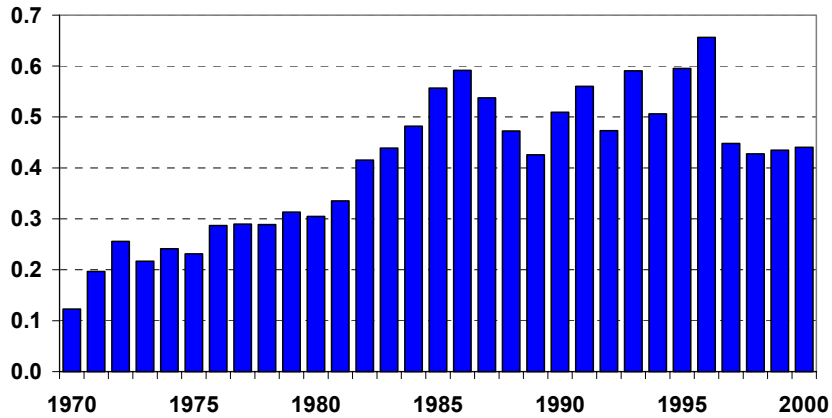


Source: National Science Foundation, *Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions, FY 2000, 2002.*
 R&D = conduct of R&D and R&D plant.
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Chart 4.

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

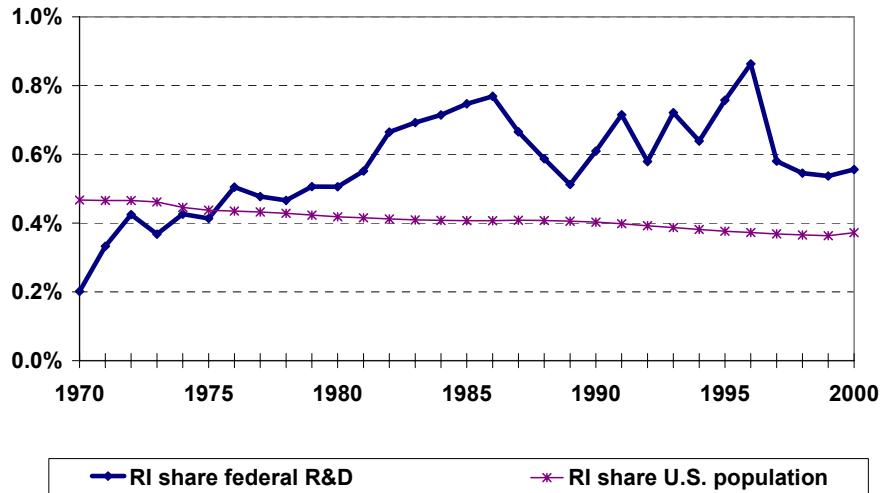


Source: National Science Foundation, Federal Funds for Research and Development Historical Tables, 2002.
R&D = conduct of R&D and R&D plan
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Chart 5.

Rhode Island 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.