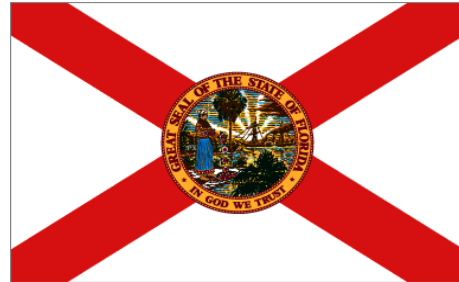




STATE R&D PROFILE

Florida



Federal R&D to Florida by Agency and Performer, Fiscal Year 2000

(obligations in millions of dollars)

Performers	Agencies							TOTAL
	DOD	NASA	HHS	NSF	USDA	DOC	other	
Federal Labs	345	183	0	0	31	33	26	618
Industry	1,182	213	12	1	0	4	6	1,418
Univs. / Colleges	46	21	205	74	19	7	16	387
FFRDCs *	0	0	0	0	0	0	0	0
Nonprofits	11	1	11	1	0	0	1	26
State / Local Govts.	3	0	1	0	0	1	1	6
Total Florida	1,587	418	228	76	50	44	50	2,455
U.S. Total	33,010	9,714	18,577	2,930	1,830	1,237	8,452	75,751
FL % of U.S.	4.8%	4.3%	1.2%	2.6%	2.7%	3.6%	0.6%	3.2%

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).

- AAAS R&D Budget and Policy Program
American Association for the Advancement of Science
1200 New York Ave, NW
Washington, DC 20005
(202) 326-6607
science_policy@aaas.org
www.aaas.org/spp/rd

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 - Florida

- Florida is one of the top recipients of federal R&D funding. The state received \$2.5 billion in federal R&D funding in FY 2000, which gives it a ranking of 8th among the 50 states and the District of Columbia. The state is home to 16 million people (4th in rank behind only California, New York, and Texas). Its gross state product in 2000 was \$472 billion (4th among the 50 states and DC; see Facts and Rankings).

- The Department of Defense (DOD) supplies almost two-thirds of Florida's federal R&D funds. DOD R&D obligations to the state, which totaled \$1.6 billion in FY 2000, account for 4.8 percent of DOD's total R&D funds to the nation (see Table 1 and Chart 1).

- The National Aeronautics and Space Administration (NASA) is the second-largest federal source of R&D funds in Florida. In FY 2000, \$418 million of NASA's R&D dollars went to Florida. NASA obligations to the state account for 4.3 percent of the agency's total R&D funds to the nation (see Table 1 and Chart 1).

- The Department of Health and Human Services (HHS) is the largest sponsor of R&D at Florida universities, providing \$203 million in FY 2000 (see Table 2 and Chart 3). The National Science Foundation (NSF) is second with total obligations of \$74 million, followed by DOD with \$67 million.

- Florida universities and colleges received a total of \$429 million in federal R&D funds in FY 2000 (see Table 2). Of all the federal R&D funds that went to the nation's universities in FY 1998, 2.4 percent went to schools in the state of Florida. Four Florida schools are ranked among the top 100 university recipients of federal R&D (see Table 2 and Chart 4): the University of Florida (41st, \$131 million), the University of Miami (49th, \$116 million), Florida State (95th, \$52 million), and the University of Central Florida (96th, \$51 million).

- The primary federal sponsor of R&D for the University of Florida is HHS, which allocated \$70 million in FY 2000, more than half of the total federal R&D funds that went to the university. The National Science Foundation (NSF) is the second largest source with \$20 million and the U.S. Department of Agriculture (USDA) is the third source of federal R&D funds, providing \$16 million in FY 2000. The University of Florida is a land-grant research university and the 6th largest university recipient of USDA R&D funds.

- The University of Miami also relies significantly on HHS for R&D funds, receiving \$87 million in FY 2000, 75 percent of the total federal R&D dollars that went to the university. Most of this funding is from the National Institutes of Health (NIH) to support medical research at the School of Medicine.

- Florida State University received a total of \$52 million in FY 2000, of which NSF provided \$28 million, most of which went to the National High Magnetic Field Laboratory in Tallahassee, a consortium that includes the University of Florida and Los Alamos National Laboratory as partners.

- Industrial firms in the state of Florida are the top performers of federal R&D, receiving \$1.2 billion in federal R&D funds in FY 2000, or more than half of the total federal R&D portfolio that went to the state (see Table 1 and Chart 2).

- DOD is the largest source of federal R&D dollars to industrial firms and account for 83 percent (\$1.2 billion) of the \$1.4 billion that went to the private sector in FY 2000. Major DOD contractors include United Technologies Corporation's Pratt and Whitney division for the Joint Strike Fighter development; Lockheed Martin Corporation, Primex Technologies, Northrop Grumman, the Boeing Company, and Coleman Research Corporation. The industrial R&D conducted in Florida closely reflects the state's long association with military and civil aerospace research.

- Industry plays an even larger role in Florida's total R&D portfolio. Florida's R&D from all funding sources totaled \$4.7 billion in 2000, of which \$2.8 billion was financed with industry's own funds. Adding in federal R&D performed by industry, industrial firms performed \$3.2 billion or 69 percent of all R&D in Florida (see Table 4 and accompanying chart).

- Federal laboratories received \$618 million in FY 2000, a quarter of the state's federal R&D funds. The majority of funds that went to federal laboratories in Florida came from DOD, which provided federal R&D obligations of \$345 million to its own labs in FY 2000. Of the many military locations scattered throughout Florida, those focused on R&D activities are the Air Force Development Test Center and the Air Force Research Laboratory Munitions Directorate.

- Not surprisingly, NASA was the second largest source of funds for federal laboratories with \$183 million going to R&D at the Kennedy Space Flight Center, next to the Cape Canaveral launch facility where all Space Shuttles are launched. R&D conducted at Kennedy include investments in the Reusable Launch Vehicle (RLV) program, development of the International Space Station, and support activities in the areas of mission operations and payload integration for earth science, life and microgravity sciences, and planetary science missions.

- Federal R&D funding to Florida has fluctuated widely over the past three decades because of the ups and downs of large NASA and DOD R&D projects starting and finishing (see Chart 5). Since the early 1980s, Florida's share of federal R&D has lagged behind the state's booming population, and now receives a smaller share of federal R&D than its 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 Florida Universities and Colleges,
Fiscal Year 2000**
(obligations in millions of dollars)

	HHS	NSF	DOD	DOE	NASA	USDA	other	TOTAL
U of Florida (41)	70	20	15	5	3	16	3	131
U of Miami (49)	87	11	7	1	5	0	4	116
FL State U (95)	10	28	4	6	2	0	2	52
U South FL (96)	24	3	19	0	2	1	2	51
U Central FL (142)	1	4	8	2	1	0	7	22
FL Int'l U (154)	5	3	3	7	1	0	1	18
FL A&M U (172)	2	2	1	2	4	3	0	14
FL Atlantic U (177)	2	1	8	0	1	0	0	12
All Other	1	2	3	1	3	0	2	12
Total Florida	203	74	67	22	21	21	21	429
U.S. Total	10,533	2,475	1,832	696	872	564	557	17,529
FL % of U.S.	1.9%	3.0%	3.7%	3.2%	2.4%	3.6%	3.8%	2.4%

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 Florida 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
U of Florida (26)	120	68	35	82	9	314	38.4%
U of Miami (74)	107	1	17	6	15	146	73.1%
U of South FL (75)	51	7	11	65	12	145	34.8%
FL State U (92)	57	4	1	40	3	105	54.1%
U Central FL (139)	14	7	6	21	0	48	29.0%
FL Int'l U (155)	20	9	2	3	0	35	58.6%
FL A&M U (190)	16	5	0	0	0	22	75.3%
All Other	24	2	8	3	1	38	63.2%
Total Florida	409	103	79	221	40	852	48.0%
U.S. Total	17,493	2,204	2,178	5,924	2,262	30,062	58.2%
FL % of U.S.	2.3%	4.7%	3.6%	3.7%	1.8%	2.8%	

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 Florida 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	573	--	--	--	--	573
Industry	498	2,714	--	--	--	3,212
Universities / Colleges	409	79	221	103	40	852
FFRDCs*	0	--	--	--	--	0
Nonprofits	26	--	--	--	--	26
Total Florida	1,506	2,793	221	103	40	4,663
U.S. Total	66,208	182,622	6,210	2,257	7,320	264,617
FL % of U.S.	2.3%	1.5%	3.6%	4.6%	0.5%	1.8%

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.

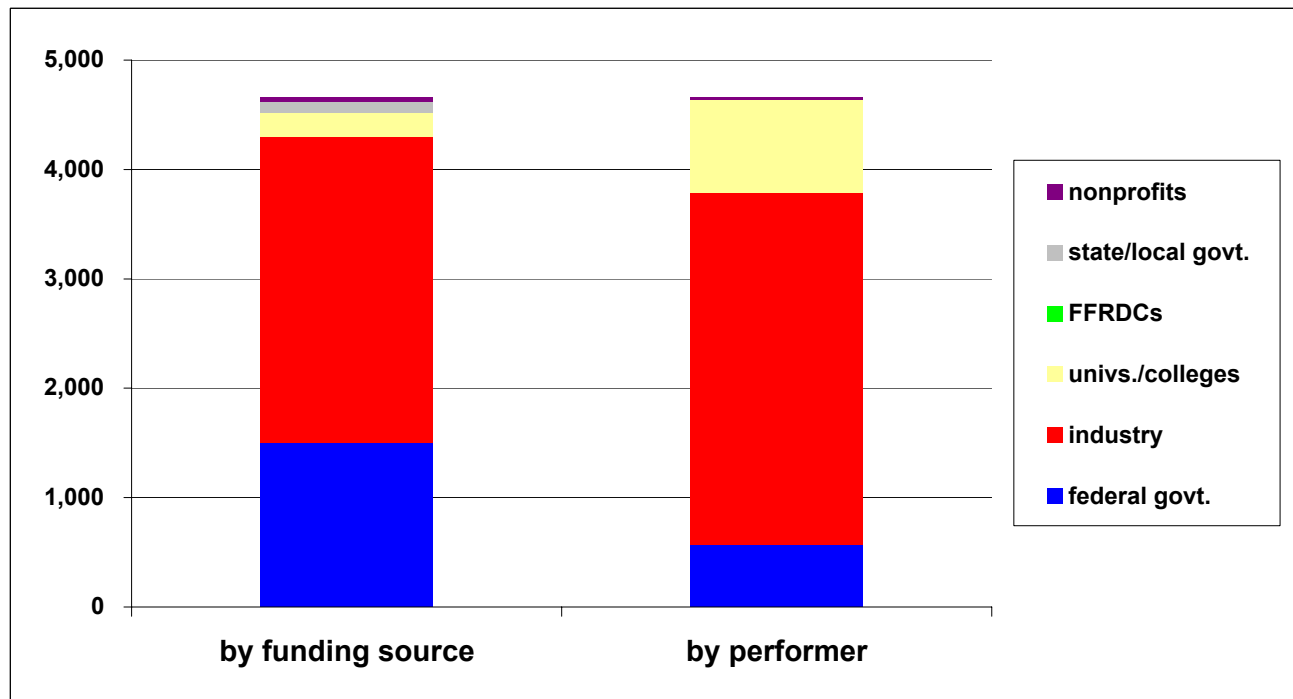
State and local government performance of R&D is not included.

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



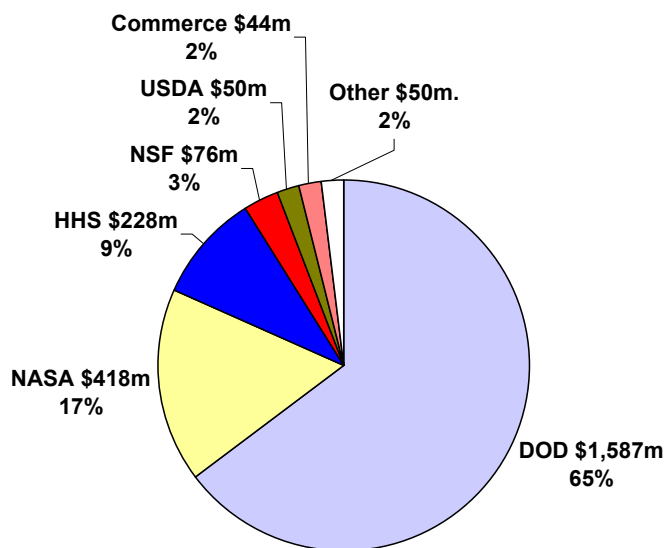
Facts and Rankings for Florida

	FL		U.S.	FL % of U.S.	Rank *
Total Federal R&D	2,455 million \$ ('00)		75,751	3.2%	8
Population	16.05 million ('00)		282.13	5.7%	4
Federal R&D Per Capita	\$ 153 ('00)		\$ 269	56.9%	26
Total Federal Expenditures	92,776 million \$ ('00)		1,637,170	5.7%	4
Federal R&D / Total Federal	2.6% ('00)		4.6%		26
Total R&D (all funds)	4,663 million \$ ('00)		264,616	1.8%	15
Total R&D Per Capita	\$ 290 ('00)		\$ 938	30.9%	36
Gross State Product (GSP)	472,105 million \$ ('00)		9,941,552	4.7%	4
GSP Per Capita	\$ 29,407 ('00)		\$ 35,238	83.5%	40
R&D Intensity (R&D / GSP)	0.99% ('00)		2.66%	37.2%	36

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 Florida by Agency
 FY 2000 (obligations in millions of dollars)
 Total: \$2.5 billion

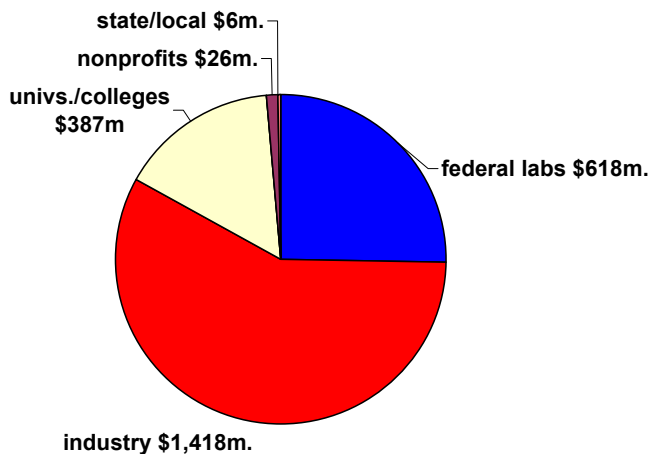


Source: National Science Foundation, Federal Funds for Research and Development, Fiscal Years 2000, 2001, and 2002, 2002.
 R&D = conduct of R&D and R&D plant.
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Chart 1.

Federal R&D to Florida by Performer
 FY 2000 (obligations in millions of dollars)
 Total: \$2.5 billion

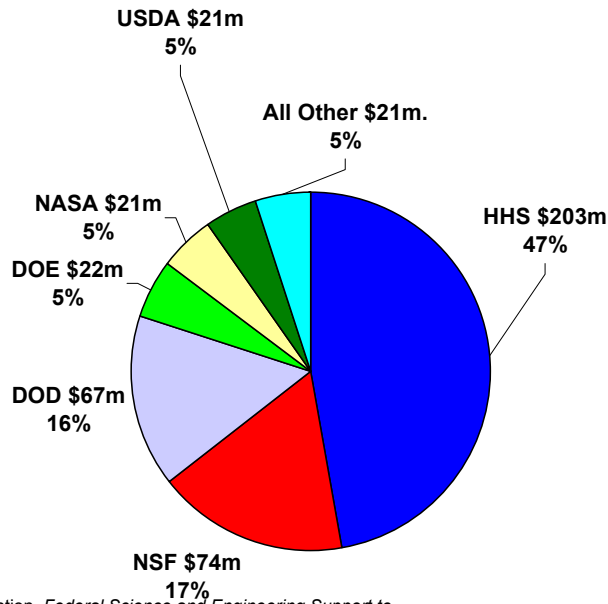


Source: National Science Foundation, Federal Funds for Research and Development, Fiscal Years 2000, 2001, and 2002, 2002.
 R&D = conduct of R&D and R&D plant.
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Chart 2.

Federal R&D to Florida Universities and Colleges
 FY 2000 (obligations in millions of dollars)
 Total: \$429 million

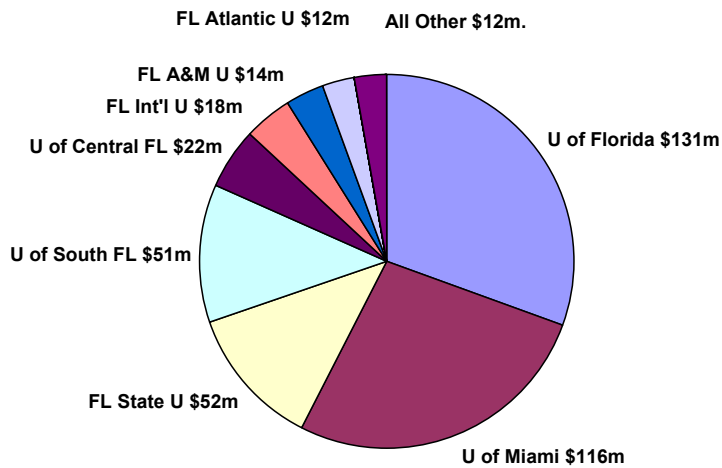


Source: National Science Foundation, *Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions, FY 2000, 2002.*
 R&D = conduct of R&D and R&D plant.
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Chart 3.

Federal R&D to Florida Universities and Colleges
 FY 2000 (obligations in millions of dollars)
 Total: \$429 million

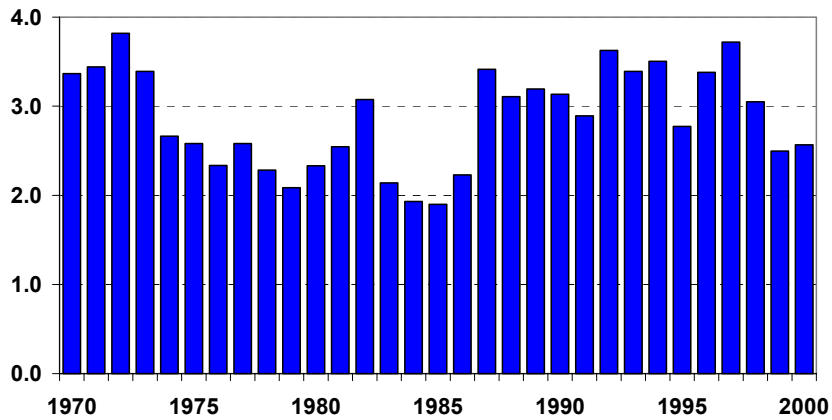


Source: National Science Foundation, *Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions, FY 2000, 2002.*
 R&D = conduct of R&D and R&D plant.
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Chart 4.

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

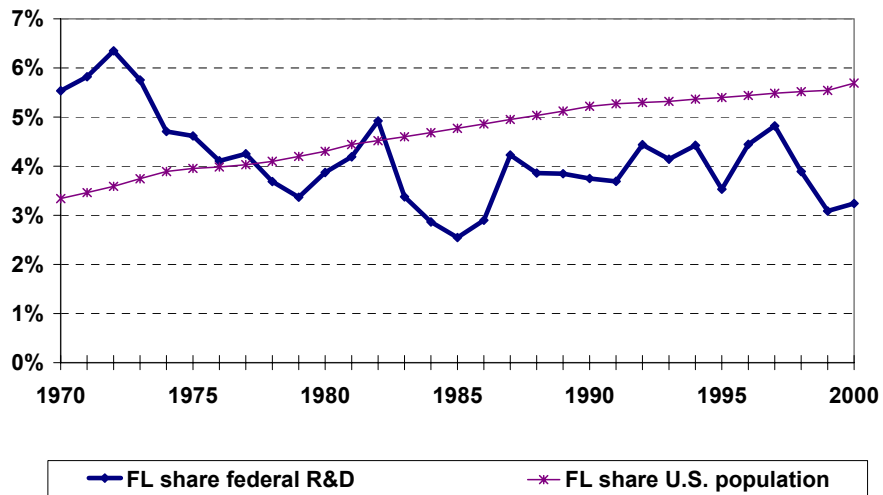


Source: National Science Foundation, Federal Funds for Research and Development Historical Tables, 2002.
R&D = conduct of R&D and R&D plan
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Chart 5.

Florida 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.