

UNIVERSITY OF COLORADO SYSTEM

Boulder • Colorado Springs • Denver

Office of the Vice President for Budget and Finance

University of Colorado 2009 Sponsored Research Report

Prepared by the University of Colorado System Office of Institutional Research

May 2010

lable of	Contents	Page
Foreword		2
Report High	nlights	3
Section I	Fiscal Year 2009 Sponsored Research Awards	4
Table 1.1	University of Colorado Sponsored Research Awards, FY 1999 - FY 2009	5
Table 1.2	University of Colorado Sponsored Research Awards by Source, FY 2009	6
Table 1.3	University of Colorado at Boulder, FY 2009 Sponsored Research Awards by Academic Unit	7
Table 1.4	University of Colorado at Colorado Springs, FY 2009 Sponsored Research Awards by Academic Unit	8
Table 1.5	University of Colorado Denver, FY 2009 Sponsored Research Awards by Academic Unit	9
Figure 1.1	CU Research Awards, FY 1999 - FY 2009	5
Figure 1.2	CU Research Awards by Funding Source, FY 2009	6
Section II	Fiscal Year 2008 University of Colorado Science and Engineering Research & Development Expenditures, National Science Foundation (NSF) Rankings	10
Table 2.1	Federally Financed R&D Expenditures in Science and Engineering Fields, FY 2008, Top 20 Colleges and Universities	11
Table 2.2	Federally Financed R&D Expenditures at Public Universities and Colleges, Top 20 Ranked by Science and Engineering Field, FY 2008	12
Table 2.3	Total R&D Expenditures in Science and Engineering Fields by Funding Source, Top 100 Public Universities and Colleges Ranked by FY 2008 Total Expenditures	14
Table 2.4	Federally Financed R&D Expenditures in Science and Engineering Fields, FY 2003 - FY 2008, Top 20 Public Universities and Colleges (based on FY 2008 Rankings)	16
Figure 2.1	Federally Financed R&D Expenditures, Top 20 Public Universities and Colleges Ranked by Percent Change FY 2003 - FY 2008	16

Foreward

In Section I, sponsored research awards refer to contracts and grants awarded to CU faculty. Many are multiyear contracts, some of which are only partially accounted for in research and development expenditures reported for one year. In this report, "sponsored research awards" is used broadly to include all sponsored projects.

Section II is based on data from a National Science Foundation survey of research and development expenditures in science and engineering fields. This survey collects data on expenditures by universities and colleges for separately budgeted research and development (R&D). NSF data are typically one or more years behind the data available in Section I.

NSF Survey Definitions:

Research and Development (R&D). R&D for purposes of this survey is the same as "organized research" as defined in Section B.1.b. of OMB Circular A-21 (revised). It includes all R&D activities of an institution that are separately budgeted and accounted for. R&D includes both sponsored research activities (sponsored by Federal and non-Federal agencies and organizations) and university research (separately budgeted under an internal application of institutional funds). Current fund expenditures are expenditures of funds available for current operations. Such expenditures include all unrestricted gifts and restricted current funds to the extent that such funds were expended for current operating purposes.

Research is systematic study directed toward fuller knowledge or understanding of the subject studied. Research is classified as either basic or applied, according to the objectives of the investigator.

Development is systematic use of the knowledge or understanding gained from research, directed toward the production of useful materials, devices, systems, or methods, including design and development of prototypes and processes.

Current fund expenditures. These are expenditures of funds available for current operations. Such expenditures include all unrestricted gifts and restricted current funds to the extent that such funds were expended for current operating purposes.

Report Highlights

Section I: Fiscal Year 2009 Sponsored Research Awards

- In 2008, CU attracted \$713.5 million in sponsored research awards, 8% more than the previous year and the highest level of funding yet.
- Federal funding represented 67% of all research funding in 2009.
- Research funding at CU-Boulder reached a historic high in 2009 of \$339.7 million.
- Research funding at the Colorado Springs campus has grown rapidly over the last ten years, increasing from \$2.3 million to \$8.7 million.
- UC Denver (including the Anchutz Medical Campus) attracted more than \$365 million in research funding in 2009.

Section II: Fiscal 2008 University of Colorado R&D Expenditures as reported to and ranked by the National Science Foundation (NSF)

- OU placed 8th among public universities and colleges in terms of 2008 federally financed research expenditures in science and engineering fields. Rankings for specific disciplines include:
- 2nd Physical Sciences
- 5th Psychology
- 5th Environmental Sciences
- 12th Life Sciences
- 24th Math and Computer Sciences
- 27th Engineering
- 36th Social Sciences

Section I: Fiscal Year 2009 Sponsored Research Awards

Table 1.1 University of Colorado Sponsored Research Awards FY 1999 - FY 2009

Awards Granted by Campus [in Millions]

												% Change
Campus	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	1999-2009
Boulder	\$204.3	\$214.2	\$219.0	\$229.0	\$250.4	\$259.7	\$257.6	\$256.4	\$266.1	\$280.0	\$339.7	66.3%
Colorado Springs	\$2.3	\$3.0	\$2.7	\$1.9	\$5.2	\$6.2	\$8.7	\$10.3	\$7.9	\$9.2	\$8.7	278.3%
Denver	\$213.8	\$242.7	\$276.7	\$314.9	\$305.3	\$322.5	\$364.0	\$373.3	\$363.4	\$371.5	\$365.1	70.8%
Total	\$420.4	\$420.4	\$459.9	\$498.4	\$545.8	\$560.9	\$588.4	\$630.3	\$640.0	\$637.4	\$713.5	69.7%

Awards Granted by Funding Source [in Millions]

												% Change
Source	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	1999-2009
Federal	\$309.9	\$341.7	\$366.4	\$405.0	\$436.4	\$446.0	\$461.0	\$454.9	\$435.7	\$457.7	\$476.5	53.8%
Non-Federal	\$110.5	\$118.2	\$132.0	\$140.8	\$124.5	\$142.4	\$169.3	\$185.1	\$201.7	\$203.0	\$237.0	114.5%
Total	\$420.4	\$459.9	\$498.4	\$545.8	\$560.9	\$588.4	\$630.3	\$640.0	\$637.4	\$660.7	\$713.5	69.7%

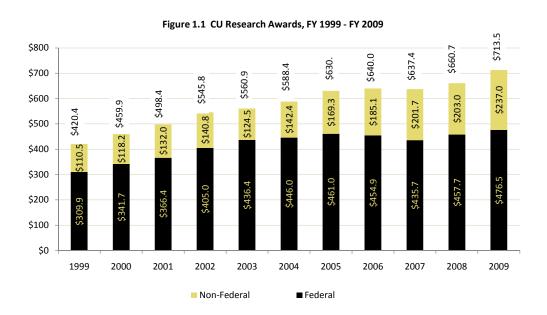


Table 1.2 University of Colorado Sponsored Research Awards by Source, FY 2009 (In Millions of Dollars)

							Denver		
	Boulder		lavada Cuvinsa	,			Anschutz	LICO T-+-I	Ciltotal
	Boulder	Co	lorado Springs		Denver Campus	IV	ledical Campus	UCD Total	CU total
Federal	\$ 253,134,893	\$	3,944,758	\$	15,502,041	\$	203,944,950	\$ 219,446,990	\$ 476,526,641
Commerce	\$ 36,559,983	\$	-	\$	-	\$	-	\$ -	\$ 36,559,983
Veterans Affairs		\$	-	\$	62,861	\$	6,300,640	\$ 6,363,501	\$ 6,363,501
Defense	\$ 11,788,521	\$	114,491	\$	575,582	\$	2,167,084	\$ 2,742,666	\$ 14,645,678
Energy	\$ 8,497,165	\$	-	\$	698,000	\$	-	\$ 698,000	\$ 9,195,165
Health and Human Services	\$ 46,306,577	\$	406,671	\$	510,438	\$	29,869,517	\$ 30,379,955	\$ 77,093,204
NASA	\$ 73,281,662	\$	186,454	\$	-	\$	354,285	\$ 354,285	\$ 73,822,401
Education	\$ 5,678,247	\$	1,537,898	\$	3,276,531	\$	2,187,069	\$ 5,463,600	\$ 12,679,745
National Science Foundation	\$ 60,269,826	\$	690,578	\$	5,237,415	\$	971,972	\$ 6,209,387	\$ 67,169,791
Other Federal	\$ 10,752,912	\$	1,008,666	\$	5,141,214	\$	162,094,382	\$ 167,235,596	\$ 178,997,174
Non-Federal	\$ 86,549,868	\$	4,736,633	\$	7,290,878	\$	138,405,410	\$ 145,696,288	\$ 236,982,789
Total	\$ 339,684,761	\$	8,681,391	\$	22,792,919	\$	342,350,360	\$ 365,143,278	\$ 713,509,430

Figure 1.2 CU Research Awards by Funding Source, FY 2009

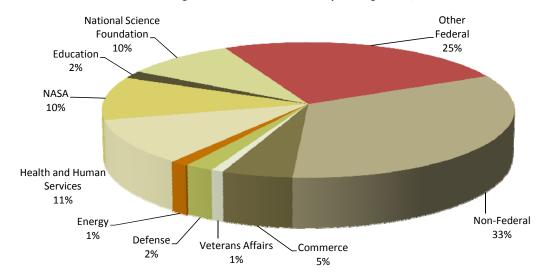


Table 1.3 University of Colorado at Boulder
Sponsored Research Awards by Academic Unit

Academic Unit	FY 2009
Academic Affairs	\$3,501,695
	\$28,000
Continuing Education	1
Library Student Affairs	\$30,446
	\$1,590,051
Leeds School of Business	\$3,578,699
School of Education	\$6,268,927
School of Law	\$210,000
College of Arts & Sciences	\$79,480,488
Administration	\$182,970
Advanced Res & Training, Center for	\$267,968
Anthropology	\$182,970
Applied Math Prog.	\$2,607,171
APS - CASA	\$9,498,492
Asian Studies, Center for	\$1,513,858
Chemistry & Biochemistry	\$17,821,163
East Asian Languages & Civilization	\$296,558
Ecology & Evolutionary Biology	\$2,314,381
Economics	\$99,000
Geography	\$1,075,554
Geological Sciences	\$1,973,445
History	\$39,500
Integrated Plasma Studies, Center for (CIPS)	\$1,679,903
Integrative Physiology	\$2,739,576
Linguistics	\$83,084
Mathematics	\$329,774
MCD Biology	\$17,242,523
Physics	\$7,727,657
Political Science	\$187,642
Prog. Atmos/Oceanic Science	\$801,791
Psychology	\$9,907,506
Other	\$908,002
College Engineering & Applied Science	\$57,743,667
Aerospace Engineering Sciences	\$11,341,449
Chemical & Biological Engineering	\$14,829,691
Civil, Environmental & Arch Engineering	\$7,554,664
Computer Science	\$6,316,230
Electrical & Computer Engineering	\$8,573,859
Mechanical Engineering	\$8,123,148
Colorado Space Grant Consortium	\$717,781
Integrated Teaching & Learning Lab (ITLL)	\$286,845
Graduate School & Research Institutes	\$187,249,288
Graduate School	\$2,635,661
Museum	\$1,489,794
Limb Atmospheric Sounding, Center for	\$1,489,794
Coop Inst. For Res in Environmental Sci	\$792,000
Institute for Behavioral Genetics	\$53,570,667
Institute for Benavioral Genetics Institute of Arctic & Alpine Research	
'	\$9,856,439
Institute of Behavioral Sciences	\$18,659,064
Institute of Cognitive Science	\$3,077,113
JILA	\$18,674,236
Lab for Atmospheric & Space Physics	\$66,867,740
Other	\$3,500
Total	\$339,684,761

Table 1.4 University of Colorado at Colorado Springs
Sponsored Research Awards by Academic Unit

Academic Unit	FY 2009
Vice Chancellor Academic Affairs	\$967,327
Vice Chancellor Student Success	\$84,857
Vice Chancellor Administration & Finance	\$87,374
College of Business	\$140,425
College of Engineering & Applied Science	\$1,648,585
College of Letters, Arts & Sciences	\$2,592,556
College of Education	\$2,590,437
School of Public Affairs	\$37,491
BethEl Nursing & Health Sciences	\$531,839
Joint Depts/Other	\$500
Total	\$8,681,391

Table 1.5 University of Colorado Denver
Sponsored Research Awards by Academic Unit

Academic Unit	FY 2009
Office of the Chancellor/Vice Chancellors	\$ 8,814,402
College of Architecture and Planning	\$ 1,365,467
College of Arts and Media	\$ 698,495
School of Education and Human Development	\$ 4,576,867
College of Engineering and Applied Science	\$ 1,779,845
College of Liberal Arts and Sciences	\$ 5,637,734
School of Public Affairs	\$ 1,457,809
School of Medicine	\$ 313,498,414
Dean, School of Medicine	\$ 15,442,695
Anesthesiology	\$ 2,115,065
Biochem/Biophysics/Gen.	\$ 6,076,408
Cellular & Structural Bio.	\$ 4,817,851
Dermatology	\$ 4,499,606
Family Medicine	\$ 7,416,207 \$ 3,879,455
Immunology	\$ 3,879,455
Medicine	\$ 70,335,358
Microbiology	\$ 6,683,003
Neurology	\$ 8,618,500
Neuro Surgery	\$ 1,311,211
Obstetrics/Gynecology	\$ 4,173,185
Orthopedics	\$ 1,934,842
Otolaryngology	\$ 1,438,166 \$ 10,005,714
Pathology	\$ 10,005,714
Pediatrics	\$ 43,474,703
Pharmacology	\$ 15,349,341
Physiology	\$ 3,950,525
Psychiatry	\$ 44,052,500
Radiation Oncology	\$ 1,315,378
Rehabilitation Medicine	\$ 2,643,033
Surgery	\$ 7,208,335
Other	\$ 46,757,333
School of Dentistry	\$ 4,374,292
School of Nursing	\$ 2,732,268
School of Public Health	\$ 7,791,803
School of Pharmacy	\$ 12,415,882
Total	\$ 365,143,278

ection II: Fiscal Year 2008 University of Colorado R&D Expenditures lational Science Foundation (NSF) Rankings	ij,

Table 2.1 National Science Foundation Research Expenditure Rankings Federally Financed R&D Expenditures FY 2008
Top 20 Universities and Colleges

Public Universities	Rank	Federal Expenditures [in thousands]	All Universities	Rank	Federal Expenditures [in thousands]
U. Washington	1	\$614,069	Johns Hopkins U.	1	\$1,425,100
U. Michigan all campuses	2	\$592,768	U. Washington	2	\$614,069
U. California, San Diego	3	\$490,963	U. Michigan all campuses	3	\$592,768
U. Wisconsin, Madison	4	\$474,440	Stanford U.	4	\$509,477
U. California, San Francisco	5	\$472,642	Massachusetts Institute of Technology	5	\$495,008
U. California, Los Angeles	6	\$471,932	U. California, San Diego	6	\$490,963
U. Pittsburgh all campuses	7	\$456,172	U. Pennsylvania	7	\$482,321
U. Colorado all campuses	8	\$437,393	U. Wisconsin Madison	8	\$474,440
Pennsylvania State U. all campuses	9	\$406,528	U. California, San Francisco	9	\$472,642
U. North Carolina Chapel Hill	10	\$373,098	U. California, Los Angeles	10	\$471,932
U. Minnesota all campuses	11	\$364,137	Columbia U.	11	\$461,029
Ohio State U. all campuses	12	\$335,121	U. Pittsburgh all campuses	12	\$456,172
U. Texas Austin	13	\$324,287	Duke U.	13	\$451,317
U. Alabama Birmingham, The	14	\$303,084	U. Colorado all campuses	14	\$437,393
Georgia Inst. of Technology all campuses	15	\$281,184	Pennsylvania State U. all campuses	15	\$406,528
U. Arizona	16	\$277,897	Washington U. St. Louis	16	\$393,918
U. California, Davis	17	\$268,957	Harvard U.	17	\$383,330
U. Illinois Urbana-Champaign	18	\$266,912	Yale U.	18	\$374,551
U. California, Berkeley	19	\$249,163	U. North Carolina Chapel Hill	19	\$373,098
Texas A & M	20	\$245,607	U. Minnesota all campuses	20	\$364,137

Table 2.2 Federally Financed R&D Expenditures at Public Universities and Colleges Top 20 Ranked by Science and Engineering Field, FY 2008

(includes only institutions among Top 150 in total federal R&D expenditures) [Dollars in Thousands]

	Overall						
1	U. Washington	\$614,069					
2	U. Michigan all campuses	\$592,768					
3	U. California, San Diego	\$490,963					
4	U. Wisconsin, Madison	\$474,440					
5	U. California, San Francisco	\$472,642					
6	U. California, Los Angeles	\$471,932					
7	U. Pittsburgh all campuses	\$456,172					
8	U. Colorado all campuses	\$437,393					
9	Pennsylvania State U. all campuses	\$406,528					
10	U. North Carolina Chapel Hill	\$373,098					
11	U. Minnesota all campuses	\$364,137					
12	Ohio State U. all campuses	\$335,121					
13	U. Texas Austin	\$324,287					
14	U. Alabama Birmingham, The	\$303,084					
15	Georgia Inst. of Technology all campuses	\$281,184					
16	U. Arizona	\$277,897					
17	U. California, Davis	\$268,957					
18	U. Illinois Urbana-Champaign	\$266,912					
19	U. California, Berkeley	\$249,163					
20	Texas A & M	\$245,607					

	Environmental Sciences	
1	CO State U.	\$ 90,687
2	TX A&M U.	\$ 88,677
3	U. WA	\$ 84,950
4	U. CA, San Diego	\$ 80,541
5	U. CO all campuses	\$ 72,181
6	U. WI Madison	\$ 54,812
7	U. HI Manoa	\$ 54,384
8	U. NH	\$ 50,818
9	U. Miami	\$ 38,989
10	OR State U.	\$ 35,033
11	U. AK Fairbanks all campuses	\$ 28,103
12	PA State U. all campuses	\$ 26,021
13	U. MD Baltimore County	\$ 24,220
14	U. RI	\$ 20,061
15	U. SC all campuses	\$ 17,946
16	AZ State U.	\$ 16,185
17	C. of William and Mary all campuses	\$ 16,015
18	U. TX Austin	\$ 15,789
19	U. IL Urbana-Champaign	\$ 15,376
20	U. South FL	\$ 15,355

	Psychology	
1	PA State U. all campuses	\$18,082
2	U. CT all campuses	\$14,587
3	NY U.	\$13,641
4	U. Houston	\$11,993
5	U. CO all campuses	\$11,218
6	AZ State U.	\$11,123
7	U. Rochester	\$10,413
8	FL State U.	\$10,383
9	U. Miami	\$10,315
10	IN U. all campuses	\$10,205
11	U. GA	\$9,281
12	U. MN all campuses	\$9,129
13	U. CA, Los Angeles	\$8,758
14	U. MI all campuses	\$8,750
15	U. SC all campuses	\$8,609
16	Temple U.	\$8,100
17	San Diego State U.	\$7,988
18	U. WA	\$7,969
19	U. OR	\$7,936
20	U. IL Urbana-Champaign	\$7,926

	Physical Sciences									
1	U. AZ	\$97,961								
2	U. CO all campuses	\$65,148								
3	U. TX Austin	\$61,796								
4	U. CA, Berkeley	\$59,011								
5	U. MD College Park	\$56,409								
6	U. CA, Los Angeles	\$48,924								
7	U. IL Urbana-Champaign	\$41,426								
8	U. WI Madison	\$40,757								
9	U. CA, San Diego	\$38,731								
10	PA State U. all campuses	\$34,140								
11	U. WA	\$31,747								
12	MI State U.	\$31,158								
13	FL State U.	\$31,149								
14	U. MI all campuses	\$29,039								
15	U. HI Manoa	\$26,145								
16	Rutgers, The State U. NJ all campuses	\$24,322								
17	U. NC Chapel Hill	\$23,811								
18	U. CA, Santa Barbara	\$23,106								
19	OH State U. all campuses	\$22,609								
20	Purdue U. all campuses	\$22,318								

Table 2.2 (cont.) Federally Financed R&D Expenditures at Public Universities and Colleges Top 20 Ranked by Science and Engineering Field, FY 2008

(includes only institutions among Top 150 in total federal R&D expenditures) [Dollars in Thousands]

	Life Sciences				
1	U. CA, San Francisco	\$457,660			
2	U. WA	\$415,014			
3	U. PA	\$406,199			
4	U. Pittsburgh all campuses	\$402,404			
5	U. MI all campuses	\$352,868			
6	U. CA, Los Angeles	\$352,417			
7	U. CA, San Diego	\$289,372			
8	U. NC Chapel Hill	\$287,371			
9	U. AL Birmingham, The	\$286,705			
10	U. WI Madison	\$270,530			
11	U. MN all campuses	\$269,096			
12	U. CO all campuses	\$240,518			
13	OR Health & Science U.	\$213,320			
14	U. CA, Davis	\$207,315			
15	U. Southern CA	\$206,180			
16	OH State U. all campuses	\$203,888			
17	U. TX Southwestern Medical Ctr. Dallas	\$201,480			
18	U. Cincinnati all campuses	\$198,579			
19	U. Rochester	\$183,245			
20	U. IA	\$183,085			

	Social Sciences	
1	U. MI all campuses	\$68,210
2	U. MD College Park	\$55,360
3	U. WI Madison	\$32,543
4	U. NC Chapel Hill	\$32,493
5	OH State U. all campuses	\$25,500
6	WA State U.	\$18,370
7	Duke U.	\$16,001
8	U. PA	\$15,291
9	George Mason U.	\$13,065
10	U. TX Austin	\$12,646
11	MI State U.	\$12,321
12	IA State U.	\$12,097
13	U. MN all campuses	\$11,779
14	PA State U. all campuses	\$11,374
15	AZ State U.	\$9,416
16	FL International U.	\$8,060
17	U. CA, Berkeley	\$7,844
18	U. WA	\$7,811
19	U. of the VI	\$7,438
20	ND State U. all campuses	\$7,381
\downarrow		
36	U. Colorado all campuses	\$4,446

	Math & Computer Science							
1	U. TX Austin	\$86,824						
2	2 U. Southern CA							
3	3 U. IL Urbana-Champaign							
4	PA State U. all campuses	\$44,640						
5	MA Institute of Technology	\$37,308						
6	U. CA, San Diego	\$32,405						
7	U. Chicago	\$26,353						
8	U. HI Manoa	\$24,149						
9	U. MD College Park	\$22,457						
10	OR Health & Science U.	\$18,888						
11	OH State U. all campuses	\$18,202						
12	U. CA, Los Angeles	\$17,278						
13	U. WI Madison	\$16,539						
14	U. AK Fairbanks all campuses	\$14,459						
15	U. MN all campuses	\$14,294						
16	George Mason U.	\$13,031						
17	NC State U.	\$12,586						
18	U. MA Amherst	\$12,090						
19	U. UT	\$12,034						
20	U. AL Huntsville, The	\$11,232						
\downarrow								
24	U. Colorado all campuses	\$9,189						

	Engineering	
1	GA Institute of Technology all campuses	\$197,139
2	PA State U. all campuses	\$170,676
3	U. MI all campuses	\$118,230
4	U. TX Austin	\$99,410
5	U. IL Urbana-Champaign	\$83,821
6	U. Rochester	\$69,100
7	Purdue U. all campuses	\$63,164
8	VA Polytechnic Institute and State U.	\$61,416
9	U. WA	\$60,347
10	NM State U. main campus	\$59,470
11	TX A&M U.	\$58,127
12	U. MD College Park	\$56,049
13	UT State U.	\$54,622
14	U. WI Madison	\$53,391
15	U. CA, Santa Barbara	\$48,921
16	OH State U. all campuses	\$48,196
17	U. CA, Berkeley	\$47,832
18	U. FL	\$42,567
19	NM Institute of Mining and Technology	\$40,594
20	MS State U.	\$40,379
\downarrow		
27	U. Colorado all campuses	\$31,985

Table 2.3 Total R&D Expenditures in Science and Engineering Fields by Funding Source
Top 100 Public Universities and Colleges Ranked by FY 2008 Total Expenditures
[Dollars in Thousands]

		Industr	Industry		Federal		State		Institutional		Other Sources	
Institution	Rank	Dollars	% of Total	Dollars								
U. CA, San Francisco	1	46,476	5.3%	472,642	53.4%	27,623	3.1%	158,133	17.9%	180,308	20.4%	885,182
U. WI Madison	2	20,796	2.4%	474,440	53.8%	36,830	4.2%	270,406	30.7%	79,305	9.0%	881,777
U. MI all campuses	3	40,696	4.6%	592,768	67.6%	4,953	0.6%	192,650	22.0%	45,323	5.2%	876,390
U. CA, Los Angeles	4	47,096	5.4%	471,932	54.2%	22,600	2.6%	186,194	21.4%	143,656	16.5%	871,478
U. CA, San Diego	5	49,878	5.9%	490,963	58.3%	30,649	3.6%	141,291	16.8%	129,246	15.3%	842,027
U. WA	6	74,002	9.7%	614,069	80.3%	10,634	1.4%	40,965	5.4%	25,465	3.3%	765,135
OH State U. all campuses	7	127,604	18.2%	335,121	47.7%	99,329	14.1%	102,631	14.6%	37,907	5.4%	702,592
PA State U. all campuses	8	99,074	14.1%	406,528	58.0%	67,916	9.7%	125,995	18.0%	1,617	0.2%	701,130
U. MN all campuses	9	28,605	4.2%	364,137	53.3%	62,266	9.1%	123,238	18.1%	104,416	15.3%	682,662
U. CA, Davis	10	33,575	5.2%	268,957	41.9%	56,078	8.7%	215,037	33.5%	68,872	10.7%	642,519
U. Pittsburgh all campuses	11	12,397	2.1%	456,172	76.6%	14,807	2.5%	83,439	14.0%	28,812	4.8%	595,627
U. CA, Berkeley	12	41,568	7.0%	249,163	42.1%	43,969	7.4%	168,035	28.4%	89,035	15.0%	591,770
U. FL	13	31,811	5.4%	230,999	39.5%	111,114	19.0%	175,266	30.0%	34,980	6.0%	584,170
TX A&M U.	14	43,421	7.5%	245,607	42.2%	124,139	21.3%	157,163	27.0%	12,035	2.1%	582,365
U. TX M. D. Anderson Cancer Ctr.	15	40,625	7.3%	194,889	34.9%	149,429	26.8%	100,042	17.9%	73,518	13.2%	558,503
U. AZ	16	11,325	2.1%	277,897	50.9%	31,370	5.7%	186,912	34.2%	38,365	7.0%	545,869
U. CO all campuses	17	17,971	3.4%	437,393	81.7%	6,043	1.1%	44,440	8.3%	29,709	5.5%	535,556
U. NC Chapel Hill	18	9,900	1.9%	373,098	71.0%	23,911	4.5%	118,934	22.6%	0	0.0%	525,843
GA Institute of Technology all campuses	19	55,592	10.6%	281,184	53.9%	15,517	3.0%	168,333	32.2%	1,510	0.3%	522,136
U. IL Urbana-Champaign	20	20,722	4.1%	266,912	53.2%	36,930	7.4%	161,848	32.3%	14,867	3.0%	501,279
U. TX Austin	21	42,513	8.6%	324,287	65.7%	20,318	4.1%	80,872	16.4%	25,304	5.1%	493,294
Purdue U. all campuses	22	63,843	14.8%	176,592	41.1%	50,145	11.7%	137,708	32.0%	1,700	0.4%	429,988
IN U. all campuses	23	22,223	5.4%	186,711	45.3%	6,836	1.7%	132,605	32.2%	63,564	15.4%	411,939
U. AL Birmingham, The	24	10,182	2.5%	303,084	74.9%	296	0.1%	67,623	16.7%	23,430	5.8%	404,615
U. MD College Park	25	11,140	2.8%	236,417	59.8%	26,148	6.6%	109,100	27.6%	12,232	3.1%	395,037
LA State U. all campuses	26	18,767	4.8%	150,298	38.4%	89,055	22.8%	108,652	27.8%	24,462	6.3%	391,234
U. TX Southwestern Medical Ctr. Dallas	27	22,960	5.9%	201,480	51.6%	49,262	12.6%	34,701	8.9%	81,946	21.0%	390,349
U. MD Baltimore	28	40,670	10.7%	169,026	44.6%	18,178	4.8%	103,337	27.2%	48,196	12.7%	379,407
VA Polytechnic Institute and State U.	29	20,475	5.5%	135,578	36.3%	100,311	26.9%	96,331	25.8%	20,586	5.5%	373,281
NC State U.	30	41,311	11.3%	131,412	35.9%	113385	31.0%	79,840	21.8%	189	0.1%	366,137
MI State U.	31	10,955	3.1%	152,907	42.9%	47,068	13.2%	128,808	36.1%	17,029	4.8%	356,767
U. GA	32	5,001	1.4%	102,817	29.4%	43,312	12.4%	188,166	53.7%	11,003	3.1%	350,299
U. NE all campuses	33	16,328	4.7%	136,317	39.0%	8,801	2.5%	157,690	45.2%	30,084	8.6%	349,220
U. Cincinnati all campuses	34	7,513	2.2%	221,186	64.3%	20,493	6.0%	77,348	22.5%	17,506	5.1%	344,046
SUNY Buffalo all campuses	35	21,433	6.3%	157,578	46.6%	16,823	5.0%	96,916	28.6%	45550	13.5%	338,300
U. KY all campuses	36	9,253	2.7%	154,811	46.0%	48,013	14.3%	98,723	29.3%	25,869	7.7%	336,669
U. IL Chicago	37	9,015	2.7%	196,520	58.6%	11,987	3.6%	94,521	28.2%	23,095	6.9%	335,138
U. CA, Irvine	38	17,111	5.3%	178,299	54.9%	16,691	5.1%	68,775	21.2%	43,676	13.5%	324,552
Rutgers, The State U. NJ all campuses	39	12,216	3.8%	140,399	43.4%	36,474	11.3%	102,424	31.7%	31,891	9.9%	323,404
OR Health & Science U.	40	16,612	5.5%	232,208	77.0%	4,569	1.5%	25,229	8.4%	22,778	7.6%	301,396
CO State U.	41	18,068	6.1%	208,925	70.8%	12,860	4.4%	43,938	14.9%	11,444	3.9%	295,235
U. IA	42	6,433	2.2%	229,903	78.3%	9,122	3.1%	32,549	11.1%	15,557	5.3%	293,564
U. South FL	43	22,501	8.1%	169,911	61.0%	28,840	10.4%	57,121	20.5%	46	0.0%	278,419
WA State U.	44	6,923	2.5%	97,668	35.3%	48,653	17.6%	110,854	40.0%	12,708	4.6%	276,806
U. HI Manoa	45	26,921	9.9%	194,508	71.6%	17,578	6.5%	28,132	10.3%	4,696	1.7%	271,835
SUNY Albany	46	25,560	9.5%	108,747	40.2%	56,121	20.8%	45,761	16.9%	34,225	12.7%	270,414
AZ State U.	47	16,126	6.2%	125,558	48.4%	22,856	8.8%	84,065	32.4%	10,898	4.2%	259,503
U. VA all campuses	48	6,414	2.5%	219,429	85.2%	1,140	0.4%	18,780	7.3%	11,888	4.6%	257,651
U. UT	49	14,466	5.7%	171,737	67.6%	1,374	0.5%	51,106	20.1%	15,208	6.0%	253,891
SUNY Stony Brook all campuses	50	5,396	2.1%	106,419	42.1%	29,990	11.9%	103,869	41.1%	7,071	2.8%	252,745

Table 2.3 (cont.) Total R&D Expenditures in Science and Engineering Fields by Funding Source
Top 100 Public Universities and Colleges Ranked by FY 2008 Total Expenditures
[Dollars in Thousands]

		Industry		Federal		State		Institutional		Other Sources		Total
Institution	Rank	Dollars	% of Total	Dollars	% of Total	Dollars	% of Total	Dollars	% of Total	Dollars	% of Total	Dollars
U. TN all campuses	51	17,247	6.9%	120,289	48.1%	48222	19.3%	50,416	20.2%	14,014	5.6%	250,188
Wayne State U.	52	12,719	5.1%	115,904	46.5%	10,338	4.1%	74,893	30.1%	35,356	14.2%	249,210
U. MO-Columbia	53	2,140	0.9%	108,131	44.2%	15,715	6.4%	107,782	44.1%	10,871	4.4%	244,639
U. of Medicine and Dentistry NJ	54	17,174	7.5%	122,061	53.0%	12,440	5.4%	53,930	23.4%	24,742	10.7%	230,347
U. CT all campuses	55	9,564	4.2%	119,915	53.1%	10,295	4.6%	68,006	30.1%	18,124	8.0%	225,904
IA State U.	56	13,373	6.0%	102,771	45.8%	44,000	19.6%	56,908	25.4%	7,316	3.3%	224,368
U. KS all campuses	57	3,342	1.6%	122,401	56.8%	5,881	2.7%	74,579	34.6%	9,161	4.3%	215,364
MS State U.	58	8,525	4.0%	105,327	49.9%	34,178	16.2%	62,921	29.8%	0	0.0%	210,951
U. CA, Santa Barbara	59	15,542	7.6%	111,601	54.8%	4,184	2.1%	41,024	20.1%	31,368	15.4%	203,719
U. TX Health Science Ctr. San Antonio	60	5,567	2.8%	121,758	60.5%	4,983	2.5%	50,406	25.0%	18,609	9.2%	201,323
U. NM main campus	61	6,922	3.5%	134,783	68.2%	4,328	2.2%	48,143	24.4%	3,454	1.7%	197,630
U. TX Health Science Ctr. Houston	62	7,519	3.8%	129,277	65.5%	15,040	7.6%	26,698	13.5%	18,718	9.5%	197,252
Clemson U.	63	13,573	7.0%	56,535	29.0%	24,188	12.4%	97,131	49.8%	3,768	1.9%	195,195
U. OK all campuses	64	13,934	7.3%	91,578	47.7%	17,590	9.2%	56,408	29.4%	12,560	6.5%	192,070
Medical U. SC	65	13,106	6.9%	102,187	54.0%	1,428	0.8%	66,737	35.2%	5,911	3.1%	189,369
OR State U.	66	3,373	1.8%	113,614	60.4%	37,823	20.1%	29,928	15.9%	3,318	1.8%	188,056
FL State U.	67	638	0.3%	110,618	60.7%	9,787	5.4%	52,386	28.7%	8,885	4.9%	182,314
U. TX Medical Branch	68	6,403	3.6%	122,009	67.8%	6,668	3.7%	28,640	15.9%	16,306	9.1%	180,026
U. MA Worcester	69	15,192	8.5%	145,113	81.2%	895	0.5%	2,626	1.5%	14,788	8.3%	178,614
U. SC all campuses	70	3,435	2.0%	98,576	57.2%	2039	1.2%	53,077	30.8%	15,251	8.8%	172,378
U. MA Amherst	71	8,182	5.4%	79,736	52.2%	4,699	3.1%	49,556	32.4%	10711	7.0%	152,884
U. Louisville	72	2,390	1.6%	72,711	48.8%	12,300	8.3%	41,541	27.9%	19,994	13.4%	148,936
VA Commonwealth U.	73	9440	6.4%	95,369	64.2%	14,534	9.8%	24,380	16.4%	4,932	3.3%	148,655
Auburn U. all campuses	74	3,841	2.6%	54,748	37.2%	2,719	1.8%	81,243	55.3%	4,433	3.0%	146,984
UT State U.	75	4,089	2.8%	88,884	60.8%	26,933	18.4%	20,019	13.7%	6,203	4.2%	146,128
WV U.	76	4,782	3.4%	68,147	48.8%	4,649	3.3%	60,591	43.4%	1,601	1.1%	139,770
NM State U. main campus	77	1,995	1.4%	86,636	62.6%	17,186	12.4%	30,707	22.2%	1,903	1.4%	138,427
KS State U.	78	3,922	2.9%	52,984	38.5%	41,367	30.1%	31,338	22.8%	7932	5.8%	137,543
U. CA, Santa Cruz	79	4,279	3.2%	69,742	51.6%	6,866	5.1%	36,229	26.8%	18,145	13.4%	135,261
U. CA, Riverside	80	5,829	4.5%	53,780	41.5%	6,577	5.1%	51,147	39.5%	12,272	9.5%	129,605
U. DE	81	5,058	4.0%	84,628	67.6%	7,318	5.8%	23,003	18.4%	5,172	4.1%	125,179
OK State U. all campuses	82	4372	3.6%	41051	33.9%	31,776	26.2%	43,072	35.5%	955	0.8%	121,226
MT State U. Bozeman	83	6,459	5.4%	70,386	58.6%	24,619	20.5%	18,691	15.6%	0	0.0%	120,155
U. AR for Medical Sciences	84	4,020	3.4%	62,035	52.8%	8,292	7.1%	27,075	23.1%	16018	13.6%	117,440
ND State U. all campuses	85	1,037	0.9%	50,038	43.3%	34,783	30.1%	25,976	22.5%	3,679	3.2%	115,513
U. VT	86	2,330	2.0%	89,717	77.7%	267	0.2%	18,753	16.2%	4354	3.8%	115,421
U. NH	87	6,074	5.3%	83,769	73.6%	1,509	1.3%	16,422	14.4%	6103	5.4%	113,877
U. Central FL	88	16,037	14.8%	55,771	51.6%	5,664	5.2%	30,595	28.3%	0	0.0%	108,067
Uniformed Services U. of the Health Sciences	89	0	0.0%	67,345	63.4%	0	0.0%	34,106	32.1%	4,728	4.5%	106,179
U. AR main campus	90	7566	7.4%	31,531	30.7%	46,292	45.0%	15,399	15.0%	1,996	1.9%	102,784
U. AK Fairbanks all campuses	91	0	0.0%	90,280	87.9%	1,353	1.3%	0	0.0%	11128	10.8%	102,761
U. NV, Reno	92	1,747	1.7%	66,165	64.8%	5,918	5.8%	27,525	27.0%	718	0.7%	102,073
U. CA Office of the President	93	298	0.3%	101	0.1%	40,551	40.5%	49,195	49.2%	9,889	9.9%	100,034
FL International U.	94	5,497	5.7%	52,838	55.2%	6,432	6.7%	30,939	32.3%	0	0.0%	95,706
U. ME	95	3,228	3.4%	40,931	43.1%	10,140	10.7%	39,512	41.6%	1231	1.3%	95,042
Temple U.	96	5595	6.0%	58,686	63.5%	5,121	5.5%	17,672	19.1%	5,412	5.9%	92,486
U. MS all campuses	97	1,223	1.4%	65,799	73.0%	201	0.2%	16,434	18.2%	6,438	7.1%	90,095
NJ Institute of Technology	98	4,078	4.5%	40,087	44.6%	4,918	5.5%	30,871	34.4%	9838	11.0%	89,792
U. Houston	99	4136	4.9%	43,162	51.1%	9,160	10.8%	23,288	27.6%	4,744	5.6%	84,490
Naval Postgraduate School	100	415	0.5%	82,302	98.8%	542	0.7%	0	0.0%	55	0.1%	83,314

Table 2.4 Federally Financed R&D Expenditures in Science and Engineering Fields, FY 2003 - FY 2008

Top 20 Public Universities and Colleges (based on FY 2008 Ranking)

*Ranked by 5-Yr% Change in Federal R&D Expenditures in the Science and Engineering Fields [Dollars in thousands]

Rank	Institution	2003	2004	2005	2006	2007	2008	5-Yr. % Change
1	Ohio State U. all campuses	\$198,488	\$284,675	\$294,053	\$315,914	\$313,242	\$335,121	68.8%
2	U. Texas Austin	\$231,996	\$235,281	\$254,529	\$273,147	\$289,331	\$324,287	39.8%
3	Texas A&M	\$177,119	\$173,705	\$212,923	\$206,242	\$228,363	\$245,607	38.7%
4	GA Institute of Technology all campuses	\$203,582	\$237,483	\$245,130	\$257,751	\$260,230	\$281,184	38.1%
5	Pennsylvania State U. all campuses	\$301,094	\$347,996	\$358,569	\$367,215	\$370,789	\$406,528	35.0%
6	U. North Carolina Chapel Hill	\$280,678	\$304,204	\$320,294	\$329,215	\$346,672	\$373,098	32.9%
7	U. Pittsburgh all campuses	\$345,625	\$394,444	\$420,305	\$422,316	\$441,357	\$456,172	32.0%
8	U. California, Davis	\$208,327	\$221,937	\$240,003	\$248,190	\$256,994	\$268,957	29.1%
9	U. California, San Francisco	\$371,697	\$418,944	\$438,988	\$464,660	\$467,402	\$472,642	27.2%
10	U. Minnesota all campuses	\$293,266	\$307,677	\$319,771	\$326,170	\$337,966	\$364,137	24.2%
11	U. Alabama Birmingham	\$245,217	\$261,664	\$288,434	\$292,962	\$269,006	\$303,084	23.6%
12	U. California, San Diego	\$400,100	\$465,629	\$463,946	\$463,807	\$475,708	\$490,963	22.7%
13	U. Wisconsin Madison	\$396,231	\$434,423	\$477,582	\$491,810	\$469,076	\$474,440	19.7%
14	U. Colorado all campuses	\$377,941	\$414,986	\$449,366	\$448,350	\$442,303	\$437,393	15.7%
15	U. Michigan all campuses	\$516,818	\$521,339	\$554,516	\$565,739	\$577,201	\$592,768	14.7%
16	U. California, Los Angeles	\$421,174	\$461,145	\$469,889	\$483,873	\$488,846	\$471,932	12.1%
17	U. Washington	\$565,602	\$625,218	\$606,317	\$650,394	\$620,375	\$614,069	8.6%
18	U. Arizona	\$259,074	\$283,956	\$292,811	\$301,619	\$269,941	\$277,897	7.3%
19	U. California, Berkeley	\$238,206	\$268,830	\$290,960	\$261,718	\$251,043	\$249,163	4.6%
20	U. Illinois Urbana-Champaign	\$266,487	\$275,896	\$289,985	\$264,645	\$253,612	\$266,912	0.2%

Figure 2.1 Federally Financed R&D Expenditures
Top 20 Public Universities Ranked by Percent Change FY 2003 - FY 2008

