



STATE R&D PROFILE

Louisiana



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

Performers	Agencies							TOTAL
	HHS	DOD	USDA	NSF	NASA	Interior	other	
Federal Labs	5	45	34	0	0	11	6	101
Industry	1	9	0	0	14	0	1	25
Univs. / Colleges	77	13	10	13	2	4	8	127
FFRDCs *	0	0	0	0	0	0	0	0
Nonprofits	2	0	0	0	0	0	0	2
State / Local Govts.	0	0	0	4	0	0	1	5
Total Louisiana	85	67	44	17	16	15	17	261
U.S. Total	18,577	33,010	1,830	2,930	9,714	579	9,110	75,751
LA % of U.S.	0.5%	0.2%	2.4%	0.6%	0.2%	2.6%	0.2%	0.3%

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 - Louisiana

- Louisiana received \$261 million in federal R&D in FY 2000, or 0.3 percent of the national total for a ranking of 35th among the 50 states and the District of Columbia. The state is home to 4.5 million, or 1.6 percent of the total U.S. population (22nd in rank; see Facts and Rankings).

- Louisiana ranks 47th in federal R&D per capita with \$58 per person in FY 2000, well below the national average of \$269.

- Louisiana 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. Louisiana 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.

- The federal government is the largest contributor to Louisiana's total R&D expenditures, providing about 40 percent of R&D funding. Industry is a close second, while universities and colleges and state and local governments also provide significant funding (see Table 4).

- Federal R&D is divided fairly evenly among several agencies, with HHS, DOD, and USDA and Interior comprising 75 percent of the total (see Table 1 and Chart 1).

- HHS is the largest federal source of R&D in Louisiana. The agency spent \$85 million in FY 2000, \$77 million of which went to universities and colleges.

- USDA directed 2.4 percent (\$44 million) of its R&D funding to Louisiana, to study the unique characteristics of the Mississippi Delta region and conduct forestry research. The bulk of these dollars went to the Southern Regional Research Center in New Orleans. The largest government lab in Louisiana, this center is one of four USDA centers around the country that specialize in research on crops indigenous to a specific region—in this case, cotton, rice, and peanuts.

- DOD R&D funding totaled \$67 million in FY 2000. This includes support for the U.S. Navy's National Biodynamics Laboratory, an integral part of the Naval Medical Research and Development Command, in New Orleans. The lab studies the effect of mechanical forces on the human body while on aircraft or naval vessels.

- The Department of the Interior also spent about 2.6 percent of its R&D budget in Louisiana, amounting to a total of \$15 million. Most of this money went to the Biological Resources Division of the U.S. Geological Survey (USGS). The National Wetlands Research Center in New Orleans is USGS's main clearinghouse for wetlands-related research. The Louisiana District Office of Water Resources, meanwhile, oversees R&D relating to the nation's surface and groundwater resources.

- Louisiana boasts two major research universities: Louisiana State University (LSU) and Tulane University. LSU, which is one of only 25 universities nationwide to hold both land-grant and sea-grant status, ranks 36th among all U.S. universities in total R&D expenditures with \$251 million (see Table 3). Of this total, 35.4 percent comes from federal funding, as compared with the national average of 58.2 percent. Tulane, meanwhile, spent \$90 million in FY 2000 on R&D, ranking it 103rd in the nation. Of that funding, 58.0 percent came from the federal government, and most of the remainder from industry and the institution itself.

- Louisiana's universities and colleges receive much of their federal R&D funding from HHS. HHS R&D funds make up 52 percent of federal funding to all universities and colleges in the state (see Table 2 and Chart 3).

- LSU funds several noteworthy R&D programs and centers, including the Louisiana Space Consortium (LaSPACE) managed through the LSU Department of Physics and Astronomy. LaSPACE is a NASA space grant program that helps fund aerospace R&D and education. In conjunction with LaSPACE, LSU

oversees a \$1 million NASA EPSCoR program. The university also boasts the Earth Scan laboratory at its Coastal Studies Institute, which is the nation's first satellite earth station established wholly by state funding.

- Total R&D performance in the state was \$627 million in 2000, \$272 million of which was funded by the federal government and \$151 million of which was funded by industry (see Table 4). Among industry R&D operations, Louisiana boasts the Exxon R&D Laboratories, which conduct research on technology for petroleum and synthetic fuels; the Dow Chemical Company's Louisiana R&D facility, specializing in polymer chemistry research; Vickers, which produces the Main Engine for the F-22 fighter; and McDermott International, a firm with expertise in chemical, mechanical and structural engineering.

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

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

	HHS	DOD	NSF	USDA	DOE	Int	other	TOTAL
LA State U (66)	40	20	8	8	2	3	5	85
Tulane U (113)	30	2	3	0	3	0	1	39
Southern U A&M	1	2	0	2	0	0	1	5
All Other	4	4	2	0	1	0	1	13
Total Louisiana	74	27	13	10	6	4	8	142
U.S. Total	10,533	1,832	2,475	564	696	88	1,341	17,529
LA % of U.S.	0.7%	1.5%	0.5%	1.7%	0.9%	4.2%	0.6%	0.8%

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 Louisiana 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
LA State U (36)	89	69	15	62	16	251	35.4%
Tulane U (103)	52	2	10	18	7	90	58.0%
U LA Lafayette (158)	12	2	0	9	9	33	37.2%
Southern U A&M	6	0	0	2	0	8	77.3%
All Other	10	2	0	5	0	17	58.8%
Total Louisiana	170	76	26	96	33	399	42.5%
U.S. Total	17,493	2,204	2,178	5,924	2,262	30,062	58.2%
LA % of U.S.	1.0%	3.4%	1.2%	1.6%	1.4%	1.3%	

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 Louisiana 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	99	--	--	--	--	99
Industry	1	125	--	--	--	126
Universities / Colleges	170	26	96	76	33	399
FFRDCs*	0	--	--	--	--	0
Nonprofits	2	--	--	--	--	2
Total Louisiana	272	151	96	76	33	627
U.S. Total	66,208	182,622	6,210	2,257	7,320	264,617
LA % of U.S.	0.4%	0.1%	1.5%	3.4%	0.4%	0.2%

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.

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.

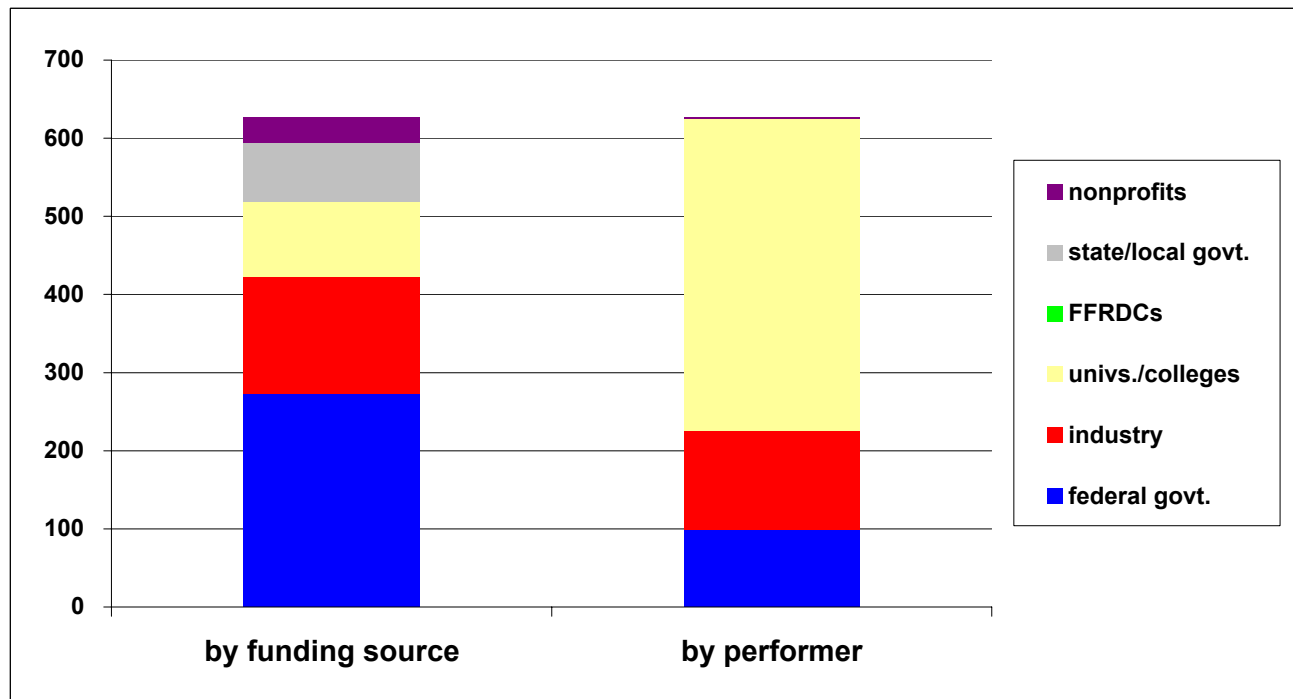
State and local government performance of R&D is not included.

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



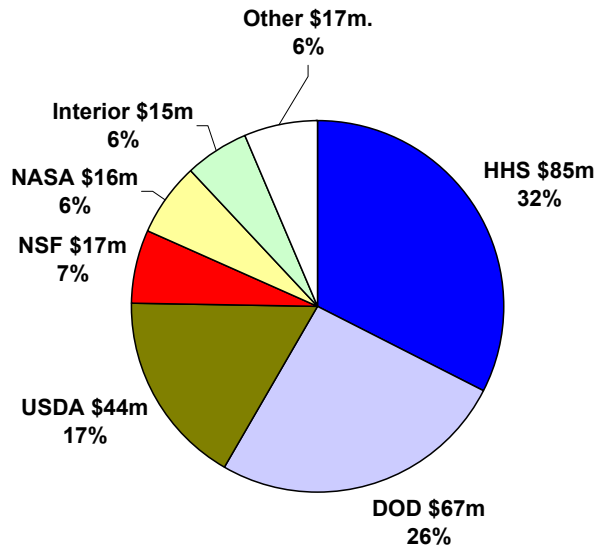
Facts and Rankings for Louisiana

	LA		U.S.	LA % of U.S.	Rank *
Total Federal R&D	261 million \$ ('00)		75,751	0.3%	35
Population	4.47 million ('00)		282.13	1.6%	22
Federal R&D Per Capita	\$ 58 ('00)		\$ 269	21.6%	47
Total Federal Expenditures	25,955 million \$ ('00)		1,637,170	1.6%	22
Federal R&D / Total Federal	1.0% ('00)		4.6%		47
Total R&D (all funds)	627 million \$ ('00)		264,616	0.2%	38
Total R&D Per Capita	\$ 140 ('00)		\$ 938	14.9%	49
Gross State Product (GSP)	137,700 million \$ ('00)		9,941,552	1.4%	24
GSP Per Capita	\$ 30,806 ('00)		\$ 35,238	87.4%	33
R&D Intensity (R&D / GSP)	0.46% ('00)		2.66%	17.3%	49

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 Louisiana by Agency
 FY 2000 (obligations in millions of dollars)
 Total: \$261 million

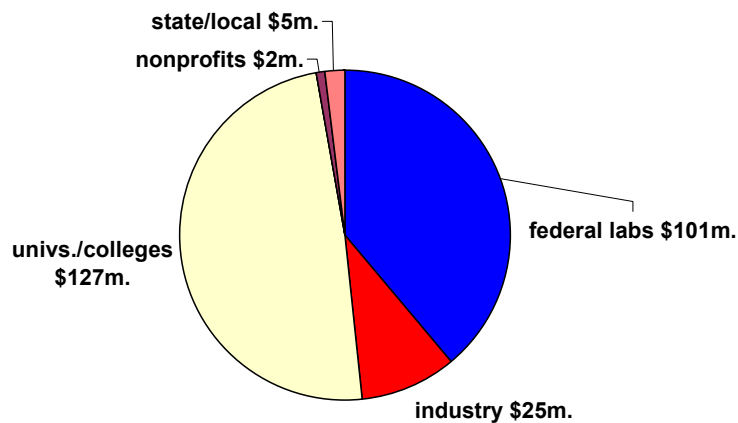


Source: National Science Foundation, Federal Funds for Research and Development, Fiscal Years 2000, 2001, and 2002, 2002.
 R&D = conduct of R&D and R&D plant.
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Chart 1.

Federal R&D to Louisiana by Performer
 FY 2000 (obligations in millions of dollars)
 Total: \$261 million

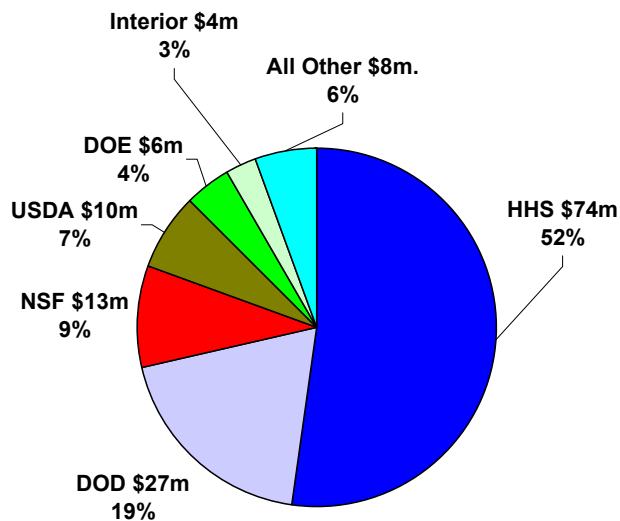


Source: National Science Foundation, Federal Funds for Research and Development, Fiscal Years 2000, 2001, and 2002, 2002.
 R&D = conduct of R&D and R&D plant.
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Chart 2.

Federal R&D to Louisiana Universities and Colleges
 FY 2000 (obligations in millions of dollars)
 Total: \$142 million

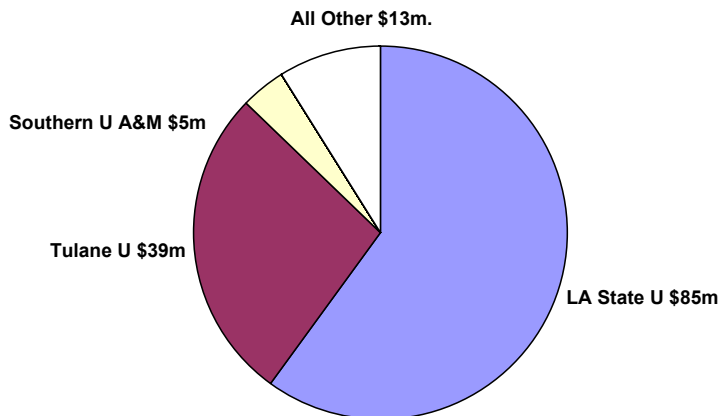


Source: National Science Foundation, *Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions, FY 2000, 2002.*
 R&D = conduct of R&D and R&D plant.
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Chart 3.

Federal R&D to Louisiana Universities and Colleges
 FY 2000 (obligations in millions of dollars)
 Total: \$142 million

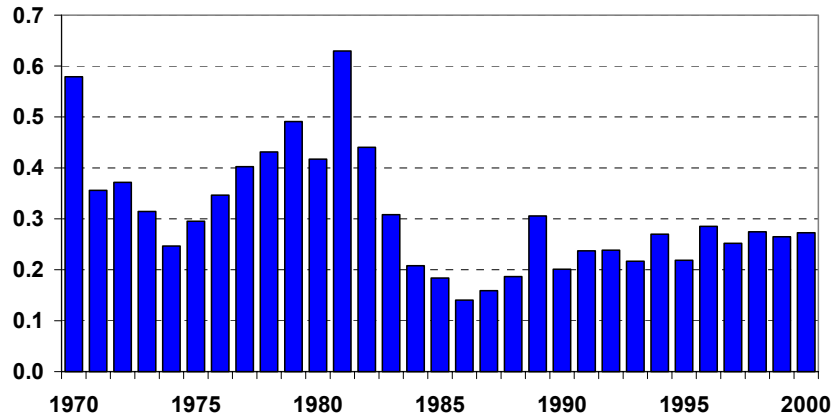


Source: National Science Foundation, *Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions, FY 2000, 2002.*
 R&D = conduct of R&D and R&D plant.
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Chart 4.

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

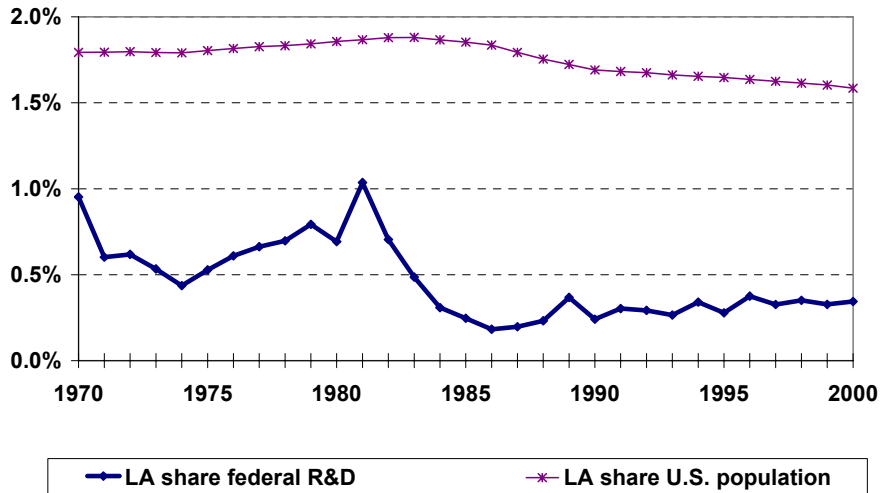


Source: National Science Foundation, Federal Funds for Research and Development Historical Tables, 2002.
R&D = conduct of R&D and R&D plant
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Chart 5.

Louisiana 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.